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THE ECONOMICS OF LABOR

Volume I

LABOR'S PROGRESS

AND SOME

BASIC LABOR PROBLEMS

THE ECONOMICS OF LABOR

THIS VOLUME

VOLUME I: *Labor's Progress and Some Basic Labor Problems*

OTHER VOLUMES

VOLUME II: *Labor's Risks and Social Insurance*

The Problem of Unemployment: Amount, Causes and Effects—The Problem of Unemployment. Methods of Dealing with the Problem—The Problem of Unemployment. Unemployment Insurance—The Problem of Work Injuries: Industrial Accidents and Occupational Disease—The Problem of Sickness and Non-Industrial Accident among Wage Earners—Compulsory Health Insurance Abroad—The Compulsory Health Insurance Movement in the United States and a Suggested Plan—The Problem of the Industrially Old Worker.

VOLUME III: *Organized Labor*

Initiating and Conditioning Factors—History of the English Movement—American Trade Union Development to 1890—American Trade Union Development since 1890—Trade Union Structure, Government and Interrelationships—Trade Union Institutionalism—The Trade Union in Industry: The Theory of Collective Bargaining—Trade Union Policies and Practices—The Law of Labor—The Problem of Strikes and Lockouts Conciliation and Arbitration—Labor and Politics—Employee Representation Plans.

LABOR'S PROGRESS
AND SOME
BASIC LABOR PROBLEMS

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McGRAW-HILL BOOK COMPANY, INC.
NEW YORK AND LONDON
1938

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FOURTH PRINTING

***Published** by arrangement with The University of Chicago Press*

COMPOSITION BY THE MAPLE PRESS COMPANY, YORK, PA.
PRINTED AND BOUND BY COMAC PRESS, INC., BROOKLYN, N. Y.

PREFACE

This volume and the two following in the series on *The Economics of Labor* attempt to set forth some of the problems in labor economics in such manner as to make them understandable to the mature student and the intelligent general reader. It is probably true that the volumes do not, separately or together, constitute "texts" or "a text" in the conventional usage of the word. The treatment of the problems is more exhaustive and detailed than would have been possible in a shorter treatise; somewhat more of economic theory has entered into the analyses than is ordinarily the case; no attempt has been made to gloss over difficulties or to avoid, for the sake of "simplicity," severe reasoning and what may appear upon first glance to be a summons to master considerable factual material. We have tried to present the problems as simply as the phenomena with which we have been grappling would permit, but it so happens that most of these phenomena are anything but simple in their nature. Nevertheless, the needs of the student and of the instructor have always been in the minds of the authors, and it is hoped that, in addition to whatever services the treatise as a whole may perform, the three separate books will not be without their value as instructional aids in the three branches of the field to which, obviously, each is most applicable.

The writing of these books has encountered many interruptions, and has therefore been spread over a period of years. They have been years of rapid—in some respects unprecedented—change. The consequent difficulties, in the preparation of a work of this type, are obvious. We have, however, made an effort to bring the discussion reasonably up to date, and we hope that whatever errors of detail have crept in are not so numerous as to demand great charity on the part of the critical reader.

In a treatise of the length of these three volumes, the writing of, and primary responsibility for, different segments necessarily had to be assumed by one or the other of the authors. While all chapters were drafted after numerous consultations between us, and the three books constitute a joint product for which joint responsibility is accepted, it seems not out of place to include a word as to the division of labor. The present volume, *Labor's Progress and Some Basic Labor Problems*, has been written by Mr. Montgomery, who is primarily responsible for it; the second volume, *Labor's Risks and Social Insurance*, has been written by Mr. Millis, who in turn is primarily responsible for it; while in the third

volume, *Organized Labor*, the chapters on union structure, government, and interrelations, on the union in industry and the theory of collective bargaining, on trade-union policies and practices, on the law of labor and strikes, lockouts, conciliation, and arbitration, and on employee representation plans have been written by Mr. Millis, and those on the forces initiating and conditioning trade unionism, on the history of the trade-union movement in England, on the development of labor organization in the United States, and on labor and politics by Mr. Montgomery.

The many names appearing in the context and in the footnotes of these three books are indicative of our great obligation to the research and studies of our fellow workers in the field of labor economics. Specific acknowledgment of the aid of all those to whom we are indebted in a more direct and personal fashion would necessitate the enumeration of many names, but it is our pleasant duty to make particular mention of the help we have received from some of them. Those who have contributed most to the making of Volumes II and III are mentioned in the prefaces to those two volumes respectively, and acknowledgment is here confined to those who have aided most directly in the production of *Labor's Progress and Some Basic Labor Problems*. Professor Paul H. Douglas, of the University of Chicago, generously permitted us to make extensive use of the many books that have resulted from his research, and in addition he kindly read practically all the first four chapters and made many helpful suggestions. Professors Donald English, Paul T. Homan, Paul M. O'Leary, and Harold L. Reed, of Cornell University, read parts of the manuscript and gave their advice on many points. The research assistance of Robert K. Burns, Lily Mary David, Marie Pooley Eaton, Robert J. Landry, and George S. Wheeler has made it less difficult that in otherwise would have been to complete the book at this time. To all these, as well as to generations of patient students to whom the material has been presented in one form or another, the authors acknowledge their indebtedness.

HARRY A. MILLIS,
ROYAL E. MONTGOMERY.

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EDITOR'S FOREWORD

Labor's Progress and Some Basic Labor Problems is the first of three volumes on the subject of labor. The complete treatise is described more in detail elsewhere in this volume. These volumes by Professors Millis and Montgomery are based on years of thorough research and upon years of practical experience in dealing with labor problems. The treatise will be an authoritative and definitive analysis of the subject of labor.

The volume here presented, interestingly enough, is also the first of a new series of Business and Economics Publications which has been projected and is being sponsored by the University of Chicago Press and the McGraw-Hill Book Company, Inc., in cooperation. The fact that there are many other series dealing with this field of study calls for a word of explanation.

During the past ten years programs of study of departments of economics and the curricula of schools of business have been undergoing many fundamental changes. In departments of economics emphasis is more and more being turned on practical aspects of the problems with which those departments deal. In schools of business, on the other hand, more emphasis is being placed upon the theoretical side of their problems. Meanwhile business itself is undergoing profound changes. Government more and more intervenes in business. In these circumstances there is at present a demand for studies which are prepared with these trends in mind.

All the various titles in the series here projected, in so far as there is need, will emphasize the changing relationship between government and business. Whether one agrees or disagrees with the flood of legislation which has swept over the nation during the past ten years, the fact is that it is here and business must make adjustments to it. Although much of this legislation may be revised as time goes on and some of it may be repealed in its entirety, it is safe to say that the major portion of it will continue as a part of our national social policy. Both businessmen and students of business must have an appreciation of the new standards of business conduct and the new administrative machinery that the government has set up, the operations of which profoundly condition modern business management.

In this series a conscientious effort will be made to combine both the practical and the theoretical points of view. Almost without exception the authors who will be invited to contribute titles have had substantial

practical experience in dealing with problems about which they will write. While this does not insure the most effective materials, it is some guarantee against treatises which start from a theory and end in an hypothesis.

The present series of texts, studies, and treatises is in part a new publication venture and in part a projection of two separate series conceived and inaugurated by Mr. L. C. Marshall, who at the time was Chairman of the Department of Economics and the Dean of the School of Business at the University of Chicago. One was the Materials for the Study of Economics and the other was the Materials for the Study of Business. It is the hope and expectation of the editor of the present series to combine the best in the two previous series and to carry it forward.

In the revision of existing titles and in the development of new ones an effort will be made to fit them into prevailing business curricula and into programs of study of departments of economics. The series will not be a haphazard collection of unrelated titles. As rapidly as possible it will present a program of materials covering the fundamentals of business, business management, and economics.

The great need at the present is for treatises presenting clear, direct, and analytical treatment of problems of modern business and economics in the light of current developments. That is the object of the present series.

W. H. SPENCER.

LABOR'S PROGRESS AND SOME BASIC LABOR PROBLEMS

CHAPTER I

BACKGROUND: PROBLEMS AT ISSUE AND METHODS OF ATTACK

Any attempt searchingly to probe, and realistically to grapple with, the problems and progress of labor necessitates a prefatory allusion to the institutional arrangements under which labor is bought and sold and a brief summary of the more important trends and developments that have gone into the making of the modern economic order. For the most part, to be sure, the character of these arrangements will be taken for granted in the present volume, and a working knowledge of the more important economic trends and developments will be assumed. Yet a brief introductory reference to these background factors is almost indispensable. Moreover, it so happens that the recording of the story of labor's progress and the investigation and elucidation of basic labor problems involves a reliance upon statistical data and, to a certain extent, the employment of technical or quasitechnical terms. This fact dictates the inclusion at the outset of a few words about the means of measuring and expressing quantitatively the social phenomena with which we shall deal. In this initial chapter we shall therefore be concerned, first, with a recalling to mind of some of these institutional characteristics and developmental trends, and, second, with a rapid survey of the problems at issue in the chapters immediately following and an examination of the methods whereby they can be attacked.

SOME BACKGROUND TRENDS AND CONDITIONS

The problems discussed in this volume are predominantly, although not exclusively, those emerging from a system of capitalistic free enterprise. A word about the bundle of institutions constituting this system and the assumptions underlying them is accordingly in point.

The Assumptions of Capitalistic Free Enterprise.—The processes of production and distribution are today carried on, of course, within an institutional framework of private property, gain-getting, and relatively imperfect competition. For the immediate purposes, the assumptions

underlying the system—its philosophic basis—can be stated briefly and uncritically. Private property—an agglomeration of rights that have evolved and are protected by social sanction—has been a means of furthering the material progress of the several peoples, since the possibility of acquiring private property, the right to pursue economic gain, is the great incentive to productive effort. Articulation of the notion goes back at least to Aristotle. Competition, in turn, is the "invisible hand" holding gain-getting within socially desirable limits and directing it into furtherance of the common weal.

Under a regime of profit-making and competition, the energies and resources of the community are ultimately distributed among different lines of economic effort in such proportions as to maximize the happiness of men. Since each consumer so distributes his expenditures as to realize equal units of utility (or satisfied desire) from the final units of money he exchanges for goods, market prices reflect merely the relative urgency of the desire of consumers for the final or marginal units of different kinds of goods. The price of every commodity is equal to the utility to the individual buyer of the final or marginal unit, and when competition is functioning perfectly, there is, in turn, an equivalence between the marginal cost (*i.e.*, of the final or marginal unit) to society of the commodity and its price. Consequently (ignoring at this point the fact, most disconcerting to the optimistic assumptions, of inequalities of income) the utility to society of the last unit of each commodity produced is just equal to the cost to society of its production. Should the desires of consumers change, their demand curves moving to right or to left, prices will be altered, profit margins will shift, and the stream of energy devoted to this given purpose as against that will change; but more or less quickly society will move to a fresh equilibrium where again the allocations of energy will yield to consumers maximum satisfaction. In similar manner, the system of capitalistic free enterprise divides the social product among the several claimants upon it. Each unit of labor, and each of capital, tends —under the compulsion of competition—to be paid the amount added to the product by the final unit employed. Between these two factors, in turn, an equivalence is struck, so that a dollar expended for labor yields the same return as one expended for capital. Real differences in the rate of interest among different lines of enterprise and real differences in the rate of wages among different groups of workers are, with free competition, leveled down by ingress and egress of labor and capital to and from the various industries and groups. Costs are the measure of resistance to the satisfaction of man's economic wants, and when marginal cost to society is just equal to price, society has best economized—has obtained the "optimum" distribution of—its stock of resources. In a system of free buying and selling of goods and of the factors of production, this condition of most economical utilization of resources tends to be attained.

Obviously, then, the idea of liberty is an integral part of modern capitalistic institutionalism. This idea, in its contemporary economic denotations, is a product of changes in the organization of industry, in the character of productive instruments, and in the relations of men to these instruments. It acquired its modern substance when these changes had created a situation where freedom became a component part of the regulation of economic activities, as suggested in the preceding paragraph, and where the emoluments of a private-property and gain-getting economy could be realized only when individual freedom obtained. This freedom may be subject to such restraints as an individualistic society has seen fit to impose, but in the philosophic basis or rationalization of capitalistic enterprise freedom must be regarded as the general rule and restraint as the exception.

Two familiar historical facts will, however, bear recalling: that the system of free enterprise, as the term has been applied to the nineteenth- and twentieth-century mode of producing and distributing economic goods, developed only slowly, with changes in the organization of industry and in the relationships to each other of different social groups; and, second, that since the early days of capitalistic-commercial-industrial economy the tendency has been more and more toward a curbing—by exercise of the coercive power of the state and by other means—the more individualistic aspects of capitalism. Both facts merit a little detailed consideration, and they invite a bit of historical recapitulation.

Enthusiasm for freedom of enterprise was an inevitable concomitant of the industrial changes experienced in England during and after the third quarter of the eighteenth century. Although some of the fundamentals of the modern system of production, particularly the buying and selling of labor power for a money wage and the divorce of the worker from ownership of his product, had become established much earlier, production in pre-Industrial-Revolution days was carried on, for the most part, under the handicraft and domestic systems, and strict, minute regulation of economic activity could be, and was, the general rule. Like the majority of general rules, the departures were often as conspicuous as the adherences, especially as merchant middlemen in the woolen industry, little troubled by the ethical precepts of "just price" underlying the private law of the gilds and the national network of regulation, came to occupy a position of business dominance; but control of economic activity was an integral part of the philosophy of a Mercantilist age. When, however, accelerated changes took place in the seventeenth and early eighteenth centuries, the old system of regulation rapidly became obsolete; and when, still later, the "great inventions" began working their effects upon the social fabric of England and industrial capitalism appeared upon the economic horizon, the old policy of regulation had to succumb. Governmental regulations bound and hampered reserve capital at every point,

and it was to be expected that the new machinery of the eighteenth century, bringing with it revolutionary changes in industrial methods and unprecedented opportunities for enterprise and gain, should have created an abhorrence of the old restrictive system and an enthusiasm for free enterprise—that a complete harmony of interests should have been discovered within the body social and that *laissez faire*, the policy of removing restrictions and permitting the body economic to function in its "natural" manner, should have come to be looked upon as both the cure for the ills afflicting society and the guarantee of future growth and health.[1]

To the industrial proletariat created by changes in the mode of production, however, the consoling religiosity of the early laissez-faire economists, who held that the individual was led as by an invisible hand to seek his own gain and find another's happiness, made little appeal. The new machinery had reduced relatively the number of independent craftsmen and increased the number of factory wage earners, had thrust the mass of workers into congested and unregulated city life, had made possible the employment of women and children in factories and mines, had taken away from the workers control of the tools of production. Physical proximity of the workers in the new factory towns crystallized individual viewpoints into group interpretations. Conditions of employment of women and young persons in the factories and mines gradually aroused the more thoughtful and socially conscious of the nation to protest. Enterprisers, who had found the doctrines of Adam Smith—himself a protester against the vested interests of his day, expounding the "simple and obvious system of natural liberty" because he believed this system to be the surest way of speeding the progress of the community[2]—

[1] The doctrine and policy of *laissez faire* need to be characterized with more particularity. As applied to economic interests, the basic implication of *laissez faire* was that of freedom of each individual to make his own living in the way he might see fit. "To hinder a man from employing his skill and dexterity in the manner he thinks proper," wrote Adam Smith, "is a plain violation of his most sacred property. It is a manifest encroachment upon the just liberty of both the workman and those who would be disposed to employ him." In the second place, the doctrine embodied the notion that most of the evils of society were due to the superimposition of artificial elements upon the "natural" order. Adam Smith, like the Greeks, thought of a "natural" state which man's arrangements had disturbed. Mercantilism was an economic friar's lantern, wage assessment a poisonous patent medicine, combinations of artisans a strait jacket preventing normal exercise of the body economic, social legislation a delusion and a snare. Remove the artificiality imposed upon the natural order by man's mistakes and all would be well. Finally, the philosophy of *laissez faire* included the conviction that at last a consistent body of economic thought, truly explanatory of the behavior of economic institutions, had developed. After several centuries of error, ultimate truth had at last been discovered and given to the world by its appointed agents: Smith, Malthus, Ricardo, and the other orthodox economists of the day.

[2] *Cf.* C. R. Fay, *England from Adam Smith to the Present* (Longmans, Green and Co., London, 1928); Eli Ginzberg, *The House of Adam Smith* (Columbia University Press, New

convenient rationalization of what they wanted to do, found themselves confronted by antithetical doctrines. Bentham and the utilitarians contributed to the philosophic basis, to the verbal wardrobe, of the change in policy; but the conviction that government intervention here and there was dictated by concrete conditions emerged from the industrial experience of millions and from the observation of the social costs of this experience by other millions. Even while industrial capitalism was still in its infancy, unqualified *laissez faire* came to be supplemented by the doctrine that interference with the rights of property and with freedom in gain-getting is justified upon the basis of relative pleasure and pain; that social interference is justifiable when it promotes the greatest good of the greatest number; that the idea of inherent and inalienable rights must be repudiated; that rights are derived from law, and law in turn is the outcome of common consent.

America was slower to curb the rights of property and to impose restrictions upon free private enterprise than was England. The Industrial Revolution, and with it conditions calling for modification of the accompanying and apotheosizing policy, came earlier in the mother country. The United States, a country of relatively abundant resources, was peopled by laboring pioneers who created property as they went along and held it in fairly small parcels. This circumstance strengthened the conviction of a fundamental harmony of interest between the individual seeking his own gain and the general social weal, and entrenched the precepts of free private enterprise in the thinking and mores of the people. So long as there was reasonable opportunity to acquire property, the masses were more concerned about the maintenance of this opportunity than about limiting or modifying the general body of rights constituting private property. The material status of the American workers was, on the whole, better than that of their English fellows, and the industrial proletariat was a smaller part of the whole population. For these reasons, the institution of private property enjoyed greater vitality, possessed more strength in resisting attempts to alter it, in the America of the second half of the nineteenth century than it did in the England of the same period.

Nevertheless, the same general trend toward modification and increasing regulation is to be discerned, especially in recent decades. Here, as in England, the institutional framework of the processes of production and distribution, of the basic problems of labor economics, is one of property rights that have been somewhat modified but are maintained in their fundamentals, of reliance upon gain-getting as the great motivating force but with more restriction than the early theory of *laissez faire* would have

York, 1934); and *Adam Smith, 1776–1926* (University of Chicago Press, Chicago, 1927), a series of lectures delivered at the University of Chicago in commemoration of the one hundred and fiftieth anniversary of the publication of the *Wealth of Nations*.

permitted, and of an imperfect competition functioning as the prime but not the sole regulator of economic activity. Let us turn to some of the more important trends that have taken place within the system of capitalistic free enterprise, especially as they have been revealed in American economic evolution.

The Rise of Large-scale Industry.—In all countries where the basic arrangements and conventions described in the preceding paragraphs obtain, somewhat the same developmental trends have gone into the making of the economic heritage of today. Industry has become larger of scale, and control over it more concentrated. The quantity of capital employed has increased at a much more rapid rate than the quantity of labor power, and each worker has cooperated with more nonhuman power as the years have passed. Over long periods, the ratio of the wage earners and salaried workers to the total gainfully employed persons has increased. The relative importance of different sources of livelihood has changed greatly. Per capita real wealth and per capita real income have, in general, increased. These trends have not been equally pronounced in all countries, but a mention of them suggests in general the changes that have taken place in capitalistic economic life. Some attempt to portray them with a modicum of quantitative precision and a little discussion of their significance are in order.

The displacing of the workshop by the factory and, in many lines, the concentration of the bulk of production in the minority of establish-

TABLE 1.—DEVELOPMENT OF MANUFACTURES IN THE UNITED STATES, 1849–1931[1]

Year	No. of establishments	Wage earners (av. for year)	Wages (000,000 omitted)	Value of product (000,000 omitted)	Value added by manufacturing (000,000 omitted)
1849	123,025	957,059	$ 237	$ 1,019	$ 464
1859	140,433	1,311,246	379	1,886	854
1869	252,148	2,053,996	620	3,386	1,395
1879	253,852	2,732,595	948	5,370	1,973
1889	355,405	4,251,535	1,891	9,372	4,210
1899[a]	512,191	5,306,143	2,321	13,000	5,657
1899[a]	207,514	4,712,763	2,008	11,407	4,831
1909	268,491	6,615,046	3,427	20,672	8,529
1914[b]	272,518	7,023,685	4,068	24,217	9,858
1914[b]	176,468	7,887,677	4,063	23,837	9,675
1919	213,631	8,989,536	10,453	61,737	24,748
1923	195,580	8,768,491	10,999	60,258	25,778
1929	209,862	8,821,757	11,607	69,961	31,783
1931	174,255	6,506,701	7,173	41,038	19,358
1933	141,769	6,055,736	5,262	31,358	14,538

[a] Previous to 1899 the census enumerated "hand and neighborhood industries" as well as factories. Since that year the census has included factories only.

[b] Previous to 1914 the data are for all establishments having products valued at $500 or more. Since then, except for data on wages in 1914 and 1919, only establishments with products valued at $5,000 or more have been listed. Therefore two sets of figures are given for 1899 and 1914, to make the data comparable.

[1] *Biennial Census of Manufactures*, 1933, pp. 18–19.

ments which are extremely large of scale have been developments common to all industrial countries. Especially in the United States has the large factory, with its power-driven machinery and its minute subdivision of labor, supplanted the workshop and the smaller factory. There was, in this country, an enormous, constantly expanding internal market furnished by a population demanding the same standardized goods from one end of the land to the other; American entrepreneurs, in sharp contrast to their political and social conservatism, have demonstrated an inherent lack of conservatism in adopting new technical methods and business arrangements; industry in this, a new country with rich resources awaiting

TABLE 2.—MANUFACTURES IN THE UNITED STATES, 1849–1933: PER CENT OF INCREASE OR DECREASE BY PERIODS[1]

Period	Per cent of increase or decrease				
	No. of establishments	Wage earners (av. for year)	Wages	Value of products (gross)	Value added by manufacture
1849–1859	14 1	37 0	60 0	85 1	84 1
1859–1869	79.6	56.6	63 8	79 5	63 3
1869–1879	0.7	33 0	52 8	58 6	41 4
1879–1889	40.0	55.6	99 5	74 5	113.4
1889–1899[a]	44 1	24.8	22 7	38.7	34 3
1899–1909	29 4	40 4	70 6	81 2	76 5
1909–1914[b]	1.5	6.2	18.7	17 1	15 6
1914–1919	21 1	30.5	157.2	159 0	155.8
1919–1923	— 8.4	— 2 5	5 2	— 2 4	4.2
1923–1929	7 3	6.1	5 5	16 1	23.3
1929–1931	—17 0	—26.2	—38 2	—41 3	—39 1
1931–1933	—18 6	— 6 9	—26 6	—23 6	—24.9

[a] See footnote *a* in Table 1.
[b] See footnote *b* in Table 1.
[1] *Biennial Census of Manufactures*, 1933, pp. 18–19.

exploitation, was organized and geared to an extraordinarily rapid rate of expansion, with consequent employment of more of the labor force in the producers' goods industries, which are typically the larger of scale; the character of the labor supply, especially after the 1890's, was such as to encourage mechanization and large-scale operation. All of these facts were conducive to an increase in the size of the establishments in which the majority of American workers are employed. In manufacturing, in mineral production, in communication, in transportation, in the public utility enterprises generally, and to a certain extent in wholesale and retail trade, the large plant has come to dominate. The essential facts with respect to American manufacturing and mining are set forth in Tables 1 to 5 inclusive.

The evidences of the development of large-scale production in the United States are apparent: (1) Between 1849 and 1929, the last year

before the beginning of the great depression of the 1930's, when many small establishments disappeared, the number of manufacturing establishments increased by only about 70 per cent, while the number of wage earners increased about ninefold. (2) The steadiness with which this tendency proceeded, in spite of some periods of pronounced acceleration, is indicated by the manufacturing data presented in Table 2. It will be noted that in all periods except those of industrial depression, both the number of establishments and the total number of wage earners increased, and that in six of the nine periods when there was a percentage increase in both wage earners and the number of establishments, the former increased at a more rapid rate. (3) In 1933, establishments employing not more

TABLE 3.—MANUFACTURING ESTABLISHMENTS IN THE UNITED STATES, 1933, CLASSIFIED ACCORDING TO NUMBER OF WAGE EARNERS[1]

Establishments employing	No. of establishments	Average No. of wage earners	Percentage of total	
			Establishments	Wage earners
No wage earners	4,518		3 2	
1 to 5	57,152	158,275	40 3	2 6
6 to 20	40,176	445,088	28 3	7 4
21 to 50	18,576	600,670	13 1	9 9
51 to 100	9,262	659,347	6 5	10 9
101 to 500	10,304	2,126,216	7 3	35 1
501 to 2,500	1,661	1,519,974	1 2	25 1
2,500 or more	120	546,166	0 1	9 0

[1] From *Statistical Abstract of the United States*, 1936, p. 734.

than 100 wage earners constituted more than nine-tenths (91.4 per cent) of all establishments, but they employed only about three-tenths (30.8 per cent) of all wage earners attached to manufacturing. On the other hand, establishments employing more than 500 wage earners constituted only 1.2 per cent of all establishments, but they employed more than one-third (34.1 per cent) of the wage earners engaged in manufacturing. (4) The dominance of large units in mining and quarrying is also apparent. In 1929, 73 per cent of the enterprises employed fewer than fifty wage earners each, but only 11.8 per cent of all wage earners attached were employed by these relatively small enterprises. At the other extreme, enterprises with 1,000 or more employees constituted less than 1 per cent (0.8) of all enterprises, but they employed 27.2 per cent of the wage earners in mining and quarrying. (5) In 1929, manufacturing establishments having a gross value of products of more than $100,000 constituted only 31.4 per cent of all establishments, but they employed approximately nine-tenths (89.9 per cent) of all wage earners attached to manufacturing, and turned out 93.8 per cent of all manufactured products. In 1904, the

establishments with $100,000 or more gross product per annum constituted 11.2 per cent of all establishments and employed 71.6 per cent of the wage earners attached to manufacturing. (6) Value of products, it will be noted, has increased much more rapidly than the number of wage earners. Allowance must, of course, be made for differences in price

TABLE 4.—MANUFACTURES CLASSIFIED ACCORDING TO SIZE OF ESTABLISHMENT, MEASURED BY VALUE OF PRODUCT[1]

Value of product and year	Establishments, percentage of total	Wage earners, percentage of total	Products, percentage of total
Less than $5,000:[a]			
1904	32 9	1 9	1 2
1909	34 8	2 2	1 1
1914	35 2	1 8	0 9
1919	22 6	0 5	0 2
1921	....	0 6	0 3
$5,000 and less than $20,000:			
1904	33 7	7 7	5 1
1909	32 4	7 1	4 4
1914	48 9	6 0	3 7
1919	37 2	2 5	1 4
1923	31 6	2 2	1 1
1929	32 9	2 3	1 1
$20,000 and less than $100,000:			
1904	22 2	18 8	14 4
1909	21 3	16 5	12 3
1914	31 9	14 2	10 5
1919	35 3	8 6	5 6
1923	36 9	8 2	5 7
1929	35 7	7 8	5 1
$100,000 and less than $1,000,000:			
1904	10 3	46 0	41 3
1909	10 4	43 8	38 4
1914	17 0	42 7	36 2
1919	22 6	31 2	24 8
1923	26 3	32 5	26 8
1929	25 8	31 6	24 6
$1,000,000 and over:			
1904	0 9	25 6	38 0
1909	1 1	30 5	48 8
1914	2 2	35 3	48 7
1919	4 9	57 2	68 0
1923	5 2	57 1	66 4
1929	5 6	58 3	69 2

[a] No data for establishments with products under $5,000 in value have been collected since 1921.
[1] *Statistical Abstract of the United States*, 1920, p. 190, and *ibid.*, 1936, p 734.

levels from one decade to another. The years 1919 and 1920 were those of top prices; in general the price level declined between 1869 and 1899; and prices were lower in 1929 than in 1919. On the whole, however, correction in accordance with changes in the purchasing power of the dollar would indicate an even greater increase in output per worker. With more capital and more nonhuman power available—matters discussed

later—the increase in output per worker employed and per man-hour worked has been one of the most marked tendencies of modern industry.

TABLE 5.—MINES AND QUARRIES IN THE UNITED STATES, CLASSIFIED ACCORDING TO NUMBER OF WAGE EARNERS, 1919 AND 1929[1]

No. of wage earners employed	Percentage of enterprises		Percentage of wage earners	
	1919	1929[a]	1919	1929
No wage earners	17 5	0 4		
1 to 5	37 2	27 1	1 7	1 0
6 to 20	18 6	29 6	4 5	4 2
21 to 50	10 9	15 9	7 7	6 6
51 to 100	6 4	10 4	10 0	9 5
101 to 500	8 2	13 9	38 4	37 8
501 to 1,000	0 9	1 7	12 8	13 8
Over 1,000	0 4	0 8	21 8	27 2

[a] Thirty-six firms in 1929, or 0.3 per cent of the total, are listed as "not reported" in the Census.

[1] From Fifteenth Census of the United States, *Mines and Quarries, General Report*, 1929, p. 23, and *Abstract of the Fourteenth Census of the United States*, p. 1281. The 1919 and 1929 figures are not strictly comparable, since the 1919 data include the petroleum and natural gas enterprises, while those of 1929 do not. In the former year, these totaled 9,814, constituted 46 per cent of all enterprises, and employed 93,205 wage earners, or 9.5 per cent of the total. The majority of the wage earners in the petroleum and natural gas industry were employed in small establishments, and one-third (33.5 per cent) came within the "no wage earners" class. It is this fact, in part, which accounts for the large proportion (17.5 per cent) of enterprises reporting no wage earners in 1919, as against the negligible proportion in 1929.

In England and Germany, as in the United States, the great majority of establishments are relatively small affairs, but the bulk of the workers are employed in the minority of large-scale establishments. Tables 6 and 7 portray the situation of recent years.

TABLE 6.—MANUFACTURING ESTABLISHMENTS IN GREAT BRITAIN AND NORTHERN IRELAND CLASSIFIED ACCORDING TO NUMBER OF WAGE EARNERS EMPLOYED IN 1930[1]

No. of persons employed	No. of establishments	Percentage of total	No. of persons employed	Percentage of total
1 to 25	97,463	76 3	648,601	13.0
26 to 50	11,571	9 1	416,087	8 4
51 to 100	8,113	6 3	573,645	11 5
101 to 250	6,830	5 4	1,074,295	21 5
251 to 500	2,421	1 9	828,006	16.6
501 to 1,000	949	0 7	634,957	12.7
Over 1,000	421	0 3	813,130	16 3
Total	127,768	100.0	4,988,721	100.0

[1] "The Size of Industrial and Commercial Establishments in Different Countries," *International Labour Review*, vol. 27 (June, 1933), p. 854. The data were derived from returns of factory inspectors.

It perhaps goes without saying that the impact of the employment of large numbers in single establishments is not everywhere the same. In

such branches of economic activity as transportation, communication, mail-order businesses, the public utilities in general, and in department stores in urban centers, the consequences differ to an extent according to the peculiarities of the lines of enterprise and their markets. Yet basically they are much the same. Wherever wage earners have come to be employed in large groups or by large companies, certain general consequences may be expected to ensue.

TABLE 7.—GERMAN INDUSTRIAL ESTABLISHMENTS CLASSIFIED ACCORDING TO NUMBER OF WAGE EARNERS EMPLOYED, 1930[1]

No. of persons employed	No. of establishments	Percentage of total	No. of persons employed	Percentage of total
1 to 4	435,014	62.0	824,292	8.2
5 to 49	233,563	33 3	2,996,193	29.9
Over 49	32,535	4 7	6,210,162	61 9

[1] *Ibid.*, p. 848. Establishments in mining, transportation, and commerce, as well as in manufacturing, are included. The data were derived from returns of factory inspectors in 1930.

The more apparent of these consequences may be summarized briefly. In point of increased production, cheaper goods, and to a certain extent in point of working conditions, the development has brought economic gain and advancement of human welfare. Large-scale establishments, also, are for the most part those in which conditions of safety and sanitation are likely to be better, in which it is possible more scientifically to fit men to jobs and jobs to men, and in which most attention is paid to the problems of labor management. But in the past they have been, for the most part, those maintaining the most aggressive anti-union labor policies, and it was among them that the "welfare offensive" of the late "new era," the 1920's, made greatest headway. Nor can mention be entirely avoided of the effects upon the workers of the regimentation, the discipline, the necessary subjection of large numbers to a common rule, the minute subdivision of labor, and the breaking of the personal bond between employer and employee that accompany large-scale industry and its concomitant mechanization. There is, it is true, a temptation to overstate these effects, and some of those who have criticized large-scale industry on aesthetic and human-welfare grounds, and have demonstrated historic homesickness for a simpler way of economic life, have weakened their own case by the unwarranted superlatives adorning their language. Yet a caution against overstatement of a point is not to deny the validity of the point. Certainly it is true that large-scale production, with its machines and its minute subdivision of processes, has split the psychological unity of work and has thwarted the craftsman's satisfaction in it. In these large-scale enterprises discipline must be maintained, workers must be regimented. The essential feature of discipline is that the individual

must subordinate his personal inclinations. Under more primitive industrial regimes and in simpler social organizations, this subordination was usually to persons; now men are more and more disciplined by things. The mechanistic character of large-scale industry has both increased the amount of discipline and made discipline more nonhuman by the subjection of personal inclinations to things rather than to persons. Of profound importance, also, has been the breaking down of the personal bond between employers and workers—the magnification in the vision of each of those phases of their relations that are antagonistic rather than harmonious. The employer of workers in large-scale establishments is generally an impersonal corporation, owned by persons whose legal possession of a few strips of paper entitles them to fixed or contingent returns. Managers are dependent for their positions and for their business reputations upon the balance sheet and profit-and-loss showings they make to these persons. In other words, the regime is one of impersonality; and to say that the regime is one of impersonality is to say that the personal bond between workers and employers is extremely fragile and the thesis of interclass harmony of interest likely to be regarded with cynicism.

Expatiation upon the consequences of large-scale production is likely, however, to result in a badly balanced picture of the total industrial situation unless accompanied by some mention of the prevalence, in many lines of enterprise, of relatively small production units and of the problems to which these small units give rise. The foregoing tables indicate that while the great majority of workers are now employed in relatively large establishments, the majority of firms are still of comparatively small size. Moreover, the majority of workers in a number of the component branches of manufacturing are still employed in relatively small establishments, and the same situation obtains in retail trade, in agriculture, and in a number of other lines of economic activity. The persistence of these small units is not due merely to lethargy in developing and conforming to the most economic arrangements; frequently technical conditions of production deprive large plants of advantages over smaller ones, and the market for the product may be of such a character as to call for the small shop.

The problems to which the persistence of small production units gives rise are sometimes as acute as those arising out of large-scale production, although of different character. In many cases, the ease with which proprietorship status can be attained results in the presence of numerous relatively irresponsible firms—some of them of the "fly-by-night" variety, operated by "shoestring capitalists"—whose cutthroat competition makes almost impossible the maintenance of the wage standards that larger, better-equipped firms can afford to maintain. Small shops, along with the larger ones, have been notorious in the printing industry, in photo-engraving, in the manufacture of tobacco products, and elsewhere.

The consequence of these "hole-in-the-wall" establishments has sometimes been multiplication of shops, unintelligent cost estimates, and demoralizing price cutting. In addition to independent production on a small scale, a number of industries are characterized by a hierarchy of subcontractors whose competition constitutes a constant menace to standards established by collective bargaining or by the individual bargaining practices of the larger and more responsible firms. Probably the best examples of combination of large-scale business with small production units are found in the needle trades; and the results there of the presence of numerous "social" or "sweat" shops, where a redundant labor supply is available for about what it can get, are matters of fairly common knowledge.

Transportation and Expansion of Market Areas.—Large-scale production is, of course, dependent upon wide markets, upon ability to transport goods considerable distances. It had to await such development of transportation facilities and improvement in market institutions as made possible the exchange of products throughout a large territory. Brief mention of these matters therefore becomes unavoidable in a summary account of trends and changes within the institutional framework of capitalistic free enterprise.

To say that the story of the economic progress of the United States is in considerable part the story of the development of transportation is hardly to engage in overstatement. Operated railway mileage in the United States increased from 4,026 in 1842 to 30,626 in 1860.[1] Then, in 1869, the last tie was laid at Promontory Point, joining the Central Pacific and the Union Pacific and for the first time connecting Chicago and the Pacific Coast by rail. In 1890 the operated railway mileage in the United States was 156,404, in 1900 it was 192,556, in 1915, 257,569, and in 1920, 259,941. During the 1920's and 1930's, total operated mileage decreased slightly, the 1935 figure being 252,930. In England, which in the mid-1930's had a railroad mileage of approximately 37,000,[2] and in Germany, a larger country with slightly fewer miles of track,[3] the dependence of industrial development upon the railroads has been almost as great as in the United States. Other forms of transportation have also played an increasing part in recent years; old means of communication have been improved and new ones discovered or invented; and market mechanisms have become more varied and more complex.

[1] The statistics on railroad mileage in the United States are from *Statistical Abstract of the United States*, 1936, p. 372.

[2] The total mileage of running lines (single track) in Great Britain in 1935 was 36,866, and this total had varied only slightly during the years of the preceding decade. *Statistical Abstract of the United Kingdom*, 1935, pp. 324–25.

[3] On Dec. 31, 1935, total German railroad mileage was 58,408 kilometers, or 36,271 miles. Of this total, 53,896 kilometers, or 33,469 miles, are State lines. *Statesman's Yearbook*, 1937, p. 984.

Transportation facilities have made possible the exchange of products over the whole of the vast territory of the United States, and therefore, as has been said, have enabled large-scale production to develop. With the exchange of goods over a wide area, natural resources have been more fully utilized and productive power has been augmented. But transportation and its accompanying widening of market areas have created very acute problems. Together with the economies of regional specialization, impossible until goods could be sold throughout the whole of the country, has come increasing dependence of region upon region, of urban community upon rural, and in consequence increasing instability. More problems demand national rather than state or local control when the nation has become an integrated economic unit, but under the division of powers between the states and the federal government, in the United States, it has proved exceedingly difficult to evolve the legal means of exercising national control over national problems.

TABLE 8.—MANUFACTURING ESTABLISHMENTS CLASSIFIED ACCORDING TO CHARACTER OF OWNERSHIP, 1909, 1919, AND 1929[1]

Character of ownership and year	Establishments		Wage earners		Value of products		Value added by manufacture	
	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total	Number	Percentage of total
Corporation:								
1909	69,501	25 9	5,002,393	75 6	$16,341,116,634	79 0	$ 6,582,207,117	77 2
1919	91,517	31 5	7,875,132	86 0	54,744,392,855	87 7	21,817,546,565	87 1
1929	101,815	48 2	7,945,478	89 9	64,900,690,398	92 1	29,174,714,978	91 5
All other: (Individuals, partnership, etc.):								
1909	198,990	74 1	1,612,653	24 4	4,330,935,236	21 0	1,947,053,875	22 8
1919	198,588	68 5	1,221,240	14 0	7,673,685,918	12 3	3,224,151,925	12.9
1929	109,144	51 8	893,265	10 1	5,534,173,045	7 9	2,710,568,733	8 5
Total:								
1909	268,491	100 0	6,615,046	100 0	20,672,051,070	100 0	8,529,260,992	100 0
1919	290,105	100 0	9,096,372	100 0	62,418,078,773	100 0	25,041,698,490	100 0
1929	210,959	100 0	8,838,743	100 0	70,434,863,443	100 0	31,885,283,711	100 0

[1] From *Abstract of the Fourteenth Census of the United States*, 1920, p. 1021, and *Abstract of the Fifteenth Census of the United States*, 1930, p. 816.

The Corporate Form of Organization and Business Combinations.—One of the prerequisites of large-scale production was a form of business organization possessing the unity and elasticity of action of the individual firm and the partnership, but not subject to their limitations in the accumulation of capital. The modern corporation, with its limited liability of stockholders and its separation of the incidents of ownership, has been the response to this need. Its dominance is indicated by

Tables, 8 and 9 in which the data for manufacturing and mining are presented.

TABLE 9.—FORM OF ORGANIZATION OF MINING ENTERPRISES IN THE UNITED STATES, 1919 AND 1929[1]

Form of organization and year	Enterprises		Wage earners (average for year)		Value of products	
	Number	Percentage of total	Number	Percentage of total	Number (000 omitted)	Percentage of total
1919:						
Total	21,280	100 0	981,560	100.0	$3,158,464	100.0
Corporate	10,879	51.1	924,421	94.2	2,954,790	93 6
Other	10,401	48.9	57,139	5.8	203,674	6.4
1929:						
Total	10,135	100 0	806,418	100 0	2,392,831	100.0
Corporate	6,387	63.0	763,615	94 7	2,289,212	95 7
Other	3,748	37 0	42,803	5 3	103,619	4 3

[1] From *Abstract of the Fourteenth Census of the United States*, 1920, p. 1278, and Fifteenth Census of the United States, *Mines and Quarries, General Report*, p. 14. The 1929 figures do not include petroleum and natural gas, but those for 1919 do. Inasmuch as there were in 1919 some 9,814 petroleum and natural-gas enterprises, this omission accounts for a considerable part of the decrease in number of enterprises from 21,280 to 10,135.

The significant facts are apparent: that the majority of businesses are still organized under the individual proprietorship or partnership form; that the great majority of workers, on the other hand, are employed by corporations; that corporations produce a large part of the nation's products, as measured by value; and that the importance of the corporate form has been increasing as time has passed. It is true that the majority of corporations are not large in point of capitalization, number of wage earners employed, and value of product, and the influence and labor policies of smaller corporations may differ little from those of the individual enterprise. Nevertheless, the development of the corporation has been of profound importance as a determinant of the character of labor problems and labor relations.

It is in the corporate form of organization that maximum specialization of function is attained: the investment function and a modicum of risk assumption in the bondholders and preferred stockholders, the greater part of the risk-assumption function and the right to residual income in the common stockholders, and the managerial and directive function in salaried managers. The traditional incidents of ownership have been split asunder, and the responsibilities that formerly accompanied the legal right to income produced by one's property—assumption of risk and direction of industry—no longer do so. Corporate securities constitute a more sophisticated form of property than that tacitly assumed when the directive and economically stimulative functions of

private property are asserted. But when property forms become more sophisticated, when responsibilities that formerly accompanied them no longer do so, realism demands adjustment and modification of traditional theories of property. It is no longer quite consistent (although it is exceedingly common) to regard acts "interfering with property rights" in exactly the same light; the old assumption of the law that all persons are free and independent, and equally so, assumes a slight aroma of romanticism when one of the persons is, in the words of Chief Justice Marshall, "an artificial being, invisible and intangible, existing only in contemplation of law." The realist must recognize that the corporation is an organizational device bringing together for the cooperative processes of production groups with different—and on some points conflicting—interests, all of the traditional incidents of ownership being vested in no one of these groups. The investing group provides the capital but not, for the most part, directive talent and technique; the worker group provides the labor power but again not the function of direction; both groups assume certain risks—the former the loss of income from the property which they have, under a contractual arrangement, made available for utilization by the actual directors of industry, the latter the loss of their jobs. Incidental to the attempt of each group to maintain the established expectation which is consequent upon its function, acts may take place which trench upon the "rights of property" as these have been conceived in a simpler, noncorporative industrial regime.

In other ways, the development of the corporation has been of fundamental significance. Speculation in securities and the activities of promoters—for whom the early American corporation laws appeared to have an almost tender regard—have increased financial and economic instability and have not been without influence upon the distribution of wealth. The corporation, bringing together large aggregations of capital but possessing unity of action, and employing thousands of workers, is obviously in a better position to resist worker demands, especially when the workers are unorganized, than is the small individual firm. But, on the other hand, it may be more able to assume the overhead cost of more enlightened and humane labor policies than is the small firm, pressed from month to month for adequate working and fixed capital. The employee stock-ownership movement, proclaimed by some observers of the 1920's to constitute a "new industrial revolution"—a phrase that in more recent years has been permitted a deserved repose—was, of course, a latter-day outgrowth of the corporate form of organization.

Perhaps as important as all else, however, is the already-mentioned divorce of ownership and management, the creation of a separate functional group. In point of ultimate allegiance, the position of professional managers differs. Where investment bankers have been active in the formation of a corporation to purchase going firms and consolidate their

plants and organizations, corporation managers are likely to be appointees of the bankers. But in many cases—when capital can be raised out of earnings or the market rating of the firm is such that it can dispose of securities to the public without the intermediation of investment bankers —power tends to solidify in the hands of professional managers. As investors, these men frequently have little stake in the business, but as professional persons they have the great stake of their reputations. So long as the stockholders receive their dividends regularly, the authority of these managers is generally unhampered. "They form . . . a business aristocracy, not unlike the feudal aristocracy of old."[1] From the viewpoint of the position of labor, the emergence of a class of managers distinct from the working class or the investing class is of fundamental importance. These managers are likely to be somewhat more impersonal, somewhat less prone to resent, as a personal affront, employee criticisms of the conduct of business and employee attempts to force changes in this conduct, than was the old type of entrepreneur, owning a controlling interest in the business and himself engaged in active direction of it. To a certain extent, also, they are more likely to appreciate the long-run advantage of establishing decent conditions of work. Thinking in terms of their professional reputations (which of course involves seeing to it that the stockholders receive their dividends as regularly as possible) rather than in terms of immediate acquisition of individual wealth, they are perhaps a trifle more prone than was the old-line entrepreneur to recognize the desirability of making financial investment in employee morale, as a means of insuring over a period of time the smooth running of the business. The welfare work they introduce is likely to subordinate a little more the element of paternalism, and their staffs of personnel administrators may bring forth numerous formulas for "putting labor relations on a scientific basis." On the whole, however, the influence of the "professionalization of management" as a factor changing the character of industrial relations has been overstated. These managers cannot escape the inexorable dictates of the profit-and-loss statement. The "financial showing" necessarily must be uppermost in their minds, even though, so long as the current financial situation is sufficiently satisfactory, they may be willing to introduce labor policies involving immediate outlay that the older type of enterpriser would have avoided. Their opposition to trade unions, as has been implied, may be less personal, a bit more philosophical, than that of the owner-executive, but they are likely to be just as anxious to avoid union restraints when these restraints involve costs.

Another trend, already suggested, has accompanied the development of large-scale production and the rise of the corporation as the dominant

[1] Selig Perlman, *A Theory of the Labor Movement* (The Macmillan Company, New York, 1928), p. 217.

form of business organization: combination of industry and more concentrated control. Both vertical and horizontal combinations have become an outstanding fact during the last half century. Various factors gave rise to the movement. In part the combinations were a result of business problems arising with large-scale production, especially the increasing importance of overhead costs combined with a growing ferocity of competition; in part they were consummated in the belief that the economies of large-scale production could be more fully realized were large plants combined under centralized control and direction; in part they must be attributed to the facilitative influence of the lax corporation laws of the various states and to the lack of consistency in court interpretation of the antitrust act after 1890; in part, of course, the desire for monopoly profits contributed to their rise; and in part overexpansion of certain lines of enterprise was responsible. In form these combinations have varied; there were the simple pools of earlier days, the technical trusts, or trusteeships, of the 1880's, and the holding companies, mergers, and more subtle forms of combination of more recent times. There seems to be little doubt that the movement toward bringing establishments under control has been accelerated during the years since the end of the World War. Today no small fraction of our business is done, and no small fraction of all workers are employed, by combinations.

The distribution by the United States Census of Manufactures of manufacturing establishments according to central-administrative-office (plural-unit) and independent (single-unit) organizations affords a basis for measurement of the extent of combination among manufacturing enterprises and of the rate at which the movement has proceeded in recent years. In 1919, according to a study made for the Census Bureau,[1] the establishments operated by the 5,838 central-administrative-office[2] groups which made satisfactory returns represented only 8 per cent of the total number of establishments, but they employed approximately one-third of the total number of wage earners in all manufacturing industries.[3] During the following decade, the consolidation movement was given additional impetus. In some cases the purpose was to place competing plants of a similar nature under unified ownership; in others it was to bring together plants whose operations supplemented one another and

[1] Willard L. Thorp, "The Integration of Industrial Operations," Fourteenth Census, *Monograph III.*

[2] "A 'central administrative office,' as the term is used by the Bureau of the Census, is an office which operates one or more manufacturing plants located in a city or cities other than that in which the administrative office is located." Fifteenth Census of the United States, *Manufactures*, vol. 1, p. 5.

[3] Dr. Thorp also found that nearly 60 per cent of the total number of establishments in central-office combinations were concentrated in four industry groups, as follows: food and kindred products, 21.2 per cent; textiles and their products, 13.2 per cent; forest products, 13.2 per cent; chemicals and allied products, 11.2 per cent.

whose combination brought about a vertical integration of processes; and in still others it was integration by the addition of dissimilar products the manufacture of which would utilize unused space or equipment and would make possible more regular employment of the factory force. Census returns of 1929 from 8,246 central-office groups showed that with only 12.5 per cent of the total number of manufacturing establishments, the multiplant groups employed 48.4 per cent of all industrial wage earners and turned out 54.3 per cent of the total manufactured product.[1]

In some respects, without doubt, the fact of industrial combination redounds to the material benefit of labor. Less subject to the nibbling of competition, these combinations can sometimes maintain terms and conditions of employment that could not be maintained in a sharply competitive industry of many small units. If the combination occupies a monopolistic or quasimonopolistic position, it may be in position to pass the immediate cost of wage increases on to the consumers as a competitive firm from whom a wage increase has been wrested cannot do. The fact that the ultimate determiners of policy do not have the immediacy of contact with the workers that individual entrepreneurs have may mean that irrationality and human prejudice play smaller part in the making of labor policies. On the other hand, businesses remotely rather than immediately controlled are more likely to be conducted from an exclusively financial point of view. Lesser officials within the operating plant are under pressure to get output, to reduce costs, to "make a good showing." These conditions are likely to be conducive to the speed-up and the drive policy. Home offices of the combinations, with their accurate records of labor and other costs, are likely to order the laying off of men very quickly when the business situation dictates that the force be reduced. Frequently, also, the large combinations more or less dominate the employment situation and exercise no little control over rates of pay and hours of work. With well-organized employment departments, they are in position to secure labor from a rather wide area. In numerous instances wage rates have been effectively set by a combination or by a number of employers acting together, and have been maintained at the point considerably after competitive forces would have forced readjustment. It is a matter of common knowledge that the majority of American combinations have been anti-union in their labor predilections.

The Increase in Capital and Nonhuman Power.—Two of the most marked developments in industry have been the increase in the capital factor relative to labor and the increase in the ratio of nonhuman to human power. Manufacturing may again serve as the example, but the results portrayed for that branch of industry are illustrative of what has happened elsewhere. The following table shows the increase in the number

[1] Fifteenth Census of the United States, *Manufactures*, vol. 1, p. 94.

of wage earners, in horsepower employed, and in total fixed capital (in terms of dollars of constant purchasing power), and presents an index of the growth of total fixed capital.

TABLE 10.—INCREASE IN NUMBER OF WAGE EARNERS, HORSEPOWER, AND TOTAL FIXED CAPITAL IN AMERICAN MANUFACTURING, 1869–1929[1]

Year	Wage earners (000 omitted)	Horsepower (000 omitted)	Total fixed capital in 1880 dollars (000,000 omitted)	Relative total fixed capital (1899 = 100)
1869	2,054	2,346		
1879	2,733	3,411		
1889	4,252	5,939		
1899	4,713	10,098	4,449	100
1904	5,468	13,488	6,132	138
1909	6,615	18,675	8,820	198
1914	6,888	22,264	10,873	244
1919	8,990	29,298	17,234	387
1923	8,768	33,057	19,192[a]	431[a]
1929	8,822	42,869		

[a] 1922.

[1] This table has been compiled from two sources: the census data, as presented in the *Statistical Abstract of the United States*, 1936, p. 733, and Paul H. Douglas, *The Theory of Wages*, pp. 113–121. For the period 1869–1899 the data on horsepower and wage earners include factories and hand and neighborhood industries; for the years from 1889 to 1909 factories are included but hand and neighborhood industries and establishments with products valued at less than $500 per annum are excluded; while the data for the last four years listed exclude establishments with products valued at less than $5,000. A word as to the methods by which Professor Douglas estimated the volume of fixed capital, as set forth in this table, is in order. "Fixed capital," as estimates of its quantity are here presented, includes (1) machinery, equipment, and tools, and (2) factory buildings. These items were segregated from the estimates of total capital only for certain census years. The method followed by Professor Douglas was to take the proportion these items formed of total capital for the years in which segregation was made, and to use these proportions as the basis for determining probable value during years when no such segregation of items was made. In order to estimate the amount of fixed capital employed by manufacturing enterprises during intercensal years, the total value of producers' goods going into the construction of machinery, equipment, buildings, etc., was estimated for each year, the value between census years was totaled, and the value for each year was divided by the total for the period in order to derive the percentage which it formed of the total produced in the period. These percentages were then applied to the total increase in the value of buildings and machinery over the period, and yearly increases in the value of these items were thus obtained. To deflate the estimates in accordance with changes in the price level, Professor Douglas constructed a capital cost index which was based upon three sets of relative prices: (1) The wholesale prices of metals and metal products; (2) the wholesale prices of building materials; and (3) money wages.

It is apparent that capital and horsepower have both increased at a much more rapid rate than the number of workers employed. In 1869, the number of wage earners in manufacturing was 2,054,000 and the amount of primary horsepower used 2,346,000, or a ratio of primary horsepower to wage earners of 1.1 to 1. In 1929, the number of wage earners was 8,822,000 and the amount of primary horsepower 42,869,000, or a ratio of horsepower to wage earners of almost 5 to 1. Each worker in the latter year was equipped with nearly five times as much nonhuman power as he had been sixty years earlier. The quantity of capital has also increased much more rapidly than the number of wage earners. According to Professor Douglas' index, in the last column of the above table, the amount of fixed capital employed by American manufactures

was 331 per cent greater in 1922 than at the turn of the century. Between 1899 and 1923 (1922 not having been a Census of Manufactures year) the number of wage earners increased only from 4,713,000 to 8,768,000, and by 1929 to 8,822,000. In other words, while the amount of capital was increasing more than fourfold, the number of wage earners failed to double. It will be noted, also, that horsepower and capital increased in somewhat the same proportions after 1899, although capital increased more rapidly than did horsepower. It is hardly necessary to record the fact that in England and other industrial countries the ratio of both capital and nonhuman power to labor is much greater than it was half a century ago.[1]

In later chapters,[2] some of the significant consequences and theoretical implications of the changing proportions in which labor and capital have been combined, and of the changing relative amounts of labor and capital that have been embodied in units of product as time has passed, are discussed. Here it suffices to make note of the changes that have occurred and to point out that the great increase in the productivity of industry has been due, in large part, to the increased quantity of material things and nonhuman power devoted to productive purposes.

Changes in Sources of Livelihood.—The developments summarized in the foregoing pages suggest that important changes in sources of livelihood have occurred. Agriculture has come to occupy a more subordinate position, the various industrial pursuits to employ a larger proportion of the gainfully occupied. Industrialization has proceeded less rapidly in some countries than in others, but in general it has been one of the most powerful tendencies in capitalistic economic life. The essential facts with respect to the United States are set forth in Table 11.

The important trends indicated by the table may be summarized briefly. (1) Over the half century as a whole the most important single change was, of course, the declining importance of agriculture as a source of livelihood and the increasing importance of the various industrial pursuits. In 1880, 44 per cent of all the gainfully occupied were to be found in agriculture; by 1920 this percentage had fallen to 26.2, and by 1930 to 21.9. On the other hand, only one person out of about every five (21.8 per cent) was engaged in manufacturing in 1880; by 1920 manufacturing had become the most important source of livelihood, with 30.8 per cent of the gainfully employed attached to it, and in 1930 it was still the largest, although employing a smaller percentage of the gainfully

[1] In England, total horsepower in use in the factory trades in 1924 was 8,791,100 and in all trades 13,403,300. In 1930 the figures were 10,472,200 and 15,322,600, respectively. *Statistical Abstract of the United Kingdom*, 1935, p. 292. The ratio of horsepower to workers is lower in England than in the United States, but there, as here, it has increased over a period of years.

[2] *Infra*, pp. 172–174, 187–188, and 206–207.

employed than in 1920. The development of trade, transportation, and communication, which in 1930 employed almost twice as large a proportion of the nation's working people as in 1880, and in absolute figures more than five times as many, is also noteworthy. (2) In the second place, it will be noted that the proportion of persons engaged in professional service and trade—lawyers, doctors, teachers, professional specialists of various kinds—has almost doubled. This development is important. The majority of those within these classes are dependent upon their individual efforts for livelihood. A considerable number are, of course, working for salaries; others are self-employed. In point of interest and outlook, of general social attitude, however, they are much more likely

TABLE 11.—OCCUPATIONAL GROUPS BY MAJOR INDUSTRIAL CLASSES[1]

	1880		1900		1920		1930	
	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Total	17,393,099	100 0	29,073,233	100 0	41,614,248	100 0	48,829,920	100 0
Agriculture, forestry, fisheries	7,713,875	44 4	10,381,765	35 7	10,936,026	26 2	10,722,467	21 9
Professional service	603,202	3 5	1,258,538	4 3	2,171,251	5 2	3,253,884	6 7
Domestic and personal service	3,418,493	19 7	5,580,657	19 2	3,379,995	8 1	4,952,451	10 1
Trade, transportation and communications	1,871,503	10 8	4,766,964	16 4	7,354,513	17 6	9,924,614	20 4
Manufacture and mechanical pursuits	3,784,726	21 8	7,085,309	24 4	12,881,879	30 8	14,110,652	28 9
Extraction of mineral	In 1900 and 1880 included in the above groups				1,090,223	2 6	984,323	2 0
Clerical occupations					3,111,836	7 5	4,025,324	8 2
Public service					738,525	1 8	856,205	1 8

[1] Fifteenth Census of the United States, *Population*, vol. 4, Table 2, p. 6.

to identify themselves with the employing or bourgeois class than with the mass of wage earners and lower salaried groups. (3) Finally, some of the trends during the decade of the 1920's deserve comment. During this period relatively fewer persons became attached to manufacturing,[1] and an increasing proportion entered transportation and communication, the clerical occupations, and the "service" occupations. The decade of the 1920's was that of the "new capitalism," and the change in the importance of occupational groups reflected both the economic characteristics and the social attitudes of the time. The real income of the members of most economic classes increased during this period, even though agriculture was depressed and prosperity in nonagricultural lines somewhat spotty and diffused, and numerous new gadgets and services began to be demanded. The consequence was that an increasing percentage

[1] Indeed, as is indicated by Tables 1 and 10, the absolute number of *wage earners* employed by American manufacturing enterprises declined between 1919 and 1929; and, as the above table indicates, the absolute number of all gainfully employed persons attached to manufacturing did not increase enough to maintain the 1920 percentage.

of the population began devoting its energies to the various service occupations.

As early as 1840, agriculture had come to occupy a subordinate place as a source of employment in Great Britain; and during the last half century the absolute number of persons dependent upon it for livelihood has declined, while the total population and the total gainfully occupied population have, of course, increased greatly.[1] In 1931 only 6.4 per cent of the gainfully occupied population were in agriculture, as compared with 53.5 per cent in manufactures, building construction, transportation and communication, and commerce and finance. Table 12 shows the distribution of the gainfully occupied fourteen years of age and over among the main occupations and industries at the time of the last census.[2]

TABLE 12.—GAINFULLY OCCUPIED POPULATION (14 YEARS OF AGE AND OVER) OF ENGLAND AND WALES, 1931, CLASSIFIED BY MAIN OCCUPATIONAL GROUPS[1]

Occupational group	Total	
	Number	Per cent
Agriculture, fishermen	1,199,281	6.4
Mining and quarrying	968,771	5.1
Manufactures, building and construction	5,982,362	31.7
Transport and communication	1,634,745	8.7
Commerce, finance, insurance	2,482,167	13.1
Public administration and defense	293,108	1.6
Professional service	860,108	4.6
Personal service	2,389,913	12.7
Clerks, draughtsmen, typists	1,375,431	7.3
Other and undefined workers	1,667,490	8.8
Total gainfully occupied	18,853,376	100.0
Retired or not gainfully occupied (14 years and over)	12,190,377	
Total (14 years and over)	31,043,753	
Total population (all ages)	39,952,377	

[1] "Statistics of Occupied Population in Different Countries, Great Britain," *International Labour Review*, vol. 32 (June, 1935), p. 854. The data are taken from the 1931 census of England and Wales.

[1] In 1881, the census showed that 12,739,000 persons were gainfully employed, and of these 1,593,000 were in agriculture. In 1931, 21,055,000 were gainfully occupied; 1,194,000 of these were in agriculture (*Statistical Abstract of the United Kingdom*, 1935, p. 112). In other words, the absolute number attached to agriculture declined by about 400,000 during the half century, while the total number of gainfully employed persons increased by more than 8,000,000.

[2] In Belgium and Germany, the trend away from agriculture and toward industry has been much the same as in England and the United States. In France, Denmark, Sweden, Norway, and a number of other countries agriculture has not lost to so great an extent its relative importance as a source of livelihood. Nevertheless, in France and Norway those engaged in industry and in commerce and transportation combined exceed those engaged in agricultural pursuits. The Industrial Revolution hardly struck Russia until about the turn of the century, and the great industrialization of that country really began with the advent of the Soviet regime.

Urbanization of Population.—Increased urbanization, of course, accompanies a decline in the relative importance of agriculture as a source of livelihood. In 1880, 28.6 per cent of the American people lived in urban places (*i.e.*, of 2,500 or more persons) and 71.4 in the rural areas of the country. Fifty years later the census showed that 56.2 per cent of the American people had urban habitats, and that 43.8 were rural

TABLE 13.—POPULATION IN GROUPS OF CITIES, CLASSIFIED ACCORDING TO SIZE, AND IN RURAL TERRITORY, 1890–1930[1]

Subject and class of places	1890	1900	1910	1920	1930
POPULATION					
United States	62,947,714	75,994,575	91,972,266	105,710,620	122,775,046
Urban Territory:	22,298,359	30,380,433	42,166,120	54,304,603	68,954,823
Places of 1,000,000 or more	3,662,115	6,429,474	8,501,174	10,145,532	15,064,555
Places of 500,000 to 1,000,000	806,343	1,645,087	3,010,667	6,223,769	5,763,987
Places of 250,000 to 500,000	2,447,608	2,861,296	3,949,839	4,540,838	7,956,228
Places of 100,000 to 250,000	2,781,894	3,272,490	4,840,458	6,519,187	7,540,966
Places of 50,000 to 100,000	2,022,822	2,709,338	4,178,915	5,265,747	6,491,448
Places of 25,000 to 50,000	2,268,786	2,800,627	4,026,045	5,075,041	6,425,693
Places of 10,000 to 25,000	3,429,247	4,338,250	5,524,034	6,942,742	9,097,200
Places of 5,000 to 10,000	2,372,717	3,220,766	4,254,856	4,997,794	5,897,156
Places of 2,500 to 5,000	2,506,827	3,103,105	3,879,732	4,593,953	4,717,590
Rural Territory:	40,649,355	45,614,142	49,806,146	51,406,017	53,820,223
Incorporated places of 1,000 to 2,500					4,820,707
Incorporated places under 1,000	4,745,530	6,301,533	8,164,628	8,963,125	4,362,746
Other rural territory	35,903,825	39,312,609	41,641,518	42,442,892	44,636,770
PER CENT OF TOTAL POPULATION					
United States	100 0	100 0	100 0	100 0	100 0
Urban Territory:	35 4	40 0	45 8	51 4	56 2
Places of 1,000,000 or more	5 8	8 5	9 2	9 6	12 3
Places of 500,000 to 1,000,000	1 3	2 2	3 3	5 9	4 7
Places of 250,000 to 500,000	3 9	3 8	4 3	4 3	6 5
Places of 100,000 to 250,000	4 4	4 3	5 3	6 2	6 1
Places of 50,000 to 100,000	3 2	3 6	4 5	5 0	5 3
Places of 25,000 to 50,000	3 6	3 7	4 4	4 8	5 2
Places of 10,000 to 25,000	5 4	5 7	6.0	6 6	7 4
Places of 5,000 to 10,000	3 8	4 2	4.6	4 7	4 8
Places of 2,500 to 5,000	4 0	4 1	4 2	4 3	3 8
Rural Territory:	64 6	60 0	54 2	48 6	43 8
Incorporated places of 1,000 to 2,500					3 9
Incorporated places under 1,000	7 5	8 3	8 9	8.5	3 6
Other rural territory	57 0	51 7	45.3	40 2	36 4

[1] From *Abstract of the Fifteenth Census of the United States*, p. 14.

dwellers. In 1890 there were twenty-eight cities in the United States with a population of 100,000 or more, and within these cities lived 15.4 per cent of the American people; in 1930 there were ninety-three such cities, and approximately three-tenths (29.6 per cent) of the population was domiciled in them. Only about one person in every seventeen (5.8 per cent) lived in cities of 1,000,000 or more population in 1890, while forty years later about one person in every eight (12.3 per cent) was a resident of a city of 1,000,000 or more. Each decade the percentage

increase in urban population has been vastly greater than the corresponding increase for the rural districts. In 1930 there were 6,000,000 more people living in urban places than lived in the entire United States in 1890. The essential facts concerning the urbanization trend are set forth in Tables 13 and 14.

TABLE 14.—URBAN AND RURAL POPULATION OF THE UNITED STATES, PERCENTAGE INCREASE BY DECADES[1]

Period	Rural	Urban
1880–1890	13.6	55.3
1890–1900	12.2	36.2
1900–1910	9.2	38.8
1910–1920	3 2	28.8
1920–1930	4.7	27.0

[1] Fifteenth Census of the United States, 1930, vol. 2, *Population, General Report*, p. 8.

During the early years of the depression of the 1930's the urbanization tendency was halted, more people migrating from the cities to the farms than in the opposite direction, but by 1935 and 1936 the excess of cityward over farmward migration was sufficient to indicate that the trend portrayed in the foregoing tables must be regarded as definitely reestablished.[1] Increased urbanization is, of course, to be found, in greater or less degree, in almost every country as emphasis shifts from the extractive to the elaborative industries and to transportation and the dealing trades.[2]

The urbanization trend in any country is, of course, one index of the increased industrialization of that country; and the factors responsible for

[1] The Federal Bureau of Agricultural Economics on Nov. 1, 1936, released revisions made in the light of the finding of the 1935 Census of Agriculture and the reports of the Division of Vital Statistics of the Bureau of the Census of its earlier estimates of farm population. These revised estimates showed that farm population on Jan. 1, 1936, was 31,809,000, as compared with 31,801,000 on Jan. 1, 1935. The year 1935 was the third successive one in which the number going from the farms to cities exceeded the number moving in the opposite direction, and the cityward trend characteristic of every year from 1920 to 1929 must be regarded as reestablished. In 1931 the two movements nearly balanced, and in 1932 more persons were reported as moving to the farms than moved away from them. By 1933, however, the loss of farm population due to migration was greater than it had been in 1930, and it increased still further in 1934 and 1935. In all of these years when there was a net loss of farm population consequent upon migration, the loss was more than offset by the excess of births over deaths on the farms. In 1935 births on the farms totaled 727,000, deaths 330,000. The natural increase in farm population was, therefore, 394,000. That same year the number going from urban places to the farm totaled 825,000, the number migrating from farms to cities 1,211,000, and the net loss by migration was, therefore, 386,000, or 8,000 less than the excess of births over deaths on the farms.

[2] Between 1861 and 1891 the urban population of England increased from 62.3 to 71.7 per cent of the total, and in England and Wales it increased from 77.0 per cent in 1901 to 78.1

the expansion of American industry, as already suggested, therefore account in part for the development revealed by these tables. To say that a country is becoming more industrialized is to say that a larger proportion of the population lives in the urban centers where, for the most part, industries are located. Other, although more or less related, causal factors may be cited. Mechanization of agriculture has reduced the proportion of the population necessary to produce foodstuffs and other necessities for the whole people. With the physical productivity of the nation increasing more rapidly than population, a larger part of our total social energy has been devoted to the production of services and goods other than necessities, since the demand for necessities is least capable of expansion. When the volume of immigration declined, the suction of the urban vortex upon the American rural population was increased. During the war period the abnormal demand for labor created by war activity, the check upon immigration, and the withdrawal of several millions of persons from normal economic activity accelerated the urbanization movement; then, during the 1920's, the farm depression and the increase in the wages of urban workers—partly a consequence of the decline in the exchange value of farm products at the farms[1]—continued the same drift. It is not impossible, also, that the "new" immigrants were of a type having a greater affinity for urban life than were the "old" immigrants.[2]

Labor's position in a predominantly urban economy differs tremendously from what it is in an economy still largely rural. Housing prob-

in 1911. The distribution during the last three census years has been as follows (from *Statesmen's Yearbook*, 1937, p. 16):

	Urban	Rural
1911	78 1	21 9
1921	79 3	20 7
1931	80 0	20 0

Out of a German population of 66,030,491 on June 16, 1933, 23,365,394 persons were inhabitants of places of 50,000 or more (*ibid.*, pp. 967–969).

[1] *Cf. infra*, pp. 99–100 and 210.

[2] This is the thesis of Professor William S. Rossiter. (*Cf.* his "Increase of Population in the United States, 1910–20," *Census Monograph I*, p. 110.) Professor Rossiter believes that such people as the Russian Jews and Italians have a greater affinity for urban life than do the Germans, English, and Scandinavians. But it must be remembered that these new immigrants arrived just about the time free land ceased to be available, and that the removal of the opportunity to become independent land owners rather than any nationalistic or racial traits may have been responsible for their tendency to stay in the cities. Also, as Professor Lescohier has observed (in Commons and Associates, *History of Labor in the United States*, vol. 3, p. 12), it is probable that during the period 1915–1929 the high wages and expanding industrial employment would have held the vast majority of incoming immigrants in the cities, regardless of race or country of origin.

lems, congestion, the higher tempo and therefore the greater tension of urban living, and the development of new emulative and invidious wants and the tendency to trench upon necessities to gratify these new wants are matters of general knowledge. Under urban living conditions, the workers are almost entirely dependent upon wages, since foodstuffs and other necessities must be purchased rather than produced in part by the workers themselves and their families. Unemployment becomes, in consequence, an increasingly haunting specter, and the need for social insurance accordingly greater. On the other hand, the urban population of the country probably benefits more than does the rural from the various types of social services, the cost of which, in the first instance, is generally placed by taxation upon other economic classes than the workers. To say that the urban population benefits most is, of course, merely to refer to the fact that the conditions of urban living have created the need for, and therefore the establishment of, these social services; but they do constitute a form of supplementary real income that does not appear in pay envelopes. It is among urban workers that the greatest amount of class consciousness is likely to develop; the mere fact of physical proximity induces recognition of the commonness or mutuality of the problems of those similarly situated in point of economic status. Urban reform movements are likely, also, to have as their propelling force ideologies different from those arising from rural societies.

The Working Population.—It is patent that trends of population phenomena are important factors in determining the character of labor problems and of labor relations. The population of the continental United States increased from 3,929,214 in 1790 to 31,443,321 in 1860, 62,947,714 in 1890, 91,972,266 in 1910, and 122,775,046 in 1930. Between 1890 and 1930, then, it was nearly doubled. After 1890, the percentage rate of increase each decade over population at the end of the preceding decade declined (except for the 1920's),[2] but with the exception of one ten-year period[2] the number of people added to the population each decade was greater than during the preceding intercensal period. The percentage of the population gainfully occupied, however, was only slightly greater in 1930 than in 1890, although some 5 per cent greater than in 1870. As the table in the appended footnote indicates,[3] the proportion of the adult male population that was gainfully employed declined between 1890 and 1930 and that of the adult female population

[1] The percentage increases shown each census year have been as follows: 1890, 25.5; 1900, 20.7; 1910, 21.0; 1920, 14.9; 1930, 16.1.

[2] 1910–1920. The War and the influenza epidemic put abnormal checks upon population growth during these years.

[3] Following are the absolute number of persons ten years of age or over gainfully occupied each census year since 1870, the percentage they constituted of all within the age group, and

increased. Two facts explain these changes: that women are a larger proportion of total population today than they formerly were,[1] and that a larger proportion of women are gainfully employed than were thirty or forty years ago.[2] The decline in the proportion of young persons who have been working for economic remuneration has been a factor accounting, in part, for the failure of the gainfully employed to increase more rapidly than total population during the last four or five decades.[3] In other countries, the same tendency for the percentage of the population having gainful employment to increase during the early years of indus-

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the same facts for both men and women:

Sex and census year	Population 10 years old and over	Persons 10 years old and over gainfully occupied		
		Number	Per cent of total population	Per cent of population 10 years old and over
Both sexes:				
1870.	28,228,945	12,505,923	32 4	44 3
1880.	36,761,607	17,392,099	34 7	47 3
1890.	47,413,559	23,318,183	37 2	49 2
1900.	57,949,824	29,073,233	38.3	50 2
1910.	71,580,270	38,167,336	41 5	53 3
1920.	82,739,315	41,614,248	39 4	50 3
1930.	98,723,047	48,829,920	39 8	49 5
Male:				
1870.	14,258,866	10,669,635	54 7	74 8
1880.	18,735,980	14,744,942	57 8	78 7
1890.	24,352,659	19,312,651	60 2	79 3
1900.	29,703,440	23,753,836	61 2	80 0
1910.	37,027,558	30,091,564	63 6	81 3
1920	42,289,969	33,064,737	61 3	78 2
1930.	49,949,798	38,077,804	61 3	76 3
Female:				
1870.	13,970,079	1,836,288	9 6	13 1
1880.	18,025,627	2,647,157	10 7	14 7
1890	23,060,900	4,005,532	13 1	17 4
1900.	28,246,384	5,319,397	14 3	18 3
1910.	34,552,712	8,075,772	18 1	23 4
1920.	40,449,346	8,549,511	16 5	21 1
1930.	48,773,249	10,752,116	17 7	22.0

[1] In considerable part, this change in the sex composition of the population has been due to the decline in immigration since the outbreak of the World War in 1914. About two-thirds of the immigration during the years just prior to 1914 was male, and with the decline in immigration, discussed later, the proportion of men to women has declined. In 1920 there were 104 males to each 100 females in the population, and 121.7 foreign-born white males to each 100 foreign-born white females. In 1930, however, after fifteen years of reduced volume of immigration, the ratio of males to females in the total population was 102.5 to 100, and in the native-born population 101.1 to 100. From data presented in vol. 2 of Fifteenth Census of the United States, *Population*, Table 1, p. 97, as summarized by D. D. Lescohier in vol. 3 of Commons and Associates, *History of Labor in the United States* (The Macmillan Company, New York, 1935), p. 36.

[2] *Cf. infra*, pp. 376–388.

[3] *Cf. infra*, pp. 423–424.

trial and commercial development, and then to remain fairly constant, is to be noted.[1]

Immigration and the Labor Supply.—Immigration has affected the growth and character of the working population in the United States as in no other country, and a few words concerning this peculiarly American phenomenon must be included in the present summary of background factors and of more important trends within the capitalistic arrangements for utilizing labor power.

Three important trends need be noted: the mounting tide of immigration prior to 1914, the changes in the sources of our immigration during the late nineteenth and early twentieth centuries, and the decline in the volume and therefore in the proportion of the American labor supply represented by immigrants since 1914. During the decade preceding the Civil War, an average of 251,106 more aliens were admitted to the United States each year than departed; during the 1880's the yearly average rose to 524,661; and in spite of a drop during the 1890's—several of which were depression years—the first decade of the twentieth century found the United States with a net annual immigration of 879,538. Various motives underlay the migration of millions to this country—political oppression abroad, social maladjustments elsewhere, racial persecution, the desire for more religious freedom—but the one of overwhelming importance was the economic. America was looked upon as the land of economic opportunity, the land affording real chance for individual advancement; and to it millions of the economically submerged in the older countries turned their eyes and directed their footsteps. Table 15 indicates the situation decade by decade since 1870. The decline in the volume of immigration in recent years has, of course, been chiefly due to the departure of the United States from its traditional

[1] In England, Wales, and Scotland 12,739,000 persons, or 57.7 per cent of the total population ten years of age and over, were gainfully occupied in 1881. In 1931, 21,055,000 persons ten years of age and over were gainfully occupied, or 56.0 per cent of the 37,603,345. The differences between these figures on the total number gainfully occupied and those presented in Table 12, *supra*, are, of course, due to the fact that only persons fourteen years of age and over are included in that table. Following are the total population ten years and over, total gainfully employed, and the per cent that the gainfully employed constituted of those in the age group for each census year since 1881 (from *Statistical Abstract of the United Kingdom*, 1935, p. 112):

Year	Total population 10 years and over	Total occupied	Percentage of total population occupied
1881	22,081,000	12,739,000	57 7
1891	25,100,000	14,500,000	57 8
1901	28,770,000	16,312,000	56 7
1911	32,234,000	18,354,000	56 9
1921	34,979,000	19,357,000	55 3
1931	37,603,345	21,055,000	56 0

"open-door" policy and the restrictions placed by the acts of 1917 and 1924, and the enforcement, beginning in 1929, of the "national origins" provision of the 1924 law.[1] As important as the mounting tide of immi-

TABLE 15.—VOLUME OF IMMIGRATION INTO THE UNITED STATES IN SIX DECADES, 1870–1930[1]

Decade	Number of immigrants admitted in decade	Annual average	Increase or decrease in annual average
1871–1880	2,812,191	281,219	
1881–1890	5,246,613	524,661	+243,442
1891–1900	3,678,564	367,856	−156,805
1901–1910	8,695,386	869,539	+501,683
1911–1920	5,735,811	573,581	−295,958
1922–1931	3,399,120	339,912	−233,669

[1] Compiled from annual reports of the U. S. Commissioner of Immigration. The year 1921, it will be noticed, has been omitted from this tabulation, in order that the more accurate picture of a decade in which the so-called "quota legislation" was in effect may be obtained. The year 1921 brought 805,228 immigrants, the largest during any one year since 1914.

gration prior to the War and the decline in the volume during and since has been the changed character of American immigration. In the early 1880's more than five-sixths of the European immigration was from Northern and Western Europe and less than one-sixth from Southern

[1] The Act of 1917, passed over the veto of President Wilson, established a literacy test (a reading knowledge of some language, proved by reading thirty or forty words in that language), defined personal and economic standards that immigrants must meet, and added to the already established list of undesirables. The Act of 1917 still stands as the *selective* immigration law of the United States, since it was supplemented, not supplanted, by the quota laws of the 1920's. By the Act of May 19, 1921 (in operation until June 30, 1924) the number of aliens who could be admitted to the United States was limited to 3 per cent of the number of persons of each nationality resident in the United States according to the Census of 1910, nationality being determined by the country of birth. This law applied only to Europe, Asiatic Turkey, Persia, Asiatic Russia, Africa, and Australasia. In 1924 the second quota law went into effect, fixing the number of immigrants from any country at 2 per cent of the number of persons from that country resident in the United States in 1890. In 1929 the 1924 quota system was modified by the enforcement of the "national-origins" provision of the 1924 law. This provision involved disregarding of the 1890 base and the determination of quotas upon the national origins of the population in 1920. The total quota was fixed at 150,000, and each country's quota was fixed at the percentage of 150,000 that its people constituted of the people resident in the United States in 1920. All of the decline in immigration in recent years should not be attributed to the legislation. There is, of course, no way of knowing just how many more immigrants would have come from the quota countries—especially from those of Southeastern Europe, against whom the legislation of the 1920's was chiefly directed—had the laws not been in force, but it seems unlikely that immigration would have reached the prewar volume. Such factors as the declining birth rates in Europe, the policy of other countries during the period when economic nationalism was dominant to put restrictions upon emigration, and technological developments decreasing the demand for immigrant manpower have all resulted in a decline in world migratory movements.

and Eastern Europe; by 1914 the proportions had been almost exactly reversed.[1]

Only brief allusion will here be made to some of the effects of immigration. America's great industrial expansion could hardly have occurred without the supply of immigrant labor. Some native-born workers undoubtedly were able to rise to better positions when semiskilled and unskilled workers from abroad began to monopolize the lower-paid places in industry. By relieving overpopulated European countries of some of their surplus labor supply and causing the employment of this labor where its value productivity was higher, American immigration tended to raise the world wage level. Yet to a very great extent, the traditional viewpoint of native-born labor, especially the organized segments of it, appears to have been substantiated by experience. In many cases, labor markets were flooded, the labor supply was made more redundant, and wages in consequence were undermined. A premium was often placed upon the undermining of skilled jobs, since—especially during the wave of "new" immigration from the 1890's to 1914—it was frequently more economical to adapt jobs to the limited capacities of men than to undergo the expense of training men for skilled jobs. The fact that workers and employers in the United States have not been of the same racial and nationalistic stock to nearly the extent that they have been in other countries has been a force accentuating differences in viewpoint, the tendency to think in different terms.

The decreased importance of the immigrant factor in the American industrial labor supply has already had consequences of profound importance. To an extent, the contention so long made by American labor that American wage earners were being kept out of a considerable range of occupations seems to have been substantiated by the increasing proportion of industrial jobs that have passed into the hands of the native-born population. It seems certain that part of the increase in real earnings of the workers during the years preceding the beginning of the great depression was attributable to the curtailment of immigration. Restriction of the labor supply tended to raise the marginal productivity of the workers, and at the same time it lessened the competition for jobs which frequently results in the acceptance by labor of less than industry can afford to pay.[2] That part of the success recently attending efforts to organize workers in the mass-production industries has been due to the fact that such workers, racially and nationally, are a less heterogeneous group than they once were seems beyond question. Employer labor policies were affected during the decade of the 1920's to no small

[1] To be exact, the "old" immigration constituted 86.9 per cent of all European immigration in 1882, and the "new" 13.1 per cent. In 1914 the proportions were: "old," 15.5 per cent; "new," 84.5 per cent.

[2] This effect of immigration curtailment is discussed *infra*, p. 211.

extent by the decrease in immigration. It was no longer so economical to adapt jobs to men instead of men to jobs, and the drive policy did not prove as successful as it formerly had. Employers to a certain extent found a substitute for immigrant labor in Negro and Mexican migration northward, but they also manifested a new interest in developing employee goodwill and in training workers.

TABLE 16.—CHANGES IN RELATIVE IMPORTANCE OF MAJOR ECONOMIC GROUPS, 1870–1930[1]

Group	1870	1880	1890	1900	1910	1920	1930
				Number			
Farm laborers	2,885,996	3,323,876	3,004,061	4,410,877	6,143,998	4,178,637	4,392,764
Farmers	3,000,229	4,282,074	5,370,181	5,770,738	6,229,161	6,463,708	6,079,234
Proprietors and officials	581,378	807,049	1,347,329	1,811,715	2,879,023	3,168,418	4,270,856
Professional	414,708	666,338	1,114,507	1,565,686	2,074,792	2,760,190	3,845,559
Lower salaried	309,413	529,473	965,852	1,329,928	2,393,620	3,985,306	7,116,814
Servants	975,734	1,075,655	1,454,791	1,453,677	1,572,225	1,270,946	1,999,133
Industrial wage earners	3,328,351	5,226,829	7,360,442	10,263,569	14,556,979	17,648,072	18,512,640
Unclassified	1,010,114	1,420,795	2,118,498	2,467,043	2,317,538	2,138,971	2,612,920
Total	12,505,923	17,392,099	22,735,661	29,073,233	38,167,336	41,614,248	48,829,920
				Per Cent			
Farm laborers	23 1	19 1	13 2	15 2	16 1	10 0	9 0
Farmers	24 0	24 6	23 6	19 8	16 3	15 5	12.4
Proprietors and officials	4 6	4 6	5 9	6 2	7 5	7 6	8 7
Professional	3 3	3 8	4 9	5 4	5 4	6 6	7 9
Lower salaried	2 5	3 0	4 3	4 6	6 3	9 6	14 6
Servants	7 8	6 2	6 4	5 0	4 1	3 1	4 1
Industrial wage earners	26 6	30 4	32 4	35 3	38 2	42 4	37 9
Unclassified	8 1	8 2	8 2	8 5	6 0	5 1	5.4
				Trends in Relative Importance			
Farm laborers	100	83	57	66	70	43	39
Farmers	100	103	98	83	68	65	52
Proprietors and officials	100	100	128	135	163	165	189
Professional	100	115	148	164	164	200	239
Lower salaried	100	120	172	184	252	384	584
Servants	100	79	82	64	53	40	53
Industrial wage earners	100	114	122	133	144	159	142
Unclassified	100	101	115	105	74	63	67

[1] Professor Hansen in 1920 published the results of his study of the census data for the period 1870–1910 ["Industrial Class Alignments in the United States," *Quarterly Publication of the American Statistical Association*, vol. 17 (December 1920), pp. 417-26]. In a later article ["Industrial Classes in the United States," *Journal of the American Statistical Association*, vol. 18 (December, 1922), pp. 503-506] he brought the study through 1920; and a third article, by Mr. Sogge ["Industrial Classes in the United States in 1930," *Journal of the American Statistical Association*, vol. 28 (June, 1933), pp. 199-203], carries the study through 1930. This table is taken from pp. 199 and 201 of this third article, and of course includes the data presented in the two earlier ones.

Changes in Economic Status.—The criteria of industrialization set forth in the preceding pages suggest that a larger proportion of the popula-

tion in the industrialized countries has come to occupy the status of wage earners and salaried workers. A detailed examination of the evidence upon this question is, however, now in order. How many of the gainfully employed are wage earners, how many proprietors, how many self-employed? Has the middle class been disappearing and the proletariat increasing?

Census data are not classified so as to provide a basis for wholly accurate estimates, but the general proportions and trends can be set forth. In Tables 16 and 17, the first of which incorporates the results of the study by Professor A. H. Hansen and Mr. T. M. Sogge of the census data for the sixty-year period 1870–1930 and the second those of Professor Leo Wolman's similar study for the three census years 1910, 1920, and 1930, the more important changes in the economic status of the American gainfully employed population are indicated.

TABLE 17.—WORKING POPULATION OF THE UNITED STATES, 1910, 1920, 1930[1]

Economic group	Total and percentage distribution					
	1910		1920		1930	
	Number	Per cent	Number	Per cent	Number	Per cent
Professional workers	1,613,755	4 6	2,000,840	5 1	2,855,973	6.1
Proprietors, managers, and officials, independent, salaried, and commission workers	9,334,821	26 9	10,121,888	25 6	11,096,269	23.5
Employees	23,809,904	68.5	27,359,660	69 3	33,217,886	70 4
Total	34,758,480	100.0	39,482,388	100.0	47,170,128	100.0

[1] Leo Wolman, *Ebb and Flow in Trade Unionism* (1936), p. 113. Professor Wolman's totals for the gainfully employed differ from those of the United States Census because he did not include unpaid family workers on the farms. These amounted to 3,310,534 in 1910; 1,850,119 in 1920; and 1,659,792 in 1930.

The trends and latter-day situations revealed by the data are, it goes without saying, of fundamental significance. They deserve comment and summarization.

1. The majority of those working for economic remuneration in the United States today are employees. Data presented in accordance with Professor Wolman's classifications (in Table 17) show that 68.5 per cent of the gainfully employed in 1910, 69.3 per cent in 1920, and 70.4 per cent in 1930 were wage earners or salaried persons. The four roughly comparable groups in Professor Hansen's classifications, in Table 16 (farm laborers, lower-salaried employees, servants, and industrial wage earners), constituted 64.4 per cent of all gainfully occupied in 1910, 65.1 per cent in 1920, and 65.6 per cent in 1930.

2. In the second place, the number of employees has been increasing as time has passed. It is true that when industrial wage earners, lower-salaried employees, farm laborers, and servants are grouped together as a "dependent" class, the increase over the long period covered by Table 16 has not been great. These four groups together constituted 60.0 per cent of all gainfully employed in 1870, as against 65.1 per cent in 1920 and only slightly more (65.6 per cent) in 1930. The indicated failure of the employed group to increase greatly during the sixty-year period 1870–1930 is, however, chiefly a consequence of the decline in the relative importance of farm laborers. In 1870 almost one gainfully employed person in every four (23.1 per cent) was a farm laborer, while in 1930 only one in every eleven (9.0 per cent) came within this class. This decline in the relative importance of farm laborers reflects, of course, the already noted decline in the importance of agriculture as a source of livelihood. It should be noted that if farm laborers are eliminated from the "dependent" group and only industrial wage earners, servants, and lower-salaried employees included, the combined group increased in relative importance from 36.9 per cent in 1870 to 55.1 per cent in 1920 and 56.6 per cent in 1930. The industrial wage earners, the group generally first coming to mind when "the proletariat" is mentioned, increased in relative importance from 26.6 per cent in 1870 to 42.4 per cent in 1920; in other words, the percentage increase in relative importance of the industrial wage earners was 59. Between 1920 and 1930, however, the industrial wage earners, for the first time during the sixty-year period, declined in relative importance. Even though an absolute increase of over 800,000 occurred, the relative importance of the group decreased during the postwar decade by about 11 per cent (from 42.4 to 37.9 per cent of the total).

3. The increase in the number of employees creates a presumption that the "independent classes" have declined in relative importance, but the presumption needs be tested by a scrutiny of the figures for the groups ordinarily included within this category. If proprietors and officials and farmers are grouped together, some decline is to be noted, these groups having included 28.6 per cent of the gainfully occupied in 1870, 23.1 per cent in 1920, and 21.1 per cent in 1930. If, however, the professional workers are added (as there is some justification for doing, since many professional people are self-employed, and in point of social outlook and self-conceived economic interest they are likely to identify themselves with the independent and proprietory classes), the decline in relative importance is seen to be only slight: from 31.9 per cent in 1870 to 29.7 per cent in 1920 and 29.0 per cent in 1930. It is of extreme significance, also, that both proprietors and officials and professional persons increased at a more rapid rate than did the industrial wage earners. In 1930 the relative importance of the industrial wage earners was 42 per cent greater

than in 1870,[1] while that of the proprietors and officials was 89 per cent,[2] and that of the professional workers 139 per cent[3] greater. Industrial wage earners and lower-salaried employees have become a larger part of the nation's remuneratively occupied population, but so have proprietors and officials. The explanation of the increase in both classes lies, of course, in the already alluded to decline in the importance of agriculture. With this decline and the rise of industry and commerce, a larger part of the population has been released for nonagricultural places as both employees and proprietors and officials.

4. Changes in the relative importance of the lower-salaried group deserve special comment. This group, it will be noted, has increased most rapidly of all, the index number of the trend in its relative importance being higher each census year after 1870 than that for any other group. In 1870 only one gainfully employed person in every forty (2.5 per cent) was a lower-salaried worker, while in 1930 about one in every seven (14.6 per cent) came within this class. Or, during the sixty years the relative importance of this group increased 484 per cent, or more than twice that of any other group. A comparison of the 1900 and 1930 figures shows that during the first three decades of the twentieth century the ratio of the lower-salaried to total gainful workers increased about 217 per cent. Attention should also be called to the fact that during the 1920's the increase in both absolute numbers and relative importance of the lower salaried group became accelerated. In absolute figures, there was an increase, according to the data in Table 16, of 3,131,508, as compared with an absolute increase of only 864,568 in the number of industrial wage earners. Or, while the industrial wage earners were declining in relative importance, there was an increase of 52 per cent in the relative importance of the lower-salaried class. Phrased still differently, of the 484 per cent increase in the relative importance of the group during the sixty-year period, exactly 200 per cent took place during the ten years 1920–1930.[4] The great increase in this group reflects, of course, the increasing importance of trade in our economy and the mechanization of industry, with its attendant enlargement of the demand for clerks and petty overseers. In a number of ways, these lower-salaried workers, increasing so rapidly of late, constitute a rather special problem. On the whole not a well-paid group, they have nevertheless been notoriously

[1] That is, this group increased from 26.6 to 37.9 per cent of the total.

[2] That is, the group increased from 4.6 to 8.7 per cent of the total.

[3] That is, the group increased from 3.3 to 7.9 per cent of the total.

[4] It may be noted in passing that Professor Wolman's study, which embodied a somewhat different breakdown of the census data, showed the same acceleration of this trend during the 1920's. According to his estimates (*op. cit.*, p. 113), the "clerical and commercial service" employees increased during these years from 4,036,685, to 6,753,332. In other words, 2,716,637 of the 5,758,226 increase in all employees, or almost half, represented an increase in those engaged in clerical and commercial service.

unorganizable; a group who evaluate comfort highly, they have been extremely susceptible to employer "welfare" drives. Ordinarily they are the workers who suffer most during rapid upswings of prices, since their salaries are a more sluggish price than the wages of manualists.

5. Brief comment upon changes in the relative importance of servants may be made. In 1920 this group was less than half as important, relative to all gainful workers, as it had been half a century earlier. This decline reflected changes in the mode of life of the American people, especially the commercialization of many goods and services formerly made or provided within the home. Between 1920 and 1930, however, the per cent that servants constituted of all remuneratively employed increased from 3.1 to 4.1; *i.e.*, the ratio of servants to all gainfully occupied increased by 32 per cent. Nevertheless, servants in 1930 had only 53 per cent of their 1870 relative importance.

6. It is desirable, also, to group the different classes listed in Table 16 in such a manner as to portray changes in relative importance of the "urban upper and middle" class as compared with the "urban workers." For this purpose, the proprietors and officials, the professional persons, and the lower-salaried group may be designated by the former term, and servants and industrial wage earners by the latter.[1] Both groups have attained greater relative importance, as agriculture has become less important, but the "upper and middle" urban group has increased at a much more rapid rate than has the urban working class. In 1870 the urban upper and middle class, as here conceived, constituted 10.4 per cent of all gainful workers; in 1920 the percentage was 23.8, and in 1930 it was 31.2. Industrial wage earners and servants combined, or the "urban workers," increased from 34.4 per cent of the total in 1870 to 45.5 per cent in 1920, but then declined to 42.0 per cent in 1930.

7. Still another significant basis of classification is between manualists, those engaged primarily in physical labor, and "brain" workers. In a rough grouping, farm laborers, farmers, industrial wage earners, and servants may be regarded as "manual" workers, and professional people, lower-salaried persons, and proprietors and officials as "brain" workers.[2] The significant fact is that the ratio of brain workers to manualists has steadily increased. In 1870 manualists constituted more than four-fifths (81.5 per cent) of all gainful workers and "brain" workers only about one-tenth (10.4 per cent), while in 1930 less than two-thirds (63.4 per cent) came within the former class, and almost one-third (31.2 per cent) in the latter.[3] All three groups included as brain workers have increased in relative importance since 1870, but the industrial wage earners have been the only one of the four grouped as "manualists"

[1] *Cf.* T. M. Sogge, *op. cit.*, pp. 200–201.

[2] *Cf. ibid.*, p. 201.

[3] The proportion of gainful workers in each of these two groups in 1870 and for each

whose relative importance today is greater than it was toward the end of the third quarter of the nineteenth century. Between 1920 and 1930, owing in part to technological developments, the ratio of industrial wage earners to all gainful workers also declined, this decline contributing another factor making for a decrease in the proportion of manual workers. The proportion of servants increased during the 1920's, as has already been said, but this increase was insufficient to offset the proportionate decrease of industrial wage earners, farmers, and farm laborers.

8. Finally, the various economic classes may be so grouped as to reveal the proportion engaged in producing material goods and those rendering services.[1] Farmers, farm laborers, and industrial wage earners may be regarded as being chiefly "material goods workers," and the professional, lower-salaried, and servants as "service-rendering workers." During the period since 1870 the latter group has steadily increased in relative importance, and the former has declined, and this tendency was especially marked during the 1920's, consequent upon both the decrease in the proportion of gainful workers listed as industrial wage earners and the increase in the proportion of lower-salaried workers. In 1870 almost three in every four gainfully employed persons (73.7 per cent) were engaged in turning out material goods, and less than one in every seven (13.6 per cent) came within the service-rendering class. Sixty years later less than three-fifths (59.3 per cent) came within the former class, and more than one-fourth (26.6 per cent) were service-rendering workers.[2]

census year since 1900, as given by Mr. Sogge (*ibid.*), has been as follows:

Year	Manual workers	Brain workers
1870	81 5	10 4
1900	75 3	16 2
1910	74 7	19 2
1920	71 0	23 8
1930	63 4	31 2

The fact the percentages do not total 100 is, of course, a consequence of the fact that not all workers listed by the census as gainfully employed could be classified. As is shown by Table 16, the unclassifiable workers constituted 8.1 per cent of the total in 1870 and 5.4 per cent in 1930.

[1] *Cf. ibid.*, pp. 201–202.

[2] The proportion of gainful workers in each of these two groups in 1870 and for each census year since 1900 has been as follows (*ibid.*, p. 202):

Year	Material goods workers	Service-rendering workers
1870	73 7	13 6
1900	70 3	15 0
1910	70 6	15 8
1920	67 9	19 3
1930	59 3	26.6

With the increase in physical productivity per worker and the increasing importance of trade, a larger proportion of the working force has been released from the making of material goods and has found employment in the rendering of services.

In England, the wage-earning class constitutes a somewhat larger part of the total working population than in the United States, and in Germany wage earners and salaried persons together make up more than two-thirds of all the gainfully occupied. Professor Bowley, after an analysis of the 1911 census figures, concluded that 76.9 per cent of all gainfully employed in the United Kingdom were wage earners, 7.8 per cent salaried persons, 4.5 per cent independent workers, and 4.3 per cent employers.[1] An analysis of the last (1931) census figures shows that 86.8 per cent of the persons having employment when the census was taken were "operatives," 6.4 per cent managers, and 6.8 per cent working on their own account.[2] In English manufacturing, 89.9 per cent were operatives. The German census of 1933 showed 16.4 per cent to be owners and managers, 17.1 per cent salaried employees, 50.0 per cent wage earners, and 16.5 per cent workers assisting members of their families.[3]

Increase in the National Wealth and National Income.—Material progress, as the term most commonly is used, means an increase in the stock of goods possessed by a people, *i.e.*, in the national wealth, and an enlargement of the flow of goods and services resulting from man's utilization of this wealth. In the pages of this chapter immediately following, some of the problems centering around the general matter of the sharing of the workers and other classes in the national income are stated, and methods of attacking these problems are suggested, and in later chapters the wealth and income problems of the people are examined in considerable detail. For the present it suffices, then, merely to make

[1] A. L. Bowley, *Division of the Product of Industry*, p. 194.

[2] From "Statistics of Occupied Population in Different Countries," *International Labour Review*, vol. 32 (1935), p. 852. This percentage distribution is merely that of persons having work when the census was taken, and does not include the 2,524,514 persons in all economic classes who were out of work at that time. The figures do not make possible a breakdown showing in a satisfactory manner the number, and the percentage of the total, of proprietors. However, some of the managers and some of those working on their own account came within this class. The absolute figures for all lines of enterprise (including only persons fourteen years of age and over) were as follows: managerial, 1,180,519; operative, 16,077,172; working on own account, 1,272,418; out of work, 2,524,514.

[3] *Ibid.*, p. 412. The absolute figures for Germany in 1933 were:

Class	Number
Owners and managers	5,303,257
Salaried employees	5,516,974
Wage earners	16,164,156
Assisting family members	5,312,109
Total	32,296,496

some mention of the increase in the national wealth of the American people and—for the most part and over long periods—of the people of other industrially advanced nations, and of the extent to which the quantum of goods and services available for the average member of the population has increased.

Census estimates of the national wealth are subject to numerous qualifications, some of which are discussed later, and to a very considerable margin of error; and sometimes the valuations they show are reflections of the fact of increasing scarcity as against former abundance. In a general way, however, they serve as one criterion of the economic progress of the people. As is indicated in data set forth in tabular form in a later chapter,[1] the total wealth of the American people is estimated to have increased from $7,136,000,000 in 1850 to $88,517,000,000 in 1900, $186,300,000,000 in 1912, and $329,760,000,000 in 1929, and the per capita wealth from $308 in 1850 to $1,665 in 1900, $1,965 in 1912, and $2,677 in 1929. Allowances for changes in the purchasing power of the dollar must, of course, be made in our later analyses, but at this point it suffices to mention that prior to 1900 real national wealth increased more than national wealth expressed in terms of current dollars, since the price level in general was declining, and that in spite of the rise in prices between 1900 and the early 1920's, offsetting part of the apparent increase, real national wealth has increased substantially since the turn of the century. Likewise, per capita real income has expanded appreciably. Data summarized later[2] indicate that real realized income from all sources increased approximately 137 per cent during the three decades between 1900 and 1929, and on the per capita basis about 48 per cent. Estimates of the national income during earlier years indicate, if anything, a somewhat greater increase in per capita real income from decade to decade.[3] During the postwar years, the real income of some of the European countries has not increased as it has in the United States, but over a long period of time both national wealth and national income have become greater in the industrially advanced countries.[4]

[1] *Infra*, p. 262.

[2] *Infra*, pp. 139–141.

[3] Thus, Dr. W. I. King's estimates for the earlier years (*Wealth and Income of the People of the United States*, p. 129) show that the per capita real income in terms of dollars of constant (1890–1899 average) purchasing power increased as follows: 1850, 69; 1860, 82; 1870, 79; 1880, 111; 1890, 169; 1900, 232. These figures probably exaggerate somewhat the increase that occurred during the second half of the nineteenth century, owing to the fact that in the later years more goods were produced for the market, rather than for immediate consumption, and that the quantities of commodities were more nearly completely included in the later years.

[4] The British national income was estimated by R. D. Baxter (*National Income of the United Kingdom*, 1868, p. 62) at 814 millions sterling in 1867, by Sir Robert Giffin (*Economic Inquiries and Studies*, vol. 1, p. 62) at 1,200 for 1875, and by Bowley and Stamp at 2,250 millions for 1914. William C. Mallock (*The Nation as a Business Enterprise*, p. 30) has

Problems at Issue and Methods of Attack

A survey of institutional arrangements, long-run trends, and conditioning forces provides us with a little background; but this background must be supplemented with a word as to the problems with which we shall grapple in the chapters immediately following and the methods whereby they may be attacked.

The first six of these chapters are devoted to wages, incomes, and closely related problems. It is proper that our sequence and emphasis should be what they are. No topic in the field of social history is of more vital human consequence than that of "the condition of the people"; nothing is more important in determining the material status of the masses than the wages and incomes of workers of hand and brain; few indicia of the success or failure of any economic system, or of the likelihood of its permanence, are superior to that afforded by measurement of the trend of real remuneration for personal effort and of the adequacy of this remuneration to maintain decent livelihood. The purchasing power of the worker's money income determines, more than anything else, the standard of living of himself and his family, the extent to which he can have the comforts and some of the luxuries enjoyed by other classes, and his capacity intelligently and aggressively to go about improving his

estimated the per capita income of Great Britain in 1800 at £16, 14s., that of the United Kingdom in 1850 at £23, 6s., and that of the United Kingdom in 1888 at £39. Several estimates of the national income of the United Kingdom during the postwar years are available. Mr. Flux, president of the Royal Statistical Society, estimated by the production method (*i.e.*, value of goods and services produced) that the national income in 1924 was £3,975,000,000 [Harvey E. Fisk, "New Estimates of the National Income," *American Economic Review*, vol. 20 (March, 1930), p. 21]. The estimate of "disposable income" for the same year, as made by Sir Josiah Stamp and A. L. Bowley, aggregated £4,164,000,000 (*ibid.*). The League of Nations Economic Intelligence Service has estimated the size of the national income during the years of the depression to have been as follows: 1929, £4,843,000,000; 1932, £4,266,000,000; 1933, £4,364,000,000; 1934, £4,635,000,000 (from Economic Intelligence Service, League of Nations, *World Economic Survey*, Geneva, 1936, p. 105). Dr. Helfferich (Karl Helfferich, *Deutschlands Volkswohl*) has estimated that in 1919 the national income of Germany was approximately twice what it was in 1896, it having increased from more than 5.1 billions (in dollars) to 10.3 billions. (*Cf.* Sir Josiah Stamp, *Current Problems in Finance and Government* for an analysis and criticism of Dr. Helfferich's estimates). Mr. Fisk, estimating the national income of various countries upon the basis of information afforded by statisticians and others in these several countries, concluded (*op. cit.*, p. 23) that in 1925 the total national income of the German people was 50,000,000,000 marks, or in dollars 11,900,000,000—an increase of more than a billion and a half over Dr. Helfferich's estimate for 1919. The League of Nations Economic Intelligence Service has estimated the German national income in recent years to have been as follows (in reichsmarks): 1929, 76,098,000,000; 1932, 46,500,000,000; 1933, 47,500,000,000; 1934, 52,420,000,000. For estimates of the size of the national income, income per capita, and income in dollars per square mile in the various countries during the 1920's, see the above-mentioned article by Mr. Fisk, and for estimates during the depression years of the 1930's see the League of Nations study, *World Economic Survey*, referred to above. For compara-

material conditions. To the extent that the standard of living of the rank and file of the people is steadily and appreciably advancing, popular urge for changes in economic and political fundamentals tends to be feeble; when the real income of the people is diminishing, unrest and revolt spread throughout the land, and drastic changes in social arrangements are likely to result. Other problems connected with the material progress and present conditions of the workers are so inextricably interwoven with the subject of wages that this topic must necessarily be given priority in the present section of our study.

Some General Problems at Issue.—Let us raise several broad but very pertinent questions—questions that we shall do well to keep in mind as we thread our way through a considerable amount of detailed material. (1) Has the purchasing power of worker incomes increased or decreased as the years have passed? Have real wages advanced or declined, and how much? (2) How have the workers fared in comparison with other economic classes? As has already been pointed out, an enormous increase in the output of physical and intangible goods (over long periods, ignoring for the moment the curtailment of production during business depressions and in some of the European countries in consequence of postwar financial and economic conditions), combined with improvement in fabricating processes, has given us a real national income much greater, in relation to the size of the population, than was available for consumption or saving

sive purposes, the total (in dollars) and per capita estimated national income of various countries in the 1920's is here given (compiled from H. E. Fisk, *op. cit.*, pp. 23, 24, 25, and 26).

Nation	Year	National income (in dollars)	Per capita income (in dollars)
United States	1928	89,000,000,000	749
United Kingdom	1924	18,390,000,000	409
Germany	1925	11,900,000,000	190
France	1928	8,228,000,000	201
Italy	1927	4,724,000,000	115
Belgium	1928	1,351,000,000	171
Denmark	1927	935,000,000	267
Netherlands	1925	2,107,000,000	284
Norway	1927	703,000,000	251
Sweden	1924	1,591,000,000	265
Austria	1927	940,000,000	140
Czechoslovakia	1925	2,460,000,000	172
Hungary	1927	962,000,000	113
Yugoslavia	1924	1,414,000,000	109
Australia	1924	2,955,000,000	477
Canada	1927	5,500,000,000	579
India	1924	9,250,000,000	37
Union South Africa	1923	851,000,000	112
Japan	1925	5,500,000,000	36

as short a period of time as a generation ago. Have the workers received a "fair" share, or an "adequate" share, or a share "proportionate to their productive influence?" (3) The eternal *why* suggests itself. To what fundamental economic and social forces is the increase or decrease, as the case may be, in real wages attributable? Why have the workers fared as they have in relation to other economic classes? (4) Yet a summary of the trend of real wages tells us little concerning the decency of the living standards the mass of workers have been able to maintain. Even though real wages may have increased substantially, still further increases may be necessary before the great majority of those dependent upon them can live in a manner consistent with decency and self-respect. To what extent, then, have wages been, and to what extent are they, adequate to maintain for the workers socially desirable standards of living? What has been the extent of poverty and destitution, and what are the possibilities that these social plagues may be eradicated? (5) In the nature of broader generalizations growing out of the considerations directly relevant to the third question that has been raised, we may ask ourselves: What are the forces, in our system of quasicompetitive (or quasimonopolistic) capitalism, determining the share of the national income going to the workers in the form of wages? Does there appear to be reasonably close correspondence—as "orthodox" economic theory predicates that there should be—between the productive contribution of the several factors of production and their respective rewards? Does an analysis of the distributive process indicate that these forces are subject to any great degree of human guidance and control? Can guidance and control be exercised without drastic changes in the institutional arrangements of society? What can be done as a rather immediate matter to bring to those who need it most a greater quantum of the material things of life? Few, if any, questions are of more profound significance from the viewpoint of human welfare than the one just raised; not many are as fascinating in their theoretical and practical implications. (6) Neither labor conditions nor labor relations are immune to public opinion or to the expression of public opinion through the coercive action of the state; and more and more, as the glaring inequalities and insufficiencies resulting from capitalistic economy have impressed themselves upon the popular mind, or as particular analyses of periodic breakdowns in the functioning of the price system—such as the underconsumption notion—have gained currency, society has attempted to exercise conscious control over the matter of wages. In some industrialized countries, like the United States, the action—at least until very recently—has been timid, faltering, limited in scope, inhibited by the individualistic preconceptions of decades that have passed; in others, state regulation has been widespread. Certainly it behooves us to look into these attempts to exercise conscious control over wages, to evaluate

sympathetically yet critically the objectives underlying them, to consider whether they are likely in the long run to cause our price system to operate more effectively or even more imperfectly than it operates at present, to attempt appraisal of their successes and shortcomings, and to grapple to the extent we can with the problems that experience with them has demonstrated. While, for reasons of organizational facility, we shall not in the chapters immediately following always adhere to the sequence suggested in this paragraph, all of these questions should constantly be kept in mind.

But to raise questions as broad as these is, after all, only to suggest other, and more detailed, questions and to impose upon ourselves the preliminary task of mastering a certain amount of technique to be applied in measuring the material progress and present conditions of the working classes. Capacity to measure and express quantitatively the social phenomena with which we shall deal might, indeed, be said to be the *sine qua non* of any survey of labor conditions that departs from the realm of vague and generalized impression and attempts to substitute therefor, to as great an extent as is possible, definiteness and reality. "When you can measure what you are speaking about and express it in numbers," said Lord Kelvin, "you know something about it; but when you cannot measure it, when you cannot express it in numbers, your knowledge is of a meager and unsatisfactory kind." It will be distinctly worth our while, therefore, to turn our attention briefly to an enumeration of some of the detailed questions implicit in the general queries just raised, to the methods whereby answers may be reached and expressed quantitatively, and to some of the broader issues connected with comparisons of the progress of the workers and of other classes that may be made and standards of well-being that may be set up.

The Measurement of Progress with Respect to Wages.—Measurement of the trend of real wages involves, obviously, the double relationship of relative changes in the amount of money which the workers have received for their work as compared with changes in the cost of living for working-class families. It therefore becomes necessary, first, to determine what expression of wages or earnings—hourly rates, weekly earnings, or some other expression—shall be adopted; second, to show the general change or difference by the construction of index numbers; and, third, to compare the index numbers of money wages for the various years with a reliable index of the cost of living, thereby determining the extent of progress or retrogression with respect to real wages.

No one unit for the measurement of wages and earnings is entirely satisfactory, and the weight to be attached to the advantages and disadvantages of the several possibilities depends, for the most part, upon the objectives of the particular study or investigator. Hourly rates and piece rates have the advantage of showing increase or decrease in

compensation for a given unit of time or output respectively; average annual earnings are more illuminating with respect to the movement of the standard of living. For the most part popular discussion of wage problems has failed to differentiate clearly between wage rates—the amount of money paid to workers for a given unit of time and to piece workers for a given unit of output—and actual earnings, the amount of money received by a worker over a period of time.[1] The matter of the unit adopted is of real importance, however, and it will facilitate our discussion in the chapters that follow if we define and distinguish at this point some seven units that may be used in measuring wages and earnings:[2]

1. *Hourly wages*, or the wage rates paid for an hour's work. The advantages and disadvantages of this unit are fairly apparent. Changes over a period of time are the best indicator of whether the workers are receiving more or less compensation for a given unit of work; on the other hand, changes in the number of hours constituting the basic week, as well as part-time employment or unemployment, may invalidate to no small degree this unit as an indicator of the trend of the standard of living.

2. *Hourly earnings*, or the total earnings during a given week divided by the number of hours actually worked. The advantage of this unit over the preceding one is that part-time employment during the week, extra compensation for overtime work, and any bonuses or special stipends are included. Changes in the number of hours constituting the standard or normal week, in so far as they affect the time actually worked or the rate of compensation for time in excess of the normal, are also reflected in hourly earnings. Unemployment and layoffs of more than a week's duration—factors which vitally affect annual incomes—are not allowed for by this category.

3. *Full-time weekly wages*, or the hourly rate times the number of hours constituting the normal week—*i.e.*, the amount one would earn when working the established number of hours at the given hourly wage rate. Its chief virtue, as compared with hourly wages, is that the effect of changes in the standard week are reflected; it does not allow for unemployment, part-time employment, or overtime work.

4. *Full-time weekly earnings*, or hourly earnings, as explained above, multiplied by the established number of hours per week. The merits of

[1] And which are, of course, wage rates multiplied, in the case of time workers, by the amount of time worked, and in the case of piece workers by the units produced in the given period of time. Any bonuses that may be paid should be added to the earnings of either class of workers.

[2] *Cf.* P. H. Douglas, *Real Wages in the United States* (Houghton Mifflin Company, Boston, 1930), pp. 6–15. The authors' classification is an adaptation of that of Professor Douglas.

this unit are, of course, the inclusion of bonuses, special stipends, and overtime pay, and the reflection upon earnings of changes in the number of hours constituting the normal week.

5. *Average actual weekly earnings of employed workers*, or the amount of money actually received for a week's work. The advantage of this unit over the preceding one is that it abandons the invalidating assumption that workers are employed the normal number of hours, and that it makes allowances for overtime, part-time employment, and the effect upon earnings of changes in the number of hours constituting the standard week. Unemployment and "unemployment within employment" of more than a week's duration are not allowed for. As a criterion of improvement or retrogression in the standard of living, this unit is superior to any of the four already described; its shortcoming as a measurement of material progress is that increases in weekly earnings may result from longer hours, overtime work, and, in the case of piece workers, speeding—in other words, from putting more labor units at the disposal of the employer rather than from increased compensation per labor unit.

6. *Average annual earnings of employed workers*, or the total amount actually paid out in wages during a year divided by the average number of workers on the payroll. While this unit, like the others, does not take account of unemployment, it is in some ways more satisfactory than any of the five that have been discussed. Overtime, short time, and absenteeism are taken into account; and since temporary layoffs, as well as absenteeism, are likely to be of considerably more than a week's duration, average annual earnings is likely to be a better expression of wages than average weekly earnings. Wherever possible, in the chapter immediately following, we shall therefore discuss wage trends in terms of this unit, rather than in terms of hourly rates, full-time weekly wages, or the other units that have been suggested.[1]

7. *Average annual earnings of active members of the working class.* This unit attempts to take into account the amount of unemployment among members of the working class, as none of the preceding units does. Since unemployment affects so vitally the well-being of the workers, and since its omission results in both an overstatement of actual earnings and, in view of the great fluctuation in the amount of lost time, an imperfect portrayal of the relative changes from year to year, this unit is, in some

[1] The use of payroll as the denominator in the derivation of average annual earnings is subject to the objection that payroll figures are always somewhat padded, owing to the fact that they include the names of workers who have in fact severed their connection with the firm, although their names are still carried on the payroll, and money may be owed to them. The inclusion of such workers tends to increase the denominator, and therefore to reduce the average earnings shown per employed worker. This objection would not be a serious one were the amount of payroll "padding" approximately the same at all times, but in fact it varies greatly both seasonally and over periods of years.

ways, the most satisfactory of all those described. Practical considerations connected with the state of unemployment statistics in the United States may dictate that our survey of the trend of real wages be in terms of average annual earnings per employed person, with separate consideration of the influence of unemployment upon earnings; but where possible it will be desirable to utilize data which take account of unemployment. The method of computing this unit is, obviously, to multiply the average annual earnings per employed person by the percentage of those seeking employment who are, on the average, employed.[1]

Decision as to the unit to be used for expression of wages from year to year is, however, only the first step in ascertaining the trend of real wages. The mass of data relative to wages or earnings in the many occupations and industries must be expressed statistically in such a manner that the general trend may be clearly indicated, and comparison with a cost of living index must then be made in order to allow for the fact that the same money wage has vastly different purchasing power at different times.

A detailed discussion of the construction of index numbers lies beyond the scope of the present volume, and a few elementary illustrations of the process must suffice.[2] An index number may be defined as a number designed to express the relative change or difference of a *group* of related variables, whether this group of related variables be the money wage of various classes of workers, the wholesale or retail prices of a large number of commodities, the physical production of various goods, or something else. Where the several constituent series to be incorporated into the index vary in importance, they must be weighted according to the best criterion of their relative importance, in order that each may have its proper influence upon the final result. The necessity for reducing absolute figures to relatives should be apparent. It would be futile to attempt to obtain any very accurate picture of the general trend of, say, wage rates in a group of industries by a tabular presentation of the actual rates over the period of years with which one is concerned. By the use of index numbers, however, wages for some given year (or other period) can be taken as 100, and those for the preceding and subsequent years

[1] For example, we may assume that 105 persons offer themselves for work, that average employment throughout the year is 100, and that average annual earnings per employed person are $1,050. The total amount paid out in wages during the year is therefore $105,000. But the average amount received by each of the 105 members of the working class is 4.76 per cent less, or $1,000 (*i.e.*, $105,000 ÷ 105).

[2] Readers not familiar with the construction and use of index numbers will do well to consult one of the standard works on statistical analysis. Among those to which reference may be made are Irving Fisher, *The Making of Index Numbers*, E. E. Day, *Statistical Analysis*, R. E. Chaddock, *Principles and Methods of Statistics*, Horace Secrist, *Introduction to Statistical Methods*, W. I. King, *Elements of Statistical Method*, and G. U. Yule, *Introduction to Theory of Statistics*.

presented according to the extent to which they vary from those of the base year.[1]

Measurement of the increase or decrease in the purchasing power of money wages or earnings is, however, dependent upon the double relationship of relative changes in the amount of money received by the workers as compared with changes in the cost of living. The construction of index numbers of money wages or earnings is, therefore, only a preliminary step in ascertaining the trend of real wages, and a little consideration should be given at this point to the more important cost of

[1] A concrete illustration, first, of the "simple" or "unweighted" index number and, then, of the process of weighting may make the general nature of index numbers clearer. In the following table let us assume that columns *A*, *B*, and *C* give the average daily rates in industries 1, 2, and 3 for 1934, 1935, 1936, and 1937. The relative wage rates for these three industries are shown in columns *D*, *E*, and *F*—*i.e.*, the extent to which they varied in different years from the rates of the base year, 1934. The question is, however: what has been the change in the wage rates in the group of three industries *as a whole*? The index shown in column *G* furnishes the answer, showing that for the group as a whole wage rates were 12 per cent higher in 1935, 15 per cent higher in 1936, and 18 per cent higher in 1937 than in 1933.

Year	1 *A*	2 *B*	3 *C*	1 *D*	2 *E*	3 *F*	*G*
1934	$5 00	$4 00	$5 00	100	100	100	100
1935	$5 25	$5 00	$5 35	105	125	107	112
1936	$5 10	$5 25	$5 60	102	131	112	115
1937	$5 50	$5 00	$5 90	110	125	118	118

The changes in no one of the three industries followed exactly this course. What we have done has been to express in columns *D*, *E*, and *F* the relative deviation of wage rates for each of the years from those of the base year (1934), and then we have taken a simple arithmetic average of these relatives to get the trend for the group of industries as a whole. In averaging the relatives in this illustration, however, we have used only one of the several types of averages to get the general index of all groups in column *G*. The arithmetic mean, which has been used, is simply the sum of the items divided by their number. It is the average that the ordinary man usually thinks of when the word "average" is mentioned. Other averages in use are the median, the mode, the geometric mean, and the harmonic mean. The median is the middle item when the items are arranged according to their size. It takes account of position, but not of the size of extreme items. The mode is the most frequently occurring item in an array of data. The geometric mean is found by taking the product of the items and then extracting the root which corresponds to the number of items. In averaging the index numbers for 1935, for example, we would have $\sqrt[3]{105 \times 125 \times 107}$. The geometric mean is always lower than the arithmetic mean because of its greater weight to low numbers. It is comparatively easy to calculate by means of logarithms but is not generally understood. The harmonic mean may be defined as the reciprocal of the arithmetic mean of the reciprocals of the numbers. Using the relatives for the same year (1935), we would have the reciprocal of $\frac{\frac{1}{105} + \frac{1}{125} + \frac{1}{107}}{3}$. This average is not easily calculated and is not generally understood. The illustration as carried to this point, however, has involved only the "simple" or "unweighted" average

living indexes issued in England and the United States, to the process of constructing them, and to the limitations and error probabilities inherent in the use of this statistical device.[1]

A number of indexes of the cost of living are issued regularly in the United States, the most frequently used being those of the United States Bureau of Labor Statistics, the National Industrial Conference Board, and the Massachusetts Commission on the Necessaries of Life. A few words as to the history and the process of constructing the first-named of these may make the nature of cost of living indexes clearer.

Prior to the entrance of the United States into the World War, only scattering attempts—chiefly those of private investigators—had been made to work out accurate cost of living indexes. For the most part, attempts to measure the trend of real wages were based upon wholesale price indexes, upon retail food prices, or upon estimates of the prices of articles entering into workingmen's budgets based upon the most probable deviation of retail prices from wholesale.[2] With the adoption of

(or, more accurately, the relatives have been equally weighted). It is possible, however, that this gives a very erroneous impression of the general trend of wage rates because of the differences in the number of workers in the different industries. If industries 1, 2, and 3 employ substantially the same number of workers, then no great margin of error is to be expected from using the simple or unweighted method. But assume that industry 1 employs 10,000 workers; industry 2, 1,000; and industry 3, only 500. In this case we clearly are not justified in attaching the same importance to the movement of wages in industry 3 as in industry 1, because the latter employs twenty times the number of wage earners employed by the former. The several constituent series must therefore be weighted. The basis of weighting depends, of course, upon the kind of data with which one is dealing. In our hypothetical case we are trying to get the general trend of wage rates, and in weighting we should attach twenty times the importance to the relatives in column *D* than we do to those in column *F* when it comes to showing, in column *G*, the changes in wage rates for the group of industries as a whole. If, on the other hand, we were measuring changes as a whole in retail prices of those articles commonly consumed by persons having incomes of from $1,800 to $2,500 a year, we probably should weight in accordance with the relative importance of the different commodities in the consumption of such persons.

[1] Possibly it is superfluous to illustrate the process of reducing indexes of money wages to a real basis by the use of cost of living data. Let us assume, however, that money wages or earnings were 200 per cent higher in 1933 than in 1913, while the cost of living was only 100 per cent higher. Taking both wages and the cost of living in 1913 as 100, the two corresponding relatives are 300 and 200. By dividing the former by the latter, we obtain a relative of 150, indicating that the money wages of the workers would purchase 50 per cent more commodities in 1933 than in 1913. Formerly students of the trend of real wages generally arrived at their conclusions by comparing weighted indexes of money wages with indexes of wholesale prices. This procedure, while it was necessary because of the paucity of statistics on retail prices, was subject to two valid criticisms: (*a*) indexes of the trend of wholesale prices include many commodities not actually purchased by wage earners, and (*b*) changes in wholesale prices are not always the same as those in the retail prices which the worker must pay for the same commodities, the latter lagging behind the former in both the downswing and the upswing of the general price cycle.

[2] The Federal Department of Labor has collected data on retail food prices since 1890, its index including thirty commodities from 1890 to 1907, fifteen from 1907 to 1913, and

the war policy of adjusting wages in accordance with the increase in the cost of living, however, the precise determination of this increase became a matter of more immediate practical importance. The United States Bureau of Labor Statistics was accordingly commissioned to collect from a number of sources in each locality price quotations for articles entering into working-class budgets, and to study the actual budgets of workingmen's families in order to determine the relative importance of the various commodities and thus to secure the proper weight for each item. In carrying out the first of these instructions, the Bureau obtained, for the years 1914 to 1918, inclusive, quotations on the prices of food, clothing items, articles of house furnishings, fuel and light, and housing (a "miscellaneous" category being added later). The number of cities from which data were obtained was later increased to thirty-two, and the base year was changed from 1914 to 1913.[1] Beginning in 1920 the Bureau issued an index number of the cost of living for these localities taken as a whole, its method being to take an average of the increases in each group of commodities in the different cities and then to multiply each of the averages by the relative proportion spent upon each group of commodities by wage-earning families, as revealed by a field investigation in 1918. Originally a makeshift method of weighting the commodities within each of the major groups, as well as the major groups entering into the final index number, was used,[2] but later weights in accordance with actual expenditure habits were substituted. In 1934 and 1935 the Bureau conducted an extensive field investigation for the purpose of determining changes in consumption habits since 1918, and on the basis of these changes and certain refinements in method, adjusted the weighting of the various items. The index of the Bureau of Labor Statistics

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twenty-two after 1913. For a discussion of this index and its shortcomings, see P. H. Douglas, *Real Wages in the United States*, pp. 19–38.

[1] The method of changing the base year to 1913 was to take the changes in the retail price of food articles and the wholesale prices of clothing, fuel, house furnishings, and the other articles entering into the consumption of working-class families. In 1919 and 1920 data were collected for each of the thirty-two cities, and in 1921 statistics were gathered three times. Between 1922 and 1924 the investigations were made quarterly, and since 1924 they have been semiannual. The food index for the country as a whole is, in fact, secured from more cities than those covered by the special cost of living investigations, the number now being fifty-one. Prices of food commodities and of fuel and light are secured by means of questionnaires, the others by field agents.

[2] The system of weighting used prior to 1920, when the results of the budgetary study of 1918 were available for application, was substantially as follows: the indexes for each of the food commodities were weighted by the relative importance of each item in the food group, as disclosed by an investigation made in 1901 by the Bureau of Labor; indexes for the items in the other main divisions were not weighted, a simple average being used for each group; the indexes for each of the major divisions as a whole were weighted in accordance with the relative proportion of family income spent in the particular locality in 1918 for each of these groups, to secure an index for the city.

has been criticized upon the ground that it is based upon the average fluctuation in prices of the main groups of commodities for the country as a whole, rather than upon the average for the cities.[1]

Three other cost-of-living indexes may be mentioned briefly for illustrative purposes: those of the National Industrial Conference Board, the Massachusetts Commission on the Necessaries of Life, and Professor P. H. Douglas. The Conference Board, an employer's organization, collects its data from a wider area than does the Bureau of Labor Statistics,[2] but utilizes questionnaires rather than field agents, and classifies commodities in a somewhat less rigid manner.[3] In general, the Board's group indexes are based upon fewer commodities than are those of the Bureau, and the weighting method is more dependent upon the 1901 investigation of the Bureau of Labor than upon more recent investigations.[4] The Massachusetts Commission on the Necessaries of Life, which has carried its cost of living index back to 1910, gathers material for the prices of food and clothing throughout the state by means of questionnaires, estimates the movement of rents from complaints lodged with it and from special studies,[5] and uses substantially the Conference Board figures for sundries. The weights given the main groups of expenditure are identical with those of the National Industrial Conference Board, although somewhat different systems of weighting are used within the groups.[6] The Bureau of Labor Statistics index indicated a somewhat greater increase in the cost of living throughout the War period and during the postwar years up to the beginning of the decline in prices in 1929, but the difference has on the whole not been great.[7]

[1] For the reasons why this may be regarded as a shortcoming, and for the results obtained when Professor P. H. Douglas attempted to modify the Bureau's method, see pp. 51–52; see also Professor Douglas' *Real Wages in the United States*, pp. 53–69.

[2] The Board now collects statistics on rents from about 175 cities with a population of approximately 36,000,000; on clothing from 172 firms in eighty cities; and on fuel from 169 dealers in sixty-five cities. It uses the statistics of retail food prices collected by the Bureau of Labor Statistics.

[3] *Cf.* P. H. Douglas, *op. cit.*, p. 47.

[4] The weights for the items in the sundries group are primarily drawn from the 1901 investigation of the Bureau of Labor, while those for clothing are revised estimates by the Board of the budgets of More, Chapin, Kennedy, Streightoff, Cotton, Little, and others, most of which are mentioned later in this volume. The weightings assigned to the various groups by the Conference Board are the average proportions spent upon these items by families covered in the 1901 study of the Bureau of Labor, the 1917 surveys by the Bureau of Labor Statistics of working-class families in New York and Philadelphia, and three minor surveys.

[5] This Commission is an administrative as well as a research body, part of its duty being to adjust complaints about rents and housing which are brought to it.

[6] Within the groups, the weighting for food is in accordance with the 1901 proportions, while the items in the clothing, fuel and light, and sundries groups are weighted according to the judgment of the Commission.

[7] *Cf.* P. H. Douglas, *op. cit.*, pp. 50–53. The Bureau of Labor Statistics index also indicated a slightly greater decline in the cost of living after 1929 than did the other two.

Inasmuch as we shall rely to a very considerable extent, in the chapter immediately following, upon the cost of living and real wage estimates of Professor Paul H. Douglas, the methods of this student in attempting to determine the trend of living costs since 1890 should be described in a little detail. Professor Douglas' estimates for the period from 1890 to 1914 are based upon such retail food prices as were collected by the Bureau of Labor, upon estimates of the most probable deviation of retail food prices from wholesale for those food commodities for which retail price records were not available, and upon estimates of the same deviation for commodities in other than the food group.[1] Each group has been weighted by its relative importance in total family expenditure, as revealed by the 1901 investigation of the Bureau of Labor.[2] For the period since 1914, Professor Douglas has worked out a modification of the Bureau of Labor Statistics index. Instead of taking the average of the indexes in the various cities for each major group of commodities, and then combining them into an index of the total cost of living by weighting according to their relative importance in the budgets studied for the country as a whole, he has secured the index for the country as a whole by taking the average of the indexes of the total cost of living in each of thirty-three cities, the index for each city being weighted according to the population of the place.[3] The advantage of this method is, obviously,

[1] Except fuel and light, for which retail price data were collected after 1907. The method of estimating the most probable deviation of retail prices from wholesale prices for the clothing, fuel and light (between 1890 and 1907), furniture, and tobacco and spirits groups was to assume that these deviations were the same as those for twenty-seven food commodities for which both wholesale and retail prices were available, this percentage deviation in each of the years being applied to the wholesale indexes of commodities in the various groups. Professor Douglas believed that the assumption that retail prices of these commodities followed wholesale in the same ratio as did those of food and fuel and light to be approximately true of clothing, although somewhat less so of the other groups. Since it was impossible to obtain a close approximation of rents, these were omitted entirely from the cost of living index for 1890–1914. Professor Douglas has kindly called the attention of the authors to the fact that the exclusion of rents probably gives the index a slight upward bias for the period 1890–1914. A small Massachusetts study of rents indicates that rents did not rise as rapidly during this period as did prices as a whole.

[2] *Eighteenth Annual Report of the United States Commissioner of Labor* (1903), pp. 569 and 489–511. The percentage of family expenditure for each of the main commodity groups, as revealed by this investigation, was as follows: food, 43.1; clothing, 13.0; fuel and light, 5.7; furniture and furnishings, 3.4; liquor and tobacco, 3.0. The items therefore included only 68 per cent of all expenditures for workingmen's families in 1901.

[3] Professor Douglas, upon reading the above, has called the attention of the authors to the fact that his cost of living index may overweight the importance of the larger cities, and that in a revision of the study he would divide the cities into perhaps four classes: those under 100,000, those between 100,000 and 500,000, those between 500,000 and 1,000,000 and those over 1,000,000. Within each class the city indexes would be weighted according to the relative population of the cities covered, and as between these classes of cities the index for each class would be weighted by the total population of all the cities in the given class.

that it avoids the erroneous assumption that relative expenditure upon each of the major groups of commodities is the same in all cities. By then splicing, or combining, the two indexes, a final series was derived, portraying the trend of living costs for working-class families in the United States since 1890.[1]

It probably goes without saying that practical difficulties always inhere in the use of cost of living index numbers and of real earnings indexes based upon them. The majority are compiled and weighted upon the basis of the necessities and consumption habits of families—generally of "standard" families of five members each, for reasons discussed later—but the majority of families do not conform to the assumed standard, and individuals budget their incomes differently from families.[2] Also, the use of index numbers always brings opportunity for erroneous portrayal of progress or retrogression in that price changes affect the consumption of those articles whose prices have changed most. If the change in consumption brings no loss in physical or psychic well-being, however, a certain amount of the rise is counteracted. In the third place, changes in the utility-yielding capacity of the commodities whose prices enter into cost of living index numbers, consequent upon changes in both the material and immaterial conditions of living and in the form of economic goods, make cost of living indexes far from perfect measurements. Ideally, some measure of the cost of such necessities as thermal heat units, vitamins and calories, cubic feet of housing, and of the satisfactions rendered by goods other than those necessary for bare subsistence, rather than of the cost of the goods which from time to time embody these qualities, might be sought; but practically we are virtually forced to take the cost of commodities, weighting them according to the observed expenditure habits of wage-earning groups and revising the weighting from time to time as expenditure habits change. Finally, indexes of real

[1] Professor Douglas' index, which we shall refer to frequently in the following chapter, has the additional advantage that weights attached to the various groups of commodities are not the same throughout the entire period. For the period from 1890 to 1914, as has already been said, the weights are in accordance with the proportions of the family income spent for the various groups of commodities by working-class families in 1901, while the weights for the period from 1914 on are in accordance with the relative quantities consumed by the families covered by the 1918 investigation of the Bureau of Labor Statistics. The undesirability of maintaining the same weights over a period of nearly forty years rests, of course, upon the changes in consumption habits that are steadily taking place. Food, for example, comprised 38.2 per cent of the expenditures of workingmen's families in 1917–1918, as compared with 43.1 per cent in 1901; clothing 16.6 per cent as contrasted with 13.0 per cent; and shelter 13.0 per cent as compared with 18.0 per cent. "Cost of Living in the United States," U. S. Bureau of Labor Statistics, *Bulletin 357*, p. 5, gives the percentage spent upon the various main groups of expenditures.

[2] Census data show that approximately 27 per cent of the adult males between twenty and sixty-five years of age are unmarried, although some of them, of course, live with families in the capacity of chief breadwinner.

wage trends portray only the material progress of the workers. They do not tell us how labor has fared in comparison with other economic classes, nor do they go beyond the material attributes of progress. Other things than the purchasing power of money wages enter into the question of whether any class is attaining a richer and fuller and more wholesome existence, and it is impossible to plumb, with the crude "thumb and finger" of statistical measurement, the depths of psychic life. Indeed, we are probably no more certain today as to the nature of that elusive thing, "the good life," than were the gentle philosophers who disputed with Plato. But it will, nevertheless, be profoundly worth our while to survey the facts with respect to a matter upon which depends in large degree the material progress of a majority of the population—the trend of labor's real remuneration.

Measurement of Labor's Share in Increased Production.—The second of the several broad questions raised earlier pertained, it will be remembered, to labor's share in the increased production. How does the progress of the workers—if progress has been made—compare with that of other economic classes? From the viewpoint of material well-being, it is true, the most important question is that of the trend of real earnings; but the absolute increase or decrease indicates little with respect to how the workers have fared in relation to other groups. Perhaps real wages have increased, but so has the total production of the industrially advanced countries. Has the lion's share gone to other groups than labor? What tests may we apply in attempting to answer this question?

Since our objective is to ascertain whether the purchasing power of the workers' earnings has increased as much as has the real income of property owners, entrepreneurs, and other groups, an obvious test would appear to be a comparison of real wage trends with the trend of per capita real income, or of per capita production. The flow of goods and services resulting from man's utilization of natural forces and materials—the stream of finished commodities and services available for consumption or saving by the people—has increased fairly steadily over long periods of time. The increase has outrun the growth of population, with the consequence that much more is available for the "average person" than was available a few decades ago. If the increase in real earnings, assuming that there has been one, has lagged behind this increase in per capita real income, or per capita production, the immediate conclusion would be that other economic classes have gained more than have the wage earners. Were this test of how the workers have fared in relation to other groups to be adopted, then it would be necessary either, first, to ascertain the size of the national income for successive years in money terms, reduce it to a real per capita basis, and then compare the resulting index figures with those of real wages; or else, second, to attain substan-

tially the same end by comparing the indexes of real wages with the indexes of physical productivity.[1]

A comparison of the movement of real earnings with the trend of physical production or real national income is legitimate. For industry as a whole, and in a general way, it shows whether wage earners have benefited from increased production to as great an extent as have other members of the community. But the comparison is only a rough-and-ready one, and it is subject to important qualifications. It would

[1] A somewhat detailed explanation of methods of estimating the size of the national income and the trend of physical productivity is necessary. The term "national income" covers a variety of concepts, some of them a trifle vague and difficult of statistical expression. It is most generally taken to mean the goods and services produced during a given period, with the omission of goods and services for which no price is commonly paid. Some students, notably Morris Copeland and W. I. King, have attempted to include within the concept "realized" and "imputable" income, as discussed later in this footnote. A summary of the methods utilized by two or three organizations or individuals in estimating the size of the national income should make both the nature of the concept and the statistical problems involved clearer. In 1921 the National Bureau of Economic Research published a study of the size and distribution of the national income in the United States, covering the decade from 1909 to 1919. (*Cf. The Income in the United States.*) Two methods were employed by the Bureau in estimating the size of the national income: (*a*) an analysis of sources of production, and (*b*) an analysis by incomes received. In analyzing the national income by the former method, the Bureau divided all sources of production into seven broad classes: agriculture, mineral production, manufacturing, transportation, banking, government, and an unclassified group. Using all the data available, it estimated the "value product" of each of these main lines of economic activity, the "value product" of an industry meaning the market value added by that industry to the materials, supplies, and services which it obtained from other sources. It should be clear that the value product of a particular industry constitutes that industry's contribution to the national income, and that the total value products of all industries constitute the national income. Two methods of calculating value product were followed. Where possible in view of the condition of available statistics, the aggregate selling price of the industry's output was calculated for each year, and from this was deducted the total cost of all goods and services which the particular industry bought from other industries. Where the condition of the data did not make possible this method of estimating the value product, the Bureau based its estimate upon the division of the proceeds—total amounts paid out to employees, landlords, bond and mortgage holders, stockholders or partners, and the amount retained in the businesses. It should be patent that the total proceeds distributed by an industry necessarily represent its value product, for the difference between the market value of an industry's products and the cost of materials, supplies, and services obtained from other sources represents what the industry has available for distribution to employees, owners, bond and mortgage holders, and owners of the land which it utilizes, as well as for retention in the business for additional fixed capital. The second method followed by the Bureau was that of computing incomes received. This analysis was made from income-tax returns for that portion of the population having incomes sufficient to necessitate reports to the Internal Revenue Bureau (allowances, of course, being made for underreporting, nonreporting, tax exemptions, and income from nontaxable sources), from Census data on wages and earnings of persons having incomes of less than $2,000 a year, from Department of Agriculture data and special investigations of farmers' incomes made by the agricultural colleges, and from corporation-tax data and various financial reports for the portion of the national income

obviously be fallacious to place the real earnings of a particular group of workers in juxtaposition to the per capita real income for the country as a whole, because of changes that might have taken place in either the physical output or the relative number of workers employed in that industry, or in both. It would be equally fallacious to compare the trend of per capita production for a particular branch of industry (say manufacturing) with indexes of the real earnings of workers in that industry, because only by a rare coincidence would the working forces in

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received by corporations but retained as surplus instead of being distributed. It should be clear that, were the data available absolutely complete and accurate, the results of these two methods of estimating the national income would be the same, since the "value product" of all sources of production in the country is what is received as income by all individual or corporate persons. (In speaking of income received in the country, rather than income produced in the country, allowance must of course be made for payments received from other countries on account of foreign investments: on the other hand, a nation that owes more in interest because of the investments nationals of other countries have made than it receives during the fiscal period has less available for consumption or saving than the amount actually produced.) In reducing per capita money income to per capita real income, the Bureau discarded the rough-and-ready method of dividing per capita money income for each year by the Bureau of Labor Statistics index of either wholesale prices or the cost of living. Deflating per capita money income by the index figures for wholesale prices would have led to an inaccurate conclusion since the great bulk of incomes is spent by families on retail purchases; and application of the government index figure for the cost of living would have been unsatisfactory, since this index was constructed expressly to represent changes in the cost of living for families of moderate means. The method determined upon by the Bureau for deflating the national income was to break up both of its estimates—by sources of production and by incomes received—into several parts and to apply a separate index figure for each part. For example, the estimate of national income by sources of production was deflated by the use of three different index figures. For sums paid to employees, the cost of living index figure of the Bureau of Labor Statistics was used, since this index was constructed primarily in view of the expenditure habits of wage earners. For sums paid out in interest, dividends, rents, royalties, and profits, a new index number, designed to show fluctuations in the living expenses of families having expenditures for consumption goods of from $5,000 to $25,000 per annum was made. For income retained in businesses, an index of construction costs was applied. A substantially similar method of deflating the estimate of national income by incomes received was followed. More recent estimates of the size of the national income have been made by Dr. Morris A. Copeland for the Committee on Economic Changes (*Recent Economic Changes*, vol. 2, pp. 757–766), by Dr. W. I. King (*The National Income and Its Purchasing Power*), by Simon Kuznets [*National Income, 1929–1932*, and "National Income, 1919–1935," *Bulletin No. 66* (1935) of National Bureau of Economic Research], by the Brookings Institution (Leven, Moulton, and Warburton, *America's Capacity to Consume*), and by Robert Nathan, who in 1935, 1936, and 1937 prepared estimates for the Department of Commerce. Professor Copeland has used the term national income as meaning "total realized income," including (1) all payrolls, including value of board and lodging furnished; (2) pensions, benefits, and compensation for accidents received by employees and ex-employees; (3) net rent, royalties, interest, and dividends received by individuals; (4) profits withdrawn from businesses by individual enterprisers; (5) the net rental value of owned homes and imputed interest on investment in other durable consumption goods; and (6) the value of certain commodities produced by families for their own consumption. His estimates of the size of

that particular line have increased at the same rate as general population. The comparison here under discussion can, therefore, only be taken as suggestive of whether *labor as a whole* has benefited as much from the increased output of goods and services as has the *population as a whole.* In the second place, it is not strictly scientific to compare the trend of real wages with the trend of per capita real income, or per capita production, unless the percentage of the population working for wages and salaries has remained the same during the period in question. When the period

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the national income do not include paper profits, profits from the sale of capital assets, or the value of housewives' services. Dr. King's study, published in 1930, attempts to estimate more accurately than theretofore the amount of income received as profits. Dr. Kuznets' method of estimating the size of the national income during the depression years 1929–1932, and then later for the entire period 1919-1935, was similar to that of the National Bureau of Economic Research. Since he was concerned in presenting a classification by industrial sources and by types of payment, he built up the estimate of income created in each industry as the sum total of the component parts of its net product—wages, salaries, interest, dividend payments, etc.—restricting the figures, of course, only to the payments which were directed to individuals and not to other business establishments. Such an estimate of income originating in each industry by types of payment could, theoretically, have been arrived at in one of three ways: (*a*) by studying commodities and services produced; (*b*) by tabulating incomes received by individuals; and (*c*) by measuring the consumption and saving of individuals. Since data were available primarily on the production of commodities and services and on payments incurred in the process of such production, Dr. Kuznets for the most part followed the first method, supplementing by the second whenever the need arose. The procedure was thus similar to that followed by the National Bureau of Economic Research, except that a more detailed breakdown was made possible by the additional data available in recent years. The Brookings Institution study, utilized in Chap. 3 of this volume, used the term "income" in somewhat different senses, since these different senses were essential in view of the several purposes of the study. Where the purpose in hand was that of measuring the expansion of the national income over a period of years in relation to production, income from the use of durable consumer goods and from inflationary profits and "capital gains" was not included, but attention was focused upon the income produced annually as the truest measure of economic progress. Where, however, the concern was primarily with the realized monetary income of individuals, account was taken of income from sources other than current production, including inflationary profits. The reports issued in 1935, 1936, and 1937, based upon the study of Robert R. Nathan, Chief of Income Section, Division of Economic Research, Bureau of Foreign and Domestic Commerce, followed in large part the methods of Dr. Kuznets, the departures being chiefly in sources of information rather than in concepts and methods. The scope of the estimates presented was largely limited to those economic services which enter into the market place in our economy, this limited scope leading to the exclusion of services of housewives and other members of the family in the home, and services of durable goods owned and possessed for personal use such as dwellings, furniture, and automobiles. Other payments not counted because of difficulties of accurate estimation, because of duplication, or because no services are rendered or the services rendered are not considered as economic or productive, included earnings from odd jobs, changes in the value of assets, direct relief and charity, and earnings from illegal pursuits. Work-relief wages, which bulked large during the years 1933–1937, were included on the presumption that the workers had performed an economic service, that the results were economically beneficial, and that wages were roughly in accordance with the value of the services

covered is one of rapid transformation from agrarian and self-employed to modern industrial economy, with consequent increase in the proportion of the population coming within the category of "employed persons," it is more accurate to compare real wages with average output per wage earner or average output per employed worker.[1] In the third place, it should be remembered that failure of real earnings to keep pace with physical product—if such failure has occurred—does not, in itself, throw light upon the question of what groups or classes have benefited more than labor; it merely indicates that some elements of the population have received more of the increased output of industry. In the fourth place, and perhaps of greater importance as a theoretical caution, no comparison

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rendered. Dr. Nathan called attention to two facts peculiar to the depression period which may have resulted in an underestimate of the national income: the increase in odd jobs and the probable expansion in the home of services formerly purchased in the market.

The process of constructing an index of physical production is substantially as follows: As many continuous series as possible are assembled, showing the physical production in terms of dissimilar units—tons of steel, units of transportation service, etc. Each series must then be weighted, in order to exercise upon the final index number an influence proportionate to its importance. Then the production of each commodity for each year must be multiplied by the weight assigned it, the aggregates for each year added to obtain the general production aggregate for that year, and the aggregates translated into relatives to the same base year. Probably the most frequently used method of weighting is that of multiplying the units of each commodity produced by the value added by the particular process of which it is a part. Several indexes of physical production have been computed in recent years, among which are those of E. E. Day ("An Index of the Physical Volume of Production," *Review of Economic Statistics*, September-December, 1920, and "Measurement of Variation in the Real National Income," *Journal of American Statistical Association*, March, 1921, pp. 552–559); of W. W. Stewart ("An Index Number of Production," *American Economic Review*, March, 1921, pp. 57–70); of E. E. Day and Woodlief Thomas ("The Growth of Manufactures," *Census Monograph VIII*, 1928); of N. A. Tolles and P. H. Douglas ["An Index of British Industrial Production," *Journal of Political Economy*, vol. 38 (1930), pp. 1–29], and of F. C. Mills (*Economic Tendencies in the United States*). The significance of both index figures of physical production and of studies of real national income is the same for our purposes: an ascertaining of the extent to which the people of any nation are able to consume or save more or less, in order that we may compare this extent of progress or retrogression of the people as a whole with the increased or decreased amount of goods and services which the workers' money wages have enabled them to buy as a means of measuring their progress relative to that of other economic groups. Ordinarily the method of calculating the money income of the country for a series of years and then reducing this money income to a per capita real basis probably affords a more satisfactory basis for comparison with the trend of real wages than does an index of physical production, because the latter, for practical reasons, generally involves the selection of a more limited number of commodities. Also, all indexes of physical production are somewhat defective in that they do not measure changes in the degree of fabrication which may have occurred during the period studied. Indexes based upon units of product turned out do not measure changes in the quality, and hence in the utility-yielding capacities, of the product.

[1] The latter category including, of course, both wage earners and the clerical and office force.

of real wage trends with the trend of physical production tells us whether the workers have been "exploited" in the technical sense of being paid less than the value of their services to industry.[1] Workers are paid, not according to physical output, but according to their value to the employer; and anything affecting either the exchange value of the products they aid in producing or the relative supply of and demand for labor and the other factors of production influences the worth of (*i.e.*, the exchange value contributed by) labor.[2] When the comparison is made for industry as a whole, the fact that anything affecting the relative exchange value of the several factors of production will change the amount the workers will receive if they are paid the exact equivalence of their contribution to value product must be taken into account; and when the comparison is made for a particular industry, there is the additional consideration of changes in the price of that industry's goods as against the prices of goods in general. Finally, a word of caution should be entered with respect to ethical generalizations based upon labor's share in increased production. The entire content of the term "labor's fair share" goes back to some standard in one's own mind, and neither a lag of real wages behind physical or value product nor an increase at a more rapid rate indicates that absolute justice (if, indeed, there is such a thing as absolute justice) has been thwarted or realized.

[1] Obvious as this point may seem to be, there has been a surprising amount of loose thinking about it. Some writers have reached the amazing conclusion that the validity of the marginal productivity theory of distribution is disproved by the failure of real earnings to keep pace with the increase in physical product. The assumption that, if the theory is valid, real wages should increase as rapidly as physical product rests upon a grave misunderstanding of the productivity theory. What the theory predicates is that labor and capital will each receive (1) the amount added to the product by any one unit of the factor in question, (2) multiplied by the number of units of each factor, and (3) that the sum of the products thus attributed to the two factors must exhaust the total product minus any deductions for economic rent. There is no implication in the theory that the ratio of wages and property returns must remain the same; as a matter of fact, since the forces affecting the relative exchange value of labor and the other factors of production are never static but always changing, the normal expectation upon productivity theory grounds would be that real wages and physical productivity would not exactly keep pace with each other.

[2] It may not be gratuitous to call attention to the fact that an increase in physical productivity may have the effect of decreasing the fund of value from which workers are paid. If the desires of consumers remain virtually the same, an increase in output in a particular industry will cause the unit value to decline, since the commodity has become more plentiful relative to other commodities. Whether the decline in unit value will be sufficient to offset the tendency toward an expansion of the fund of value from which workers are paid, consequent upon the increase in the number of units produced and presumably sold, is a question of elasticity of demand for the product in question. For example, if an industry were to turn out twice as many physical units per worker, but each unit was able to command in exchange only half as many other commodities as it had formerly commanded (if, in technical jargon, elasticity of demand equaled unity), the total exchange value of the industry's goods would be the same as before, and there would be no greater fund of value from which the workers could be reimbursed.

The shortcomings of the test just discussed suggest the desirability of a second comparison: that of real earnings with value product per employee. By multiplying the total relative physical product for an industry or group of industries by the ratio of the price index of this group of commodities to the general price index, and then dividing the resulting relative total value product by the relative number of employees, a more accurate portrayal of the increase or decrease in the fund of value from which each worker can be remunerated is obtainable.[1] But this test, like the previous one, is subject to qualification. Since an increase or decrease in the exchange value of a particular industry's products is, *ipso facto*, a decrease or increase respectively in the exchange value of the products of other industries (and therefore in the fund of value from which workers in these other industries can be remunerated), the comparison must be confined to the real earnings and the value product per employee of a particular industry or group of industries. In the second place, it would be fallacious to assume that an application of this test reveals whether workers have been compensated in accordance with the value of their productive contributions. "Value product per employee" is merely a convenient way of expressing the exchange value of an industry's output in relation to the number of employees, not an indication of whether a given increase in value product has been imputable to labor or to the other factors of production. An increase in the capital factor relative to labor in a given industry would—to take only one of several possible examples—tend to alter the relative exchange value of each unit of labor and of capital, and therefore the labor and capital returns, even though value product per employee might remain the same. In the third place, and for the same reasons that were set forth in the preceding paragraph, the comparison affords no basis for ethical generalizations. In the fourth place, a comparison of real earnings with value product per employee is likely to be misleading in that industries are made responsible for cost movements over which they may have little or no control.[2] An increase in the amounts absorbed by jobbers, advertisers, wholesalers, and other distribution functionaries, for example, would cause living costs to rise more rapidly than manufacturing costs, and therefore a decline or less rapid rise in real earnings; but any resulting failure of real earnings to

[1] For more detailed discussion of this test and its application to several branches of industry, see P. H. Douglas, *op. cit.*, pp. 524–537. In computing value product per employee in manufacturing, for example, Professor Douglas divided the wholesale price indexes since 1899 for various manufactured commodities by the all-commodity wholesale index of the Bureau of Labor Statistics, and multiplied the resulting ratio of exchange value for each year by the indexes of physical production for manufacturing, thus ascertaining total value product. Value product per employee was then ascertained by dividing relative total value product by the relative number of employees.

[2] For a fuller discussion of this shortcoming of the test and of the final defect mentioned in this paragraph, see P. H. Douglas, *ibid.*, pp. 537–539.

keep pace with value product per employee in manufacturing would be attributable to changes in the marketing structure rather than to the fact that manufacturing enterprises were paying their workers a smaller proportion of the value created by that industry. Finally, the comparison here under discussion is defective in that the exchange value of an industry's products includes not only the value added by that industry but also the value created prior to the process in question. To take manufacturing as our example again: the prices of manufactured articles include both the prices of raw materials and those of the fabricating services, and an increase in the prices of manufactured goods (and therefore in their total exchange value and in value product per employee) exactly proportionate to the rise in the prices manufacturers were having to pay for their raw materials would not, in fact, indicate capacity to pay the workers higher wages. The comparison of relative real earnings with relative value product per employee, while it is more refined and meaningful as applied to a particular industry than the first test we have discussed, and will be utilized in a following chapter, is nevertheless subject to shortcomings and qualifications that must constantly be kept in mind.

A third test of how well the workers have fared in relation to other economic classes may be suggested: the proportion of the total value created by each line of economic activity, or by all lines of economic activity, going in the form of wages and salaries. As applied to the whole of industry, this test resolves itself into the proportion of the total national income going in the form of wages and salaries, while, as applied to a given industry, it means the proportion of the value added by that industry to the goods and services obtained from other sources which is distributed in the form of wages and salaries. It is obvious that when this test is applied, account must be taken of changes in the percentage of the population working for wages and salaries, and that the test can indicate only the proportion of the national income or of the income of (*i.e.*, the value created by) a particular industry going to *hired* labor—not the total "service share" of the national income.

Finally, the progress of the workers may be viewed from a somewhat different angle. Have their real earnings apparently approximated, over periods of time, their production of exchange value? Neoclassical economic theory predicates, in substance, an equivalence between the reward of each factor of production and the contribution of that factor in the creation of exchange value. Is it possible—given reasonably accurate measures of changes in the quantities of labor and capital that have taken place (and allowing for qualitative changes in these factors), together with data on the trend of physical production—to measure the proportionate productive influence of labor and of capital, and to compare the productivity imputable to each with its reward? When this fourth

of the tests is applied, we shall, of course, be ranging beyond a narrow conception of the issues raised by the second of our general questions—how have the workers fared in relation to other economic classes?—and into the issues raised by both the third and fifth main questions: Why have real wages increased, why have they borne the relationship they have to the remuneration of other economic groups, and what in general are the forces determining distribution in our system of quasicompetitive capitalism? In other words, an examination of the trend of labor's productivity (the value contributed by labor, not value product per worker in the already discussed sense of total value divided by the number of workers) will inevitably lead us into a search for the causes of this trend. It should also lead us into critical appraisal of both the assumptions underlying orthodox wage theory and the assumptions underlying any attempt to measure the productive contributions of labor and capital.

Measurement of Living Standards.—A fourth main question was raised earlier: To what extent have real earnings been, and to what extent are they, adequate to maintain socially desirable standards of living? Even though the real income of the workers may have increased substantially prior to the beginning of the great depression, it is possible that still further increases were necessary to make possible the maintenance of livelihoods consistent with decency and self-respect. To what extent have the wage earners and their families been able to purchase some of the satisfactions of life as well as the bare necessities? What proportion of the workers have received wages so low that they have not been able "to live" without the aid of charity or without the gradual physical and moral deterioration that results in premature loss of earning power?

But these questions, like the others we have raised, only suggest the necessity of more definite formulation and of mastery of certain methods whereby quantitative measurements can be applied. Just what is a "socially desirable" standard of living? What minimum quantum of goods and services shall we set up as the amount people *ought* to have? It is comparatively easy to apply the monetary cost of particular standards, worked out in budgetary form, to the wage data for given years, and thereby to ascertain how adequate wages have been to make possible the attainment of these particular standards. When we come to decide what standard shall be considered "adequate," however, we find ourselves in a realm where there are few absolutes upon which to base the decision. Closely related to the question of the nature of a "socially desirable" standard of living is another: *Whose* earnings should be adequate to maintain the accepted standard? Can we accept the assumption, rather frequently made in the past, that every adult male wage earner should receive enough to support in decency a family of five? This "standard family" assumption, based upon the fact that the average American family formerly approximated five members and the assump-

tion that an average of three children per family must be born in order to insure perpetuation of the race with a slight increase in numbers, is subject to several serious criticisms. Many wage earners have fewer than four dependents, while some have more; even though the rearing of three children per family may be necessary for race perpetuation and the average family may therefore expect to go through a period when the chief breadwinner has three children dependent upon him, only a minority of the families have three dependent minors at any given time; it is questionable whether even at its peak in 1927 or 1928 our national income was sufficient, after allowance has been made for the payment of necessary differential wages above a basic minimum and for necessary payments to land, capital, and management, to pay every adult male wage earner enough to support himself and four other persons above the subsistence level. Yet an abandonment of the standard family assumption makes necessary a resort to more refined methods. How can we measure the needs of nonstandard families? As a matter of social policy, rather than of quantitative measurement, should not some plan—equalization funds, government supplements, or something else—be worked out whereby the compensation of the workers would vary in accordance with varying needs? What standard of adequacy can be applied in the case of women workers, who typically do not have the dependents adult males must support and who often, by living with their families, profit by joint costs in household maintenance? All these questions must be taken into account before one may justifiably indulge in the luxury of large generalizations about the adequacy or social desirability of the standards of living the workers have been able to maintain.

We have been using an undefined term; a few words as to its possible content will not be irrelevant. Like the majority of euphoneous phrases in popular circulation, *the standard of living* has meant different things to different people. Perhaps, indeed, one explanation of its popularity is to be found in the numerous denotations that may be attached to it. To some, *the standard of living* implies simply a generalized statement of observed conditions—a description, the report of a survey that has been made, a purely objective and matter-of-fact thing. A second sense in which the term is sometimes used is that of a norm of desirability or a practical recommendation. What "ought" people to have? When employed in this sense, the term always carries with it the projection of some preconceived notion of one's own about other people's modes and codes of living, but a description of the observed is always more meaningful if correlated with some measuring stick of social desirability. A third way of looking at the term may be suggested: in what might be called the "ideal" or "aspirational" sense.[1] When the phrase is used in this man-

[1] For the substance of this classification of term usages, the writers are indebted to conversations with, and the stimulating lectures of, the late James A. Field.

ner, its meaning is entirely subjective; it denotes some aim of the individual, something toward which he is striving, that influences his behavior in social and economic life. In this ideal or aspirational sense the standard of living is no very definite thing; for the individual it may range from a college education for his children to all kinds of fantastic personal aspirations. To the extent, however, that motives, plans, ideals, and aspirations influence the individual's behavior in economic life, they may be regarded as elements of his standard of living. Still a fourth way of looking at the term is in its relation to the increase of population. Professor Ely[1] regards the standard of living as "the amount of necessaries, comforts, and luxuries which a man places ahead of marriage and family," and Professor Carver[2] uses the term in substantially the same sense. This definition, while criticized as throwing too great emphasis upon a single relationship of life, has the advantage of suggesting the important causal connection between the standard an individual considers necessary for his existence and the increase of population. As a variant of this last usage of the term, the standard of living is sometimes regarded as "the quantum of goods and services which an individual considers necessary for decent existence."[3] In this sense it is, of course, an essentially progressive thing, conditioned by the social environment in which the individual lives. Never before in human history have different social classes had so many phases of life in common as they have in this age of cheap newspapers, radio communication, movies, advertising appeals, and rapid transportation, and an awakening of the emulative and invidious wants on the part of submerged economic classes—an enlargement of the quantum of goods and services they consider necessary for their existence—has been inevitable.

No single definition is entirely satisfactory for our immediate purposes. Our primary concern is in ascertaining the kind of livelihoods working-class families have been able to maintain, but inextricably interwoven with this objective is the question of where we shall draw the line of demarcation between "adequate" and "inadequate" living levels. It will be necessary, first, to set up some norm of adequacy, to decide upon some level of minimum social desirability—arbitrary as such a procedure necessarily must be—and, second, to compare its monetary cost for various years with the evidence bearing upon earnings and family incomes.

Many attempts to formulate working-class budgets, or to describe various standards of living, have been made in the last forty years, and

[1] *Cf.* R. T. Ely, *Outlines of Economics* (1917 ed.), p. 438. Professor Ely has modified his definition somewhat since the original edition of *Outlines* appeared, years ago, but the substance for our present purposes is the same.

[2] T. N. Carver, *Elementary Economics* (1920), Chaps. 29 and 30.

[3] *Cf* Dorothy Douglas, in Douglas, Hitchcock, and Atkins, *The Worker in Modern Economic Society*, p. 283.

during the rapid rise of prices following the outbreak of the European War, and then again during the depression of the 1930's, when the federal government engaged in extensive relief work, the practical importance of such efforts became generally recognized. With the failure of important groups of workers to maintain progressively advancing standards of living (in some cases, indeed, failure to maintain the former standard of living) during the War price rise, the decreasing purchasing power of the dollar became an important cause of social unrest, and government adjustment of labor disputes through the War Labor Board, the Emergency Fleet Corporation, and other agencies gave impetus to the movement to determine scientifically the quantity of goods and services necessary to maintain decent livelihood. The extensive emergency relief work of the federal government during the depression of the 1930's—when at one time there were more than 5,000,000 relief cases and upward of 20,000,000 persons dependent upon direct relief or relief work—made even more imperative than had the War conditions the working out of scientific budgets.[1] For the purpose of having at our command certain tools or measuring-sticks to be applied in ascertaining how the wage earners as a whole have been living, we may generalize upon these budgetary studies and make the following broad classification of family standards, reserving for later discussion the question of variation in the size of families.[2]

1. *The Poverty Level.*—The term poverty, as popularly used, is a purely relative thing. "We are so poverty-stricken that we cannot afford a new car this year." In the technical usage we employ here, however, it indicates a distinct state of submergence—a level at which family income, even though expended with ordinary prudence, is insufficient for physical upkeep. The earmarks of poverty are always apparent: undernourishment, overcrowding, deterioration of household equipment and clothing, liability to acute distress with any minor disturbance of the daily equilibrium. Sickness or other emergencies increasing expenditure almost invariably throw families living at this level upon charitable relief. During the postwar period of relatively stable prices, from 1922 to 1929, between $1,050 and $1,250 would have been necessary in the larger American cities to bring a standard family just above the poverty

[1] Among the best budgetary studies of recent date are those of the United States Bureau of Labor Statistics, originally made in 1918 and revised in 1934 and 1935, the Philadelphia Bureau of Municipal Research, the Chicago Council of Social Agencies, the National Industrial Conference Board, and those done for the FERA and the various local relief agencies. Numerous private investigators have also worked out budgets, some for standard families and some so constructed as to make allowance for differences in family composition. Several of these budgets of individual investigators are alluded to and described briefly in Chap. 5.

[2] A presentation and more detailed discussion of substantially the same broad classification of standards is to be found in Douglas, Hitchcock, and Atkins, *op. cit.*, pp. 282–287.

level, and between $825 and $1,025 would have been necessary in 1936 and 1937.[1]

2. *The Minimum of Subsistence Level.*—This is the standard that can be maintained when family income is sufficient for physical and material upkeep but is insufficient for either major emergencies or any social pleasures costing money. If anything is spent for the latter purposes—and major emergencies, are, of course, inevitable—the cost must be met by a curtailment of consumption of basic necessities.[2] In practice families living at this level do enjoy a few social pleasures and summon a physician in the case of critical illness, with the result that they are often found to be living under insanitary conditions, frequently they are undernourished, and almost always they are overcrowded. As an average for the larger cities of the United States, an income of between $1,250 and $1,450 was necessary to support a family at just above this level during the 1922–1929 period, and in 1936 and 1937 between $1,025 and $1,225 was required. Budgetary studies reveal that the typical apportionment of expenditure for families living at this level is approximately

[1] It probably is unnecessary to say that these monetary costs, as given, are only rough estimates. The 1936 and 1937 estimates are based upon the assumption that the cost of living then was about 20 per cent lower than it had been during the middle 1920's. As is generally known, the cost of living remained relatively stable during that decade, and was about 75 per cent higher than in 1913, although considerably lower than at the peak of the War price cycle in 1920. In 1929, the cost of living began to decline, and this movement did not reverse itself until 1933. Living costs were still substantially lower in 1936, however, than they had been in 1929. The Bureau of Labor Statistics' cost of living index numbers (1913 = 100) for the period since the beginning of the depression have been as follows: December, 1929, 173.7; December, 1930, 163.6; December, 1931, 148.4; December, 1932, 133.5; December, 1933, 134.6; November, 1934, 137.8; October, 1935, 140.7; January, 1936, 141.7. Between Jan. 15, 1936, and Dec. 15, 1936, the Bureau's cost of living index rose by less than 2 per cent. On June 15, 1937, living costs were 3.1 per cent higher than on June 15, 1936, and 13.5 per cent higher than at the low point in June, 1933. However, living costs on June 15, 1937, were still 15.2 per cent lower than in December, 1929 [*Monthly Labor Review*, vol. 45 (September, 1937), pp. 676–682].

[2] The description given by B. Seebohm Rowntree in *Poverty, A Study of Town Life*, pp. 133–134, of his "secondary" poverty level, which approximates what we are here calling the minimum of subsistence level, may give a more vivid picture of what it means to live at this standard. "A family living upon the scale allowed for in this estimate must never spend a penny on railway fare or omnibus. They must never go into the country unless they walk. They must never purchase a half-penny newspaper or spend a penny to buy a ticket for a popular concert. They must write no letters to absent children, for they cannot afford to pay the postage. They must never contribute anything to their church or chapel, or give any help to a neighbor which costs them money. They cannot save, nor can they join a sick club or trade union, because they cannot pay the necessary subscriptions. The children must have no pocket money for dolls, marbles, or sweets. . . . The mother must never buy any pretty clothes for herself or for her children. . . . Should a child fall ill, it must be attended by the parish doctor; should it die, it must be buried by the parish. Finally, the wage earner must never be absent from his work for a single day. If any of these conditions are broken, the extra expenditure is met, *and can only be met*, by limiting the diet; or, in other words, by sacrificing physical efficiency." (Macmillan & Co., Ltd., London.)

as follows: food, 40 per cent; clothing, 18 per cent; housing, 19 per cent; fuel and light, 6 per cent; and sundries, 17 per cent.

3. *The Minimum Health and Decency (or Subsistence Plus) Level.*—Families living at this level have the income needed not only for physiological existence, but also for some elementary social necessities. Medical attention, carfare, insurance, a modicum of recreation, clothing compatible with self-respect as well as sufficient to provide bodily protection, an elementary education for the children, and some self-improvement requiring expenditure can be had without the necessity of "taking it out" of food. The level is, however, far from what contemporary thinking would regard as "liberal." Although model budgets for families living at this level allow approximately one-fifth of the income for sundries, this category includes everything except the basic necessities of food, housing, clothing, and fuel and light; and unless the family purchases these necessities upon a scientifically worked out plan, the amount available for sundries must be materially reduced. Between $1,450 and $1,800 would have been necessary to support a standard family at this level in 1922–1929, and between $1,225 and $1,500 in 1936 and 1937. The typical apportionment of income for families living at this level is probably about as follows: food, 35 per cent; clothing, 18 per cent; housing, 20 per cent; fuel and light, 5 per cent; sundries, 22 per cent.

4. *The Comfort Level.*—This standard of life has been attained as yet by only a minority of the American wage-earning families, and by still fewer in other countries. "It represents the attainment of the highest class of wage earners and the cynosure of the rest." At the comfort level a family is able to live in a decent house or apartment, modestly equipped and decorated; it has reasonably adequate funds available for such items as insurance, education, vacations, health maintenance, and amusements; something less than 30 per cent of total income is generally spent for food, although in absolute figures about 10 per cent more than is spent by families living at the subsistence-plus level; and nearly 30 per cent of the family income may be spent for sundries. At 1922–1929 prices, the total cost of maintaining the comfort standard in American cities was certainly not less than $1,800, and in the majority of places probably more nearly $2,250, and in 1936 and 1937 not less than $1,500, and in most places more nearly $1,850. The typical apportionment of income is: food, 29 per cent; clothing, 18 per cent; housing, 20 per cent; fuel and light, 6 per cent; sundries, 28 per cent.[1]

[1] One characteristic of income apportionment, it will be noted, is that the percentage spent upon food is less for the high-income groups than for those living at the lower levels, while the percentage expended on sundries is greater. Practically all American and English twentieth-century studies substantiate these two "laws" formulated by Engel in nineteenth-century Germany. The laws stated by Engel were framed for differences in income at the same moment of time, but it is likely that they also hold good for changes in income as between periods of time. For instance, the 1901 study of the United States Bureau of

Which of these levels shall we take as our standard of "adequacy?" While the decision must, in the last analysis, be a somewhat arbitrary one, it is of real importance in our study; the extent of "inadequate" earnings indicated will be much greater if we compare the incomes workers have received with the cost of the comfort budget than it will be if we compare them with the cost of the bare subsistence level.

The budgets of minimum social desirability which virtually all the earlier students attempted to describe conform rather closely to what we have denominated the *minimum health and decency*, or *subsistence-plus*, level. Families living at the bare subsistence level—overcrowded, unable to carry insurance, forced to "take out" of food the cost of any major emergencies or social pleasures necessiting expenditure—are not maintaining livelihoods that socially minded citizens would consider "ade-

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Labor, referred to earlier in this chapter, showed that the 11,156 "normal" families covered expended 43.1 per cent of their incomes for food, while the 1918 survey of the United States Bureau of Labor Statistics, covering 12,096 families, showed that food formed but 38.2 per cent of total family expenditures. Each investigation showed, also, that the percentage of income expended for food was greater for the low-income groups of the two respective years than for the other groups. It is likely that the smaller percentage expended for food in 1918 was a result of improvement in the standard of living resulting from higher real earnings. There are, as Professor Douglas has pointed out (*Real Wages in the United States*, pp. 494–498), three other possible explanations for the smaller percentage wage-earning families seem to have been spending for food in late years: the possibility that food prices had risen more slowly than other prices, a lack of comparability between the families studied in 1901 and those covered by the 1918 investigation, and the possibility that the greater percentage spent on food in 1901 than in 1918 was caused by the presence of more persons in the average family studied in the former year than were included in the families of 1918. But none of these explanations is substantiated by the facts. Food prices really rose more rapidly between 1901 and 1918 than did other prices, and such influence as relative changes in prices exercised, then, must have been in the direction of increasing the percentage spent on food. Careful examination of the two budgetary studies indicates that they were not incomparable to an extent invalidating the conclusion that the rising standard of living was responsible for the smaller amount spent on food in the latter year. Also, the families studied in 1901 were not, on the average, larger than those covered in 1918. The resulting conclusion, therefore, is that the change in the percentage of income spent for food is, in a rough way, a measure of improvement in the standard of living. An interesting attempt to determine quantitatively what light changes in family budgets over periods of time throw upon the probable increase has been made by Professor P. H. Douglas (*ibid.*, pp. 498–503), who has sought to ascertain by what fraction of a per cent the relative importance of food will decrease with each increase of 1 per cent in real income. Two methods were used by Professor Douglas: (1) to measure what would have been the necessary increase in income in 1901 to those families who spent 43.1 per cent of their budget on food in order that this percentage might be reduced to 38.2, or the average for 1918; (2) to measure what would have been the necessary increase in 1918 to have raised the incomes of those who then spent 43.1 per cent of their money on food to a point where they would have spent only 38.2 per cent. While this method of budgetary analysis, as Professor Douglas was careful to point out, cannot be relied upon to determine with precision what increase in real income has taken place, it furnishes a useful check upon any increases shown by comparative analysis of earnings and cost of living.

quate." On the other hand, students formulating standards of adequacy have usually not taken the *comfort* level as the minimum, because as a practical matter it has not seemed within the realm of immediate attainment for the great mass of the workers. While it may be assumed that we would all like to see the wage earners enjoy the modest comforts allowed for by this fourth standard, it is better to err in the direction of conservatism rather than of exaggeration when we come, in Chap. V, to a survey of the material bearing upon the adequacy of earnings, and probably what we have called the *minimum health and decency* level would best be taken as our criterion of the minimum socially desirable standard of living. We are also justified in assuming that where wage-earning families are of the conventionally assumed size, the income necessary to maintain this standard should come from the chief breadwinner. When the wife and young children are under the necessity of contributing to family income, there ensue the antisocial consequences of demoralization of family life, insufficient care for the adolescent, failure of the children to receive proper education, and a constant danger that the family will be compelled to retrench upon its standard when one of the members is unable to find employment.

There still remains, however, the problem of variations in the size and composition of families. The great majority, as has already been said, do not fall within the "standard" category; some include more than three dependent children, and many include fewer.[1] By what methods may we measure the needs of nonstandard families? As a matter of social desirability, rather than of method of analysis, should not some plan be instituted whereby remuneration to labor would vary in accordance with needs? What standards of adequacy can be applied in the

[1] Census figures show that approximately 27 per cent of the males in the United States between the ages of twenty and sixty-five are unmarried. Many of the unmarried men, of course, support aged parents or other dependents, but as a class their needs are much less than those of married workers. The average family, according to the Fifteenth (1930) Census, consists of approximately 4.1 persons, not of five. Studies of family composition indicate that families including three members and those with more make up approximately one-third of the total, each group constituting about 16 per cent of all families. (*Cf.* P. H. Douglas, *Wages and the Family.*) The last census in England and Wales shows that only about 6 per cent of the population are members of families of five, the rest being single persons or members of larger or smaller families. Professor Douglas has found that data for France, Belgium, India, Great Britain, and the United States show that in none of these countries does the number of families with three dependent children exceed 20 per cent of the total number of families covered by the statistics. (*Quarterly Publication of the American Statistical Association*, September, 1924, pp. 314–328.) In England and Wales, according to the 1921 Census, 26.6 per cent of all adult males twenty years of age and over were unmarried. Of the married men, 43 per cent were without children or did not furnish information; 23 per cent had one child; 15 per cent had two children; 9 per cent had three children; and 10 per cent had four or more children (J. H. Richardson, *A Study on the Minimum Wage*, p. 103).

case of women workers, to whom the four budgets described are obviously not applicable?

Two methods of measuring the needs of nonstandard families may be described briefly. Messrs. King and Sydenstricker of the United States Public Health Service,[1] on the basis of a study of the actual consumption and expenditures of a large number of families in South Carolina cotton-mill villages, have worked out a comparative scale of costs of food consumed by men and women of varying ages (denominated the *fammain* scale, a contraction of "food for adult maintenance") and a similar scale (denominated the *ammain* scale, a contraction of "adult male maintenance") inclusive of costs other than food. By expressing the needs of an adult male twenty-five years of age as 1, and the needs of men and women of other ages as relatives to this figure, a scale was derived which can be applied to families of different composition. For persons living at about the subsistence level, the *ammain* scale is as follows:[2]

Age	Male	Female	Age	Male	Female
1	.25	.24	20	.98	.78
3	.31	.31	25	1.00	.79
5	.35	.35	30	.97	.78
7	.40	.40	35	.95	.76
9	.44	.43	40	.93	.74
11	.50	.48	45	.92	.72
13	.59	.55	50	.89	.69
15	.74	.65	60	.81	.66

Thus a standard family of five would probably total somewhat as follows:

Person	Age	Relative units of costs
Husband	40	.93
Wife	35	.76
Male child	13	.59
Female child	7	.40
Male child	3	.31
Total units of cost		2.99

By a computation of the number of *ammains* represented by given nonstandard families, and a comparison of the figure with the standard

[1] Quoted in Douglas, Hitchcock, and Atkins, *op. cit.*, p. 289.

[2] This scale, as we have said, was worked out in terms of a subsistence standard of living. It is probable that relative total costs for women would be considerably higher in families above the subsistence group.

family number (2.99 or 3), it is possible to approximate with some degree of accuracy the expense of maintaining families of differing sizes.[1] The study of some 2,600 families summarized in a later chapter,[2] is illustrative of the practical use to which the *ammain* scale can be put. Budgets which set forth the cost of the various items of livelihood for persons of each sex and of different ages, both when they are living alone and when they are members of families of varying sizes, are a second method of attaining the same end. Charity relief cases in the larger cities are generally handled with budgets of this character.[3]

[1] As illustrative of the use to which the *ammain* scale can be put, we may work through the cost of maintaining an assumed nonstandard family. From the above computation we see that the approximate number of units in the standard family may be taken as 3.0 (2.99). Assume that in a particular city at a particular time the cost of maintaining a health and decency standard is $1,600, and that in the family with which we are concerned there is a father of forty, a mother of thirty-five, three boys aged thirteen, seven, and one, respectively, and two girls aged eleven and three, respectively. If the cost of maintaining a health and decency standard is $1,600—and there are approximately three units in the standard family—then the cost per unit or *ammain* would be $533. In the case of our assumed family, then, the number of units would total 3.71:

Person	Age	Ammains
Husband	40	93
Wife	35	76
Boy	13	59
Girl	11	48
Boy	7	40
Girl	8	31
Boy	1	24
Total *ammains*	.....	3 71

Since the cost per unit is $533, the cost for this particular family is $1,972 (the cost per unit times the number of units in the family).

[2] *Cf infra*, pp. 250–253.

[3] As illustrative, we may describe briefly the budget used by the Chicago Council of Social Agencies in charity relief cases. This budget is expected to furnish a "minimum normal standard" of living for individuals and families, the definition of the term being: "The minimum normal standard must furnish everything necessary for a manner of living that will make possible a high standard of physical, mental, and moral health and efficiency for adults, the full physical and mental growth and development of children and provision for their moral welfare." The budget then defines the normal minimum in relation to the different items, both when individuals are living alone and when they are living with families of varying sizes. The food standard, for instance, is that "the food provided must meet recognized dietetic standards in furnishing protein, fuel, mineral salts, and the necessary food substances in the quantities which research in physiological chemistry indicates are necessary to maintenance of health." The cost of this food at different times is estimated for men and women of different ages, and the necessary cost of food for a given family can thereby be calculated in terms of the number, age, and sex of its members. In setting up a standard for clothing, emphasis is put by the budget first on the need of sufficient clothing to "protect the body from cold, heat, or wet, and to provide for a proper standard of personal cleanliness." Besides these essentials, there must be some appreciation of the fact that "clothing is one of the most universal means of self-expression and is one which

The very important question of whether differences in family composition do not dictate, as a matter of equity and social policy, that remuneration should differ accordingly necessitates for its intelligent consideration acquaintance with some of the facts about wages and income distribution summarized in later chapters; and we may here turn our attention to the question of what constitutes an "adequate" or socially desirable standard for women workers—approximately one-fifth of the gainfully employed persons in the United States. It is obvious, for reasons already mentioned, that we cannot discuss the question of the sufficiency of their earnings in terms of standards, or criteria, that may be applied in the case of adult males.

The standard generally accepted by both students of labor economics and state boards setting legal minimum wages has been that of a minimum health and decency livelihood for a woman living away from home, having herself but no dependents to support, and not profiting by joint costs in household maintenance. This standard has been both attacked and defended. Its proponents have contended that it is reasonable because a considerable number of women workers do live in this condition, because the employer, if free to pay home-dwelling women less than those adrift, will tend to favor the former, and because many home-dwelling women have needs as great as, or greater than, those of women living adrift. Those attacking the standard, on the other hand, have pointed out that approximately 20 per cent of the gainfully employed women in the United States are living away from home, while the great majority (roughly four-fifths) are profiting by joint costs in household maintenance. Some of the home-dwellers are working for "pin money." It is unfair, the contention has been, to take the needs of women living adrift, who constitute only a minority, as the standard of adequacy to be applied to the incomes of all women workers.

It must be admitted that these objections have a basis in fact, but there are, nevertheless, reasons for the adoption of the conventional standard. While the majority of women workers live at home and profit by joint costs in household maintenance, a large number of the home dwellers—widows living independently, perhaps with children to support, wives with invalided or out-of-work husbands, daughters supporting widowed or incapacitated mothers, women who contribute to the family income an amount equal to the cost of their maintenance and also aid

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is of special interest and importance during adolescence and youth." The cost of decent housing allowed for varies, as do the other items in the budget, in accordance with the composition of the family. The general standard set up is that "the housing space must be above ground, dry, clean, in good repair, well lighted, sunned, and ventilated." The minimum standard with regard to number and size of rooms varies in accordance with the number in the family and the ages and sex of the children. Other items in the budget include household supplies, care of health, and insurance.

in the support of younger brothers and sisters—have needs as great as, or greater than, those of women living adrift. In all probability the numerical importance of the "pin-money" group has been overestimated; because women have not received wages sufficient to support themselves away from home, they have been assumed to be working, not from economic necessity, but only in order to secure "pin money." It is safe to say that a majority of the home-dwelling women, even though their wages do not enable them to make a contribution to family income equal to the cost of their maintenance, are working because of the insecure economic position of the family. All members have to be supported somehow, and when the father's earnings are insufficient, the family must sell all of its available labor at the market rate; a small contribution from the daughters is better than nothing. Home dwellers with dependents to support, those working because of the insufficiency of the earnings of the chief breadwinner, and self-supporting women living adrift certainly constitute, in the aggregate, more than half of the female wage-earning population; and any standard that might, by some line of reasoning, be regarded as adequate for the pin-money group would not permit a majority of the women workers to maintain a decent standard of life.

Other Problems at Issue.—It presumably goes without saying that the broad questions we have raised, together with discussion of the quantitative measurements essential to answering them, are by no means inclusive of all the issues connected with the material status of the workers and the determinants of this status. When we turn to the final question, that of attempts to regulate wages by social intervention, we shall be forced to take account of changing public attitudes, different economic and social conditions in different countries, the compatibility of these attempts with maintenance of the price system, problems of legislative, political, and administrative character, and in the United States the important matter of constitutional limitations upon state interference with the wage relationship. Moreover, each of the questions discussed in some detail in this chapter serves to raise other, and very fundamental, questions concerning the operation of our economic order and the possibility of controlling it so that it will operate somewhat less imperfectly than it has in the past; and each impinges, in one way or another, upon the other problems discussed in this and the following volumes—unemployment, hours of work, provision for the major insecurities of life, the employment of young persons, the presence of women as competitors in the labor market, and others. Constantly we shall have to keep in mind the question of the extent to which the forces determining the share of the product of industry going to labor are subject to human guidance and control. Can labor's share of the value product of industry be increased without reducing the return to the other factors of production to such an extent that their services will not be forthcoming in sufficient quantities?

What, after all, constitutes distributive justice? Few questions in the field of social science are more deserving of the application of the best of human effort and intelligence. Indeed, there has seldom, if ever, been a time when all the problems that constitute the subject matter of the following chapters have been more fascinating than they are today to those who will look into them patiently, scientifically, and sympathetically.

Chapter II

THE TREND OF REAL EARNINGS

From the viewpoint of the welfare and material progress of the working population, nothing is more important than the trend of real remuneration. Few criteria of the success or failure of an industrial system, or of the likelihood of its permanence, are superior to that afforded by the long-run movement of real earnings. Not many factors are more influential in determining the social attitudes of the workers. Possibly the best approach to abstract theory is via a survey of the historical operation of the forces the abstract theory purports to explain. We turn, then, to the profoundly important question: What has been the progress of the workers in the matter of real remuneration?

Progress in England.—The widespread misery of the wage-earning class in England during the early years of the Industrial Revolution is a matter with which all students of social history are familiar. With the swift changes in social stratification and the policy of *laissez faire* that accompanied the advent of the new system, with independent craftsmen reduced to the position of dependent wage earners, conditions on the whole were worse for a time rather than better. The long hours, the lack of sanitation and safety devices, the breakdown of the poor-relief system and the mistaken Speenhamland policy, the bad moral conditions in the factory towns, the general collapse of old modes and codes of living—all of these caused the period of the late eighteenth and early nineteenth centuries to be one of increasing misery and degradation for the wage earners.

Nevertheless, real wages probably rose during the first fifty years of the nineteenth century, even while the adjustment to new conditions was imposing extreme hardship upon the working class. Good data upon money wages outside of agriculture are lacking for the period prior to 1850, but such fragmentary information as is available indicates that from 1790 to 1850 the remuneration of industrial wage earners ran about one-eighth less than that of their fellows in agriculture. With this proportion taken as a guide to the money wages of industrial laborers, a number of indexes have been constructed;[1] and on the basis of the several studies, in turn, an American student, A. H. Hansen, has worked out the

[1] *Cf.* Sir William Beveridge, "Population and Unemployment," *Economic Journal*, vol. 33 (December, 1923), pp. 447–475; N. J. Silberling, "British Prices and Business Cycles," *Review of Economic Statistics, Supplement*, vol. 5 (October, 1923), pp. 219–262; G. H. Wood, "Real Wages and the Standard of Comfort," *Journal of Royal Statistical Society*, vol. 72 (March, 1909), pp. 91–103.

following composite index of the trend of real wages in Great Britain from 1790 to 1913:

TABLE 18.—TREND OF REAL EARNINGS IN GREAT BRITAIN, 1790–1913[1]

Years	Real-wage index (1913 = 100) (average for decade)
1790–1799	37
1800–1809	41
1810–1819	41
1820–1829	47
1830–1839	47
1840–1849	49
1850–1859	58
1860–1869	63
1870–1879	74
1880–1889	84
1890–1899	98
1900–1909	102
1913	100

[1] A. H. Hansen, "Factors Affecting the Trend of Real Earnings," *American Economic Review*, vol. 15 (March, 1925), p. 33.

An upward trend, with some periods of little progress, is indicated by these data. In all probability the workers received on the average during the 1860–1869 decade money wages with some 65 to 70 per cent more purchasing power than that of wages received in the last decade of the eighteenth century. This rise appears to have continued, moreover, until about the turn of the century, when real wages were between 40 and 45 per cent higher than during the 1860's.[1] From 1900 until the outbreak of the World War, however, little if any progress was made, and in 1913 the index number was only a fraction more than 2 per cent above that of the last decade of the nineteenth century.[2] Nor was there substantial gain

[1] Also, more reliance can be placed upon the figures for the period from 1860 on. The composite index of Professor Hansen is based upon evidence with respect to the money wages (rates) of industrial workers after 1850—not upon estimates of the deviation of money wages of industrial workers from those of agricultural workers, as is the case with the data prior to 1850.

[2] This brief summary has been based chiefly upon the real wage index of Professor Hansen, and it is worth mentioning that other studies indicate the same general conclusions. The study of G. H. Wood, to which reference has been made in an earlier footnote, showed that real wages rose from an 1860–1864 base of 100 to 169 for the first two years of the present century—a gain slightly in excess of that indicated by the composite index of Professor Hansen. Mr. Wood's indexes of real wages are especially valuable in that he made allowance, in constructing the money-wages indexes, for the amount of unemployment in the several years. Mr. Wood also worked out a series of index numbers for the consumption of basic commodities for the same period (1860–1902). An index of consumption (the relative amount of goods consumed per capita over successive years) serves as a check upon an index of real wages; when the latter increase, it is to be expected that per capita consumption will increase, since wage earners spend a larger proportion of their incomes for consumption goods than do other economic classes, and if the two index series do not move closely together there is reason for questioning the data or methods of one or

during the years following the outbreak of the conflict. Between 1914 and 1918, according to the Board of Trade's index, the cost of living increased 105 per cent. During this same period wage rates increased between 75 and 80 per cent. By 1920, however, the cost of living index stood at 252, while the index of wage rates stood at 260 (both on the 1914 basis of 100), indicating that over the whole period there was a slight increase in real returns. So far as a general statement can be made, then, it may be said that rates for the same work increased less rapidly than did the cost of living between 1914 and 1918, that between 1918 and 1920 the increase in wage rates was more than sufficient to offset the increase in the cost of living, and that by 1920 the workers probably received, on the average, more goods and services for an hour's or a full-time week's work than in 1914. To the extent, also, that the increase in the cost of living was less than is indicated by the Board of Trade's index —as there is reason for believing that it may have been[1]—the increase in

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the other. Professor Wood's indexes showed that real wages increased 69 per cent and consumption 61 per cent during the period covered by his study, while for no year was there a variation of more than 10 per cent. The study of Mr. L. G. Chiozza-Money (*Riches and Poverty*, 3d ed., 1906, pp. 41–43) followed a different method of measuring progress during the last part of the nineteenth century and the early twentieth century: that of setting up several practical indicia of the improvement in the lot of workers. Consideration was given to average money earnings of manual workers, the per capita consumption of certain articles of imported food, the number of deaths in relation to the population, the number of criminals convicted, deposits in trustee savings and post office banks, the number of paupers, the price of bread per loaf, and the Board of Trade price index. During the period 1867–1903, it was found, the cost of living, as measured by the Board of Trade index, declined more than 21 per cent. (In fact, this decline was for the period 1871–1903, figures for the four years preceding 1871 not being available, but prices changed only slightly between 1867 and 1871 and the necessity of using the latter year for the price comparison, while 1867 is used for the others, does not invalidate the conclusions reached.) At the same time the average annual earnings of manual workers increased from £30 to £45, or 50 per cent. The per capita consumption of wheat, rice, sugar, tea, and beer, all important articles for the masses, increased, in some cases as much as 75 per cent, while deaths were considerably fewer in relation to the size of the population in 1903 than in 1867 (634,000 out of a population of 30,500,000 in 1867, 667,851 out of a population of 42,500,000 in 1903). The number of criminals convicted declined from 19,450 to 13,162, in spite of the increase of 12,000,000 in population. The decline in the number of paupers (from 958,824 to 731,525) and the increase in deposits in post office and trustee savings banks (from £46,283,000 to £198,675,000) were other indicia of material progress cited by Mr. Chiozza-Money. Professor Hansen's estimates of the real wage trend for the period immediately preceding the outbreak of the War are substantiated by the findings of Professor Bowley of the London School of Economics [*cf.* D. L. Bowley, "Prices and Wages in the United Kingdom, 1914–1920," 1921 (*Economic and Social History of the World War*, British Series), p. 87]. Professor Bowley found that money wages (in terms of hourly and weekly rates) increased about 9 per cent between 1904 and 1914, while retail prices increased approximately 12 per cent and wholesale prices a trifle more.

[1] The Board of Trade index figure has been criticized as exaggerating the increase in the cost of living, owing to the fact that it has made no allowance for changed consumption habits of the wage-earning class as time has gone on. With this criticism in mind, Professor

real wages was greater than is indicated by the data just quoted. It is likely, moreover, that steadier employment and overtime work during the war brought increases in weekly and annual earnings not indicated by our data on rates, while at the same time the narrowing of the differential between the wages of the skilled and the unskilled workers—a war-time consequence in both regulated and nonregulated trades—had the effect of lessening poverty among the more submerged groups. The decline in the birth rate and the employment of more members of the family, on the average, were other factors tending to raise family standards of living.

Information permitting us to speak with a comforting degree of certainty concerning developments in Great Britain since 1920 is not available. There have, of course, been both a material decrease in the cost of living[1] and general but unequal wage reductions. In the Wage Boards industries the reductions have generally been made conservatively and usually within the decrease in the cost of living. At the same time a considerable fraction of the unionized workers have had agreements with their employers providing for readjustments in wages in accordance with changes in the cost of living. Outside of the organized industries with agreements of this type, wages have in some cases been reduced more rapidly than the cost of living, in others less. Two facts are, however, fairly clear: first, that the purchasing power of the daily and weekly wages of those employed has increased during the postwar period, and, second, that this gain has been more than neutralized for many working groups by prolonged and widespread unemployment. The studies of the International Labour Office at Geneva show that up to 1924 real earnings increased little, if any, over the 1920 level,[2] but that a fairly steady rise began in 1924–1925 and continued on into the 1930's. By the beginning of 1932 the weekly rates of men and women employed in industry, mineral production, agriculture, and public service apparently had a purchasing power of between 14 and 17 per cent more than they had some eight years

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Bowley has worked out a modified index of changes in the cost of living (*cf.* A. L. Bowley, *op. cit.*, p. 106). His index (1914 = 100) stood at 220 in 1920 instead of 252, and if we assume, as there is reason to do, that this modified index number gives a more accurate portrayal of the increase in the cost of living, we see that the increase in real time and piece rates between 1914 and 1920, while not great, was substantial.

[1] The International Labour Office's estimate is that in 1931 the cost of living was approximately 45 per cent above the 1914 level. *International Labour Review*, vol. 24 (July, 1931), p. 94. The Board of Trade's index shows that the cost of living continued to decline during the depression years of 1931 and 1932, and in 1933 it stood at about 35 per cent above the 1914 level, as compared with the index figure of 252 (142 per cent above the 1914 level) in 1920.

[2] English unions were able to prevent general rate cutting to a greater extent than were American unions during the 1921–22 depression, with the consequence that in many cases real wages, calculated upon the hourly or weekly rate basis, seemed to increase while unemployment was widespread and the total wage bill decreasing. The same was true in England, to an extent, during the period 1929–1933. Whether the policy of rate maintenance increased the volume of unemployment is another question.

earlier.[1] Of the general upward movement during the period of more than 140 years discussed in these paragraphs there can be no question; whether the English workers have held their own in comparison with other economic classes is another matter.[2]

Progress of the American Workers before 1870.—The trend of real wages during our own early economic development can be traced briefly. In the absence of any distinct and permanent wage-earning class until the Industrial Revolution was well under way in England, the question

[1] The index figures of the International Labour Office for this period are as follows: 1924, 100; 1925, 103; 1926, 105; 1927, 108; 1928, 106; 1929, 109; 1930, 112; first quarter of 1931, 114; second quarter of 1931, 117. *Cf.* "Movements in the General Level of Wages," *International Labour Review*, vol. 24 (November, 1931), p. 594.

[2] Of necessity, the quantitative material presented in this book is limited chiefly to that pertaining to England and the United States, but brief mention of real wage trends in other countries during recent years is worth while. Owing to the fact that statistics were not compiled in some of the countries during the prewar period, the trend must in some cases be confined to postwar years; in other cases comparison with the prewar level can be made. In Germany, according to the computations of Dr. Elsas, the purchasing power of hourly rates for industry, mines, and public service was 4 or 5 per cent below the prewar (1913) level in 1924 and 1925, but a rise began after the stabilization of the Mark, and at the end of 1930 real wages (expressed as the purchasing power of hourly rates) were 19 per cent above the prewar level. In Australia the purchasing power of full-time weekly rates was 14 per cent above the prewar level in 1929, and 11 per cent above when the figures were adjusted to allow for unemployment. In New Zealand, little gain has been made as compared with the prewar (1913–1914) situation, the index of real weekly rates for men in agriculture, mines, industry, public service, commerce, and a miscellaneous group of occupations standing at 103.6 in 1929, and for women at 99.4. In Czechoslovakia (Prague only) the purchasing power of hourly rates in 1929 was 33 per cent above the prewar level, and that of weekly rates 19 per cent above, while the two index figures for the third quarter of 1931 were 146 and 130, respectively. For Switzerland, the International Labour Office studies show that in 1924 real daily earnings of men (skilled and semiskilled) were 17 per cent above the prewar level in 1924 and 31 per cent above in 1930, the fourteen-point gain during the six-year period being fairly evenly distributed in point of time. The index number of real daily earnings for men and women in Sweden stood at 138 in 1929, the average of the years immediately preceding the War being taken as 100. Real wages in Poland seem to have followed a more erratic course than in other European countries. With 1927 taken as 100, the purchasing power of weekly rates slumped from 127.2 in 1924 to 97.7 in 1926, then rose to 107.8 in 1928, 115 in 1929, and 126.2 in 1930. Accurate studies of the trend of real earnings in Canada, France, Italy, and Japan are not available, but we can make rough computations by use of the International Labour Office data on money wages and earnings. On the basis of the prewar (1914 for agriculture, 1913 for the other groups) level of 100, the Canadian index numbers of money earnings for 1930 were: men in agriculture, 173; women in agriculture, 216; workers in mines and public service, 194; unskilled men in industry, 188; skilled and unskilled men in industry, 202. The cost of living in Canadian cities in 1930 was approximately 45 per cent above the prewar (1913–1914) level. Except for agriculture, these Canadian indexes have been computed on the basis of hourly rates; the indicated gain in money wages would be less were weekly wages or weekly earnings used as the expression of worker income, and still less were allowance made for unemployment. The revaluation of the franc in France, following the period of inflation, makes misleading the available index figures on money wages. The average daily rate for the prewar (1911) period is shown by official sources, brought together by the Interna-

of whether the real earnings of the workers were advancing did not have the tremendous social significance that attaches to it today.[1] Slavery and indentured servitude, as well as wage labor, were prevalent and the "labor problem" of the colonies was, in fact, that of getting and holding the necessary labor force rather than of fixing the terms and conditions of employment.[2] Also, our data upon prices are so meager that we are

tional Labour Office, to have been 8.12 francs (exclusive of agriculture, mineral production, and public service); in 1930 the average daily rate was 53.76 francs. In the meantime, the franc had been revaluated at about one-fourth its prewar gold value, and the internal price level had readjusted itself in rough correspondence. The index number of money hourly rates (1911 = 100) for 1930 was 668. Allowance for the new gold value of the franc and for price changes indicates that hourly rates in industry increased about 28 to 30 per cent between 1911 and 1930. The French figures are, however, taken entirely from Paris industrial plants, and in view of the fact that large-scale production and consequent interdependence have not proceeded as far in France as in England or Germany, and that peasant proprietorship and small-scale industry are more common than in these other countries, the data cannot be taken as being more than roughly indicative of the trend throughout all of France. Italian data from which index numbers can be constructed are confined to very recent years. With the July, 1928—June, 1929 average taken as 100, the index numbers of money wages (hourly earnings being employed as the expression) for recent years are as follows: 1928, 102.1; 1929, 102.6; 1930, 103.1; 1931 (first two quarters), 92. The recent decline in money earnings has apparently been about equal to the decline in the cost of living. Reliable data for Japan are available only since 1926. With daily money earnings for that year taken as 100, the index numbers are: 1927, 102.1; 1928, 105.3; 1929, 103.9; 1930, 98.7; 1931 (first two quarters), 92.6. These data indicate that wage rates declined less rapidly than did prices during the price slump coming with the world depression, and more particularly with the demoralization of the Japanese silk industry. In the Scandinavian countries real earnings apparently have risen somewhat more than in England. A recent volume in the Stockholm Economic Studies [Bagge, Lundberg, and Svennilson, *Wages in Sweden, 1860–1930*, (P. S. King, London, 1933)] shows that real earnings of all employed workers (1910–1913 = 100) were 116.9 in 1926 and 127.5 in 1930. The series worked out by Messrs. Bagge, Lundberg, and Svennilson for the entire period 1860–1930 shows that real annual wages at the outbreak of the war were approximately two and a half times what they had been during the 1860's. There was a pronounced drop during the war, and in 1917 and 1918 real annual wages were about 20 per cent less than in 1913. By 1923, however, they had reached their prewar level, and during the seven ensuing years rose markedly, being approximately 27 per cent above their 1910–1913 average in 1930. The statistics upon which the general statements in this footnote, except for the just summarized Swedish data, are to be found in the *International Labour Review*, vol. 24 (November, 1931), pp. 584–597.

[1] An excellent picture of actual labor conditions in the colonies is to be found in Marcus W. Jernegan's *Laboring and Dependent Classes in Colonial America, 1607–1783* (Chicago, 1931). The best source of information on wages and earnings is "History of Wages in the United States from Colonial Times to 1928," U. S. Bureau of Labor Statistics, *Bulletin 499*, pp. 13–140 (1929).

[2] Governor Winthrop of the Massachusetts Bay Colony declared in 1630 that the "scarcity of workers caused them to raise their wages to an excessive rate," while a century and a quarter later Governor Dobbs of North Carolina reported that "artificers and labourers being scarce in comparison to the number of Planters, when they are employed they won't work half, scarce a third part of work in a Day of what they do in Europe, and their wages are from two shillings, to, 3, 4, and 5 shillings per Diem this currency." In

not justified in speaking in terms of index figures of real wages prior to the 1820's. We do know, however, that the period prior to the American Revolutionary War was characterized by relatively stable wages and prices and by standards of living which, while low in comparison with what we think of as desirable minima today, provided the workers with a fair supply of the necessities of life.[1] Some progress apparently was made during the last half of the seventeenth and the first three-quarters of the eighteenth century, but it is safe to say that no great or revolutionary changes in the trend of real wages took place before the Revolutionary War. With the termination of that war, there commenced a period of generally rising prices and wages, which continued with some interruptions until the depression of 1818, but all the facts we possess indicate that the rise in money wages between the 1770's and 1818 was offset by rising prices, and it is probable that prices rose a trifle more than money wages over the period as a whole.

From 1820 to 1850, however, prices in general fell, money wages rose somewhat, and the workers gained substantially.[2] It is possible, moreover, to express the trend in terms of index numbers after 1820. Data on weekly wages of laborers and artisans have been compiled by the Russell Sage Foundation for the period beginning with 1820, and the data

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Maine in 1675, "handicraftsmen are but few, the Tumelor, or Cooper, Smiths, and Carpenters are best welcomed amongst them," while "artificers" were so scarce in South Carolina in 1731 "that all sorts of work is very Dear; Taylors, Shoemakers, Smiths, etc. would be particularly acceptable." U. S. Bureau of Labor Statistics, *Bulletin 499* (1929), pp. 7–8.

[1] An idea of the purchasing power of wages during the seventeenth century may be obtained from records of wages and prices in Massachusetts. In 1630 wages of carpenters were approximately twenty-three cents a day with board, or thirty-three cents without board; those of laborers with board were as low as eleven cents a day at that time, while those of masons and bricklayers in 1672 were twenty-two cents a day with board. Prices of staple commodities during this period were higher in relation to money wages than they are today. The average price of barley between 1640 and 1690 was sixty-nine cents a bushel; that of wheat during the same period eighty-one and a half cents; and that of a pair of men's shoes eighty-three cents. From records of the Massachusetts Bureau of the Statistics of Labor, as brought together in Adams and Sumner, *Labor Problems*, pp. 503–505. To an extent, attempts were made to maintain the standard of living of the workers and at the same time prevent wages from becoming "excessive" by wage legislation and judicial determination, but these attempts never were successful in the face of a labor shortage. A brief account of the attempts at state control of wages is to be found in U. S. Bureau of Labor Statistics, *Bulletin 499*, pp. 9–11.

[2] The downward price movement was not, of course, continuous throughout the period. During some years, especially those of the inflation period immediately preceding the panic of 1837, prices advanced rather rapidly. There was also about a 15 per cent rise in wholesale prices during the decade immediately preceding the Civil War, and an increase of perhaps 11 to 13 per cent in the cost of living. The cost of living index numbers worked out by Professor Hansen in the study to which reference was made in connection with the trend of real wages in England are as follows (1913 = 100): 1820, 88; 1830, 72; 1840, 80; 1850, 73; 1860, 82.

of the Aldrich Committee, a government body which in 1890 investigated price trends, wage movements, and other matters affecting the economic well-being of the country,[1] are also available. Utilizing the material from these and other sources, Professor Hansen, in the study already referred to, has constructed indexes of money wages, the cost of living, and real wages for the entire period since 1820.[2] A tabular presentation of the results, by ten-year periods, is indicative of the extent of progress up to 1850, and of the degree to which the workers held the gains already made during the price rise of the 1850's:

TABLE 19.—MONEY WAGES, COST OF LIVING, AND REAL WAGES IN THE UNITED STATES, 1820–1860[1] (1913 = 100)

Year	Money wages	Cost of living	Real wages
1820	36	88	41
1830	37	72	51
1840	41	80	51
1850	43	73	59
1860	47	82	57

[1] A. H. Hansen, *op. cit.*, p. 32.

It will be noted that substantial gain was realized during the period of generally falling prices prior to 1850, and that money wages failed to advance as rapidly as the cost of living during the decade just before the

[1] The report of the Aldrich Committee has been frequently quoted in the last forty-five years, and it has been responsible for several inaccurate notions regarding the material progress of the American workers prior to 1890, owing to the methods by which its indexes were constructed. For a description and criticism of the methods of this Committee, see Wesley C. Mitchell, *Gold, Prices, and Wages Under the Greenback Standard*, pp. 169–172.

[2] We shall have occasion to refer to this study later, since it represents an attempt to summarize the trend of money wages, the cost of living, and real wages from 1820 to 1923, and it is therefore worth our while to mention briefly the data utilized and the methods followed. Professor Hansen obtained his wage statistics from a number of sources. For the period 1820–1840 he utilized data compiled by the Russell Sage Foundation on weekly wages of laborers and artisans. For the eighty-three years from 1840 to 1923, he worked out two series of indexes of money wages. One was a continuation of the Russell Sage data on weekly wages. The second was a compilation of data for daily wages from 1840 to 1890, for "full-time weekly" earnings from 1890 to 1914, and for average annual earnings from 1914 to 1923, as data on earnings were available for the period after 1914 in two states, New York and Wisconsin. From these two series, Professor Hansen worked out his indexes of money wages. Where possible he used data for daily and weekly wages in preference to hourly rates, in order that the figures might not be partially invalidated by changes in the number of hours constituting the working week. His index of the cost of living included prices of food, clothing, fuel, light, and household furnishings, weighted according to the expenditures of workmen's families. Lack of data upon retail prices made it necessary to resort to wholesale prices of these articles for the greater part of the period covered by the study.

Civil War. Over the entire period from 1820 to 1860, however, the gain was apparently between 38 and 40 per cent.[1]

Money wages advanced during the Civil War period, but they lagged far behind the soaring prices caused by the issuance of the Greenbacks, the general bidding up of prices, and other conditions peculiar to the War period, and by 1865 the purchasing power of hourly and daily wage rates was probably lower than in 1840. Index figures worked out by Professor W. C. Mitchell[2] show, it is true, a slight increase in real wages during 1861 and the early part of 1862, but during the latter year an abrupt decline commenced, continuing until 1865. For January, 1863, the index number of real wages (1860 = 100) was 89, for the first month of 1864 it was 81, and for January of 1865 only 67.[3] With the termination of the conflict and the beginning of the downward trend of prices, however, recovery was fairly rapid. By 1869 real wages had advanced enough to offset the losses of the War period and probably were between 12 and 15 per cent above the 1860 level.

Progress of the American Workers, 1870–1890.—The two decades following 1870 were characterized by economic changes of profound consequence. Mechanization and large-scale production made rapid inroads in the basic industries; the percentage of the population working for wages and salaries increased; the real national income increased both absolutely and per capita; trustification and absentee-ownership became common; agrarian and self-sufficing economy partially gave way to capitalistic and market organization; urbanization of population brought greater interdependence and made the trend of labor's real remuneration a fact of more vital social significance; property ownership became more concentrated; in international trade the immature-debtor status of the United States changed to that of mature debtor; the great transcontinental railroads began to span the nation and break down local barriers; the westward movement reached its height; the banking system of the country was placed upon a firmer foundation; the policy of specie payment became firmly established, even while the "cheap-money" agitation was

[1] It is worth noting that the more rough-and-ready measurement of progress afforded by a comparison of wage rates with the prices of staple commodities tends to substantiate the conclusions pointed to by these index figures. The data compiled by the Massachusetts Bureau of the Statistics of Labor show that the average wage for agricultural laborers between 1752 and 1760 was thirty-one cents a day, while in the decade following 1850 it was slightly more than one dollar. The average wage of laborers in the first of these periods was twenty-nine cents, and in the second ninety-seven cents; while wages of masons were sixty-seven cents a day in Massachusetts in 1771 and $1.53 during the 1850–1859 decade. In view of the declining prices, the increase in real wages and earnings is apparent.

[2] *Cf.* W. C. Mitchell, *History of the Greenbacks*, 1903, Chaps. 4 and 5.

[3] Professor Hansen's index figures, which take 1913 as the base of 100, showed that real wages were 57 in 1860 and 38 in 1865—a drop of one-third, virtually the same as the war-time losses indicated by Professor Mitchell's study.

at its height; prices in general moved downward;[1] official governmental policy became more and more that of fostering business enterprise; prosperity was uneven and fluctuating, in spite of the increase in per capita wealth and income, with two major business depressions and widespread unemployment occurring in the 1870's; the prices of farm products declined more rapidly than those of manufactured goods, and the inevitable agrarian revolt expressed itself in grangerism, greenbackism, and the free-silver agitation; the labor movement, confused as to its ultimate destiny and its proper philosophical basis, espoused the dogmas of diverse doctrinnaire gods but at the same time became increasingly militant and assertive. Contradictory and conflicting forces were evidently influencing the real earnings of the increasingly important wage-earning class, but of the general trend we can be fairly certain.

While lack of accurate information as to the extent to which daily and weekly wages were reduced by unemployment makes it imperative that we regard with caution the indexes of real wages, the fact that the movement was on the whole upward is beyond question. Professor Hansen's estimates, which may be taken as the most complete and accurate for this period, show the following trends:

TABLE 20.—MONEY WAGES, COST OF LIVING, AND REAL WAGES IN THE UNITED STATES, 1870–1890 (1913 = 100)[1]

Year	Money wages	Cost of living	Real wages
1870	84	119	71
1875	77	106	73
1880	66	86	77
1885	70	77	91
1890	74	77	96

[1] A. H. Hansen, *op. cit.*, p. 32.

The figures speak for themselves, showing a rise of approximately 35 per cent in real wages between 1870 and 1890. It remains only to say that other studies reveal the same general trend,[2] to repeat—perhaps

[1] The Bureau of Labor wholesale price index numbers for the period (1890–1899 = 100) were: 1870, 221; 1880, 132; 1890, 113. Professor Hansen's cost of living index (1913 = 100) stood at 119 in 1870 and 77 in 1890.

[2] The Aldrich Report, already referred to, showed that in 1890 money wages were 104 per cent above the 1840 level, 74 per cent above the 1850 level, and 68 per cent above the 1860 level. Owing to the fall in prices, real wages increased more. In 1890, according to this report, real wages were 159 per cent above the 1840 level, 106 per cent above the 1850 level, and 83 per cent above the 1860 level. *Bulletin 18* (1898) of the old U.S. Department of Labor, which presents the results of an investigation of wages paid in twenty-five occupations in twelve important cities beginning with 1870, shows that between that date and 1889 average rates of pay increased approximately 14 per cent. It will be remembered that the cost of living during the same period, according to Professor Hansen's index, dropped approximately 35 per cent (from 119 to 77). It should be mentioned, however,

gratuitously—the caution that the trend of labor's real remuneration does not indicate how well the workers have held their own in comparison with other economic classes, and to summarize briefly the facts with respect to the sharing of the gain among different groups of workers.

Within the industrial group, clearly, the unskilled workers failed to make the progress that was enjoyed by the craftsmen. The period was characterized by the influx of large numbers of immigrants, and while the majority were of the "old," or Northwestern European, stock and were more likely to bring with them a craft mastery than were the "new" immigrants who came in increasing numbers after 1890, a large number swelled the ranks of the unskilled and brought a competition for jobs that kept the wage level from advancing more rapidly. An enormous number of the unskilled workers affiliated with the heterogeneous Knights of Labor between 1883 and 1887, but on the whole they were less frequently assisted by organizations structurally and functionally adapted to the securing and maintaining of higher wages than were the skilled. Such evidence as is available points to the conclusion that the unskilled gained not more than two-thirds to three-fourths as much as did the skilled workers,[1] and thousands of them continued to receive incomes inadequate to maintain decent livelihood. As between urban and rural labor, however, the gains seem to have been fairly evenly distributed. Contrary to the situation after 1890,[2] the real wages of farm laborers increased, even while the exchange value of farm products in terms of other products—and therefore the imputed value productivity of the labor producing them—was declining.[3]

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that the wage data were drawn from rapidly growing cities and from occupations in a number of which the rates were favorably affected by the organization of labor. Professor Wesley C. Mitchell (*cf. Gold, Prices, and Wages under the Greenback Standard*, pp. 92–248) reached the conclusion that for all groups real wages increased approximately 59 per cent between 1860 and 1890. Dr. W. I. King (*cf. Wealth and Income of the People of the United States*, The Macmillan Company, 1915, p. 189) found a somewhat greater increase in real wages than did the other investigators, his indexes of the purchasing power of money wages (1890–1899 = 100) being: 1870, 58.2; 1875, 62.9; 1880, 69.9; 1885, 85.7; 1890, 94.9. According to this study, then, real wages increased approximately 63 per cent between 1870 and 1890. Dr. King obtained his data on money wages from the Aldrich Report, and used the wholesale price index as indicative of the trend of the cost of living.

[1] Professor W. C. Mitchell's study, mentioned in an earlier footnote, showed that the gain for all groups between 1860 and 1890 was about 57 per cent. Another student, Miss Edith Abbott, later worked over that part of the data pertaining to the unskilled, with certain supplementary evidence, and reached the conclusion that the increase in the real wages of the unskilled was approximately 44 per cent. [*Cf.* "Wages of Unskilled Labor in the United States, 1880–1900," *Journal of Political Economy*, vol. 13 (1905), pp. 321–367]. These diverse conclusions might be due to differences in method on the part of the two investigators, but more probably they indicate that the unskilled workers were not gaining as much as were the skilled.

[2] *Cf. infra*, pp. 99–100.

[3] Owing to the fact that many of the commodities included in indexes of wholesale prices

Progress of the American Workers, 1890–1930.—More detailed examination of the facts and greater attention to methods of measurement must characterize our study of the trend of real earnings from the final decade of the nineteenth century to the beginning of the great depression of the 1930's. In spite of the upsetting character of developments during the post-1929 years, and the curtailment of the real incomes of persons in almost all walks of life, the status of the wage-earning class today is a heritage of the progress made during the four decades with which we are immediately concerned, and the problems confronting the present generation can be intelligently attacked only if there is comprehension of the extent of this progress and of its social and economic determinants. It is comforting to know, also, that the factual information upon which our conclusions must be based is more reliable than that for the earlier periods, and that we shall not so frequently have to introduce the "seems to be approximately" element.

To say that the period here under survey was one of social and economic changes, far-reaching in their implications and frequently upsetting in their rapidity, is only to state what all know; but it is, nevertheless, essential for interpretative purposes that the changing background of labor's material progress be kept in mind. Price movements, in the first place, played a more or less constant part in determining the material advancement or retrogression of the workers. The long post-Civil War decline continued until 1896, but it was followed by an upturn and a steady rise until 1913, when wholesale prices were approximately 47 per cent above the low level of 1896 and the cost of living about 38 per cent higher. During the World War, prices on the average more than doubled, then dropped to about 70 per cent above the 1913 level and remained fairly constant until 1929, when the 1929–1933 decline commenced.[1] Almost

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and the cost of living are not actually purchased by farm workers but are received by them as part of their payment in kind (a fact more true during the years 1870–1890 than more recently), the increase in money rates affords a better criterion of the general gain during this period than an attempt to construct index numbers of real wages. According to a study published by the U. S. Department of Agriculture in 1912 (*Bulletin 99*), daily wages of labor engaged in other than harvest work increased from 74.4 cents in 1869 to 82.9 cents in 1890, these averages being wage rates without board. For farm workers receiving board, daily rates increased from 69.2 cents in 1869 to 79.1 cents in 1890. This was during a period when the cost of clothing, household goods, and other things purchased by farm workers was declining. Harvest labor was paid somewhat higher wages during this period, but the percentage of increase was approximately the same.

[1] The Bureau of Labor Statistics index numbers of wholesale prices for the various years were as follows (1926 = 100): 1890, 56.2; 1896, 46.5; 1907, 62.5; 1913, 68.1; 1918, 131.3; 1920, 154.4; 1923, 100.6; 1929, 96.5; 1930, 86.3. *Cf.* "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin* 541, 1931 edition, p. 591. Professor Douglas' cost of living index for nonagricultural areas indicated the following trends (1890–1899 = 100): 1890, 104; 1896, 99; 1907, 126; 1913, 137; 1918, 218; 1920, 286; 1923, 234; 1926, 241. *Cf.* P. H. Douglas, *Real Wages in the United States*, p. 60. As was stated

equal in importance to a knowledge of general price movements is a familiarity with the relative price movements of different groups of commodities, especially of farm products and others, since these relative price movements indicate the exchange value of the commodities produced by different industries or groups of industries and therefore (together with the number of units produced) the increase or decrease in the fund of value from which workers may be reimbursed. As is indicated later,[1] a factor of not negligible importance in determining the increase or decrease in the earnings of industrial workers has been the increase or decrease in the exchange value of farm products in terms of the commodities produced by manufacturing and other enterprises. Prior to the end of the World War, the price of farm products increased more rapidly than did the prices of all commodities, the former rising by about 42 per cent between 1890 and 1913 and by about 107 per cent between 1913 and 1918, and the latter by about 23 per cent between 1890 and 1913, and about 87 per cent between 1913 and 1918.[2] The exchange value of farm products in terms of other commodities was evidently rising substantially during this period.[3] Beginning in 1918 or 1919, however, the prices of

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in the preceding chapter (*cf.* pp. 48–51), the Bureau of Labor Statistics cost of living index shows the same general trend, although the already explained differences in method of construction have resulted in a slightly greater increase in the cost of living being shown for the period following 1914. The Bureau's cost of living indexes for the years following 1913 are (1913 = 100). 1918, 177.3; 1920, 216.5; 1923, 169.7; 1926, 174.8; 1929, 170.2; 1930, 166.6. *Cf. Bulletin 541*, p. 90. Professor Hansen's cost of living index figures for that part of the period extending through 1923 are (1913 = 100): 1890, 77; 1907, 90; 1913, 100; 1918, 159; 1920, 208; 1923, 171. *Cf.* A. H. Hansen, "Factors Affecting the Trend of Real Wages," *American Economic Review*, vol. 15 (March, 1925), p. 32. The National Industrial Conference Board's data show the same general trend of living costs. *Cf.* its publications, *Cost of living in the United States, 1932*, and *Wages in the United States in 1931*, pp. 34 and 64.

[1] *Cf. infra*, pp. 99–100.

[2] The Bureau of Labor Statistics index of wholesale prices of farm products (1926 = 100) stood at 50.4 in 1890 and 71.5 in 1913, showing an increase of approximately 42 per cent. The "all commodities" index numbers for the two years were 56.2 and 69.8, respectively, showing an increase of about 23 per cent. The same relative trend continued on through 1918, the index for farm products rising from 71.5 to 148.0, or about 107 per cent, and that for all commodities from 69.8 to 131.0, or about 87 per cent. U. S. Bureau of Labor Statistics, *Bulletin 541*, p. 591.

[3] Perhaps it is unnecessary to point out that it would not be strictly accurate to divide the index numbers for farm products, for given years, by the "all commodities" index numbers for the same years, in order to determine the trend of exchange value of farm products, since the "all commodities" index itself includes the group of farm products. To be specific, the Bureau of Labor Statistics "all commodities" index includes farm products, foods, hides and leather products, fuel and lighting, textile products, metals and metal products, building materials, chemicals and drugs, house furnishings, and a miscellaneous group. Nevertheless, these computations of percentage increases or decreases in the price of farm products and of "all commodities" are suggestive of the trend of the exchange ratios.

farm products began to lag. The wholesale prices of all commodities rose about 12 per cent between 1918 and 1920,[1] while those of farm products increased only a little more than 1 per cent.[2] In the downward price trend that began after 1920, the prices of farm products—contrary to a certain amount of popular opinion—appear to have declined in about the same proportion as did those of other commodities,[3] the former dropping about 33 per cent between 1920 and 1926 and 12 per cent between 1926 and 1930, and the latter 32 per cent and 14 per cent during the same two periods.[4] Still a third characteristic of the period 1890–1930 was—over the whole period, and ignoring the falling off of production during business depressions—the appreciable increase in the national wealth and income. Indexes of physical production and of per capita real income, discussed in the following chapter in connection with the question of how well the workers have fared in comparison with other economic classes, indicate that the quantum of goods and services available for consumption or saving has increased, on the per capita basis, at an average rate of somewhat more than 2 per cent per annum.[5] At least a strong presumption is created by this fact that some increase in real wages during the period was to be expected.[6]

Other conditions, changes, and trends in the background of labor's material progress should be mentioned prior to an examination of the extent of this progress and an analysis of the reasons for it. While physical production was increasing and prices were fluctuating in the

[1] From 138 to 154 according to the Bureau of Labor Statistics index figures (1926 = 100).

[2] From 148 to 150 according to the same index (same base).

[3] Attention may be called to the fact that the loss of the farmers, relative to other groups of producers, is largely a consequence of the fact that between 1918 and 1920 farm products rose less rapidly than did those of other commodities. Prior to 1918, the producers of farm commodities were gaining in relation to other groups of producers, and they did not lose relatively after 1920.

[4] Prices of farm products dropped from 150 to 100 between 1920 and 1926, and from 100 to 88 between 1926 and 1930; those of "all commodities" from 154 to 100 and from 100 to 86 during the same two periods, respectively. U. S. Bureau of Labor Statistics index figures, 1926 base.

[5] *Cf.* pp. 139–143. See also W. I. King, *Wealth and Income of the People of the United States*, pp. 106–154; W. I. King, *The National Income and Its Purchasing Power*, pp. 73–104; M. A. Copeland, "The National Income and Its Distribution," *Recent Economic Changes*, vol. 2, pp. 757–766; E. E. Day, "An Index to the Physical Volume of Production," *Review of Economic Statistics* (1924), pp. 193–204; E. E. Day, "Measurement of Variation in the National Income," *Journal of American Statistical Association*, vol. 17 (March, 1921), pp. 552–559; W. W. Stewart, "An Index Number of Production," *American Economic Review*, vol. 11 (March, 1921), pp. 57–82; E. E. Day, and W. Thomas, *The Growth of Manufactures* (Census Monograph VIII, 1928); P. H. Douglas, *Real Wages in the United States*, pp. 504–548; and the Federal Reserve Board's indexes of total production in factories and mines as they appear in the various issues of the *Federal Reserve Bulletin*.

[6] *Cf.* pp. 206–209, where the reasons why, in terms of economic theory, an increase in physical production should result in higher real wages are discussed in some detail.

manner just described, the percentage of the population working for wages and salaries increased,[1] manufacturing superseded agriculture as the dominant economic activity[2] (at least when measured by the criteria of value of product and percentage of the gainfully employed engaged in each), the nation became more and more one of urban dwellers,[3] and labor in general migrated from the lower-paid to the higher-paid occupations to a greater extent than in the opposite direction.[4] By the turn of the century the more desirable free land had been taken by settlers, this "natural" regulator of wages ceased to operate, and one great epoch in American economic and cultural evolution came to its close. The "rising tide of immigration" continued until the outbreak of the World War, when net European immigration totaled more than three-quarters of a million annually, then dropped abruptly during the World War period, and was curbed by government policy during the years following 1920. Wages of unskilled workers were depressed, or kept from rising more rapidly, by the influx of large numbers of "new" immigrants from Southeastern Europe, and the labor policies of large corporations—the tendency to adapt jobs to men rather than men to jobs and the maintenance of output by "drive" rather than by inducement—were influenced in no small part by the character of the immigration. Women entered industry in increasing numbers,[5] and not until 1920 did the Census show an absolute decrease in the number of employed young persons.[6] The railroad mileage of the country increased until about 1920, when an overexpansion began to make itself manifest, and then remained substantially constant during the following seventeen years.[7] It was evident by 1914 that the period of rapid internal market expansion was nearing its close, and that American producers would have to look more and more to foreign markets. With the outbreak of the World War, the debtor position of the United States quickly shifted to that of world creditor, while the demand for American goods abroad—purchased largely as a result of government and private loans made to European states and individuals—increased the favorable balance of trade and brought a feverish prosperity extending into 1920. Three major business depressions (1893–1897, 1921–1922, and 1929–35) and two minor ones[8] (1907 and 1914) brought unemployment and wage cuts,

[1] *Cf. supra*, pp. 27–29.

[2] *Cf. supra*, pp. 21–23.

[3] *Cf. supra*, pp. 24–27.

[4] *Cf. infra*, pp. 100–101, where an attempt is made to measure quantitatively the extent to which the increase in real average annual earnings has been due to occupational shifting rather than to the payment of higher remuneration for the same kinds of work.

[5] *Cf. infra*, pp. 377–380.

[6] *Cf. infra*, pp. 423–424.

[7] *Cf. supra*, pp. 13–14.

[8] Three, if one includes the brief and slight downswing of business in 1924.

while technological changes during the War and postwar periods made the tactics of old-line, craft-conscious unionism inapplicable, in some cases, to the new needs and conditions of job control and brought changes in the demand for different kinds of labor—if, indeed, not some diminution in the total demand relative to the size of the labor force.[1] With the establishment of the Federal Reserve System in 1914 the financial and credit structure benefited from the concentration of reserves, more elastic deposit currency and note issue, control over the expansion and contraction of business by rediscount-rate policy and open-market operations, and an improved system of clearings and collections. Nor were these economic changes the only factors affecting the material position of the workers. At least until 1913 or 1914 the temper of the people was one of keen criticism of, and dissatisfaction with, labor conditions and the unequal participation of different classes in the national prosperity; and this discontent expressed itself in a series of protest movements as well as in the enactment of a substantial body of labor legislation. Along with the development of labor legislation went an increasing expenditure for social services and public purposes, especially on the part of state and municipal governments.[2] The increase in free income—a factor that does not appear in the data from which index numbers of real wage trends are constructed—has, indeed, been of far from negligible influence upon the standard of living of urban workers in the last forty-five years;[3] and there is every probability that in the future more rather than less of our national income will be distributed, not according to value principles, but by social control based (presumably) upon principles of equity and need. It is in the light of the background sketched in this and the immediately preceding paragraph that the progress of the workers with respect to real earnings must be considered.[4]

[1] As is indicated elsewhere (*cf.* p. 6), some 8,990,000 wage earners were employed in manufacturing in 1919, as against 8,822,000 in 1929.

[2] *Cf. infra*, p. 132.

[3] Professor Douglas' attempts to measure quantitatively the increase in the standard of living imputable to free income are presented on pp. 133–134.

[4] A number of students and research organizations have attempted to answer the question whether the workers have gained or lost in real income, and how much, for all or part of the period here under consideration. We shall rely, for the most part, upon the study of Professor Paul H. Douglas (*Real Wages in the United States*), which is the most complete; but a footnote summary of the literature on the subject and the conclusions reached by different investigators is worth while. In 1914 Dr. I. M. Rubinow published a study of the trend of real wages from 1890 to 1912 ["The Recent Trend of Real Wages," *American Economic Review*, vol. 4 (1914), pp. 798–817], in which he arrived at the conclusion that real wages had declined between 10 and 15 per cent during this period. Dr. Rubinow recognized that there had been a progressive improvement in the standards of living of the workers, but the seeming paradox of lower real wages and higher family standards of living he explained by citing the decrease in the size of the average family and the increasing number of women, married as well as single, taking employment to add their earnings to

It would be worth while, if practical considerations permitted, to attempt measurement of the progress of the American workers since 1890 in terms of all the expressions of worker income suggested in the preceding chapter. Such an attempt would, however, inevitably distract from emphasis upon a number of significant facts, not sufficiently apparent in the data themselves, and it will be more advantageous to limit our survey of the trend to three expressions of wages: hourly earnings, full-time weekly earnings, and average annual earnings per employed person.

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the family income. In his statistical work, Dr. Rubinow took wages per week in the building trades, marble and stone cutting, and thirteen branches of manufacture. Wages paid in railway transportation, mining, and agriculture were not included. Retail food prices were taken as indicative of the cost of living. Two years later Professor H. P. Fairchild attempted to answer the question whether the standard of living of common laborers had gone up or down between 1890 and 1908 by the method of estimating the average common laborer's income for each of these years, deducting the cost of a family budget of necessities in each of the two years from average income, thus ascertaining the portion of family income left for "culture wants" ["Standards of Living—Up or Down?" *American Economic Review*, vol. 6 (March, 1916), pp. 9–25]. Figuring conservatively, Professor Fairchild placed the average common laborer's 1890 income at $500, while the corresponding average for 1908 he placed at $600. The cost of the average family's food, housing, clothing, and fuel and light was estimated to have been $422.85 and $516 for the two years, respectively. Hence, 15 per cent of the average family's income was left for "culture wants" in 1890 and 14 per cent in 1908. Professor Fairchild concluded: "One thing seems safe to say—that the foregoing data disprove the right of anybody to assert with serene confidence that the standard of living of the American common laborer has improved." Another study, widely quoted during the first half of the 1920's, is that of Professor Paul H. Douglas and Miss Frances Lamberson, which attempted to carry the study of Dr. Rubinow down to 1918 ["The Movement of Real Wages, 1890–1918," *American Economic Review*, vol. 11 (1921), pp. 409–427]. This was a study of the purchasing power of wage rates (as Dr. Rubinow's had been) and is therefore not comparable with Professor Douglas' more recent studies of average earnings. In the case of three of the ten groups of workers covered by the study, payroll figures were used to get wage rates; in the other seven cases union scales were used. Retail food prices were used as indicative of the cost of living. The study showed that, largely owing to the wage and price movements between 1907 and 1912 and in 1916–1917, when the prices of food increased more rapidly than wage rates, the purchasing power of wages per hour as well as of wages per full-time week was less in 1918 than in the 1890's. The authors concluded that in 1918 "the purchasing power of the established week's work was from 20 to 30 per cent less than in the nineties, and from 10 to 20 per cent less than in 1915." The difference between the Rubinow and earlier Douglas conclusions, on the one hand, and those quoted in detail later as giving the most accurate portrayal of the trend, are to be attributed partly to the use of retail food prices as indicative of the advance in the cost of living, partly to the use of union scales, which understated the actual wages paid during the war period, partly to the fact that hourly and weekly rates of pay do not show the unusual number of promotions to better jobs which occurred during the war period. A fourth study is the National Bureau of Economic Research's two-volume report on *The Income in the United States* (1921), which contained estimates of the trend of real earnings of employed persons in the main lines of economic activity for the decade preceding 1919. Average annual earnings were taken in this study as the best expression of worker remuneration, money earnings being deflated by the use of the Bureau of Labor Statistics' cost of living index. The index numbers of real earnings of all

The last-named expression is, for reasons suggested in the preceding chapter, the most illuminating with respect to progress or retrogression of the standard of living, while the hourly earnings are more suggestive of the increase or decrease in remuneration for a given unit of work, and full-time weekly earnings indicate the effect upon incomes of changes in the number of hours constituting the standard or established week.[1] None of the three indicates the influence of unemployment upon the trend of earnings, and any generalizations warranted by the data must therefore be qualified by allowances for unemployment in each of the several years. We shall, moreover, wish to ascertain the relative sharing of different groups of workers in any gains that have been made, the extent to which these gains have been due to occupational shifting rather than to the receipt of more remuneration for the same kinds of work, and the influence of the relative prices of farm and other products upon the status of urban and rural labor. In view of the form in which our information has been compiled, it will be convenient first to survey the trend of earnings from 1890 to the middle of 1920's, and then to indicate what increases

groups arrived at by this study were (1913 = 100): 1914, 92.4; 1915, 93.6; 1916, 104.4; 1917, 103.0; 1918, 94.3. A fifth study to be mentioned in this bibliographical account is the one published by Professor A. H. Hansen in 1925 ["Factors Affecting the Trend of Real Wages," *American Economic Review*, vol. 15 (1925) pp. 27–42], which we have already quoted from freely; and a sixth is Professor Douglas' 1926 report on real-wage trends ["The Movement of Real Wages and Its Economic Significance," *American Economic Review*, Supplement, vol. 16 (1916), pp. 17–53]. For the most part the results set forth tentatively in the last-named study have been incorporated in Professor Douglas' more recent book on real wages, and therefore they need not be summarized here. Professor Leo Wolman has summarized the trend of wage rates since 1912 in *Recent Economic Changes*, vol. 2, pp. 430–446, and Professor Morris A. Copeland has estimated the trend of labor income in the same volume, pp. 766–778. Dr. W. I. King's recent study of the national income (*The National Income and Its Purchasing Power*, 1930) estimates the trend of the purchasing power of the total share of employees and of the return per employed person and wage earner, for industry as a whole. While the conclusions do not involve differences that are significant for our present purposes from those of Professor Douglas, the tables and charts on pp. 77, 80, 81, and 87 should be consulted. The wage studies of the National Industrial Conference Board should also be mentioned, especially *Wages in the United States, 1914–1930* (1931) and *Wages in the United States in 1931* (1932). *Bulletin 499* of the U. S. Bureau of Labor Statistics, "History of Wages in the United States from Colonial Times to 1928" (1929) is valuable for source material, although leaving much to be desired from the viewpoint of the student wishing comparability of data and uniformity of classification.

[1] Possibly it is unnecessary to remind the reader of the distinction between hourly earnings and hourly wages. The latter is the wage rate paid for an hour's work, the former total earnings during a given week—including overtime pay, bonuses, and other extra compensation—divided by the number of hours actually worked. While hourly wages may seem, for reasons suggested in the preceding chapter, to be the best indicator of whether the workers are receiving greater or less compensation than formerly for a given unit of work, bonuses and other stipends are so much a part of regular compensation in many cases, and overtime work is such an important factor that there is a strong case for expressing the trend in terms of hourly earnings instead of in terms of hourly wages.

or decreases apparently occurred during the few years just preceding the depression.

Professor Douglas' statistics for hourly earnings include all manufacturing, the building trades, government employees, coal miners, unskilled labor, and transportation workers.[1] Approximately 7,000,000 workers were included in the averages for 1890, 14,900,000 in 1922, and 14,000,000 in 1926. Table 21 indicates the trend of real hourly earnings, beginning with the first of these years:

TABLE 21.—REAL HOURLY EARNINGS IN AMERICAN INDUSTRY, 1890–1926[1]

Year	Real hourly earnings (1890–99 = 100)	Year	Real hourly earnings (1890–99 = 100)
1890	95	1908	108
1891	98	1909	109
1892	99	1910	105
1893	101	1911	103
1894	102	1912	106
1895	101	1913	107
1896	100	1914	106
1897	99	1915	110
1898	100	1916	110
1899	101	1917	103
1900	101	1918	105
1901	102	1919	107
1902	103	1920	112
1903	103	1921	122
1904	104	1922	124
1905	106	1923	132
1906	107	1924	136
1907	104	1925	136
		1926	138

[1] *Real Wages in the United States*, p. 205. Each group has been weighted according to the number of workers employed in 1890. The weights are stated and explained by Professor Douglas on pp. 204–205 of his book, and information about the sources of information on hourly and full-time weekly earnings in chapters 5 to 11 inclusive. The methods used were explained in some detail in the preceding chapter. Money earnings were reduced to a real basis by the cost of living index explained on pp. 51–52. This and the following tables from *Real Wages in the United States* are reproduced with the permission of the author and of Houghton Mifflin Company, publishers.

The general upward movement of hourly earnings, in terms of purchasing power, is clear, but broad generalizations as to labor's progress should be deferred until we have examined the data pertaining to full-time weekly and average annual earnings. While the hourly earnings of the average worker in 1926 would, according to the above index figures, purchase 38 per cent more goods and services than in the 1890's, changes in the established and actual working week occurred constantly and were

[1] Three other groups, farm labor, teachers, and ministers are included in the estimates of full-time weekly earnings, given on p. 94, but absence of statistics on their hours and hourly earnings made it impossible to include them in the tabulation here under consideration.

especially important during the War period. In view of the fact that these changes were preponderantly in the direction of a shorter working week, full-time weekly and actual weekly earnings increased less rapidly than hourly earnings. During some of the years when real hourly earnings increased or remained constant—notably 1893–1894 and 1920–1922—widespread unemployment was keeping the average annual earnings of the members of the working class from advancing to anything like the extent indicated by measurement in terms of remuneration for an hour's work. It should be noted, also, that the gain has been concentrated to a very considerable extent in the years of the postwar period. By 1913 the index was only 7 per cent above the level of the 1890's, and in 1918 it was lower than in 1913 and only 5 per cent above the average for the last decade of the preceding century. Here again, however, the data are somewhat misleading, for steadier employment, more rapid advancement to better-paying positions, and employment of more members of the average family all contributed toward offsetting the wartime failure of real hourly earnings to advance. The tabular statement shows that of the 38 per cent gain over the entire period, 31 per cent came after 1919.[1]

Worker incomes are affected, however, by the number of hours worked per week, as well as by hourly earnings, and an expression that takes account of changes in the number of hours is therefore desirable. In 1890 the average number of standard or established hours for industry as a whole was 58.4, while in 1926 it was 49.8—a decrease of approximately 14 per cent.[2] In some cases, it is true, changes in the number of hours actually worked followed changes in established hours in a very laggard manner, but over fairly long periods decreases in the length of the standard week have resulted in somewhat the same decreases in the number of hours worked. We should, therefore, give some consideration to the progress of the workers in terms of full-time weekly earnings, and then turn to the trend of average annual earnings per employed person.

The statistics from which the following indexes of real full-time weekly earnings have been derived are more complete than those for real hourly earnings, including as they do all manufacturing, the building trades, government employees, coal miners, unskilled labor, transportation workers, farm labor, teachers, and ministers. Professor Douglas has

[1] Professor Douglas calls attention to the fact that the method of changing weights (*i.e.*, weighting each group of workers according to the number employed each year instead of according to the number employed in 1890) shows no substantial difference in the real hourly earnings trend. Average hourly money earnings obtained by this method do not differ by more than 1 per cent from those obtained by the 1890 weights method. Owing to the fact that the average for the 1890–1899 period obtained by the changing weights method is slightly below that secured by the method of base year weights, the relatives of money and real earnings are slightly higher when the former method is used, but never more than 2 per cent.

[2] P. H. Douglas, *op. cit.*, pp. 208–209.

estimated that these groups comprised 9,700,000 workers in 1890, 19,200,000 in 1922, and 18,360,000 in 1926.[1] Table 22 should be compared with

TABLE 22.—TREND OF REAL FULL-TIME WEEKLY EARNINGS IN ALL INDUSTRY[1]
(1890–1899 = 100)

Year	Real full-time weekly earnings (weights = number employed in 1890)	Real full-time weekly earnings (weights = number employed each year)
1890	97	98
1891	99	100
1892	100	100
1893	101	102
1894	102	102
1895	101	101
1896	100	100
1897	99	98
1898	100	99
1899	100	99
1900	99	98
1901	99	98
1902	99	98
1903	98	97
1904	100	99
1905	102	101
1906	102	101
1907	100	99
1908	103	102
1909	103	103
1910	100	99
1911	98	98
1912	100	100
1913	100	100
1914	99	100
1915	102	104
1916	102	104
1917	96	98
1918	97	100
1919	97	101
1920	99	103
1921	106	109
1922	110	114
1923	116	121
1924	118	123
1925	118	124
1926	119	125

[1] Taken from Tables 76 and 77 of P. H. Douglas, *op. cit.*, pp. 210–211.

the preceding one, in order that the effect of changes in the number of established hours may be recognized, and the differences in results according to the weighting method employed—an indication of the gain due to

[1] *Ibid.*, p. 204.

shifting from low-paid to better-paid occupations—should be given careful attention.

Several facts of significance are indicated by this table and by a comparison of it with the preceding one. In the first place, the general upward trend is, of course, apparent, as is also the same chronological concentration of gains that is shown by the indexes of real hourly earnings. There was little progress during the 1890's, or on to 1914, and without the allowance for occupational shifting that results from weighting the constituent groups according to the number employed each year, the close of the War found real full-time weekly earnings below the level of the 1890's. The bulk of the gains came during the years following 1920. In the second place, the effect of reduction in the length of the average working week is indicated by a comparison of the two tables. Real hourly earnings were 38 per cent higher in 1926 than in the 1890's, but real full-time weekly earnings (both computed by the method of weighting the constituent groups of workers according to the number employed in 1890) were only 19 per cent higher. Were the data entirely comparable, the obvious conclusion would be that the gains made when consideration is given the shortening of the working week were only about half as great as those shown by the hourly earnings measurement.[1] In the third place, it may be noted that the effect of changes in the length of the working week upon weekly earnings was unequally distributed throughout the period here under consideration. The indexes of real hourly earnings and real full-time weekly earnings show comparatively little difference for the first ten years, the numbers for 1900 being 101 and 99, respectively (with the groups again weighted according to numbers employed in 1890). From 1900 to 1914, however, reduction in the length of the average working week had a somewhat greater influence upon weekly incomes. Real hourly earnings advanced nearly 5 per cent (from 101 to 106) during this period, while full-time weekly earnings without allowance for the movement of workers from low-paid to better-paid occupations were no higher in 1914 than in 1900, the index number for both years being 99. During the War period, as is indicated elsewhere in this volume,[2] the movement for shorter hours made real progress, and the effect upon weekly earnings is revealed by a comparison of the two tables. Real hourly earnings increased slightly more than 5.5 per cent (from 106 to 112) between 1914 and 1920, while real full-time weekly earnings (again, for the sake of comparability, using the estimates arrived at when the constituent groups

[1] However, the data are not entirely comparable, because Professor Douglas included in his estimates of full-time weekly earnings the earnings of three groups—farm laborers, teachers, and ministers—not included in the hourly earnings estimates. Also, it may be remarked that the leisure resulting from the shorter working week may itself be regarded as a form of compensation, or at least as an important factor in the attainment of a higher standard of living.

[2] *Cf. infra*, pp. 470–472.

were weighted in the same way, according to their relative size in 1890) failed to advance, the 1920 index number (99) being the same as that for 1900 and 1914. Changes in the number of established and actual hours did not occur with such rapidity after 1920, and real remuneration per full-time week did not lag greatly behind real hourly remuneration. The tables show that real hourly earnings advanced 23.2 per cent (from 112 to 138) between 1920 and 1926, and real full-time weekly earnings for the same kinds of work a trifle more than 20 per cent (from 99 to 119). In the fourth place, attention should be called to the effect upon weekly incomes of migration of workers from low-paid to higher-paid occupations. In the left-hand column of the last table, as has already been said, the constituent groups have been weighted according to their relative size in 1890, and in the right-hand column according to their relative size each year. To the extent that migration was from higher-paid to lower-paid occupations, then, the right-hand series would be expected to show less increase; to the extent that migration was in the opposite direction, it would be expected to show a greater increase. Of the sum-total effect of occupational changes there can be no question. As against an indicated gain of 19 per cent between the 1890's and 1926 when no account is taken of changes in the relative importance of occupations, a gain of 25 per cent is shown when this factor is included by the method of changing weights. In other words, nearly one-fourth of the advance in real full-time weekly earnings enjoyed by the workers was due to the fact that a larger proportion of them were employed in the higher-paid occupations rather than to better rates of pay for the same work. It is worthy of note, also, that prior to 1914 substantially the same progress, or lack of progress, is indicated by both series, and that the first appreciable gains from occupational migrations occurred during the War. Apparently the war-time movement of workers into the better-paid occupations did little more, however, than to offset the decline in real full-time weekly earnings for the same kinds of work. From 1917 on through 1920 the purchasing power of full-time weekly earnings without allowance for shifting to better-paid occupations was below the level of the 1890's, and if this allowance is made, it was only 3 per cent above in 1920. For the period 1920–1926 the differences indicated by the two methods are not great; real full-time weekly earnings increased 20.2 per cent (from 99 to 119) when measured by the constant weights method, and 21.8 per cent (from 103 to 125) when measured by the method of changing weights.

But for reasons indicated in the preceding chapter,[1] average annual earnings per wage earner or per employed person afford a better criterion of standard of living progress than do hourly or weekly earnings, even though they may be less illuminating with respect to real compensation for time or output units of work. Overtime, absenteeism, short time, and all "unemployment within employment" that does not result in the

[1] *Cf. supra*, pp. 44–45.

severance of the workers' names from the payroll are included within this category. Somewhat greater attention should therefore be given the measurements of material progress in terms of this expression of earnings.

Table 23 presents the composite indexes of real average annual earnings for nine important groups of workers: wage earners in manufacturing, wage earners on the railways, workers in public utilities such as street railways, telephones, telegraphs, and gas and electrical companies, clerical workers in manufacturing and on the railways, coal miners, federal employees, teachers, ministers, and farm labor. Professor Douglas has estimated that the composite average represents the earnings of 16,900,000 employed workers in 1920, or 73 per cent of those who worked for wages or salaries in that year. Building trades workers and general unskilled labor, numbering in 1920 about 4,600,000 persons, are not included in the estimates of average annual earnings, owing to the lack of statistics on annual earnings.

This table, like the preceding one, deserves detailed analysis. The fact that stands out most clearly is, of course, the indicated improvement in the relative well-being of the workers. For all groups the gain between the 1890's and 1926, with allowance made for the drift of labor from the lower-paid to the better-paid occupations as well as for increased real remuneration within the occupations, was 35 per cent, or approximately one-third. Only one-fifth of this gain had been realized by 1914, and about half of it came during the years following 1920. In the second place, a comparison of the trend of real average annual earnings with that of real full-time weekly earnings is of significance. While the latter, as the preceding table indicates, increased 25 per cent during the period ending in 1926, the former increased 10 per cent more, allowance being made in both cases for changes in the relative importance of different occupations.[1] The difference in results is suggestive of the importance of the factors in annual remuneration—bonuses, steadier employment, more overtime pay, reduction in absenteeism—which do not influence hourly or full-time weekly rates, and which exert less influence upon hourly and full-time weekly earnings than upon annual remuneration. In the third place, it may be observed that real annual earnings did not increase at a more rapid rate than real full-time weekly earnings during the early and late years of the period; the chief influence of the factors entering into annual earnings but not into full-time weekly earnings seem to have been exercised between 1914 and 1920.[2]

[1] The data in the two tables are not strictly comparable, since the building trades and unskilled labor were included in the estimates of full-time weekly earnings, but not in those of average annual earnings. This lack of complete comparability is not, however, sufficient to explain the differences in the two index series, and the greater gain shown by the average annual earnings measurement is due chiefly to the influence of the elements of annual remuneration which this category includes but the other one does not.

[2] The 1900 index number was in both cases the same (98). Between 1900 and 1914,

The effect of the movement of the earnings of farm labor upon the general trend should be scrutinized carefully. For the entire period, and

TABLE 23.—REAL AVERAGE ANNUAL EARNINGS OF WAGE EARNERS IN ALL INDUSTRIES (1890–1899 = 100)[1]

Year	Weights = number employed in 1890		Weights = number employed in each year	
	Excluding farm labor	Including farm labor	Excluding farm labor	Including farm labor
1890	98	98	99	100
1891	101	101	102	102
1892	102	102	103	104
1893	100	101	101	102
1894	98	98	98	98
1895	102	102	102	101
1896	99	99	98	98
1897	99	99	98	97
1898	100	100	98	98
1899	100	101	99	99
1900	99	99	98	98
1901	100	100	100	100
1902	99	100	99	100
1903	98	99	99	100
1904	99	100	99	101
1905	101	103	102	104
1906	100	101	101	103
1907	98	100	100	102
1908	97	99	98	101
1909	102	104	103	106
1910	102	103	104	106
1911	98	100	100	103
1912	100	101	102	105
1913	101	102	104	107
1914	101	102	104	107
1915	102	104	106	110
1916	105	106	109	113
1917	101	103	105	110
1918	104	106	108	113
1919	105	107	108	115
1920	106	108	110	116
1921	111	110	116	118
1922	117	115	120	124
1923	123	121	126	131
1924	122	121	126	131
1925	122	121	126	132
1926	125	123	129	135

[1] Adapted from Tables 146 and 147 of P. H. Douglas, *op. cit.*, pp. 391–393, with permission of Houghton Mifflin Company, publishers.

however, real full-time weekly earnings increased only about 2 per cent (from 98 to 100), while real average annual earnings increased about 9 per cent (from 98 to 107), both urban and rural labor being included and the method of changing weights used in each case,

with allowance for changes in the relative importance of occupations, the inclusion of the earnings of farm labor results in a 6 per cent greater gain than is shown for all groups except rural labor. Two facts account for this difference: the gains made by agricultural workers during the War period, when, as has already been indicated, the exchange value of farm products in terms of other commodities was increasing; and the declining relative importance of agriculture during the years when farm labor was in a disadvantageous position as compared with urban labor. Indeed, the results arrived at by the method of constant weights, presented in the first and second columns of the table, show that over the entire period all groups (rural as well as urban) gained slightly less than did nonagricultural labor (23 per cent as against 25 per cent); it is only in consequence of allowance for the drift of workers from one occupation to another—an important part of which was the movement from agricultural to nonagricultural work after 1918 or 1920—that the gain for all groups by 1926 is greater when farm labor is included. It is in point to note, also, that the effect of the inclusion of farm labor upon the composite index varies by years and periods. Throughout the 1890's the real average earnings of the nonagricultural group varied but little from those of the combined group, the "excluding-farm-labor" and "including-farm-labor" index numbers for 1900 being the same, whichever the method of weighting the constituent groups of workers. From 1900 to 1914, however, the more rapid increase in the real earnings of rural labor had the effect of advancing the index for all groups—by 1 per cent when the 1890 weights are used and by 3 per cent under the method of changing weights. During the War—chiefly in consequence of the increase in the exchange value of farm products at the farms and therefore in the value productivity of the workers engaged in producing them—the earnings of farm labor continued to raise the average for all groups. By 1920, it will be noted, the gain of the combined rural and urban groups, allowance being made for occupational changes, was 16 per cent as compared with the average for the 1890's, while the gain of nonagricultural labor was only 10 per cent.[1] But after 1920, with the exchange value of farm products lower than in 1918 and depression widespread in the agri-

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Between 1914 and 1920, real full-time weekly earnings rose 3 per cent (from 100 to 103) and real average annual earnings approximately 10 per cent (from 107 to 118). Between 1920 and 1926 real full-time weekly earnings increased about 21 per cent (from 103 to 125), while real average annual earnings rose only about 14 per cent (from 118 to 135). Over the entire period since 1914, and also since the 1890's, however, average annual earnings increased more than full-time weekly earnings.

[1] Or, between 1914 and 1920 real average earnings including farm labor and allowing for occupational changes (*i.e.*, using the method of changing weights) increased from 107 to 116, or 8.4 per cent, while real average earnings excluding farm labor but again allowing for occupational changes increased from 104 to 110, or 5.8 per cent. When allowance for

cultural areas, the earnings of rural workers were a retarding force, offset in part by the drift of labor from agricultural to nonagricultural occupations.[1] Over the entire period, however, the effect of the farm labor gains before 1918 and of the diminishing relative importance of agricultural employment after the War, when farm workers were losing relative to their urban brethern, was to bring an advance in the real annual earnings of all groups some 6 per cent greater than that enjoyed by nonagricultural workers.

Finally, attention should be turned to the effect of the changing relative importance of occupations upon real annual incomes. It is almost unnecessary to say that our understanding of the material progress of the American workers would be incomplete were we unable to differentiate between that part of the improvement in status attributable to shifting from lower-paid to better-paid groups and that part consequent upon an increase in the real earnings of those remaining in the same occupational groups; and the two methods of weighting included in our table afford the best means of making this differentiation. By multiplying the averages of money earnings in the various years for each line of work by the relative number employed in those industries in the base year of 1890, and then constructing the indexes of money and real earnings, a portrayal of the trend without allowance for the increasing relative importance of the higher-paid occupations (or *vice versa*) is obtained; while by multiplying the averages of money earnings in the various years for each line of work by the number employed in each of these occupations each year, and then constructing the index numbers, allowance is made for the drift of workers from one occupation to another. A comparison of the two index series then reveals the extent to which occupational shifting, as against increased remuneration within occupations, has been responsible for any gains that may have been made.

The fact of most significance in this connection is that approximately one-third of the 35 per cent gain in real annual earnings by 1926 was due to the relatively larger number of workers employed in the higher-paid

occupational changes is not made (*i.e.*, when the groups are weighted for each year according to their relative size in 1890), the effect of the inclusion of rural earnings is the same, but the degree of difference between the "including" and "excluding" indexes is less. On this basis real average annual earnings excluding farm labor rose from 101 to 106 between 1914 and 1920, or 4.95 per cent, while when farm labor is included they rose from 102 to 108, or 5.88 per cent.

[1] It will be noted that the index number (changing weights method) is 17.2 per cent higher in 1926 than in 1920 if farm labor is excluded and 16.4 per cent higher if it is included, the increases being from 110 to 129 and from 116 to 135, respectively. When the method of constant weights, which does not allow for the diminishing relative importance of agricultural occupations during this period, is used, the difference is even greater. Under the constant-weights method, real annual earnings excluding farm labor rose 17.9 per cent (from 106 to 125) between 1920 and 1926, and including farm labor they rose only 13.9 per cent (from 108 to 123) during the same period.

occupations rather than to higher real earnings for the same kinds of work. The second and fourth columns of our table show that for both urban and rural labor the gain was only 23 per cent without allowance for the drift of workers into better-paid jobs, and some 12 per cent more when this allowance is made. It may be noted, also, as it was in connection with the trend of real full-time weekly earnings, that occupational shifting did not become an important influence until after 1900, and that it was of greater consequence after 1914 than during the first decade and a half of the present century. As a matter of fact, the 1900 index number is 1 per cent lower (in terms of the 1890–1899 base of 100) when the groups are weighted according to the number employed in each year than when they are weighted according to the number employed in 1890. Between 1900 and 1914, however, migration from the lower-paid to the higher-paid occupations began to have a real influence upon annual earnings, and of the 7 per cent gain that had been realized by 1914, a full 5 per cent was due to the drift of workers into the better-paid places.[1] The same influence continued to make itself felt, with even somewhat greater force, during the six years following 1914, and of the 16 per cent gain that had been made by 1920, 8 per cent, or one-half, was due to the changing importance of occupations.[2] During the period from 1920 to 1926 real annual earnings without allowance for occupational changes increased 13.9 per cent (from 108 to 123), and with such allowance 16.3 per cent (from 116 to 135). The great importance of changes in the relative importance of different occupations can therefore be seen. Since our primary interest here is in measuring the relative well-being of the workers, the index series that includes all groups and takes cognizance of that part of the improvement resulting from the drift of labor into better-paid occupations as well as of that part imputable to higher real earnings within occupations is preferable. It is well to remember, however, that of the 35 per cent gain over the period ending in 1926, 12 per cent, or one-third, was due to shifts in occupations rather than to increases in earnings obtained by those remaining in the same occupational groups.

The foregoing tables of relative real hourly earnings, real full-time weekly earnings, and real average annual earnings, and the discussion of them, should have given a fairly adequate basis for generalizations

[1] That is, the index number when constant weights are employed was 102, and when changing weights (allowing for changes in the numerical importance of occupations) are employed, it was 107. Or—another way of saying the same thing—on the constant weights basis the increase was from 99 to 102, or slightly more than 3 per cent, and on the changing weight basis it was from 98 to 107, or more than 9 per cent.

[2] That is, the constant weights index stood at 108 in 1920, and the changing weights index at 116. Or, between 1914 and 1920 real average annual earnings without allowance for occupational shifts increased from 102 to 108, or 5.8 per cent, while with this allowance they increased from 107 to 116, or 8.4 per cent.

as to the progress of the American workers after the 1890's. It hardly needs to be said, however, that the progress of all groups has not been the same and that unemployment has both reduced annual earnings and

TABLE 24.—RELATIVE GAINS IN REAL EARNINGS OF DIFFERENT GROUPS IN INDUSTRY (1890–1899 = 100)[1]

Year	Wage earners, manufacturing	Wage earners, public utilities, including railroads	Coal miners	Salaried and clerical, manufacturing and transportation	Government employees other than postal	Postal employees	Teachers	Ministers	Unskilled labor	Farm laborers	Building-trades workers
1890	101	98	115	88	...	92	87	99	97	99	97
1892	104	100	114	93	100	96	93	101	99	103	100
1894	95	102	88	102	107	103	102	109	102	97	102
1896	97	100	83	103	102	104	104	99	100	97	100
1898	98	99	92	108	95	102	107	95	100	100	99
1900	99	95	121	102	91	95	109	89	96	102	98
1902	101	92	130	99	89	92	109	86	98	104	100
1904	99	93	120	98	86	88	115	85	98	110	102
1906	101	92	132	96	85	84	120	84	99	116	107
1908	94	98	118	98	85	89	132	89	101	118	110
1910	104	94	127	96	80	89	135	80	99	115	106
1912	98	95	135	97	79	89	140	85	99	115	106
1914	99	100	115	97	76	91	142	87	101	111	105
1916	104	101	148	98	76	86	143	88	108	114	103
1918	107	109	163	83	59	67	111	70	122	121	83
1920	113	107	142	81	54	70	115	64	112	124	91
1922	119	119	122	96	66	88	182	91	106	97	111
1924	126	117	140	100	68	90	187	92	119	107	139
1926	129	117	152	103	70	96	186	98	121	108	138

[1] This table has been compiled from P. H. Douglas, *op. cit.*, p. 137, Table 41; p. 187, Table 63; p. 182, Table 61; p. 246, Table 88; p. 339, Table 126; p. 353, Table 131; p. 361, Table 133; p. 376, Table 140; p. 378, Table 141; p. 382, Table 142; and p. 386, Table 144. The data for manufacturing, public utilities, coal mining, salaried and clerical workers, government employees other than postal, postal employees, teachers, and ministers have been compiled on the basis of average annual earnings. The estimates of relative real earnings of unskilled labor are based on probable hourly rates. The indexes for farm labor are based upon monthly rates without board and day rates without board, with a sixty-forty weighting, since farm management studies show that about 60 per cent of hired farm labor is working on the monthly basis and about 40 per cent on the daily basis. The building trades data are for real full-time weekly earnings. Data on the earnings of anthracite miners are included in Professor Douglas' study only for the period since 1902, and are expressed as relatives to the real earnings in 1914. The authors have therefore presented in this table only the earnings of bituminous coal miners. The differences in the trends for the two groups of coal miners, however, are worth mentioning. On the 1914 basis of 100, the real annual earnings of bituminous miners stood at 142 in 1918, and those of anthracite miners at 143. In 1920 the two index numbers were 124 and 137, respectively, and in 1926, 152 and 170, respectively. The base period with which comparison is made in the case of government employees other than postal workers is 1892–1899, not 1890–1899 as in all the other cases. It hardly needs be said that since the indexes for unskilled labor, farm laborers, and the building-trades workers have been derived from expressions of worker incomes other than average annual earnings, there is not strict comparability in the table. Nevertheless, a comparison of the gains of different groups is of real importance, and the index numbers presented in this table may be taken as showing with a fair degree of accuracy the comparative progress or losses of the different groups included. The data are reproduced with permission of Houghton Mifflin Company, publishers of *Real Wages in the United States.*

caused greater fluctuations from year to year than are shown by our indexes. Comparative progress of the different constituent groups should therefore be taken into account and an attempt be made to measure the influence of unemployment upon the trend of real earnings, prior to a summary of real wage trends since 1926.

In Table 24 the movement of relative real earnings for eleven groups of wage earners and salaried persons is presented. Owing to the character of the data from which the computations have been made, indexes that are entirely comparable cannot be presented;[1] and more groups are included in the table than in the combined indexes of real average annual earnings that have just been discussed. One's knowledge of the progress of the workers will be more complete, however, if one will scrutinize carefully and compare the gains or losses of each of the several groups.

The table is almost self-explanatory, and only a few things need be said by way of emphasis or qualification. Wage earners employed by manufacturing concerns, public utilities, and the railroads, coal miners, teachers, unskilled labor, and the building-trades mechanics had all made substantial progress by 1926, although some of the groups gained considerably more than others. Farm laborers, on the other hand, outdistanced all other groups except the miners in the relative advances until 1920, and then began to lose, and by the end of the period were receiving earnings with only 8 per cent more purchasing power than in the nineties. Salaried and clerical workers in manufacturing and transportation suffered serious losses during the War and early postwar periods, and by 1926 the purchasing power of their average annual earnings was only 3 per cent higher than it had been during the ten years before 1900. Government employees and ministers, whose salaries adjust themselves to changes in the general price level even more tardily than do those of salaried persons in manufacturing and transportation, suffered absolute losses during the period. In 1920 the real annual incomes of federal government employees, excluding the postal group, were only a trifle more than half as large as they had been during the closing years of the preceding century, and they were 30 per cent lower in 1926.[2] Teachers and coal miners made the

[1] In each of Professor Douglas' chapters on hourly, full-time weekly, and average annual earnings (*op. cit.*, Chaps. 5 to 11, inclusive, and 13 to 21, inclusive) of particular groups, there is detailed discussion of sources and character of the wage data and methods of computation. The expressions of worker income used in each of the eleven cases in the table are stated in the footnote that accompanies it.

[2] It should be mentioned, however, that Professor Douglas drew his data on government employees other than those in the postal service from federal employees in Washington. It is likely that the inclusion of employees of the state governments and large municipalities would have resulted in the showing of a smaller loss. One reason for this is that employees of the states, and even more so of the municipalities, are less permanently and irremovably attached to the public service than are federal workers in Washington, and their earnings are therefore more influenced by demand and supply factors in the labor market

greatest relative gains, but these were largely a consequence of the fact that money earnings of both groups were very low in the nineties.[1] The fluctuation in the relative real earnings of coal miners from year to year is explained by the fact that this index series, unlike the other ten in our table, makes allowance for unemployment.[2] The same chronological concentration of gains that was noted in our survey of the general trend of real earnings is, with some differences, to be observed in this presentation of the trend for specific groups.[3]

There still remains, however, the question of how unemployment influenced the trend of real earnings during this period. Greater emphasis has been placed, in this chapter, upon measurement of the trend in terms of real average annual earnings than upon the movement of real

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in general. Also, scattering observations of the wage policy of the more populous and progressive states and municipalities would indicate there was better adjustment of salaries to the cost of living when prices were advancing rapidly than in the case of the federal government as an employer.

[1] For example, average annual earnings of teachers in 1890 were $256, and in 1926, $1277 (P. H. Douglas, *ibid.*, p. 382). On the other hand, average annual earnings of employed wage earners in manufacturing industry as a whole were $439 in 1890 and $1,309 in 1926 (*ibid.*, p. 246). Although the annual earnings of the average worker in manufacturing were therefore $32 higher in 1926 than those of the average teacher that year, the index numbers were 129 and 186, respectively, owing to the low earnings of the teachers in the 1890's. The lengthening of the school year, especially in the rural sections, has been one factor responsible for the increase in average annual earnings of teachers. The same circumstances have been partly responsible for the relative gains of coal miners. In 1890 their average annual earnings were $379, and in 1926 $1,247 (*ibid.*, p. 350), as against the $439 and $1,309 figures for workers in manufacturing, but the miners' index figure for 1926 was 152, as against 129 for the wage earners in manufacturing.

[2] Professor Douglas found the census figures of the number employed in coal mining to be unsatisfactory, and therefore he substituted those collected by the U. S. Geological Survey. These figures have been described by F. G. Tryon as representing "not the aggregate number of men actually working at any one time, nor the average number of men who have worked at the time during the year, nor the absolute average number on the payrolls, but rather the number of men commonly dependent on the mine for employment. They represent the number ordinarily reporting for work when the mine starts, plus the absentees, the men who have been working recently and who will work again but who, for one reason or another, are not on hand" (*Mineral Resources of the United States*, 1921, pt. 2, p. 495, quoted by Douglas, *op. cit.*, p. 345). The use of this denominator therefore resulted in the inclusion of unemployment. For more detailed discussion of the problem of estimating the average annual earnings in dollars of coal miners, see Professor Douglas' *Real Wages in the United States*, pp. 343–345.

[3] Another way of looking at the progress of different groups is to compare the average purchasing power of each group during the years since 1900 with the same averages for the years before 1900. While this method of presentation does not show the important fact of what the year-by-year trend has been since 1900, it tends to eliminate the misleading impression that might be got by very great gains for some groups during the years toward the end of the period. Professor Douglas has reduced average earnings of each group for each year to what their equivalent purchasing power would have been in the decade of the nineties, and has then averaged the gains and losses for the 1900–1926 period. The average

hourly and full-time weekly earnings. But this expression of worker remuneration, while it takes into account short time, overtime, special bonuses, absenteeism, "unemployment within employment," and (under the second method of weighting) the drift of workers from lower-paid to better-paid jobs, does not portray the influence of lack of work which causes severance of the workers' names from the payrolls. Average annual earnings of employed workers might increase 10 per cent during a given period, but if there had been a 10 per cent diminution in the number of persons employed (the size of the labor supply being assumed to remain constant), the average annual earnings of each member of the working class—those employed and those out of jobs—would not be greater, but on the contrary would be a trifle less. In view of the great importance of unemployment—the "curse of the American workers"—it is clearly desirable that our estimates in terms of the average annual earnings of those on the payrolls of firms be modified to allow for fluctuations in the volume of employment.

The most obvious method of making this necessary allowance for unemployment, as has been explained in the preceding chapter,[1] would be to multiply average annual earnings per employed worker by the percentage of the wage-earning class employed (*i.e.*, 100 per cent minus the per cent unemployed). Owing to already mentioned practical considerations in connection with the wage data we have used,[2] however, it is not

annual gains or losses made by the main groups during the twenty-seven years from 1900 to 1926 over average purchasing power possessed by their members during the nineties were:

Group	Percentage gain	Group	Percentage loss
Teachers	37	Telegraph workers	0
Miners (bituminous)	33	Clerical workers	4
Farm laborers	11	Postal workers	13
Manufacturing workers	7	Ministers	15
Steam-railroad workers	5	Gas and electrical workers	20
Street railwaymen	3	Federal employees	24
Telephone workers	1		

Lack of information on average annual earnings of building trades workers and general unskilled labor made it impossible to include these two groups in the comparison. *Cf. ibid.*, pp. 395–398.

[1] *Cf.* pp. 45–46.

[2] In brief, these practical considerations are as follows: The average annual earnings of coal miners already include an allowance for unemployment, and to deflate them by a still further deduction for unemployment would be erroneous. Average annual earnings of building trades workers, as has already been said, are not available. Therefore it would be wrong to allow unemployment in the building trades to affect the results for the all-industries group (as presented in Table 23) in which the building trades are not included. Also, it is probable that employment is steadier, unemployment less extensive and fluctuating, in such industries as the telegraph and telephone service, gas and electric plants,

satisfactory to apply an index of unemployment for all groups to the estimates of relative real earnings for all groups; and a more satisfactory method is to apply the percentages of unemployment within particular occupational or industrial groups to the average annual earnings of those same groups. In the pages that immediately follow, the changes which unemployment produced in earnings are considered for four separate combinations of workers: manual workers in manufacturing and transportation, manual workers in those two groups plus coal mining, workers in the building trades, and unskilled labor.[1]

The first of these four groups is numerically the most important, and a year-by-year presentation of the relative movement of the real average annual earnings of those attached to manufacturing and transportation, as compared with that of workers actually employed in these industries, is worth while.

At least three important influences of unemployment upon the real annual earnings of American workers in manufacturing and transportation are portrayed by these data. In the first place, the sum-total effect

government employment, teaching, and the ministry than it is in industries for which percentages of unemployment can be, and have been, computed. For fuller discussion of these practical considerations, which dictate that the percentages of unemployment in particular industries be applied to the earnings of the groups in those industries, rather than that an index of unemployment for all groups be applied to the estimates of relative real annual earnings presented on p. 97, see P. H. Douglas, *ibid.*, pp. 461–463.

[1] Professor Douglas, upon whose estimates we are relying, has corrected the estimates of average annual earnings of the first combination of workers by an index of unemployment for manufacturing and transportation. For example, average earnings of the workers in manufacturing and transportation combined were $624 in 1914, but according to his index there was 12.9 per cent unemployment that year in this group. The persons who were employed therefore formed only 87.1 per cent of the labor supply (*i.e.*, 100 — 12.9). By multiplying the average of $624 by 0.871, a figure of $544 was obtained as the average for the entire labor supply considered as a whole. The attempt to measure the influence of unemployment upon average annual earnings of building trades workers presented difficulties, owing to the fact that averages of the actual annual earnings of those employed were not available. Professor Douglas' method was to compute what annual earnings would have been had the building-trades workers been employed full time at prevailing union rates, and then to apply the percentages of unemployment in this industry during the various years. This method probably makes possible a fairly accurate approximation of the influence of unemployment upon annual earnings, but it does not take account of broken time lost during a day or week of unemployment, and union rates are sometimes misleading indicia of actual hourly earnings. Professor Douglas was of the opinion that the sum-total effect of the method of taking as average annual earnings in the building trades the amounts that would have been earned had the workers been employed full time at union rates was to make the figures of annual earnings too high, but that the index numbers derived from them show with approximate accuracy the relative changes from year to year. The same difficulty—lack of information as to annual earnings—presented itself in the case of unskilled labor; but the method of applying to the averages of full-time earnings the average percentages of unemployment for manufacturing, transportation, construction, and mining was believed to make possible a fairly close approximation of the effect of unemployment upon annual earnings.

of inclusion of allowance for unemployment is to bring the index numbers for normal years after 1900 between 5 and 8 per cent higher than when

TABLE 25.—RELATIVE REAL ANNUAL EARNINGS IN MANUFACTURING AND TRANSPORTATION OF THOSE ATTACHED AND EMPLOYED[1]

Year	Those attached	Those employed	Difference between relatives for those attached and those employed
1890	106	100	+6
1891	109	103	+6
1892	111	104	+7
1893	101	101	0
1894	89	96	−7
1895	100	102	−2
1896	92	98	−6
1897	93	97	−4
1898	94	98	−4
1899	102	99	+3
1900	102	97	+5
1901	106	99	+7
1902	107	100	+7
1903	106	99	+7
1904	102	99	+3
1905	108	101	+7
1906	108	101	+7
1907	107	99	+8
1908	94	96	−2
1909	107	102	+5
1910	111	103	+8
1911	103	98	+5
1912	107	100	+7
1913	107	102	+5
1914	99	101	−2
1915	100	102	−2
1916	113	105	+8
1917	110	102	+8
1918	117	109	+8
1919	119	111	+8
1920	121	114	+7
1921	102	116	−14
1922	114	121	−7
1923	135	126	+9
1924	128	126	+2
1925	133	126	+7
1926	136	128	+8

[1] From P. H. Douglas, *op. cit.*, p. 465. (Reproduced with permission of the publishers, Houghton Mifflin Company).

consideration is confined to the annual earnings of those employed. The explanation lies, of course, in the large volume of unemployment during

the 1890's, and in consequence of steadier work during ordinary years after this decade the workers attached to these industries made progress even when real annual earnings of those employed did not increase.[1] In the second place—and as would of course be expected—the inclusion of unemployment results in much greater fluctuation in real earnings from year to year, in accordance with business conditions.[2] Finally, the data

[1] It will be noted that the real annual earnings of employed workers remained fairly constant during the fifteen years 1900–1914, but because of the lower rate of unemployment during this period as compared with the nineties, real earnings of the average member of the labor group increased on the average nearly 5 per cent. In other words, the only gain worth mentioning during this period was due to steadier work rather than to any increase in the purchasing power of those employed. During the slack business years of 1914 and 1915 average real earnings of those attached lagged two points behind average real earnings of those employed, but between 1916 and 1920 steadier employment again brought a gain to the entire labor force greater than that realized by those employed. By 1920 real annual earnings of those attached to these two industries were 21 per cent above the level of the 1890's, while the effective purchasing power of those employed was only 14 per cent greater. The depression of 1921–1922 reduced greatly the average earnings of those attached to these industries, the former year finding the purchasing power of the average member of the force normally attached only 2 per cent above that of the nineties, while the real earnings of those employed were 16 per cent higher. Beginning in 1923, however, the trend reversed itself, and by 1926 those attached had gained 36 per cent, as against 28 per cent for those employed.

[2] For example, the real annual earnings of those employed fell a trifle less than 8 per cent (from 104 to 96) between 1892 and 1894, while those of the average worker attached dropped about 20 per cent (from 111 to 89). The rebound was equally great, the earnings of those attached increasing about 12 per cent (from 89 to 100) in 1895, while real earnings of those employed increased only about 6 per cent (from 96 to 102). In 1904 there was a drop of nearly 4 per cent in the real earnings of the entire group, while those employed continued to earn the same as before; while in the rebound of 1905 the attached group gained nearly 6 per cent (from 102 to 108) and the employed group only about 2 per cent (from 99 to 101). The depressions of 1908, 1914, and 1921 furnish examples of the same relatively greater fluctuation in real annual earnings when allowance is made for unemployment. Real earnings of the larger group dropped about 12 per cent in 1908 (from 107 to 94), and then rose by about 14 per cent (from 94 to 107) in 1909; while those kept at work experienced a decline of only about 3 per cent (from 99 to 96) in 1908 and an advance of a trifle more than 6 per cent (from 96 to 102) in 1909. In 1914 the real earnings of those attached dropped about 7 per cent (from 107 to 99) and those of employed workers less than 1 per cent (from 102 to 101), while in the rebound of 1916 (although the difference between the two continued in 1915) the purchasing power of the labor supply considered as a whole advanced about 13 per cent (from 99 to 113) and that of employed workers a trifle less than 4 per cent (from 101 to 105). In the depression of 1921 the money earnings of those who retained employment were not cut by as much as the relative reduction in the cost of living, and their real average earnings increased from 114 to 116. But in consequence of the great increase in unemployment that year, the real earnings of the average member of the labor supply decreased by about 16 per cent (from 121 to 102). In 1922, on the other hand, the index for the attached group rose nearly 12 per cent (from 102 to 114) and that for the employed group less than 5 per cent (from 116 to 121). The business boom and consequent reduction of unemployment in 1923 caused the index for the larger group to advance twenty-one points, or about 18 per cent, while that for the employed group advanced only five points, or about 4 per cent.

are illuminating in the light they throw upon the relative severity of the several business depressions of the period, in so far as effect upon real incomes of the workers is taken as the criterion of severity. The downswing of business in 1921 was the most disastrous in its influence upon earnings during a single year; the workers normally attached to manufacturing and transportation suffered a loss of 16 per cent (or, a decline in real earnings, on the 1890–1899 basis of 100, from 121 to 102), although the decline in the two years of 1893 and 1894 was somewhat greater (from 111 to 89, or 19.8 per cent). In 1908 the workers in these two industries lost about 11 per cent of the purchasing power they had had the previous year, and in 1896 and 1914 about 8 per cent. The depressions of 1904, 1911, and 1924 are shown to have been of a more minor nature so far as their effect upon the real incomes of those attached to these industries is concerned.

The effect of unemployment upon the trend of real annual earnings of three other groups—workers in manufacturing and transportation plus coal miners, building-trades workers, and general unskilled labor—has been, for the most part, the same as in the case just discussed. By adding the coal miners (whose already summarized annual earnings, it will be recalled, include allowance for unemployment)[1] to the manufacturing and transportation group, Professor Douglas has obtained an index series of real average annual earnings of those attached to these three major lines of industry. The combined series varies but slightly from the one for manufacturing and transportation, the chief difference being that the indexes for the larger group are in general one point, and occasionally two points, higher than those for manufacturing and transportation alone.[2] The period to 1926 closed with these three groups as a whole possessing 38 per cent greater purchasing power from their wage income, after allowance for the volume of unemployment, than they had averaged in the 1890's.

Annual earnings of building-trades workers, as has already been explained, have been estimated by the method of multiplying full-time weekly earnings by fifty-one (the number of full-time weeks in a year after allowance for holidays), and this approximation of average annual earnings in each year has been multiplied by the proportion of the working force employed each year (*i.e.*, by 100 per cent minus the percentage of unemployment) to ascertain the average annual earnings of those attached to the industry. Except for depression years, the inclusion of the relative amounts of unemployment gives a greater average increase in real earnings during the years following 1900 than is shown by the full-time earnings alone, owing to the greater amount of unemployment during the

[1] *Cf. supra* p. 102 and p. 105, footnote 2.

[2] For the detail upon which these generalizations are based, see P. H. Douglas, *op. cit.*, pp. 469–470.

several years of the 1890's.[1] The same tendency toward greater declines during depression years and greater rebounds with the return of prosperity that was noted in the case of the other groups is also evidenced by an analysis of the effect of unemployment upon the earnings of building trades workers. It is significant, however, that there is a tendency for the earnings of workers attached to the building industry to decline before depression becomes general in other fields.[2] The year 1921, when building was reviving after the War curtailment, was an exception to the general rule that relative earnings of those attached decline more rapidly than do earnings of those employed during depression years. In fact, the real earnings of both groups rose in 1921, and those of the workers attached almost as much as those of wage earners actually employed.[3]

Probable annual earnings of the fourth group—unskilled laborers—have been computed by the method of taking the product of full-time weekly earnings and fifty-one, and the averages have been modified to take account of unemployment by applying the average percentages of unemployment in manufacturing, transportation, construction, and mining.[4] In general, the relative increase in average earnings of unskilled workers, with allowance for unemployment, were greater than the advance indicated by the index for the full-time worker alone. During the War, for example, unskilled labor gained almost as much from a reduction in unemployment as from increases in the purchasing power of those employed. The several business depressions of the period seem to have reduced real average annual earnings per attached unskilled worker, as compared with those of the average employed worker, somewhat more than in the case of the skilled, but the difference in this respect between the unskilled and the three other groups was not great.

[1] The table upon which these generalizations are based is to be found in P. H. Douglas, *op. cit.*, p. 473.

[2] For example, in 1907 the real earnings of attached workers fell by twenty-one points, or 15 per cent, while real earnings of those attached to manufacturing and transportation declined by only 1 per cent. Likewise, in 1913 the real earnings of the building group fell by six points, or 5 per cent, although real earnings remained stationary among those attached to manufacturing and transportation (*ibid.*, p. 475). This is, of course, only corroborative evidence to support the general observation that, owing to the discouragement to such long-time investments as building inherent in high costs, building activity generally slumps before manufacturing.

[3] Relative real earnings of attached workers (1897–1899 = 100) rose from 98 in 1920 to 112 in 1921; those of full-time workers from 93 to 111.

[4] As Professor Douglas pointed out, these averages of unemployment are based upon all labor attached to the four industries, and probably if the time lost between jobs by the unskilled alone could be measured, the percentage of unemployment would be greater. The estimated annual earnings in dollars of the unskilled workers, both with and without allowance for unemployment, are presented by Professor Douglas on p. 477 of his study. Absenteeism and part-time work are, of course, not included in annual earnings computed by the method of multiplying weekly earnings by fifty-one, and these—especially the latter—are probably more important in the case of the unskilled than of the skilled.

The movement of real earnings through the year 1926 has now been discussed in considerable detail, and the underlying forces determining the general trend have been suggested more than once. No revolutionary changes in either the general trend of real earnings or the comparative progress of the several groups occurred between 1926 and 1930, and the trends revealed by the preceding discussion may be taken for the most part as being reasonably indicative of the situation during the few remaining years of the period here under survey. Nevertheless, a little detail relevant to the general situation during these years should precede an account of the reversal of the upward trend during the economically melancholy years of the great depression.

The "prosperity" years of 1927, 1928, and the first half of 1929—that prelude to the shattering of price equilibrium and the inglorious exit of the "new capitalism"—were characterized by a maintenance of the volume of industrial production and an increase in agricultural output,[1] a sagging of the general price level,[2] and a hardly observed but nevertheless rather ominous shrinkage in the number employed in manufacturing, mining, agriculture, and transportation.[3] To the extent that the shrinkage in employment reflected the laying off of less efficient and lower-paid workers —as it undoubtedly did to a considerable extent—the effect was to raise the general average of annual earnings more than any actual increase enjoyed by those who continued to be employed;[4] and this factor of over-

[1] Industrial production was 6 per cent greater in 1927 and 10 per cent greater in 1928 than during the three years 1923–1925. However, the volume of production in 1926 had been 8 per cent above this same base, and the average for 1927 and 1928 was therefore the same as that for 1926. Agriculture moved forward, in point of physical output, during these two years, the index of crop production (1923 = 100) being 109 in 1926, 113 in 1927, and 117 in 1928. P. H. Douglas, and Florence T. Jennison, *The Movement of Money and Real Earnings in the United States, 1926–28* (University of Chicago Press, 1930), p. 2.

[2] The Bureau of Labor Statistics' cost of living index stood (1913 = 100) at 175.6 in December, 1926; 172.0 in December, 1927; 171.3 in December, 1928; and 173.7 in December, 1929. *Monthly Labor Review*, April, 1936, p. 1162. Professor Douglas' cost of living index averaged (1914 = 100) 173.5 in 1926, 170.9 in 1927, and 169.3 in 1928. Douglas and Jennison, *op. cit.*, p. 6. The Bureau of Labor Statistics' index of wholesale prices (1926 = 100) stood at 100.0 in 1926, 95.4 in 1927, 97.7 in 1928, and 96.5 in 1929. "Handbook of Labor Statistics," U.S. Bureau of Labor Statistics, *Bulletin 541*, p. 591.

[3] In 1927 the number employed in manufacturing was 3 per cent less than in 1926, while in 1928 there was a further drop of 2 per cent. During the first three quarters of 1929 employment maintained the 1928 level, then slumped during the last three months of the year.

[4] This tendency for average annual earnings to show an increase more than—or a decrease less than—the actual increase or decrease experienced by those who continue to be employed is always important during a period when employment is shrinking, and, together with the consequent increase in unemployment (unless the displaced workers find employment in other and expanding industries), which reduces even more the relative annual earnings of workers attached to the industry, is especially important as a qualification of figures on average annual earnings during a period like the one from 1928 to 1933. When a downward trend of employment commences, firms weed out the less skilled or less

statement, together with the increased volume of unemployment and the consequent reduction of average earnings per worker attached to the various industries,[1] has been of greater importance since 1926 than during the earlier postwar years. It is indeed doubtful whether the increase in real annual earnings per employed worker (*i.e.*, total payroll divided by the average number of workers) was great enough between 1926 and 1929 to offset this probable overstatement of money earnings and the increase in unemployment.

It is fairly certain, however, that the working class as a whole did not lose during the three years immediately following 1926. Professor Douglas, in his sequel[2] to the study from which we have drawn freely, has estimated the average earnings in 1927 and 1928 of those employed in manufacturing, railroading, other public utilities, coal mining, clerical work in manufacturing and on the railroads, teaching, government service, the ministry, and agriculture; and by weighting these earnings according to the relative numbers employed in each group each year, has

efficient and lower-paid workers, and the new figure of average earnings (with the denominator now smaller) will show an increase in money and real earnings per employed person, while in reality there has been no increase in the earnings of those still at work. It is even possible that the workers still employed may receive less money and effective purchasing power than formerly, but that the average for the smaller number still employed will be higher because of the elimination of the lower-paid. As is indicated later (*cf.* pp. 118–119), one reason why the indexes of real earnings per employed worker did not decline more greatly in 1930, 1931, and 1932 was that the less efficient and lower-paid employees were the ones upon whom the incidence of layoffs fell most heavily.

[1] On the whole, there is not satisfactory evidence bearing on the question of whether all but a negligible proportion of those laid off by manufacturing enterprises in 1927 and 1928 found employment in other and expanding industries. Some undoubtedly went into marketing, advertising and collateral activities, bond selling and finance, and expanding industries like automobiles and radio. Studies by I. Lubin of the Brookings Institution and others cast grave doubt upon the hypothesis that any easy reabsorption of those laid off during these two years occurred, and the study of unemployment made for the Committee on Economic Changes by Meredith Givens and Leo Wolman (*cf. Recent Economic Changes*, vol. 2, pp. 466–479) shows that the percentage of those attached to manufacturing, transportation, construction, and mining who were unemployed increased from 7.1 in 1926 to 9.0 in 1927. Certainly, however, there can be no doubt as to the twofold effect of the widespread unemployment since 1929. Average annual earnings show a smaller decline than was actually suffered by those who held jobs, and average earnings per active member of the working class have been reduced even more by the widespread unemployment.

[2] Douglas and Jennison, *op. cit.* This study carries Professor Douglas' earlier work, in somewhat abbreviated fashion, through 1928. Real and money earnings are expressed as relatives to the 1914 base of 100—not as relatives to both 1914 and 1890, as in the earlier work. The trend is estimated in terms of both average annual earnings of employed workers and hourly and weekly rates and full-time weekly earnings, but in this summary we are confining ourselves to the former. Average annual earnings of active members of the working class (*i.e.*, average annual earnings of employed persons multiplied by the percentage of the normal labor supply actually employed) are not computed in this study, but a chapter on unemployment during this period makes possible approximations of the extent to which annual earnings were reduced by unemployment.

derived a composite average covering no less than sixteen million workers. Table 26 (1914 = 100) indicates the general trend, both when farm labor is included and when it is excluded.

TABLE 26.—REAL ANNUAL EARNINGS OF AMERICAN WORKERS, 1926–1928[1]

Year	Real annual earnings including farm labor (1914 = 100)	Real annual earnings excluding farm labor
1926	126	124
1927	128	126
1928	132	130

[1] *Ibid.*, pp. 25–27. The reader may legitimately raise the question of why the inclusion of farm laborers, who, as is indicated later (*cf.* p. 115), had by 1928 obtained an increase of only 1 per cent over the 1914 level—appreciably less than the general average increase—should nevertheless have been able to raise the average index from 130 to 132. The apparent contradiction is explained by the fact that there was an appreciable transfer during this period from the relatively low paid agricultural occupations into urban industries, which are better paid. Therefore the relative weights applied to agriculture were decreasing throughout the period. Those who remained in agriculture did not make the gains which those in urban work obtained, but those migrating from agriculture made gains which more than offset the deficiencies and thus gave the two groups when combined a greater increase over 1914 than was obtained by either one if considered separately.

Real annual earnings per employed worker, then, were 5 per cent higher in 1928 than in 1926, irrespective of whether the earnings of rural labor are included,[1] and evidence afforded by the movement of earnings and prices during the first eight or nine months of 1929 indicates that any changes during that short period were of negligible importance.

This gain of 2.5 per cent per annum during the latter 1920's should, however, be placed in juxtaposition to the increase in unemployment, in order that an approximation of the material progress of the working class as a whole may be arrived at, and the probable overstatement of average annual earnings during a period of shrinking employment, as already discussed, must be kept in mind as another qualification. So far as a generalization is permissible, it may be said that the increase in unemployment, at least through 1927, was sufficient to negative for the working class as a whole the percentage gains made by those who continued to be employed.[2] By 1929 the real earnings status of the workers, relative to that of 1890, was much the same as it had been in 1926.

A few words should be said, also, about the comparative gains of the different groups during the years just preceding the depression. Employed workers in manufacturing lost about 1 per cent in average

[1] That is, they increased from 126 to 132, or six points, in the first case, and from 124 to 130, or six points, in the second; or virtually 5 per cent in both cases.

[2] The already quoted Givens-Wolman study (*Recent Economic Changes*, vol. 2, pp. 466–476) showed that the percentage of those attached to manufacturing, transportation, and construction who were unemployed increased from 7.1 in 1926 to 9.0 in 1927. While comparable unemployment statistics are not available for 1928 and 1929, there is no reason to believe that the volume of employment changed in a manner appreciably more favorable to labor.

money earnings in 1927, as compared with 1926, but the cost of living dropped somewhat more, and the index of real earnings was a trifle—less than 1 per cent—higher in the later than in the earlier year. In 1928 the money earnings of those remaining on factory payrolls increased by 2 per cent, making a gain in real earnings of about 3 per cent.[1] Employees of the railroads obtained approximately the same percentage gain during this brief period, although in 1928 their real earnings were only 22 per cent above the 1914 level, while those of workers in manufacturing were 35 per cent higher.[2] In general the trend for employees of telephone, telegraph, and gas and electric companies was substantially the same.[3] Coal miners suffered in consequence of the strike of 1927 and the relative shrinking demand for coal, money earnings in the bituminous branch of the industry decreasing that year by approximately 12 per cent, and in the anthracite branch by approximately 8 per cent. A revival in the bituminous fields in 1928 raised average money earnings by 5 per cent, but a further slump of a trifle more than 1 per cent in the anthracite branch lowered the average for the two groups as a whole. Real earnings for both anthracite and bituminous miners dropped from 141 (1914 = 100) in 1926 to 128 in 1927, then rose to 133 in 1928.[4] Clerical employees in manufacturing made appreciable gains in these two years, the indexes of their real earnings advancing from 105 to 114, or about 8 per cent,[5] while clerical workers employed by the railroads received in 1928 real earnings 7 per cent greater than those of 1926.[6] The only gain of the postal workers during this period was due to the decline in the cost of living, which increased the purchasing power of substantially stationary money earnings by between 2 and 3 per cent.[7] The salaries of other government employees moved upward between 1926 and the end of 1928, however, the purchasing power of the average employee being 10 per cent greater in the latter year than in the former.[8]

[1] The index numbers for the three years (1914 = 100) were: 1926, 130; 1927, 131; 1928, 135 (Douglas and Jennison, *op. cit.*, p. 10).

[2] The index numbers (1914 base) for employees of the railroads: 1926, 117; 1927, 120; 1928, 122. *Ibid.*, p. 15. The gain was therefore 4.25 per cent.

[3] For public utilities as a whole, the index numbers were (1914 = 100): 1926, 116; 1927, 119; 1928, 122. The gain for each of the three constituent groups—telephone, telegraph, and gas and electric workers—was about the same as that shown by the weighted index for all three. Employees of the telegraph companies enjoyed a gain from 93 to 98, but their real earnings were therefore still 2 per cent below the 1914 level in 1928. *Ibid.*, pp. 16–18.

[4] *Ibid.*, pp. 18–19.

[5] *Ibid.*, p. 22.

[6] *Ibid.*, pp. 22–23.

[7] The indexes of money earnings (1914 = 100) were: 1926, 184; 1927, 184; 1928, 185. Indexes of real annual earnings: 1926, 106; 1927, 108; 1928, 109, *Ibid.*, p. 23.

[8] The index numbers for the three years: 1926, 92; 1927, 95; 1928, 101. *Ibid.*, p. 24. It will be noted that in spite of the 10 per cent gain, the index was in 1928 only 1 per cent above that for 1914, and still about 23 per cent below the average for the 1890's (see *supra*, p. 102).

Teachers in the public schools made appreciable gains during these two years, money earnings advancing more than 5 per cent and real earnings about 8 per cent;[1] while ministers gained about 7 per cent in real earnings, with the result that in 1928 the purchasing power of their annual salaries was about 20 per cent above the 1914 level.[2] Farm labor gained only a little more than 1 per cent during this period of agricultural depression, and in 1928 real annual earnings of agricultural workers paid entirely in money were still 1 per cent below the 1914 level.[3]

Trend of Real Earnings since 1930.—The years following 1930 were, as almost everyone knows, characterized by economic maladjustments threatening, for a time, the very foundations of the capitalistic system of production; and this fact alone dictates extreme caution in drawing conclusions from such data as are available. Grave question may be raised as to whether the more commonly used cost of living indexes adequately reflect changes in the cost of living of the workers themselves when enforced readjustments of expenditure habits are taking place on a large scale; the purchasing power of earnings in given occupations becomes a less than normally reliable indicator of the material welfare of the workers when thousands of individuals are having to enter new lines of work if they are fortunate enough to be employed at all; governmental relief grants and a large amount of "made work" after 1933 complicate the

[1] The index numbers of real annual earnings (1914 base) were: 1926, 133; 1927, 140; 1928, 144. *Ibid.*, p. 25.

[2] However, the losses of ministers during the two decades between 1900 and 1920 (*supra*, p. 102) should be recalled. As a matter of fact, the increase in real wages in 1928 over the level of 1890–1899 was only 4 per cent, and if the period 1900–1928 be taken as a whole, the ministers' losses far exceeded their gains. Professor Douglas has taken only the averages of Methodist and Congregational ministers, these being fairly typical of Protestant denominations. The index numbers of real annual earnings of these ministers were: 1926, 112; 1927, 117; 1928, 120. *Ibid.*, p. 25.

[3] It should be recalled, however, that between 1900 and 1914, and again between 1914 and 1918, the relative gains of farm labor exceeded those of urban workers (*supra*, pp. 99–100). The index numbers of relative annual real earnings of employed farm laborers for the period here under consideration are (1914 base): 1926, 98; 1927, 98; 1928, 99. *Ibid.*, p. 21 Professor Douglas and Miss Jennison, in making their computations, used daily and monthly rates of workers not receiving part of their remuneration in board, and weighted the averages for the two groups at 6 for the monthly workers and 4 for the daily workers, since workers paid on the monthly basis, according to Department of Agriculture data, constitute about 60 per cent of the monthly-wage and daily-wage group combined. Estimates of the real earnings of farm laborers are subject to the qualification that we have no satisfactory index of changes in rural living cost. Dr. W. I. King has computed such an index, which takes the difference between the wages of farm labor with and without board as the measure of the cost of board and housing and adds to this the fluctuations in the prices of other goods as indicated by the Sears-Roebuck catalogue, but Professor Douglas believed this index to be unsatisfactory because a diminution of the margin between wages with and without board may reflect a decrease in agricultural prices as well as a reduction in relative rural living costs. He therefore applied to the money earnings of farm labor the urban cost of living described in the preceding chapter (*supra*, pp. 51–52).

situation still further; the shortening of the working week and the "staggering" policy to which many firms resorted, especially between 1931 and 1934, cause hourly earnings to be even more unrepresentative of progress or retrogression than they ordinarily are; the spread between average annual earnings per active member of the wage-earning class and average annual earnings per employed person becomes greater during periods of widespread unemployment. Moreover, there are no studies comparable in scope and detail to those we have used in earlier sections of this chapter; and the additional disconcerting notation must be made that the studies available are not entirely in agreement with each other. All these facts suggest how cautious and tentative must be any conclusions we draw.

A few of the more definitely established facts about the movement of hourly and weekly earnings, total employment and unemployment, total payroll in those lines of enterprise for which such information is available, and the cost of living can, however, be presented as indicative of what was taking place with respect to the workers' real remuneration during these years of kaleidoscopic changes, and the conclusions of those students who have studied wage and price movements in relation to each other during parts of the period can be set forth. It will be convenient, first, to summarize the situation prior to 1933, when the "New Deal" and its policy of stepping up wages became effective, and, second, to survey such evidence as is available on the trend of real remuneration since 1933.

The movement of hourly earnings between 1930 and 1933 may be dismissed rather briefly. According to the data of the National Industrial Conference Board,[1] the drop in hourly money earnings of all wage earners in the reporting manufacturing industries between 1929 and 1932 was not as great as the decline in the cost of living, and real hourly earnings were 4.7 per cent higher in the fourth quarter of 1931 than in the corresponding quarter of 1930, and 10.6 per cent higher in the same quarter of 1929.[2] The Brookings Institution study of weekly real earnings for

[1] *Wages in the United States in 1931.* The Board has compiled data on the hourly earnings (total payroll for each industry divided by the number of hours worked by the wage earners) and average weekly earnings (total weekly payroll of each industry divided by the corresponding number of wage earners) and the volume of employment for some twenty-five manufacturing industries. In 1931 there were over 1,400 plants represented, these employing an average of 585,000 workers. This number does not, of course, represent the normal employment of these industries, since the business depression had depleted the working force of many of the companies. Information on wage rates and earnings in public utility enterprises, the building trades, agriculture, and steam transportation are available from the same source.

[2] To be more detailed, the Board found that average hourly money earnings of the wage earners in these manufacturing industries were 6.2 per cent lower in the fourth quarter of 1931 than in the corresponding quarter of 1930, and 7.8 per cent lower than in the similar quarter of 1929, when the depression was just beginning and earnings had not fallen off to any considerable extent. During 1931 as a whole, hourly earnings averaged 4.1 per

the period 1929–1933,[1] summarized later, also creates a presumption that hourly real earnings were higher in 1931 than they had been during the last predepression year. Inferences drawn from changes in total payroll, total employment, the cost of living, and average hours per wage earner in manufacturing indicate rather strongly that this same trend continued throughout 1932, and that the purchasing power of hourly earnings had not declined by the time the New Deal went into effect, but on the contrary was greater, than in 1929.[2] In other words, the great decline in total labor income during the first three and a half years of the depression and the tragic impairment of standards of living was due to the shortening of the working week of those employed and to the tremendous loss in real average earnings per active member of the working class consequent upon widespread unemployment, rather than to a failure of wage-rate reduction to keep within the limits of the cost of living decline. While the trends summarized in this paragraph apply only to the earnings of workers engaged in manufacturing, the story for these years is much the same in so far as other groups of workers are concerned.[3]

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cent lower than in both 1930 and 1929. During this period, however, the cost of living declined by approximately 15 per cent—considerably more than hourly money earnings. It is worth observing, as evidence that the policy of rate maintenance urged by the federal administration had some effect during the early stages of the depression, that by 1932 the reduction in hourly money earnings had not assumed the proportions that obtained during the depression of 1920–1921. From the third quarter of 1920 until the third quarter of 1922, average hourly earnings fell 19.6 per cent, as compared with 7.8 per cent between the last quarter of 1929 and that of 1931 (*ibid.*, pp. 4–6). However, the greater reduction in hourly earnings during the depression immediately following the War was to be expected, because 1920 wage rates were still reflecting the high wages labor had been able to command in consequence of the abnormal War-time activity and the then relative scarcity of labor.

[1] Lyon, Homan, Terborgh, Lorwin, Dearing, and Marshall, *The National Recovery Administration*, 1935, pp. 776–782.

[2] A summary of the facts upon which the generalization that real hourly earnings of those employed continued to rise during 1932 is based should be given. According to the data of the United States Bureau of Labor Statistics, total factory payrolls declined between the end of 1931 and the end of 1932 by 30 per cent, total employment by 17 per cent, the cost of living by 22 per cent, and hours worked per employee per week by 6 per cent (*Monthly Labor Review*, July, 1935, p. 187, and January, 1936, p. 205). It will be noted that total payroll dropped substantially more than total employment, and that money earnings per employed person were therefore lower. To be exact, the decline in average earnings per employed person was approximately 16 per cent. But the cost of living declined even more (22 per cent), and each worker was working, on the average, 6 per cent less time at the end of 1932 than at the end of 1931. The purchasing power of hourly earnings in manufacturing, without doubt, was greater early in 1933 than it had been just before the depression began.

[3] To summarize in a little detail the evidence bearing upon the earnings of other groups: Railroad workers succeeded in maintaining wage rates as the depression progressed, and the real hourly earnings of those employed late in 1932 and early in 1933 were, as in manufacturing, greater than in 1929. The already quoted Conference Board report showed that hourly money earnings were 1.1 per cent higher in the fourth quarter of 1931 than in the

Hourly earnings are, however, never the most satisfactory criterion of progress or retrogression, and they are especially misleading during a period like that of 1929–1933. Weekly and annual incomes were reduced

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corresponding quarter of 1930, and 2.8 per cent higher than in the same quarter of 1929. Early in 1932 the joint negotiations of the affiliated railroad organizations and the operators resulted in a 10 per cent reduction (a "voluntary deduction," nominal scales remaining the same) in rates, and this deduction was continued for another year. Between 1929 and the end of 1932, however, the cost of living, as indicated by the Bureau of Labor Statistics index, declined from 173.7 to 135.5, or 22 per cent. Weekly earnings were, of course, adversely affected by part-time work. Nevertheless, the Conference Board study showed that real weekly earnings were greater at the end of 1931 than they had been two years earlier, and inferences of the type already drawn from the manufacturing data suggest that the increase in part-time employment and the rate reductions of 1932 did not reduce weekly money earnings of employed workers more than the cost of living declined. But employment on Class I Railroads dropped from 93.1 per cent of the 1923–1925 average in 1929 to 57.8 per cent in 1932 and to 52.4 per cent during the first three months of 1933 (*Monthly Labor Review*, July, 1935, p. 199). Employees of public utility enterprises other than railroad corporations maintained a relatively favorable position in the matter of real hourly earnings during the first three years of the depression. Real hourly earnings of workers engaged in the production and distribution were found by the Conference Board to have averaged, in July, 1931, 14.3 per cent above the level of July, 1930, and 19.4 per cent above that of July, 1929. Reductions in hours of workers in the gas industry averaged only 3.3 per cent during the two-year period, and real weekly incomes were also greater early in 1933 than in 1929. Analysis of earnings of workers engaged in the generation and distribution of electricity reveals substantially the same trends (Conference Board, *op. cit.*, p. 18). The payrolls of public utility enterprises declined more than the volume of employment during 1932, but the resultant decline in money earnings per employee was not greater than the decline in the cost of living. Reductions in the wages of building-trades workers were less drastic than those of employees of manufacturing concerns, but at the same time building trades workers probably suffered more than did a majority of manualist groups during the first three and a half years of the depression. Union scales, while maintained with some success, had in many cities become only nominal by the end of 1932, and unemployment was widespread. Farm laborers probably suffered as much as any other group during the pre-1933 depression years. It will be recalled that in 1926 the real earnings of members of this group, while 8 per cent above the level of the 1890's, were considerably lower than during a number of intervening years, and that in 1928 the real earnings of agricultural workers paid entirely in money were still 1 per cent below the 1914 level. Agricultural depression deepened during and after 1930, and wage rates declined sharply. Department of Agriculture data, as interpreted by the National Industrial Conference Board, show that in October, 1931, monthly rates of those receiving board were 25.4 per cent lower than they had been in October, 1930, and 35.1 per cent lower than in October, 1929. Monthly rates without board decreased 22.7 per cent between October, 1930, and the same month of 1931, and 31.6 per cent between October, 1929, and October, 1931. Daily rates with board declined by 38.5 per cent during these two years, and daily rates without board by 35.4 per cent. Substantially as great reductions took place in 1932. These reductions were far in excess of the decline in rural living costs, and early in 1933 the real earnings of agricultural workers were far below the 1914 level or the high point of 1920, and possibly a little below the level of the 1890's. In the case of bituminous-coal miners and workers in quarrying, metalliferous mining, and cleaning and dyeing, real hourly earnings were lower in 1933 than in 1929. (Brookings Institution estimates, *The National Recovery Administration*, pp. 778–780.)

during these years by the shortening of the week actually worked by the average worker; the laying off of less efficient and lower-paid workers caused average money earnings per employed person to decline less rapidly than the real decline sustained by those kept at work; and unemployment widened greatly the spread between average earnings per employed person and average earnings per member of the labor supply. By the end of the first quarter of 1933, factory employment was only 58.8 per cent of the 1923–1925 average (as compared with 104.8 per cent in 1929), and total factory payrolls were only 37.1 per cent of the same average (as compared with 109.1 per cent in 1929). In all lines of economic activity in the United States at the depth of the depression almost 16 million persons were willing and able to work but unable to find the opportunity to do so. The evidence that real hourly earnings did not decline for the majority of workers is significant chiefly as an indication that the decline in the aggregate real income of labor was attributable to partial or complete unemployment rather than to low wage rates. It behooves us, therefore, to turn to measurements which take account of reduction in the number of hours worked by the average worker, and then make the modifications called for by the fact of widespread unemployment.

The tabular statement (Table 27) of changes in nominal and real weekly earnings between 1929 and the first half of 1933 indicates trends in the material status of the workers when allowance is made for the shortening of the average working week but not for unemployment. The facts of most significance revealed by this table are fairly apparent. It will be noted that while real hourly earnings, as already indicated, increased in the majority of branches of industry between 1929 and 1933, real weekly earnings more frequently decreased. This difference is, of course, attributable to the reduction in length of the standard working week and to the large amount of part-time work done during these years.[1] But the fact that stands out most clearly is the increase in many lines, despite general reduction in average hours worked during the depression, of average real weekly income. In other words, the reduction in weekly money earnings consequent upon both rate cuts and reduction in

[1] The "share the work" movement attained greater proportions during the depression of the 1930's than it ever had before, although it had largely run its course, so far as the purely voluntary action of business enterprisers was concerned, by about the time the NRA went into effect. In part the movement expressed itself in a reduction in the length of the normal or standard working week, and in part in the employment of large numbers of persons on part time. A survey made by the U. S. Bureau of Labor Statistics in March, 1932, showed that 56.1 per cent of all workers and 63 per cent of the workers in manufacturing were then on part time. A decline of 6.1 per cent in hours actually worked occurred between February, 1932, and February, 1933, a fact indicating some continuance of the work sharing movement. When the codes began to be adopted, the actual working week was frequently incorporated as the standard or maximum working week, and the codes probably had much less effect in forcing a continuance of the work-sharing movement than had been anticipated.

hours was not as great as the decline in the cost of living. It may be noted, also, that the data in Table 27 substantiate the conclusion reached in earlier paragraphs that average real earnings per hour in the majority

TABLE 27.—CHANGES IN NOMINAL AND REAL WEEKLY EARNINGS BETWEEN 1929 AND 1933[1]

Industry and class of labor	Average nominal weekly earnings		Percentage change in average weekly earnings		Average hours per week, 1933
	1929	1933	Nominal	Real	
Manufacturing (wage earners only)	$25.30	$15.79	−37.6	−13.7	39.0
Mining (wage earners only):					
Anthracite coal	31.26	24.26	−22.4	+7.3	29.3
Bituminous coal	25.05	12.32	−50.8	−32.0	27.4
Metalliferous	30.19	18.46	−38.9	−15.4	39.2
Quarrying and nonmetallic	23.67	12.62	−46.7	−26.2	36.8
Crude petroleum	36.37	26.52	−27.1	+0.9	44.6
Trade:					
Retail	22 67	16.22	−28.5	−1.1	47.0
Wholesale	36.06	27.13	−24.8	+4.0	46.9
Public utilities:					
Telephone and telegraph	25.37	23.88	−5.9	+30.2	37.3
Electric light and power	30.01	24.62	−18.0	+13.4	43.5
Electric railways	33.02	27.80	−15.8	+16.4	45.7
Steam railroads:					
Wage earners	32.01	25.54	−20.2	+10.4	42.1
Salaried workers	43.92	36.97	−15.8	+16.4	[a]
Service:					
Laundry	18 87	13.75	−27.1	+0 8	42.1
Cleaning and dyeing	24 69	15.93	−35.5	−10.8	45.4
Hotel	16.97	12.10	−28.7	−1.4	51.2

[a] No data.

[1] From Lyon, Homan, Terborgh, Lorwin, Dearing, and Marshall, *The National Recovery Administration*, p. 778. The weekly earnings figures for manufacturing, wholesale trade, retail trade, power laundries, cleaning and dyeing were computed from census data; those for telephones and telegraphs, electric light and power, electric railways, crude petroleum production, and nonmetallic mining from the U. S. Department of Commerce publication, *The National Income*, 1929–1932; those for anthracite coal, bituminous coal, and metalliferous mining from data of the U. S. Bureau of Labor Statistics; and those for the railroads from the reports of the Interstate Commerce Commission. The figures on average hours per week are derived from the reports of the Bureau of Labor Statistics, except for the railroad item, which is based upon Interstate Commerce Commission data. Nominal weekly earnings in 1933 were divided by 0.723 (the ratio of the 1933 cost of living to the 1929 cost) and the result was compared with nominal earnings in 1929.

of lines of enterprise were higher late in 1932 or early in 1933 than they had been in 1929.[1] Finally, attention should be given to the relative gains or losses of different classes of labor and to the purport of the data so

[1] Where average real earnings per week either rose or showed little change, it may be taken for granted that real earnings per hour were considerably higher in 1933 than in 1929, since hours had been generally reduced. Also, as the Brookings group point out, it does not follow that real hourly earnings went down even where real earnings per week showed a substantial decline. A glance at the last two columns of the table indicates that where real income was materially below the 1929 level, average hours were low. In the case of manufacturing wage earners, for example, the decline of 13.7 per cent in average real income per week was due wholly to a decline in average hours from 50 to 39.

far as to the effect of depression upon the real weekly earnings of employed labor *as a whole* is concerned. Wage earners in manufacturing, while enjoying higher real hourly earnings, lost more than one-eighth of their real weekly income between 1929 and the first half of 1933;[1] and workers in the mines (except anthracite coal), in retail trade, in cleaning and dyeing establishments, and in hotels also experienced losses of varying severity. On the other hand, anthracite coal miners, employees of wholesale-trade establishments, public utility employees, and railroad workers all experienced fairly substantial gains. The effect of these changes upon the employed part of the laboring class as a whole can best be ascertained by weighting the groups according to their numerical importance. Such a weighting indicates (largely as a result of the relative size of the manufacturing group, which sustained a 13.7 per cent loss) that the gains of the workers in more than half of these industries were negatived by the losses of the minority of larger groups. It is certain that real weekly earnings of employed workers as a whole had not declined greatly by 1933; but it is equally certain that they had not greatly increased.

But the real income of the wage-earning class as a whole declined to a tragic extent during the years 1929–1933. Whether the increase (in the majority of lines of enterprise) in real hourly earnings—*i.e.*, the failure of hourly rates to decline in proportion to the price decline—and the maintenance when all groups are taken into account of real weekly earnings accentuated this decline or made it less extreme than it otherwise would have been is another question. The immediately relevant fact is that while the real earnings of those workers in the enviable position of having jobs were behaving in the manner described in the immediately preceding paragraphs, widespread unemployment was reducing average real annual earnings per person normally attached to industry enough to wipe out not less than one-third—possibly more—of the gain achieved between 1890 and 1930. It is clear that between the third quarter of 1929 and the first quarter of 1933 approximately 40 per cent of the wage earners

[1] It may be mentioned that the estimate of the movement of real weekly earnings of manufacturing workers is in substantial agreement with the estimates of the National Industrial Conference Board (*op. cit.*, pp. 6–8) and with certain independent computations that have been made. In 1931, according to the Board's study, average weekly money earnings in manufacturing were 14.4 per cent lower than during the corresponding quarter of 1930, and 26.3 per cent lower than during the corresponding quarter of 1929. In 1931 as a whole average weekly earnings were 12.4 per cent below those of 1930 and 20.6 below those of 1929. In view of the fact that these reductions were greater than the decline in prices (as measured by the Board's own cost of living index), real weekly earnings in the reporting manufacturing industries were 4.4 per cent lower than in the same period of 1930 and 11.7 per cent lower than in the same period of 1929. Computations made by the authors upon the basis of changes in payroll and volume of employment of firms reporting to the United States Bureau of Labor Statistics, and of the cost of living changes as indicated by the Bureau's index, show that during 1932 workers who continued to be employed lost between 4 and 6 per cent in purchasing power of weekly earnings.

attached to manufacturing were laid off,[1] and as has already been said, nearly 16 million persons were unemployed early in 1933. While our data do not justify us in computing index numbers of average real earnings per active member of the labor supply (*i.e.*, earnings per employed worker multiplied by the percentage of those attached to industry who were employed), such as were presented for the earlier years, the facts about the decline in employment between 1929 and 1933 are perhaps illuminating enough. A very substantial part of the gain of the first three decades of the century was taken from the working class as a whole by the depression.

It remains to summarize the trend of real earnings, in so far as the data available make summarization possible, since the depth of the depression. In 1933, as everyone knows, an extensive system of government control, more or less effective until its invalidation by the Supreme Court of the United States in 1935, was inaugurated, applicable to more than 60 per cent of the nation's wage earners.[2] Both employment and total payrolls, in the majority of industries, have risen substantially above the low points of 1933. Average hours worked per week declined during the second half of 1933, remained substantially the same during 1934, and then rose after invalidation of the code system in 1935. The cost of living has risen. What has been the aggregate effect of these conditions and changes upon the real income of the workers?

Real hourly earnings may again be considered first. It will be remembered that for the most part the workers did not lose, but on the contrary gained, between 1929 and 1933 so far as the purchasing power of nominal hourly earnings was concerned,[3] and it seems beyond question that this tendency continued at least until 1935. Serious question may be raised, it is true, as to whether real hourly earnings in industries and occupations subject to the code system advanced in the manner called for by the high-purchasing-power theory of the NRA, and whether, indeed, the NRA as a causal influence raised wage rates per hour much more than the increase in the cost of living.[4] But the general upward movement of real hourly

[1] The average of the Bureau of Labor Statistics monthly indexes of factory employment (1923–1925 = 100) for the last three months of 1929 was 103.7, and for the first three months of 1933, 60.0.

[2] It must be remembered that at the time the NRA was launched industries having more than a third of all employees in the country—agriculture, steam railroads, government, domestic service, professional service, nonprofit institutions, and others—were exempt from its provisions. Also, a considerable number of industries nominally subject to codes already had wage and hour schedules so favorable that few of their employees were affected by the code provisions. In this chapter, however, we are not primarily concerned with the question of what part the National Industrial Recovery Program, as a causal influence, had upon changes in real earnings during and after 1933, but merely with an account of changes in real earnings in general. The theory and the structural and functional aspects of the NRA are discussed in Chap. VI (*infra*, pp. 356–370).

[3] *Supra*, pp. 116–117.

[4] The Brookings Institution group (Lyon, Homan, Terborgh, Lorwin, Dearing, and

earning during the second half of 1933 and on through 1934 is established beyond reasonable doubt. Professor Wolman, generalizing upon the information afforded by the 1933 Census of Manufactures, the Interstate Commerce Commission, and the Bureau of Labor Statistics on the movement of nominal earnings and the cost of living,[1] has concluded that real hourly earnings of all important groups except anthracite coal miners, railroad employees, telephone and telegraph workers, and employees of electric railroad and motor bus companies were higher during the fourth quarter of 1934 than in June of 1933, when the rise in rates and the revival of employment were just beginning,[2] the percentage gains and losses being indicated in a footnote later.[3]

Between 1933 and 1935 real hourly earnings increased substantially more than did real weekly earnings, owing to the simultaneous increase in

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Marshall, *The National Recovery Administration*, pp. 785–789) has concluded: "(1) The NRA raised substantially both the average hourly earnings and the cost of living of the nation's employed workers as a whole. (2) If on the average wage rates per hour were raised more than living costs, the difference was small." It should be noted, however, that the Brookings economists were primarily concerned with the effect of the NRA upon both wages and prices, not with the general movement of the two irrespective of causes. Hence greater emphasis was laid upon the movements during the latter half of 1933, when the changes in rates of wages of workers subject to the codes (and not already receiving more than the code minima) could be almost wholly attributed to the codes and the President's re-employment agreement. Also, since the objective of this group was to ascertain what part of the increase in nominal hourly earnings *was attributable to* the code system, and what part of the offsetting rise in the cost of living *was also attributable to* this system, an adjusted cost of living index was worked out, constructed so as to exclude the component of retail prices consisting of payments to farmers (plus processing taxes) and payments for imported commodities, because changes in these elements were imputable to the AAA program, the monetary devaluation, and other factors, rather than to the NRA. The Brookings economists were of the opinion that both the United States Bureau of Labor Statistics and the National Industrial Conference Board cost of living indexes understated the average increase in living costs of the country's wage earners as a whole during 1933. If this is true, the apparent discrepancy between the Brookings conclusions on the movement of real hourly earnings and those of Professor Wolman, quoted a little later, could be explained in part.

[1] Leo Wolman, "Wages and Hours Under Codes of Fair Competition," National Bureau of Economic Research, *Bulletin 54* (Mar. 15, 1935), pp. 5–7.

[2] Professor Wolman also calls attention to the fact that in the cases where real hourly earnings declined between 1933 and the end of 1934, the rates of wages were already relatively high in 1933 and had not been materially reduced during the course of the depression. Thus, hourly earnings of anthracite coal miners, which are shown in footnote 3, p. 125, to have been 7.6 per cent lower at the end of 1934 than in June, 1933, had remained at above 80 cents an hour since 1929. They were not reduced during the depression and were not increased in the months of the initial recovery. The hourly wages of telephone and telegraph workers likewise were high (71 cents an hour) in June, 1933, and were consequantly not increased greatly thereafter. The same was true of the wages of employees of the railroads, which, as was indicated in an earlier footnote (*supra*, p. 118), were not cut until February, 1932, when a 10 per cent reduction became effective.

[3] *Infra*, p. 125, footnote 3.

hourly rates and limitation upon length of the work week under the government's labor policies of 1933–1935. Between 1935 and the autumn of 1936, however, hourly rates of pay advanced very little, the cost of living rose, and the average weekly work period was lengthened.[1] The consequence was that during the first of these periods the movements of real hourly and weekly earnings showed wide diversity, but that over the 1933–1936 period as a whole the movements were much the same. There can be no doubt that real hourly earnings were substantially higher in 1937 than they had been in 1933; and in view of the already indicated

TABLE 28.—REAL AVERAGE WEEKLY AND REAL AVERAGE HOURLY EARNINGS, PERCENTAGE CHANGES, 1933 TO 1936[1]

Industry	Percentage changes, 1933 to 1936	
	Real average weekly earnings	Real average hourly earnings
Manufacturing	+18.1	+15.9
Extractive industries:		
Coal mining	+24.3	+30.8
Anthracite	−8.4	−5.5
Bituminous	+41.7	+48.9
Other mining:		
Metalliferous	+16.7	+10.6
Nonmetallic and quarrying	+20.4	+7.0
Crude-petroleum producing	−0.2	+10.7
Public utilities	+3.5	+5.3
Telephone and telegraph	+3.8	+2.1
Electric light, power, and gas	+2 1	+13.1
Electric railroads and motor buses	+4.7	+2.5
Trade	+1.1	+9.8
Wholesale	+1.1	+9.6
Retail	.....	+9.6
Service industries		
Laundries	+1.2	−2.0
Dyeing and cleaning	+3.3	+3.6
Hotels	+1.5	+11.3
Class I railroads	+9.4	+2.6
Building construction (private)	+11.7	

[1] Leo Wolman, "The Recovery in Wages and Employment," National Bureau of Economic Research, *Bulletin 63*, p. 12.

[1] Professor Wolman in his 1936 study ("The Recovery in Wages and Employment," National Bureau of Economic Research, *Bulletin 63*, Dec. 21, 1936) points out that hourly money earnings in manufacturing industries increased 19.1 per cent from 1933 to 1934, 3.6 per cent from 1934 to 1935, and only 0.9 per cent from 1935 to 1936. The cost of living, on the other hand, increased rather little during the 1933–1934 period, when hourly earnings were experiencing most of the 1933–36 advance, and real hourly earnings therefore advanced much more rapidly between 1933 and 1935 than they did in the following year. The cost of living index numbers computed by the National Bureau of Economic Research from the revised indexes published by the U. S. Bureau of Statistics for the 1933–1936 period (1929 = 100) are as follows: 1933, 76.2; 1934, 78.8; 1935, 81.1; 1936, 81.9.

fact[1] that hourly earnings on the average were not lower, but on the contrary were, if anything, higher in 1933 than in 1929, the fourth year of the recovery period found the average employed person receiving considerably more goods and services for an hour's work than just before the depression. The percentage gains in real average hourly earnings in both manufacturing and nonmanufacturing industries for the entire period, as indicated by Professor Wolman's most recent study, are shown in Table 28.[2]

As has already been pointed out, real weekly earnings did not advance greatly between 1933 and 1935,[3] but thereafter, as the hours constituting

[1] *Supra*, pp. 116–117.

[2] Money hourly earnings were in general as high in 1936 as in 1929, which, of course, meant—in view of the fact that the cost of living had not returned to its 1929 level—that the purchasing power of hourly earnings was substantially higher than it had been seven years earlier. Professor Wolman in his 1936 study (*op. cit.*, p. 11) has concluded that real hourly earnings of factory employees were 27 per cent greater in 1929, those of railroad labor 26 per cent higher, and those of common labor in roadbuilding 25 per cent higher. Weekly real earnings, on the other hand, while generally above the 1933 level, were below the level of 1929, and in some cases substantially below.

[3] Professor Wolman, in the earlier study to which reference has been made ("Wages and Hours under Codes of Fair Competition," National Bureau of Economic Research, *Bulletin No. 54*, Mar. 15, 1935, pp. 5–7) concluded that the following were the percentage changes in actual and real hourly earnings and in actual and real weekly earnings from June, 1933, to the last quarter of 1934:

Industry	Percentage change, June, 1933, to last quarter of 1934			
	Hourly earnings		Weekly earnings	
	Actual	Real	Actual	Real
Manufacturing	+33.0	+22 0	+6.6	−2.2
Extractive industries:				
Coal mining:				
Anthracite	+0 7	−7 6	−3.1	−11.1
Bituminous	+56 4	+43.5	+51.4	+38.9
Other mining:				
Metalliferous	+24 3	+14 0	+13.5	+4.1
Nonmetallic and quarrying	+27 7	+17 2	−0 3	−8 5
Crude-petroleum producing	+23 2	+13.0	+1 4	−7.0
Public utilities	+10 8	+1 7	+5 4	−3 3
Telephone and telegraph	+4 5	−4 1	+6.6	−2.2
Electric light, power, gas	+23 8	+13.6	+4.5	−4 1
Electric railroads and motor bus	+7.8	−1.1	+4 8	−3.9
Trade:				
Wholesale	+19 7	+9 8	+2 4	−6.1
Retail	+23.2	+13.0	+4.5	−4 1
Class I railroads	+3.5	−5.0	+5.1	−3.6

It will be noted that during the closing months of 1934 weekly earnings (except in the cases of bituminous and metalliferous mine workers) were below the 1933 level, whereas real hourly earnings were generally above. The fact that in Table 28 real weekly earnings are shown to have increased as much between 1933 and 1936 as did real hourly

the actual working week were lengthened, real weekly earnings also advanced. The essential facts about the 1933–1936 trends in both real hourly and real weekly earnings are set forth in Table 28.

The generalizations which emerge from the facts just summarized are fairly apparent. (1) Real hourly earnings in the majority of lines of enterprise were higher in 1936 than they had been in either 1933 or 1929. When this expression of wages or earnings is adopted, the progress during the first three decades of the twentieth century, as summarized earlier in this chapter, was on the whole continued during the depression and postdepression years. (2) Real weekly earnings, in spite of their failure to increase as rapidly as real hourly earnings between 1933 and 1935, had by 1936 advanced substantially as much. Two factors account for this rise: first, the advance in hourly rates of pay while the code system was preventing lengthening of the work week, thus maintaining for the most part—in view of the fact that the cost of living did not advance nearly as much as hourly rates of pay immediately after 1933—real weekly earnings until 1935; and, second, the lengthening of the work week during the latter half of 1935 and 1936, when real hourly earnings were not advancing. (3) Real average weekly earnings at the end of 1936 were still below the 1929 level, even though they advanced as much over the 1933–1936 period as a whole as did real hourly earnings. The explanation of this is, of course, to be found in the fact that real weekly earnings declined substantially, while real hourly earnings were on the whole holding their own, between 1929 and 1933.

Answers to the question of how the wage-earning class as a whole fared with respect to real earnings during the period 1933–1936, and of how its position in the latter year compared with that of 1929, have to be inferred from the data on total employment, total payroll, and the cost of living. Two conclusions can, however, be drawn with reasonable certainty. In the first place, the gain of the working class as a whole was considerably greater than the gain in real weekly earnings per employed person. This was, of course, a consequence of fuller employment, reducing the differential between average real earnings per employed person and average real earnings per person normally attached to industry. Between 1933 and 1936, according to an estimate of the United States Bureau of Labor Statistics, the number of employees in American industry, exclusive of agriculture, increased by approximately 6,000,000.[1] Viewed from a slightly different angle, total payrolls increased more than did the cost

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earnings is a consequence of the failure of hourly earnings to advance appreciably during 1935 and 1936, while the cost of living was rising but the average actual working week was lengthened.

[1] The following are the 1933 and 1936 indexes of employment (1929 = 100), as compiled by Professor Wolman from the data of the U. S. Bureau of Labor Statistics and other

of living in the majority of lines of enterprise.[1] In the second place, it is clearly evident that average real earnings per person attached to indus-

sources (*ibid.*, p. 2):

	1933	1936 (first 9 months ave.)
Manufacturing	68 8	85 9
Anthracite coal	51.7	51.8
Bituminous coal	67 9	77 8
Metalliferous mining	34.6	59.1
Nonmetallic, quarrying	44 9	48.5
Crude petroleum	62.2	72 8
Telephone and telegraph	70 4	71 7
Electric railroad and motor busses	70.0	71 7
Electric light, power, and gas	78.8	89 4
Wholesale trade	76.1	85 6
Retail trade	76 1	88 3
Laundries	78.8	85 6
Hotels	70.1	88 2
Dyeing and cleaning	74 3	81 0
Class I railroads	58 3	63 2
Building construction (private)	31 9	45 7

[1] Between 1933 and 1936 the cost of living (1929 = 100) increased from 76.2 to 81.9. Payrolls in the major branches of industry (same base) on the other hand increased as follows:

Industry	1933	1934	1935	1936
All manufacturing industries	45 3	57 6	65 3	72.5
Selected manufacturing:				
Cotton goods	66 7	78 4	79 6	85 5
Blast furnaces, steel workers, rolling mills	37 0	51 4	64 8	82 7
Steam railroad repair shops	43 7	50 9	53 6	63 7
Foundry and machine-shop products	29 7	44 9	53 9	68 2
Automobiles	34 4	61 3	80 4	85 9
Boots and shoes	63 9	74 5	73 6	70 9
Knit goods	62 7	75 9	83 3	83 9
Lumber, sawmills	26 8	35 8	40.5	48 9
Baking	71 6	82 7	83.9	89 8
Women's clothing	52 2	65 2	70 6	71 9
Men's clothing	57 3	70 1	85.6	87 3
Extractive industries:				
Coal mining:				
Anthracite	45 8	55 9	47 5	44 9
Bituminous	37 8	54 2	58 2	67 2
Other mining:				
Metalliferous	20 6	26 7	33 9	46 1
Nonmetallic and quarrying	24 7	29 6	30 7	37 5
Crude petroleum producing	44 1	56 9	57 9	58.0
Public utilities:				
Telephone and telegraph	68 2	71 5	74 5	77 7
Electric light and power and gas	72 0	77 9	81 4	87 4
Electric railroads and motor buses	58 9	62 2	63 7	66 6
Trade:				
Wholesale	56 8	63 0	65 6	68 4
Retail	55 2	60 9	62 1	64 5
Service industries:				
Laundries	59 5	64 9	66 9	73 4
Dyeing and cleaning	49 5	56 1	57 9	61 8
Hotels	51 0	61 6	63 4	66 2
Class I railroads	47 9	52.0	56 3	62 4
Building construction (private)	20.0	23 2	32 0	40 2

One characteristic of the recovery movement since 1933, it will be noted, is that payrolls have increased more than employment. The chief reason for this fact is the large number of men working only part time at the depth of the depression. Under such circumstances, the recovery movement manifested itself in a disproportionate rise in wage payments and a lag in re-employment.

try in 1936 and 1937 were still considerably below the 1929 level. While the cost of living in 1936 was about 18 per cent below that of 1929, total manufacturing payroll was 27.5 per cent below, and in most other major branches of industry the differential between the 1929 and the 1936 level was even greater.[1] When this fact is considered in conjunction with the increase in population, and therefore in the number of persons who would normally have become attached to industry, the failure of the wage-earning class as a whole to regain the depression losses during the first four of the recovery years following 1933 is apparent.

Other Factors Affecting the Standard of Living.—The trend of real earnings—by far the most important factor influencing the material progress of the masses—has now been discussed in detail. It goes without saying, however, that changes in the real remuneration of those who have been employed or have sought employment are not, in themselves, an entirely adequate measure of the relative condition of the wage-earning group. The number of persons dependent upon the average chief breadwinner, the relative number of persons contributing to family incomes, and the amount and character of free services must all be taken into account. Changes in these factors would cause family standards of living to rise or fall, even should average real earnings remain the same. This account of the material progress of the workers must, therefore, include some attempt to give quantitative precision to the trend of other factors affecting living standards.

While American statistics of the family as an economic consuming unit are scanty, changes in the size of "households," for which comparable data have been collected by the Bureau of the Census, can with qualifications be taken as indicative of changes in the size of natural families.[2]

[1] The following are the percentages by which, according to Professor Wolman's study (*op. cit.*, p. 2), payroll in 1936 was below the level of 1929: bituminous coal mining, 55.1; anthracite coal mining, 32.8; metalliferous mining, 53.9; nonmetallic and quarrying, 62.5; crude-petroleum producing, 42.0; telephone and telegraph, 32.3; electric light and power and gas, 12.6; electric railroads and motor buses, 33.4; wholesale trade, 31.6; retail trade, 35.5; laundries, 26.6; dyeing and cleaning, 38.2; hotels, 33.8; Class I railroads, 37.6; building construction, 59.8.

[2] The Census has changed its classification from time to time. In 1900 and 1930 figures were presented on the size of "private" families, and for the other census years since 1890 institutions and quasi-family groups were included. The 1920 Census defined a household as "those who live together as one household, sharing the same table." (*Abstract of the Fourteenth Census of the United States*, 1920, p. 14.) In 1930, however, "quasi-family groups" were classified separately. The definition of a family given by the 1930 Census was: "The term 'family' . . . is limited in the main to what might be called private families, excluding the institutions and hotel or boarding house groups which have been counted families in prior censuses. A family may therefore be defined in general as a group of persons related either by blood or by marriage or adoption, who live together as one household, usually sharing the same table." (*Abstract of the Fifteenth Census of the United States*, 1930, p. 401.) Single persons living alone were, however, counted as families, as were a few small groups of unrelated persons sharing the same living accomodations

Owing to both the decline in the birth rate and the coming to the United States of many male immigrants who did not bring families with them, a steady decline has taken place in the last forty years, the average household now including 4.1 persons as compared with 4.9 in 1890.[1] While the decrease in the size of families has not been the same among all economic classes, it is probable that the relative decline for the wage-earning class has not been greatly different from that for the population as a whole.[2] Along with the decreasing size of the family has gone a change in its composition. Fewer children, on the average, have to be supported, and a larger proportion of the adults are within the self-supporting age groups. Table 29 indicates the decrease in the percentage of the population under ten years of age.

TABLE 29.—PERCENTAGE OF POPULATION UNDER TEN YEARS OF AGE[1]

Year	Percentage	Relatives (1890 = 100)
1890	24.3	100
1900	23.3	98
1910	22.2	91
1920	21.7	89
1930	19.6	81

[1] This table is a continuation of the one presented by Professor Douglas (*ibid.*, p. 483) for the period 1890–1920. The 1930 percentage is taken from *Abstract of the Fifteenth Census of the United States*, 1930, p. 182.

Again it must be recalled that the birth rate has not declined in the same proportion for all classes, and the indicated decrease of 19 per cent in the numerical importance of children less than ten years of age is not necessarily the exact percentage applicable to the wage-earning class; but it is certain that persons under the age of possible gainful employment, and therefore dependent upon those who do contribute to family income, constitute a smaller proportion of wage-earning families than they did

as "partners." Households reporting more than ten lodgers were classified as boarding or lodging houses rather than as families. Two or more related persons occupying permanent quarters in a hotel were in 1930 counted as a private family rather than as a part of the hotel group. Because of the fact that Census figures on the size of private families are not available for 1890, 1910, and 1920, the data used in this paragraph are those of households, or what the 1930 Census called "Population per family including institutions, etc."

[1] *Abstract of the Fifteenth Census of the United States*, 1930, p. 415. The average number of persons comprising the household in census years has been: 1890, 4.93; 1900, 4.69; 1910, 4.54; 1920, 4.34; 1930, 4.10.

[2] Undoubtedly both the birth rate and the average size of family have decreased more in the professional and middle-class groups than among the wage earners. On the other hand, the decline has been less among the independent farming population, and it is not unreasonable to assume that the decline in the average size of family in the wage-earning class has not been substantially less than that indicated for the country as a whole. For fuller discussion of this matter, see P. H. Douglas, *Real Wages in the United States, 1890–1926*, pp. 482–483.

forty years ago.[1] A closely related factor affecting living standards of the working group has been the increased percentage coming within the age groups where earning capacity is greatest. In Table 30 the percentage of the male population in stated age groups is given for the period from 1890 to 1930. It will be noted that the proportion of the superannuated, who normally must be supported by others, has increased, but that the resulting burden has been more than offset by the decline in the proportion of juveniles. The second and third age groups are, of course, those who

TABLE 30.—PERCENTAGE OF MALE POPULATION IN DIFFERENT AGE GROUPS[1]

Year	0–19 years	20–44 years	45–64 years	65 years and over
1890	45.2	37.3	13 3	3.7
1900	43.6	37.9	14 1	4.0
1910	41 1	39.4	15.1	4.1
1920	40 3	38.2	16 9	4.5
1930	38.7	37 9	17.9	5.5

[1] Figures for 1890–1920 from P. H. Douglas, *op. cit.*, p. 484, and those for 1930 from *Abstract of the Fifteenth Census of the United States*, 1930, p. 184.

are most economically productive, and the increase in the percentage of the male population included within them has been substantial.[2] Account should also be taken of changes in the relative proportion of the adult population gainfully occupied. There has, it is true, been no increase during the last forty years taken as a whole in the percentage which employed males have formed of the total number ten years of age and over,[3] but the percentage of women working for economic remunera-

[1] Professor Douglas points out that if we assume the average family in 1890 to have included 5.0 persons, and that there was a decrease of 15 per cent by 1926, then the average size in this latter year would be 4.25. The average number of children under ten years of age who would have been included, on the average, in each family in 1890 would therefore have been 1.22. By 1920 this would have shrunk to 0.92, or an average decrease of three-tenths of a child per family—equivalent to a relative decrease of 25 per cent in the number of children of these ages to be supported. *Ibid.*, p. 484. It is worth mentioning, also, that if the children's group is widened to include those from ten to fifteen years, as well as those under ten years, of age, the relative proportion which they formed of the total population was 35.5 in 1890, 31.8 in 1920 and 29.4 in 1930.

[2] Nathan Levin and the Statistical Department of the Metropolitan Life Insurance Company have made estimates of the probable effect of these shifts in age composition upon the earning power of the male population. The latter body, taking 100 as the maximum earning power of the male population, which would be attained were all its members at that age where their individual earnings would be at their maximum (forty-three years in the opinion of the Metropolitan), estimates the relative earning capacity of male workers as a whole during these years: 1890, 45; 1900, 47; 1910, 49; 1920, 50. The change in age composition was therefore responsible for an increase in earning capacity of five points, or 11 per cent. P. H. Douglas, *ibid.*, p. 485.

[3] *Cf.* p. 28. It will be recalled that the percentages which employed males have formed of the total number ten years of age and over have been: 1890, 79.3; 1900, 80.0; 1910, 81.3; 1920, 78.2; 1930, 76.2.

tion, as is mentioned in a later chapter,[1] has increased from 17.4 to 22.0;[2] in other words, 4.6 per cent more women and girls out of every 100 were gainfully employed in 1930 than in 1890.

All of the influences that have been discussed—the decline in the size of families, the decrease in the relative number of juveniles, the increase in the proportion of the population of productive age, and the changes in the relative proportion of the population gainfully occupied—have obviously operated in the direction of improved standards of living, entirely aside from the increase in real earnings. As a way of combining these influences into a composite average, we may divide the total population for census years by the total number gainfully employed, and thus ascertain the number of persons, on the average, dependent upon each gainfully occupied worker.[3]

TABLE 31.—AVERAGE NUMBER OF PERSONS DEPENDENT ON EACH GAINFULLY OCCUPIED WORKER, 1890–1930

Year	Total population (000,000 omitted)	Number over 10 years gainfully employed (000,000 omitted)	Number of persons per gainfully employed worker
1890	62.62	23 32	2.69
1900	75.99	29.07	2 61
1910	91.97	38.17	2.41
1920	105 71	41 61	2.54
1930	122.77	48.82	2.51

Between 1890 and 1910, then, there was a decline of 11 per cent in the relative number of persons to be supported by each gainfully occupied worker. During the following ten years, however, the number of gainfully employed increased at a relatively less rapid rate than did total population, and the percentage of decline was reduced to 6. Between 1920 and 1930 the number of persons per gainfully employed worker again declined, and by the latter year there were 6.69 per cent fewer persons to be supported by each gainfully occupied worker.[4]

[1] *Cf.* p. 379.

[2] To be exact, the percentages have been: 1890, 17.4; 1900, 18.8; 1910, 23.4; 1920, 21.1; 1930, 22.0.

[3] Such a computation involves one flaw: the fact that some persons are supported entirely by income from property rather than from labor. Lack of data makes it impossible to segregate this group. However, this factor is not important in its influence upon the relative trend of the number of persons per gainfully employed worker.

[4] In view of both the large decrease in the proportion of children in the population and the entrance of women into industry, the smallness of this relative decrease may seem to be surprising. The explanation lies, however, in (*a*) the increase in the relative number of juveniles who are now at school or college instead of at work, as were persons of the same age a generation or two ago; and (*b*) the increase in recent years of the relative number of old people in the population, an increasing proportion of whom are not employed.

The general effect of the influences discussed in the immediately preceding paragraphs might be summarized under the headings of a reduction in family needs and an increase in the number of contributors to family income.[1] Both have made for improvement in living standards. And there has, moreover, been another influence operating in the same direction: the increase in the "free income" of the masses of the people. During the years of the depression, and especially after 1933, this free income became a more important factor than ever before. Fear of actual starvation stalked throughout the land at the time of the depth of the depression, and the abnormal conditions forced drastic changes in public policies, especially as these pertained to the relief of the unemployed and their families. But the very abnormality of the years during which free income reached its greatest proportions dictates that measurement of its effect upon the material progress of the workers be confined to less exceptional periods. The trend from the 1890's to the middle 1920's is, therefore, more truly indicative of the extent to which the workers have gained in consequence of these supplements to the remuneration for their services in industry. Table 32, showing the increase in per capita expenditures of state and local governments, is suggestive of the enlargement of public services from which the wage-earning class may benefit.

TABLE 32.—PER CAPITA EXPENDITURES OF STATE AND LOCAL GOVERNMENTS, 1890–1924[1]

Year	State	Local	Combined
1890	$ 1.22	$ 7.22	$ 8 44
1903	2.26	11.27	13.53
1913	3.97	19.10	22 07
1924	14.14	48.21	62.35

[1] Data of the National Industrial Conference Board, as presented in *Bulletin No. 111*, "Cost of Government in the United States," p. 86, and quoted by Professor Douglas, *op. cit.*, p. 487.

This increase of between seven- and eightfold has been reduced to comparable dollars by Professor Douglas, who has applied an index of government costs, and the resulting relatives show that real per capita expenditures were nearly three times as great in 1924 as in 1890.

[1] Strictly speaking, the third of the influences we have discussed—changes in age composition of the population resulting in a larger percentage of the males in recent years being in the age groups where earning capacity is greatest—ought not to be considered as one of the "other things" (than real earnings) influencing the standard of living. To say that more men are in the age groups of greatest earning capacity is merely to say that more men are likely to come within the higher paid groups; and the influence should already have exerted itself upon the data from which the estimates of relative real earnings were derived. However, this third influence belongs in the general category under discussion in the immediately preceding paragraphs, and to make too much of the point here mentioned would be pedantic.

TABLE 33.—PER CAPITA EXPENDITURES OF STATE AND LOCAL GOVERNMENTS EXPRESSED IN TERMS OF 1890 DOLLARS AND AS RELATIVES TO 1890[1]

Year	Per capita expenditures in terms of 1890 dollars	Relative per capita expenditures
1890	8.44	100
1903	12.53	148
1913	16.59	197
1924	24.84	294

[1] Professor Douglas regarded the wholesale price index as too crude a measure and took as a better combination the indexes of (1) the wages of unskilled labor, (2) the salaries of government officials and teachers, and (3) the prices of building materials.

In 1890 these expenditures amounted to approximately 2 per cent of the average income of the workers, and the average person in the United States in 1924 therefore received in governmental services[1] the equivalent of 5.9 per cent of the average working-class income of 1890. To the extent that wage earners shared equally with other members of the population, it may be said that governmental services increased their real incomes by 3.9, or 4, per cent.

There is, however, some reason for skepticism as to whether the workers shared equally with other classes in the benefit of government services and public work. Popular impression is, of course, that since the workers seldom pay direct taxes, and therefore do not contribute to the extent that other classes do toward the maintenance of government services, the welfare expenditures constitute both a compulsory deduction from the incomes of the more favorably situated groups and an addition to the incomes of the wage-earning class. It is true that the workers contribute little to the public treasury in the form of income or property tax payments,[2] but it is also true that property owners and the middle classes are the ones who derive most benefit from the types of public service and improvements that have become increasingly important during the last generation. The new highway systems are used chiefly by the owners of motor cars; working-class children do not go through high school in the same proportion as do those of the middle and professional

[1] These data pertain, of course, only to state and local governmental expenditures. To them should be added the increased expenditures made for welfare purposes by the federal government, the principal item of which was during the period here surveyed the highway grant.

[2] It may be contended that the burden of the tax on improvements may in part be shifted to the workers in the form of higher rents. But it must be remembered that the index number of the cost of living which was used to deflate money earnings during the greater part of this period (*cf.* pp. 51–52) included the cost of housing as one of its component elements. Any increase in rents resulting from taxation on improvements therefore has already been allowed for in our estimates of the trend of real earnings.

classes; fire and police protection benefit property owners more than they do those without property. In the case of public-health clinics, parks, bathing beaches, and the aesthetic and sanitary improvement of depressed areas, on the other hand, the wage earners probably benefit more than other groups. Certainly they receive more free income today as a result of governmental expenditures than they did forty years ago, even though it would be inaccurate to assume that the 4 per cent gain, estimated by methods described in the preceding paragraph, can be taken as an exact figure. The contributions of the economically more fortunate to charitable and educational work also have the effect of increasing the free income of the workers, and of greater importance have been the contributions made by employers through benefit and welfare systems and the compensation paid for industrial accidents.[1] Professor Douglas has estimated that the real incomes of workers have been increased by about 7 per cent since 1890 as a result of the growth of public and private free services.[2] In spite of the qualifications that must be appended to attempts to measure quantitatively the increase in real income imputable to free goods and services, there can be no doubt that this factor, together with the decrease in the size of the family and the increase in the average number of contributors to family income, has had an important effect upon the standard of living of America's wage earners.

[1] Morris A. Copeland has estimated that these payments, together with disability payments made by the federal government to participants in the last War and a few similar items, amounted in 1925 to 1.1 billion dollars, or 2.5 per cent of the total paid out in wages and salaries, as compared with 0.3 billion, or 1.6 per cent, in 1913. *Recent Economic Changes*, vol. 2, p. 767.

[2] The methods by which this estimate was reached were as follows: The gains from government expenditures were calculated, as has already been explained, by ascertaining what relation these bore to the average income of the workers in 1890, the real increase in per capita expenditures, the per cent of the average working-class income of 1890 that was received by the average person in the United States in 1924, and therefore the gain over 1890. This gain, it will be recalled, was found to be approximately 4 (3.9) per cent. Charitable relief and private donations were computed on the per capita basis for 1920 and 1921, and by an estimate based upon various types of presumptive evidence of the same type of expenditures in 1890, the conclusion was reached that the working-class gain from philanthropic sources had been not more than 1 per cent, making the total gain 5 per cent. The increase in contributions made by employers for welfare work, compensation paid for industrial accidents, disability payments to war veterans, etc., were obtained from the estimates of Professor Copeland in *Recent Economic Changes*, together with the amount of similar contributions and expenditures in 1913, and estimates were then made of the corresponding figure for 1890. Professor Douglas concluded that the most probable increase was between 1.5 and 2.0 per cent, making a total gain from free services of 6.5 to 7 per cent. *Cf. op. cit.*, pp. 488–489.

Chapter III

SHARE OF THE WORKERS IN THE INCREASING NATIONAL INCOME

In an economic system characterized—over long periods and in spite of temporary reversals of the tendency—by an increase in the quantum of goods and services available for consumption or saving, an upward movement of real earnings was perhaps to be expected. It would, indeed, have been surprising had the wage earners not shared to an extent, along with other economic classes, in the increased product of industry.[1] That real earnings just before the beginning of the great depression were substantially greater than during the closing years of the nineteenth century has been indicated by the data presented in the preceding chapter. There still remains, however, the question of whether the increase in real earnings has kept pace with the increase in productivity.

The importance of this question has already been suggested. Any generalized statement of the forces determining distribution in a system of competitive or quasicompetitive capitalism should be based upon a knowledge not only of the trend of labor's real remuneration but also of whether there has been a gain or loss in comparison with the returns going to property and enterprise. Probably the best approach to abstract theory is via a survey of the historical operation of the distributive tendencies the theory purports to explain. It goes without saying that the trend of real earnings is only part of the story of this historical operation; the other part lies in the facts about the comparative sharing of labor and the other factors of production. Fundamental in any attempt to determine whether labor's gains must inevitably be followed by temporary losses as a result of failure of wages to advance sufficiently to absorb the product of industry—a thesis that played no small part in government wages and hours policy during and immediately following 1933—is a knowledge of how well wages have tended, and do tend, to keep pace with productivity.[2] Organized labor more than a decade ago enunciated its "new wage policy" that wages must increase as rapidly as does produc-

[1] The statement that some participation by labor in the increased production of industry would be the normal expectation must not be taken to imply that no inquiry into the question of why distributive forces should operate to increase real wages along with increased production is necessary. The reasons why an increase in production should be expected to bring an increase in real earnings are discussed on pp. 206–209.

[2] The overproduction notion, its treatment in orthodox economic theory, and certain of the implications and assumptions of the doctrine are discussed in vol. II, Chap. I.

tivity per worker;[1] and during the economically melancholy years of the 1930's it pointed to the tragic collapse of the price system as irrefutable vindication of its hypothesis. Effort to evaluate critically this position without familiarity with the quantitative data on the comparative sharing of labor and the other factors of production would be almost futile. Moreover, any attempt to determine quantitatively the proportionate productive influence of labor and of capital upon production, and therefore to determine whether labor's return really does—as "orthodox" theory tells us it does—approximate its production of exchange value, necessitates, among other things, a knowledge of how the wage earners have fared in comparison with other classes.

Real Earnings and Physical Product

Several tests of the relative progress or retrogression of the workers have already been suggested,[2] and we may turn first to the most obvious of these: a comparison of the trend of real earnings with the trend of physical production or of real national income. In doing so, however, it should be borne in mind that this comparison, while legitimate, is only a very rough-and-ready one—in some ways, perhaps, the least meaningful and least satisfactory of those we shall make. The facts revealed, for reasons already stated,[3] neither prove nor disprove that the workers have been paid in accordance with their worth (*i.e.*, the exchange value contributed by them) to the employer. Since it would be fallacious either to place the earnings of a particular group of workers in juxtaposition to the real national income of the country as a whole,[4] or to compare the trend of per capita production for a particular branch of industry with indexes of real earnings of workers in that branch of industry,[5] we shall have to confine our attention, first, to a comparison of the trend of real earnings of all workers with the trend of real income or production for the country as a whole, and, then, turn to the question of the trends of real earnings and physical product in selected industries.

[1] In the words of the American Federation of Labor: "Higher productivity without corresponding increase of real wages means that the additional product has to be bought by others than the wage earner. This means that the social position of the wage earner in relation to other consumers becomes worse, because his standard of living will not advance proportionately with those of other groups." American Federation of Labor, *Organized Labor's Modern Wage Policy*, Research Series 1, p. 17. See also "The Modern Wage Policy of the A. F. of L." *American Federationist*, August, 1927, p. 922.

[2] *Cf. supra*, pp. 53–61.

[3] *Supra*, pp. 57–58.

[4] Because, as was explained in more detail on pp. 54–56, changes in the physical output of the industry (a factor in the determination of the size of the fund of value from which workers attached to the industry are remunerated) or in the number of workers employed in the industry, or in both, may have taken place.

[5] Because only by a rare coincidence would the number of workers in that particular line have increased at the same rate as general population.

Real Wages and Real National Income.—Such data as are available for the comparison here under consideration—a comparison that should show in a general way whether the workers on the average have gained as much as has the "average member" of the population as a result of the increased volume of the flow of goods and services—leave much to be desired so far as the early years in American economic development are concerned. It is, indeed, virtually impossible to compare the trend of real earnings with the trend of per capita real income for the years prior to 1870, and the information pertaining to the period up to the last decade of the 1800's or the turn of the century also leaves much to be desired. Some conclusions can, however, be drawn for the period from 1870 to 1890—a period, it will be remembered, during which real earnings, without allowance for unemployment, probably increased between 35 and 40 per cent. That per capita real income during those years of rapid, if greatly uneven, industrial advance increased considerably more rapidly than did the purchasing power of the workers' earnings seems almost beyond question. According to the estimates of Dr. W. I. King the per capita real income of the people of the United States increased approximately threefold between 1870 and 1900, and approximately fourfold between 1850 and 1910.[1] These estimates, if unqualified, easily suggest the conclusion that other economic classes must have enjoyed gains, between the early post-Civil War years and 1900, far in excess of those enjoyed by the wage earners. Several qualifications are, however, imperative. Undoubtedly a considerable part of the increase can be

[1] *Cf.* W. I. King, *Wealth and Income of the People of the United States*, p. 129 *et seq.* Dr. King, in his pioneering study, estimated the total national income to have been $6,720,000,000 in 1870, $12,082,000,000 in 1890, and $17,965,000,000 in 1900. Division of the total by the population for each year and allowance for changes in the purchasing power of the dollar gave the following index numbers (1890–1899 = 100) for the various years: 1850, 69; 1860, 82; 1870, 79; 1880, 111; 1890, 169; 1900, 232; 1910, 262. A word as to the methods used in this study should be said. Dr. King estimated the total money income in millions of dollars as follows: To the value of the products of the extractive industries—agriculture, fishing, and mining—was added the value imparted to these products by the processes of manufacture, transportation, holding for sale, etc. The estimated value of the direct services of persons and of residence property was added. To avoid duplication, building costs were deducted, since the income from buildings later appeared as either business or residence "rentals." The remainder was taken to constitute the national income. The information was almost entirely derived from the United States Census. Dr. King believed that the results were moderately accurate and that the errors for 1900 and 1910 were not greater than 10 per cent. The earlier census figures were believed to be less accurate, the error probably increasing as time distance from the latter years increases. Even the figures for 1850 were believed, however, to be probably within 25 per cent of the correct results. Per capita income in dollars was, of course, obtained by dividing total national income by population, and the resulting estimates were deflated by a wholesale price index taken from the Aldrich Report on Wholesale Prices and from *Bulletin 114* of the old U. S. Bureau of Labor Statistics. Dr. King's figures are quoted with permission of The Macmillan Company, publishers.

explained by a transition from a self-sufficient economy to one of interdependence and exchange. A great deal of that part of our national production which never goes upon the market is not registered in indexes of per capita production, and as we go further back in our history we find this part proportionately greater. In other words, an exaggeration of the increase in the national income inheres in the fact that during the later years of the period a larger proportion of the national production was for the market and a smaller proportion for domestic consumption. In the second place, the period was one during which the percentage of the population gainfully employed (*i.e.*, working for economic remuneration) was increasing, and to divide the national income for the various years by the number gainfully employed during those years, instead of by total population, would therefore show a somewhat less remarkable increase on the income side of the comparison, and at the same time be a fairer basis of comparison during a period of transition from domestic and self-sufficient economy to one of interdependence and exchange.[1] Finally, it is entirely likely that improvements in the methods of the Census Bureau during the later years of the period had the effect of registering more completely the total production of the country—again with the consequence of an indicated increase greater than that which actually took place. Allowance must be made for all these qualifications. But even when the allowance has been ample, there still remains a strong presumption that the material status of the workers, so far as it can be measured by real wages, did not improve as much as did that of the "average member" of the population.[2]

[1] Such a comparison has been made for the period 1880–1920 by Professor A. H. Hansen ["Factors Affecting the Trend of Real Wages," *American Economic Review*, vol. 15 (March, 1925), pp. 27–43], who has concluded that during these forty years real wages increased at the rate of 1.04 per annum and production per person gainfully employed at the rate of 1.29 per annum. If we assume (as there is a certain amount of reason for doing) that the relative rates were approximately the same during the period here under consideration (the period up to 1900), it is apparent that the "spread" between the increase in real wages and the increase in production per person gainfully employed was substantially less than that between real earnings and the per capita real income as estimated by Dr King.

[2] Direct comparison of the trend of real wages and of per capita income in England during the period here under consideration can be made only from inferences based upon estimates of the percentage of the total national income going to labor. Mr. Chiozza-Money has estimated that the manual workers' share of the national income was the same in 1903 that it had been in 1867. Since the percentage of population gainfully employed and the proportion of wage earners to total population did not change greatly during this period, there is some ground for concluding that the English workers about held their own in relation to other economic classes. Professor Bowley (*Change in the Distribution of the National Income*, Clarendon Press, Oxford, 1920) has estimated the division between the workers and other economic groups for the years 1880 to 1913. He found that while the percentages had varied from year to year, they were the same in 1913 as they had been in 1880. Writing of 1880 he said: "The proportions to property and labor are 37.5 per

For three decades following 1900, and for part of the depression years of the 1930's, our data are more nearly complete. In 1922 the National Bureau of Economic Research published a study of the size and distribution of the national income during the decade 1909–1919;[1] in 1929 the estimates of Professor Morris Copeland appeared in the study of economic changes sponsored by government and private agencies;[2] a year later Professor King published a study covering the period from 1909 to 1928;[3] in 1934 there appeared a study by the staff of the Brookings Institution[4] covering the period from 1900 to 1930, and also Simon Kuznets' survey of trends during the first three years of the depression;[5] in 1936 and 1937 Department of Commerce studies covering the eight-year period 1929–1936 were published;[6] in 1937 also Dr. Kuznets' later study covering the period 1919–1935 was published;[7] and numerous articles upon, and monographic studies of, the national income and of physical production provide a basis for more confident generalization than could be made in the preceding paragraphs.[8] From the information now available we can speak with reasonable certainty about the increase in the flow of goods and services from which all economic classes derive their livelihoods, and about the relative sharing of the workers in this increase.

In the following tables, the estimates of the Brookings Institution, which included the results of earlier studies as well as independent calculations,[9] of the increase in the total and per capita national income and

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cent and 62.5 per cent, exactly as in 1913. Though it is not proper to lay stress on the exact equality of the proportions at the two dates, yet the evidence is sufficient to show that any change there may have been is inconsiderable." Elsewhere ["Comparison of Changes in Wages in France, the United States, and the United Kingdom," *Economic Journal*, vol. 8 (1904), pp. 474–489], Professor Bowley has published estimates which indicate substantially the same distribution back to 1860.

[1] National Bureau of Economic Research, *The Income in the United States*, 2 vols.

[2] "The National Income and Its Distribution," *Recent Economic Changes*, vol. 2, pp. 757–839.

[3] *The National Income and Its Purchasing Power.*

[4] Leven, Moulton, and Warburton, *America's Capacity to Consume.*

[5] *National Income, 1929–1932.*

[6] *National Income in the United States, 1929–1935.*

[7] "National Income, 1919–1935" *Bulletin 66*, National Bureau of Economic Research.

[8] *Cf.* especially, F. C. Mills, *Economic Tendencies*, E. E. Day and Woodlief Thomas, "The Growth of Manufactures," *Census Monograph VIII*, W. W. Stewart, "An Index of Physical Production," *American Economic Review*, vol. 11 (March, 1921), pp. 57–82, P. H. Douglas and N. A. Tolles, "A Measurement of British Industrial Production," *Journal of Political Economy*, vol. 38 (1930), pp. 1–28, and Robert R. Nathan, "Expansion in the National Income Continued in 1935," *Survey of Current Business*, July, 1936, pp. 1–6.

[9] The Brookings Institution utilized Dr. King's estimate of the national income for 1900 as made in his earlier study (*Wealth and Income of the People of the United States*) and his continuous series for the years 1909–1925 as set forth in *The National Income and Its Purchasing Power*, as well as certain unpublished estimates of the National Bureau of

indexes of the increase after allowance for the fluctuating purchasing power of the dollar has been made, are presented. "National income," it will be noted, is conceived of as including two categories: (*a*) income resulting from current production of goods and services and (*b*) income derived from the use of property in consumption (such as net residential rent, net interest on installment buying of consumers' goods, net interest on other consumers' goods, imputed net rent on owned homes, and imputed interest on other durable goods in the hands of consumers).

TABLE 34.—THE GROWTH IN INCOME OF THE AMERICAN PEOPLE, 1900–1929[1]
(In current dollars)[a]

Year	All income[b]		Income from current production[b]		Other income[c]	
	Total (000,000 omitted)	Per capita	Total (000,000 omitted)	Per capita	Total (000,000 omitted)	Per capita
1900	19,100	251	17,035	224	2,065	27
1909	30,900	341	27,726	306	3,174	35
1910	32,580	353	29,175	316	3,405	37
1911	32,574	347	29,066	310	3,481	37
1912	35,223	370	31,604	332	3,619	38
1913	37,122	382	33,309	343	3,813	39
1914	36,232	366	32,254	326	3,978	40
1915	39,322	391	35,200	350	4,122	41
1916	48,227	473	43,823	430	4,404	43
1917	56,061	542	51,307	496	4,754	46
1918	62,394	597	56,770	543	5,624	54
1919	70,281	668	63,880	607	6,401	61
1920	75,397	707	67,325	631	8,072	76
1921	60,685	558	52,745	485	7,940	73
1922	67,601	613	59,602	541	7,999	72
1923	76,770	685	68,381	610	8,389	75
1924	78,600	688	69,924	612	8,676	76
1925	84,768	731	75,918	655	8,850	76
1926	86,395	735	77,177	657	9,218	78
1927	86,333	725	77,003	647	9,330	78
1928	89,335	741	79,679	661	9,656	80
1929	91,988	755	81,940	673	10,048	82

[a] Exclusive of profits from the sale of property.
[b] Exclusive of income from foreign investments.
[c] Chiefly returns on property used in direct consumption. Includes also net income from foreign investments.
[1] From *America's Capacity to Consume*, p. 148.

Economic Research. In making its additional estimates the Institution sought consistency with the original series rather than greater refinement of data, and the estimates presented in these tables give us the best continuous series available for the period up to the beginning of the depression.

TABLE 35.—THE GROWTH IN REAL INCOME OF THE AMERICAN PEOPLE, 1900–1929[1]
(In dollars of 1913 purchasing power)[a]

Year	All income including business savings[b]		All income excluding business savings[b]		Income from current production only[c]	
	Total (000,000 omitted)	Per capita	Total (000,000 omitted)	Per capita	Total (000,000 omitted)	Per capita
1900	24,331	320	23,694	311	22,000	289
1909	32,424	358	31,064	343	29,371	325
1910	33,381	362	32,202	349	29,801	323
1911	33,554	358	32,842	350	30,823	329
1912	35,905	377	34,635	363	32,053	336
1913	37,122	382	35,722	368	33,309	343
1914	35,944	363	35,364	357	32,449	327
1915	39,049	388	36,946	367	34,510	343
1916	44,204	433	39,677	389	37,044	363
1917	43,593	421	39,914	386	33,911	328
1918	41,130	393	39,821	381	32,720	313
1919	40,001	380	37,586	357	33,943	323
1920	38,079	357	37,374	350	31,285	293
1921	35,845	330	37,431	344	32,458	299
1922	42,704	387	41,646	378	37,604	341
1923	48,041	429	46,519	415	41,468	370
1924	49,064	429	48,150	421	42,404	371
1925	51,312	443	49,587	428	44,605	385
1926	51,983	442	50,645	431	45,775	390
1927	52,008	437	51,408	432	46,387	389
1928	55,800	463	54,308	450	47,231	392
1929	57,673	473	56,270	462	48,543	398

[a] Exclusive of profits from the sale of property.

[b] Deflated by index representing prices of goods and services purchased by consumers. (Based on King's data in *The National Income and Its Purchasing Power.*) This does not strictly apply to the portion of the income retained as savings in business enterprises. However, the portion of this type of income is so small and the difference between the price index of capital goods and that of consumers' goods is so slight for the most part that it was not deemed essential to compute a new index.

[c] Deflated by an index intended to represent values of goods and services produced.

[1] *Ibid.*, p. 149.

The tables are almost self-explanatory. Between 1900 and 1929 the national income in terms of dollars increased almost fivefold, but the actual increase, after adjustments for price changes, was only about 120 per cent. During this period, however, the population of the continental United States increased from 76,000,000 to 122,000,000, or 60 per cent. The growth of per capita income from productive activities during this period was therefore about 38 per cent, and that of income realized from all sources about 10 per cent more.[1] This increase in per capita real

[1] The two trends—all income and income from current production only—as explained in the preceding paragraph presumably represent somewhat different concepts of real income. The first measures more nearly the growth of consumers' purchasing power, and

TABLE 36.—RELATIVE GROWTH OF REAL INCOME OF THE AMERICAN PEOPLE, 1900–1929 (1900 = 100)[1]

Year	Income[a]				Proportion of population 16 years and over gainfully employed[d]	Standard number of hours worked per week[e]
	Realized from all sources[b]		From current production only[c]			
	Total	Per capita	Total	Per capita		
1900	100.0	100.0	100.0	100.0	100.0	100.0
1909	131.1	110.3	133.4	112.5	.....	95.8
1910	135 9	112 2	135.4	111.8	104.1	95 3
1911	138 6	112 5	140 0	113.9	.....	94.9
1912	146.2	116.7	145 6	116.3	.....	94.6
1913	150.8	118.3	151.3	118 7	. . .	93.9
1914	149.3	114.8	147.4	113 1	.. .	93.4
1915	155.9	118.0	156 8	118 7	. . . .	93.4
1916	167.5	125.1	168 3	125 6	..	93.0
1917	168.5	124 1	154 1	113.5	..	92 5
1918	168 1	122 5	148 7	108 3	.	91.1
1919	158.4	114.8	154 2	111.8	. .	89.5
1920	157.7	112 5	142.1	101.4	103.5	88 0
1921	158.0	110 6	147.5	103.5	.	87.8
1922	175 8	121 5	170 9	118 0	.	88 1
1923	196 3	133.4	188 4	128.0	.	88 0
1924	203.2	135.4	192.7	128.4	.	87.3
1925	209 3	137.6	202.7	133.2		87.1
1926	213.7	138.6	208.0	134 9	. .	87 8
1927	217.0	138 9	210.8	134 6	. .	87 4
1928	229.2	144 7	214 6	135 6	.	87 4
1929	237.5	148.6	220.6	137 7	100 9	87 1

[a] Adjusted for changes in purchasing power of the dollar. Excludes profits from the sale of property.
[b] Excludes business savings.
[c] Includes business savings.
[d] Based on census data. The 1929 figure is as of April 1, 1930.
[e] Based on Paul H. Douglas, *Real Wages in the United States, 1890–1926*, p. 208, for the period of 1900–1925; Paul H. Douglas and Florence Tye Jennison, *The Movement of Money and Real Earnings in the United States, 1926–1928*, for 1926–1928. The 1929 figure was estimated directly from U. S. Bureau of Labor Statistics data.
[1] *Ibid.*, p. 150.

income can, moreover, be taken as roughly indicative of the increase in production per person gainfully employed, since the proportion of the

the second approaches closely to being a measure of the physical volume of production of goods and services. Because of the difference, the Brookings Institution used two indexes to deflate the two estimates of national income in terms of dollars, the totals representing income from all sources being deflated by use of an index representing prices of goods and services purchased by consumers, while the totals of income from current production were reduced to dollars of the same purchasing power by means of an index intended to represent values of goods and services produced. It should be patent that no very great divergence between the two should occur, and it will be noted that not until the postwar period does

population sixteen years of age and over gainfully employed remained substantially the same during this period.[1] And while this increase in per capita real national income was occurring, the average number of hours worked per week by industrial workers decreased by about thirteen per cent.[2]

Generalizations drawn from the foregoing facts as to the sharing of the workers in the increased output of our factories, mines, farms, and other productive enterprises necessarily have to be cautious and tentative. Per capita real income, and real income per person gainfully employed (*i.e.*, per person normally attached to industry), would appear to have increased at a slightly more rapid rate than did real earnings of wage earners. Comparison with the data on the trend of real earnings summarized in the preceding chapter[3] shows that by 1926 real earnings had increased as much as per capita real income from current production if average annual earnings are taken as the measurement of the real return the workers received for their services as wage earners and if allowance is made for the shift, over the period since the 1890's, of an appreciable proportion of the labor supply from the lower-paid to the better-paid occupations. Nor is an appreciable change in the situation indicated when the comparison is carried on through 1929. If, however, any of the other expressions of wages or earnings is adopted for comparison with the trend

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the divergence become of any importance. Except for differences in the trend of the volume of accumulated durable goods, the relative amount of income set aside as corporate savings, and net income from foreign investments, there should be no appreciable difference between the physical volume of goods and services consumers may purchase with their income and the physical volume of goods purchased. The differences in the two series are probably attributable to these factors and to imperfections in the two index series that were used as deflators.

[1] Between 1900 and 1930 the percentage of males over 16 years of age gainfully employed declined from 90.5 to 88, the percentage of females in the same age group gainfully employed increased from 20.6 to 25.3, while the percentage for both sexes was 56.5 in 1900 and 57 in 1930. Phrased in terms of index numbers, with 1900 taken as the base of 100, the relative number of males in this age group gainfully employed in 1930 was 97.2, the relative number of females 122.8, and the relative number of both sexes 100.9. The increase in the proportion of the population gainfully employed during this thirty-year period was, therefore, less than 1 per cent. *America's Capacity to Consume*, p. 151. Perhaps attention should be called to the fact that the proportions listed by the census as being gainfully employed are those who are in the labor market either looking for work or holding a job, not merely those who are employed. The figures therefore indicate the ratio between production and the proportion of the population which regarded itself as being attached to industry.

[2] For industrial workers the decrease in the number of "standard" hours, the trend of which tends over periods of time to conform to the trend of hours actually worked, was from 57 to 50, or about 13 per cent. We do not have data enabling us to know with certainty what decrease took place in hours worked on farms during this period, but expert opinion is that the reduction of hours worked in agriculture was about half as much as that in industry.

[3] *Cf. supra*, pp. 92–110.

of per capita real income, and especially if allowance is not made in the real earnings indexes for occupational shifts, a lag of real earnings behind the increase in the goods and services available for the average member of the population can be discerned. Moreover, it will be noted that by both 1926 and 1929 per capita realized income from all sources, as distinguished from income arising out of current production only, had increased more than had real earnings, the difference being more pronounced in 1929 than it was three years earlier. But again, any "lag" indicated by these comparisons was not great; and it may again be recalled that the method of placing in juxtaposition the trend of real earnings and that of per capita real income (or real income per person gainfully employed) is only a very rough-and-ready test of the progress of the workers relative to that of other economic groups—a test that in itself affords no basis for ethical generalization, that is less refined than a comparison of real earnings with value product per worker in given industries, and that constitutes only a first step in the process of determining whether the workers have been paid according to their contribution of exchange value in a system of competitive or quasicompetitive capitalism.[1] Such conclusions as can be drawn from English data avail-

[1] Readers cognizant of the enormous increase in physical output in particular industries may perhaps be surprised that the increase in per capita real income between 1900 and the beginning of the depression, as indicated in the foregoing paragraphs, is no greater than between 38 and 48 per cent. It is true that a number of studies of physical production in particular industries or in groups of industries indicate a somewhat greater increase in per capita output of goods (and therefore, with qualifications already mentioned, in per capita capacity to consume) than is indicated by the above tabular statements. But it must be remembered that the foregoing data include production in all lines of economic activity—those relatively backward as well as those relatively progressive—and, again, it may be recalled that the comparison is merely suggestive of whether labor *in general* has fared as well as has population *in general*. Mention should be made, however, of various studies of the increase in physical productivity in industries and groups of industries during this period. In 1921 Professor W. W. Stewart ["An Index of Physical Production," *American Economic Review*, vol. 11 (March, 1921), pp. 57–82] estimated that physical production in the extractive industries, transportation, and manufacturing in 1929 was triple that of 1890 and double that of 1900. Population, on the other hand, did not quite double between 1890 and 1920. Dr. Woodlief Thomas ["The Economic Significance of the Increased Efficiency of American Industry," *American Economic Review, Supplement*, vol. 18 (March, 1928), pp. 122–138] has concluded that "from 1899 to 1919 the physical volume of production of farms, factories, mines, and railroads of the United States increased by 140 per cent, while population grew by only a little over 50 per cent. Thus production per capita of population is now nearly 60 per cent greater than it was in the final years of the nineteenth century." The National Industrial Conference Board, in its Road Maps of Industry (based upon the data of the Harvard Economic Service and other sources) has presented data showing that between 1899 and 1924 population increased slightly more than 50 per cent, agricultural production only about 40 per cent, manufacturing production by about 170 per cent, and the physical output of the mines about 225 per cent. Professor Arthur F. Burns (*Production Trends in the United States since 1870*, National Bureau of Economic Research, 1934) has recently studied trend cycles, retardation in rates of growth, and total

able on the increase in the British national income between 1900 and 1929 indicate that the distribution did not, on the whole, become more unfavorable to the workers.[1]

Great confidence cannot be placed in comparisons drawn from the trend of total national income and of the workers' real earnings during the years of the depression that began in 1929, but a few basic facts can be stated with a fair amount of certainty. While population continued its normal rate of growth, and was about 5 per cent greater in 1933, and 8 per cent greater in 1936, than it had been in 1929, total production in agriculture, mining, manufacturing, and construction was apparently only

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production for 104 series representing individual industries or groups of industries. This study reveals exceptionally rapid growth of general production during the periods 1875–1885, 1895–1905, 1910–1920, and 1920–1929. Periods characterized by slower growth were 1885–1895, 1905–1915, and 1915–1925. On the matter of general increase in production, Professor Burns found his conclusions in substantial agreement with those indicated by the Day-Persons and Warren-Pearson indexes, which show average annual rates of growth of 3.7 per cent and 3.8 per cent, respectively, during the sixty-year period from 1870 to 1930. Professor Burns observed (p. 279): "If there has been any decline in the rate of growth in the total physical production of this country, its extent has probably been slight, and it is even mildly probable that the rate of growth may have been increasing somewhat," Professor Mitchell in an introduction to the study adds two supplementary remarks: "(1) Population has grown at a declining percentage rate. Hence production per capita has experienced retardation, if any, at a lower rate than total production. (2) Despite their downward growth bias, the Day-Persons and the Warren-Pearson indexes show an increase on the average in the absolute yearly increments of total production." Professor F. C. Mills' *Economic Tendencies in the United States: Aspects of Pre-War and Post-War Changes* (National Bureau of Economic Research, 1932) is another study indicating the same general increase in production the already cited works reveal.

[1] As has already been indicated, Professor Bowley has estimated that the proportions of the national income going to labor and to property were virtually the same in 1913 as they had been in 1880, a period during which no pronounced increase in the proportion of the population having the economic status of wage earners took place. Data on changes in distribution since 1914 leave much to be desired. Professor Bowley has said: "There is no doubt that . . . distribution has been considerably modified since 1914, and I have several times been asked to estimate the nature and magnitude of these modifications . . . I feel compelled to leave this tempting question to those who are content to make hazardous estimates or who have better access to, and more confidence in, the sporadic information upon which such estimates must rest." (*Change in the Distribution of the National Income*, Clarendon Press, Oxford, 1920). It is likely, however, that owing to the depletion of capital equipment and the lowered productivity resulting from the postwar contraction of foreign demand for English goods, the per capita real income did not increase greatly after 1914. Against this must be placed the fact that the British workers gained somewhat in an absolute sense and that, as is indicated later (*cf.* pp. 228–233) poverty apparently was less prevalent toward the end of the 1920's than it was during the prewar period. It is safe to say that with a real national income little larger, and with real wages higher, than before the War, and with heavier taxation on large incomes and large estates for fiscal purposes, the sharing of the national income has become more rather than less favorable to labor. Professors Douglas and Tolles ["A Measurement of British Industrial Production," *Journal of Political Economy*, vol. 38 (1930), pp. 1–28] have estimated that the total increase in British industrial production between 1907 and 1924 was 23 per cent.

about seven-eighths as great by 1932, and only some three points greater in 1933, although during 1934 and 1935 production once more began increasing more rapidly than population. The following tabular statement shows the relative drop in four of the major lines of economic activity prior to 1934.

TABLE 37.—CHANGES IN POPULATION AND IN THE PHYSICAL VOLUME OF PRODUCTION IN THE UNITED STATES (1927 TO 1933)[1]
(1927 = 100)

Year	Population	Agriculture	Mining	Manufacturing	Construction	Total production
1927	100.0	100	100	100	100	100
1928	101.2	105	100	109	103	106
1929	102.2	103	109	116	97	110
1930	103.1	101	97	98	87	97
1931	103.9	106	82	83	74	86
1932	104.5	98	67	66	47	70
1933	105.2	94	72	74	34	73

[1] Charles A. Bliss, "Recent Changes in Production," National Bureau of Economic Research, *Bulletin 51* (June 28, 1934), p. 3.

It will be noted that changes in manufacturing and mining were fairly well in line with changes in total volume of production, the two extremes being agriculture, whose index of physical production remained disproportionately high, and construction work, whose index fell disproportionately low. The curtailment of the flow of goods and services constituting the real income of all economic classes is apparent enough. But during a period of depression, when both corporate and natural persons are "eating into" the savings of previous years, and when income paid out—contrary to the situation during prosperous times—tends to exceed income produced plus the various types of "imputed" income already discussed, indexes of physical production do not afford as satisfactory a basis for comparison with the trend of real earnings as do data on total income paid out with allowance for price changes and population increase. The recent studies of the Department of Commerce make such data available for the period covered by Table 38.

Between 1929 and 1932, it will be noted, the total income produced in the United States, in terms of dollars, dropped more than 50 per cent, but in consequence of the almost nine billions depletion of business savings, income paid out, again in terms of dollars, fell off approximately 13 per cent less, the 1932 index number being 61.5. The cost of living, as indicated by the United States Bureau of Labor Statistics, was not quite 20 per cent below the 1929 level in 1932, and the wholesale price index 32 per cent lower. Population probably increased by 5 per cent during these years. Comparison of these trends indicates that per capita real income received (not produced) in 1932 was only 85 or 86 per cent of what it had been in 1929.

TABLE 38.—NATIONAL INCOME PRODUCED AND PAID OUT, 1929–1935[1]
(In Millions of Dollars)

	1929	1930	1931	1932	1933	1934	1935
Income produced	81,034	67,917	53,584	39,545	41,742	48,397	52,959
Total savings	2,402	−5,015	−8,120	−8,817	−3,198	−1,776	−628
Corporate savings	1,423	−3,909	−5,877	−6,366	−2,796	−2,340	−1,443
Business savings of individuals	979	−1,106	−2,243	−2,451	−402	563	815
Income paid out	78,632	72,932	61,704	48,362	48,362	50,174	53,587
	Percentages of 1929						
Income produced	100.0	83.8	66.1	48.8	51.5	59.7	65.4
Total savings							
Corporate savings							
Business savings of individuals							
Income paid out	100.0	92.8	78.5	61.5	57.2	63.8	68.1
Bureau of Labor Statistics cost of living index	100.0	97.9	89.5	80.8	75.2	78.7	81.1
Bureau of Labor Statistics wholesale price index	100.0	90.7	76.6	68.0	69.2	78.6	83.9

[1] Robert R. Nathan, "Expansion in the National Income Continued in 1935," *Survey of Current Business*, July, 1936, p. 2. In a later study ("National Income Gain in 1936 Largest of Recovery Period," *Survey of Current Business*, June, 1937), Dr. Nathan has revised these estimates on the basis of new data and improved methods of estimation, and has carried the estimates of total income produced and paid out on through 1936. The revisions were of some consequence for the years 1934 and 1935, but were of minor importance for the other years. For the sake of comparability of all the items, the earlier figures are retained in this table, but mention should be made of the more important revisions and of the figures arrived at for 1936. According to the revised estimates, national income produced (in dollars) was 49,575 million in 1934, 54,955 million in 1935, and 63,799 million in 1936. These amounts constituted 61.4 per cent, 68.0 per cent, and 79.4 per cent respectively of the 1929 national income. Income paid out, according to the revised estimates, was 51,004 million in 1934, 54,645 million in 1935, and 62,056 million in 1936, these amounts constituting 65.2 per cent, 69.9 per cent, and 79.4 per cent respectively of the 1929 national income. It will be noted that according to the revised estimates, income produced and income paid out practically balanced in 1935, and in 1936 there were positive business savings of about one and three-quarters billion dollars.

Beginning in 1933, however, both income produced and income paid out increased more rapidly than prices and population.[1] Income paid out, it will be noted, increased by more than 10 per cent between 1932 and 1935 (*i.e.*, from 61.5 to 68.1 on the 1929 base of 100), and the cost of living by less than one per cent. Population apparently grew at its previous rate of about 1.25 per cent per annum, or a little less than 4 per cent during these three years. In other words, there was a recovery of about 6 per

[1] It is significant, also, that "negative business savings" (the excess of income paid out over income produced) diminished during these years, and, indeed, individual business savings had become positive rather than negative by 1934. The consequence of the diminution of negative business savings was that income paid out did not exceed income produced by nearly so great an amount in 1935 as in 1932. In other words, real incomes dropped less than they would have dropped during the years 1929–1933 had it not been for the utilization of the savings of economically more happy years, but with the recovery movement starting in 1933 a larger part of income received came from current production and a smaller part from savings.

cent in per capita real income.[1] Between 1935 and 1936, however, the per capita increase was greater. Income paid out is estimated to have increased from 54.6 billion to 62.0 billion and, in view of the fact that neither population nor the cost of living rose nearly as much, per capita real income increased appreciably.

Conclusions drawn from the data presented in the immediately foregoing paragraphs as to how the workers have fared in relation to other classes during the years subsequent to 1929 must be cautious and tentative, but a few generalizations can nevertheless be made. (1) During the years when the depression was steadily deepening, from 1929 to 1933, those workers fortunate enough to retain jobs apparently did not lose in comparison with the members of other economic classes. Data presented in the preceding chapter,[2] it will be recalled, indicated that real hourly earnings of a majority of the wage earners were not lower, but on the contrary were higher, in 1933 than they had been in 1929, and that for many important groups even real weekly earnings, in spite of curtailment of the working week, were no lower, and in some cases were higher. As against the maintenance of the real earnings of those retaining jobs and working full time must be placed the just noted decline of between 14 and 15 per cent in per capita real income. (2) When "average earnings per person normally attached to industry" is adopted as the expression of wages or earnings,[3] however, the situation is seen to be far less favorable to the workers during the 1929–1933 period. As was indicated in the preceding chapter,[4] the widespread unemployment after 1929 had probably wiped out, by 1933, one-third of the gain in real earnings achieved by the working class as a whole between 1890 and 1929. This decline was considerably greater than the decline in per capita real income, as shown by the preceding table and discussed in the immediately preceding paragraph.[5] Support of the conclusion that real average annual earnings

[1] This recovery was, of course, far from sufficient to bring per capita real income back to the predepression level. It will be noted that in 1935 money income received by the people of the United States was 68 per cent of the 1929 level and the cost of living 81 per cent as great as it had been during the latter year. Population probably was 8 per cent greater in 1935 than in 1929. Accordingly, real income of the whole people was only about 84 per cent of the predepression level, and per capita real income only about 77 per cent.

[2] *Supra*, pp. 116–117.

[3] Meaning, as was explained in more detail in an earlier chapter (*supra*, pp. 45–46), average earnings per employed person times the percentage of those seeking employment who are employed (*i.e.*, times 100 per cent minus the percentage of unemployment).

[4] *Supra*, pp. 121–122.

[5] In manufacturing, as was pointed out in the preceding chapter, employment dropped from the 1929 average of 104.8 (1923–1925 = 100) to 64.1 in 1932, and total factory payrolls from 109.1 to 46.1. The number of wage earners employed in all manufacturing industries is estimated by the United States Bureau of Labor Statistics to have declined from 8,785,600 in 1929 to 5,374,200 in 1932 [*Monthly Labor Review*, vol. 50 (March, 1935), p. 768, and *ibid.* (February, 1935), p. 441]; and to the increase in unemployment indicated by a decline of more than 3 million in the number of persons employed in manufacturing must be added those who, had industry continued to develop at its predepression rate,

per member of the labor supply declined more than did the goods and services available for the "average member" of the population is also afforded by the relative falling off of property income and labor income during the 1929–1932 period. According to Department of Commerce studies,[1] the decline in total wage payments during these years was considerably greater than the decline in any of the other distributive shares, and total labor income (including salaries and miscellaneous labor income), while falling off only slightly more than total income paid out, decreased much more than did total property income.[2] (3) While it is somewhat hazardous to generalize about the relative sharing of labor and other classes, so far as this sharing is indicated by the test here under consideration, for the years since 1933, the presumption to which the evidence seems rather definitely to point is that the laboring class as a whole participated as much as did other members of the population in the revival that set in that year.[3] It is true, as has already been indicated,[4] that the

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would have become "normally attached" to manufacturing. During this same period, as is pointed out in more detail later (*infra*, pp. 153–154), physical output per worker in manufacturing increased enormously—perhaps by as much as 25 per cent per man-hour worked. Data for branches of industry other than manufacturing suggest, on the whole, the same conclusion—that when all workers attached to industry, not merely those employed, are taken into account, the loss in real earnings was greater than the decline in per capita real income. In anthracite coal mining employment declined between 1929 and 1932 from the 1929 base of 100 to 62.5; in bituminous coal mining from 100 to 67.4; in metalliferous mining from 100 to 36.5; in quarrying from 100 to 49.0; in petroleum production from 100 to 55.3; in telephone and telegraph industries from 100 to 79.1; in electric light and power plants from 100 to 83.0; in electric railway and motor bus operation from 100 to 75.5; in wholesale trade from 100 to 76.8; in retail trade from 100 to 76.8; in hotels from 100 to 79.0; and in laundries from 100 to 83.5 [*Monthly Labor Review*, vol. 50 (March, 1935), pp. 781–783]. These data on the decline in employment in various lines of enterprise indicate with reasonable certainty that average real earnings per active member of the working class declined substantially more than did per capita real income prior to 1933.

[1] S. S. Kuznets, *National Income, 1929–1932;* and Robert Nathan, "Expansion of the National Income Continued in 1935," *Survey of Current Business*, July, 1936, p. 3. The figures on the falling off of property and of labor incomes are taken from the latter study, which involves slight modifications of Dr. Kuznets' earlier estimates.

[2] To be exact, the following are the percentages by which Dr. Nathan found the several distributive shares to have fallen below the 1929 level by 1932: Total income paid out, 38.5; total compensation of employees, 39.9; salaries (selected industries), 40.2; wages (selected industries), 59.2; salaries and wages (all other industries), 29.9; total dividends and interest, 29.9; entrepreneurial withdrawals, 36.1; net rents and royalties, 57.1. On the other hand, "other labor income" (miscellaneous types not accounted for in the foregoing classification) increased by 17 per cent during these years.

[3] Too much significance must not, however, be attached to this fact. Total labor income had dropped greatly, as we have already seen, not because wages fell more than the cost of living, but because of widespread unemployment and shortening of the working week, and it was probably to be expected that in the initial stages of the rebound the increase in employment would result in an increase in total labor income, and therefore in average real income per person attached to industry, somewhat greater than the increase in per capita production.

[4] *Supra*, pp. 123–126.

purchasing power of hourly earnings did not increase more than the estimated 6 per cent increase in per capita real income between the 1932 low point and 1935, and the movement toward lengthening the working day, and hence toward an increase in real weekly earnings of those employed, did not gain impetus until after the judicial invalidation of the code system in 1935.[1] The increase in total employment during the period when the majority of workers were not losing in the purchasing power of hourly and weekly earnings[2] was great enough, however, to increase average real income per active member of the working class to a greater extent than the increase in per capita real income.[3] The percentage change in the compensation going to the several factors of production also indicates that the average member of the working class gained as much, perhaps more, than did the average member of the population during the post-1933 period. Total compensation of employees during this period, according to the already quoted Department of Commerce study,[4] rose from the 1933 low of 57.1 (1929 = 100) to 70.0, or by 23 per cent; total income paid out increased by about 19 per cent;[5] total property income (dividends, interest, and net rents and royalties) by about 5 per

[1] In manufacturing, for example, average hours worked per week, as reported by the National Industrial Conference Board and the U. S. Bureau of Labor Statistics, were 37.4 in January, 1933, 42.3 in July, 1933, 33.7 in January, 1934, and 33.4 in July, 1934. After the invalidation of the code system in the late spring of 1935, however, there was a tendency to increase hours. In March, 1935, average hours worked per week in manufacturing were 37.4, and in March, 1936, 38.6. From data presented in various issues of the *Monthly Labor Review*.

[2] As was indicated in the preceding chapter, the cost of living apparently advanced as rapidly as did wage rates, even while the NRA theory of stepping up purchasing power was being given its most active application; on the other hand, there apparently was not a loss for the majority of industrial workers in the purchasing power of hourly earnings, and weekly incomes were increased somewhat after the first half of 1935 by the lengthening of the actual working day. The cost of living during this period, as indicated by the Bureau of Labor Statistics index numbers (1913 = 100), was as follows: June, 1933, 129.8; December, 1933, 134.6; June, 1934, 136.5; November, 1934, 137.8; July, 1935, 140.2; January, 1936, 141.7.

[3] At the depth of the depression, early in 1933, the Bureau of Labor Statistics index of factory employment (1923–1925 = 100) stood at 59, while in March, 1935, it stood at 82.2 and in March, 1936 at 84.1. Most of this gain, it may be noted, came between 1933 and the first quarter of 1934, when the index of factory employment was a little above 80. The gains in factory employment between 1934 and 1936 were therefore not great. Also, it should be noted that other groups did not enjoy as great an increase in employment as did manufacturing workers. Employment in the anthracite mines in 1935 was only 53.2 per cent of the 1929 level, and in the bituminous mines 76.7 of the same average. Wholesale and retail trade and hotels experienced moderate employment gains during these years, as did metalliferous mining and petroleum production. On the other hand, employment on the railroads and in other public utility industries did not increase appreciably. Nevertheless, the generalization that labor's total real income increased as a result of the upturn of employment is justified.

[4] Robert R. Nathan, *op. cit.*, p. 3.

[5] From 57.2 to 68.1 (1929 = 100).

cent; and entrepreneurial withdrawals by about 19 per cent.[1] These changes in the shares going to labor, on the one hand, and to management and property, on the other, substantiate the already stated conclusion that average labor incomes increased as much after 1933, in consequence of the revival of employment, as did the real income of the average member of the population.

It must, however, be remembered that tne conclusions just reached concerning the relative sharing of the workers and other economic classes since 1929—that between 1929 and 1933 the working class as a whole lost more than did other economic groups, even though employed workers did not, but that during the post-1933 revival average real income per active member of the working class increased as much or more than per capita real income—are conclusions applicable only to a very abnormal period. Our primary emphasis, for purposes of later analysis of causes, should be upon long-run trends, and as a long-run matter average real earnings have tended to lag behind the real income of the country with allowances for the increase in population. The lag of real earnings was probably somewhat less pronounced during the first three decades of the twentieth century than it had been between 1870 and 1900, but it was apparent enough to dictate that we examine searchingly, in the following chapter, the probable explanations of it. But certain other tests of the share of the workers in increased production should be considered prior to engaging in that task in economic history and economic theory.

Real Earnings and Physical Product in Selected Industries.—A comparison of the character made in the foregoing pages is legitimate, since for industry as a whole, and in a very general way, it is indicative of whether the workers have received as large a share of the increased product of industry as has the entire community. But as we explained in detail in an earlier chapter,[2] the comparison has obvious and—from both the statistical and the theoretical viewpoints—rather painful limitations. It will be profitable, therefore, to turn our attention to the course of real earnings and physical product in each of a group of selected industries; for a comparison of these two trends, although not indicative of whether real earnings have increased as rapidly as the exchange value of the various industries' products when allowance is made for the increased number of workers employed, or of whether the workers have been paid according to the value of their productive services, is somewhat more refined than the very general test we have just applied.

For the majority of industries, the facts can be stated with a fair degree of certainty. Professor Douglas, utilizing Dr. Thomas' index of physical

[1] Total dividends and interest (1929 = 100) increased from 62.1 to 65.1 between 1933 and 1935; net rents and royalties from 36.4 to 44.6; and entrepreneurial withdrawals from 58.5 to 69.6.

[2] *Supra*, pp. 54–58.

production in manufacturing,[1] has concluded that between 1899 and 1925 physical productivity per employee increased approximately 54 per cent, while real earnings increased only 30 per cent. As the following tabular statement shows, by the end of only one of the five-year periods (1919) had relative real earnings increased more than physical product per employee; and very quickly, as the era of exuberant "New Capitalism" began to find its stride, physical product again leaped ahead of real earnings.

TABLE 39.—COMPARATIVE MOVEMENT OF REAL EARNINGS AND PHYSICAL PRODUCTIVITY PER EMPLOYEE IN ALL MANUFACTURING[1]

Year	Average annual earnings (in dollars)	Relative real earnings	Relative physical productivity per employee	Percentage divergence of real earnings from physical production
1899	437	100	100	0
1904	496	101	110	−8
1909	548	106	117	−9
1914	631	106	116	−9
1919	1,246	118	113	4
1921	1,236	117	117	0
1923	1,319	132	138	−4
1925	1,330	130	154	−16

[1] *Ibid.*, p. 510.

Although the trends were, of course, different in the various branches of manufacturing,[2] the general lag of real earnings behind physical product

[1] *Real Wages in the United States*, pp. 509–514. The index of physical production is the one that was published by Dr. Thomas and Dr. E. E. Day as *Census Monograph VIII*, "The Growth of Manufactures." Professor Douglas, for the sake of comparability, has used wage data only from those manufacturing industries that were included in the Thomas index of physical production, and it is to this fact that the difference between the index numbers of real earnings and those presented on p. 102 of the preceding chapter is attributable. In dividing relative physical product by relative number of employees, Professor Douglas included both office workers and manualists, since the former as well as the latter should, of course, be regarded as productive.

[2] *Cf.* the various tabular statements of relative movement of real earnings and physical productivity per employee by main manufacturing groups on pp. 512–513 of *Real Wages in the United States*. Professor Douglas (*ibid.*, pp. 511–514) has summarized these main differences as follows: "(1) The indexes of real earnings in the tobacco, land vehicle, nonferrous metal, and chemical industries lagged throughout behind their respective indexes of physical production, and the amount of this differential steadily widened with the years. A similar situation characterized the stone, clay, and glass industries, save for 1904, which showed real earnings 9 per cent above physical production; and also the paper industry, with the exception of 1921, when relative real earnings were 1 per cent higher than physical product per employee. In the latter industry, also, the differential between real earnings and production narrowed from a minus 20 per cent in 1914 to a minus 1 per cent in 1919. (2) In the lumber industries, relative real earnings were throughout higher than physical product. (3) In the four remaining industries (namely, food, iron and steel, textiles, and leather) relative real earnings (*a*) lagged behind during the decade from 1899 to 1909, save for the position of leather in 1909; (*b*) showed a split movement for 1909 to 1914, still remaining appreciably below in the iron and steel and textile industries, and being appreciably above in the case of food and leather industries; (*c*) were uniformly higher than relative physical product from 1914 to 1921 inclusive; (*d*) with the exception of textile indus-

per employee in manufacturing up to the middle of the 1920's is clear enough. Such evidence as can be relied upon for the remainder of the 1920's and for the depression years of the 1930's shows that, if anything, physical productivity per employee increased even more rapidly in comparison with real earnings than it did during the first quarter of the century. In the four-year period from 1925 to 1929 output per person in manufacturing is estimated to have increased between 10 and 11 per cent[1]—an increase, as the data on real earnings in the preceding chapter show, considerably in excess of any gains in real remuneration experienced by workers employed in manufacturing industries during the latter half of the 1920's. With the advent of depression total physical production of American manufacturing enterprises declined enormously, as did also employment and average hours worked per week by those fortunate enough to retain jobs. The significant facts, however, are that in spite of a decrease of about one-fourth in average hours worked, output per wage earner employed apparently declined not more than 3 or 4 per cent, and output per man-hour increased by between 25 and 30 per cent. The important facts, as revealed by a study of the National Bureau of Economic Research, are set forth in Table 40. The conclusions to be drawn are almost self-evident. Real hourly earnings, it will be remembered, increased in the majority of industries during the worst of the depression years, and real weekly earnings perhaps held their own as an average for

TABLE 40.—ESTIMATES OF CHANGES IN LABOR PRODUCTIVITY IN MANUFACTURING INDUSTRIES OF THE UNITED STATES 1929 TO 1933[1]

(1929 = 100)

(1) Year	(2) Index of physical output of manufactures	(3) Factory employment	(4) Output per wage earner employed (2) ÷ (3)	(5) Index of hours per week actually worked	(6) Man hours (3) × (4)	(7) Output per man-hour (2) ÷ (6)
1929	100	100	100	100	100	100
1930	85	87	97	93	81	104
1931	72	74	97	87	64	112
1932	57	61	93	77	47	121
1933	64	66	97	76	50	127

[1] Charles Bliss, "Recent Changes in Production," National Bureau of Economic Research, *Bulletin 51* (June 28, 1934), p. 6.

tries, relative real earnings were still ahead of relative physical product in 1923, while in 1925 they were split again. Food and iron and steel were in that year 6 and 20 per cent below the relative for physical production in these industries, while the indexes of real earnings in textiles and leather were 7 to 20 per cent above that for production."

[1] Aryness Joy, "Index of Production of Manufacturers Derived from Census Data," *Journal of the American Statistical Association*, vol. 25 (December, 1930), p. 457. Miss Joy's indexes (1919 = 100) of persons engaged in manufacturing, volume of production, and output per person are as follows:

Year	Persons engaged	Volume of production	Output per person
1925	92.4	127.9	138.3
1926	94.0	131.4	139.8
1927	92.4	128.7	139.3
1928	90.9	135.9	149.5
1929	94.5	144.7	153.1

all groups of workers; but physical output per man-hour leaped ahead in spectacular fashion and was apparently some 27 per cent greater in 1933 than in 1929.[1] The increase in man-hour output almost offset the decrease in average hours worked per worker, total output per wage earner employed being only 3 per cent less in 1933 than it had been in 1929. Nor does any of the increase in output per man-hour seem to have been lost between 1933 and 1936. It is true that the 1933–1934 upturn of employment resulted in the hiring of workers whose efficiency was lower than that of the selected group retained through the depth of the depression, but American industry was far from experiencing a general labor shortage by the end of 1936,[2] and there is no evidence that output per man-hour did not continue to increase during the years 1933–1936, even though at a somewhat less rapid rate than during the 1929–1933 period.[3] The unavoidable conclusion as to the comparative movement of real earnings and physical productivity per employee in manufacturing can be briefly stated: Since the turn of the century real earnings have lagged behind physical product the greater part of the time, and in recent years this lag seems to have become greater rather than less.

Evidence as to the situation in branches of industry other than manufacturing, while far from uniform, on the whole bears out the conclusion drawn from experience in manufacturing, that average real earnings of industrial workers have not increased as rapidly as their average output when reckoned in physical units. In coal mining, it is true, relative real earnings by the middle of the 1920's apparently stood some 9 per cent

[1] The increase in output per man-hour during the depression appears, upon first glance, to be little short of astounding, and the question of why it has occurred naturally suggests itself. Several factors have undoubtedly been responsible, although quantitative measurement of their relative importance is almost impossible. In the first place, the increase in output per man-hour in all manufacturing reflects the disappearance of a considerable number of relatively inefficient establishments during the depression. In the second place, firms always follow a "weeding out" process when their working forces are being curtailed, dropping the less efficient workers. The result is that total production does not drop as much as total man-hours worked—*i.e.*, output per man-hour increases somewhat because the man-hours are being worked by a more efficient group. In the third place, technological changes during the depression increased physical output per man-hour. In the fourth place, the spur to efficiency when workers fear losing their jobs and know that employers will have no difficulty in filling their places accounts for part of the increase in productivity.

[2] That is, a *general* labor shortage. Both the National Association of Manufacturers and the National Industrial Conference Board complained, during 1936 and 1937, that a shortage of *skilled* labor was developing, in spite of the still large volume of unemployment. This, however, was not surprising. Many skilled mechanics during the depression reached the age where firms were reluctant to employ them; others, as one of the many human tragedies accompanying the long depression, drifted from job to job and gradually became unemployable in their old occupations. Every prolonged depression, in fact, brings maladjustment of supply and demand of different types of labor as one of the costs to be liquidated during the recovery stages.

[3] Generalization based upon the movement during the 1933–1936 period of the Federal Reserve Board's index of total factory production and upon the Bureau of Labor Statistics' data on total employment, average hours per week, and total man-hours worked.

higher than relative physical product per employee, in spite of the lag of real earnings behind physical product during the years from 1907 to 1920.[1] In the case of the railways, on the other hand, physical product expressed in ton miles for the freight business and passenger miles for the passenger business, increased at a much more rapid rate than real earnings, Professor Douglas' 1924 index figure for the former (1890–1899 = 100) being 178 and that for the latter 120.[2] The same failure of real earnings

[1] P. H. Douglas, *op. cit.*, p. 516. The following is Professor Douglas' tabular summary of the results of his study of the two trends and of the percentage deviation between them from year to year:

COMPARISON OF REAL EARNINGS WITH PHYSICAL PRODUCT PER EMPLOYEE, IN THE BITUMINOUS AND ANTHRACITE INDUSTRIES COMBINED
(1902 = 100)

Year	Relative real earnings	Relative physical product per employee	Percentage deviation of real earnings from physical product	Year	Relative real earnings	Relative physical product per employee	Percentage deviation of real earnings from physical product
1902	100	100	....	1914	105	119	−13
1903	116	115	+ 1	1915	113	128	−12
1904	113	107	+ 6	1916	138	142	− 3
1905	115	113	+ 2	1917	141	150	− 6
1906	115	114	+ 1	1918	147	154	− 5
1907	120	126	− 5	1919	121	125	− 3
1908	106	109	− 3	1920	131	144	− 9
1910[a]	113	122	− 7	1921	120	109	+10
1911	110	122	−10	1922	110	96	+14
1912	118	129	− 8	1923	149	132	+13
1913	118	133	−11	1924	139	128	+ 9

[a] Statistics of output missing for 1909.

[2] *Ibid.*, p. 518. The indexes and percentage deviations for the various years are as follows:

COMPARISON OF REAL EARNINGS PER EMPLOYEE ON RAILROADS WITH AVERAGE RELATIVE PRODUCTIVITY PER EMPLOYEE
(1890–1899 = 100)

Year	Average real earnings per employee	Physical productivity per employee	Percentage deviation of real earnings from physical productivity	Year	Average real earnings per employee	Physical productivity per employee	Percentage deviation of real earnings from physical productivity
1889	97	91	+ 6	1907	95	126	−25
1890	98	93	+ 5	1908	100	130	−23
1891	100	96	+ 4	1909	96	128	−25
1892	101	97	+ 4	1910	94	130	−28
1893	102	97	+ 5	1911	96	132	−27
1894	102	97	+ 5	1912	98	136	−28
1895	102	99	+ 3	1913	100	142	−30
1896	100	100	0	1914	103	143	−28
1897	99	105	− 6	1915	108	156	−31
1898	99	111	−11	1916	105	174	−40
1899	97	115	−16	1917	98	186	−47
1900	94	116	−19	1918	114	181	−37
1901	92	115	−20	1919	107	164	−35
1902	91	115	−19	1920	111	170	−35
1903	92	114	−19	1921	118	157	−25
1904	94	116	−19	1922	124	172	−28
1905	93	115	−21	1923	122	178	−31
1906	93	119	−23	1924	120	178	−33

to keep pace with physical product is to be noted in the case of the street railways,[1] of the manufactured gas industry,[2] and of the electrical industry.[3] The telephone industry, like coal mining, paid to its workers at the end of the first quarter of the century real earnings representing an increase over the level of the 1890's greater than their increase in physical productivity.[4] Of the fact that in nonmanufacturing industries the experience

[1] *Ibid.*, pp. 519–520. Professor Douglas used the number of passengers carried by the street railways as the measure of production, since figures on passenger miles—the better measure—were not available. The indexes (1890–1899 = 100) by five-year periods are as follows:

Year	Real earnings	Physical productivity per worker	Percentage deviation of real earnings from physical productivity
1890	100	98	+ 2
1895	97	98	− 1
1900	106	114	− 7
1905	104	110	− 5
1910	98	112	−12
1915	102	126	−19
1920	104	146	−29
1924	122	151	−19

[2] *Ibid.*, p. 522. The indexes and deviations are as follows:

Comparison of Relative Real Earnings with Relative Average Physical Product in Manufactured Gas Industry

Year	Average real earnings	Average physical product	Percentage difference between real earnings and physical product	Year	Average real earnings	Average physical product	Percentage difference between real earnings and physical product
1889	114	94	+21	1914	82	156	−47
1899	100	100	0	1919	92	269	−66
1904	89	123	−28	1921	114	320	−64
1909	86	136	−37	1923	111	307	−63

[3] *Ibid.*, p. 523. The indexes are as follows (1902 = 100):

Year	Real earnings	Physical product per employee	Percentage deviation of real earnings from physical product per employee
1902	100	100	0
1907	94	156	−40
1912	90	203	−56
1917	81	338	−76
1922	99	392	−75

[4] *Ibid.*, pp. 521–522. Professor Douglas computed his index of physical productivity in the telephone industry on the basis of the number of connections made, such information

has been on the whole much the same as in manufacturing—a lag of real earnings behind physical productivity—there can be little question. The possible reasons for this lag, a problem vast and complex in its theoretical and practical implications, we shall consider in the following chapter.

Real Earnings and Value Product per Employee

Both the virtues and shortcomings of a comparison of the trend of real earnings with the trend of value product per employee have already been suggested.[1] It is patent, of course, that an industry (assuming no change in the prices it must pay to other industries for its materials, supplies, etc.) is able to disburse more to all claimants upon its income if the exchange value of each unit of its product rises, even though physical output remains the same. Conversely, a decline in the exchange value of an industry's products decreases its ability to pay wages, interest, and dividends, and to reinvest in the business. A more adequate comparison than the one just made, therefore, is that of real earnings and value product per employee.[2]

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being available from the various Censuses of the Electrical Industry and the *Annual Reports* of the American Telephone and Telegraph Company. The comparative movement of real earnings and physical product in the telephone industry was somewhat unusual. From 1902 to 1914 productivity per worker increased by about 20 per cent, while real earnings actually declined slightly. During 1915 and 1916 real earnings increased somewhat more rapidly than physical productivity, but declined during the succeeding three years. After 1920, however, the real earnings increased rapidly while (until 1924) physical output actually declined slightly, with the result that in 1924 real earnings were 24 per cent above the 1914 level, and relative physical productivity only 3 per cent above. The history of the movements in tabular form is as follows:

Comparison of Relative Real Earnings with Relative Physical Productivity per Employee in Telephone Industry
(1914 = 100)

Year	Relative real earnings	Relative productivity per employee	Percentage deviation of real earnings from physical productivity	Year	Relative real earnings	Relative productivity per employee	Percentage deviation of real earnings from physical productivity
1902	107	83	+29	1914	100	100	0
1903	100	86	+16	1915	113	111	+ 2
1904	99	89	+11	1916	111	102	+ 9
1905	102	94	+ 8	1917	101	104	− 3
1906	101	94	+ 7	1918	92	104	−12
1907	96	101	− 5	1919	99	104	− 5
1908	102	107	− 5	1920	100	95	+ 5
1909	103	108	− 5	1921	123	99	+24
1910	95	107	−11	1922	135	99	+36
1911	92	101	− 9	1923	133	99	+34
1912	96	100	− 4	1924	137	103	+33
1913	93	102	− 9				

[1] *Supra*, pp. 59–60.

[2] The relatives of which are derived, it will be remembered, by multiplying relative physical product for an industry or group of industries by the ratio of the price index of that

The limitations of this test should, however, be kept in mind. The comparison necessarily has to be confined to separate industries or groups of industries;[1] it does not prove or disprove that workers have been compensated in accordance with their productive contributions, since an expression of the exchange value of an industry's products in relation to the number of employees is not an indication of whether a given increase in value product has been imputable to labor or to the other factors of production; it is a comparison that in itself affords no basis for ethical generalizations; and, again, as has already been explained in more detail, it is likely to be somewhat misleading in that industries are made responsible for cost movements over which they may have little or no control.[2] Nevertheless, the increase in the fund of value is what determines the capacity of an industry to pay its workers and other claimants upon its income, and the test is therefore of importance from the viewpoint of the purposes before us in the present chapter. The most satisfactory method of applying this test, as has already been said, is (1) to take the total relative physical product of manufacturing for the years covered, (2) to multiply these relatives for each year by the ratio of the price index of manufactured goods to the general price level, thus securing (3) the relative value product of the industry, then (4) to divide this total relative value product by the total number of employees, and (5) finally to compare the relative total value product per employee thus derived for each of the years with relative real earnings in the same years.

Such a comparison has been made by Professor Paul H. Douglas in the book from which we have already drawn freely,[3] and also in his statistical and quasimathematical study, *The Theory of Wages*.[4] The following tabular summary almost tells its own story so far as nine of the major groups of manufacturing are concerned.[5] Not until 1921, it will be noted,

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group of commodities to the general price index, and then dividing the resulting total relative value product by the relative number of employees.

[1] Because, perhaps it is gratuitous to state at this point, an increase or decrease in the exchange value of an industry's product is, *ipso facto*, a decrease or increase respectively in the exchange value of the products of other industries, and therefore in the fund of value from which workers in these other industries can be remunerated.

[2] Which may be, as is explained in more detail elsewhere (*cf. supra*, pp. 59–60), cost movements either prior to the process in question (*i.e.*, the raw materials and fabricating devices used by the process) or subsequent to it (*i.e.*, increases in the amounts absorbed by jobbers, advertisers, wholesalers, and other distribution functionaries, causing living costs to rise and therefore a decline or less rapid rise in real earnings).

[3] *Real Wages in the United States*, pp. 524–533.

[4] *Cf.* especially pp. 174–195.

[5] Professor Douglas' method of determining total exchange value for each of the major groups was to find the relative wholesale price indexes since 1899 for their various manufactured commodities, and to divide each of these by the all-commodity wholesale index of the Bureau of Labor Statistics. After price indexes had been thus computed for each of the nine groups, the relatives for each of these groups were weighted by the relative

TABLE 41.—COMPARISON OF RELATIVE VALUE OF PRODUCT PER EMPLOYEE WITH REAL EARNINGS FOR NINE MAJOR GROUPS OF MANUFACTURING (1899 = 100)[1]

Year	Relative real earnings per employee	Relative value product per employee	Percentage deviation of relative real earnings from relative value product	Year	Relative real earnings per employee	Relative value product per employee	Percentage deviation of relative real earnings from relative value product
1904	101	98	+ 3	1921	115	105	+ 10
1909	105	97	+ 8	1923	128	121	+ 6
1914	105	96	+ 9	1925	125	126	− 1
1919	116	92	+ 26				

[1] *Ibid.*, p. 529.

did the workers in manufacturing "produce" on the average more purchasing power than in 1899, and not until 1925 did relative value product per employee exceed relative real earnings. The explanation of an excess of relative real earnings over relative value product, as against the already mentioned[1] lag of relative real earnings behind relative physical product per employee, is to be found, of course, in the fact that the exchange ratio of manufactured products was declining a considerable part of the period covered by this study. The fact should also be noted, however, that while in 1919 the excess of the relative real earnings over value product per employee was some 26 per cent, this excess steadily decreased during the subsequent years of the era of "New Capitalism." Moreover, it is entirely likely that since 1925 real earnings have increased less rapidly than value product per worker in manufacturing. Studies comparable to those of Professor Douglas are, it is true, not available for later years, but certain inferences can be drawn from information that we do possess. According to the Committee on Recent Social Trends, the service (wage earner and salaried worker) share of that part of the national income created by manufacturing—as is indicated in more detail in the following section of this chapter—declined from 57.5 to 48.6 per cent between 1921 and 1929, although no decline in the percentage of the total national income going to employed persons occurred during this period.[2] Total value product of manufacturing increased greatly up to the economic collapse that began in 1929, real wages, again as has already been pointed out, increased some, and the number of persons normally attached to manufacturing changed very little.[3] A reasonable inference to be drawn

value added to each in 1919 by manufacturing, and a wholesale price index was thus computed for manufacturing as a whole. Each of these relatives was then divided by the all-commodity wholesale index of the Bureau of Labor Statistics.

[1] *Supra*, pp. 151–154.

[2] E. F. Gay and Leo Wolman, in *Recent Social Trends*, vol. 1, p. 231.

[3] *Cf. supra*, p. 6. Between 1919 and 1929 the number of employees in manufacturing declined from 8,989,536 to 8,821,757.

from these facts is that after 1925 real earnings lagged behind value product per worker.[1] For the period from the late 1890's to 1925 as a whole, however, it cannot be said that manufacturing workers were receiving a constantly decreasing proportion of the value product of industry.[2]

[1] As is indicated in the following section of this chapter, the value added by manufacture increased from 24.8 billion dollars in 1919 to 31.8 billion in 1929, while wages increased from 10.4 billion to 11.6 billion. In 1919, 9,000,059 wage earners were employed, and in 1929 8,838,743. *Abstract of the Fifteenth Census of the United States*, p. 742. While these data do not take into account changes in the exchange value of manufactured products and those of other industries, they create a strong presumption that during the 1920's real earnings per worker employed in manufacturing increased less rapidly than did value product per worker. Later revisions of the Census of Manufactures data on wage earners employed in 1919 have reduced the above estimate to the figure given on p. 159, but both the revised and the unrevised figures show a decline in employment between 1919 and 1929.

[2] Ethelbert Stewart, when United States Commissioner of Labor Statistics, published a study based upon census data of the trend of average yearly earnings in manufacturing, value of product per wage earner, the percentage that value added was of total value of product, the percentage wages constituted of both value of product and value added by manufacturing, and wholesale prices, for the eighty-year period from 1849 to 1929 ["Ratio of Value of Production to Wages and Their Purchasing Power in Manufacturing Establishments, 1849 to 1929," *Monthly Labor Review*, vol. 31 (December, 1930), pp. 1329–1932]. It will be noted that such a study does not express value product per worker as we have defined it (the exchange value of an industry's product divided by the number of workers), but the comparisons made by Commissioner Stewart are worthy of attention. During the half century from 1849 to 1899, he found, average annual earnings per worker increased by 75.2 per cent, while real earnings increased somewhat more in consequence of about a 14 per cent decrease in prices. Value of product per worker (in the sense of total selling

Kind of factories and year	Average yearly earnings	Value of product per wage earner	Value added per wage earner	Percentage value added is of value of product	Percentage wages are of value of product	Percentage wages are of value of product added	Wholesale prices
Factories and hand and neighborhood industries:							
1849	100 0	100 0	100 0	100 0	100.0	100 0	100 0
1899	176 2	230.0	219.8	95.6	76 8	80.2	86.9
Factories excluding hand and neighborhood industries and establishments with products valued at less than $500:							
1899	171 8	227 2	211 3	93 2	75 5	81 4	86.9
1904	192 3	254.1	237.3	93 4	75 5	81 2	99.3
1909	208 9	293 4	265 8	90 8	71 2	78 7	112 5
1914	233.5	323.8	289.3	89 5	72.1	80 8	113 3
Factories excluding establishments with products valued at less than $5,000:							
1914	237.9	326 5	290 3	89 0	73 0	82 0	113 3
1919	468 5	646 9	568 5	87 9	72 5	82 6	230 6
1921	476.2	589 9	544 1	92 3	80 7	87 5	102 4
1923	505 6	647.5	607 2	93 8	78.1	83.4	107.4
1925	516 1	702 0	658.6	93.8	73 4	78 5	172.2
1927	523 8	705 3	681 2	96.7	74 2	76 9	158.7
1929	531.5	651.7	749 9	99.8	70.8	70 8	160.6

Functional Distribution of the National Income

A third test of how well the workers have fared in comparison with other economic classes was suggested in Chap. I: The proportion of the total value created by each line of economic activity, and of the sum-total income created by all lines of activity, going in the form of wages and

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value divided by the number of workers, not in the sense of the ratio between the price of manufactured goods and of other goods divided by the number of workers), on the other hand, increased 130 per cent, and value added per wage earner (the money value of the output of manufactures minus the amount paid by manufacturing enterprises to the furnishers of materials and prior services in the production sequence, divided by the number of workers) 110 per cent. The percentage that wages constituted of the value of product (measured in terms of dollars, not in terms of its exchange ratio with other commodities) decreased by nearly one-fourth, and the percentage that wages were of value added by manufacturing decreased by 19.8 per cent. The same lag of earnings behind value of product per worker continued, according to this study, during the ensuing thirty years, and by 1929 average yearly earnings had increased 431.5 per cent over the 1849 level, the value of product per wage earner 651.7 per cent, and value added by manufacture per wage earner 649.9 per cent. The per cent that wages constituted of the value of product had decreased by about three-tenths, and the percentage they constituted of value added by the same amount. Prices, on the other hand, were about 60 per cent higher in 1929 than they had been eighty years earlier. The table on p. 160 is a summary of Commissioner Stewart's findings.

Commissioner Stewart pointed out in the same article that it may well be argued that conditions in 1849 were so different in every respect from those of the late 1920's that comparisons based on that year may be in the main meaningless. Accordingly, he had made computations for the shorter period 1909–1929, using the former year as the base of 100. His indexes are as follows:

Year	Relatives of average yearly earnings	Relatives of value of product per wage earner	Relative value added per wage earner	Relatives of percentage value added is of value of product	Relatives of percentage wages are of value of product	Relatives of percentage wages are of value of product added	Relatives of wholesale price	Relatives of retail prices of food
1909	100 0	100.0	100 0	100 0	100 0	100 0	100 0	100.0
1919	224.3	220 5	213 9	101 7	101.8	105 0	205 0	209.8
1929	254 4	256.2	282.2	109.9	99.4	90.0	142.8	176.8

It will be noted that value of product per wage earner and value added per wage earner did not leap ahead of real earnings to the extent that they did during the earlier years. Such differences as are indicated by Mr. Stewart's figures could easily be accounted for by the increase in the exchange ratio of farm products, in relation to manufactured products, during this period.

Professor Douglas has made a comparative study of real earnings and value product per employee in the coal industry. It will be remembered that—contrary to the situation in manufacturing—real earnings of coal miners have apparently increased more rapidly than their physical productivity (*supra*, pp. 154–155). But—again contrary to the situation in manufacturing—real earnings appear to have increased less rapidly than value product

salaries. As applied to the whole of industry this test resolves itself, of course, into the proportion of the total national income going in the form of wages and salaries, while as applied to a given industry it means the proportion of the value added by that industry to the goods and services obtained from other sources which is distributed in the form of wages and salaries. It is obvious that trends in the percentage of total national income (or of income created by a given branch of industry) going to wage earners and salaried persons cannot be considered apart from changes in the proportion of the total population comprising these economic classes;[1] and that the workers may lose relatively but at the same time gain absolutely—*i.e.*, that the percentage of the real national income going to the workers may decrease, but their individual and total real earnings may be greater because total national income has increased more than the labor percentage has decreased.

Several studies of this so-called "functional" distribution of income have been made.[2] From the most recent of those covering the period up

per worker. Professor Douglas' index figures (*op. cit.*, p. 536) are as follows:

Bituminous: 1890–1899 = 100				Bituminous and Anthracite: 1902 = 100			
Year	Relative real earnings	Relative value product per employee	Percentage deviation of real earnings from value product	Year	Relative real earnings	Relative value product per employee	Percentage deviation of real earnings from value product
1903	132	136	− 3	1903	116	125	− 7
1904	120	113	+ 6	1904	113	105	+ 8
1905	128	116	+10	1905	115	105	+10
1906	132	124	+ 6	1906	115	108	+ 6
1907	135	129	+ 5	1907	120	115	+ 4
1908	118	110	+ 7	1908	106	103	+ 3
1910	128	115	+11	1910	113	103	+10
1911	123	121	+ 2	1911	110	111	− 1
1912	135	131	+ 3	1912	118	115	+ 3
1913	135	136	− 1	1913	118	121	− 2
1914	115	119	− 3	1914	103	109	− 6
1915	127	122	+ 4	1915	113	111	+ 2
1916	148	128	+16	1916	138	112	+23
1917	160	161	− 1	1917	141	137	+ 3
1918	163	172	− 5	1918	137	148	− 1
1919	130	124	+ 5	1919	121	113	+ 7
1920	142	201	−29	1920	131	172	−24
1921	121	170	−29	1921	120	104	−27
1922	122	170	−28	1922	110	146	−25
1923	156	192	−19	1923	149	181	−18
1924	140	158	−11	1924	139	156	−11

[1] If, for example, the percentage of the national income going to hired labor were to increase by, say, 5 per cent during a given period of years, but if at the same time the percentage of all claimants upon income who were wage earners increased by five, the relative position of each worker would be the same as before.

[2] *Cf.* especially W. I. King, *Wealth and Income of the People of the United States*, National Bureau of Economic Research, *The Income in the United States*, E. F. Gay and L. Wolman,

to 1929, a study that both utilized the results of previous investigations and included those of independent researches, we may glean some notion of general trends during the three decades prior to the beginning of the great depression.

TABLE 42.—RELATIVE SHARES OF MAJOR CLAIMANTS IN INCOME FROM CURRENT PRODUCTION OF GOODS AND SERVICES, 1900–1929[1]
(As Percentages of Total Income Produced)

Year	Employees[a]			Individual enterprisers[b]			Investors and property holders[c]	Business savings
	Total	Wages	Salaries	Total	Agricultural	Non-agricultural		
1900	53.2							
1909	54.4	38.0	15.6	26.2	12.6	13.6	14.7	4.7
1910	55.8	38.8	16.0	24.9	12.6	12 3	15.4	3.9
1911	56.8	39.0	16.9	24.8	10.9	13.9	16.0	2.4
1912	55.6	38 3	16.5	25.2	11.6	13.6	15.3	3.9
1913	56.5	39.1	16.5	23.8	10.3	13.5	15.5	4.2
1914	57.4	38.4	18.0	25.0	10.5	14.5	15.8	1.8
1915	55.0	37.3	16.8	24 1	10.7	13.4	14.9	6.0
1916	51.3	35.7	14.5	23.9	10.8	13.1	13.6	11.2
1917	50.3	34.6	14.9	27.1	13.5	13.6	13.4	9.2
1918	56.9	36.0	19.8	27.4	15.3	12.1	12.2	3.5
1919	55.4	36.1	18.1	25.5	14.3	11.2	12.3	6.8
1920	62.8	43.9	17.4	22.8	11.6	11.2	12.3	2.1
1921	68.7	44.3	22.5	21.3	7.6	13.7	15.1	−5.1
1922	63.3	41.2	20.2	20.3	7.8	12.5	13.6	2.8
1923	62.7	42.0	19.2	20.7	7.8	12.9	13.0	3.6
1924	63.6	41.5	20.3	21.1	8.1	13.0	13.2	2.1
1925	61.7	40.5	19.8	21.0	8.4	12.6	13.5	3.8
1926	63.8	41.8	20.5	19.2	7.1	12.1	14.1	2.9
1927	64.6	41.3	21.7	19.7	7.4	12.3	14.4	1.3
1928	63.5	40.4	22.1	18.9	6.8	12.1	14.6	3.0
1929	65.1	42.1	21.7	17.3	6.8	10.5	14.9	2.7

[a] Includes pensions, workmen's compensation, etc.

[b] Includes return on owned capital as well as "labor income" of entrepreneurs.

[c] Interest, dividends, rents, and royalties. This is the share realized. Obviously the portion retained in business as corporate surplus also accrues to the investor.

[1] From *America's Capacity to Consume*, p. 158.

Table 42 reveals several significant facts and at the same time suggests a number of cautions against too facile generalizations. (1) Over the period as a whole, the workers' share of the total national income increased rather than diminished. In 1900, it will be noted, 53 per cent of the national income was distributed as wages, salaries, and pensions.

in *Recent Social Trends*, vol. 1, pp. 228–237, M. Copeland, "The National Income," *Recent Economic Changes*, vol. 2, pp. 757–766, and W. I. King, *The National Income and Its Purchasing Power*.

Between 1909 and 1915 the shares of employees ranged from 54.4 to 57.4 per cent of the total; then, owing to the expansion of business activity and the lag in adjustment of wages to prices during the early War period, decreased considerably during 1916–1917, the labor share being down almost to 50 per cent in the latter year. After the War, however, the share going to employees increased decidedly and in the decade of the 1920's ranged well above 60 per cent. (2) The indicated gain of employees should not necessarily be taken as proof of *relative* gain in the economic status of the individuals who compose the wage-earning class. In part, without doubt, the increase in the share of total national income going to employees is attributable to a shift from unpaid employments, such as housework and the labor of farm families, to financially remunerative employments, and in part it reflects the reduction in the number of entrepreneurs and the corresponding increase in the number of salaried officials and other employees that has resulted from the decline in relative importance of the individual firm and partnership and the increase in the importance of the corporate form of business organization. Indeed, it will be remembered that our comparison of the trend of average real earnings with the trend of per capita real income during the same period[1] showed, if anything, a lag of the former behind the latter. The conclusion that real earnings have not increased as rapidly as per capita real income is not irreconcilable with the indicated increase in the percentage of the total national income going to labor, for the increase in the number of employed persons at a more rapid rate than total population could account for an increase in labor's total share of the national income even though average real earnings have lagged behind per capita real income. (3) It will be noted that when total employees' share of the national income is divided into wages and salaries, the two trends have the quality of precision. Apparently wage earners and salaried workers gained in their proportionate shares of the national income at about the same rate and to about the same extent. (4) Second in significance only to the revealed increase in the workers' share of the national income, perhaps, is the decline in the share of the national income going to farm proprietors. In 1909 independent farmers received about one-eighth (12.6 per cent) of the national income; in 1929 they received only a trifle more than one-sixteenth (6.8 per cent). In part this decrease reflects the relative declining importance of agriculture as a source of livelihood, but to a greater extent it is attributable to the farm depression of the 1920's. Between 1909 and 1920, as a matter of fact, the percentage of the total national income going to farm enterprisers declined by only 1 per cent, and during the 1917–1919 period, when the exchange value of farm products in terms of other products was greater than it had been for years, the percentage of total national income disbursed to farmers was greater than it had been

[1] *Supra*, pp. 139–144.

a decade before. It was only during the 1920's that the share going to farm entrepreneurs decreased sharply. (5) The decline in the share going to individual enterprisers as a whole during the period should be noted. In 1909 the entrepreneurial share of the national income was more than one-fourth (26.2 per cent), while in 1929 it was only slightly more than one-sixth (17.3 per cent). Two developments account in large part for this decline: the relative numerical decrease in the number of individual enterprisers, and the already mentioned decline in the incomes of farm enterprisers after 1920. It will be noted that while, as has already been mentioned, income shares of agricultural enterprisers declined from 12.6 to 6.8 per cent during the two decades after 1909, the share of nonagricultural enterprisers declined considerably less (from 13.6 to 10.5 per cent). (6) The share going to investors remained relatively stable during the period 1909–1929. Increases took place during the War period, largely in consequence of surplus earnings reinvested directly by business enterprises, and during the period of expansion from 1922 to 1929 the proportion going to investors again increased gradually.[1]

[1] It may be mentioned in passing that other studies covering part of the same period agree in substance with the above presented Brookings Institution conclusions. The National Bureau of Economic Research, in *The Income in the United States*, published in 1921, classified according to the "wages and salaries" and the "management and property" shares of the national income, the latter category including in substance the totals of the individual enterprisers, investors and property holders, and business savings shares listed in the foregoing table. The percentage going as wages and salaries in all lines of industry, as well as in the seven main divisions into which the study divided all sources of production or income, is as follows:

Year	All industries	Agriculture	Mineral products	Manufacturing, transportation					Banking	Government	Unclassified
				Hand	Factory	Steam	Electric	Water			
1909	58 0	15 8	71 0	57 8	72 2	59.6	50 4	83 5	26 6	93.3	60 4
1910	52 2	12 5	73 7	58 9	71 6	60 3	50 7	75 0	24 3	92 2	61 7
1911	53 9	14.1	73 8	58.6	76 4	62 8	51 5	81 7	26 5	91.6	61 9
1912	54 9	14 4	71.4	59.3	74.5	64 2	51.7	77.7	28.6	91.7	62 6
1913	55 6	13 4	73.4	66.7	74.5	66.4	52 9	79.1	31.6	91.7	63 2
1914	54 7	12 7	72 7	58.9	77 8	66.8	53 2	85 6	31 9	91.6	63 3
1915	53 6	12 3	67 4	58 7	75 4	61 5	51 1	79 2	34.5	91.3	62 0
1916	51 9	11 7	60 9	57 8	68 7	60 9	52 5	72 2	35.5	91 4	56.8
1917	51 6	10 9	63 1	61 6	71 0	67 4	55 4	79 1	34.8	90.8	52 6
1918	54.0	9.9	70.6	59.6	78.1	78.2	62.8	83.2	36.7	70.5	52.5

The changes in the aggregate amount going to hired labor, as well as the differences among the several branches of economic activity, should be noted. In 1918 the percentage of the total national income going to hired labor was 54, and this had not fluctuated by more than 2 per cent during the preceding nine years. Different circumstances account for the differences to be noted among the several branches of industry. In 1918 hired labor received only 10 per cent of the value product of agriculture, owing to the vast amount of labor performed by the farmers themselves. The percentage was relatively small in banking—37—but for a different reason: the large amounts of capital invested in relation

(7) Finally, it is worth mention that the changes in hired labor's share of the national income do not indicate changes in the share going as a return for the productive effort of human beings during a period of marked shift of individuals from the entrepreneurial to the employee group. Indeed, a combination of the entrepreneurial and employee groups, and a comparison of their income over the years with the income obtained by investors and property holders from current production, indicate marked constancy in the return going to labor in the generic sense of the word. According to the Brookings Institution study, "occupational income" (*i.e.*, the income of both entrepreneurs and employees, as against returns on investment and property in production and returns from other property) constituted about 75 per cent of the total in both 1909 and 1929, and varied by not more than 4 per cent during any of the years of the period.[1]

The foregoing paragraphs have indicated that the share of all hired labor in the national income apparently did not diminish, but on the contrary increased somewhat, during the three decades prior to 1930. What has been the effect of the depression upon labor's share of the value productivity of industry?

Data already presented[2] show that the percentage decline in total hired labor income between 1929 and 1932 was somewhat greater than the

to the number of persons employed. In manufacturing and transportation, on the other hand, more than three-quarters of the value product went to employed persons. More recent studies of the functional distribution of the national income are those of Dr. W. I. King (*The National Income and Its Purchasing Power*) and of the Committee on Social Trends. Messrs. E. F. Gay and Leo Wolman (*Recent Social Trends*, vol. 1, p. 230), basing their computations upon the estimates given by Dr. King in *The National Income and Its Purchasing Power*, have estimated the distribution between property and service shares for the period 1914–1928 to have been as follows:

Year	Percentage of national income comprised by wages, salaries, pensions, compensation, etc.	Percentage of national income to property (residual percentage)
1914	51.9	48 1
1915	52.0	48.0
1916	51.9	48 1
1917	50.3	49 7
1918	53.5	46.5
1919	53.7	46.3
1920	57.1	42.9
1921	57.1	42 9
1922	57.2	42.8
1923	57.7	42.3
1924	57.7	42.3
1925	57.2	42.8
1926	59.1	40.9
1927	58 8	41.2
1928	58.9	41.1

[1] *America's Capacity to Consume*, p. 30, and Table 11, p. 159.

[2] *Supra*, pp. 146–148.

percentage decline in total property income and entrepreneurial withdrawals, but that after 1933 total compensation of employees increased more rapidly than did the other distributive shares. Index numbers of the percentage increase or decrease in the absolute amount of each share are not, however, indicative of the percentages of each year's national income paid out to the various claimants, owing to the different absolute amounts received by each during the base year, and the differences in the absolute amounts of the decline or increase during the years covered. For our present purposes, therefore, it is better to follow the method already adopted in this section of the chapter, and to center our attention upon changes in the percentage of total national income going to labor and to other factors of production. Such data for the period 1929–1936 are presented in Table 43.

TABLE 43.—PERCENTAGE DISTRIBUTION OF NATIONAL INCOME BY TYPE OF PAYMENT, 1929–1936[1]

	1929	1930	1931	1932	1933	1934	1935	1936
Total income paid out	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total compensation of employees	65.5	64.8	64.4	64.0	65.2	66.3	66.4	66.5
Total salaries and wages	64.3	63.4	62.7	61.7	61.7	61.8	62.3	61.5
Work relief wages	.....	.....	.....	.....	1.4	2.7	2.3	3.3
Other labor income	1.2	1.4	1.7	2.3	2.1	1.8	1.8	1.7
Total dividends and interest	14.3	15.4	15.9	16.3	15.6	14.4	13.9	14.3
Dividends	7.6	8.0	7.0	5.7	4.9	5.3	5.6	7.4
Interest	6.5	7.2	8.4	10.2	10.3	9.0	8.2	7.0
Entrepreneurial withdrawals	15.8	16.0	16.3	16.7	16.2	16.1	16 3	15.8
Net rents and royalties	4.4	3.8	3.4	3.0	3.0	3.2	3.4	3.4

[1] Robert R. Nathan, "National Income Gain in 1936 Largest of Recovery Period," *Survey of Current Business*, vol. 17, no. 6 (June, 1937), p. 16.

Again it is convenient to analyze the trends first through the depth of the depression, and then during the revival period that began in 1933. It will be noted that labor's percentage of the total national income reached its low point for the 1930's in 1932, but that it was then receiving only 1.5 per cent less of the total national income than it had been in 1929. Dividends, after rising in 1930 and falling off only a little in 1931, dropped sharply in 1932 and 1933 but made large gains in 1936. Interest, a relatively fixed charge, increased appreciably as a share of the national income during these years, and in 1932 interest and dividends grouped together were slightly larger, and total labor income slightly smaller, percentages of the national income than in 1929. It should be said, however, that labor employed in mining, manufacturing, construction, and steam transportation lost more of its share of the national income than did all labor, as shown in the above table.[1] The entrepre-

[1] Dr. Kuznets' study (*National Income, 1929–1932*) segregates wages of workers employed in mining, manufacturing, construction, steam transportation, Pullman car

neurial group a little better than held its own as a sharer of the national income prior to 1933. The changes after 1933 were not great, but on the whole they were favorable to labor. Total compensation of employees rose to 66.5 per cent of the national income in 1936—the high point for the period. Nevertheless, wages and salaries of employees of private enterprise absorbed 2.8 per cent less of the national income in 1936 than they had in 1929, and the increase in the percentage that total compensation of employees constituted of the national income was due to the payment of work relief wages and to the increase in "other labor income" (pensions, accident-compensation benefits, and the like). Total property income is shown by the table to have declined by 1.3 per cent as a share of the national income between 1933 and 1936, while entrepreneurial withdrawals and net rents and royalties changed but little.

Labor's Share of the Value Created by Manufacture.—It is advantageous to supplement our summary of trends in the aggregate labor share of the national income with similar data for the branch of economic activity in which more wage earners are employed than in any other, manufacturing. From studies made in recent years, it is possible to generalize with a reasonable degree of certainty.

During the years prior to 1921, it is clear, labor did not lose relative to other claimants upon the value product of manufacturing industry; but after 1921, and especially after 1925, the story was different. Professor Paul H. Douglas, in the work from which we already have quoted freely,[1] has estimated that in 1899 wages and salaries formed 49.5 per cent of the value added by manufacture. By 1914 the percentage had risen to 54.2, was only slightly less in 1919 (53.6), and in 1921 reached the high point of 58.7. After 1921, however, labor's share of the total apparently declined, and by 1927 the percentage which wages and salaries formed of the total value added by manufacture had dropped to 51.0 per cent. Deductions from the value product of manufactures for rent, taxes, and depreciation, made by Professor Douglas, of course increase the labor percentage of value product, but such deductions do not affect appreciably the general trend.[2] A more recent study, covering the period 1899–

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construction, the railway express business, and water transportation from the salaries of salaried persons employed in these same lines and from the wages and salaries of persons employed elsewhere. Wages of workers employed in these lines were 21.2 per cent of the national income in 1929, according to the Kuznets study, and only 14.0 per cent in 1932. Wage earners and salaried workers together in these industries received 28.2 per cent of the national income in 1929 and 20.9 per cent in 1932. The same study shows that salaries and wages in all other industries increased from 35.8 to 41.5 per cent of the national income between 1929 and 1932.

[1] *Real Wages in the United States*, pp. 540–547.

[2] Professor Douglas estimated that in 1899 the percentage expended in wages and salaries of the net value product of manufactures after deduction for depreciation but not for rent and taxes was 52.5. The percentages for subsequent years were: 1904, 53.9; 1909,

1929, indicates the following distribution of the value product between wages and wages and salaries, on the one hand, and overhead and return to capital, on the other.

TABLE 44.—PERCENTAGE THAT WAGES, SALARIES, OVERHEAD, AND RETURN TO CAPITAL WERE OF THE TOTAL VALUE ADDED BY MANUFACTURES, 1899–1929[1]

Year	Wages	Wages and salaries	Overhead and return to capital	Year	Wages	Wages and salaries	Overhead and return to capital
1899	41.6	49.5	50.5	1921	44.7	57.5	42.5
1904	41.5	50 6	49.4	1923	42.6	53.4	46.6
1909	40.2	51.2	48.8	1925	40.0	51.0	49.0
1914	41.3	54.1	45 9	1927	39.3	51.3	48.7
1919	42.2	53.8	46.2	1929	37.2	48.6	51.4

[1] E. F. Gay and Leo Wolman, in *Recent Social Trends*, vol. 1, p. 231.

The fascinating question of why these changes in the proportion of the product received by labor have taken place may advantageously be postponed until our generalized survey of wage theory. Several of the implications of the facts just summarized should, however, be mentioned at this point. Although the service shares of the value product of manufactures did not decrease during the years prior to 1921, but on the contrary increased, the opposite tendency became pronounced during the 1920's. This tendency in manufacturing was, it will be noted, different from that in industry as a whole, for while, as has already been indicated,[1] the division of the national income between property and service shares remained fairly constant between 1921 and 1929, the division of that portion created by manufactures altered considerably, and in a direction adverse to labor. Judged by the standard here being applied—the proportion of the value product which has been distributed in wages and salaries—the period of increased productivity and of substantial absolute progress as far as real earnings were concerned, was one of relative loss for workers employed in manufacturing enterprises. It is true that fewer workers were employed in manufacturing in 1929 than in 1919, and that therefore the *relative* loss per worker was not as great as is indicated by the percentage distribution

54.8; 1914, 58.4; 1919, 56.9; 1921, 64.4; 1923, 58.3; 1925, 56.0. Professor Douglas also computed the percentage expended in wages and salaries of the net value product of manufactures after deduction for rent and taxes as well as for depreciation for the years 1899–1919, these percentages being as follows: 1899, 54.0; 1904, 55.1; 1909, 58.2; 1914, 62.4; 1919, 63.0. The query may legitimately be raised as to why this study shows a smaller proportion of the value product of manufacturing going to labor than that estimated by the National Bureau of Economic Research, mentioned earlier in this chapter (*supra*, p. 165). The difference is primarily due to the fact that the National Bureau made certain deductions for selling, marketing, and miscellaneous expenses which Professor Douglas did not make.

[1] *Supra*, pp. 163–166.

of value product between service and property shares, but the percentage decline in the number of employees was substantially less than the drop in the percentage of value added which went to employees during this decade.[1] The extent of labor's relative loss is also indicated by the absolute figures of wages, value of products, and value added by manufacture. Between 1919 and 1929, the value of products of American manufactures increased from $62,041,795,316 to $70,434,863,443, and the value added by manufacture from $24,809,092,926 to $31,885,283,711. During this same period, money wages increased by only a little more than one billion dollars (from $10,461,786,869 to $11,620,973,254).[2] The conclusion seems inescapable that in spite of the absolute progress revealed by the trend of real earnings, the individual employee in manufacturing experienced a relative loss during the era of the New Capitalism. This relative loss in manufacturing, while hired labor in all branches of industry apparently experienced no retrogression of relative status, has led to different conclusions by different students of distributive tendencies. By some it has been cited as evidence of increasing maldistribution of the national income in the sense that "oversaving," "overinvestment," and the expansion of plant equipment and of productive capacity in excess of consumer purchasing power resulted. The overproduction assumption which can be easily drawn from the decline in the percentage of value product going to workers in manufacturing needs, however, to be examined carefully before one is in position to take even a qualified position on the matter. It is certain that the period immediately preceding the depression was characterized by much greater influence than before of both capital and management upon production, and to this fact may be attributed the ability of capital to obtain a larger share of total product than during the years before 1921. Indeed, as is indicated shortly, studies of quantitative changes in the capital and labor factors and in total product suggest that capital and labor returns show striking correspondence with estimates made from these quantitative changes of their relative productive contributions. Nevertheless, the possibility that the decline in labor's share during this period may have been in part responsible for the increased profits of industry, for the rise in stock-market prices, for injudicious investment, for the frenzied orgy of speculation, and for the subsequent collapse cannot be dismissed lightly.[3]

[1] Between 1919 and 1929 the decline in the number of employees (wage and salaried) was only 2.3 per cent, while the decline in percentage of value added going to workers was approximately 11 (from 53.8 per cent of the total to 48.6, or an 11 per cent decline). Or, between 1914 and 1929 the percentage which wages and salaries were of value added by manufacture decreased by about 12 per cent (from 54.1 to 47.6), while the number of employees increased by about 30 per cent.

[2] *Abstract of the Fifteenth Census of the United States*, p. 742.

[3] The paucity of information available on changes in the distribution of the value created by manufacturing during the depression makes generalization difficult. It appears

Labor's Remuneration and Labor's Productive Contribution

The fourth test of the progress of the workers suggested in Chap. I[1]—whether there has been an approximate equivalence between the reward of labor and its creation of exchange value—carries us beyond the issues with which we have already grappled in attempting to answer the question of how the workers have fared in relation to other economic classes. It is a test that involves, indeed, far-reaching issues of economic theory, and is one that will be more meaningful after we have discussed, in the following chapter, the forces determining distribution in our system of quasicompetitive capitalism and the reasons for the increase in real earnings and the relationship this increase has borne to the increase in total production.

Nevertheless, a few words about the extent to which labor's reward has approximated the productive contribution imputable to it are relevant at this point, even though general discussion of distributive determinants may advantageously be postponed until the following chapter. The facts surveyed in this and the immediately preceding chapter, as has been pointed out a number of times, create only general presumptions as to why the trends noted have occurred. Neither a lag of real earnings behind

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likely, however, that wage earners, in 1932, at least, received a smaller percentage of the total than in 1929, that salaried workers received a greater percentage, that total compensation of employees was only slightly different, that total property income was approximately the same, and that entrepreneurial withdrawals were a little less. Dr. Kuznets (*op. cit.*, p. 75) has made the following estimates of percentage distribution of income paid out by manufactures as a whole for the years 1929, 1930, 1931, and 1932:

Item	Percentages of income paid out			
	1929	1930	1931	1932
Salaries	22.1	25.0	27.0	29.0
Wages	60 0	54 9	53.4	53.4
Other labor income	0.4	0.4	0.5	0.7
Total compensation of employees	82.5	80.3	81.0	83.1
Dividends	24.2	16.2	15.2	12.5
Interest	1 2	1.6	1.8	2.5
Total property income paid out	15.4	17.8	17.0	15.0
Withdrawals of entrepreneurs	2.1	1.9	2.0	1.9
Total income paid out	100.0	100.0	100.0	100.0

Dr. Kuznets' 1937 study ("National Income, 1919–1935," *Bulletin 66*, National Bureau of Economic Research, p. 8) involves some modifications of these estimates and carries the story through 1935. According to this later study, total employees' compensation was 70.0 per cent of the National income in 1932 and 74.0 per cent in 1935; entrepreneurial payments were 13.3 per cent in 1932 and 13.0 per cent in 1935; and property payments were 16.7 per cent in 1932 and 13.0 in 1935.

[1] *Supra*, pp. 60–61.

physical or value product per worker, as already explained,[1] nor an increase at a more rapid rate proves whether the workers have been paid in correspondence with the exchange value they, as against the other factors of production, have created. But all of the facts surveyed have presumably affected the worth of labor and of the other factors of production to entrepreneurs, and therefore have been influential in determining the price that could be paid for labor. If a reliable measurement of the proportionate productive influence of labor and of capital can be obtained, it should be possible to compare the trend of the productivity imputable to labor with the trend of labor's real earnings.

The most extensive attempt yet made to determine statistically the trend of the productivity imputable to labor is that of Professor Douglas,[2] who has measured changes in the quantity of labor, capital, and the volume of production in American, Massachusetts, and New South Wales manufacturing industry,[3] and on the basis of these changes has tried to determine what has been the relative influence upon product of changes in the quantity of labor, as compared with the quantity of capital.[4] Curves of imputed marginal productivity—*i.e.*, of the extent to which

[1] *Supra*, pp. 57–59.

[2] *The Theory of Wages*, especially Chaps. 4 and 5.

[3] For American production, Professor Douglas used the well-known index of E. E. Day ["An Index of the Physical Volume of Production," *Review of Economic Statistics*, vol. 2 (1920), pp. 309–335]. His index of fixed capital included measurement of the physical quantity of machinery, tools, equipment, and factory buildings. It should be noted that Professor Douglas used as a measure of the influence of capital upon production an index of capital *available*, not of capital actually used (the only portion contributing to production), and that his index did not include working capital, which also presumably should be regarded as productive. In constructing his index of labor supply, Professor Douglas took into account changes in the number of persons employed in manufacturing and changes in the length of the standard working week.

[4] It should be noted that this attempt to determine the productivity imputable to labor and to capital on the basis of changes in product as they were combined in different proportions rests upon the assumption that *quantitative* changes were the overwhelmingly important determinants—in other words, that the productive power of a unit of capital and of a unit of labor was the same throughout the period studied (1899–1922). Qualitative changes in either the labor or capital factor, or in both, might also have accounted for changes in the productivity imputable to either. Professor Douglas (*op. cit.*, pp. 211–216) gives the following suggestions as to the justification of the elimination of qualitative progress: (1) The formula worked out to express the changing relationships of labor and capital describes the situation for each period taken as a whole, and somewhat different conditions prevail for specific groups of years and perhaps also for years outside the periods covered. (2) It is possible that progress is at once concealed in and has made possible the reduction in the hours of the manual workers and the expansion in the number of clerical workers. (3) The improvement in the quality of the capital instruments may well have been accompanied by an almost corresponding improvement in the quality of the workers. (4) The product apparently attributable to added capital alone is also in a sense attributable to progress, since to find productive uses for such a vast increase in capital it was necessary to put it in new forms. (5) Not all inventions save labor.

the productivity of each unit of labor or of capital diminishes as the number of units is increased—were worked out of the basis of the average productivities of labor and capital as the proportions between them varied,[1] and the actual course of distribution was compared with what would be expected from this analysis of the productive contribution imputable to labor and to capital.[2] The correspondence between the exchange value apparently created by labor, as indicated by this method, and the movement of real earnings was found to be surprisingly close, both real

[1] The method of determining the relative "final" or "marginal" productivity of labor and capital in each of the years and of working out the curves of imputed marginal productivity was, in nonmathematical language, substantially as follows: The data on labor, capital, and product were combined to show (1) the relative ratios in which labor and capital were combined with each other in each year subsequent to 1899, as compared with the combination obtaining in 1899, and (2) the relative amounts of labor embodied in a unit of product each year subsequent to 1899, as compared with the amount so embodied in 1899, and the relative amounts of capital embodied in a unit of product each year after 1899. It was found that the relation of labor to capital at the end of the period was 0.37, and that of capital, to labor 2.70. This is, of course, merely to say that the capital factor increased much more rapidly than did the labor factor. The relative amount of labor embodied in a unit of product (1899 = 100) was found to be 67 in 1922, and the relative amount of capital 188. From these data, the deduction was made that production had increased approximately ¾ per cent with each increase of 1 per cent in the labor factor, and ¼ per cent with each increase of 1 per cent in the capital factor. A theoretical formula of production ($P' = bL^kC^{1-k}$) was devised, in which the constants b and k were given the values 1.01 and ¾, respectively, and this equation was subjected to the test of computing what production would have been from year to year and then comparing this theoretical index of production with the Day index of actual production. Professor Douglas found the coefficient of correlation between the two indexes to be no less than 0.97. The table of relative marginal productivities over the years is based on the assumption that during each of these years labor "contributed" (*i.e.*, the amount added to product by the last unit of the factor multiplied by the number of units of the factor) the same amount (¾) and capital the same amount (¼) to the total product as they did during the period as a whole, three-fourths of the relative increase in production each year being imputed to labor and one-fourth to capital. The productivity of each unit was, of course, total productivity imputed to the factor divided by the number of units. The curves of diminishing incremental productivity of labor and of capital were derived by determining the productivity of each unit of labor when combined in different proportions with capital, and vice versa.

[2] Assumptions other than those mentioned in the preceding footnotes underlie this attempt to deduce from the relationships of labor, capital, and product the productivity imputable to labor, as against that imputable to capital. The reader may already have noted that the land factor has been eliminated from consideration. This was done intentionally, both because its quantity did not change greatly during the period covered and because it was virtually impossible to measure such changes as did occur. Another assumption is that the volume of production due to manufacturing is proportional to the physical volume of manufactured goods. In other words, changes in the relative amount of fabrication were ignored. Also, the assumption that the relative productive contributions of labor and capital during the period as a whole (¾ and ¼, respectively) can be imputed to them during each of the years in working out the relative marginal productivities may be subject to question.

earnings and imputed marginal productivity tending to move in the same direction and to approximately the same extent.[1] Studies of the aggregate part of the value product of manufacturing going to hired labor also substantiate the conclusion that there has been reasonably close correspondence between the productivity of labor, as measured by the method described in this paragraph, and its reward.[2]

The brief reference in the immediately preceding paragraphs to the relative movement of labor's real earnings and the productive contribution imputable to labor anticipates somewhat, however, answers to other questions raised in Chap. I. To these questions we turn in the following chapter. What accounts for the rise—over a long period of time—in real earnings? Why have the workers shared as they have in relation to other economic classes? What are the forces, in our system of modern capitalism, determining distribution among the several economic agents?

[1] To be more exact: Professor Douglas found that at the end of the period the relative marginal productivity of labor was 149, or 49 per cent greater than it had been at the beginning of the period, while the relative marginal productivity of capital was 56, or 44 per cent lower than in 1899. This was, of course, a consequence of the fact that the index of capital rose more rapidly than did the index of production, while the index of production, in turn, rose more rapidly than that of labor. Specifically, the index of capital for 1922 (1899 = 100) was 431, the index of product was 240 (same base), and the index of labor supply was 161. While imputed marginal productivity of labor in manufacturing rose somewhat more than did real earnings (*cf. supra*, p. 102) the correspondence rather than the deviation is, on the whole, the outstanding phenomenon.

[2] It will be remembered that Professor Douglas attributed 75 per cent of the manufacturing product in the United States to labor, and that the formula of production described in a preceding footnote, which attributed this amount to labor and 25 per cent to capital, resulted in an index correlating closely with the index of actual production. When the National Bureau of Economic Research made the investigation of the proportion of the manufacturing product going to labor during a decade, quoted earlier in this chapter (*supra*, p. 165) it found that wages and salaries formed on the average 74 per cent of the total value added by manufacture during these years. This is a remarkably close agreement.

Chapter IV

A SURVEY OF WAGE THEORY: SOME EXPLANATIONS OF THE TRENDS

Explanation of the trends surveyed in Chaps. II and III should be prefaced by some generalized discussion of the determinants of distribution, even though incidental allusion to these determinants inevitably has protruded itself into our discussion of problems at issue and methods of attack and into the account of the trend of real earnings and of the share of the workers in the increased national income. What have been, and what are, the forces, in our system of competitive or quasicompetitive capitalism, governing the share of the national income going to the workers in the form of wages? Does analysis of the distributive process indicate that these forces are subject to any great degree of guidance and control? Can guidance and control be exercised without drastic changes in the institutional arrangements of society?

A Survey of Wage Theory

With the earlier theories of wages, those of the Classical economists and the nineteenth-century dissenters, we shall not here concern ourselves. These theories were definite and rigid. All of them predicated that wages at any given time, and variations in wages from time to time, were a result of certain definite and rather mechanistically operating economic laws—the consequence of a causal relationship between wages and specified conditions in the market for labor power. The equilibrium level of wages could be altered only (except for very short periods) by an alteration in the state of the determining forces. These general statements hold true, in fact, for all theories of wages, irrespective of the extent to which they are couched in terms of simplified abstraction or of detailed description of institutional determinants; and we may turn our attention immediately to the theory of distribution most generally held by twentieth-century economists, that of marginal productivity, which predicates in substance an equivalence between the reward of each factor of production and its production of exchange value.

A Generalized Statement.—A brief generalized statement, some of the implications of which must be examined in detail later, may be made at the outset. Entrepreneurs, endeavoring to discover and maintain the most economically advantageous combination of the several productive agents, stand ready to increase the number of units of land, labor, and capital they

utilize until the price they must pay for the last added (or marginal) unit is just equal to the value to them of the product of that unit. Their funds will be apportioned so that the last dollar spent in wages adds as much to the product of the business as the last dollar spent for capital equipment. And in any given state of the industrial and economic arts, there exists a certain proportion between expenditures for capital and those for labor which is more profitable than any other.

The price of labor, or the wages it tends to receive, is therefore determined by the product yielded by the marginal unit. Employers calculate how much will be added to the total product of their factories or other productive units if they employ additional units of labor or of capital; and this calculation governs their demand price for labor and capital. This worth to the employer, and therefore his demand price for labor, is determined by the principle of diminishing productivity, since the product of each unit of a factor diminishes as the number of units is increased, the units of the other factors remaining constant or not increasing to the same extent. On the assumption that the supply of labor seeking employment is constant, the wage that can be commanded just equals the amount that is added to the total product by the marginal units of the supply. Wages cannot rise above this point without causing marginal units of the supply to be left unemployed, since the price of labor would then be in excess of its worth and competition among the unemployed for jobs, taking the form of offers to work for lower wages, would, in turn, tend to bring wage rates back to the former level.

One of the factors determining the marginal productivity of labor and of the other factors of production, and therefore the rewards they tend respectively to receive, however, is their relative abundance or scarcity. The marginal productivity of labor depends, in part, upon the supply of labor itself. When the supply of an agent is great relative to the demand of competing enterprisers for it and relative to the supply of the other agents, the price at which it will be forthcoming will be low, more units will be employed, and the productivity of the marginal unit will consequently be lower than if the supply were not so great and fewer units were used. The wage level, in other words, is dependent upon two variables: the demand price of employers, a function of net marginal productivity; and, second, the supply of labor forthcoming, which determines in part productivity at the margin. Enterprisers under the compulsion of competition distribute the total value product among the various agents according to the worth of those agents to them, the aggregate going to each factor being commensurate with the worth of the marginal unit times the number of units employed.

A More Detailed Examination.—This brief statement only serves, however, to suggest the need of close scrutiny of the theoretical scaffolding afforded us by the orthodox explanation of wages and of the other distribu-

tive shares and of critical examination of the assumptions underlying the analysis. Even the foregoing generalizations should have indicated that the marginal productivity of labor is a variable quantity depending on a complicated set of factors. It will be convenient first to turn our attention to the principle of diminishing incremental productivity. After this principle has been examined, we shall be in position to discuss the reasoning underlying the conclusion that each factor receives, or tends to receive, as its reward the contribution of the last unit to the joint product of all factors times the number of units employed, and to turn to the determinants of the number of units of labor and capital used and therefore of the marginal productivity and rewards of each, to some of the more important implications of the theory, and to the assumptions underlying it.

It may be taken as an accepted principle that a change in all factors of production in equal proportions (assuming technical knowledge and equipment, or what Adam Smith termed "the state of the arts," to remain unchanged) will bring about the same proportionate change in product.[1] Ordinarily, however, the factors of production are not increased in the same proportions; on the contrary, the relative quantities of labor and capital constantly change. Qualitative changes in the factors also affect their physical productivity, and consequently their worth to the enterpriser, but our concern for the moment is only with the diminishing productivity of each unit of a factor as the number of units is increased. When one factor of production, say labor, is increased while the others remain constant, or when two of three factors are increased and the third remains constant, the total product is not to be expected to increase in proportion to the increase in the changed factor or factors. This is, of course, merely a manifestation of the universal law of diminishing returns, or of the proportion of factors:[2] As the quantity of any one factor increases,

[1] In technical and quasimathematical language, total production may be described as a homogeneous linear function of the first degree of magnitude, conforming to Euler's theorem. A function is homogeneous if, when each of the variables is multiplied by the same quantity, the function is multiplied by a power of that quantity. The function is of the first degree if equal proportionate changes in the variables will result in equal proportionate changes in production. For discussion of the application of Euler's theorem to the theory of production, of the use made of it by Walras and Wicksteed, and of Pareto's criticism, see Paul H. Douglas, *The Theory of Wages*, pp. 20–25. In the building of the marginal productivity theory of wages, the method of the Austrian economists, who attempted to explain the price of a commodity in terms of the additional utility, or satisfaction to consumers, yielded by the final or marginal unit of a given supply was also, of course, of prime importance. Since hired labor (except in the case of direct personal services) did not directly satisfy consumer wants, but only indirectly by aiding in the production of commodities, its price was determined by the extra product yielded by the marginal man, which under the diminishing productivity principle was less than if fewer had been employed.

[2] Recognition of the tendency toward diminishing incremental productivity came—as

the productivity of each unit becomes somewhat less. Total productivity imputable to each factor is that of the final, or marginal, unit times the number of units employed.[1]

This tendency toward diminishing incremental productivity may be stated in slightly different terms. The output of a productive unit is not solely the product of any one agent of production, but is the joint product of them all. Consequently, when one agent is increased, the others remaining constant, there is not a proportionate increase in product. Each unit of the increased factor has less of the constant factors with which to cooperate, and its productivity is consequently less. If the labor factor is increased and the capital factor remains constant, the product imputable to each unit of labor becomes somewhat less; if the labor factor remains constant and the capital factor is increased, the product imputable to each unit of capital becomes less; if the labor and capital factors are both increased, but the former at a more rapid rate, the product imputable to each unit of labor, relative to that imputable to a unit of capital, becomes less; if the labor and capital factors are both increased, but the latter at a more rapid rate, the productivity of each unit of labor, relative to that of a unit of capital, becomes greater.

The tendency for the worth to the employer of each unit of a factor to diminish as the number of units is increased is, however, a consequence not only of diminishing physical productivity, but also of the decrease in the exchange value of the products as more are turned out.[2] Entre-

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most generalized laws or principles come—only after prolonged observation, speculation, revision, and readumbration. Sir Edward West, in 1815, and David Ricardo, in 1817, enunciated the principle of diminishing returns of land, which had been implicit in Malthus in 1798, and from this deduced the law of rent. T. H. von Thunen (*Der isolierte Staat*, 1826) is believed to be the first writer to deduce both the rate of wages and the rate of interest from the additions to total product that were made by the last units of labor and capital respectively. The theory of diminishing incremental productivity and the marginal determination of wages and interest was again set forth by Stanley Jevons (*Theory of Political Economy*, 1871), and was rediscovered toward the end of the century by a group of economists including Walras, Wicksteed, Enrico Barone, Stuart Wood, and John Bates Clark. The story of the development of the theory of production is admirably told in Paul H. Douglas' *The Theory of Wages*, Chap. II.

[1] Possibly it is gratuitous to caution the reader that the final, or marginal, unit is not to be regarded as less productive than all the other units of a given factor of production. All equally efficient and interchangeable units—*i.e.*, qualitative differences assumed to be nonexistent—contribute the same in the productive process, but in accordance with the law of diminishing returns the productivity of each diminishes as the number of units is increased.

[2] That is, when the matter is viewed from the standpoint of an enterprise or group of enterprises. Should increased output take place in all industries simultaneously, the consequence would not be a diminution of the fund of value from which all economic agents could be compensated. Of course, exchange ratios between commodities would shift, owing to different elasticities of demand, and there would be ultimate movement of labor and capital out of those industries the demand for whose products was more inelastic.

preneurs purchase and utilize the various factors of production, and combine them in what seems to be the most economical manner, because of the value created by these productive agents. And since ordinarily a large stock of goods can be sold only at a lower price per unit than could a smaller stock—how much less being, of course, a matter of the elasticity of demand for the product—the value productivity of each unit of labor (or of capital) tends to become less in consequence not only of diminishing physical productivity, but also because of the fact that each unit of product can be sold only at a lower price. Indeed, the total fund of value received by an enterprise, out of which all claimants upon its income must be paid, will become less rather than greater when output is increased, if each increase in output is accompanied by a more than proportionate decrease in unit price—if, in technical jargon, elasticity of demand is less than unity.[1]

The reasoning underlying the conclusion that each factor receives, or tends to receive, as its total remuneration the contribution which the last unit of that factor makes to the joint production of all factors times the number of units of the factor should have been suggested by the foregoing exposition of the principle of diminishing incremental productivity. The amount by which a unit of capital or of labor increases (or is expected to increase) the income of an enterprise sets the maximum price which enterprisers are willing to pay for that unit. If there is competition for the instruments of production, the price will be bid up to the limit enterprisers can afford to pay, *i.e.*, to the marginal productivity of labor and of capital. Labor's total remuneration tends to be the value productivity of the final or marginal unit times the number of units employed; capital's total remuneration tends to be the value productivity of the marginal

From the viewpoint of the worth to the entrepreneur of additional units of labor or the other factors of production, however, the effect of increased output upon price has to be taken into account, together with the tendency toward diminishing physical productivity per unit as a factor is increased, the others remaining constant or not being increased to the same extent.

[1] Possibly neither classical economic theory nor the economic planners of recent years have given sufficient attention to the complications introduced by inelastic demand schedules. An increase in production in industries the elasticity of demand for whose products is less than unity will, other things being equal, cause a more than proportionate fall in unit price, and hence leave the producers with a smaller total revenue for a larger total product. Conversely, a decrease in quantity produced causes a larger than proportionate increase in price per unit, so that producers will receive a larger total revenue for a smaller quantity. This means that technical advances, with their consequent increased outputs, are accompanied in such industries by such a decrease in the relative prices of their outputs as to diminish the total revenue received by the various groups attached to them. In a village or Crusoe economy, readjustment could easily take place by the transferring of energies so that labor and capital incomes would again be raised to the average level, but in our very complicated economy the transition is likely to be long and painful, accompanied by the destroying of purchasing power during the process and a spread of the contagion to other industries.

unit of capital times the number of units employed; and these rewards exhaust the total value product minus any deductions for economic rent.

But what determines the number of units of labor and of capital which are employed, and therefore the marginal productivity and—according to the assumptions of the theory—the reward of each? The proportions in which it is *physically possible* to combine labor and capital are almost infinite. In a system of capitalistic free enterprise, however, the proportions in which they actually are combined obviously depends not only upon physical possibilities, but also upon their relative efficiency and upon the price which must be paid for additional units of each factor. Entrepreneurs are, of course, constantly seeking to obtain the lowest unit cost of production. If costs can be reduced by using more capital and less labor, they tend to increase the capital factor as rapidly as it is possible to make the necessary plant and other arrangements; if, conversely, an increase in the labor factor relative to capital operates (or is expected to operate) to reduce production costs, relatively more labor and less capital are employed. It should be patent that two conditions—aside, of course, from the limits which the mode of production at any given time places upon the substitutability of labor for capital and vice versa—determine the combination that will result in lowest production costs: (*a*) the relative physical efficiency of labor and of capital, and (*b*) the prices at which labor and capital can be obtained. To the extent that greater physical efficiency (and its concomitant, other things being equal, of lower production costs) results from the use of labor rather than of capital, the labor factor tends to be increased; when greater physical efficiency results from using relatively more capital and less labor, the combination tends to be changed in the opposite manner. The necessity of paying a high price for either factor may, however, offset the technical advantages inherent in using more of it, relative to the other factor, and dictate that more of the cheaper factor be employed. At a low rate of wages and a high rate of interest, establishments tend to employ more labor and less capital, while a high rate of wages and a low rate of interest—unless the capital utilization advantage is offset by increased plant efficiency, increased labor efficiency, concentration of production in more efficient establishments, or other dynamic possibilities—encourages the substitution of capital for labor. The proportions in which it is most profitable to combine the labor and capital factors of course differs among different industries, according to technical conditions of production, but in industry as a whole, at any given time, a certain most profitable proportion presumably obtains. Should the price of labor rise (for any one of a number of reasons, such as group economic pressure, curtailment of the labor supply through immigration restriction, or something else), the funds expended for labor will yield less than before, and a change in the proportions may be expected.

Some Implications of the Marginal-productivity Analysis.—Three important implications of the marginal-productivity analysis should have been suggested by the immediately preceding paragraphs: (*a*) that the theory is an explanation of wage rates in relation to the volume of employment; (*b*) that the forces affecting the supply of labor—*i.e.*, the number of units forthcoming at any given price or at all conceivable prices—are of prime significance; and (*c*) that the productivity of labor, and therefore the wages it tends to receive, are dependent in part upon the paucity or plethora of the factors of production with which it cooperates. It is convenient to consider these implications in the order in which they have been enumerated.

Since the value contributed by each unit of a factor diminishes as the number of units of that factor is increased, the others remaining constant, employers—on the assumption that demand curves tend to correspond to productivity curves—generally stand ready to purchase more labor or capital if it can be obtained at a lower price, and to purchase fewer units at a higher price. Cannot the employer afford to pay higher wages? The answer to the question as phrased is generally in the affirmative, and at the same time the question as phrased is virtually meaningless. The employer generally can and will hire *some* labor of a given grade at a wage rate higher than that being paid; but if the existent wages approximate the marginal value productivity of labor, he cannot maintain the same volume of labor at a higher price per labor unit, unless—again a qualification of supreme importance—dynamic changes bring about an increase in the marginal productivity of labor. The theoretical effect of the necessity, however brought about, of paying higher wages (again upon the assumption that wages already paid approximate the marginal productivity of labor and with the analysis confined to static conditions) would be a curtailment of employment exactly sufficient to raise the marginal productivity of labor to correspondence with the wage rate. Cannot the employer hire more labor? Once more the answer to the question as phrased is generally in the affirmative, and once more the question as phrased is virtually meaningless. The employer who is already paying wages equal to, or almost equal to, the value produced by the marginal unit of labor generally *can* hire some more labor; but, since the productivity of each unit becomes less as more units are utilized, it pays him to hire more labor only if he can obtain it at a sufficient reduction in unit price to offset the diminished productivity per unit. A question of prime importance in connection with any attempt at control of wages, therefore, is that of the elasticity of demand for labor. If demand is extremely elastic, a small reduction in wages may be expected to increase greatly the volume of employment and a small increase in wages to decrease greatly the volume of employment; if demand is very inelastic, a considerable stepping up or lowering of wages will have

relatively less effect upon the volume of employment. For industry as a whole, it is likely that the demand for labor is normally at least moderately elastic;[1] and this fact is of profound significance in a critical evaluation of all public and group attempts to control the distribution of income through establishment of wage minima.

The second of the above-mentioned implications of the marginal-productivity analysis should be apparent from what has been said: that in the mutual relationship between the productivity and the supply curves of the several factors of production is to be found the explanation of why they have been combined in the proportions in which they have been, and of their rates of return. Since employers tend to increase a factor until the return from each unit is just equal to the expense of getting the last unit employed, the supply function is of vital importance in determining the marginal productivity and (according to the assumptions of the theory) the rewards of labor and of capital. Together with the rate of diminishing productivity and the curve of total productivity, it determines the amount of a particular factor which is forthcoming and

[1] Paul H. Douglas, in his monumental inductive, statistical, and quasimathematical study, *The Theory of Wages*, has reached the conclusion that the "normal" elasticity of demand for labor in manufacturing is between −3.0 and −4.0—*i.e.*, a reduction of 1 per cent in wages normally increases by between 3 and 4 per cent the amount of labor employers are ready to buy, and an increase in wages of 1 per cent brings about the same percentage reduction in number of labor units utilized. Professor Pigou (*The Theory of Unemployment*, p. 97), working independently and using chiefly deductive methods, has reached virtually the same conclusion. It probably goes without saying that these are estimates only of elasticity of demand for labor in manufacturing enterprise as a whole. The flexibility or elasticity varies tremendously among different lines of economic activity, and also among different enterprises within a given line of economic activity. Also, elasticity of demand for labor undoubtedly varies greatly from time to time, in accordance with business conditions. At a time like, say, the first half of 1933, demand for labor in industry as a whole may be extremely inelastic. Many business firms at that time had reduced their working forces to bare skeletons of the usual force, and these few had to be kept unless the businesses were to cease operation entirely. It is likely that under such circumstances, increases or decreases in wage rates would not greatly diminish or increase employment, except in so far as increases in labor costs put some firms out of business. A theoretical case can be made for the NRA, with its policy of higher rates of pay, as a short-time pump-priming effort, made under unusual circumstances. Under ordinary circumstances, to be sure, the attempt to revive business by saddling it with higher costs might appear to be sheer economic madness. But under the most extraordinary circumstances of the spring of 1933, when recuperative forces such as opportunities for investment and consequent revival of the capital goods industries were virtually nonexistent, and when demand curves for labor probably were much more inelastic than they normally are, there was at least a chance that the immediate effect of the higher rates of pay might be beneficial rather than detrimental—that the beneficial effect of increased consumer purchasing power might temporarily win in the race with the retarding effect of higher costs of production. Probably, as is suggested in Chap. VI, the wage theory of the NRA never was put to a real test, but the relevance of the peculiar circumstances, and especially of the inelasticity of demand for labor at that time, should be taken into account in an attempt to evaluate the experiment.

hence its marginal productivity.[1] The determinants of the supply of labor and the shape of the supply curve—*i.e.*, whether the amount of labor forthcoming tends to be greater at a low price, a medium price, or a high price—are therefore of prime importance in the explanation of wages and interest.

It is, unfortunately, impossible to speak with comforting certainty about the short-run supply of labor,[2] but a few fairly well established presumptions may be stated. It is probable that the labor-supply curve for any given industry or occupation is similar to the majority of supply curves—*i.e.*, it reveals a positive rather than a negative inclination, more units being forthcoming at a high price than at a low one. For industry as a whole, however, it is exceedingly doubtful whether more people are willing to work (or the same people to work longer hours or with greater intensity) at a high wage level than at a low one; and there is, indeed, rather impressive evidence that the total short-run labor-supply curve is negatively inclined. It is a reasonable assumption that an exceedingly low wage level would encourage some people to become objects of public charity, independent businessmen, criminals, etc., rather than to sell their services for meager remuneration, and that higher wages would induce them to work for hire. It is likely, however, that the positive inclination does not continue indefinitely. At a wage barely sufficient to maintain the workers and their families, they are under pressure to sell as many labor units as possible; no working time except the unavoidable minimum can be lost, children must enter industry at an early age, wives must find jobs to supplement the family income, and workers must continue their gainful pursuits until old age puts them in the class of industrial incompetents. Higher wages, while inducing some children to enter industry earlier, some wives to work outside the home, and some men to postpone retiring, also have the opposite effect;

[1] It may be remarked in passing that the earlier productivity theorists in a sense merely took the supply of each factor of production for granted, and based their analysis upon the productivity and demand side. In this respect, they left the theory of distribution in much the same state in which the Austrian economists left the theory of value. Neoclassicists, such as Alfred Marshall and T. N. Carver, clearly recognized the mutually interacting effects of productivity and the cost of supply, and pointed out that the return of each unit of a factor of production depends upon the intersection of the productivity and the supply curves; and more recently economists like Paul H. Douglas have attempted to determine by inductive methods the probable slope of labor-supply curves.

[2] The analysis at this point may be confined to the short-run supply of labor, which depends upon the number of workers willing and able to work, the number of their hours, and the intensity with which they labor. Innumerable social and economic factors of course enter into determination of the number willing and able to work and the intensity of their efforts: reserve funds which make possible the going without employment for a period of time, the alternative of becoming independent businessmen, the alternative of young persons of working or continuing in school, prevailing mores as to the employment of women, legislative enactments, and others.

the family is not under pressure to sell so many labor units, men may save and retire earlier, children may be kept in school longer, and wives are not under economic compulsion to find work outside the home. It is far from unlikely that the net effect of a very high wage level is to reduce slightly the number of labor units forthcoming. If this is true, the short-run labor-supply curve for industry as a whole is negatively inclined.

This *a priori* conclusion is supported by a certain amount of statistical evidence. Professor Douglas, as a result of his studies of the relationship between hourly earnings, on the one hand, and standard hours and the proportion of the population gainfully occupied, on the other, has concluded that the "normal" elasticity of the short-run supply of labor is between −0.24 and −0.33.[1] In other words, an increase of 1 per cent in

[1] *Cf.* Paul H. Douglas, *The Theory of Wages*, pp. 269–314, and Erika H. Schoenberg and Paul H. Douglas, "Studies in the Supply Curve of Labor: The Relation in 1929 between Average Earnings in American Cities and the Proportions Seeking Employment," *Journal of Political Economy*, vol. 45 (February, 1937), pp. 45–80. The methods of estimating elasticity of supply should be explained in a little detail. As a first approximation, Professor Douglas worked out, in his earlier study, coefficients of correlation between average money earnings in American manufacturing and the proportions of persons employed, finding on the whole a decided negative relationship between relative money earnings and the proportion who sought employment, a relationship particularly marked in the case of the young, women in the central age group, and older workers. Refining the figures to allow for changes in the cost of living raised the coefficients appreciably, and led to the conclusion that, so far as the proportion of gainfully employed is concerned, the elasticity of the short-run supply curve lies between −0.13 and −0.16. The second main variable studied was the number of hours worked per week. Five methods of ascertaining the quantitative relationship between hourly earnings and number of hours worked were used: (1) a study of the relationship between absolute earnings per hour in various industries at any one time and average absolute hours per week in these industries, with each industry serving as a unit of observation; (2) a study of the relative movement of hourly earnings and of hours per week for a given year in the various industries in terms of the averages for the previous year as a base; (3) a study of the time series of real hourly earnings and standard hours of work for individual industries and groups of industries in terms of both the data as they stood and link relatives, with each year serving as an observation; (4) a study of the relationship within a given industry at any one time between the absolute earnings per hour and the absolute length of the working week for various geographical sections; and (5) a study of the relationship between actual earnings per hour and actual hours per day, both industries and states being used as units of observation. The conclusion reached from all these methods was that the elasticity of supply of standard hours is in all probability somewhere between −0.1 and −0.2, and that therefore an increase of 1 per cent in hourly earnings would tend (other things remaining the same) to cause a decrease of from 0.1 to 0.2 per cent in the hours normally worked. Considering the larger percentage (−0.2) as the most probable elasticity of the standard hours in respect to hourly earnings and −0.16 as the most probable elasticity of the proportions employed to changes in real earnings, Professor Douglas concluded that the maximum elasticity of short-run supply is −0.33 and that the probable minimum is −0.24. The second of the above-mentioned studies set forth the results of an investigation of the relationship between proportions employed and wages in 1929, and showed substantially the same results for that part of the labor supply as had been revealed by study of the 1919 data.

hourly wages apparently causes a decrease of from ¼ to ⅓ of 1 per cent in the quantity of labor supplied. Phrased in still slightly different terms, the workers apparently divide increases in hourly rates into two parts, devoting approximately two-thirds or three-quarters of the gain to a higher material standard of life and approximately one-third or one-fourth to leisure for themselves and their families.

The conclusion that as a short-run matter fewer labor units are forthcoming at a high price than at a lower one is of profound significance so far as the possibility of an increase in labor incomes through bargaining is concerned. At any given time the supplies of land and capital are relatively fixed, an increase in their rate of remuneration neither increasing nor decreasing the quantities forthcoming.[1] Should the workers be able, therefore, by better bargaining and a consequent shifting of their supply curve to the left (*i.e.*, by creating a situation where fewer units would be forthcoming at each price or—the same thing—a higher price would have to be paid for the number formerly forthcoming) to exact higher wages at the expense of interest and rent, the quantities of land and capital available for business enterprise would not immediately diminish. Almost the same amounts would, indeed, probably be forthcoming for some time. With the supply curve of labor negatively inclined, however, the higher wage exacted in consequence of better bargaining would cause a contraction in the amount of labor forthcoming, and hence a rise in labor's marginal productivity.

One other characteristic of the labor-supply curve is of comfort to those wedded to a bargain theory of wages: the fact that the entire supply curve at any given time is a result of the wage level which actually obtains. While logical consistency demands that the supply curve, like the demand curve, be thought of in terms of an instant of time situation, it is likely that in fact the short-run negative inclination just discussed—the tendency of workers in general to prefer some additional leisure after they have attained a given standard of living—works itself out only after a period of adjustment to new wage levels, and it is not improbable that for *extremely short periods* the total labor-supply curve is positively inclined. Also, as has already been said, the labor-supply curve for any

[1] Almost every type of supply curve of capital has been postulated by various economists. Some have held that the supply of capital is saved under conditions of constant cost and that the supply curve is parallel to the base (or quantities supplied) line; Professor Gustav Cassel has concluded that the supply curve of capital has a high positive elasticity up to 3 per cent and is thereafter relatively inelastic; others have held that the supply of capital is almost absolutely independent of the rate of interest and hence is almost completely inelastic. There is, however, general recognition that the supply of capital at any one moment is almost absolutely fixed, and that annual changes in its quantity are but relatively slight. It is this fact that is of prime significance so far as the possibility of increasing labor's remuneration through bargaining at the expense of the capital or land returns is concerned.

industry or occupation is probably similar to other supply curves, revealing a positive inclination. Workers in a given industry or occupation, or workers in general for extremely short periods, may be attracted by a higher wage. The magnitude of this attractiveness depends, however, upon the standard of living to which they have been accustomed, and it is in this fact that one of the possibilities of increasing wages through bargaining strength is to be found. Phrased in terms of a concrete illustration: The number of men willing to work for a given wage, say $5 a day, may be assumed to be 1,000 when the existing wage level is $4 a day, but it would undoubtedly be greater than 1,000 if the existing wage level were, say, $3 a day. This is merely to say that a wage of $5 a day would seem more attractive to men accustomed to $3 a day than it would to men accustomed to $4 a day. Conversely, fewer workers probably can be induced to work at low wages after the wage level has been high than after it has been at some intermediate point. The relevance of these facts to the possibility of successful exercise of bargaining power is not difficult to understand. If a wage higher than the equilibrium price already established is obtained through bargaining strength, the number of labor units immediately forthcoming will exceed the number employers stand ready to purchase at the new, and higher, price, because the supply of labor is still under the influence of the old, and lower, wage rate. If the workers through their organization or by other means can maintain discipline and prevent the unemployed from undercutting the rate, however, a new supply schedule, with the wage attained by bargaining strength becoming the new equilibrium price, may result from the higher standard of living.[1] There are, in fact, as many possible supplies of labor at a given price, say $5, as there are possible prices of labor.[2]

[1] An excellent summary discussion of this characteristic of the labor-supply curve is to be found in S. H. Slichter's *Modern Economic Society*, pp. 625–629, and a longer discussion in Maurice Dobb's *Wages*, pp. 94–108.

[2] Professor Slichter, in his *Modern Economic Society* (Henry Holt and Company, New York, 1931), p. 627, has given the following hypothetical illustration of the fact that the dependence of the supply of labor upon the wage actually established opens the door to determination of wages by bargaining:

Demand	Wage	Supply of labor assuming that the actual wage is	
		$6	$7
1,150,000	$4	950,000	850,000
1,100,000	$5	1,000,000	900,000
1,050,000	$6	1,050,000	950,000
1,000,000	$7	1,100,000	1,000,000
950,000	$8	1,150,000	1,050,000
900,000	$9	1,200,000	1,100,000

The amount of labor forthcoming at each of the possible wages, it will be noted, is less

The third of the implications of the marginal-productivity analysis mentioned earlier—that the productivity of labor, and therefore the wages it tends to receive, are dependent in part upon the paucity or plethora of the factors of production with which it cooperates—may be discussed very briefly. Indeed, the product yielded by labor probably depends more on the amount and quality of machinery used, on the state of natural resources, and on the efficiency of industrial organization than it does upon the worker's own skill and effort. In spite of all the short-run derangements caused by the increase in the capital factor relative to labor, and all the human tragedies these derangements have entailed, the classical position that a relative plethora of capital endows labor with more importance to the employer than it would otherwise have, and therefore increases the amount he will pay for labor if he must, finds substantiation in economic history as well as in economic theory. One of the most marked tendencies in industry during the last century and a half, as almost everyone is aware, has been the increase in the capital factor relative to labor; and it is chiefly to this fact that the rise in labor's marginal productivity and real earnings has been due. The fact that the general wage level in the United States has been higher than it has been in other countries is in large part a consequence of the fact that labor has cooperated with a larger quantity of the other factors of production—especially natural resources—and has therefore been relatively more valuable as a productive agent. Nor is it difficult to see the causal relationship between the productivity of one factor of production and the abundance (or scarcity) of others with which it cooperates. Merely because production *is* a cooperative function, the yield of any factor

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when the actual wage is $7 than when it is $6, because each of the wage rates above $7 is less attractive, and each of the wage rates under $7 more unattractive, to workers already earning $7 than it is to workers who are earning $6. Also, it will be noted that two equilibrium wage rates are possible—$6 or $7. We may assume that the initial wage is $6. Suppose organized workers, through strikes or other pressure, are able to force it up to $7. Immediately the supply would exceed the demand by 100,000, because as long as the supply was under the influence of the $6 rate, 1,100,000 men would be willing to work at $7. If the organized workers were able to preserve their unity and prevent the unemployed from underbidding, however, the number of job seekers would be reduced in consequence of the new wage level. Concretely, children would remain in school longer, women would not have to take employment outside the home to as great an extent, men would retire earlier, etc., and the supply at $7 would fall to 1,000,000 and equilibrium again be established. It should be noted, however, that 50,000 fewer workers would be employed at $7 than at $6, that the output of industry would therefore (other things remaining the same) be somewhat less, and prices somewhat higher. The purchasing power of the $7 wage probably would not be one-sixth greater than that of the $6 wage—although, of course, curtailment of output of the goods the workers affected aided in making might influence only indirectly and slightly the price of the goods they purchase. Moreover, it should be noted that the immediate effect of the union's success in raising the wage from $6 to $7 would be to create a problem of unemployment for 50,000 workers.

depends upon how much help it receives from the others; and the amount of help labor receives from capital is patently greater (assuming no deterioration in the qualitative aspect of capital) when the supply of capital is large than when it is small. Each unit of labor is worth more to the employer because of its greater yield or productivity, and he will therefore pay more for it if, by competition, public authority, collective strength of the workers, or other means, he is forced to do so.[1] An increase in the capital factor, even though immediately causing displacement of workers with consequent underbidding and a temporary undermining of the wage structure,[2] may be expected to have as its long-run and sum-total effect a strengthening of the demand for labor and therefore an increase in labor's reward.[3]

[1] The theoretical effect of an increase in the capital factor relative to the labor factor upon the productivity of—and therefore the demand for—labor may be presented in terms of a simple arithmetic illustration. Let us assume that the prices at which labor and capital are available have led industry to use labor and capital in the ratio of one man, or one labor unit of given skill, intensity, and time duration, to every $5,000 of capital, and that the wage for labor is $4 a day and the return upon capital 5 per cent per annum. We may assume that the number of workers (or labor units) being employed is 1,000, and that total capital investment is $5,000,000. We may now assume that the supply of capital increases by 20 per cent—that is, that 20 per cent more capital is forthcoming at the same price (5 per cent) and there is a corresponding increase in the quantities forthcoming at other prices. With labor at $4 a day and capital at 5 per cent per annum, the most advantageous combination was that of one laborer for every $5,000 of capital; but with $6,000,000 capital available at the same price (or a 20 per cent increase), more men are needed to maintain the most economical ratio between labor and capital—1,200 instead of 1,000, or 20 per cent more. Formerly it paid the employer to offer $4 a day in order to obtain 1,000 men, or 1,000 labor units, but now it pays him to offer $4 a day for 1,200 men, and there is a corresponding increase in the number of men or labor units he is willing to take at other prices. The increase in demand hence raises the point at which demand and supply reach equilibrium, and thus raises the general wage level. For more detailed development of this point, *cf.* S. H. Slichter, *op. cit.*, pp. 613–616.

[2] The cumulative effect of immediate displacement and spread of the contagion to other industries through the drying up of purchasing power may, of course, be considerable; also, an increase in the capital factor in any one industry, consequent, say, upon the improvement in the form of capital goods through invention, may be great enough to reduce absolutely as well as relatively labor's return.

[3] The effect of inventions upon the wages of labor should perhaps be probed a little more deeply. It seems patent that if the immediate effect of invention is to cheapen the cost of machines or to increase their field of use, it will be more profitable than before for entrepreneurs to invest in machines. The previous proportions in which they have distributed capital as between fixed equipment, on the one hand, and the purchase of labor, on the other, will therefore be altered, a larger part of their capital funds being invested in fixed capital and a smaller part being used for the employment of labor. It was this fact that led Karl Marx to conclude that the demand for labor did not increase proportionately with the accumulation of capital, but that it (*i.e.*, "variable capital" available for the purchase of labor, the "wages-fund" of the English classicists) tended relatively to fall. Whether the amount going as wages will decrease absolutely as well as relatively depends on the circumstances of the particular case, and as a long-run matter inventions (an improvement in the qualitative character of fixed capital) mean that labor is employed under more advantageous

Marginal Productivity and Wage Differentials.—One simplification in all the preceding analysis needs be mentioned before we turn to an examination of the reality of the assumptions underlying the marginal-productivity theory. For facility in illustration, labor and capital have been treated as though they were composed of homogeneous and mutually interchangeable units. In fact, as everyone knows, they are not homogeneous, and in practice it is not possible completely to interchange one unit for another. Both innate differences among laborers and social and economic stratification which impede the free movement of labor operate against perfect interchangeability, while the widely different forms in which capital is embodied have the same effect.[1] Recognition of these realistic facts does not, however, invalidate the analysis. All the productivity theory postulates is that homogeneous and interchangeable units of labor and capital, having the same productivity, will tend to receive the same reward; units having different productivities will tend to receive different rewards. As a matter of logical procedure we might apply the principles of marginal productivity to each of the numerous subgroups of labor and capital, or—what comes to the same thing—we might explain the basic returns to the factors according to the principles of marginal productivity and then explain differences in wages, interest, and rent[2] in terms of such realistic forces as lack of mobility, differences in risk, and differences in innate quality.[3] By either of these methods,

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circumstances and that a lowering of real costs of production results. For a good brief discussion of the effect of inventions upon wages, see Maurice Dobb, *Wages*, pp. 90–92.

[1] Capital is, however, as Professor Douglas has observed (*The Theory of Wages*, p. 84), probably the most interchangeable of the factors of production. While the forms in which it is embodied differ widely, there is a constant tendency through depreciation, replacement, and fresh investment to bring the various forms of capital up to a common level of effectiveness. The case of land presents a somewhat different problem. Here there are not social barriers in the way of transfer and exchange, but there are differences in fertility and location. Nevertheless, urban land at least can within rather wide limits be shifted from one use to another.

[2] In the case of rent on the assumption that a bifurcation of the Ricardian rent doctrine and productivity principles affords a more adequate explanation of the return to land than does the pure traditional differential theory.

[3] Paul H. Douglas, in the Preface to his *The Theory of Wages*, discusses in some detail the criticism that lack of homogeneity and lack of transferability between different sections of each factor make impossible his attempt to find an explanation of the general rate of wages, interest, and rent. The suggestion that instead of attempting to explain the general rate of wages for labor as a whole he should have approached through the method of attempting to determine rates for an indefinite series of labor groups, and should have proceeded similarly in the cases of capital and land, Professor Douglas found to be a "nonoperational concept" for three reasons: (1) Capital funds are sufficiently fluid and ultimately sufficiently homogeneous to prevent great differences in true yields from culminating; instead, they operate toward rather than away from uniformity. Urban land can be shifted from one use to another fairly readily, and this is true to a certain extent also of agricultural land. (2) The most effective way of building up the theory of

differences in labor remuneration among different occupations or employments and differences in labor remuneration within given employments can be explained.[1]

Underlying Assumptions of the Productivity Analysis.—But are the assumptions upon which the productivity analysis is based sufficiently true to economic life to make the theory a workable principle? In all of the foregoing exposition certain of these assumptions have been ever-present, and it behooves us to examine them briefly before we turn to the question of how the facts summarized in the two preceding chapters are to be explained. For if the assumptions of the productivity doctrine will withstand critical examination, we already have at least an initial theoretical scaffolding for explanation of these profoundly important economic trends; if they cannot withstand critical examination, we shall have to look elsewhere for generalized explanation and for real insight into the nature of distributive tendencies.

A caution should, however, be stated at the outset. No one who understands the productivity theory claims that it works with mathematical precision. It predicates a long-run correspondence between the productive contribution of the several factors of production and the rewards they receive, and this long-run correspondence may work itself out only through a series of short-run relationships apparently almost devoid of the correspondence predicated by the theory. Nor does the fact that the assumptions may at times seem to be at variance from the facts of economic life necessarily mean that the conclusions to be drawn from the theory are not worthy of credence. To the extent that the assumptions represent real tendencies, they must be taken into account, even though their effect may sometimes be negatived by counteracting tendencies. Indeed, some of the critics of the doctrine have occasionally betrayed an ignorance of the nature of scientific law when, after attacking with almost sadistic delight the underlying assumptions of the theory, they have proclaimed that all conclusions to be drawn from it must be

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wages and interest, he was convinced, was from an analysis first of the basic rate and second of differentials from the basic rate. (3) As a practical matter, it is extremely difficult to determine any way by which the various subgroups of labor, capital, and land could be segregated and measured.

[1] As examples of some of the many forces that may explain differentials: Differences in the relative attractiveness of different occupations may result in the presence in some of a limited number whose native or acquired aptitudes permit them adequately to perform given tasks, and therefore in the supply curve's being further to the left than in other occupations. Where special training and long apprenticeship periods are required, the number capable of doing the work is restricted, and the consequence is a higher rate, other things remaining the same, than would be the case were the supply not thus restricted. Within given employments differences in wage rates may be occasioned by differences in efficiency which give workers different productivities, or values to the employers. The location of plants may mean that workers elsewhere are relatively noncompeting. Place and craft immobility are, of course, important.

disregarded. The development of heavier-than-air airplanes has not rendered invalid the law of gravitation, but has merely demonstrated that other tendencies may prevent the law of gravitation from working out as it would if unhindered; and it is no more in accordance with scientific method to say that the tendencies predicated by the productivity analysis are not powerful and deserving of recognition because they have at times been prevented from working out to their logical conclusion than it would be to say that airplane transportation has invalidated the law of gravitation. Finally, it may be mentioned that a theory is not invalidated because certain rather simplified assumptions are made. It is worth while to see how things work out under rather simplified conditions, and then to make allowances for the extent to which too much simplification has been made. The economic scientist, in making assumptions of this type and then working out by deduction his principles, is merely doing what the natural scientist does in the laboratory when he exercises control over physical substances in order to see their interaction when uncomplicated by extraneous substances. It is more difficult to use this method of control and elimination of the extraneous in the social sciences than it is in the natural sciences, but at the same time it is true that we can understand long-run forces better by seeing how they operate when our thinking is not cluttered by the many details of practical circumstances—details that must, of course, be taken into account after the long-run tendencies have been surveyed. Probably the really valid criticism of the productivity theorists is not that their method of simplified assumption has been wrong, but rather that, engrossed as they inevitably were in the subtleties of their abstractions, they paid insufficient attention to the practical elements of difference and change.

Nevertheless, some of the assumptions inevitably appear unrealistic, upon first glance, when they are placed in juxtaposition to the circumstances of economic relationships and the behavior patterns of men in economic life. An inquiry into the more essential of them is, therefore, prerequisite to any attempt to generalize as to their validity as a whole.

The Competitive Assumptions and Their Implications.—The notion of "perfect"[1] competition has, of course, been implicit in our adumbration

[1] "Perfect" competition is itself a concept requiring definition. As applied to the market for commodities, we may say that two conditions are requisite for "perfect" or "pure" (the words are here, although not always in the literature, given the same denotation) competition to obtain: (*a*) buyers must be indifferent as to the identity of the seller from whom they purchase so long as the prices of the different sellers are the same, *i.e.*, a lower price is the only element leading buyers to prefer one dealer as against another, and (*b*) the quantity of the commodity each seller can offer must constitute such a small proportion of total supply that he alone cannot affect price by varying the amount he offers. To quote from Joan Robinson: "Perfect competition prevails when the demand for the output of each producer is perfectly elastic. This entails, first, that the number of sellers is large, so that the output

of the productivity analysis in the preceding pages. Employers compete actively for the services of workers; the latter, in turn, are engaged in active competition for jobs; and finally there is active competition among the various productive units in the selling of commodities made by labor and the other factors of production to consumers. It will be convenient to allude briefly, in the first place, to some of the more obvious and apparent conditions inhibiting competition among employers in buying labor and among workers in selling their services; and then, in the second place, to examine some of the implications, in the determination of the price of labor, of imperfection in the market for commodities.

The assumption that competition among employers for labor (and for the other factors of production) will insure a long-run correspondence between labor's productive contribution and labor's remuneration is, of course, fundamental in the whole analysis. In a profit society the employer is not likely to pay what he can afford to pay (wages equivalent to the marginal productivity of labor) unless he is forced to do so, and the force upon which productivity theorists have relied is competition. The assumption, in other words, is that if the employer pays the workers below what the last worker adds, other employers will offer more and hire some of his workers away from him, and that this process will go on until the workers are paid their social marginal productivity. The

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of any one seller is a negligibly small proportion of the total output of the commodity, and, second, that buyers are all alike in respect of their choice between rival sellers, so that the market is perfect." (*The Economics of Imperfect Competition*, Macmillan & Co., London, 1933, p. 18). *Cf.* also Edward Chamberlin, *The Theory of Monopolistic Competition* (Harvard University Press, 1935), Chaps. 4 and 5, and the excellent brief discussion in Albert L. Meyers, *Elements of Modern Economics* (Prentice-Hall, 1937), Chap. 5. It is obvious that under perfect competition, as here defined, the demand for the product of the individual seller will be perfectly elastic at the prevailing market price. For, if an individual seller raises his price ever so little, he will be unable to sell any goods; and on the other hand there is no reason for him to lower his price below that of the market, inasmuch as he is able to dispose of the entire amount he offers for sale at the prevailing market price. The foregoing suggests the criteria of "perfect" competition among buyers of labor: that the supply curve of labor (or of the other factors of production) to the individual buyer be perfectly elastic. This is, of course, merely to say that the case of an ordinary competitive market, where a buyer can go to an individual seller and buy as much as he pleases at the current price, buying nothing if he offers less than current price and engrossing the whole supply if he offers a little more, obtains. It is pointed out above that competition among sellers requires both that the number of sellers be large and that customers have the same preference (or indifference) between one firm and its rivals. Similarly, perfect competition among buyers requires that the number of buyers composing the market be large, that a change in the amount purchased by any one of them have a negligible effect upon total purchases in the market, and that sellers be indifferent as to whom they sell their goods or services. So long as the supply of a commodity is perfectly elastic to the buyer, the marginal utility of each amount will be equal to its price (since price is equal to marginal cost); and so long as the supply of a factor of production is perfectly elastic to the buyer the marginal productivity of each amount will be equal to its price (since again price is equal to marginal cost). For fuller discussion, *cf.* Joan Robinson, *op. cit.*, pp. 215–218.

only truthful statement that can be made, so far as the assumption of free and complete competition among employers for labor is concerned, is that in many cases such competition simply does not obtain. Tacit or organized combinations among employers to depress wages or to prevent their being advanced, sheer inertia in bidding up wages,[1] fear of the disapproval of one's class, the tendency of smaller corporations in some industries to follow the lead of the larger in wage policies, and the presence of monopolies are all circumstances preventing the active competition that is assumed to guarantee the bidding of wages up to equivalence with marginal productivity. Nevertheless, the assumption of competition is one that may be classified as primarily valid, even though always—actually or potentially—contending against a strong opposing tendency. Whenever a relative shortage of labor develops in a particular trade or industry, or when—as during the War years—a general shortage develops, the bidding up of wages by employers is one of the most easily discerned of tendencies. It may be remarked, also, that combinations of employers engaged in different industries do not depress wages to as great an extent as do combinations within any given industry, and that the market for unskilled labor, particularly in the larger cities, is, therefore, one in which vigorous competition obtains a considerable part of the time.

The productivity theory assumes not only that employers compete actively for labor, but that the wage earners are actively engaged in competition for work. It is this competition which brings wages down to the point of marginal productivity when they temporarily rise above it. For if some workers are paid more than their worth—*i.e.*, their production of exchange value—others will offer their services for an

[1] Tacitly underlying this assumption of competition among employers for labor, it will be noted, is another assumption: that employers know the marginal productivity of labor—*i.e.*, how much they can pay when maintaining a given volume of employment. This assumption, also, can be made to appear rather absurd when applied to concrete situations. In many cases it is, of course, impossible for employers to determine with exactitude precisely what the marginal product is. The frequent absence of reality in this assumption does not, however, invalidate the analysis, for two reasons: (*a*) It is probable that over a period of time employers do make fairly close approximations of the added marginal productivity which will accompany the application of further units of labor; and (*b*) even though judgments of the business world were chronically at variance from true marginal product, there are correctives of any bias in estimating marginal product. With the development of the modern science of cost accounting, enterprises are in a better position than they were during the rule-of-thumb days to estimate the productivity of added units of labor or of capital. Also, there are correctives for both overestimates and underestimates of marginal product—in the former case the elimination by competition of those who habitually overestimate the amount of the marginal product, and in the latter case the fact that those who do estimate the margin correctly will be able to hire the more valuable members of the working force away from those who underestimate, and thus force those underestimating either to correct their errors of judgment or to fail to obtain any large share of the business.

amount less than this higher wage, and the competitive underbidding will bring the wage down to correspondence with marginal productivity.[1] There can be little doubt that on the whole competition among laborers for work is keener than is competition among employers for the services of laborers, and to the extent that it is keener the workers are in a position of relative disadvantage. But while the assumption that laborers compete actively with each other for jobs is primarily valid, there are—as in the case of almost all the assumptions underlying the analysis—strong opposing tendencies. With the spread of unionism, the severity of this competition has been reduced. Workers are combined in large groups which must be taken or left as groups.[2] To an extent, then, the

[1] The assumption, as phrased, may suggest another: that labor knows its marginal productivity. It is, of course, indisputable that the average worker does not possess the knowledge of market conditions and of his economic worth to his prospective employer that the latter possesses, and therefore stands at a distinct disadvantage in bargaining unless there is brisk bidding for his services. The assumption that workers know their marginal productivity is not, however, a necessary part of the productivity analysis. If employers alone knew approximately the actual increments added by labor and were to bid against each other for the services of the workers, the implications of the productivity doctrine would be satisfied, even though the workers' conceptions of their economic worth were of the most nebulous character.

[2] Here, again, the question of the economic efficacy of unionism—if the productivity analysis is accepted as a realistic working principle—inevitably protrudes itself. If workers through the pressure of combined strength are able to secure a wage higher than the marginal productivity of those already employed, will not the employer, according to the productivity theory, merely be forced to lay off the number of men the value of whose product is less than the new wage paid, and will not these unemployed workers, by offering their services in the labor market, bring wages back to the point of original marginal productivity (with the analysis confined to static conditions, dynamic changes which might increase the value productivity of the workers not being taken into account)? That such a tendency would be operative is beyond question. The matter should, however, be probed a little more deeply. Of primary importance so far as the effect upon the wages of *any group of workers* is concerned is the question of whether the demand for the product is elastic or inelastic. If demand for the product is relatively inelastic, even a price rise *commensurate* with the increase in wages would not cause a proportional falling off in the quantity demanded. In technical terms, the total wage and price area would be greater than before, the entire group of workers would be enabled to enjoy the increase in wages which had resulted, and by providing for the unemployed out of the surplus they would be freed from the peril of a reduction in the wage rate which would carry them back to the original level. Also, as Alfred Marshall pointed out years ago (*Principles of Economics*, 6th ed., pp. 385–386), the possibilities of raising wages are particularly great in those cases of joint production where an appreciable increase in the wages of one trade or industry, such as glazing, has only a slight effect upon the price of the joint product itself, such as houses. In those industries where demand is relatively elastic, however, the sequence of events is to be expected to be considerably different. The total wage and price areas are not increased when unions are able to force up the wage rate, the total amount distributed in wages would be less than before, and there would not be sufficient surplus to subsidize the displaced workers and prevent their competitive underbidding. Concretely, in the case of relatively elastic demand, if wages were increased 10 per cent above the marginal productivity of those employed, employers would lay off more than 10 per cent of the

ultimate conclusions of the productivity theory must be modified. Lack of knowledge and immobility on the part of the workers, discussed in detail later, are other factors preventing free and complete competition among wage earners for work.

Let us turn from conditions in the market for labor to the question of the impact upon the material status of labor of imperfection in the market for commodities.[1] As the foregoing analysis has indicated, it is to the interest of the employer to use such an amount of each factor of production that its marginal cost to him is equal to its net marginal productivity to him,[2] for if marginal productivity were greater than the marginal cost of labor, he would find it advantageous to increase the number of men employed, and if it were less, to diminish the number.

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workers, the total amount distributed in wages would be less than before, and even though those who still had jobs were to subsidize those thrown out of work, they would not be able to pay them as much as they would if employed. There is, therefore, ground for doubt as to whether those workers in trades and industries the demand for whose products is relatively elastic would be able—again in the absence of dynamic changes such as increased labor efficiency, concentration of production into the more efficient plants, increases in the capital factor, etc.—permanently to enjoy the temporary gains; and it must be recalled that for industry as a whole the demand for labor is at least moderately elastic. The question of whether workers in the trades and industries characterized by relatively inelastic demand will be able permanently to enjoy the gains in excess of marginal productivity prior to the time the gains were secured should also be probed a little more. Patently, the immediate effect of the rise in price and in the exchange value of the article or articles in question would be a fall in the exchange value of other commodities, and consequently in the marginal productivity of those workers engaged in these other industries. In other words, a disparity between the marginal productivity of labor as a whole and the remuneration of labor in the unionized industries with an inelastic demand would ensue, and from this circumstance there would be expected to result a tendency for workers to move toward the latter industries, which would bring wages back to a point where they would equal the margin of value productivity which runs through society as a whole.

[1] For much of the immediately following analysis, the authors are indebted to *The Economics of Imperfect Competition* by Joan Robinson. Mrs. Robinson's concepts have not in every case been used, but all familiar with that brilliant theoretical treatise will be cognizant of the extent to which it provides a foundation for this brief and simplified theoretical treatment.

[2] A reminder of term usages, even though it involves a little repetition, is in point here *Marginal physical productivity* means the increment of output caused by employing an additional unit of labor with a fixed expenditure of the other factors, and *marginal value productivity* (or marginal productivity for short) means the increment of value to total output caused by employing an additional unit of labor (or capital), the value of the other factors remaining unchanged. In other words, it is marginal physical productivity multiplied by *marginal revenue* (the addition to total revenue produced by selling an additional unit of output). It is desirable, also, to keep in mind the distinction between *marginal gross productivity* and *marginal net productivity*. The former is the increment of value caused by employing an additional labor (or capital) unit with appropriate addition to the other factors, and the latter the marginal gross productivity caused by employing an additional labor unit with appropriate addition to the other factors minus the cost of the other factors.

Accordingly, "exploitation" of labor in the sense that it is paid less than marginal net productivity to the employer can occur only in consequence of imperfection in the market for labor. There is, however, a type of exploitation that is consequent upon imperfection in the market for commodities, entirely aside from the question of whether there is perfect competition in the buying of labor. When the selling market (*i.e.*, the market for commodities) is perfect, the marginal revenue to the firm—the addition to total revenue produced by selling an additional unit of output—is equal to the price of the commodity, and the marginal productivity of labor (or capital) is therefore equal to the value (price) of the marginal physical unit. In other words, average revenue—the average price per unit at which various quantities of the goods can be sold—and marginal revenue are the same under conditions of perfect competition in the market for commodities. This of course follows from the fact that increases in the output of the individual firm, under the market circumstances here assumed, do not lower price. The amount that each seller can offer is such a small part of total supply of the commodity that variations do not affect price, and he can dispose of as much as he can offer at the prevailing price. If there is perfect competition in the market for labor, workers will be paid their marginal physical product times marginal revenue, which coincides with price.

When, however, the selling market is characterized by imperfect competition, marginal revenue will be less than price (or average revenue), and since workers are paid—under the assumption of perfect competition in the market for labor—their marginal physical product times marginal revenue, the ratio of marginal revenue to average revenue, or price, is the measure of exploitation attributable to imperfection in the selling market. The reason marginal revenue is less than average revenue under conditions of imperfect competition, whereas the two are identical when competition is perfect, is not difficult to discover. Under perfect competition, as has been said, each additional unit the individual producer offers brings the same price, total revenue therefore increases by the price received for the additional unit, and so long as average revenue remains constant with an increasing output marginal revenue and average revenue will coincide. But under imperfect competition, the demand for the product of the individual producer is not perfectly elastic; additions to output lower price (average revenue); and of course this fall in price affects all units sold, not merely the final or marginal one. The net addition to total revenue produced by selling an additional unit is the price received for that unit minus the loss on all previous units due to the fact that their price has been forced down by the increase in output. Patently, then, marginal revenue is less than average revenue under imperfect competition. Average revenue is total revenue divided by the number of units; marginal revenue is the net change in total revenue and

is affected not only by the decline in price per unit but also by the loss on previous units when successive ones must be sold at a lower price. Each producer may be assumed to regulate his output in such a way that the addition to his total revenue from selling an additional unit just equals the addition to his costs from selling that unit (since if he sold one unit less, he would lose more of revenue than he saved of cost, and if he produced one unit more he would incur more of cost than he gained of revenue); and under conditions of imperfect competition production will be carried to the point where marginal cost equals marginal revenue (less than price), the difference between the two going to the enterprise. The demand curve for labor (demand curves and productivity curves being assumed to correspond because of competition in the buying of labor) under imperfect competition in the market for commodities is marginal to (*i.e.*, below) the demand curve under perfect competition, since the marginal productivity of labor to the individual firm is the marginal physical product of labor multiplied by marginal revenue to the firm, and marginal revenue to the firm is less than price. Hence exploitation, in the sense in which the term is used in this and the immediately preceding paragraph, would obtain, even though the wage equaled marginal revenue to the firm.[1]

The extent to which imperfect competition, or monopoly, in the market for commodities reduces the real earnings of the workers can be stated with more particularity. The ratio of marginal revenue to price is the measure of the extent to which earnings are reduced by monopoly or imperfect competition. This ratio, in turn, depends upon two factors:

[1] *Cf.* Joan Robinson, *op. cit.*, Chap. 25, especially pp. 282–286. We may, following in large part Mrs. Robinson's argument, develop in a little more detail the difference between marginal revenue and the demand curve for labor under imperfect competition (or under monopoly) and under perfect competition. The reasons why in the case of the monopolist or of the firm producing a considerable fraction of total output there is not the perfect elasticity of demand for the product that results in equivalence of marginal revenue and price have already been stated. The matter may be illustrated first by comparing elasticity of demand for the product of each of a large number of firms with elasticity of demand for the commodity of the industry as a whole, and then by referring to the fact that when competitive industry comes into the hands of a monopolist, or becomes less perfectly competitive, the demand for labor becomes regulated by the marginal gain to the industry as a whole, and the demand for the commodity of the industry as a whole is less elastic than the demand for the output of any firm within the industry. The reason for the latter fact is fairly apparent. A rise in the price charged by any one of the producers would drive some of his customers to buy of competitors before it would drive them to give up buying the commodity altogether. For the industry as a whole, therefore, marginal revenue is less than for the firm, whose marginal revenue—if competition is perfect as we have defined perfect competition—is equal to price. Now when a competitive industry comes into the hands of a monopolist, "the center of gravity shifts, as it were, from the firm to the industry, and the demand for labor will be regulated by the marginal gain to the industry as a whole instead of being regulated by the marginal gain to the individual firm." (Joan Robinson, *ibid*, p. 269). The demand curve for the product of the monopolist represents

(1) the proportion of control exercised by the firm in question, and (2) the elasticity of demand for the product in question. Where the firm exercises a large proportion of control, the difference between marginal revenue and price will be large; where it exercises less control, there will be a closer approximation to conditions of perfect competition, with their concomitant equivalence of marginal revenue and price. Where demand is very elastic, the decline in unit price consequent upon the selling of additional units (and therefore the loss to be deducted on all preceding units to arrive at marginal revenue) is not great; the less the elasticity of demand, the greater will be the degree of exploitation.

One more fact may be recalled before we turn from the effect upon the remuneration of labor of monopoly or imperfect competition in the market for commodities to some additional assumptions of the productivity analysis. When monopoly prices are higher than competitive prices,[1] the real incomes of all consumers of the monopoly-controlled commodities or services are reduced, irrespective of the sources of their money incomes. A monopoly restricting output in order to maintain a higher price than would obtain under competitive conditions uses less of all factors of production than would be used for the production of the commodity were the industry competitive; consequently more labor and capital must be employed in other industries where their marginal productivity is lower than it would be in the industry controlled by the monopolist. Not only is there "exploitation" of the labor employed by the monopolist, in the sense discussed in the immediately preceding paragraphs, but lower wages elsewhere result from the employment of labor where its value productivity is lower.

Other Assumptions of the Productivity Analysis.—Discussion of the competitive assumptions and their implications has inevitably suggested

his average revenue, but his marginal revenue curve is marginal to his demand curve. The relationship can be illustrated as follows (taken from *ibid*, p. 52)

Units	Price or average revenue	Total revenue	Marginal revenue
10	20	200	—
11	19	209	9
12	18	216	7

Since marginal revenue is less than average revenue (or price), which represents the demand curve for the product of the monopolist, there is exploitation consequent upon the presence of monopoly (or imperfect competition) in the sense that workers are paid marginal physical product times a marginal revenue that is less than price, whereas under perfect competition they would have been paid marginal physical product times a marginal revenue that equalled price.

[1] Of course, there may be advantages of large-scale production dependent on the fact of monopoly, which reduce unit costs to a point below that which would obtain under competition, and therefore the price that covers cost. If demand for the product is very elastic, net income of the monopolistic enterprise may be increased by selling at a low price.

certain other assumptions underlying the marginal-productivity analysis. Some of these, particularly those relevant to the elasticity of supply of labor and the possibilities of employer discrimination, are, indeed, closely interwoven with the immediately preceding analysis. They deserve, nevertheless, separate consideration.

1. The assumption that capital and labor are mobile is, of course, basic. Occupational and place mobility are patently essential if labor is to be paid in rough accordance with its marginal value productivity, and the same is true for capital. Unless labor is able to transfer itself from industry to industry and from place to place, the curtailment of supply in those industries or places where employers are paying less than marginal productivity which is supposed to bring labor remuneration up to its "natural" (*i.e.*, marginal value-productivity) level is nonoperative. The assumption that employers will substitute one factor for another in accordance with the dictates of cost considerations presupposes the mobility of the factors enabling him to do this. It is obvious that there are serious impediments to the mobility of both labor and capital. "Man," observed Adam Smith in 1776, "is of all sorts of luggage the most difficult to be transported." The attachment of workers to localities and their reluctance to change, as well as lack of knowledge as to where better-paying jobs are to be had and financial inability to move, are barriers operating against geographical equality in marginal productivity. In the United States, especially, where distances between jobs have been greater, on the average, than in England or Germany, and where until the 1930's relatively little was done by the government to provide movement of men from one locality to another,[1] the geographical mobility of the workers has sometimes appeared to be fictitious. Even more important, perhaps, are the barriers which prevent complete occupational mobility: long and costly training periods, virtually excluding the children of persons of slender means; restrictive apprenticeship rules and the occasional practice of closing union books; lack of the native or acquired aptitudes necessary for successful performance in new occupations.

Likewise capital is anything but completely mobile; it is not a fluid thing that can be injected in small, regulated doses into the productive apparatus of industry, but consists largely, on the contrary, of expensive producers' goods, specialized and irrevocably committed to their present forms, often occasioning heavy overhead costs. Ignorance and inertia on the part of business enterprisers and the ability of monopolies and favored enterprises to enjoy earnings larger than the average are addi-

[1] The Wagner-Peyser law of 1933, which was enacted following the inexcusably vetoed Wagner bill of two years earlier and the unlamented 1931–1932 plan of Secretary Doak, now promotes, under the grant-in-aid system, the framework of a national system of employment exchanges that should increase appreciably the geographical mobility of the workers.

tional barriers against complete and free industrial and place mobility of capital. Nevertheless, the conclusion seems inescapable that, however absurd the mobility assumption may appear to be as applied to concrete cases, it in general expresses a powerful, and frequently an actually operative as well as a potential, force. The assumption is more unrealistic, undoubtedly, in the case of labor than in that of capital; but he who would deny that as a long-run tendency workers do move to an extent, in spite of all the barriers and impediments that have been mentioned, from place to place[1] and from the lower-paid occupations to the better-paid ones would be closing his eyes to facts apparent to all who are willing to observe.[2] Capital on the whole is probably more mobile than is labor, and may, indeed, be regarded as the most liquid of the several economic factors. The complicated media of banks, financial institutions, and stock exchanges make possible its transfer from one industry or place to another, in spite of the fact that the forms in which it is embodied differ widely, and through depreciation, replacement, and fresh investment there is a constant tendency to bring the various forms up to a common level of effectiveness.[3]

2. Another assumption—largely hidden but ever present—underlies the marginal-productivity analysis: that labor and capital are fully employed. In neoclassical theory, as contrasted to the dissenting doctrines of Marx and the overproductionists, unemployment has been treated chiefly as evidence of friction in the operation of the economic system, not as an ever-present phenomenon. The presence of large numbers of unemployed workers was, *ipso facto*, evidence that the price being paid for labor was in excess of its marginal productivity; reduce this price and the unemployed surplus would be lifted off the market. In other words, unemployment has been treated in neo-classical theory largely as a result of labor's attempt to secure a wage higher than its

[1] In spite of the fact that until rather recently less was done in the United States than in other countries to organize the labor market upon an intelligent basis, it is likely that in this, a new country with relatively abundant resources, where new industries developed more rapidly than elsewhere and population was gradually shifting westward, and where class and caste traditions operating against geographical mobility and the entering of new lines of work have been relatively unimportant, workers have moved as easily as they have in other countries.

[2] Moreover, it is not necessary that 100 per cent of the workers in each group have the ability to move from place to place or from occupation to occupation in order for the tendency toward payment in accordance with marginal productivity to work itself out. Ordinarily if a certain marginal fringe—possibly not more than 8 or 10 per cent of the entire group—manifest a disposition to move, the curtailment of supply will be sufficient to raise wages to the level of marginal productivity.

[3] It should be noted, however, that the fluidity of capital applies only to annual increments of new savings and to depreciation funds—not to investments which have already crystallized into capital goods. Nevertheless, the assumption that capital is fairly mobile is in the main valid.

product at the margin, and its function has been regarded as that of a mechanism operating to force the workers' demands down to the point where employers would be justified in hiring them. But the modifications necessarily introduced into our analysis of distribution by the stark fact of chronic unemployment[1] need to be considered carefully. It should be patent that even if competition among employers for the services of workers is fairly active, this competition does not become effective so long as there is an unemployed reserve of workers of substantially equal efficiency—a group whose economic productivity, of course, is nil—for competitive underbidding and acceptance by the workers of wages less than their marginal product are inevitable. Individual workers fortunate enough to hold jobs are likely to be willing to work for less than the amount they ordinarily would demand and could secure, because of their fear that if they hold out for such a wage, they will be discharged and preference in employment be given to those willing to accept a lower rate. In order to avoid having no earnings, they may, indeed, be willing to reduce their rates to a point even below that which those who originally undercut them had offered. Such action, it is true, causes the incidence of unemployment to continue to be upon the unemployed group which had previously offered to work for a lower rate, but this group will then tend to reduce its offers still further—and the vicious cycle of competitive underbidding goes on and on. One cannot with intellectual candor deny that some of the productivity theorists were grossly delinquent in their identification of the marginal productivity of labor with the marginal productivity of employed labor, and it would be worse than misleading to deny the substantial modifications of a simplified productivity analysis dictated by the presence of unemployed workers. And what has been said of labor is also true of capital. Probably available capital is, in fact, more unemployed a good part of the time than is labor;[2] and the immediate effect is much the same as in the case of labor: an availability of capital at a rate that may seem to have little relationship to its productivity. Long-run correctives are, of course, operative in the case of both unemployed labor and unemployed capital,[3]

[1] The statistics on the extent, trend, and incidence of unemployment are summarized in Chap. I, vol. II.

[2] The U. S. Census of Manufactures in 1921 asked manufacturers to estimate "the percentage which their actual output constituted of their maximum possible output." Tabulated answers revealed that actual output formed only 57 per cent of what the manufacturers estimated to be maximum output. The depression of 1921 was, of course, partly responsible for the disparity, but that it was far from being solely responsible is indicated by the fact that total employment of labor in manufacturing declined only 25 per cent during that depression. A more recent study including data on the percentage of excess capacity is the Brookings Institution book, *America's Capacity to Produce* (1934).

[3] In the case of capital, the sequence of probable events should perhaps be traced in somewhat greater detail. The presence of idle and unutilized capital naturally creates a

but for considerable periods of time the effect of these correctives may be negatived by the immediate consequences of surplus labor and capital.

3. Another of the implicit assumptions of the productivity theory may be discussed very briefly: the assumption that the bargaining powers of labor are equal to those of the owners of capital and the entrepreneurs. In one sense, this assumption may be regarded as irrelevant. If employers were keenly competitive and if all the other assumptions of the theory were entirely valid, workers would presumably be paid according to their productive contributions even if (to use a phrase frequently employed by those wedded to a bargain theory of wages, whatever it may mean) "the bargaining power of the individual worker is zero." Phrased in slightly different terms, "a world in which workers would have full and complete knowledge of market and production processes, where they would be completely mobile, where they need not fear unemployment, and where their employers were actively competing for labor would indeed be a world in which they could bargain on relatively even terms

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desire on the part of employers to attract sufficient business to keep it employed, and rate wars are likely to be the immediate result. If, however, this rate war takes place in all industries or in the vast majority of industries (as it theoretically might) at the same time, the result would be a lower money return to capital, but—since prices would be falling—there would not necessarily result a lower return in value. Should labor cut its rates to the same degree as capital in order to find employment, the result to be expected would be that part of the unemployed labor and part of the unemployed capital would come together and production would be increased. Consequently, if the cutthroat competition were universal and were carried out equally by all, the theory of marginal productivity would still be valid. In practice, however, such price wars and rate cutting by the factors do not occur universally or simultaneously, and when they do not, the correctives operate in a more indirect, less apparent, and less perfect manner. Suppose one factor (say labor) were to cut its rate and the others did not (or did not to the same degree). The relative return to the factors would be altered from the original basis of division in a manner adverse to the factor which had made the cut. It is clear that the factor which is most hard pressed, most anxious to secure something on its overhead, and most fearful of complete unemployment is likely to be the one to cut its rate most severely, and therefore the one to suffer most. The fact that rate cutting does not become an epidemic of all industries (largely because of the practice of charging overhead costs of idle equipment to the product actually turned out) but that it does become an epidemic in the labor market indicates that labor is the factor likely to be most hard pressed and most fearful of complete unemployment, and therefore the one to suffer most. Unequal rate cutting consequent upon idle capital of course takes place between industries as well as between factors of production, and the same general principles apply. Those industries which have cut most suffer in comparison with the others, the value productivity of the marginal units of labor and capital employed in such industries being lower than that in society as a whole. The long-run adjustment to be expected is, of course, that consequent upon migration of labor and capital out of these industries. Some labor in time will move out of the depressed industries, new labor will cease to enter at the former rate, some capital will be allowed to deteriorate and the depreciation funds will be invested elsewhere, and new capital will be slow in entering. As a result of these forces, the relative prices of the products of the depressed industries will rise, and with them the value product of labor and capital.

with their employers."[1] In view of the lesser mobility and knowledge of labor as compared with capital, the fact that unemployment on the whole probably reduces its earnings below its marginal productivity to a greater extent than the unemployment of capital reduces its reward below the marginal productivity of employed capital,[2] and the fact that competition of workers for jobs is more active than competition of employers for labor, however, it cannot truthfully be said that our economic world is one in which workers and employers bargain on relatively equal terms. Still another factor enters into determination of relative bargaining strength: the financial reserves of the two parties, determining in large part their waiting power during the interim when no bargain has been effected. Here the employer is in a position of relative bargaining advantage in consequence of the great disparities that obtain in the reception of income. Simply because large incomes are in the main derived from the ownership of property while smaller incomes are in the main secured from labor, the owners of capital are provided with far more abundant reserve funds than are the wage earners.

4. Finally, we may turn to two closely interrelated assumptions: that wage rates and the volume of employment, without undue sluggishness or "stickiness," adjust themselves to the margin of value productivity, and that this adjustment takes place without government or group interference—in other words, in a regime of *laissez faire*. Both of these assumptions, it almost goes without saying, call for substantial modification. Wages are one of the most sluggish sets of prices, influenced by tradition, custom, and inertia, and he who looks for any nice mathematical precision in the short-run adjustment of wage rates to the marginal productivity will look in vain. Large corporations and associations, by fixing wages over considerable periods, increase their inflexibility. Evidence upon the trend of real earnings, and of the workers' share in the value product of industry, as summarized in the two preceding chapters, creates a strong presumption that especially between about 1922 and the beginning of the depression of the 1930's wages lagged behind the productivity imputable to labor.[3] Likewise, the

[1] P. H. Douglas, *The Theory of Wages*, p. 71.

[2] This statement is not inconsistent with the already mentioned fact that a larger proportion of capital than of labor appears to be chronically unemployed. This fact may obtain, and yet owing to greater mobility and bargaining power, unemployment may have less influence in bringing the factor's return below its marginal productivity.

[3] *Supra*, pp. 158–165 and 171–174. It will be remembered that during the 1920's value productivity per worker increased far more rapidly than did real wages, and a reasonable conclusion, deduced from the changing quantitative relationships of labor, capital, and product, is that productivity *imputable* to each unit of labor increased more rapidly than did labor's reward. It may be recorded, also, that Professor Douglas' indexes of the productivity of the final unit of labor (*op. cit.*, p. 146) for the period 1899–1922 show that in the latter year the relative final productivity per unit of labor was 149 (1899 = 100). This was a greater relative increase than that of real wages, as discussed in Chap. II of this volume.

assumption of noninterference has become increasingly unrealistic as the years have gone on. The development of unionism has subjected wage determination to group pressure, and governments in nearly all the industrialized countries have undertaken in the last forty years to interfere at least to the extent of establishment by coercive action of the state of certain minima. Also, the productivity of workers—and therefore the amount the employer can afford to pay them—is likely to increase after they have been on the payroll for a period of time, owing to the efficiency that comes with practice, or to an increase in the exchange value of the products they are making; but wage rates do not adjust themselves immediately. Indeed, the lag of wage rates behind increased productivity may be a factor preventing the employer from hiring more workers, since if the new workers had to be hired at a rate somewhat more nearly approximating their productivity, the wages of those already on the force would also have to be raised.[1]

But the modifications of these assumptions demanded by realistic facts do not dictate that the entire productivity analysis be disregarded. No one possessing more than a superficial insight into distributive tendencies contends that wage rates over short periods adjust themselves to the marginal value productivity of labor in a perfect fashion. All that the theory predicates is a tendency toward long-run correspondence. Over short periods, as a matter of fact, the adjustments typically take place through increases or decreases in the volume of employment, rather than through changes in rates. The increasing interference of government in the terms of the wage contract, the development of collective bargaining, and to an extent the growing practice of submitting wage disputes to arbitration[2] all necessitate modifications of

[1] It is in this fact that one of the justifications of trade unionism is to be found. The union, by forcing wages up more nearly to a correspondence with the increased value of labor to the employer, may increase the total volume of employment instead of decreasing it. To illustrate: Suppose that (owing to the efficiency consequent upon practice or price changes increasing the exchange value of the product) the worth to the employer of workers on the payroll has increased 15 per cent, but that wage rates, a sluggish price, have remained the same. The employer is profiting by the differential between marginal productivity and wage rates. If there is competition for labor in the industry, he may be reluctant to hire more workers, for they would have to be paid a wage more nearly commensurate with their worth, and the wages of those workers already members of the force would also have to be raised. The 15 per cent excess of value productivity over wages paid to the workers already on the payroll may constitute a greater gain than that which would come were the employer to hire more workers, increase output, but have to pay all his employees a wage more nearly equal to their value productivity. Should union pressure succeed in forcing wages up somewhat, but not to a point in excess of marginal productivity, with consequent reduction in the size of the force, this incentive not to hire more workers would have been removed. An excellent discussion of this possibility afforded trade unions by the tendency of wage rates not to increase immediately when productivity increases is to be found in Sumner H. Slichter's *Modern Economic Society*, pp. 638–640.

[2] Probably it is not an inaccurate generalization, however, to say that in a majority

the conclusions drawn from the assumption of entirely private enterprise. They call, however, only for modification, not for complete abandonment of the theoretical scaffolding, for many of the forces of competitive free enterprise are powerfully operative, and the fact that other forces are also at work does not vitiate an analysis placing chief emphasis upon one set of tendencies, but demands only that other tendencies be given due consideration and that the results predicated be modified accordingly.

The conviction as to the acceptability of the marginal-productivity analysis as a working principle underlying the foregoing paragraphs should have been implied by what has been said. Some of the assumptions are closer approximations to reality than are others; none is completely true, and none is completely false.[1] But to the extent that the

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of arbitration decisions the wage fixed is in rough consonance with the economic strength of the two sides and tends to approximate what the two sides would probably have ultimately arrived at by mutual agreement. Nevertheless, there is generally a certain margin within which an arbitral body may fix rates which differ from those which would have been established without it.

[1] Professor Douglas (*The Theory of Wages*, p. 94) has made the following classification, according to relative validity, of the assumptions underlying the marginal productivity theory:

I. Largely valid but not wholly so.
   A. Knowledge by businessmen of relative productiveness of labor and capital.
   B. Mobility of capital.
   C. (In the past) Noninterference by the government in terms of the wage contract.
II. Primarily valid but with a strong opposing tendency
   A. Competition between laborers for work.
   B. Mobility of labor.
   C. Competition between employers for laborers.
III. Partially true but on the whole not true.
   A. All capital is employed.
   B. All labor is employed.
   C. Laborers know their productivity.
   D. The bargaining powers of labor and capital are equal.
   E. (After passage of the National Industrial Recovery Act.) Noninterference by the government in terms of the wage contract.

Professor Douglas commented upon the extent to which the degree of validity in the assumptions as a whole is favorable or adverse to labor as follows: "It will be seen from the above classification that the assumptions which depart most from reality are those which ascribe more power to the workers than they actually possess. The assumptions which serve to increase the bargaining power of the employers, such as the mobility of capital and the knowledge of relative productiveness are far more valid than are the similar assumptions which have been made in the case of labor. Moreover, in the case of those assumptions which are less valid, such as the supposed absence of combination between workers and between capitalists, and that of full employment of the factors, the real situation is one which still further weakens labor's bargaining power Thus employers' combinations are today in America stronger on the whole than combinations of wage earners, and the unemployment of capital, while probably greater in amount than the unemployment of labor, leads to less severe competition. It can thus be said that up until the summer of 1933 the

assumptions are true, the conclusions to be drawn from them are valid. We have in the productivity analysis at least an explanation of tendencies striving to work themselves out, sometimes and in certain industrial or geographical areas more successfully than at other times or in other areas, it is true, but tendencies too important to be ignored. There is no good reason why we should not accept the conclusion of Professor Douglas: "The method of the marginal productivity school, as indeed of the entire school of orthodox economists, has described a portion of reality. Within the walls of their assumptions they have tried to trace the results of a change in this factor or that. This attempt in the field of logic has been precisely similar to the efforts of the physical scientists in their laboratories to eliminate disturbing elements and variables from their experiments and by isolation to secure 'controlled' results."[1]

Some Explanations of the Trends

Inevitably the question of how the trends summarized in the two preceding chapters are to be explained interwove itself with the quantitative expression of these trends. It was impossible to present the more essential facts concerning the trend of the real earnings of different groups of workers, and of labor in general, to compare the trend of real earnings with the trend of per capita real income, real income per person gainfully employed, physical production per employed person in selected industries, and value product per worker in the various industries, and to attempt to measure labor's aggregate share of the national income and of the income produced by particular industries over periods of years without at least some suggestion of the *why* of these facts. More generalized summary discussion is, however, imperative. Why have real earnings increased? Why has the trend of real earnings borne the relationship it has to the increase in total production?

1. Our exposition of the productivity analysis and of attempts at inductive verification of this analysis has already answered in part the first of these questions. The dominant cause of the rise in real earnings prior to the beginning of the depression of the 1930's was the increase in productivity imputable to each worker. It will be recalled that Professor Douglas found that between 1899 and 1922 fixed capital available for use by American manufacturing enterprises increased by 331 per cent,[2] the total labor supply by slightly more than 60 per cent,[3] and total

forces which operated against labor's receiving its marginal product were stronger than those which tend to prevent capital from securing its margin."

[1] *Ibid.*, pp. 95–96.

[2] This index, it will be remembered, is really an index of capital available, not of capital actually used, and includes two elements: (*a*) the physical quantity of machinery, tools, and equipment, and (*b*) factory buildings.

[3] The index of labor supply in manufacturing was constructed, it will be remembered,

production by 140 per cent.[1] When the data were combined to show the relative ratios in which labor and capital were combined in the years subsequent to the 1890's and the relative amounts of labor and of capital embodied in a unit of product during each of these years, as compared with the base year 1899, it was found that the relative ratio of labor to capital in 1922 (1899 = 100) was .37 and the relative ratio of capital to labor 2.77, while the relative amount of labor embodied in a unit of product in 1922 was 67 and the relative amount of capital 180. In other words, product apparently increased much more during these years with each given increase in labor than it did with each the same increase in capital.[2] The increased productivity of labor was, of course, chiefly a consequence of the greater supply of capital with which it was cooperating. The historical facts about increases in the labor and capital factors and in total product would lead, on marginal productivity grounds, only to an expectation of what has occurred—an increase in labor's real earnings.

The relationship between the increased productivity of a factor of production and the reward it receives should, however, be probed somewhat more deeply. Perhaps almost all men on the street would grant that a causal relationship exists between a rise in labor productivity and one in real wages; but not many of them could trace clearly the process by which the former influences the latter. Why, in our system of competitive or quasicompetitive capitalism, has the increased productivity imputable to labor resulted in an increase in its real remuneration?

For purposes of simplified exposition we may approach the question first in terms of value, abstracting the complications introduced by the price system, and then, more realistically, discuss the causal sequences in terms of the relative movement of money wages and of prices. Let us assume, for the moment, that all workers are paid in kind rather than in the form of a money wage.[3] Should average physical productivity per worker increase—owing to the fact that each worker was cooperating with more capital than formerly, or that qualitative changes in the labor or capital factors had taken place—the initial effect would, of course, be that more products would accrue to the employers; but the latter, anxious

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by ascertaining, first, the relative number of wage earners employed in American manufacturing during each of the years following 1899, then revising the relatives to allow for clerical workers and man-hour changes because of changes in the length of the working week.

[1] Based upon the Day-Thomas index of physical production in manufactures ("The Growth of Manufactures," *Census Monograph VIII*, 1928).

[2] To be exact, Professor Douglas found that product had apparently increased by between $\frac{2}{3}$ and $\frac{3}{4}$ of 1 per cent with each increase of 1 per cent in the labor factor, and between $\frac{1}{4}$ and $\frac{1}{3}$ of 1 per cent with each increase of 1 per cent in the capital factor.

[3] An assumption that really is not far distant from the fact if our economic system is viewed as a whole.

to increase output in order to secure this profit upon as many units as possible, would seek to increase the number of their employees, and the means of doing this would be to offer more commodities, or higher real wages, for their services.[1] This competition of employers within industries, and possibly even between or among industries, would thus tend to increase wages as a result of the increase in productivity per worker.[2]

Under the mechanism of money wages and prices the processes are somewhat more complicated, but they are fundamentally the same. We may assume, first, the case where the general price level declines as output increases. The maintenance of the same time wage, then, of course enables those workers who are paid by the day or the hour to purchase more goods than before.[3] Should employers succeed in reducing rates, all the benefit of the advance in output would initially accrue to them, but these added profits would in themselves stimulate competitive bidding for labor on the part of individual employers, with a resultant rise in money wages (or at least a less rapid decline than that in prices) and therefore in real wages. The basic cause of the competitive bidding among employers in such a case would, of course, be the increase in physical productivity per worker. The forces operating under a second assumption we may make—that the price level remains constant while productivity per worker increases—are in essence the same. If money wages were to remain the same, no immediate advance in real earnings would take place; but with sales prices the same as before and labor costs per unit less, profits would increase appreciably and the familiar sequence of events—a desire to expand on the part of businessmen, a consequent bidding up of wage rates, and an attendant advance in real earnings—would again ensue. Should the general

[1] In following this simplified exposition of the process whereby a rise in productivity influences real earnings, the relative validity of the assumptions that there really is active competition among employers for labor and that no appreciable reserve of equally efficient unemployed workers exists, as already discussed, must of course be kept in mind.

[2] In particular cases the increase in productivity per worker may be a result of such a great increase in the capital factor that the increased productivity will be absorbed by added payments to the owners of capital. The productivity theory, it may be recalled once more, merely predicates that each factor of production will receive (1) the amount of product added by any unit of that factor, (2) times the number of units of the factor, and (3) that the amounts so allocated must exhaust the total fund of value minus any deductions for economic rent. A great increase in the capital factor would be expected to reduce the relative marginal productivity of each unit of capital and to increase that of each unit of labor, but the total amount of capital might be increased so greatly as to reduce absolutely as well as relatively labor's share. Hence in individual cases the increased productivity might be absorbed by added payments to the owners of capital, but this possibility in individual cases does not invalidate the general analysis.

[3] Workers paid by the piece will initially, under such circumstances, enjoy a twofold advantage, since under our assumption they are turning out more pieces, and hence receiving greater money wages, and at the same time the purchasing power of the monetary unit has increased.

price level rise while physical output per worker was increasing, the immediate effect probably would be a decline in real earnings, or a failure of real earnings to rise greatly, since wage rates, as we have so often had occasion to remark, tend to lag behind increases in living costs. Indeed, the periods during which real earnings per employed person have remained relatively stable or have advanced only a little, it will be remembered,[1] have been those during which the general price level has been rising. Should wages remain constant for any appreciable period of time, however, a double gain would be realized by employers: the increased number of commodities they would have to sell and the higher price at which each would sell. At the same time, labor costs per unit of product, until money wages rose, would be less than they formerly had been. Again the resultant increase in profits would make employers zealous to expand their output, competitive bidding for labor would take place, money wages would rise, and—since the workers were turning out more units of the product with each selling at a higher price—the rise in money wages could continue until it had outstripped the relative increase in prices. The causal relationship between an increase in productivity per worker and an advance in real earnings is not difficult to understand. Nor is the reality of the processes that have just been suggested subject to serious question because of the fact that real earnings have apparently increased as rapidly in industries where there has been little or no increase in productivity as they have in industries experiencing great advance in output per worker. Workers in a given industry, it may be stated again, are paid from the value product they and the other factors of production produce, not from physical product, and the increase in physical product of other industries raises—other things remaining the same—the exchange value of the products of the retarded industries.[2]

[1] *Supra*, pp. 92–98.

[2] It will be remembered that the data on the comparative trends of real earnings (*supra*, pp. 102–104) showed approximately the same relative gain for building-trades workers, down to the late 1920's, as for those employed by manufacturing enterprises. Until late in the 1920's, when the automatic hoist, adjustable scaffold, and other devices came into extensive use, output per worker in the building trades probably was not greatly in excess of what it had been during the immediately prewar period. But the failure of output per worker to advance as much in the building trades as in manufacturing or other lines, although real earnings advanced approximately as much, is not inconsistent with the general explanation that has been given when we remember that physical productivity in industry as a whole has increased and that this increase in physical productivity presumably increased the value productivity of labor and capital employed in building construction. To phrase the matter in terms of a simple illustration: If the output of industry in general advances, but the output of industry A remains the same, the products of industry A will be scarcer in relation to other products, and their exchange value (and hence the fund of value out of which the labor and capital employed by industry A are remunerated) will rise—provided, of course, that there has been no decrease during the period in question in the demand for the products of industry A. There are, moreover, other forces tending to bring about *general* participation in the gains realized when the

2. A second of the causes of the increase in real earnings was suggested by the facts relative to this trend presented in Chap. II—the decline in the exchange value of farm products at the farms during the 1920's. It will be remembered that prior to 1918 the prices of farm products increased considerably more rapidly than did other prices, and that in spite of a slowing down of this relative trend between 1918 and 1920, the exchange ratio of farm products during the latter year was considerably more favorable to the agriculturalists than it had been during the prewar period.[1] After 1920, however, farm prices declined more rapidly than did other prices,[2] which is to say that the exchange value of each unit produced by manufactures and other industries the price of whose products had not declined proportionately—and therefore the value productivity of the labor and capital employed by these other industries—became greater. Phrased in slightly different terms, urban workers were able to purchase more food and other products from the farms with an equal quantity of manufacturing and other urban-produced services; the fund of value represented by the same quantity of manufacturing, transportation, and other services was greater; and real earnings advanced. On the other hand, the decreased ability of the farmers to purchase the products made by their urban brethren was probably responsible for some of the unemployment that existed prior to the beginning of the depression of the 1930's.

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output of industry as a whole, but not of each individual industry, is increasing. Should the value ratios of the products of the retarded industries not increase sufficiently to give increases in wages commensurate with those obtained by the same type of labor elsewhere, laborers in the long run will tend to move out of the retarded industries and into those lines where the increase in output and wages has been greater. The process will take time, for as has already been pointed out, labor possesses anything but perfect mobility, and workers who have learned a trade in their youth virtually have to remain in the industry where they can follow that trade after they have passed the meridian of life. But the younger generation, at least, will enter other industries. The labor force, and consequently the output, of those industries which have not gone forward will therefore decline, and real earnings will tend to rise to the general level for the same types of labor because of (*a*) this still further decline (or failure to advance relative to the advance in other industries) in output, which increases further the value ratio of each unit of product of the retarded industry, and (*b*) the curtailment of supply, raising the marginal productivity of labor in the retarded industry. Hence there tends to be an equalization of the value productivity of the last workers in all industries and consequently of real wages.

[1] *Supra*, pp. 85–87 and 99–100.

[2] During the year following August, 1920, the wholesale prices of farm products in the cities decreased by approximately one-half, which meant that the fall in prices at the farms was even greater. The decline in the wholesale prices of manufactured goods during this period amounted to only about one-third, and consequently the decline in the value of manufactured services or of value added by manufacture was even less. After 1921 the disparity between prices of farm products and of other products continued but did not increase greatly.

3. In the third place, the effect upon real earnings of reduction in the net volume of immigration must be taken into account. Net additions to our annual population through immigration declined from an annual average of 664,000 during the fiscal years 1908–1914 to an average of 116,000 during the War and postwar years of 1915–1920, and averaged 280,491 in 1929–1930. The 1915–1920 average was only 17 per cent, and the 1929–1930 average 42 per cent, of the prewar volume. Had the 1908–1914 average been maintained, there would have been 3,288,000 more immigrants in the population by 1921 (excluding from consideration deaths and births in this immigrant population after entrance into the United States) than actually entered the country. Not all of these immigrants would have entered industry as workers, but, because of the preponderance of males in the active period of life in the immigrant group, the proportion entering industry as wage earners would have been appreciably greater than among an equal number of the native stock. This diminution in the tide of immigration has not only meant that, according to the principle of diminishing incremental productivity, the last unit of labor has added more to the product than would have been the case had more laborers been employed, thus causing wages to be higher, but it has also reduced the competition for jobs and therefore the amount of competitive underbidding which frequently results in the workers accepting wages less than their value productivity. From the international viewpoint the morality of the postwar immigration policy of the United States may be questioned,[1] but of its economic effect in raising real earnings there can be little question.[2]

4. A fourth factor was discussed in Chap. II, and the allusion to it here may be very brief. To a considerable extent, as we have seen, the gain in real earnings between the 1890's and the beginning of the depression was due, not to the fact that more purchasing power was being received for the same kinds of work, but rather to the fact that a larger percentage of the working population during the latter years of the period was employed in the higher-paid occupations. The index of real average

[1] The argument from the internationalist viewpoint is, of course, that our present laws bar the hard-pressed workers of Europe from improving their position by coming to this country, where the ratio of natural resources and of capital to labor is greater, and wages consequently higher, and perpetuate the depressed condition of those remaining in European countries by preventing the lessening of the strain of population as it presses against the natural resources and capital of Europe that would result from migration of part of their populations to America.

[2] The rate of growth of the labor supply has undoubtedly been checked in recent years by still another cause: a greater decrease in the birth rate than in the death rate, with an attendant reduction in the rate of net fertility. Our vital statistics for the years prior to 1915 are too inadequate to justify attempt at quantitative measurement of this factor. There can be no question, however, that in the last twenty years the more rapid decline in the birth rate than in the death rate has been a factor decreasing the rate of growth of the labor supply.

annual earnings per employed person (1890–1899 = 100) stood at 135 when the various groups of workers were weighted according to the number employed each year, but at only 123 when the groups were weighted according to their numerical importance in 1890. In other words, approximately one-third of the gain enjoyed was the consequence of occupational shifting rather than of increased real remuneration for the same kinds of work.[1] It would seem that the aggregate effect of labor-saving machinery and of mechanization was to release a portion of the working population from the lower-paid occupations, and to increase the proportion of those employed in the higher-paid ones.

5. Equally brief allusion may be made to a fifth cause: the increase in the number of clerical workers. In 1899, according to the Census of Manufactures, the ratio of clerical and supervisory workers to manualists was approximately 1 to 13, while at the end of the 1920's it was almost exactly 2 to 13.[2] With the extension of free public education, more sons of the skilled and semiskilled workers, and some sons of unskilled laborers, have tended to enter clerical rather than manual occupations, and the consequent reduction in the rate of growth of the supply of manualists has increased their imputed productivity and at the same time prevented as rapid a rise in that of clerical workers. Real earnings of the latter group, it will be remembered,[3] increased relatively little between the turn of the century and the end of the 1920's, while those of wage earners increased by about one-third.

6. Finally, we may turn to the question of what, if anything, has been the role of trade unionism in the advance in real earnings. Except for the incidental suggestions already made of the possibilities, when the productivity theory is accepted as a working principle, of increasing real earnings through bargaining power, the present chapter does not concern itself with critical evaluation of the theory of collective bargaining.[4] It is relevant at this point, however, to ask whether the evidence available creates a presumption that trade unions were influential in bringing about the rise in real earnings that occurred prior to the depression.

[1] Professor Douglas, whose index numbers have been quoted, has kindly called the attention of the authors to a qualification that should be made to this imputation of about one-third of the gain to occupational shifting. The same cost of living index was used to deflate money earnings when the groups were weighted according to the number employed each year as when the 1890 weights were used. A considerable part of the shifting was, however, from rural to urban occupations, and some allowance should therefore be made for the higher cost of living in the cities. Such allowance would reduce the "spread" between indicated real earnings when occupational shifting is taken into account and when it is not. The reduction would not be great, however, and the fact that a larger percentage of the working population has been employed in later years in the higher-paid occupations deserves the mention here given it.

[2] *Abstract of the Fifteenth Census of the United States*, p. 743.

[3] *Supra*, pp. 100–101.

[4] This matter is discussed in some detail in vol. III of this treatise.

Upon this matter it is impossible to speak with certainty. Any evidence that is cited must be considered as merely presumptive, not conclusive. There are, indeed, probably few problems concerning which it is easier to fall into vicious *post hoc, propter hoc* reasoning. The comparative trend of earnings in unionized and nonunionized industries proves rather little, because both of the numerous other factors that may have influenced the wages trend in either group and of the possibility that union standards may indirectly have influenced wage levels in the unorganized trades. Moreover, the potential fear of labor organization may be a powerful force in keeping up wages in nonunionized industries. A few facts can, however, be presented for whatever their significance may be deemed to be. During the 1890's and the early years of the twentieth century, unionists were able to secure for themselves appreciably higher wages and shorter hours than the mass of workers,[1] but after 1914 wages in nonunion manufacturing industries apparently rose as rapidly as those in the union manufacturing trades. One deduction to be drawn from these facts would be that when labor organization becomes effective, it yields appreciable results in its early stages, but that thereafter the rate of gain enjoyed by its members tends to slow down to a speed not appreciably exceeding that of the nonunion industries.[2] It must be remembered, also, that the years that witnessed the greatest increase in real earnings—the 1920's—were years when unionism was not becoming stronger. So far as the circumstantial evidence is concerned, then, it seems impossible to attribute to trade unionism great influence in bringing about the rise of real earnings noted in Chap. II.

Yet this conclusion must be qualified, and it is not inconsistent with the conviction that if unionism were to be greatly weakened in those trades and industries where it is strongest, an appreciable fall in the earnings of the workers affected would result. It has already been noted

[1] Although this fact does not prove conclusively that unionism was responsible for the fact that the wages of unionists advanced more than did wages generally. Unionism at that time was largely confined to the skilled trades, and the differential may have been due in part to the superior trade skill of unionists.

[2] This is the conclusion reached by Professor Douglas (*Real Wages in the United States*, pp. 562–563). Professor Douglas supports his conclusion not only by a comparison of the relative increases of the union and nonunion groups, but also by the experience of specific union industries. "Thus the earnings in the bituminous coal fields were greatly increased as a result of the unionization of the fields in 1897, as were the earnings of the anthracite miners following the strike of 1902, which was promoted by the union. During the following years, however, the earnings failed in the main to keep pace with the cost of living and real wages in consequence fell. The experience of the Amalgamated Clothing Workers in the men's clothing industry has been very similar. The unionization of the important centers in 1919 was accompanied by a very sharp advance in both money and real wages, amounting to a gain over 1918 in relative purchasing power of 120 per cent. The increases thereafter have, however, been much more moderate."

that during the depression of 1921–1922 employers did not cut wages commensurately with the reduction in the cost of living, and that wage reductions were less severe than they had been during previous depressions. Employers at that time dreaded labor trouble, they saw unionism emerge from the depression with a membership approximately a million and a quarter less than that of the 1920 peak but still a million in excess of the 1914 level, they were acutely conscious of the possibility of unionization of their plants, and in consequence they substituted for the policy of cutting wages commensurately with the reduction in the cost of living the policy of reducing labor costs per unit through introducing personnel and welfare devices, and schemes of employee representation, which were expected to increase both individual and group efficiency. Moreover, even though one accepts the thesis that the chief influence of unionism in advancing wages appears to be manifested during its early stages in an industry, one can recognize the equally important function of maintaining gains already made and preventing what would be the beginning of a general labor underbidding process, extending in its effect to millions of unorganized workers as well as to the unionized group.

Explanations such as those just enumerated of the rise in real wages are, however, only suggestive of why the workers have fared as they apparently have in relation to other economic classes. In the preceding chapter we compared the trend of real earnings with the trend of per capita real income, real income per person gainfully employed, production per worker in particular industries, value product per worker, and the value productivity imputable to labor. The data were found to be somewhat conflicting, but in general a lag of real earnings per worker behind physical and value product per worker was discovered. Why has there been this lag?

1. It must be recalled, in the first place, that upon marginal-productivity grounds it is not to be expected that the return to any one factor will increase in exactly the proportion that production increases. Both qualitative and quantitative changes in the several factors determine their productivity at the margin, and therefore the rewards they tend to receive. Labor presumably shares in increased production to the extent that the increase is imputable to labor, capital to the extent that the increase is imputable to it. The average product of labor, or "production per worker," is merely an expression of total production in relation to the number of workers.[1] To a very great extent, as we have

[1] To a surprising extent, however, there has been confusion on this point, and some writers have reached the astounding conclusion that the validity of the marginal-productivity analysis is disproved by the failure of real wages to increase as rapidly as production per worker. *Cf.* the article by George Soule, "The Productivity Factor in Wage Determination," *American Economic Review, Supplement* (March, 1923), especially

already seen, the increased productivity per worker has been due to the increase in the amount of capital goods and to improvement in their form. This has had the effect of reducing the marginal productivity of capital, and increasing that of labor, hence bringing about a decline in the rate of interest[1] and the already noted increase in real wages. The total return to capital—which is, of course, part of the aggregate taken as the numerator when numbers of workers is taken as the denominator to determine product per worker—has, however, been the return per unit times the number of units employed, and the increase in the number of units of the capital factor relative to the labor factor provides a sufficient explanation of the lag of real earnings behind average productivity per capita or per gainfully employed person. Indeed, it is what one would expect, for had wages increased proportionately to the increase in output, there would have been nothing with which to pay interest upon the greater quantity of capital. When an increase in production is due to a greater use of capital, real wages must of necessity—unless the interest rate falls so much that the aggregate capital return is no greater than before—lag behind production.

The same result is to be expected when the increase in production is due to new inventions, machinery, and equipment which do not call for additional capital outlay. Under such conditions the return to capital would rise with its increased productivity, but labor would make no gains until an increased supply of capital resulted from the high rate of returns. When the supply of capital had increased appreciably, however, its marginal productivity would be lower and that of labor greater. Wages again would rise but—in view of the increased quantity of capital—not in proportion to the increase in product.

2. It is probably inaccurate, however, to attribute all of the increase in production per worker to the fact that the capital factor has become

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pp. 130–133. Perhaps the erroneous assumption that wages should follow average, not marginal, productivity may be traced partly to the fact that many of the standard textbooks—and even more of the instructors in economics the country over—do not distinguish sharply between diminishing average productivity and diminishing marginal productivity.

[1] It will be remembered that the Douglas index of fixed capital in manufacturing showed an increase of 331 per cent between 1899 and 1922, while the labor supply (persons employed with allowances for changes in the length of the standard working week) increased by only about 61 per cent. The supply of capital, in other words, increased at the approximate rate of 7 per cent per annum, compounded, and doubled every decade. During the period prior to 1920 the rise in the price level was much greater than the rise in interest rates, so that real interest rates diminished. This fall in the real rate of interest received by investors was in part responsible for the gains made by agriculture and by active businessmen, which helped to finance the War, and it was also one of the factors which permitted such rise in real wages as occurred between 1914 and 1920. During the postwar price decline the interest rate did not fall sufficiently to offset the appreciation in the value of the principal which resulted from the fall in the price level, but there was a decline in subsequent years which helped in part to make possible a rise of wages to a higher level.

relatively so much more important and to inventions and changes in the form of capital goods. Some part of it, in all probability, has been due to qualitative changes in the labor factor. With a higher general level of education, improvement in vocational training systems, and better health consequent upon more sanitary living conditions, workers on the whole are probably more efficient than they were a generation ago. Yet even though the larger total product be due to greater labor efficiency rather than to the increased quantity and improved form of capital, the theoretical expectation would be that real earnings would not increase as much as total product. Let us assume, first, the case of workers who are paid by the piece rather than by time. Output per worker is, we may say, doubled—all in consequence of greater labor efficiency. If piece rates remained the same, wages would immediately also double. This situation would, however, lower capital costs per unit of output, since capital costs would now be spread over a larger output, while labor costs per unit of output remained constant. Capital would therefore tend to be substituted for labor, and would absorb as its return part of the gain in production. The same tendencies would operate where labor was paid on the time basis, although more indirectly. In this case, also, labor would be unable to retain the entire gain in increased output.

3. A third explanation of the lag of real earnings behind physical and value product is to be found in the fact that the increase in production prior to the depression of the 1930's probably consisted more predominantly of producers' than of consumers' goods. The various indexes of production show that the supply of metals, stone, clay, glass, chemicals, and so forth, increased at a considerably faster rate than did the supply of food, textiles, leather, and other consumers' goods.[1] A large part of the expansion in production, therefore, apparently was in the form of additions to plant and equipment promising more goods in the future than would be possible without this larger supply of capital, but not during the years surveyed yielding corresponding increases in consumers' goods. So long as the rate of increase in the production of capital equipment exceeds the rate of increase in the volume of production as a whole, however, real wages are to be expected to lag behind general production, for it is only consumers' goods and services which are available to increase the real wages of the workers. Moreover, it should be noted that increased productivity may be expected to increase the real wages of the working class not only if it consists of consumers' goods as well as producers' goods, but also only if these consumers' goods come within the field of the workingman's budget. When improvements result in lower costs and increased production of goods not purchased by working-

[1] For the indexes upon which this generalization is based, see P. H. Douglas, *Real Wages in the United States*, pp. 509–524, and E. E. Day and W. Thomas, "The Growth of Manufactures," *Census Monograph VIII*.

men, the real incomes of other classes are increased, but there is no necessary gain for the wage earners. If the commodity in question is one in which labor is concerned only as a producer, not as a consumer, it may conceivably gain nothing from increased physical productivity.[1]

4. The increase in the number of marketing and selling functionaries, each receiving his return, is another fact relevant to the lag of real earnings behind physical and value product. While the simplicity of this explanation has made it a popular one, and we should avoid giving it too much weight, there can be little question that the expense of advertising, marketing, and distributing products has increased, and that persons so engaged, not the wage earners, have absorbed a larger portion of the physical products manufactured.[2]

5. The increasing scarcity of land and the greater differential advantage enjoyed by the owners—especially owners of urban sites—has frequently been suggested as one of the explanations of the failure of real earnings to advance as greatly as per capita production. While such data as we possess do not indicate that the proportion of our national income going in the form of economic rent has increased greatly, and certainly does not corroborate the more extreme position of the single taxers that the returns to labor and capital will constantly tend toward a minimum, the benefits of progress being absorbed by landowners,[3] the increasing economic value of land in relation to the other factors of production must be kept in mind.

6. In the exchange ratios of farm products and other products is to be found an explanation of the lag of real earnings behind per capita production, as well as of the increase in real wages during the postwar

[1] One qualification of this statement is necessary. If the increased production of a commodity which does not enter into the wage earners' budgets draws labor from other less productive fields, there is a higher margin of production over the whole field of industry. Diversification raises the margin of production, just as variety, according to the marginal-utility school, raises the margin of consumption. The development in the last generation of the automobile industry has probably raised the general wage level, for it has given employment to labor at a higher level of value productivity and thus has drawn labor from the lower levels of other industries.

[2] To a certain extent there has been a tendency in manufacturing to have these services performed by employees of the concerns, rather than by independent functional middlemen, and to the extent that there has been this tendency our fourth explanation of the lag of real wages behind productivity must be qualified, since these employees have been included in the denominator and the tendency is already accounted for in the index of production per employee.

[3] Henry George's error was in not taking sufficient account of the fact that the productivity of labor and capital *at the margin* might increase. The tendency toward receipt of unearned increment from the original and indestructible qualities of the soil can go on, economic rent can become larger in the absolute sense, but at the same time it need not absorb a larger proportionate amount of the national income and labor need not be pushed constantly down to the subsistence level if the productivity of labor and capital employed under most disadvantageous conditions (or at the margin, or on no-rent land) has increased.

period. While after 1918, and especially after 1920, the exchange value of farm products declined, the tendency from 1899 to 1919 was in the opposite direction. This had the effect of increasing the real incomes of farmers at the expense of urban workers, and accounts in part for the failure of real earnings to advance as much as production. It will be remembered that not until after 1920, when the ratios became adverse to the agriculturalists, did the important twentieth-century rise in real earnings begin.

7. Finally, we may cite a fact already mentioned in connection with things other than the trend of real earnings[1] that have affected the standard of living of the workers: the increase in the number of free goods they receive. A portion of labor's income does not appear in the pay envelope, but comes in the form of free goods and services. It is likely that in the future—in spite of the fact that the recently instituted social insurance program of the federal government, with its payroll-tax feature, the incidence of which is likely to fall largely upon wages,[2] does not carry out as many would wish the policy of extending the social services through taxation of those with greatest ability to pay—this free income will become greater rather than less. In other words, an increasing portion of our national income is being distributed not according to value principles but by social control based, presumably, upon principles of equity and need. This free income does not appear in the wage data from which indexes of the trend are made, and since its cost is typically placed in large part, through taxation, upon other economic classes, it results in both an increase in the real income of the workers and a compulsory deduction from that of other classes.

[1] *Supra*, pp. 132–134.

[2] This matter is discussed in some detail in vol. II.

Chapter V

DISTRIBUTION OF INCOME AMONG PERSONS AND FAMILIES: POVERTY AND INADEQUATE EARNINGS: DISTRIBUTION OF WEALTH

From the viewpoint of inquiry into the processes of distribution in capitalistic economy, the trends summarized in Chaps. II and III, and the suggested explanations of them in Chap. IV, are of basic importance. Yet it is evident that examination of these matters still leaves uncompleted our survey of the material progress and present conditions of the workers, in so far as this progress and these conditions are consequent upon the matters of wages and incomes, and that we must turn to another of the broad questions raised in Chap. I: How adequate have the earnings of the workers been to maintain socially desirable standards of living? What has been the extent of poverty and destitution? These questions, in turn, suggest others of closely related character. What, in general, has been the distribution of income among persons and families, as contrasted to the already-surveyed distribution according to economic function? What has been the approximate distribution of property ownership? What are the more basic forces making for inequality in the ownership of wealth? Are these forces so inherent in our present social, economic, and legal arrangements—so immutable and unalterable—that unless we abandon the system of capitalistic free enterprise the quest for means of control is but the proverbial search for the pot of gold at the end of the rainbow? It is with these questions that we shall grapple in the present chapter.

Distribution of Income Among Persons and Families

Distribution of income among persons and families is, of course, a consequence of the already surveyed functional distribution of income,[1] *i.e.*, of the shares going to the several factors of production. With only a minority of the population, as is indicated later,[2] owning property from which it derives any substantial income, and with the great majority of income recipients dependent for livelihood upon their wages and salaries, the proportion of the national income going in the form of interest, profits, and economic rent, as against the proportion paid out as wages and salaries, determines the degree of equality or inequality in the receipt of income

[1] *Supra*, pp. 161–170.

[2] *Infra*, pp. 262–271.

throughout the population. It should be remembered, however, that the facts about the distribution among persons and families create only a presumption as to the extent of poverty and inadequate earnings. Except for purposes of rough approximation, the income of persons cannot be placed in juxtaposition to the needs of standard families,[1] and even when the family is taken as the unit of observation—as it is for the most part in the pages immediately following—the fact that many families are not standard in point of needs must be taken into account. Nevertheless, the social significance of the distribution of income among persons and families is tremendous; and our attempt to determine with a modicum of accuracy the extent of poverty and inadequate earnings should be prefaced by a summary of the more important facts concerning distribution from the personal and family standpoint. Here again it is imperative—for the purposes of obtaining historical perspective, of avoiding an overweighting of temporary and ephemeral situations, and of gleaning an insight into long-run trends and changes—that we survey the situation over a considerable period of time.

Dr. W. I. King, in one of the earliest studies of the distribution of the national income,[2] revealed the economic inequality, so far as incomes were concerned, that later studies have also revealed. Some 69.43 per cent of the American families of 1910, he found, had incomes of less than $1,000 and received 42.48 per cent of the total national income; 81.69 per cent of the families received incomes of less than $1,200, their combined incomes being 54.72 per cent of the total; 94.86 per cent of the families had incomes of less than $2,000 and received 71.20 per cent of the total. Only 1.61 per cent of the families received incomes in excess of $4,000, but this 1.61 per cent of the families received 19.22 per cent of the total national income. The estimate of the National Bureau of Economic Research[3] of the 1918 distribution among individuals, not families, showed not greatly different results, as is indicated by the summary in Table 45.

The wide disparity in incomes and the concentration of the great bulk of persons in a relatively narrow income range are evident from an examination of the table. The poorest (in point of income received) 67 per cent of the persons in the country, those with annual incomes of less than $1,400, received slightly less than 40 per cent of the total national income; the 14.9 per cent of the persons with incomes between $1,400 and $1,800 received 15.2 per cent of the total national income; the 9.4 per cent with incomes of between $1,800 and $2,500 (enough to support a standard

[1] Because, as was pointed out in Chap. I (*supra*, pp. 61–62 and 68–71), many of the persons do not have families to support, the majority of families are not "standard" in point of needs, and some include more than one breadwinner.

[2] *Wealth and Income of the People of the United States*, p. 228 (The Macmillan Company, New York, 1915).

[3] *The Income in the United States* (1921).

TABLE 45.—DISTRIBUTION OF INCOME AMONG INDIVIDUALS, 1918[1]

Annual income less than	Cumulative percentage of persons	Cumulative percentage of incomes
$ 600	9.5	2.4
800	22.4	8.3
1,000	38.7	17.9
1,200	54.5	29.1
1,400	67.1	39.7
1,600	76.0	48.3
1,800	82.0	54.9
2,000	85.9	59.7
2,500	91.4	67.5
3,000	94 1	72.3
4,000	96.6	77.9
5,000	97.8	81 2
6,000	98.4	83.5
8,000	99 0	86 3
10,000	99.3	88.0
15,000	99.6	90.5
25,000	99.8	92.9
50,000	99 94	95 3
100,000	99.98	96.9
500,000	99 998	99 1
1,000,000	99.9996	99.5
Over 1,000,000	.00004	.5

[1] Adapted from *ibid.*, vol. 1, pp. 134–135.

family at a subsistence plus level in 1918) received 12.6 per cent of the total national income; and the "rich" 1.6 per cent of the persons, those with annual incomes in excess of $6,000, received 16.5 per cent of the total national income. Or, the 18 per cent of the population having incomes of $1,800 or more received 45.1 per cent of the entire national income.

Nor do studies made during the postwar period indicate any pronounced tendency toward a decreasing degree of income concentration. Dr. King's more recent analysis,[1] while not presenting population and income percentages for detailed income groups, shows that although the percentage of individuals whose incomes (in dollars of 1913 purchasing power) were less than $5,000, dropped from 99.3 in 1914 to 98.9 in 1926, the total of their incomes likewise declined, from 89.8 per cent of total national income in 1914 to 87.2 per cent in 1926. Persons with incomes of between $5,000 and $25,000 (in 1913 dollars) constituted 0.6 per cent

[1] *The National Income and Its Purchasing Power*, Chap. 7. The usefulness of this work is somewhat impaired by the fact that Dr. King, instead of giving the population and income percentages for detailed income groups, as was done in the earlier studies, merely divided individual incomes into four main classes: those (in constant 1913 dollars) of less than $5,000; those (again in constant 1913 dollars) from $5,000 to $25,000; those (in 1913 dollars) from $25,000 to $150,000; and those (in 1913 dollars) above $150,000. It is obvious that many in addition to the relatively poor and the wage earners are included in the first group, and that a more detailed breaking up would have been illuminating.

of the recipients in 1914 and 0.96 per cent in 1926, and their share of total income rose from 5.8 per cent in the former year to 7.3 per cent in the latter. The percentage of income recipients in the next highest group—those with incomes (in 1913 dollars) between $25,000 and $150,000—increased from 0.064 to 0.106 between 1914 and 1926, and their share of total income rose from 3.1 to 3.8 per cent. The highest income group, individuals who received (once more in 1913 dollars) $150,000 or more a year, increased from 0.004 to 0.005 per cent of the total between 1914 and 1926, and their share of the national income rose more than their numbers—from 1.3 per cent in 1914 to 1.7 per cent in 1926. These data indicate little, if any, less inequality in the distribution during the 1920's than during the prewar and War periods. It is true that the gains made by the two middle classes might be construed to show a decreasing degree of income concentration;[1] but these two classes are inclusive of only the minority having incomes of from $5,000 to $150,000; it is in the distribution *within* the "less than $5,000" group that the significant facts so far as the relative gains or losses of the great majority having small incomes are to be found, and in any event the change indicated was not great.[2]

The situation at the end of the 1920's has been summarized by the Brookings Institution in one of the most complete studies of the national income yet published.[3] Attention was focused upon the distribution among families, since the family is, in the main, the unit of living and it is the family group which disposes of the incomes received, but distribution of income among individual recipients was also investigated. It was estimated, on the basis of the 1930 Census, that at the end of 1929—the year for which personal and family distribution was studied—there

[1] Dr. King concluded, on the basis of this study and his others, that such a tendency is indicated.

[2] The Treasury Department information on individuals making returns under the federal income tax law also creates a presumption that there was little, if any, lessening in inequality during the 1920's. The year 1928, the last preceding the beginning of the depression and one of relative prosperity, may be taken for illustrative purposes. In that year more than 4,000,000 individuals filed the income tax returns which were compulsory for married persons receiving $3,500 a year or more and for single persons receiving $1,500 a year or more, although the total gainfully employed population was then approximately 47,000,000. Within this relatively small group of individuals who had incomes in excess of this modest minimum, more than a million, or about one-fourth, reported incomes under $2,000; almost 2,000,000, or almost one-half, reported incomes under $3,000; and over 3,000,000, or more than three-fourths, reported incomes under $5,000. At the other extreme were 511 individuals, as compared with only 152 in 1918, who reported annual incomes for 1928 of $1,000,000 or over. About 16,000 individuals in 1928, as compared with 7,500 in 1918, reported an annual income of $100,000 or over. Although this last group constituted less than 0.5 per cent of the entire group of individual income taxpayers, its members received about 18 per cent of the total individual incomes reported to the Treasury Department for 1928.

[3] Leven, Moulton, and Warburton, *America's Capacity to Consume* (1934), especially Chap. 5 and Appendix *A*, Parts V and VI.

were in the United States 27,474,000 families consisting of more than one person, and 2,351,000 persons classified as families because of their occupancy of individual living quarters. In addition, some 6,637,000 income-receiving individuals lived outside of family groups, and the necessary inclusion of these individuals[1] raised the total number of disposing units to approximately 36,462,000. Also, approximately 12,600,000 individuals were listed as income receivers whose income supplemented that of the family groups of which they were a part, and hence in the 36,462,000 income-disposing units account was in effect taken of a total of 49,000,000 individual incomes. The average number of persons in the 27,474,000 families of more than one member was found to be just above four, the aggregate income received by them about $77,000,000,000, the average (arithmetic mean) income per family in 1929 approximately $2,800, and the median income $1,700.[2] The 8,988,000 unattached individuals, including the one-person families, received in 1929 an aggregate income of $15,834,000,000, or about $1,760 per capita.[3] What were the essential facts about distribution of income among these families and individuals?

Table 46, in which the number and percentage of families in the various income groups and their aggregate incomes have been arranged in $500 intervals up to $5,000, $1,000 intervals from $5,000 to $10,000, and varying intervals thereafter, indicates the wide disparity in incomes just before the depression and the concentration of the great bulk of families in a relatively narrow income range. It must be borne in mind that these income figures are for families of two or more persons, averaging a fraction more than four, and that they include the earnings of children and other supplementary earners living at home as well as the income of the main breadwinners.

The persistence of the problem of economic inequality is indicated beyond doubt by the following facts, as revealed in the table: (1) Nearly six million of the American families, or 21 per cent of the total, had incomes in 1929 of less than $1,000, and their aggregate income—even when the negative incomes shown by some of the families have been eliminated—amounted to $3,500,000,000. In other words, about 21 per cent of the families received only 4.5 per cent of the total income received

[1] Necessary, perhaps it is gratuitous to explain, since they, like families, disposed of income received either in the purchase of consumers' goods or through investment.

[2] That is, there were as many families with incomes less than $1,700 as there were with incomes in excess of that amount.

[3] It will be noted that the income figures here given aggregate about $93,000,000,000 and do not coincide with the figures of produced national income presented in the preceding chapter (*supra*, p. 140). The reason for the difference is that the figures here given represent the realized income of families and individuals, including profits from the sale of property, securities, etc., and an allowance for income from certain durable consumption goods.

TABLE 46.—THE NUMBER AND INCOME OF FAMILIES BY INCOME CLASSES, 1929[1]

Income class (in dollars)	Total in each class				Cumulative totals			
	Families[a]		Income[b]		Families		Income	
	In thousands	As percentage of total	In millions of dollars	As percentage of total	In thousands	As percentage of total	In millions of dollars	As percentage of total
Under 0[c]	120	0.437	−615	−0.797	120	0 437	−615	−0 797
0 to 500[c]	1,982	7 214	596	0.773	2,102	7.651	−19	−0.024
500 to 1,000	3,797	13 820	2,919	3 785	5,899	21.471	2,900	3.761
1,000 to 1,500	5,754	20 943	7,197	9.333	11,653	42.414	10,097	13 094
1,500 to 2,000	4,701	17.111	8,167	10.590	16,354	59.525	18,264	23 684
2,000 to 2,500	3,204	11 626	7,153	9.276	19,558	71.187	25,417	32 960
2,500 to 3,000	1,988	7.236	5,433	7.045	21,546	78.423	30,850	40 005
3,000 to 3,500	1,447	5 267	4,678	6.066	22,993	83.690	35,528	46 071
3,500 to 4,000	993	3 614	3,710	4.811	23,986	87 304	39,238	50 882
4,000 to 4,500	718	2.613	3,041	3 943	24,704	89 917	42,279	54.285
4,500 to 5,000	514	1 871	2,437	3 160	25,218	91 788	44,716	57.985
5,000 to 6,000	666	2.424	3,632	4 710	25,884	94 212	48,348	62 695
6,000 to 7,000	407	1.481	2,628	3 408	26,291	95 693	50,976	66 103
7,000 to 8,000	252	0 917	1,883	2.442	26,543	96 610	52,859	68 545
8,000 to 9,000	172	0 626	1,459	1.892	26,715	97 236	54,318	70.437
9,000 to 10,000	128	0 466	1,218	1.579	26,843	97 702	55,536	72 016
10,000 to 15,000	304	1 107	3,666	4.754	27,147	98 809	59,202	76.770
15,000 to 20,000	108	0 393	1,856	2 407	27,255	99 202	61,058	79 177
20,000 to 25,000	59	0 215	1,309	1 697	27,314	99.417	62,367	80 874
25,000 to 30,000	35	0.127	965	1.251	27,349	99.544	63,332	82 125
30,000 to 40,000	40	0.146	1,395	1.809	27,389	99 690	64,727	83 934
40,000 to 50,000	22	0.080	984	1.276	27,411	99.770	65,711	85 210
50,000 to 75,000	27	0 098	1,616	2 096	27,438	99.868	67,327	87 306
75,000 to 100,000	12	0 044	1,036	1.343	27,450	99.912	68,363	88 649
100,000 to 250,000	16	0.058	2,164	2 806	27,466	99 970	70,527	91 455
250,000 to 500,000	4	0.015	1,500	1 945	27,470	99 985	72,027	93 400
500,000 and over	4	0.015	5,089	6 600	27,474	100 000	77,116	100 000
All classes	27,474	100 000	77,116	100 000	27,474	100 000	77,116	100.000

[a] All families of two or more persons.

[b] Includes income from occupation, investments, and from sale of property; also includes imputed income on owned homes, but does not include imputed income on durable consumption goods other than homes.

[c] The estimates for this class are highly tentative.

[1] From *America's Capacity to Consume*, p. 54.

by all American families. (2) Nearly twelve million families, or more than 42 per cent of the total, had incomes of less than $1,500, their aggregate income amounting to about $10,000,000,000, or 13 per cent of the whole of family income. (3) Between nineteen and twenty million families, or 71 per cent of all American families, had incomes of less than $2,500. The incomes of this seven-tenths of the families aggregated $25,417,000,000, or about 33 per cent of all income received by families. (4) Only a little over two million families, or 8 per cent of the total, had incomes in excess of $5,000, but their combined incomes were $32,400,000,000, or 42 per cent of all of the income going to families. (5) Only

about 600,000 families, or 2.3 per cent, had incomes in excess of $10,000. This 2.3 per cent of the families, however, received approximately 28 per cent of the total received by families, or an aggregate amount of about $21,500,000,000. (6) The 36,000 families having incomes in excess of $75,000 received an aggregate income that year of approximately $9,800,000,000. In other words, 0.1 per cent of the families at the top of the income scale received practically as much as did the 42 per cent of the families at the bottom of the scale. The presumption—examined in detail in the following section of this chapter—that even during the relatively prosperous 1920's the incomes of a large portion of the American families were insufficient to enable them to maintain a health and decency livelihood is indeed strongly created by these data.[1] The distribution of income among unattached individuals and one-person families was found to have been even more unequal in 1929 than that among families.[2] A still more unequal distribution of income apparently has obtained in countries other than in the United States.[3] While the already referred

[1] It will be remembered that in an earlier chapter (*supra*, p. 66) the estimate is made by the authors that between $1,450 and $1,800 was necessary to support a standard family at the subsistence plus (or minimum health and decency) standard in the larger cities of the United States during the period of relatively stable prices between 1922 and the beginning of the depression of the 1930's. The Brookings Institution has made a somewhat more liberal estimate, and suggests that a family income of $2,000 was perhaps necessary, at 1929 prices, to supply basic necessities. It is significant to note that more than 16,000,000 families, or practically 60 per cent of the total number, were below this standard of expenditures. If the authors' more conservative estimate of the cost of family necessities and minor comforts is adopted, the percentage and absolute number of families were somewhat less, but still strikingly large. It must, of course, be borne in mind that the size of the average 1929 family was more nearly four than the assumed standard of five. On the other hand, as was indicated in an earlier chapter, the assumption is generally made that the earnings of the chief breadwinner should be sufficient to support the family, whereas the data just summarized represent family income from all sources.

[2] The Brookings Institution's conclusions on distribution of income among unattached persons and one-person families are presented in Appendix *A*, pp. 222–238, of *America's Capacity to Consume*. In brief summary form, these were the main conclusions: About 18 per cent of the individuals had incomes of less than $500, as compared with about 7.6 per cent in the case of families. About 46 per cent of the individuals had incomes of less than $1,000, as compared with about 21 per cent among families. Approximately 82 per cent of the individuals had incomes under $2,000, whereas about 60 per cent of the families were below this level. The less favorable position of the individuals, as compared with the families, is probably attributable to the fact that many of the families had more than one income recipient. Also, the unattached individuals probably represent a selected group with respect to age, sex, and perhaps also efficiency. The group of course includes a larger percentage of women and young persons than does the family group.

[3] Recent studies comparable to those of the American situation just summarized are not available for England and Germany, but it is certain that there has not been any tremendous lessening of the prewar inequality in these countries. In England, it is true, more progressive taxation has probably resulted in a somewhat less unequal distribution of income. The earlier studies may be summarized briefly. Mr. Chiozza-Money, in his *Riches and Poverty*, concluded that one-half of the entire income in the United Kingdom

to studies of the national income during the depression years of the

was in 1906 enjoyed by one-ninth of the population, and that more than one-third of the entire income went to less than one-thirtieth of the people. Classifying the population according to whether people were living "in riches," "in comfort," or "in poverty," Mr. Chiozza-Money found that 3 per cent of the population came within the first class, 9 per cent in the second, and 88 per cent in the third class. The share of the national income going to each group is shown in the following table:

Persons Living in	Number (000 omitted)	Income (in millions of dollars)	Percentage of population	Percentage of national income
Riches:				
Persons with incomes of over $3,500 per annum and their families (250,000 × 5)	1,250	2,925	3	35
Comfort:				
Persons with incomes between $800 and $3,500 per annum and their families (750,000 × 5)	3,750	1,200	9	14
Poverty:				
Persons with incomes of less than $800 per annum and their families	38,000	4,275	88	51
Total	43,000	8,400	100	100

Mr. Chiozza-Money was led to conclude: "The great fact emerges that the enormous annual income of the United Kingdom is so badly distributed amongst us that, out of a population of 43,000,000, as many as 38,000,000 are poor. It is no longer incredible that in a population of 43,000,000 people . . . there exist thirty per cent living in the grip of perpetual poverty. When we realize that 38,000,000 out of our 43,000,000 are poor, the United Kingdom is seen to contain a great multitude of poor people, veneered with a thin layer of the comfortable and rich." This statement is, however, something of an exaggeration, probably a consequence of the method Mr. Chiozza-Money used in estimating distribution. He assumed each income-tax payer was the head of a family of five, and that therefore five million persons were in 1906 receiving the $4,050,000,000 of the national income reported by income taxpayers. The remainder of the population (thirty-eight million) therefore, he concluded, received some $4,275,000,000, or the remainder of the national income. The assumption that each income-tax payer was the head of a family of five had the effect of increasing the number of persons who, according to this study, were receiving more than $800; on the other hand, many of the thirty-eight million not members of families one of whose members reported an income of more than $800 were not dependent upon themselves for support. Many were women and young persons. The

MONEY INCOME OF DIFFERENT FRACTIONS OF THE POPULATION IN PRUSSIA AND IN THE UNITED STATES IN 1910

Class of population	Country	Percentage of total income received by class	Average per capita income in dollars	Ratio of income to that of same class in United States
Poorest, 65 per cent	Prussia	35.8	74.0	37 0
	U. S.	38.6	197.0	100 0
Lower middle class, 65 to 80 per cent	Prussia	12.7	114.0	36.8
	U. S.	14.2	314.0	100.0
Upper middle class, 80 to 98 per cent	Prussia	27.6	203.0	41.0
	U. S.	26 8	494.0	100.0
Richest, 2 per cent	Prussia	24.5	165.6	48.9
	U. S.	20.4	368.6	100.0
All classes	Prussia	100.0	135.0	40.7
	U. S.	100.0	332.0	100.0

1930's[1] do not include estimates of distribution among persons and families, the facts cited in an earlier discussion about the trends of property, entrepreneurial, and labor incomes[2] are sufficient to suggest strongly that the lower income groups, in addition to their tragic absolute loss in material well-being, have also experienced a relative loss, and that distribution of income among persons and families in the middle 1930's was if anything somewhat more unequal than during the 1920's.

Poverty and Inadequate Earnings

It has been said that "most of the evils inherent in the existing industrial system express themselves finally in terms of poverty, unemployment, and inadequate and irregular earnings." Two of these manifestations of imperfection in our modern industrialism—inadequate earnings and poverty—must now have our attention. That they have constituted, and still constitute, great and extensive problems needs hardly be stated. While it would be unscientific to place family needs in juxtaposition to the percentage of families and persons receiving less than stated amounts, and hence draw dogmatic conclusions from the data summarized in the immediately preceding section of this chapter as to the extent to which modern capitalism has failed to provide for its workers a decent livelihood, the information just presented on the percentage distribution of families within different income classes indicates all too clearly that there has been an ever-present problem of insufficient earnings. Common knowledge of conditions during the middle 1930's, when at one time some 20,000,000 persons in the United States were directly or indirectly dependent upon the federal and state relief agencies, perhaps makes even more unnecessary a statement of the existence of these problems. Nevertheless, our knowledge of these problems would be meager and unsatisfactory were we merely to take for granted their existence and the horrors and startling incidents accompanying them. We must, on the contrary, survey a considerable amount of factual material relevant to the extent of poverty and inadequate earnings, to the question of how many of the wage earners have been able to maintain a socially desirable standard of life, to the causes of poverty, and to the question of whether the problems have become more or less extensive as the years have passed.

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sum-total effect of this method was to exaggerate the extent of poverty. In Prussia, which may be taken as fairly typical of Germany, distribution of income among families has been a trifle more unequal than in the United States. Dr. King's comparison of distribution in Prussia and in the United States is given in the table at the bottom of p. 226. It should be noted that average income in dollars was appreciably higher for all classes in the United States than in Prussia.

[1] *Supra*, pp. 147–149.

[2] *Supra*, pp. 166–168.

Poverty in England.—In England, where per capita production has been appreciably less than in the United States, and where income distribution, as we have seen, has been rather more unequal, poverty has undoubtedly been the common lot of a larger portion of the wage-earning class than in this country. Several of the more important investigations, extending from the late nineteenth century to the present time, indicate this fact clearly. Charles Booth, after one of the earliest surveys of poverty in England, conducted during the years following 1886, discovered that 30.7 per cent of the population were living at either the bare subsistence level or in actual poverty.[1] A decade later B. Seebohm Rowntree found that 15.46 per cent of the working class in York, a fairly typical manufacturing city, were living in "primary" poverty (*i.e.*, had incomes insufficient to purchase the minimum quantum of goods necessary to maintain physical efficiency) and that 43.4 per cent of the wage earners were living in either primary or "secondary" (*i.e.*, the condition where total earnings would have been sufficient to maintain physical efficiency had part of it not been spent for other purposes) poverty.[2] More than half of the primary poverty (52 per cent) was found to be due to low wages; about one-fifth (22.18 per cent) to largeness of family; approximately one-sixth (15.63 per cent) to the death of the chief wage earner; a fraction more than one-twentieth (5.11 per cent) to the illness or old age of the chief breadwinner; and approximately the same amount (5.14 per cent) to irregularity of work and unemployment.[3] Nor was

[1] Booth's *Labour and Life of the People of London*, a classic in its field, was published in 1891. Booth and his collaborators covered the entire east side of London by a house-to-house canvass and the rest of the city by an elaborate series of samplings and estimates. In this study "poverty" was taken to include those living at the bare subsistence level as well as those living at what we defined in an earlier chapter (*supra*, p. 64) as the poverty level, Booth's explanation of his classification being as follows: "My 'poor' may be described as living under a struggle to obtain the necessaries of life and make both ends meet; while the 'very poor' live in a state of chronic want. It may be their own fault that this is so; that is another question. My first business is simply with the numbers who, from whatever cause, do live under conditions of poverty or destitution." What Booth designated as "questions of employment"—low pay, lack of work, irregular work, and all matters connected with the employment relationship of the worker—were found to be responsible for 61.5 per cent of all poverty; what were denominated "questions of circumstance"—illness, accidents, largeness of family, etc.—were responsible for 23 per cent of the poverty; while "questions of habit," such as idleness, thriftlessness, and drunkenness, were responsible for 15.5 per cent of the poverty.

[2] *Poverty: A Study of Town Life.* Rowntree canvassed practically every wage earner in York, tabulating his earnings and domestic circumstances. In addition to ascertaining family income in each case, he compared this income in each case with needs in view of the size and the age and sex composition of the family, using a standard of necessary per capita consumption formulated along lines similar to those utilized in working out the *fammain* and *ammain* scales mentioned in Chap. I.

[3] These percentages apply only to primary poverty; while the causes of secondary poverty were not analyzed, low wages undoubtedly were an even more important factor. The fact that low wages were responsible for more than half the primary, and for still more

there appreciable diminution of poverty in England between the turn of the century, when Rowntree's study was made, and the outbreak of the War in 1914. An investigation made in 1912 and 1913 by Professors A. L. Bowley and A. R. Burnett-Hurst[1] of wages, working conditions, and family circumstances in five typical English towns[2] revealed, in fact, that the general extent of poverty among the wage earners in these five towns as a whole was virtually the same as discovered by Rowntree in York twelve years earlier,[3] and that there had been little change in the relative importance of the various causes.[4] So far as the English prewar situation is concerned, these generalizations seem to be warranted: (1) Poverty was the common lot of many wage-earning families, approximately 15 per cent living in chronic primary poverty and double that proportion in primary or secondary poverty. (2) Low wages were by far the most important single cause, with largeness of family ranking second. (3) Unemployment was much less important as a cause than it became during the postwar period and was in the United States during the years prior to 1914.

In some respects, English economic life has undergone profound changes during the last twenty or twenty-five years, and these changes inevitably have had their effect upon the status of the more submerged workers. The fall in the birth rate, the loss of life during the war, the rise in prices between 1914 and 1920 accompanied by a somewhat greater rise in the weekly wages of unskilled workers, the depletion of capital equipment and the general disruption of normal economic life in conse-

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of the secondary, poverty and the relative importance of largeness of family are worthy of note. In the United States, as is indicated later, low wages have been relatively less important as causes of poverty and unemployment a relatively greater factor. During the postwar period in England, again as is indicated later, unemployment became an appreciably more important cause of poverty.

[1] Bowley and Burnett-Hurst, *Livelihood and Poverty.*

[2] Northampton, Warrington, Stanley, Bolton, and Reading.

[3] To be more exact, Bowley and Burnett-Hurst found that 9 per cent of the workers were living in primary poverty in Northampton, 15 per cent in Warrington, 29 per cent in Reading, 8 per cent in Bolton, and 6 per cent in Stanley. It was found that the average size of the families of wage earners in these five towns was 4.5 persons, and that on the average 1.85 persons were employed in each family.

[4] Bowley and Burnett-Hurst found that 45 per cent of all primary poverty was due to the fact that family income was insufficient to support four children, 26 per cent was a result of the fact that the family income was insufficient to support three children, 14 per cent was caused by the death of the chief breadwinner, 11 per cent was due to illness or old age, while unemployment and irregular work each caused 2 per cent. The causes Rowntree found to be first and second in importance—low wages and largeness of family—were responsible, it will be remembered, for nearly 75 per cent of the poverty in York; Bowley and Burnett-Hurst combined these two causes as one, and found that a little more than 71 per cent of all primary poverty was a result of the fact that family income was insufficient to support either four or three children.

quence of the War, an enormous amount of unemployment after 1921, the extension of the trade-boards system of wage regulation to occupations other than those notoriously sweated, the development of the various forms of social insurance, taxation policies placing more of the cost of government activities and services upon the wealthy, the increased political strength of labor, and finally the great depression of recent years are all factors that have had their influence, either directly or indirectly. Conflicting though these various tendencies and developments have been, it seems clear that their sum-total effect by the late 1920's was to elevate the status of the lowest-paid of England's wage earners, even if not to mitigate greatly the plague of insufficient earnings for the much larger number escaping primary poverty but unable to maintain a health and decency livelihood.[1] A survey conducted by Professor Bowley and Margaret H. Hogg in 1924 of the same towns investigated in 1912 and 1913[2] showed that even with allowance for the unemployment that was rather prevalent in 1924,[3] the percentage of the workers living in primary poverty was only about half of what it had been eleven or twelve years earlier.[4] The two outstanding causes of this appreciable diminution

[1] It will be remembered (*supra*, pp. 76–77) that real earnings of all labor probably rose some, but certainly not greatly, during the War period, and that after the War English unions were in a position to prevent as great reduction in wage rates as took place in the United States. Nevertheless, the diminution in poverty indicated by the study cited in this paragraph was substantially greater than the increase in real earnings of labor in general, and it is likely that the effect of the War and postwar economic changes was to elevate the lower strata of labor rather than to produce comparable improvement in the conditions of labor generally.

[2] Bowley and Hogg, *Has Poverty Diminished? A Sequel to Livelihood and Poverty* (P. S. King and Son, London, 1925).

[3] The 1924 study took as the "poverty line" the same standard of living that had been used in *Livelihood and Poverty*, all families being classified as above or below it. Under income were included all earnings, the value of houses or other property owned, old-age pensions, war pensions, and superannuation pensions from employers. Poor relief and help from public or private charity, as well as income received from boarders and lodgers, were excluded. The 1924 tabulation differed from that of more than a decade earlier in that a double classification of income was made. The assumption in *Livelihood and Poverty* had been that all workers usually capable of work were receiving their normal wage (or were regularly employed)—an assumption that probably resulted in an understatement of the extent of poverty. A tabulation upon this assumption was made in the study published in 1925, and to it was added a second showing the position of the wage-earning families in the actual week each was investigated, the income computed being that actually received in the week. The opinion of Professor Bowley was that the accurate view lay between these two, for since in many cases unemployment was for short periods, the income averaged over a month would be more than that shown in figures tabulated upon the basis of income in the week of the investigation. The second basis, of course, showed a greater amount of poverty than did the first, owing to the appreciable amount occasioned by unemployment.

[4] Upon the first basis of comparison—*i.e.*, making no allowance for unemployment—the proportion of families in primary poverty in the towns as a whole was found to have fallen to one-third of its former extent.

were diminished needs due to the smaller number of children in the average family and higher real earnings,[1] the authors estimating that the latter cause had been approximately twice as important as the former.[2]

The general conclusions to which the study just mentioned points—the continued prevalence of primary poverty in England throughout the years, a tendency toward diminution during the decade and a half prior to the depression, and a decreasing importance of low rates of pay and largeness of family as causes and an increasing importance of unemployment—are borne out by the most recent, and by far the most extensive, study of poverty in England.[3] In this survey, the entire city of London was again covered by substantially the same methods employed by the Booth investigators forty years earlier,[4] and the results indicated that in 1929 and 1930 the proportion of the London population living in "pov-

[1] Between 1913 and 1924, according to the Ministry of Labour's cost of living index, there was an increase of about 70 per cent in the cost of living. No marked difference between this increase in the cost of living over the Kingdom as a whole and the increase in the cost of the standard taken as the poverty line and applied in the particular towns was found by the investigators. In the same period, however, money wages of unskilled labor approximately doubled, while those of skilled labor in some industries doubled and in others increased by 70 per cent or less. At the same time that real wages were increasing, the average family became smaller, owing to the steadily declining birth rate, while the average number of wage earners per family increased a trifle. In 1913 the average family included 4.46 members, while the size of the average family in 1924 was 4.31. Of the 4.46 in 1913, 1.85 were earners, while 1.88 of the 4.31 members of the average 1924 family were earners. Owing to the reduction in the number of children under fourteen years of age, and especially those under five, the average number of nonearners per family was 2.61 in 1913 and 2.43 in 1924.

[2] In attempting to ascertain the relative importance of these two factors in causing the decrease in poverty, Professor Bowley and Miss Hogg calculated what reduction might have been expected in 1924 in view of the smaller number of nonearners per family had real wages remained substantially the same. The results showed that poverty would have been reduced by only about one-third of the amount it actually was reduced. The resulting conclusion, therefore, was that higher wages had been about twice as important as diminished needs in causing the reduction.

[3] *New Survey of London Life and Labour* (9 volumes). This study was directed by the London School of Economics and Political Science, the first of the nine volumes being published in 1933 and the last in 1935. The primary object of the survey, which was headed by Sir Hubert Llewellyn Smith and J. W. Verdier and aided by a consultive committee including Sir William Beveridge, George M. Booth, Professor A. L. Bowley, Sir George Duckworth, J. Gee, Professor J. Hilton, C. M. Lloyd, Lord Passfield (Sidney Webb), Professor L. C. Robbins, and S. K. Ruck, was to apply, as far as possible, the methods of Charles Booth and to ascertain what changes had taken place during the forty years since the classical Booth survey. Accordingly, Booth's conception of "poverty" and of the "poverty line," as described earlier, was adopted.

[4] Two independent estimates of the proportionate reduction in London poverty in the forty years 1889–1929 were made: a "street survey" (a classification of streets according to predominant economic status of their inhabitants and intensive study of all these inhabitants) and a "house sample survey," which included samples throughout the entire County of London. The two estimates showed remarkably close agreement on the proportionate reduction in poverty.

erty," as Booth had used the term,[1] was only one-fourth to one-third of what it had been forty years earlier. Whereas Booth had found 30.7 per cent of all families, and 37.3 per cent of wage-earning families, in the London area to be living in poverty, the street-survey investigation of 1929 showed that only 8.7 of the persons and 9.5 per cent of the families with children of school age (the figure that should be compared with Booth's percentage of 30.7 for the whole of London) to be so circumstanced, the absolute number of poverty-stricken persons being 490,000. "The relations between the poverty conditions of 1889 and 1929 may be otherwise expressed by saying that if the conditions of life and labour found by Charles Booth in the London of 1889 had continued to prevail, the total number of persons in the Survey Area in 1929 would have been upwards of a million and a half instead of less than half a million."[2] Similar conclusions were indicated by Professor Bowley's house-sample inquiry.[3] On the assumption that all earners in each family were employed full time, the percentage of wage-earning families in poverty was found to have dropped to 5.7 and the percentage of wage-earning persons to 4.6.[4] When allowance was made for unemployment, the

[1] The "poverty line" of both Booth in 1889 and of the investigators of 1929 and 1930 may be defined briefly as the amount of income necessary to provide a bare sufficiency by reasonable standards of food, clothing, shelter, warmth, etc. It will be recalled that this definition is inclusive of both primary and secondary poverty, or of those groups Booth defined as the "very poor" and the "poor." Changes in modes of living and in prevailing conceptions of what constitute the minimum necessaries of civilized existence, of course, rendered Booth's standard partially obsolete; but since one of the main objects of the new survey was to obtain a valid comparison between past and present, it was deemed essential to keep the same standards throughout, irrespective of any changes in the interval except the change in the purchasing power of money. As the director of the survey expressed it: "In view of the frequent use of the terms 'poor,' 'poverty,' and 'poverty line' . . . , it seems necessary to recall . . . the technical sense in which these terms are used, and the emphatic disclaimer . . . of any idea that the standards by which 'poverty' is measured are intended to represent the current standards of the present day. . . . There has been no attempt to fix a level of present-day 'poverty' according to present-day ideas. The sole aim has been to apply Charles Booth's standard to present economic conditions." (H. L. Smith, in *New Survey of London Life and Labour*, vol. 6, p. 2.)

[2] H. L. Smith, *ibid.*, p. 4.

[3] The results of which are set forth in detail by Professor Bowley in *New Survey of London Life and Labour*, vol. 6, pp. 86–111.

[4] *Ibid.*, p. 101. In the more recent survey, a double classification of income, comparable to that of Professor Bowley and Miss Hogg in their 1924 study of five towns, was made, the incomes of both persons and families being recorded on the basis of "full-time week" and of "week of investigation." The former, of course, involves comparison of what the income would be if all gainfully employed persons in the family worked full time with the cost of the budget of necessities, while the latter involves comparison of the income actually earned during the week the family was investigated (reduced below the full-time amount whenever there was unemployment) with the same budget. There undoubtedly is, as the director of the survey has observed (*ibid.*, p. 7), " 'something fictitious in assuming full-time earnings for all the workers,' but the comparison is of interest, if only as illustrating the preponderating extent to which present-day poverty is due to under-employment, as contrasted with under-payment."

percentages, of course, were higher, 9.8 per cent of the wage-earning families and 9.1 per cent of the persons coming within the poverty group, but still the extent of poverty was less than one-third of that revealed by Booth in 1889.

The indicated improvement may be viewed from a slightly different angle—that of the percentage of wage-earning families having a surplus above minimum needs. In 1929, allowing for unemployment, two-thirds of the working-class families had a surplus of 19 shillings or more a week, while in Booth's time two-thirds included the whole of the families above the poverty line.[1] The 1929 London survey revealed that while the sum total of poverty had greatly diminished, it had also become less congested and more dispersed, and that the proportions in poverty were greater among noncarning men and women over sixty-five years of age than in any other group. In the matter of relative importance of causes, the most important change during the four decades was found to be the greater importance of unemployment and the declining importance of insufficient wages and largeness of family. Old age and absence of a male wage earner had by 1929 become major causes of individual and family poverty.[2]

Inadequate Earnings in the United States.—In turning to the American situation, we begin to speak less in terms of the extent of "poverty" and more in terms of the extent of "inadequate earnings." The per

[1] For the percentage distribution of families according to surpluses or deficits of income in relation to the cost of the minimum standard, see *The New Survey*, vol. 6, pp. 110–111.

[2] The following tabular summary of apparent causes of poverty, which has been compiled from the data presented by Professor Bowley in *The New Survey*, vol. 6, p. 107, Table XXX, indicates the great importance of unemployment and of old age. In the left-hand column ("Full-time week") the relative importance of the causes of poverty is presented on the assumption that all earners in every family were employed full time, and in the right-hand column ("Week of investigation") account is taken of the unemployment actually experienced by these wage-earning families.

Cause	Percentage	
	Full-time week	Week of investigation
Old age	38	23.5
Illness or incapacitation	6	8
Woman (under 65) living alone	10	6
No male adult earner	22	15.5
Casual work	5	3
Unemployment or short time	..	33
Natural head of family in full work:		
Wages insufficient for 3 children:		
1, 2, or 3 children	7	4
4 or more	2	1
Wages sufficient for 3 children:		
4 or more	9	6

The survey also included an attempt to determine the extent to which poverty could be directly assigned to high rent. Professor Bowley concluded that the proportion of cases in which poverty can be directly so assigned is quite small.

capita productivity of this country, as we have already seen, has been appreciably greater than that of England, real earnings have been somewhat higher, and the distribution of neither income nor—as is indicated later[1]—wealth has been quite so unequal. But the problem of "inadequate earnings"—of the inability of working families to maintain standards compatible with health, decency, and self-respect—has been all too extensive, and the problem of poverty certainly has not been nonexistent. What have been the facts, then, regarding (*a*) the ability of adult male wage earners to support families at what we selected in an earlier chapter[2] as the minimum standard of decent living, (*b*) the portion of the wage-earning population which has actually been living below a minimum health and decency standard, and (*c*) the extent of poverty in the United States?

The Prewar Situation.—Real earnings of American workers in general were substantially lower during the early years of the century, as we have already seen,[3] than during the 1920's or even—so far as those fortunate enough to hold jobs were concerned—during the depression years of the 1930's, and greater prevalence of inadequate earnings and of poverty during these earlier years is therefore to be expected. All the evidence available indicates this to have been true. The great majority of adult male workers did not receive enough to support standard families at a minimum of health and decency standard; even with allowances for variation in family needs and for contributions from more than one member, a majority of the families of the unskilled workers, possibly even of all workers, were not able to attain this standard; and the problem of poverty was far from nonexistent. During the first six or seven years of the century, standard families with incomes of from $450 to $500 would have been barely able to escape poverty, and certainly, in view of prices at that time, a minimum of health and decency, or subsistence plus, standard would have cost between $700 and $800 in various parts of the country.[4] Yet average annual earnings of all workers in manufacturing,

[1] *Infra*, pp. 270–271.

[2] *Supra*, pp. 67–68.

[3] *Supra*, pp. 82–111.

[4] These estimates of the cost of the two standards are derived by taking the probable costs during the 1920's, as explained in an earlier chapter, and applying to them the Bureau of Labor Statistics' and other cost of living indexes for earlier and later years. It may be worth mentioning that various independent local studies tend to corroborate these estimates of needs. In 1902 the Massachusetts Bureau of the Statistics of Labor estimated that $800 would be necessary to support a family of five at a minimum of health and decency standard. (*Cf.* M. Parmelee, *Poverty and Social Progress*, p. 87, where this estimate is cited.) In 1905 Louise B. More estimated that between $800 and $900 was necessary for a standard family to attain the same level of living in New York City (*Wage Earners' Budgets*, pp. 269–270). In 1907 Robert C. Chapin estimated that $825 was necessary for a standard family in New York City (*The Standard of Living Among Workingmen in New York*).

coal mining, and transportation (with allowance for unemployment) were $469 in 1904, while those of unskilled workers in these lines were $443, and those of building-trades workers (without allowance for unemployment) $858.[1] It can be seen, then, that only in the case of the building-trades group were *average* annual earnings sufficient to enable a standard family to maintain the very modest livelihood encompassed within the minimum of health and decency standard. These averages are, however, only presumptive of the situation actually obtaining so far as living standards were concerned. From the viewpoint of determining what proportion of the adult males received incomes insufficient to enable them to support standard families decently, the percentage distribution of annual incomes rather than the average is significant;[2] and from the viewpoint—probably the more important one—of ascertaining the actual material status of wage-earning families, the incomes of family heads and of families, not of individuals some of whom did not have families to support, should be studied.

Fortunately, studies of the latter type are available. In 1903 the United States Bureau of Labor, after an investigation of approximately 25,000 wage-earning families,[3] reported that 4 per cent of the male heads of families received incomes of less than $300 a year, 30 per cent of less than $500, 48 per cent of less than $600, 65 per cent of less than $700, and 82 per cent of less than $800.[4] These incomes were, of course, supple-

[1] P. H. Douglas, *Real Wages in the United States*, pp. 389–403.

[2] Also, Professor Douglas' averages are those of the earnings of *all* workers—women, young persons, single men—not those of adult males or, of course, of adult males with families approximating the standard to be supported.

[3] U. S. Bureau of Labor, *Eighteenth Annual Report*, p. 285.

[4] The percentage distribution by occupations was as follows (*ibid.*, pp. 283–285):

PERCENTAGE OF HEADS OF FAMILIES EARNING LESS THAN EACH SPECIFIED AMOUNT

Type of work	Under $300	Under $500	Under $600	Under $700	Under $800
Bakers	3	19	37	65	94
Blacksmiths	2	10	25	42	66
Boilermakers	2	6	17	34	60
Bricklayers	2	6	14	23	42
Carpenters	4	22	40	64	86
Cigar makers	4	30	48	71	88
Retail clerks	1	9	26	46	69
Coal miners	7	59	81	93	98
Teamsters	5	36	63	89	98
Freight handlers	1	54	84	97	100
Laborers (iron and steel)	7	69	92	99	100
Laborers (miscellaneous manufactures)	12	75	91	99	100
Laborers (textiles)	22	91	99	100	100
Machinists	0	5	15	35	72
Masons	4	15	26	41	67
Moulders	1	8	18	38	68
Painters (hand trades)	3	19	45	72	87
Plasterers	1	13	27	46	70
Plumbers	1	3	8	19	37
Stonecutters	3	9	19	28	52
Tailors	3	31	54	73	85
Total (for all industries)	4	30	48	65	82

mented by the contributions of other breadwinners[1] and perhaps in a minority of the cases by income from sources other than wages. It is clear enough that the majority of these family heads earned amounts insufficient to enable them to support their families at the standard we have taken as the minimum of social desirability, and that a considerable proportion of the families either lived in poverty or just escaped it in consequence of contributions from the earnings of other members of the family and from sources other than wages.

Nor was there any appreciable diminution in the proportions of the problems of insufficient earnings and of poverty during the years prior to the War. The cost of living, as we have already seen, rose steadily, although not in the spectacular fashion of the War period, during the years between the turn of the century and 1914, and real earnings advanced but little.[2] Because of the rise in living costs, an annual income of between $500 and $600 certainly would have been needed to raise a family above the poverty level—the exact amount of course varying from place to place and increasing with the passing of time and the rise in the cost of living—during the latter years of the first decade and the early years of the second decade, and from $825 to $900 to enable a standard family to live at a health and decency level.[3] Yet a study made by the United States Immigration Commission in 1908 and 1909 of the earnings of male heads of families and of average family incomes among immigrants and those of immigrant stock[4] showed that average annual earnings of male heads of families ranged from $400 in the lowest paying industry (woolen and worsted manufacturing) to $662 in the highest paying (oil refining and collar and cuff manufacturing), and that average family incomes ranged from $568 for those families whose chief breadwinners were employed in the iron and steel industry to $904 for those whose chief breadwinners were employed in the manufacture of gloves.[5]

[1] Although from the social viewpoint the employment outside the home of mothers and young persons must be regarded as a cost, and the fact that such employment was necessary to bring the family more nearly to a subsistence plus livelihood, does not detract from the inadequacy of the earnings of the chief breadwinner.

[2] *Cf.* data on sources of income of typical families, *infra*, p. 243 and 250–253.

[3] These estimates of the cost of the minimum health and decency standard are, again, in substantial agreement with those made by various local investigators during this period. In 1910 J. C. Kennedy estimated that $800 was necessary to maintain a standard family at a minimum of decency level (*Wages and Family Budgets in the Chicago Stockyards District*), and in 1914 F. H. Streightoff estimated that $876 was necessary for a family to maintain the same standard in New York City and $722 in Buffalo ("Report on the Cost of Living," *Fourth Report of Factory Investigating Committee of New York*, 1915, pp. 1625–1656). Both the Kennedy and Streightoff budgets were, however, conservative, approximating more nearly the one described as the "minimum of subsistence level" rather than as the minimum of health and decency, or subsistence-plus, level in a preceding chapter. There is, therefore, substantial agreement in the estimate of family living costs.

[4] U. S. Immigration Commission, *Report* (1911), vol. 1, pp. 405–409.

[5] In each of the fifteen industries, the average earnings of males over eighteen years of

The average family income for all industries was found to be $721. In seven of the fifteen industries, it can be seen from examination of the accompanying footnote, the average annual earnings of male heads of families were below $550 (the median point in our estimate of $500 to $600 as the amount necessary to raise a family above the poverty level), but in no one of the fifteen industries were family earnings below $550. In other words, many families who would have lived in poverty had there been no additions to the chief breadwinner's earnings were apparently able to attain at least a minimum of subsistence livelihood in consequence of other contributions to the family income. More significant than the averages for the industries and for all industries, however, are the percentages of families having incomes of less than given amounts. As Table 47 indicates, some 31 per cent of the families had incomes of less than $500, 64 per cent of less than $750, and 82 per cent of less than $1,000.

TABLE 47.—PERCENTAGE OF FAMILIES WITH INCOMES LESS THAN SPECIFIED AMOUNTS, 1908 AND 1909[1]

Total family income	Percentage in group	Cumulative percentage
Under $300	8	8
$300 to $500	23	31
$500 to $750	33	64
$750 to $1,000	18	82
Over $1,000	18	100
Total	100	

[1] U. S. Immigration Commission, *Report*, vol. 1, pp. 405–409.

age and of male heads of families and the average family income were found by the Commission to be as follows:

Industry	No. of households	Average annual earnings, males 18 and over	Average annual earnings, male head of families	Average annual family income
Iron and steel manufacture	2,456	$346	$409	$568
Woolen and worsted manufacture	440	346	400	661
Cotton goods manufacture	1,061	401	470	791
Leather manufacture	302	431	511	671
Silk-goods manufacture and dyeing	272	431	448	635
Bituminous coal mining	2,381	443	451	577
Manufacture boots and shoes	710	502	573	705
Clothing manufacture	906	513	530	713
Sugar refining	194	522	549	661
Slaughtering and meat packing	1,039	557	578	781
Glass manufacture	660	574	596	755
Furniture manufacture	338	575	598	769
Oil refining	525	591	662	828
Glove manufacture	262	625	650	904
Collar, cuff, shirt manufacture	264	687	662	861
Total (in all industries, including some not specified above)	17,141	475	....	721

While the majority, but not all, of the families covered in this investigation were those of foreigners and first generation Americans, with incomes somewhat lower than those received by other groups of wage earners, the results portrayed surely are not untypical of the earnings of the unskilled and semiskilled workers in American industry at that time. Various local surveys made during the years just preceding the outbreak of the European War only go to substantiate the conclusion that there was a very extensive problem of insufficient earnings and a not negligible problem of poverty,[1] and data on average annual earnings suggest with unmistakable force the continued inadequacy of the earnings of the average worker for the support of a family.[2] Unemployment undoubtedly was more important, relative to low rates of pay, in causing poverty and the insufficiency of family earnings than it was in England during the prewar years.[3]

[1] The results of several of these local studies, extending from 1901 to 1910, have been summarized in tabular form by Messrs. Lauck and Sydenstricker in their *Conditions of Labor in American Industries*, p. 248, as follows:

Investigation and year in which it was made		No. of families included in data	Average annual income
Year	Source of data		
1901	Bureau of Labor's cost of living study, all sections of U. S., industries and races of workers	25,440	$749
1903–1904	Mrs. L. B. More: budgetary study of families in Greenwich Village, New York City	200	851
1907	R. C. Chapin: budgetary study of families of varied races and occupations in New York City	391	838
1907	New York State Conference of Charities and Corrections: studies of families of varied races and occupations in Rochester, N. Y.	100	600
1908	M. F. Byington (Russell Sage Foundation), families of steel workers in Homestead, Pa.	90	349
1908–1909	Bureau of Labor: studies of silk, cotton, men's clothing, and glass workers' families in various localities in which mothers and children were wage earners	8,741	883
1908–1909	Immigration Commission: data for families in 38 principal industries in all eastern and southern sections, of all races	15,726	721
1909–1910	University of Chicago Settlement: families of Chicago stockyards workers, principally of races of recent immigration	184	442

[2] Professor Douglas (*Real Wages in the United States*, pp. 468 and 472) has estimated that average annual money earnings (corrected for unemployment) of wage earners in manufacturing, coal mining, and transportation were $544 in 1914, and those of building-trades workers (with allowance for unemployment) $845. His estimates of building-trades workers' annual money incomes are based on union scales, and possibly overstate somewhat incomes actually received in 1914. Average annual money earnings of unskilled workers were estimated by Professor Douglas to have been $492 that year. Dr. King (*The National Income and Its Purchasing Power*, p. 146) has estimated average annual earnings of workers in all industries (with data corrected for unemployment) to have been $552 in 1914. Professor Brissenden ("Earnings of Factory Workers," *Census Monograph X*, 1929, p. 100) has estimated that average money earnings of workers in manufacturing in 1914 were $576.

[3] It will be remembered that neither Rowntree nor Bowley and Burnett-Hurst found unemployment and irregular employment together to be responsible for more than 5 or 6 per cent of the primary poverty in England during the prewar period, although the later

With all the qualifications that it has been necessary to suggest, several conclusions as to the wage situation in the United States seem inescapable: (*a*) Probably three-fourths of the adult male wage earners did not earn enough prior to the War to support standard families at a minimum health and decency level and many did not earn enough to maintain families above the poverty level. (*b*) The majority of wage-earnings families of the unskilled and semiskilled group, and possibly even a majority of all wage-earnings families, in spite of contributions to the family income from wives and children and in spite of the fact that many of them included less than the assumed five persons, were unable to maintain a health and decency standard of living. (*c*) The problem of poverty, while less extensive than in England, and while fluctuating more in accordance with the amount of unemployment, certainly was not nonexistent among the lower strata of American labor.

The Period 1914–1920.—Generalizations as to the extent of poverty and inadequate earnings during the period between the outbreak of the War in Europe and the peak of the War price cycle, in 1920, are extremely difficult to make. The period was one of economic and social confusion. Prices soared,[1] and the costs of the budgets we have been applying consequently advanced rapidly. Numerous women entered industry, and family incomes undoubtedly were augmented by their contributions to a greater extent than during the prewar period. Real wages, as we have

Bowley and Hogg investigation showed the marked increase in the importance of this cause during the 1920's. In the United States unemployment was much more important as a cause. The Immigration Commission, basing its study upon some 31,374 organized charity cases in forty-four cities, estimated the relative importance of the various causes of poverty as follows:

Apparent cause of need	Percentage of cases	Percentage of persons involved in assisted cases
Accident to breadwinner	3.2	3.3
Accident to another member of family	0.7	0.8
Death of breadwinner	5.7	6.1
Death of another member of family	1.1	1.3
Desertion by husband	7.5	7.1
Illness of breadwinner	20.8	19.7
Illness of another member of family	17.6	21.7
Incarceration of breadwinner	1.9	2.3
Insufficient earnings	19.9	22.3
Intemperance of breadwinner	7.7	9.2
Lack of employment	43.2	44.3
Loss by fire	0.3	0.5
Neglect by breadwinner	4.6	5.8
Old age	6.2	2.9
Other	9.9	8.8

[1] The Bureau of Labor Statistics cost of living indexes (1913 = 100) were as follows: December, 1914, 103.0; December, 1915, 105.1; December, 1916, 118.3; December, 1917, 142.4; December, 1918, 174.4; June, 1919, 177.3; December, 1919, 199.3; June, 1920, 216.5; December, 1920, 200.4.

already seen,[1] advanced only a moderate amount, although the rather rapid movement of workers from low-paying to better occupations, and the greater frequency of promotions, were factors improving, or at least preventing retrogression in, living standards. The incidence of the price rise also affected very unevenly the different economic groups. Perhaps the strain was greatest among the salaried workers. These conditions suggest that any conclusions drawn from the wage and income data and from surveys made during the period have to be cautious and tentative.

It is, however, possible to draw certain inferences and to set forth certain definitely ascertained facts. As an average over the country as a whole, a standard family, to escape poverty, would have required an income of approximately $1,125 to $1,175 in 1917 and 1918, while maintenance of a subsistence plus standard necessitated between $1,475 and $1,500. By 1920, when the cost of living reached its peak, these costs were about $1,350 to $1,400 and $2,125 to $2,200, respectively.[2] Of the inadequacy of the earnings of the *average* worker to maintain a family at the subsistence-plus level there can be little question. In 1919, according to the estimates of Professor Douglas, average annual money earnings of all workers in manufacturing, coal mining, and transportation were $1,167 and those of unskilled workers $1,128 (data in both cases being corrected to allow for unemployment), while building-trades workers

[1] *Supra*, pp. 92–101.

[2] These estimates are, of course, derived from changes in the cost of living over the country as a whole, as indicated by the Bureau of Labor Statistics index numbers. It may be mentioned, in passing, that various studies made during the six years here under survey agree in substance with the authors' estimates of living costs for standard families. In 1916 Professor W. F. Ogburn, after an analysis of the standard of living of governmental employees in the District of Columbia, concluded that an average family of man, wife, and three children could not exist at a minimum of decency if its annual income was less than $1,155 ["Movement of the Cost of Living and Wages," *Annals of the American Academy of Political and Social Science*, vol. 81 (1919)]. In 1917 Professor Ogburn estimated that $1,506 was necessary to support a standard family in Tacoma and Seattle (Bureau of Applied Economics, *Standards of Living, A Compilation of Budgetary Studies*, rev. ed., pp. 96–101). The Philadelphia Bureau of Municipal Research in 1918 set $1,637 as the amount necessary for a standard family in Philadelphia (*Workingmen's Standard of Living in Philadelphia*, 1919). A year later the Bureau estimated $1,803 as the necessary minimum in Philadelphia. In 1918 Professor Ogburn estimated for the National War Labor Board that $1,760 was necessary for a standard family to maintain a minimum of health and decency standard in the eastern cities of the United States (Bureau of Applied Economics, *op. cit.*, pp. 92–95). The National Industrial Conference Board, whose estimates have been uniformly conservative, in 1919 set $1,574 as the amount necessary for a standard family in Fall River, Mass. [*Cost of Living Among Wage Earners, Research Report* 22 (1919)]. The Chicago Council of Social Agencies estimated conservatively that $1,666 would have been necessary for a minimum of health and decency standard in Chicago in 1920, and $2,322 for a comfort standard [quoted by P. H. Douglas, in *Wages and the Family* (1925), p. 8]. The Labor Bureau, Inc., estimated in 1920 that $2,633 was necessary for a family to maintain a comfort (not minimum health and decency) standard in New York City.

(also with allowance for unemployment) had average incomes of $1,444.[1] The National Bureau of Economic Research's study showed that in 1918 average incomes in mining and transportation—occupations which are predominantly those of adult males—were $1,283 and $1,286, respectively.[2] A 1919 survey by the United States Bureau of Labor Statistics[3] of wages in twenty-two fairly typical manufacturing industries throughout the country revealed that weekly earnings of male employees varied from slightly under $20 to slightly over $30. An analysis of the National Industrial Conference Board's wage data, made by Professor Douglas,[4] revealed that in no one of the twelve industries covered by the Conference Board's studies were average weekly earnings sufficient in 1918, even had the workers been employed fifty-two weeks a year, to enable them to support families at the Philadelphia Bureau of Municipal Research's "minimum health and comfort level,"[5] and that an average increase in all the industries of 37 per cent was needed to bring full-time yearly earnings (*i.e.*, weekly earnings multiplied by fifty-two) up to this minimum of decency. By 1920 the situation had improved somewhat from the wage earner's viewpoint, but eleven of the twelve industries were still found to be paying wages insufficient to enable working-class families to attain the Philadelphia standard, and an average increase of 27 per cent was needed in these eleven industries to permit attainment of this standard.[6] It is beyond question that average earnings continued to be grossly inadequate during the War period.

[1] *Real Wages in the United States*, pp. 468, 472, and 477. Dr. King (*The National Income and Its Purchasing Power*, p. 146) has estimated that in 1919 annual money earnings (data corrected for unemployment) of all workers in manufacturing, mining, agriculture, construction, mercantile lines, transportation, public utilities, and a group of unclassified industries were $1,029.

[2] *The Income in the United States*, vol. 1, p. 102.

[3] "Industrial Survey in Selected Industries in the United States in 1919," *Bulletin 265* (1920).

[4] "An Examination of the Wage Statistics of the National Industrial Conference Board," *Quarterly Publications of American Statistical Association*, vol. 17 (September, 1921), pp. 900–904.

[5] A level, it should be mentioned, somewhat lower than embraced within the subsistence-plus or minimum of health and decency described in an earlier chapter (*supra*, p. 66) and applied in the foregoing pages of this chapter.

[6] The tables on p. 242 show, first, average weekly and hypothetical average yearly (*i.e.*, weekly times fifty-two) earnings in 1918 and 1920, and, second, the absolute and percentage increases necessary to bring full-time yearly earnings up to the minimum described by the Philadelphia budget. (Source, P. H. Douglas, *Quarterly Publications of American Statistical Association*, vol. 17, p. 903.)

Several cautions should be kept in mind as one interprets these statistics. As has been said, average weekly earnings (*i.e.*, total payroll divided by number of names on the payroll) have been multiplied by fifty-two to obtain average yearly earnings. There is, therefore, a considerable overstatement of yearly earnings, since the workers on the payroll in September, 1918, and March, 1920, are assumed to have been employed every week of each year. It must also be remembered, however, that some of these workers

For reasons already mentioned, however, comparisons based upon average earnings are not entirely satisfactory, and it is advantageous to supplement the data just summarized with a report on the actual

were minors and that their low wages bring down the general averages by industries. Examination of the second table reveals that in 1918 full-time yearly earnings ranged from $904 in the lowest-paid industry, furniture manufacturing, to $1,452 in the highest-paid, rubber manufacturing, and were between 13 and 81 per cent below the amounts necessary to support standard families at this modest standard of living. Many workers in each industry were, of course, earning more than the average weekly amount indicated by the

Industry	September, 1918		March, 1920	
	(a) Average actual weekly earnings	(b) Average yearly earnings (a × 52)	(c) Average actual weekly earnings	(d) Average yearly earnings (c × 52)
Boots and shoes	$23 62	$1,228	$27 70	$1,492
Chemical manufacturing	25 24	1,312	35 72	1,857
Cotton manufacturing	20 50	1,066	24 87	1,293
Furniture manufacturing	17 39	904	22 87	1,189
Hosiery and knit goods	22 50	1,170	27 65	1,438
Leather	23 36	1,215	30 18	1,569
Metal manufacturing	27 73	1,442	29 79	1,549
Paper manufacturing	23 20	1,206	28 82	1,499
Printing and publishing	23 69	1,232	31 67	1,647
Rubber manufacturing	27.93	1,452	36.32	1,889
Silk manufacturing	21.48	1,117	28 98	1,507
Wool manufacturing	22.98	1,192	28 70	1,492

Industry	September, 1918		March, 1920	
	Amount needed to bring full-time yearly earnings to minimum	Percentage increase needed to bring full-time yearly earnings to minimum	Amount needed to bring full-time yearly earnings to minimum	Percentage increase needed to bring full-time yearly earnings to minimum
Boots and shoes	$409	33	$393	26
Chemical manufacturing	325	26	28	2
Cotton manufacturing	571	54	592	46
Furniture manufacturing	733	81	696	59
Hosiery and knit goods	467	40	447	31
Leather	422	35	316	20
Metal manufacturing	195	14	336	22
Paper manufacturing	431	36	386	26
Printing and publishing	405	33	238	14
Rubber manufacturing	185	13	4[a]	
Silk manufacturing	520	47	378	25
Wool manufacturing	445	37	393	26

[a] Indicates excess.

Conference Board's data, and it would be highly erroneous to conclude that all workers were receiving less than was required to support standard families. On the other hand, many in each industry were receiving less than the average indicated for their industry. It will be noted that the situation had apparently improved somewhat by 1920. In all

incomes of wage-earning families during the period with which we are now concerned. In 1918 the United States Bureau of Labor Statistics made a survey of the incomes of wage-earner family heads and wage-earning families in ninety-two localities scattered throughout forty-three states, a study that included, in all, some 12,000 white and some 750 negro families.[1] The continued prevalence of the problem of inadequate earnings, as well as of some poverty, is indicated by the summary of the results given in Table 48.

TABLE 48.—INCOMES OF FAMILIES AND HEADS OF FAMILIES, 1918[1]

Income group	No. of families	Cumulative (to $2,500) percentage of families	Average persons per family	Average family earnings	Average husband's earnings	Percentage husband's of total earnings
Under $900	332	2.7	4.3	$ 782	$ 766	97.90
$ 900 to $1,199	2,423	22.7	4.5	1,037	1,014	97.70
$1,200 to $1,499	3,959	55.5	4.7	1,294	1,252	96.80
$1,500 to $1,799	2,730	78.1	5.0	1,566	1,488	95.00
$1,800 to $2,099	1,594	92.3	5.2	1,854	1,691	91.20
$2,100 to $2,499	705	97.1	5.7	2,161	1,786	82.75
$2,500 and over	353	2 9	6.4	2,684	1,796	66.90
Total	12,096	100.0	4.9	1,455	1,349	92.73

[1] Adapted from Douglas, Hitchcock, and Atkins, *The Worker in Modern Economic Society*, pp. 300–301. Results of this survey are summarized in the *Monthly Labor Review*, December, 1919, pp. 29–41.

Average family earnings, it will be noted, were found to be $1,455—hardly enough in 1918 to enable a standard family to maintain a subsistence-plus livelihood—and the average earnings of husbands were more than $100 less. Average family income, including that derived from sources other than wages, was found to be $1,513. More significant are the facts concerning the percentage distribution of these families within the various income groups. Fifty-five per cent of the families were

but one of the industries covered by the 1920 study, it is true, average yearly earnings were still below the amount necessary to maintain a family at this standard of decency; in that one industry (rubber manufacturing) an excess of $4 a year is indicated when the assumption is made that the workers were employed throughout the fifty-two weeks of the year. But while in 1918 average earnings had fallen between $185 and $733 below what was necessary to attain the minimum standard, in 1920 (in the eleven of the twelve industries in which there was still a deficit) full-time yearly earnings ranged from $28 to $592 below the necessary amount. In all but one industry, cotton manufacturing, there had been a diminution of the deficit. In 1918 the percentage increase necessary to bring wages up to the minimum standard was 37, and in 1920 (for the eleven industries) it was 27.

[1] All single persons without dependents and not living with families were excluded from this study, as were also those families (*a*) without husbands at work, (*b*) keeping boarders or more than three lodgers, (*c*) whose children lived with the family in the position of boarders, and (*d*) who received less than 75 per cent of their income from wages.

receiving incomes of less than $1,500, which was perhaps enough to maintain them at a subsistence-plus level, and 78 per cent incomes of less than $1,800. It is significant, also, that the families covered by this investigation averaged 4.9, or practically five, members. To a very considerable extent, as examination of the table reveals, families escaped the minimum of subsistence level, when they did, and succeeded in maintaining minimum of health and decency standards, in consequence of the fact that the husband's earnings were liberally supplemented by other income.[1] Moreover, the data show clearly the existence of a problem of poverty, as well as of insufficient earnings. We have estimated that between $1,125 and $1,175 was necessary in 1917 and 1918—the exact amount tending to rise from the lower figure to the higher as the cost of living mounted during these two years, and of course varying in different parts of the country—to enable a family to escape poverty. But some 2.74 per cent of the families had annual incomes of less than $900, and 22.7 per cent incomes of less than $1,200. Approximately one-fifth of the total number of families investigated received incomes of between $900 and $1,200, the average family earnings for those in this class being $1,037. On the other hand, the average number of persons per family, and therefore the monetary needs, were somewhat less in the low income groups than in the case of all families covered by the survey.[2] Also, it is possible that the families covered by this investigation cannot be taken as entirely typical of wage earners in general so far as their earnings and incomes were concerned. All of these qualifications do not, however, detract from the essential fact: that a large portion received insufficient wages, and that the problem of poverty continued to be present on through the War years and into the 1920's. The data summarized in this discussion of the 1914–1920 period perhaps suggest the conclusion that the problem was not as acute as it was prior to 1914, but the difference was only one of degree—and certainly not of great degree.

Sufficiency of Earnings during the 1920's.—The years between the short depression of the immediate postwar years and the beginning of the great depression of the 1930's were, as has been noted in detail in a preceding chapter, those during which the most appreciable gain in real earnings enjoyed by American workers during the twentieth century took place. They were years of relatively stable commodity prices, of a marked increase in the physical volume of goods produced by industry, of expansion of the value product of industry and—on the whole—of a

[1] Thus, the earnings of the husband constituted 97.9 per cent of the total in the case of families having annual incomes of under $900; 95.0 per cent among those families having incomes of $1,500 to $1,800; and only 66.9 per cent in the case of those families whose annual incomes were $2,500 or more.

[2] Examination of the third column will show that the families in the lowest income group were approximately one-eighth smaller than were all the families, averaged together.

lag in real earnings behind value product, and—especially toward the end of the period—of an apparent increase in unemployment. Costs per unit of product in manufacturing as a whole tended to decline, margins of profits expanded, and greater reinvestment of corporate earnings than theretofore, with consequent expansion of plants and equipment, characterized the period. Agriculture was, however, depressed during a considerable part of the 1920's and within the various industrial fields the prosperity was spotty. Relocation of important industries, especially the southward migration, depressed wage standards to an extent, brought unemployment in the abandoned regions, and occasioned a certain amount of general maladjustment. For the most part, however, these darker aspects of the picture went unnoticed. To the majority of the people—perhaps even to a majority of the workers—there came the exuberance consequent upon the conviction that at last the business cycle was under control, that "the poorhouse was passing from among us," and that the era of two cars in every garage was about to dawn.

It is easy to look back from the vantage point of 1930's disillusionment and assume, too facilely, that the much vaunted prosperity of the 1920's must have been unreal. Ephemeral and accompanied by economically sinister undergrowths it undoubtedly was, to a very considerable extent; but it was not entirely unreal, nor did the economically more submerged classes fail to participate to some extent in it. Indeed, comparisons such as those we have made for two earlier periods indicate about what one would expect in view of the trend of real earnings, so far as the extent of poverty and inadequate earnings were concerned: that there apparently was some diminution of poverty, that a larger portion of the wage-earning families were able to maintain minimum health and decency livelihoods, but these problems of poverty and insufficient earnings far from disappeared. It will be convenient first to survey the trend of average earnings in the more important branches of industry and compare these with our estimates of monetary costs of the standards of living, and, second, to summarize briefly the results of some of the more important standard of living studies made during this period.

Estimates have already been presented showing that during this period of relatively stable prices between $1,050 and $1,250 would have been necessary in the larger American cities to bring a standard family just above the poverty level, and that between $1,475 and $1,800 was necessary for maintenance of a minimum of health and decency livelihood.[1] In comparison with these estimates, the following data on aver-

[1] *Supra*, pp. 64–66. Here, again, the estimates of various individuals and organizations of the amounts necessary for decent livelihood may be cited for comparative purposes. In 1921 Drs. S. Blum and Jessica Peixotto estimated $2,050 to be the amount necessary to maintain a standard family at a minimum of health and decency standard in San Francisco, Los Angeles, and Sacramento (quoted by P. H. Douglas, in *Wages and the*

age annual earnings of all workers in manufacturing, coal mining, and transportation, of building-trades workers, and of unskilled workers may be placed:

TABLE 49.—AVERAGE ANNUAL EARNINGS OF SELECTED GROUPS OF WAGE EARNERS, 1921–1926[1]

Year	Average annual earnings of wage earners in manufacturing, coal mining, and transportation	Average annual earnings of building-trades workers	Average annual earnings of unskilled workers
1921	$1,008	$2,404	$1,014
1922	1,027	2,247	988
1923	1,256	2,479	1,118
1924	1,196	2,654	1,132
1925	1,262	2,751	1,170
1926	1,304	2,933	1,184

[1] This table has been compiled from the data presented by Professor Douglas in *Real Wages in the United States* on pp. 468, 472, and 477. In each case allowance for unemployment, but not for part-time employment, has been made. The estimates have, however, been made upon a somewhat different basis in the three cases, and these differences in methods cause the figures to be not strictly comparable. In the case of workers in manufacturing and transportation, total payroll for each year was divided by the number of workers on the payroll, to obtain average annual earnings per employed person, and average annual earnings per employed person have then been multiplied by the estimated percentage of those attached who were employed (*i.e.*, by 100 per cent minus the percentage of unemployment). Earnings of coal miners were estimated by the method described in a preceding chapter (*supra*, p. 104) and a similar method of allowing for unemployment was followed. In the case of the building-trades workers Professor Douglas computed what full-time weekly earnings would have been had union rates—no more, no less—been paid, reduced these figures to a yearly basis by multiplying by fifty-one (the number of full-time weeks in a year after allowing for holidays), and then multiplied the resultant yearly earnings by the proportion of building-trades workers believed to be employed each year. This method does not make allowance for time lost by workmen while occupying their jobs, for the difference between actual hourly earnings and the union rate, or for the fact that unorganized building-trades workers were paid substantially less than the union rates. In the opinion of the authors, the aggregate effect of the method perhaps was to overstate by a substantial percentage the actual money yearly earnings of building-trades workers. In the case of the unskilled workers the method followed was that of multiplying their average full-time weekly earnings by fifty-one, and then to apply the percentages of unemployment in manufacturing, transportation, construction, and mining. It should be apparent that these differences in method make the figures not strictly comparable. They might, in fact, account for the rather surprising fact that in the above table money earnings of unskilled workers in 1921 are shown to be slightly in excess of those of all workers in manufacturing, coal mining, and transportation in 1921.

Family). The same year the National Industrial Conference Board set $1,698 as the necessary minimum in Detroit. In 1922 the Labor Bureau, Inc., estimated $2,080 to be the amount necessary to maintain a minimum health and decency standard, and $2,416 the amount necessary to maintain a comfort standard, in Reading, Pa. (*Wages and the Cost of Living*). In 1925 the Chicago Council of Social Agencies estimated that $1,962 was necessary to support a family of five at the minimum of health and decency in that city (*Chicago Standard Budget for Dependent Families*, 1928 rev., p. 38). In 1927 and 1928 the National Industrial Conference Board estimated $1,560 to be the amount necessary, as an average, in twelve large, medium-sized, and small industrial cities [*The Economic Status of the Wage Earner in New York and Other States* (1928), p. 85]. The Labor Bureau, Inc., set $2,206 as the amount necessary for a minimum of health and decency, and $3,440 as the amount necessary for a comfort, standard in New York City (*Facts for Workers*, February, 1931, p. 2). The same organization estimated these amounts in 1930 to be $2,061 and $3,216, respectively (*ibid.*).

The conclusions to be drawn are almost self-evident. It was not until 1923 that the average annual earnings of all wage earners in manufacturing, coal mining, and transportation were above the amount necessary to support a standard family above the poverty level, and as would be expected the earnings of unskilled workers were (except in 1921) even lower. In no one of the years were *average* annual earnings of the members of either of these two groups sufficient to provide for support of a standard family at a minimum of health and decency level. Again, however, it must be remembered that these data are averages of the earnings of all workers in each group, including women, minors, partially incapacitated persons, and others whose earning power was low or who did not have families to support. The figures indicate two things: (*a*) a continuance of the problems of insufficient earnings and of some poverty, and (*b*) a diminution, especially as annual earnings rose after 1922 while the cost of living remained fairly stable, in the extent or acuteness of these problems. Building-trades workers are seen to have enjoyed a preferred status, their average annual earnings being sufficient throughout these six years to provide for support of families at a decent level, although, as is indicated in the footnote to Table 49, there is some reason to believe these estimates overstate rather than understate their earnings.[1] Some industries, of course, paid their workers substantially higher wages than did others,[2] but the general situation and trend are indicated by the data that have been quoted. Between 1926 and the third quarter of 1929 the general trend of earnings, as has been indicated earlier,[3] was

[1] It may be mentioned, in passing, that the estimates of Drs. King and Brissenden are not greatly at variance from Professor Douglas' estimates of annual money earnings during the years with which we are here concerned. Dr. King (*The National Income and Its Purchasing Power*, 1930, p. 146) has estimated that average annual money earnings of workers in all industries were $1,150 in 1923, $1,176 in 1925, and $1,205 in 1927. Dr. Brissenden (*Census Monograph X*, p. 67) has estimated that average annual earnings in manufacturing were $1,317 in 1923, $1,402 in 1925, and $1,373 in 1927.

[2] An examination of annual earnings in the various manufacturing industries in 1925—which we select for illustrative purposes because it is the mid-year in the period here under survey and also because it was typical of the period as a whole—as set forth in Chaps. 14 to 22 of Professor Douglas' *Real Wages in the United States* reveals these facts: In five of the sixteen manufacturing industries studied (boots and shoes, cigars and cigarettes, cotton goods, fruit and vegetable canning, and silk-goods manufacturing) average annual earnings were less than $1,150. In nine of the sixteen industries (boots and shoes, cigars and cigarettes, cotton goods, fruit and vegetable canning, furniture manufacture, glass, men's clothing, silk goods, and woolens and worsteds) average annual earnings were under $1,300. In twelve of the sixteen industries (boots and shoes, cigars and cigarettes, cotton goods, electrical machinery, foundry and machine shops, fruit and vegetable canning, furniture manufacture, glass, men's clothing, silk goods, slaughtering and meat packing, and woolens and worsteds) average annual earnings were below $1,600. In only four of the sixteen were average annual earnings above $1,600. These (with the average earnings per worker in each case) were: iron and steel rolling mills ($1,659), motor vehicles ($1,652), newspaper and periodical printing ($1,859), and petroleum refining ($1,602).

[3] *Supra*, pp. 112–115.

upward, and the extent of poverty and insufficient earnings undoubtedly diminished somewhat during these years.

These averages of annual money incomes, compared with the cost of maintaining given standards, have the virtue of suggesting the situation over the country as a whole, but they are subject to already mentioned important qualifications. The advantages of studies in which all family income is tabulated in each individual case and compared with the amount necessary to maintain decent livelihood in view of the number of persons in each family and its age and sex composition dictate that we turn to some of the more complete and inclusive of these studies before leaving our survey of the poverty and inadequate earnings situation of the 1920's.

In 1925 a study of earnings and standards of living of unskilled and semiskilled workers in Chicago was completed by Dr. Leila Houghteling.[1] While the results cannot be taken as indicative of the situation of skilled workers,[2] the group of 467 families selected for intensive study was probably in somewhat better circumstances than the majority of the families of unskilled and semiskilled workers,[3] and the results set forth certainly

TABLE 50.—EARNINGS OF HEADS OF FAMILIES AS INDICATED BY PAYROLL DATA

Earnings	Cumulative Percentages
Less than $ 900	1.4
Less than 1,000	4.0
Less than 1,100	13.5
Less than 1,200	25.3
Less than 1,300	40.2
Less than 1,400	55.1
Less than 1,500	74.3
Less than 1,600	84.9
Less than 1,700	90.6
Less than 1,800	95.3
Less than 1,900	96.7
Less than 2,000	98.4
Less than 2,100	98.7
Less than 2,200	99.8
$2,200 and over	0.2

[1] *The Income and Standard of Living of Unskilled Laborers in Chicago* (University of Chicago Press, 1927). This study, directed by the Local Community Research Committee of the University of Chicago, had its inception in an attempt to ascertain whether the "Chicago Standard Budget" of the Council of Social Agencies of that city, described in an earlier chapter (*supra*, pp. 70–71), provided for dependent families an unnecessarily high standard of living, or one better than the unskilled worker could provide for his family. This budget—worked out, it will be remembered, in terms of maintenance cost as varying according to the number of persons of different ages and sex in different families—was compared in the case of each family studied with the earnings of the chief breadwinner and with total family earnings.

[2] Also, 18.6 per cent were negro families, while in 1920, according to the Census, only 4.9 per cent of the adult males in Chicago were negroes.

[3] The heads of these families were male wage earners who, except in fourteen of the cases, had been carried on the books of the firms employing them throughout the entire

do not overstate the problem of low wages among them. Data obtained from the payrolls of the firms employing the chief breadwinners (during the year 1924) showed the results presented in Table 50.

It will be noted that about one-fourth of the families would have been living in poverty had they been standard in point of needs and had they been solely dependent upon the earnings of the chief breadwinner. In the case of more than two-fifths of them, however, others than the father contributed to the family income,[1] and actual family living standards were consequently higher than they otherwise would have been. The percentage distribution of the families according to income received from all sources was found to be as follows:

TABLE 51.—PERCENTAGE DISTRIBUTION OF SELECTED CHICAGO FAMILIES ACCORDING TO INCOME RECEIVED FROM ALL SOURCES

Income	Percentage of Families
$ 800 to $1,000	1.1
1,000 to 1,200	9.6
1,200 to 1,400	16.1
1,400 to 1,600	17 2
1,600 to 1,800	16.3
1,800 to 2,000	8.8
2,000 to 2,200	10.3
2,200 to 2,400	4.7
2,400 to 2,600	4 5
2,600 to 2,800	2.1
2,800 to 3,000	2.1
3,000 to 3,500	3 2
3,500 to 4,000	1.5
4,000 to 4,500	0.7
4,500 to 5,000	1.1
5,000 or more	0.7

year 1924. More than half of the male heads of these families (54.2 per cent) had been employed by the firms for which they were working for four years or more. The great majority of these men were at the age of maximum earning capacity, 95 per cent being between twenty-five and fifty-four years of age, and 78 per cent under forty-five years of age. Forty-eight per cent of them lost no working time during 1924, while practically four-fifths (79 per cent) lost less than six weeks.

[1] Miss Houghteling's classification of families in accordance with sources of income was as follows:

Source of Earnings	Percentage of Families
Father only	57.2
Father and mother	19.7
Father and children	19.7
Father, mother, and children	3.4

In 108 of 464 families (in three of the 467 cases mothers were not living with the families) mothers were employed at least part of the time during the year. More than one-fourth of these mothers (27.9 per cent) were employed fifty-two weeks during the years, almost two-fifths (39.2 per cent) were employed more than twenty but less than fifty-two weeks, and 32.9 per cent were employed less than twenty weeks. In the same number of families (108) children were also employed.

This table shows that 44 per cent of the families had incomes of less than $1,600 and 60 per cent incomes of less than $1,800, although between $1,600 and $1,800 would have been necessary to support a standard family at the subsistence-plus level at that time. But probably, as has been pointed out earlier, uncritical acceptance of the standard family assumption has resulted in something of an overstatement, by many students and writers, of the actual extent of poverty and inadequate earnings; and Dr. Houghteling's comparison, in the case of each family, of what was necessary in view of family composition to maintain the Chicago standard budget with family income bears out the conclusion that there has been such overstatement. The incomes of 54.4 per cent of the families were found to be in excess of the amount necessary to maintain the cost of living provided by this budget, while 44.6 per cent had incomes insufficient to procure this minimum quantum of necessities and minor comforts. The outstanding fact revealed, however, is that, in spite of considerable augmentations of family income as a result of the employment of wives and children, and with allowance made for the nonstandard character and therefore for the varying needs of the different families, a large number of them were unable to maintain decent standards of living during the prosperity years of the 1920's.

One of the most illuminating of the local studies made during this period, because of the light it throws upon both the incomes and the needs of wage-earning families as well as because of its comprehensive character, is the one made in 1923 and 1924 by Professor Franc McCluer, who studied 2,623 wage-earning families living in forty-one city blocks in Chicago.[1] Only a summary of the more important conclusions and a suggestion of the methods followed can be given here. (1) Of the 2,623 wage-earning families studied, 72.3 per cent were found to be living at a level slightly above the minimum of subsistence, 16.8 were living at the bare subsistence level, and 10.9 per cent were in poverty.[2] In other words, 28 per cent of these families were financially unprepared for so

[1] Franc McCluer, *Living Conditions Among Wage-earning Families in Forty-one Blocks in Chicago* (an unpublished doctoral dissertation).

[2] Professor McCluer tabulated individual earnings and compared these with the cost of maintaining two standards of living, one being that used by the Chicago Council of Social Agencies for relief in charity cases, described in a preceding chapter and also used in Miss Houghteling's study and the other a lower budget. All families covered by the investigation were divided into three classes. Class *A*, including the "moderately well-to-do" (or those having incomes equal to or in excess of the cost of the higher budget), Class *B*, including those in meager circumstances (those with incomes sufficient to purchase necessities but not enough for major emergencies or minor social pleasures), and Class *C*, including those living in poverty (those unable to attain the living standard described by the lower of the two budgets). The lower budget with which individual and family earnings were compared is regarded by charity organizations in Chicago as necessary for bare subsistence. The higher budget allowed for slightly greater expenditure for the necessary items and also for small savings, church, lodge dues, and incidentals.

common a crisis as illness or temporary unemployment. (2) The majority of those families who escaped poverty or were able to live at above the minimum of subsistence level succeeded in doing so, however, because of contributions to family income from members other than the chief breadwinner and because the families included fewer than five members, rather than because the earnings of the head of the family were sufficient to support standard families at or above the higher level. On the average 1.45 persons were employed in each family, while the average family size was 4.7 persons.[1] The inadequacy of the earnings of the heads of families, who constituted 58.6 per cent of the earners in these families and contributed on the average 64.1 per cent of the family income, to provide for the support of standard families and the importance of contributions of other members are indicated by the following data on average annual earnings of the different groups of wage earners:

TABLE 52.—AVERAGE ANNUAL EARNINGS OF FIVE GROUPS OF WAGE EARNERS

Average annual earnings of husbands	$1,469
Average annual earnings of wives	659
Average annual earnings of unmarried males	1,080
Average annual earnings of unmarried females	859
Average annual earnings of children	449

(3) Sixty-three per cent of the husbands were found to receive less than the wages necessary to maintain the higher level (*i.e.*, above the subsistence level, or practically the minimum of health and decency level) for a standard family, and 27.4 per cent of them earned less than enough to support a family at the bare subsistence level, even on the assumption that not a day's time was lost because of sickness, unemployment, or for any other reason.[2] (4) Only a minority of the families were

[1] Wages were found to constitute 92.1 per cent of the total income of the families studied, the other 7.9 per cent coming from own account businesses, rents, boarders, disability insurance, and miscellaneous sources. Of the wage earners, 58.6 per cent were husbands, 9.5 per cent were wives, 18.7 per cent were unmarried males over 16 years of age, 12.6 per cent were females over 16 years of age, and 0.7 per cent were children under 16. Husbands on the average contributed in wages 64.1 per cent of the family income, wives 4.7 per cent, unmarried males over 16 years 15.1 per cent, unmarried females over 16 years 8 per cent, and children under 16 years 0.2 per cent.

[2] Professor McCluer in attempting to ascertain the "carrying power" of the wages received by male heads of families, made use of the *ammain* scale of Sydenstricker and King, described in an earlier chapter (*supra*, pp. 69–70). For a standard family, he estimated, 3.108 *ammains* would have been required. To support a family at the higher of the two levels we have described, it was found, a wage earner must have had, in 1923, an annual income of $1,680, or $32.31 a week and constant employment throughout the year; while to maintain a family at the lower level—just above the poverty line—a yearly income of $1,262, or a weekly income of $24.25 and steady employment, was necessary. As is said above, 63 per cent of the husbands were found to receive less than the $32.31 necessary to maintain the higher level for the standard family, while 27.4 per cent earned less than the $24.25 a week necessary to support a family at the bare subsistence level. The modal point in the distribution of husbands' incomes was found to be 10 per cent below the $32.31 a week necessary to maintain the higher level for the standard family. Significant differences were,

standard in point of needs, and less than one-third (30.8 per cent) were found to have needs equal to or exceeding those of the standard (*i.e.*, of a family of five).[1] "Our approaches to the question of the frequency of the family having needs of what has been so commonly used as a standard family," concluded Professor McCluer, "admit of but one conclusion: Needs equal to or in excess of those of this standard are present in only a little more than three-tenths of the cases at a given time." (5) Finally, it was found that of the total number of families conforming approximately to the so-called standard, slightly less than half were dependent upon only one wage earner, while 65 per cent of the families with less than standard needs were dependent solely upon the male head of the household.[2] The obvious conclusion to be drawn is that unwillingness to

as might have been expected, found in the distribution of wage rates among workingmen of families in the several economic status groups. Of the male wage earners in Class *A*, 58.3 per cent earned a weekly wage insufficient to support at the higher level a family whose requirements could be expressed by the sum of 3.108 *ammains*, while 67.3 per cent of the husbands in Class *B* families and 90.2 per cent of the husbands in Class *C* families earned less than this amount. These estimates, however, are upon the assumption of steady employment throughout the year. The estimate of actual yearly incomes of the husbands showed that of the entire group 34.6 per cent did not receive enough, if the family had requirements equal to those of the standard family and if it were dependent upon one wage earner, to enable it to live upon a bare subsistence level. The annual wage most frequently received was found to be from 1 to 10 per cent below this very low standard. In Class *A* families, however, 61.7 per cent of the husbands received an annual wage in excess of this lower level, while 46 per cent of the wage earners in Class *B* and only 32.1 per cent of those in Class *C* families received wages in excess of the amount necessary to maintain a standard family at a bare subsistence level. On the basis of the higher budget, 73.4 per cent of the husbands were found to be receiving less than the $1,680 required to keep a standard family at this level, the modal point in the distribution being between 20 and 30 per cent below this amount. Of the male wage earners in Class *A*, 63.4 per cent earned less than this amount for the year, while 90.7 per cent of those in Class *B* and 97.1 per cent of those in Class *C* earned less than $1,680 during the year. Practically three-fourths of the adult males in these representative blocks were therefore unable to support a standard family at this very moderate level.

[1] Of the entire number of families covered by the study (2,623), 35 per cent were found to consist of at least five members, while the average size of the families, it will be remembered, was 4.7 persons. Of the 2,306 families having both husband and wife present, 36.5 per cent consisted of husband, wife, and at least three children, although not all children, of course, were under fourteen years of age. Professor McCluer deemed it more satisfactory, however, to apply the *ammain* scale for the standard family and to ascertain how many wage-earning families in the total group had needs equal to or in excess of those represented by 3.108 *ammains*. Less than one-third (30.8 per cent) of the families were found to have needs equal to or exceeding those of the standard. The mean needs were found to be represented by 2.262 *ammains*, 21 to 30 per cent below the level of the requirements of the standard family, while the median point in the array of families was between 1 and 10 per cent above this level.

[2] Of the entire number of families studied, two-thirds (66 per cent) were found to be dependent upon one wage earner, 20.3 per cent upon two, 9.8 per cent upon four or more, and 2.9 per cent upon five or more. But although a large percentage of the families had only one wage earner, only a minority of these families were "standard" in terms of needs

accept a low standard or inability of the chief breadwinner to provide a bare living for his family goes far to account for the larger number of wage earners in the families having needs as great or greater than the standard. Professor McCluer was led to conclude: "If unwillingness to accept a very low standard or inability to make a mere living be the explanation of the presence of wage earners other than the chief bread winner, certainly we should not conclude that since wage-earning families are not usually dependent upon one wage earner, the worker's earning power should not be related to the problem of supporting a family without other help. Such an argument is no more tenable than the suggestion that standard of living studies are without point because many families live below the standard described."[1]

Two Chicago studies have been summarized in considerable detail, for they are suggestive of the extent to which poverty and inadequate earnings continued to be prevalent, especially among the unskilled and semiskilled workers, during the 1920's, and others made during the period may be mentioned more briefly. They suggest much the same conclusions. An investigation undertaken in 1927 by the University of Minnesota Agricultural Experiment Station of 395 families in eleven small Minnesota communities showed that average annual family income of the families of common and semiskilled labor was below $1,500.[2] A

as well as source of income. Families consisting of husband, wife, and three minors, entirely dependent upon the earnings of the husband, constituted 7.5 per cent of the total number, while 9.8 per cent of the families had a composition creating needs greater than those of the "standard" and at the same time were dependent upon only one male wage earner. Hence 17.3 per cent of the total number were dependent upon one breadwinner and had needs equal to, or greater than, those of the standard family. It was also found that 18.4 per cent of the families had at least five members, two or more of whom were wage earners, and that about one-fourth of this 18.4 per cent would have been standard families in terms of both needs and sources of income had it not been for the fact that the mother or a child under working age (14 years) was employed.

[1] The extent to which relatively small income from sources other than the earnings of the chief breadwinner was responsible for keeping families above the poverty level or the bare subsistence level is indicated by the following facts: Exclusive of families with female heads, 23 per cent of the Class *A* families had a female adult at work in addition to the chief breadwinner, 15.5 per cent had minors at work, and 11.8 per cent had gainfully employed adult males other than the chief breadwinner. Of the Class *B* families, exclusive of those with female heads, 10.1 per cent had adult females, 23.0 per cent had minors, and 4.6 per cent had adult males as additional wage earners. Of the Class *C* families (those living in poverty), exclusive of those with female heads, 18.7 per cent had adult females, 18.5 per cent had minors, and 2.8 per cent had adult males making supplementary contributions to the family income. Hence the burden of augmenting the family income fell chiefly upon adult females, usually wives, in the *A* group, upon minors in the *B* group, and upon adult females and minors about equally in the *C* group. A large proportion of the adult female wage earners were wives. More children were found to be working in the lower economic groups than in the Class *A* families.

[2] "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 541*, 1931, pp. 119–122.

study of the annual earnings of 469 maintenance-of-way employees' families in ten states in 1928, made for the Children's Bureau of the Department of Labor by Dr. Helen R. Wright,[1] disclosed that none of the 469 fathers had earned as much as $1,250 during the preceding year, and that 78 per cent of them then had annual incomes of less than $1,000. All but fifteen of these families were found to have supplemented earnings in one way or another, but still 85 per cent of the families had incomes of less than $2,000, 80 per cent of less than $1,750, and 73 per cent of less than $1,500. "With all their efforts," commented Dr. Wright, "the living they got was usually all too meager, and the children were brought up in miserable houses—overcrowded, poorly constructed, and with little in the way of modern plumbing—and in undesirable surroundings. They seldom went hungry, but their food was often monotonous and inadequate. All too frequently their clothing was shabby and patched, and repeatedly it appeared that normal social life and recreation were not enjoyed because of the conditions of the clothing." Examples of more favorably situated groups are to be found in studies made of typographical workers—always a relatively highly paid group—and of workers in the men's clothing industry. In 1927 the Heller Committee for Research in Social Economics at the University of California found that the average annual income of eighty-two typographers' families in San Francisco was $2,819,[2] and in 1930 the New York State Board of Housing found the average annual incomes of 400 families living in the Amalgamated Clothing Workers' Apartments to be $2,880.[3] The United States Bureau of Labor Statistics in 1929 found the average annual family income of 100 families of the Ford Motor Company living in and near Detroit to be $1,712.[4]

Earnings during the Depression.—The tremendous maladjustments in American—and world—economic life after 1929 resulted, as almost everyone knows, in a lowering of standards of living of persons in almost every walk of life. The very character of these maladjustments is such, however, as to make comparisons like those we have made in the preceding paragraphs rather meaningless. Weekly earnings of the majority of employed persons, as was indicated in Chap. II,[5] probably did not decline more than did the cost of living, and it is likely, as is pointed out shortly, that "full-time yearly" earnings (*i.e.*, weekly earnings multiplied

[1] Helen R. Wright, "Welfare of Children of Maintenance-of-way Employees," U. S. Children's Bureau, *Publication 211*, 1932.

[2] *Cost of Living Studies, Quantity and Cost Estimate of the Standard of Living of the Professional Class*, University of California Publications in Economics, vol. 5, no. 2 (1928). *Cf.* also National Industrial Conference Board, *Cost of Living in the United States, 1914–1929*, p. 169.

[3] Ascher Achinstein, *The Standard of Living of 400 Families in a Model Housing Project* (New York State Board of Housing, 1931), pp. 28, 86.

[4] *Monthly Labor Review*, vol. 30 (1930), pp. 11–54.

[5] *Supra*, pp. 118–121.

by fifty-one) did not change in such a manner as to affect appreciably the proportions of the population living in poverty and below the minimum health and decency level. On the other hand, widespread unemployment raised—probably to the highest point in American history—the number of persons actually in poverty or living at the minimum of subsistence, and millions were kept out of destitution only by the unemployment relief furnished by the federal government. Early in 1935, when federal relief activities were at their height, some 4,618,000 families and 851,000 single persons, a total of 20,670,000 persons or 17 per cent of total population, were reported by the Federal Emergency Relief Administration to be receiving relief.[1] The abnormality of the situation dictates that we refrain from drawing too definite comparisons with the preceding periods, and emphasizing too much the startling contrasts, but of the tragic decline of living standards during the worst years of the depression there can be no question. While quantitative measurement of changes in the percentage of workers unable to maintain what we have defined as a "socially desirable" standard of living must be left to those whose temperaments lure them into the realm of hazardous statistical adventure, the general effect of the depression upon standards of living is so apparent as to make statement of it almost gratuitous. Regularly employed workers and their families probably did not have to retrench to a great extent, but in consequence of the sporadic character of the employment of millions, and of the long periods of unemployment experienced by other millions, the standard of living of the American working class as a whole underwent its greatest twentieth-century retrogression.[2]

The Question of Causes and the Problem of Control.—It is not necessary that detailed summary of the material covered in the preceding pages be made at this point. The general conclusions to which the data point are unmistakable. Even before the depression, a substantial majority of the adult male wage earners did not receive enough to support families

[1] *Statistical Abstract of the United States*, 1935, p. 326.

[2] Inferences drawn from weekly and full-time yearly earnings of employed workers during the depression years carry only limited significance. They resolve themselves, indeed, merely into a statement of what was said in Chap. II: that the purchasing power of hourly earnings did not decline, on the whole, during the depression, that even in spite of the shortening of the working week those workers who had fairly steady employment probably did not lose in purchasing power of weekly earnings, but that the working class as a whole sustained a tragic retrogression in living standards consequent upon widespread unemployment. The following data on weekly and full-time yearly earnings are therefore presented only for what they are worth. The data on weekly earnings are from twenty-five manufacturing industries, as reported in *Statistical Abstract of the United States*, 1935, p. 321. In the second, fourth, and sixth columns, weekly earnings times fifty-one (the number of working weeks during a year after allowance for the various holidays) are presented. Weekly earnings, it will be recalled, are derived by dividing total payroll by the total number of names on the payrolls, and therefore take account of part-time employment. Full-time yearly earnings, however, take no account of that tremendous factor

of the average size at a minimum of health and decency level. Family incomes have been augmented to a rather great extent among the lower income groups by contributions from the wife and children, but still a majority of the unskilled and semiskilled, and a large number of the skilled, wage-earning families have received incomes insufficient to maintain this modest standard of living. Probably not more than one-third of the wage-earning families at any one time have needs as great as, or greater than, those of the assumed standard family, and in terms of both

during these years, the weeks of unemployment during each year sustained by many workers.

AVERAGE WEEKLY AND FULL-TIME YEARLY EARNINGS OF WORKERS ATTACHED TO MANUFACTURING

Year	Weekly earnings, all wage earners	Full-time yearly earnings, all wage earners	Weekly earnings, unskilled males	Full-time yearly earnings, unskilled males	Weekly earnings, male, skilled and unskilled	Full-time yearly earnings, male, skilled and unskilled	Weekly earnings, female
1929	$28.54	$1455.54	$24 37	$1242 87	$32.63	$1664 13	$17.62
1930	25 90	1320 90	21.94	1118 94	29.18	1488.18	15.99
1931	22.63	1154.13	19.18	978 18	25 05	1277 55	14 70
1932	17.05	869.55	14 49	738 99	19.48	993.48	11 70
1933	17.71	903.21	14 91	760.41	20 26	1033 26	12 36
1934	20.12	1026.12	16.42	837.42	22.41	1142.91	14 44

Two conclusions appear to be warranted: that the earnings of the *average* worker in manufacturing, on the assumption of employment throughout the year, were adequate to maintain a standard family at above the poverty level during each of these years, and, second, that in none of the years were the earnings of the average worker sufficient to support a standard family at the minimum of health and decency level. Comparison with the estimates of the amount necessary to enable a family of the assumed size to escape poverty during the depression years and of the amount that would have been necessary to make possible maintenance of a health and decency livelihood, as given in Chap. I (*supra*, pp. 64–67), points to the conclusion that the decline in weekly earnings of those fortunate enough to have jobs kept, on the average, within the limits of the cost of living decline. But the qualifications that necessarily have to be appended to these conclusions give, as an aggregate effect, a much less favorable picture of the conditions of the workers. In the first place, the assumption of employment every week of these years, is, as almost everyone knows, a highly fictitious one. In the second place, the wage figures, like some of those presented in earlier sections of this chapter, are based upon averages for each industry. Many of the wage earners received more than the average, and of course many received less. In the third place, a caution already made a number of times must be repeated: that only a minority of the male workers had families that were standard in point of needs. In the fourth place, it should be noted that average full-time yearly earnings of unskilled males employed in manufacturing were not sufficient, during the worst of the depression, to make possible the support of standard families above the poverty level. Finally, reference must be made once more to the fact of widespread unemployment. While weekly earnings (and by the method of multiplication full-time yearly earnings) of those employed were declining, prior to 1933, in the manner portrayed above, the employment indexes were going into an almost dizzy downswing, less than sixty per cent as many workers being employed at the depth of the depression as during the late 1920's. The data just discussed are for manufacturing wage earners, but the indicated conclusions are applicable, with some modifications, to other branches of economic activity.

needs and sources of income probably not more than one-fifth of the families conform to the assumed standard. But even with these qualifications, the problems of inadequate wages and of poverty have been too prevalent to be ignored.

The question of why there has been such an extensive problem of insufficient earnings is, in a large sense, the vast, complex, and baffling question of why the national income has been distributed as it has, a question which has already been given detailed consideration, and one to which we shall allude in other connections later. There are, of course, causes of poverty that cannot be attributed primarily to the economic environment of the workers, but which are, rather, personal and subjective in character. We always have with us the aged, the incapacitated, the subnormal—groups whose economic value as productive members of society is low and whose earnings tend to bring down the general average of wages paid in industry. For these groups the problem is primarily one of state aid, occupational and personal rehabilitation, and social insurance. Physical and mental degeneracy, in some cases inherent in the germ cell and hence hereditary, is the direct cause of some poverty. The fact that pauperism, crime, drunkenness, and the various other forms of vice leading to poverty and destitution have been noted to run in given families from one generation to another suggests causes that are not primarily economic or environmental, and the need for approaches that are eugenic and educational in character. Feeble-mindedness[1] and disease must also be included in an enumeration of the primarily personal, rather than economic or environmental, causes of poverty and destitution—although no small amount of disease is, of course, the direct or indirect consequence of insufficient earnings, and then in turn, as the vicious circle continues, acts as a causal factor in the reduction of the earnings of the diseased persons. There is convincing evidence that, except during periods like the depression of the 1930's, sickness is the chief or an important contributory cause in relief cases.[2] But certainly

[1] Dr. H. H. Goddard, in his book, *Feeble-mindedness* (1926), has estimated that half the inmates of almshouses have been feeble-minded. Since feeble-mindedness, unlike an appreciable portion of insanity, is hereditary rather than acquired, the elimination of the feeble-minded is not so much a problem of education as of eugenics.

[2] Dr. E. T. Devine (*Misery and Its Causes*, 1913, p. 54) has gone so far as to state that 75 per cent of poverty, not the 25 per cent that has been more commonly estimated, may be attributed to disease. Sidney and Beatrice Webb (*The Prevention of Destitution*, 1912, p. 16), writing of the three to four million destitute persons in the United Kingdom, have said that "with regard to at least one-third of these—we might almost say one-half—the recruiting sergeant who brings them in is sickness, the sickness that, so far as concerns three-fourths of the population, we have proven to be preventable." It will be remembered that the Rowntree and the Bowley and Burnett-Hurst studies of the causes of poverty in England, and the Immigration Commission's analysis of causes in the United States, showed sickness to be less important as a cause of primary poverty than the estimates of Dr. Devine and the Webbs would indicate. In the case of actual destitution, however, sickness is more important as a cause than it is in the case of poverty as we have defined the word.

the problems of poverty and insufficient earnings are too extensive to be explained by a reference to those groups whose economic value is low or to those whose material status is primarily a consequence of personal or subjective factors. Is the problem one of inadequate national income? Is industry able to pay all wage earners enough to enable them and their families to live in decency? Must we resort to the expedient of reapportioning that part of the national income going as wages among the workers according to their needs and family obligations? What are the possibilities—so long as we maintain an economic system in which distribution is determined by the forces discussed in the preceding chapter—of increasing labor's share of the national income at the expense of the other factors of production? These highly relevant questions will not be discussed at this point. Some of the issues they involve have already been touched upon in our discussion of the forces determining distribution of the national income, and some are discussed in other connections later. The questions inevitably have to be raised, however, in connection with this survey of poverty and insufficient earnings.

Consequences of Insufficient Wages.—Our primary concern in this chapter has been with the extent and causes of the problem with which we have been dealing rather than with its consequences. Yet familiar as is the story of the horrors and sordid incidents of poverty and insufficient wages, we cannot avoid some mention of it.

Frequently it is the children who feel most the incidence of insufficient family income. The Commission on Industrial Relations, in its final report, declared: "Children are the basis of the state; as they live or die, as they thrive or are ill-nourished, as they are intelligent or ignorant, so fares the state." The relationship between poverty and both infant mortality and bad physical condition of children has been demonstrated to be a direct one, and the Commission felt justified in generalizing that "the babies of the poor have died at three times the rate of those who are in fairly well-to-do families." In 1918 a study by the Children's Bureau of the Department of Labor, based upon results obtained in eight cities, showed the following infant mortality rates according to the fathers' earnings:

TABLE 53.—INFANT MORTALITY RATES BY FATHER'S EARNINGS[1]

Earnings of Father	Infant Death Rate per Thousand
Under $450	168
$ 450 to $ 549	134
550 to 649	118
650 to 849	108
850 to 1,049	84
1,050 to 1,249	64
1,250 and over	64

[1] *Sixth Annual Report of the Chief of the U. S. Children's Bureau*, 1918, p. 11.

The higher death rate of children among low income groups is, of course, accompanied by a higher rate of illness and a lower standard of health. Again quoting from the Commission on Industrial Relations: "The last of the family to go hungry are the children, yet statistics show that in six of our largest cities from 12 to 20 per cent of the children are noticeably underfed and ill-nourished." Rowntree, in his investigation of poverty in York, divided the city into three working-class sections: the poorest, where 69 per cent of the people were in either primary or secondary poverty, the middle section, where 37 per cent of the people were in poverty, and the best section, where there were no "poor." Rowntree found that boys of three and four years of age in the poorest district averaged three inches less in height than those in the best section. By the time the boys left school at the age of thirteen, those from the poorest section averaged three and a half inches less than those from the best section. In weight the boys of three and four living in the poorest section averaged thirty-three pounds and those in the best thirty-seven and three-fourths pounds. By the time they left school at the age of thirteen, the first group of boys averaged seventy-three pounds in weight, while those from the best neighborhood averaged more than eighty-four pounds. The general physical condition of the children was also noted as they were measured and weighed. Only 17 per cent of those in the poorest section were found to be in "good" condition as compared with 27 per cent of those from the middle district and 61 per cent from the best. On the other hand, 52 per cent of the children from the poorest families were found to be in distinctly bad physical condition, in contrast to 19 per cent among those of the middle group and 11 per cent among the highest section.[1] More recent studies have demonstrated the same causal relationship between economic status and the physical condition of children.[2] The lack of adequate education of children in low income families is a consequence so generally known that it need only be mentioned.

While the incidence of low wages is seen most clearly in the case of young persons, the consequences extend to all members of the wage-earnings families affected, and therefore to the community in general. Mortality among mothers at childbirth is much more common among the poorer classes than among the economically more fortunate, because of inability to pay for competent prenatal, natal, and postnatal care.[3] Almost invariably the general health of the poorer classes is found to be inferior, in consequence of malnutrition and bad living conditions, than that of the well-to-do, and the death rate is higher. Rowntree[4] found

[1] *Poverty, A Study of Town Life*, pp. 182–222.

[2] *Cf.* especially L. J. Roberts, *Nutrition Work with Children* (University of Chicago Press, 1927), Chap. 4.

[3] "Maternal Mortality," U. S. Children's Bureau, *Publication 19*.

[4] *Op. cit.*, p. 205.

the death rate in the poorest section of York to be 27.8 per 1,000 persons; in the middle section it was 20.7 per 1,000; and in the section where there were no "poor" 13.5 per 1,000. Arthur Newsholme, in *Vital Statistics*, presents evidence showing that in Glasgow, Scotland, the death rate of occupants of one- and two-room residences was 25.7 per 1,000, and among those occupying five or more rooms the death rate was only 11.2 per 1,000. Sickness, also, is much more prevalent among the low income groups than among the well-to-do. · A significant study of the relation between low wages and sickness was made in 1916 by the United States Public Health Service in seven South Carolina mill villages,[1] showing the illness rate of the lowest income group to be nearly four times that of those working-class families who were most comfortably situated. The same relationship between income and physical well-being is indicated by other studies. The Tuberculosis Association and the Health Department of New York City have found that the death rate from specific diseases, such as tuberculosis, Bright's disease, scarlet fever, pneumonia, and influenza to be decidedly higher in the poverty-ridden districts than in the better residential areas.[2] In 1935 it was discovered that approximately one-sixth of the persons on home relief in New York City were unemployable because of physical deficiencies, and that to a considerable extent these physical deficiencies were a consequence of malnutrition suffered during the depression.[3]

Still another effect of low wages is the necessity of the employment of women and young persons to augment the family income. Not only is family life frequently demoralized by the employment of the mother, with the concomitant problems of insufficient care for the young and the adolescent and of juvenile delinquency, but the entrance of women and young persons into industry has a depressing effect upon the general wage level. Competing in many cases with men but willing to accept what they can get, since a small addition to the family income is better than nothing, these persons, by their presence in industry, often bring about a vicious undercutting of wages and hence an increase in the extent to which adult males are unable to support families in decency upon their own earnings.

Finally, we may mention the effect of inadequate earnings upon men's minds. Few, if any, social facts are more important in breeding social unrest and all the manifestations of revolt and protest against the economic system in which we live. Few grievances a man may suffer are more acutely painful than that of insufficient earnings. He looks to the

[1] Sydenstricker, Wheeler, and Goldberger, *U. S. Public Health Reports*, vol. 38, no. 47 (1918), pp. 2038–2051.

[2] L. R. Williams, *Tuberculosis*, pp. 67–68.

[3] Statements of General Hugh S. Johnson and Mrs. Anna M. Rosenberg, reported in the *New York Times* of Sept. 6, 1935.

other end of the social scale and sees those who, according to his line of reasoning, do little or nothing living in luxury; there comes to him what the Commission on Industrial Relations called "the deadening, devitalizing effect of superfluous, unearned wealth," on the one hand, and of poverty on the other. To quote the Commission: "The conviction that the wealth of the country and the income which is produced through the toil of the workers is distributed without regard to any standard of justice is widespread as it is deep-seated. It is found among all classes of workers and takes every form from the dumb resentment of the day laborer who, at the end of a week's back-breaking toil, finds that he has less than enough to feed his family while others who have done nothing live in ease, to the elaborate philosophy of the 'soap-box' orator. . . . At bottom, though, there is one fundamental, controlling idea: That income should be received for service, whereas in fact it bears no such relation, and he who serves least, or not at all, may receive most."[1]

Wealth and Its Distribution

The national wealth consists of all things of economic value possessed by the people of a nation—land and other natural resources, capital goods, indeed all manner of producers' and consumers' goods. It is, in brief, the stock of economic goods in existence at any given time. The term income, on the other hand, refers to the net result of a people's economic effort during a given period—to the flow of goods and services coming as a result of man's utilization of natural forces and capital.[2] While income, not wealth, determines the standard of living one is able to maintain, our inquiry into the general matter of equality of economic status would be incomplete were attention not given to the tremendously important matter of the distribution of wealth, or of property ownership, as well as to the various already discussed aspects of income distribution.

The fact that the wealth of the people of the United States has increased greatly, both absolutely and per capita, is a matter of common knowledge. Our abundant natural resources, the application of science to the exploitation and control of these riches, and the savings during the majority of years of part of the national income produced have resulted in a marked, and on the whole a fairly steady, expansion of the stock of economic goods possessed by all the people. It is true that we are poorer with respect to some of our natural resources—especially our forests and mineral supplies—than we were a couple of generations ago, but the quantum of capital and finished goods has become so much greater than

[1] *Final Report*, pp. 8–13.

[2] Of course, the income received during some years, as has already been pointed out (*supra*, pp. 55, 140–142, and 147), may exceed income produced; in other years—the majority of them so far as American economic history is concerned—income produced exceeds that received by individuals.

it was fifty or sixty years ago that our total wealth is appreciably greater in relation to population. The following tables show with rough accuracy the increase in our absolute and per capita national wealth in dollars (which must, of course, be modified for changes in the purchasing power of the monetary unit) during the eighty-year period 1850–1930, and the increase in the various kinds of wealth.

TABLE 54.—INCREASE IN ABSOLUTE AND PER CAPITA WEALTH, 1850–1930[1]

Year	Total amount	Amount per capita
1850	$ 7,136,000,000	$ 308
1860	16,160,000,000	514
1870	24,055,000,000	624
1880	43,642,000,000	870
1890	65,037,000,000	1,036
1900	88,517,000,000	1,165
1904	107,104,000,000	1,318
1912	186,300,000,000	1,950
1922	320,804,000,000	2,918
1925	362,400,000,000	3,170
1929	361,800,000,000	2,977
1930	329,700,000,000	2,677

[1] The estimates for the years 1850–1922 are from *Statistical Abstract of the United States*, 1933, p. 272. Estimates for 1925, 1929, and 1930 are those of the National Industrial Conference Board (*Bulletin* 62, 1932, p. 495). Several estimates have been made of the national wealth during the depression years of the 1930's, but since these estimates, when expressed in dollars, reflect chiefly the great changes in the buying power of money during those years, they have not been included in this table. The United States Chamber of Commerce in 1930 estimated the national wealth at $400,000,000,000, instead of at $329,700,000,000, as in this table, and Dr. W. R. Ingalls set the 1929 figure at $450,000,000,000 instead of at $361,800,000,000, the estimate arrived at by the National Industrial Conference Board. Robert R. Doane estimated the national wealth of 1932 to be $238,800,000,000. (From Robert R. Doane, *The Measurement of American Wealth*, 1933, p. 9.) The U. S. Federal Trade Commission has estimated the national wealth of 1922 to have been $353,035,862,000, instead of the $320,803,862,000 estimated by the Bureau of the Census (*cf. National Wealth and Income, A Report by the Federal Trade Commission*, 1926, pp. 26–29).

The increase in the absolute and per capita national wealth tells, however, only half of the story. An equally—and perhaps more—important question is that of the extent to which the bulk of this wealth is owned by a comparative few instead of being possessed in relatively small parcels by the many. What are the facts about the approximate distribution of wealth? Is distribution apparently becoming more or less unequal?

The Approximate Distribution of Wealth.—A number of studies of the distribution of wealth in the United States and other countries have been made,[1] and the facts presented in the one covering the longest period

[1] In 1896 there appeared C. B. Spahr's *Present Distribution of Wealth in the United States*, in which the estimate was made that almost half of the families in the United States owned no property, that seven-eighths of the families possessed only one-eighth of the national wealth, and that 1 per cent of the families held over 85 per cent of the total wealth. In 1915 Dr. W. I. King published his *Wealth and Income of the People of the United States*, the results of which are set forth in detail on pp. 265–266. The United States Commission on Industrial Relations, in its *Final Report* a little later, made an estimate of the then existing distribution of wealth based in part upon Dr. King's study and substantially in

of time, Dr. King's *Wealth and Income of the People of the United States*, may be summarized first.

Dr. King based his study upon the value of estates probated in two states, Massachusetts and Wisconsin. While a study of distribution in two states does not indicate conclusively the situation regarding distribution throughout the entire country, Massachusetts is a fairly well-industrialized and urbanized state while Wisconsin was at the time for which the data were taken still largely agricultural and had only one large city. It is reasonable to assume, therefore, that the two states were fairly typical of the situation in the United States as a whole. Dr. King's study has the advantage, moreover, of comparing the distribution in Massachusetts for four periods, 1829–1831, 1859–1861, 1879–1881, and 1889–1891, and therefore gives some idea of whether the distribution tends to become more or less unequal with the development of a more complex economic life.[1] The results of the study of distribution in

agreement with his estimates. In 1922 W. G. Ingall's *Wealth and Income of the American People* appeared, and in 1926 the Federal Trade Commission of the United States announced the results of a study based upon methods somewhat different from those of the earlier investigators. In 1927 Dr. King made estimates of wealth distribution during the middle 1920's, using largely the Federal Trade Commission's data on probated estates in twenty-four counties of thirteen states ["Wealth Distribution in the Continental United States," *Journal of the American Statistical Association*, vol. 22 (June, 1927), pp. 135–153]. The National Industrial Conference Board, in connection with its estimates of the amount of the national wealth, has also suggested at times what might be regarded, in its opinion, as the approximate distribution.

[1] We should remember, however, that studies of distribution based upon the size of estates probated are at best approximations. Statistics for estates of male decedents do not show the exact distribution among these men while living, although it is probable that any error resulting from this fact is in the direction of minimizing rather than of overstating inequality; in a majority of cases a man is likely to be richer, at least in a country such as the United States, at the time of his death than during his younger years. Also, the data used by Dr. King in reaching his final conclusions pertained to the estates of males alone. In some cases, however, the wife has property in her own name, and inequality of distribution among families is not, accordingly, as great as that indicated by the statistics for estates of decedent males. There is possibility for error, also, in the fact that in some 40 per cent of the Massachusetts estates probated no inventory was filed. Dr. King assumed that the size of the noninventoried estates did not differ materially from the corresponding figures for those estates for which inventories were filed. This assumption probably had the effect again of minimizing rather than overstating the concentration of ownership, for in the opinion of the investigators who originally collected the Massachusetts data the non-inventoried estates were probably somewhat larger than those for which inventories were filed. Finally, it was necessary to make estimates regarding the property owned by the large number of decedents for whom no estates were probated. A comparison of the mortality figures with the number of estates probated showed that, for each of the four periods, the number of deaths of males more than twenty-five years of age greatly exceeded the number of estates probated, and the conclusion, naturally, was that in most of the cases where estates were not probated the property was of insignificant value. Dr. King assumed an upper limit of $500 worth for the last of the four periods and less for the three earlier periods.

TABLE 55.—ESTIMATES OF WEALTH FOR 1922, 1912, 1904, AND 1900[1]

Form of wealth	Total (expressed in thousands)				Per cent of totals				Per cent increase		
	1922	1912	1904	1900	1922	1912	1904	1900	1912 to 1922	1904 to 1912	1900 to 1904
Total	$320,803,862	$186,299,664[a]	$107,104,194	$88,517,307	100.0	100.0	100.0	100 0	72.2	73.9	21.0
Real property and improvements, taxed	155,908,625	96,923,406[a]	55,510,228	46,324,839	48.6	52.0	51.8	52 3	60.9	74.6	19.8
Real property and improvements, exempt	20,505,819	12,313,520	6,831,245	6,212,789	6.4	6.6	6 4	7 0	66.5	80.3	10.0
Livestock	5,807,104	6,238,389	4,073,792	3,806,473	1.8	3.3	3 8	3 7	6 9[b]	53.1	23.2
Farm implements and machinery	2,604,638	1,368,225	844,990	749,776	0.8	0 7	0 8	0 8	90.4	61.9	12.7
Manufacturing machinery, tools, and implements	15,783,260	6,091,451	3,297,754	2,541,047	4.9	3.3	3.1	2 9	159.1	84.7	29.8
Railroads and their equipment	19,950,800	16,148,532	11,244,752	9,035,732	6.2	8.7	10.5	10 2	23.5	43.6	24.4
Motor vehicles	4,567,407	....	....	....	1.4	....	....	....	....	....	....
Street railways, etc	15,414,447	10,265,207	4,840,547	3,495,228	4.8	5.5	4.5	3.9	50.2	112.1	38.5
Street railways	4,877,636	4,596,563	2,219,966	1,576,197	1.5	2 5	2.1	1.8	6.1	107.1	40.8
Telegraph systems	203,896	223,253	227,400	211,650	0.1	0.1	0 2	0 2	8.7[b]	1.8[b]	7.4
Telephone systems	1,745,774	1,081,433	585,840	400,324	0.5	0.6	0.5	0.5	61 4	84.6	46.3
Pullman and other cars not owned by railroads	545,415	123,363	123,000	98,837	0 2	0.1	0.1	0.1	342.1	0.3	24.4
Pipe lines	500,000	....	....	....	0.2	....	....	....	....	....	....
Shipping and canals	2,951,484[c]	1,491,117[d]	846,490	537,849	0.9	0 8	0.8	0.6	97.9	76.2	57.4
Irrigation enterprises	....	360,865	....	....	....	0 2	....	....	....	....	....
Privately owned waterworks	360,885	290,000	275,000	267,752	0.1	0 2	0.2	0.3	24.4	5.5	2.7
Privately owned central electric light and power stations	4,229,357	2,098,613	562,851	402,619	1 3	1 1	0 5	0.5	101.5	272.9	39.8
All other	80,261,762	36,950,934	20,460,886	16,851,423	25.0	19.8	19.1	19.3	117 2	80.6	21.5
Agricultural products	5,465,796	5,240,020	1,899,380	1,455,069	1.7	2 8	1.8	1.6	4.3	175.9	30.5
Manufactured products	28,422,848	14,693,862	7,409,292	6,087,151	8.9	7 9	6.9	6 9	93 4	98.3	21.7
Imported merchandise	1,548,666	826,632	495,544	424,971	0 5	0 5	0.5	0 5	87.3	66.8	16.8
Mining products	730,296	815,552	408,067	326,852	0.2	0.4	0.4	0.4	10.5[b]	99.9	24.8
Clothing, personal adornments, furniture, horse-drawn vehicles and kindred property	39,816,001	12,758,225	8,250,000	6,880,000	12.4	6.8	7.7	7.8	212.1	54 6	19.9
Gold and silver coin and bullion	4,278,155	2,616,643	1,998,603	1,677,380	1.4	1.4	1.9	1.9	63.5	30.9	19.2

[a] Differs from estimate as published in 1912 because of revision of estimate for taxed real property in Oklahoma.
[b] Decrease.
[c] Includes $1,445,992,000, value of ships belonging to the United States Navy, not distributed by States.
[d] Includes $402,353,000, value of ships belonging to the United States Navy, not distributed by States.
[1] From Lionel Edie, *Economics: Principles and Problems* (The Thomas Y. Crowell Company, New York, 1926), p. 267. *Cf.* also the various issues of *Statistical Abstract of the United States.*

Massachusetts for the last three of the above-mentioned periods and of that in six Wisconsin counties for the year 1900 appear in Table 56.[1] This table suggests a number of facts of vital social significance.

TABLE 56.—DISTRIBUTION OF WEALTH IN THE UNITED STATES AT DIFFERENT PERIODS[1]

Class of population	State and date	Percentage of total estates owned by class	Average value	Price index	Index of real value of estate	Real value of estate compared to Mass., 1859–1861 as base
Poorest, 65 per cent of population	Mass. 1859–1861	6.5	$ 360	141.0	$ 255	100.0
	Mass. 1879–1881	5.0	377	147.5	256	100.0
	Mass. 1889–1891	4.5	399	112.9	353	138.4
	Wis. 1900	5.2	381	110.5	345	135.3
Lower middle class, 65 to 80 per cent	Mass. 1859–1861	4.2	1,009	141.0	716	100.0
	Mass. 1879–1881	1.9	623	147.5	422	58.9
	Mass. 1889–1891	3.9	1,499	112.9	1,328	185.5
	Wis. 1900	4.8	1,524	110.5	1,379	192.6
Upper middle class, 80 to 98 per cent	Mass. 1859–1861	32.4	6,485	141.0	4,600	100.0
	Mass. 1879–1881	26.5	7,224	147.5	4,897	106.5
	Mass. 1889–1891	32.8	10,409	112.9	9,308	202.3
	Wis. 1900	33.0	8,730	110.5	7,901	171.8
Richest, 2 per cent	Mass. 1859–1861	56.9	102,500	141.0	72,696	100.0
	Mass. 1879–1881	66.6	163,415	147.5	110,800	152.4
	Mass. 1889–1891	58.8	169,550	112.9	150,190	206.6
	Wis. 1900	57.0	135,715	110.5	122,830	169.0

[1] W. I. King, *op. cit.*, p. 79 (The Macmillan Company, New York, 1915).

1. A startling inequality in ownership of property is indicated. The poorest 65 per cent of the population in none of these three periods owned more than 6.5 per cent of the wealth, so far as ownership of estates probated is indicative of property ownership among the living. In 1889–1891 the poorest 65 per cent of the population owned only 4.5 per cent of the wealth. The 15 per cent of the population classified as "lower

[1] Some explanation of the classification used in the table may be called for. Dr. King's "poorest" 65 per cent of the people were those who possessed little or no property except furniture, clothing, and personal belongings. The average value of their estates, it will be noted, ranged from $360 to $399 over the three periods. The "lower middle" class included those persons having a little property—enough to tide them over periods of emergency but not enough to yield them an appreciable income. The "upper middle" 18 per cent consisted of those possessing property valued at from $2,000 to $50,000—persons who would derive considerable income from their investments. The "rich," including only 2 per cent of the persons, but persons owning considerably more than half the wealth, were those having wealth of more than $50,000, averaging for 1889–1891, it will be noted, $169,550. We should recall again that this great inequality in the ownership of wealth does not indicate that the "poorest" and "lower middle" portions of the population were unable to maintain a minimum health and decency standard of living. The latter group, typically, own enough property to tide them over major emergencies, although not enough to yield them any considerable income.

middle" owned 4.2 per cent of the wealth in Massachusetts in 1859–1861, 1.9 per cent in 1879–1881, and 3.9 per cent in 1889–1891. On the other hand, the "upper middle" group, including 18 per cent of the persons, owned 32.4 per cent of the property in 1859–1861, 26.5 per cent in 1879–1881, and 32.8 per cent in 1879–1881, while the richest 2 per cent owned 56.9 per cent of the property in the first period, 66.6 per cent in the second, and 58.8 per cent in the third. Dr. King was led to generalize: "The facts of the case seem to be that, for the young man having the average start in life, the chances are about one in four or five that he will accumulate property worth mentioning and about one in fifty that he will become moderately wealthy."

2. A second important fact indicated by the tabular statement is that there is no appreciable difference between the Massachusetts figures for the three periods and those collected in Wisconsin for the year 1900. The rich in Massachusetts were somewhat richer than in Wisconsin, according to these data, but the difference was not great.

3. In the third place, we should note that little difference in distribution was recorded as between periods; apparently the inequality was not becoming appreciably greater or less as the years went by. It is significant, also, that the Wisconsin data for a later year (1900) than that covered by the Massachusetts figures showed no great change in the situation.

4. Finally, it should be mentioned that a continued inequality over the years does not bear out in its entirety the frequently made statement, "The rich are becoming richer and the poor are becoming poorer." In the last column to the right in the table is indicated the relative value of estates in each of the classes and for each of the periods covered, as compared with the 1859–1861 base. It will be noted that while the poorest 65 per cent of the population in Massachusetts owned 6.5 per cent of the wealth in 1859–1861 and only 4.5 per cent in 1889–1891, the real value of the average estate in this class was some 38 per cent larger in the latter period than in the former.[1] On the other hand, the real value of the average estate of the richest 2 per cent of the population increased more than 106 per cent between the first and third periods. What the data do indicate, according to King, is that "the rich have been growing decidedly richer but that the poor are not becoming poorer but are also gaining in wealth, though relatively at a less rapid pace than the rich."

In a more recent study,[2] Dr. King has introduced certain methodological refinements which make possible a supplementing of inference

[1] The index of real value of the average estate was obtained by dividing the average value in dollars by the Bureau of Labor index of wholesale prices.

[2] "Wealth Distribution in the Continental United States at the Close of 1921," *Journal of the American Statistical Association*, vol. 22 (June, 1927), pp. 135–153.

as to the distribution of wealth among living persons drawn from the distribution of estates of decedents with more direct measurement of distribution of property ownership among the living.[1] The results of this study, as set forth in the following tabular summaries, almost tell their own story. When the wealth classes are grouped together, for the sake of comparability with the earlier study that has been cited, as they are in the first table, it appears that the "poor" 65 per cent, those persons owning property worth not more than $3,400 in the 1920's, possessed

[1] As was pointed out in an earlier footnote, the distribution of estates probated does not give an accurate picture of the distribution of wealth among living persons. Recent studies have, indeed, cast some doubt upon the assumption that it correctly portrays (as has been generally assumed in the past) the distribution of wealth among persons shortly before death, or even the distribution at the time of death. Many estates are not probated at all, some real estate is held in joint title by husband and wife, thus requiring no court action at the death of either party, and heavy inheritance taxes provide an incentive for persons anticipating death to arrange means of transfer of property to their heirs which will enable the bequests to escape taxation. In the study summarized in this paragraph, therefore, Dr. King attempted both a measurement of the distribution of the property of decedents and a measurement, by methods described shortly, of the distribution of wealth among living persons. It is significant that the former method revealed roughly the same distribution that was indicated by the Massachusetts estates at various periods during the nineteenth century and Wisconsin estates in 1900, but that the distribution of wealth among living persons was less unequal than the distribution of estates. The obvious conclusions to which these facts would point are that there probably had not been much change in distribution during the years intervening between his earlier study and the 1920's, but that acceptance of the distribution of estates as being indicative of the distribution of wealth among living persons results in an exaggeration of the degree of inequality. Dr. King's methods in this study deserve a few words of description. His estimate of the distribution of estates was based upon the Federal Trade Commission's 1926 study, *National Wealth and Income*, which afforded more inclusive data than had been available when *The Wealth and Income of the People of the United States* (1915) was written. In attempting to ascertain the distribution of wealth among living persons, Dr. King first sought to measure the distribution among farmers. On the assumption that the wealth of the farmer varies, on the average, with the size of his farm, an estimate of the value of the holdings of each class of farm owners and tenant farmers was constructed on the basis of the Census of Agriculture figures of the value of various types of farm property on different size of farms. Estimates of the distribution of wealth among nonfarmers were based largely upon the federal income tax data showing the different sources of individual income, the underlying assumption being that the value of the wealth of any class of persons is a multiple of the income from wealth received by that class. The market value of stocks was distributed among the various income classes by computing the ratio of the market value of a representative group of stocks at the end of 1921 to the dividends paid by these stocks in 1921 and then by multiplying the dividends received by each class of income recipients, as revealed by Internal Revenue Department figures, by this ratio. By somewhat similar methods, the distribution of bonds was estimated. The distribution of leased real estate among nonfarmers was estimated on the basis of income received from specified real estate sources, and the distribution of direct goods and miscellaneous property on the assumption that there is a close correlation between the value of consumption goods possessed by individuals and the income of the family possessing them. By a mathematical formula, the income classes whose total wealth had been estimated were converted into the wealth classes of the tabular summary (Table 58), and the farmers and nonfarmers in each class were added together,

only 16.57 per cent of the nation's total; that the "middle" group (inclusive of both the "upper" and "lower" middle groups in the earlier classification) of people, those possessing from $3,400 to $40,000 of wealth, constituted about one-third of all property owners and owned 43.2 per cent of the nation's wealth; and that the "rich" 2 per cent, those owning $40,000 or more of property, held about two-fifths of the total national wealth. The distribution indicated is, it will be noted, considerably wider than that shown by Dr. King's earlier study—a fact suggesting that the method of inferring ownership among the living from the distribution of estates probated has exaggerated somewhat the degree of inequality.[1] But of the fact that there has existed through the years, and still does exist, a striking—to many of the poorer members of the population a disheartening—concentration of property in a relatively few hands there can be no question.

TABLE 57.—A CONDENSED TABULAR SUMMARY OF ESTIMATED DISTRIBUTION OF WEALTH AMONG PROPERTY OWNERS IN THE CONTINENTAL UNITED STATES[1]

Wealth per person	Per cent of persons	Per cent of total wealth
Less than $3,400	65.8	16.57
$3,400 to $40,000	32.2	43.24
Over $40,000	2.0	40.19

[1] Computed from W. I. King, "Wealth Distribution in the Continental United States," *Journal of American Statistical Association*, vol. 22 (1927), p. 153.

At the same time, the poorer (in point of property ownership) classes in the United States have been more favorably situated than have the poorer classes in other countries, both because the absolute and per capita wealth has been greater here than elsewhere and because distribution has been somewhat less unequal. In Table 59 the wealth of the people of the United States, the United Kingdom, France, and Germany is presented for 1912 and 1922.

It will be noted that the United States total for 1922 substantially exceeded that of the other three countries, and that it would have been

[1] Some readers of Dr. King's 1927 study have reached the mistaken conclusion that the less unequal distribution shown, as compared with his earlier study, indicates that there has been a lessening of the concentration of property ownership in the last thirty years. The erroneous conclusion is apparently a result of failure to distinguish carefully between the two methods used by Dr. King: the method of estimating distribution of estates probated and the method of estimating the distribution of we lth among living persons, as described in the preceding footnote. As a matter of fact, Dr. King's study of the distribution of estates probated, based upon Federal Trade Commission data, showed striking agreement with the earlier study of Massachusetts and Wisconsin distribution, and the wider distribution is indicated by the study of distribution of wealth among living property owners.

TABLE 58.—ESTIMATED DISTRIBUTION OF WEALTH AMONG PROPERTY OWNERS IN THE CONTINENTAL UNITED STATES, 1921[1]

Wealth per person	Percentage of persons above lower limit of class	Percentage of total wealth owned by persons with wealth above lower limit of class
$ 0 to $ 200...	100.00	100.00
200 to 400...	99.72	99.995
400 to 600...	98.37	99.933
600 to 800...	95.60	99.727
800 to 1,000...	91.44	99.30
1,000 to 1,200...	87.07	98.73
1,200 to 1,400...	82.16	97.94
1,400 to 1,600...	76.00	96.76
1,600 to 1,800...	68.92	95 22
1,800 to 2,000...	62.39	93.61
2,000 to 2,200...	57.40	92.23
2,200 to 2,400...	52.82	90.84
2,400 to 2,600...	48.78	89.49
2,600 to 2,800...	45.22	88.20
2,800 to 3,000...	42.02	86.95
3,000 to 3,400...	39.25	85.78
3,400 to 3,800...	34.20	83.43
3,800 to 4,200...	29.70	81.09
4,200 to 4,600...	26.20	79.06
4,600 to 5,000...	23.66	77.43
5,000 to 6,000 ..	21.72	76.08
6,000 to 7,000 ..	17.91	73.05
7,000 to 8,000...	15.28	70.58
8,000 to 9,000...	13.29	68 42
9,000 to 10,000...	11.88	66.69
10,000 to 11,000...	10.73	65.10
11,000 to 12,000...	9.75	63.61
12,000 to 13,000...	8.96	62 30
13,000 to 14,000..	8.35	61.18
14,000 to 15,000...	7.82	60.14
15,000 to 16,000...	7.35	59.15
16,000 to 17,000...	6.91	58.18
17,000 to 18,000...	6.52	57.22
18,000 to 19,000..	6.15	56.30
19,000 to 20,000...	5.81	55.38
20,000 to 25,000..	5.50	54.50
25,000 to 30,000...	4.29	50.57
30,000 to 40,000...	3.24	46 42
40,000 to 50,000 ..	2.00	40.19
50,000 to 100,000...	1.54	37.25
100,000 to 500,000...	0.63	28.14
500,000 to 1,000,000...	0.07	11.48
1,000,000 to 2,500,000...	0.018	6.34
2,500,000 to 5,000,000...	0.0035	3.67
5,000,000 to 10,000,000...	0.0016	2.68
10,000,000 to 20,000,000...	0.00074	1.89
20,000,000 to 40,000,000...	0.00009	0.58
40,000,000 and over.....	0.00002	0.32

[1] From *ibid.*, p. 152.

TABLE 59.—TOTAL AND PER CAPITA WEALTH IN THE UNITED STATES AND OTHER COUNTRIES[1]

Country	1912	1922
United States:		
Total in millions	$186,299	$320,804
Per capita	1,950	2,918
United Kingdom:		
Total in millions	79,297	88,840
Per capita	1,760	1,974
France:		
Total in millions	57,075	67,710
Per capita	1,420	1,690
Germany:		
Total in millions	77,783	35,700
Per capita	1,050	555
Total for the last three countries:		
In millions	214,155	192,250
Per capita average	1,340	1,280

[1] Taken from Tugwell, Munro, and Stryker, *American Economic Life and the Means of Its Improvement* (Harcourt, Brace and Company, Inc., New York, 1924), p. 118, where data from a number of sources have been brought together.

TABLE 60.—DISTRIBUTION OF WEALTH IN DIFFERENT COUNTRIES[1]

Class of population	Country and date	Percentage of total wealth owned by class	Average value of estate	Money value of estate compared to Wisconsin as base
Poorest, 65 per cent of population	Prussia 1908	4.9	$ 153	40
	France 1909	4.3	186	49
	U.K. 1909	1.7	133	35
	Wis. 1900	5.2	381	100
Lower middle class, 65 to 80 per cent	Prussia 1908	5.5	743	49
	France 1909	5.6	1,052	69
	U.K. 1909	2.9	979	64
	Wis. 1900	4.8	1,724	100
Upper middle class, 80 to 98 per cent	Prussia 1908	30.6	3,445	39
	France 1909	29.4	4,602	53
	U.K. 1909	23.7	6,670	76
	Wis. 1900	33.0	8,730	100
Richest, 2 per cent	Prussia 1908	59.0	59,779	44
	France 1909	60.7	85,500	63
	U.K. 1909	71.7	181,610	134
	Wis. 1900	57.0	135,715	100

[1] Taken from W. I. King, *Wealth and Income of the People of the United States* (The Macmillan Company, New York, 1915), p. 96. In the United Kingdom and France the levying of the inheritance tax has resulted in the compilation of statistics of estates, while in Prussia data obtained from records of the property tax, which are closely connected with those of the income tax, gave a fairly reliable basis for estimating the distribution of wealth.

greater even if the War had not temporarily impoverished Germany. In 1912, on the other hand, the wealth of these three countries was greater than that of the United States. The material progress of this country, as measured by the increase in national wealth, was obviously much greater during these years than was that of the more important European countries. Data on the distribution among different economic classes in the several countries, presented in Table 60, show clearly that, great as has been the inequality of distribution in the United States, it has been somewhat greater in these other countries, especially in the United Kingdom where the system of primogeniture has obtained, and that the average wealth per person is considerably higher for persons in the "poorest" and "lower middle" classes here than in European countries.[1] Other investigations into, and estimates of, the distribution of wealth in the United Kingdom, it may be mentioned in passing, indicate substantially the same degree of concentration that Dr. King discovered.[2] All the studies make clear the fact that in other countries and in the United States there is great inequality in the ownership of wealth.

Importance of the Distribution of Wealth.—A few things about the significance of wealth distribution inevitably have to be said. Income rather than wealth, it is true, ordinarily determines the standard of living one is able to maintain. But the distribution of wealth is, nevertheless, of profound importance in a study of labor conditions and labor economics. Also it is impossible completely to disentangle the problems connected with, and the arguments against, greatly unequal distribution of wealth from those centering around incomes and standards of living. We may, therefore, turn briefly at this point to a mention of some of the effects of economic inequality and to the arguments for a less unequal distribution of wealth.

[1] It will be noted that in all three of the European countries the average money value of estates of those persons coming in the poor, lower middle, and upper middle classes was lower than that of the estates of persons in the same class in Wisconsin. In the United Kingdom, on the other hand, not only did the richest 2 per cent of the population own a larger portion (71.7 per cent) of the wealth, but the money value of the average estate for this 2 per cent was some 34 per cent greater than that in Wisconsin.

[2] Mr. L. Chiozza-Money, in *Riches and Poverty*, presents the results of a study based upon statistics of death duties collected during the five-year period of 1904–1909. He computed that, while on the average 683,000 persons died in the United Kingdom each year, 4,000 of these left about two-thirds of the total property passing, and that 654,603 died poor or very poor. He was led to conclude: "It is literally true to say that a mere handful of people owns the nation. It is probably true that a group of about 120,000 people, who with their families form about one-seventieth part of the population, owns about two-thirds of the entire accumulated wealth of the United Kingdom." Professor Taussig (*Principles of Economics*, vol. 2, p. 256) has reached the somewhat more conservative conclusion that only one of every six adults in Great Britain leaves an estate of as much as £100, and only one out of twenty leaves as much as £1,000.

Unequal distribution of wealth, in the first place, is conducive to greater inequality in the distribution of income. The phrase "wealth breeds wealth" is entirely too glib to be accepted uncritically, but in a very real sense it is true. Property ownership means economic power; the individual with a competence is better able to direct his affairs so that his fortune will grow than is the man without property to accumulate a small fortune. Moreover, when ownership is concentrated, a relatively small portion of the population receives that part of our national income going in the form of interest and economic rent and (other things remaining the same) the income of the great majority owning little or no property tends to be reduced.[1] The tabular statement of differences in sources of income among different income classes (Table 61), indicating the very large proportion of income received from property by those having large incomes and the small proportion received by those in the lower groups, is suggestive of the relationship between concentration of wealth and unequal distribution of income.

TABLE 61.—PERCENTAGE OF INCOME DERIVED FROM PROPERTY AND FROM SERVICE BY INCOME GROUPS[1]

Incomes	Percentage from property	Percentage from service
$ 1,000 to $ 2,000	17 93	82 06
2,000 to 3,000	21.82	78 18
3,000 to 5,000	40.29	59.71
5,000 to 10,000	58.66	41.34
20,000 to 40,000	69.84	30.16
100,000 to 150,000	84.96	15.04
500,000 to 1,000,000	94.46	5.54
2,000,000 and over	98.78	1.22

[1] Adapted from O. F. Boucke, *Principles of Economics* (The Macmillan Company, New York, 1928), vol. 2, p. 180. Professor Boucke's table is a condensation of the estimates given in *Statistics of Income*, 1922, by the Commissioner of Internal Revenue. The figures are based upon income received in 1920.

In the second place, the economic insecurity of the workers is accentuated by a very unequal distribution of wealth. A certain amount of accumulated wealth is the best protection the worker can have against unemployment or illness. A man owning two or three thousand dollars worth of property may be in position to withstand a period of unemployment and again take his place as a productive member of society; his neighbor who received the same wages when employed, but who has no property, is likely to find himself an object of charity during the period of unemployment, his morale deadened and his ambition stifled, and he may not again be able to take the place he formerly occupied in the

[1] Of course, the concentration of property ownership may be a causal factor in determining the amount of land and capital forthcoming for productive purposes and the amount of annual investment, and therefore the return per unit (and hence aggregate returns) to land and capital.

industrial army. Closely related is the fact that wealth gives to the individual greater mobility. The worker who is financially unable to travel to the place where better jobs are to be had is in a weak bargaining position; he must accept what is offered where he happens to be located. Ownership of some forms of property, such as a home, may, of course, tie a worker to a community rather than make him mobile. On the whole, however, the mobility which is assumed in the marginal-productivity theory of distribution tends to be impeded when large numbers of workers do not possess enough wealth to enable them to move to better-paying jobs.

The effect of a very unequal distribution of wealth in fostering social unrest and in accelerating social stratification and the formation of noncompeting groups is very apparent. The nonpropertied man is more likely to be an enemy of law and order than is the man who owns property, for the latter feels that he has a personal interest in the maintenance of the existing order and something to lose by a revolution. Movements of revolt and protest against the social order in which we live do not, typically, recruit their supporters from the propertied middle and upper classes; their appeal is most successful with those who have become convinced that the opportunity of the masses to accumulate property is an increasingly slight one. To point to this consequence is not, probably it is unnecessary to say, to imply that a spirit of complacent acquiescence toward the status quo is desirable, to overlook the fact that propertied men are likely to be too conservative, or to ignore the hope for the future that lies in a spirit of wholesome social criticism. It is, however, to recognize that the kind of social unrest arising out of disillusionment with the present order and the interest in improving it that is manifested by those who feel that they have reasonable opportunity to accumulate enough property to remove them from economic hardship are two vastly different things. Indeed, the stimulus to individual effort and efficiency consequent upon participation by a large part of the population in the ownership of wealth is one of the strongest arguments against exceedingly unequal distribution. Other motives than the gain spirit induce men to play their parts as productive members of society, but certainly the desire to accumulate some wealth is one of the most potent of stimuli to effort and efficiency. "Without the accumulations of the common people, we should witness a retrogression in industry, wealth, and prosperity. Unless, then, other untried means can be shown to serve equally well as incentives to production, the possibility of accumulating wealth must be regarded as one of the mainstays of our economic civilization."[1]

The argument against interference with property ownership is, in essence, that a greater national dividend is secured under concentrated

[1] W. I. King, *Wealth and Income of the People of the United States*, pp. 58–59.

ownership than would otherwise be possible. This contention, it should be noted, may be based upon either or both of two suppositions: (*a*) that enormous rewards must be given to some in order that the greatest degree of exertion and efficiency may be procured, and (*b*) that the advantages of large scale industry are inseparable from ownership concentrated in a relatively small number of hands. The first of these suppositions calls for qualification. In the first place, *how* great a reward must be given to the few in order to secure their best efforts? Society has come to recognize, to an extent, that certain limitations upon extreme concentration can be placed without any noticeable lessening of exertion and efficiency; the excess profits tax and the inheritance tax are two cases in point. Probably the average young man "starting out in life" would work with as much zeal during the greater part of his productive career if all fortunes were limited, say to five million dollars, as he would knowing that he had one chance in several thousand of accumulating more than five millions. Also, the hypothesis that enormous rewards for the few are essential to secure a high degree of exertion and endeavor does not take account of the greater stimulus to effort on the part of masses when they believe they have opportunity to accumulate a modest competence. The second supposition into which the general argument against interference with a grossly unequal distribution of wealth resolves itself calls for proof that large-scale production, with its advantages of greater production and lower unit costs, is dependent upon concentration of wealth ownership. To a certain extent it probably is true that concentration of ownership in the hands of one man or a few men directing the affairs of an industrial enterprise makes for greater production—but only to an extent. Many of the wealthy today are not great entrepreneurs, and they do little by either their personal efforts or their wealth to aid in more efficient production. While the large cooperative enterprises, in which ownership has been diffused among a large number of partners or shareholders, have not been notably successful in the United States, the technicians, engineers, and financial managers who direct modern business enterprises are often not the dominating stockholders, and an absolute inseparability of successful large scale production and concentrated ownership has yet to be proved.

Causes and Means of Control.—Charles Gide has characterized as one of the greatest paradoxes of twentieth-century civilization the fact that inequality of wealth ownership persists and does not show pronounced signs of lessening, although other inequalities among persons have been removed or greatly mitigated. Enormous strides in the attainment of civil and political equality have been made since the enraged barons wrested the Magna Charta from King John. With the rapid extension of free public education, a certain amount of intellectual—or at

least informational—equality appears to be developing. Why do we find such great inequality in the ownership of wealth?

The fact that there is considerable similarity in the distribution in the different countries is suggestive. In all of these countries economic life has been left for its guidance largely to the workings of the competitive system, and the laws governing property, contract, and inheritance have been, in their fundamentals, much the same. Does this mean that wealth tends, under these conditions, to be distributed in about the same proportions after a certain degree of industrial and political development has been attained?

There does appear to be a certain amount of substantiation of an affirmative answer. Private property, considerable *laissez faire*, and the profit motive have been operative in these countries, and they have led to a very similar distribution. But if a certain "natural" process of concentration is thereby indicated, this process is "natural" only to the extent that the institutions and arrangements constituting our industrial society are natural. A change in these institutions and arrangements—especially in the laws governing property, contract, and inheritance—would tend to bring about a vastly different "natural" distribution. Even granting that under capitalistic conditions wealth tends to be distributed in proportion to certain qualities inherent in the human mind, we should remember that these qualities do not necessarily measure the contributions of the successful individuals to the common welfare.

The specific causes of great economic inequality and the concentration of wealth into huge private fortunes are myriad. The institution of inheritance, fortified as it is by a prevalent belief on the part of many that it is an almost sacred institution, permits the persistence of great inequalities, and hence the persistence of economic and social classes. Probably the hope of being able to leave to his children a competence is as much a stimulus to effort on the part of the average man as is the hope of improving his own standard of living; but on grounds of social welfare it is difficult to argue that the third and fourth generations of a wealthy family, who have done nothing to create the wealth they enjoy, should be allowed by society to possess relatively large amounts of property while the many engaged in gainful production own little or nothing. Combination of industry is another cause deserving attention. While concentrated ownership is not necessarily a concomitant of concentrated control, the tendency has been for a concentration of wealth ownership to accompany concentrated control.[1] In many cases, without doubt, industrial combinations have resulted from the economic benefits of large-scale production under a managerial genius, but in many other cases they have been merely the result of monopolistic arrangements and

[1] *Cf.* Berle and Means, *The Corporation and Modern Economic Life* (1934).

restraints of trade that the government and society either have not wanted, or have been unable, to prevent.

Rapidly rising land values, particularly in the growing cities, are another cause of great fortunes.[1] Here the essential elements of success have been sagacity, patience, and ability to recognize a lucky chance rather than inventive genius and arduous personal effort. Speculation in the commodity markets or stock exchanges, which until recently has been subject to inadequate government control, have been responsible in many cases for the creation of large fortunes for a few peculiarly shrewd or lucky individuals, and the huge profits made by financial promotion—sometimes by underwriting questionable ventures which have been unloaded upon the gullible public and by building enormous paper utility empires so fundamentally unsound that they collapse upon the impact of business depression—belong in the same category of causes. Wars, bringing with them the opportunity for profiteering from the possession or acquisition of commodities essential for military or civil consumption, and frequently accompanied by monetary inflation from which a minority profit while the majority suffer from the higher cost of living, must be mentioned as a fifth of the more specific causes.

The successful development of new industries has been still another cause of the growth of enormous fortunes. In many cases, it is true, risks and uncertainties have bulked large in new and untried ventures, and the correspondingly large entrepreneurial return when they have been successful, therefore, is not necessarily to be regarded as unearned increment, at least according to the precepts of our individualistic economy; but there can be no question that the early development of the railroads and other public utility industries, and to an extent more recently the development of the motor car, telephone, radio, airplane, and motion picture industries, resulted in the accumulation of personal fortunes vastly in excess of any reasonable reward for personal effort or contribution to the general social weal. Government grants of direct or indirect subsidies to industry and laxity in corporation laws, permitting such practices as the capitalization by public utility companies of exclusive franchise rights previously granted them and by corporations generally of service of promotors, have been still other causes of greatly unequal ownership of wealth. Finally, we may mention the matter of economic inertia. Institutions that have come into existence tend to perpetuate themselves; definite, concerted action, based upon sober consideration of what social objectives we should seek ultimately to attain and of the best means of attaining these objectives, is necessary before we can expect society to meet problems of this character in an intelligent manner. More effective regulation of corporations and of security issues and trading in securities, the social absorption of more of the unearned incre-

[1] For examples, see Gustavus Myers, *History of Great American Fortunes.*

ment resulting from the rise in land values, more effective collective bargaining on the part of labor and state intervention to protect the lower strata of society (things that would mitigate economic insecurity and protect standards of living, if not directly affect the distribution of wealth), stabilization of the general price level, prevention of relatively unregulated individual exploitation of natural resources, taxation programs applying to a greater extent than in the past the principle of progression to large incomes and graduating upward even more the death duties on large fortunes—these, and many other, means may be used to reduce somewhat the economic inequality of our contemporary civilization.

CHAPTER VI

GOVERNMENTAL REGULATION OF WAGES

The widespread attempts, in the last four decades,[1] to regulate wages through exercise of the coercive power of the state have been an inevitable consequence of industry's failure to pay millions of its workers enough to enable them and their families to live in decency.[2] With modern industrial evolution a story of poverty all along the highway of progress, with glaring inequalities in wealth ownership and income distribution a matter of common knowledge, naive reliance upon the precepts of *laissez faire* has come to be regarded by thousands of thoughtful men and women as evidence of callow rather than of penetrating and accurate economic analysis. Industrial life has become characterized more and

[1] Wages were, of course, extensively regulated by the state prior to the advent of modern capitalism. Out of the Black Death of 1348 there emerged the English statutes regulating the wages of agricultural labor (statutes that were intended to keep the workers from taking advantage of the bargaining strength that came to them consequent upon the labor shortage rather than to raise wages), and wage assessment was a characteristic policy during the period of Tudor nationalism. But the old regulations were swept away during the gush of enthusiasm for *laissez faire* and the general acceptance of the doctrines of the English classicists of the late eighteenth and early nineteenth centuries. Our concern in this chapter is with the latter-day attempts to regulate wages by government action.

[2] These governmental attempts to regulate wages have not, however, been exclusively directed toward the prevention of poverty or sweating. The European laws and those enacted by the American states (and by the federal government of the United States for the District of Columbia and Puerto Rico), applicable only to women and minors, have aimed chiefly to prevent extraordinarily low wages rather than to effect a general leveling up calculated to increase the national purchasing power or to achieve some other end. On the other hand, both the scope and the underlying conception of the American attempt to regulate wages generally under the National Industrial Recovery Administration of 1933–1935 were radically different. Here the primary object was to restore prosperity by raising wages, on the assumption that if wages were generally raised, the total earnings and income of labor would increase and the national purchasing power rise. The federal wages and hours legislation proposed by President Roosevelt in 1937 and again in 1938 was primarily for the purpose of preventing extraordinarily low wages, although the purchasing power theory of its predecessor, the NIRA, also expressed itself in the proposal. In the first part of this chapter we shall be primarily concerned with the attempts to prevent the antisocial consequences of extraordinarily low, or exploitative, wages rather than with regulation having some other primary object, the latter type of regulation being discussed on pp. 356–375. It must be recognized, however, that the line of demarcation between the two types is not an altogether distinct one, and that there has been overlapping of objectives. While the American NRA was primarily for the purpose of increasing the general purchasing power rather than for leveling up substandard wages, its proponents also hoped that it would achieve the socially desirable end of preventing sweating.

more by rigidity, inflexibility, very slow and tardy responses of one part of the price structure to the behavior of others; resort to the pulmotor of government aid for business enterprise has been taken to an increasing extent in recent years; in large segments of economic activity the presumptions of automatic regulation and control are being modified, quietly ignored, or allowed to lapse into innocuous desuetude. "Rights" are recognized as relative, not absolute, things—things that are of social creation, not "inalienable." To dismiss the possibility of wage regulation in such an economic system with the glib pronunciamento that it is contrary to "natural law" is as great an intellectual sin as is the antithetical one of uncritical espousal of attempts to control without recognition of the distributive forces striving to work themselves out in the system of capitalistic enterprise; to say that such attempts are a "manifest violation of the sacred rights" of employer and employee is to expose oneself to the charge of a social romanticism ill becoming one who professes realistic concern in the economic problems of the 1930's.

The Minimum Wage Movement

With the exception of the gigantic American experiment of 1933–1935, discussed later, the minimum wage movement has been primarily a consequence of sweatshop conditions rather than an attempt to introduce general regulation of wages by the state. Its basic presumptions can be stated briefly. The health, strength, and morals of workers—especially women workers—depend in part upon wages; industries or enterprises not paying living wages are social parasites; public policy demands that the payment of living wages be made, except under very special circumstances,[1] a first charge upon industry and that the competition among unorganized and weak bargainers, generally resulting in the wage the weakest bargainers in this group will accept setting the rate for all, be restricted; the state, without drastic modification of the institutional life that determines prices and distributive shares, can place all employers

[1] As is indicated later in this chapter, the laws have not carried out to its logical conclusion the assumption that payment of living wages should be made a first charge against industry, and even where the laws have not charged the administrative officials to take into account "the condition of industry" as well as the necessities of the workers, considerable attention has been given to the question of what wages industry can afford to pay. Owing to the adverse ruling of the U. S. Supreme Court on the District of Columbia minimum wage law in 1923 (*infra*, pp. 324–342), the laws enacted by the legislatures of seven states in the early 1930's supplemented the "living-wage" principle with the "reasonable-value" principle. "An oppressive and unreasonable wage" was declared by the New York law of 1933 to mean "a wage which is both less than the fair and reasonable value of the services rendered and less than sufficient to meet the minimum cost of living necessary for health." When in 1937 the Supreme Court finally upheld the constitutionality of laws incorporating the living-wage principle, legislatures again manifested a disposition to return to this earlier standard. The New York law of 1937 directs the establishment of wage minima necessary for decent livelihood.

in a given geographical area or given trade or industry upon the same level so far as minimum wage standards are concerned and thereby protect "fair" enterprises against competitors who constantly try to reduce costs through depressing wages rather than through elimination of slack and inefficient methods of production. Finally, the minimum wage movement has had underlying it the assumption that concentration of production within those firms able to pay decent wages would not be undesirable. In industries where comparatively little capital is necessary to start a small-scale establishment, a large number of irresponsible, "fly-by-night" firms are chronically to be found—firms whose chief source of survival capacity is low labor cost. If minimum wage legislation pushes these firms across the marginal line and production is concentrated in a smaller number of larger and more efficient plants, the result to be expected would be a higher wage bill for the entire industry without necessarily higher—or at least without proportionately higher—costs per unit of product.

Development in Australasia.—In its modern form, minimum wage legislation originated in Australasia, where New Zealand in 1894 gave its district conciliation boards power to prevent sweating by setting minimum rates[1] and Victoria in 1896 adopted independent minimum wage legislation. Both the British and American systems have followed to an extent the model established there. Experience in this new and comparatively prosperous country therefore merits consideration in a little detail.

Sweating did not appear as an acute problem in Australia until relatively late. The country is new, its per capita real income has been second only to that of the United States, prior to the middle of the nineteenth century it hardly had a coherent political life, and until industrialism was firmly established in England and the United States the majority of its inhabitants lived a pastoral or semipastoral existence. During the 1880's, however, attention began to be focused upon sweating. An official inquiry was made in Victoria in 1893, an Anti-Sweating League sprang into existence, and minimum wage legislation resulted in 1896.[2] The essence of the system was the establishment of special elective[3] boards representing employers, workers, and the public, charged with the

[1] The New Zealand compulsory arbitration law of 1894 was intended primarily to preserve industrial peace, but the power given the district conciliation boards to fix minimum wages resulted in the system's being used to prevent sweating.

[2] For a good statement of the background of minimum wage legislation in the Australasian states, see William Pember Reeves, *State Experiments in Australia and New Zealand*, vol. 1. Barbara N. Armstrong's *Insuring the Essentials* (1932), pp. 39–42, also gives a good summary statement of the background. The various reports and monographs of the Melbourne Anti-Sweating League should be examined by one wishing to probe into the matter in more detail. *Cf.* also M. B. Hammond, "Minimum Wage in Great Britain and Australia," *Annals of American Academy*, July, 1913, pp. 28–41.

[3] Except for the furniture industry, where it was deemed expedient to make the boards appointive instead of elective, owing to the preponderance of Chinese labor.

duty of conferring, investigating the wage situation in their respective trades, and rendering decisions as to minimum rates. Only six of the especially sweated trades (boot-making, baking, shirt-making, clothing, underclothing, and furniture manufacture) were covered by the original act, the operation of which was limited to a four-year period, but from 1896 to 1905 the system was rapidly extended and the principle was established of utilizing the machinery to guarantee "fair" wages as well as to prevent sweating.[1] By 1932, nearly 200 wage boards were in operation in Victoria and wage rates were fixed by government authority for almost 200,000 employees in a state with a total population of less than 2,000,000.[2] Other Australasian states, in the meantime, began to go over to the system of government regulation of wages, although with the exception of Tasmania the minimum wage systems were closely related to the machinery of compulsory arbitration.[3] South Australia adopted the minimum wage system in 1900, although the act was inoperative until 1904 and not in full operation until 1906; Queensland and New South Wales enacted laws in 1908;[4] and Tasmania in 1910. Fixation of wages by compulsory arbitration was adopted in Western Australia in 1902 and, as has already been said, in New Zealand as early as 1894. From the outset the states that followed Victoria in the field of government regulation of wages made their legislation applicable to a larger range of employment than merely to the sweated trades.[5]

[1] The Victorian law of 1900 extended the system to several new trades, continued it in those covered by the 1896 legislation, enunciated the principle that "fair" wages should be established, and attempted to meet the problem of unemployment on the part of those unable to earn the minimum by allowing them to work for less under permits. New laws were enacted in 1902 and 1903, that of the latter year placing certain limitations upon the wages the boards might order and providing a system of appeal to a higher board in case either party was dissatisfied with the decision. The Act of 1907 extended the system to trades and business not connected with factories and made provision for the appointment of wage boards for building, quarrying, the preparation of firewood for sale and the distribution of wood, coke, or coal. The acts of 1909 and 1910 extended the system to the mining industry and to the shires.

[2] Common and Andrews, *Principles of Labor Legislation* (1936 ed. Harper & Brothers, New York) p. 50.

[3] Several of these states in more recent years have oscillated back and forth between the independent wages-board system and wage fixation as a function of the compulsory arbitration machinery.

[4] Queensland established a wages-board system in 1908, but in 1912 repealed her wages-board act and replaced it by the Industrial Peace Act, which attached the system for preventing low wages to the compulsory arbitration machinery. New South Wales had followed the lead of New Zealand as early as 1901 in establishing compulsory arbitration, but this method of wage fixing was replaced with a wages-board system in 1908, and then by a combination system of arbitration court and wage boards in 1912.

[5] Barbara N. Armstrong's *Insuring the Essentials* (The Macmillan Company, New York, 1932), pp. 39–46 and 124–129, summarizes well the development of the Australasian system. Part of the factual material on this system presented in these pages is drawn from Dr. Armstrong's study.

Inevitably, this system of social control has changed somewhat as the years have passed. Two of the states, Victoria and Tasmania, still maintain their wages-boards system in practically unmodified form, but in the others there has been a distinct tendency toward amalgamation of the two types of regulatory mechanism—the arbitration court and the wages board—into hybrid systems, with the centralized court performing the more important functions of minimum wage fixation.[1] Since about 1907 the decisions of the Commonwealth Court, which has jurisdiction over industrial disputes extending beyond the limits of a state, have had a rather profound influence upon the determinations reached by the state boards and courts. But the most important fact is that government intervention to prevent excessively low wages has become a permanent policy. The majority of the wage earners in Australasia today are receiving wages determined by some kind of state or federal machinery.

Problems have, of course, arisen. The general charge in the laws to establish "living" or "fair" wages is clear enough, but practical applica-

[1] In Western Australia the sole institution of wage control until 1925 was the Court of Arbitration. By an amending act of 1925, however, a subsidiary industrial board system was grafted on to the Court, although the function of minimum wage fixing was left to the Court. Queensland has changed her policy rather frequently in recent years. As was indicated in a preceding footnote, a hybrid court-board system was established in 1912 in place of the board system of 1908. In 1916 the system of central court with no subsidiary boards was adopted; in 1925 the Court was replaced by a Board of Trade and Arbitration; and in 1929 there was a return to a central court with subsidiary boards, thus re-establishing the 1908–1912 system. In 1920 South Australia abandoned the court-board system for a centralized body. The Board of Industry established there is, however, separate and distinct from the Central Court, the supreme judicial body of the state. In New South Wales a movement for the abolition of the hybrid court-board system developed after 1912, and since 1926 there has been but one central authority, the Industrial Commission. In New Zealand the fixation of minimum wages has remained a function of the Court of Arbitration and Conciliation. Victoria and Tasmania, adhering to the boards system, have changed their machinery less than have the other states. Until 1920 boards could be created in Victoria only by resolution of both houses of Parliament after petition by the Minister of Labor, but since that year administrative authorities have been allowed to authorize boards, thus creating greater flexibility within the system. As has already been indicated, a court of appeal from wage-board determination has been available in Victoria since 1900, but since 1919 the wage boards have been empowered to annul the appeal court's decision one year after it had been rendered and to fix rates at their discretion. In 1927 the Victorian Parliament created an Apprenticeship Commission, authorized to superintend and regulate the whole apprenticeship period which formerly had been within jurisdiction of the 187 boards. The Tasmanian system remains similar to that of Victoria except for its lack of a court of appeal. Since 1920 provision has been made for the registration of trade agreements between Tasmanian employers and organized workers, such registered agreements having the effect of wage-board determinations. During the post-war period there has been a distinct tendency in Tasmania to supersede craft boards by industrial boards covering entire industries. In 1928 the Tasmanian legislative body gave the wage-boards power to "peg" rates by stipulating that they should rise and fall automatically with variations in the cost of living as indicated by the official index number.

tion of the general charge has necessitated the reading of concrete content into these terms and consideration of the domestic obligations to which the average worker may be subject.[1] In the last analysis the rates finally established have generally represented compromises, even in the case of court rather than board determination. In Western Australia, since 1912, the boards have been required to see that the minima prescribed are "sufficient to enable the average worker . . . to live in reasonable comfort, having regard to any domestic obligations to which the average worker would ordinarily be subject"; the Tasmanian and Victorian boards took as their standard for a considerable period the "wages paid by the reputable" employer;[2] while the Commonwealth Court in the "Harvester judgment"[3] of 1907 declared that the basic rate for unskilled labor should be sufficient to meet the "normal needs of the average employee regarded as a human being living in a civilized community." New Zealand, in 1921, and Tasmania, in 1928, amended their statutes to provide for alterations of awards in accordance with fluctuations in the cost of living. During the earlier years the courts and boards tended to base their determinations upon the assumption that the average male worker was responsible for the support of a wife and two or three children; and the principle has become definitely established that the living wage for adult males must include family needs. The minima for women are based upon the amount necessary for self-support, on the assumption that women normally support themselves alone. "The minimum cannot be based on exceptional cases."[4] Wage rates in occupations employing both men and women have generally been fixed for the sex predominating therein.[5] In recent years there has been a lively agitation for grafting the family allowance plan on to the wage-determination machinery. As a result of the suggestions of Mr. A. B. Piddington, chairman of the Royal Commission to enquire into the cost of living, the question of child endowment was considered seriously until the adverse report of a special commission appointed in 1927, and New South Wales that year passed a measure directing that the family unit for the basic wage be changed from a family with two children to a childless married couple, with allowance for children being paid from a child endowment fund raised by a general payroll tax.[6] As amended in 1929, this system provides that the mini-

[1] The minimum wage is referred to as a "living" wage in the statutes themselves of all the Australian states except Victoria.

[2] In both Tasmania and Victoria this standard proved difficult to administer, and has been dropped.

[3] *Ex parte* H. V. McKay, 2 C. A. R. 1. The influence of this decision is discussed in B. N. Armstrong, *op. cit.*, pp. 124–129.

[4] *Commonwealth Arbitration Reports*, vol. 6, p. 71.

[5] Commons and Andrews, *Principles of Labor Legislation* (1936 ed.), p. 58.

[6] The history of the family allowance plan in relation to the Australasian system of wage fixation should be traced briefly at this point. In 1919 a Royal Commission, headed by

mum wage rate be fixed for a family with one child, and that special allowance be paid for additional children out of a general fund raised by a payroll tax. Problems connected with the employment of the aged, the incapacitated, and the subnormal have constantly confronted the boards and courts; adjustments in accordance with changes in the cost of living have sometimes come only in laggard fashion; the question of what industry can afford to pay has been a constantly recurring one; reliance upon cost of living index numbers as the guide in rate adjustment, with the implication of status that this procedure carries with it, has been attacked more than once; undoubtedly the wages fixed in some trades and industries have not borne the proper relationship to those in others; establishment of differentials above the basic, or living, minima for skill, hardship, or other circumstances has been a technical difficulty not lending itself to easy solution; employers contended that during the recent depression the courts and boards were too slow in initiating a wage-reduction movement, and that economic recovery was retarded in consequence.[1]

Mr. Piddington, was appointed by the Commonwealth to inquire into the cost of living and to determine a reasonable living wage for a man with a wife and three children. The official statistician reported, however, that the wages adequate to meet this standard would necessitate payment of an amount in excess of the total national income. Mr. Piddington suggested, as a way out of the dilemma, that the basic rate be for a man and wife, with supplementary allowances in accordance with the number of children to be supported. In 1920 a child endowment system was instituted in the public services of the Commonwealth, but it was replaced in 1923 by a "real redistribution system," under which the "Harvester wage" was allotted as a basic wage for each worker in the first instance with ten pounds per annum being deducted and placed in a fund out of which allowances of five shillings a week for each dependent child would be paid. This plan, however, never became effective in the Commonwealth. The trade unions disregarded, as unfounded, the statistician's statement of the impossibility of paying the 1919 Commission's basic wage, the Commonwealth Court refused to consider either the unions' demand or Mr. Piddington's suggestion, and finally in 1927 a Royal Commission on Child Endowment was appointed. This commission, after eighteen months' study, rendered a report adverse to the family endowment program, thus putting it (for the present) out of official consideration. New South Wales is the only state thus far to make the family endowment plan part of its arbitration and minimum wage policy. When the Child Endowment Fund, derived from a payroll tax, was established there, Mr. Piddington (who was Industrial Commissioner for New South Wales) opposed a proportionate drop in the basic wage for childless men, on the ground that childless couples had become accustomed to the standard of living they were able to maintain on the former basic wage. The Industrial Commission was then enlarged in order to permit of a majority which could outvote Mr. Piddington, and the basic wage was reduced. It is estimated that the child endowment plan of 1927, continued by the act of 1929, effected a reduction in the basic wage of more than half the workers in New South Wales.

[1] However, a comparison of the wage policies of the Australasian machinery with the policies of American corporations indicates that the movement to deflate wages—irrespective of its merits—came almost as quickly under this system of control as it did in the land of American individualism. As was indicated in an earlier chapter (*cf.* pp. 115–118), neither the frequency nor the severity of wage cuts became great in the United States until 1931,

But of the fact that the Australasian experiments have raised the living standards of the more depressed groups, and without the direful consequences that were predicted, there can be little question. It was, of course, during the earlier years that the greatest progress toward elimination of sweating took place. After the War, as has been indicated, administrative action was directed toward keeping wages within the limits of cost of living changes and adjusting them in accordance with family needs.[1] Industry did not succumb in consequence of governmental interference with the wage relationship. Numerous employers who originally opposed the new system declared, after about a decade of experience, that business was not injured because they all were put upon the same basis as far as minimum wage payments were concerned.[2]

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although unemployment increased tremendously throughout 1930. The Commonwealth Court of Australia continued to enforce the "Harvester standard," with its cost of living modifications, until Jan. 22, 1931, when a general reduction of 10 per cent was ordered, and since then there have been other reductions. The state boards and courts seem to have followed the policy of the Commonwealth Court during the depression.

[1] An investigation of the Australasian systems, made just before the inauguration of the British trade-board system, by Mr. Ernest Aves, showed an appreciable leveling up of wages. In Victoria, for instance, average wage rates increased 7.6 per cent in thirteen wages board trades in a period of about five years before the awards were made, but 16.5 per cent in these and six additional trades during a period of equal duration after the inauguration of the system. That this increase was largely due to the regulation, not an increase that would have come under ordinary competitive conditions, is indicated by the fact that during the whole of this period wage-rate advances in twelve nonboard trades amounted to only 11.6 per cent. Evidence on the situation in all the Australasian states shows that sweating has been practically eliminated. With certain groups, to be sure, the system did not work as successfully as had been expected. In the furniture trade, where Chinese workers have been numerous, neither employers nor employees welcomed the innovation, and the legal rate has not been maintained with great success. In some cases it is probably true, also, that the system tended to put a premium on nonregulated home-work, and hence stimulated the growth of small shops.

[2] An investigation made in 1912 [M. B. Hammond, "The Minimum Wage in Great Britain and Australia," *Annals of American Academy of Political and Social Science* (July, 1913), pp. 28–41] showed that both employers and employees "are now practically unanimous in saying that they have no desire to return to the old system of unrestricted competition in the purchase of labor." Of significance are the facts that the Victorian Employers' Association and the Victorian Chamber of Manufacturers, which originally opposed the system, now declare that they do not wish to see it abandoned, and that a number of the wages boards have been established at the instigation of the employers. There was, as has already been indicated, considerable employer complaint during the price downswing that began in 1929 because the machinery did not operate rapidly enough in reducing wages, but after one has made allowance for the exaggeration of statements made in the heat of the moment, one is not justified in concluding that there is now any strong employer movement to abandon the movement. For a detailed statement of the history of the movement, which bears out the general statements made in this paragraph, one should consult William Pember Reeves, *op. cit.*, George Anderson, *Fixation of Wages in Australia* (Macmillan and Co., Ltd., Melbourne, 1929), E. M. Burns, *Wages and the State*, J. H. Richardson, *The Minimum Wage*, and Judge Henry Higgins, *A New Province for Law and Order*.

The minima established by court and trade-board action have not tended to become maxima to any appreciable extent, and the problem of displacement of those workers unable to earn the minima seems to have been met, in large part, by the permit system. The preponderance of evidence shows, also, that the system has not resulted in lessening the efficiency of the workers. Many employers have said that workers responded spontaneously to the improved rate of remuneration by increasing their efficiency, and frequently the inability of small, irresponsible firms to pay the minima and survive has concentrated production within the more efficient, better equipped, plants, with resultant increase in the value productivity of the workers.

The Minimum Wage in Great Britain.—From the 1880's on public attention in Great Britain was directed toward the evils of sweating. Poverty has been more prevalent there than in the United States, and for the last fifty years business "rights" have not been regarded as quite such sacred, untouchable things as they have been, until recently, in the United States. Inevitably, then, as thinking began to be emancipated from the more pessimistic and fatalistic implications of the classical doctrines, became influenced more and more by thinkers with the broadened philosophies of the Webbs, Rowntree, Ramsay MacDonald, and numerous members of the Liberal Party, the Parliamentary Labour group, and the Fabian Society, the demand for some form of social intervention developed. The Aves Report to the House of Commons in 1908, and the increased knowledge of conditions consequent upon the Booth and Rowntree surveys, stimulated the movement for governmental interference to prevent sweating, and Parliament finally enacted the law that became effective Jan. 1, 1910.[1]

[1] G. B. *Stat.* 1909 (9 Ed. VII), Chap. 22. The story of the gradual crystallization of public opinion in favor of state intervention is a long one. In 1880 a Select Committee on Sweating reported to Parliament, various organizations took up the antisweating crusade shortly thereafter, a sweating exhibition conducted by the *London Daily News* in 1906 brought to thousands a knowledge of existent conditions in industry, an Anti-Sweating League was organized the same year under the leadership of the Lord Mayor of London, Sydney Webb, John A. Hobson, Pember Reeves, and others, and the Liberal Party, openly dedicated to an abandonment of *laissez faire* and to a program of improvement in social welfare by legislative action, came into control of Parliament. A Select Committee on Homework was appointed, and Mr. Ernest Aves was sent to Australasia to investigate the wage-regulation systems there and report upon the advisability of adoption of a similar program in England. The Aves report, while advising against compulsory minimum wage fixation in English industries, conceded the success of the regulatory measures in Australasia; and in spite of Mr. Aves' adverse recommendation, his report seems to have been influential in bringing into being the British system. Mr. Aves' chief reasons for advising against England's adoption of minimum wage fixing were: (1) "That the great oversupply of unskilled labor in England would make enforcement of minimum wages impossible; (2) That regulation would induce replacement of adult labor by juvenile labor; (3) That existing great differences in England's wage levels would be leveled down; (4) That incompetents would suffer from wage regulations; (5) That judicial complexities would be inevitable; and (6) That foreign competition would present a perplexing problem."

England followed closely the Victorian example in her early minimum wage legislation. The 1909 act authorized establishment by order of the Board of Trade, subject to ratification by Parliament, of trade boards representing in equal numbers the employers and workers, supplemented by several independent persons known as "appointed members," in any trade in which the prevailing rate was "exceptionally low as compared with other employments." Boards were originally set up in four especially sweated trades—ready-made and bespoke tailoring, paper-box making, machine-lace and net finishing, and chain making—which employed, in the aggregate, some 238,000 wage earners; while in 1913 a Parliamentary confirmation act of provisional orders previously issued by the Board of Trade extended the system to other trades—linen and cotton embroidery, hollow ware, tin-box making, confectionery and food preserving, and shirt making—in which approximately 150,000 persons were employed. From then until the early postwar period, the system was extended rapidly. In consequence of the coal strike of 1912, which practically paralyzed that industry, a measure was enacted in 1913 districting the coal mining areas for the creation of boards empowered to fix minimum rates and other working conditions for various underground operations;[1] under the Munitions of War acts of 1915, 1916, and 1917 tribunals were set up to make awards relating to "controlled" establishments; while in 1917 the Corn Production Act established an agricultural wages board, similar to the trade boards, and fixed a flat minima of twenty-five shillings a week pending the establishment of minimum rates by the board.[2]

[1] This system, like that established for agricultural workers, was separate from the general trade board system. Regulation of the wages of coal miners was never as effective as that of the wages of workers in the several trades covered by the original and subsequent trade-boards acts. The act of 1913 provided that the minima were to be the implied terms of the contracts of employment, and no provision was made for enforcement. In most cases, the rates set were so low that they meant wage control only in isolated cases. The minimum rates in the collective agreements are not enforceable, as they are in Australia, and they generally have been substantially higher than the board rates for coal miners. But although the governmental regulation of miners' wages has not been markedly successful, the extension of the system to miners in 1913 was significant because, as Commons and Andrews have said, it constituted "wage regulation in a wider form, not simply as a means of protecting the sweated workers at the very bottom of the industrial system, but as a supplement to voluntary collective bargaining for a comparatively well-placed economic group, the skilled men workers in a well-organized trade." *Principles of Labor Legislation* (Harper & Brothers, New York, 1936 ed.), p. 51.

[2] The main purpose of the Corn Production Act of 1917 was the stimulation of grain production through extending to farmers the guarantee of a minimum price. A demand was then made that wages in turn be guaranteed. By the autumn of 1919 the wage boards established under provisions of the act had fixed minimum rates for men, women, and young persons employed in agriculture throughout practically the whole of England and Wales. (Commons and Andrews, *op. cit.*, p. 53). The Corn Production Act was repealed in 1921, and wages were for a time regulated by voluntary conciliation committees. During this period, the wages of agricultural workers dropped to considerably below Mr. Rowntree's

The end of the War witnessed a still further extension of the system and several important changes in its prescribed operation.[1] As a result of recommendations made to Parliament by the Whitley Committee of 1917,[2] and partly with a view to stabilizing wages during the transition to peace, the legislation of 1918[3] provided that boards should be established by the Ministry of Labour (to whom administration of the system, originally a function of the Board of Trade, had been delegated when the Ministry was established) when it believed that "no adequate machinery exists for special regulation of wages and that accordingly, having regard to the rate of wages prevailing in the trade or any part of the trade, it is expedient that the principal act should apply." Legal minima could be established whenever wages were "unduly" low, instead of "exceptionally" low as under the original act.[4] The importance of the change in policy should be apparent: under the 1918 act emphasis was thrown upon the degree of organization in any trade rather than upon the fact of low wages. The new legislation also enlarged the rate-fixing powers of the boards, facilitated the extension of trade boards by placing the onus of establishing them upon the Minister of Labour rather than upon Parliament,[5] and attempted to make them "a possible instrument for industrial

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"poverty line," and discontent over low wages and long hours resulted, with advent of the Labour Government in 1924, in enactment of the Agricultural Wages Act of August, 1924. [*Cf.* Ministry of Labour, *Labour Gazette* (August, 1924), p. 278, and Commons and Andrews, *op. cit.*, p. 54]. Under the provisions of this legislation, the Minister of Agriculture was empowered to establish agricultural-wages committees for each county in England and Wales and a central board for the whole country. Forty-seven local committees were established after enactment of the law. The result was a substantial leveling up of wages, although the continued depression in English agriculture and the large number of unemployed workers have been factors keeping the agricultural rates down.

[1] Barbara N. Armstrong's *Insuring the Essentials* (The Macmillan Company, 1932), pp. 89–90, gives an excellent account of the development of the British minimum wage system. Part of the factual material here presented is, with permission of the publisher, drawn from Dr. Armstrong's work.

[2] *Second Report of the Committee of the Ministry of Reconstruction on the Relationship of Employers and Employed on Joint Standing Industrial Councils*, Great Britain Command Papers, 9002, 1918. The *Whitley Report* recommended that "trade boards should be regarded as a means of supplying a regular machinery for negotiation and decision on certain groups of questions dealt with in other circumstances by collective bargaining between employers' organizations and trade unions"—in other words, that the government should come to the aid of collective bargaining where no machinery of adjustment already existed.

[3] *Stat.* 1918 (8 and 9 Geo. V), Chap. 32.

[4] Under the 1918 Act, the Ministry of Labour was authorized to appoint boards to fix minimum rates in any industry "in which, on account of defective organization, wages are unduly low, or there is reason to apprehend an undue fall in wages when the special war conditions have passed."

[5] Originally the Board of Trade (later the Minister of Labour) could order the establishment of boards, but the action was subject to confirmation by act of Parliament.

self-government by empowering them to make recommendations to government departments concerning improvements in industrial conditions in their trades and by requiring the government to consult them on industrial questions affecting the workers whom they represent."[1] In 1919, 1920, and 1921, additional boards were established. Some of these are now within the jurisdiction of the Irish Free State, but in 1938 England alone had forty-eight boards with a potential coverage of about 1,320,000 workers.

It can be seen that the British trade-board system had ceased, by the early 1920's, to be merely a governmental machinery for the purpose of preventing sweating; it had developed into widespread regulation for the purpose of establishing "fair" rates and bringing about collective bargaining where organization on the side of both workers and employers did not obtain. This development followed closely the recommendations of the Whitley Committee. Public opinion during the postwar years has not, however, been unanimously in favor of the general extension. In 1921 an "Inquiry Committee," headed by Viscount Cave, was appointed by the Ministry of Labour to investigate the operation and consequences of the trade-board system. This Committee, while approving of the trade-board system *per se*,[2] recommended that trade boards be confined to the sweated trades and that their function be limited to fixing minimum wages for the workers there rather than that the purpose be conceived that of regulating the incomes of all grades of labor. No parliamentary action was taken in consequence of this

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Under the 1918 Act, however, the part of Parliament became negative rather than positive. All that is now required when the Minister of Labour believes a trade board should be established in a previously nonregulated trade is that the special order be laid before Parliament. The order may be annulled only by definite action of Parliament; if no such action is taken, the trade-board system becomes operative in the trade for which the order has been issued. In practice, the need for setting up a board is usually brought to the Minister's attention by a trade board already in existence or by a group of workers. The boards are authorized to fix minimum time or piece rates, and these may differ for different classes of workers, districts, processes, or any combination of these. Rates may be so arranged as to come into operation successively at the end of specified periods, and variations in rates, to remain in force only during specified periods, may be made.

[1] Commons and Andrews, *op. cit.* (Harper & Brothers, New York, 1936 ed., p. 53).

[2] The Committee found "some substance in the allegation that the trade boards had contributed to the volume of trade depression and unemployment," but it conceded that "speaking generally trade boards have succeeded in abolishing the grosser forms of underpayment and in regularizing wage conditions in trades brought under the acts. Moreover . . . trade boards have afforded protection to the good employer from unscrupulous competitors. . . . In some instances the enforcement of higher wages has contributed on the whole to the improvement of industrial disputes. . . . In considering any proposal for the alteration of the law, we think it important, while having due regard to the reasonable complaints of employers, not to lose sight of the permanent benefits which the operation of the system has produced."

recommendation,[1] but since the early 1920's the policy of the Ministry of Labour has been in accordance with the Cave suggestions. In 1923 and 1924 three occupations were complained of as "sweated" and investigated, in 1926 the grocery board was abolished, and in 1930 a board was created for the catering industry. English public opinion today seems to be divided on the question of whether wage regulation outside of the very low-paid occupations is a proper exercise of the coercive power of the state, but it is safe to predict that regulation for the purpose of establishing living wages will not be abandoned.

The foregoing sketch of the development of the British system has suggested, in part, its functional and structural aspects. Administration rests with the Minister of Labour (formerly with the Board of Trade), who names the representative members and the appointive members,[2] while the legislative functions are delegated to the trade boards. The general coordinating agency is the Secretary of the Trade Boards, appointed by the Minister, who serves to bring administrative and legislative parts of the system together. Ordinarily members of the staff of the Secretary attend the meetings of the boards and attempt to aid the chairmen and appointed members in their efforts to conciliate the differences of the two groups of represented members.[3] Under the method of trade-board procedure that has developed, each side usually selects a spokesman and a chairman from among its own members, and the process of wage fixation has been largely that of bargaining, with the appointed members acting more as conciliators than as arbitrators vested with quasijudicial authority. In general the appointed members seem to have taken less part in the fixation of piece rates and rates for the semi-skilled occupations than in the determination of basic minima. Frequently the practice has been to appoint subcommittees to work out rates for piece work where fixation involves problems of a technical character.[4] Two months must elapse between the time a trade board

[1] A Parliamentary bill was introduced carrying out the suggestion of the Committee, but it was never passed.

[2] In fact, the Minister usually invites the trade organizations on each side to nominate members, while he appoints persons to represent the unorganized sections of the trade. Common practice has been for the organized workers and employees to nominate the secretaries of their organizations for membership.

[3] In order to meet the peculiar needs and circumstances in different localities, the trade boards have been authorized to set up district trade committees consisting of an equal number of employers and employees in a given area, together with at least one appointed member. The function of these committees has been that of investigating conditions in their respective districts and making recommendations to the trade boards for the fixing of minimum wages.

[4] In the matter of rate fixation for piece work, the functions of the boards have been somewhat less positive than in the matter of establishing basic time minima, but they have ample power to bring piece rates up enough to enable the workers of average speed to earn what has been determined upon in a given trade as the basic minimum wage for time

gives notice of its intention to fix minimum rates and the declaration of the legal minima.[1]

It is evident, from what has been said, that the British system has not carried out to its logical conclusion the principle that every industry must pay its workers a basic living wage and that this payment must be a first charge irrespective of other considerations. Employers have been represented on the boards—generally by persons who are vocal and articulate in presenting their side of the case. The legislation itself has set up no definite standard for the wage to be paid, and rates fixed have generally represented compromises. Studies of the operation of the system indicate that the boards have made relatively little use of hearings, interviews, and scientific investigations. And there has been, inevitably, constant wrangling as to the proper definition of a minimum wage. Probably the most frequently accepted definition of the employers has been "the wage payable to the lowest grade of worker in the least well-equipped factory in the least expensive part of the country."[2] The workers, on the other hand, ordinarily hope for the current trade-union rate in their own or an allied trade. One labor representative, with unusual candor, has said, "A minimum wage is the highest wage we can get out of a trade board."[3] In all likelihood the economic position of the industry rather than that of the worker proved of most concern during the early days of the system, but the rise of prices during the war brought the cost of living principle to the fore. The question of what the trade will bear, the relative strength of organization on each side, the supply of,

workers. The law has provided that an employer may apply to a trade board to fix a special rate for the persons he employs, or he may, if he so elects, fix the piece rate himself. In the latter case, however, he must be able to show that, for the "ordinary worker," the rate is not below the amount of time wage fixed in the same or similar occupations by the board. *Cf.* the excellent discussion in Dorothy Sells, *The British Trade Boards System* (P. S. King and Company, London, 1923).

[1] Under the original act a trade board, before fixing a minimum rate of wages, was required to give notice of its intention so to do and to consider any objections that might be raised within three months. Any rate so fixed had "limited operation" for six months, after which its confirmation by the Board of Trade made it mandatory. During the "limited operation" period an employer was required to pay wages at not less than the minimum rate unless there was a written agreement between him and his workers that the latter would accept less. In 1918, however, the six months' period of limited operation was abolished and the length of time between the announcement by a board of its intention and the hearing of objections prior to the actual fixation was reduced from three to two months. Postponement of rate fixation has, of course, been for the purpose of checking hasty and ill-considered action by giving persons on either side an opportunity to check errors that might be made by a board and of furnishing a means whereby individual employers and workers, or any member of the community concerned, might put before the board reasons for their opposition to its proposed action.

[2] Dorothy Sells, *The British Trade Board System* (P. S. King and Company, London, 1923), p. 27.

[3] *Ibid.*, p. 28.

and demand for, certain kinds of labor, the rates paid in allied trades, the rising cost of living during the War, and the general decline in prices and contraction or disappearance of profit margins during depression years have all been factors influencing the wage determinations.

How has this system of state intervention worked out? In England, as in Australasia, government regulation of wages was inaugurated over the vigorous protest of many employing interests.[1] Practically the same direful consequences were predicted in England that had been predicted in Victoria more than a decade before. Does experience justify the departure England has taken from traditional laissez-faire policy?

The primary objective of the trade board system was, of course, the raising of the wages of the more depressed groups of workers, and that this objective has been attained to an extent there can be little doubt. Extremely conservative rates were set when the early boards were formed, and in some cases difficulties of enforcement arose. The majority of legal minima fell below the "poverty line" set by Rowntree, which in 1914 required a weekly income of sixteen shillings for a woman and somewhat more for an adult male. Nevertheless, the earnings of those who had been receiving less than the legal minima first established were leveled up substantially.[2] In chain making, 56.1 per cent of the male mastermen

[1] It is true that many of the better-class employers welcomed the initial wage regulation in England, feeling that standardization would prevent the cutthroat competition that resulted in risk and uncertainty for industry as well as in poverty for the workers. In the chain-making industry, one of those covered by the first act, a system characterized by Mr. Tawney as "auction reversed" had developed; *i.e.*, "fair employers" were not able to count upon stable labor costs for their competitors, and were constantly in danger of losing their profit on an allotment of chains by the competition of employers who had paid their workers even less than they had themselves. *Cf.* R. H. Tawney, *Establishment of Minimum Rates in the Chain Making Industry under the Trades Boards Act of 1909*, p. 100, and B. N. Armstrong, *op. cit.*, pp. 50–53.

[2] In the chain-making industry, the first to be subject to wage regulation, the list rates for men workers involved increases of from 15 to 50 per cent, with an average of about 35 per cent, and for women workers of from 50 to nearly 200 per cent. Mr. Tawney's investigation of actual earnings after the fixing of rates also indicated substantial increases over the prerate days. Some difficulties of enforcement arose in the chain industry because of the loose definition of different kinds of chain work, and there is evidence that a considerable number of middlemen were squeezed out as a result of rate fixation, manufacturers tending to go directly to the workers. In the tailoring industry, the second subject to regulation, the minimum rate first set was less than that paid by the majority of firms in the Northern districts, but it served to raise the wages of the lowest-paid workers to a level more nearly approaching the standard of the better-paying Northern firms. In the lace industry, according to investigations made in 1914 and 1915 by the Board of Trade Factory Inspection Department, a considerable evasion of legal rates, frequently abetted by the workers, took place, but some improvement in weekly and annual earnings resulted. In the paper-box industry the results were much the same, the majority of the wage increases taking place in the worst-paying districts. For detailed presentation of the factual material upon which these generalizations are based, see R. H. Tawney, *Establishment of Minimum Rates in the Chain Making Industry under the Trade Boards Act*

and 61.3 per cent of the journeymen earned less than $3.60 a week in 1911, while in 1913, after the award by the trade board, only 1.3 per cent of the mastermen and 0.7 per cent of the journeymen earned so little. During the same period there was virtually no increase in the general wage level in England. Thirty per cent of the men in paper-box making received increases when the first awards were made in this trade. The initial rates set for lace-making increased the wages of about one-third of the workers. Hence, even though average wages had been somewhat higher than the minima for men established by the boards, the effect was an immediate leveling up of the wages of the lowest paid; and in the case of women workers this effect was even more pronounced.[1] While, as has been indicated, these early rates did not approximate the "poverty line" of Rowntree, the more meaningful test of the efficacy of the system is a comparison of rates with what they had been before the regulation, rather than with what one might wish them to be, and such a comparison clearly indicates substantial success in attainment of the end sought when the trade-boards system was instituted—the elimination of sweating.

During and after the War, as we have already seen, the trade-board system was extended to other trades, and the policy came more and more to be that of fixing "fair" rather than merely "living" wages. With the inauguration of this policy the trade boards showed more diversity in the level at which they fixed their initial rates, but the general tendency was to establish as legal minima about the average time wage, and the consequence was a continued leveling up of the wages of the more lowly paid. It is significant that while trade-board rates for male labor dropped after 1918, as did also the wage rates not regulated by law, the decline was much more precipitous in the nontrade-board industries. "The general effect of the trade boards upon the movement of men's wages," concluded Miss Sells, "has undoubtedly been to stabilize them and to prevent their sudden fall—which is just what the sponsors of the 1918

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of 1909; R. H. Tawney, *Establishment of Minimum Rates in the Tailoring Industry;* Mildred E. Bulkley, *Establishment of Minimum Rates in the Box Making Industry;* Dorothy Sells, *The British Trade Boards System,* and B. N. Armstrong, *op. cit.,* pp. 46–57.

[1] *Cf.* Dorothy Sells, *op. cit.,* pp. 79–83. In the case of female operatives in chain making, full-time average earnings per week before the awards were made were nine shillings, six pence, while the initial trade-board rate (on the basis of the normal number of hours worked) was more than eleven shillings. In lace finishing, the home-working women had earned, on the average, something more than eight shillings before the act went into effect, while the initial trade-board fixations placed the weekly rate at more than eleven shillings. In paper-box making, the average earnings of women workers had been approximately twelve shillings before the first awards, while the trade board established thirteen shillings as the minimum. Approximately the same variation between the average earnings of women prior to the fixation of wages and the initial trade-board rates can be noted in the case of the other trades covered by the early legislation.

Trade Board Act expected to accomplish,"[1] while Cave Commission reported to the Minister of Labour that the minimum wage system had "wiped out sweating, or excessively low wages, and without harm to business."[2] Dr. Armstrong's comparison of two cost of living budgets, adjusted to agree with changes in a cost of living index, with selected minimum rates,[3] shows that between 1918 and 1931 the legal minima were kept within limits of changes in the cost of living and declined less than did prices after 1928. The rates established by governmental machinery during very late years have still been insufficient, however, to make possible livelihood at Rowntree's "human needs" standard.

Other consequences of the system of wage regulation have been much the same as in the Australasian states. The minimum rates have not become maxima. The investigation made by Mr. Tawney for the Ratan Tata Foundation in 1914 showed no important tendency for employers to reduce the wages of the better-paid workers, but rather a stimulus to increased use of machinery and to management economies which offset the increased cost consequent upon higher wage rates.[4] More recent studies point to the same conclusion, at least so far as the situation prior to 1922 was concerned. After the beginning of the depression that followed the postwar boom of 1918–1921, there was, it is true, some tendency for trade-board rates to become maxima.[5] On the other hand, the lowest wages, already at the minimum, would undoubtedly have gone down in response to the general downward pressure of the business depression had the legal rate not kept them from falling to starvation levels. Contrary to prediction, employers have not been ruined or even injured in their profits. The Board of Trade has reported that it "is not aware of any tendency of manufacturers to transfer their business to foreign countries or, in cases, where lower wage rates have been fixed for Ireland than for Great Britain, to transfer their business from Great Britain to Ireland." Both the Cave Commission and the Board of Trade have reported that the industrial efficiency of employers and employees has been stimulated. Owing to the special provisions for substandard workers, displacements of those not able to earn the minima have not been an important problem. The trade boards, which were feared by some labor leaders on the ground that they would usurp the functions of trade unions and hence undermine their bargaining strength, have, if anything, been conducive to organization of the workers. More recently the Railway Board and the act extending to employers in certain

[1] Dorothy Sells, *op. cit.*, p. 168.

[2] Report to the Ministry of Labour of the Committee appointed to enquire into the working and effects of the Trade Boards Act, 1922. Cmd. 1645; published in vol. 10 of 1922 *Reports and Papers*.

[3] B. N. Armstrong, *op. cit.*, pp. 86–87.

[4] R. H. Tawney, *Establishment of Minimum Rates in the Tailoring Industry*, pp. 62–63.

[5] B. N. Armstrong, *op. cit.*, p. 88.

sections of the cotton-textile industry the terms of collective agreements arrived at in the greater part of this industry have received the almost unqualified support of unionists. And not the least of the consequences of the system, as revealed by the testimony taken by the Cave Commission, has been the creation of an influence promoting industrial peace. Out of the meeting of men who realize that they represent interests that are antagonistic on some points and harmonious on others, out of the dickering and negotiation in which the personal factor is so important, there has come more appreciation of, and respect for, each other's viewpoint than would have been possible in the absence of this enforced negotiation.

The Minimum Wage in Other Countries.—Although the outstanding minimum wage systems, from the viewpoint of the student interested in the problem of wage control in a capitalistic economy, have been those of the Australasian states, Great Britain, and the United States, the movement has spread to the Continent, South America, Mexico, and South Africa. The labor code of Soviet Russia also includes a minimum wage for all employments, while in Italy minimum wage fixation is part of the Fascist variety of arbitration. Only the more essential facts about the legislation and experience of these countries can be summarized here.

France, the first of the continental countries to follow the British and Australasian example, in 1915 adopted minimum wage legislation for certain groups of homeworkers,[1] the original purpose of this legislation being to equalize the earnings of home and shop workers rather than to establish living minima or make the payment of "fair" wages a first charge upon industry. During the last twenty years the act has been extended to a variety of industries employing female homeworkers, and also to male homeworkers.[2] The greatest weakness of the French system has been the ineffectiveness of the only remedy provided for in case of nonpayment of the minima: civil suit brought by the worker

[1] Law of July 10, 1915. *Official Journal*, July 11, 1915, p. 4698.

[2] In the original act, provision was made for representative boards in the several departments, charged with the duty of fixing minimum rates for all female homeworkers on clothing, hats, shoes, white goods, embroidery, laces, and artificial flowers. In 1916, when compulsory arbitration was inaugurated by presidential decree, the arbitration boards were charged with fixing minimum rates in each department, but the rates so fixed have been uniformly low, generally considerably under the competitive rate for all except the most lowly paid workers. The strictly minimum wage system was continued after the establishment of the arbitration system, however, and in 1922 it was extended to several allied industries. Since 1922 the act has been made applicable to female homeworkers engaged in a variety of industries such as fancy leather goods, paper and box manufacture, various ornamental wares, and finally to almost all of the major industries in which homework is prevalent. Male homeworkers were first brought within the scope of the minimum wage system by the act of 1928.

against the employer.[1] In 1935 the French Chamber of Deputies passed a permissive measure enabling employers to enter into agreements which, *inter alia*, would also contain provisions regarding wages and hours of work, and which, after hearings, would be given the force of law over a recalcitrant minority; but the law has not become effective. In Norway, the minimum wage system has been instituted, applicable to homeworkers and for a time to commercial employees;[2] and homework laws have been enacted by Switzerland (1915), Austria (1918), Czechoslovakia (1920), Germany (1923), and Spain (1926).[3] Under German Republic government of 1918–1933 significant steps were taken in the direction of general standardization of wages through Ministerial orders making collective agreements binding upon the whole of industry.[4] The idea of extending to all workers and employers in a trade or industry the

[1] This remedy has always proved to be an ineffective one. For a time the French Office for Home Work interested itself in bringing suit for wages due under the act, but in 1919 this assistance was brought to an end by a decision of the French Supreme Court. In recent years somewhat better provisions for inspection and penalties in the case of noncompliance have been made. For a good discussion of the operation of the French system, see the article by Roger Picard, "Labor Legislation in France," *International Labour Review*, July and August, 1926. An official summary of the effect of the act until 1928 is to be found in the *Bul. de l'office du Ministère du Travail*, vol. 35, pp. 300–309, and a good summary statement in Armstrong, *op. cit.*, pp. 114–115.

[2] The Commercial Employees Act, covering clerks and employees in practically all occupations except the professions, was on the statute books only from 1918 to 1925. The Homework act was passed in 1918 and has been extended several times. Under its provisions local wage boards have been established in the communes, the rates set by them being subject to review by the Home Work Council, a commission of three members. For the small communes, the Council has fixed rates without local boards. During the early years of Norwegian legislation there was apparently some tendency for work to be diverted from the large towns which were first subject to regulation, but this problem was ultimately met by making the rates applicable to the small as well as to the large towns. Since 1928 about four-fifths of the Norwegian homeworkers have been put under the legal minimum. *Cf.* Frederick Voss, "Minimum Wage Legislation in Norway," *International Labour Review*, December, 1925, p. 808, and B. N. Armstrong, *op. cit.*, pp. 115–117.

[3] A summary of the laws of these countries is to be found in U. S. Bureau of Labor Statistics, *Bulletin 467*, Chaps. 10 and 11. Provisions of the Czechoslovakian law are discussed in some detail in an article by J. Sivotek, *Socialní Revue*, July, 1925, and those of the German law in an article by Elizabet Landsberg in *Sociale Praxis* No. 44, (1926). The story of the application of the German homework law can be traced in *Reichsarbeitsblatt*, Dec. 9, 1926; *ibid.*, 1929, pt. II, p. 461, and 1930, pt. III, p. 8. *Cf.* also B. N. Armstrong, *op. cit.*, pp. 117–121.

[4] After 1918 the Minister of Labor was empowered to declare a collective agreement binding upon the whole of an industry upon request of any organization effected by such agreement, and considerably more than two-thirds of the wage earners in Germany were working under such agreements at the advent of the Hitler regime. Also, the compulsory conciliation and arbitration order, issued under the Emergency Powers Act of 1923, permitted the Regional Conciliator of the Minister of Labor, on failure of agreement by employers and organized workers, to declare an arbitration binding where "its provisions appear just and reasonable, taking into account the interests of both parties and where its application is desirable for social and economic reasons."

wages and hours terms agreed upon by the majority has also been adopted more recently in Germany, as part of the policy of the totalitarian state. "Collective regulations" issued by a governmental agency carry into effect the terms of former collective agreements. Such action is much more important in Germany today than the actual direct minimum wage regulations. General regulation of wages, as contrasted to the home-work-board system, also obtains, applicable to some or all workers, in Hungary, Portugal, Soviet Russia, Fascist Italy, and the South African British Dominion.[1]

The Canadian minimum wage movement is of interest to students of labor economics in the United States for several reasons. The laws of the

[1] The Hungarian Act applies only to agricultural workers. For a summary of experience under it, see International Labour Office, *Studies and Reports*, Series *D*, No. 17, and Armstrong, *op. cit.*, p. 118. In 1922 the labor code of the U. S. S. R., applicable to all persons performing work for economic remuneration in Soviet Russia, required that a legal minimum wage be set by state authorities for each class of work, but in practice this legal minimum has played little part in the actual determination of wages, since they are fixed by the governing boards of the syndicates, or Labor Trusts, under provisions of the Labor Code relative to collective contracts. There are also numerous separate acts regulative of individual industries. Both the Italian and the German methods of wage regulation are so inextricably interwoven with the general Fascist program of absolutism as to be in a class by themselves. Worker organizations in Italy, provided they include one-tenth or more of all employed in the industry or occupation, may become legally incorporated, and the agreements reached with employers, or the compulsory arbitration decisions when conciliation and negotiation fail, become legally binding. Only one organization for each category of employers or workers is recognized by the state, but the conditions of labor established apply to all workers in the categories represented. The Fascist government has complete control of the "associations" (the unions and employers associations entering into collective agreements). For a summary statement of the Italian system, *cf.* Armstrong, *op. cit.*, pp. 119–120. The details of the several laws and decrees can be found in the *Legislative Series* of the International Labour Office for the various years. In Portugal the Undersecretary of State for Corporations is authorized by the Decree Law of Aug. 1, 1935, to establish minimum wages in any branch of commerce or industry when systematic lowering of wages due to unrestrained competition brings them below a reasonable level. Such minimum wages are fixed by ministerial order, and after publication and the expiration of the time fixed in the order, become obligatory upon all branches of business to which they refer. The law provides that higher wages already in force shall not be reduced because of the adoption of minimum wages by decree. Noncompliance and violations are punishable by fines [*Monthly Labor Review*, vol. 41 (March, 1936), p. 1545]. In British South Africa, the complicated race question and the contrasting living standards of colored and white workers have made minimum wage administration difficult. In 1918 a law directed at sweating of women and minors was enacted, but this legislation depended upon organization of the workers and collective bargaining for proper functioning, and on the whole did little to alleviate conditions in the unorganized sweated trades. The supplementary act of 1925 provided, however, for a general minimum wage for all workers of both sexes, the Governor-General being empowered to appoint a board of three, to be enlarged by two additional members representative of employers and employees in the industries under investigation. The board, after investigation, recommends minima which become effective upon an order being issued by the Minister of Labor. The legal wages set have been insufficient to maintain the standard of living of white workers, but they are believed by the Ministry of Labor to have resulted in substantial increases over customary native pay.

Canadian provinces and of the several states during the first phase of minimum wage legislation in this country (from 1912 to 1923) were similar, but the Canadian orders did not begin to be issued until after the rapid price rise of 1914–1920, and the experiment in state regulation was therefore not handicapped, as it was here, by the necessity of constant readjustment. Somewhat the same problems have, however, been encountered in both countries, and the need for specific modifications and improvements has therefore been made more impressive.

Wage regulation by exercise of the coercive power of the state has been an entirely postwar venture in Canada. Manitoba and British Columbia enacted laws in 1918, Saskatchewan and Quebec in 1919, Nova Scotia and British Columbia in 1920,[1] Alberta in 1922, and New Brunswick in 1930. Only five of the laws resulted in the immediate setting up of wage boards,[2] but by 1937 the systems were operative in all provinces for which legislation had been enacted. More recently there has been a tendency for Canadian legislation to be patterned more upon the United States NRA rather than upon the English and Australasian minimum wage systems. The "Collective Labour Agreements Extension Act" of Quebec now provides for the extension, under certain circumstances, to all employers and employees of an industry the wages and hours agreed upon under collective bargaining by the majority in that industry. This act has been applied in the building, furniture, fur, and millinery trades of the province. Somewhat the same end is sought by the "Industrial Standards" acts of Ontario and Alberta.[3] In 1935 the Dominion government entered the field of general wage regulation. Under the Dominion Minimum Wages Act of June 28 of that year, the Governor in Council, on the Minister of Labour's recommendation, is authorized to establish and "by regulation provide for the operation, by and under the Minister, of machinery whereby minimum rates of wages can be fixed for workers in specified rateable trades."[4] Provision is made for recovery of wages in suits by employees and penalties for violations by employers are prescribed. Prior to 1937 operation of the Dominion Act was suspended pending determination of its constitutionality.[5]

[1] The British Columbian Act of 1920 applied, like the others, only to women. In 1925 another law was passed, extending wage regulation to adult males.

[2] The Nova Scotian law remained a dead letter until February, 1930, when the first board was appointed. In Quebec, no orders were issued until 1926.

[3] For an interesting discussion of these acts, *cf.* L. C. Marsh, "The Arcand Act: A New Form of Labour Legislation," *Canadian Journal of Economics and Political Science*, vol. 2 (August, 1936).

[4] *Monthly Labor Review*, vol. 41 (December, 1935), p. 1542.

[5] This Act was passed after ratification of the Minimum Wage Fixing Machinery Convention of the International Labour office. In 1937 the Act was before the Privy Council for determination of constitutionality. The point in question was whether the Dominion, which derives its authority from its treaty-making power, had exceeded this

In its general framework, the Canadian system has been patterned[1] after those operative in Australia, England, and the United States, triparte boards being established in industries and trades where the need for them has been demonstrated and called to the attention of the proper provincial official. Several of the original laws proved difficult to enforce, owing to the fact that the old remedy of civil suit by underpaid workers was relied upon to force employer compliance, but more recently there have been amendments to provide for collection by the convicting magistrate of back pay due the employees.

The general charge in the laws has been somewhat vague. The Manitoba law directs the fixing of a "living wage," that of Quebec authorizes board action when wages are found to be "insufficient," while the Alberta legislation has merely directed the fixing of "a minimum wage for female labor." Studies of the actual operation of the system would indicate, however, that the minima set by the boards have tended to coincide with existent minimum wage standards of the better-paying firms.[2] Of the fact that earnings of the lower-paid workers have been leveled up substantially and that sweating has been practically eliminated in the regulated industries, there seems to be little question.[3] As in England and Australia, the minima have not become maxima, but rather an increasing percentage of the women and girls have earned more than the minima as time has gone on.

Regulation of the wages of adult males was first attempted in British Columbia;[4] but adverse court decisions and administrative shortcomings consequent upon the wording of the law have prevented a fair test there of the minimum wage system as applied to men. The board orders issued in 1926 and 1928 for the logging and catering industries were set aside by the highest Canadian court on the ground that the British

authority in ratifying the convention and enacting the law to carry out provisions of the convention.

[1] Except, of course, the above-mentioned "Collective Agreements Extension Act" of Quebec and the "Industrial Standards Acts" of Ontario and Alberta.

[2] *Cf.* the interesting article by Mr. J. W. MacMillan, chairman of the Ontario Minimum Wage Board, in the *American Economic Review*, vol. 18 (June, 1928), pp. 248–256, in which he sets forth the view that the proper function of the legal minimum rate is not to effect a general increase in wages, but rather to scale up the low wages paid by irresponsible firms to the average. "The function of minimum wage administration is to correct the unwholesome aberrations from the prevailing wage standards." *Cf.* also B. N. Armstrong, *op. cit.*, pp. 106–111. Acknowledgment must again be made to Dr. Armstrong's study for some of the factual material here presented.

[3] *Cf.* especially *2nd Annual Report of Ontario Minimum Wage Board*, *2nd Annual Report of British Columbia Minimum Wage Board*, B. N. Armstrong, *op. cit.*, pp. 106–111, E. M. Burns, *Wages and the State*, and J. H. Richardson, *The Minimum Wage*.

[4] The Manitoba law was amended in 1931 to include within its scope boys under eighteen years of age, as well as women and girls. Except for this, the British Columbia Act, and the Labour Agreements Extension and other legislation mentioned on p. 298, the Canadian legislation has been applicable to females only.

Columbia act required separate rates for each occupation rather than blanket rates for an entire industry,[1] and the application of the drug clerks for a wage investigation was denied until 1930 by the invocation of a series of legal technicalities.[2] Several rates have been set, but a number of these have been actuated more by the desire to prevent the competition of Oriental labor than by the ordinary motive of eliminating unduly low wages,[3] and it cannot be said that the experiment in British Columbia furnishes authoritative evidence of the economic consequences of male wage regulation. The above-mentioned "Industrial Standards" act of Ontario, also applicable to adult males, resulted in 1937 in the establishment of wage minima for a large number of employed men.[4]

The Mexican constitution of 1917 includes the blanket declaration that every worker is entitled to a "living wage" and provides for the establishment of special commissions for each municipality, the rates determined by them to be enforced by state and federal legislation; but, in fact, the constitutional minimum wage has been virtually inoperative.[5]

[1] *International Timber Co. v. Field, Supreme Court Reports of Canada*, 1928, p. 564. This decision overruled two earlier Court of Appeal decisions upholding the rates established for logging and catering.

[2] The original application of the drug clerks was denied on the ground that drugstore clerking is a "profession" and therefore not within the scope of the act. This action was upheld by the Supreme Court of British Columbia, but was later reversed by the higher appellate court of the province (*Davenport v. McNiven, 2 Western Weekly Reporter* 263, 1930), and the investigation took place. A minimum rate was set in 1930, but it was nullified in 1931 by an amendment to the act which provided that incorporated professions should not be included within the scope of the legislation (*British Columbia Statutes*, 1931, Chap. 54).

[3] The first rate set, that for the lumbering industry, was intended chiefly to counteract the tendency toward employment of cheap Asiatic labor in preference to White labor. The board felt that the rate would make it uneconomical to employ the concededly less efficient Oriental labor. That the results were in keeping with this theory is evidenced by the fact that during the year after the rate became effective the employment of Oriental labor declined 13 per cent and employment of white labor increased by exactly the same percentage. B. N. Armstrong, *op. cit.*, p. 108.

[4] On Dec. 29, 1937, the fair wage board established under provisions of the act announced a number of minima to become effective early in 1938. A minimum of $8.16 for a 48-hour week was announced for a number of groups of production workers. The minimum established for teachers was $300 a year with lodging and $400 without lodging. For about 30,000 journeymen and day laborers, minimum hourly rates of 25 cents with time-and-one-half for overtime (more than forty-eight hours in one week) were set. A minimum of $5 a week was established for about 6,000 messenger boys, and one of 25 cents an hour for about 3,000 night watchmen.

[5] The Federal Congress has not yet, however, carried out the constitutional priviso requiring legislation for the establishment of commissions, and the constitutional minimum wage has not been operative in the Federal District of Mexico nor applicable to the industries under control. Almost all of the states have passed enforcement laws, but practically the minimum wage has been effective only in the state of San Luis Patosi and in the chief city of Talisco. In the other states, the municipalities have not set up committees for rate determination, and the acts have remained practically dead letters.

Other Latin American countries joining in the movement for wage regulation by the state have been the Argentine, Brazil, Peru, Chili, and Uruguay. The Argentine Homework Act of 1918 empowers the Labor Department of the Republic to appoint wage boards for every housework industry at the request of fifty workers, in order that minimum rates leveling homeworkers' wages up to the factory workers' standard may be established. The boards are charged with the duty of taking into account the ability of employers to pay, and although noncompliance is punishable by fine, wages due the workers must be collected by civil suit. Four provinces of Argentina have also enacted general minimum wage laws for shop and factory workers, but one of these acts has been declared invalid by the Supreme Court, as invading the constitutional prerogatives of the Congress, which has exclusive regulation of the contract of service, and the decision apparently applies to the laws of the other three provinces having minimum wage legislation. The Peruvian constitution calls for minimum wage regulation, but with the exception of the legislative rate set in 1919 for native labor, no enabling legislation has yet been enacted.[1] Chile, in her contracts of employment law, has incorporated a provision intended to standardize wages at the "usual wage," or the prevailing average, and thereby to force the underbidding or sweating employer up more nearly to the general standard of the community.[2] The act applies to all contracts of employment except those of domestic and agricultural labor. Uruguay's Agricultural Minimum Wage Act of 1924, applicable to employees of large farms and cattle ranches, established a sliding scale of minima, increasing with the size of the estate. Workers must bring civil suit for wages due under the act.

The Minimum Wage Movement in the United States.—Except for the two-year attempt to regulate the wages of adult males generally under the NRA code system, discussed later,[3] and for a law enacted by the state of Oklahoma in 1937,[4] minimum wage legislation in the United

[1] The details of the Argentine and Peruvian legislation are discussed in the article by Moises Poblete Troncoso, "Labor Legislation in Latin America," *International Labour Review*, vol. 17 (February, 1928), pp. 217–221. *Cf.* also B. N. Armstrong, *op. cit.*, pp. 111–113, and *Bulletin 467* of the U. S. Bureau of Labor Statistics.

[2] Specifically, the act provides that committees of workers and employers shall each year fix a minimum wage of "not less than two-thirds nor more than three-quarters of the usual current wage paid for the same class of work or workers in the same category or capacity in the town or district in which the work is performed." The legislation is, then, in line with Mr. Macmillan's theory that the proper function of the legal minimum wage is to prevent unwholesome aberrations from prevailing wage standards rather than to effect a general increase.

[3] *Infra*, pp. 356–370.

[4] The Oklahoma minimum wage law of 1937 was the first applying to adult males as well as to women and, of course, marked a departure from American precedent. The bill in all essentials other than the coverage of men as well as women is similar to those for women described in the following pages. It is provided that all orders issued shall apply

States has prior to 1938[1] applied only to women and minors.[2] Public opinion, it was recognized by the early proponents of the laws, was still too essentially individualistic—too thoroughly permeated with the philosophy of *laissez faire*, too inseparably wedded to the ideology of the preceding century—to tolerate regulation of the wages of male workers. Organized labor—traditionally fearful in this country of too much state paternalism and adhering with tenacity and profound affection to the policy of "getting things for ourselves"—was long opposed to wage regulation for adult males. Indeed, by the late 1930's it was willing to tolerate federal regulation of wages and hours generally only when such regulation was introduced with proper and reassuring reservations. Even more important was the fear that laws similar to those of the Australasian states and Great Britain, if made applicable to male workers, would, in view of the Supreme Court majority's interpretation up to the enactment of the early laws of freedom of contract, police power, and reasonable interference, be held to be unconstitutional as interfering with the freedom of contract guaranteed by the Fourteenth Amendment to the federal constitution. The precedent decisions were, of course, those upon state laws limiting the hours of adult males, discussed else-

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to similar or competing industries or occupations. For detailed summary of the Oklahoma law, *cf.* Division of Standards, U. S. Department of Labor, *Survey of Labor Law Administration*, May, 1937, pp. 2–3.

[1] The "Wages and Hours Bill," introduced in Congress as an administration measure in 1937, and again urged by the President in his message of Jan. 3, 1938, contemplated federal regulation of the wages and hours of all employees, men and women, in industries the activities of which substantially affect interstate commerce. The bill was predicated upon the assumption that the dissenting opinion in the so-called "first child labor case" (*Hammer v. Dagenhart*, 247 U. S. 251, 1919), discussed on pp. 440–444 of this volume, had by 1937 become the majority view of Congress's power to regulate interstate commerce, and that this view would apply to the establishment of wage minima and hours maxima, as well as to prohibition of the channels of interstate commerce to goods made in plants employing child labor.

[2] Of the laws enacted during the first phase of American minimum wage legislation (1911–1923), those of Arizona, Arkansas, South Dakota, and Utah applied to girls and adult females; all the others were applicable to boys under eighteen years of age as well. All of the "standard" laws of the first half of the 1930's (those of Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, New York, and Ohio), which attempted to meet the objections of the Supreme Court majority of 1923 by introducing the "reasonable-value" principle, were applicable to both women and minors. In addition, Utah in 1933 enacted a law to replace the original one, which was repealed in 1929, applicable to women and minors; and Massachusetts made its compulsory law of 1934, which replaced the early recommendatory measure, likewise applicable to both women and minors. When the Supreme Court of the United States in 1937 finally upheld the constitutionality of minimum wage legislation (*West Coast Hotel v. Parrish*, 300 U. S. 379), and the third phase of the legal minimum wage movement began in the United States, the disposition of legislators was to make the laws applicable to both women and minors. The New York law of 1937, which replaced the invalidated statute of 1933, authorizes fixation of wage minima for both groups.

where in this volume;[1] and the extent to which the police power could be extended in interference with the employment relationship seemed to be established with a modicum of clarity. While limitations upon the hours of adult males were constitutional in public employments, where the state had a pre-emptive right of control, in private employments upon which depended the public safety, and in private employments so hazardous or unhealthful that the workers therein virtually became wards of the state,[2] the attempt to extend the reasonable-grounds principle had not been successful.[3] The courts tended to cling to an absolute or fundamentalist interpretation of freedom of contract when legislation affecting the employment relationship of adult males was before them, except where clearly convinced of the public gains to be obtained by such restrictions, and it was highly unlikely that minimum wage legislation for men would have been held to be constitutional.

It was believed, however—a belief that finally proved to be correct in 1937, after state minimum wage laws had experienced nearly a quarter of a century of judicial vicissitudes—that the courts would uphold such laws if they were made applicable only to women, or to women and minors, on the ground that the weakness of women as bargainers and the social importance of maintaining their health made such interference a proper exercise of the police power. In spite of early decisions holding to be unconstitutional legislative enactments limiting the hours of women workers,[4] the state and federal courts in the early twentieth century tended more and more to hold that "women and children have always been to a certain extent wards of the state,"[5] and that legislation predicated upon the weakness of women as bargainers and the social necessity

[1] *Infra*, pp. 520–527.

[2] *Atkin v. Kansas*, 191 U. S. 207 (1903); *Baltimore and Ohio R. R. v. Interstate Commerce Commission*, 221 U. S. 612 (1911); *Wilson v. New*, 243 U. S. 332 (1917); *Holden v. Hardy*, 169 U. S. 366 (1898).

[3] *Lochner v. New York*, 198 U. S. 45 (1905). The opinion rendered in this case, however, shows that the decision was reached largely because the Court was not convinced by the evidence submitted of the deleterious effects of long hours of men in baking establishments and of the social gains to be obtained by limitation of such hours, rather than that it was determined to make freedom of contract a fixed and absolute principle. Some years later (*Bunting v. Oregon*, 243 U. S. 246, 1915) the Supreme Court did uphold a statute providing for general limitation of the hours of adult males. However, as is indicated elsewhere in this volume (*infra*, pp. 524–525), this case was in part decided on the ground of variance between the allegations and the proved facts, and in any event it did not come until the minimum wage movement was well under way in the United States.

[4] The leading case is *Ritchie v. People*, 155 Ill. 98 (1898), in which the Court observed that "the mere fact of sex will not justify the legislature in putting forth the police power of the state for the purpose of limiting her [woman's] exercise of rights [life, liberty, property, the right to make contracts] unless the courts are able to see that there is some fair, just, and reasonable connection between such limitation and the public health, safety, or welfare proposed to be secured by it."

[5] *Wenham v. State*, 65 Neb. 394 (1902).

of maintaining the health of future mothers was a proper exercise of the police power. Finally in 1908 the constitutionality of legislation regulating the hours of women was upheld by the Supreme Court of the United States,[1] and advocates of legislation designed to protect the wages of women workers had reason to believe that the courts would apply the same reasoning to limitations upon the contractual powers of women with respect to the wage aspect of the employment relationship. As a result, the states did not attempt to extend wage regulation to adult males, but between 1912 and 1923 fifteen state legislatures and Congress for the District of Columbia and Puerto Rico enacted laws providing for the establishment of basic minima for women workers. Some of these laws became inoperative[2] after the adverse rulings of the Supreme Court in the District of Columbia (1923), Arizona(1925), and Arkansas (1927) cases,[3] and several of the legislatures repealed their statutes. Nine of the states[4] enacting minimum wage legislation between 1912 and 1923 still retained their laws in 1933, however, when the second phase of minimum wage legislation—a phase characterized by the attempt to draft statutes not subject to the objections raised by the Supreme Court in 1923—got under way. Since one phase of the minimum wage movement in the United States virtually came to an end in the early 1920's, it is advantageous to consider, first, the movement from the enactment of the first law on through 1923; then, second, to turn to the legislation enacted between 1933 and the Supreme Court's invalidation of the New York law in 1936; and, finally, to survey the laws in force and in process of

[1] *Muller v. Oregon*, 208 U. S. 412. The Court observed: "As healthy mothers are essential to vigorous offspring, the physical well-being of women becomes an object of public interest and care in order to preserve the strength and vigor of the race. . . . The limitations which this statute places upon her contractual powers, upon her right to agree with her employer as to the time she shall labor, are not imposed solely for her benefit, but also for the benefit of all."

[2] Some, however, continued to be operative after the Adkins decision of 1923, although until 1937, when the Supreme Court reversed that decision, this operation depended upon sufferance of the employers. The Washington law of 1913, for example, was in operation the entire period from its enactment to its ultimate validation by the Supreme Court in 1937. The Massachusetts law was, as is indicated later, recommendatory rather than compulsory until 1934, and it was not affected by the Adkins ruling.

[3] The profoundly important District of Columbia decision, upon authority of which the Arizona and Arkansas laws were declared to be invalid, the decision of 1936 invalidating the New York law of 1933, and the decision of 1937, reversing the Adkins precedent, are discussed *infra*, pp. 324–356.

[4] California, Colorado, Massachusetts, Minnesota, North Dakota, Oregon, South Dakota, Washington, and Wisconsin. The Wisconsin law on the statutes of that state in 1933, when the second phase of minimum wage legislation began in the United States, was an amendment of the original act. In 1924 one of the lower federal courts declared the Wisconsin statute to be unconstitutional upon the authority of the Adkins ruling (*Folding Furniture Works v. Industrial Commission of Wisconsin*, 300 Fed. 991), and the legislature in 1925 amended the law with a view to meeting the objections of the courts.

enactment during what may be regarded as the third phase of the minimum wage movement in the United States—the phase beginning when the Supreme Court at long last, in 1937, discovered such laws to be a proper exercise of the police power of the state.

Sporadic demands for minimum wage legislation began to be heard in the United States even before the turn of the century, and by about 1910 the demand had become widespread.[1] Several factors gave impetus to the movement. The successful operation of the Australian systems and the going over to minimum wage legislation by England convinced observers of experience abroad that there was nothing contrary to "natural law" in these attempts, and that industry somehow was able to survive when it was required to pay its workers wages enabling them to live at a minimum of decency. Another factor was increased knowledge of actual conditions. Publications like John A. Ryan's *A Living Wage*, the first edition of which appeared in 1906, and Charles Spahr's *Essay on the Present Distribution of Wealth*, and numerous articles in the "muckraking" periodicals served to focus attention upon the unduly low wages being paid. In a number of states, legislative commissions were appointed to report back to the lawmakers whether low wages really were prevalent and whether there really was a causal relationship between low wages and commercialized vice. The general temper of the time was, moreover, favorable to a movement of this kind. It was the period of the "quest for social justice"—a period when the American people certainly felt less complacent assurance that the *status quo* was all that it should be than they did during the now none too lamented "new capitalism" era of the 1920's. Lincoln Steffins, Louis Post, John Spargo, the inimitable Upton Sinclair, Ida Tarbell, Norman Hapgood, and a dozen other writers, gravely conscious of their mission, were portraying conditions of employment and the interrelations of government and business enterprise in a manner commanding the attention of multitudes; the progressive revolt, which had its political culmination in the national campaign of 1912, was developing in the states west of the Mississippi; Woodrow Wilson was emerging from Princeton cloisters to preach the

[1] The agitation against sweating, of course, developed with the spread of the factory system during the nineteenth century and the prevalence of low wages and bad working conditions. Originally the movement seems to have been directed toward better conditions of sanitation and the enactment of inspection laws. In 1890 the New York Consumers League (parent of the National Consumers League) was formed and began a campaign to establish "fair house" standards, *i.e.*, decent working conditions and the payment of a $6 minimum weekly wage. Leagues were formed in other states, and in 1899 the National Consumers League came into being. For a time the attempt was made to induce employers to conform to the recommended standards and put the "fair house" label on their goods, and to induce consumers to purchase goods made or sold by fair houses, but the limitations of this method soon became apparent and after 1909 the National Consumers League substituted a legislative minimum wage program.

gospel of the New Freedom and Theodore Roosevelt was getting ready once more to thunder up and down the land against the malefactors of great wealth; and state legislatures were uncomfortably suspicious that the data in Streightoff's *Standard of Living*, Spahr's *Distribution of Wealth*, Ryan's *A Living Wage*, and Ely's *Property and Contract in Their Relation to the Distribution of Wealth* might be reasonably accurate. Out of all this agitation there emerged the conviction that the health, strength, and morals of women workers depend in large part upon wages, that many employed women are economically a relatively helpless group, receiving wages that bear little relation to either their value productivity or their needs, that industries not paying living wages are social parasites, and that the state should intervene and require industry to pay women workers enough for primary needs. Finally, in 1912, Massachusetts enacted the first minimum wage legislation in the United States.[1]

For two or three years, the movement proceeded rapidly; then it was arrested in consequence of the fear of unconstitutionality; but in 1917, after the Supreme Court by a four-to-four vote had left the Oregon statute standing,[2] other states began to enact minimum wage laws. In 1913 eight states—California,[3] Colorado,[4] Minnesota,[5] Nebraska,[6] Oregon,[7] Utah,[8] Wisconsin,[9] and Washington[10]—adopted such legislation; Arkansas[11] and Kansas[12] enacted laws in 1915; Arizona[13] followed in 1917; in 1918 Congress enacted the District of Columbia law;[14] while in 1919 laws were passed by the legislatures of Texas[15] and North Dakota,[16] and by Congress for Puerto Rico.[17] Finally, a law was enacted in South Dakota in 1923.[18] In all, then, fifteen states, the District of Columbia, and Puerto Rico had minimum wage legislation during the first phase (*i.e.*, the phase that came to an end with the District of Columbia decision in 1923) of the movement in this country. Two of the measures

[1] Acts of 1912, Chap. 706.
[2] *Stettler v. O'Hara*, 243 U. S. 629.
[3] Statutes of 1913, Chap. 324.
[4] Statutes of 1913, Chap. 110.
[5] General Statutes, 1913, Nos. 3904–3923.
[6] Revised statutes, 1913, Nos. 3613–3630.
[7] General Statutes, 1913, Chap. 62.
[8] Statutes of 1913, Chap. 63.
[9] Statutes of 1913, Chap. 712.
[10] General Statutes, 1913, Supp. 6571.
[11] Statutes of 1915, Act 191.
[12] Statutes of 1915, Chap. 275.
[13] Statutes of 1917, Chap. 38.
[14] U. S. Statutes at Large, vol. 40, Chap. 174.
[15] Statutes of 1919, Chap. 160.
[16] Statutes of 1919, Chap. 174.
[17] Statutes of 1919, Act 45.
[18] Statutes of 1923, Chap. 309.

enacted in 1913—those of Nebraska and Colorado—always remained dead letters, owing to legislative failure to make appropriations for enforcement and administration; the Nebraska law was repealed in 1919,[1] and the Texas law in 1921;[2] the South Dakota law was followed so shortly by the adverse Supreme Court ruling in the District of Columbia case that the machinery called for by the act was not set up.[3]

The basic objective of all these laws was the same: the raising of the wages of the more exploited female wage earners. The laws varied greatly, however, in the administrative machinery established, in the means of enforcement, in the extent to which the principle that every industry must pay its workers a living wage was carried to its logical conclusion, and in the general standards or dicta as to basic or minimum rates incorporated in them for guidance of the boards. Some mention of the structure of the United States minimum wage system during this first phase of the movement should therefore preface our discussion of its consequences and of the problems that experience with it has revealed. It will be convenient to classify the state systems according to (*a*) whether they have been recommendatory or mandatory, (*b*) whether the boards have been required to take into account the economic position of industry as well as that of the worker, (*c*) whether the flat-rate or commission form has been adopted, and (*d*) the differences in the general dicta or charge as to "living" or "sufficient" wages embodied in the acts.

In only one state, Massachusetts, have the wage minima set been merely recommendations. Under the system obtaining there from 1912 until 1934, when the recommendatory plan was superseded by a compulsory one, the Commission, with the aid of various subordinate boards, was authorized to "inquire into the wages paid to female employees in any occupation in the Commonwealth if the Commission has reason to believe that wages paid to a substantial number of such employees are inadequate to supply the necessary cost of living and to maintain the worker in health," and to establish the minimum rates necessary to meet this standard.[4] The only penalty, when employers refused to comply

[1] Acts of 1919, Chap. 190.

[2] Acts of 1921, Chap. 118.

[3] In addition to these statutory enactments, two states amended their constitutions to permit minimum wage legislation. The 1914 amendment to the constitution of California permitted enactment of minimum wage legislation applicable to women and minors. Ohio, in 1912, amended her constitution to permit, contrary to American precedent, minimum wage legislation for all classes of workers, although no legislation was enacted in that state until 1933.

[4] Under the original bill introduced in Massachusetts, payment below the minima established by the boards and commission was to constitute a misdemeanor, punishable by fine or imprisonment. When the bill was finally enacted into law, however, the enforcement provisions were fundamentally changed. The same machinery for setting basic minima was established, but the payment by employers of the rates set was no longer mandatory, with fine or imprisonment as the penalty for failure to do so. Instead, the "orders" of

with the "recommendations" of the board and Commission was the publication of firm names. Originally the Commission was reluctant to publish names at all, then it was required to do so by a ruling of the attorney general of the state, and still later its power to compel newspapers to accept its announcements was taken away by court decision, as was also the immunity of newspapers from suit for damage in the case of publication of firms names.[1] After 1924, when this decision was rendered, the only means of enforcing the minimum wage decrees in Massachusetts—aside from moral 'suasion—was through voluntary acceptance by the newspapers of advertisements of the Minimum Wage Commission or through publication of the names of the delinquents by the Commission itself, the publisher being without immunity in either case.[2] All the laws except that of Massachusetts have made failure to pay the minimum a misdemeanor punishable by fine or imprisonment.

Three states, Massachusetts, Nebraska, and Colorado, explicitly charged the boards setting wage minima to take into account "the financial condition of the occupation" as well as the needs of the workers. In Massachusetts[3] "the usual process is for the board to thresh out what

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the Commission were changed, in the bill that finally passed in the legislature, to "recommendations" and the penalty of fine or imprisonment was changed to adverse publicity.

[1] To trace the story of the vicissitudes of the publicity clause of the law in a little more detail: Prior to June, 1921, names of delinquents were not published. A ruling of the attorney general of the state, rendered that year, that names must be published resulted in publicity being given to a number of firms refusing to pay the minima. In the meantime, a Boston newspaper refused to insert the paid advertisement of the Minimum Wage Commission, as required by law, claiming that the publication of the name of a retail store which had failed to comply with one of the decrees would lay it open to suit for libel. The Commission sought to compel publication, whereupon the constitutionality of that clause in the law which penalized "any newspaper for refusing or neglecting to publish the findings, decrees, or notices of the Commission at its regular rates for space taken" was brought into contest, as was also that which exempted the Commission, newspaper publishers, proprietors, editors, and employees from liability to an action for damages for publishing the name of any employer failing to comply with the Commission's decrees. This case, as decided June 14, 1924, took away from the Commission the right to compel publication, as well as immunity of the newspapers for damages (*Commonwealth v. Boston Transcript Co.*, 249 Mass. 477).

[2] After 1924, however, the Commission apparently experienced little difficulty in getting most of the newspapers to accept its advertisements and publish the names of employers who were not observing the minimum wage decrees. The metropolitan dailies are said even to have solicited such advertising, although papers in the smaller towns sometimes refused to accept the Commission's notices. The National Industrial Conference Board found that sixty newspapers carried the Commission's advertisements in 1925, the year after the emasculating decision. Although the names of delinquents were not published prior to June, 1921, the Commission in 1915 and 1916 issued a "white list" of brush firms and retail stores that were living up to the decrees for those occupations. A good discussion of the legal aspects of the Massachusetts system is to be found in the study of the National Industrial Conference Board, *Minimum Wage Legislation in Massachusetts* (1927), Chap. I.

[3] Since the Colorado and Nebraska laws remained dead letters, it may be said that

they agree to be a minimum subsistence budget, and then see how close they . . . can come to it without infringing upon the 'financial condition of business'".[1] But in practice (with the possible exception of the homeworking occupations) the condition of industry has inevitably been taken into account. Under the commission form, which predominated in these earlier American minimum wage systems,[2] employers have been represented upon the central state commission and upon the wage boards in specific industries and localities, and in fact the minimum finally set has frequently depended upon the maximum the employer representatives have been willing to concede. Nor is it unlikely that the representatives of the employers have been more skillful bargainers than members of the boards representing the workers. Under the flat-rate form, of course, neither side has been represented on boards or commissions, and the consideration of the financial consideration of industry has been limited to that given when the laws were enacted.

A third basis for classification of the laws enacted during the first phase of the movement in the United States is according to whether they have followed the commission or flat-rate form.[3] Utah by legislative enactment in 1913 fixed a compulsory flat rate of $1.25 a day for experienced women workers;[4] Arkansas in 1915 established, under a hybrid commission flat-rate plan, a minimum wage of $10 a week applicable to all women workers except where the Commission intervened and established another rate; Arizona in 1917 established a basic rate of $10 a week; and the South Dakota law of 1923 declared $13.50 a week to be the legal minimum. The Puerto Rican law enacted by Congress in 1919 was also of the flat-rate variety. Flat-rate laws were largely a consequence of

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Massachusetts has, as a practical matter, been the only state whose law has specifically directed that the needs of industry be taken into account.

[1] Dorothy Douglas, "American Minimum Wage Laws at Work," *American Economic Review*, vol. 9 (1919), p. 701.

[2] As is indicated later (*infra*, pp. 322–323), the laws enacted during the 1930's (except the 1933 Utah law) provided that the state Commissioner of Labor appoint special wage boards for each investigation, these boards making their recommendations to the Commissioner, instead of setting up state minimum wage commissions. The effect, so far as the matter of consideration of employer interest was concerned, was, however, the same, since employers were represented on the special boards.

[3] With one exception (that of South Dakota, which in 1937 still had a flat-rate law) this classification applies solely to the laws of the first period of minimum wage legislation in the United States. As has already been said, the Utah flat-rate law was repealed in 1929 and a new law, enacted in 1933, provided for an Industrial Commission of three members; the Arizona and Arkansas laws were declared by the United States Supreme Court to be unconstitutional in 1925 and 1927, respectively (*infra*, pp. 317–318); and in 1924 the Puerto Rican act was declared by the Puerto Rican Supreme Court to be unconstitutional.

[4] This was the rate for the most experienced women. The Utah law classified women workers into three groups according to age and experience, with flat rates of 75 cts., $1, and $1.25 a day, respectively.

employer opposition to the introduction of the British and Australasian plans in this country—opposition based partly upon the fear that state boards would set higher standards than would legislators and partly upon the traditional employer disinclination to submit payroll and other data to the boards. Few, if any, sympathetic students of the minimum wage movement favor the flat-rate plan. It is obvious that changes in the cost of living from time to time, and differences from place to place at the same time, make necessary a machinery capable of adjusting rates accordingly. Experience has demonstrated, also, that the flat-rate system is generally accompanied by ineffectual administration.[1] Where, on the other hand, state boards are created for the setting of minima, some of the administrative functions inevitably oscillate toward them irrespective of any provisions in the legislation itself. Finally, the flat-rate system does not adequately meet the problems of inexperienced persons and substandard workers. Special rates have to be set for apprentices and those just entering industry, and much finer adjustments than those made in a measure like the Utah law are called for. Where substandard workers—the aged, incapacitated, subnormal—are unable to earn the minimum, many of them are likely to be displaced unless machinery exists through which special provision can be made for them.

With the exceptions that have been mentioned, the states enacting minimum wage legislation between 1912 and 1923 followed the commission plan, more nearly approximating the British and Australasian systems, under which wage boards and a central commission have been created.[2] Under the Oregon law, which may be taken as typical of the commission form adopted by the states prior to 1923, the central administrative commission, the State Welfare Commission, has had power to appoint subsidiary boards in the industries or trades where they were deemed necessary, both the central body and these "conference boards" being of triparte character. When approved by the Welfare Commission, the recommendations of a conference board became final and binding, disobedience to them on the part of an employer being punishable by

[1] One of the flat-rate states provided no means of enforcement whatever. The others entrusted inspection and enforcement to already existing state agencies without extra appropriation for the additional labor imposed upon them.

[2] In Arkansas the administering commission was required to act as a wage board, and in all instances fixed the minimum rate itself. Kansas also delegated the wage-board function to the central commission under an amendment made in 1921. In all the other states enacting laws during the 1912–1923 period (except, of course, those having the flat-rate system) wage boards distinct from the administrative commission were provided for. In structural character, the laws enacted in 1933, following the National Consumers League model bill, differed somewhat. Administration was vested, by all of these "standard" acts, in the Commissioner of Labor or some similar official, it being the Commissioner's duty to establish wage boards at his discretion or upon petition of a specified number of residents of the state,

fine or imprisonment.[1] Similar machinery has been established in other states, although in some instances the central body has elected to determine rates itself rather than to make use of the subsidiary wage boards.[2]

Finally, an exposition of the American minimum wage system should include some mention of the general charge or dicta with respect to wage standards included in the laws. For the moment, we may confine our attention to those of the dicta intended to insure for the workers living wages, leaving for later consideration the "reasonable-value" principle introduced in the 1930's in the hope of circumventing Supreme Court objections to the living-wage principle alone. None of the statutes has been satisfactorily specific in the general charge or definition of a living wage, and one of the greatest needs of the boards has been an unequivocal basic standard. In Oregon the law has declared that "it shall be unlawful to employ women . . . in any occupation . . . for wages which are inadequate to supply the necessary cost of living and to maintain them in health"; the Kansas statute directed the Commission to establish minimum wages sufficient to meet "the cost of living for a woman worker of ordinary ability"; the District of Columbia Commission was required to fix a wage which would maintain the women workers in good health and protect their morals as well; and the California statute stated that wages fixed were to be sufficient to meet "the necessary cost of proper living" and "to maintain the health and welfare of the workers." In practice, the determinations have apparently been the result of compromises between cost of living budgets presented by employer and by worker representatives, rather than an expression of objectivity in trying to ascertain and state in pecuniary terms "the necessary cost of proper living." "The representatives of the employees present their budget and their proposal for a rate based on it; the representatives of the employers do likewise; and the two forces contend until they have come to some agreement."[3] The budget was then worked out to fit their rate. Usually the boards, for reasons discussed elsewhere in this volume,[4] have based their determinations upon the needs of an entirely self-supporting woman without dependents. That the budgets finally

[1] Originally the Oregon Welfare Commission had to accept or reject entirely a wage determination by a conference board, but an amendment to the law has given the Commission power to make certain modifications without referring the entire decision of the conference board back to it. In the case of young persons, the Commission itself has been authorized to fix the minima without setting up conference boards.

[2] California called wage boards to recommend rates only between 1914 and 1918, all subsequent rates being fixed by the Commission without aid from a wage board. Minnesota also issued no decrees based directly upon wage board recommendations, although four wage boards were set up before the original 1914 decrees and the commission gave consideration to their recommendations.

[3] Commons and Andrews, *Principles of Labor Legislation* (Harper & Brothers, New York, 1936 ed.), p. 61.

[4] *Supra*, pp. 71–72.

worked out have been with few exceptions extremely conservative goes without saying. Even the more liberal budgets, said Walter Lippmann, have provided "not a wage so . . . women can live well, not enough to make life a rich and welcome experience, but just enough to secure existence amid drudgery in gray boarding houses and cheap restaurants."[1] Nor have the majority of boards in fixing standards made much allowance for the amount of unemployment the average worker in a given occupation may expect during the year.[2] One of the chief lessons of American experience has been the need of agreement by the boards upon some unequivocal basic standard and upon the policy of making this "living wage" mean "living income" throughout the year.

But in spite of the low standards adopted by the majority of the boards and the failure to make due allowance for unemployment, it can hardly be doubted that the general effect of minimum wage legislation in the United States was to raise wages. Conclusive proof as to what part of the wage increases in minimum wage states after the establishment of legal rates was imputable to the legislation is, of course, almost impossible to obtain. Until 1920 prices and wages were both rising, and women workers in the nonregulated as well as in the regulated trades enjoyed higher money incomes. It is entirely likely, also, that the laws in the flat-rate states had rather little effect upon worker incomes, owing to the rise in prices after 1915 and the bidding up of competitive rates above the minima established by law. These flat-rate laws probably increased immediately the remuneration of the most lowly paid women, and they were worth while as a declaration of public sentiment against sweating; but their direct economic effect was not great. Such evidence as is available, however, shows that the initial minima established in the Commission plan states were considerably in excess of the wages earned by a fairly large proportion of women in each of the regulated trades.[3]

[1] Quoted in Commons and Andrews, *op. cit.* (1936 ed.), p. 61.

[2] An exception should be made to this statement in the cases of Massachusetts, Oregon, and California, where the boards have paid some attention to wage losses from unemployment. But there is little evidence that this has been done in the other states.

[3] In Massachusetts, the first state to adopt such legislation, "the mere focusing of attention upon the problem of wages and livelihood appears to have sufficed materially to raise the wages of many in the submerged trades" (Dorothy Douglas, *op. cit.*, p. 705). In the brush industry, the first to be investigated in Massachusetts, the original budget came to $8.71 a week; the legal "suitable" rate finally established was about $7 (on the assumption of full-time employment); but previous average earnings had been less than $6 a week. In the Massachusetts garment industry $8.98 was set as a fair budget, while slightly more than 50 per cent had received less than this. Not all the Massachusetts firms in these industries, and in others where the proportion earning less than the wages finally determined upon was approximately the same, complied with the orders, and since they were nonenforceable, the proportion earning less than the minima established was not exactly synonymous with the number having wages raised. Nevertheless, the sum-total effect was a general leveling up of wages. The same was true during the early stages in other

In all cases except that of Oregon the first rates established approximated the actual cost figure of the budget adopted by the commission, but usually an interval of time, characterized by rising prices, elapsed between the adoption of the budget and the fixing of rates, and the minima established were therefore less, at the time of first taking effect, than the cost figure of the budget adopted at the earlier period.[1] The longer the interval between adoption of the budget and fixation of minimum rates, the more inadequate, of course, were the rates as judged by the original budget figure. Revision of rates in accordance with cost-of-living changes also took place very tardily, the boards apparently feeling that the pressure of high prices had to become extremely irksome before they had sufficient public support to undertake rate increases. Until 1922 not one of the boards succeeded in preserving the standard of living set by the original budget adopted for its guidance, and none of them felt authorized to adopt the British policy of "pegging" rates by providing for automatic readjustment in accordance with price fluctuations.[2] So far as the movement of the purchasing power of the minimum wage rates is concerned, the only generalization to be made is that there was a distinct decline during 1917, 1919, and 1920, then a rise as prices dropped, and very little change after 1922.[3] In the majority of states where minima were established or an attempt was made, with the cooperation of the

states. In Washington before the minimum wage award, 1,758 women in twenty-four stores received less than $10 weekly, while after the first award only 561 women received less than this amount. In Oregon the first order confirmed by the Welfare Commission set $6 a week as the minimum for minors and inexperienced women; the majority had been receiving less. The second order established $8.50 a week in Portland, the largest city in the state, and $8.25 for workers outside the city, as the minima for factory workers, while 48 per cent, investigation revealed, had been receiving less than $8. These examples are indicative of the extent to which wages were raised during the early years of minimum wage legislation in this country.

[1] *Cf.* "Development of Minimum Wage Laws in the U. S.," Women's Bureau, U. S. Dept. of Labor, *Bulletin 61*, and B. N. Armstrong, *op. cit.*, pp. 70–73.

[2] *Cf.* B. N. Armstrong, *op. cit.*, pp. 72–73.

[3] Dr. Armstrong's study showed that the purchasing power of the Massachusetts minimum wage rate (an optional rate) for experienced female workers in laundries dropped from the 1915 base of 100 to 55 in 1919, then rose to 103 in 1922, averaged between 100 and 103 from 1922 to 1929, and, owing to the price drop during late 1929 and 1930, rose to 110 in 1930. The purchasing power of the Oregon minimum rate for manufacturing industry dropped from a 1913 base of 100 to 67 in 1920, rose to 79 in 1922, fluctuated between 74 and 79 until 1929, and rose to 82 in 1931. The Minnesota minimum rate for experienced women or minors in any occupation in cities of 5,000 or more population did not become effective until 1919. In 1922 this Minnesota rate, owing to the decline in prices, had a purchasing power of 121 on the 1919 base of 100; by 1926 its purchasing power had dropped somewhat but in 1930 it was 134. The purchasing power of the California rate established for the mercantile industry in 1917 dropped to 88 in 1918, then rose steadily (owing to the fact that readjustments were made in California while prices rose) until 1922, when the index number was 132, dropped slightly during the following seven years, and was 42 per cent above the 1917 level in 1930. (*Op. cit.*, pp. 74–76.)

employing interests, to maintain the system after the invalidating Supreme Court decision of 1923, the purchasing power of the legal minima was greater in 1930 than it had been when the initial rates were set.

A comparison of these trends with the movement of the real earnings of workers in all industry, as presented in Chap. II,[1] suggests the conclusion that the purchasing power of the legal minima declined prior to 1922, while the real earnings of workers in general did not drop, and rose somewhat less rapidly thereafter. But such a comparison does not afford a fair test of the efficacy of the legal minimum wage. The wage board orders merely established (in so far as they were obeyed) minima, and it is probable that the rates of the more lowly paid were raised appreciably, or at least kept from falling as much as they otherwise would have done, even though these minima did not advance as much as average earnings in the various lines. There is no reason why one should refuse to accept the conclusion of the Women's Bureau of the Department of Labor as to the effect of the legislation upon wages: "The basis for the minimum rate has been a compromise that probably established in most cases a rate already in effect in the average firm. The earnings of notably underpaid women . . . were brought up, but adjustments did not have to be made all along the line."[2]

Other consequences of minimum wage legislation in this country can be summarized with a fair degree of definiteness. The minimum rates did not become the maximum. In Oregon and elsewhere it was found after a year or two of operation that a higher percentage of the workers were earning more than the minimum than was the case when the initial awards were made. That fair employers were protected against the competition of "shoestring capitalists," who continually attempted to cut costs by depressing wages, is evidenced by the change of attitude on the part of the majority of employers. Originally the majority were bitterly opposed to this type of state interference, but experience demonstrated to them—as it had in Australia and England—the benefits of a standardized minimum wage.[3] The "shoestringers" remained enemies of the legal minimum wage, but there is abundant evidence that the more responsible employers came to favor the plan. There is little evidence that business has been injured, and probably the minimum wage has had

[1] *Cf. supra*, pp. 82–115.

[2] "Development of Minimum Wage Laws in the U. S.," Women's Bureau, U. S. Department of Labor, *Bulletin 61*. One part of the increase in earnings of women workers while the minimum wage systems were in effect can be regarded as exclusively a product of the legislation: the "back wages" collected by the administrative commissions for workers who had been paid less than the legal rate. Reported collections in only seven jurisdictions amounted, between 1913 and 1923, to more than a quarter of a million dollars.

[3] *Cf.* National Consumers League, *Minimum Wage Laws Are Good Business;* Massachusetts Minimum Wage Commission, *7th Annual Report*, p. 55; and B. N. Armstrong, *op. cit.*, pp. 79–90.

only limited effect in starving out marginal or submarginal producers and in forcing mechanization of industry.[1] Under the permit system followed in commission form states, the problem of displacement of workers unable to earn the minimum—the "substandard" group—has not been important, although it probably would have been acute in the flat-rate states had not the general price and wage advance prior to 1920 brought competitive rates above the minima called for by the flat-rate laws. On the whole, there is little evidence of the effect of the minimum wage laws upon homework. If anything, however, this type of sweated labor became less prevalent.[2]

The foregoing account of the development, structure, and consequences of American minimum wage legislation has inevitably suggested some of the problems that have emerged; but others are deserving of more detailed consideration. Constantly the boards have been confronted with the question of what to do about substandard workers, apprentices, and minors. The theory has been that employers cannot be expected to pay young persons, inexperienced workers, and apprentices the same wages they pay experienced adult persons, and practically all the laws permit fixing of wages for such persons at less than the basic minimum established for their trade. It is difficult to discern any coherent policy underlying the rates set for these workers, and one may, indeed, question whether the whole concern over the problem of apprenticeship did not operate to prevent full effectiveness of the legal minimum wage. The primary purpose of the minimum wage legislation of the first phase of the movement in the United States was to provide a living wage for weak bargainers, which meant, in the majority of cases, for women doing work requiring so little skill that they could be easily replaced.[3] In more

[1] Conclusive proof as to the effect of the legal minimum wage upon mechanization of industry cannot be obtained. However, the mechanization tendency had been dominant in American industry long before the minimum wage movement, and it is reasonable to assume that less increase in mechanization took place in consequence of the minimum wage rates than did in England.

[2] In only two states (California and Wisconsin) has specific reference been made to homeworkers in any of the orders. No mention even of the existence of a homework problem has been made in the reports of the other minimum wage states except Massachusetts. The Wisconsin Commission has stated that homework declined after minimum wage rates were established.

[3] To quote the Women's Bureau of the U. S. Department of Labor: "It is also worth considering whether this whole elaborate concern with apprentices was not based on a false theory. To serve an apprenticeship of any length presupposes that the worker graduates from this service a skilled person able to command pay above the average. Minimum wage laws were not created to take care of such cases. Their purpose was to provide a living wage for those women doing work in which little or no skill was required, who, though they worked faithfully, could not command much money, simply because they were so easily replaced. . . . The minimum wage laws were right in providing that some concessions should be made to an employer who took on a perfectly green girl. The question arises, though, as to whether the commissions did not go astray when they interpreted minimum

cases than one it was comparatively easy for employers to substitute young girls and inexperienced workers for experienced adults, and thus avoid payment of the regular minimum. The majority of commission-form states permitted the employment of slow or infirm workers at less than the regular minimum rates, but the flat-rate states were obviously unable to meet this problem successfully.

A closely related problem was that of securing flexibility in the application of the "living" standard. During periods of rapidly rising prices it is generally difficult, as we have already seen, for the machinery to operate quickly enough to avoid considerable maladjustment. Certainly it would be highly desirable that the central administrative bodies be given power to make temporary adjustments without waiting for the meeting, hearings, and final determinations of the trade boards. Two other devices for increasing flexibility would be the forestalling of bad wage conditions as yet only apprehended by empowering the commission to issue rulings for trades still on a living basis and the easing off of radical advances by permitting the commission under exceptional circumstances to distribute a scheduled advance in wages over a specified period.[1]

Finally, we may turn to the fundamental question: Should the finances of business be considered when state boards set minimum rates? While the laws of only three of the states having minimum wage legislation prior to the adverse 1923 decision specifically charged that the needs of industry be given consideration, industry in fact was both vocal and powerful when it was represented on state boards, and its economic position probably was given as much consideration as was that of the workers. The feeling of those most active in bringing about minimum wage legislation in this country has been that as a long-run proposition no industry is justified in claiming that it is unable to pay a living wage to its workers. An industry's workers have to be supported somehow; if it does not assume this responsibility, it is existing on the bounty of others. Perhaps other members of the woman's family (and hence indirectly the industries employing them) are making up the difference between the cost of her maintenance and the wages she receives; perhaps the cost is ultimately met by society as a whole in the upkeep of hospitals, charities, and reformatories which are more necessary than they otherwise would be because of the physical deterioration and moral degeneration caused by low wages. Somewhere, somehow, the difference must be met. It has been said, with perhaps a little more reason, that while no industry can justifiably plead indefinite inability to pay living wages, the making of such minima a first

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wage apprenticeship to mean such a long learning period that it should produce not a minimum worker, not an experienced worker, but a trained worker." "Development of Minimum Wage Laws in the U. S., *Bulletin 61*, p. 158.

[1] These are the suggestions of Mrs. Douglas in the article to which reference has already been made.

charge against new and struggling industries places an unjustifiable burden upon them. This "infant-industry" argument can easily be pushed too far. To say that an industry should be permitted to pay less than living wages in order that it may "get started" is really to say that it must be subsidized by its own wage earners. If it is certain that the industry must be subsidized in order to exist during its early stages, and if it is equally certain that such an industry is socially and economically worth the cost of the necessary subsidy, then perhaps some form of aid is expedient. But why, in such a case, should the wage earners be singled out as the group upon whom the incidence of the subsidy must fall? On both social and economic grounds it would be better that such a subsidy should come from the state. Certainly, since industry and society as a whole must support all their wage earners, an industry which pleads inability to pay living wages is existing upon the economic effort of others, and public opinion is coming to hold that the maintenance of at least a subsistence standard of living for all its workers is a responsibility which every industry must assume.

When the Supreme Court of the United States in 1923, by a vote of five to three,[1] held the District of Columbia minimum wage law to be in contravention of the Fifth Amendment to the Federal Constitution, the first phase of this movement virtually came to an end, and not until the depression years of the 1930's did the legislatures again attempt to enact minimum wage laws. In November, 1925, the Supreme Court of the United States declared the Arizona law to be unconstitutional upon the authority of the District of Columbia decision,[2] and in the same year and for the same reason the Supreme Court of Kansas declared the minimum wage in that state to be constitutionally invalid as applied to adults.[3] A federal district court in 1924 declared the Wisconsin law to be a violation of due process,[4] and in Minnesota the attorney general ruled that the minimum wage law was not enforceable as applied to females over eighteen years of age.[5] In 1927 the Supreme Court of the United States

[1] *Adkins v. Children's Hospital*, 261 U. S. 525, 43 Sup. Ct. 394. This decision, the 1936 decision invalidating the 1933 New York law (*Morehead v. People ex rel. Tipaldo*, 56 Sup. Ct. 918), and the 1937 decision sustaining the Washington law of 1913 and thereby overruling the Adkins decision (*West Coast Hotel Co. v. Parrish*, 300 U. S. 279) are discussed in the following section of this chapter (pp. 324–356), where the constitutional issues to which minimum wage legislation has given rise are treated in detail.

[2] *Murphy v. Sardell*, 269 U. S. 530.

[3] *Topeka Laundry Co. v. Court of Industrial Relations*, 119 Kan. 12.

[4] *Folding Furniture Works v. Industrial Commission of Wisconsin*, 300 Fed. 991. Earlier a manufacturer in Wisconsin had secured an injunction restraining the Industrial Commission from enforcing the law. Following the decision in the Folding Furniture Works Works case, Wisconsin amended her law with a view to meeting the objections raised by the courts.

[5] Later a decision of the Minnesota Supreme Court (*Stevenson v. St. Clair*, 161 Minn. 444) held that the Adkins ruling made the Minnesota statute invalid as applied to adult females but that the decision did not affect the minimum wage law as applied to minors.

decided against the constitutionality of the Arkansas law.[1] The Puerto Rican Supreme Court, the year after the Adkins decision, held to be unconstitutional the law enacted by Congress for Puerto Rico in 1919.[2] The Utah flat-rate law was repealed by the legislature of that state in 1929,[3] and the Nebraska[4] and Texas[5] laws, as has already been noted, had been repealed before the Adkins decision. By 1933, then, only nine of the fifteen states whose minimum wage legislation has been described in the preceding pages—California, Colorado, Massachusetts, Minnesota, North Dakota, Oregon, South Dakota, Washington, and Wisconsin—retained such laws.[6] In the majority of these states, little attempt at enforcement was made, in view of the obvious applicability of the District of Columbia case ruling to the laws.[7]

During the years between 1923 and 1930—years, it will be remembered, when the real income of the majority of the workers was increasing and the temper of the time was one of social complacency—it probably would have been impossible for proponents of minimum wage legislation to have aroused public opinion sufficiently to bring about enactment of laws calculated to circumvent Supreme Court objections to the earlier type of statutes. But the great depression of the 1930's brought the minimum wage movement back into its own. The conviction developed that unfair wage standards not only undermine the health and well-being of the workers, but threaten the stability of industry itself, and that the states must again turn their attention toward minimum wage laws as protection against unfair methods of competition by ruthless and unscrupulous competitors. Those who for a time after the District of Columbia decision had been convinced of the futility of enacting this type of protective legislation began to hope that were a test case again presented to the Supreme Court, a majority might hold that time and experience had demonstrated the reasonableness of this type of regulation—that in the light of changed conditions and broader information the reasonableness of such interference with freedom of contract had been established. Under the inspiration of the National Consumers League, search began

[1] *Donham v. West-Nelson Mfg. Co.*, 273 U. S. 657.

[2] *People v. Successors of Laurnaga and Co.*, 32 P. R. Rep. 766.

[3] Acts of 1929, Chap. 9.

[4] Acts of 1919, Chap. 190.

[5] Acts of 1921, Chap. 118.

[6] This enumeration includes, it will be noted, the Wisconsin and Minnesota laws. In the former state, as has already been said, the legislature amended the law after it had been declared to be unconstitutional by a federal district court. The Minnesota Supreme Court had declared the law to be unenforceable so far as adult females were concerned, but the law was still on the statute books and had not been specifically invalidated by the United States Supreme Court, as had the Arizona and Arkansas measures; and it may therefore be put in the same category as the other laws still retained by the states in 1933.

[7] The Massachusetts law was, of course, not affected by the Adkins decision, since it was not mandatory.

to be made for a minimum wage formula which would be free from the objections raised by five members of the Court in 1923. Interstate labor conferences, finally culminating in the signing in 1934 of an interstate compact, were held during the first half of the 1930's.[1] Early in 1933 President Roosevelt communicated with the governors of thirteen industrial states, urging the enactment of minimum wage laws "for the protection of the public interest," and pointing out that "the continual lowering of wages is a form of unfair competition against other employers, reduces the purchasing power of the workers, and threatens the stability of industry." Seven states—Connecticut,[2] Illinois,[3] New Hampshire,[4] New Jersey,[5] New York,[6] Ohio,[7] and Utah[8] enacted minimum wage laws in 1933, all except the last-named following the model bill of the National

[1] These interstate conferences and the eventuating compact on minimum wage standards were important enough to warrant a few words of special mention. The movement began at a council of governors held in Albany, N. Y., in January, 1931, at the invitation of Governor Roosevelt. The governors of seven states, or their representatives, attended: Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, and Ohio. At a second conference, held in Harrisburg in June, 1931, these seven were joined by representatives of the governors of Delaware, Maryland, and West Virginia. At both of these conferences, attempts were made to draft an interstate compact to be submitted to the legislatures of the participating states. The Massachusetts legislature, during the 1933 session, created a Commission on Interstate Compacts Affecting Labor and Industry, and the same year another interstate conference was held, this time in Boston, the participants being Connecticut, Maryland, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, and the U. S. Department of Labor. The following year delegates from seven northeastern states met at Concord, New Hampshire, and signed the first interstate compact for establishing uniform standards for conditions of employment, particularly in regard to the uniform minimum wage for women and minors. Signatories were representatives of Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island, New York, and Pennsylvania. This compact aims to secure uniformity in state laws by prescribing general standards substantially the same as those enacted into law by several states in 1933, when the "value-of-service" standard was adopted in the hope of circumventing objections urged against the "living-wage" standard by the Supreme Court in 1923. Title III of the Compact declares against "an unfair or oppressive wage," as defined in the New York law of 1933, discussed in the immediately following pages. The Compact commits ratifying states to maintain the standards set forth therein and to refrain from withdrawing ratification except after two years' notice. The terms of the Compact make it operative when ratified by two states and consented to by Congress. By 1937 three states had ratified: Massachusetts (1934), New Hampshire (1935), and Rhode Island (1936).

[2] Cumulative Supplement to General Statutes, 1931–1933, Chap. 131*a*.

[3] Acts of 1933, p. 597. The 1933 law was limited to a two-year period, but the Illinois legislature in 1935 made it permanent (Acts of 1935, p. 840).

[4] Acts of 1933, Chap. 87.

[5] Acts of 1933, Chap. 152.

[6] Supplement to Cahill's Consol. L., 1931–1935, Act 19, Chap. 32.

[7] Acts of 1933, p. 502.

[8] Acts of 1933, Chap. 38. The Utah law replaced the flat-rate law of that state, which, as already stated, had been repealed in 1929.

Consumers League and supplementing the living wage or health and decency standard by the "reasonable-value" principle. The following year Massachusetts repealed its original law, which had been enforceable merely by public opinion and publicity, and substituted a new one based upon the Consumers' League standard bill.[1] Between 1933 and 1936, then, sixteen states had minimum wage laws, eight of these[2] being holdovers from the earlier period of minimum wage legislation, one[3] a 1933 enactment but following both in definition of a minimum wage and in administrative structure the earlier laws, and seven[4] of the type evolved during the 1930's in the hope of overcoming the Supreme Court objections set forth in the District of Columbia decision. During the one-year period between invalidation of the New York law in 1936 and the final declaration of the Supreme Court in 1937 that wage fixation by governmental machinery is a proper exercise of the police power, these laws remained on the statutes of practically all the states; and in prevailing legal opinion they automatically became enforceable when the decision of the latter year marked the beginning of the third phase of minimum wage legislation in the United States.[5] The standards and administrative provisions of those laws that were holdovers from the earlier period of minimum wage legislation have been summarized earlier in this chapter,

[1] Acts of 1934, Chap. 308. Amended by Acts of 1935, Chap. 267.

[2] California, Colorado, Minnesota, North Dakota, Oregon, South Dakota, Washington, and Wisconsin.

[3] Utah. This law is similar to the one California has had since 1913. The State Industrial Commission is empowered to ascertain the wages paid, the hours, and the conditions of labor generally in the various occupations. If, upon investigation, it is determined that wages paid "are inadequate to supply the cost of proper living," the commission may call a wage board into conference. After public hearing and recommendation of the board, the commission is empowered to fix a minimum wage, a maximum number of hours, and the standard conditions of labor "demanded by the health and welfare of the women and minors engaged in any occupation." *Monthly Labor Review*, vol. 42 (March, 1936), p. 658.

[4] Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, New York, and Ohio.

[5] Question may arise in the reader's mind as to the correctness of the statement that all the unrepealed minimum wage statutes of 1937—those incorporating the "value-of-service" principle of the laws of the 1930's as well as the laws that were holdovers from the earlier period and included the "living-wage" standard—automatically became enforceable in consequence of the 1937 decision, in view of the fact that this decision pertained only to the earlier type of law. The question anticipates the whole question of constitutionality, to which we shall shortly turn. It may be said at this point, however, that the statement is correct. In the New York case of 1936 the state had not asked for reconsideration of the adverse Adkins precedent, but had based its appeal from the highest state court upon the contention that there was a substantive difference between laws of the earlier type and those like the New York statute. Five of the nine members of the Supreme Court (for reasons indicated later) held that there was no substantive difference between the two laws, and since this was the ground for appeal, the decision was adverse to the state. Certainly if there was no substantive difference between laws of the earlier and those of the later period, the latter were obviously affected by a decision upholding one of the former.

but those of the period of the 1930's should be discussed in a little detail at this point.

Such a discussion necessarily anticipates somewhat the whole question of the constitutionality of minimum wage legislation, which is the concern of the following section of this chapter, since the laws were drafted for the specific purpose of eliminating features the Court had found to be objectionable and profiting by what were believed to be plain intimations in the 1923 adverse opinion. For the immediate purpose of summarizing the standards and procedure provided by these later laws, it is sufficient, however, to say that while Mr. Justice Sutherland, speaking for the majority in the District of Columbia decision, declared a statute requiring payment solely on the basis of the amount necessary to protect health and morals, without regard to "the value of the services rendered," to be "a naked, arbitrary exercise of power . . . that cannot be allowed to stand under the Constitution of the United States," he also observed that "a statute requiring an employer to pay the value of the services rendered . . . would be understandable." There seemed to be a plain intimation in this last statement, vague though the reference to "value of services" was. Obligingly, the state legislatures of the 1930's, inspired by the National Consumers League, set about the task of enacting the kind of laws the Supreme Court majority of 1923 had said "would be understandable."

In consequence, the living-wage standard was supplemented, in these more recent laws, by the "value-of-service" standard.[1] A fair wage was a wage "fairly and reasonably commensurate with the value of service or class of service rendered"; an "oppressive and unreasonable wage" was a wage *both* less than fair and reasonable value, as just defined, and less than the amount necessary to meet the minimum cost of living necessary for health.[2] In other words, the states made no attempt to regulate fair value if wages paid were already above the subsistence level. It was believed that the incorporation of the "reasonable-value" standard had circumvented the objections of the Supreme Court majority. Should

[1] The reference to "protection of morals," incorporated in the early laws, was dropped entirely from the laws enacted in 1933, because of the Supreme Court majority's 1923 dictum that wages have little or nothing to do with morals. The dropping of this one of the principles by which the boards were to determine the amount of the minimum wage was, however, not important. Inevitably, the boards would have to take into account the same considerations when they determined wages necessary for "living" and for "health" that they took into account when determining the amount sufficient to protect morals.

[2] There was not complete uniformity among the states enacting, in general, the provisions of the "standard" bill. The Massachusetts law of 1934 declared merely that wages must be fairly commensurate with the value of service or class of service rendered; the Connecticut law, while conforming to the standard law in other respects, had the older basic standard of a wage sufficient to meet the minimum cost of living necessary for health; the others included both the living wage and the value of service standards, and declared wages to be oppressive and unreasonable when they were less than both.

wages already paid be a fair equivalent of the value of the worker's services but not enough for subsistence—as Mr. Justice Sutherland must have thought they might be when he referred to the possibility of the employer's "paying a fair equivalent for the services rendered, though not enough to support the employee"[1]—the administrative officials had no authorization to set legal minima. On the other hand, they could not even establish minimum wages at the "fair-value" level (as the Court had implied would not be improper or unconstitutional) if the workers were already receiving enough for health and livelihood but less than the fair value of their services.

Upon first thought, it may seem that the legislatures were adopting a highly abstract, if not a meaningless, standard of wage fixation. On value-theory grounds it is, of course, conceivable that the productive contributions of workers in retarded or declining industries, even of those employed in the better equipped and more efficient establishments of such industries, might be worth less than the cost of their subsistence, owing to the low exchange value of the products they aided in producing. As a general proposition, however, the enunciation of the reasonable value principle might seem, upon superficial examination, to be not much more than a declaration in favor of the status quo with respect to wages. It was, in fact, much more. All the state laws directed the Commissioner and the wage boards, in setting the legal minima, to be guided by (1) such considerations as would guide a court in a suit for reasonable value of services rendered where the services were rendered at the request of an employer without contract as to the amount of the wage to be paid, (2) the wages paid in the state for work of a like or comparable character by employers who voluntarily maintained minimum wage standards, and (3) all other relevent circumstances. It will be noted that these directions accorded with the traditional method of Anglo-American law in applying the standard of reasonableness, and that the practice prescribed was the one that has governed the determination of rates for common carriers. Moreover, the provision that the boards should consider wages paid for work of a like or comparable character by employers who voluntarily maintained minimum fair wage standards made possible an exercise of the reasonable value principle to scale up the low wages paid by irresponsible firms to the average standard, and at the same time encouraged employers to evolve fair standards within industry itself.

In administrative structure, the minimum wage systems established in the first half of the 1930's followed, with some simplifications, those of the earlier period. Administration was vested in the State Commissioner of Labor or one of his subordinates,[2] instead of in a commission, this official being authorized, whenever there was reason to believe a sub-

[1] *Cf. infra*, pp. 338-339.

[2] The administrative officials have been: In Connecticut, the Commissioner of Labor and the Director of the Minimum Wage Division; in Illinois, the Department of Labor;

stantial number of women or minors in any occupation or industry were receiving less than a subsistence wage, to conduct an investigation of this question and also of whether wages paid were fairly and reasonably commensurate with the value of service rendered.[1] The investigations were delegated to triparte boards which, upon ascertaining that a substantial portion of women and minors in the occupation or industry were receiving less than a subsistence wage and less than the reasonable value of their services, recommended to the Commissioner the minimum wage they deemed proper in view of the general charge in the laws. After acceptance by the Commissioner, and the lapse of a specified period of time during which employers had the opportunity voluntarily to comply, the recommended legal minima became mandatory. All industries, trades, businesses, or branches thereof in which women and minors have been employed except domestic service in the employer's home and farm labor have been covered by the laws. Noncompliance with mandatory orders has made the employer liable to fine or imprisonment or both, each week in any day of which an employee has been paid less than the rate set constituting a separate offense as to each employee so paid.[2] As under earlier laws, women or minors with earning capacity impaired by age, physical or mental deficiency, or injury were eligible to receive licenses authorizing wages lower than the established minima, and the laws have directed that special rates be set for apprentices.

It is perhaps unnecessary to say that the period of time between the enactment of these laws and the Supreme Court decision of June, 1936, in which the Court held that the supplementing of the necessities of the worker standard of the pre-1923 laws by the value of service standard was a difference in phraseology and not in content and that the laws were in contravention of the Fourteenth Amendment, was too short to provide an adequate test of the economic effects of minimum wage legislation during a period of such economic abnormality as that of the first half of the 1930's. Such evidence as is available indicates that the effects were much the same as during the first phase of American minimum wage legislation, as already discussed in detail.[3] That the wages of women in laundries, retail trade, and other lines for which wage boards were estab-

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in Massachusetts, the Commissioner of the Department of Labor and Industry or any authorized representative or representatives; in New Hampshire, the Labor Commissioner; in New Jersey and New York, the Commissioner of Labor and the Director of the Minimum Wage Division; in Ohio, the Director of Industrial Relations and the Superintendent of the Minimum Wage Division.

[1] All the laws have provided that the occupation or industry to be investigated might be either at the discretion of the Commissioner or upon the request of a specified number (usually 50) residents of the state.

[2] Two of the laws, those of Connecticut and New Hampshire, have also provided that the employee may recover the difference between the legal minimum wage and wages paid, together with costs.

[3] *Supra*, pp. 312–315.

lished and legal minima set were leveled up appreciably, even during this short period of time, there can be little question; and it is equally certain that a wage slashing movement began in some of the regulated trades immediately after the adverse 1936 decision.

But with the reversal, in 1937, of the position of the Supreme Court majority on the question of the constitutionality of minimum wage legislation, and the final declaration—even though by a majority of only one—that the Fourteenth Amendment does not forbid legislatures to enact such laws, the third phase of this movement commenced in the United States. In many ways, it promises to be the most important and the most fruitful phase. The cloud of unconstitutionality has at last been removed. The quasisubterfuge of a "value-of-service" standard, instead of a standard that honestly states the purpose of forcing industry to pay its women workers a living wage, need no longer be resorted to. The laws still retained by the states have become enforceable again, and in 1937 three states[1] adopted minimum wage legislation for the first time, some reenacted with modifications their former laws, and others strengthened existing laws.[2] At the end of 1937, a total of twenty-two states,[3] in addition to the District of Columbia, whose former law again became effective after the decision of the Supreme Court in the Washington case, had minimum legislation. There is, moreover, some reason to believe that federal regulation of wages of both sexes in industries substantially affecting interstate commerce would be sustained by the Courts. It will be interesting to observe the progress and appraise the consequences of this movement in the years that lie ahead.

Constitutionality of Minimum Wage Legislation

The Supreme Court vicissitudes of minimum wage legislation, extending over a period of two decades, and at long last culminating in a five-to-four 1937 decision that such laws are a reasonable exercise of the police power of the state, furnish an illuminating commentary upon the manner in which our system of judicial review sometimes operates. The decisions are of profound importance in the annals of American constitutional law, and in the entire story of the attempt of men by democratic processes

[1] Nevada, Oklahoma, and Pennsylvania. The Oklahoma law departed from American precedent in that the wages of men as well as of women were made subject to the law.

[2] Arizona, whose earlier law was invalidated in 1925 on the authority of the Adkins decision, called a special session of its legislature in 1937 and enacted a new minimum wage law. New York and Massachusetts that year reenacted with some modifications their former laws, and Colorado, Connecticut, Minnesota, and Wisconsin strengthened their existing laws. U. S. Bureau of Labor Statistics, "Major State Legislation Enacted in 1937," *Labor Information Bulletin*, vol. 4 (August, 1937), pp. 5–6.

[3] Arkansas, Arizona, California, Colorado, Connecticut, Illinois, Massachusetts, Minnesota, Nevada, New Hampshire, New Jersey, New York, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Dakota, Utah, Washington, and Wisconsin.

to solve the problems emerging from social and economic change. They deserve our careful scrutiny.

One of the chief reasons why the legal minimum wage was not made applicable to adult males in the United States, as we have already seen, was the virtual certainty that such regulation in private employments would have been held to be unconstitutional, as abridging the freedom of contract that is implied by the word "liberty" in the Fourteenth Amendment.[1] It was believed, however, that the courts would sanction minimum wage legislation for women on the same grounds that underlay their sanction of other protective legislation. The *Muller v. Oregon* decision, upholding as a proper exercise of the police power limitations upon the number of hours women might sell their services because of the social necessity of maintaining their health, seemed to afford a clearly applicable precedent. And, indeed, it seemed for a time that the courts would immediately (as they ultimately did) apply to minimum wage laws the same reasoning they had applied to laws limiting the hours of work of women. Immediately after the Oregon law had been enacted (1913), a test case was instituted, the law was upheld by the Supreme Court of that state, and then by a four-to-four vote of the Supreme Court of the United States.[2] Since the highest court, even though by an even division, had left the legislation in force, the constitutionality seemed assured, and several state courts upheld minimum wage laws on the basis of the Oregon decision.[3] But in 1923, as has already been said, the Supreme Court of the United States held the District of Columbia law to be in contravention of the Fifth Amendment,[4] five members[5] holding

[1] It is worth recalling at the outset, however, that the Constitution does not specifically mention "freedom of contract." The Constitution speaks of "liberty," and freedom of contract is one of the implied components of liberty. As Chief Justice Hughes expressed it in the 1937 majority opinion sustaining the Washington minimum wage law: "What is this freedom of contract? The Constitution does not speak of freedom of contract. It speaks of liberty, and prohibits deprivation of liberty without due process of law." *West Coast Hotel Co. v. Parrish*, 300 U. S. 391.

[2] *Stettler v. O'Hara*, 69 Ore. 519 (1914), 243 U. S. 629 (1917). No opinion was written in this case, the Court merely rendering a *per curiam* decision which said: "Affirmed with costs by an equally divided court." Mr. Justice Brandeis did not participate in this Supreme Court decision because he had defended the measure as counsel when it was before the Oregon Supreme Court, prior to his appointment to the Supreme Court of the United States.

[3] *State v. Crowe*, 130 Ark. 262, 197 S. W. 4 (1917); *Holcombe v. Creamer*, 231 Mass. 99, 120 N. E. 354 (1918); *Williams v. Evans*, 139 Minn. 32, 165 N. W. 494 (1917); *Larsen v. Rice*, 100 Wash. 642, 171 Pac. 1037 (1918).

[4] *Adkins v. Children's Hospital*, 261 U. S. 525, 43 Sup. Ct. 394 (1923). Perhaps it is gratuitous to explain that the substantive issue in the case of the law enacted by Congress for the District of Columbia was the same as in the case of laws enacted by state legislatures for the states, since the Fifth Amendment places the same restrictions upon Congress that the Fourteenth Amendment places upon state legislatures.

[5] Justices Sutherland, McKenna, VanDevanter, McReynolds, and Butler.

against the legislation, three for it,[1] and one not participating.[2] Upon the authority of this decision there followed the already-mentioned[3] United States Supreme Court and state court decisions adverse to minimum wage legislation;[4] and then, in 1936, the five-to-four decision that incorporation of the "fair-value" principle had not brought within the realm of constitutionality a type of legislation decided in 1923 to be unconstitutional.[5] Finally, in 1937, exactly twenty years after it had decided the first minimum wage case, the Supreme Court—again by a five-to-four vote—ruled that "the decision in the Adkins case was a departure from the true application of the principles governing the regulation by the state of the relationship of employer and employed. . . . Our conclusion is that the case of *Adkins v. Children's Hospital* should be, and it is, overruled."[6] The dissenting opinions of 1923 became majority opinion, and therefore existent judicially made law, in 1937.[7]

Two other facts should be recorded before we turn to detailed scrutiny of the minimum wage decisions: (1) that this legislation first was declared to be unconstitutional because of an accident as to time; and (2) that of the thirteen justices[8] who were members of the Supreme Court when the two cases decided adversely were heard, seven[9] voted in favor of sustaining minimum wage legislation when the question of constitutionality was presented to them in either or both cases, and six[10] voted against it. While

[1] Chief Justice Taft and Justices Holmes and Sanford.

[2] Mr. Justice Brandeis did not participate in the decision because the substantive issue was the same as that of the Oregon case, and also because a member of his family had been connected with the District of Columbia minimum wage board. Since Justice Brandeis' views on the legal minimum wage, even before he voted in the 1936 and 1937 cases, were a matter of common knowledge, the Adkins decision should really be regarded as another of the 5-to-4 rulings of the Supreme Court.

[3] *Supra*, pp. 317–318.

[4] *Murphy v. Sardell*, 269 U. S. 530; *Donham v. West-Nelson Mfg. Co.*, 273 U. S. 657; *Topeka Laundry Co. v. Court of Industrial Relations*, 119 Kansas 12; *People v. Successors of Laurnaga and Co.*, 32 P.R. Rep. 766; *Stevenson v. St. Clair*, 161 Minn. 444.

[5] *Morehead v. People ex rel. Tipaldo*, 298 U. S. 570, 56 Sup. Ct. 918. Those holding the New York law to be unconstitutional were Justices Butler, Sutherland, VanDevanter, McReynolds, and Roberts. Those dissenting were Chief Justice Hughes and Justices Brandeis, Stone, and Cardozo.

[6] *West Coast Hotel Co. v. Parrish*, 300 U. S. 391.

[7] In fact, the 1937 majority opinion, written by Chief Justice Hughes, consisted in no inconsiderable part of quotations, made with approval, from the dissenting opinions rendered by Chief Justice Taft and Justice Holmes in the Adkins case of 1923.

[8] Sutherland, Butler, VanDevanter, McReynolds, McKenna, Taft, Holmes, Sanford, Brandeis, Roberts, Hughes, Cardozo, and Stone.

[9] Taft, Holmes, Sanford, Brandeis, Hughes, Cardozo, and Stone.

[10] Sutherland, Butler, VanDevanter, McReynolds, McKenna, and Roberts. As is indicated later, Justice Roberts in 1937 voted to uphold the Washington state statute. This did not constitute a clear reversal of position, since—again as has already been said—a reconsideration of the Adkins precedent had not been sought in the 1936 case, but only determination of whether the inclusion of the "value-of-service" principle in the New York law made the statute substantively different from the one invalidated in the Adkins case.

we do not know with official certainty how individual justices voted in the four-to-four 1917 decision that left minimum wage legislation in force, we can make deductions from the subsequent votes of some of them upon the same question, and we know the position of the one member (Chief Justice Taft) appointed between 1917 and the October, 1922 term of the Court. It is practically beyond question that had the Adkins case been heard earlier than that term of the Court—as it probably would have been had it not been for the illness of a District of Columbia Court of Appeals judge and the presence on that Court of a substitute who upheld the legislation, thus preventing its going to the Supreme Court until the next term—the statute would have been sustained five to three, with one justice not participating.[1] The consequence would have been the avoid-

[1] A number of students have traced through the interesting story of the way minimum wage legislation became unconstitutional not because it was inherently against the principles of the constitution, but because the personnel at the time of the decisive case happened to be one that insisted on interpreting the constitution in a certain way. The discussions of Professors Thomas Reed Powell and A. A. Bruce, both of which have been reprinted in *The Supreme Court and Minimum Wage Legislation*, edited by Dean Roscoe Pound, are especially worth reading. The story may be sketched briefly. The Stettler case of 1917 was decided by an even division, as has already been said, and minimum wage legislation was left in force. We do not know how the eight participating Justices voted in this case, for it was merely disposed of in a *per curiam* opinion which contented itself with saying, "Affirmed with costs by an equally divided court." However, three of the five justices who voted against the legislation in 1923 (McKenna, VanDevanter, and McReynolds) were on the bench in 1917, and it is only reasonable to suppose that they gave three of the four 1917 votes against the law. The other 1917 justices were Brandeis, White, Holmes, Day, Pitney, and Clarke. Justice Brandeis, for reasons already indicated, did not participate. Since Justice Holmes dissented in 1923, it is reasonable to assume that he voted to sustain the law in 1917. The general liberal bent of Justice Clarke's decisions in other cases creates a strong presumption that he, also, voted to sustain minimum wage legislation in 1917. Evidently, then, the fourth justice against the law in 1917 was either White, Day, or Pitney. The opinions of these three justices in other cases create a strong presumption that Chief Justice White was the fourth to vote against the Oregon statute, and that Justices Day and Pitney were the other two to support it. This same bench continued until after the October, 1920, term of the Court. The only change between the October, 1920, and the October, 1921, term was the appointment of Chief Justice Taft, who upheld minimum wage legislation in 1923, in place of Chief Justice White. Since the Court had been equally divided in 1917, with Chief Justice White probably one of those holding against minimum wage legislation, the Court after October, 1921, had five members (six if one includes Justice Brandeis, who participated in neither the Stettler nor the Adkins cases) in favor of minimum wage legislation. Had the Adkins case come before the Court then, it would undoubtedly have been upheld five to three, with one not participating. Even if the assumption as to Chief Justice White's 1917 vote is incorrect, and he voted for the law and either Day, Pitney, or Clarke against it, there would still have been the four-to-four division necessary to leave this legislation in force. But providence intervened to protect American freedom of contract. One of the District of Columbia Court of Appeals judges (Judge Robb) was ill when the case first came before that tribunal, and a substitute (Judge Stafford) joined with Chief Judge Smythe in upholding the law, the third judge (Judge Van Orsdel) dissenting; and this favorable decision prevented the case's going on to the Supreme Court of the United States at a time when five members of that bench probably would have upheld constitutionality of the statute. On his return to the Court

ance of a fourteen-year period during which the legislation had upon it the stamp of unconstitutionality. The whimsical madness sometimes manifested by our system of judicial review becomes only more apparent when we remember that a majority of those justices participating in the two cases in which the legislation was held to be unconstitutional were convinced of its constitutionality, but that in consequence of the accidents of death, resignation, and appointment, five of the nine members were opposed when each of these two decisive cases was heard.

A critical examination of these decisions is now in order.

The Adkins Decision: Judicial Condemnation of the Legal Minimum Wage as a Social and Economic Institution.—The basic question before the Supreme Court in the District of Columbia case was, of course, whether the statute involved an unconstitutional interference with the freedom of contract included within the guarantees of the due process clause of the Fifth Amendment.[1] Obviously, minimum wage laws are tantamount to taking liberty in the sense that the right of employers and workers to include any terms in the contract of employment at will is limited, and the argument that they take property is based on the fact that at least a definite minimum amount must be paid to each employee. But these rights guaranteed by the Fifth and Fourteenth Amendments have never been regarded as absolute things. When measures interfering with liberty or burdening property are reasonably necessary to the public health, safety, morals, or welfare, they then constitute a proper exercise of the police power of the state; liberty and property are taken, but *with*

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of Appeals bench after recovery from his illness, however, Judge Robb ordered a rehearing of the case, joined with Judge Van Orsdel over the dissent of Chief Judge Smythe in declaring the law to be invalid, and thus sent it on to the Supreme Court for hearing and decision during the October, 1922, term. But three changes had by then taken place in the personnel of the Supreme Court, and these changes decided the fate of minimum wage legislation. Justice Sutherland, who wrote the 1923 majority decision, had succeeded Justice Clarke, Justice Butler had succeeded Justice Day, and Justice Sanford had succeeded Justice Pitney. Justice Sanford concurred in the Taft dissent of 1923, but the two other new appointees—Sutherland and Butler—decided against the constitutionality of minimum wage legislation. These changes in personnel were the real reason why minimum wage legislation was held to be unconstitutional.

[1] The appellee was a corporation maintaining a hospital for children in the District of Columbia. Some of the women employed were paid less than the legal minima set by the wage board, and suit was entered in the Supreme Court of the District of Columbia to restrain the board from enforcing or attempting to enforce its order, on the ground that the same was in contravention of the constitution, and particularly the due process of the Fifth Amendment. The Supreme Court of the District denied the injunction and dismissed the bill. Upon appeal, the Court of Appeals by a majority first affirmed, and subsequently, on rehearing, reversed the trial court. Thereupon the case was remanded, and the trial court entered decrees in pursuance of the mandate, declaring the statute in question to be unconstitutional and granting permanent injunctions. Appeals to the Court of Appeals followed, the decrees of the trial court were affirmed, and appeal was then taken to the Supreme Court of the United States.

due process of law. Precedents existed in abundance of interference with liberty or taking (or burdening) of property in the general public interest. Workmen's compensation laws had been upheld, the Supreme Court quoting with approval the *Holden v. Hardy* dictum that "the whole is no greater than the sum of all the parts," and that when individual health, safety, and welfare are sacrificed or neglected, the state must suffer;[1] legislation limiting the hours of women workers, as has already been indicated,[2] was deemed necessary from the viewpoint of the present and future welfare of the race; time and again the Court had held that state legislatures might reasonably entertain a belief in the social necessity of certain restrictions, and that a judgment as to the wisdom of such belief was not its function.

It should be apparent that the reasonableness of interference with the rights guaranteed by the Fifth and Fourteenth Amendments depends upon objective facts. Changes in the character of objective facts from time to time, or differences in their character from place to place, make reasonable in some cases interferences that would be exceedingly unreasonable in others. As a great jurist and great American, the late Oliver Wendell Holmes, phrased it: "Restraints that were arbitrary yesterday may be necessary and rational today, else the law is static and fixed for all time. The life of the law has not been logic; it has been experience." In large cities, police power must be exercised for the maintenance of law, order, and public health in ways that would be absurd in rural communities. Factory sanitation and inspection codes became necessary only because the factory system had developed. With the increasing prevalence of the banking, credit, and checking systems, restrictions upon the liberty of bankers to direct the uses to which other people's money might be put became necessary. And thousands of lawyers, economists, public officials, social workers, and public-minded citizens generally became convinced, about the turn of the century, that certain of the objective facts of modern industry—especially the economic weakness of women as bargainers and the low wages frequently paid to them—made entirely reasonable an exercise of the police power to abolish sweating and its antisocial concomitants.

The fundamental proposition in the decision immediately under consideration was that freedom of contract was the general rule, and that departure from it could "be justified only by the existence of exceptional circumstances. Whether these circumstances exist in the present case constitutes the question to be answered."[3] But while this general rule

[1] *N. Y. Central R. R. Co. v. White*, 37 Sup. Ct. 247 (1917); *Mountain Timber Co. v. Washington*, 37 Sup. Ct. 260 (1917).

[2] *Cf.* pp. 303–304.

[3] But it may be recalled that in spite of the guarantees of liberty in the Fifth and Fourteenth amendments, the Constitution nowhere states Mr. Justice Sutherland's doctrine

had been departed from, minimum wage legislation differed, the Court found, from any of the previous restraints upon freedom of contract that it had sanctioned.[1] Statutes fixing the hours of labor, it was recognized, "approach most nearly the line of the principle applicable to the statute here involved," but the Supreme Court majority found a substantive difference between hours legislation and minimum wage laws. The former "deal with incidents of the employment having no necessary effect upon the heart of the contract, *i.e.*, the amount of wages to be paid and received. A law forbidding work to continue beyond a given number of hours leaves the parties free to contract about wages and thereby equalize whatever additional burdens may be imposed upon the employer as a result of the restrictions as to hours, by an adjustment with respect to the amount of wages." Moreover, limitations upon the hours of women workers had been sanctioned because of "differences in physical structure, especially in respect of the maternal functions, and also in the fact that historically woman has always been dependent upon man, who has established his control by superior physical strength. . . . But the ancient inequality of the sexes, otherwise than physical . . . has continued with diminishing intensity[2] . . . [and] . . . while the physical differences must be recognized in appropriate cases, and legislation fixing hours or conditions of work may properly take them into account, we cannot accept the doctrine that women of mature age, *sui juris*, require or

that "freedom of contract is the general rule." As Professor Thomas Reed Powell has pointed out, the Justice's statement of alleged fact is unsupported by the balance on the ledger of Supreme Court decisions, for the catalogue shows that the Court has sustained more regulatory statutes than it has annulled. Professor Powell commented: "Whence, then, comes the rule that Mr. Justice Sutherland reveals? Needless to say, it comes from Mr. Justice Sutherland." "The Judiciality of Minimum Wage Legislation," *Harvard Law Review*, vol. 37 (March, 1924), p. 555.

[1] The Court reviewed decisions where interference had been upheld, dividing them into four categories: (*a*) Decisions dealing with statutes fixing rates and charges to be exacted by businesses impressed with a public interest, of which the leading were *Munn v. Illinois*, 94 U. S. 113, and *Louisville and Nashville Railway Co. v. Mottley*, 219 U. S. 467; (*b*) Decisions upholding statutes relating to contracts for the performance of public work, including *Atkin v. Kansas*, 191 U. S. 207, *Heim v. McCall*, 239 U. S. 175, and *Ellis v. U. S.*, 206 U. S. 246; (*c*) Decisions sustaining statutes prescribing the character, methods, and time for the payment of wages, such as *McLean v. Arkansas*, 211 U. S. 539, *Knoxville Iron Co. v. Harbinson*, 183 U. S. 13, and *Erie Railway Co. v. Williams*, 233 U. S. 685; and (*d*) decisions sustaining the fixing of maximum hours of labor, as discussed in detail elsewhere in this volume (*cf.* pp. 520–527).

[2] Justice Sutherland was impressed by the "great—not to say revolutionary—changes" in the contractual, political, and civil status of women that had taken place since the *Muller v. Oregon* decision, culminating in the Nineteenth Amendment, and concluded that "it is not unreasonable to say that these differences have now come almost, if not quite, to the vanishing point." Clearly there was the implication that the reasoning in *Muller v. Oregon*, except in so far as it was based upon differences in physical structure and the maternal functions of women, might have been regarded as antiquated and no longer applicable by the Supreme Court majority of 1923.

may be subjected to restrictions upon their liberty of contract which could not lawfully be imposed in the case of men under similar circumstances."

The decisions sustaining the regulation of hours not being applicable, the Court necessarily had to consider the statute in question on its own merits. But the distinction drawn by Justice Sutherland and his four colleagues between the social necessity for hours regulation and the reasonableness of minimum wage legislation cannot pass without comment. Why should it be said that the terms with respect to hours are less a part of "the heart" of the employment contract than those pertaining to wages? As Chief Justice Taft observed in his dissenting opinion: "In absolute freedom of contract, the one term is as important as the other, for both enter equally into consideration given and received. A restriction as to one is not any greater in essence than the other, and is of the same kind. One is the multiplier and the other the multiplicand."[1] Nor is it entirely easy to follow Justice Sutherland's reasoning that the "great, not to say revolutionary," changes in the contractual, civil, and political status of women between the *Muller v. Oregon* decision (1908) and the ratification of the Nineteenth Amendment (1920) necessitated greater conservatism in extending legal protection to women.[2] Minimum wage legislation was not predicated upon the civil, political, or contractual inequalities of women, but upon the objective fact of economic inequalities —which is quite another matter. There was almost a suggestion of the famous Taft chuckle in the Chief Justice's disagreement with the majority: "The Nineteenth Amendment did not change the physical strength or limitations of women upon which the decision in *Muller v. Oregon* rests. The Amendment did give women political power and makes more certain that legislative provisions for their protection will be in accord with their interests as they see them. But I don't think we are warranted in varying constitutional construction based on physical differences between men and women because of the Amendment."[3] In the third

[1] Or as Mr. Justice Holmes phrased it in the sparkling separate dissenting opinion he rendered: "I confess I do not understand the principle on which the power to fix a minimum for the wages of women can be denied by those who admit the power to fix a maximum for their hours of work. . . . I perceive no difference in the kind or degree of interference with liberty, the only matter with which we have any concern between one case and the other. The bargain is equally affected by whichever half you regulate." The possibility should perhaps be mentioned, however, that Justice Sutherland did not mean exactly what he said when he characterized wages, rather than hours, as being more "the heart" of the employment contract. Possibly what he had in mind was that the employment relationship had been subject to an increasing amount of regulation, and that if wages were also regulated by government authority, freedom of contract as a general rule would fairly well have disappeared. But this is not exactly what he said.

[2] Parenthetically, it may be observed that women having legal residence in the District of Columbia do not vote anyway, and that the Nineteenth Amendment therefore did not affect their civil and political status.

[3] And Justice Holmes observed: "It will take more than the Nineteenth Amendment to

place, the implication in the majority decision that the health and strength of women is more immediately and vitally affected by the number of hours they work than by the remuneration they receive cannot pass unchallenged. As the Chief Justice pointed out in his dissenting opinion, "there is very respectable authority from close observers . . . that they are equally harmful in this regard. Congress took this view, and we cannot say it was not warranted in so doing." Finally, the implication of the decision that legislation applicable only to women is of less certain constitutionality when the sex affected can vote for it than when they cannot should be noted. If legislation predicated upon physical inequalities and bargaining weaknesses is deemed by legislators to be so necessary in the public interest that it constitutes a reasonable exercise of the police power, it is difficult to see wherein the social necessity is affected by the fact that women can have a voice in the securing of the legislation.[1]

The task of summarizing the objections of the Court majority to the minimum wage as a social and economic institution is not an easy one. The decision, it can fairly be said, repeats the same contentions in different connections, and even the Chief Justice confessed himself to be puzzled as to what the majority really intended to say on some points.[2] But probably no great injustice is done by the following summary of the outstanding objections: (1) The statute in question was purely and simply a price-fixing measure, confined to adult women who were legally capable of bargaining for themselves, and the price fixed need have no relation to the capacity or earning power of the employee, the number of hours of labor, or other conditions of employment. (2) It furnished a standard of wage fixation that was vague and impossible of application with even proximate justice to all classes of labor. (3) It directed fixation of a wage sufficient to protect the morals of women workers, but morality rests upon other considerations than wages. (4) It took into account only the necessities of the worker, not those of the employer. (5) It made the declared basis for wage fixation not "the moral requirement implicit

convince me that there are no differences between men and women, or that legislation cannot take these differences into account."

[1] As Professor Powell has rather ironically commented upon this part of Justice Sutherland's reasoning: "This seems to find some distinction between legislation that is a gracious bounty from a male electorate and legislation in the making of which women have participated with the aid of means more effective than mere mendicancy. Such an attitude invites an excursion into fields of psychology, but it may be sufficient here to point out that, whatever the psychological explanation or significance of Mr. Justice Sutherland's elucidation of the meaning of the 'diminishing intensity' of the 'ancient inequality of the sexes,' the dominance of such an attitude in a Justice of the Supreme Court threatens the further constitutional security of some previously established standards of legislation." *Op. cit.*, p. 559.

[2] For example, Chief Justice Taft said: "I am not sure from a reading of the opinion whether the Court thinks the authority of *Muller v. Oregon* is shaken by the adoption of the Nineteenth Amendment."

in every contract of employment," the value of the worker's services, but rather the extraneous circumstance of the employee's needs. (6) It was predicated upon the assumption that certain beneficial social results would ensue, but these beneficial results could not be conclusively proved. (7) It implied a power to fix maximum as well as minimum wages, which would have extended the field of operation of the police power "to a great and dangerous degree." The objections may be considered in the order here enumerated.

1. The Court's characterization of the law as one directed toward price-fixing was interwoven with its condemnation on other grounds. "It is simply and exclusively a price-fixing law, confined to adult women . . . who are legally as capable of contracting for themselves as men. It forbids two parties having lawful capacity—under penalties as to the employer—to freely contract with one another in respect of the price for which one shall render service to the other in a purely private employment where both are willing, perhaps anxious, to agree, even though the consequence may be to oblige one to surrender a desirable engagement and the other to dispense with the services of a desirable employee. The price fixed by the board need have no relation to the capacity or earning power of the employee, the number of hours which happen to constitute the day's work, the character of the place where the work is to be done, or the circumstances or surroundings of the employment." As a price-fixing measure, the statute had to be judged on its own merits, for "in principle there can be no difference between the case of selling labor and the case of selling goods."

In the sense that it forbade a contract of employment at will at wages less than a specified amount—determined by the board—the District of Columbia statute was, of course, a price-fixing measure. It was frankly calculated to prevent the price of female labor from dropping too low, and as a law so calculated it interfered with the freedom of contract of employer and worker. Yet as Mr. Justice Holmes observed in his dissenting opinion, "pretty much all law consists in forbidding men to do some things they want to do, and contract is no more exempt from law than other acts." Numerous statutes have been passed by legislative bodies and upheld by the Supreme Court having as their general object the restraining of the bargaining power of the powerful, and indirectly interfering in their operation with the process of competitive price fixation. Justice Sutherland failed to mention two obvious analogies: usury laws and statutes forbidding contracts and combinations in restraint of trade. Both of these try, in different spheres, to attain the same end that is sought by minimum wage legislation, *i.e.*, to prevent an exercise of economic power that would have antisocial consequences.[1] Nor is

[1] As Chief Justice Taft disposed of the contention that the restrictions constituted unjustifiable price fixing: "Legislatures which adopt a requirement of maximum hours or

it either easy or pleasant to delve into the intellectual processes whereby the conclusion that "in principle there can be no difference between the case of selling labor and the case of selling goods" was reached. None of the classical economists—not even the sternest of them—would have been willing to commit himself to the doctrine that the sale of human labor cannot be differentiated from the sale of goods. It is only, as Professor Powell has said, by a "crass legalistic formalism" that no distinction can be drawn between the housewife buying groceries and the employer, in a much stronger bargaining position than the grocer in relation to the housewife, buying the whole of the working hours of a wage earner. To imply that a law setting a minimum price for labor under conditions of twentieth-century industrial relations is on the same plane as a statute compelling the grocer to keep prices down to the financial capacities of some class of potential purchasers is certainly to ignore the "progressive character" of the law described by the same Court in *Holden v. Hardy*[1] when it said: "This Court has not failed to recognize that the law is, to a certain extent, a progressive science; that in some of the States methods of procedure which, at the time the Constitution was adopted, were deemed essential to the protection and safety of the people, or to the liberty of the citizen, have been found to be no longer necessary; that restrictions which had formerly been laid upon the conduct of individuals or of classes of individuals had proved detrimental to their interests, while . . . certain other classes of persons . . . have been found to be in need of additional protection. . . . From the day the Magna Charta was signed to the present moment, amendments to the structure of the law have been made with increasing frequency . . . It is impossible to suppose that they will not continue and the law be forced to adapt itself to new conditions of society, and particularly to the new relations of employers and employees as they arise."[2]

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minimum wages may be presumed to believe that when sweating employers are prevented from paying unduly low wages by positive law, they will continue their business, abating that part of their profits which were wrung from the necessities of their employees, and will concede the better terms required by law, and while in individual cases hardship may result, the restriction will enure to the benefit of the general class of employees in whose interest the law is passed and so to that of the community at large."

[1] 169 U. S. 366 (1898).

[2] Indeed, Justice Sutherland himself quoted with apparent approval, as illustrations of the type of regulation that had been upheld by the Court but that was to be differentiated from minimum wage legislation (*cf. supra*, p. 330, footnote 1), sustaining decisions on several statutes approaching very closely to the kind of price fixing he condemned. Would he have approved of the Knoxville Iron Co. decision, cited in an earlier footnote, if this statute (a statute providing wages must be paid in cash or negotiable checks) had related to *goods*, not to *labor*? But if he would not, how could he consistently hold that "in principle there can be no difference between the case of selling labor and the case of selling goods?" Suppose, as Dr. Armstrong has suggested (*op. cit.*, pp. 101–102), that a law had been before the Court providing that it should be unlawful for anyone to purchase plows

2. Not only did the Supreme Court majority find the District of Columbia statute to constitute obnoxious price-fixing, but it condemned the legislation on the ground that the prescribed standard of wage fixation was vague and impossible of application with even proximate justice to all classes of labor. "The standard furnished by the statute for the guidance of the board is so vague as to be impossible of practical application with any reasonable degree of accuracy. What is sufficient to supply the necessary cost of living for a woman worker and maintain her in good health and protect her morals is obviously not a precise or unvarying sum—not even approximately so. The amount will depend upon a variety of circumstances: the individual temperament, habits of thrift, care, ability to buy necessaries intelligently, and whether the woman lives alone or with her family."

Of course the amount necessary to maintain health and protect morals is not a precise or unvarying sum. No intelligent person has ever contended that it is. But to say that a standard has to be based upon some kind of statistical average, obviously inapplicable to many individual cases, is not to say anything particularly relevant to the question of whether compulsory enforcement of such a standard may not prevent wages from sinking to very low levels. The primary objective of Congress was to attain this larger end—not to set up boards which would work out standards to be applied to myriad varying individual cases. Constitutional lawyers the country over expected, when the District of Columbia case arose, that the Court would confine itself to the question of whether Congress had or had not passed a statute in contravention of the Fifth Amendment, rather than to digress into a critique of the procedural imperfections of the legislation. The same criticism could just as well be made of legislation establishing hours maxima. Moreover, one may properly observe that the decision did not manifest great familiarity on the part of the majority with the reasons why minimum wage boards took as their basis the needs of a self-supporting woman, or with the abundant evidence as to the needs—frequently as great as or greater than those of the woman worker adrift—of numerous home-dwelling women wage earners. Even on the highly questionable assumption that the needs of the majority of women are less than those of the person living adrift, whose health and morals the board sought to protect by its orders, the fact remains that to base wage determinations upon the needs of women advantageously situated with respect

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in store orders, in merchandise, or in other substitutes for cash. It is inconceivable that such a law would have been upheld, and it is still more inconceivable that Mr. Justice Sutherland would have quoted a sustaining decision with apparent approval. Yet if there is no difference "in principle" between selling goods and selling labor, how could a law regulating the form of payment for one be upheld without logical consistency demanding that a statute regulating the form of the payment for the other also be upheld?

to expenditure necessity would have been to absolve the employer from paying a living wage to the many having approximately the needs assumed by the board. Carried to its logical conclusion, the reasoning of the Court on this point would seem to imply that the Constitution entitles the employer to the benefits obtainable in consequence of such facts as individual temperament, habits of thrift, ability to buy necessaries intelligently, and the home-dwelling condition of women workers.[1]

3. The third main objection may be considered very briefly. The statute was condemned because it directed payment of wages sufficient to protect the morals of women workers. "The relation between earnings and morals is not capable of standardization. It cannot be shown that well paid women safeguard their morals more carefully than those who are poorly paid. Morality rests upon other considerations than wages. . . . If women require a minimum wage to preserve their morals, men require it to preserve their honesty." This part of the decision, it may be remarked without disrespect, is based entirely upon *obiter dicta*. Justice Sutherland and the four justices who concurred in the majority decision were confident that poorly paid women guard their morality as well as do highly paid women; Congress, on the other hand, evidently felt that there is a causal connection between insufficient earnings and commercialized prostitution. Here—as at other places in the decision—the Court was not confining itself to the judicial function of determining whether the legislative body *might reasonably have held a certain belief;* it was overruling Congress because it happened to hold other views on this social question. Since no evidence was cited to support the sublime assurance that morality cannot be influenced by such a mundane factor as pecuniary income, one is forced to the conclusion that the dictum must have been based upon transcendent intuition or divine revelation.

4. Moreover, minimum wage legislation violated elementary principles of equity in that it took into account the necessities of the worker but not those of the employer. "The law takes account of the necessities of only one party to the contract. It ignores the necessities of the employer by compelling him to pay not less than a certain sum, not only whether the employee is capable of earning it, but irrespective of the ability of his business to sustain the burden, generously leaving him, of course, the privilege of abandoning his business as an alternative for going on at a loss. Within the limits of the minimum sum, he is precluded, under penalty of fine or imprisonment, from adjusting compensa-

[1] In one sense the Court did not imply this, for, as is indicated later, it objected to consideration of an "extraneous" factor such as the cost of living, and insisted that the "true moral equivalent" of a worker's services is the value he or she renders to the employer. Nevertheless, the Court did, in the part of the decision under consideration in this paragraph, criticize as being impossible of application with even proximate justice the standard prescribed by the statute, and its criticisms inevitably suggest the conclusion set forth in the last sentence of the paragraph.

tion to the differing merits of his employees. . . . It therefore undertakes to solve but one-half of the problem. The other half is the establishment of a corresponding standard of efficiency, and this forms no part of the policy of the legislation, although in practice the former half without the latter must lead to ultimate failure, in accordance with the inexorable law that no one can continue indefinitely to take out more than he puts in without ultimately exhausting the supply. . . . The law . . . takes no account of periods of stress and business depression, of crippling losses, which may leave the employer himself without adequate means of livelihood." Such a law could not be regarded as other than a taking of property without due process of law.

Minimum wage legislation sought to help solve the living problem of an exploited group. Its proponents and the legislators enacting it were not aware that in the realm of ultimate legal verities this problem necessarily had to be linked—inseparably linked—with the problems of stabilizing industry, of control of the business cycle, and of security of profits. Indeed, they could hardly have been expected to be so aware, for no economist of standing, from the time of Adam Smith on, had thought of making the economic questions of living wages for workers and the depression and panic periods of the business cycle such inseparable parts of one specific problem that methods of alleviating one necessarily must involve alleviation of the other. The history of economic legislation in the United States is a story of attempts to control or change some aspect of the economic nexus without controlling or regulating every other condition or situation that may have a relationship to the object of control. Should the Federal Reserve System be condemned because it attempts to provide legitimate business enterprise with an adequate supply of credit but does not guarantee adequate wages to the workers? Should the recapture clause of the Esch-Cummins law have been denounced because financially weak railroad corporations, but not their employees, were singled out as immediate beneficiaries? Was the Reconstruction Finance Corporation of the 1930's a violation of the Fifth Amendment because it attempted to aid businesses with frozen assets but did not make immediately usable the asset of the unemployed worker—the services he was seeking to sell?

Moreover, it must be said that the economic theory underlying Justice Sutherland's denunciation of the minimum wage on the ground that it protected only one party to the wage contract was somewhat original. The reference to the "inexorable law that no one can indefinitely take out more than he puts in without ultimately exhausting the supply" presumably implied both some ascertainable measure of the value productivity of the workers and an assurance that payment to workers under the legal minimum wage system would exceed their value productivity, *i.e.*, that they would "take out" more than they "put in." But, as is

indicated a little later, nowhere does the decision clear away the clouds from the controverted field of wage theory by giving a formula for determining the value productivity of the workers, nor does it enlighten one as to the reasons for the Court's implied assurance that workers whose wages were raised were already being paid in accordance with their marginal value productivity (if the economist's concept of marginal productivity was what the Court meant when it referred to what the worker "puts in"). The general notion in the Court's mind—so far as one can judge—seems to have been that when application of the cost-of-living standard resulted in the payment of more than would have been required under the undefined value-of-service standard, the worker was taking out more than she put in, and the employer was being subjected to an arbitrary and constitutionally intolerable exaction. Yet the statute, to quote from the dissenting opinion of Justice Holmes, "does not compel anybody to pay anything. It simply forbids employment at rates lower than those fixed as the minimum requirement of health and right living. It is safe to assume that women will not be employed at even the lowest wages allowed unless they earn them, or unless the employer's business can sustain the burden." Those businesses not able to "sustain the burden" might, of course, be shoved across the marginal line and production thereby be concentrated in the more efficient plants, and to the majority of the Court this constituted taking property without due process.[1]

5. The fifth objection of the Court has already been touched upon. The statute made the basis for wage fixation not "the true moral requirement implicit in every contract of employment," the value of the worker's services, but rather the extraneous circumstances of the employee's needs. "The feature of this statute which, perhaps more than any other, puts upon it the stamp of invalidity is that it exacts from the employer an arbitrary . . . payment having no causal connection with his business or the contract or the work the employee engages to do. The declared basis . . . is not the value of the service rendered, but the extraneous circumstance that the employee needs to get a prescribed sum of money to insure her subsistence, health, and morals. . . . The moral requirement implicit in every contract of employment, *viz.*, that the amount to be paid and the service to be rendered shall bear to each other some relation of just equivalence, is completely ignored. . . . Certainly the employer, by paying a fair equivalent for the services rendered though not sufficient to support the employee, has neither caused nor contributed to her poverty. On the contrary, to the extent of what he pays, he has

[1] Incidentally, the decision makes no mention of the alternative that the employer could secure male employees not subject to the act. Throughout Justice Sutherland's decision there was the assumption that the statute compelled the employer to choose between extending charity (*i.e.*, paying them more than they "put in") or else abandoning his enterprise.

relieved it. . . . A statute requiring an employer to pay in money, to pay at prescribed and regular intervals, to pay the value of the services rendered, even with fair relation to the extent of the benefit obtained from the service, would be understandable. But a statute which prescribes payment without regard to any of these things and solely with relation to circumstances apart from the contract of employment, the business affected by it, and the work done under it, is so clearly the product of a naked, arbitrary exercise of power that it cannot be allowed to stand under the Constitution of the United States."

This portion of the decision is perhaps the most disconcerting in its economic analysis; but at the same time it is the portion in which proponents of minimum wage legislation thought they could discern a practical formula for the enactment of laws not repugnant to the Supreme Court majority. In part, the Court was rendering a moral judgment. It is immoral to require one to give something for nothing, and when the employer is required to pay more than the "worth" of the worker—to compensate in accordance with an "extraneous" factor such as the minimum cost of livelihood—he is made the victim of the immorality. But nowhere in the decision did Mr. Justice Sutherland define "worth" or "value." It is reasonable to suppose that his conception was not that of the Marxian socialist—that the whole of the product of industry is imputable to labor, that the full value of it, nothing less, should go to labor. Beyond this, however, one finds the Court's language savoring of an almost Oriental mysticism. It is, indeed, impossible to refrain from comment upon the processes of thought whereby minimum wage legislation was dismissed as impracticable, as impossible of administration with even proximate justice, and in almost the same breath legislative bodies were told that (if they regulated wages at all) they could require employers to pay only the "worth" of the workers. The mysticism of this part of the decision has become only more apparent as the years have passed, for in 1936, as is indicated later, Mr. Justice Sutherland and four of his colleagues refused to uphold a minimum wage law definitely incorporating his suggested "value-of-service" principle and reading into it such concreteness as Anglo-American law had developed in applying the standard of reasonableness. Some more ethereal conception of value evidently must have been in Mr. Justice Sutherland's mind.

Economic science has a plethora of wage theories, but Mr. Justice Sutherland did not state to which of them he adhered. Yet without some definition of "worth," the dictum becomes vague and meaningless. If the Court intended to confer judicial benediction upon the marginal-productivity analysis, then it was incumbent upon it to suggest some method whereby that portion of the value product of industry imputable to labor might be measured. No such excursion into the realm of mathematical and statistical economics is to be found in the decision. It

might seem, therefore, that the Court was saying, in substance, that whatever wages are fixed by forces other than state intervention must necessarily be the "just equivalent" of the worker's services. But if this is what was meant, why was it in point to suggest that a statute requiring the employer to pay the value of services rendered "would be understandable"?[1]

Nor is it easy to discover consistency in the attack upon the statute because it directed consideration of the "extraneous circumstance" of employee needs. Elsewhere in the decision, as has already been indicated,[2] the Court criticized the statute because it took "no account of any independent resources she [the worker] may have" or of such factors as individual temperament, habits of thrift, care, ability to buy necessaries intelligently, and whether the woman lived alone or with her family. Surely the fact of independent resources or of the possibility of support from others is as "extraneous"—as much a thing "arising outside the employment"—as is the necessity to receive a certain amount to maintain health and protect morals. In one part of the decision the Court condemned the statute because it did not take into account factors extraneous to the employment; in another part, it condemned the statute because it did take an extraneous factor into account. Finally, it may be recorded that socially intelligent men and women have found it hard to be restrained in their language when they have discussed the Court's additional observation that "certainly the employer, by paying a fair equivalent for the service rendered, though not sufficient to support the employee, has neither caused nor contributed to her poverty. On the contrary, to the extent of what he pays her, he has relieved it." Carried to its logical conclusion, this judgment would imply that wages savor of a gracious bounty, "that somehow the Constitution entitles the employer to such benefits as he may derive from the independent resources of women employees,"[3] and that the necessity of supporting all of industry's wage earners somehow and the parasitic character of those industries not doing their share are not matters of concern in the field of common control of labor conditions.

[1] Also, it is rather difficult to reconcile the Court's condemnation of minimum wage legislation with its qualified approval of trade unionism. "The ethical right of every worker, man or woman, to a living wage may be conceded. One of the declared and important purposes of trade organization is to secure it. And with that principle, and with every legitimate effort to realize it in fact, no one can quarrel." This would seem to imply that the Court sought to differentiate between increases in wages brought about by labor organization and those coming in consequence of legislation. Yet why does one secure that vague "just equivalence" any more than does the other? In both cases, the employer is legally free to refrain from hiring, and the best evidence of "just equivalence" in both cases presumably is the fact that the employer prefers to make the wage bargain rather than to make no bargain at all.

[2] *Supra*, p. 335.

[3] Thomas Reed Powell, *op. cit.*, p. 565.

6. To constitute a proper exercise of the police power, a regulatory measure must, of course, produce socially beneficial results, but the Supreme Court majority held that in the case of the legal minimum wage such results could not be proved conclusively. "It is said that great benefits have resulted from the operation of such statutes. . . . A mass of reports, opinions of special observers and students of the subject, and the like has been brought before us in support of this statement, all of which we have found interesting but only mildly persuasive." On the contrary, increases in the earnings of women workers "may be, and quite probably are, due to other causes." The Court—granting the competency of its members to appraise and evaluate such material—presumably was within its rights in finding "interesting but only mildly persuasive" the evidence of some of the most competent statisticians, economists, and social workers in the United States.[1] But why should the Court have felt under compulsion to decide whether it believed the law to be good or bad, and to make its own belief the criterion of constitutionality? The evidence as to good effects was abundant enough, as Justice Holmes pointed out in his dissent, to establish that the members of Congress might as reasonable men have assumed the legislation to be desirable. The Supreme Court could very well have decided upon this ground, instead of upon the ground of its own social and economic views. The words of Justice Holmes merit quotation: "When so many intelligent persons, who have studied the matter more than any of us can, have thought that the means are effective and are worth the price, it seems to me impossible to deny that the belief reasonably may be held by reasonable men. . . . The criterion of constitutionality is not whether we believe the law to be for the public good. We certainly cannot be prepared to deny that a reasonable man reasonably might have held that belief in view of the legislation of Great Britain, Victoria, and a number of the States of this Union. The belief is fortified by a very remarkable collection of documents submitted on behalf of the appellants, material here, I conceive, only as showing that the belief reasonably may be held."[2]

[1] The decision, it may be remarked, hardly refers to any evidence adverse to the social consequences of the legal minimum wage. The Court was impressed by the fact that one Miss Lyons lost her job in alleged consequence of the operation of the system, but beyond this it merely expressed doubt as to the convincing character of the evidence and observed (not entirely correctly) that the period since enactment of the District of Columbia law had been one of "maximum employment," when "no real test of the economic value of the law can be had."

[2] And Chief Justice Taft, with the concurrence of Justice Sanford, observed: "Now I agree that it is a disputable question in the field of political economy how far a statutory requirement of maximum hours or minimum wages may be a useful remedy for these evils of long hours and sweating. But it is not the function of this Court to hold congressional acts invalid simply because they are passed to carry out economic views which the Court believes to be unwise and unsound."

7. Finally, the Court condemned the legislation on the ground that the power to fix minimum wages connoted power to fix maxima, thus widening the police power "to a great and dangerous degree." Little comment needs be added to Chief Justice Taft's answer to the majority on this point. "This, I submit, is a *non sequitur*. A line of distinction like the one under discussion in this case is, as the opinion elsewhere admits, a matter of degree and practical experience, and not of pure logic. Certainly the wide difference between prescribing a minimum wage and a maximum wage could as a matter of degree and experience be easily affirmed." The majority, however, seemed to be unaware that the function of the minimum wage—prevention of destitution and pauperism—is entirely unrelated to whatever functions a maximum wage might have; and the reasoning implied an astounding incapacity on the part of the Court to make distinctions of degree and to apply the tests of practical results, thus preventing the pushing of any rule or principle beyond the limits of wisdom and expediency.

The New York Law Decision of 1936: "Reasonable-value" Laws and the Court.—The story of the attempt during the 1930's to circumvent the objections of the Court majority to minimum wage legislation, as set forth in the decision just discussed, and particularly to draft the kind of laws Mr. Justice Sutherland had said "would be understandable," has already been told.[1] The comedy—or tragedy—of errors[2] leading to

[1] *Supra*, pp. 318-323.

[2] The phrase "comedy—or tragedy—of errors" is not used captiously or inadvisedly. The judicial invalidation of the New York law was the culmination of errors, both within and without the Court, that appear ironical in view of the fact that less than one year later the Court sustained one of the original minimum wage acts. In the first place, the Attorney General of New York did not ask for a reconsideration of the Adkins precedent (which the Court less than twelve months later granted and decided favorably to the legislation), but appealed from the New York Court of Appeals upon the ground that there was a substantive difference between laws of the earlier type and those like the New York statute of 1933. The Attorney General used the strategy obviously dictated by the only facts of which he (or anyone else) could have been aware in 1936, for it was believed that the Adkins precedent still obtained, and that the hope of a sustaining decision lay in pointing out that the New York statute differed in substance from the one invalidated in 1923. The newer laws had been expressly drafted with the purpose of meeting the objection of the Court majority to the living-wage principle. Nevertheless, the personnel of the Court was the same in 1937 as it had been in 1936, and Mr. Justice Roberts voted to sustain the Washington living-wage statute. Unless his views changed between June, 1936, and March, 1937, he would presumably have voted to overrule the Adkins precedent in 1936, and if the Court had been asked to do this the New York statute might therefore have been upheld. In the second place, there was an error—pointed out by Chief Justice Hughes and discussed later—in the New York Court of Appeals conclusion that the wages fixed under the New York statute had to be based upon the living-wage principle. In the third place—again for reasons discussed in the following pages—there was apparently an erroneous conception on the part of the Supreme Court majority of just what the New York Court of Appeals was construing when it held that the New York wage fixations had to be based upon the living-wage principle. As the Chief Justice said, the New York

invalidation of one of these newer laws, the New York "value of service" statute, and the reasoning of the Court in the 1936 case[1] should be examined at this point, however, before we turn to the decision in which minimum wage legislation at last experienced judicial vindication.

The basic question upon which the 1936 case turned was not that of the soundness of the Adkins decision or the willingness of the Supreme Court to reverse itself, but rather that of the substantive differences, if any, between the statutes under consideration in the two cases. New York State did not specifically ask for reconsideration of the constitutional question decided in the Adkins case, but appealed on the ground that the statutes were vitally dissimilar; and in accordance with the Supreme Court custom that review granted shall be no broader than that sought by the petitioner, the Court majority, in the opinion written by Mr. Justice Butler, declared itself to be confined to the question of whether the standard of wage fixation in the new laws was materially different from

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court was really construing, not a statute of its own state, but a decision of the United States Supreme Court (the Adkins decision), and the majority of that Court in 1936 therefore did not have to decide the point at issue—whether there was a real difference between the two statutes—solely upon the ground that the interpretation placed upon a state statute by the highest court of that state must be accepted by the United States Supreme Court.

[1] *Morehead v. People ex rel. Tipaldo*, 298 U. S. 570, 56 Sup. Ct. 918. One Tipaldo, owner and manager of a Brooklyn laundry, was convicted of paying women employees less than the mandatory minimum that had been established. No denial of this allegation was made, the case in both the state courts and the Supreme Court of the United States being predicated upon the contention that the New York statute of 1933 was repugnant to the due process clause (Article 1, Section 6), of the Constitution of the State of New York, and to the due process clause of the Fourteenth Amendment of the Constitution of the United States. On March 3, 1936, the New York Court of Appeals (the highest state court), held the law to be unconstitutional on the basis of the Adkins precedent, the three dissenters, for whom Judge Lehman spoke, accepting the Adkins ruling "in all its implications" but discovering substantive differences between the District of Columbia and the New York statutes and the majority of four holding that the supplementing of the living-wage standard with the value of services standard was "a difference in phraseology and not in principle." Appeal was taken by the Attorney General of New York to the Supreme Court of the United States, where the case was decided on June 1, 1936. Briefs *amici curiae* in support of the appeal were filed by the City of New York and the State of Illinois. Briefs on the merits, supporting the New York law, were filed by the States of Ohio, Connecticut, Illinois, Massachusetts, New Hampshire, New Jersey, and Rhode Island. Briefs of affirmance (*i.e.*, briefs against the merits and constitutionality of the act) were filed by the New York State Hotel Association, the National Women's Party, the National Association of Women Lawyers, and other organizations. As has already been said, the case resulted in another of the five-to-four Supreme Court divisions, Justices Butler, Sutherland, McReynolds, VanDevanter, and Roberts holding the New York law to be unconstitutional and Chief Justice Hughes and Justices Stone, Brandeis, and Cardozo dissenting on the ground that the New York statute was materially different from the District of Columbia statute invalidated in the Adkins case. Justices Stone, Brandeis, and Cardozo also rendered a second dissenting opinion, setting forth the view that even if there were no material difference between the two statutes, the authority of the Adkins decision should be overruled.

that provided for in the laws enacted during the first period of American minimum wage legislation.[1] Nevertheless—and inevitably—all members of the Supreme Court did reconsider the Adkins ruling, in spite of the declaration that such reconsideration was irrelevant. The majority opinion, after reaching the conclusion that no material difference existed between the District of Columbia and the New York statutes, developed a vigorous defense of the "soundness" of the Adkins principles, while the dissenting opinions of both Chief Justice Hughes and Justice Stone affirmed once more the vital public concern in the wages and conditions of employment of women which had been a fundamental issue in the 1923 case. It is convenient first to examine the reasoning whereby five members of the Court reached the conclusion that incorporation of the "value-of-service" standard had not circumvented the earlier objections, and then to consider briefly the Court's 1936 objections to minimum wage legislation as a social and economic institution.

The conclusion that the standard of wage fixation in the New York law did not differ materially from that of the District of Columbia statute was based chiefly upon the rather narrowly legalistic ground that the Supreme Court is without power to put a different construction upon a state enactment from that adopted by the highest court of the state, and that the New York Court of Appeals had already decided—against the contention of the Attorney General of the State—the statute required fixation of the minimum wage rates upon the unconstitutional living-wage basis as well as upon the value of service basis. "The minimum wage must include both [standards]. What was vague before has not been made any clearer. Forcing the payment of wages at a reasonable value does not make inapplicable the principle and ruling of the Adkins case."[2] Since the highest state court had so decided, the contention of the Attorney General that the construction was erroneous and that the standard of wage fixation included only the fair-value principle could not be entertained.[3] "This Court is without power to put a different construction upon the state enactment from that adopted by the highest court of the

[1] "No application has been made for reconsideration of the constitutional question there [in the Adkins case] decided. The validity of the principles upon which that decision rests is not challenged. This court confines itself to the ground upon which the writ [of *certiorari* to the Supreme Court] was asked or granted."

[2] Quoted by Mr. Justice Butler from the New York Court of Appeals decision.

[3] The petitioner (the Attorney General) contended in the brief submitted to the Supreme Court that the statement in the New York Court of Appeals decision that "one of the elements, therefore, in fixing the fair wage is the very matter which was the basis of the congressional act" carried the Court's misconception of the statute. "It is a basic misconception. From it flows the erroneous conclusion of the Court of Appeals that there exists no material difference between the two statutes. . . . These two factors *do not* enter into the determination of the minimum '*fair wage*' as in the statute defined. . . . The only basis for evaluating and arriving at the 'fair minimum wage' is the fair value of the services rendered."

State. . . . The meaning of the statute as fixed by its decision must be accepted here as if the meaning had been specifically expressed in the enactment. Exclusive authority to enact carries with it final authority to say what the measure means. The standard of 'minimum fair wage rates' for women workers to be prescribed must be considered as if both elements—value of service and living wage—were embodied in the statutory definition itself. As our construction of an Act of Congress must be deemed by state courts to be the law of the United States, so this New York Act as construed by her court of last resort must be taken to express the intention and purpose of her lawmakers."[1] Since the statute as construed by the highest New York court included the living-wage standard as well as the value of service standard, "the state court rightly held the Adkins case controls this one and required that realtor be discharged upon the ground that the legislation under which he was indicted and imprisoned is repugnant to the due process clause of the Fourteenth Amendment. . . . If the State has power to single out for regulation the amount of wages to be paid women, the value of their services would be a material consideration. But the fact has no relevancy upon the question whether the State has any such power. And utterly without significance upon the question of power is the suggestion that the New York prescribed standard includes value of service with cost of living whereas the District of Columbia standard was based upon the latter alone."

Several observations must be made. (1) In the first place, it can be stated with certainty and without qualification that the construction placed by the New York Court of Appeals majority upon the statutory definition of the minimum wage to be prescribed was erroneous. An "unreasonable and oppressive" wage was defined as one that was both less than a fair and reasonable value of services and less than sufficient to meet the minimum cost of living necessary for health; a "fair" wage was defined as one fairly and reasonably commensurate with the value of service or class of service rendered. In order for the Commissioner of Labor to have jurisdiction and be authorized to prescribe wage minima, it was necessary that the fact of "oppressive and unreasonable" wages (*i.e.*, the presence of both elements) be established; but the wages prescribed were to be "fair" wages as defined in the statute—*i.e.*, wages fairly and reasonably commensurate with the value of services rendered. The wage boards, in other words, were directed by the statute to recommend *only* wages commensurate with the value of services after investigation had revealed that a substantial number of women and minors were receiving wages that were *both* less than this value and less than enough

[1] Cited in support of the position taken that the Supreme Court had to accept the construction placed upon a state statute by the highest court of the state were *Knights of Pythias v. Meyer*, 265 U. S. 30; *Jones v. Prairie Oil Co.*, 273 U. S. 195; *International Harvester Co. v. Kentucky*, 234 U. S. 216; and *Green v. Lesee of Neal*, 6 Pet. 291.

to meet the minimum cost of living necessary for health. This was the construction of Chief Justice Hughes and of Justices Stone, Brandeis, and Cardozo, and it appears to be the only one justified by a reading of the plain words of the statute.[1] (2) In the second place, the refusal of the Supreme Court majority to question the construction placed upon the definition of a fair minimum wage by the New York Court of Appeals deserves a word of comment. There is, as all students of constitutional law know, precedent for the position that the Supreme Court is without power to put upon a state enactment a construction different from that adopted by the highest court of the state. What Justice Butler and his four concurring colleagues seem not to have taken into account, however, was the fact that the state court, in reaching its conclusion as to the dual character of the prescribed standard, was construing the opinion of the United States Supreme Court in the Adkins case, and was deeming that ruling applicable in the case under consideration. The construction that a state court puts upon a decision of the United States Supreme Court is not binding upon the latter body. To quote Chief Justice Hughes: "When the opinion of the state court goes beyond the statement of the provisions of the act, and says that the setting up of such a standard does not create a material distinction when compared with the Act of Congress in the Adkins case, the state court is not construing the state statute. It is passing upon the effect of the difference between the two acts from the standpoint of the Federal Constitution. It is putting aside an admitted difference as not controlling. It is holding . . . that 'forcing payment of wages at a reasonable value does not make inapplicable the principle and ruling of the Adkins case.' That, it seems to me, is clearly a federal and not a state question." (3) In the third place, it is not irrelevant to raise the question of why the court could not have sustained the "reasonable-value" element of the standard of wage determination, even though the other element (the living-wage principle) could not be tolerated under the Constitution of the United States. It will be noted that the Court did not specifically rule upon the constitutionality of a statute requiring merely the payment of wages at fair value; it accepted the conclusion—an erroneous conclusion, as already stated—of the state court that the statute whose constitutionality was

[1] As the Chief Justice expressed it in his dissenting opinion: "The statute . . . provides in explicit terms that the 'fair wage' which is to be prescribed is one that is 'fairly and reasonably commensurate with the value of service or class of service rendered'. . . . The constitutional validity of a minimum wage statute like the New York act has not heretofore been passed upon by this Court. . . . The required correspondence of the prescribed 'fair wage' to the reasonable value of the service which the employee performs stands out as the essential feature of the statutory plan. The statute for the District of Columbia which was before us in the Adkins case did not have that feature. . . . New York and other States have been careful to adopt a different and improved standard, in order to meet the objection aimed at the earlier statutes, by requiring a fair equivalence of wage and service."

challenged included both the fair value and the living wage standards, and it sustained that court in holding the statute unconstitutional *en toto* (except as applied to minors) because of its alleged inclusion of both elements. Even if the statute had required the wage boards to apply the living-wage principle as well as the fair-value principle in setting minima (which it did not do), it still would not have been gratuitous for the Supreme Court to have pointed out that the fair-value element could stand under the Constitution of the United States, in spite of the fact that the other element could not. Such a declaration would, after all, have been merely a reiteration of the 1923 declaration of Mr. Justice Sutherland (who concurred in Mr. Justice Butler's 1936 opinion) that "a statute requiring an employer to pay . . . the value of the services rendered . . . would be understandable." (4) Finally, the observation made in the discussion of the Adkins ruling may be repeated: that even basing wages upon the living-wage principle does not force payment of more than the workers are worth, since the employer presumably will not hire them or keep them unless they are worth what he must pay them. The best evidence of "just equivalence" is the fact that the employer prefers to make the wage bargain rather than to make no bargain at all. It is sufficient to quote the words of Mr. Justice Stone: "I attach little importance to the fact that the earlier statute was aimed at a starvation wage and that the present one does not prohibit such a wage unless it is also less than the reasonable value of the service. Since neither statute compels employment at any wage, I do not assume that employers in one case, more than in the other, would pay the minimum wage if the service were worth less."

The portions of the decision other than those denying the State's contention that the New York law differed materially from the one held unconstitutional in the Adkins case were, for the most part, a reiteration of the earlier objections to minimum wage legislation; and they may be treated very briefly.[1] Freedom of contract is the general rule and restraint the exception. While physical differences between men and women must be recognized in proper cases and legislation fixing hours or conditions of work may properly take them into account, the Adkins ruling that "we cannot accept the doctrine that women of mature age, *sui juris*, require or may be subjected to restrictions upon their liberty of contract which could not lawfully be imposed in the case of men under similar circumstances" still stands. The dominant issue in the Adkins case was whether Congress had power to establish minimum wages for women workers, and that decision "and the reasoning upon which it

[1] Possibly it is unnecessary to call attention to the fact that this reiteration was largely gratuitous, since the Court had not been asked to reconsider the Adkins decision but merely to decide whether the New York statute was materially different from the District of Columbia one, and it had already answered that question in the negative.

rests clearly show that the State is without power by any form of legislation to prohibit, change, or nullify contracts between employers and adult women as to the amount of wages to be paid." The objections specifically applicable to the requirement that the minimum wages prescribed be adequate to supply the necessary cost of living set forth in the earlier decision—the vagueness of the living-wage standard, the fact that account was taken by the legislators of the necessities of the workers but not of those of the employer, the inclusion of the "extraneous" circumstance of employee needs, and the other objections postulated in 1923—were also applicable to the New York statute, since the contention of the petitioner that this law should be tested as if it did not include the cost of living standard, but only that of value of service, "plainly . . . is untenable."[1] The legislative declaration of the social necessity for this legislation, embodied in the "Factual Background" section of the act, really proved not the reasonableness of such interference but rather its arbitrary character, since "much, if not all that . . . is said in justification of the regulations that the act imposes in respect of women's wages applies with equal force in support of the same regulation of men's wages. . . . Men in need of work are as likely as women to accept the low wages offered by unscrupulous employers. . . . It is plain that under circumstances such as those portrayed in the 'Factual Background,' prescribing of minimum wages for women alone would unreasonably restrain them in competition with men and tend arbitrarily to deprive them of employment and a fair chance to find work."[2]

[1] "Plainly untenable" because, as has already been indicated, the state court majority construed the definition of a fair minimum wage to include the cost of living element (which it did not) and the Supreme Court majority held that it must accept the construction of the state court.

[2] The dialectics by which Mr. Justice Butler reached the conclusion that the "Factual Background" section of the law proved just the opposite of what the legislators thought it proved were, it has to be said, not of a high grade. He quoted from the "Factual Background" of the statute under consideration and also from that of another bill passed by the New York legislature in 1933 and submitted to the governor contemporaneously for signature, and latter measure applying to men as well as to women. The "Factual Backgrounds" in the two laws were much the same, and from this fact was made the deduction that it is arbitrary to apply wage regulation to women but not to men. The 1933 act applicable to men, vetoed by Governor Lehman, was intended as a temporary measure, but its unconstitutionality in the light of the decisions on hours regulation for men was obvious. It was never supported by the National Consumers League or other groups active in the minimum wage movement. The fact that the drafters of this bill included in their statement of findings and recitals of economic fact allusion to the same forces making for exploitation that were alluded to in the act applicable only to women does not at all mean that these forces do not operate much more powerfully in the case of women than in the case of men. Mr. Justice Butler relied upon a similarity of verbage in two bills, one of which never became law, to prove the arbitrary character of a minimum wage law applicable only to women workers, ignoring the evidence of decades as to the weakness of women as bargainers and the social concern in their receipt of living wages.

Once more a few observations must be made. (1) The objections raised by the Supreme Court majority, as has already been noted, were much the same as those set forth in the Adkins opinion, and the implication of them all is that the contract of employment cannot be regulated, so far as its wage aspect is concerned, as can other contracts. Prior to the Tipaldo decision the Supreme Court had upheld a type of price control—New York State's minimum price regulation in the milk industry[1]—infringing certainly as much upon freedom of contract as did the minimum wage law. Both attempted to regulate prices. The difference was that one regulated the price of labor, the other the price of a commodity. Why cannot the former be regulated—especially when the regulation is limited to women workers, whom evidence has abundantly proved to be weak bargainers, frequently receiving a wage bearing little relation to either their needs or their value productivity—when the latter can? The majority opinion in the 1936 minimum wage case merely reiterated the doctrine that "freedom of contract is the general rule" and developed the thesis that women would be subjected to arbitrary discrimination were their wages, but not those of adult males, made the subject of regulation. Perhaps the answer to the question is to be found in the dissenting opinion of Mr. Justice Stone: "It is difficult to imagine any grounds, other than our own personal economic predilections, for saying that the contract of employment is any less an appropriate subject of legislation than are scores of others, in dealing with which this Court has held that legislatures may curtail individual freedom in the public interest. . . . No one has yet attempted to say upon what basis of history, principles of government, law, or logic it is within due process to regulate the hours and conditions of labor of women, but that regulation of the amount of the wage passes beyond the constitutional limitation; or to say upon what theory the amount of a wage is any less the subject of regulation in the public interest than that of insurance premiums, . . . commissions of insurance brokers, or of the charges of grain elevators, or the price which the farmer receives for his milk, or which the wage earner pays for it."

[1] *Nebbia v. New York*, 291 U. S. 537. In this decision the Court held: "So far as the requirement of due process is concerned, and in the absence of other constitutional restriction, a State is free to adopt whatever economic policy may reasonably be deemed to promote public welfare, and to enforce that policy by legislation adapted to its purpose. The courts are without authority either to declare such policy, or, when it is declared by the legislature, to override it. If the laws passed are seen to have a reasonable relation to a proper legislative purpose and are neither arbitrary nor discriminatory, the requirements of due process are satisfied and judicial determination to that effect renders a court *functus officio*." That declaration and decision, it was urged strongly by Mr. Justice Stone in his dissenting opinion, should have controlled the minimum wage case. He said: "They are irreconcilable with the decision and most of what was said in the Adkins case. They have left the Court free of its restriction as a precedent and free to declare that the choice of the particular form of regulation by which grave economic maladjustments are to be remedied is for legislatures and not for courts."

(2) In the second place, the Court majority's treatment of the "Factual Background" of the act cannot escape comment. The statute itself recited the social and economic conditions to which exercise of the protective power of the state was addressed, and a voluminous factual brief showing from official statistics that these recitals had abundant support was submitted by the Attorney General.[1] Except for the already-mentioned declaration that the "Factual Background" of the act really proved not the reasonableness of such interference but rather its arbitrary and discriminatory character, the evidence as to economic and social need for the legislation received scant consideration from the majority of the Court. It is necessary only to quote the words of Chief Justice Hughes: "We are not at liberty to disregard these facts. We must assume that they exist and examine respondent's argument from that standpoint. That argument is addressed to the fundamental postulate of freedom of contract. I think that the argument fails to take account of established principles and ignores the historic relation of the State to the protection of women." (3) In the third place, the refusal once more of the Court to differentiate between the social necessity of protecting women and men must be noted. The legal and economic implications—and even some of the psychological implications—of the attitude of the Court majority toward the extension of special protection to women were considered in our discussion of the Adkins decision, and it is sufficient here to record the answer of the Chief Justice on this point: "When there are conditions which specially touch the health and well-being of women, the State may exert its power in a reasonable manner for their protection, whether or not a similar regulation is, or could be, applied to men. . The distinctive nature and function of women—their particular relation to the social welfare—has put them in a separate class. This separation and corresponding distinctions in legislation is one of the outstanding tradi-

[1] The factual brief submitted was a well-organized and extremely complete presentation of the economic and social necessity for minimum wage legislation. Statistics from various official sources showing the increasing number of wage-earning women and the predominance of necessity to support themselves and their dependents as the reason for their gainful employment were given; data from the reports of the Women's Bureau of the United States Department of Labor showing such discrepancies and variations in wages paid for identical work as to indicate little relationship existed between the value of services rendered and wages paid were included; and evidence was submitted that working women are largely unorganized and that their bargaining power is relatively weak. The seriousness of the social problem was also presented in the factual brief, which cited inquiries by the New York State Department of Labor in cooperation with the Emergency Relief Bureau of New York City disclosing the large number of women employed in industry whose wages were insufficient to support themselves and those dependent upon them. The weight of the resulting burden upon the relief funds and the necessity for taking reasonable measures to reduce it, in the light of the enormous annual budgetary appropriation for the Department of Public Welfare of New York City, were exhibited in a brief filed by the Corporation Counsel of the City as an *amicus curiae*.

tions of legal history. The Fourteenth Amendment found the states with that protective power and did not take it away or remove the reasons for its exercise."

The Ultimate Declaration of Constitutionality: The 1937 Decision.—In the preceding pages, emphasis has been placed upon the dissenting opinions as well as upon those of the Court majority. Such emphasis was not only permissible, but imperative. The legal and social philosophy and the conception of the judicial function of three or four of the justices in the past necessarily must be placed in rather sharp juxtaposition to the dicta of the conservative majority if the basic clash between fundamentalist legal formalism, on the one hand, and an interpretation of broad constitutional provisions in the realistic light of existent social and economic conditions, on the other, is to be brought into clear relief. Moreover, the heretofore minority viewpoint on the constitutional questions to which minimum wage legislation has given rise has, at last, become the majority viewpoint. The decision of 1937,[1] in which for the first time a majority of the Court voted to sustain one of the original minimum wage statutes, and specifically declared that "the decision in the Adkins case was a departure from the true application of the principles governing the regulation by the state of the relation of employer and employed," is of such importance that it should be summarized in detail, even though the basic conceptions embodied in it have appeared in the already discussed dissenting opinions.[2] It will be convenient to divide the

[1] *West Coast Hotel Co. v. Parrish and Parrish*, 300 U. S. 379. The statute in question was the Washington state minimum wage law of 1913 [Laws of 1913 (Washington) Chap. 174. Remington's Rev. Stat. (1932) Sec. 7623 *et seq.*]. As was stated earlier, this act was on the statutes, and more or less enforced, during the whole period following its enactment, including the post-1923 years when the Adkins decision expressed established precedent. The appellee, Elsie Parrish, a chambermaid employed in a hotel, brought suit to recover the difference between the wages paid her and the minimum wage fixed pursuant to the state law ($14.50 for a week of forty-eight hours). The act was thereupon challenged as repugnant to the due process clause of the Fourteenth Amendment. The Supreme Court of Washington reversed the judgment of the trial court, sustaining the statute and directing a judgment for the plaintiff. The case then was appealed to the Supreme Court of the United States, where a decision was rendered on Mar. 29, 1937. Chief Justice Hughes wrote the majority opinion, in which Justices Brandeis, Cardozo, Roberts, and Stone concurred. The dissenters were Justices Sutherland, Butler, VanDevanter, and McReynolds.

[2] Of the dissenting opinion in this case, written by Mr. Justice Sutherland, little will be said in these pages. For the most part, the opinion consisted of a reiteration of the Adkins dicta. In a little more detail, the dissenting opinion included these arguments or theses: (1) A dissertation upon the nature of the judicial function. Rational doubts are to be resolved in favor of the constitutionality of a statute. "But whose doubts, and by whom resolved?" It is the duty of a member of the Court "to give due weight to the opposing views of his associates; but in the end the question he must answer is not whether such views seem sound to those who entertain them, but whether they convince him that the statute is constitutional or engender in his mind a rational doubt upon that issue. . . . The suggestion that the only check upon the exercise of the judicial power, when properly

decision, for purposes of the present discussion, into five main arguments or lines of thought, and to consider them in the order here enumerated: (1) The Court's discussion of the general nature of liberty, of due process, and of freedom of contract, and of the application of the principles enunciated to the employment relationship. (2) The development of the thesis that special protection may be extended to women but not to men with-

invoked, to declare a constitutional right superior to an unconstitutional statute is the judge's own faculty of self-restraint is both ill considered and mischievous. Self-restraint belongs to the domain of the will and not of judgment. The check upon the judge is that imposed by his oath of office, by the Constitution, and by his own conscientious and informed convictions; and since he has the duty to make up his own mind and adjudge accordingly, it is hard to see how there could be any other restraint." (2) A denial that changing economic conditions make reasonable restraints that were once arbitrary. "It is urged that the question involved should now receive fresh consideration, among other reasons, because of the economic conditions which have supervened'; but the meaning of the Constitution does not change with the ebb and flow of economic events." (3) A declaration that the alleged beneficial consequences of minimum wage legislation are irrelevant to the question of constitutionality. "In support of minimum-wage legislation it has been argued, on the one hand, that great benefits will result in favor of underpaid labor, and on the other hand, that the danger of such legislation is that the minimum will tend to become the maximum, and thus bring down the earnings of the more efficient toward the level of the less efficient employees. But with these speculations we have nothing to do. We are concerned only with the question of constitutionality." (4) Finally a reiteration—sometimes verbatim—of the Adkins dicta. (*a*) Freedom of contract is the general rule. (*b*) Regulation of hours is regulation of only an incident of the employment relationship, and leaves the employer free to equalize the burdens by adjustment of wages. "Statutes of the former class [those limiting hours of work] deal with an incident of the employment having no necessary effect upon wages." (*c*) The minimum established need have no relationship to the value of services rendered or to surrounding conditions of employment. "Neither the statute involved in the Adkins case nor the Washington statute, so far as it is involved here, has the slightest relation to the capacity or earning power of the employee, to the number of hours which constitute the day's work, the character of the place where the work is to be done, or the circumstances or surroundings of the employment." (*d*) The amount necessary to maintain health and morals is not a precise and unvarying sum. "As we pointed out at some length in that case [the Adkins case], the question thus presented for determination to the board cannot be solved by any general formula, prescribed by a statutory bureau, since it is not a composite but an individual question to be answered for each individual considered by herself." (*e*) Women have the same legal and political rights as have men, and cannot be subjected to limitations upon their freedom of contract that could not also be placed upon men. "The common-law rules restricting power of women to make contracts have, under our system, long since practically disappeared. Women stand today upon a legal and political equality with men. There is no longer any reason why they should be put in different classes in respect of their legal rights to make contracts; nor should they be denied in effect the right to compete with men for work paying lower wages which men may be willing to do. And it is an arbitrary exercise of legislative power to do so." (*f*) The argument that the legislature is free to recognize degrees of harm from social conditions is not tolerable. "An appeal to the principle that the Legislature is free to recognize degrees of harm and confine its restrictions accordingly is but to beg the question, which is—since the contractual rights of men and women are the same, does the legislation here involved, by restricting only the rights of women to make contracts as to wages, create an arbitrary discrimination? We think it

out violating the due process principle. (3) The removal from prevailing Supreme Court precedent of the distinction drawn by the majority in the Adkins case between the reasonableness of limiting hours and of fixing wage minima. (4) The relegation to innocuous desuetude of Mr. Justice Sutherland's thesis that the living wage principle is intolerable because the amount necessary for livelihood may not exactly equate "value of service." (5) The elucidation of the social and economic conditions making the establishment of legal wage minima a proper exercise of the police power.

1. The vigorous language of Chief Justice Hughes in setting forth the position of the majority on the general nature of liberty, of due process, and of the reasonableness of interference may be quoted directly. "The violation alleged by those attacking minimum wage regulation for women is deprivation of freedom of contract. What is this freedom? The Constitution does not speak of freedom of contract. It speaks of liberty and prohibits the deprivation of liberty without due process of law. In prohibiting that deprivation, the Constitution does not recognize an absolute and uncontrollable liberty. Liberty in each of its phases has its history and connotation. But the liberty safeguarded is liberty in a social organization which requires the protection of law against the evils which menace the health, safety, morals, and welfare of the people. Liberty under the Constitution is thus necessarily subject to the restraints of due process, and regulation which is reasonable in relation to its subject and is adopted in the interests of the community is due process. This essential limitation of liberty in general governs freedom of contract in particular. . . . 'Liberty implies the absence of arbitrary restraint, not immunity from reasonable regulations and prohibitions imposed in the interests of the community.'" This principle of reasonable regulation and prohibition applies to the employment relationship, as well as to other contractual relationships. "The point that has been strongly stressed that adult employees should be deemed competent to make their own contracts was decisively met nearly forty years ago in *Holden v. Hardy*,

does." (*g*) In general, difference in sex affords no basis for restricting freedom of contract of women. "Difference of sex affords no reasonable ground for making a restriction applicable to the wage contracts of all working women from which like contracts of all working men are left free. Certainly a suggestion that the bargaining ability of the average woman is not equal to that of the average man would lack substance. The ability to make a fair bargain, as every one knows, does not depend upon sex." (*h*) The power to fix a minimum wage connotes power to fix a maximum wage. "A statute absolutely fixing wages in various industries at definite sums and forbidding employers and employees from contracting for any other than those designated would probably not be thought constitutional. It is hard to see why the power to fix minimum wages does not connote a like power in respect of maximum wages, and yet, if both powers be exercised in such a way that the minimum and maximum so nearly approach each other as to become substantially the same, the right to make any contract in respect of wages will have been completely abrogated."

where we pointed out the inequality in the footing of the parties. . . . And we added that the fact 'that both parties are of full age and competent to contract does not necessarily deprive the state of the power to interfere, where the parties do not stand upon an equality, or where the public health demands that one party to the contract shall be protected against himself.'"

2. Contrary to the Adkins ruling that "women of mature age, *sui juris*, may not be subjected to restrictions upon their liberty of contract which could not lawfully be imposed in the case of men under similar circumstances," the established precedent both before and after the Adkins decision has been that woman may be "properly placed in a class by herself, and legislation designed for her protection may be sustained, even when like legislation is not necessary for men, and could not be sustained.[1] . . . The argument that the legislation in question constitutes an arbitrary discrimination because it does not extend to men is unavailing. This Court has frequently held that the legislative authority acting within its proper field is not bound to extend its regulation to all cases which it might possibly reach. The Legislature is 'free to recognize degrees of harm and it may confine its restrictions to those classes of cases where the need is deemed to be clearest.' If 'the law presumably hits the evil where it is most felt, it is not to be overthrown because there are other instances in which it might have been applied.' There is no doctrinaire requirement that the legislation should be couched in all-embracing terms. This familiar principle has repeatedly been applied to legislation which singles out women, and particular classes of women, in the exercise of the state's protective power."

3. The majority distinction, drawn in the Adkins decision, between the reasonableness of limiting hours and the reasonableness of fixing wage minima was erroneous. Quoting with approval the Holmes observation that the dissenting justice of 1923 could "perceive no difference in the kind or degree of interference with liberty, the only matter with which we have any concern, between the one case [limitation of hours] and the other [fixation of wage minima]," and the Taft comment that "in absolute freedom of contract the one term is as important as the other," Chief Justice Hughes said: "The validity of the distinction made by the Court between a minimum wage and a maximum of hours in limiting liberty of contract was especially challenged [in the Adkins case]. That challenge persists and is without any satisfactory answer."

4. The fact that the statute did not require payment according to "value of service," as Justice Sutherland had said in the Adkins opinion (and said again in his dissenting opinion in the 1937 case[2]) a minimum

[1] From *Muller v. Oregon*, 208 U. S. 412, quoted by Chief Justice Hughes in the decision here under consideration.

[2] *Supra*, pp. 351–352, footnote 1.

wage statute must in order to be "understandable" and constitutional, was not controlling. Again the language of the Taft and Holmes dissenting opinions of 1923 became the language of the prevailing majority opinion of 1937. "One of the points which was pressed by the Court in the Adkins case was that the standard set up by the District of Columbia Act did not take appropriate account of the value of service rendered. . . . The statute before us is like . . . [the District of Columbia statute], but we are unable to conclude that in its minimum wage requirement the state has passed beyond the boundary of its broad protective power. The minimum wage to be paid under the Washington statute is fixed after full consideration by representatives of employers, employees, and the public. It may be assumed that the minimum wage is fixed in consideration of the services that are performed in particular occupations, under normal conditions. . . . The statement of Mr. Justice Holmes in the Adkins case is pertinent: 'This statute does not compel anybody to pay anything. It simply forbids employment at rates below those fixed as the minimum requirement of health and right living. It is safe to assume that women will not be employed at even the lowest wages unless they earn them, or unless the employer's business can stand the burden.' . . . And Chief Justice Taft forcibly pointed out the consideration which is basic in a statute of this character: 'Legislatures which adopt a requirement of maximum hours or minimum wages may be presumed to believe that when sweating employers are prevented from paying unduly low wages by positive law they will continue their business, abating that part of their profits which were wrung from the necessities of their employees, and will concede the better terms required by the law, and that while in individual cases hardship may result, the restriction will enure to the benefit of the general class of employees in whose interest the law is passed, and so to that of the community at large.' We think that the views thus expressed are sound."

5. Finally, the 1937 decision included a strong declaration that the social and economic conditions under which female labor power is bought and sold, the social interest in maintaining the welfare of women workers, and the dependence of this welfare in part upon the wages they receive make the establishment of legal wage minima a proper exercise of the police power of the state. "What can be closer to the public interest than the health of women and their protection from unscrupulous and overreaching employers? And if the protection of women is a legitimate end of the exercise of state power, how can it be said that the requirement of the payment of a minimum wage fairly fixed in order to meet the very necessities of existence is not an admissible means to that end? The Legislature of the state was clearly entitled to consider the situation of women in employment, the fact that they are in the class receiving the least pay, that their bargaining power is relatively weak, and that they

are the ready victims of those who would take advantage of their necessitous circumstances. The Legislature was entitled to adopt measures to reduce the evils of the 'sweating system,' the exploiting of workers at wages so low as to be insufficient to meet the bare cost of living, thus making their very helplessness the occasion of a most injurious competition. The Legislature had the right to consider that its minimum wage requirements would be an important aid in carrying out its policy of protection. The adoption of similar requirements by many states evidences a deepseated conviction both as to the presence of the evil and as to the means adopted to check it. Legislative response to that conviction cannot be regarded as arbitrary or capricious, and that is all we have to decide. Even if the wisdom of the policy be regarded as debatable and its effects uncertain, still the Legislature is entitled to its judgment."[1]

Wage Regulation under the NRA

It is in a sense anomalous that the United States, the nation in which greatest constitutional difficulty has been encountered in establishing legal minima for the more economically submerged groups of women workers, has been the one whose political-economic history includes record of the most extensive experiment ever made to regulate wages generally by government action. Between 1933 and 1935 a major portion of our industries became subject to nation-wide labor standards established under the provisions of the National Industrial Recovery Act.[2] Approximately 22,500,000 American workers were covered by NRA codes, in addition to several million more who remained, throughout the code period, under a "re-employment agreement" promulgated by the President on July 30, 1933, and embodying wage and hour provisions. During the two years between enactment of the law and the Supreme Court decision that it was unconstitutional,[3] some 557 codes

[1] The Chief Justice also pointed out, as "an additional and compelling consideration," the conditions which had arisen during the depression of the 1930's. Taxpayers are called upon to pay what exploited workers, relatively defenseless against denial of an living wage, need to preserve livelihood, for "the bare cost of living must be met. We may take judicial notice of the unparalleled demands for relief which arose during the recent period of depression and still continue to an alarming extent despite the degree of economic recovery which has been achieved. It is unnecessary to cite official statistics to establish what is common knowledge through the length and breadth of the land." It must be recalled, however, that the Court did not reverse the Adkins decision upon the ground, sometimes invoked by the judiciary in the past, that "economic conditions have changed." This was merely an "additional" consideration; the Adkins decision was held by the 1937 majority to have been "a departure" from the "true application of the principles governing the regulation by the state of the relation of employer and employed" at the time it was rendered.

[2] 48 Stat. 195; 15 U. S. C. 703. Signed by the President on June 16, 1933.

[3] *Schechter Poultry Corp. v. U. S.*, 295 U. S. 495. Decided May 27, 1935.

and 201 supplementary codes were formulated and approved, and numerous executive and administrative orders were issued. In the aggregate, there emerged the largest body of administrative labor law the United States has ever seen. This experiment, a matter of history though it now is, provided an experience that has already influenced government policy toward industrial relations,[1] and inevitably its influence in the future will be profound.

Background, Objectives, and Theoretical Basis of the NRA.—The National Industrial Recovery Act reflected governmental response to a most extraordinary set of economic conditions. In its purposes, both immediate and ultimate, as well as in its theoretical basis and in the instrumentalities intended to give embodiment to the underlying theory, it differed appreciably from the attempts at wage regulation already discussed in this chapter. A few words about these background conditions, the short-run and long-run objectives, and the assumptions as to how these objectives could be achieved should therefore precede an examination of the system of wage regulation.[2]

In the spring of 1933 the United States was in the depth of the worst depression in its history. For three years, business had continued on its dizzy downswing. More than 16,000,000 persons were unemployed. To many, the deflationary developments seemed to have reached a point threatening something bordering on complete collapse. Faith in "automatic recovery," in the "self-generating" forces traditionally supposed to bring revival, was largely dissipated. In such a situation, a new administration, more skeptical than its immediate predecessors of the individualism of the past, and pledged to inaugurate a "New Deal," resorted to extraordinary measures to meet an extraordinary situation.[3] The plan had, it is true, basis in numerous proposals made during the period of the depression, and in economic ideas that had been making

[1] The National Labor Relations Act, discussed in detail in vol. III, incorporates the principles and canons that were established by the boards set up to enforce and give operative meaning to Section 7 (*a*) of the Recovery Act. The federal so-called Wages and Hours Act of 1938 of course sought, through a different mechanism, to effect national control of wages and hours in industries affecting interstate commerce, and was to an extent an offspring of NRA experience.

[2] On the one hand, the NRA codes were codes of fair competition; on the other hand, they were labor codes. This chapter is concerned with the former aspect only in so far as it impinges upon the latter. Also, only the wage provisions of the labor part of the codes are here directly in point. The regulation of child labor under the NRA is discussed in a later chapter (*infra*, pp. 429–433), as is the limitation of hours (*infra*, pp. 481–484). Collective bargaining under Section 7 (*a*) is discussed in vol. 3.

[3] Many writers have, of course, discussed the immediate background of the NRA. Among accounts worth consulting are those of the Brookings Institution group in Chap. I of *The National Recovery Administration*, by Lyon, Homan, Terborgh, Lorwin, Dearing, and Marshall, of C. F. Roos (*N.R.A. Economic Planning*, Principia Press, 1937, pp. 1–55), and of the President's Committee of Industrial Analysis (*The National Recovery Administration*, a report to the President, pp. 1–17).

headway for a fairly long period. The notion of "economic planning"—a phrase meaning different things to different people—had become increasingly popular during the depression years.[1] The conviction that competition was in part predatory made businessmen hospitable to joint action, while the belief that there existed an excess of productive capacity and that something should be done "to balance production and consumption" seemed to be widely entertained. Increasing attention to the problem of "technological unemployment" created a receptivity to a program of shortening hours in order to reabsorb labor displaced, it was believed, in consequence of technological change.[2] All of these notions made contact, although sometimes only vaguely, with the idea that current income in the hands of the masses was insufficient to lift off the market the output of the productive system, that therefore "an increase in mass purchasing power" was necessary to halt the downward spiral of business and initiate an upswing.

The objectives of the National Industrial Recovery Act were both immediate and long-run.[3] Re-employment and industrial recovery were to have "the right of way," but planning for "the longer pull" was not to be regarded as of secondary importance. When signing the measure,

[1] Numerous "economic-planning" proposals were made by business, labor, and political groups. Senator LaFollette introduced a bill for a national economic council, as a first step toward long-range planning in a number of particulars. The American Federation of Labor of course articulated its conceptions of proper economic planning. Among the plans emanating from business sources, perhaps the most widely discussed were the so-called "Swope Plan" and the plan of the U. S. Chamber of Commerce. The plans of businessmen or groups generally predicated the desirability of high wages, but their emphasis was somewhat more upon the need of limiting excessive competition, and generally this power was to be entrusted to organized business groups.

[2] As is indicated in Chap. IX (*infra*, pp. 476–481), the work-sharing movement attained unprecedented proportions during the early years of the depression of the 1930's. As the President's Committee of Industrial Analysis has suggested (*op. cit.*, pp. 3–4 and 7–8), a distinction should be made between "work-sharing" and "work-spreading." The former implies part-time work without a necessary change in either standard hours or hourly rates of pay; the latter may be taken to imply reduction in standard hours with some compensating increase in hourly rates. It is the latter program, of course, that integrates with the purchasing power theory of the NRA.

[3] The declaration of policy in Section 1 of the Act indicated the dual purpose of immediate recovery and long-run reform. It declared that the purpose was to "remove obstructions from the free flow of interstate and foreign commerce which tend to diminish the amount thereof . . . to promote the fullest possible utilization of the present productive capacity of industries, to avoid undue restriction of production (except as may be temporarily required), to increase the consumption of industrial and agricultural products by increasing purchasing power," to "induce and maintain united action of labor and management under adequate governmental sanctions and supervision . . . to reduce and relieve unemployment, to improve standards of labor," and to "provide for . . . promoting the organization of industry for the purpose of cooperative action among trade groups . . . to eliminate unfair competitive practices . . . and otherwise to rehabilitate industry and conserve natural resources."

the President declared: "It represents a supreme effort to stabilize for all time the many factors which make for prosperity of the nation and the preservation of American standards. Its goal is the assurance of a reasonable profit to industry and living wages for labor, with the elimination of the piratical methods and practices which have not only harassed honest business but also contributed to the ills of labor."[1] These long-run objectives would be realized partly by the mitigation of instability consequent upon less unequal distribution of income, and partly by the stabilization of business activity that would result from collective action of more highly organized business and labor groups.[2] In the short run the dual end was absorption of the unemployed through shortening hours and revival of business activity. Raising wage rates and aggregate labor payments would increase the purchasing power of the nation for goods and services; the volume of production would be enlarged in consequence of this increased demand and an upward spiral of recovery started; the relaxing of the antitrust laws in favor of collective action would enable industry to relieve itself from the chaotic competitive pressures which the depression had intensified; and with price declines halted business confidence would be restored and forward commitments made. The raising of wages would "prime the pump," or furnish the initial shove needed to get the industrial engine off dead center.

Critical evaluation of this underlying theory is not immediately in point in a chapter primarily concerned with methods of governmental wage regulation, but two observations may be made in passing: first, that in view of the comparative movement of prices and wage rates during the 1933–1935 period, the underlying theory probably never was put to a very real test; and, second, that the very extraordinary economic conditions of 1933 must be taken into account before the NRA is condemned as merely an economically naive attempt to pull ourselves up by our bootstraps. It should be apparent that the purchasing-power theory presupposed a certain lag of prices behind wages on the upturn,[3] and therefore an increase in real earnings. This lag, and with it an increase in purchasing power of the mass of workers, was expected to bring an expansion of productivity activity and lower unit costs of production. These lower unit costs would, in turn, obviate the necessity of a later raising of prices to the extent that would have been necessary if the wage increases had been offset by price rises at the original level of production.[4]

[1] Quoted in Lyon *et al.*, *op. cit.*, p. 1, and many other places.

[2] *Cf. ibid.*, p. 26.

[3] Although some of the statements emanating from high officials within the NRA might imply that it was necessary only that prices should not rise *before* or *more than* wage rates. For illustrations, *cf.* Lyon *et al.*, *op. cit.*, pp. 757–760.

[4] Many students have written critical evaluations of the underlying theory of the NRA. The report submitted to the President in 1937 by his Committee of Industrial Analysis (*The National Recovery Administration*, Department of Commerce, mimeographed) gives

In practice, however, prices did not lag behind wage rates; indeed, as has been pointed out in our discussion of the trend of real earnings after 1933,[1] prices in general tended to rise along with the advance of wage rates.[2] It cannot truthfully be said, therefore, that the underlying theory of the NRA was put to an actual test. In the second place, it may be observed that the extraordinary conditions of the time must be taken into account before facile adverse judgment is rendered. Unlike the attempts at wage regulation discussed in preceding sections of this chapter, the NRA was not aimed primarily at raising to a living standard the more submerged and exploited workers; it contemplated a general increase in earnings. Under ordinary circumstances, in a profit-making, capitalistic system, an attempt to bring back prosperity and induce industry to hire more workers by making labor a more expensive factor of production—by increasing costs—might appear to be sheer economic madness. But circumstances in the spring of 1933 were anything but ordinary. Many firms had reduced their working forces virtually to skeletons of what they had been prior to the depression, and could not reduce them much more if they were to remain in business. Their demand curves for labor were therefore more inelastic than they normally are, and increases in wages might have been expected not to produce as adverse an effect upon the volume of employment as ordinarily. The recuperative forces appearing after previous depressions had run their course seemed to be almost nonexistent. Opportunities for capital investment were

an exposition of the underlying economic assumptions and an analysis of the operation of the plan that in the aggregate constitutes a critical evaluation. An adverse criticism is to be found in the Brookings Institution study (*ibid.*, pp. 756–775). C. F. Roos, *NRA Economic Planning*, pp. 417–446, may be profitably consulted in this connection, as may also the papers delivered at the 1933 meeting of the American Economic Association by J. M. Clark and others and published in the *American Economic Review, Supplement*, for March, 1934. Sumner H. Slichter's *Towards Stability* and Paul H. Douglas' *Controlling Depressions* grapple with the basic theoretical issues raised by the NRA program of expanding purchasing power by increasing wages.

[1] *Supra*, pp. 122–126.

[2] There were a number of reasons why the predicated lag of price increases behind wage increases did not materialize. As is pointed out shortly, the wage minima incorporated into the codes did not, in many cases, represent as great an increase in money hourly earnings as the theory might be assumed to dictate. It should be remembered, also, that the codes and the President's re-employment agreement did not become effective until August, 1933, whereas the public had had notice of the program, with its virtual assurance of higher prices, since May, 1933. A certain wave of speculation, induced by anticipation of higher costs, therefore resulted. Fear of monetary inflation and the prospect of billions of dollars to be spent on public works also contributed to the price rise. Finally, there was confusion within the Recovery Administration as to the relationship of wages and prices implied by the program, the idea of the duration of the lag was always vague, there was an absence of authority to prevent price rises, and other parts of the Administration's program (particularly the Agricultural Adjustment Administration, the Public Works Program, and devaluation of the dollar) looked toward rising prices.

extremely few. Under such circumstances, a case can perhaps be made for the taking of a gambling chance upon the outcome of a short-time race between the beneficial effect of increased consumer purchases, on the one side, and the retarding effect of higher costs of production, on the other—for transferring money from "slow spenders" (receivers of interest, rent, royalties, dividends) to "quick spenders." It is not fantastic to assume that if the theory had worked out as planned—*i.e.*, if prices had lagged behind the increase in wage rates—a temporary stimulus might have been afforded when firms curtailed payments to claimants other than labor to their income and transferred part of what bank balances they possessed to the workers in the form of wages. Such a case for the theory of the NRA is, however, applicable only to the very short run. Most of the claims upon income which might have been curtailed in order to increase wages are fixed by contract and cannot be long postponed if firms are to remain in business and therefore to hire labor. It is most doubtful whether, if the NRA had raised wages without permitting price advances, employers would have for long expanded their aggregate disbursements.

Wage Control under the Codes.—The dominant instrumentality for achieving the purposes of the National Industrial Recovery Act[1] was

[1] The National Industrial Recovery Act included three titles. Title I, headed Industrial Recovery, is the only one with which we are directly concerned at this point. Title II, headed Public Works and Construction Projects, authorized an appropriation of $3,300,000,000 for the financing of public works, and Title III, headed Emergency Relief and Construction Act and Miscellaneous Provisions, made provision for the federal emergency relief program. A brief summary of the provisions of Title I should be included in this record. Section 1 was the statement of policy, summarized in a preceding footnote, and Section 2 was an empowering paragraph, authorizing the President to establish agencies, accept voluntary services, appoint officers and employees without regard to the civil service laws, to utilize federal officers and employees and, with consent of the states concerned, state and local officers, and to delegate any of his functions and powers under the Act to such agents as he might designate or appoint. It was on this authorization of power that the National Recovery Administration was based. In Section 3 (*a*) of the Act provision was made for codes of fair competition, and basic procedure by which codes were formed was provided for. The President was authorized to approve codes if he found that the applicants for a code imposed no inequitable restrictions upon membership in the groups represented, if the applicants were truly representative of the trades or industries for which they spoke, if the proposed codes were not designed to promote monopolies or to eliminate or oppress small enterprises, and if the proposed codes would, in his judgment, tend to effectuate the policy of the law. This section also established the right of "persons engaged in other steps of the economic process" covered by a particular code to be heard on matters affecting their welfare. Under Section 3 (*b*) codes approved by the President became legally binding, violation of its provisions becoming an "unfair method of competition" within the meaning of the Federal Trade Commission Act. Section 3 (*c*) invested the federal district courts and district attorneys with power to enforce, and Section 3 (*d*) provided that if trade groups failed to take the initiative in code-making, the President might do so, after public notice of intention and public hearings. Section 4 (*a*) authorized the President to enter into agreements with, and to approve voluntary agreements among,

the code of fair competition, drawn up for different trades or industries by "truly representative groups," discussed in public hearings at which labor and other groups affected had opportunity to voice any objections, and finally approved by the President.[1] The initiative in proposing code

persons engaged in the trade or industry, labor organizations, and trade and industrial groups when, in his judgment, such agreements would aid in accomplishing the purposes of the law. It is of some significance that during the two years of the NRA, little use of such agreements was made by industrial or business groups. As the President's Committee of Industrial Analysis has commented upon this nonuse: "This . . . non-use is particularly notable because it had long been said that industry needed only permission to enter into voluntary agreements, free from the anti-trust laws, to effect real improvement in the competitive economy; and in the present period of recovery that thought is often repeated. But in actual practice, perhaps because of the deforming pressure of the depression, the means actually chosen were code provisions under Section 3 (*a*) of the Act enforceable against a minority who disagreed, rather than voluntary agreements under Section 4 (*a*) which bound only those who agreed. The two things are fundamentally different from the point of view of law making and from the point of view of administration" (*op. cit.*, p. 11). It was under Section 4 (*a*), however, that the President's Re-employment Agreement, sometimes called the "blanket code," for which the Blue Eagle was first invented, was promulgated. Section 4 (*b*), which was limited to one year's duration, and therefore expired on June 16, 1934, authorized the President, whenever he found destructive wage or price cutting or other activities contrary to the purpose of the law being practiced in a trade or industry, to license business enterprises if he deemed such action essential to making effective a code of fair competition or an agreement. Section 5 provided that codes, agreements, or licenses approved or prescribed and all actions complying with the provisions of codes or agreements should be exempt from the provisions of the antitrust laws. Section 6 imposed the requirement that any group, as a qualification of eligibility, should file such information concerning its activities as the President should prescribe and empowered the President to prescribe such rules as would insure that any organization availing itself of the benefits of the law was actually representative of the industry it purported to represent. Section 7 (*a*) was the collective-bargaining provision, discussed in detail in vol. 3. This was a mandatory prescription, to be included in each code. Section 7 (*b*), which was a kind of special application of Section 4 (*a*), provided that where employers and employees had by mutual agreement established standards of hours, rates of pay, or such other conditions of employment as might be necessary to effectuate the purposes of the act, these standards might, upon approval by the President, have the same effect as a code of fair competition; and Section 7 (*c*), which was a special application of Section 3 (*d*), gave the President power, where no such agreement as that contemplated under Section 7 (*b*) was arrived at or approved, to investigate the situation and prescribe a limited code of fair competition fixing such maximum hours, minimum wages, and other conditions of employment as he found necessary to effectuate the policy of the law. Sections 8, 9, and 10 dealt with the relationships of the Act to the Agricultural Adjustment Act, made special provision concerning oil-industry regulations, and gave additional authorizations to the President for making the law effective.

[1] A brief summary of the procedure followed from the time a code was proposed by an industry to its final approval by the President and a mention of the more important agencies established under the NIRA are here in point. A code submitted by an industry or trade first went to the Control Division of the National Recovery Administration, established under the powers conferred upon the President by Section 2, where it was docketed and copies were distributed to the offices of the NRA which would be concerned in its negotiation. A check was then made by the Code Analysis Division to see that the sponsoring

provisions was to come from industry itself,[1] with a Labor Advisory Board protecting labor's interests. Out of the process of code-making there emerged, as has already been said, the largest body of administrative labor law this country has ever seen. Our concern here is only with the wage standards that were established.

It is difficult to discover any single unifying principle in these standards. The majority of the code wage provisions were drafted under tremendous pressure. Higgling and bargaining played a large part. Frequently the standards proposed by the representatives of the employers were those prevailing at the time in the industry; sometimes they were willing to grant higher than prevailing standards in return for code

association was "truly representative" and that all provisions made mandatory by the Act had been included. Actual negotiation of a code took place in the offices of the deputy administrators, to which were assigned advisers from the staffs of each of three advisory boards that had been established (a Labor Advisory Board, appointed by the Secretary of Labor and representative chiefly of organized labor, an Industrial Advisory Board, appointed by the Secretary of Commerce and representative of business interests, and a Consumers' Advisory Board, the original members of which were appointed by the Administrator for Industrial Recovery and approved by the Special Industrial Recovery Board, which included the Attorney General, the Secretaries of Agriculture, the Interior, Commerce, and Labor, the Director of the Budget, the Chairman of the Federal Trade Commission, and the Administrator for Industrial Recovery). The first steps in negotiation were the prehearing conferences between a committee selected by the sponsoring group and the Deputy Administrator with his labor, industrial, consumer, legal, and research and planning advisers. Following these there were public hearings, formally conducted, at which everyone interested had the right to "an adequate opportunity for presentation of evidence in support of a code or any objections to proposed code provisions." For the most part, the testimony given at these public hearings related to the labor provisions of the codes. The public hearings were followed by further negotiations between the industry and the Administration ("posthearing conferences"). It was then the duty of the deputy administrator in charge of a code, if he could, to bring it into a form that would be approved by all of his advisers, although he was empowered to forward the code with his approval to the Administrator without approval of his advisers. When the deputy had reconciled the conflicts of interest that had appeared to the best of his ability, he prepared his findings and recommendations and forwarded them with those of the several advisory boards and with the code to the Administrator. When the Administrator approved the code, it was forwarded with his recommendations to the President. The procedure of original code-making was also applicable to amendment of codes, although there seems to have been some tendency to avoid public hearings on amendments except where they were of major importance and to substitute the alternative procedure of providing opportunity to file objections prior to the effective date of the amendment. For a more detailed account of procedure in formulating the codes, from which the foregoing is in large part drawn, *cf.* Committee of Industrial Analysis, *op. cit.*, pp. 18–22. At the outset, the President appointed General Hugh S. Johnson Administrator for Industrial Recovery, but on Sept. 27, 1934, the administrative structure was radically altered when a board was substituted for the single-administrator form of control.

[1] This was, of course, directed by Section 3 (*a*) of the law. NRA *Bulletin 2* stated: "It is not the function of the Recovery Administration to prescribe what shall be in the codes to be submitted by associations or groups. The initiative in all such matters is expected to come from within the industry itself."

sanction of certain trade practices; occasionally the code standards were those that had developed through collective bargaining. In the majority of cases, the representatives of organized labor regarded management's proposals as inadequate. Nevertheless, the central idea of establishing a wage floor above the level to which wages had fallen during the depression was not lost from sight; and a complicated set of wage minima was established and more or less adhered to during the life of the NRA. It will be convenient first to summarize the essential facts about the minima that were established, and then to turn to the various exceptions and exemptions and to the policy with respect to the wages of those earning more than the established minima when the codes went into effect.

The minimum wage of the codes was not a single, definite thing but varied greatly among industries. At one extreme was the code for needle work in Puerto Rico, which set a minimum of 12.5 cents an hour; at the other, the wrecking and salvage code, which provided a minimum of seventy cents for New York City, and the print-roller and print-block code, with a minimum of seventy-five cents.[1] Also, a large number of the codes provided more than one minimum,[2] the differences being contingent upon such factors as geographic region, the population of the cities in which plants were located, sex, and occasionally wages paid in 1929.[3] Ordinarily when a geographical differential was not included the explanation lay either in the fact that an industry was located entirely in one area or else in the circumstance that the minimum wage was really effective only in the low-wage area. But although the minima varied tremendously, it can be stated in a general way that in almost half of the codes the highest minimum rate for unskilled male production workers was forty cents, while in most of the other half it fell between thirty and forty cents.[4] Less than one-tenth of the codes set minimum rates higher than forty cents, and only a small number (ten) had top

[1] Lyon *et al.*, *op. cit.*, p. 317, and Ruth Reticker, "Labor Standards in NRA Codes," *Annals of the American Academy*, vol. 184 (March, 1936), p. 77.

[2] The compilation made by Miss Reticker (*ibid.*, pp. 77–78) shows that a total of 280 codes set a flat minimum for male production workers, while the other 298 codes she studied incorporated two or more minima.

[3] The question of whether geographical differentials should be permitted, and if so how wide these differentials should be, is of course an important one in any attempt at governmental control on a national scale of wage rates. When the codes were drafted, one school of thought insisted that if there are factors which properly cause variations among wage rates, these variations should appear only in wages above the minimum. Others contended that "fair competition" can be maintained only if the wages of each class of labor, skilled as well as unskilled, are uniform throughout the industry. A third group contended that precode differentials should be maintained, since it was presumably not the purpose of the National Industrial Recovery Act to relocate industry. Still another group advocated gradual but not sudden elimination of geographical differentials. For an excellent summary of these different points of view, *cf.* Lyon *et al.*, *op. cit.*, pp. 330–333.

[4] From the Brookings Institution summary, *ibid.*, pp. 318–320.

minima of less than thirty cents. The President's Re-employment Agreement, promulgated July 30, 1933,[1] proposed a minimum wage of forty cents an hour for factory or mechanical workers or artisans "unless the hourly rate for the same class of work on July 15, 1929, was less than 40 cents per hour, in which latter case . . . not less than the hourly rate on July 15, 1929, and in no event less than 30 cents per hour." Table 62 shows the percentage distribution of employees covered by some 578 codes according to minimum hourly rates.

TABLE 62.—PERCENTAGE OF EMPLOYEES COVERED BY CODES PROVIDING RATES SPECIFIED[1]

Minimum hourly rate, cents	Flat minimum	With differentials	
		Highest	Lowest
Over 40	1.4	11.6	1.3
40	14.3	26.9	4.7
35 to 39	1.7	19.8	6.6
30 to 34	1.2	18.2	21.2
25 to 29	[a]	4.7	23.8
20 to 24	0.1	....	7.0
Under 20	0.5	0.1	3.9
No lower limit set	....	....	12.3
Total	19.2	80.8	80.8

[a] Less than 0.1 per cent.

[1] From Ruth Reticker, *op. cit.*, p. 78. Although almost half the codes established one minimum rate for the basic employees, less than one-fifth of the employees under the codes, it will be noted, were covered by these codes without differentials. Miss Reticker points out that "of the four and one-third million employees in these flat-minimum codes, three-quarters (14.3 per cent of all employees under codes) were in codes with a 40-cent rate, but all but 800,000 of these employees were accounted for by one code, construction." The figures in this table should not be misinterpreted. The data on the percentage distribution of employees under codes with differentials do not mean, for example, that 26.9 per cent of all employees under codes received a top rate of 40 cents an hour; rather, they mean that 26.9 per cent of them were in codes with a top rate of 40 cents.

The numerous exceptions of different occupational groups from the minimum wage provisions, complicating the code wage structure still further, may be summarized briefly. All but seventy-two of the codes set subminimum rates for such groups as female workers, learners, apprentices, office boys and girls, the aged and handicapped, or junior employees.[2] In a few cases, no other wage was set when specified groups were excepted from the minima. Various limitations upon the number

[1] Just before the Schechter decision of May 27, 1935, approximately nine-tenths of the employees over whom the National Industry Recovery Act had assumed jurisdiction were under codes. The bulk of the remaining one-tenth were covered by the President's Re-employment Agreement, which was originally planned to serve as a stopgap until Jan. 1, 1934, but later was extended.

[2] These seventy-two codes covered 11.6 per cent of the employees under the codes. Half of these codes had no differentials, but these thirty-six codes without either differentials or subminimum rates were small codes, covering only about 1 per cent of all employees under codes. R. Reticker, *op. cit.*, p. 81.

of excepted persons were established in order to prevent evasions of the minimum rates by classifying large numbers of employees as coming within these subminimum groups.[1] Some 159 codes provided a subminimum rate for women or for "light and repetitive work" commonly done by women, but in all but four of the codes with a definite female differential there was included the provision that "female employees performing substantially the same work as male employees shall receive the same rate of pay as male employees." The use of the sex differential was concentrated in certain industrial groups; it was frequent in the paper codes, somewhat less frequent in manufacturing, equipment, nonmetallic products, food, and chemical industries, and in many groups it did not appear at all.[2] The codes without female differentials were to be found chiefly either in industries employing few women, such as transportation and construction, or else in those employing large numbers.[3] In the case of codes for the latter industries, the minimum rates were of course set with the expectation that they would apply particularly to women workers. The sex differential (the difference between the highest minimum rate for males and the highest minimum rate for females) ranged from two to twenty cents per hour, with five cents being the most common. In three-fourths of the cases (74.2 per cent) the highest female minimum wage was five cents per hour or less below the corresponding male wage. In 213 of the codes learners were excepted from the basic minimum, with another wage set for them by 209 of these 213 codes; and in seventy apprentices were excepted, with a wage being set for them in twenty-seven codes.[4] Four-fifths of the codes prescribed

[1] Miss Reticker (*ibid.*, p. 79) has summarized the code provisions in terms of the number of codes excepting each of six groups as follows:

Subminimum group	Excepted from basic minimum	Wage set	Number limitations
Female workers	159	159	
Learners	213	209	197
Apprentices	70	27	49
Office boys and girls	267	267	236
Old and handicapped	376	104	99
Junior employees	29	28	20

Five per cent was the most frequent limitation upon numbers—sometimes 5 per cent for all employees, sometimes 5 per cent for each specified group, sometimes 5 per cent for two or more specified groups, etc. "Some codes allowed higher proportions, and some codes had no limit whatever; some establishments, notably in the cotton garment industy, secured 'exemptions' allowing them to exceed the code proportion of learners for certain periods." (*Ibid.*)

[2] Lyon *et al.*, *op. cit.*, p. 325.

[3] R. Reticker, *op. cit.*, p. 80.

[4] This follows Miss Reticker's classification of the codes (*ibid.*, pp. 79–80). The words "learners" and "apprentices" were somewhat loosely used in the codes, but in this classification the term "apprenticeship" was applied only to provisions for a learning period of one

a wage of 80 per cent of the minimum for old or handicapped workers.[1] Other groups for whom subminimum rates were established were office boys and girls, junior employees in factories and stores, helpers, casual laborers, cleaners, yard workers, and porters.[2] Many of the codes had, in fact, several subminimum rates.

Adjustment of wages in the "higher brackets" presented to the Recovery Administration problems that were, in some respects, more baffling than those involved in establishing minima for the unskilled workers. From the outset, the policy was to prevent the NRA from becoming a program for sharing wages as well as work and to "prevent the minimum from becoming the maximum," and this involved the incorporation of code provisions respecting wages above the minimum. The President's Re-employment Agreement of July, 1933, under which employers agreed "not to reduce the compensation for employment in excess of the minimum wages hereby agreed to (notwithstanding that the hours worked in such employment may be hereby reduced) and to increase the pay for such employment by an equitable readjustment of

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year or more, or to a definite arrangement for an apprenticeship contract or training course. All other so-called "apprentices" or "learners and apprentices" were counted as learners. The code provisions with respect to learners did not vary greatly. In the 209 codes with subminimum rates, the rate most frequently specified (in 153 codes) was 80 per cent of the minimum. In cents per hour, the learners' rate was seldom more than thirty-five cents, and the differentials reduced the lower rate to twenty to twenty-four cents in a considerable number of codes. All but twelve codes limited the period during which the learners' wage could apply, the most frequent period being three months. Apprenticeship provisions varied somewhat more. The controlling pattern of the NRA concerning apprenticeship was the Executive Order of July 27, 1934, which defined an apprentice as "a person at least sixteen years of age who has entered into a written contract with an employer or an association of employers which provides for at least 2,000 hours of reasonably continuous employment . . . and his participation in an approved program of training" and set up an Apprenticeship Committee, directed by the Secretary of Labor, to issue certificates permitting employment at a wage lower than the code minimum under conditions specified by the Committee. Some of the code provisions nominally dealing with apprenticeship were *bona fide* apprenticeship regulations, providing for a period of years of craft-training; others were not. As is the case when apprenticeship provisions are included in collective agreements, the wage rates were generally a progressive percentage of the skilled rates, and were therefore not always subminimum rates for the later years of the apprenticeship.

[1] The NRA standard for these employees was embodied in an Executive Order of Feb. 17, 1934, reading: "A person whose earning capacity is limited because of age, physical or mental handicap, or other infirmity, may be employed on light work at a wage below the minimum established by a code, if the employer obtains from the state authority designated by the United States Department of Labor a certificate authorizing such person's employment at such wages and for such hours as shall be stated in the certificate. Such authority shall be guided by the instructions of the United States Department of Labor in issuing certificates to such persons."

[2] For details concerning the provisions for these groups, *cf.* R. Reticker, *op. cit.*, pp. 80–81, and Lyon *et al.*, *op. cit.*, pp. 333–338.

all pay schedules," provided a general formula, and when the first code (the textile code) was approved, the President inserted in the executive order of approval the statement: "The existing amounts by which wages in the higher paid classes, up to workers receiving $30 per week, exceed wages in the lowest paid class shall be maintained." These general provisions that weekly wages in the higher brackets should not be allowed to sag because of the reductions in hours and that "equitable readjustments" should be made were not, however, sufficiently specific; and as the number of codes approved increased, a great variety of provisions on wages above the minimum emerged. Industrialists wanted generalized provisions allowing considerable elasticity, rather than specific wage schedules or rates of increase; labor groups protested the more generalized provisions as inadequate, easy to evade, unenforceable, insufficient to protect the weekly wage, and difficult to administer.[1] In the final outcome, detailed wage schedules and basing points[2] were generally incorporated into the codes for industries in which collective bargaining was practiced, and in others the formulas were extremely

TABLE 63.—COVERAGE OF VARIOUS CODE PROVISIONS GOVERNING WAGES ABOVE THE MINIMUM[1]

Provision	Codes		Employees	
	Number	Percentage distribution	Number (in thousands)	Percentage distribution
A. (1) Wage schedules or basing points	46	8.9	6,112	27.8
B. Emphasis on maintaining weekly wages	131	25.3	10,296	46.8
(2) Maintain, plus other provisions	29	5 6	811	3.7
(3) Maintain, no other provision	64	12.4	6,738	30 6
(4) Partly maintain	38	7 4	2,748	12 5
C. (5) Maintain differentials	55	10.6	1,620	7.4
D. Equitable adjustments	197	38.1	2,539	11.5
(6) Equitable differentials	25	4.8	407	1 8
(7) Equitable adjustment—PRA	11	2.1	41	0 2
(8) Equitable adjustment, no reduction hourly rates	120	23 2	938	4 3
(8) Equitable adjustment alone	41	7 9	1,153	5 2
E. No positive requirement for change	88	17 0	1,455	6.6
(10) Policy statement or equivalent	63	12 2	542	2 5
(11) Report only	11	2 1	418	1.9
(12) No clause	14	2 7	494	2 2
Total	517	100.0	22,022	100.0

[1] From Lyon *et al.*, *op. cit.*, p. 348.

[1] Two excellent discussions of the problem of code provision for wages above the minimum are those of the President's Committee of Industrial Analysis, *op. cit.*, pp. 134–142, and Lyon *et al.*, *op. cit.*, Chap. 13.

[2] "Basing points" differ from "wage schedules" in that they set minima for a few (usually one or two) classes of semiskilled or skilled workers.

general. The foregoing tabular summary of the provisions of 517 codes studied by the Brookings Institution group shows that only about one-twelfth of the codes (8.9 per cent), covering a little more than one-fourth (27.8 per cent) of all employees under codes, including wage schedules or basing points. On the other hand, more than one-third (38.1 per cent) of the codes, although covering only one-ninth (11.5 per cent) of the workers, had the unprecise provision of "equitable adjustment," and about one-sixth of the codes (17.0 per cent), covering 6.6 per cent of the employees, including no positive requirement for change in the upper brackets.

On the whole, the traditional tendency of the minimum rate of pay to serve as a base for the entire wage structure persisted under the NRA. In some manner or other, the codes did relate wages in the higher brackets to the minimum rate. As labor standards the provisions were frequently vague and badly drafted, and the dearth of operative meaning contributed to difficulties of enforcement; but so far as they were effective the clauses operated to prevent the NRA from becoming a program for sharing wages as well as work. As the President's Committee of Industrial Analysis has summarized the matter: "The wage adjustment principle, even though not strictly applied, did . . . serve a significant role in NRA wage policy. It proclaimed that the NRA did not favor a share-the-work movement and that wage increases were required to compensate at least partially for the reduction in hours. Although the amount of increase in hourly rates was often not specifically declared, and thus caused wide variations in interpretations as to the required percentages of increase, the hourly rates of those receiving wages above the minimum did in general increase during the NRA period. . . . It may be said that, on the whole, the wider the spread in wages among employees before the NRA, the smaller was the rate of increase in hourly rates of those receiving the higher hourly earnings. The greater wage increases were received by those below or close to the minimum."[1]

The trend of real earnings during the period of the NRA has been summarized in an earlier chapter,[2] and detailed account of changes in labor's income between 1933–1935 is therefore unnecessary at this point. As was pointed out there, money and real hourly earnings of the majority of wage-earning groups increased appreciably during the two years. Weekly real earnings, on the other hand, lagged behind real hourly earnings until 1935, although thereafter, as the work week was lengthened, they tended to increase somewhat more.[3] Labor's total real income increased appreciably during the NRA period. Whether hourly real

[1] *Op. cit.*, pp. 136–137.

[2] *Supra*, pp. 122–126.

[3] It will be recalled that when the period from 1933 to the end of 1936 is considered as a whole, the two movements showed similarity. *Supra*, p. 124.

earnings increased to the extent dictated by the purchasing power theory of the NRA is another question; as was implied in the discussion of the theoretical basis of the program, there is some reason for believing that they did not. But the fact that the wage-cutting movement was halted and that the material position of the average person attached to industry improved during the life of the Recovery Administration can be stated without qualification.[1]

Federal Wage Regulation in the Future.—The government regulation of industry established by the National Industrial Recovery Act was more extensive than any theretofore attempted in the United States, and the decision of the Supreme Court of the United States that legislative power had been unconstitutionally delegated to the President (especially by Section 3, providing for the codes of fair competition) and that the interstate commerce power of the federal government had been exceeded when poultry firms engaged in purely intrastate activities were made subject to the provisions of a code was by no means entirely unexpected.[2]

[1] The President's Committee of Industrial Analysis (*op. cit.*, pp. 139–141) has summarized the essential facts concerning labor's money income during the period of the NRA. During the period from June, 1933, to October, 1933 (the period of the President's Re-employment Agreement), total money disbursements to workers in NRA industries increased from $1,627,000,000 to $1,846,000,000, or by 13 per cent. "Thus the NRA period represents an unusual experience. The course of industrial trends was completely changed. Actual weekly hours were shortened; hourly earnings were raised considerably; actual weekly earnings for employed workers were slightly increased; and total labor income was strikingly expanded during a short period." The upward movement in hourly earnings, the Committee points out, continued throughout the entire period of the NRA's existence. "Of a total of 159 industries studied, only fifteen showed decreased average hourly earnings during the code period. . . . Employees in only twenty-one of the 159 industries . . . suffered a reduction in average actual weekly earnings during the period." Average weekly earnings for all manufacturing and thirteen nonmanufacturing industries, as reported to the Bureau of Labor Statistics, rose from $20.24 in October, 1933, to $21.86 in the first five months of 1935, or an 8 per cent increase. During the last five months of the NRA, the average monthly income distributed to workers had risen to $2,022,000,000.

[2] *Schechter Poultry Corp. v. U. S.*, 295 U. S. 495, decided May 27, 1935. The decision was unanimous, Justices Cardozo and Stone rendering a concurring opinion. Briefly, the following were main points in the opinion written by Chief Justice Hughes: (1) Extraordinary conditions, such as an economic crisis, may call for extraordinary remedies, but they cannot create or enlarge constitutional power. (2) Congress is not permitted by the Constitution to abdicate, or to transfer to others, the essential legislative functions with which it is vested. (3) While Congress may leave to be selected the instrumentalities for making subordinate rules within prescribed limits and determination of facts to which declared policy is to apply, it must itself lay down the policies and establish the standards. (4) Section 3 unconstitutionally delegated legislative power, and the Act was also unconstitutional in the instant case because it exceeded the power of Congress to regulate interstate commerce and invaded power reserved exclusively to the states. The codes of fair competition, the Court pointed out, were meant to be codes of laws; the purpose of the authority conferred by this section was not merely to deal with "unfair competitive practices" which offended against existing law but rather to authorize new and controlling prohibitions through codes of laws which would embrace what the formulators proposed and the Presi-

It is, however, desirable to recall that the Court did not, in this decision, enunciate an unalterable opposition to all federal regulation of wages (or of wages and hours) in industries the employment terms and conditions of which substantially affect the stream or flow of interstate commerce. Rather, it condemned the delegation of what was essentially a lawmaking process to others than those with whom the Constitution vests this power and an extreme extension of the meaning of the commerce clause. Advocates of federal wage regulation still had hope that where Congress itself definitely laid down the policies and established the standards, where the industries covered are only those affecting interstate commerce within the meaning of established precedents, and where the establishment of federal wage standards is not inextricably interwoven with an elaborate system for the general regulation of industry, the present Supreme Court will not rule adversely.

It is somewhat hazardous to speculate as to the firmness of the foundation upon which this hope is based, but allusion may be made to a few of the recently manifest dispositions of the Court. One year after the invalidation of the National Industrial Recovery Act, six of the members of the Court held the type of federal regulation of wages and hours in the bituminous coal industry, established by the Bituminous Coal Conservation Act of 1935,[1] to be an unconstitutional extension of the meaning of the commerce clause.[2] The implication in the statute that Congress

dent approved or prescribed; Congress cannot thus delegate legislative authority to trade or industrial associations or to the President; such sweeping delegation of legislative power finds no support in decisions of the Court defining and sustaining the powers granted to boards or commissions established under the interstate commerce power. (5) The defendants were engaged in the business of slaughtering chickens and selling them to retailers. When the poultry had reached the defendants' slaughterhouses, the interstate commerce had ended; decisions dealing with a stream of interstate commerce and with the regulation of transactions involved in that practical continuity of movement were inapplicable in this case; if the commerce clause were construed to reach all enterprises and transactions which could be said to have an indirect effect upon interstate commerce, the federal authority would embrace practically all the activities of the people, and the authority of a state over its domestic concerns would exist only by sufferance of the federal government.

[1] Public No. 402, 74th Congress, 1st Session, 1935.

[2] *Carter v. Carter Coal Co. et al.* 298 U. S. 238. Decided May 18, 1936. The Bituminous Coal Conservation Act of 1935 declared that the mining and distribution of bituminous coal are affected with a national public interest and are therefore related to the general welfare, and imposed an excise tax of 15 per cent of the sale price or market value at the mine of all bituminous coal produced in the country, subject to a drawback of 13.5 per cent allowed to those producers who submitted to the price-fixing and labor provisions of the Act. Three opinions were rendered in this case. Mr. Justice Sutherland, speaking for himself and Justices Butler, McReynolds, Van Devanter, and Roberts, held that the wages and hours regulations provided for in Part III of the Act were constitutionally invalid and that these were so inseparably a part of the general scheme of regulation that the price-fixing provisions of the code could not be upheld. It was therefore not necessary to rule upon the question of whether the fixing of prices was a proper exercise of the interstate commerce power. "The price-fixing provisions of the code are so related to and dependent upon the

possesses general power to regulate for the promotion of the general welfare, the majority opinion in this case set forth, had to be rejected;[1]

labor provisions as conditions, considerations, or compensations, as to make it clearly improbable that the latter being held [by Congress in enacting the measure] bad, the former would have been passed. . . . The price-fixing provisions of the code are thus disposed of without coming to the question of their constitutionality; but neither this disposition of the matter, nor anything else we have said, is to be taken as indicating that the Court is of the opinion that these provisions, if separately enacted, could be sustained." Chief Justice Hughes, on the other hand, agreed that the wages and hours regulation provided for was an unconstitutional extension of the commerce power, but disagreed with the majority as to the inseparability of the price-fixing and wage regulation parts of the act and held the former to be a proper exercise of Congress's power to regulate interstate commerce. The dissenting opinion rendered by Mr. Justice Cardozo, with the concurrance of Justices Brandeis and Stone, contended: (1) that the price-fixing system was valid as applied to transactions in interstate commerce and to those in intrastate commerce where interstate commerce is directly or intimately affected; (2) that the price-fixing part of the statute was separable from the labor provisions; (3) that the price-fixing provisions being valid, the complainants were under a duty to come in under the code and were subject to a penalty if they persisted in a refusal; and (4) that the suits were premature so far as they sought a judicial declaration as to the validity or invalidity of the labor regulations. "Wages may be fixed by agreement or agreements negotiated by collective bargaining in any district or group of two or more districts between representatives of producers of more than two-thirds of the annual tonnage production of such districts. . . . during the preceding calendar year and representatives of the majority of the mine workers therein. It is possible that none of these agreements as to hours and wages will ever be made. . . . The statute in its labor regulations assumes the existence of a controversy that may never become actual. . . . The opinion of the court begins at the wrong end. To adopt a homely form of words, the complainants have been crying before they are really hurt." In a summary of the rather complicated outcome of this case, then, these facts may be recorded: (1) Six members of the Court believed the wages and hours regulations to be unconstitutional. (2) Five members did not rule upon constitutionality of the price-fixing provisions, but held these to be invalid because they were inseparable from the labor provisions. (3) Four members held the price-fixing and the labor provisions to be separable, and the former to be constitutional. (4) Three members held consideration of the labor provisions to be premature, since these depended upon the consummation of voluntary agreements, and therefore did not rule upon the constitutionality of federal wage regulation of the type provided by the Bituminous Coal Conservation Act.

[1] "Certain recitals contained in the Act plainly suggest that its makers were of opinion that its constitutionality could be sustained under some general federal power thought to exist apart from the specific grants of the Constitution. . . . The ruling and firmly established principle is that the powers which the general government may exercise are only those specifically enumerated in the Constitution, and such implied powers as are necessary and proper to carry into effect the enumerated powers. Whether the end sought to be attained by an act of Congress is legitimate is wholly a matter of constitutional power, and not at all of legislative discretion. . . . The proposition, often advanced and as often discredited, that the power of the federal government inherently extends to purposes affecting the nation as a whole with which the states severally cannot deal or cannot adequately deal, and the related notion that Congress, entirely apart from those powers delegated by the Constitution, may enact laws to promote the general welfare, have never been accepted but always definitely rejected by this Court. . . . The general purposes which the Act recites . . . are beyond the power of Congress except so far, and only so far, as they may be realized by the exercise of some specific power granted by the Constitution."

the power expressly granted Congress to regulate interstate commerce does not include the power to control the conditions under which coal is produced before it becomes an article of commerce;[1] and the effect on interstate commerce in coal of labor conditions involved in its production is only an indirect effect.[2] This decision, of course, registered unmistakeably the opposition of the Supreme Court majority of 1936 to the type of federal wage and hour regulation provided for in the Bituminous Coal Conservation Act (the filing with a Labor Board of wage agreements reached by collective bargaining, the specified wages then being accepted as minimum wages by all code members); and the somewhat restrictive view of the interstate-commerce power implied opposition to other forms of federal regulation predicated upon this same power. On the other hand, the Court was evidently impressed, in the Bituminous Coal Act case, by the fact that the system of wage regulation permitted a majority to regulate the affairs of an unwilling minority, and this element would not be present under a system wherein a federal board merely set minima for groups whose wages investigation had proved to be substandard. It may be noted, also, that in point of substance, if not in point of legal formalism, the conception of the interstate commerce power was widened by the 1937 decisions sustaining the National Labor Relations Act.[3] There is, moreover, a rather widely held belief among constitutional lawyers that the Supreme Court would now reverse the five-to-four

[1] "Commerce," the Court pointed out, had already been defined as "intercourse for the purposes of trade." "That commodities produced or manufactured within a state are intended to be sold or transported outside the state does not render their production or manufacture subject to federal regulation under the commerce clause. . . . The incidents leading up to and culminating in the mining of coal do not constitute such intercourse for the purposes of trade. The employment of men, the fixing of their wages, hours of labor, and working conditions, the bargaining in respect of these things—whether carried on separately or collectively—each and all constitute intercourse for purposes of production, not of trade. The latter is a thing apart from the relation of employer and employee, which in all producing occupations is purely local in character."

[2] "The distinction between a direct and an indirect effect turns not upon the magnitude of either the cause or the effect, but entirely upon the manner in which the effect has been brought about. If the production by one man of a single ton of coal intended for interstate sale and shipment, and actually so sold and shipped, affects interstate commerce indirectly, the effect does not become direct by multiplying the tonnage or increasing the number of men employed or adding to the expense or complexities of the business or all combined. . . . [The question] is not—What is the *extent* of the local activity or condition, or the *extent* of the effect produced upon interstate commerce? but—What is the *relation* between the activity or condition and the effect?"

[3] *National Labor Relations Board v. Jones and Laughlin Steel Corp.*, 301 U. S. 1; *National Labor Relations Board v. Fruehauf Trailer Co.*, 301 U. S. 49; *National Labor Relations Board v. Friedman-Harry Marks Clothing Co.*, 301 U. S. 58; *Associated Press v. National Labor Relations Board*, 301 U. S. 103; *Washington, Virginia, and Maryland Coach Co. v. National Labor Relations Board*, 301 U. S. 142. These cases were decided Apr. 12, 1937. In all except the last-mentioned, the decision of the Court was five-to-four, Justices Butler, McReynolds, Sutherland, and Van Devanter dissenting. The Coach Co. decision was unanimous.

decision by which it declared a law prohibiting from shipment in interstate-commerce goods made in plants employing child labor to be unconstitutional,[1] and that it might sustain a statute excluding products made by men and women working under substandard labor conditions as well as those made by child workers. The 1936 decision invalidating the Coal Act does not establish with finality that federal regulation of wages is unconstitutional.

The "Wages and Hours Bill" of 1937,[2] and the similar proposal before Congress in 1938,[3] provide a pattern for future attempts to enact federal laws with respect to wages and hours. Under the provisions of the original bill,[4] a Labor Standards Board was to be established, authorized to investigate "the wages paid in . . . [occupations coming within the scope of the Act] and the value of the services rendered therefor" and, after determination that the establishment of a minimum fair wage would not "unreasonably curtail opportunities for employment," to establish "fair minimum wages."[5] Goods produced in plants not

[1] *Hammer v. Dagenhart*, 247 U. S. 251. This decision is discussed in detail in Chap. VIII, pp. 440–444.

[2] S. 2475. 75th Congress, 1st Session. Introduced on May 24, 1937.

[3] In his message to Congress on Jan. 3, 1938, President Roosevelt urged the legislators to "put a floor below which industrial wages shall not fall." He also declared: "Wage and hour legislation is therefore a problem which is definitely before this Congress."

[4] The declaration of policy in the bill read: "The employment of workers under substandard labor conditions in occupations in interstate commerce, in the production of goods for interstate commerce, or otherwise directly affecting interstate commerce (1) causes interstate commerce and the channels and instrumentalities of interstate commerce to be used to spread and perpetuate among the workers of the several States conditions detrimental to the physical and economic health, efficiency, and well-being of such workers; (2) directly burdens interstate commerce and the free flow of goods in interstate commerce; (3) constitutes an unfair method of competition in interstate commerce; (4) causes industrial dislocations directly burdening and obstructing interstate commerce and diverting interstate commerce from areas in which fair labor standards are maintained to areas in which such substandard labor conditions exist; (5) leads to labor disputes directly burdening and obstructing interstate commerce and the free flow of goods in interstate commerce; (6) causes undue price fluctuations impairing the stability of prices of goods in interstate commerce; and (7) directly interferes with the orderly and fair marketing of goods in interstate commerce. The correction of such conditions directly affecting interstate commerce requires that the Congress exercise its legislative power to regulate commerce among the several States by prohibiting the shipment in interstate commerce of goods produced under substandard labor conditions in occupations in and directly affecting interstate commerce."

[5] Section 5 of the bill directed that the Board, in establishing a minimum fair wage for any service or class of service, should (1) take into account the "cost of living and all other relevant circumstances affecting the value of the service or class of service rendered," (2) be guided by like considerations as would guide a court in a suit for the reasonable value of services rendered where services are rendered at the request of an employer without contract as to the amount of the wage to be paid, (3) consider the wages established for work of like or comparable character by collective labor agreements negotiated between employers and employees by representatives of their own choosing, and (4) consider the wages paid for work of like or comparable character by employers who voluntarily maintain

paying minimum fair wages after these had been established by Board orders (or not conforming to the orders concerning maximum hours) were denominated "unfair goods," and their transportation in interstate commerce was prohibited. As in the British minimum wage system that had developed by the end of the War period,[1] emphasis was placed upon the absence of facilities for collective bargaining as well as upon the fact of oppressively low wages.[2] To an extent, the bill was an embodiment of the purchasing power theory of the NRA, but to a much greater extent it was merely an attempt to eliminate substandard conditions of employment. It expressed the conviction that the problem is of such a character that the governmental attack upon it must be national in scope.[3]

To attempt to recapitulate at this point all the economic implications of federal control of wages—implications that have been implicit in this chapter as well as with those dealing with various phases of the problem of wages in preceding chapters—would be futile, and it is unnecessary. But a few observations are warranted. The magnitude of the administrative task, unless the wage regulation is given only restricted application, is of course obvious. The danger inherent in the possibility that too great inelasticity would ensue is almost equally apparent. But the task is not overwhelming from an administrative point of view, and a leveling up of substandard wages is not synonymous with the creating of undesirable price inflexibility. Where a Board carefully investigates each situation, where it conceives its function to be not a general reconstruction of the wage structure but rather a bringing up to the standard maintained by the better-paying establishments of the wages of the more submerged employees, and where it provides for readjustment with reasonable promptness of wage minima that have been set, its operation will be no more incompatible with the working of the price system than numerous other types of price regulation. And there is crying need for some governmental body to perform the function of eliminating substandard wages in the nation's more depressed wage areas and in distinctly undercutting plants.

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fair wage standards in the occupation to be subject to the order establishing a minimum fair wage.

[1] *Cf. supra*, pp. 288–290.

[2] Section 5 (*a*) directed that "whenever the Board shall have reason to believe that, owing to the inadequacy or ineffectiveness of facilities for collective bargaining, wages lower than a minimum fair wage are paid to employees in any occupation in which such employees are engaged in interstate commerce or are engaged in the production of goods which are sold or shipped to a substantial extent in interstate commerce, the Board shall conduct an investigation of the wages paid in such occupation and the value of the services rendered therefor."

[3] For an excellent discussion of the legal and administrative aspects of federal wage and hour legislation such as was proposed in 1937 and 1938, *cf. Monthly Bulletin* of the International Juridical Association, vol. 6, no. 5 (November, 1937).

CHAPTER VII

WOMEN IN INDUSTRY

Of the 48,829,920 gainfully employed persons in the United States in 1930, 10,752,116, or more than one-fifth, were women. In many respects, these workers constitute a separate economic group. Their needs, as a whole, differ from those of adult males, and the same criteria of "adequate" earnings are therefore inapplicable; frequently they are weak bargainers as compared with men; their own attitudes and those of the community toward their participation in industrial life have given to the problem of their employment distinctive characteristics; the supply curve for their labor has an elasticity that both keeps down their earnings and accentuates the conditions normally arising out of a labor reserve of male workers; inferior physical strength of women and the special costs incident to their employment influence the wages they receive; a narrower range of remunerative occupations is open to them than to men; significant differences in age, nationality, and racial factors are to be found between the male and female working populations; much more legislative protection has been extended to women than to men. For these and other reasons the problem of the earnings and employment conditions of women must be given separate consideration.

Trends: Numbers: Occupational Distribution.—The increasing importance of women as a part of the labor supply during the last half century has been due to the increase in the amount of work to be done—an amount that could not have been provided for, as is indicated later,[1] by the available reserve of males not gainfully occupied. Notwithstanding the advances in the utilization of labor-saving machinery and the application of mechanical effort to industrial processes, the total amount of human effort required in proportion to the population of working age has increased, and this need has been met chiefly by the employment of women. For the most part, this increase in the amount of work to be done, and therefore in the proportion of the population which is gainfully occupied, has been a consequence of the rapid multiplication and development of the service occupations and distributive activities, in which a much larger percentage of all remuneratively employed persons is to be found than fifty years ago, and it is in these lines of activity that women have become an increasingly important part of the labor supply.

[1] *Infra*, pp. 389–391.

Yet the early impetus to the employment of women must be attributed to changed methods of production rather than to the development of the service occupations and distributive activities, as contrasted to the production of raw materials and fabricated goods. Machine industry and simplification of operation during the early days of the Industrial Revolution transferred to the factory work previously done by women in the home, placed less premium upon physical strength and brawn, and therefore made women increasingly valuable in industry. Division of labor was no longer based to such a great extent upon sex differences, and machine industry therefore not only transferred to the factory work previously done in the home, but it also brought a true enlargement in the sphere of woman's activities, owing to the greater productivity of machinery and the fact that many of her previous occupations had been those in which human wants are least capable of expansion—the satisfaction of the common needs of physical existence. Women consequently entered industry in large numbers during the early years of the Industrial Revolution in England and, for a time, during the first enthusiasm for the laissez-faire policy, virtually no steps were taken by the state to alleviate the social evils consequent upon this change.

In the United States, on the other hand, the entrance of women into industry presented no great problem until a somewhat later period. More than a hundred occupations were open to women, it is true, during the early years of our economic development,[1] and in the first half of the nineteenth century women entered factories in increasing numbers. But for the most part the female operatives in the early cotton mills were Americans, often the daughters of farmers, tradesmen, teachers, and preachers, who lived in the neighborhood of the factories, and they hardly constituted a permanent factory class. The depression of labor conditions immediately before the Civil War and the large influx of immigrant male workers were factors retarding the entrance of women into industry, and it was not until the Civil War, when large numbers of women were thrown upon their own resources, that the tendency for women to invade occupations formerly the sole province of men became pronounced.

Since that turning point in American social and economic history, however, and especially since the 1880's, the number of women gainfully employed has increased much more rapidly than total female population, total population of the country, or the proportion of the male population gainfully occupied. The summary in Table 64 presents the essential facts. It will be noted that during the half century prior to 1930 the number of women gainfully occupied increased by 306 per cent, or more than quadrupled, while the increase in the number of men in gainful occu-

[1] Edith Abbott, *Women in Industry*, p. 66.

TABLE 64.—NUMBER OF MALES AND FEMALES GAINFULLY EMPLOYED AND PER CENT OF POPULATION, BY AGE GROUP AND SEX, 1880–1930[1]

Year	Population 10 years of age and over			Population 10 years of age and over gainfully occupied			
	Total	Male	Female	Male		Female	
				Number	Per cent	Number	Per cent
1880	36,761,607	18,735,980	18,025,627	14,744,992	78 7	2,647,167	14.7
1890	47,413,559	24,352,659	23,060,900	19,312,651	79 3	4,005,532	17.4
1900	57,949,824	29,703,440	28,246,384	23,753,836	80 0	5,399,397	18.8
1910	71,580,270	37,027,558	34,552,712	30,091,564	81 3	8,075,772	23.4
1920	82,739,315	42,289,969	40,449,346	33,064,737	78 2	8,549,511	21.1
1930	98,723,047	49,949,798	48,773,249	38,077,804	76.2	10,752,116	22.0

[1] From *Abstract of the Fifteenth Census of the United States*, p. 305.

pations was only 158 per cent, and in total population 145 per cent. Phrased in slightly different terms: Fifty years ago only about one woman out of every seven (14.7 per cent) was working for economic remuneration, but in 1930 more than one in every five (22.0 per cent) was gainfully occupied. On the other hand, there was no increase, but over the period as a whole a slight decrease, in the number of males employed relative to total male population, the percentage of those ten years and over who were gainfully occupied being 78.7 in 1880 and 76.2 in 1930.[1]

The extent to which the increase in the gainfully occupied proportion of the population of working age has been due to the employment of women is also indicated by the number of gainful workers of each sex per million population ten years old and over in both 1880 and 1930. Such data are set forth in Table 65. The significant fact to which these

[1] In view of the rapid decrease in the relative number of girls between ten and fifteen years of age employed during this period, the data on the increase in the number of women fifteen years of age and over gainfully occupied are somewhat more indicative of the increase in the employment of women. These data are set forth in the following table (compiled from *Bulletin 75* of the Women's Bureau, U. S. Department of Labor, and from "Occupation Statistics," *Census Monograph IX*, 1932, p. 70). Owing to the fact that the Census of 1880 did not make separate classification of girls between ten and fifteen years of age, the percentages cannot be extended back to the first year mentioned in the above paragraph.

Year	No. of gainfully occupied females 15 years old and over	Percentage of all in age group
1890	3,712,144	18.9
1900	4,997,415	20.6
1910	7,693,828	25.4
1920	8,346,796	23.7
1930	10,632,227	24.8

TABLE 65.—SEX DISTRIBUTION OF PERSONS GAINFULLY OCCUPIED PER MILLION POPULATION 10 YEARS OF AGE AND OVER, 1880 AND 1930[1]

Year	Males	Females	Total
1880	401,096	72,009	473,105
1930	385,703	108,912	494,615
Increase (+) or decrease (−), 1880 to 1930	−15,393	+36,903	+21,510

[1] Taken with permission from "Women Workers and Labor Supply," National Industrial Conference Board *Bulletin 220* (1936), p. 9.

data point is evident: the number of women in gainful occupations per million of population increased during these fifty years to an extent sufficient to offset the relative decline in the number of males and to create a surplus (as compared with the 1880 number of gainfully employed per million population) of 21,510. This surplus represents the entire gain in total labor force in proportion to the population of working age.

A summary of changes in the proportion of the gainfully employed who are women, as well as in the percentage of the female population gainfully occupied, is of significance. In 1880 men constituted 84.8 per cent, and women only 15.2 per cent, of all persons gainfully occupied, while in 1930 the percentages were 78.0 and 22.0, respectively. Table 66 shows changes in the sex distribution of the gainfully occupied by census years since 1880. It will be noted that with the exception of one

TABLE 66.—CHANGES IN SEX DISTRIBUTION OF GAINFULLY EMPLOYED, 1880–1930[1]

Year	Persons 10 years of age and over gainfully employed	Women		Men	
		No. of employed	Percentage of all gainfully employed	No. of employed	Percentage of all gainfully employed
1880	17,392,099	2,647,157	15.2	14,744,942	84.8
1890	23,318,183	4,005,532	17.2	19,312,651	82.8
1900	29,073,233	5,319,397	18.3	23,753,836	81.7
1910	38,167,336	8,075,772	21.2	30,091,564	78.8
1920	41,614,248	8,549,511	20.5	33,064,737	79.5
1930	48,829,920	10,752,116	22.0	38,077,804	78.0

[1] From Women's Bureau, U. S. Department of Labor, *Bulletin 75* (1929), p. 3, and Census Bureau, *Occupation Statistics*, 1932, p. 8.

census year, the percentage of women in the total gainfully occupied population increased steadily,[1] and that the percentage of men declined proportionately.

[1] In part, the decline in the percentage between 1910 and 1920 was more fictitious than real. It was probably due to three causes: (1) The change in the census data from April 15 in 1910, to January 1 in 1920—from a very busy farming season to a time of the year when

The increasing relative importance of women as gainful workers may be viewed from a different angle: that of the number of females who would have been gainfully occupied in 1930 had the sex distribution of the gainfully employed existing in 1880 continued in the same proportions during the following half century. Table 67 shows the number who would have been employed, under this assumption, in each of the census years after 1880, and the excess of actual employment of women over that this hypothetical employment figure. Had the 1880 proportion obtained throughout these years, only about 7,432,000 women would have been employed in 1930, or approximately three and one-third million less than the number who actually were employed. The obvious implication—one to which we shall revert when we turn to the question of whether the increasing employment of women has resulted in displacement of men workers—is that if the proportion of women had remained at the 1880 level, a considerably greater increase in the number of men in gainful occupations would have been necessary.

TABLE 67.—FEMALES GAINFULLY OCCUPIED, 1880–1930, ACTUAL NUMBER AND NUMBER ASSUMING NO CHANGE IN SUBSEQUENT CENSUS YEARS FROM THE SEX DISTRIBUTION OF GAINFUL WORKERS IN 1880 (IN THOUSANDS)[1]

	1880	1890	1900	1910	1920	1930
Total gainfully occupied (both sexes)	17,392	23,318	29,073	38,167	41,614	48,830
Females gainfully occupied:						
Number	2,647	4,006	5,319	8,076	8,550	10,752
Per cent of total	15.2	17.2	18.3	21.2	20.5	22.0
Number of females on basis of 1880 percentage of total	2,647	3,549	4,425	5,809	6,334	7,432

[1] From National Industrial Conference Board, *op. cit.*, p. 11.

There is every likelihood that the trends portrayed in the preceding pages will continue. Mechanization of industry, postponement of marriage, a greater tendency for women to continue gainful employment after marriage, changed social attitudes toward the work of women, reduced immigration, and the general improvement in the contractual, civil, and political status of women will operate, more or less inevitably, to bring more of them into industry. It is worth recalling that in the older countries a higher percentage of the female population is employed than in the United States.[1]

farming activities are at their lowest ebb. This change in date probably resulted in a reduction in the number of women returned in agriculture, forestry, and animal husbandry, although the returns for men apparently were affected to a less extent by the same circumstance. (2) An overstatement in 1910 of the number engaged in agriculture. The Census Bureau estimates this overstatement at almost half a million. (3) A great decrease in employment of girls of ten to fifteen years of age between 1910 and 1920.

[1] In England and Wales, 3,003,916 females were gainfuly employed in 1881 out of a total female population of 13,334,537; while that same year 7,783,646 males out of 12,639,-

Equal in importance to the question of the extent to which women have become a larger part of the nation's working force is the question of the occupations in which their representation has been most rapidly increasing. Has the competitive underbidding of which male workers complain been a pervasive practice? Have women tended to enter new occupations in increasing numbers, or have they merely enlarged their field of work by entering in greater numbers occupations in which they formerly had scant representation?

That women workers have invaded almost every line of economic activity there can be no question. The Federal Census of 1930 showed that women were employed in all but thirty of the 534 listed occupational classifications. That same year approximately one-eleventh of all persons gainfully employed in agriculture, forestry, and animal husbandry (909,939 out of 10,471,998) were women; in manufacturing and mechanical industries women numbered 1,886,307 out of 14,110,652 persons gainfully employed; 962,680 of the 6,081,467 engaged in trade were women; nearly one-half (1,526,234 out of 3,255,884) of those in professional service were women; in domestic and personal service, long recognized as "woman's sphere," 3,180,251 of the 4,952,451 persons thus engaged were women; while in clerical work women were outnumbered by men by only 51,664, the total number of women being 1,986,830, against 2,038,494 men. In the extraction of minerals, where employment of women in most kinds of manual work is prohibited by law, on the other hand, only 759 women were employed in a total number of 984,323, while in transportation and communication, 281,204 women were employed in a total of 3,843,147. Table 68 shows the important trends since 1910, and changes in the relative importance, so far as the employment of women is concerned, of the different lines of activity.

Between 1910 and 1930, it will be noted, there was an absolute decline in the number of women engaged in agriculture and mineral production,

332 were gainfully employed. In 1921, on the other hand, 5,065,332 females twelve years of age and over were working for remuneration out of a total female population in the same age group of 15,699,805; and 12,112,718 of the 13,901,108 males twelve years of age and over were occupied. The English and Wales figures for 1881 and 1921 are not strictly comparable, owing to a change in the Census method of classification, but they indicate clearly the extent to which women have entered industry. In the 1881 Census an attempt was made to list all males and females gainfully employed. In 1891, 1901, and 1911 the Census enumerated persons ten years of age and over who were gainfully occupied, while in 1921 the lower limit was changed to twelve years. This same lower limit was also adhered to in the 1931 Census. These data, also, do not give an indication of the large number of British women who entered industry during the War. In July, 1914, the number of women ten years of age or over gainfully occupied was 5,966,000; in July, 1918, it was 7,311,000; while in 1921, as a result of the exodus of women from industry as men were demobilized from the army, only 5,065,332 women were gainfully occupied. In Germany in 1920, 54.0 per cent of the women fifteen years of age or over were gainfully employed, in the Netherlands 32.7 per cent, and in France 50 per cent.

TABLE 68.—OCCUPATIONAL DISTRIBUTION OF GAINFULLY OCCUPIED WOMEN[1]

General division of occupations	1910		1920		1930	
	Number	Percentage distribution	Number	Percentage distribution	Number	Percentage distribution
Agriculture	1,806,624	22.4	1,083,146	12.7	909,939	8.5
Forestry and fishing	557	.....	673	.....	329	
Extraction of minerals	1,094	.....	2,864	.....	759	
Manufacturing and mechanical industries	1,820,847	22.5	1,930,352	22.6	1,886,307	17.5
Transportation and communication	115,347	1.4	224,270	2.6	281,204	2.6
Trade	472,703	5.9	671,983	7 9	962,680	9.0
Public service	4,836	0 1	10,586	0.1	17,583	0.2
Professional service	734,752	9 1	1,017,030	11 9	1,526,234	14.2
Domestic and personal service	2,530,403	31 3	2,186,682	25 6	3,180,251	29.6
Clerical occupations	588,609	7 3	1,421,925	16 6	1,986,830	18.5
Total	8,075,772	100 0	8,549,511	100 0	10,752,116	100 0

[1] Fifteenth Census of the United States, vol. 5, *Population*, p. 39.

and over the twenty years as a whole no appreciable increase in the employment of women by manufacturing enterprises occurred. Indeed, a smaller percentage of gainfully employed women were engaged in manufacturing in 1930 than were twenty years before, and in both of the two later census years women constituted a smaller proportion of the total number engaged in manufacturing. It will be noted, also, that an absolute decline in the number of women engaged in manufacturing occurred between 1920 and 1930. On the other hand, the number of women engaged in professional service, domestic and personal service, and clerical occupations increased appreciably during the two decades prior to 1930, and in the majority of these cases women constituted a higher percentage of both the total number of gainfully employed women and the number of persons, men and women, in each of these general divisions of occupations in 1930 than in 1910. The generalization indicated by these data is that women have increased their representation in industry during the last two decades not so much by entering occupations formerly occupied almost exclusively by men—although this has, of course, taken place to an extent—as by holding or increasing their percentage representation in occupations in which they formerly predominated. The greater numerical importance of women in industry reflects the increasing importance of these occupations—an importance consequent upon the development of new types of service and expansion of some of the older types.

Changes in the occupational distribution of women workers, and the social significance of these changes, can be seen more clearly, however, if

TABLE 69.—NUMBER OF FEMALES 10 YEARS OF AGE AND OVER GAINFULLY OCCUPIED, 1890 AND 1930[1]

Occupation		1890	1930	Increase from 1890 to 1930	
1890	1930			Number	Percentage of total increase
Trade, transportation, communication and service:					
Clerks and copyists	Clerks (except clerks in stores) Clerks, stores	64,219	869,700	805,481	11.9
Stenographers and typists	Stenographers and typists	21,270	775,140	753,870	11.2
Servants and waitresses	Cooks Waitresses Charwomen and cleaners Other servants Attendants, pool-rooms, bowling alleys, etc.	1,216,639	1,908,042	691,403	10.2
Teachers and professors in college, etc.	Teachers College presidents and professors Demonstrators (in trade)	246,066	886,149	640,083	9.5
Saleswomen	Saleswomen	58,451	542,646	484,195	7.2
Bookkeepers and accountants	Bookkeepers, cashiers, and accountants	27,722	482,711	454,939	6.7
Nurses and midwives	Trained nurses Midwives and nurses (not trained)	41,396	431,879	390,483	5.8
Launderers and launderesses	Laundresses, not in laundry Laundry owners, managers, and officials Laundry operatives	216,631	519,006	302,375	4.5
Telegraph and telephone operators	Telegraph operators Telephone operators Radio operators	8,474	251,427	242,953	3.6
Housekeepers and stewardesses	Housekeepers and stewardesses	86,089	236,363	150,272	2.2
Barbers and hairdressers	Barbers, hairdressers, and manicurists	2,825	113,194	110,369	1.6
Boarding and lodging-house keepers	Boarding- and lodging-house keepers	32,593	127,278	94,685	1.4

[a] Less than 0.1 per cent.

[1] From National Industrial Conference Board, *op. cit.*, p. 17. The data could not be carried back to 1880, owing to the fact that 1890 was the earliest census year for which comparable data for a large number of individual occupations were available. The first column of the table gives the name of the occupation as designated in the census of 1890, and the second column shows the corresponding designations, in greater detail, in 1930. The arrangement of the various occupations made by the Conference Board, it will be noted, is based upon the increase in the number of women workers between these two census years. The authors acknowledge their gratitude to the National Industrial Conference Board for permission to reproduce this table.

TABLE 69.—NUMBER OF FEMALES 10 YEARS OF AGE AND OVER GAINFULLY OCCUPIED, 1890 AND 1930.—(*Continued*)

Occupation		1890	1930	Increase from 1890 to 1930	
1890	1930			Number	Percentage of total increase
Merchants and dealers, except wholesale	Retail dealers	27,614	110,166	82,552	1.2
Literary and scientific persons	Authors Chemists, assayers, and metallurgists Librarians Librarians' assistants and attendants Other	2,764	53,572	50,808	0.8
Clergymen	Clergymen Religious workers Social and welfare workers	1,143	47,819	46,676	0.7
Musicians and teachers of music	Musicians and teachers of music	34,519	79,611	45,092	0.7
Restaurant keepers	Restaurant, cafe and lunch-room keepers	2,416	40,008	37,592	0.6
Janitors and sextons	Janitors and sextons	2,808	35,820	33,012	0.5
Physicians and surgeons	Physicians and surgeons Osteopaths Healers, not elsewhere classified Chiropractors	4,557	20,875	16,318	0.2
Actresses	Actresses	3,949	19,290	15,341	0.2
Hotel keepers	Hotel keepers and managers	5,276	17,310	12,034	0.2
Journalists	Editors and reporters	888	11,924	11,036	0.2
Artists and teachers of art	Artists, sculptors, and teachers of art	10,815	21,644	10,829	0.2
Messengers and errand and office girls	Messengers, errand and office girls Telegraph messengers	2,909	9,128	6,219	0.1
Photographers	Photographers	2,201	8,366	6,165	0.1
Forewomen and overseers in trade and transportation	Floorwalkers, forewomen and overseers in trade Forewomen and overseers (railroad transportation)	975	4,850	3,875	0.1
Commercial travelers	Commercial travelers	611	3,942	3,331	[a]
Other	Other	84,090	326,922	242,832	3.6
Manufacturing and mechanical industries	Manufacturing and mechanical industries	1,024,975	1,886,307	861,332	12.8
Extraction of minerals	Extraction of minerals	489	759	270	[a]
Forestry and fishing	Forestry and fishing	323	329	6	[a]
Agriculture	Agriculture	769,785	909,939	140,154	2.1
Total.....	Total.....	4,005,532	10,752,116	6,746,584	100.0

a somewhat longer period of time is included in the survey and if the branches of economic activity included in Table 68 are subdivided. In Table 69 the absolute numbers employed in the "basic-production industries" of manufacturing, mineral extraction, forestry and fishing, and agriculture, and in twenty-seven subdivisions of the general field of "trade, transportation, communication, and service" in 1890 and 1930 are set forth, together with the absolute increase in employment in each of these thirty-one classifications and the percentage which the increase in each case constituted of the total increase in the employment of women during these four decades.

The most significant fact is very apparent: that by far the greater part of the increase in the number of women gainfully occupied has taken place in the distribution and service occupations. This part, it will be noted, accounts for approximately 85 per cent of the total increase during the forty-year period, while only 15 per cent of the increase occurred in the so-called "production industries." Phrased in terms of absolute numbers instead of percentages, the number of women employed in the production of raw and fabricated commodities increased by only about a million (1,001,762) during these four decades, while the number employed in the distribution and service occupations increased by approximately five and three-quarter millions (5,744,822). Or, in 1890 the "production industries" accounted for 45 per cent of the total number of females in gainful occupations, and in 1930 for only 26 per cent. Female workers in manufacturing and mechanical industries alone accounted for about one-fifth (19.7 per cent) of the total there employed in 1890, and for only slightly more than one-eighth (13.4 per cent) in 1930. The increase in the number of females employed in manufacturing for the whole period was only 84 per cent, while the gain in the number of males employed was 193 per cent and that for both sexes 171 per cent. The employment of women in manufacturing has kept pace with neither the growth of the total working force of the industry nor with the growth of population. It will be noted that four clerical occupations—clerks and copyists, stenographers and typists, bookkeepers and accountants, and telegraph and telephone operators—represent slightly more than one-third of the total increase, and that the gain in the first two of these was more than 56 per cent greater than the total gain in the production industries. The increase from 1890 to 1930 in a single clerical occupation, clerks and typists (805,481), was equal to approximately 94 per cent of the total gain in the number of women engaged in manufacturing occupations (861,332).

It is not difficult to account for the decline in the relative importance of the basic production industries as sources of livelihood for women workers, and for the increasing importance of the distribution and service occupations. The growth in total employment of women took place

concurrently with a marked shift in the distribution of the working population. The proportion of workers in occupations connected with the production of raw materials and fabricated goods declined from 75 per cent of all gainfully employed persons in 1880 to 53 per cent in 1930, and the proportion of workers in service occupations and distributive activities increased from 25 to 47 per cent. This shift in the distribution of total working population reflected the broadening and diversification of economic activity, and the development of new types of service and expansion of older types that accompanied a rising standard of living. The multiplication of activities necessitated employment of a larger percentage of the population of working age,[1] and this necessity was met largely by the advent of women into industry. As is pointed out later,[2] there are not enough unoccupied males of working age in the United States to do the work performed by women in the distribution and service activities, and it has been the development of these activities that has accounted for both the increased proportion of the female population that is gainfully employed and the increasing relative importance of these occupations. Moreover, technological changes and the increase in the capital factor relative to labor have increased the productivity of each worker in the basic production industries (especially in manufacturing) and therefore have released women for work in the newer or more rapidly expanding service and distribution occupations, and thus, indeed, made possible the development of these occupations.

The fact that about 85 per cent of the increase in employment of women since 1890 has taken place in the distribution and service occupations should not, however, induce forgetfulness of the fact that a large number are still employed in the basic production industries. Two of these, the extraction of minerals and forestry and fishing, are of negligible importance, their total number of female employees being only 812 in 1890, and 1,080 in 1930. In agriculture the number of women workers increased by 140,154, or about 16 per cent, between 1890 and 1930, this increase accounting for only 2.1 per cent of the total increase in number of women gainfully occupied. There has been little change in the proportion female workers bear to the gainfully occupied agricultural group, women representing 8.5 per cent in 1890 and 8.7 per cent in 1930. In proportion to general population the total for both sexes in agriculture

[1] It will be recalled that in 1880, 473,000 persons were gainfully employed per one million members of the population ten years of age and over, and that in 1930 the number had increased to 495,000 per million persons in the same age group. As has already been indicated (*supra*, p. 379), this increase in the number employed in relation to population was entirely a consequence of the increased employment of women, the number of gainfully occupied males per million of population ten years of age and over declining by 15,393 during these fifty years.

[2] *Infra*, pp. 389–391.

has declined by about two-fifths.[1] More than a million and three-quarters women were employed by American manufacturing enterprises in 1930, however, and it is within this group that some of the most acute problems consequent upon the employment of women arise. In several of the subdivisions of manufacturing, moreover, women predominate. The Census of Occupations figures show that more than one-half of the workers in the textile, bookbinding, and glove-making trades, more than one-third in the clothing industry, and approximately one-third in the canning industry are women. The generality of the employment of women, in spite of the already discussed declining importance of the basic production industries, is indicated by the data, in

TABLE 70.—OCCUPATIONS IN WHICH 50,000 OR MORE FEMALES WERE GAINFULLY EMPLOYED, 1910, 1920, 1930[1]

Occupation (1930 classification)	1910	1920	1930
Farmers (owners and tenants)	273,142	265,577	262,645
Farm laborers-wage workers	349,122	226,587	171,323
Farm laborers-unpaid family workers	1,176,585	576,642	475,008
Dressmakers and seamstresses (not in factory)	447,760	235,519	157,928
Clothing industries	237,270	265,643	346,751
Cigar and tobacco factories	71,845	83,960	67,948
Food and allied industries	38,439	73,097	88,586
Iron and steel, machinery, and vehicle industries	23,557	57,819	60,763
Shoe factories	59,266	73,412	81,551
Paper, printing, and allied industries	59,574	67,845	63,490
Cotton mills	140,666	149,185	145,683
Knitting mills	65,338	80,682	89,803
Silk mills	50,360	72,768	73,690
Woolen and worsted	52,056	61,715	49,060
Other textile mills	72,324	68,431	68,348
Miscellaneous manufacturing industries	109,132	192,264	182,364
Telephone operators	88,262	178,379	235,259
"Clerks" in stores	111,594	170,397	163,147
Retail dealers	67,103	78,980	110,166
Saleswomen	262,335	365,333	560,720
Musicians and teachers of music	84,478	72,678	79,611
Teachers (school)	476,864	635,207	853,967
Trained nurses	76,508	143,664	288,737
Nurses (not trained)	110,912	132,658	139,576
Barbers, hairdressers, manicurists	22,298	33,246	113,194
Boarding- and lodging-house keepers	142,400	114,740	127,278
Housekeepers (and stewards)	173,333	204,350	236,363
Laundresses (not in laundry)	520,004	385,874	356,468
Laundry operatives	76,355	80,747	160,475
Cooks	333,436	268,618	371,095
Domestic, hotel, and other servants	976,113	743,515	1,263,864
Waitresses	85,798	116,921	231,973
Bookkeepers, cashiers, accountants	187,155	359,124	482,711
Clerks (except "clerks" in stores)	122,665	472,163	706,553
Stenographers and typists	263,315	564,744	775,140

[1] Compiled from Fifteenth Census of the United States, vol. 5, *Population*, pp. 10–22.

[1] In 1890 the gainfully occupied in agriculture numbered 14,450 per 100,000 population, against 8,529 in 1930—a decrease of approximately 41 per cent.

Table 70 on occupations in which 50,000 or more women were employed in 1910, 1920, or 1930.

Have Women Displaced Men?—In part, the answer to this question has been implied. Women have increased their representation in industry largely because of the enlargement of the amount of work to be done consequent upon the rapid expansion of the service and distribution occupations. They have pre-empted a goodly share of these occupations, and males have become a relatively more important part of the labor supply of the basic production industries. These facts, examined no further, do not create a presumption that any extensive substitution of female for male workers has taken place, or that women have encroached upon male occupations. At the same time, it will be recalled that a smaller percentage of adult males are employed today than were employed fifty years ago. Does the evidence indicate that the increased employment of women has been responsible for the decline in the number of males employed? How many men are available to do the work now being done by women?

Popular impression is, of course, that women have displaced men upon an almost spectacular scale, and male workers—both organized and unorganized—have frequently given overt manifestations that they regard women as unfair competitors, whose presence in industry constitutes a menace to both their wage scales and their security of tenure.[1] That thousands of individual cases of displacement have taken place is beyond question. In all probability, however, even the short-run effects of displacement of men by women have been overestimated. Frequently technological changes have made possible the employment of female machine tenders where male artisans were formerly required, and the superficial generalization emerging has been that "women have displaced men." The ultimate cause in such cases, however, has been technological change. Studies of the increasing importance of women in specific industries or occupations are, therefore, of questionable value as a basis for generalization as to the extent of displacement, and evidence of real displacement can best be found in the increased number of women employees combined with any increases in the proportion of unemployed men. In the depression stage of the business cycle this situation frequently appears, but the evidence that over long periods of time the increasing employment of women has been accompanied by increasing unemployment of men is far from convincing.

The question of whether the aggregate effect of the entrance of women into gainful employment has been to prevent men from having employment can best be approached by asking how many men are available to

[1] For example, the efforts of organized labor to secure legislation intended to penalize employers of women by the requirement of expensive and (occasionally) inefficient employment conditions for female workers.

do the work now being performed by women. If the number is small relative to the number of female workers, it cannot reasonably be contended that women are to any great extent taking work that otherwise would be done by men, or that as a long-run matter the problem of displacement of males has been an extensive one.

Data already cited,[1] it will be recalled, showed that if the sex distribution of gainful workers obtaining in 1880 had continued in the same proportions in the subsequent fifty years, the number of women in gainful occupations in 1930 would have been about 7,432,000, or approximately three and one-third millions less than the 10,752,000 actually enumerated that year. Had there been three and one-third million men available to do the work then done by women, the contention might reasonably be made that this figure measured the displacement of men. The significant fact, however, is that there apparently was no great reserve of males of working age who could have done the work of the three and one-third million women who represented the increase in the proportion of their sex in the total gainfully employed population. The maximum of this reserve presumably is indicated by the difference between the number of males old enough to work and the number enumerated as engaged in gainful occupations, as set forth in the summary in Table 71.

TABLE 71.—MALES 10 YEARS OF AGE AND OVER GAINFULLY OCCUPIED, AND NOT GAINFULLY OCCUPIED, 1880–1930[1]

Census year	Males 10 years of age and over	Males gainfully occupied	Males not gainfully occupied	Percentage of males not gainfully occupied
1880	18,735,980	14,744,942	3,991,038	21.3
1890	24,352,659	19,312,651	5,040,008	20.7
1900	29,703,440	23,753,836	5,949,604	20 0
1910	37,027,558	30,091,564	6,935,994	18.7
1920	42,289,969	33,064,737	9,225,232	21.8
1930	49,949,798	38,077,804	11,871,994	23.8

[1] From National Industrial Conference Board, *op. cit.*, p. 12. Attention should be called to the fact that the figures are those of males "engaged in gainful occupations," which is not synonymous with "employment." It is, of course, conceivable that the presence of so many more women in industry than would have been there had the 1880 sex ratio continued causes a considerable amount of chronic unemployment on the part of those engaged in gainful occupations (*i.e.*, those who customarily make their living in given occupations, whether or not they are employed at the time of the census). Nevertheless, the excess of males of working age over the number gainfully employed indicates in a general way the reserve of males who might do the work actually done by women.

In 1930, then, some 11,871,994 males, or about one-fourth (23.8 per cent) of the total number ten years of age and over, were not gainfully occupied. Both the absolute number and the proportion of unoccupied males were larger that year, it will be noted, than in any of the five preceding census years. But only a minority of these unoccupied males could reasonably be regarded as potential accretions to the nation's work-

[1] *Supra*, p. 380.

ing force. Of the 11,871,994, nearly eight and a half million (8,404,008) were boys or men less than twenty-four years of age and in school. Also, 494,664 were boys ten to seventeen years of age not in school, and 1,643,227 were men sixty years of age or over. All three groups should presumably be deducted from the possible reserve of males who might do the work performed by women—the first because these boys and young men were still completing their education, the second because boys under seventeen years of age should be in school, and the third because little if any augmentation of the labor supply should be expected from men over sixty years of age.[1] Subtraction of this total of 10,541,879 leaves a remainder of 1,330,115 as the maximum number of males who might conceivably have replaced women in 1930. In other words, the maximum number of potentially available men was less than one-eighth of the number of gainfully employed women, and fell short by two million of the three and one-third million women who were in industry but would not have been had the 1880 sex distribution of the gainfully employed population continued during the following fifty years.

Moreover, it is entirely likely that less than half of these 1,330,115 unoccupied males really constituted potential workers. Some of the men above the age of twenty-four were in colleges. In 1930 about 147,000 males were in insane asylums.[2] To this group should be added the feeble-minded, the blind, the crippled, the chronically ill, and those

[1] Of course, some of the older males in school may be there in consequence of the limitation upon their employment opportunities caused by the presence of women in industry—*i.e.*, they have continued in school when they would not have done so had their employment opportunities not been curtailed by the competition of women workers. It is likely that the number of such boys and men is small, however, and that we are justified in deducting all those under twenty-four who are in school or college from the possible number who might replace women. As the following table indicates, 7,642,615 of the 8,404,008 in school were under seventeen years old, and they certainly should not be considered possible accretions to the working force. It is certain, also, that only a minority of the 761,393 males 18 to 24 years of age who are in school should be regarded as not remuneratively occupied because of the presence of women in industry. The complete distribution by age groups of the unoccupied males ten years of age or over in 1930, as given in the National Industrial Conference Board's study (*op. cit.*, p. 13) was as follows:

Total males 10 years old and over		49,949,798
Gainfully occupied		38,077,804
Not gainfully occupied		11,871,994
10 to 17 years old, in school	7,642,615	
10 to 17 years old, not in school	494,644	
18 to 24 years old, in school	761,393	
18 to 24 years old, not in school	440,256	
25 to 44 years old	401,417	
45 to 59 years old	407,655	
60 years old and over	1,643,227	
Age unknown	20,787	
Total		11,871,994

[2] *Ibid.*, p. 14.

incapacitated by physical, mental, and moral handicaps, including prisoners without occupation. The number included in all these groups cannot be accurately determined, but there appears to be no reason for not accepting the conclusion of the National Industrial Conference Board that "it seems reasonable to estimate the total number of males not gainfully occupied because they are completing their education or because they are incapacitated at 600,000."[1] Finally, there must be added the voluntarily idle—men of wealth not gainfully occupied, men under the age of sixty retired from active work, and those able but unwilling to work. Comprehensive statistics on the voluntarily idle are not available, but the Conference Board's estimate of 100,000 must be regarded as conservative. Deduction of these 700,000 males who were not available as workers because they were incapacitated, voluntarily idle, or continuing their education beyond the age of twenty-four from the already arrived at figure of 1,330,115 leaves only about 600,000 males who might possibly have been substituted for gainfully occupied women. "This potential supply of male workers is equivalent to approximately 1.6 per cent of the males and 5.6 per cent of the females in gainful occupations. It will readily be seen that even if the male working force could be increased by substituting these 600,000 males for an equal number of females, the labor of approximately 95 per cent of the female workers enumerated in the last census would still be necessary."[1]

The only conclusion which the evidence seems to justify is that encroachment of women upon the employment opportunities of men has not, as a general and long-run matter, been extensive. In many individual cases, of course, women have underbid men and taken their jobs; employers sometimes have favored them because of their weakness as bargainers and the lower wages they generally stand ready to accept; and a considerable amount of unemployment among the males classified by the Census as gainfully occupied has undoubtedly been occasioned at times by the presence of women in industry. Had the representation of women in remunerative employment not increased as it has, some of the unoccupied males of working age would be gainfully occupied. But primarily the increase in the number of women workers has resulted from the inability of the male population of working age to meet the increased demand for labor arising out of the development of new types of services and expansion of some of the older types.

Factors Affecting the Economic Position of Women.—The fact that women have entered industry primarily in response to an increased demand for labor should not, however, lead one to the erroneous conclusion that their wages have approximated those of adult males or that their bargaining position has been strong. Indeed, practically all studies show that women's wages are between one-third and one-half

[1] *Ibid.*

lower than those of male workers.[1] The differences in remuneration as between the sexes are, of course, a reflection of the characteristics of women as an economic group. Some of these characteristics may be mentioned very briefly; others deserve somewhat more detailed consideration.

It is a matter of common knowledge that the average working life of women is shorter than that of male workers, that a large number of them are young and inexperienced persons, and that the consciousness of the impermanence of the individual in industry—despite the permanence and increasing importance of the group—affects profoundly their attitudes and their economic status.[2] Such workers are weak bar-

[1] In 1905 the Census Bureau found that weekly earnings of women in manufacturing averaged 55.2 per cent of those of males (U. S. Census Bureau, *Special Report on Manufactures*, 1905, pt. IV, p. 65). The National Bureau of Economic Research has reported that in Pennsylvania in 1920 women's earnings in all industries averaged 43.5 per cent of men's. The same research organization found that the ratio of women's median wage rates to those of men was 52.8 for wage earners, 58.7 per cent for clerical workers, and 47.0 for salespeople (National Bureau of Economic Research, *Income in the Various States, Its Sources and Distribution*, pp. 79–80). That there has been no pronounced change in these ratios in recent years is indicated by the data of the National Industrial Conference Board. This organization found that in the last quarter of 1930 average weekly earnings of female wage earners in manufacturing were 61.3 per cent of those of males (National Industrial Conference Board, *Wages in the United States, 1930*, p. 52).

[2] The Fifteenth (1930) Census showed that 20.5 per cent of the gainfully occupied males were twenty-four years of age or under, and that 37.3 per cent of the women workers came within the same age classification. On the other hand, 56.7 per cent of the males, and only 38.1 per cent of the females, were over thirty-five years of age (Census Bureau, *Occupation Statistics*, p. 42). With the elimination from industry, partly in consequence of the child labor laws, of many extremely young females, the tendency has, however, been toward a somewhat higher average age of gainfully employed women in recent years. Data from the Thirteenth, Fourteenth, and Fifteenth Censuses are not entirely comparable, owing to changes in age classification that have been made, but the general changes in age distribution are clear enough. In 1910, 7.9 per cent of the gainfully occupied females were under sixteen years of age; in 1920, 4.1 per cent were found to be in this age classification; and in 1930, 6.7 per cent of them were under seventeen years of age. However, the increase shown between 1920 and 1930 is a result of the change in the age divisions reported, with consequent inclusion of the large number of girls entering industry in their seventeenth year. Only 0.7 per cent of the gainfully occupied females were under fourteen years of age in 1930. There has also been some diminution in the employment of women sixteen to nineteen or twenty years of age. In 1910, 1,846,000 females came within this age classification, these constituting 22.9 per cent of all gainfully employed women; while in 1920, 1,411,427 girls sixteen to nineteen years of age were gainfully occupied, this number constituting 16.5 per cent of the total female working population. The 1930 data, although included within different age classifications, indicate the same decline in the employment of very young women. The percentage of gainfully employed women more than twenty or twenty-one years of age, on the other hand, has increased. In 1910, 4,302,969 women, or 53.3 per cent of all those gainfully employed, were between twenty-one and forty-four years of age, and 1,288,117, or 16.0 per cent, were forty-five years of age and over; while in 1920, 2,242,095 women, or 61.4 per cent of all females gainfully occupied, were between twenty and forty-four years, and 1,549,379, or 18.1 per cent of the total, were forty-five years of age or over.

gainers, and frequently their value productivity is less than that of male workers. Employers generally have contended that the output of women, when doing the same work as men, is appreciably less,[1] and there is evidence to support their contention. In part, it is true, the low wages of women are to be regarded as a consequence of the fact that they are compelled to enter occupations having a low value output, owing to the more limited range of occupations open to appreciable numbers of them, but they are partly due, also, to the relatively lower output of women, as compared with men, in the same occupations. On the whole, also, women workers represent racial and nationality groups which are either

In 1930, 3,289,993 women, or 30.6 per cent of the 10,752,116 who were then remuneratively occupied, were between eighteen and twenty-four years of age; 2,654,338, or 24.6 per cent, were between twenty-five and thirty-four years of age; 1,892,338, or 17.6 per cent, were between thirty-five and forty-four years of age; 649,078, or 6.1 per cent, were between fifty-five and sixty-four years of age; 226,811, or 2.1 per cent, were between sixty-five and seventy-four years of age; and 39,407, or 0.4 per cent, were seventy-five years of age and over. Studies of average duration of the employment of women bear out the general statement in the above sentence. A Missouri survey made by the Women's Bureau of the U. S. Department of Labor in 1924 showed that about one-fifth of the women workers had been in their trades less than one year, and about the same proportion for between five and ten years. The reward to women for remaining in a given line of work was shown to be small, for although there was a tendency for wages to increase with the length of time in the trade, the amount of the increase was not great. "Women in Missouri Industry," Women's Bureau, U. S. Department of Labor, *Bulletin 35*. *Cf.* also, *Bulletin 77* of the Women's Bureau, "A Study of Two Groups of Denver Married Women Applying for Jobs" (1929).

[1] In the British War Cabinet report on *Women in Industry* it appears to be the opinion of many employers that it usually takes three women to perform the work that could be done by two men. Many of the employers reporting were, however, those engaged in munitions production and in other lines of manufacture in which women would be expected to be least efficient. The results of an interesting study of the effect upon output of the employment of women, based upon the English Census of Production of 1907, has been presented by Mr. A. W. Flux in the *Statistical Journal* for May, 1913. Mr. Flux divided average net output in pounds sterling by the number of persons employed in the various industries, and then classified the industries into groups in accordance with their output, so that some correlation existed between total output and the proportion of women workers. It was found that in industries where males constituted 31.9 per cent, and women 68.1 per cent, of all employed, average net output per head was under £50. In industries where males constituted 40 per cent and women 60 per cent of all employed, average net output per head was between £50 and £75. On the other hand, in industries in which males constituted 72.4, and women 27.6, per cent of the total employees, average output was between £75 and £100 per head; in industries in which men constituted 90.2, and women 9.8, per cent of all employed, average net output was between £100 and £125. At the extreme may be cited industries in which males constituted 98.6, and females 1.4, per cent of all employed. Here average net output per head was over £200. However, it should not be assumed that the low output per head in those industries employing most women was entirely a result of the fact that many of the employees were women. Many women are compelled to seek employment in occupations which have a low output, measured in terms of money, because such are the only openings for them. Also, industries with low output per head are the ones in which wages will generally be low, and men will naturally avoid these employments as long as they can find work elsewhere.

less productive or else weaker in the process of economic bargaining.[1] These workers are more difficult to organize than men, their tasks require less skill and industrial training,[2] and competition for jobs is consequently keen among them. Even native-born women workers, with their frequent short-run viewpoint toward their jobs, and perhaps with a feeling of economic inferiority inherited from our social mores, do not expect or demand wages comparable to those of male employees.[3]

Another fact explaining the low wages of women workers is their relative immobility. Living with the family in many cases, they tend to accept work in the home community rather than to go where better-paying jobs are available. Still another factor is the greater incidental cost involved in the employment of women. Employers contend that because of the numerous legal restrictions to which the presence of women in their establishments subjects them, the state requirements as to protective appliances, the greater absenteeism due to illness, and especially the costly turnover of labor, they are placed in a position where they cannot afford to pay women as much as they pay men for the same physical output.

Moreover, the extreme elasticity of the supply of female labor, in comparison with that of masculine labor, is a factor keeping the wages of women from rising. Often only a slight monetary inducement is necessary to get women to abandon nonindustrial homework and sell their services, in factories and stores or in industrial homework. Special circumstances, such as the loss of employment by the family's chief breadwinner, may cause women workers to enter industry for whatever they can get. As always, great elasticity of supply is a factor tending to

[1] A considerably higher percentage of women workers are negroes than is true in the case of men, although foreign-born whites constitute a slightly higher percentage of gainfully employed men than of gainfully employed women (cf. Census Bureau, *Occupation Statistics*, 1932, p. 26). The following table gives the racial and national distribution of gainfully employed men and women in 1930:

Class	Males	Females
Native white	72 3	71 3
Foreign-born white	16 4	10 8
Negro	9.6	17 1
Mexican	1 1	0 6
Indian	0 2	0 2
Chinese	0.1	0 0
Japanese	0 1	0 1
All others	0.1	0.0

[2] Although the extent to which the work of women is unskilled or semiskilled can easily be overestimated. Perhaps the common assumption that they receive low pay because they are unskilled would be truer in many cases if cause and effect were reversed—*i.e.*, women are classed as unskilled because they receive low pay.

[3] For interesting portrayals of the attitudes of working women, see Frances Donovan, *The Saleslady*, and Cornelia Stratton Parker, *Working with the Working Woman*. Bessie VanVorst's *The Woman Who Toils* (1903) is an older book also worth reading.

prevent the price of the thing sold from rising greatly. Nor is the effect confined to the earnings of women, for the redundant supply of female labor is a constant factor depressing the wages of male workers. Employers are aware that they can add successive supplies of female labor at only slightly higher wages, and frequently men have the alternative, therefore, of being displaced by women or else working for lower wages than they would otherwise have to accept.[1] To the extent that these women engage in homework under conditions permitting lower production costs than those obtaining in factories, there is an indirect undermining of the standards of adult males through the competition of commodities.

The general indifference of women workers toward organization is a matter of common knowledge. Of the 10,752,116 working women in the United States in 1930, not more than 275,000 were that year affiliated with trade unions,[2] and in spite of the gains in union membership after 1933, perhaps not more than 400,000 women are today members of labor organizations. Several factors account for the lethargy of women in organizing for economic protection and improvement. Not expecting to remain wage earners permanently, they do not take the long-run viewpoint of their position necessary before immediate individual interests can be subordinated to the interests of the group. The traditional position of women in the home also explains, in part, their apparent unorganizability. "The linking of the woman to her home has undoubtedly secured the perpetuation of the family, but it has at the same time created a state of introversion, an interest in her immediate surroundings and herself, which forms a real obstacle to any attempts at trade-union organization when the woman enters the industrial field."[3] Craft

[1] The adverse effect of the elasticity of supply of female labor upon the earnings of both men and women is, of course, somewhat offset by the relative immobility of women workers. In so far as women workers are immobile, the consequence tends to be limited to a single locality. Also, the limited character of the range of occupations open to any considerable number of women prevents them from exerting as serious an influence over wages and earnings in general as they do in the unskilled-labor market.

[2] The American Federation of Labor has no accurate information as to the sex distribution of the members of its affiliated unions, but information from other sources indicates that in 1930 women workers constituted not more than 15 per cent of all organized workers, and probably a smaller proportion of the workers included in the Federation. Dr. Wolman's study (*Growth of American Trade Unions*, p. 99) shows that in 1920 some 396,000 women were organized, but as is indicated in vol. III of this treatise, trade-union membership declined greatly after 1920, reaching the postwar low point in 1924 and failing to gain appreciably between that year and the early 1930's. The Women's Trade Union League, which is endorsed by, and closely affiliated with, the American Federation of Labor, claimed a membership of approximately 200,000 in the middle-1930's. It should be noted, however, that according to Dr. Wolman's estimates only 76,000 women workers were organized in 1910.

[3] Theresa Wolfson, *The Woman Worker and the Trade Unions*, International Publishers, New York, p. 20.

jealousy among trade unions and the feeling of male wage earners that women are unfair competitors have also been impediments to the organization of women workers. The most aggressive efforts to organize women have, indeed, come from the needle trades, which owe their spirit as much to European socialism as to American trade unionism, and from the Women's Trade Union League, which derives a large part of its support from middle-class sympathizers,[1] rather than from old-line craft- and job-conscious unions. The "newer unionists" constantly contend that before any large number of women workers can be successfully organized, it will be necessary that the program of broadening union structural boundaries to include the unskilled be successful. Even more necessary than this, however, is a recognition by women that they are a permanent group in industry, despite the impermanence of the individual.

Finally, in an enumeration of the factors determining the economic status of women workers, mention should again be made of the fact that a great many, living with their families, do not have needs as great as the majority of adult males. Some of those living at home come within the "pin-money" group, and with less needs they are willing to work for relatively low wages. But, as was pointed out in an earlier chapter,[2] it is easy to exaggerate the extent to which the needs of men are greater than those of women. The home dwellers do profit by joint costs in household maintenance, but some of them are chief breadwinners, supporting other persons. Undoubtedly the numerical importance of the "pin-money" group has been greatly overestimated; because women have not received enough to support themselves away from home, the facile conclusion has been that they have not been working from economic necessity. In the majority of cases, it is safe to say, their participation in industrial life is due to the insecure economic position of the family. All members have to be supported somehow, and when the father's earnings are insufficient, the family must sell all of its available labor at the market rate. It is in this fact, more than in the "pin-money" assumption or in the benefits of joint costs in household

[1] The Women's Trade Union League is a federation, including as affiliated unions only those having exclusive female membership. Its monthly bulletin, *Life and Labor*, is perhaps the best single source of month-to-month information about the movement to organize American wage-earning women. The platform of the League includes these proposals: (1) Organization of all female laborers into trade unions; (2) abolition of sex discriminations in pay and in workers' status; (3) shorter working hours; (4) securing higher living standards; (5) securing full citizenship rights for women; (6) outlawing of war; and (7) the advancement of international cooperation of women workers. The League, unlike the National Women's Party, has always been sympathetic toward protective legislation for women.

[2] *Cf. supra*, pp. 71–72, where the question of what is an "adequate," or socially desirable, standard for women workers is discussed in some detail.

maintenance, that the explanation of the willingness of home-dwelling women to accept very low wages is to be found.

Homeworking Women.—One special group of home dwellers should be mentioned: those doing their work in the home. Census enumerations do not classify the industrial home workers as such, and it is impossible to estimate with any assurance of accuracy the number so engaged. There can be little question, however, that the group has been a significant one,[1] or that the problems of low wages, long hours, and insanitary environments are extremely acute. For the most part, these industrial homeworkers operate under the "farming out" or "sweating" system,[2] supervision of which has always proved to be difficult.[3] Since the

[1] New York State reported 21,573 workers in houses licensed for industrial homework in the year ending June 30, 1927; Pennsylvania reported that 1,161 employers were licensed and 12,600 homeworkers employed on Nov. 1, 1927; New Jersey licensed 3,027 families for homework in the year ending June 30, 1928 (Women's Bureau, U. S. Department of Labor, *Bulletin 79*, p. 2). As is pointed out later, homework in licensed establishments fell off more rapidly (contrary to popular belief) during the early stages of the depression of the 1930's than did employment in general, but an enormous amount of unlicensed homework was carried on prior to the advent of the NRA.

[2] The essence of the "sweating" system is the farming out to competing contractors of materials, these, in turn, being distributed among workers or families who complete the process in the "social shops" or homes. Adams and Sumner, in the book that was for many years the American standard on labor problems (*Labor Problems*, pp. 117–119), distinguish three principal varieties of sweating: (1) that in which the work is done by the contractor himself with the aid of his family and in his home; (2) that in which the contractor employs other than members of his family to assist him but brings all together in his home; and (3) that in which he provides an outside sweatshop where those he employs may work. The following description of the system was given in the *Pennsylvania Labor Herald* of Nov. 19, 1932: "The sweatshop owner . . . still works out of and for New York. From the New York manufacturers he receives shirts, underwear, or dresses, all cut, ready for sewing. He brings them to some low-rent loft or abandoned factory in which he has installed a few sewing machines and there hires women and girls at pitifully low wages to do the sewing. He has no capital invested in raw materials; little in anything. His entire equipment can be moved overnight when he decides to skip town without paying his wages or other bills. Some of these employers literally pay no wages at all. Under the pretense of hiring learners they get the girls to work for nothing for two or three weeks till they learn the business. At the end of this period the girls are discharged and replaced with another group of deluded learners. The employer thus gets his labor for nothing. Others, not quite so brazen, pay unmistakably low rates. The girls are lucky if they get $3 at the end of a hard week, and are rolling in wealth if their pay check amounts to $6." Quoted in "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), p. 203.

[3] However, a considerable amount of legislation designed to regulate or eliminate this type of labor exploitation has developed in the United States. For detailed analysis of it, see the article "Laws Relating to Industrial Home Work," *Monthly Labor Review*, vol. 30 (April, 1930), p. 104. As far back as 1884 New York enacted a statute prohibiting the manufacture of tobacco products in tenements in all cities with populations in excess of 500,000 (a limit then making the legislation applicable only to New York City), but this law was declared to be unconstitutional the following year, on the ground that it was not primarily a health measure and therefore exceeded the State's police power. In 1892

contractor, or "sweater," derives his profit from the margin of difference between the contract price and the wage cost of the article, he rather inevitably attempts to reduce wages to the lowest possible level; and in spite of the saving in overhead resulting from the fact that operations are carried on in the home, the wages of these workers have generally been considerably lower than those paid for similar work in the factories. The character of the labor supply makes exploitation very easy. The work generally involves simple operations, and it is done for the most part by persons lacking any industrial training; foreign-born women and their children in the tenement districts comprise a large part of the working force; the low standards, ignorance, and unfamiliarity with American customs all combine to make industrial homeworkers the weakest of bargainers. It is, indeed, in this lack of bargaining strength on the part of the workers, combined with the economies of small establishments in certain fields of production, that the explanation of the continued prevalence of the sweatshop in the needle trades and elsewhere[1] is to be found.

Both legislation and improved trade practices had resulted, by the end of the 1920's, in the elimination of some of the worst evils of the sweating system; but with the beginning of the depression, the proportions of sweatshop labor undoubtedly increased. It is true that homework in licensed establishments declined more in some industrial centers

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another law was enacted by New York State, requiring the licensing of homes in which industrial homework was carried on, and certain prohibitory features, such as the specification that foodstuffs, dolls' clothing, and children's clothing could not be manufactured, altered, repaired, or finished in tenement houses, were added by an amendment enacted in 1913. This law was declared to be constitutional in a test case made in 1915. Massachusetts was also among the states that early attempted to mitigate sweatshop evils by legislation, a law enacted in 1891 forbidding the production of clothing and food in unhealthful places. By the 1930's, fourteen states had legislation prohibiting or regulating industrial homework. Ten of them (Illinois, Indiana, Maryland, Massachusetts, Michigan, Missouri, New York, Ohio, Pennsylvania, and Tennessee) prohibited the production of certain products in homes, and four of them (California, Connecticut, New Jersey, and Wisconsin), while not prohibiting specified types of homework, regulate all types. The majority of these state statutes also require licensing in the case of those products which can legally be produced in the home.

[1] A partial list of the branches of production in which industrial homework is known either still to obtain or to have obtained in the near past includes: the several branches of the needle trades, the making of artificial flowers, processing tobacco, preparation of various food products, stringing tags, carding buttons, hooks, eyes, and safety pins, making garters, and working on jewelry, lamp shades, powder puffs, paper boxes and bags, carpet rags, and toys. Industrial homework is not, of course, entirely synonymous with sweating, or contracting out, since it may be done without intermediation of the contractor, but it is in connection with the contracting system that the problem has been most acute. Perhaps it is gratuitous to mention, also, that the problem is not confined to female labor, the subject matter of this chapter, since adult males and children are part of the labor supply.

during the early part of the depression than did factory work.[1] Concurrently with the decline in these centers, however, went a migration of sweatshops to places where regulation was less strict and a definitely established increase in the amount of work done in unlicensed places.[2]

[1] Probably the popular assumption is that homework increases with business depression. The reasoning underlying this assumption has been that women who cannot leave their families to work in factories are likely to apply for homework when other workers in the family are thrown out of employment, and that employers who see their returns falling off are likely to send out homework in increasing volume as a means of reducing factory costs. Undoubtedly these tendencies operate, but they do not seem to have been strong enough to cause the volume of homework to vary inversely with the volume of factory work. To test the popular assumption, the Division of Women in Industry of the New York State Department of Labor in 1932 compared the indexes of employment in all factories in New York State, of all factories in the men's clothing industry, and of homeworkers in licensed tenements for the period 1911–1930, the figures on the number of homeworkers being based on reports of the homework inspectors. This comparison revealed that homework employment apparently varies directly, not inversely, with factory employment, although marked fluctuations in homework seem to have lagged somewhat behind those in factory work, except for the depression of the 1930's, in which homework led in the decline. The New York Department of Labor summarized its conclusions as follows: "It would seem, then, that there is a direct relation between the volume of factory work and that of homework. There are various factors which must influence this relationship. In some industries certain processes in the manufacturing or finishing of factory made articles have lent themselves readily to homework. In these cases, homework has long held a definite place in the industry and is expanded or curtailed as the volume of factory work itself increases or diminishes. It is undoubtedly true that there are other industries in which homework is substituted for factory work during a depression. In still others, homeworkers constitute a reserve labor supply and as such are the first workers to be dispensed with when business becomes dull. With their plants and machinery in existence, manufacturers in such industries are anxious to keep their factory workers employed. Instead of increasing homework as a substitute for factory work at such times, they rely upon homework as a means of expanding production beyond the capacity of their plants during periods of greater activity" (quoted in "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616*, 1936 ed., p. 198). It should be pointed out, however, that this comparison does not prove the belief the sweatshop tended to become more prevalent during the depression was a myth. In the first place, the comparison was confined to employment trends in one state, although it is the most populous one and the one where in the past the greatest amount of homework has been carried on. There was, as a matter of fact, a considerable migration of homework out of New York City during the early years of the depression, especially to Connecticut, where regulation was less strict. A considerable amount of the work done in Connecticut home establishments was for New York City contractors. Also, it is notorious that "bootleg" homework increased appreciably early in the depression. In none of the states was the corps of homework inspectors sufficiently large to reduce this "bootleg" work (that done in unlicensed establishments) to negligible proportions. New York State had the same number of paid inspectors (twenty) from 1922 on through 1930. Finally, a decrease in total employment in homework could take place concurrently with a multiplication in the number of home establishments.

[2] This generalization is amply substantiated by the conclusions reached by the Conference on Present Day Child Labor Problems, held in Washington in December, 1932, and by various reports of the State labor departments. As examples of some of the conditions reported to this Conference: In Connecticut, the worst conditions were found in the garment-

Low-paid piece work, insanitary conditions, long hours, and violation of the various labor laws became extremely prevalent. Then came the establishment of the National Recovery Administration, and with it both a decline in the volume of homework and an elimination of some of the grosser evils. Ninety-seven of the codes, the general nature of which was discussed in the immediately preceding chapter,[1] included provisions relating in one way or another to homework.[2] Examination of the code provisions reveals, however, tremendous lack of uniformity in the attack upon the problem of gainful employment in the homes. Some absolutely prohibited this kind of labor; others set rates of pay for homeworkers below the rates for factory employees; still others established the same rate for homeworkers and other workers by implication in the agreed-upon definition of "employee"; all of them regulated hours and practically all attempted in some way to insure sanitary conditions and elimination of the more common types of exploitation. A relaxation of the prohibitions against homework included in some of the codes was introduced in 1934, when an Executive Order authorized homework in these industries or occupations under certain conditions.[3]

making industry, in which "runaway shops" were responsible for a serious situation. As early as 1929 the Connecticut Chamber of Commerce noted a movement of factories, not confined to the garment-making trades, from other states to Connecticut to take advantage of the less stringent labor laws there, the trend being chiefly from New York. "At that time the movement was looked upon as something to be encouraged. By 1931, however, the influx of responsible establishments had apparently come to an end, and the advent of a runaway shop had come to be recognized as a serious evil, embodying the old-time abuses of the sweatshop. . . . In addition, sanitary conditions were reported as bad and violations of the hours law as frequent, although Connecticut permitted the 55-hour week. . . . An investigation made by the Massachusetts Minimum Wage Commission . . . disclosed that rates as low as 10 cents . . . an hour were paid to girl workers in Fall River. . . . Practically all the shops paying these low wages had started business in town since the beginning of the present depression. . . . From Pennsylvania, Maryland, and New Jersey also came complaints of sweatshop conditions" (*ibid.*, pp. 203–204).

[1] *Supra*, pp. 361–370.

[2] Lyon, Homan, Terborgh, Lorwin, Dearing, and Marshall, *The National Recovery Administration* (1935), p. 338.

[3] Executive Order No. 6711-*A*, May 15, 1934. This order was issued because of evidence of hardships worked upon some classes of labor under the code provisions prohibiting homework. The order provided that certificates might be issued by the State agency designated by the United States Department of Labor as the certifying medium, in accordance with instructions of the Federal Department, to the following classes of persons: "(1) A homeworker who is suffering from a physical defect, injury, or illness not of a contagious nature, which physically incapacitates such homeworker for work in a factory or other regular place of business; (2) a homeworker whose services are absolutely essential at home to care for another person who is either bedridden or an invalid, and neither person is suffering from a contagious disease; (3) a homeworker who was accustomed to this method of earning a living before the code prohibition went into effect and is too old to be able to make an adjustment to factory routine. No able-bodied person under 50 shall be considered too old to make this adjustment." Joint application for the certificate was required from the homeworker and the employer.

While the National Recovery Administration of 1933–1935 neither "abolished the sweatshop" nor raised the wages of homeworkers to the level of those of factory employees, there can be no doubt that one of its beneficial consequences was an improvement of employment conditions in the homes as well as a reduction in the volume of such employment. A study made by the United States Department of Labor between June and November of 1934,[1] a year after the earliest codes became effective, showed that in spite of the continuance of "bootlegging" of homework under codes prohibiting that practice, the total volume had been reduced substantially. It was regarded as significant that "difficulty was encountered in locating homeworkers in the course of this study, in contrast with earlier periods when it was necessary only to walk along the streets in certain areas to see entire families at work in their homes." Experience of manufacturers who had brought homeworkers into their plants in accordance with code provisions indicated that the necessary adjustments had not been so great as was first anticipated. "The presence of workers in the shops had facilitated the shipment of orders, made it easier to correct mistakes, and contributed to the development of more efficient methods of production. Employers who had experienced these improvements believed that if homework had been prohibited in all the codes alike, so that no group of employers would enjoy an unfair advantage over others, the abolition of homework would have been satisfactory." It was found that while the codes had raised the piece rates of homeworkers, these rates still did not approximate those of factory help. This was also true of the individual earnings of homeworkers, which with few exceptions were on a lower level in the summer and fall of 1934 than those of factory workers. Both the inherent difficulty of regulating homework and the insufficient attention given to the problem by many of the code authorities were revealed by the investigation. "Although the majority of the codes provided that the labor provisions should apply to all persons working in the industry, only a few of the code authorities gave special attention to the problem of obtaining compliance with these standards for industrial homeworkers."

With the collapse under judicial disapproval of the NRA code structure in 1935, the volume of homework again increased and in many cases wage cuts occurred almost immediately. The withdrawal of the NRA code type of protection makes more essential than ever an extension of state control and improvements in the state laws, as well as a substitute form of Federal control. Among the changes which students of the problem are generally agreed should be made are the absolute prohibition

[1] U. S. Department of Labor, *A Study of Industrial Homework in the Summer and Fall of 1934: A Preliminary Report to the National Industrial Recovery Administration* (mimeographed). A summary of this report is included in the 1936 edition of the "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616*, pp. 198–202.

of the manufacture of a large number of products in the homes, application of all state labor laws to all kinds of industrial homework, improvement in supervision and inspection, and the placing of responsibility for compliance with the laws entirely upon the employer.[1]

Problems Arising from the Employment of Women.—The discussion in a preceding section of this chapter of some of the factors influencing the economic position of women has inevitably suggested the more important problems consequent upon their participation in gainful employment. Other problems, although interrelated with those already mentioned, deserve separate treatment.

It is difficult to determine accurately the net effect of the increased employment of women upon the living standards of the wage-earning class. To the extent that the presence of women in the labor market has prevented the earnings of men from rising as much as they otherwise would have risen, the effect has, of course, been adverse. On the other hand, the increase in the proportion of the population gainfully occupied has probably increased per capita productivity. The total value of the product of industry has not, obviously, been increased by the amount

[1] The Conference on Present Day Child Labor Problems of 1932 approached the problem primarily from the child-welfare viewpoint, rather than from the viewpoint of the women workers, and planned a program for the emergency calling for an improvement in hour and age regulations for child workers, a stricter control over the employment of minors in hazardous occupations, and for mandatory minimum wage legislation for minors under 18. To make these improvements effective, it was held that bureaus of women and children should be established in state labor departments, or, where they already exist, should be strengthened, and that business firms should be required to register with state labor departments to facilitate inspection ("Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616*, p. 204). The Association of Governmental Labor Officials in 1927 presented a series of recommendations, based upon a careful study (*cf.* "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 491*, 1929 ed., pp. 409–411). These recommendations include: (1) Absolute prohibition of the manufacture of certain kinds of articles in the homes should be required where necessary for sanitary or safety reasons. (2) All labor laws of a state should apply to industrial work of all kinds done in the home. (3) Responsibility for full compliance with such laws and with any special regulations applicable to homework should be placed upon the manufacturer for whom the work is done. (4) Adequate authority for enforcement of all laws applying to factory work done in homes should be given by law to the state labor department, and an adequate inspection staff should be provided for this work. (5) Local boards of health should notify the state labor department daily of all cases of communicable disease occurring in the locality over which they have jurisdiction, and the state labor department should report immediately to employers the names and addresses of all homeworkers registered as employed by them in whose home such disease exists. (6) A tag or label giving the name and address of the manufacturer, the nature and quantity of the goods, and the name and address of the worker or workers to whom the goods are given out to be worked on should be placed upon each unit of delivery or shipment to a home worker, and this label should not be removed until the work has been completed and returned to the employer. Uniformity of state laws is, of course, extremely necessary in order to prevent the migration of sweatshops to states with lax statutes. This matter inevitably will be a part of the agenda of the various interstate conferences in the future.

added by women workers; this result would ensue only if the economic machine worked with perfect smoothness and all workers were employed, and the displacements of male workers, even when only temporary, and the reduction of their productivity are deductions that must be made from the value added by women workers in any attempt to ascertain the net effect on per capita productivity. Nevertheless, it is probable that the total real national income has been increased in consequence of the increase in the proportion of the population gainfully employed, and in so far as the wage-earning class has shared in this increased production its living standards have been raised. An elevation of family standards of living has also taken place because of the reduction in the number of dependents per wage earner. As was indicated in an earlier chapter,[1] the average family is smaller today than it was forty years ago, and more members are working for economic remuneration. In large part this change has taken place in consequence of the increased employment of married women,[2] a factor that is conducive to a lower birth rate and at the same time augments the family income.

The effects of the gainful employment of women upon family life, morality, juvenile training, and the health of both women and their offspring have received widespread comment; and of facile generalization there has been a superabundance. Some of the consequences are, however, fairly obvious. With greater economic opportunities than they formerly had, more women today prefer the independence of self-support to dependence upon the earning power of a husband, and postponement or prevention of marriage results. But this choice inevitably occasions a certain amount of social disorganization. When women continue their employment after marriage, the economic basis of the family is affected, marital bonds are likely to be regarded in a somewhat different light, and—probably most important—children may not receive necessary home care and training during the formative periods of their lives.[3] Fairly convincing evidence exists of the effect of the employment of mothers upon the health of their children. The chronic physical and nervous exhaustion resulting from the attempt to hold a position and at

[1] *Supra*, pp. 128–130.

[2] In 1890 married women constituted 13.9 per cent of all working women; in 1900 the percentage was 15.4; in 1910, 24.7; in 1920, 23.0; and in 1930, 28.9. Census Bureau, *Occupation Statistics*, 1932, p. 70. The increase in the percentage between 1920 and 1930 may be due in part to the number of wives who were taking employment early in 1930 because of the increasing unemployment of men, but of the general tendency for women to continue their gainful occupations after marriage there can be no question.

[3] Gwendellyn Hughes's little book, *Mothers in Industry* (New Republic, 1926), gives an excellent picture of the effect upon mother-and-child relationships of the employment of women who have children. *Cf.* also Elizabeth McGee, "Mothers Who Earn," *Ohio Welfare Bulletin* 7 (January, 1930), pp. 30–33, and Lorene Pruette, "Married Women in Industry," *Annals of the American Academy of Political and Social Science*, vol. 143 (May, 1929), pp. 301–316.

the same time perform functions of motherhood may manifest itself in undernourishment of infants and in their extreme susceptibility to various complaints; and the infant mortality rates of children of working women are distinctly higher than those of other children.[1] Finally, the health of women workers themselves is distinctly endangered by certain kinds of work in which they engage,[2] and it was largely in recognition of this fact that the courts upheld as constitutional laws limiting their hours of work.[3] It is a fact of common knowledge that the distinctive physical characteristics of women make them more susceptible than men to certain industrial hazards. Noise and vibration probably have a more detrimental effect upon their nervous systems; long periods of standing or sitting have been demonstrated to be injurious to them and their offspring; overstrain is more likely to produce organic disturbances; and

[1] A study made by the Women's Bureau, U. S. Department of Labor, of infant mortality rates in eight cities showed that in general the employment of mothers is accompanied by an increased infant mortality rate, and that in the majority of cases employment away from home exerts a more powerful influence in this direction than does employment in the home. The cases studied were those in which the mother was employed at some time during the twelve months preceding childbirth. A detailed analysis of this study is presented in the article by Bessie Bunzel and Robert Vane, "Some Effects of Increased Work for Women," which is included in L. I. Dublin's *Population Problems*, pp. 242–253. The following is a tabular presentation of the results of this study:

Place	Infant mortality rate per 1,000 births when		
	Mother not employed	Mother employed	
		At home	Away from home
Johnstown, Pa.	117.6	188 0	(not calculated)
New Bedford, Mass	108 0	121 8	167 8
Manchester, N. H.	133 9	149 8	227 5
Waterbury, Conn.	110 5	131 0	209 2
Saginaw, Mich.	78 8	94 6	(not calculated)
Brockton, Mass.	100 4	84 4	86 7
Akron, Ohio.	77 2	114 5	88 2
Baltimore, Md.	93.4	94 5	179.8

[2] The literature pertaining to the effects of certain kinds of work upon the health of women and their offspring is voluminous. Among the better references that may be consulted are Josephine Goldmark, *Fatigue and Efficiency;* P. Sargent Florence, *Economics of Fatigue and Unrest;* H. M. Vernon, *Industrial Fatigue and Efficiency;* Brandeis and Goldmark, *The Case Against Night Work for Women* (National Consumers' League, 1908); Emily Brown, "Industrial Accidents to Men and Women," Women's Bureau, U. S. Dept. of Labor, *Bulletin 81* (1930); Frederick L. Hoffman, "The Health of Working Women," Consumers' League of New York, *Bulletin 3;* Alice Hamilton, *Industrial Poisons in the United States;* Collis and Greenwood, *The Health of the Industrial Worker;* and George Reid, "Infant Mortality in Relation to Factory Labor," *Fifteenth Annual Congress of Hygiene and Demography*, vol. 3, p. 943*ff*.

[3] *Infra*, pp. 528–530.

there is respectable medical opinion that women exhibit greater susceptibility to some industrial poisons than do men.[1]

Social consequences such as those just discussed have been responsible for the enactment of a range of legislation governing employment conditions of women, the more important types of which are discussed elsewhere in this volume.[2] Women and children were afforded limited legal protection during the early years of England's Industrial Revolution, and American statutory enactments applicable only to women began to be made a century ago. The theory underlying the singling out of women for special protection has been simple: women have been in fact an exploited group, and cognizance of social and economic actualities therefore demands that they be given special protection; a public interest, extending to generations yet unborn, in the health and morals of women dictates that the coercive power of the state be exercised in a regulatory manner; such interference therefore constitutes an entirely reasonable extension of the police power of the state.

But opposition to this legislation has always been strong, and it has come from a variety of sources. The traditional attitude of employers, who have feared higher costs and a curbing of their ability to take advantage of the redundant supply of female labor, is self-explanatory. Trade unionists, also, have sometimes been fearful of the preferential status accorded women workers.[3] One of the interesting aspects of this opposition, however, is that part of it has come from women themselves.

The philosophical basis of this feminist opposition to protective legislation for women is neither new nor complex. From the time of Harriet Martineau, Mary Wollstonecraft, and other early proponents of

[1] The best American studies of the effect of industrial poisons upon women are probably those of Dr. Alice Hamilton. The results of years of investigation are set forth in her book *Industrial Poisons in the United States*. While there is strong suspicion that women react more positively than men to some industrial poisons, and that the effects of these substances upon the female system are more rapid and more severe, it is difficult to prove conclusively whether their greater susceptibility is due to different rates of metabolism or other distinctive sex traits or whether it is explained by a partial immunity developed by males in the course of their more extensive industrial experience. There is, however, almost conclusive evidence that some of these poisons have serious effects upon the female reproductive system. Lead poisoning has been demonstrated to be related to many cases of sterility, miscarriage, and stillbirth; and there is some evidence to indicate that it is transmissible from mother to child. It is also suspected by the medical profession that women whose work exposes them to x-rays or radium radiation may become permanently sterile.

[2] Minimum wage legislation for women is discussed on pp. 301–324; legislation limiting hours is discussed on pp. 527–534; and other types of legislation applicable to women, or to women and minors, are discussed in vol. II of this treatise.

[3] On the other hand, trade unionists have frequently favored legislation making it expensive for employers to hire women, on the ground that part of the competitive underbidding—a menace to their own standards—would thereby be eliminated and that employers would find it more advantageous to employ male labor.

"equal rights for both sexes,"[1] a group of women—always vocal and articulate, if not numerically important—has adhered to the thesis that all legislation and industrial policy taking cognizance of sex differences have as their necessary effect the placing of women in a dependent position. The attack has been centered not upon protective legislation *per se* but upon protective legislation applicable only to one sex. Yet the practical effect of this policy, especially in the United States, where constitutional limitations upon interference with freedom of contract are such an important practical factor, would be to abolish at least part of the already established legislative protection of women. In order that a nominal or theoretical equality be attained, the National Women's Party would have swept into the discard legal protection representing a century of effort. As an integral part of the feminist case against protective legislation there is advanced, also, the claim that the employment opportunities of women are seriously restricted by the legislation enacted for their benefit and the benefit of the race.

Detailed discussion of this program is beyond the scope of the present chapter, but a few observations must be made. Studies by the Women's Bureau of the United States Department of Labor[2] and other bodies create a strong presumption that any adverse effects of protective legislation upon the employment opportunities of women have been tremendously exaggerated. There have, of course, been cases where the employer has found only a slight marginal advantage in employing women rather than men, and has substituted male labor when legislation applicable to women was enacted; but the facile conclusion that this result always or generally ensues is not substantiated by the facts. In the majority of cases, the employer has still found it more advantageous to continue employing women, and in spite of the legislation regulating the conditions under which they work, women have, as has already been indicated, become an increasingly important part of the nation's working force. Certainly an application of the hedonistic calculus forces the conclusion that gains in working conditions and industrial status consequent upon state protection far outweigh the adverse effects. In the second place, it is impossible to avoid comment upon the profound romanticism underlying

[1] *Cf.* especially Mary Wollstonecraft's *Vindication of the Rights of Women* and John Stuart Mill's *The Subjection of Women.*

[2] *Cf. Bulletin 68* of the Women's Bureau, "Effects of Labor Legislation upon the Employment of Women" (1930). The information included in this bulletin was derived from a number of sources. Employers, selected in view of geographical and industrial distribution, were interviewed; records as to the displacement of women by men after enactment of different types of legislation were examined; and the industrial experience of a large number of working women was ascertained. The Bureau found that the employment opportunities of women have been curbed only slightly—much less than popular opinion sometimes assumes and very much less than utterances of leaders of the feminist opposition would imply—by protective legislation applying to them but not to men.

the feminist opposition to protective legislation for women. One can recognize—can enthusiastically endorse—the abstract principle of equal rights and at the same time be realistic to the extent of taking cognizance of differences that do exist between men and women: differences in physical structure, in strength, in functions performed for the race. "Equality," said Louis Blanc nearly one hundred years ago, "is only proportionality." A much saner and more realistic concept of equality than that of the National Women's Party is one which recognizes objective facts making for inequality and seeks the removal of these conditions through exercise of the coercive power of the state. Finally, the unpleasant fact must be recorded that the feminist opposition to protective legislation has sometimes been utilized to further sinister ends. An opposition to protective legislation *for the sake of women* is likely to provoke sympathetic response on the part of persons whose antagonism would be aroused were the real motives stated; and in all too many cases the feminist group has been made a cat's-paw by those whose real objective has been an abolition of state restrictions rather than the placing of the same restrictions upon the employment of men as upon that of women.

The Wages of Women Workers.—Evidence as to the earnings of women workers may be summarized very briefly. Just what percentage have been receiving "inadequate" earnings depends, of course, upon the standard or criterion of adequacy adopted, and the reasons why social workers, students of labor economics, and state minimum wage boards have generally assumed that wages should be sufficient for the self-support of a woman without dependents but not benefiting from joint costs in household maintenance have been discussed in an earlier chapter.[1] The cost of maintaining a "minimum health and decency" standard varies, of course, from time to time, and from place to place at a given time;[2] but as a very rough approximation it may be said that the cost of a budget allowing for bare necessities, a small amount for recreation and major emergencies, and a saving of between 2 and 3 per cent of income would have been between $8 and $10 a week during the prewar decade in the larger American cities, between $13 and $15 a week during

[1] *Cf. supra*, pp. 71–72.

[2] Numerous attempts to formulate budgets for working women have been made. The reports of the various state minimum wage boards, whose activities are discussed in Chap. VI, are worth consulting, as is also *Bulletin 61* of the Women's Bureau, U. S. Department of Labor, "Wage Rates and Cost of Living Budgets." *Cf.* also, P. H. Douglas, *Wages and the Family*, pp. 3–10, Douglas, Hitchcock, and Atkins, *The Worker in Modern Economic Society*, pp. 272–287, T. D. Eliot, *American Standards and Plans of Living*, Theresa McMahon, *Social and Economic Standards of Living*, and Emilie J. Hutchinson, *Women's Wages*. The conservative "independence" budget for women workers in the larger American cities worked out by Dorothy W. Douglas ("Cost of Living for Working Women," *Quarterly Journal of Economics*, February, 1920, pp. 257–258) may be taken as

the years from 1914 to 1919, at least a dollar a week more in 1920, approximately $13.50 a week, as an average, from the early 1920's to 1929, and about $12 or $13 a week during the depression years of the 1930's.[1] The facts with respect to women's wages can profitably be placed in juxtaposition to these estimates of the minimum cost of decent livelihood.

Certainly one does not err on the side of exaggeration when one generalizes that at least 60 per cent of America's wage-earning women

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illustrative. Mrs. Douglas estimated the cost of the "minimum health and decency" standard in 1919 to be $15 a week. This budget is as follows:

FULL "TEMPORARY INDEPENDENCE" BUDGET MINIMUM WEEKLY RATE

Boarding			
Room, board, lunches, and partial laundry	$9.05		
At Home		$9.05	
Daughter's share of housekeeping expenses, plus mother's services	7 80		
Daughter's subsidy to family	1.25		
	$9 05		
Carried forward			$9 05
Clothing ($130 a year)			2.50
Toilet articles, soap, etc. ($5.20 a year)			0.10
Carfare (10 cents a day)			0.60
Health ($21 00 a year)			0.40
Stamps and stationery (25 cents a month)			0.06
Amusements (movies, ice cream, etc.)			0.35
Vacation			
Room and board, 1 week	$10 00		
R. R. fare	2.00		
Spending money	1 00		
Other trips over night	1 60		
	$14.60		
Money saved on regular meals and carfare during vacation	$6 80		
Net cost of vacation	7.80		0 15
Education (papers and magazines)			0 15
Extra carfare (10 cents every two weeks)			0.05
Dues			0.05
Church and charity			0.15
Christmas presents, etc. ($3.65 a year, excess of gifts given over gifts received)			0.07
Insurance ($14.00 a year)			0.25
Other expenses (unforeseen $3.65 a year)			0.07
Loss of wages, 1 week's illness ($15.00)			0 30
Loss of wages, 1 week's vacation or unemployment ($15.00)			0.30
Savings ($21.00 a year)			0.40
Total			$15.00

[1] These rough estimates, perhaps it is unnecessary to say, are presented merely because they are suggestive of the amounts necessary to maintain a decent but not luxurious, and hardly comfortable, standard of living, and because they make more meaningful the wage and earnings data summarized in the following paragraphs. The authors have accepted Mrs. Douglas' budget, discussed in the preceding footnote, as being one of the most carefully drafted and most accurate so far as its estimates of the costs of different items about the end of the War are concerned, and have made modifications in the total cost for earlier and later years in accordance with (*a*) changes in the cost of living, and (*b*) known changes in living habits and expenditure apportionment, changing the relative weight to be given the different items.

did not receive wages sufficient to maintain health, strength, and morals, to provide comforts and a modicum of recreation, and to make possible some saving for sickness, unemployment, or other major emergencies during the prewar decade. The Federal Census of Manufactures for 1905 showed that 18.4 per cent of 588,000 women workers fifteen years of age or over were receiving less than $4 a week, 49.8 per cent less than $6 a week, and 77.9 per cent less than $8 a week. The Federal Immigration Commission's investigation showed that, in 1908 and 1909, 5 per cent of 57,712 women workers eighteen years of age and over were earning less than $5 a week, 45 per cent less than $7.50, and 82 per cent less than $10 a week. Professor C. E. Persons[1] in 1915 estimated that 75 per cent were receiving less than the $8 which he regarded as necessary for decent existence, while a considerably higher percentage of those less than twenty years of age failed to receive the necessary minimum.[2] Virtually all other studies of women's earnings during the prewar period point to the same fact: that at least 60 per cent did not receive wages sufficient for decent existence.[3] That rather little improvement occurred during

[1] "Women's Work and Wages," *Quarterly Journal of Economics*, vol. 29 (1915), pp. 201–234.

[2] Of the girls sixteen and seventeen years of age, more than 91 per cent were receiving less than the estimated minimum; practically 80 per cent of the girls between eighteen and twenty years were earning less than the living wage; 69 per cent of those between twenty-one and twenty-four years of age came within what Professor Persons considered the "inadequate" wage class; while 66 per cent of the women more than twenty-five years of age were earning less than $8. The ages and wage groups in the twelve selected industries studied by Professor Persons are as follows:

Age	Number	Percentage under $4	Percentage under $6	Percentage under $8	Percentage over $8
16 to 17	9,918	28 4	59.0	91 5	8 4
18 to 20	13,769	19 2	57 1	79 9	20 1
21 to 24	8,617	10 1	35 3	69 1	30 9
25 and over	11,904	12.6	36.8	66 1	33 0

The aggregate percentage of 75 came, of course, as a result of the very large number under twenty-one years of age who were receiving less than $8.00 a week, but fewer of these than of the older women were adrift, and not so many of the young women living at home had needs as great as, or greater than, those of women adrift as did the home-dwelling women more than twenty-one years of age. On the other hand, Professor Persons was adopting a low standard of adequacy. The budget presented in the footnote on p. 408 would have required somewhat more than $8 a week during the prewar period.

[3] A brief summary of different state investigations during the prewar period is worth while. A state report issued in New Jersey in 1913 showed that of 87,527 female workers sixteen years of age and over, 4 per cent were earning less than $4 a week, 28 per cent less than $6, 62 per cent less than $8, and 84 per cent less than $10. The report of the Ohio Industrial Commission for 1914 showed that of 98,181 female wage earners eighteen years of age and over, 8 per cent were working for less than $5 a week, 21.4 per cent for less than $6, 58.4 per cent for less than $8, and 82.4 per cent for less than $10. The California Industrial Welfare Commission's first biennial report (for 1913 and 1914) contained wage

the War period, in spite of the labor scarcity and the bidding up of money earnings of adult males, is indicated by a survey made by the United States Bureau of Labor Statistics in 1918 and 1919[1] of some twenty-eight industries located in forty-three states. This study showed that hours worked per week by women in 1919 averaged forty-five, and that hourly earnings were 30.1 cents. Hence actual average weekly earnings when employed were $13.55.

After 1922, as has been indicated earlier in this volume,[2] the real earnings of America's industrial workers rose, and by the end of the 1920's average annual real earnings per employed person were substantially greater than they had been at the end of the War. Accurate information as to the extent to which women shared in this gain is not available, but surveys of actual money earnings during the 1920's demonstrate conclusively that the problem of insufficient earnings continued to be prevalent during those years of the "new capitalism" and "high-wage policy." Table 72 shows median earnings of women in manufacturing in some fourteen states during the 1920's, as well as the percentage receiving less than specified amounts. It will be noted that while there was considerable variation between states in median earnings, an important percentage of the women in all states were in the lowest-wage groups. This was particularly true of negro women.

These studies by the Women's Bureau were chiefly in low wage states, and it is desirable to compare the figures with average earnings of women in manufacturing over the entire country. The reported weekly earnings for these years are as shown in Table 73.

It is evident that wages of women employed by manufacturing enterprises varied but little, as an average for the country as a whole, during the years preceding the depression. It should also be noted that the averages are somewhat higher than those in the states listed in Table

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data for 22,972 women workers eighteen years of age and over in the principal occupations and industries in that state, showing that 21.3 per cent of these women received less than $8 a week and 49.1 per cent less than $10 a week. A report of the Michigan State Commission of Inquiry, published in 1915, showed that according to reports from employers of 50,351 workers in 1914, 21.7 per cent received less than $6, 51.4 per cent less than $8, and 73.9 per cent less than $10. The investigation of the Massachusetts Minimum Wage Commission of the wages of cotton, confectionery, laundry, and store workers, made shortly after inauguration of the minimum wage system in 1912, showed that of 12,000 women eighteen years of age and over, 10 per cent received less than $4 a week, 39 per cent less than $6, and about 69 per cent less than $8. The Oregon Social Welfare Committee's investigation of the earnings of women workers in Portland in 1912 and 1913 showed that approximately three-fifths received less than $10 a week. This material from the various state investigations has been brought together in Lauck and Sydenstricker, *Conditions of Labor in American Industries*, pp. 43–47.

[1] "Industrial Survey in Selected Industries in the United States," U. S. Bureau of Labor Statistics, *Bulletin 265* (1919).

[2] *Supra*, pp. 92–104.

TABLE 72.—EARNINGS PER WEEK OF WOMEN IN MANUFACTURING IN 14 STATES[1]

State	Survey date	Median earnings		Percentage of women who received											
		At survey date	Converted to 1928 value	Under $8		$8 and under $10		$10 and under $12		$12 and under $15		$15 and under $20		$20 and over	
				White	Negro	White	Negro	White	Negro	White	Negro	White	Negro	White	Negro
Alabama	1922	$ 8.39	$ 8.62	45.3	93.2	22 2	5.3	14.0	0.8	11.1	0.8	6.1	0.0	1.2	0.0
Arkansas	1922	10.24	10.52	30.6	91.7	17.2	6.3	16.3	0.0	19.1	0.0	15.8	2.1	1.0	0.0
Delaware	1924	13.26	13.31	15.6	[d]	14.3	[d]	12.5	[d]	17.7	[d]	22.7	[d]	17.1	[d]
Florida[a]	1928	12.65	12.65	9.7	67.6	13.9	15.0	11.5	8.7	14.9	4.5	24.0	2.7	26.0	0.5
Georgia[b]	1921	12.90	11.03	17.2	65.9	13.1	19.3	13.8	10.2	19.3	3.4	25.2	1.1	11.4	0.0
Kentucky	1921	10.84	10.47	24.5	45.9	16.5	22.1	20.5	17.8	17.5	11.3	15.0	2.9	6.0	0.0
Mississippi	1924	8.35	8.29	18.2	82.1	12.8	11.9	16.7	5.4	21.5	0.6	21.9	0.0	8.8	0.0
Missouri	1922	12.27	12.59	45.6	57.8	25.2	11.5	15.8	7.8	9.4	10.2	3.5	12.3	0.6	0.4
New Jersey	1924	15.23	15.69	7.2	24.7	6.7	19.1	11.3	23.6	23.1	22.5	34.2	6.7	17.5	3.4
Ohio	1922	14.52	14.95	11.3	41.4	7.2	17.3	12.0	22.2	22.7	12.8	26.8	4.7	20.0	1.6
Oklahoma	1924	13.14	13.21	11.6	[d]	10.3	[d]	17.0	[d]	34.4	[d]	22.8	[d]	4.0	[d]
Rhode Island[c]	1920	19.13	16.36	3.2	[d]	2.3	[d]	4.3	[d]	14.7	[d]	31.0	[d]	44.6	[d]
South Carolina	1921	9.49	9.32	35 4	83.7	20.1	12 0	16.6	3.0	15.8	1.3	10.4	0.0	1.7	0.0
Tennessee	1925	11.03	10.95	24.2	52.5	16.6	20.5	16.8	11 6	19.8	11.8	17.3	3.5	5.2	0.2

[a] The data for Florida were computed from figures given on pp. 35 and 50 of "Women in Florida Industries," Women's Bureau, U. S. Department of Labor, *Bulletin 80* (1930).

[b] Georgia excluding Atlanta.

[c] The wage figures for Rhode Island are not wholly representative because of the omission of the textile industry and the inclusion of certain abnormally highly paid groups. *Ibid.*, pp. 26 and 30.

[d] No data on wages of negro women.

[1] Compiled from "Wages of Women in 13 States," Women's Bureau, U. S. Department of Labor, *Bulletin 85* (1931). For a similar survey of Texas by the Texas Bureau of Labor Statistics in 1928 see *Handbook of Labor Statistics* (1931), pp. 869–871.

72.[1] Of the continued inadequacy of the earnings of thousands of women workers to maintain decent livelihoods, the data give abundant proof.

To complete this examination into the adequacy of the wages of women workers, a few words should be said about the situation in more recent years, especially as it is revealed by studies of particular industries. As almost everyone knows, a wage-reduction movement had attained momentum in the United States by 1931, in spite of the disposition of some firms to maintain wage levels early in the depression, and it is likely that by the depth of the depression the weekly earnings of women

TABLE 73.—AVERAGE WEEKLY EARNINGS OF WOMEN EMPLOYED IN AMERICAN MANUFACTURING INDUSTRIES[1]

Year	Average weekly earnings of women workers	Year	Average weekly earnings of women workers
1923	$17.24	1927	$17.42
1924	16.76	1928	17.18
1925	17.21	1929	17.62
1926	17.29		

[1] *Statistical Abstract of the United States*, 1935, p. 331. The data are from twenty-five representative industries reporting to the National Industrial Conference Board.

workers had been reduced more than had those of men.[2] Substantial increases in the money earnings of those employed were effected during the period of the National Industrial Recovery Administration, and the available evidence indicates that these gains were maintained after 1935, women sharing along with men in the recovery movement. But the proportions of the problem of insufficient earnings during all these more recent years have been enormous, as a brief summary of the studies of the Women's Bureau and other organizations demonstrates.

[1] Attention should be called to the fact that the average used in this table is the arithmetic mean, whereas the median was used in the preceding one. The average for the country as a whole in any given year cannot therefore be compared with the state average for that same year. But in a general way the data in the two tables indicate the extent to which wages in the more poorly paying states have fallen below the average for the country as a whole.

[2] Apparently women suffered somewhat less severely from unemployment than did men, particularly at the beginning of the depression. For evidence of the incidence of the employment decline upon men and women, respectively, see *Bulletin 616* of the U. S. Bureau of Labor Statistics, pp. 1093–1098, and National Industrial Conference Board, *Women Workers and Labor Supply*, pp. 29–42. The wage rates of women, on the other hand, probably were reduced somewhat more than were those of men, especially in those branches of industry characterized by an extremely redundant supply of women workers. Weekly earnings of women in manufacturing, as reported in the *Statistical Abstract of the United States* (1935 ed.), p. 321, were as follows during the depression years: 1930, $15.99; 1931, $14.70; 1932, $11.70; 1934, $14.44.

In 1927 and 1928 a comprehensive survey of the earnings of laundry employees, made by the Women's Bureau,[1] revealed that median earnings of all women reported were $14.64, those of white women $16.10, and those of negro women $8.85. One-fifth of all women employees were found to be receiving under $10, and 53 per cent under $15, a week. Median earnings of white women in the cigar and cigarette industries were found to be $16.30 in 1929 and 1930, and those of negro women $10.10.[2] About one-sixth of the white women and one-half of the negro women received weekly earnings of less than $10. A survey of the weekly earnings of women employed in five-and-ten cent stores and limited-price chain department stores in 1928 showed that median earnings were $12, and that 25.6 per cent of the women earned less than $10 a week.[3] The New York State Department of Labor found clerks in 1931 to be receiving from $8 to $18 a week, and typists and stenographers from $12 to $21.[4] The median monthly salary of women office workers, a relatively high-paid group, was found by the Women's Bureau in 1931 and 1932 to be $99, about half of these workers receiving less than $100 a month.[5] According to a survey by the same Bureau, median weekly earnings of women employed in Texas stores, factories, and laundries in 1932 were $7.65, the corresponding figure for white women being $8.75, for Mexican women $5.85, and for negro women $5.95.[6] The median weekly earnings of full-time workers in South Carolina cotton mills in 1932 were reported to be $9.65, those in Texas mills $11.00, and those in Maine $13.00.[7] A survey of the New Hampshire shoe industry in 1933 showed median earnings in different kinds

[1] "A Survey of Laundries and Their Women Workers in Twenty-Three Cities," Women's Bureau, U. S. Department of Labor, *Bulletin 78*, pp. 63 and 65.

[2] "Effects on Women of Changing Conditions in the Cigar and Cigarette Industries," Women's Bureau, *Bulletin 100*, especially pp. 81–84.

[3] "Women in Five-and-ten Cent Stores and Limited-price Chain Department Stores," Women's Bureau, *Bulletin 76*.

[4] From a summary of the report in "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), pp. 1103–1106.

[5] "Employment of Women in Offices," Women's Bureau, *Bulletin 120*. The results of this study are summarized in *Bulletin 616* of the United States Bureau of Labor Statistics, pp. 1110–1114. The survey covered 42,127 women in seven typical cities, these women being employed as office workers by banks, advertising concerns, insurance companies, investment houses, mail-order companies, publishing companies, and public utility corporations. The percentage distribution of monthly salaries was found to be as follows:

Under $75	19.4
$75 and under $100	31 6
100 and under 125	25.5
125 and under 150	13 4
150 and over	10 1

[6] "Women in Texas Industries," Women's Bureau, *Bulletin 126*.

[7] "Hours, Earnings, and Employment in Cotton Mills," Women's Bureau, *Bulletin 111*, pp. 4–5.

of work to range from $9.45 to $11.50.[1] Almost half of the white women employed full time by Arkansas factories, stores, laundries, hotels, and restaurants were found to be receiving less than $8 a week in 1932, and two-thirds less than $10 a week.[2] Investigation of the leather glove industry of New York state in 1933 revealed that median weekly earnings of women employees were $12.65, with nearly seven-tenths of them earning less than $15 a week.[3]

A recapitulative comparison of the earnings of different groups of women workers from time to time with the cost of maintaining a health and decency livelihood is not necessary. The generalizations emerge for themselves from the material summarized in the immediately preceding paragraphs. The majority of women workers have not received enough to enable them to maintain socially desirable standards of living. Survey upon survey and thousands upon thousands of pages of carefully compiled and scientifically analyzed information indicate the meagerness of the payments many women have received, the fluctuating and uncertain character of these payments, the extent to which the amounts actually received in a week frequently fall below the rates fixed for the week, the failure of a weekly living wage to constitute a yearly living income, and the total inadequacy of the payments in many cases as a basis for decent living. One other fact about the wages of women workers should be mentioned: the tremendous variations in payments for identical work. This characteristic of the wage structure is even more pronounced in the case of women's earnings than in the case of those received by men. Recent investigations have yielded valuable new evidence on this point, but the fact of illogical variations has long been known to all intelligent observers of the wage structure.[4] Wages in the highest-paying plants in given industries are sometimes considerably more than twice those of the

[1] "A Survey of the Shoe Industry in New Hampshire," Women's Bureau, *Bulletin 121.*

[2] "Women in Arkansas Industries," Women's Bureau, *Bulletin 124.* The median earnings of white women in 1932 were $8.45, and of negro women $5.60.

[3] "Hours and Earnings in the Leather-glove Industry," Women's Bureau, *Bulletin 119.*

[4] One of the best studies made by the Women's Bureau of the U. S. Department of Labor is summarized in "Variations in Wage Rates under Corresponding Conditions," *Bulletin 122* (1935). The chaotic state of wage payments is here shown by means of comparing wages in different plants in the same industries and by citing instances of the divergence of wages even in the same occupations in different plants and also in the same plant. The comparisons were based upon wage rates where these could be obtained, since rates represent the standard fixed for payment and thus eliminate such variations in earnings as are due to personal loss of time or to plant emergencies. Where weekly rates were used, the plants having similar schedules of hours to be worked for the rate set were selected for the comparisons so far as possible. Where information on wage rates was not available, the earnings used were those for weekly hours worked within as narrow a range as practicable, or those for work in a specified number of days in a week that approximate the same weekly hours.

lowest paying;[1] equally great variations are to be found among plants within given geographical locations; and in many cases marked differences are to be found in the payments of those engaged in the same occupation in the same plant. The moral is obvious: that the wages of women workers frequently bear little relationship to their value productivity and that the need for the type of standardizing intervention the states have attempted in their minimum wage systems is tremendous.[2]

[1] For example, weekly earnings in the highest-paying of twenty South Carolina cotton mills and in eleven large and twenty-one small laundries in Ohio were found to be more than double those in the lowest-paying establishments. Median weekly rates among twenty-eight large New York laundries showed a difference of 86.5 per cent from the lowest- to the highest-paying plant. "Even when allowance for all factors that might cause the variations had been made, comparisons made in plants under conditions as nearly identical as obtainable showed differences in payment so marked as to be attributable only to lack of wage standards." *Ibid.*, p. 4.

[2] Some of the variation in wages may, of course, be due to variation in the capacity of individuals, but the startling differences in remuneration for the same kinds of work, within given industries and localities and even within given plants, cannot be attributed primarily to this factor. In practice, the majority of employers do not make studies of individual capacity. In general the amounts the better-paying employers can afford to pay may be taken as a rough measure of the value of the work, and "the divergence from this measure in so large a number of cases in the same state, industry, occupation . . . and plant gives a fair indication of the haphazard status of wage payments." *Ibid.*, p. 2.

Chapter VIII

CHILD LABOR

Few problems emerging from capitalistic conditions of production have been given greater attention by socially minded citizens than has that of child labor, and about few has there been such unanimity of opinion. From the enactment of the English Health and Morals of Apprentices Act in 1802 to the American anti-child labor clauses in the industrial codes of the 1930's, public opinion, with certain ever-present exceptions, has taken cognizance of the social and economic costs of the employment of young persons and has demanded an increasing amount of prohibition and regulation.[1] But child labor has persisted. The introduction of easily operated machinery, technical improvements making possible a utilization of the limited strength and energy of children in the operation of machines, the economic pressure of inadequate family incomes, the desire of employers for cheap labor, the presence of a redundant supply of youthful labor in seasonal industries and in those industries where homework predominates, the ignorance and avarice of some parents, the weaknesses of an educational system that has not adjusted the curricula to the needs of children and has therefore caused many of them to leave school before they should, and the inadequacy of legal restrictions and the very imperfect administration and enforcement of them have all been factors perpetuating child labor.

The problem is not, of course, entirely a consequence of the present mode of producing and distributing goods and services. Children have always played an important part of the economic life of the people. Under the household and domestic systems, the labor of children was extensively utilized, and the apprenticeship system of the gilds of the

[1] Public opinion, as is indicated later, has not always been as nearly unanimous in its condemnation of child labor as it apparently is in the fourth decade of the twentieth century. The mercantilist belief that the "treasure" of a nation should be augmented by utilization of all labor available influenced thinking in England long after the mercantilist restrictions on industry and trade had been swept away, and probably the prevalent ethic that idleness was a vice manifested itself in thinking upon the child labor problem in both England and the United States for a long time. The abundance of resources awaiting the labor of man in the United States was another factor inducing condonation of child labor. Alexander Hamilton favored the development of manufactures, among other reasons, because they would make children "more useful and more early useful" than they would otherwise be. But there has always been recognition of the evils of child labor, and it is today hard to find an industrial problem upon which there is greater unanimity of opinion.

Middle Ages constituted a form of child labor. But conditions of work under these earlier child-labor systems were vastly different from those obtaining where children, like adults, are governed by a wage contract and where they find conditions of employment largely beyond their own control or that of their parents.

Social and Economic Implications of Child Labor.—The social costs of child labor—costs that have to be liquidated somehow—have been commented upon so frequently that brief mention here will suffice. Children who spend any considerable part of their time in gainful employment are deprived of education beyond the minimum amount required by the compulsory school laws. The loss, both to the children and to society as a whole, is irreparable. The productivity of the victims in later life is lessened, the versatility and adaptability to different occupational conditions consequent upon educational opportunities are curbed, mental faculties are not developed for the full appreciation of the cultural values of life, the ignorance resulting is conducive to lack of respect for the normal controls in social life, and the opportunity for intelligent discharge of the duties of citizenship is limited. Almost invariably child labor and poor school attendance go hand in hand. The fifteen states that reported the poorest school attendance in 1920 were the same states that had the largest proportions of children between the ages of ten and thirteen years employed, and in these same states the proportions of illiteracy among adults were highest.[1] When children leave school at an early age and seek gainful employment, their opportunity for normal physical development and for the period of play that is essential to wholesome development during adolescence is curtailed. Normal family life very often is disrupted. Frequently thrown into environments that are conducive to harshness, crudity, roughness, and disrespect for the privileges and immunities of others, child workers are likely to become juvenile delinquents and public charges.[2] As Adams and Sumner summarized these consequences of child labor years ago: "The employment of children under fourteen years of age pauperizes the parents and enforces illiteracy upon the children. It is one of the most prolific causes of poverty, pauperism, vice, and crime in adult years, and is, in fact, a grave menace to the peace and prosperity of the social order."[3]

[1] "Child Labor Facts and Figures," Children's Bureau, U. S. Department of Labor, *Publication 197* (1930), pp. 22–23.

[2] Contrary to common opinion, employment does not on the whole keep children from becoming delinquents. Undoubtedly there have been cases where the shift from school to industry has been the best thing that could have happened to the youth, but the evidence shows that working children are unduly numerous among juvenile delinquents, contributing a substantially higher percentage of offenses than their ratio to the child population. *Cf.* Dorothy Williams Burke, "Youth and Crime," Children's Bureau, U. S. Department of Labor, *Bulletin 196* (1930).

[3] *Labor Problems*, p. 66.

The adverse effect of gainful employment upon the health of very young persons is a matter of almost common knowledge. Data pertaining to accident frequency and severity rates among juvenile workers are older and more reliable than those pertaining to sickness, but virtually all the evidence available indicates a close causal connection between child labor and bad health.[1] The connection is inevitable. Undeveloped muscular and nervous systems are unable to resist the strain incident to many industrial occupations, and fatigue sets in quickly. The years between thirteen and eighteen are characterized by rapid and extensive physical and mental changes, and conservation of energy and physical resistance are more necessary, perhaps, than at any other period. When children must enter industry during this crucial age, they—and ultimately society as a whole—are likely to pay a price in reduced earning power in later years, partial or complete physical incompetence, and possibly economic dependence. The conditions under which many young persons work accentuate these deleterious physical effects. No group can be more easily exploited. Numerous investigations have shown that not only are their wages miserably low,[2] but that in spite of the state laws they frequently work long hours under conditions conducive to stunted growth, bad morals, and disease. Long hours and night work are especially prevalent in industrial homework, which is difficult to regulate, and in the street trades; and long hours of night labor are an even greater evil for children than for adults, since they are likely to be accompanied by insufficient rest during the day.

Child labor is generally recognized as having an insidious influence upon the supply of labor, and to result in unemployment and low wages

[1] As illustrative: A study made in Cincinnati of 306 boys engaged in street trades showed that 14 per cent, or three times the normal proportion, had diseased hearts; 11 per cent, or five times the normal proportion, had foot defects; 38 per cent, or seventeen times the normal proportion, had throat infections. A similar study in Buffalo, covering 228 street workers, showed one and one-half times the usual incidence of heart affections. A study of New York City newsboys showed 17 per cent of them to be afflicted with flat feet, as compared with 6 per cent so afflicted among all school children. "Child Labor Facts and Figures," Children's Bureau, U. S. Department of Labor, *Publication 197* (1930), pp. 31–32.

[2] Data on the actual earnings of child workers are extremely hard to get, owing to the sporadic character of the employment of many of them. However, investigations of the U. S. Children's Bureau and other bodies support the generalization that during the 1920's the earnings of the majority of child workers (those less than sixteen years of age) were not more than five or six dollars a week. Children engaged in industrial home work are the most lowly paid. The Children's Bureau generalized upon its findings with respect to the earnings of juvenile workers in industrial home work as follows: "The earnings derived from home work were very small, since the rates of pay were low and much of the work irregular. Of 356 children who were able to give any information as to their individual earnings, sixty-seven per cent earned less than fifteen cents an hour, forty per cent less than ten cents, and twelve per cent less than five cents when working at their best speed." "Child Labor in New Jersey," Children's Bureau, U. S. Department of Labor, *Publication 185*, p. 59.

for both the young workers and adults.[1] Entering industry, in the majority of cases, because of the insecure economic position of the family, these workers are ready to sell their services for about what they can get. Inevitably, then, some adults are displaced and others are forced to work for lower wages than they otherwise would receive. Children enter industry to a considerable extent when wages are high, and by their presence tend to lower the earnings of adults; but they also seek employment, in even greater numbers, during periods of depression, and it is then that the results are most disastrous.[2] Wages are depressed still more, the prevalent unemployment is accentuated, and the recession in business is consequently furthered. Even when the upswing of the business cycle gets under way, many of the children who took employment during the depression are likely to remain permanently attached to their respective industries or occupations, so flooding the labor market as to keep wages below the levels they would otherwise attain and leave many adults out of employment. One of the integral parts of the recovery program of 1933 and 1934 was the prevention, under the terms of approved industrial codes, of the competitive underbidding of child workers, the hope being both an immediate strengthening of the wage standards and employment security of adults and an avoidance of the underbidding of child workers after the beginning of recovery.

Unemployment on the part of adults, occasioned by a supply of child labor, lowers the productivity of the working force as a whole; and this tendency is accentuated by two other characteristics of child labor: the inefficiency and low productivity of the children themselves and the preclusion of those entering industry at an early age from most productive adulthood. Limitations of physical strength, experience, and education necessarily make children less productive than adults, and their employment cannot be regarded as other than a most inefficient utilization of labor power. The instability and high turnover rates of child labor involve an economic loss of which employers are taking increasing cognizance. Important, however, as is the fact that while the employment of young persons involves the use of labor at its points of lowest productivity, the long-run preclusion of those entering industry in youth from

[1] Child labor is almost everywhere floating labor, and the consequences are not entirely undesirable. A certain amount of shifting from job to job is frequently necessary in order that the youth entering industry may find the kind of work for which he is best suited. Nevertheless, the aggregate amount of shifting, with consequent periods of unemployment, is much greater than is necessary or desirable. Mrs. Woodbury's data [*cf.* Helen L. Woodbury, "Working Children of Boston," *Monthly Labor Review*, vol. 12 (January, 1921), pp. 53–55] showed that the proportion of unemployed time among child workers ranges from 14 to 23 per cent, depending upon such factors as age, sex, nativity, and degree of economic independence.

[2] As is indicated later in this chapter (*infra*, pp. 429–432) child labor declined during the depression of the 1930's, but not more than the decline in adult employment. Of the fact that the above-described events took place, however, there can be no question.

the most productive adulthood is probably more costly. Society pays a permanent price in lower adult productivity, because of the limited educational opportunities those who worked during childhood have had, and because of the large number of child workers who entered blind-alley occupations and found it impossible to make the proper vocational connections and adjustments.

Rise of the Problem: Numbers and Occupational Distribution.—Child labor was an inevitable concomitant of the Industrial Revolution and the policy of *laissez faire* in England. The minute cutting up of processes made technically possible the employment of young persons, and the severe competition and consequent pressure for lower production costs brought an insistent demand for cheap labor. And in the factory towns a reserve of child labor—augmented by the breakdown of the poor-relief system, the mistaken Speenhamland policy, and the increase in population—existed, marketable at low wages. Under the policy of governmental noninterference that accompanied and apotheosized machine production,[1] large numbers of children inevitably came to be employed

[1] Legislation was enacted as early as 1802, but of very limited scope, and it was not until well into the nineteenth century that the most pernicious forms of child labor were prohibited by law. To summarize the development of the early English legislation: The Health and Morals of Apprentices Act of 1802 applied to cotton and woolen mills in which three or more apprentices or twenty or more other persons were employed. Night work by apprentices was prohibited and their hours of labor were limited to twelve per day; mills were required to be properly ventilated and kept in sanitary condition; provision was made that apprentices should be properly clothed, that sleeping quarters of the two sexes should be separate, and that a part of each day be devoted to instruction; and justices of the peace were required to appoint two visitors unconnected with the mills, one a clergyman, the other a magistrate, who had full power to inspect the mills and to enforce the act. The 1802 Act was not well enforced, and it lost much of its effect as the mills substituted steam for water power and more and more located near the cities because of the abundant supply of labor to be obtained there. In 1819 an act was enacted for the purpose of dealing with the problem of the employment of "free children." This Act applied to cotton mills only. No child under nine was to be employed in them; and, except under certain conditions, those between nine and thirteen were not to be employed more than thirteen and one-half (twelve net) hours per day or at night. The machinery for inspection and enforcement was the same as under the earlier law. The act proved generally ineffective. Although young children were frequently employed for fifteen and sixteen hours per day, there were only two successful prosecutions previous to 1825. In 1833 the third of the "great factory acts" was enacted. This measure applied to textile mills generally, except those engaged in the manufacture of silk, which was deemed worthy of a subsidy of cheap child labor. As under the earlier legislation, the employment of children under nine was forbidden; the hours of those between nine and thirteen years of age were limited to nine and of those between thirteen and eighteen to twelve per day; work by these classes between 8:30 P.M. and 5:30 A.M. was prohibited; and provision was made for a staff of national inspectors to enforce the law. In 1847, as a result in part of the agitation of Robert Owen, a general ten-hour law for women and young persons was enacted. Prohibition and regulation of child labor in the mines proceeded even more slowly. In 1842 the Children's Employment Commission reported that instances occurred in which children were taken into the mines to work as early as four years of age, sometimes at five, and between five and

in the mines and factories. At the beginning of the nineteenth century, children five and six, and in some cases as young as three, years of age worked in the factories and brickyards. Approved agreements between manufacturers and the parish workhouses sent thousands of children into the factory towns, where they practically became slaves. "A horrible traffic had sprung up; child-jobbers scoured the country for the purpose of purchasing children to sell them again into the bondage of factory slaves. The waste of human life in the manufactures to which the children were consigned was . . . frightful. Day and night the machinery was kept going; one gang of children working it by day, and another by night, while, in times of pressure, the same children were kept working day and night by remorseless taskmasters."[1] In the mines as late as 1840, according to the findings of the Commission appointed by Parliament that year to investigate conditions, children five years of age were employed, sometimes twelve to fourteen hours a day. "Girls of six or eight years of age made ten to twelve trips a day up steep ladders to the surface, carrying half a hundred weight of coal in wooden buckets on their backs at each journey," while "a common form of labor consisted of drawing on hands and knees over the inequalities of a passageway not more than two feet or twenty-eight inches high a car or tub filled with three or four hundred weight of coal, attached by a chain and hooked to a leather band around the waist."[2] A physician testified before a Parliamentary Committee in 1816 that of approximately twenty-three thousand factory hands examined by him, fourteen thousand were under the age of eighteen.

England came to recognize the social costs of child labor, and by the middle of the nineteenth century legislation had been enacted placing most of the conditions of employment of young persons under legislative control. Since 1850, the reduction of child labor in England has been appreciable. The census of 1851 showed that in England and Wales 36.6 per cent of all boys between ten and fifteen years of age were

six, not infrequently between six and seven, and often between seven and eight, while from eight to nine was the ordinary age at which they began to work; also that a large proportion of the workers were under thirteen and a still larger proportion between thirteen and eighteen. For the most part these child workers in the mines were employed as trappers (gate minders), but to some extent also in pulling or pushing coal cars. In consequence of the revealed conditions the Mines Regulation Act was passed in 1842, forbidding the employment of women and girls underground and the employment of boys under ten in the pits. Thus the governmental policy toward child labor, developed tardily during the period of the Industrial Revolution, had become one of a qualified *laissez faire*.

[1] Edwin Hodder, *Life and Work of the Seventh Earl of Shaftesbury* (1888), p. 76. *Cf.* also Frederick Engels, *Conditions of the Working Class in England in 1844* (1893), J. L. and Barbara Hammond, *The Town Laborer* (1926) and *The Rise of Modern Industry*, and E. P. Cheyney, *An Introduction to the Industrial and Social History of England* (1920).

[2] E. P. Cheyney, *op. cit.*, p. 243. Quoted with permission of The Macmillan Company, New York, publishers.

employed, and nearly 20 per cent of the girls in the same age group. By 1911, after sixty years of development of legislative standards, the percentages were only about half as large as in 1851.[1] During the war, however, child labor increased appreciably, and a substantial proportion of the minors fourteen years of age and over are still gainfully occupied. On the other hand, employment of persons under fourteen has now been generally prohibited. In 1921, 473,800 boys and 323,500 girls fourteen and fifteen years of age were reported to be gainfully occupied, and in 1931 the figures were 404,200 and 316,400, respectively.[2] Since practically none under fourteen were employed the latter year, the figures can for practical purposes be taken as indicating the extent of child labor, and can be compared with the population ten to fifteen years of age, which in 1931 included 1,620,431 males and 1,586,824 females.[3]

Child labor was prevalent in the United States during the first half of the nineteenth century, but several factors—the abundance of free land, the dominance of the domestic system after the industrial revolution was well under way in the mother country, the rather slow introduction of machine processes into American industrial life, and the absence of the same pauper apprentice problem that England had to contend against[4] —prevented the problem here from becoming as acute as it was in England. Nevertheless, public opinion for the most part condoned, and even approved, the employment of young persons. Manufacturers desired cheap labor; the prevailing conception of the social value of all labor provided a *rationale;* and laws were, in fact, enacted during the colonial period to keep the apprentices imported from England at work, rather than to prevent their employment or limit their hours. Samuel Slater's famous cotton mill, established in 1806, was operated largely by boys and girls of from seven to twelve years of age, and manufacturing enterprises were approved by Alexander Hamilton because, among other reasons, they would render children "more useful and more early useful than they would otherwise be." A report of 1832 indicated that children seven to sixteen years of age constituted two-fifths of the factory workers in New England. Toward the end of the first half of the century, however, public opinion began to undergo a change. Legislatures were petitioned to prohibit the employment of extremely young persons and

[1] Census of England and Wales, 1911, *Occupations and Industries*, vol. 10, p. 141.

[2] *Ministry of Labour Gazette*, vol. 43, pp. 51–52.

[3] From age and sex distribution data in *Statistical Abstract of the United Kingdom*, 1935, p. 14.

[4] American colonists did, it is true, receive from England as bound apprentices large numbers of orphans and children of the poor, but numerically these bound apprentices constituted a smaller part of the juvenile labor supply, and conditions under which they worked were vastly different. *Cf.* Marcus W. Jernegan, *Laboring and Dependent Classes in Colonial America* (1931).

to limit the hours of others, and in the 1840's prohibitory and regulatory laws began to be enacted.[1]

The early legislation was, however, far from adequate, and its enforcement seems to have been extremely lax.[2] It is not surprising, therefore, that children entered industry in increasing numbers on through the nineteenth century. Indeed, it was not until 1920, as the following table shows, that the volume of child labor decreased, both absolutely and in relation to the total juvenile population.

TABLE 74.—NUMBER AND PROPORTION OF CHILDREN 10 TO 15 YEARS OLD GAINFULLY EMPLOYED, CLASSIFIED BY SEX, IN THE UNITED STATES: 1880 TO 1930[1]

Census year	Total			Male			Female		
	Total number	Gainfully occupied		Total number	Gainfully occupied		Total number	Gainfully occupied	
		Number	Per cent		Number	Per cent		Number	Per cent
1880	6,649,483	1,118,356	16.8	3,376,114	825,187	24.4	3,273,369	239,169	9.0
1890	8,322,373	1,503,771	18.1	4,219,145	1,094,854	25.9	4,103,228	408,917	10.0
1900	9,613,252	1,750,178	18.2	4,852,427	1,264,411	26.1	4,760,825	485,767	10.2
1910	10,828,365	1,990,225	18.4	5,464,228	1,353,139	24.8	5,364,137	637,086	11.9
1920	12,502,582	1,060,858	8.5	6,294,985	714,248	11.3	6,207,579	346,610	5.6
1930	14,300,576	667,118	4.7	7,223,425	460,742	6.4	7,077,151	206,376	2.9

[1] Fifteenth Census of the United States, vol. 5, *Population*, p. 345.

It will be noted that only 667,118 persons ten to fifteen years of age, or 4.7 per cent of those within the age group, were gainfully employed in 1930, as compared with 1,750,178, or 18.2 per cent, at the turn of the century, and with 1,990,225, or 18.4 per cent, in 1910, the year when the largest number of child workers was reported by the Census. It is also

[1] Sporadic legislation was, in fact, enacted much earlier than the 1840's. The Connecticut legislature in 1813 passed a law requiring proprietors of manufacturing establishments in which children were employed to provide some education for them. Massachusetts in 1836 enacted legislation requiring school attendance and permitting work by children under fifteen only upon condition that they had attended school three of the preceding twelve months. In 1842 Connecticut restricted the employment of children under fourteen years of age to ten hours in cotton and woolen mills, and Massachusetts the same year limited the hours of all children under twelve to ten a day. Pennsylvania in 1848 forbade employment in textile establishments of children under twelve. From that time on, legislation for the protection of minors was enacted by the various states with increasing frequency.

[2] The legislation, in addition to its failure to make adequate provision for enforcement, frequently invited evasion by providing penalties only when children were forced to work "involuntarily." Also, it often required no proof of age, and it failed to cover many occupations clearly detrimental to the well-being of young persons.

beyond question that some further diminution occurred during the first half of the 1930's, in consequence of the anti-child-labor provisions of the recovery codes. The progress toward elimination of child labor is gratifying to all who have been aware of its antisocial consequences, but still about half a million children under fifteen years of age, to say nothing of the larger number of young persons between fifteen and seventeen or eighteen years, are gainfully employed in the United States.

The character and importance of the child-labor problem are, however, to be measured by the geographical and occupational distribution of youthful workers as well as by the aggregate number employed. The distribution of child laborers among the various states and geographic divisions has been extremely uneven. The 1930 Census showed that only 1.3 per cent of all children between the ages of ten and fifteen years were gainfully occupied in the East North Central group of states (Ohio, Indiana, Illinois, Michigan, and Wisconsin) and only 1.4 per cent in the

TABLE 75.—NUMBER AND PERCENTAGE DISTRIBUTION, BY GENERAL DIVISION OF OCCUPATIONS, OF CHILDREN 10 TO 15 YEARS OLD GAINFULLY OCCUPIED, FOR THE UNITED STATES, 1920 AND 1930[1]

General division of occupation	1920		1930	
	Number	Per cent	Number	Per cent
Agriculture	644,174	60 7	469,497	70.4
Forestry and fishing	2,472	0 2	1,562	0.2
Extraction of minerals	7,191	0 7	1,184	0 2
Manufacturing and mechanical	185,652	17 5	68,266	10.2
Transportation and communication	18,912	1 8	8,717	1.3
Trade	63,724	6 0	49,615	7.4
Public service (not elsewhere classified)	1,130	0.1	485	0.1
Professional service	3,813	0.4	4,844	0.7
Domestic and personal service	54,006	5 1	46,146	6.9
Clerical occupations	79,784	7 5	16,803	2.5
All occupations	1,060,858	100.0	667,118	100.0

[1] Fifteenth Census of the United States, vol. 5, *Population*, p. 348.

three Pacific states. The lowest percentages were found in Ohio (1.0 per cent) and California (1.1 per cent). At the other extreme were the states in the South Atlantic division, where 9.5 per cent of the children were employed, and in the East South Central division, which had a child labor employment percentage of 13.5—a consequence, of course, of the large number of children employed in cotton production. The states with the largest percentage of children gainfully occupied were Mississippi (24.9 per cent), South Carolina (18.3 per cent), Alabama (17.5 per cent), and Georgia (14.7 per cent).[1] The occupational distribution of children gainfully employed in 1920 and 1930 is given in Table 75.

[1] Fifteenth Census of the United States, 1930, vol. 5, *Population*, p. 381.

The relative importance of child labor among the different lines of activity suggests several aspects of the problem. In 1930 more than 70 per cent of the nation's child workers were engaged in agriculture,[1] where their employment is generally not regulated or prohibited by state statutes. It is true that many phases of agricultural labor, especially where children are working for and with the head of the family, are not so detrimental to health and morals as is factory work, or as are the street occupations, but the superior character of agriculture as an employment field for children can be easily exaggerated. Child labor on the farms does not mean merely doing a few daily chores, for the Census counts as child farm labor only that toil which constitutes a material addition to the labor income of the farm. Probably more than homework, agricultural labor of children interferes with school attendance. Special studies have indicated that thousands of children in addition to those working on their home farms are employed as farm laborers, some of them as strangers in migratory camps under conditions almost, if not quite, as undesirable as those found in unregulated industrial employment. Employment of children in agriculture away from their parents' farms is especially common in cotton and tobacco production in the South, in the beet, onion, and melon fields, and on the truck farms that cluster about large cities. Even when children are engaged in home farm work, they are subject to conditions interfering with normal growth and educational opportunities. In no field of employment are attempts to curb child labor confronted with greater difficulties. The idea of the sanctity of the home, the sentiment against interfering with the parent's control over the child, the popular view that farm work for children is healthful, the economic status of the general farming population, the seasonal nature of the work, the administrative difficulties involved in enforcing legislation for children working in scattered rural districts and to a considerable extent outside school hours, the local prejudice against furnishing school facilities for migratory children, and the limitations of state jurisdiction have all been impediments to effective control. The consequence is that this type of labor is practically unregulated, and the danger of overstrain and stunted growth is very great.[2]

[1] It may be noted, also, that agriculture involved 87 per cent of all working children between ten and fourteen years of age.

[2] As is indicated later (*infra*, pp. 435–437) only a small part of the legislation that has been enacted by the states has been applicable to farm work of minors. In view of the difficulties inherent in regulating child labor in agriculture, the White House Conference on Child Health and Protection of 1930 recommended as the most promising approach to regulation of employment of such child workers the extension of more adequate school-attendance requirements and facilities to rural children and their efficient enforcement. The Conference insisted that rural children must be afforded educational opportunities equivalent to those afforded city children, that the age and attendance standards for schooling should be the same for both groups, and that districts should be responsible for the schooling of migratory children.

Another aspect of the child-labor problem, not revealed by the last table, is that of industrial homework. In some ways this constitutes the most vicious form of juvenile labor, and like agricultural work it is difficult to regulate.[1] Because the work done under the "sweating" or contracting-out system is generally capable of division into simple operations, it lends itself readily to the employment of even very young children. "Those too young to help with the more difficult operations assist with the simpler parts of the work. Almost one-fourth of the children included in the study by the Children's Bureau of the Department of Labor were under ten years of age, and almost four-fifths under fourteen."[2] It is estimated that approximately three-fifths of all industrial homeworkers are children under sixteen years of age.[3]

Still other aspects of the problem which the table on occupational distribution does not reveal are those pertaining to workers in the street trades and to transient youths. Of the 49,615 gainfully employed persons between ten and fifteen years of age engaged in trade in 1930, 21,615 were newsboys. The moral and physical environment of children selling newspapers or other articles on the streets or delivering messages is recognized to be more harmful, in many cases, than that of children working in factories and stores; and, as is indicated later,[4] the majority of the state laws fall far short of dealing adequately with this phase of the child-labor problem.[5] The average age of children in the street trades is under that of child factory workers; hours actually worked are longer than is popularly believed; night work is common; and earnings are uncertain, irregular, and pitifully meager.[6] The problem of transient youths

[1] *Cf. supra*, pp. 397–402, where the problem of industrial homework is discussed in some detail.

[2] "Child Labor in New Jersey," Children's Bureau, U. S. Department of Labor, *Publication 185*, p. 58.

[3] The study mentioned in the preceding footnote indicated that 63 per cent of the homeworkers studied were children under sixteen years of age. Twenty-seven per cent were mothers, and the remainder were other members of the household. The families studied were chiefly those of immigrants, in the great majority of cases Italian.

[4] *Infra*, p. 437.

[5] Also, the child-labor provisions of both the Newspaper Publishing Code and the Graphic Arts Code, under the NRA, were inexcusable. Neither code set a minimum age for carriers of papers or magazines, and only the Graphic Arts Code limited the age of sellers, the minimum set being fourteen years.

[6] Conditions of employment of sellers and carriers of newspapers and magazines during the mid-1930's have been revealed by a 1934 study of the U. S. Children's Bureau (*Publication 227*, "Children Engaged in Newspaper and Magazine Selling and Delivering," 1935). This survey covered 4,210 children in seventeen typical cities. Comparisons made between conditions of 1934 and those of the period 1922–1926, when other studies had been made by the Bureau in four of the cities covered in 1934 showed a tendency on the part of newspaper distributors to employ older children, but the practice of using very young children in magazine distribution was found to have increased markedly. The average age of the 1934 sellers of newspapers was found to be under fourteen years. Sixteen per cent of all

assumed greater proportions during the depression of the 1930's than ever before. We have no accurate information as to the number of boys who left their homes and took to the road, either because they could not find employment in their own communities or because they were simply driven forth by the sheer want at home; but the increasing number of transients of all ages and the larger proportion which boys bore to the total number prove beyond doubt that the number of wandering youths was several times greater during the depression years than ever before.[1] These transient boys constituted an acute social problem. They were, for

newspaper sellers were under twelve, and 4 per cent under ten, years old. Tabulation of median weekly earnings and median weekly hours of the newspaper sellers by age groups showed that the youngest boys worked the longest hours and earned the least. Seventeen per cent of the boys of all age groups reported earnings of less than fifty cents for the week studied, 36 per cent earned less than $1, two-thirds less than $2, and only about 7 per cent $4 or more. The position of newspaper carriers was found to be similar to that of the sellers. The employment of youths engaged in this work is subject to even less stringent regulations through street-trade laws than is the employment of newspaper sellers. The Bureau found, however, that some newspapers have in recent years adopted the policy of taking on no carriers under fourteen years, and a few, none under sixteen. The depression also tended to raise the age of carriers, because boys unable to find other work kept their routes. In consequence of these factors, the proportion of carriers under twelve (in the age group ten to sixteen) was found to have dropped from 30 per cent in the 1922–1926 period to 6 per cent in 1934. Sixty-one per cent were found to be fourteen and fifteen years of age in 1934, as compared with 32 per cent in the earlier (1922–1926) studies. Eleven per cent of the carriers reported earnings of less than fifty cents a week, 27 per cent of less than $1, 53 per cent of less than $2, 74 per cent of less than $3, 87 per cent of less than $4, 94 per cent of less than $5, and only 6 per cent of $5 or more. Children engaged in magazine distribution were, as a group, younger than either newspaper sellers or newspaper carriers, 10 per cent of those studied being under ten years of age, 33 per cent under twelve, and 80 per cent under fourteen. Only a minority earned more than $1 a week, and those who did worked from three to more than twenty hours a week.

[1] In 1932 the United States Children's Bureau undertook a survey of conditions relative to transient boys under the age of twenty-one, the purpose being to secure definite information as to how many boys were leaving their own homes and wandering through the country, what local communities were doing to take care of them, whether local resources were adequate to the demand, and how the boys were actually faring. [*Cf.* "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), pp. 42–44.] Only indications could be secured as to the number of such young transients. Some idea of the proportions of the problem can be gleaned, however, from the following excerpts from the report: "Men and boys swarm on every freight in such numbers that the railroad police would be helpless to keep them off. Along the route of the Southern Pacific many small towns in Texas, New Mexico, and Arizona reported the daily passing of about 200 men and boys during the winter and spring. . . . In Kansas City in May 1930 . . . a conservative estimate of the men and boys riding freights through the city at that time was 1,500 per day. In general, the estimates as to what proportion of these freight riders were under twenty-one clustered in the neighborhood of 20 to 25 per cent. . . . The Volunteers of America in Phoenix, Ariz., fed and lodged 1,539 different boys under twenty-one during the three and one-half months ending April 4, 1932. . . . At El Paso, Tex., during April and May, the Salvation Army reported feeding and lodging 9,551 men and boys, of whom 2,059 were under twenty-one."

the most part, youths from substantial families, who would normally have been at work or in school,[1] and the methods employed in handling the traditional "knight-of-the-road" transient were obviously inapplicable in their case.[2] The communities through which they passed were generally too heavily burdened with the care of their own unemployed to be able to give these wanderers intelligent and effective aid. Later the Civilian Conservation Corps absorbed a considerable number of these wandering youths, and when the federal government virtually took over the relief activities which local communities were financially unable to continue, methods of handling youthful transients underwent substantial improvement. Nevertheless, the depression experience with unemployed and migratory young persons revealed a problem as great as, and more immediately acute than, the problem of too early employment. In consequence of the breaking of the morale of energetic youths, the habits of shiftlessness and instability engendered, and the unwholesome physical and moral environments in which a crucial formative period was spent, the experience has left an inerradicable imprint upon thousands of persons now entering upon the years of their lives that should be those of greatest productivity.

When all aspects of the problem of child labor are taken into account, however, it is factory work that is responsible for most of the antisocial consequences summarized in the preceding section of this chapter, and it is toward factory employment that the bulk of legislation developed during the last seven decades has been directed. The 1930 Census showed that 68,266 children between the ages of ten and fifteen were at work in factories or mechanical establishments, and 19,145 of these were between ten and fourteen years old. If the age group is widened to include minors sixteen and seventeen years old, the total number employed in manufacturing in 1930 was nearly half a million (466,251).[3]

[1] "Social workers, police, and railroad men, who are in constant touch with these boys, assert their belief that the overwhelming majority of them are young men and boys who would normally be in school or at work; that they are 'on the road' because there is nothing else to do—sometimes because sheer pride will not permit them to sit idle at home—sometimes because support for the whole family came from a relief agency and was wholly inadequate properly to feed the younger children; they are, on the whole, not of the habitual hobo or criminal types." *Ibid.*, p. 43.

[2] A cardinal principle in the handling of transients in the past has been that if the transient had a valid claim on any given community he should, if possible, be returned to that community, and that if he had no such claim or if for any reason he could not be returned, an effort should be made to secure a job for him or the training that would enable him to take a job in a new environment. This procedure could not be carried out in the case of transient youths, partly because the changed character of these transients made the old methods inapplicable, partly because of their increased number, and partly because the communities did not have the funds to pay transportation to the place of established responsibility.

[3] *Abstract of the Fifteenth Census of the United States*, p. 336. The age distribution of

Textiles accounted for the largest number (20,625) of those ten to fifteen years of age, but children were also to be found working in canneries,[1] shoe factories, bakeries, candy factories, hat, collar, shirt, and cuff establishments, slaughtering houses, steel mills, cigar factories, printing establishments, and other branches of manufacture.[2]

Child Labor under the NRA.—During the three years immediately following 1930, when the decennial Census was taken, the number of child workers in the United States decreased, the decline in employment of children closely paralleling the decline in business conditions. While annual fluctuations in the employment of young persons between the census years are not accurately known, and have to be estimated chiefly in accordance with the number of employment certificates, or work permits, issued in the various states and cities, information of this character definitely establishes a decline in child labor during the first three years of the depression. There is no evidence, however, that the decrease was greater proportionately than the decline in adult employment. Children of fourteen and fifteen years were still leaving school and going to work at a time when millions of adults were jobless. The decrease in employment of children, percentage estimates of which are presented in Table 76, reflected primarily the decline in general employment during

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persons under eighteen years employed by manufacturing enterprises in 1930 was as follows:

10 to 13 years	4,761
14 years	14,384
15 years	49,121
16 years	149,855
17 years	248,130

[1] In a summary of surveys of the canning industries of Delaware, Indiana, Maryland, Michigan, New York, Washington, and Wisconsin, the United States Children's Bureau reported in 1930 that 3,403, or 6 per cent, of all employees in the 530 canneries covered were children. This percentage varied from 1.7 in New York to 9.5 in Maryland, indicating differences in the effectiveness of the child-labor laws. Working conditions were found to range from light tasks in clean plants to heavy work under wholly objectionable conditions. Except in Wisconsin and in some of the New York canneries, children were found to work as long hours as adults. Three major types of violation of child-labor laws were found: employment of children under legal age, employment of children without permits, and employment of children for long hours and at night. "Children in Fruit and Vegetable Canneries," Children's Bureau, U. S. Department of Labor, *Publication 198*, (1930).

[2] The distribution among the main branches of manufacture of the 68,266 children ten to fifteen years employed in 1930 was as follows:

Textiles	20,625
Iron and steel and other metals	3,236
Clothing	8,650
Building trades	7,380
Lumber and furniture	4,790
Food products	4,324
Leather	2,616
Others	16,645

these years, not progress in the elimination of child labor. It is possible, also, that the data collected by the Children's Bureau on the number of employment certificates issued tend to exaggerate somewhat the actual decline between 1930 and 1933 in the employment of children. As is rather generally known, the most severe curtailment of the work opportunities of children occurred in occupations for which the states usually require employment certificates,[1] and it is hardly likely that there was a decline in child labor in all occupations and industries employing children.

The years 1933–1935 were marked, however, by one of the most significant advances in child-labor standards ever attained in the United States—certainly the most significant advance ever attained within such a short period. When the National Industrial Recovery Act was passed in 1933, the sixteen year minimum for general employment was on the statutes of only four states, three of which were primarily nonindustrial. In contrast, practically all the codes, beginning with that of the cotton-textile industry (effective July 17, 1933), prohibited the employment of children under sixteen years of age.[2] As a result, the employment of children under sixteen practically disappeared in the codified industries and trades, notwithstanding a rise in general employment. One great advantage of the code system, as contrasted to regulation by state statutes, was that the provisions of each code applied throughout all of the industry, without regard to state lines.

The most accurate measure of the trend of child labor during intercensal years is, as we have said, the number of employment certificates issued to children.[3] The following tables, based upon this measure, indicate the extent to which juvenile employment was curtailed during the period of the NRA.

Several significant facts are revealed by examination of the two tables. (1) The downward trend of employment for both groups of minors during the pre-NRA depression years was, as has already been said, a reflection

[1] Which are, as is indicated in the following section of this chapter, manufacturing, mechanical and mercantile industries, messenger service in most states, domestic service in a few states and cities, and only rarely the street trades.

[2] There were some exceptions. In retail trade children between 14 and 16 were permitted to work part time outside school hours. The radio-broadcasting and theatrical-industries codes exempted children engaged in professional work. In the newspaper-publishing and graphic-arts codes, as already indicated (*supra*, p. 426), no minimum age was set for selling or delivering newspapers and magazines outside school hours. A night-work provision was, however, included in these two codes.

[3] The number of certificates issued is not a perfect indicator of the trend of child labor, since some of the states do not require the issuance of certificates to children entering a rather large range of occupations, and a certain number inevitably go to work illegally. The number of certificating officers reporting to the Women's Bureau (those of nineteen states, the District of Columbia, and seventy-eight cities in seventeen other states in 1934) is large and representative enough, however, to indicate with substantial accuracy the trends of juvenile employment.

of the general diminution of work opportunities. In the case of the younger group, the more severe curtailment of employment opportunities in those occupations for which certificates must be obtained than in other

TABLE 76.—CHILDREN 14 AND 15 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES AND RATE PER 10,000 OF THESE AGES IN 41 CITIES, 1927–1934[1]

Year	Children 14 and 15 years of age receiving certificates		
	Number	Rate per 10,000 children of these ages	Percentage of change in rate as compared with previous year
1927	71,655	978	
1928	67,199	893	− 8.7
1929	71,857	930	+ 4.1
1930	49,082	619	−33.4
1931	37,051	460	−25.7
1932	27,556	336	−27.0
1933	17,042	210	−37.5
1934	5,415	67	−68.1

[1] Taken from Ella Merritt, "Child Labor Under the N.R.A.," *Monthly Labor Review*, vol. 41, (December, 1935), p. 1480. The data are those compiled by the Women's Bureau of the U. S. Department of Labor.

TABLE 77.—MINORS 16 AND 17 YEARS OF AGE RECEIVING FIRST REGULAR EMPLOYMENT CERTIFICATES AND RATE PER 10,000 MINORS OF THESE AGES IN 18 CITIES, 1927–1934[1]

Year	Minors 16 and 17 years of age receiving certificates		
	Number	Rate per 10,000 minors of these ages	Percentage of change in rate as compared with previous year
1927	28,830	1,362	
1928	30,585	1,412	+ 3 7
1929	38,453	1,740	+23.2
1930	27,793	1,234	−29.1
1931	23,403	1,022	−17 2
1932	19,972	872	−14.7
1933	21,977	952	+9.2
1934	26,754	1,159	+21.7

[1] *Ibid.*, p. 1482. This table is not strictly comparable with the preceding one, since the data here are based upon reports from eighteen cities, as against forty-one cities in the preceding table. Information received by the Children's Bureau as to employment of minors sixteen and seventeen years of age is more limited than that for the group fourteen and fifteen years of age, because in many states certificates are not required for minors after they reach the age of sixteen. In general, however, the two tables make possible comparison of the employment trends of minors under sixteen with those of minors sixteen and over.

occupations was also a factor. It should be noted, however, that the decline was not substantially greater in the case of the younger group

than in that of the older group. The difference can be explained—aside from the fact that the data in the second table are drawn from a smaller number of cities—by the factor just mentioned: the greater curtailment of work opportunities in those occupations where certificates are required. The conclusion dictated by the fact that the two trends were almost the same after allowance for this element in the situation is that virtually no progress was made during the early depression years in excluding from industry children under sixteen years of age. Had such progress been made, their employment (as indicated by the rate per 10,000 of the age group receiving employment certificates) would have declined more, in relation to that of minors sixteen and seventeen years of age, than it did. (2) In the second place, the effect of the NRA in reducing the volume of child labor to only a small fraction of what it had formerly been is clearly indicated by the data in the first table. In 1933 for the first time the employment of children under sixteen decreased in the face of a revival of business and an increase in general employment, and this drop continued through 1934 notwithstanding a continued rise in the factory employment index.[1] There is every reason to believe that without the sixteen-year minimum age limit of the NRA codes, the upswing in general employment would have brought with it an increase in the employment of children, as it almost always has in the past. (3) In the third place, it will be noted that while the gainful employment of those under sixteen was declining in 1933 and 1934, in spite of a continuing rise in factory employment, minors of sixteen and seventeen years were going back to work in increasing numbers. The explanation lies partly, of course, in the greater opportunities for employment consequent upon the accelerated industrial and commercial activity, and partly in the fact that most of the jobs that had previously lent themselves to the employment of minors under sixteen were having to be filled during the period of the NRA by workers sixteen years of age and over. (4) Finally, the tremendous extent of the decline in child labor during the 1933–1935 period should be noted. The 1934 certificate-issuance rate in these representative cities was only one-fifth of the 1932 rate, and approximately one-fourteenth of the 1929 rate. The number of certificates issued for work in manufacturing and in mechanical and mercantile establishments in 1934 was practically negligible; for the most part the children who obtained certificates left school to enter domestic service, to help at home, or to engage in other work not covered by the codes.[2] It

[1] It will be remembered (*supra*, p. 119) that the index of factory employment (1923–1925 average = 100) stood at 58 at the depth of the depression, in March, 1933, rose enough during the latter months of that year to bring the yearly average up to 69, and then rose to 78 by December, 1934.

[2] Ella A. Merritt, *op. cit.*, p. 1483. In the nineteen states, the District of Columbia, and the seventy-eight cities in seventeen other states from which the Children's Bureau received reports in 1934, only 14,157 children fourteen and fifteen years of age received certificates

is not an exaggeration to say that during this two-year period the employment of children almost disappeared from manufacturing and trade.

Since the judicial invalidation of the National Industrial Recovery Administration in 1935, child labor has increased to a certain extent. Some employers, it is true, voluntarily maintained code standards during the 1935–1938 period, and the bulk of the gains of the NRA period have not yet been lost. But their permanent maintenance necessitates both an improvement in the majority of the state laws[1] and elimination—by Federal control or some other means—of the unevenness now characterizing the protection afforded by forty-eight different states.

State Regulation of Child Labor.—In both England and the United States children were early accorded a certain amount of legislative protection. The development of legislation in the mother country during the first half of the nineteenth century has been summarized earlier in this chapter,[2] and it needs be mentioned only that since the middle of the century important progress has been made. In 1878 the previous English legislation was consolidated into one general factory act, while in 1902 the minimum age of labor in the majority of industrial occupations was set at twelve years. Since that time England, as well as the important continental countries, has imposed greater legislative restriction upon the entrance of young persons into gainful employments, and the principle of adding to the lists of prohibited occupations by administrative authority has become well established.[3]

Legislation limiting the hours children may work is summarized in the following chapter,[4] and our attention here may be confined chiefly to the matter of exclusion of children from industry. The two phases of the problem are, of course, interwoven; frequently the statutes prohibit the employment of children under a certain age in specified occupations and limit the number of hours children more than that age but less than a somewhat greater age (frequently sixteen years) may work. Thirty-nine of the states have established the eight-hour standard for children less than sixteen years of age in one or more factory occupations, and thirty-four states and the District of Columbia have an eight-hour

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that year. Between 1932 and 1934 there was a decrease of 72 per cent in the total number of certificates issued, as compared with a decrease of about 80 per cent in the forty-one cities from which the data in the first of the foregoing tables were obtained.

[1] As was said earlier, four states had a sixteen-year minimum when the NRA went into effect. After the Schechter decision of 1935, three states (Pennsylvania, New York, and Connecticut) raised their child-labor provisions to meet the NRA provisions. In 1936, as is indicated in more detail later, the laws of forty-one of the states permitted children to enter gainful employment at ages which were prohibited by the codes.

[2] *Supra*, pp. 420–421, footnote 1.

[3] For details of the regulations in the various countries see *Bulletins 80, 89, 223,* and *558* of the U. S. Bureau of Labor Statistics.

[4] *Infra*, p. 534.

day for children under sixteen in both factories and stores.[1] Thirty-five of the eight-hour states also have a maximum forty-eight-hour week, and four states have a forty-four hour weekly maximum for children less than sixteen years. Eight states still permit children between the ages of fourteen and sixteen to work from nine to eleven hours per day, and the weekly maxima in the states permitting a day of more than eight hours range from fifty-one to sixty hours. All but one of the states prohibit night work on the part of children in one or more occupations, twenty-one of the laws applying to all work without exception. In about a score of the states the eight-hour standard applies to all occupations except agriculture without exemption.

The movement for exclusion of children from industry first attained momentum in the United States in the 1840's, under the influence of the general wave of humanitarianism at that time.[2] Pennsylvania in 1848 forbade the employment in textile establishments of children under twelve; Rhode Island in 1853 established a twelve-year limit for all manufactures; New Jersey in 1851 forbade employment in manufactures of children less than ten years of age; and Connecticut in 1856 passed a law forbidding the employment of children under ten years of age in manufacturing establishments, and the following year made this law effective by providing for a special officer to see that the age restrictions on employment of children were obeyed and by making the prohibitions applicable to mechanical establishments as well as to manufacturing. After the Civil War Massachusetts took the lead in enacting child-labor laws, the acts of 1866 and 1867 prohibiting the employment in manufacturing industries of children under ten years of age, limiting the hours of children from ten to fifteen years to ten a day, and providing for factory inspection and a minimum of schooling on the part of child workers. In the 1870's an even more active agitation against child-labor began, under the leadership of the Working Men's Party, the Knights of Labor, and, after the 1880's, the American Federation of Labor. Numerous civic bodies also joined in the movement, the National Child Labor Committee being formed in 1904 to act as a clearing house for information on child labor, to investigate conditions, to educate public opinion, and to promote

[1] The legislative summary of this and the immediately following paragraphs is based upon *State Child Labor Standards*, Chart 2 (Children's Bureau, U. S. Department of Labor), *Publication 197*, "Child Labor Facts and Figures" of the Children's Bureau, National Child Labor Committee, *Child Labor Laws and Child Labor Facts*, and the information made available in the various issues of *The American Labor Legislation Review* and *The American Child*.

[2] There had been anti-child-labor agitation and pressure upon the legislatures for statutory enactment prior to the 1840's. Massachusetts, in 1836, enacted a law providing for the instruction of children employed in factories, and in 1842 limited the working day of children under fourteen in the cotton mills and of children under sixteen in other branches of manufacture to ten hours.

legislation. By the early years of the twentieth century, the legislatures were ready to enact laws excluding young persons from various occupations in which their employment was regarded as being especially harmful; and the volume of legislative achievement by the states in the years from 1902 to 1916, when the first federal child-labor law was enacted, was tremendous.[1] The period following 1916 has been characterized by the extension to new areas of child-labor standards already proved reasonable and a slow achievement of higher standards.

As a result of the general movement against child labor, all states now forbid the employment of children in one or more kinds of work until they have passed a fixed age limit. By the end of the 1930's, the fourteen-year minimum had been established for general factory work in all except one state,[2] and in all but two states both factory and store work on the part of minors under fourteen were barred. In four of the states,[3] the fourteen-year factory-work minimum applied only during school hours, and in four[4] children could be exempted because of poverty. All but fourteen of those states having the fourteen-year minimum for general factory work permitted numerous exceptions. Seven of the states in 1936 had the sixteen-year restriction upon factory and other work that had been incorporated in the majority of the NRA codes.[5] A majority of the states require documentary proof of the child's age. Employment of children in other branches of industry has also been prohibited, although the laws fail markedly to cover all occupations from which children should be excluded. Agriculture and the canning of perishable fruit and vegetables are almost invariably exempted. By 1937, however, children were excluded in over three-fourths of the states from a list of establishments including, in addition to factories, mechanical establishments, stores, hotels, restaurants, and bowling alleys. Thirty

[1] In one year, 1903, eleven states passed fairly comprehensive child-labor laws, five of these being southern states which previously had had no child-labor laws whatever. From 1902 to 1909 forty-three states enacted either wholly new laws or far-reaching amendments. In 1900 there were twenty-four states and the District of Columbia in which there was no minimum age for employment in factories. In 1909 only six states were without such a standard. As in other fields of labor legislation, the peak years in enactments were 1911 and 1913, when thirty and thirty-one states, respectively, enacted such measures. In 1915, twenty-five states took some action. Elizabeth S. Johnson, in Commons and Associates, *History of Labor in the United States*, vol. 3, p. 409.

[2] Utah. However, the child-labor law of this state forbids work by persons under sixteen in certain specified "dangerous and injurious" manufacturing processes.

[3] Missouri, Nevada, New Mexico, and Wyoming.

[4] Delaware, South Dakota, Washington, and Wyoming.

[5] Only four states had the sixteen-year minimum for work in factories and in mechanical and mercantile establishments in 1938. Three others (Pennsylvania, New York, and Connecticut) enacted laws incorporating the sixteen-year restriction in 1935, after the National Industrial Recovery Act had been declared by the Supreme Court to be unconstitutional

of the states in the middle-1930's prohibited employment of boys under sixteen in mines and quarries, and in five the age limit was seventeen or eighteen. On the other hand, six states specified no age restriction for mine work, and in the others the age minimum was only fourteen. The more recent tendency on the part of those experienced in drafting child-labor laws has been to use the general term "any gainful occupation" instead of a specified list, but state legislatures have been reluctant to enact such sweeping prohibitions. In some states, administrative officials or boards are given a certain amount of discretion in determining whether the general provision in the laws prohibiting employment in occupations "dangerous to life and limb or injurious to health and morals" is applicable to specific lines. The practice of setting a general prohibition in the law and requiring the appropriate state board or bureau to make such particular applications as it finds to be necessary is recognized by almost all students of the problem to be superior to the inclusion of specific lists of occupations in the statutes. In addition to these age restrictions, the majority of the states require certain minimum educational achievements and the passing of a physical examination before the minors are eligible to work.[1]

In spite of the progress the states have made in bringing child labor under control since the beginning of the century, as revealed by the foregoing summary of the legislative provisions, the legal regulations still fall far short of standards that students of the problem agree constitute the desirable minimum. One serious difficulty has, of course, been the lack of uniformity among the various state laws—a difficulty that was in part responsible for the federal laws of 1916 and 1919 and for the child-labor amendment to the federal constitution that is now pending. Another difficulty has been the failure to include all occupations that are detrimental to the health of child workers. It is of course difficult for a statute to be so framed that it will meet future conditions resulting from industrial change, and, as has been said, the practice permitting administrative officials or boards to determine whether the general provision in

[1] All the states now have compulsory school-attendance laws, the most common requirement being that children must attend school up to and including the age of sixteen unless they have already completed the eighth grade. About six states still make the age only fourteen or fifteen, while nine have set it at seventeen or eighteen. More than half of the states require attendance at part-time continuation schools if children of specified ages have not completed the allotted number of grades. Less than half the states in 1937 provided that the eighth grade must be completed regardless of a child's age, and exemptions were frequently granted in the case of family need. Eight states still require only a sixth- or seventh-grade education; nine demanded only literacy or lower-grade learning; and nine others had no specific grade-school educational minimum for children who had reached the age of fourteen. In twenty-six states and the District of Columbia it is mandatory for children under sixteen to pass a physical examination in order to secure an employment certificate, and in eight other states the test is optional with the certificate-issuing officer.

the law prohibiting employment in harmful occupations is applicable to specific lines of work is vastly preferable to specific enumeration of such occupations in the statute. But important types of child labor are not prohibited in a majority of the states. Agriculture, as already indicated, is generally exempted. The laws also fall short in that they fail to deal adequately with an already discussed phase of the child-labor problem,[1] work on the city streets. Only about twenty states and the District of Columbia have had laws regulating street work of children, and these laws are grossly inadequate. Only nine of the laws have been of state-wide application, the others applying merely to certain large cities. Some apply only to girls, and some do not cover all street trades. Most of these statutes forbid the work of children under a specified age (most commonly twelve) and require a special permit or badge for children between this specified age and sixteen. In only seven states in the 1930's was the age limit for street work other than selling newspapers and periodicals as high as fourteen years. Even these laws, inadequate as they have been, have proved more difficult to enforce than those regulating child labor in factories, stores, and other establishments. This has been especially true of those which have not required permits or badges.

Other shortcomings of the state child-labor laws must be mentioned. Exemptions, such as the exemption of the "poor widow's" child and of the children of "dependent parents," have in some cases gone far toward emasculating the standards established by the legislature. In recent years the tendency has been to eliminate as many of the exemption provisions as is deemed feasible. Still another shortcoming has been the rigidity of the state laws. A uniform age limit for all occupations, or even within a given occupation, is not entirely satisfactory, because of the variation in the type of work and in the physical and mental ability of different children to meet the strain. Many of the states, it is true, set a general minimum age of fourteen for entrance into general factory work and a limit of sixteen years for the especially hazardous occupations, while the physical requirements and educational provisions of the various laws also operate to keep out of industry those who, even though they have reached the minimum age limit, are physically unable to do the work or would be deprived of a minimum of education by entering gainful employment. The state laws have not attempted to designate definite physical standards, but have merely contained the rather vague provision that children entering industry must be physically fit. Physical examinations are, however, only a very rough-and-ready way of meeting the needs of the situation, since different physical qualities are required in different types of occupations. The English law is, in this respect, an improvement over the American in that it requires the certifying physician to examine the child in the factory where he is seeking employment, and

[1] *Supra*, pp. 426–427.

hence gives better opportunity for the examiner to judge the physical fitness of the child for the conditions and processes in the particular employment. Laxity in the educational requirements has been still another shortcoming of the state laws.

Finally, it must be mentioned that administration of the state child-labor laws has sometimes been inexcusably bad. Some few of the states have demonstrated that, given a good law, effective enforcement is possible, but in a larger number undue laxity has virtually nullified the provisions. Frequently the necessary relationship between the issuance of employment certificates, the proper enforcement of school-attendance laws, and the inspection of establishments and imposition of penalties for violation has been lacking; inspection often has been loose; and in spite of the fact that most of the laws provide penalties of the misdemeanor type when violation of the law by the employer has been proved, court action on the whole has been rather infrequent. In some states the personnel of the group charged with administration has not been of high caliber.[1] It is notorious that during the depression of the 1930's, and prior to the advent of the NRA, violations in many cities and states became widespread. Among the recommendations of the White House Conference of 1930, which can be taken as representative of the more intelligent and enlightened opinion, for administrative improvement were: adequate legal provisions as to employment-certificate issuance, including standards for evidence of age and proof of physical fitness; enforcement of school attendance with special attention to the problems of attendance of children in rural districts and of the education of the so-called "migratory" child workers; methods of inspection adapted to good enforcement; provision of official personnel qualified by education, experience, and training, adequately compensated and appointed under the merit system, such personnel to be sufficient in number for effective certificate issuance, school-attendance enforcement and inspection; and supervision by state agencies in the development of effective administration of each of these activities.[2]

Attempts at Federal Control.—The great diversity among the laws of the various states, the failure of many to include important child-employing occupations, the low standards established for the included occupations in some cases, the administrative shortcomings, and the supposed competitive disadvantage of employers in high-standard states have led to three attempts (exclusive of the already discussed NRA regulation) by the federal government to prohibit and regulate child labor. These attempts—the so-called child-labor laws of 1916 and 1919, which

[1] These are, in substance, the conclusions as to administration of the child-labor laws reached by the White House Conference on Child Health and Protection of 1930.

[2] "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), pp. 41–42.

succumbed before Supreme Court disapproval, and the pending constitutional amendment—merit consideration in some detail.

Federal regulation of child labor was first proposed in Congress in 1906, when a bill was introduced prohibiting interstate commerce in products of mines or factories employing children under fourteen years of age.[1] This bill did not receive the support of the National Child Labor Committee, and doubt as to its constitutionality as well as hope that state standards would be improved more rapidly than they were during the immediately following years caused many of those keenly concerned about the evils of child labor to doubt the efficacy and desirability of federal enactments on the subject. A decade later, however, the consensus of opinion had changed. The slowness of improvement in the state laws brought conviction that national action was imperative. The Supreme Court had sustained Congress in exercising its power to regulate interstate commerce for the purpose of preventing lotteries,[2] establishing pure food standards,[3] and making a federal offense the transportation of women in interstate commerce for the purpose of prostitution;[4] and it was expected that a federal child labor law based upon the interstate-commerce power would be regarded by the court as analogous, since it would be designed to protect the residents of one state from the products produced in another state under conditions of child labor which were deemed antisocial or even immoral. Both major political parties, in their 1916 platforms, endorsed the principle of the Palmer-Owen bill of 1914, substantially the same as the law enacted in 1916, and numerous organizations aligned themselves in favor of this bill.[5] Finally, in 1916, Congress by an overwhelming vote[6] enacted a law which forbade the transportation in interstate commerce of goods produced in factories or canneries which within thirty days prior to the shipment of such goods had employed children under fourteen years of age, or had employed children between fourteen and sixteen years of age more than eight hours in any day or more than six days in any week, or after 7 P.M. or before 6 A.M.[7] The law also prohibited the shipment in interstate commerce of the products of mines employing children under sixteen.

[1] Elizabeth S. Johnson, in Commons and Associates, *History of Labor in the United States* (The Macmillan Company, New York, 1935), vol. 3, p. 438.

[2] *Champion v. Ames*, 188 U. S. 321 (1903).

[3] *Hipolite Egg Co. v. United States.*, 220 U. S. 45 (1911).

[4] *Hoke v. United States*, 227 U. S. 308 (1913).

[5] Among them, the National Child Labor Committee, which had endorsed federal legislation in 1914, the National Consumers' League, the American Federation of Labor, the Federal Council of Churches of Christ in America, the Farmers' Educational and Cooperative Union of America, the American Medical Association, and the International Child Welfare League. E. S. Johnson *op. cit.*, p. 440.

[6] In the Senate, 52 ayes to 12 nays; in the House, 337 ayes to 46 nays.

[7] 39 *Stat.* L. 675, 1916.

This measure, had its constitutionality been upheld by the Supreme Court, would have provided uniformity of conditions so far as the employment of children in mines and factories was concerned, but it was estimated that 85 per cent of the child workers were then in occupations not covered by the law, such as agriculture, mercantile establishments, and the street trades. During the nine months in which enforcement was carried on,[1] an appreciable diminution of juvenile employment in the covered occupations occurred, and the possibility of successful federal administration was demonstrated.[2] But in June, 1918, the Supreme Court by a five-to-four vote declared the act to be an unwarranted extension of the power of Congress to regulate interstate commerce, an invasion of the rights of the states, and therefore unconstitutional.[3] Since the decision was of outstanding importance in the history of child-labor legislation and of labor legislation in general, it should be examined in some detail.

The reasoning by which the majority reached the conclusion that the act transcended the authority over commerce delegated to Congress and exerted power as to a purely local matter to which federal authority did

[1] From September, 1917, when the law became effective, until June 3, 1918, when the Supreme Court of the United States declared it to be unconstitutional.

[2] Even though the administration of the law was shortlived, it was significant as the first attempt to enforce a labor law on a national scale. As summarized by Miss Johnson in the Commons and Associates *History of Labor*, the administration was as follows: "The United States Children's Bureau, through a Child Labor Division established for the purpose, was made responsible for the administration of the first law, under rules and regulations adopted by the ex officio board provided for in the law. The cardinal policy adopted for federal administration was to cooperate with the state administrative officials and to refrain from stepping in above state officials or duplicating their work, except in relatively few states where practices of administration were too low to be tolerated under federal regulations. In most states, state inspectors were given federal authority. The work of the federal inspectors was largely confined to those states with standards below those of the federal act and those where opposition to the state law prevented its enforcement. . . . Employment certificates issued under state authority had the same force and effect as federal certificates, where the state certificates were approved by the federal administration as being in substantial accordance with the federal requirements. The federal requirements for an age certificate did not touch the question of education or physical fitness for work, but made rigid requirements for documentary proof of age. Certificates were required for all children under sixteen years of age for work in manufacturing establishments and for children sixteen and under seventeen for work in mines. In thirty-nine states and the District of Columbia, the certificates issued under state authority were tentatively approved although the issuing of certificates was not altogether up to the federal standards in many of them. Federal certificates were issued by federal agents in five states, all of which were in the South." *Op. cit.*, pp. 442–443. (Quoted with permission of The Macmillan Company, New York, publishers.)

[3] *Hammer v. Dagenhart*, 247 U. S. 251 (1918). The majority included Justice Day, who delivered the opinion of the Court, Chief Justice White, and Justices VanDevanter, Pitney, and McReynolds. The dissenters were Justice Holmes, who delivered the dissenting opinion, and Justices McKenna, Brandeis, and Clarke.

not extend may be summarized briefly. The power to regulate interstate commerce is the power to prescribe the rule by which commerce is to be governed, or to control the means by which it is carried on, and this control of the means "is directly the contrary of the assumed right to forbid commerce from moving and thus destroy it as to particular commodities." The decisions invoked as precedents (the Lottery, Pure Food, and Mann Act decisions) did not establish that the right of Congress to regulate interstate commerce incidentally included the authority to prohibit the movement of commodities, for in these cases the character of the things whose exclusion from commerce the Court had sustained was such as to bring them peculiarly within governmental authority and to render their exclusion, in effect, only a regulation—not a prevention or stoppage—of interstate commerce. "They [these cases] rest upon the character of the particular subjects dealt with and the fact that the scope of governmental authority, state or national, possessed over them is such that the authority to prohibit is as to them but the exertion of the power to regulate." In each of the cited instances (lotteries, transportation of impure foods, transportation of women for immoral purposes) the use of interstate transportation was necessary to the accomplishment of harmful results. In other words, although the power over interstate commerce was to regulate, that could only be accomplished by prohibiting the use of the facilities of interstate commerce to effect the evil intended. "This element is wanting in the present case. . . . The [child labor] act in its effect does not regulate transportation among the states, but aims to standardize the ages at which children may be employed in mining and manufacturing within the states. The goods shipped are of themselves harmless."

The remainder of the decision consisted of an enunciation of the principles that the manufacture of goods is not commerce, irrespective of the fact that the goods may be intended for and afterward actually be shipped in interstate commerce; that the power to regulate interstate commerce was not intended as a means of enabling Congress to equalize economic conditions in the states for the prevention of unfair competition among them; and that Congress has no right under the Constitution to control the states in the exercise of their police power over local trade and manufacture. "When the commerce begins is determined, not by the character of the commodity, nor by the intention of the owner to transfer it to another state for sale, nor by his preparation of it for transportation, but by its actual delivery to a common carrier for transportation, or the actual commencement of its transfer to another state. . . . There is no power vested in Congress to require the states to exercise their police power so as to prevent possible unfair competition. Many causes may cooperate to give one state by reason of local laws or conditions an economic advantage over others. The commerce clause was

not intended to give Congress a general authority to equalize such conditions. . . . The grant of power to Congress over the subject of interstate commerce was to enable it to regulate such commerce and not to give it authority to control the states in their exercise of police power over local trade and manufacture. . . . The act in a twofold sense is repugnant to the Constitution. It not only transcends the authority delegated to Congress over commerce but also exerts a power as to a purely local matter to which federal authority does not extend."

A few comments must be made. (1) The restrictive view of the interstate commerce power taken by the Court is apparent. "When the commerce begins is determined . . . by its [a commodity's] actual delivery to a common carrier for transportation or the actual commencement of its transfer to another state." In decisions rendered both before and after the first child labor case, however, the Court adhered to a much more liberal conception of the interstate-commerce power and recognized that influences upon intrastate commerce may be powerful enough to make them an appropriate subject for regulation under the interstate-commerce power.[1] The antitrust cases, it should be pointed out, involved substantive differences from the child-labor case, in that in them certain acts reducing, or tending to reduce, the flow of commodities in interstate commerce had occurred, whereas in the instant case the question was whether Congress could prohibit the transportation of commodities to prevent a practice it deemed to be antisocial. Nevertheless, the antitrust act, like the child-labor act, was based upon Congress's power to regulate interstate commerce, and in its interpretation of the former the Court has generally taken a much more liberal view than it has in its interpretation of the latter.[2] (2) In the second place, the Court's conclusion that federal prohibition of interstate commerce in lottery appurtenances, impure foods, and women for immoral purposes could be sustained on the ground that their harmful character brought them within the province of governmental control, and therefore rendered their exclusion in effect only a regulation, not a prohibition, of interstate commerce, but that this ele-

[1] In the Danbury Hatters case (*Loewe v. Lawlor*, 208 U. S. 274, 1908), for example, the Court held that the fact the means operated at one end (in the form of a strike) before interstate transportation had commenced and at the other (in the form of a boycott) after it had ended was immaterial; interstate commerce was affected by the disapproved acts.

[2] Here, as so often is true in a discussion of a Supreme Court majority ruling upon a legislative body's exercise of one of its powers to attain an objective deemed by the legislators to be desirable, the words of Mr. Justice Holmes are much in point. Dissenting in this case, he said: "Congress is given power to regulate such commerce [interstate commerce] in unqualified terms. It would not be argued today that the power to regulate does not include the power to prohibit. Regulation means prohibition of something, and when interstate commerce is the matter to be regulated, I cannot doubt that the regulation may prohibit any part of such commerce that Congress sees fit to forbid. . . . It does not matter whether the supposed evil precedes or follows the transportation. It is enough that in the opinion of Congress the transportation encourages the evil."

ment was lacking in the case of prohibition of commodities made by child workers, must be examined. It must be admitted that a logician would have to sustain the lawyer's distinction that was made. In the cases where prohibition had been sustained, interstate commerce was necessary to the accomplishment of the harmful results, and in the case of child labor it was not. Yet in the last analysis this distinction rests upon very narrow grounds. In both cases Congress by the exercise of the same power was attempting to prevent an antisocial or immoral act. The effect of the exclusion from interstate commerce, that of prevention, was the same, irrespective of the fact that impure foods had to enter commerce in order for their harmful effects to materialize, whereas children are harmed by too early employment, even if the commodities they make never cross a state boundary. (3) In the third place, two interrelated assumptions—that prohibition is really not prohibition, but only regulation, when the prohibited articles are harmful, and that lottery-ticket and impure-food transportation involve an element of harm that does not inhere in transportation of goods made by child workers—cannot escape mention. The words of Mr. Justice Holmes are sufficient: "The notion that prohibition is any less prohibition when applied to things now thought evil I do not understand. But if there is any matter upon which civilized countries have agreed . . . , it is the evil of premature and excessive child labor. I should have thought that if we were to introduce our own moral conceptions where in my opinion they do not belong, this was preeminently a case for upholding the exercise of all its powers by the United States." Here, again, the validity of a lawyer's distinction must be granted. Impure foods are harmful *per se;* the commodities made by child labor are not harmful *per se.* But in both cases the prohibition of interstate commerce was calculated to prevent the occurrence of a harm. If the harmfulness of child labor were conceded, then no alarming or constitution-wrecking extension of precedent would have been necessary for the Court to have applied its logic in other cases to the prohibition of interstate commerce in commodities made by children—*i.e.*, for it to have held that necessary regulation could be accomplished only through prohibition of the use of the facilities of interstate commerce. (4) Finally, a few words must be said about the majority's argument that the power to regulate interstate commerce was not intended by the fathers of the Constitution as a means of enabling Congress to equalize economic conditions in the states for the prevention of unfair competition among them, and that so to exercise this power constitutes an invasion of the rights expressly reserved to the states by the Tenth Amendment. The basic question here was, of course, the ever-recurring one of just how far Congress may go in exercising its delegated powers without encroaching upon the reserved powers of the states. It needs only be said that a large and generally respected segment of the legal

profession has held for many years that the right of the states to regulate their own affairs does not extend to the sending of the products across state lines. So far as federal interference is concerned, they may establish any standards they wish, or no standards whatsoever, with respect to child labor and other phases of the employment relationship that properly come within their own police power. When they send their commodities into interstate commerce, however, these commodities become subject to federal regulation. Moreover, the power to regulate interstate commerce has been held by the Supreme Court to be the power to protect it; and if unequalized competitive conditions consequent upon the fact of voluntary adoption by some states of standards evidently believed by Congress to constitute good policy threaten either the volume or the character of such commerce, Congress is only exercising its clearly delegated power when it intervenes and by prohibition of the transportation of certain commodities seeks to equalize conditions and therefore to protect commerce. Once more we may quote from Mr. Justice Holmes' dissenting opinion: "The act does not meddle with anything belonging to the states. They may regulate their internal affairs and their domestic commerce as they like. But when they seek to send their products across the state line, they are no longer within their rights. If there were no Constitution and no Congress, their power to cross the line would depend upon their neighbors. Under the Constitution, such commerce belongs not to the states but to Congress to regulate. It may carry out its views of public policy, whatever indirect effect they may have upon the activities of the states."

That the judicial invalidation of the first federal child-labor law ran counter to public sentiment is proved by the speed with which Congress enacted another law, this time invoking the taxing power of the government. With favorable majorities as large as those of the first child-labor law,[1] an act was passed in the fall of 1918, effective April 25, 1919, placing a 10 per cent tax in addition to all other taxes on the net profits from the products of mining or manufacturing establishments in which children were employed contrary to the standards of the first federal child-labor law.[2] Proponents of the new law recognized that they were perhaps resorting to a more drastic method of regulation than had been attempted in 1916, but there was hope for its constitutionality. "As the 'power to tax' had repeatedly been held to include the 'power to destroy,' it appeared probable that the Court would uphold the new act. In so doing, it would merely have sanctioned the same method for protecting children against premature or excessive labor that had already been upheld for protecting bankers against undue inflation of the currency, dairy farmers against attractively colored oleomargarine, and workers

[1] In the Senate, 50 ayes to 12 nays; in the House, 312 ayes to 11 nays.

[2] U. S. 40 Statutes at large 1138 (Revenue Act of 1918).

in the match industry against phosphorous poisoning."[1] Under this act, administration was entrusted to a newly created Child Labor Tax Division under the Commissioner of Internal Revenue, instead of to the Children's Bureau as under the 1916 law, but the rules and regulations for administration adopted under the first federal child-labor law were embodied in the second act, and the same policies of cooperating with the states and of accepting state certificates were adopted.[2]

The reasoning by which the Supreme Court in 1922 reached the conclusion that the second federal child-labor law was no more constitutional than the first does not require extended exposition or comment.[3] The law was attacked on the ground that it was a regulation of an exclusively state function, control of child labor, and defended on the ground that it was a mere excise-tax measure, enacted by Congress under the broad powers of taxation conferred upon it by Article I of the Constitution. The crucial issue, as stated by the Court, therefore resolved itself into this: "Does the law impose a tax with only that incidental restraint and regulation which a tax must inevitably involve? Or, does it regulate by the use of the so-called tax as a penalty?"

It may be noted that a very considerable degree of "incidental" restraint and regulation in tax measures had already been tolerated by the Supreme Court, so long as the statutes had some revenue features. One of the precedents invoked by the government was the so-called oleomargarine case,[4] in which a statute taxing yellow oleomargarine ten cents a pound and white oleomargarine only one-fourth of a cent a pound was sustained. In order to protect the American cow from the competition of cheap vegetable products, the tax was made forty times as great on oleomargarine that looked like butter as upon oleomargarine that did not. It is statistically accurate, therefore, to say that the "incidental restraint and regulation" element in this case should be given a weighting of 97.5, as against a weighting of 2.5 for the primary purpose of taxation. Nevertheless, this 2.5 per cent was sufficient to sustain the statute as a constitutional exercise of Congress's taxing power.

In the case of the 1919 child-labor law, however, there was unfortunately lacking even this small percentage of the substance of a real tax. The very features of the act—the provisions of a heavy exaction for departure from a detailed and specified course of conduct of business (*i.e.*, the prohibitions of employment and the hours regulations specified) and the subjection of factories to inspection by agents of the Secretary of

[1] Commons and Andrews, *Principles of Labor Legislation* (Harper and Brothers, New York, 1926 ed.), pp. 370–371.

[2] Elizabeth S. Johnson, *op. cit.*, p. 443.

[3] *Bailey as Collector of Internal Revenue v. Drexel Furniture Co.*, 259 U. S. 16–20, decided May 15, 1922. Only one of the justices, Mr. Justice Clarke, dissented.

[4] *McCray v. United States*, 195 U. S. 27.

Labor as well as by the taxing officers of the Treasury—stamped the so-called tax as a penalty imposed for the purpose of effecting federal regulation of an exclusively state function. "In the light of these features of the act, a court must be blind not to see that the so-called tax is imposed to stop the employment of children within the age limits prescribed. Its prohibitory and regulatory effect and purpose are palpable. . . . Grant the validity of this law and all that Congress would need to do hereafter, in seeking to take over to its control any of the great number of subjects of public interest, jurisdiction of which the states have never parted with, . . . would be to enact a detailed measure of complete regulation of the subject and enforce it by a so-called tax upon departures from it. . . . Taxes are occasionally imposed in the discretion of the legislature on proper subjects with the primary motive of obtaining revenue from them and with the incidental motive of discouraging them by making their continuance onerous. They do not lose their character as taxes because of the incidental motive. But there comes a time in the extension of the penalizing features of the so-called tax when it loses its character as such and becomes a mere penalty with the characteristics of regulation and punishment. Such is the case in the law before us."

Nor did the fact that the Court had upheld federal regulation through an invoking of the taxing power in the oleomargarine, bank-note, and drug-tax cases that were cited[1] establish precedent for sustaining the child-labor act. The laws under consideration in these cases involved no elaborate specifications indicating on their faces that they were for the purpose of regulating matters of state concern and jurisdiction through an exaction so applied as to give it the qualities of a penalty rather than of a tax. Their provisions were reasonably adapted to the collection of a tax "and not solely to the achievement of some other purpose plainly within state power." The taxes on bank notes and oleomargarine were merely increases in taxes admittedly legal in their character to higher rates, and the objection had been that they were excessive in character. The Court had not been able to entertain this objection, for so long as the elements of a real tax inhere in a taxation measure "the discretion of Congress in the exercise of its constitutional powers to levy excise taxes cannot be controlled or limited by the courts because the latter might deem the incidence of the tax oppressive or even destructive." Congress, in selecting its subjects for taxation, may impose the burden where and as it will, and acts cannot be declared invalid merely because another motive than taxation may have contributed to their passage. But the child-labor law was different. Its motive was solely that of regulation and control; it did not merely increase a tax admittedly legal to a higher rate; and its provisions were not reasonably adapted to the collection of a

[1] *McCray v. United States*, 195 U. S. 27, *Veazie Bank v. Fenno*, 8 Wall. 533, and *United States v. Doremus*, 249 U. S. 86, respectively.

tax. It could therefore not be sustained under the already established principle that a taxation act is not invalid merely because of its inclusion of some motive other than taxation and because the tax may bear oppressively upon some persons or groups.

The harm that may inhere in the adoption of constitutionally prohibited measures under the guise of exercising some constitutional prerogative may be conceded. One can agree as a matter of constitutional government in a system of divided powers with the much quoted statement of Chief Justice Marshall more than a century ago: "Should Congress in the execution of its powers adopt measures which are prohibited by the Constitution; or should Congress, under the pretext of executing its powers, pass laws for the accomplishment of objects not entrusted to the government, it would become the painful duty of this tribunal, should a case requiring such decision come before it, to say that such an act was not the law of the land."[1] There was some suggestion, in the language of the child-labor decision, that the Court felt itself to be performing a "painful duty."[2] It evidently believed, however, that a line must be drawn somewhere on the use of the taxing device to give Congress unlimited power to regulate; and it drew this line by saying, in substance, that a law enacted under the taxing power is constitutional when it contains *some* elements of a revenue measure and is not palpably and exclusively for some other purpose, but that otherwise it cannot be upheld under the constitution of the United States. Nevertheless, it is proper to recall that the element of regulation was preponderant in both the oleomargarine and the state bank-note taxes,[3] and that the reasonable adaptation of the provisions of these laws to tax collection was not of controlling importance, inasmuch as the taxes imposed were expected to regulate and prohibit rather than to raise much revenue. Perhaps our system of division of powers dictates that Congress can exercise its delegated powers *almost* entirely—but not entirely—for purposes of establishing regulations which it could not otherwise maintain. The authors are not prepared to deny that the ark of our governmental covenant may have been preserved when a nominal tax measure the purpose of which was 97.5 per cent regulation and only 2.5 per cent revenue was sustained but one the purpose of which was 100 per cent regulation was

[1] In *McCulloch v. Maryland*, 4 Wheat. 316, 423 (1819).

[2] Chief Justice Taft observed: "We cannot avoid the duty of [refusing to sustain Congressional enactments dealing with subjects entrusted by the constitution to the states] even though it require us to refuse to give effect to legislation designed to promote the highest good. The good sought in unconstitutional legislation is an insidious feature because it leads citizens and legislators of good purpose to promote it without thought of the serious breach it will make in the ark of our covenant or the harm which will come from breaking down recognized standards."

[3] In the latter case there was also involved, of course, the power of Congress to regulate the currency and provide uniformity thereof.

invalidated. They are prepared, however, to observe that the child-labor decisions, like many others, demonstrate how necessary is some modernization of this ark through the process of constitutional amendment.

The Proposed Child-labor Amendment.—The apparent impossibility of circumventing constitutional—or perhaps more accurately judicial—hindrances to federal legislation regulating and prohibiting child labor convinced those active in the movement that only one alternative remained: that of a constitutional amendment. From 1922 to 1924 efforts were bent in that direction, and in June, 1924, the following amendment was submitted to the states for ratification:[1]

"Section 1: The Congress shall have power to limit, regulate, and prohibit the labor of persons under eighteen years of age.

"Section 2: The power of the several States is unimpaired by this article except that the operation of State laws shall be suspended to the extent necessary to give effect to legislation enacted by Congress."

When the amendment was passed by Congress, it was expected that ratification would be accomplished within a comparatively short period of time. The enactment of two laws by overwhelming votes had demonstrated popular desire that uniformity be established among the several states and that standards in the more backward of them be leveled up at least to the average. A material increase in the number of employed children after the invalidation of the second child-labor law, evidenced by the increase in the number of employment certificates granted in 1922 and 1923,[2] demonstrated anew the need for federal intervention. There had, it is true, been some forebodings in Congress of the opposition that was later to become so solidified and effective that by 1938 the amendment still required ratification by eight more states. "If this amendment shall be made to the Constitution," pontificated Senator Stephens of Mississippi, "there is no doubt that in a few years there will be attempts made to prohibit not only work on the farm but also work of every character by children under eighteen years of age. This is a socialistic movement and has for its ends purposes far deeper and more radical than appear on the surface. It is part of a hellish scheme laid in foreign countries to destroy our Government. Many of the propagandists of the measure are communists and socialists. . . . The child becomes the absolute property of the Federal Government."[3] Comparatively few of the national legislators seemed, however, to share the Mississippi solon's alarm or his conviction as to the existence of a sinister foreign plot, and the amendment was sent on to the states. Then the forces of

[1] In spite of the opposition in Congress, discussed shortly, the Amendment passed with little difficulty. In the House the vote was 297 to 69, and in the Senate 61 to 23.

[2] Testimony of Miss Grace Abbott, then Chief of the Children's Bureau, *Senate Hearings on Child Amendment to the Constitution*, pp. 37, 39, 50, and 51.

[3] Quoted by Elizabeth S. Johnson in Commons and Associates, *History of Labor in the United States* (The Macmillan Company, New York, 1935), vol. 3, p. 445.

opposition were mobilized, and for a time were extremely successful. During the three years immediately following passage of the amendment by Congress, only five states ratified it. Thereafter, with the exception of Colorado, which ratified in 1931, no state took action until 1933. By Jan. 1 of that year the total number of states ratifying was thus six, while the number which had rejected by vote of both houses was twenty-three and by vote of one house twelve.

During and after 1933, however, the ratification movement again made progress. The effects of three years of depression, the fact that in some cases children were taking work which unemployed adults might have performed, and the example and influence of the NRA-code prohibitions combined to stimulate anti-child-labor sentiment, and during 1933 ratification of the amendment was secured in fourteen states. Some of these states had previously rejected the proposal, but later reversed their decisions. Four more ratified in 1935, none in 1936, and four in 1937. Twenty-eight states have therefore ratified, and eight more are needed to make the amendment part of the Constitution of the United States.[1]

The failure of a sufficient number of legislatures to ratify the amendment during the fourteen years following its submission to the states presents a most significant example of the manufacture of attitudes and of the manipulation of group psychology. A few words about the general character of the opposition and the arguments made against ratification are therefore not out of point.

The main forces of opposition were the National Association of Manufacturers, the cotton textile interests of North Carolina, and the American Farm Bureau Federation,[2] but a host of other organizations—the inspiration for and parentage of which could easily be detected[3]—such as the Citizens Committee for the Protection of Our Homes and Children, the Sentinels of the Republic, and the Farmers States' Rights League, Inc., quickly sprang into existence. Several individuals of prominence in the

[1] The states which have already ratified, and the year of ratification, are as follows: Arkansas (1924), Arizona (1925), California (1925), Colorado (1931), Idaho (1935), Illinois (1935), Indiana (1935), Iowa (1933), Kansas (1937), Kentucky (1937), Maine (1933), Michigan (1933), Minnesota (1933), Montana (1927), Nevada (1937), New Hampshire (1933), New Jersey (1933), New Mexico (1937), North Dakota (1933), Ohio (1933), Oklahoma (1933), Oregon (1933), Pennsylvania (1933), Utah (1935), Washington (1933), West Virginia (1933), Wisconsin (1925), Wyoming (1935).

[2] In the Congressional hearings, the opposition of the American Farm Bureau Federation marked the first appearance of a farmers' organization in opposition to federal child-labor legislation. On the other hand, the sentiment of the National Grange at the time of the hearings was apparently favorable to the amendment, although it was not represented at the hearings.

[3] The story of the fight against the amendment and of the ultimate sources of much of the propaganda is admirably told by Elizabeth S. Johnson in Commons and Associates, *History of Labor in the United States* (The Macmillan Company, New York, 1935), vol. 3, pp. 443–450.

country joined in the attack. The prestige of the Catholic Church was invoked to help defeat the amendment, although the Church officially took no position and a number of influential Catholics, like Father John A. Ryan, vigorously supported it. The arguments advanced were various. The grant of power to Congress, it was declared, was so wide that practically complete control over the lives of persons under eighteen years of age could be established if Congress choose to exercise its power. The authority to limit, regulate, and prohibit the "labor," instead of merely the "employment," of minors proved an intention to invade the home, "nationalize our children," and prevent farm children from doing their customary chores. Many an American farmer became terrified when he had presented to him the picture of an inspector's appearing at the door and refusing to let seventeen-year-old Johnny help milk the cows. The rights of the states were being taken away and local self-government destroyed; the Fourth Amendment, guaranteeing protection against unreasonable search and seizure in the homes, would be nullified by the new amendment; control of education would be placed in a political bureaucracy in Washington which might discriminate against the parochial schools; Congress, as part of its control over the labor of persons under eighteen, might decide that all must undergo compulsory military training and service; and, in general, a vicious tendency to subordinate to federal control all local activities, the police power of the states, and the private rights of individual citizens would be encouraged to the extent that "the destruction of the Republican form of government" would ultimately result. Some of these arguments rested upon such far-fetched and romantic assumptions as to the actual power granted to Congress and as to the manner in which Congress would exercise its power that they necessitate little or no comment, but others should be examined briefly.

There can be little question that the failure of the amendment to secure ratification within a comparatively few years after its submission to the states was in part due to the wide grant of powers to Congress. Its advocates designed it to include whatever child-labor legislation Congress might in the future see fit to enact, and they therefore set an eighteen-year age limit and used the word "labor" instead of "employment," thus avoiding the uncertainty as to whether the amendment granted power over the work of children who might not be on an establishment payroll because they were working with their parents. It was desired to include the power to regulate agricultural labor because of the possible growth of large-scale industrialized agriculture which might in the future need more or less extensive regulation. The erroneous conclusion which many drew from the broad language of the amendment was that the authorization to Congress to legislate concerning the labor of persons under eighteen years of age meant actual prohibition of all work by such persons.

Any constitutional amendment necessitates general language. The most casual student of constitutional government knows that we look to the constitution for broad grants of power and to the legislation enacted thereunder for the detailed and limited exercise of the power so granted. In fact, few principles are more firmly entrenched in the traditions of constitutional government than the one which marks the line of demarcation between the constitution itself and legislation enacted under it. Chief Justice Marshall stated the matter clearly more than a century ago: "It must have been the intention of those who gave these powers to insure, so far as human prudence could insure, their beneficial execution. This could not be done by confining the choice of the means to such narrow limits as not to leave it in the power of Congress to adopt any which might be appropriate, and which were conducive to the end. This provision is made in a constitution intended to endure for ages to come, and consequently to be adapted to various crises of human affairs. To have prescribed the means by which government should, in all future time, execute its powers, would have been to change entirely the character of the instrument and give it the properties of a legal code."[1] So long, indeed, as representative government is maintained, citizens have to entrust powers to their legislators. "One who feels that legislators cannot be trusted with power had best retire from civilized society."[2]

Moreover, it must be recalled that the states have always had powers to limit, regulate, and prohibit child labor as great as those the amendment delegates to Congress, and that the legislative power of Congress is limited by due process and judicial review. Almost a century ago child-labor legislation began to appear upon the statute books of the states; and during this whole period no state has regulated the labor of children on their home farm, invaded the home under the guise of regulating child labor, found its prohibition of premature employment operating to destroy the republican form of government, or been repaid for its solicitude concerning the health of its youth by their automatic conversion to Bolshevism. "By what strange alchemy will the power to regulate child labor become so fraught with peril when entrusted to the national government? Are the men whom the states send to Congress possessed of some strange virus which makes it unsafe to give them power exercised as a matter of course by legislators who remain in the state capitols?"[3] It must be recalled, also, that the legislative power exercised by Congress under the amendment—like all of its powers—would still be subject to judicial supervision and to the restraints upon arbitrary action which are included in the Bill of Rights. Some of the opponents, in arguing that

[1] In *McCullough v. Maryland*, 4 Wheat. 316, 415.

[2] Chamberlain, Burlingham, Gardner, and Gray, *Child Labor Amendment, Argument for Ratification* (National Child Labor Committee publication, 1934), p. 13.

[3] *Ibid.*, p. 15.

Congress would be free of all constitutional and judicial restraints merely because of the amendment, have either engaged in deliberate misrepresentation or else have demonstrated a deplorable ignorance of the principles of constitutional government. A constitutional amendment giving Congress jurisdiction over a certain subject matter does not repeal all checks upon the exercise of this jurisdiction, for constitutional limitations upon Congressional legislation are carried over to new amendments as a matter of course.[1] It is true that subsequent legislation or amendment repeals earlier provisions that are necessarily in conflict; but the proposed child-labor amendment would repeal the other constitutional restrictions upon arbitrary Congressional enactments, as four distinguished members of the American legal profession have recently pointed out,[2] only if it

[1] The judicial history of the Sixteenth and Eighteenth Amendments may be cited as an example of the principle that constitutional limitations upon Congressional legislation are carried over to new amendments as a matter of course. The former provided that "Congress shall have power to lay and collect taxes on income, from whatever source derived, without apportionment among the several states, and without regard to any census or enumeration." If the position of opponents of the proposed child-labor amendment that Congress would be capable of exercising its power irrespective of all other constitutional restraints were correct, it would have followed that so long as Congress levied a tax upon income, there could be no constitutional restraint upon its action. But in the first case to arise under the amendment [*Brushaber v. Union Pacific Railroad Co.*, 240 U. S. 1 (1916)] the Court pointed out that an arbitrary tax, amounting to confiscation, would be invalid. The principle that constitutional limitations upon Congressional legislation carry over to new amendments is probably even more strongly demonstrated in the case arising out of the attempt by Congress to tax the salaries of federal judges. The language of the Sixteenth Amendment, "from whatever source derived," would seem to justify such taxation if other constitutional provisions had been rendered inoperative so far as the subject matter of the Sixteenth Amendment was concerned. But the Supreme Court decided that the language could not be construed to conflict with Article III, Section 1, of the Constitution ("the judges . . . shall at stated times receive for their services a compensation which shall not be diminished during their continuance in office") and that Congress was without power to levy an income tax upon the salary of a federal judge during his tenure of office [*Evans v. Gore*, 253 U. S. 245 (1920)]. Other cases arising under the Sixteenth Amendment demonstrating the same principle are *Miles v. Graham*, 268 U. S. 501, *Metcalf and Eddy v. Mitchell*, 269 U. S. 514, and *National Life Insurance Co. v. United States*, 277 U. S. 508. Cases arising under the Eighteenth Amendment also furnish examples, the Supreme Court holding that the power given Congress to enforce by appropriate legislation the prohibition against the manufacture, sale, or transportation of intoxicating liquors did not remove this legislation from the limitations imposed by the Fifth Amendment. In the first case to arise, the Court said, "While recognizing that there are limits beyond which Congress cannot go in treating beverages as within its power of enforcement, we think those limits are not transcended by . . . the Volstead Act" (National Prohibition Cases, 253 U. S. 350). In a later case the Court declared that what it "may consider is whether that which has been done by Congress has gone beyond the constitutional limits upon its legislative discretion" (*Everard Breweries v. Day*, 265 U. S. 545). Other cases arising under the Eighteenth Amendment, exemplifying the same principle, are *Carroll v. United States*, 267 U. S. 132, *State v. Knudsen*, 154 Wash. 87, cert. den. 281 U. S. 745, and *Salata v. United States*, 286 Fed. 125.

[2] Joseph P. Chamberlain, Professor of Public Law, Columbia University; Charles C.

read: "The Congress shall have power to limit, regulate, and prohibit the labor of persons under eighteen years of age *and its power shall be limited by no other provision of the Constitution.*" The amendment does not so read. There is absolutely no precedent for believing that the power granted by it would in some inexplicable manner be clothed with immunity from the constitutional restraints universally imposed upon Congressional action.[1]

It is perhaps sufficient to point out, as has been done in the preceding paragraphs, that any part of the constitution has to be phrased in broad terms, both necessity and long tradition dictating generality of language; that the line of demarcation between the constitution itself and legislation under it has always been, and necessarily will continue to be, drawn; that legislators must be entrusted with power unless representative government is to be superseded by some other kind; that the amendment delegates to Congress no greater powers over child labor than the states have always possessed; and that the legislative power of Congress is limited by due process, all the provisions of the constitution, and judicial review. Nevertheless, the charge that the words of the amendment are of dangerously broad connotation recurs so frequently that a few comments upon these words must be included in our discussion of the pending amendment. The three to which objection is most frequently raised are "labor," "regulate," and "prohibit." They may be considered in this order.

1. *Labor.*—The reasons why the word "labor" was preferred to the word "employment" have already been stated.[2] They were valid reasons. It was, however, the inclusion of this word that raised a large part of the alarm occasioned by the proposed amendment, and that gave the National Association of Manufacturers and other bodies an opportunity they did not let slip by to bring to their side members of the agricultural community and religious and other groups fearful of an undermining of the home. Since the dictionary tells us that "labor"

Burlingham, former president of the Association of the Bar of the City of New York; W. W. Gardner, Legislative Drafting Research Fund, Columbia University; and Herman A. Gray, Professor of Law, New York University Law School. *Cf. Child Labor Amendment, Argument for Ratification*, pp. 20–23.

[1] One of the mildly amusing arguments advanced against the amendment has been that it would nullify the Fourth Amendment, which guarantees "the right of the people to be secure in their homes." The contention that the child-labor amendment would have this effect necessarily has to rest upon five assumptions: (*a*) that the restraints imposed upon Congressional action would be nullified by the subsequent amendment, contrary to the established principle that constitutional limitations upon Congressional legislation are carried over to new amendments; (*b*) that the proposed amendment authorizes regulations within the home; (*c*) that Congress would exercise this power; (*d*) that enforcement of laws enacted under the amendment would involve the "unreasonable searches and seizures" forbidden by the Fourth Amendment; and (*e*) that the Courts would not interfere. Each of these assumptions is fallacious.

[2] *Supra*, p. 450.

includes both bodily and mental effort, Congress, when it set about exercising the powers granted it "to their utmost extent," would take over control of virtually all phases of the life of minors under eighteen.[1]

Dictionary definitions are, however, not sufficient in court determination of the meaning of a part of the Constitution, and therefore of whether a statute is consistent with the Constitution. Indeed, the Supreme Court of the United States has specifically observed that in determining the meaning of a word so broad as "labor" the dictionary meaning alone cannot be taken.[2] One of the long-established principles is that a constitutional amendment must be construed in the light of the condition of affairs out of which arose the occasion for its adoption.[3] As Justice Story expressed it years ago: "Perhaps the safest rule in interpretation, after all, will be found to be to look to the nature and objects of the particular powers, duties, and rights, and with all the lights and aids of contemporary history, and to give to the words of each just such operation and force consistent with its legitimate meaning as may fairly secure and attain the ends proposed."[4] The end sought by the proposed child-labor amendment is the conferring upon Congress of

[1] The argument that Congress, when authorized to limit, regulate, and prohibit the "labor" of persons under eighteen years of age, would "nationalize the children" has already been mentioned. It was probably the most completely absurd of all the arguments. The comments of Messrs. Chamberlain, Burlingham, Gardner, and Gray are worthy of quotation: "Diligent but unsuccessful effort has been made to understand precisely what is feared. It [the cry of 'nationalization of children'] summons to mind a horde of wild children, alternately screaming invective at their parents and allegiance to their country. More charitably, it may be feared that children will acquire subversive doctrine unless sent to the mill or the factory at an early age. Perhaps the cry of 'nationalization' is a variation of the more familiar argument . . . that the proposed amendment gives the Congress the power not only to regulate the employment but also the family life of the child. In whatever form this undefined but oft-repeated fear may be expressed, it would seem that it hardly can gain reasonable character." *Op. cit.*, p. 33. It was also declared by some that the power to regulate "labor" would insure compulsory military training and service of all persons under eighteen years of age. The reasoning was that "labor" is equivalent to military service, and that "regulate, limit, and prohibit" is equivalent to "control." The ridiculous part of this argument is that Congress already has the power to require military training and service. Article I, Section 8, Clause 12 of the Constitution authorizes Congress "to raise and support armies." In other words, some of the opponents of ratification would have one believe that Congress, after having failed to exercise a clear grant of power for over 150 years, would seek to require military service under the guise of protective labor legislation.

[2] In *Gompers v. United States*, 233 U. S. 604, 610 (1914).

[3] With respect to the Fourteenth Amendment, the Supreme Court said: "The safe way to read its language is in connection with the known condition of affairs out of which the occasion for its adoption may have arisen, and then to construe it, if there be therein any doubtful expressions, in a way, so far as is reasonably possible, to forward the known purposes or object for which the amendment was adopted." *Maxwell v. Dow*, 176 U. S. 581, 602.

[4] In *Prigg v. Pennsylvania*, 16 Pet. 539, 610–611.

some of the powers now possessed by the states to regulate child labor. It is inconceivable that the Supreme Court would depart from the precedent and policy to which it has always adhered and sustain as consistent with the amendment a statute regulating phases of the lives of individuals not contemplated by Congress when it passed, or by the state legislatures when they ratified, an amendment authorizing regulation of the "labor" of minors. Moreover, the word "labor," as used in statutes, has already received extensive construction by the courts, and invariably the approach has been directed toward consideration of what types of activity were intended by the lawmakers to be included.[1] There is not the slightest reason to believe that the Supreme Court would hold that the construction placed upon the word "labor" in the amendment should be governed by principles and an approach different from those governing its construction of the word in statutes.

2. *Regulate.*—The argument that the term "regulate" is so broad as to constitute an unwarranted delegation of power to Congress is drawn chiefly from some of the broader expressions of the content to be given the word as it is used in the commerce clause of the constitution.[2] It does not follow in any sense that the connotation given the term in the commerce clause would apply, unchanged, to its use in the child-labor amendment. As has just been said, the courts have always recognized that a word must be construed so as to accord with the purpose underlying its use. As Mr. Justice Holmes put it: "A word is not a crystal, transparent and unchanged; it is the skin of a living thought and may vary greatly in color and content according to the circumstances and the time in which it is used."[3] The word "regulate" appears in a number of places in the constitution. Congress is given the power to "regulate"

[1] In *Holy Trinity Church v. United States*, 143 U. S. 457, 461 (1892), the Supreme Court had occasion to interpret the expression "to perform labor" in the laws forbidding the importation of persons under contracts of labor. The Court, after observing that "all laws should receive a sensible construction," held that Congress could not have intended to include in that law a minister of the gospel under contract to preach in the United States. In a subsequent decision (*United States v. Laws*, 163 U. S. 258) the Court applied the same principle to the case of a chemist hired to work on a sugar plantation. The word "labor" has also received extensive construction in the state courts with regard to the Sunday labor laws. *City of Topeka v. Crawford*, 78 Kan. 583 (1908); *Cortesy v. Territory*, 6 New Mex. 682; *Bloom v. Richards*, 2 Ohio St. 387 (1853); *Stacy v. Kemp*, 97 Mass. 166 (1867). All these decisions show clearly that the approach of the courts is directed primarily to consideration of what types of activity were intended by the lawmakers to be prohibited. The National Child Labor Committee's legal experts have been able to find no case where the question has even been raised that the ordinary tasks of the household constitute "labor" within the meaning of the statutes. Chamberlain, Burlingham, Gardner, and Gray, *op. cit.*, pp. 10–11.

[2] As in *Mondou v. N. Y., N. H. and Hartford Railroad Co.*, 223 U. S. 1, 47, and *Texas and N. O. Railroad v. Brotherhood of Railway and Steamship Clerks*, 281 U. S. 548, 570.

[3] In *Towne v. Eisner*, 245 U. S. 418, 425.

elections,[1] the value of money,[2] the land and naval forces,[3] the appellate jurisdiction of the Supreme Court,[4] and the territory and property of the United States.[5] The subject matters of these several regulations differ, and the connotations given to the world must differ accordingly. No court has ever thought of holding otherwise. It would be as reasonable to contend that the connotation given the term in the commerce clause must apply without change to these diverse powers as that it must apply unchanged to its use in the child-labor amendment.

3. *Prohibit.*—Some of the opponents of the amendment have pointed to the inclusion of the word "prohibit" as evidence of a sinister purpose to carry federal regulation beyond all reasonable limits. Unless it be considered a pure redundancy, the argument goes, the word must mean something in addition to the power granted by the inclusion of the word "regulate." It need only be said that the word "regulate" does not include in its connotation reasonable prohibitions (which Congress and the ratifying legislatures of course wanted to make possible), and that only a very careless draftsman would have left out the word "prohibit" on the assumption that the power to "regulate" implies the power reasonably to prohibit. In fact, court decisions show clearly that the power to regulate, when not coupled with the power to prohibit, does not by implication authorize prohibition.[6] The alarm as to a hidden purpose occasioned by the use of the word "prohibit" in the amendment is—granting the intellectual honesty of the alarmed persons—a trifle hard to understand. Of course the enactors and ratifiers of the amendment wanted to enable Congress to prohibit the labor of those too young to be at work, and it would have been absurd to have assumed that this power to prohibit is implied in a word in which the courts have held it is not implied.

It remains only to consider briefly one of the latter-day arguments advanced against the proposed child-labor amendment: that it is no longer open for ratification. This is an argument of the 1930's. As we have already noted,[7] only five states ratified the amendment during the

[1] Article I, Section 4.

[2] Article II, Section 8.

[3] *Ibid.*

[4] Article III, Section 2.

[5] Article IV, Section 3.

[6] The Massachusetts Supreme Court (*in re Opinion of the Justices*, 232 Mass. 605) has held that the state constitutional amendment allowing public advertising to be "regulated and restricted" did not include the power to prohibit such advertising; an Illinois court has held that the power granted to a city to "regulate" the use of its streets by automobiles does not authorize it to prohibit the use of its streets by such vehicles (*Chicago Motor Coach Co. v. City of Chicago*, 337 Ill. 200); and the New Hampshire highest court has held that the power of a village to "regulate buildings" does not include the power to prohibit blacksmiths' shops (*Village Precinct of Hanover v. Atkins*, 78 New Hamp. 308, 310).

[7] *Supra*, p. 449.

first three years after it was submitted to them, and only one more prior to 1933. But during and after 1933 the amendment its opponents had declared to be "dead" began to show signs of both life and tremendous vitality. Influenced by conditions of the depression and a public temper materially different from that of the 1920's, twenty-two more legislatures ratified the amendment between 1933 and 1938. Its opponents thereupon discovered that it was no longer open for ratification.

This argument is based upon two grounds: the time that has elapsed since the amendment was passed by Congress and sent on to the states (June 4, 1924) and the earlier rejections by the legislatures of a number of the states. Both of these grounds should be examined.

The Constitution of the United States itself contains no limitation upon the period of time within which a state may validly ratify an amendment proposed by Congress.[1] No one contends, however, that the omission by the fathers of the Constitution of a definite time period means that an amendment once proposed enjoys a deathless existence until ratification. It must be ratified within a reasonable period of time. Nevertheless, any time limitation is a qualification of the literal import of the words employed in the Constitution.

The only Supreme Court decision affording a guide as to what is, in the mind of that Court, a reasonable period of time for ratification is one in which the Court was solely concerned with the question of whether Congress could shorten to seven years an otherwise reasonable period for ratification—not with the question of when a reasonable period had expired.[2] The language of the unanimous Court in this decision, however, cannot but indicate how mistaken are the contentions of those who say that an unwritten principle of limitation has now rendered the proposed child-labor amendment no longer open for ratification. "We conclude that the fair inference or implication from Article V [of the constitution of the United States] is that the ratification must be within some reasonable time after the proposal. Of the power of Congress, keeping within reasonable limits, to fix a definite period for ratification we entertain no doubt. As a rule, the Constitution speaks in general

[1] Article V of the Constitution reads: "The Congress, whenever two-thirds of both Houses shall deem it necessary, shall propose Amendments to this Constitution . . . which . . . shall be valid to all intents and purposes, as part of this Constitution, when ratified by the Legislatures of three-fourths of the several states."

[2] *Dillon v. Gloss*, 256 U. S. 368. Prior to the submission to the states of the Eighteenth Amendment all proposed amendments were submitted without limitation as to the period of ratification. The Eighteenth Amendment, however, included a section requiring ratification within seven years if the amendment were to be operative. The sole question before the Court was whether Congress could constitutionally so establish a time limitation. There was no contention on the part of anyone concerned that the time-limitation section was anything other than a limitation upon the time otherwise open for ratification by the legislatures.

terms, leaving to Congress to deal with subsidiary matters of detail as the public interests and changing conditions may require; and Article V is no exception to the rule. Whether a definite period for ratification may be fixed, so that all may know what it is and speculation on what is a reasonable time be avoided, is, in our opinion, a matter of detail which Congress may determine as an incident of its power to designate the mode of ratification. It is not questioned that seven years, the period fixed in this instance, was reasonable if power existed to fix a definite time; nor could it well be questioned considering the periods within which prior amendments were ratified."[1]

Two conclusions can clearly be drawn from this opinion: (*a*) that a proposed amendment is not indefinitely open to ratification, but must be favorably acted upon by three-fourths of the state legislatures within a reasonable length of time, and (*b*) that a reasonable time certainly is some period greater than the seven years during which ratification of the Eighteenth Amendment had to be accomplished. How much more cannot be stated with certainty; neither the Supreme Court nor the leading American authorities on constitutional law have attempted to state it. In view of the fact that in this case the sole issue was whether Congress had the power to *shorten* to seven years an otherwise reasonable period for ratification, however, it seems most improbable that the Court would invalidate ratifications of the amendment occurring during the second half of the 1930's, or even in the 1940's, on the ground that too much time had elapsed. This conclusion is substantiated, moreover, by the frequently expressed reluctance of the Court to hold invalid an act of Congress or of a state legislature.[2] "If to invalidate an Act of Congress is a duty of 'great delicacy, and only to be performed when the repugnancy is clear and the conflict irreconcilable,' how much more delicate would be the task of declaring void the action of the amending power of the Constitution itself."[3]

The second ground upon which the argument that the proposed amendment is not still open for ratification is based is that it has already been rejected by the legislatures of more than one-fourth of the states, and therefore has been automatically killed. This argument runs counter to the words of the Constitution, to the constitutional history of our government, to a specific declaration of the Supreme Court, and to the virtually unanimous opinion of writers of textbooks on constitutional law.

[1] *Ibid.*, pp. 375–376.

[2] As expressed in *Fletcher v. Peck*, 6 Cranch 87, 128; *Mayor v. Cooper*, 6 Wall. 247, 251; *Atkin v. Kansas*, 191 U. S. 207, 223; *Williams v. Baltimore*, 289 U. S. 36, 42, 46; and numerous other decisions.

[3] Chamberlain, Burlingham, Gardner, and Gray, *Child Labor Amendment, Argument for Ratification*, p. 4.

In the first place, the Constitution states that proposed amendments "shall be valid to all intents and purposes as a part of this constitution when ratified by the legislatures of three-fourths of the several states or by conventions in three-fourths thereof"; it does not state that they shall be valid "unless rejected by more than one-fourth of the several states." The distinction is important. All that the Constitution demands is ratification by the requisite number of states. There is nothing in the document to indicate that this ratification must be at the time of initial action by the legislatures.[1] In the second place, the argument runs counter to the constitutional history of our government. The Fourteenth Amendment was adopted only by virtue of ratifications subsequent to earlier rejections, and the validity of these ratifications is proved by the long acquiescence of the Supreme Court and of the people of the United States, as well as by affirmative action of Congress in declaring the Fourteenth Amendment to be part of the Constitution and directing the Secretary of State so to promulgate it.[2] In the third place, the Supreme Court has made a specific declaration which would seem completely to foreclose any question of the validity of ratifications which follow earlier rejections. Official certification by a state that it has ratified is conclusive. "As the Legislatures of Tennessee and of West Virginia had power to adopt the resolutions of ratification, official notice to the Secretary, duly authenticated, that they had done so, was conclusive upon him, and, being certified to by his proclamation, is conclusive on the courts."[3] Finally, it may be mentioned that writers

[1] It is worth noting, also, that in the Constitutional Convention of 1787 there was no discussion of the question of the invalidity of a subsequent ratification by a legislature. Indeed, the attention given to the amending procedure by the Convention, as revealed by the *Madison Diary*, seems to have been rather cursory. *Cf. Madison's Debates on the Adoption of the Federal Constitution*, Elliott's ed. (1845), pp. 530–531, 551, and *The Federalist*, No. 43.

[2] The facts about the ratification of the Fourteenth Amendment should be recorded in a little detail. Newly constituted legislatures in both North Carolina and South Carolina ratified on July 4 and 9, 1869, respectively, although earlier legislatures had rejected the proposal. The Secretary of State then issued a proclamation which, although doubtful as to the effect of attempted withdrawals by New York and New Jersey, entertained no doubts as to the validity of the ratification by North and South Carolina. The following day, July 21, 1868, Congress passed a resolution which declared the Fourteenth Amendment to be part of the Constitution and directed the Secretary of State so to promulgate it. The Secretary waited, however, until the newly constituted legislature of Georgia had ratified the amendment subsequent to an earlier rejection, before promulgating its ratification. Chamberlain, Burlingham, Gardner, and Gray, *op. cit.*, p. 5. The Secretary's delay, the reasons for which have sometimes been misunderstood, was not due to the fact of ratification after prior rejection by some of the legislatures, but to doubt as to attempted withdrawals by two states; and he issued the promulgation after ratification by a state that had previously rejected. For nearly seven decades, no one has doubted the validity of the ratification of the Fourteenth Amendment.

[3] *Leser v. Garnett*, 258 U. S. 130. This case arose out of the ratification of the Nineteenth

of constitutional-law treatises are almost unanimous in the belief that an earlier rejection does not bar subsequent ratification.[1] By no accepted constitutional principle can a sound case be made that the proposed amendment is not still open for ratification. More than half of the states had approved the amendment by 1938, and eight more ratifications were needed. The securing of these additional ratifications is profoundly necessary for the welfare of the youth of America.

Desirable Child-labor Standards.—Among nearly all students of the problem, there is marked agreement as to the minimum standards that should be adopted, and as to the most effective means of administering child-labor regulation. The following suggested "model program," while not representing exclusively the viewpoint of any group or organized body, can be said to be fairly suggestive of what seems to be generally recognized as desirable. In most respects it conforms closely to the general legislative program recommended by the White House Conference on Child Labor which met from Nov. 19 to 22, 1930,[2] and to the "Fourteen Points on Child Labor" of the National Education Association.[3]

1. It is necessary that the federal government have the power to prohibit and regulate child labor. Experience has demonstrated the almost insurmountable difficulties in otherwise getting any satisfactory

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(woman's suffrage) Amendment. The West Virginia Senate, despite rules of procedure which forbade reconsideration of a measure during the session in which it was defeated, ratified the proposed Nineteenth Amendment subsequent to a rejection in the same session. It was contended that the ratification was invalid, not because of the fact of previous rejection, but because the previous rejection occurred during the same session, and therefore that the subsequent action violated the West Virginia Senate's rules of procedure. The Supreme Court refused to look behind the certification of the Secretary of State, or to allow him to look behind the official notices sent to him; and this indicates clearly that ratification by a state is regarded as conclusive.

[1] Among the authoritative books and articles to which the reader may be referred, as the list of these has been compiled by Messrs. Chamberlain, Burlingham, Gardner, and Gray (*op. cit.*, pp. 6–7), are: Jameson, *Constitutional Conventions*, Sec. 579; Willoughby, *The Constitutional Law of the United States*, Sec. 329-*a*, vol. 1, p. 593; Burdick, *The Law of the American Constitution*, Sec. 20, p. 43; Orfield, "Procedure of Federal Amending Power," 25 *Illinois Law Review* 418, 439; Dodd, "Amending the Federal Constitution," 30 *Yale Law Journal* 321, 347; Grinnel, "Finality of State's Ratification of A Constitutional Amendment," 11 *American Bar Association Journal* 192; Miller, "Amendment of the Federal Constitution," 60 *American Law Review* 181–184; Ames, *Proposed Amendments to the Constitution*, p. 229; 12 *Corpus Juris* 682; Watson on the *Constitution*, vol. 2, pp. 1315–1318; Garrett, "Amending the Federal Constitution," 7 *Tennessee Law Review* 286, 294; and Wheeler, "May Ratification be Repealed," 20 *Case and Comment* 548, 550. All of these authorities take the position that earlier rejection does not bar subsequent ratifications. An Article setting forth the contrary position is Cadwaller's "Amending the Federal Constitution," 60 *American Law Review* 389, 393.

[2] *Monthly Labor Review*, June, 1931, pp. 15–22.

[3] See International Labour Office, *Industrial and Labour Information*, Jan. 5, 1931, pp. 30–34.

degree of uniformity among the various states. Certain practical considerations are likely to mean that in a number of the states the legislatures probably will not in the near future include in their child-labor laws a number of occupations where the work of children should clearly be prohibited, and lack of uniformity brings a hardship to employers in states where there is the greatest regulation so long as their competitors in the states with the less stringent laws are able to get cheap child labor.

2. There should be a greater delegation of authority to state commissions. It is distinctly unsatisfactory to try to meet all conditions through the provisions of the laws themselves. The commissions should have the power to raise the legal minimum age above that specified in the law itself wherever there is evidence of particular conditions making such action necessary.

3. The minimum age for employment should be sixteen years, except that employment outside of school hours might be permitted between fourteen and sixteen in a restricted list of occupations such as light agricultural tasks and domestic service. In agriculture no child under sixteen should be permitted to be employed, either at home or away from home, during the hours in which public schools are in session. Children twelve to sixteen might be employed outside of school hours on light tasks involving only a few hours of work per day and for a short period. In mines and other physically or morally dangerous and injurious occupations a higher age minimum is advocated. State commissions should be given power to determine dangerous and injurious occupations and to prohibit the employment of children under eighteen therein. Workmen's compensation laws should cover minors illegally employed and should provide for payment of extra compensation in such cases. Young workers should not be permitted to work in establishments which do not conform to standards of cleanliness and safety set by the commission. A special clause in the laws should apply to street work for which a minimum age of sixteen is recommended for selling newspapers, and fourteen for delivering papers on a regular route.

4. Educational requirements should be made more stringent, school attendance being required during the full school year until the minor is eighteen or until the child is an eighth-grade graduate. Minors between sixteen and eighteen who have not completed the high-school curriculum should be required to attend continuation school part time.

5. Employment certificates should be required of all employed minors under eighteen years of age.

6. Upon application for an employment certificate, and periodically thereafter until the age of eighteen, all minors should be given a physical examination by an approved physician to determine their fitness for the special conditions of the line of work they are entering. The English

method of requiring examination by a physician at the place of employment would be one means of attaining the latter, but a more satisfactory method would be the delegation to state commissions of authority over the matter with the right to set specific physical requirements for different occupations.

7. With regard to the hours children are permitted to work the following standards are recommended: No minor under eighteen should be employed more than eight hours daily, or more than six days a week, or more than forty-four hours a week. As we have already said, there has been a tendency to exclude children from industry and probably we do not err in the direction of too great liberality when we say that those between sixteen and eighteen should not work more than forty-four hours. Here again there is need of more elastic provision than we have had in the past. The state commission should be empowered to lower the maximum hours for particular kinds of work when it is convinced that special hazard or strain is involved.

8. Night work (usually defined as between 7 P.M. and 6 A.M. in child-labor laws) should be prohibited for minors under eighteen except that boys between sixteen and eighteen might be permitted to work up to 10 P.M. in nonhazardous occupations.

9. Minimum wage scales should be established for all employed minors.

10. Finally there is need of a much better system of vocational training, guidance, placement, and employment supervision. The turnover of child workers is generally high because most children enter industry with no definite vocational objective and are given no expert advice with regard to conditions of employment and the requirements of the various jobs. Some centralized agency is needed in every state to perform these functions.

Chapter IX

HOURS OF WORK

Various problems connected with the length of the work day and week have protruded themselves, in the preceding eight chapters, into the survey of the progress of the workers with respect to real earnings and of their share in the increased national income, the explanations tentatively advanced of the economic trends surveyed, the discussion of the determinants of distribution, the examination of attempts by exercise of the coercive power of the state to regulate wages and incomes, and the investigation of the position in modern economic life of women and young persons. This protrusion was inevitable. In its very nature, the problem of "hours" cannot be divorced from these other problems. Its discussion has been in the past, and will continue to be in the future, inextricably interwoven with the discussion of wages, of purchasing power, of the maintenance of "economic balance," of displacement of workers by machinery, of speed and efficiency, of unemployment, of health, fatigue, and accidents, of restriction of output, and of control of the business cycle. Thousands of labor disputes have centered around the issue of hours of work. As a cause of controversy it has, indeed, been second in importance only to wages.

To speak of the problem of "hours of work" is, however, only to apply a blanket phrase to a problem that has several component parts. There is, in the first place, the question of the proper length of the working day or week—of the basic standard to be established. In a regime of specialized machine processes, coordination of departments, an enormous amount of fixed capital, and a high degree of interdependence, one worker obviously cannot work six hours, another eight, another ten, when doing the same work within the same plant or even within the same competitive area. Standardization of conditions—the establishment of some basic working day or week—has been inevitable. In the second place, the problem of "hours of work" includes as one of its component parts the matter of overtime work. The forces making employers reluctant, under ordinary conditions, to reduce the length of the basic working week—the pressure of overhead cost, the depreciation of capital equipment, the danger that materials will spoil, seasonal pressure to fill orders, possible higher labor costs per unit of product when hours are shortened—encourage overtime work, *i.e.*, work in excess of the established standard. In many cases, also, overtime work is desired by the workers because it generally carries with it larger earnings. Still a third phase of the prob-

lem is that of the number of days constituting the working week. Labor's long struggle for "one day of rest in seven" had been for the most part won before the end of the 1920's, and even before the conditions of the depression of the 1930's brought an enforced experimentation with the shorter working week that would not have been approached in many years of normal business activity, a number of important groups were working upon the five-day basis. Finally, there is the question of night work. In certain of the continuous process industries—the operation of blast furnaces, papermaking, glass manufacture, railways, telephones, lighting and power plants, and others—night work cannot be eliminated, and the question is that of the number of shifts to be employed.[1] Night work appears, however, not only in the continuous-process industries. The pressure of overhead cost occasioned by fixed capital, the danger of materials spoiling, especially in the seasonal industries, the pressure to fill orders, and the desire of wage earners to receive one-and-a-half or double the usual rate of pay when night work is counted as overtime are all factors conducive to its continuance in other than the continuous-process industries. Night work has almost invariably been looked upon with disfavor by students of the problem because of the excessive strain involved, especially for women and young persons, the large amount of lost time consequent upon exhaustion of the workers, the additional strain and responsibility upon the executive staff, the tendency of excessively fatigued workers to "keep going" on artificial stimulants, the general curtailment of time for rest, leisure, and cultural improvement, and the fact that night workers, although precluded to an extent from the activities of day life, do attempt to enter into these activities, with resultant impairment of physical well-being. It is not contended, of course, that night work could be abolished in the continuous-process industries, but it is possible to put such industries upon a three- or four-shift basis, and to prohibit night work for women and children.

Each of these phases of the problem, and especially the first, involves far-reaching questions of economic theory, human welfare, social control, and legal and constitutional principles. Such questions should, however, be prefaced by some mention of the progress of the movement toward a shorter working week. For in spite of the ever-present forces causing employers to be reluctant to reduce the standard working day or week, the situation today stands out in sharp contrast to that of a century ago. This progress—an accomplished historical fact, paralleling in its occurrence not a diminution in the per capita real income but rather an increase—needs to be kept in mind when we turn, in a later section of this chapter, to an examination of some of the implications of the current demand for a shorter working week.

[1] The long adherence of America's greatest manufacturing industry, steel production, to the two-shift twelve-hour working periods is discussed *infra*, pp. 467–468, 475–476.

Progress of the Shorter Hours Movement.—One characteristic of the standard working day or week is that its length does not change gradually within an industry, as do wages. On the contrary, hours manifest a tendency to shift from one plateau to another, and ordinarily each new standard prevails for a period of years. It is most convenient and illuminating, therefore, to survey changes in the standard and actual working week within rather long periods, or within periods which, because of characteristics especially affecting the length of the working week, deserve separate consideration.

The Shorter-hours Movement Prior to the 1890's.—The battle for the shorter working week antedates both the factory system and collective bargaining. As far back as 1791 the journeymen carpenters of Philadelphia adopted a resolution declaring that a day's work should be deemed to commence at six o'clock in the morning and end at six o'clock in the evening. But the "sun-to-sun" rule continued to obtain, and public opinion, influenced by the ethic that idleness is a vice, generally not only condoned but favored the long working day. In 1822 the journeymen millwrights and machinists of Philadelphia "met at a tavern and passed resolutions that ten hours of labor were enough for one day, and that work ought to begin at 6 A.M. and end at 6 P.M., with an hour for breakfast and one for dinner."[1] Three years later, when the house carpenters of Boston struck for the ten-hour day, the "gentlemen engaged in business" (the master carpenters) replied that a shorter working day would "seduce the journeymen from the course of industry and economy of time and effort to which we are anxious to enure them, and . . . expose them to many temptations and improvident practices. . . . We consider idleness the most deadly bane to usefulness and honorable living . . . and we dread the consequences of such a measure upon the morals and well-being of society." Somewhat sorrowfully, the gentlemen engaged in business observed that the ten-hour day movement was one which "we cannot believe to have originated with the faithful and industrious sons of New England," but must be, rather, "an evil of foreign growth."[2] A legislative committee that same year (1825) found the customary working hours in Massachusetts factories to be twelve.[3] Darkness alone set the limits of the working hours of children in Philadelphia mills in 1830 and in Patterson mills in 1835.[4] In 1833 the Washington carpenters issued a manifesto of opposition to "a custom

[1] J. B. McMaster, *History of the People of the United States*, vol. 5, p. 84; D. D. Lescohier, in vol. 3 (1935), p. 97 of Commons and Associates, *History of Labor in the United States.* (Macmillan, New York.)

[2] Reprinted by permission of the publishers, the Arthur H. Clark Company, Glendale, California, from J. R. Commons, *Documentary History of American Industrial Society*, vol. 6, p. 76.

[3] *Ibid.*, vol. 5, p. 57.

[4] *Ibid.*, pp. 61–65.

which binds us to our benches from fifteen to seventeen hours a day for the paltry sum of one dollar and thirty-seven and a half cents."[1] Two shifts of twelve hours each were a form of economy resorted to during the early days of the Industrial Revolution in England, and the scarcity and greater independence of labor in the United States could not keep the prevailing hours in many occupations and cities from remaining twelve or thirteen a day as late as the early 1830's.

In the case of women and young persons, legislative protection was extended in England, and to a lesser extent in the United States, during the nineteenth century that resulted in a material shortening of the length of the working day and week, but the gains of adult males—especially in the United States—were not for the most part a consequence of legislative limitations.[2] These gains were uneven among different industries and occupations, and also among different geographical regions, but on the whole they were appreciable. Building-trades workers had secured the ten-hour day in the larger eastern cities by 1835, while their factory brethern were still working eleven and a half to more than twelve hours, and by 1890 the fifty-four hour week had become fairly prevalent, with a fifty-two hour week obtaining in a number of the cities.[3] The

[1] *Ibid.*, vol. 6, p. 157. (Reprinted with permission of the publisher, the Arthur H. Clark Company, Glendale, California.)

[2] The problem of legislative limitations upon hours of work is discussed in some detail later (*infra*, pp. 516–536) and it suffices here merely to mention the restrictions that were placed upon the hours of women and young persons. As early as 1802, as was noted in the preceding chapter (*supra*, pp. 420–421), the intervention of Peel and others in England brought about the enactment of the "Health and Morals of Apprentices" act, which prohibited the binding out for factory labor of pauper children younger than nine years, restricted the hours of labor of children older than this to twelve actual working hours, and forbade night work. Seventeen years later (1819) substantially the same protection was given to all children employed in cotton factories, while in 1833 the restrictions were extended to all textile mills except silk. In 1844 the labor of children between nine and thirteen years of age was restricted to a half day, or the whole of the working day on alternate days, and in 1847 the ten-hour maximum for women and young persons was established by parliamentary enactment. Many other legislative gains have come since that time. In the United States, on the other hand, there was comparatively little legislative interference with the length of the working day until the 1840's, when a number of states, as a result of the general tide of humanitarianism prevalent at that time, passed ten-hour laws for women. These laws were largely ineffective, both because they permitted women to work additional hours elsewhere than at the place of their regular employment and because they did not provide adequate means of enforcement. By the 1870's, however, laws establishing the ten-hour day for women and minors were fairly general, even though often unenforceable, and an eight-hour agitation was under way in 1890. The story of the judicial vicissitudes of legislation limiting the hours of women and of legislative gains since 1890 is traced later (*infra*, pp. 528–534).

[3] It was in the building industry that the shorter-hours movement had its original impetus, and it is in this industry that the shortest hours have prevailed during nearly a century. The general trends of standard and actual working hours have not been identical among the several building crafts, but they have been similar, and the history of the

average daily hours of factory labor in 1840, on the other hand, have been estimated at 11.4,[1] and no pronounced downward trend began to manifest itself until the middle of the 1850's. Nevertheless, the beginning of the last decade of the nineteenth century saw the ten-hour day established in the majority of industries and occupations. In cotton manufactures, sawmills, iron and steel plants, bakeries, and a number of branches of manufacture, it is true, employees worked from eleven to thirteen hours a day in the late 1880's and early 1890's; in railroad transportation the seventy-hour week (seven ten-hour days) for trainmen was common; and there was much greater diversity of hours among different industries and occupations than obtained forty years later.[2] But the majority of manufacturing, construction, mining,[3] and mercantile concerns of 1890 worked ten hours a day and fifty-eight to sixty hours a week, with overtime during the busy seasons. The cigar makers brought their hours to under fifty a week in at least fifteen states, and below fifty-three in most parts of the country, by the early nineties, but few other groups except the building-trades workers were so favorably situated. The summary given in Table 78 indicates with approximate accuracy the progress that was made by employees of manufacturing and mechanical establishments during the half century ending with 1890. It shows that, on the average, the hours of factory workers were reduced between 12 and 13 per cent during the half century following 1840.

While the nineteenth-century struggle for shorter hours established the ten-hour day, as has been said, in the majority of industries and occupations before 1890, the situation that year presented some striking contrasts. In the steel industry, the average working week in the early

plasterers may be cited as fairly typical. Between 1840 or earlier and 1870 the full-time working week of plasterers was sixty hours, but substantial progress was made between 1870 and 1885, and between the latter years and 1890 the fifty-four-hour week was prevalent, with some sections of the trade enjoying the fifty- or fifty-two-hour week. During the 1890's, as is indicated later, hours in different places ranged from forty-eight to fifty-four, with the forty-eight-hour week steadily becoming more common. From D. D. Lescohier, in vol. 3 of Commons and Associates, *History of Labor in the United States*, p. 103. The data upon which Dr. Lescohier based his conclusions were those presented in "History of Wages in the United States from Colonial Times to 1928," United States Bureau of Labor Statistics, *Bulletin 499*.

[1] Adams and Sumner, *Labor Problems*, p. 518.

[2] These generalizations are based chiefly upon data presented by Professor Lescohier, *op. cit.*, vol. 3, pp. 99–104.

[3] The data upon the hours of coal miners about 1890 are scanty, but they indicate both that the sixty-hour week was accepted as the standard in the most important coal areas by the 1890's and that actual hours varied considerably. "A fifty-four-hour week was reported for Pennsylvania in 1890; average hours of fifty-two to fifty-three per week for Montana in 1893; and of forty-eight for Ohio in 1893. In most cases hours were not reported at all. Hours of operation are so irregular and part time so common in the coal industry that standard hours have little practical significance in a majority of the mines. Generally the miners work less than full time." *Ibid.*, p. 103.

TABLE 78.—AVERAGE HOURS OF LABOR, 1840–1890[1]

Year	Average hours of labor per day	Year	Average hours of labor per day
1840	11 4	1870	10 5
1845	11 5	1875	10 5
1850	11 5	1880	10 3
1855	11 1	1885	10 3
1860	11 0	1890	10 0
1865	10 7		

[1] Adapted from Adams and Sumner, *Labor Problems*, p. 518, with permission of The Macmillan Company, New York, publishers. In the tabular summary there presented, the figures are put in the form of ratios based upon the average hours of labor in 1890, but inasmuch as the average hours for 1890 were, according to the utilized Aldrich Report, exactly 10.0, the figures can be changed to absolutes, as has been done in the table here presented. The figures are based upon the data of the Aldrich Report (*Wholesale Prices, Wages, and Transportation, 1890*) and cover only twenty-one industries. Since, as the Aldrich Report and Adams and Sumner pointed out, the data were drawn largely from picked establishments where shorter hours made an earlier appearance than they did in the mass of workshops, the table probably underestimates somewhat the reduction that took place in manufacturing industry in general, even though the figures were believed to be correct in the absolute sense.

1890's was sixty-five to sixty-six hours, but this average included thousands of "turn men" working seventy-two to eighty-four hours a week at the blast furnaces and open hearths. In the 1880's the twelve-hour day was prevalent in the nonunion iron and steel plants,[1] except the sheet mills. Sunday work had been fought with fair success by the Amalgamated Association of Iron and Steel Workers during the 1880's, but after 1892 both the twelve-hour day and the seven-day week were rapidly extended. "In the nineties the twelve-hour day was, therefore, the accepted rule in steel mills. It continued to be so until 1923. America's greatest manufacturing industry was twenty years behind most of the lesser industries in establishing a twentieth-century work day."[2] In practically all industries, also, the beginning of the 1890's found wide differences in hours worked in different states and cities, and also among different groups of employees within the same industry. "On the whole, hours were longer . . . in the South than in the North; in the states which were largely rural, like Kansas or Georgia, than in states which were more industrialized, like New York or Connecticut; where labor was more plentiful, as on the Atlantic seaboard; where negroes or immigrants were used in large quantities, as in the Southern sawmills, steel mills, and textile plants; and where unionism was weak, as in bakeries, textile mills, and woodworking establishments."[3] Within the same industry,

[1] According to Andrew Carnegie, "every ton of pig-iron made in the world by 1886 except in two establishments, was made by men working in double shifts of twelve hours each, having neither Sunday nor holiday the year round." "Results of the Labor Struggle," *The Forum*, vol. 1 (1886) p. 544; quoted by D. D. Lescohier, *op. cit.*, p. 101.

[2] D. D. Lescohier, *op. cit.* (The Macmillan Company, New York, 1935), pp. 101-102.

[3] *Ibid.*, p. 104.

skilled workers, especially when organized, generally worked a shorter day than the unskilled and unorganized. This situation was typically true of the building industry, of iron and steel manufactures, and of the railroad industry.

The Trend of Hours, 1890–1920.—Prior to the period of the World War, when the movement toward shorter hours received greater impetus than ever before, the reductions in working time throughout industry as a whole were moderate. The eight-hour agitation became increasingly vigorous between 1890 and 1914, building-trades workers and a few other fortunately situated and well-organized groups attained the forty-four hour week in various parts of the country, and, as the summary given in Table 79 indicates, there was apparently a reduction of 4.9 hours in the work week of all groups of workers averaged together. But in 1914 only 11.8 per cent of the wage earners in manufacturing had standard weeks of forty-eight hours or less, while 48.9 per cent were working (when employed full time) fifty-five hours or more, and 26.9 per cent sixty hours or more. In the iron and steel industry, as was noted earlier, the twelve-hour day and seven-day week became more, rather than less, common during the years immediately following 1892; and *average* standard hours of workers there employed were 67.2 in 1890, increased immediately after 1892, and were still 65.5 in 1915.[1] Beginning in 1914 and 1915, however, the eight-hour movement seemed literally to sweep the country. The crystallization of public sentiment was manifested when President Wilson declared that the American people had made up their minds in favor of the eight-hour day. The War created an unprecedented demand for labor, and the workers found themselves in an advantageous position to organize and press their demands, encouraged in so doing by the favorable attitude of the national administration and by the requirement of a basic eight-hour day on government contracts. Prior to the entry of this country into the War, the anthracite coal miners had obtained a straight and the railroad employees a basic eight-hour day; and during the War such important industries, among others, as slaughtering and meat packing, boot and shoe manufacture, newsprint paper, the lumber industry in the Northwest, and the garment trades adopted the eight-hour standard. By 1919, 48.7 per cent of the wage earners in manufacturing, as compared with 11.8 per cent in 1914, had secured a basic working week of forty-eight hours or less; 25.8 per cent, as compared with 48.9 per cent in 1914, had full-time weeks of fifty-five hours or more; and 12.0 per cent, as compared with 26.9 per cent in 1914, were working under full-time employment schedules of sixty hours or more per week. The statistical story of the progress toward the shorter working week is told by Tables 79 and 80.

[1] P. H. Douglas, *Real Wages in the United States*, p. 114.

TABLE 79.—STANDARD HOURS PER WEEK AND INDEXES OF TREND, 1890–1920[1]
(1890–1899 = 100)

Year	Unionized manufacturing industries		Nonunionized manufacturing industries		Building trades		Coal miners		All industry	
	Hours	Index	Hours	Index	Hours	Index	Hours	Index	Hours	Index
1890	54.4	101	62.2	100	51.3	102	60.0	102	58.4	101
1895	53.5	100	62.3	100	50.3	100	60.0	102	58.1	100
1900	53.0	99	62.1	100	48.3	96	55.0	93	57.3	99
1905	51.1	95	61.1	98	46.1	92	52.2	88	55.7	96
1910	50.1	93	59.8	96	45.2	90	52.2	88	54.6	94
1915	48 6	91	58 2	94	44.8	89	52.2	88	53.5	92
1920	45.7	85	53.5	86	43.8	87	48 2	82	50.4	87

[1] This table has been compiled from the data presented by Paul H. Douglas on pp. 112, 114, 119, 136, 163, and 208 of *Real Wages in the United States*. In the case of the building trades, the hours listed are those provided for in trade agreements. The estimates of the standard working week of coal miners are based chiefly upon compilations made by the United States Geological Survey. The "unionized manufacturing industries" include unionized segments of the metal trades, granite and stone, book and job printing, newspaper printing, planing mills, and bakeries. The "nonunionized manufacturing industries" include cotton textiles, boots and shoes, clothing, hosiery and knit goods, woolens, sawmills, iron and steel, and slaughtering and meat packing. The "all industries" includes the hours of transportation workers, unskilled labor, and government employees in addition to those of manufacturing wage earners, building-trades workers, and coal miners, as set forth in the table. Compiled from the data of Professor Douglas with permission of Houghton Mifflin Company, Boston, publishers.

TABLE 80.—PERCENTAGE DISTRIBUTION OF WAGE EARNERS IN MANUFACTURING ACCORDING TO PREVAILING HOURS 1909–1920[1]

Year	Hours per full-time week				
	48 and under	48 to 54	54	55 to 60	60 and over
1909	7.9	7 3	15 4	30.2	39 2
1914	11.8	13 5	25 8	22 0	26 9
1919	48 7	16 5	9 0	13 8	12.0
1921	51.5	18.2	7.8	12 6	9.9

[1] Data for 1914, 1919, and 1921 from *Census of Manufactures*, 1923, p. 1150, and for 1909 from *Thirteenth Census of the United States*, vol. 8, p. 306.

Several significant situations and trends are revealed by the two tables. (1) In the first place, the general gain is apparent. For all groups of workers, according to these estimates, weekly hours declined from 58.4 to 50.4, or almost 13 per cent, during these three decades. This reduction was equivalent to one hour and twenty minutes a day (on the basis of six work days per week). The proportion of factory wage earners working eight hours per day or forty-eight or forty-four hours a week more than quadrupled between 1914 and 1919 alone, while the proportion working more than sixty hours a week was less than half as

great in 1919 as in 1914. (2) In the second place, the periods in which the gains of all groups were concentrated should be noted. During the 1890's comparatively little progress was made, but about the turn of the century reductions became more frequent and of greater magnitude, and they proceeded most rapidly during the five-year period 1915–1920. By 1910 working hours of all groups were about 6 per cent less than they had been in 1890, by 1915, 8 per cent less, and by 1920, 13 per cent less. Stated differently: during the twenty-five-year period 1890–1915 the work week was reduced by 4.9 hours, and during the five-year period 1915–1920 by 3.1 hours. In other words, the average annual reduction during the twenty-five years preceding 1915 was between eleven and twelve minutes per week, while the average annual reduction between 1915 and 1916 was thirty-seven minutes per week. (3) This concentration of the gains was similar, for the most part, for the various groups. Building-trades workers and coal miners are shown to have made somewhat greater progress, relative to their 1890 position, than did the other groups, and the relative gains of building-trades workers between 1915 and 1920 were less than those of labor in general. These deviations from the general concentration of gains were, however, not great, and the explanations of them are fairly apparent. The building-trades workers started the period in a favorable position, relative to other groups, and they were strongly enough organized during the 1890's and shortly after the turn of the century to press for still shorter hours. Their relative gains between 1915 and 1920 were less than those of factory workers and coal miners because by the former year hours were already stabilized in the larger cities on the basis of the forty-four-hour week. The miners made greater relative gains than did the other groups, but they started the period with a long working day and the decrease of 18 per cent in the average standard working week was a consequence of the fact that the eight-hour movement, when it finally effected reduction in the hours of coal miners, necessarily had to bring a greater absolute reduction. It will be noted that in 1915 coal miners still worked 3.4 hours more a week (when employed full time) than did unionized factory workers, and in 1920 their working week was 2.5 hours longer. (4) The differential advantage that unionized workers have enjoyed with respect to hours is clearly shown by the first of the preceding tables. In 1890 workers in unionized manufacturing industries had, on the average, a standard week of 54.4 hours, and those in nonunionized manufacturing industries a standard week of 62.2—a difference of 7.8 hours. In 1920 the standard working week of unionized factory workers was 45.7 hours and that of nonunionized factory hands 53.5—again a difference of exactly 7.8 hours. It is worth noting, also, that the relative gain of the nonunionized manufacturing workers was not as great prior to 1915 as was that of the unionized group, but that during the post-1915 period nonunionized

wage earners enjoyed a reduction of 4.7 hours a week and the unionized workers of only 2.9 hours. In part the explanation may be found in an hypothesis advanced in connection with our tentative explanations of the trend of real earnings in an earlier chapter:[1] that when labor organization becomes effective it yields appreciable results in its early stages, but that thereafter the rate of gain enjoyed by its members tends to slow down to a speed not appreciably exceeding that of the nonunion industries. The greater relative gain of the nonunionized factory wage earners after 1915 also reflected the fairly general stabilization by that year of the unionized industries so far as hours were concerned, while the nonunionized workers enjoyed gains coming in consequence of the infiltration through of union standards to nonunionized segments of industry, the government policy of encouraging the eight-hour day, and the fear of employers during that period of rapid increase in union membership that if they did not reduce hours, strikes and unionization of their plants would ensue. (5) Another fact, suggested by these tables and borne out by other data, is that the diversity of hours characteristic of the 1890's, while continuing throughout the thirty-year period, was not nearly as pronounced in 1920. While exactly the same absolute difference in hours worked obtained between unionized and nonunionized factory wage earners in both 1890 and 1920, a comparison of average standard hours of all the groups shows that the diversity had continued only decreasingly during the three decades. The fact that the proportion of employees working both less than forty-four and more than sixty hours was smaller in 1920 than in 1890 also points to reduction in the diversity and greater stabilization—as well as the very substantial reduction—of working hours.

Hours during the 1920's.—The trend toward shorter hours during the five or six years preceding 1920 was, as the preceding pages have pointed out, one of the most marked industrial developments of that period. More than half of the factory workers in 1921, as compared with only about one-ninth in 1914, were employed in establishments where the full-time working week was forty-eight hours or less, and less than one-tenth, as compared with more than one-fourth in 1914, in establishments where the full-time week was sixty hours or more. These gains should not, however, be permitted to obscure the fact that thousands of workers, both in manufacturing and elsewhere, were still employed by firms whose working periods public opinion had come to designate as "long hours." A report of the Federated Engineering Societies in 1922 estimated the total number of wage earners still working on the twelve-hour shift basis in the United States at 300,000, of whom about half were employed in the iron and steel industry.[2] The Census of Manufactures

[1] *Supra*, pp. 213–214.

[2] Committee on Work Periods in Continuous Industry, Federated American Engineering Societies, *The Twelve-hour Shift in Industry*, p. 12.

of 1923 listed twenty-one manufacturing industries[1] in which 5,000 or more employees were employed in establishments where prevailing hours of work per week were sixty or more. As has already been noted, average weekly standard hours in all industry were 50.4 in 1920, according to Professor Douglas' estimates, and those of workers in nonunionized manufacturing industries 53.5. On the whole, however, the period 1890–1920 saw a shift from a typical ten-hour day in manufactures to a typical eight- to nine-hour day, and a great deal of the gain occurred between 1914 and 1920.

This trend did not continue during the 1920's. The number of manufacturing employees working less than forty-eight hours increased somewhat, as Table 81 indicates, during the decade preceeding 1929, and the number working sixty hours or more decreased. On the other hand, there was a considerable shifting back from the forty-eight to the fifty-one or fifty-four-hour week, this decrease in the percentage of workers enjoying the eight-hour day reflecting the increased domination of manufactures by the employer group as against the organized-labor group, a definite characteristic of the 1920's. Decreases in standard hours occurred in some trades and industries, and increases in others. An appreciable number of companies which had continued down to 1920 to operate fifty-seven or sixty hours a week reduced hours to fifty-four or fifty-one. The essential facts for manufacturing as a whole are revealed by Table 81.

TABLE 81.—PERCENTAGE DISTRIBUTION OF WAGE EARNERS IN MANUFACTURING ACCORDING TO PREVAILING HOURS 1919–1929[1]

Year	Hours per full-time week							
	44 and under	Between 44 and 48	48	Between 48 and 54	54	Between 54 and 60	60	Over 60
1919	12.3	3.8	32.6	16.5	9.0	13 8	9 0	3.0
1923	9.9	4.5	31.7	21.9	7.8	14 0	7.3	1.9
1929	13.5	5.5	26.5	24.8	6.3	15.0	7.4	

[1] Fifteenth Census of the United States, vol. I, *Manufactures*, p. 60.

It will be observed that while the percentage working forty-eight hours or under declined somewhat (from 48.7 to 45.5) during the 1919–1929 decade, the percentage working less than fifty-four hours increased appreciably (from 62.2 to 70.3) and that the proportion of all manufacturing wage earners working sixty hours or more declined by about 38 per

[1] Wooden boxes (except cigar boxes); bread and other bakery products; butter, cheese, and condensed milk; canning, fruit, and vegetables; car construction and repairs; cement; chemicals; clay products; coke; cotton goods; cottonseed products; fertilizers; flour mills and grain products; foundry and machine products; gas; ice; ice cream; iron and steel; sugar manufacturing and refining cane.

cent (from 12.0 to 7.4 per cent of the total). In other words, the most important change in manufacturing in general during the 1920's was the shift from the forty-eight-hour week to one not longer than fifty-four hours. The minor changes in the situation as a whole during this decade stand out in sharp contrast to the rapid and very great changes of the preceding six years, when the proportion of factory workers having a standard week of forty-eight hours or less quadrupled.[1] In the construction, railroad, mining, and other industries only slight changes in standard and actual hours occurred between 1920 and 1930. The tendency manifest in manufacturing to shift from the forty-eight to the fifty-one or fifty-four-hour basis does not seem to have been operative to any appreciable extent in the other industries.[2]

Such reductions in hours as occurred during the 1920's came about in two ways: by reductions of a half hour or an hour a day, and by the granting of the Saturday half holiday. In spite of the already noted

[1] The following data, compiled by the U. S. Bureau of Labor Statistics ["Wages and Hours of Labor," *Monthly Labor Review*, vol. 32 (May, 1931), p. 138], indicate the relatively unchanged situation in typical manufacturing industries, with some tendency, except in iron and steel, toward a lengthening of the working week.

AVERAGE FULL-TIME HOURS PER WEEK BY INDUSTRIES

Industry	1920	1922	1924	1926	1928	1930
Boots and shoes	48 6	48 7	49 0	49 0	49 1	48 9
Cotton goods	51 8	52 8	53 0	53 3	53 4	53 4
Hosiery and underwear		51.0	50 7	51 3	51.3	51 0
Iron and steel	63 1	63 2	55 2	54.4	....	54.6[a]
Men's clothing	47 9[b]	44.1	44.1	44 3	44 0	44.3
Woolen and worsteds	48 3	48 8	49.1	49 3	49 3	49 3
Slaughtering and meat packing[c]		48 4	50 1	50 3	49.3	49 2

[a] 1929.

[b] 1919.

[c] Slaughtering and meat-packing figures are for 1921, 1923, 1925, 1927, and 1929.

[2] The following figures, taken from pp. 162, 136, 180, 196, and 208 of Paul H. Douglas' *Real Wages in the United States*, indicate the relatively stabilized situation, so far as weekly standard hours were concerned, during the 1920's. Professor Douglas' study carries the trends only through 1926. However, computations based upon his methods and utilizing the data of the United States Bureau of Labor Statistics, the Bureau of the Census, and the National Industrial Conference Board show that changes between 1926 and 1929 were of minor importance. (Quoted by permission of Houghton Mifflin Company, Boston, publishers.)

AVERAGE FULL-TIME HOURS PER WEEK IN NONMANUFACTURING INDUSTRIES

Industry or Group	1920	1924	1926
Coal mining	48.5	48.4	48.4
Building trades	43.8	43.8	43 8
Unskilled labor (probable)	53.7	53.7	53.6
Government employees (federal)	44.7	45.2	45.5
All industry (including manufacturing)	50.4	50.0	49.8

shift from the forty-eight-hour standard to one slightly longer and of the failure of average hours to decline appreciably, there was a definite spread of the five-and-one-half-day week. Toward the end of the decade, also, the five-day week became somewhat more common—first in the building trades and then, to a lesser extent, in manufacturing. The American Federation of Labor reported in 1929 that 201,800 building-construction employees had obtained the five-day week,[1] and a survey by the United States Bureau of Labor Statistics in 1930 showed that 55.5 per cent of the building-trades workers had basic schedules of five days a week.[2] In manufacturing, also, there was a considerable adoption of the five-day week. According to the National Industrial Conference Board, this standard was operative in 1928 in 270 manufacturing establishments employing 418,700 workers.[3] By 1930, 43.3 per cent of the workers in the automobile industry, 34.4 per cent of those in the radio industry, 27.0 per cent of those engaged in dyeing and finishing textiles, and 24.9 per cent of those in the aircraft industry had obtained the five-day week.[4] Of the 3,941,792 workers covered by the survey revealing these percentages, however, only 5.6 per cent, or a little more than one manufacturing wage earner in every twenty, had attained this basic standard.[5] The six-hour day, which was to become a major labor objective during the depression years of the 1930's, had been instituted by only a few firms at the end of the decade.

Probably the most important single event of the 1920's, so far as hours of labor were concerned, was the practical abolition, in 1923, of the twelve-hour day and of the "seven-day week" or the "thirteen-out-of-fourteen-days" system in the steel industry. This anachronistic hours schedule had obtained in America's greatest industry for almost four decades after the ten-hour standard had become fairly generally established and for almost a decade after the eight-hour movement began most rapidly to sweep the country.[6] With the installation, largely as an unavoidable concession to public opinion, of the basic (not actual) eight-

[1] *Convention Proceedings*, 1929, pp. 53–55.

[2] "Extent of Five-day Week," *Monthly Labor Review*, vol. 33 (September, 1931), p. 1.

[3] National Industrial Conference Board, *The Five-day Week in Manufacturing Industries*, pp. 18–19.

[4] "Extent of Five-day Week," *Monthly Labor Review*, vol. 33 (September, 1931), pp. 3–4.

[5] *Ibid.*, p. 11.

[6] A good concise account of the agitation for the eight-hour day in steel is given in Marian C. Cahill's *Shorter Hours* (Columbia University Press, 1932). John Fitch's *The Steel Workers* (Survey Associates, 1910) tells the story of the earlier controversies over hours in this industry. Charles A. Gulick's *Labor Policy of the U. S. Steel Corporation*, pp. 22–25 (Columbia University Studies, vol. 258) gives a good summary of this agitation. The essential facts about the battle over hours in the steel industry from the beginning to 1930 are to be found in Commons and Associates, *History of Labor in the United States*, vol. 1, pt. IV, Chap. 4; vol. 2, pp. 140, 250, 285–286, 375–386, 391, 485; and vol. 3, Chap. 6.

hour working period, the average working hours of workers at blast furnaces were reduced from 72.1 per week in 1920 to 59.7 in 1924; at Bessemer converters from 70.3 to 52.3; at open hearths from 68.7 to 58; and in plate mills from 68.8 to 57.2.[1] The reductions were confined to the period 1922–1924, and thereafter the standard working week remained virtually unchanged to the end of the decade. In other continuous process industries the twelve-hour day, while not entirely disappearing, had become less common by 1930.

Hours of Work since 1930.—The years of the great depression brought, as is commonly known, a drastic curtailment of hours actually worked, a "staggering" or "share-the-work" movement of unprecedented proportions, the most extensive experiment in government control of hours ever attempted, and as an aggregate result a reduction of about 20 per cent—considerably greater than the reduction between the 1890's and 1930—in average standard working time. Also, agitation for the shorter week became less exclusively working-class in origin; a considerable number of legislators,[2] large numbers of unbiased students, and even a certain segment of employers, became convinced that a five-day week, a thirty-six-hour week, or a thirty-hour week was necessary not only as a relief expedient but also (when coupled with a program of increased worker purchasing power through increases in hourly rates of pay) as a causal factor in recovery. The theoretical implications of the case for the shorter working day as a force promoting recovery are discussed later in this chapter,[3] and for the moment we may confine ourselves to the story of what actually happened during these years. It is convenient to summarize first the trend of hours during the period prior to the advent of the National Industrial Recovery Administration in 1933.

Two tendencies of the 1930–1933 period stand out clearly: the acceptance by a large part of business enterprise of the principle that the limited amount of work currently available ought to be divided among as many

[1] "Wages and Hours of Labor in the Iron and Steel Industry, 1931," U. S. Bureau of Labor Statistics, *Bulletin 567*, 1932, p. 3; D. D. Lescohier, *op. cit.*, p. 102.

[2] Several compulsory shorter-work-day bills were introduced in Congress prior to 1933. These bills, as well as those introduced by Senator Black and Representative Connery in the spring of 1933, did not definitely propose the maintenance of existing weekly wage rates when hours per week were reduced, but sought only to compel a wider distribution of whatever work existed. The Black bill of 1933 passed in the Senate by a vote of 53 to 30, but the Connery bill, which was substantially the same, failed to reach a vote in the House, being replaced by the National Industrial Recovery Act, which attempted both to spread work and—by raising hourly rates of pay—to increase purchasing power. Representative Connery introduced a new measure in the 1934 Congress, providing that all NRA codes should be subject to the thirty-hour week—a reduction of one-fourth from the modal code standard week of forty hours. Since the judicial invalidation of the National Industrial Recovery Act in 1935, the proposal that Congress limit hours, and hence spread the increased number of labor hours worked among more individuals, has recurred periodically.

[3] *Infra*, pp. 502–516.

workers as possible, without endorsement of shorter hours as a permanent policy; and, second, the introduction in certain segments of industry of the five-day week or the thirty-six-hour week of six days with definite recognition that the policy was to be permanent. The work-sharing movement apparently attained most momentum between 1930 and 1932. In March of the latter year, according to a survey made by the United States Bureau of Labor Statistics, 56.1 per cent of all workers and 63 per cent of the workers in manufacturing were employed part time. After the early months of 1932, the work-sharing movement did not again become accelerated, and during the first half of 1933 there was a distinct tendency to increase man-hours by lengthening of the work week instead of by employing more men.[1] This tendency was, in turn, checked by the re-employment agreement and the NRA codes of the second half of 1933. The aggregate effect of the prevalence of part-time employment was a tremendous reduction in the length of the average actual working day without an abandonment as the standard to which return was expected of the forty-four-, forty-eight-, or fifty-four-hour week. Workers on part time sustained severe curtailment of their weekly earnings, although, as has been indicated in a preceding chapter,[2] the purchasing power of hourly earnings did not, on the average, decline between 1929 and 1933. The basic notion of the work-sharing movement as it manifested itself during the first three years of the depression was not that of organized labor and the "underconsumptionists" generally, that of increasing total payroll as hours were reduced, but was merely that both jobs and payrolls should be shared. The share-the-work movement in itself involved no necessary increase in total payroll.[3]

[1] Accurate statistics as to the number of men working half time are not available, but computations made by the authors on the basis of percentage changes in man-hours worked, persons employed, and the length of the average working week bear out the above generalization that the work-sharing movement attained great momentum between 1930 and 1932, did not become more widespread during the latter year, and that there was a certain tendency toward its abandonment during the six months prior to the going into effect of the President's reemployment agreement and the NRA codes. These computations show that the part-time employment situation early in 1933 was probably about what it had been a year earlier, when the Bureau of Labor Statistics found the percentages of workers mentioned above to be working part time. The American Federation of Labor's data show that 19 per cent of union members were working part time in 1931, 21 per cent in 1932, and 21 per cent again in 1933. The Federation's data do not, however, indicate the increase in the average weekly hours of those still on part time.

[2] *Supra*, pp. 116–117, 120.

[3] As a matter of fact, a number of the larger industrialists found that the staggering program did have the effect of making payrolls larger than they otherwise would have been, and in this respect they found themselves at a disadvantage in competition with smaller producers who did not cooperate in the share-the-work movement. It is to this fact that the relatively sympathetic attitude of industrialists like Mr. Swope, Mr. Sloan, and Mr. Teagle toward legislation imposing the shorter working week upon all firms within given industries is due. The larger firms shortened the working week per worker greatly when

The shortening of hours actually worked was not, however, entirely a consequence of the temporary institution of shorter working periods by firms not ready to endorse shorter hours as a permanent policy. Even before the recovery legislation placed national emphasis upon the shorter working week, the five-day standard had been accepted by a number of the larger firms, it had become the modal working week in the building trades, and in a number of cases the six-hour day had been adopted.[1] The progress of the five-day-week movement during the period between 1928 or 1929, as already discussed,[2] and the institution of the National Industrial Recovery Administration is indicated by two inquiries made by the United States Bureau of Labor Statistics in 1932,[3] one in the form of a questionnaire addressed to employers, covering the principal indus-

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business fell off, in order to give some employment to as many men as possible, but they found that they could not reduce hourly money earnings to any appreciable extent, since standards of living would—in view of the relatively few hours worked per wage earner—have fallen to an unthinkable level, and tremendous labor unrest would inevitably have resulted. Their smaller competitors, on the other hand, frequently reduced wages, laid off men, but worked those retained more nearly the old standard working week. The consequence was that daily earnings of those employed by the smaller firms were as great as, or greater than, daily earnings of employees of the larger firms, which were trying to a greater extent to spread work, and at the same time—in consequence of the lower hourly rates of pay and the fact that those workers retained were a selected and more efficient group—their costs of production per unit of product were less. The larger industrialists therefore sought, both in their support of the shorter working week by legislation and of the NRA hours limitations, to force smaller competitors into the share-the-work movement.

[1] Among the more important firms introducing the five-day week or the six-hour day between 1929 and 1933 were the Snow King Baking Power Co., of Cincinnati, which instituted the basic five-day week in 1929; the Standard Oil Co. of New Jersey, which established a normal forty-hour week in 1930; the Kellogg Co. of Battle Creek, Mich., which adopted the six-hour day in 1930; the India Tire and Rubber Co., which instituted the six-hour shift system in 1932; the Owens-Illinois Glass Co., which abandoned its three eight-hour shifts for four six-hour shifts in 1932; and a considerable number of the automobile industry firms. The five-day week was instituted in the Government Printing Office in 1932, in accordance with the provisions of the Economy Act of that year. In 1932 the Interstate Commerce Commission, in pursuance of a joint resolution of the Seventy-second Congress, published an elaborate report of the effect upon operation, expenses, and service of applying the principle of the six-hour day in the employment of railway employees. The Commission concluded that the principle of the six-hour day could be applied so far as physical conditions were concerned without any material effect, but that (assuming the same volume of traffic and operations as in 1930 and no reduction in the then existing compensation for an eight-hour day or other basic day's work) the initial effect would be to increase expenses of the carriers by 14.6 per cent of the operating expenses, and approximately 22.2 per cent of the pay-roll expenses, in 1932. Interstate Commerce Commission, *Ex Parte No. 106; Six-hour-day Investigation*, Dec. 6, 1932 (mimeographed). A summary of this report is published in *Bulletin 616* of the U. S. Bureau of Labor Statistics, "Handbook of Labor Statistics" (1936 ed.), pp. 1068–1070.

[2] *Supra*, pp. 474–475.

[3] *Cf.* "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), pp. 1063–1069.

tries of the country with the exception of the building trades and railroad transportation, and the other a survey of the five-day week as adopted in collective agreements between employers and organized labor.[1] Of the 44,025 establishments reporting in the first inquiry, 5.4 per cent had permanently adopted the five-day week for all or part of their employees, these firms employing 8.4 per cent of the 3,848,349 wage earners employed in all the establishments surveyed. For manufacturing, the proportions of establishments and of employees on the five-day week were found to be considerably higher than for all industries combined. Some 7.8 per cent of the manufacturing establishments reported adoption of the five-day week, and 12.3 per cent of the employees of all the manufacturing establishments were working on the five-day-week basis. In some branches of manufacturing the percentages of employees ran very high—67.2 per cent in the automobile industry, 40 per cent in the chewing- and smoking-tobacco and snuff industry, 39.9 per cent in the druggists' preparations industry, and 38.6 per cent in the electrical machinery, apparatus, and supplies industry. Workers under collective agreements had secured the five-day week to a rather considerable extent by 1932,[2] especially in the building trades. Of the union membership covered by the second of these two surveys, 56 per cent had a recognized working week of five days or less; a small fraction of 1 per cent had a five-day week or less for one-half of a year but for less than a full year; and 3.1 per cent had a five-day week for some part of the year less than one-half. In a number of the trades, such as those of the bricklayers, inside wiremen, lathers, plasters, and stone masons, more than 90 per cent of the members were working on a schedule of five days per week or less.

By 1933, then, actual working hours had been reduced, primarily in consequence of the spreading of work or the temporary institution of a shorter nominal working week, and secondarily by adoption in some cases of the five-day week or the six-hour day as a permanent policy. The reductions of the former type represented, for the most part, a loss rather than a gain in material well-being, since any benefits attributable to the greater leisure of workers employed comparatively few hours a week were

[1] Attention may be called to the fact that we are here concerned only with the adoption of the five-day week as a permanent policy, not with the spreading of work on the part of firms adhering to the former standard week or with temporary operation on a five-day-week basis as a result of business conditions. The Bureau of Labor Statistics also eliminated from its five-day classification firms which had adopted this basic week with some expectation but without certainty that it would be permanent. Also, this classification included only persons working not more than five days per week, and did not include many other cases of shortened standard hours, as where plants operating continuously had adopted a system of four six-hour shifts, thus reducing greatly weekly hours although still operating on a six- or seven-day basis.

[2] This inquiry was part of the Bureau of Labor Statistics' annual survey of union wage rates and hours of labor. The survey, made in May, 1932, covered 595,367 union members in sixty-seven cities.

more than offset by the loss of real income. It was only when, under the code system of 1933–1935, the shorter hours actually worked on the average came to be incorporated, with some modifications, into the various codes as the standard working week, with increases in the majority of instances in hourly rates of pay, that the depression curtailment of working time could be regarded as "progress toward the shorter working day" in the sense in which the phrase has been traditionally used.[1]

The reduction in hours prior to 1933 should be summarized with a modicum of quantitative precision. Toward the end of the 1920's, as we have already seen,[2] less than half (45.5 per cent) of the wage earners attached to manufacturing had a basic working week of forty-eight hours or less. In the majority of manufacturing industries the average standard working week varied between forty-four and fifty-four hours, with some industries having an even lower average standard and some a higher one. In industries and occupations outside of manufacturing the average standard working week at the end of the 1920's varied from the building-trades low of under forty-four hours to between fifty-three and fifty-four hours in the case of unskilled labor. It is probable that average hours actually worked per week by all groups of workers in 1929 were approximately fifty. As has already been said, the most important change in the hours situation during the first three years of the depression was not the reduction in the standard or nominal working week, although this took place to a very considerable extent, but rather the decline in hours actually worked; and a comparison of hours worked per employee at the depth of the depression with the prevailing average of about fifty in 1929 is therefore more suggestive of what actually took place. The data in Table 82 on average hours worked per week at the beginning of 1932 and of 1933 indicate the general reduction that occurred and its uneven distribution among different branches of industry.

The great reduction in weekly hours of those fortunate enough to retain jobs during the depression, consequent upon curtailment of operating schedules and the rotating of part-time workers, is apparent. The average time actually worked per week by all groups in 1929, as has been said, was approximately fifty; at the beginning of 1933 this average

[1] To say this is not, of course, to deny that an application of the hedonistic calculus may dictate that as many as possible should be given some work when the amount available is limited, rather than that the burden should be concentrated by laying off more employees and working those retained more nearly the standard day or week. As a relief expedient, the work-sharing movement had much to commend it. It is merely being pointed out here that the reduction in average hours worked during the depression did not constitute a "gain" in the sense of progress toward the shorter working week until there had been some acceptance of the principle that these shorter actual hours should be adopted as the new standard for the normal working week.

[2] *Supra*, pp. 473–474.

TABLE 82.—AVERAGE HOURS WORKED PER WEEK PER EMPLOYEE IN JANUARY, 1932, AND JANUARY, 1933[1]

Industrial group	January, 1932	January, 1933
Manufacturing	38.4	37.5
Coal mining:		
Anthracite	29.1	28.1
Bituminous	27.0	29.0
Metalliferous mining	35 3	39.4
Quarrying and nonmetallic mining	34 9	34.6
Crude-petroleum production	52.0	44.6
Public utilities:		
Telephone and telegraph	42.1	37.6
Electric light and power and manufactured gas	44.8	43.4
Electric railroad and motor bus operation and maintenance	48.5	46.2
Trade:		
Wholesale	47.8	47.0
Retail	46 8	47.4
Hotels	53.9	51.4
Laundries	44.4	42.0
Dyeing and cleaning	45.3	44 1
Average	42 1	41.5

[1] "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), p. 879.

was 41.5, or a reduction of about 17 per cent. If the steadier branches of business, such as public utilities, hotels, and trade, are eliminated from the comparison, the reduction is seen to be much greater. But in spite of the spreading of work which was reflected by this great reduction in average weekly hours per employee, more than fifteen million persons were unemployed in the early months of 1933. The most extensive experiment in government control of wages and hours ever undertaken in a capitalistic country was then resorted to in the hope of reducing unemployment and restoring prosperity.

Evaluation of the shorter-hours theory that expressed itself in the National Recovery Administration of 1933–1935 appears later in this chapter,[1] in the general discussion of the economic implications of the shorter working week, and it suffices here to mention the objectives sought, to summarize the code provisions and to inquire into the extent to which (if at all) the NRA shortened actual working hours or prevented their being lengthened. The objectives sought by the regulation of hours can be said, with no more inaccuracy than must inhere in most generalizations, to have been: (*a*) a spreading of employment by reducing hours; (*b*) a restoring of prosperity by an increase in consumer purchasing power consequent upon higher hourly rates of pay and the employment of more persons; (*c*) the providing of a foundation for a shorter working week throughout industry in general as a long-run as well

[1] *Infra*, pp. 502–516.

as an immediate recovery matter, on the assumption that mechanization and technological change were reducing the number of labor hours necessary for a given quantum of production and therefore the pre-depression volume of employment could be restored and maintained only if the working week were permanently shortened; and (*d*) the promotion of sound business hygiene and fair competition by encouraging enterprises to work out under government supervision their own standards of hours and by making the maxima agreed upon applicable to all within a given industry.

In the actual code-making process, however, conflicting interests inevitably emerged. On the one hand, there was the desire to spread employment and increase purchasing power by reducing hours and raising hourly wage rates; on the other hand, there was the desire of industry to prevent hours from being "unduly" reduced and—whatever basic hours might be established—to provide enough elasticity to make possible smooth and efficient operation of the establishments. The compromises that had to be made were reflected in the hours provisions of the codes.

An analysis according to percentage distribution of the codes in accordance with the basic hours provided for[1] shows that the forty-hour week emphatically became the mode during the period of the Recovery Administration.[2] Of the total number,[3] 85.5 designated the forty-hour week as "basic" or standard, one-fourteenth (7.2 per cent) were "less than forty-hour" codes, and the same proportion provided for a basic work week of more than forty hours.[4] Only about 3 per cent provided for a basic week of more than forty-eight hours, and none for one of more than fifty-six hours. When the measurement is in terms of the number of employees covered instead of in terms of percentage distribution of codes, however, the basic forty-hour week is found to have been less common. Half the employees of the country subject to the jurisdiction of the NRA were under forty-hour codes; 10 per cent were subject to codes in which the basic week was less than forty hours; approximately one-third were under codes specifying basic hours of from forty-four to

[1] This summary of the code provisions is based upon the analysis made by the Brookings Institution. *Cf.* Lyon, Homan, Terborgh, Lorwin, Dearing, and Marshall, *The National Recovery Administration*, pp. 365–392.

[2] It must be remembered that over a third of the employees of the country were wholly exempt from the jurisdiction of the National Industrial Recovery Administration: agriculture, steam railroads, government, domestic service, professional service, nonprofit institutions, and others.

[3] Only one of the approved codes, that of the fur-trapping contractors, did not limit working hours. The reason given by the Recovery Administration was that this industry operates only three months a year and during these three months is subject to weather conditions.

[4] Lyon *et al.*, *op. cit.*, pp. 367–368.

forty-eight; and about 7 per cent under "more than forty-eight-hour" codes.[1] The fact that the percentage of workers under forty-hour codes was smaller than the percentage of codes incorporating the basic forty-hour week was a consequence of the coverage by a relatively small number of codes of large numbers of employees in public utility enterprises, finance, amusements, professions and services, the distributive trades, and the food industries. These codes provided for a basic work week longer than the modal forty. The basic week of less than forty hours was primarily a creature of the textile, apparel, and fuel industries. Numerous provisions calculated to provide a certain amount of elasticity were appended to the codes, and the specified basic weeks of course provided only a nominal, not an actual, "hours ceiling."[2] In numerous cases, without doubt, the various "elasticities" did not sufficiently facilitate the smooth operation of business, on the one hand, or safeguard the interests of the workers, on the other. On the whole, however, the attention of the code makers was centered upon rigid hours as a means of spreading work, and perhaps the aggregate tendency was in the direction of limiting elasticities and hence making the basic week more nearly approximate the actual week than it was in the direction of permitting exceptions and variations.

This summary of the code provisions with respect to hours makes possible several generalizations. (1) The prevalent basic or standard week became one of forty hours, as compared with standards ranging (with exceptions like the building trades) from forty-four or forty-eight to fifty-four or fifty-six during the immediate predepression years. So far as the codified industries were concerned, the reduction was consider-

[1] *Ibid.*, p. 367.

[2] The qualifications of the basic week took various forms and appeared in numerous combinations. The basic problems before the code makers were, of course, the providing of sufficient elasticity to make possible the smooth operation of businesses, on the one hand, and the safeguarding of the interests of the workers and the primary purpose of fuller employment against use of the qualifications to defeat these interests and this purpose. These elasticities were of various types, but they can be grouped under four headings: (1) averaging of hours provisions, (2) overtime periods, (3) periods of various sorts during which the basic hours might be extended, and (4) permanent exceptions of certain occupational classes from basic hours. For analysis of these provisions and of their actual effects, see the Brookings Institution study, *op. cit.*, pp. 369–386. The Brookings group concluded that "there is seeming elasticity in the multitude of provisions for excepted periods, excepted occupations, averaging, and general overtime. But when the structure is examined in detail, and especially when it is studied as an operating situation in related industries, its intricacies and inelasticities bulk large. . . . It may be said that (always with honorable exceptions) the elasticities that have been conferred do not sufficiently facilitate the smooth operation of business, and many do not sufficiently safeguard the interests of the workers. Inadequate elasticities spell continual incentive to code violation by management; and on the other hand elasticities that do not contain sufficient safeguards or are not capable of being readily understood by the workers tend powerfully to promote labor unrest." (*Ibid.*, p. 390.)

ably greater than that effected during the first three decades of the century. (2) It is important to note, however, that for the most part the codes did not establish basic hours maxima which were greatly lower than the hours actually being worked. As has already been indicated,[1] average hours actually worked per week by manufacturing wage earners in January, 1933, were 37.5, and those for all groups 41.5. By June of 1933, in consequence of the tendency during the first half of 1933 to abandon the share-the-work movement and let any increase in labor hours effectuate itself through a lengthening of the average time of those employed rather than through hiring more workers, average hours actually worked, as Table 83 shows, were 42.6 in manufacturing and 43.9 in all industry. The codes did not, therefore, immediately force any widespread additional sharing of work. (3) On the other hand, there can be little question that the early 1933 tendency to lengthen the working week was halted and that therefore—unless the imposed increase in the price of labor decreased the amount enterprisers could afford to buy enough to offset the tendency of hours limitations to force employment of more labor[2]—more workers shared in such work as was available during the second half of 1933 and on through 1934 than otherwise would have. Even though the NRA did not establish basic weekly standards lower than the actual working week and thereby immediately force the employment of more workers, it did prevent a lengthening of the working week which otherwise almost certainly would have occurred. (4) Finally, the establishment, with numerous modifications in individual cases, of the actual week that had resulted from depression curtailment of operating schedules as the standard or nominal working week inevitably gave permanent impetus to the movement for a shorter working week throughout industry in general. In spite of the lengthening of the actual, and in a considerable number of cases of the standard, working day or week since the judicial invalidation of the National Industrial Recovery Act in 1935, the idea of a permanently shorter working week became firmly entrenched in the conventions of large segments of industry.

The trend of hours since 1935 may be summarized very briefly. As has just been said, the standard week has in some cases been lengthened, this tendency being especially pronounced in manufacturing, but there has not as yet been any widespread restoration of the basic standards of the late 1920's. For the most part, the lengthening of the standard

[1] *Supra*, p. 481.

[2] Probably it did not, at least during the first six or nine months after the re-employment agreement and the codes became effective. Probably, indeed, the wages-and-hours theory of the NRA never was given a real trial. The reasons for this conclusion are set forth in an earlier chapter. (*Cf. supra*, pp. 359–361.)

week after the Schechter decision of 1935[1] occurred through the dropping of overtime pay for work in excess of the former code maxima, overtime work being designated as normal and the standard week lengthened accordingly. Except in the case of women and certain groups of males for whom the states and the federal government have established legal maxima,[2] there is now, of course, no governmental curb upon a lengthening of the basic working week. Without federal legislation such as was considered by Congress in 1937 and urged by the President in his message to Congress early in 1938, maintenance of the gains of the NRA period depends upon the willingness of business enterprise to operate with permanently shorter working periods and upon the ability of organized labor to wrest concessions from employers disposed to lengthen the standard week. There can be no question that many more employers are today reconciled to the thought of a forty- or forty-four-hour week, and of a five-day week, than were so reconciled in 1928 or 1929. There has been so little uniformity in the movement again to lengthen the nominal week since 1935, however, that average hours actually worked provide the best quantitative measurement of trends during the last two years. Table 83 reveals the essential facts.

TABLE 83.—AVERAGE HOURS WORKED PER WEEK IN DIFFERENT INDUSTRIES, 1933–1937[1]

Industrial group	June 1933	Jan. 1934	June 1934	Jan. 1935	Nov. 1935	June 1936	Nov. 1936	Feb. 1937
Manufacturing	42.6	33.7	34.9	35.2	37.8	39.2	40.6	40.4
Coal mining:								
Anthracite	31.2	39.5	31.7	33.0	22.3	29.2	27 5	28.3
Bituminous	28.5	30.3	26.2	27.6	27.3	25.5	31.8	31.4
Metalliferous mining	40.0	38.7	37.4	36.0	39.7	40 9	44 2	43.9
Quarrying and nonmetallic mining	40.9	30 8	35.8	30 5	35 6	43 5	42 9	40.3
Crude-petroleum production	42.6	36.5	34.0	34.6	36.5	38.6	39.2	39.2
Public utilities:								
Telephone and telegraph	37.5	37.6	38.3	38.1	39.1	38.3	38.6	37.9
Electric light and power and manufactured gas	43.2	38.9	38.8	38.3	39.3	40.6	39.9	40.5
Electric railroad and motor bus operation and maintenance	46.4	45.0	45.8	45.5	45.1	46.8	46.9	46.1
Trade:								
Wholesale	47.1	41.5	41.2	40.4	41.7	42.9	43.3	42.6
Retail	47.2	42.7	40.8	41.6	42.3	43.5	44.0	43.8
Hotels	50.5	48.8	47.2	47.2	48.1	47.9	47.7	48.2
Laundries	42.4	38.6	39.9	39.9	40.7	42.7	42.1	42.9
Dyeing and cleaning	47.4	39.2	41.0	40.1	41.1	43.9	42.2	41.2
Average	43.9	37.5	37.4	37.6	39.3	39.2	40.6	40.4

[1] The data are those of the U. S. Bureau of Labor Statistics. For the period June, 1933, to November, 1935, they are taken from "Handbook of Labor Statistics," *Bulletin 616* (1936 ed.), p. 879. Data for June, 1936, November, 1936, and February, 1937, are from *Monthly Labor Review*, vol. 43, no. 3 (September, 1936), pp. 717–721; vol. 44, no. 2 (February, 1937), pp. 455–459; and vol. 44, no. 5 (May, 1937), pp. 1287–1291.

[1] *Supra*, pp. 370–371.

[2] *Infra*, pp. 517–527.

Hours of Work in Other Countries.—Two facts stand out when one compares the progress of the American workers in the matter of hours of work with that of their fellows in other countries: the relatively earlier attainment of the shorter working week elsewhere and the greater part played by government intervention. In practically all the industrialized countries of Europe and in the Australasian states, the governments, either directly or through policies making for the extension of trade union agreements, had enforced the eight-hour principle in many branches of industry while the majority of American wage earners were still working more than forty-eight hours a week.

The ten-hour agitation, which was well under way in England by the end of the first quarter of the nineteenth century, attained great momentum during the 1830's and 1840's, and by the 1860's the more skilled and highly organized artisans were beginning to attain their goal of an eight-hour day. After the turn of the century the movement proceeded even more rapidly. During the twenty-five years before 1919, according to information compiled by the Ministry of Labour, an average of 120,000 men per annum had their hours reduced. Hours of work in the coal mines of Great Britain were fixed by law, in 1919, at seven per underground shift and forty-six and a half on the surface. In 1926 Parliament raised the daily maximum to eight, but reduced it to seven and one-half in 1931.[1] During the War many of the legal limitations upon hours of work were relaxed, especially in enterprises essential to the winning of the War, but since 1919 the British workers have again made distinct gains.

In Germany, the eight-hour standard had become more prevalent by the late 1920's than in the United States. Of 12,276,000 workers under collective agreements on Jan. 1, 1929, the forty-eight-hour maximum had then been secured by 94 per cent of the women, and 92 per cent of the men, salaried employees, and by 90.1 per cent of the women, and 81.8 per cent of the male, manual workers. Variations from the forty-eight-hour week obtained principally in mining, with the seven- and seven-and-one-half-hour day, and in agriculture, with longer hours in the summer and shorter hours in the winter.[2] During the depression years, the movement for equal division of available work resulted in a still further reduction in hours, and the eight-hour maximum also became established in industries where the working day had been nine or more hours.[3] In France, a nation where small-scale industry has been more predominant than in England or Germany, the eight-hour day has not become as prevalent as in those countries, but by the early 1930's it had been secured by

[1] Commons and Andrews, *Principles of Labor Legislation* (Harper & Brothers, New York, 1936 ed.), p. 128.

[2] International Labour Office, *Industrial and Labour Information*, vol. 37 (1931), p. 10.

[3] *International Labour Review*, vol. 29 (June, 1934), pp. 766–781.

probably more than half of the workers outside of agriculture. An eight-hour law, enacted in 1919, is applicable to those industries for which ministerial decrees have been promulgated. Professor Charles A. Gide in 1926 estimated that the law then applied to 5,000,000 workers distributed among thirty trades,[1] and since 1926 the number of industries subject to ministerial decrees has been slowly extended. During and since 1930 decrees have been published extending the act to transport undertakings, rice factories, undertakers, and hire and garage vehicles, and to several important trades in Alsace-Lorraine.

The eight-hour day had become well established in the Australasian states by collective agreements prior to the adoption of compulsory arbitration, and during the postwar period of expansion Queensland, New South Wales, and Western Australia passed acts limiting work in occupations employing a majority of workers to forty-four hours. With the collapse in the early 1930's of the postwar prosperity, employer groups urged restoration of the forty-eight-hour week as a means of reducing their production costs, and in some industries and trades there was a lengthening of the basic week accompanied by an extension of part-time work. In Western Australia, the railway workers were forced during the depression to accept a 5 per cent reduction in wages in order to retain the forty-four-hour week. The New South Wales government re-established the forty-eight-hour week in 1930, but protests of the trade unions were so persistent that the forty-four-hour week was restored the following year.[2] Australia emerged from the worst of the depression earlier than did most other nations—partly because the policy of monetary devaluation was more effective in a country a large part of whose national income comes from exports—and since 1933 there have been no important changes in the length of the basic working week.

In the Union of Socialist Soviet Republics the eight-hour day was introduced for all industries in 1917 by governmental decree, and since 1927 the policy has been that of extending the seven-hour day. By the middle of the 1930's approximately half of the workers in industrial undertakings were on the seven-hour basis.[3] Underground work in mines in Soviet Russia is limited to six hours.[4] In other industrial

[1] David Saposs, *The Labor Movement in Post-war France*, p. 233. Mr. Saposs believes that Professor Gide's estimate of 5,000,000 covered by the ministerial decrees in 1926 was probably too low.

[2] "Forty-four Hour Week in New South Wales," *Monthly Labor Review*, vol. 32 (May, 1931), p. 158.

[3] In 1927 the Soviet Government announced its intention to adopt the seven-hour day throughout industry, and in 1929 an order was issued calling for adoption of the seven-hour day in industry, transport, communication, and the communal services by Oct. 1, 1933. By the end of 1930 the seven-hour day had been applied to 44 per cent of the workers in industrial undertakings (International Labour Office, *Annual Review*, 1930, p. 192), and since that time it has been extended to more than half of the workers.

[4] Commons and Andrews, *Principles of Labor Legislation* (1936 ed.), p. 128.

countries, and some agricultural countries like Argentina and Mexico, hours have been limited by legal restrictions.[1] An attempt to secure greater uniformity of hours in the various countries was made in 1919 when the Washington International Labor Conference adopted its Eight-Hour Convention.[2] Only nations of minor industrial importance have ratified this Convention without reservations, ratifications by the governments of the more industrialized countries being conditional upon ratification by their leading competitors.[3] In spite of the slowness with which the Washington Convention has been ratified, it has been a force furthering adoption of the eight-hour day in the different countries. The International Labour Office of the League of Nations reports that year by year developments in hours legislation in the various countries have almost invariably followed the provision included in the Convention.[4] In 1931 the International Labour Conference adopted a convention limiting to seven and three-quarters a day work underground in mines, with certain exceptions. By 1935 none of the coal-producing countries of Europe had ratified, and the convention was revised to meet objections.[5]

The Case for the Shorter Working Week.—Labor's demand for the shorter working week has been phrased in a variety of terms, and the arguments advanced at different times (occasionally even at the same time) have not been altogether consistent with each other. The motives back of the movement, at least when labor has taken the initiative, have also been various. Likewise the reasoning of impartial students of the problem and of those employers who have been converted to the idea that a shorter working week is desirable has lacked common substance. Emphasis has shifted from shorter hours as a prerequisite to competent citizenship to shorter hours as a means of protecting the health of the workers, from the "make-work" argument to the idea that workers employed shorter hours will be more productive in the physical sense than those whose working week is long and therefore will be worth more to their employers, from the standard-of-living notion of Ira Steward to the emphasis upon shorter hours as a means of offsetting technological unemployment, from the lump-of-work thesis or a crude demand and

[1] Mexico established the basic eight-hour day by legislative enactment in 1917. Other countries, in addition to those mentioned in the foregoing summary, which have established the eight-hour day, generally in periods of labor unrest and revolution or threatened revolution, are Finland (1917), Poland (1918), and Czechoslovakia (1918). Periodic reports of the progress of the shorter-hours movement in the different countries are to be found in the publications of the International Labour Office—the *International Labour Review*, *Industrial and Labour Information*, and the *Reports* of the International Labour Conferences of the League of Nations.

[2] The text of this and other conventions of the League on conditions of labor are to be found in *Draft Conventions and Recommendations*, International Labour Office, 1928.

[3] *Cf. Industrial and Labour Information*, vol. 37, p. 246, and subsequent volumes.

[4] International Labour Conference, *Report*, 1930, vol. 2, pp. 135–136.

[5] Commons and Andrews, *Principles of Labor Legislation* (1936 ed.), p. 29.

supply theory to the more elaborately developed purchasing-power hypothesis of the 1920's and 1930's, from the simple idea of dividing a limited amount of work among all to the expectation that shorter hours would be a useful device in concentrating production in the more efficient establishments or in bringing about a better adjustment between the durable-goods and nondurable-goods industries. Some of these arguments—especially those centering around the relationship of hours to costs of production, wage rates, and the volume of employment—involve far-reaching questions of economic theory and economic policy; and critical examination of them may advantageously be postponed until a later section of this chapter. As a prerequisite to our consideration of some of the economic implications of the shorter working week, however, it is desirable that labor's economic arguments be presented in purely expository fashion, and that some of the contentions less exclusively economic in character be surveyed.

Citizenship and Cultural Arguments and Motives.—It has been cited as "a curious fact"[1] that the first argument of American labor unions for shorter hours was that workers must be competent citizens. The "sun-to-sun" working day was incompatible with competent citizenship, since workers were precluded from the leisure necessary for consideration of public questions and were therefore condemned to an inferior position in the state. Only by an increase in leisure could a higher social, cultural, and moral plane of living, and a generally improved type of citizenship, be attained.

While the "cultural-and-citizenship" argument has long been overshadowed by arguments pertaining to the relationship of hours to productivity, wages, and the volume of employment, it has never been disregarded entirely, either by labor or by labor's friends. Nor will it cease to play a part in a consideration of the justifiable and feasible length of the working week. Underlying it is a basic fact that has become increasingly true as our society has become more industralized—that the time a man or woman is able "to live" in the broader sense of the word "live" is time spent away from his or her place of gainful employment. Standardization of processes, subdivision of labor, and routine operations cause the individual worker, in many cases, to be but an atom in a highly complex organization, introduce more monotony into his work, and thwart expression of the instinct of workmanship. Hence the workers, even when their attention has been primarily centered upon other implications of the problem, have continued to express the feeling that their opportunities for social, cultural, family, and religious life can be protected only by limitation upon hours of work. As Samuel Gompers phrased it years ago: "The general reduction of the

[1] D. D. Lescohier, in Commons and Associates, *History of Labor in the United States* (The Macmillan Company, New York, 1935), vol. 3, p. 97.

hours of labor . . . would create a greater spirit in the workingman; it would make him a better citizen, a better father, a better husband, a better man in general. The 'voting cattle,' so-called, those whose votes are purchased on election day, are drawn from that class of our people whose life is one continuous round of toil. They cannot be drawn from workingmen who work only eight hours. A man who works but eight hours a day possesses more independence both economically and politically. It is the man who works like a machine and never knows when to stop, until in his case perpetual motion is almost reached—*he* is the man whose vote you can buy. The man who works longest is the first to be thrown out on the sidewalk because his recreation is generally drink."[1] Or, in the words of the Interchurch World Movement in its Report on the steel strike of 1919: "None can dispute the demoralizing effects on family life and community life of the inhuman twelve-hour day. As a matter of arithmetic, twelve-hour-day workers, even if the jobs were as leisurely as Mr. Gary says they are, have absolutely no time for family, for town, for church or for self-schooling, for any of the activities that begin to make full citizenship; they have not the time, let alone the energy, even for recreation. . . . Americanization is a farce, night schools are worthless, Carnegie libraries on the hilltops are a jest, churches and welfare institutions are ironic while the steel worker is held to the twelve-hour day or the fourteen-hour night."[2]

The incompatibility of excessively long hours with the development of competent citizenship and a desirable type of culture is so self-evident, and has come to be so generally recognized, that additional comment is hardly necessary. There are, of course, limits to the extent to which these social and cultural advantages will ensue as a result of shorter hours. They cannot be expected to appear immediately. The type of work, the previous length of the working day, and numerous personal and nonindustrial factors all enter into determination of the cultural benefits imputable to a shortening of hours. There is, however, little dispute among students of the problem that these benefits generally accrue when hours are reduced from ten to eight without a curtailment of real income, and that they are especially apparent where the workers are engaged in monotonous, repetitive, and fatiguing operations. The International Labour Office has reported that the general adoption of the eight-hour day in Europe was accompanied by a decrease in alcholism, to which exhausted workers resort for stimulation, and by a general improvement in health, morals, and devotion to family life.[3]

[1] Testimony of Samuel Gompers before U. S. Senate Committee on Relations between Labor and Capital, Aug. 16, 1883, quoted in *Labor and the Employer*, p. 81.

[2] Interchurch World Movement of North America, *Report on Steel Strike of 1919* (1920), pp. 65, 82.

[3] "Results of the Eight-hour Day," *International Labour Review*, vol. 13 (February, 1926), pp. 184–186.

Hours and the Health of the Workers.—As the general ten-hour movement began to get under way during the third quarter of the nineteenth century, the citizenship argument continued to be labor's main contention, but the injury to health inherent in long hours began to receive greater emphasis;[1] and when the factory system became more fully developed, the health argument for a time took first place. Like the citizenship argument, it has been increasingly overshadowed during the twentieth century by the argument that shorter hours are necessary to avoid unemployment and increase real income, but neither labor nor labor's sympathizers have ever lost sight of the health and physical well-being implications of the length of the week. Protection of physical welfare was the dominant motive in the movement, culminating in the postwar period, toward abolition of the twelve-hour day in the steel and other continuous-process industries. Certainly it is true that long hours throughout industry as a whole involve many dangers to the health of the workers that were not present a century ago, in spite of the progress that has been made in improvement of shop sanitation. To be sure, the muscular exertion required of the average worker today is probably less than ever before, because of the substitution of power machinery for human brawn; but this very substitution, with its concomitant specialization of labor, brings nervous strains and mental fatigue that were not inherent in simpler modes of production. Specialization of operation concentrates the strain of a man's work upon a particular part of the nervous system and upon a particular set of muscles, and the danger of nervous and mental, as well as physical, fatigue therefore tends to become greater in proportion to the extent of specialization. With specialization comes, also, a gradual control by management over the speed of the workers. Modern industry demands constant attention and alertness, a physical adjustment to an automatic rhythm, an ability to meet the physical and nervous demands of increased speed, and an immunity to noise and vibration. The effects of rhythm upon the workers, which have received increasing attention since the publication of Josephine Goldmark's *Fatigue and Efficiency*, are especially important. It is definitely established that there must be a proper balance between action and rest if fatigue is to be avoided and maximum efficiency assured. "In any given tempo, each effort is followed by a corresponding rest. There is a perfect balance of swing and recovery, rise and fall, exertion and repose. . . . If such a balance could be permanently established in work, fatigue could never occur."[2] But in modern industry the machine sets the tempo and the worker must keep it. Since industrial rhythms

[1] *Cf.* Commons and Associates, *History of Labor in the United States*, vol. 1, pp. 170 and 384, and vol. 3, pp. 97–98.

[2] Josephine Goldmark, *Fatigue and Efficiency*, p. 81. (Published by the Russell Sage Foundation, New York.)

are frequently faster than the natural rhythms of the human body, accumulated fatigue, resulting first in an incapacity to respond to the demands of the job and then in illness, is likely to be the consequence.

Evidence of the effect of fatigue due to long hours upon the illness and mortality rates of industrial workers is abundant. Professor Irving Fisher, generalizing upon this evidence, has said: "A typical succession of events is first fatigue, then colds, then tuberculosis, then death."[1] Sickness among workers is, of course, due to many causes—occupational hazards, poor factory conditions, bad conditions of home life, undesirable community surroundings, unintelligent regulation of personal lives, and numerous others—and it is frequently difficult to determine how much illness can be attributed to the fatigue consequent upon long hours. Nevertheless, there is evidence that convincingly establishes the causal relationship. The report of the British Health of Munitions Workers Committee showed that 21 per cent of the men forty-one years of age or over engaged in heavy labor less than seventy hours a week were of subnormal health, while 31 per cent of the men in the same age classification and doing heavy work more than seventy hours a week were of subnormal health. The difference in health was even more clearly shown in the case of boys eighteen years of age or less. Five per cent of the boys engaged in heavy labor sixty hours or less per week were found to be of subnormal health, while 11 per cent of those working over sixty hours were found to be in bad health. The differences were not so striking in the case of workers engaged in medium or light labor, but both men and boys working fewer hours were found to be in better health. Sickness of industrial workers is often of a neurasthenic type. Commenting on this, Professor Vernon has said: "The great nerve strain of certain occupations, such as telephone operating, has been commented upon . . . but in some countries nervous overstrain appears to be rife in many industries. It was found that in German insurance sanatoria, other than those devoted to tuberculosis cases, the most common diseases observed in the patients are nervous disorders springing from industrial overstrain."[2] Each year new evidence is forthcoming as to the detrimental effect of excessively long hours upon the health of the workers.[3]

[1] Quoted in H. M. Vernon, *Industrial Fatigue and Efficiency* (E. P. Dutton & Co., Inc., New York, 1921), p. 161.

[2] *Ibid.*, p. 169. (E. P. Dutton & Co., Inc., New York, 1921.)

[3] A small book worth consulting because of its case studies of the relationship of long hours and other industrial conditions to neurasthenic disorders is *The Dissatisfied Worker* by Fisher and Hanna. P. Sargant Florence's *The Economics of Fatigue and Unrest* is one of the standard works in the field. John Fitch's *The Steel Workers* and *The Causes of Industrial Unrest* and F. S. Lee's *The Human Machine and Industrial Efficiency* also contain valuable illustrative material. The briefs submitted to the Supreme Court of the United States in *Muller v. Oregon*, 208 U. S. 412 (prepared by Louis D. Brandeis and Josephine Goldmark) and *Bunting v. Oregon*, 243 U. S. 426 (prepared by Felix Frankfurter and

The Fuller-employment and Higher-wages Argument.—Since the middle of the nineteenth century, few ideas have played more prominent part in the economic theorizing of wage earners, or have been adhered to with more tenacity and profound affection, than that reduction in the length of the working week will increase their real incomes and reduce the volume of unemployment. "Whether you work by the piece or the day, decreasing the hours increases the pay." The reasoning underlying this oft-repeated trade-union doggerel has varied from time to time. Sometimes the fundamental premise has been merely that of a "lump of work"—that there is a certain amount to be done, practically irrespective of the costs of production, and that therefore more persons can be employed and total labor income increased if each worker puts in fewer hours. Again, the notion of long-run correspondence between labor incomes and the prevailing standard of living, popularized in the 1860's by the picturesque Boston mechanic, pamphleteer, lecturer, and social reformer, Ira Steward, has come to the fore. In the third place, and closely related to the first-mentioned premise, the idea that shorter hours and higher pay go hand in hand has had underlying it a crude supply and demand analysis—that if workers refuse to work as long hours as formerly, labor will be a scarcer factor of production and its price will *ipso facto* be higher. In the fourth place—and superficially inconsistent with the argument just mentioned—has been the contention that employees are more productive in the physical sense when they work shorter hours, and are therefore worth more to their employers. More recently, there has been emphasis upon higher wages and shorter hours in order to stimulate mass consumption, "maintain economic balance," and offset the encroachments of technological changes upon the employment opportunities of the workers. The particular brand of theorizing has changed, largely according to the dictates of expediency, but through it all labor, even while elaborating and carrying much further its theory of shorter hours, has adhered to certain basic notions. Immediately, we are concerned with a brief scrutiny of these notions, and in a later section of this chapter we shall examine more critically their economic validity.

In its oldest, and most primitive, form the idea that shorter hours are a causal factor in increasing labor incomes and reducing the number of the unemployed appeared in the "lump-of-work" notion. As early as 1852 the call for a Massachusetts Ten-Hour Convention declared that if hours were shortened, more jobs would be available, and that those employed would also be paid higher wages.[1] From that time on, the

Josephine Goldmark) and to the Supreme Court of Illinois in *Ritchie v. Wayman*, 244 Ill. 509 (prepared by Louis D. Brandeis and Josephine Goldmark), were in part medical treatises on the effect of long hours upon the health of the workers.

[1] Commons and Associates, *History of Labor in the United States*, vol. 1, p. 546, and vol. 3, p. 98. Of course, the make-work idea and its concomitant, a shorter working day, go back

notion continued to hold a dominant place in the thinking of the American labor movement. Two basic presumptions were obviously involved: that work should be divided among all the workers attached to given industries or occupations and that the amount to be so divided was limited. "So long as there is one man who seeks employment and cannot find it," declared Samuel Gompers in 1887, "the hours of labor are too long,"[1] and two years later, after pointing to "the ever increasing inventions and improvements in modern methods" which were, he believed, displacing thousands of workers, he expounded the doctrine that the only way whereby displaced workers could be reinstated was by reduction in the length of the working day.[2] If the hours of each laborer were curtailed enough, the work would not merely be sufficiently spread to take care of the unemployed, but this curtailment of supply would raise the price of each labor hour or unit enough to increase the daily or weekly incomes of each worker.

Concurrently with the advancement of the "make-work" theory of shorter hours, labor accepted, for a time, a somewhat different version of the thesis that shorter wages and higher incomes go hand in hand. The eight-hour movement launched by Ira Steward in the early 1860's had underlying it two basic premises: that wages tend, within reasonable limits and over fairly long periods, to follow the prevailing standard of living; and that technological progress was steadily increasing the per capita productivity of labor. With shorter hours, according to Steward, men would have more time for leisure, recreation, and the developments of wants previously unknown. Hence motives and temptations to ask for higher wages would be created. "Where all demand higher wages, the demand cannot be resisted; that resistance would amount to the folly of a 'strike' by the employers themselves against the strongest power in the world—the habits, customs, and opinions of the masses." This change in customs, habits, and opinions would be the force impelling employers to pay higher wages. Moreover, progress in technology was steadily increasing the per capita productivity of labor, and the immediate increase in labor costs due to reducing hours but not daily or weekly wages would stimulate inventions still further, thereby making possible still further increases in productivity. In other words, if hours were shortened, output would be expanded in consequence of the stimulation

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much farther in both the United States and England. About the time of the Massachusetts Convention of 1852, however, there appeared a shift in the emphasis of organized labor, the fuller-employment and higher-wages arguments playing a larger part from that time on, and the citizenship argument a relatively smaller part.

[1] American Federation of Labor, *Proceedings*, 1887, p. 10; quoted by D. D. Lescohier, in Commons and Associates, *History of Labor in the United States*, vol. 3, p. 98.

[2] At the 1889 Convention of the American Federation of Labor. *Cf. Proceedings*, 1889, p. 16, and D. D. Lescohier, *op. cit.*, p. 99.

to technical progress, while at the same time rising standards of living and increased wages would furnish a market for the enlarged output. Indirectly, the increase in hourly wage rates would be offset by the greater efficiency of labor due to its improved health and better morale.

Steward, like some of his contemporary reformers, felt a fundamental skepticism as to the efficiency of trade unionism, and sought accomplishment of his objective through enactment by Congress and the state legislatures of eight-hour laws, and when it became apparent in the late 1860's and early 1870's that this mode of accomplishment was beyond the realm of possibility, labor began to emphasize the "make-work" argument rather than the presumptions of Stewardism. Nevertheless, the philosophy of Ira Steward has had enduring influence in the shorter-hours movement and, to an extent, in determining the functional character of trade unionism. The high-wage and mass-consumption philosophy so prevalent during the 1920's, and then again after 1933, when it influenced government wages and hours policy to no small extent, was a revival, with modifications, addenda, and refinements, of the doctrine preached by Steward and accepted by large segments of labor during the 1860's.

To a certain extent, the theoretical or philosophical basis of the shorter-working-week movement has inevitably changed as time has gone on and conditions have become different. Especially during the 1920's and 1930's could a certain superficial metamorphosis be noted. The new verbal wardrobe of the arguments symbolized, however, much more an adaptation of labor's theories to new conditions than a change in the essential elements of these theories. As has been said, the agitation during the last decade and a half has been less exclusively working class in origin, and especially during the depression did large numbers of persons other than wage earners, including a certain segment of the nation's employers, come to look upon the shorter working week either as a necessary relief expedient or else as a causal factor in recovery. Mechanization of industrial processes during the 1920's was accompanied by a rather ominous shrinkage in manufacturing employment,[1] and the shorter working week was declared to be more necessary than ever

[1] Between 1919 and 1929, the average number of wage earners per year in manufacturing declined from 9,000,059 to 8,838,743. The decline was not great. But during the same period, the population of the continental U. S. increased by about 17,000,000. Of greater significance, so far as the matter of possible permanent displacement of workers is concerned, the value of manufactured products increased between 1919 and 1929 from $62,041,795,316 to $70,434,863,443, and the value added by manufacture to the materials and supplies procured from other sources increased from $24,809,092,926 to $31,885,283,711. *Abstract of the Fifteenth Census of the United States*, p. 742 and p. 9. The data on estimated number of wage earners here given, it may be noted, differ slightly from those of the Census of Manufactures as quoted in Chap. 1. But the difference is negligible and of no importance so far as the relationship of employment to value added, as here set forth, is concerned.

before to offset the effects of technological displacement. William Green was, however, only elaborating the doctrine expressed by Samuel Gompers forty-two years earlier, and adding to it the "underconsumption" touch, when he said in 1931: "The hours of labor should be so reduced as to square fairly with the increasing power of the individual's efficiency and productivity. If a man can do the same work now in four days that he did two decades ago in six, then why should he be required to work the same number of days, only to stagnate the economic situation and create further chaos?"[1] During the early years of the depression the simpler, purely relief, version of the "make-work" argument submerged to an extent the more elaborate theories of shorter hours as a causal factor in increasing labor incomes and maintaining economic stability, but as the depression deepened, the idea that shorter hours were a permanent necessity gained new adherents. Labor and other groups, convinced that the basic cause of our economic difficulties was maldistribution of income, saw in the shorter working week with compensating increase in hourly earnings an expansion of purchasing power that would give a necessary "pump-priming" to industry and at the same time establish a better distribution. Technological displacement and "overproduction" were, it was said, proceeding hand in hand, and must be offset by the dual remedy of higher wages and shorter hours. In so contending, labor was carrying its nineteenth-century work-fund concept a little further; it was advocating limitation of the total output of industry by reducing hours to counterbalance the increases in productivity due to advancing technology, with the supplementary assistance of wages high enough to lift the increased output of goods off the market. Still others advocated establishment of a drastically shorter week on the assumption that compensating wage increases would be offset by increased labor efficiency and more intensive utilization of capital, or that the institution of lower-hours maxima would make easier an adjustment to a slower rate of industrial growth in the future, or that the shorter working week would have the effect of concentrating production in the more efficient establishments and thus make possible simultaneously the employment of more workers and the payment of higher wages.

The theoretical implications of some of these latter-day arguments will be examined shortly. Here it needs merely be pointed out that while labor had by the 1930's expanded, refined, and to an extent restated its economic case for the shorter working week, its basic concept, that of a work fund, remained much the same. Technological developments and the mass-consumption philosophy of the 1920's made possible a broadening of the concept and the adoption of a terminology more harmonious

[1] From an address delivered by Mr. Green at the Conference of Progressives in Washington, March, 1931. Quoted by D. D. Lescohier, *op. cit.*, p. 112.

with a considerable part of prevalent economic thought; that was all. As Professor Lescohier has phrased it: "Labor's theory of shorter hours had been carried further by the 1930's than during the nineteenth century but its essential elements were evolved during the nineteenth century controversies: to wit, that the available work should be divided among all the workers through shorter hours; that higher hourly earnings can be paid as hours are shortened, thus maintaining or advancing the workers' standard of living, if the basic reason for reducing hours is increasing per capita productivity; and that the worker is entitled to increased leisure as one of the benefits due him from the increased efficiency of industry."[1]

Shorter Hours and Physical Product.—The crucial question of the effect of shorter hours upon output and costs has been alluded to only incidentally in the foregoing exposition of labor's economic reasoning. Yet the importance of this question is almost self-evident. Our economic system happens to be one in which—in a given state of demand—the quantity of goods an enterprise can afford to make, and consequently the amount of labor which it can afford to buy, diminishes as labor becomes more expensive. If the advances in hourly wages accompanying the introduction of shorter working periods do not synchronize with increases in the demand for goods which make labor worth more to the employers, it would seem that, other things remaining the same, the number of workers employers could afford to employ would diminish.[2] One of the things that may not remain the same, however, is the physical productivity of the workers. If their efficiency is so much greater under a forty-four-, forty-, or thirty-six-hour week than under one of sixty, fifty-four, or fifty hours that each worker produces substantially more, labor costs per unit of product may be less, although hourly and perhaps even weekly earnings are greater, and employers may find it economically advantageous to employ more rather than fewer workers.[3] It behooves

[1] *Op. cit.*, p. 113. (Quoted with permission of The Macmillan Company, New York, publishers.)

[2] Of course, the percentage reduction in hours may be so much greater than the percentage increase in hourly rates that more individuals will be hired, even though employers are finding that they can economically buy only a somewhat smaller number of labor hours. As is pointed out later, the immediate effect of the introduction of the shorter working week on the volume of employment depends upon the percentage reduction in hours, on the one hand, and the percentage increase in wages times the elasticity of demand for labor, on the other. The general tendency (in the absence of any dynamic changes) for an increase in the price of labor to reduce the amount employers will buy is all with which we need be concerned for the moment.

[3] There are, of course, complicating factors and various possibilities. If wages are increased commensurately with reduction in hours, so that weekly earnings per worker remain the same (*i.e.*, wages are increased 25 per cent when weekly hours are reduced from fifty to forty) and if the increased productivity is just commensurate with the reduction in hours (*i.e.*, if hourly output per worker increases 25 per cent when hours are reduced

us, therefore, to examine some of the evidence as to the effects of reductions in hours upon the productivity of the workers.

A caution must be stated, however, before such an examination is launched. It is always difficult to determine with precision the extent to which increased production is *imputable* to a decrease in hours. The usual method of measuring the relationship has been to ascertain total production of a factory or other unit over a definite period before and after the change. The limitation of this method is apparent: that seldom, if ever, are all conditions of production except the length of the working period the same. Such things as improvement in management, greater speed of machine operation, greater mechanization, better community living conditions, changes in the working personnel which have as their aggregate effect a raising of the standard of efficiency, and numerous others may play their part, and quantitative measurement of the contributing share of shorter hours may be virtually impossible. Nevertheless, there is evidence that creates a strong presumption that extremely long working days are not as productive as shorter ones.

It is, of course, self-evident that there is some point at which further reduction of hours fails to increase or maintain daily or weekly output, and that there will be until that day, dreamed about by a few, when production is so completely automatic that human labor can be dispensed with entirely. On the human side, employees working comparatively few hours a day are likely to be so little fatigued that shortening the day still further will have little effect on their efficiency and output; on the side of the physical environment of work and of management, a point must exist in every plant or industry where further improvements making possible increased output under a shorter working day will be technically unattainable or prohibitively expensive. Yet it seems clear enough that this point has not been reached in many cases.

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from fifty to forty), labor costs per unit of product would be exactly the same. In this case (the demand for the product being assumed to remain the same) the higher hourly rates would not cause employers to reduce the number of employees on the payroll, but on the other hand the volume of employment would not be increased. If, however, the productivity of the workers is assumed to have increased only 12.5 per cent when hours are reduced from fifty to forty and hourly rates increased 25 per cent, labor costs per unit of product would be greater, and there would be some tendency toward diminution of the volume of employment. A third case may be assumed: that the productivity of the workers increases considerably more than 25 per cent when hours are reduced from fifty to forty and hourly rates are increased 25 per cent. In this case, labor costs per unit would be less than they were before the reduction in hours, and there would be an incentive for the employers to hire additional workers. However, a counteracting tendency would appear in such a case. Total output would be greater than before, and each unit could therefore (on the assumption of a normal demand curve for the product, sloping downward to the right) be sold only at a somewhat lower price—how much less being, of course, a question of the elasticity of demand for the product. Since the demand for hired labor is a derived demand, the lower price received for each unit of the product would offset to an extent the incentive to hire more labor consequent upon the lower costs per unit of product.

In general, the ability of workers to increase their hourly efficiency and hence compensate for the reduction of hours seems to be determined largely by the amount of handwork as distinguished from automatic machine work and by the extent to which the machines with which they work require constant supervision. In many cases, also, the reduction in output consequent upon fatigue is offset by what Professor Vernon has called "practice efficiency" and "the end spurt"—the tendency of workers to become more efficient, even though fatigued, because of falling into the rhythm of their work after a time and the tendency toward greater, although generally unconscious, effort when they realize that quitting time is near. Professor P. Sargant Florence, generalizing upon a large amount of Continental, British, and American data, has set forth the conclusion that where the type of work is such that the speed of operation depends fairly equally upon human and mechanical factors, a reduction from the twelve-hour to the ten-hour basis results, almost always, in increased daily output. Under conditions of the same relative importance of human and mechanical factors, he concluded that the preponderance of evidence shows that reduction from the ten-hour to the eight-hour basis generally results in increased hourly output and in at least maintaining daily output, but that further reductions, while increasing the hourly rate of output, seem to decrease the total output.[1] Always, however, these effects of reductions of hours were found to come only after a period of adjustment. The experiments made by Professor H. M. Vernon for the British Health of Munitions Workers Commission during the War yielded similar results. Tests of the output of women engaged in turning fuse bodies showed the results given in Table 84.

TABLE 84.—HOURLY AND WEEKLY OUTPUT OF WOMEN MUNITION PLANT WORKERS IN RELATION TO WEEKLY HOURS[1]

Time worked per week, hours	Relative hourly output	Weekly output	Index of weekly output
66 0	100	7,128	100
54 4	122	7,126	100
47.5	156	8,028	113

[1] Adapted from H. M. Vernon, *Industrial Fatigue and Efficiency* (E. P. Dutton & Co., Inc., New York, 1921), p. 40.

Reduction from 66.0 to 54.4 hours, it will be noted, increased hourly output only enough to compensate for the shorter working period, but a continued reduction to 47.5 hours increased weekly output some 13 per cent. In the case of adult males engaged in the same work, on the other hand, the results shown in Table 85 were obtained.

[1] *Cf. The Economics of Fatigue and Unrest* (Henry Holt & Company, Inc., New York, 1924), pp. 348–349.

TABLE 85.—HOURLY AND WEEKLY OUTPUT OF ADULT MALE MUNITION PLANT WORKERS IN RELATION TO WEEKLY HOURS[1]

Time worked per week, hours	Relative hourly output	Weekly output	Index of weekly output
58.2	100	5,820	100
51.0	120	6,120	105
50.4	137	6,905	119

[1] *Ibid.*, p. 42.

An investigation of boy labor in the munitions plants showed that a week of 47.4 hours had an output of 24 per cent more than a week of 72.5 hours. The investigations also revealed that sporadic overtime for all three groups had the effect of lowering hourly output throughout the day, in some cases enough so that total output was less than when no overtime was worked.

There is, indeed, an abundance of evidence, similar to that just summarized, showing increases in daily and weekly output when excessively long hours are reduced. In 1922, the Federated Engineering Societies, in publishing the findings of its committee on work periods in continuous industry, stated that general experience indicated the superiority of the eight-hour over the twelve-hour day, some plants in every industry registering individual efficiency gains of 25 per cent or more when the eight-hour working period was substituted for the twelve-hour day.[1] Better health among employees, as evidenced by less turnover and absenteeism, and improved methods of management were reported to be the two most important contributing factors. Approximately 68 per cent of the firms from whom the National Industrial Conference Board obtained information, in its 1929 survey of the effects of introduction of the five-day week by firms formerly operating five and one-half or six days, either experienced no reduction in weekly output or else found weekly output increased.[2] The preponderance of opinion among employers who introduced the five-day week during the depression years

[1] Committee on Work Periods in Continuous Industry, *The Twelve-hour Shift in Industry* (1922), p. 290.

[2] National Industrial Conference Board, *The Five-day Week in Manufacturing Industries*, pp. 41–49. Of the firms reporting, 32 per cent had unfavorable experience so far as weekly output was concerned; 49 per cent reported no change in output; and 19 per cent reported increase. In other words, 68 per cent of the firms experienced no reduction in weekly output, and were therefore experiencing greater production per man-hour. The reasons given by employers for the increase in efficiency were: operating economies and savings in overhead resulting from the fact that power plants and machinery often had to be started, stopped, and cleaned for only four or five hours Saturday mornings; elimination of absenteeism and low efficiency among workers on Saturdays; ability to devote Saturday mornings to repair and overhauling of machinery; and greater goodwill and better health among employees.

of the 1930's is that the aggregate effect has been the securing of considerable economies.[1]

The cases and experiences just cited should not lead to too sweeping generalization. There is impressive evidence that a shorter working period frequently is more productive than a longer one. An hour's work is not a fixed quantity; it varies according to a large number of factors, among which is the total of the hours worked per day or per week. But there is a point at which increases in hourly output are not sufficient to compensate for reduction in time worked, and another at which increases in hourly output tend to disappear. Probably in the great majority of industries the ten-hour day is more productive than is the twelve-hour day; and in many cases an eight-hour day brings greater output than does one of ten hours. The evidence is not conclusive, however, that throughout industry as a whole workers produce

[1] Some of these cases are important enough to deserve a few words of mention. The Snow King Baking Powder Co. of Cincinnati, which introduced the five-day week in 1929, experienced a 10 per cent increase in production and a decrease in production costs during the first six months of the plan. After it had been in effect for two years, the company, in its plant magazine, summarized the advantages as follows: "(1) It is much easier to get a better class of employees when they know we work on the five-day plan. (2) It reduces labor turnover to a minimum. (3) A saving in light, heat, and power is effected by not operating on Saturday. (4) Workers throughout the plant show an increase in efficiency. (5) Basing the monthly quota on our best previous record has materially increased production while reducing the cost. (6) Should it become necessary to increase production in any one week, this can easily be done on Saturday without increasing the cost of production." Quoted in *Bulletin 616* of U. S. Bureau of Labor Statistics, "Handbook of Labor Statistics" (1936 ed.), p. 1064. The president of the Kellogg Company of Battle Creek, Mich., which introduced the six-hour day in 1930 to help relieve unemployment, has summarized the firm's experience as follows: "Where the jobs outside of mechanical and maintenance are mostly repetitious, the work tends to become monotonous. Toward the end of an eight-hour shift, the employees formerly grew somewhat careless and waste increased. Speed of our processes and machines had to be adjusted to this human factor. In a shorter working day, the workers are much more alert and efficient, knowing that the working time is short and that it 'won't be long now' until the whistle will blow. Because of this there was a slight increase in the rate of production lines that multiplied itself into a substantial increase in total production and gave a greater return on investment and machinery. . . . The list of advantages to the company. . . . includes: Increased daily production at every station or task, slight in itself but considerable in the aggregate; elimination of meal periods, with their waste, . . . increased return from capital invested in plant and machinery, owing to the increased rate of plant operation; opportunity for reorganizing the working force to rectify inequalities and fit all 'pegs' in appropriate 'holes'; decreased overhead due to the fact that the factory produces more packages of cereals per dollar of overhead than under the eight-hour shift." (*Ibid.*, pp. 1064–1066.) The India Tire and Rubber Co. has reported its experience with the six-hour day, introduced in 1931, as follows: "(1) One-third more workmen were given employment; (2) loss of production was reduced so that at no time did it exceed five per cent, with many days showing a perfect score; (3) absences, which had been an appreciable factor on the eight-hour basis, declined almost to the vanishing point; (4) the labor cost per unit . . . declined 8.2 per cent." (*Ibid.*, p. 1067.)

more in eight hours than in ten, when all conditions except the length of the working period remain unchanged. It is almost certain, as is indicated later, that general introduction of the proposed thirty-hour week would result in reduction in weekly output per worker and increase labor costs per unit of product. At the same time, it should be remembered that the ability simultaneously to reduce hours and increase hourly wage rates without diminution in the total volume of employment does not depend exclusively upon a human response to shorter hours in the form of greater individual efficiency and effort. Increases in the capital factor, more intensive utilization of capital, improvement in the form of capital goods, improved management practices, and greater attention to incentives may reduce unit costs of production, even though labor efficiency solely imputable to the reduction in hours does not increase in proportion to the reduction.

Some Economic Implications of the Shorter Work Week.—Labor's theory of the shorter work week, as developed during the nineteenth century and expanded, but not changed greatly in its essential elements, during recent years, has already been discussed. The amount of work to be done at any given time is limited and should be shared among all; if each individual works fewer hours, labor will be a scarcer factor of production and its price will *ipso facto* be higher; with more leisure men will develop new wants and buy more goods because they have time to enjoy them; shorter hours are necessary to offset the unemployment caused by progress in technology; the higher standard of living consequent upon shorter hours and the higher hourly wages accompanying reduction in the length of the work period will furnish a market for the increased quantity of products industry is technically capable of turning out; the increase in total labor income resulting from reduction of hours, maintenance or increase in daily or weekly wages, and fuller employment is necessary to maintain economic balance and prevent overproduction.

In sharp contrast to this theory stands that of the majority of employers and, to a rather considerable extent, of "orthodox" economists. If hourly rates already approximate the marginal productivity of labor, the increases accompanying reduction in the length of the work period can only diminish the number of labor hours employers can afford to buy, perhaps enough to offset the beneficial effects upon the volume of employment of the shorter work period; the higher labor costs per unit of product will result in higher prices, hence in a diminution of sales, hence in a curtailment of production, hence in a laying off of workers; capital costs per unit of product will likewise rise in consequence of the greater idleness of capital (or, the greater quantity of capital necessary for a given quantity of production), with the same effect upon prices, sales, production, and the amount of labor employers will purchase; society as a whole, including the workers, whose money wages will command fewer goods,

will suffer from the reduction of output.[1] These opposing theories represent such deeply ingrained notions, and the economic effects of the shortening of the work week are both so far-reaching and subject to so many variables, that we should probe carefully into some of the theoretical implications of the question.

Reduction in Hours without Increase in Hourly Rates of Pay.—Ordinarily, as we have seen, the workers look upon the shorter work week as more than a purely relief expedient, and are not willing to share their wages (*i.e.*, to work fewer hours per day or week at the same hourly rates) as well as their work with their unemployed comrades. The history of the shorter-hours movement shows, also, that reductions in hours have generally been accompanied by at least a partial compensating increase in hourly rates. During periods of depression, however, the majority of organized groups favor spreading such work as is available, and many employers and a large part of the public seemed during the depression of the 1930's to accept as axiomatic the principle that as many workers as possible should be given some work when little was available.

The theoretical issues involved in the case of introduction of the shorter work week without change in hourly rates are comparatively simple. Labor costs per unit of product are not immediately affected,[2] but—unless the number of shifts is increased, a possibility discussed later—capital costs are greater because the capital is less fully used (or, more capital is needed, when capital works shorter hours, to produce a

[1] It is, of course, important, in all theoretical reasoning on the question, to differentiate between reductions in one or a few industries and general reductions. If hours are generally reduced at the same time, the effects upon costs, prices, and total income of all persons attached to industry may be expected to be affected in the same way, although if the same reduction in output (assuming one to occur in consequence of the shortening of the work week) takes place in all industries, the exchange ratios of the different products will change, owing to differences in elasticities of demand. Should the reduction occur in only one industry, or in only a few industries, the expected results would be different, even though the same forces would be operative. If the demand for the products of the industry experiencing the reduction in hours is fairly inelastic, purchases of it would not diminish greatly in consequence of any assumed increase in costs and price. A larger amount of the community's total purchasing power would be expended upon it, with resultant diminution in the purchasing power expended on the products of other industries, and therefore with some shrinkage in the demand for the labor employed in other industries; but the effects of the decrease in volume of production and increase in costs would be small in comparison with those following a general reduction of hours.

[2] There may, of course, be some effects upon labor costs per unit of product, even though hourly rates remain the same. If less efficient workers have to be hired to do part of the work formerly done by a more selected group working a longer period, average efficiency will be less and labor costs per unit of product consequently greater. On the other hand, if the workers should prove more productive, in consequence of better health and a lessening of the fatigue factor, labor costs per unit of product (under our assumption that hourly rates remain unchanged) would be lower.

given quantity of product). In a monopolistic industry, the immediate effect should be to reduce the incomes of the entrepreneurial and investing group, since price presumably has already been set at the point yielding largest net income; and members of this group would have less to spend for consumers' and capital goods. This diminution in their expenditures would, other things remaining the same, decrease the demand for labor employed in other industries. Under competitive conditions, the increase in capital costs per unit of product would be expected to manifest itself, on the whole, in an increase in price, which would reduce purchases of the product. To the extent that the shorter working week was a factor encouraging or forcing certain readjustments and changes—two-shift or three-shift operation, improvement in the caliber of management and in the form of capital goods, and other possibilities discussed later—the increase in capital costs might be canceled. For our immediate purpose of analyzing the effects of the introduction of shorter work periods as an influence in and of itself upon costs, prices, production, and the volume of employment, however, consideration of these all-important dynamic possibilities may be held in abeyance. Where capital costs bear an important proportion to total costs, the tendency of the shorter work week, even without a compensating increase in hourly pay, to increase prices or else (as in monopolistic industries) reduce the incomes of employers and investors, and hence the demand for labor arising from these incomes, must be taken into account.

Reduction in Hours with Increase in Hourly Rates of Pay.—The circumstances just assumed—reducing hours to make more employment without a change in hourly rates of pay—are not those that bring the most difficult and complicated questions in connection with the economic implications of the shorter work week. In spite of the fact that capital costs tend to increase somewhat when capital is less fully employed, the ultimate reduction in purchases and production may be much more than counteracted, so far as effect upon the volume of employment is concerned, by the necessary employment of more workers, due to the reduction in hours.[1] If the complicating issue of wage rates were not involved, one could assert with confidence that the possibilities of the shorter working week as a means of attaining fuller employment are very great.[2]

[1] The proportion that labor costs and capital costs bear to each other, which vary tremendously among different industries and among different plants within given industries, are extremely important in determining the exact effect of a reduction in hours without change in hourly rates of pay. Where capital costs are small relative to labor costs, the effect upon total production cost per unit of product of the less intensive utilization of capital will be small.

[2] To say that they would be "very great" if the complicating issue of wages were not involved is not to say that they would be "unlimited." Hours cannot be reduced indefinitely as a means of absorbing the unemployed unless wage increases are granted, for standards of living would then fall to an unthinkable level, and to one which labor would

Inevitably, however, the question of wages is involved in the great majority of reductions in the length of the work week. Workers, when they seek shorter hours, are not candidates for a reduction in weekly earnings; an integral part of the labor theory that shorter hours increase real incomes of those employed as well as the volume of employment presupposes, indeed, an increase in hourly rates of pay.

Both labor and capital costs are affected when the work period is shortened and compensating increases in hourly rates are given to the wage earners. On the side of capital the effects are, of course, those discussed earlier, when it was assumed that hours were reduced and hourly rates of pay remained unchanged. Since capital, like labor, works shorter hours, a larger amount will be necessary to maintain a

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not tolerate. Probably the majority of students of the problem have set thirty hours during the mid-1930's as the lowest standard that could, as a realistic matter, have been introduced as a means of absorbing more of the unemployed. What would have been the percentage increase in employment if all workers had worked only thirty hours (assuming that wage rates per hour remained the same and that no other costs accrued in consequence of introduction of the thirty-hour week)? For many lines of industry, an arithmetic computation of the percentage and absolute increase in the number of workers that would be required under the maximum thirty-hour week is impossible, owing to our lack of information as to the number of workers employed and the number of hours they work, but such computations can be made in the case of manufacturing workers. The U. S. Bureau of Labor Statistics reports that in January, 1933, some 5,042,000 wage earners were employed by manufacturing industries, and that average hours per week were then 37.4. The total number of man-hours worked per week in January, 1933, was, then, 188,552,000. The National Industrial Conference Board has computed the number of wage earners who would have been required to furnish the same number of man-hours if each worked just thirty hours a week, for January, 1933, and for subsequent months through September, 1934. (*Cf.* "The Proposed Thirty Hour Week in Manufacturing Industry," *Conference Board Service Letter*, Nov. 30, 1934, p. 81.) This study shows that in January, 1933, when 5,042,000 wage earners, working on the average 37.4 hours per week, were furnishing manufacturing industry with a total of 188,552,000 man-hours per week, an increase of 1,243,000, or 24.7 per cent, would have been necessary to provide the same number of man-hours with each working thirty hours a week. By January, 1934, when average hours worked were 33.7 and 6,146,000 wage earners were employed, the providing of the same number of man-hours (207,120,000) would have required 757,000, or 12.3 per cent, more workers. For September, 1934, the percentage increase in employment necessary to furnish the number of man-hours worked that month had the thirty-hour week been in effect in manufacturing was 11.0. During the middle of 1937, the percentage increase in employment, on the same basis of computation, would have been somewhat greater had the thirty-hour week been in effect, owing to the fact that the working week was lengthened between the third quarter of 1934 and 1937, employers manifesting a disposition to increase the number of labor hours worked by lengthening the work day as well as by hiring more workers. Computations of the type made by the Conference Board and quoted in this footnote are, of course, based upon the "all-other-things-remaining-the-same" assumption—and all other things never do remain the same. They are suggestive, however, of both the existence of possibilities of absorbing unemployed by shortening the work week without change in hourly rates of pay and of the limits of these possibilities.

given volume of production.[1] On the side of labor, the increase in cost is, of course, the advance in hourly rates plus any additional labor costs that may accrue (such as lower average efficiency, poorer coordination of the working force as a whole, etc.) and minus any savings in labor costs (such as greater average efficiency consequent upon the reduction in the length of the work period). This increase in labor costs could be absorbed by the economic system in various ways, but the element of validity in the orthodox position that the tendency would be to decrease the number of labor units, or labor hours, employers would purchase must be conceded. If the immediate effect is a reduction in the income of the employing group (as it is likely to be in a monopolistic industry), the aggregate demand for goods may not change at once. The employing group will be able to purchase fewer consumers' and capital goods, each worker (under the assumption that hourly rates are increased just enough to compensate for the reduction in time worked) will have the same money income, and to the extent that more are employed to maintain the same volume of production, total labor income will be greater. Hence there need be no initial decline in the aggregate demand for goods and therefore for the services of the workers making them. Ultimately, however, the fact that more of the employing group's or of the community's purchasing power must be expended to effect the production of the same quantum of goods in the industry in which hours have been reduced (or that fewer goods, which in the exchange process constitute a demand for other goods and therefore for labor, will be produced by the same expenditure of purchasing power) will have an adverse effect upon the volume of employment, unless offset by some of the possible changes that are discussed later.[2] In competitive indus-

[1] If a larger quantity of capital is required and demanded, the normal effect to be anticipated would be an increase in the interest rate. Hence capital costs per unit of product would be increased in two ways: the increased amount of capital necessary to maintain a given volume of production and the increased price enterprisers would have to pay for each unit of capital. However, as was said in the discussion of the marginal-productivity theory of distribution in an earlier chapter (*supra*, p. 185) the supply of capital at any given time tends to be fixed, increases or decreases in its price not affecting the amount forthcoming. Also, there may be considerable idle equipment at the time the shorter work week is introduced, so that no increase in the interest rate to bring forth more capital will be necessary. Also, the already discussed (*supra*, p. 185) indeterminateness of the long-run supply curve for capital must be kept in mind. As was said in an earlier chapter, different economists have postulated almost every conceivable supply curve for capital.

[2] The extent to which a monopolist will, immediately and for a fairly long period, absorb the loss depends upon the cost situation and upon whether consumer demand for the products is elastic or inelastic. If the increase in costs is not great, and if demand is very elastic, so that the total price area would be greatly reduced if price were increased, it is likely that the increased cost will not be passed on to purchasers of the product in the form of a higher price. The monopolist has already presumably fixed the price at the point yielding maximum net income. If he is operating under decreasing rather than increasing

tries the effect of the increase in costs, both labor and capital, will be a rise in prices and a diminution in purchases[1]—once more on the assumption that all other things remain the same. This diminution in purchases would, of course, reduce the number of labor hours employers would buy. When the shorter work week is instituted simultaneously in all industries —to make general application of the same reasoning—the effect will be to cause a shifting of exchange ratios between commodities and their establishment upon a new basis;[2] but the aggregate and ultimate effect, when the analysis is confined to the realm of "pure" theory and all realistic elements of difference and change are sternly excluded, will be that everyone will have more leisure and fewer goods.

Is it not possible, however, to apply with more precision the principle that increases in hourly wages which do not reflect increases in the demand for goods (such as those granted in compensation for the shortening of the work week) tend to diminish the number of labor hours enterprisers will buy? What does the principle dictate with respect to the relationship that must be maintained between wage rates and the reduction in hours if the shorter work week is not to increase rather than diminish employment?

It seems clear that the reduction in hours must be substantially greater than the percentage increase in hourly wage rates, if the *immediate* effect of the institution of the shorter working week is not to be an increase in unemployment. Stated in more technical language, the effect of the shorter working week upon the number of workers employers will hire or retain depends upon the percentage decrease in hours, on the one hand, and the percentage increase in hourly rates times the coefficient of the elasticity of demand for labor.[3] As has been said in an earlier chapter, the demand for labor throughout industry in general is probably at least moderately elastic,[4] and the implication of this fact so far as the

costs, there will be a twofold incentive not to pass the increased cost on in the form of a price rise: the fact that unit costs of production would rise since overhead would be spread over a smaller number of units and (under the assumption of elastic demand) the decrease in gross income.

[1] In highly competitive industries some of the establishments just above insolvency may be pushed across the marginal line, but if production were then concentrated in the economically stronger plants, this would not necessarily cause a permanent increase in the volume of unemployment.

[2] Because given percentage decreases in the output of some commodities increase their command over other commodities more greatly than do the same percentage decreases in output of other goods, owing to differing elasticities of demand.

[3] Thus, if the coefficient of elasticity of demand for labor is -2.1 (*i.e.*, if the number of labor units employers will buy *diminishes* by 2.1 per cent with each *increase* of 1 per cent in wages) and if the compensating increase in hourly wages is 5 per cent, the percentage reduction in hours will have to be more than 10.5 per cent if more workers are to be hired.

[4] It will be remembered (*supra*, pp. 181–182) that Paul H. Douglas in his statistical and quasimathematical study, *The Theory of Wages*, concluded that the "normal"

possibility of maintaining daily or weekly wages when hours are shortened and at the same time increasing employment is obvious. With industrial society constituted as it now is, some sharing of weekly wages, as well as of work, seems necessary when shorter hours are introduced. It must be noted, also, that when some compensating increase in hourly rates is granted (even though the percentage reduction in hours is greater than the percentage increase in hourly rates by more than the coefficient of the elasticity of demand for labor, and more workers are therefore employed), costs are higher, and that the already described sequence of events with respect to prices, output, and the amount of goods and of leisure for the community as a whole tends to work itself out.

The immediately foregoing is a short-run analysis. In the long run, it is probable that labor will receive approximately the same compensation in relation to its hourly output regardless of whether the work week is long or short. As the per capita output of industry increases, shorter hours are possible without a decrease—but on the contrary, if the rise in per capita output is great enough, with an increase—in real weekly or yearly incomes of the workers. The benefits of increased output per man-hour can be taken in the form of higher weekly and yearly real incomes, or in additional leisure without sacrifice of real income, or they can be divided between the two. As a matter of historical record, hours have been shortened and real weekly and yearly incomes have increased. The essential fact to keep in mind, however, is that the increase in productivity has made possible shorter hours without reduced weekly incomes; for the most part, the cause and effect relationship has not been the opposite. When shorter hours are resorted to as a means of relieving existent unemployment or offsetting the effects of certain maladjustments, such as we are now ready to discuss, the relationship of the length of the work week and of hourly rates of pay to the number of labor hours employers will buy and the number of persons working these labor hours, as set forth in the above short-run analysis, is of vital significance.

Shorter Hours, Technical Progress, and the Rate of Industrial Growth.—The discussion of the economic implications of the shorter work week has thus far proceeded, for the most part, by the method of simplified assumption. We have tried to suggest the results of a change in this or that factor, assuming all other factors to remain the same. Yet "it is dangerous to assume that the neat, tidy world of syllogism is in fact a picture of the real world."[1] Almost every economic situation has bound up with it a multitude of variables, and the situation created by a change in the length of the work period is no exception. Each of these

elasticity of demand for labor is between −3.0 and −4.0; Professor Pigou (*The Theory of Unemployment*, p. 97), working independently and using chiefly deductive methods, has reached virtually the same conclusion.

[1] P. H. Douglas, *The Theory of Wages*, p. 96.

variables determines, to an extent, the result. In approaching a discussion of some of the variables that may determine the effect of a shorter work period, it is advantageous to consider first some of the situations in our ever-changing economic relationships for which shorter hours are suggested as a remedy.

Displacement of workers by technological change inevitably suggests itself. For many years, as has already been noted, labor groups have contended that surplus labor was resulting from the rapid substitution of mechanical methods of production for hand methods. During the 1920's and the 1930's, the nineteenth-century work-fund concept appeared in a somewhat different verbal garb, even though not changed in its essential elements, when labor advocated a limitation of the total output of industry to counterbalance the increases in productivity due to advancing technology; and by many technical changes are believed to have been particularly rapid during the depression years of the fourth decade of this century.[1] Frequently the contention that hours must be limited to prevent men from losing their jobs is made in such a way as to suggest that technological progress is futile and that unemployment can be avoided only by offsetting the gains in efficiency by reduction in hours. The argument attained its most extreme statement several years ago in that melancholy travesty on economic science, technocracy.

The problem of technological displacement is discussed in some detail in the following volume,[2] and it is sufficient here merely to mention a few of the phases of the problem most directly relevant to the proposal that hours be shortened to counteract the displacement effect of technical progress. Economists, proceeding upon the optimistic assumption that labor-saving devices, by reducing the cost of producing goods, release enough purchasing power to create new jobs for those they destroy, have generally regarded the problem as being primarily that of assisting men to adjust themselves to changes in the nature and location of jobs. And, indeed, the optimistic assumption finds historical substantiation in the fact that the long-run demand for the services of workers has apparently kept pace with the growth of population. It is important to note, however, that technical changes render old wage rates obsolete, and that—unless

[1] As a matter of fact, we do not know just to what extent technological change took place during the depression. The fact generally cited by those confident that mechanization has created an unusual rate of labor displacement is the increase in output per man-hour, the facts about which are mentioned in an earlier chapter (*supra*, pp. 153–154). Improved methods and more efficient machinery, which may immediately displace workers, undoubtedly were partly responsible for the increase in output per man-hour, but three other factors, not indicative of technological displacement, probably were also influential: the spur to efficiency when workers are in fear of losing their jobs, the selective process in connection with personnel that always goes on during a depression, and the disappearance of a large number of relatively inefficient business establishments.

[2] *Cf.* vol. 2, *Labor's Risks and Social Insurance*, Chap. 1.

independent monetary factors, an inflation psychology, or something else causes the general price level to rise—they are likely to leave existing wage rates too high to make possible maintenance of the existing volume of employment. The reason is not difficult to see. Since labor-saving inventions reduce the cost, and hence the price, of capital goods, it pays enterprisers, when new labor-saving devices become available, to use a larger proportion of capital and a smaller proportion of labor if they have to pay the same price per labor unit.[1] But wages are a sluggish price, they do not fall when technological improvement reduces the price of capital goods, and because labor becomes an expensive factor of production relative to capital, an unemployed surplus of it develops. The displacements that occur are caused by the conjunction of technological changes and sluggish wage rates. However much validity there may be in the orthodox position that as a long-run matter labor-saving devices release enough purchasing power to create new jobs in place of those they have destroyed, the immediate displacements caused by the impact of technical changes upon a more or less rigid price structure are an unquestionable fact.[2]

[1] Two excellent articles discussing the impact of technical changes upon our somewhat inflexible price (and especially wage) structure are those by Sumner H. Slichter, "Lines of Action, Adaptation, and Control," *American Economic Review, Supplement*, vol. 22 (March, 1932), pp. 51–54, and "Implications of the Shorter Hour Movement," *Proceedings of the Academy of Political Science*, vol. 15 (1934), pp. 431–445. The indebtedness of the authors to Professor Slichter for part of the present analysis will be apparent to anyone who reads these two articles.

[2] The sequence of events when technical changes reduce the cost of capital goods and encourage enterprisers to employ more capital and less labor so long as they have to pay the former price for labor may be traced through in a little more detail. Whether a great deal of immediate displacement actually occurs when an important labor-saving machine is introduced seems to depend in large part upon whether the general price level is rising, remaining stationary, or falling. If prices are rising (owing to independent monetary conditions or something else), the tendency for technological changes to make labor too expensive a factor of production to use in the former volume tends to be offset by the tendency of money wages to lag behind other prices. But if the price level is falling, the tendency of technological improvements to render wage rates too high to maintain the volume of employment is only accentuated, since wage rates fall as well as rise less rapidly than do prices in general. Under these conditions, as Professor Slichter has pointed out ("Lines of Action, Adaptation, and Control," *op. cit.*, pp. 43–44), the displacement may become more or less cumulative, because this tendency for falling prices and technological progress to leave money wages too high would stimulate managers to search more vigorously for ways of economizing labor. It is proper to raise here the question of what can be done (aside from the effectiveness, if any, of reduction in hours, which it is our primary task to discuss in this section of the chapter) in preventing technological improvements from producing unemployment by causing wages to become too high relative to the prices of capital goods. One possibility—an obvious one—would be to reduce wages. This suggestion, of course, stands in diametric apposition to the labor thesis that hourly rates must be increased since technological displacement and "overproduction" are proceeding hand in hand. But if the problem is basically that of technological changes causing the

This discussion of technological displacement indicates that the problem is primarily short-run in character, and we must turn shortly to the question of whether our analysis of the short-run effects of a reduction of the work period indicates that shorter hours are likely to help greatly and to the question of what industrial readjustments might possibly aid in achieving simultaneously shorter hours, fuller employment, and a maintenance (or at least not a great impairment) of weekly incomes. It may be noted in passing, however, that the United States is perhaps confronted by a maladjustment greater than that occasioned by technological change, and that the question of whether shorter hours will be an efficacious remedy is equally relevant to this maladjustment. Industry in this country, as almost everyone knows, has been organized and equipped for an extraordinarily rapid rate of growth. The American people were occupying a vacant continent, and population growth was accelerated by a large flow of immigration; in consequence a large part of our social energy was devoted to the production of capital equipment. It is not unlikely that we have now reached a turning point. Our natural resources are fairly well exploited; the great flow of immigration has ceased. If the rate of growth is to be slower in the future, a difficult period of readjustment probably lies ahead of us, for when the rate of growth slows down labor employed in the capital-goods industries is displaced.[1] Eventually, a drop in employment in the capital-goods industries may be expected to be compensated for by a rise in employment in the consumers'-goods industries; but immediately the effect of a drop in the demand for capital goods is a drop in the demand for consumers' goods. This is, of course, a result of the fact that when employees in the capital-goods industries are laid off (or when the hiring

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price of labor to be too high, relative to that of capital, to maintain the existing volume of employment, the suggestion of wage reduction at least merits a hearing. Unfortunately, however, there is no perfect apparatus for accomplishing this result. If enough workers are displaced, their competition with the employed for jobs will probably ultimately bring the wage level down. However, it would be brought down in this case only through development of the situation whose avoidance is sought—unemployment. A second possibility, on theoretical grounds, would be a stimulation of the accumulation of capital. If the proportion in which it was economical to combine labor and capital (when labor is paid the same price as formerly) has changed from ten units of capital for every laborer to twelve, an increase of 20 per cent in the amount of capital would be necessary to prevent unemployment. But our machinery for controlling the rate of capital accumulation, in this unplanned economy, is even more inadequate than our machinery for controlling wages. A third alternative would be a little judicious inflation of the general price level. Since wages tend to lag behind other prices, an increase in the general price level would tend to offset the disparity between wages and the prices of capital goods. A little treatise might be written about each of these possibilities, but it must suffice here merely to call attention to them and to their limitations.

[1] Here, again, acknowledgment must be made to the analysis of Professor Slichter as set forth in "Implications of the Shorter Hour Movement," *op. cit.*, pp. 70–71.

rate slows down so that increased unemployment in the labor market as a whole develops) and when the owners of plants in the capital-goods industries receive smaller returns on their investments, a reduction in the purchases of consumers' goods occurs.[1] It occurs at the very time when the consumers'-goods industries need to employ more workers in order that industry as a whole may absorb those who cannot be employed in the capital-goods industries.

Is the shorter week, by reducing the unemployment consequent upon the inability of the capital-goods industries to employ relatively as many workers as in the past, likely to make easier adjustment to a slower rate of growth, and is it likely to mitigate the immediate maladjustments caused by labor-saving inventions?[2] Unless the shortening of the work period can be accompanied by certain other changes enabling industry as a whole to sustain the cost, it must be admitted that the possibilities appear to be somewhat discouragingly limited. Technological unemployment, as we have seen, is a phenomenon consequent upon the fact that existing wage rates become obsolete, those that formerly brought supply and demand into equilibrium no longer doing so; and the trouble is generally that wage rates are too high to perform this function after the price of capital has declined. To introduce the shorter working week at such a time with an increase in hourly wages is—again unless other readjustments reducing production costs can be made to synchronize with the hours-wages readjustment—likely only to accentuate the difficulty. It is true that—probably unfortunately—the United States and other industrialized countries appear to be moving toward institutional arrangements that will make prices more rather than less rigid, and that if flexibility cannot be obtained in prices it possibly can be obtained to a limited extent in hours of work. A long-run policy of

[1] Incidentally, as Professor Slichter points out (*ibid.*, pp. 71–72), this analysis suggests the real nature of the problem of "industrial overdevelopment." Overdevelopment is not a consequence of industry's having changed or grown too rapidly, but rather of the fact that it has not changed or grown rapidly enough. It is a phenomenon which appears when the rate of change or of growth slows down. When business men experience greater difficulty in finding profitable ways of changing or expanding operations, the demand for goods that depends on growth or change shrinks. This shrinkage in demand causes industry to appear to be overdeveloped.

[2] It may be observed that technological changes, in spite of the immediate maladjustments and unemployment they occasion because labor becomes overpriced, are likely in the long run to reduce displacement of labor rather than to increase it. Technological changes help to sustain the demand for capital goods, and if, as is suggested in the preceding paragraph, we are entering upon a period when capital equipment cannot be expanded as rapidly as in the past, anything sustaining the demand for equipment may be a tremendous help in adjusting ourselves to a slower rate of growth, and to a situation where more persons will be employed in the consumers'-goods industries and fewer in the capital-goods industries.

reducing the work week from time to time, as output per man-hour, and therefore the worth of labor, increases, may prove a useful device for meeting the problem occasioned by the conjunction of technological changes and sluggish prices. But as a short-run matter (and the problem is, as has been pointed out, primarily short-run in character) a maintenance of wage rates when hours are reduced leaves unmitigated the basic difficulty, that technical changes have rendered it advantageous to reduce the proportion of labor employed unless the price per labor unit is lowered, and a compensating increase only accentuates this difficulty. The same considerations apply to the longer-run problem of readjustment to a slower rate of industrial growth. Unless the percentage reduction in hours is substantially greater than the percentage increase in wage rates, the shorter work week unaccompanied by other changes reducing costs and encouraging the buying by enterprisers of more labor hours is not likely to be of great immediate efficacy. And again it may be recalled that if the higher hourly wages granted when hours are reduced (or the maintenance of existing hourly wages which have been rendered too high by technical changes) results in the working of fewer hours, the physical output of industry will be reduced. This cost of absorbing the unemployed has to be recognized.

Hours and the Number of Shifts.—It is now appropriate to abandon the "all-other-things-remaining-the-same" assumption which logical consistency has thus far necessitated, and to raise the question of what readjustments might, by their synchronization with the introduction of shorter work periods, achieve substantial savings and thus make possible simultaneously a shorter week, some compensating increase in hourly wages, and fuller employment. If labor costs are to be increased, it seems patent that the savings will have to be on the capital side.

The possibility that first suggests itself is that of two-shift, three-shift, or four-shift operation.[1] It will be recalled that in all of the preceding discussion, we assumed that the number of working shifts remained the same when hours were reduced, and that capital costs were increased. Under the double- or triple-shift system, however, capital would work longer than before, and capital costs per unit of product would decrease. Should this decrease in the capital cost exactly compensate for the increase in labor cost, there would be no increase in total cost per unit of product, and therefore no necessary increase in price and diminution

[1] The two articles by Professor Slichter already referred to discuss the possibilities of the two-shift, seventy-two hour, schedule in admirable fashion. A recent article by Professor T. N. Carver ["Theory of the Shortened Working Week," *American Economic Review*, vol. 26 (September, 1936), pp. 451–463] elucidates a classical capitalist position on the question of shorter hours and includes a discussion of the probable sequence of events when two-shift operation is employed, both with and without the maintenance of weekly money wages.

in the volume of sales.[1] The possibility is important enough to warrant some examination.

In recent years, three proposals have occurred most frequently in discussion of the shorter hours question: the five-day week of eight hours per day, the thirty-six hour week (six days), and the thirty-hour week. From the noneconomic point of view, the five-day week undoubtedly possesses advantages over the thirty-six hour, six days, week,[2] but from the economic viewpoint it is less desirable in that it is not as susceptible to the two-shift or three-shift system. Were the thirty-six-hour week generally instituted, however, with more than one shift working in the majority of plants, the savings in overhead might in many cases offset the effect of an advance in hourly rates sufficient to compensate the workers in part or in whole for reduction in the length of the work period.[3] In addition, two-shift operation would permit concentration of production in the plants with the most modern equipment, where labor would be most productive.[4] As a means of offsetting any drop in the demand for

[1] Of course, the extent to which the increase in labor costs would be offset by the decrease in capital costs depends upon the relative proportions of labor and capital costs when the change is made. If capital costs have been relatively small, the possibilities of overhead spreading are obviously limited.

[2] Because a week-end of two days can be used more advantageously by most workers than can two additional hours of leisure each day, because, when the six-hour shift means use of two or more shifts a day, interference with family life may result when one member works one shift and one another, etc.

[3] "Suppose, for example, that the overhead and the direct labor cost of a plant operating forty-eight hours are precisely the same. The plant changes to two six-hour shifts a day and raises wages exactly enough to compensate each employee for the reduction in his hours. If output rises in precise proportion to the increase in hours, unit cost will fall by one-sixth." S. H. Slichter, "Lines of Action, Adaptation, and Control," *op. cit.*, pp. 52–53.

[4] Immediately the change to the six-hour, two-shift system would, of course, create certain maladjustments in the labor market. The more efficient plants would be able to capture a larger share of the business and this would compel some of the less efficient plants to shut down. The conclusion of Professor Carver (*op. cit.*, p. 459) that the effect would be adverse upon total purchasing power of the entrepreneurial and investing group does not seem, however, to be based upon a carrying of the analysis to its logical end. Professor Carver correctly points out that a smaller number of plants could keep up the same volume of production. This would necessitate the closing down of some plants, and therefore reduction (or disappearance) of the incomes of their owners. "They, at least, would have to reduce their purchases of products. This might be offset by a somewhat higher total purchasing power on the part of the laborers. . . . Fewer capitalists and employers would be spending their incomes." But the plan would be a cost-saving method of operation, and the very reduction in costs at one point in our economic system eventually makes possible greater demand for goods at other points. To the extent that less capital were necessary for a given volume of production (as Professor Carver, again correctly, points that it would be) the interest rate would tend to decline; but this cost decline would be a factor ultimately increasing demand for goods, and therefore for the entrepreneurial and investment functions as well as for the labor function. The fact that some of the less efficient plants would probably have to shut down, production becoming concentrated in the more efficient, is, indeed, one of the merits of the plan. If the total number of jobs

capital goods consequent upon a slowing down of the rate of industrial growth (a more important unemployment problem, as has already been said, than technological displacements), the two-shift plan can be commended. Since it would lead to the retirement of less efficient machinery and would cause the remainder (operated seventy-two hours a week instead of forty-eight or forty) to wear out more rapidly, the replacement demand for equipment would be increased. Moreover, the more intensive use of machines made possible by two-shift operation would make machine operation more economical in relation to hand methods, and therefore would help to sustain the demand for capital equipment. Both of these consequences would sustain the demand for producers' goods, and would therefore make easier an adjustment to a slower rate of industrial growth.[1]

Other Variables: Hours in the Long Run.—Since reductions in the length of the work period ordinarily occasion increases in labor costs, the readjustments that will bring about lower costs, as discussed in the immediately preceding paragraphs, are of first importance. It is hardly necessary, however, to say that such readjustments do not constitute the only variables that may enter into the situation and help determine the results. Some of these other variables must be mentioned.

As has been said in other connections, the stage of the business cycle is always an important determining influence. It is no more possible to discuss the effect of the shorter work week (with some wage readjustments or other cost implications) realistically without consideration of the price and general business situation than it is so to discuss the question of whether wage rates should be raised or lowered to make possible fuller employment and more general prosperity. When prices are rising and sales expanding, shorter hours can, of course, most easily be introduced. At such times wages generally lag behind the rise in other prices (except interest rates) and the increased labor cost of a shorter work week

were increased because the advance in hourly rates necessary to compensate for reduction in working hours would be more than offset by the savings in overhead made possible by the use of two six-hour shifts each day, total labor income would be increased, and the readjustments just suggested with respect to entrepreneurial and investor incomes would begin to operate. It must be conceded, however, that introduction of the plan might immediately create a transfer problem of some magnitude in the labor market.

[1] One very important presupposition, which cannot be gone into, underlies this suggestion of two-shift operation as one of the synchronizing readjustments which might make possible reduction of hours, maintenance of labor incomes, and fuller employment: that prices will be permitted to adjust themselves to the new level of costs. If restriction of output in order to peg prices occurs on a wide scale, the beneficial effects are likely largely to be negatived. Four books that may be advantageously consulted in connection with the related matters of price reduction in accordance with savings, the process of capital formation, productive capacity, and income distribution, are those recently published by the Brookings Institution: *America's Capacity to Produce*, *America's Capacity to Consume*, *The Formation of Capital*, and *Income and Economic Progress*.

is offset by expanding margins of profits. A second variable or conditioning factor is the keenness of competition. Where competition is cutthroat, employers are not likely to be able to go through the waiting period following the introduction of new methods. One of the hopes of the Recovery Program of 1933–1935 was, indeed, that cutthroat competition could be eliminated in order that the making of readjustments and the introduction of new methods necessary for the permanently shorter work week would be possible. In the third place, the importance of the proportions of capital costs and labor costs may again be mentioned, for these proportions determine in large part the extent to which capital savings can offset increased labor costs. In the fourth place, the technical and physical limits to greater economies must be taken into account. Many plants are already so highly mechanized and so well managed that it is difficult, if not impossible, to institute many more economies to compensate for shorter hours. The effects of shorter hours upon the efficiency and productivity of the workers, already discussed in some detail,[1] are of course still another conditioning factor. These are merely suggestive of the numerous variables that may enter into the situation.

Once more it may be said that the difficulties inherent in introducing the shorter work week without reduction in weekly earnings are chiefly those of short-run adjustment. In the long-run, hours can be reduced when per capita productivity increases without the workers or the community as a whole sustaining loss in real income. The limitations suggested in this section of the chapter, as well as the conditioning factors and possibilities of offsetting readjustments, are, however, profoundly important in an evaluation of the thesis that shorter hours are a causal factor in increasing incomes and in a consideration of programs for shortening the work week in order to take care of the unemployed. The possibilities, even from this short-run point of view, of intelligent planning with respect to hours are, as the foregoing paragraphs should have suggested, not negligible. But over long periods of time reduction of hours without sacrifice of income has been possible because of increased productivity, rather than increased productivity, higher worker incomes, and prevention of permanent displacement being consequences of the shortening of the work week; and in all human probability the cause and effect relationship will continue to be the same in the future.

Legislative Limitations and Constitutional Problems.—The summary, in an earlier section of this chapter, of the progress of the movement toward a shorter working day necessarily involved some allusion to the part played by exercise of the coercive power of the state. It was seen that governments have intervened, directly or indirectly, to a greater extent in European countries than in the United States, and that women

[1] *Supra*, pp. 497–502.

and minors have been the subjects of more legal protection than have adult males. The legal limitations in this country should, however, be surveyed in some detail at this point.

Legal Limitations upon Hours of Men.—Attempts to limit the hours of men have inevitably been restricted, in the United States, by the tendency of the courts to cling to the principle of freedom of contract; it is to this tendency, more than to anything else, that the paucity of legislation applicable to private employment has been due.[1] Nevertheless thirty-eight of the states have now limited hours of adult males in one or more branches of private employment. Government employees and workers in industries or occupations upon which depends the public safety and welfare have been protected by law against an unduly long day for many years. One classification of legislation regulating the hours of labor of men is as follows:[2]

1. Laws declaring the general policy of the state as to the number of hours that shall constitute a day's work in the absence of contractual agreement between the parties to the employment contract. As a rule, no penalty for violation is provided. Such penalties as are provided are seldom enforced, nor are damages collected for overtime work. Laws coming within classification are significant chiefly as a declaration of public sentiment with respect to the length of the working week.

2. Laws fixing a maximum number of hours for men. These laws are generally applicable to women and minors also, when they are not covered by other laws applicable to them, and usually have penalty and enforcement provisions. Such laws may be divided into four main groups:

(*a*) Legislation limiting the hours of workers employed on public works.

(*b*) Legislation designed for the protection of the safety and health of the public, such as laws covering railroad and railway-operating employees, seamen, and drug clerks.

(*c*) Legislation limiting the hours of labor of employees in obviously dangerous or unhealthful employments, such as mines, smelters, tunnels, and certain types of mills.

(*d*) Legislation limiting the hours of labor in employments less obviously dangerous than in mines, smelters, etc., but in which investi-

[1] The type of hours regulation provided by the NRA code system of 1933–1935 is not included in this discussion of legislative limitations and constitutional problems, since the administrative and structural framework of that system and the reasoning of the Supreme Court of the United States when it declared the National Industrial Recovery Act to be unconstitutional have already been summarized (*supra*, pp. 361–363 and 370–371).

[2] This is an adaptation, with some verbal changes, of a classification made by the U. S. Bureau of Labor Statistics. *Cf.* "Handbook of Labor Statistics," (1936 ed.), *Bulletin 616* pp. 1070–1071.

gation proves that there is direct correlation between hours worked and the safety and health of the employees and that the safety and health hazard can be considerably reduced by a limitation of the hours of labor worked.

3. Laws requiring rest periods. These are of two main classes:

(*a*) Those prohibiting the employment of men for more than a fixed number of hours within a given period, such as legislation forbidding the employment of railroad or railway-operating employees more than ten hours per day in twelve consecutive hours, or sixteen consecutive hours in twenty-four, insuring a proper interval for rest, and making certain that hour legislation cannot be violated in principle even though complied with technically.

(*b*) Those requiring the hours of labor to be so arranged that a sufficient period or interval be allowed during the course of the eight hours (or other set period) to enable the employees to have sufficient time for meals and rest, or both. This type of provision appears only infrequently in the laws regulating hours of adult males, but is common in those relating to the hours of women workers.

The second of these three main classes of laws is, of course, the one of greatest importance. We may turn first to the regulation of the working hours of public servants and men employed on public works, and then to the problems of maximum hour limitations in the three above-described types of private employment.

Working hours of public servants have been limited to greater or less extent since the 1840's, an executive decree of the President of the United States in 1840, stipulating a ten-hour day in government navy yards, marking the beginning of federal regulation of the hours of men employed in manual work. In 1869 Congress enacted a law providing that eight hours should constitute a day's work for all persons employed by or on behalf of the government of the United States. Owing to the fact that the law did not prohibit agreements to work overtime, this measure was largely ineffective. In 1892 a second law was passed. Like the former one, it applied to contractors and subcontractors doing government work, but in the law itself, and in subsequent opinions of the Attorney General, work done on a large class of goods and materials purchased by the government was exempted from the application of the measure. Finally, in 1912, Congress enacted a law requiring that an eight-hour provision be inserted in all contracts involving employment of laborers or mechanics when made by, for, or on behalf of the federal government, its territories, or the District of Columbia, with the exception of work growing out of emergencies to life and property and of contracts for transportation by land or water, for the transmission of

intelligence, and for the purchase of most of the supplies that could be bought in the open market. Although Congress empowered the president to suspend the eight-hour law during the war in cases of emergency, with time and a half pay for all work in excess of eight hours, the eight-hour day for persons working directly or indirectly for the federal government was generally effective after 1912. Hours of labor of post-office employees were regulated long before the limitations imposed for the benefit of federal laborers and mechanics became effective. During the depression of the 1930's, when a shortening of the working day became an important part of government relief and recovery policy, the federal government enacted measures reducing still further the standard and actual working week of those employed directly or indirectly by it. Under the Emergency Relief and Construction Act of 1932 the thirty-hour week was required "so far as practicable and feasible," and in Title II of the National Industrial Recovery Act of 1933 (the part establishing the Public Works Administration) the same provision was included. The Emergency Relief Appropriation Act of 1935[1] authorized the President to prescribe rules and regulations to carry out the purposes of the Act which include the prescribing of hours maxima. The hours actually worked on the various federal relief, public works, and other projects varied during 1936, but they could not exceed eight per day or 140 per month. The "Walsh-Healey" Act of 1936 requires that contracts in excess of $10,000 made by any executive department, independent establishment, or other agency or instrumentality of the federal government for the furnishing of materials, equipment, or supplies must include the stipulation of an eight-hour day and a forty-hour week for all persons employed by the contractor in fulfilling the contract. Enforcement is vested in the Secretary of Labor, who has since appointed as the administrative agency a Public Contracts Board.[2]

States and municipalities have also limited the hours of their employees, and by the early 1930's more than half the states had eight-hour laws for employees on public works. During the depression, many of the state and local governments reduced still further the established maxima.

[1] 74th Congress, Public Resolution No. 11, Section 6.

[2] *Public No. 846*, 74th Congress, 2nd Session. The bill was signed by the President on June 30, 1936. In addition to the provision for the eight-hour day and the forty-hour week, the Act requires payment by persons entering into such contracts with the federal government of the prevailing wages in the industry or similar industries in the locality. Employment of males under sixteen, and of females under eighteen, years of age in making the goods is prohibited. The Secretary of Labor is authorized to grant specific exceptions to the hours provisions, where these may be necessary in the public interest, but in such cases wages must be adjusted by the payment of time and a half for overtime The text of the Act may be found in the *Monthly Labor Review*, vol. 43 (August, 1936), pp. 368-372.

In 1936 twenty-nine states had on their statute books laws providing for the eight-hour maximum or under.[1] The great majority of the state laws apply to contract work as well as to that done directly for the governmental unit, and generally the various political subdivisions of the states are included. A large number of cities have either embodied eight-hour provisions in their charters or have enacted ordinances to cover municipal work.

The accepted principle is that these laws are constitutional because when the state is one of the contracting parties the question of infringement upon freedom of contract is irrelevant. The early attempts to enact eight-hour laws for public employees were looked upon by the courts, it is true, as merely in the nature of a direction from a principal to his agent that eight hours be deemed a proper length of time for a day's work, and that contracts should be based upon this principle, and the laws did not necessarily provide that the employer (a government body or one doing contract work for a government body) and employee could not agree with each other as to what time should constitute a day's work independent of the statutes. The elucidation of this type of interpretation in a Supreme Court decision of 1876[2] made it evident that the statutes must be mandatory and provide penalties for violations. Such laws were enacted during the immediately following years and were extended to include contractors and subcontractors engaged in the construction of public works for the state or one of its subdivisions. The test case, decided by the Supreme Court of the United States in 1903,[3] has removed all doubts regarding the constitutionality of laws regulating the hours of labor in public employment. "We can imagine no possible ground to dispute the power of the State to declare that no one undertaking work for it or for one of its municipal agencies should permit or require an employee on such work to labor in excess of eight hours each day, and to inflict punishment upon those who are embraced by such regulations and yet disregard them. It cannot be deemed a part of the liberty of any contractor that he be allowed to do public work in any mode he may choose to adopt, without regard to the wishes of the State. On the contrary, it belongs to the State, as the guardian and trustee for its people, and having control of its affairs, to prescribe the conditions upon which it will permit public work to be done on its behalf, or on behalf of its municipalities. . . . The work being of a public character, absolutely under the control of the State and its municipal agents acting by its authority, it is for the State to prescribe the conditions under which it will permit work of that kind to be done."[4]

[1] From a compilation of these statutes made by the U. S. Bureau of Labor Statistics. *Cf.* "Handbook of Labor Statistics," *Bulletin 616* (1936 ed.), p. 1074.

[2] *United States v. Martin*, 94 U. S. 400.

[3] *Atkin v. Kansas*, 191 U. S. 207, 24 Sup. Ct. 124.

[4] This decision today expresses unquestioned constitutional principle. A few state

Hours of adult males in private employments, in contrast to the hours of those engaged in public work, have not been extensively regulated except in transportation and extremely hazardous occupations. Twenty-seven of the states in 1936 placed some restrictions upon hours of persons engaged in the operation or in the direction of the movements of trains and/or street railways and elevated lines.[1] Sixteen hours has usually been the maximum limit for a day's work on the part of those engaged in the operation of trains, to be followed by eight or ten consecutive hours of rest. For those connected with the movement of trains, the regulations have depended chiefly upon whether the service has been continuous. In the latter case employment has generally been limited to eight hours a day, while in the noncontinuous services hours have usually been limited to twelve or thirteen a day, to be followed by a rest period of eight or ten hours.

Federal regulation of hours of railroad employees on interstate lines extends back to 1907, when Congress enacted a law establishing for those engaged in the operation of trains sixteen hours as the maximum period of service, with certain rest periods, and for those connected with the movement of trains nine hours in places where work was continuous and thirteen hours in places where work was performed only during daytime. This measure was partly superseded by the Adamson Act of 1916, which established the basic eight-hour day for employees on interstate lines.[2] Although the 1916 law established the principle of the basic eight-hour day, overtime was paid pro rata until 1919, when time and one-half rates were introduced. Adoption of the basic eight-hour principle and the policy of the United States Railroad Administration during the War resulted in greater uniformity in time actually worked, and in the first half of the 1920's, according to a report of the Interstate Commerce Commission, total overtime worked by railroad employees was only

courts, immediately after it had been rendered, did not follow literal import of the words of the decision. A New York state court in 1904 denied the right of the state to pass a law limiting the hours of employees on the ground that municipal corporations are local bodies supported by local taxes, and are therefore on the same footing as private corporations (*People ex rel. Cossey v. Grout*, 179 N. Y. 417, 72 N. E. 464.) An amendment to the New York constitution has since nullified the effect of this decision.

[1] Twenty-two of the states (Arizona, Arkansas, California, Connecticut, Florida, Georgia, Indiana, Iowa, Maryland, Michigan, Minnesota, Montana, Nebraska, Nevada, New Mexico, New York, North Carolina, North Dakota, Ohio, Oregon, Texas, and West Virginia) in 1936 limited the hours of some persons connected with steam transportation, this number including those having laws applying only to railroad telegraphers or telephone operators. Five other states (Louisiana, Massachusetts, New Jersey, Pennsylvania, and Rhode Island) restrict hours of employment on street-car lines, or on street-car lines and elevated railroads. In some cases the hours of motor-bus operators are limited by state statute. From a compilation of state restrictions on hours of labor of men in private employment made by the U. S. Bureau of Labor Statistics. *Cf.* "Handbook of Labor Statistics," *Bulletin 616*, pp. 1075–1077.

[2] U. S. Statutes, 1916, Chap. 436.

about one-fourteenth of their straight time. Agitation for legislative limitation of the hours of workers on interstate railroads to six per day was an inevitable consequence of the unemployment of the 1930's.[1] The federal government regulates to an extent the hours of persons engaged in water transportation by the Act of 1913,[2] which limits hours of deck officers to nine out of twenty-four while in port, and to twelve out of twenty-four while at sea, except in emergencies. The LaFollette Seamen's Act of 1915[3] provides that when a vessel is in a safe harbor, nine hours, inclusive of the anchor watch, shall constitute a day's work.

Regulation of the hours of transportation workers has been sustained by the courts on the ground that protection of the safety and health of the general public is a proper exercise of the police power of the states and of Congress's power to regulate interstate commerce. When the federal act of 1907 came before the Supreme Court,[4] it was declared that "the length of hours of service has a direct relation to the efficiency of the human agencies upon which protection to life and property necessarily depends. . . . In its power suitably to provide for the safety of employees and travelers, Congress was not limited to the enactment of laws relating to mechanical appliances, but it was also competent to consider and to endeavor to reduce the dangers incident to the strain of excessive hours of duty on the part of engineers, conductors, train despatchers, telegraphers, and the persons embraced with the class defined by the act." The Supreme Court also upheld the act of 1916, the Chief Justice declaring that "the authority permanently to establish it [the basic eight-hour day] is so clearly sustained as to render the subject not disputable."[5] Four of the nine justices dissented, holding that the measure was not an hours regulation but a wage-fixing statute, but the majority upheld such implicit regulation of wages as was included in the law on the ground that the Constitution gave Congress power over interstate commerce in order to preserve it, and that any act necessary to its preservation is constitutional.

Where the safety or welfare of the general public is not involved, legislation limiting the hours of men in private employments is clearly constitutional as applied to extremely hazardous occupations. Workers

[1] By a Joint Resolution (No. 13) of the Seventy-second Congress, Dec. 15, 1932, the Interstate Commerce Commission was directed to make a detailed study of the effect upon operation, service, and expenses of applying the six-hour day in the employment of railway employees. A summary of the report, which was issued on Dec. 6, 1932, is to be found in *Bulletin 616* of the U. S. Bureau of Labor Statistics, "Handbook of Labor Statistics" (1936 ed.), pp. 1068–1070.

[2] U. S. Statutes, 1912–1913, Chap. 118.

[3] U. S. Statutes, 1915, Chap. 153.

[4] *Baltimore and Ohio Railroad Co. v. Interstate Commerce Commission*, 221 U. S. 612, 31 Sup. Ct. 621 (1911).

[5] *Wilson v. New*, 243 U. S. 332, 37 Sup. Ct. 289 (1917).

in mines, smelters, and related lines of work have been the beneficiaries of a considerable amount of protective legislation, generally upheld by the courts as a proper exercise of the police power of the state on the ground that precarious working conditions make even adults, to an extent, wards of the state and entitle them to special protection. In 1936 seventeen of the states[1] limited (generally to eight hours) work in underground mines or in mines and smelters. Some of these laws were, however, of rather limited scope, and generally they did not provide for adjustment of hours to the degrees of danger involved in the work. Enforcement has been in some cases good, in others very lax.

The constitutionality of laws limiting the hours of men in mines has been upheld practically without exception by the courts since the 1898 decision in the case of *Holden v. Hardy*.[2] This decision, so frequently quoted during the years since 1898 because of its vigorous enunciation of the principle that the reasonableness of interference with freedom of contract depends upon objective facts, declared in part: "This Court has not failed to recognize the fact that the law is, to a certain extent, a progressive science; that in some states methods of procedure which at the time the constitution was adopted were deemed essential to the protection and safety of the people, or to the liberty of the citizens, have been found to be no longer necessary; that restrictions which formerly had been laid upon the conduct of individuals, or of classes of individuals, had proved detrimental to their interests, while, on the other hand, certain other classes of persons (particularly those engaged in dangerous or unhealthful employments) have been found to need additional protection. . . . It is as much for the interest of the state that public health should be preserved as that life should be made secure. . . . While the general experience of mankind may justify us in believing that men may engage in ordinary employments more than eight hours per day without injury to their health, it does not follow that labor for the same length of time is innocuous when carried on beneath the surface of the earth, where the operative is deprived of fresh air and sunlight, and is frequently subjected to foul atmosphere and a very high temperature, or to the influence of noxious gases generated by the process of refining or smelting."

This decision gave impetus to the movement toward more general regulation of hours of men in private employment. Almost any occupation involves danger to physical well-being when engaged in regularly for an excessive number of hours per day, and since the Court had held

[1] Arizona, California, Colorado, Idaho, Kansas, Maryland, Missouri, Montana, Nevada, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Utah, Washington, and Wyoming. An Alaskan law also restricts hours in underground mines, as does a law enacted by Congress applicable to underground workers on leased mineral lands of the United States. "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), pp. 1075–1077.

[2] 169 U. S. 366, 18 Sup. Ct. 383.

that special dangers constitute reasonable grounds for state interference, it was generally believed that the *Holden v. Hardy* decision had paved the way for a greater amount of legislation establishing maximum hours. The attempt to extend the "reasonable-grounds" principle to other fields has not, however, been markedly successful, in spite of the fact, as is indicated later, that more than a dozen states have legislation restricting the hours of adult males in occupations other than the extremely hazardous. Seven years after the *Holden v. Hardy* decision, the Supreme Court by a five-to-four vote declared a New York law limiting to ten the hours men might work in baking establishments to be repugnant to the Fourteenth Amendment.[1] "The limitation of the hours of labor as provided . . . has no such direct relation to and no such substantial effect upon the health of the employee as to justify us in regarding the section as really a health law. . . . It seems to us that the real object and purpose were simply to regulate the hours of labor between the master and his employees (all being men *sui juris*) in a private business, not dangerous in any degree to morals or in any real or substantial degree to the health of the employees. . . . Under such circumstances the freedom of master and employee to contract with each other in relation to their employment, and in defining the same, cannot be prohibited or interfered with, without violating the Federal Constitution . . . We think the limit of the police power has been reached and passed in this case." The significant fact, however, was that the Court was unconvinced of the deleterious effects of long hours in baking establishments and of the benefits to be gained by their limitation.

In spite of the Lochner decision of 1905, the legislatures continued to manifest a disposition to limit the hours of adult males, and in 1917—to the surprise of many in view of the Lochner reasoning—the Supreme Court sustained an Oregon statute limiting the hours of labor of any person, whether man or woman, working in any mill, factory, or manufacturing establishment to ten hours a day, with a proviso as to overtime pay in the case of work in excess of ten hours.[2] Many competent constitutional authorities (among them Chief Justice Taft and Mr. Justice Holmes) have believed that by this decision the Lochner ruling, which was not mentioned, was overruled.[3] This conclusion is the one to which

[1] *Lochner v. New York*, 198 U. S. 45, 25 Sup. Ct. 539, (1905).

[2] *Bunting v. Oregon*, 243 U. S. 246, 37 Sup. Ct. 435 (1917). Three of the justices dissented and one (Mr. Justice Brandeis) took no part in the decision of the case.

[3] In the 1923 minimum wage case (*Adkins v. Children's Hospital*, 261 U. S. 525), discussed in detail in an earlier chapter (*supra*, pp. 328–342), Chief Justice Taft observed in his dissenting opinion: "No one can suggest any constitutional distinction between employment in a bakery and one in any other kind of a manufacturing establishment which should make a limit of hours in one invalid, and the same limit in the other permissible. . . . It is impossible for me to reconcile the Bunting case and the Lochner case and I have always supposed that the Lochner case was thus overruled *sub silentio*." Mr. Justice Holmes in

the language of the decision seems most clearly to point. It is true that the opposition to the Oregon law was based chiefly upon the contention that the measure was a wage law, since it permitted three hours of overtime at increased rates of pay, and that the Supreme Court sustained the measure chiefly upon the ground that it did not regulate wages as the plaintiff alleged. Nevertheless, the declaration of the Court that "apparently the provisions for permitting labor for overtime on express conditions were made in order to facilitate the enforcement and [are] in the nature of a mild penalty for employing one not more than three hours overtime" would indicate that the Court was, by implication, giving its approval to the general principle of limitation of hours to a maximum of ten. Its refusal to consider procedural imperfections in the statute also included an almost direct statement that the legislation was enacted under an admitted power of the state legislature. "It is enough for our decision if the legislation under review was passed in the exercise of an admitted power of government; and that it is not as complete as it might be, not as rigid in its prohibitions as it might be, is no impeachment of its legality. This may be a blemish, giving opportunity for criticism and difference in characterization, but the constitutional validity of legislation cannot be determined by the degree of exactness of its provisions or remedies. New policies are usually tentative in their beginnings, advance in firmness as they advance in acceptance. They do not at a particular moment of time spring full-perfect in extent or means from the legislative brain. Time may be necessary to fashion them to precedent customs and conditions, and as they justify themselves or otherwise they pass from militancy to triumph or from question to repeal. . . . Our judgment of it [the statute] is that it does not transcend constitutional limits." In spite of the fact that this decision was based chiefly upon the ground of variance between the allegations and the facts—*i.e.*, that the statute was not primarily a wage-regulation measure, as had been contended—the implied approval of the hours limitations makes the effect of the decision irreconcilable with the Lochner ruling.

Since this decision, some of the state and lower federal courts have followed the Bunting opinion; others have adhered to the older Lochner ruling. Mississippi, like Oregon, has a ten-hour law for all employees engaged in manufacturing.[1] Pennsylvania in 1937 adopted a forty-four-hour week, together with an eight-hour day, for all workers, men as well as women; and North Carolina that same year, when fixing a forty-

his dissenting opinion in the Adkins case said he had supposed that the Lochner ruling "would be allowed a deserved repose."

[1] Mississippi Code, 1930, Sec. 4646. This law has not been passed upon by the Supreme Court of the United States, although it has three times been upheld by the State Supreme Court.

eight-hour week for women in a broad coverage of occupations, applied to men the former women's standard of ten hours a day and fifty-five hours a week. In addition, fourteen other states in 1936 had laws restricting the hours of adult males in industries and occupations other than transportation, mining, smelting plants, and similar hazardous work.[1] The sustaining of some of these statutes, when and if they came before the Supreme Court of the United States, seems clearly to depend upon the body's adhering to the Bunting precedent and giving the Lochner decision the "deserved repose" to which Mr. Justice Holmes once declared it to be entitled.[2]

In spite of the considerable number of decisions in which the Supreme Court has grappled with the ever-recurring issue of police power, due process, and freedom of contract in recent years, there has been no specific ruling on the constitutionality of restrictions upon the hours of adult males since the Bunting case. Whether the Court in the future will take a more or a less restrictive view cannot, of course, be stated with certainty. It is possible, however, to conclude this discussion of legislative limitations applicable to men with a summary statement of what the attitude of the courts has been. Where they are clearly convinced of the deleterious effects of long hours and of the general public benefit to be obtained by their limitation, statutes will be upheld. The *Holden v. Hardy* decision established that the courts are willing that protection be extended to men working in hazardous occupations; such men, by

[1] These states, and the occupations or industries covered, were: *Arizona*, stamp mills, concentrating mills, chlorinating processes, cyanide processes, cement works, rolling mills, rod mills, coke ovens, blast furnaces, certain employees in electric-light and -power plants, and laundry employees; *Arkansas*, sawmills and planing mills; *California*, drug clerks; *Colorado*, reduction works, stamp mills, concentrating mills, chlorination processes, cyanide processes, coke ovens, and cement- and plaster-manufacturing plants; *Georgia*, cotton- and woolen-manufacture except engineers, firemen, watchmen, mechanics, teamsters, yard employees, clerical forces, cleaners, and repairmen; *Louisiana*, compressed-air processes; *Maine*, air processes; *Maryland*, cotton and woolen mills and employees in tobacco warehouses in Baltimore; *Missouri*, chemical and plate-glass manufacturing; *Montana*, telephone switchboards in cities with population of 3,000 or over, cement plants, quarries, hydroelectric dams, sugar refineries, and retail stores; *New Jersey*, compressed air processes; *New York*, compressed air, apprentices or employees in pharmacies or drug stores, and brickyards; *Pennsylvania*, compressed air; *South Carolina*, cotton and woolen mills. *Oregon*, in addition to the ten-hour law applicable to mills, factories, or manufacturing establishments, has an eight-hour law for employees of sawmills, planing mills, shingle mills, and logging camps. "Handbook of Labor Statistics," U. S. Bureau of Labor Statistics, *Bulletin 616* (1936 ed.), pp. 1075–1077.

[2] Eight-hour legislation for men in private employment had not, by 1938, been passed upon by the Supreme Court of the United States. One of the District Courts in 1918 held the Alaskan eight-hour law to be "plainly and palpably a violation of the Fourteenth Amendment," and the Solicitor General of the United States declined to allow the case to be appealed. *United States v. Northern Commercial Co. and George A. Coleman*, 6 Alaska 94–107.

virtue of the nature of their occupations, become to an extent wards of the state. The Lochner case was decided chiefly, it will be remembered, on the ground that convicing proof had not been submitted of the deleterious effects of long hours upon men working in baking establishments, and the Bunting decision, in spite of the fact that it was reached mainly upon the ground of variance between the allegations and the proven facts (*i.e.*, that the statute did not regulate wages as was alleged), indicated that the Supreme Court at that time was not adverse to ten-hour limitations for men in manufacturing establishments generally. The Lochner precedent was again invoked in 1923, after the more liberal Bunting decision, in *Adkins v. Children's Hospital;* but in 1937 the Adkins case, in turn, was definitely and specifically overruled. The Bunting precedent, without much doubt, today expresses established constitutional law so far as the power of the states to limit the hours of work of adult males is concerned.

Legal Limitations upon Hours of Women.—In contrast to the rather fragmentary condition of legislation limiting the hours of adult males in private employments, all but five of the states today place some legal limit upon the daily or weekly hours, or both, of women in certain occupations or industries.[1] These laws represent a legislative development extending over almost a century. A summary of their provisions, coverage, and present shortcomings may be prefaced by a brief account of the development of the movement and of the gradual acceptance by the courts of the principle that the distinctive nature and functions of women, and their particular relation to the social welfare, put them in a separate class and make restrictions upon the hours they may work a proper exercise of the police power of the state.

Laws limiting in one way or another the number of hours women might work during a day or a week were enacted by the legislatures of a few of the states as early as the 1840's.[2] For the most part, however, these early laws were ineffectual in that they permitted workers to be employed longer than the specified maximum hours under express contracts with their employers, and sometimes they were enforceable only when women were "compelled" to work longer than the specified (usually ten) number of hours. Beginning with the Massachusetts law of 1874, as amended in

[1] Four states—Alabama, Florida, Iowa, and West Virginia—in 1937 had no statutes or orders regulating women's hours in any way. Indiana prohibits night work of women in manufacturing, but there is no limitation upon the hours they may work in any occupation or industry during the day or in any occupation or industry except manufacturing at night. "Summary of State Hours Laws for Women and Minimum Wage Rates," Women's Bureau, U. S. Department of Labor, *Bulletin 137*, p. 37, and *Bulletin 144*, 1937 Supplement.

[2] In 1847 the first hours legislation for women was enacted when New Hampshire passed a ten-hour law. Maine and Pennsylvania passed similar laws in 1848, and New Jersey and Rhode Island in 1851. Other states enacted similar legislation during the next twenty years, but the laws were generally ineffective.

1879, the legislation began to be shaped in a manner making really effective the limitations embodied in it. This law was upheld by the Massachusetts Supreme Court on the ground that the legislature had evidently considered factory work to be "to some extent dangerous to health," although members of the Court were obviously somewhat puzzled as to whether to construe a law limiting the hours of women in all occupations as a "health measure."[1] But in 1895 a decision of the Supreme Court of Illinois brought into question again the constitutionality of legislation limiting the hours of women workers.[2] "Inasmuch as sex is no bar under the constitution and the law to the endowment of women with the fundamental and inalienable rights of liberty and property, which include the right to make her own contracts, the mere fact of sex will not justify the legislature in putting forth the police power of the state for the purpose of limiting her exercise of these rights unless the courts are able to see that there is some fair, just, and reasonable connection between such limitation and the public health, safety, or welfare proposed to be secured by it." This decision had the effect of retarding temporarily the movement toward greater legal limitations upon the hours of women workers, although several state courts did not follow the reasoning of the Illinois Court. The Supreme Court of the United States, in the *Holden v. Hardy* decision of 1898, pointed out the fallacy of the freedom of contract doctrine as applied to conditions of employment, and in the early 1900's several state courts took cognizance of the fact that women are weaker physically than men and therefore more likely to suffer from excessive hours of work. One of the courts declared that "women and children have always to a certain extent been wards of the state" and that while "the employer and the laborer are practically on an equal footing, these observations do not apply to women and children."[3]

The constitutionality of legislation limiting the hours of women workers was definitely assured in 1908, when the Supreme Court of the United States upheld an Oregon law establishing a maximum of ten hours for women in mechanical establishments, factories, and laundries.[4] The *Muller v. Oregon* decision is significant because of the type of argument that was made before the Supreme Court as well as because of the constitutional precedent it established. Advocates of shorter hours for women became aware that the Lochner, Ritchie, and other cases had been decided adversely because the courts had not been convinced of the deleterious effects of long hours and of the public gains that would come through their limitation rather than because they were determined to make freedom of contract a fixed and absolute principle; and in the Oregon

[1] *Commonwealth v. Hamilton Manufacturing Co.*, 120 Mass. 383.
[2] *Ritchie v. People*, 155 Ill. 98, 40 N. E., 454.
[3] *Wenham v. State*, 65 Neb. 295 (1902).
[4] *Muller v. Oregon*, 208 U. S. 412, 28 Sup. Ct. 324.

case an exhaustive brief, showing the actual effects of excessive hours of work upon the health of women and their offspring, was submitted. At last, the "fair, just, and reasonable" relationship between limitation of hours of women and the public welfare that the Ritchie decision had found wanting experienced judicial discovery. "There is a widespread belief that women's physical structure and the functions she performs in consequence thereof justify special legislation restricting or qualifying the conditions under which she should be permitted to toil. . . . As healthy mothers are essential to vigorous offspring, the physical well-being of women becomes an object of public interest in order to preserve the strength and vigor of the race. . . . The limitations which this statute places upon her contractual powers, upon her right to agree with her employer as to the time she shall labor, are not imposed solely for her benefit, but also largely for the benefit of all." The fact that woman has been a subject of exploitation dictated that "some legislation to protect her seems necessary to secure a real equality of right," and she might therefore be "properly placed in a class by herself, and legislation designed for her protection may be sustained, even when like legislation is not necessary for men and could not be sustained." Several state courts immediately followed the precedent of the Supreme Court of the United States, the Illinois highest court reversing the earlier Ritchie decision in 1910 and observing that "what we know as men, we cannot profess to be ignorant of as judges."[1] In 1915 the Supreme Court of the United States upheld a California law fixing an eight-hour maximum for women workers as the exercise by the state of "reasonable protective authority" and hence insured that the reasoning of the *Muller v. Oregon* decision applies also to eight-hour laws.[2] The constitutionality of laws regulating women's hours is apparently definitely established. It is true that the references to the "diminishing intensity" of the "ancient inequality of the sexes" other than physical in the minimum wage decision of 1923[3] led the Chief Justice, in his dissenting opinion in that case, to express perplexity as to whether the majority intended to set aside the authority of *Muller v. Oregon*, but the distinctions made by the majority in the Adkins decision between physical and other differences between the sexes[4] and the following of the ruling in other

[1] *Ritchie v. Wayman*, 244 Ill. 509, 91 N. E. 695.

[2] *Miller v. Wilson*, 236 U. S. 373, 35 Sup. Ct. 342.

[3] *Cf. supra*, pp. 330–331.

[4] *Supra*, pp. 329–330. It will be recalled that in the Adkins decision Mr. Justice Sutherland observed that the *Muller v. Oregon* decision rested upon "the physical differences of the sexes" and then developed the thesis that civil, political, and contractural differences between the sexes had almost reached "the vanishing point." There was, as is observed in the discussion of the Adkins case, the implication that if the *Muller v. Oregon* precedent still stood, it did so only by virtue of the physical inequalities of the sexes. As a matter of fact, the Muller decision was not based solely upon the physical inequalities of the sexes, but

cases[1] seem to insure that the laws of the states now limiting the hours of women workers are not repugnant to the Fourteenth Amendment.

While, as has been said, forty-three of the states place some legal limit upon daily or weekly hours, or both, the coverage of these laws varies greatly. All of them apply to some manufacturing industries or occupations, forty-one of the forty-three states limit the hours of women in mercantile establishments,[2] forty of the states restrict the hours of women in laundries,[3] thirty-nine in restaurant employment,[4] and thirty-two in hotels.[5] In a large majority of the states important women-employing branches of industry are not included within the scope of the laws, either because of the limited range of occupations or industries listed or of specific exceptions stated. Agriculture is almost entirely exempt from the legal limitations,[6] as is domestic service in a large number of jurisdictions.[7] Work in canneries is not subject to the general manufacturing

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upon all of the objective facts of the employment relationship which made legislation necessary to secure to women "a real equality of right." Justice Sutherland and his four concurring colleagues in the Adkins decision probably did want to limit the Muller precedent only to those circumstances where physical differences justify special protection for women, but they did not specifically declare the precedent to have been rendered no longer applicable by the Nineteenth Amendment and the other "great, not to say revolutionary," changes in the political, contractual, and civil status of women.

[1] In addition to the already mentioned California eight-hour case (*Miller v. Wilson*), the *Muller v. Oregon* ruling has been followed with respect to hours of work in *Riley v. Massachusetts*, 232 U. S. 671 (1914) and *Bosley v. McLaughlin*, 236 U. S. 385 (1915) and with respect to night work in *Radice v. New York*, 264 U. S. 292 (1924). It was also referred to with approval by Chief Justice Hughes in his dissenting opinion in the 1936 minimum wage case (*Morehead v. People ex rel. Tipaldo*, 298 U. S. 570), and in the majority opinion in the 1937 minimum wage case (*West Coast Hotel Co. v. Parish*, 300 U. S. 379).

[2] The two states in which the hours laws do not apply to mercantile establishments are Georgia and Vermont.

[3] The three not restricting hours in laundries are Georgia, Ohio, and South Carolina.

[4] The four states limiting the hours of some women workers but not those of restaurant employees are Georgia, Maryland, South Carolina, and Vermont.

[5] The eleven states having hours laws but not including hotel employment are Connecticut, Georgia, Maine, Maryland, Missouri, New Hampshire, New Jersey, Ohio, South Carolina, Vermont, and Virginia.

[6] Nine of the state laws specifically exempt agricultural labor from the hours limitations. In none of the statutes, however, is farm work specifically listed as being covered. It is listed by implication in states with general and sweeping statements of coverage, like the "any labor" of the Arizona law, the "manual or mechanical labor in any employment" of the New Hampshire law, the "any establishment, *i.e.*, any place where work is done for compensation of any sort to whomever payable" of the Pennsylvania law, and the "any employer or person having control" of the South Dakota law; but in all except one of the states having a sweeping statement of coverage (Arizona) farm labor is specifically excepted. The result is that the work of women in agriculture is almost entirely unregulated by the hours limitations laws.

[7] The status of domestic service, so far as the hours-limitations laws are concerned, is much the same as that of agriculture. The same number of state laws (nine) provide for specific exception of domestic service, and it does not come within the list of included occu-

industries limitation in nineteen of the states; telephone and telegraph operations are excepted by the laws of nine of the states;[1] nurses are generally not subject to the provisions of the acts;[2] clerical, executive, or supervisory workers are rather frequently found not to be subject to the provisions of the laws; and various other groups of women are removed from the operation of the statutes.[3] In practically all the states the failure to include a legal closing hour has made possible the practice of "swamping"—the working in more than one establishment for a total time in excess of the daily or weekly maximum. A minority of the states fix the incidence of the working day indirectly through their prohibitions of night work, summarized later. The American legislation has failed satisfactorily to adjust the legal maxima in accordance with different conditions obtaining in different lines of work. Generally the laws have embodied the same flat maximum for all or a large number of the occupations covered, irrespective of variations in the amount of strain and hence in the danger to health.

The daily and weekly maxima established by the laws also vary. At the end of 1937, seventeen states had an eight-hour day for certain occupations; one had an eight-and-one-half-hour day; and others permitted nine, ten, ten and one-half, eleven, and twelve. Only three states in 1937 (Ohio, Oregon, and Pennsylvania) limited weekly hours to less than forty-eight.[4] Six states fixed no weekly limit, although they had a

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pations. In the majority of cases, like agriculture, it is removed from the implication of inclusion in the sweeping statements of coverage by specific exception.

[1] In some of these states these telephone and telegraph exceptions apply only where a limited number of women are employed in each office or at each exchange; in other cases they apply only to rural or small-town exchanges.

[2] Nine of the states except nurses by specific provision of the law, and in other states they are beyond the coverage because of the failure of the statute to include them by specific mention or by one of the general "any labor" statements.

[3] In six of the states employees of public-service corporations, public utilities, and corporations engaged in interstate commerce are excepted; pharmacists are excepted in four states; women workers in Arkansas cotton factories and in certain occupations in the textile industry of South Carolina and Georgia are specifically excepted; and various other groups escape operation of the law in one way or another. For the coverage and exceptions of all the state laws, *cf. Bulletin 137* of the Women's Bureau, U. S. Department of Labor, "State Hour Laws and Minimum Wage Rates," pp. 42–54; *Bulletin 144*, "State Labor Laws for Women," 18–32; and the 1937 supplement to the last-named *Bulletin*, "Summary of 1937 Labor Laws for Women," pp. 1–2.

[4] Pennsylvania in 1937 adopted a 44-hour week, together with an eight-hour day, for all workers, men as well as women. In addition, Ohio that year set an eight-hour day, 45-hour week, for women in manufacturing establishments, and Illinois also in 1937 established an eight-hour day in a broad coverage of occupations. Nevada, New Hampshire, and North Carolina also fixed a 48-hour week for women in a fairly large range of occupations in 1937. The last-named state, while lowering the maximum hours of women from 55 to 48 per week, applied, with some exceptions, the former women's standard of ten hours a day and 55 hours a week to men.

daily limit. The following is a tabular summary of maximum hours that have been fixed for various occupations and industries.[1]

	Number of States
States Having Eight-hour Day	
44-hour week—Oregon, Pennsylvania	2
45-hour week—Ohio	1
48-hour week—Arizona, California, Kansas, New Mexico, Nevada, Illinois, Ohio, New York, Utah, Wyoming	10
54-hour week—New Mexico	1
No weekly limit—Colorado, Montana, Washington[a]	3
State having eight-and-one-half-hour day:	
48-hour week—North Dakota	1
States having nine-hour day:	
48-hour week—Connecticut, Massachusetts, North Carolina, Oregon, Rhode Island	5
49½-hour week—Kansas	1
50-hour week—Ohio, Wisconsin	2
52-hour week—Connecticut	1
54-hour week—Arkansas, Kansas, Louisana, Maine, Michigan, Missouri, Nebraska, New York, North Dakota, Oklahoma, Texas	11
56-hour week—New Mexico	1
58-hour week—North Dakota	1
No weekly limit—Idaho[a]	1
States having ten-hour day:	
48-hour week—New Hampshire, North Carolina	2
54-hour week—New Jersey, South Dakota	2
55-hour week—Delaware, North Carolina, South Carolina, Wisconsin	4
60-hour week—Georgia, Kentucky, Maryland, Mississippi	4
No weekly limit—Oregon, Virginia[b]	2
State having ten-and-one-fourth-hour day:	
54-hour week—New Hampshire	1
States having ten-and-one-half-hour day:	
56-hour week—Vermont	1
57-hour week—Tennessee	1
State having eleven-hour day:	
54-hour week—Texas	1
State having twelve-hour day:	
60-hour week—South Carolina	1
States having no daily hours, but a weekly limit only, for certain industries or occupations:	
48-hour week—Oregon, Nevada, New Hampshire	3
54-hour week—Maine, Minnesota, New York	3
56-hour week—Oregon	1
58-hour week—Connecticut	1
60-hour week—Louisiana, Washington	2

[a] Washington and Idaho indirectly establish a weekly limit through their Sunday laws.

[b] Virginia has a Sunday law which, together with the ten-hour daily limit, has the effect of imposing a weekly maximum.

[1] This summary of laws in force at the end of 1937 has been compiled from the following sources: Women's Bureau, U. S. Dept. of Labor, *Bulletin 137*, *Bulletin 144*, and 1937 supplement to *Bulletin 144; Labor Information Bulletin*, vol. 4 (August, 1937), p. 5; and *Proceedings of the Fifty-Seventh Annual Convention of the American Federation of Labor*, 1937, p. 176. The fact that the total number of hours limitations exceeds the states having such limitations is, of course, a consequence of the fact that some have different hours limitations for different occupations and industries.

It will be noted that in the case of some of the states the weekly maximum exceeds the daily maximum times six; and in these cases the laws constitute an invitation to labor seven days of the week. The setting of a daily but not a weekly maximum also encourages the seven-day week. The general "Sunday laws," mentioned later, afford a certain amount of protection against work every day of the week, but the motive underlying these laws has been that of enforcing observance of the Sabbath rather than protection of the workers, and in the majority of cases they have been ineffectively enforced and have achieved as a by-product of their primary objective the prevention of excessively long hours only when public opinion has been strongly behind this primary objective.

In more than half of the states overtime was permitted in various occupations or industries in 1937.[1] These overtime provisions varied greatly, but in the majority of cases some attempt was made to prevent their becoming a means whereby the spirit of the laws could be evaded. Five of the states required the payment of one and one-half times the regular rate for overtime in some occupations or industries or for limited emergency periods; in some cases the employer was required to prove to the Industrial Welfare Commission or other state body that observance of the law would work irreparable injury, and to obtain from it permission to work his employees overtime for a limited period; in others a limited amount of overtime each day was permitted, provided the weekly maximum was not exceeded; in still others overtime could be worked, as in Colorado, provided "the minimum wage is increased," or, as in California, provided one and one-fourth the regular rate was paid; a few of the states required no increase in pay for overtime work but attempted to limit the amount of overtime by a requirement that it could not be extended beyond a certain number of days during the year or by regarding the differential between the daily maximum times six and the weekly maximum as the amount of permitted overtime.

None of the statutes applicable to women in this country has contained an inclusive prohibition of night work, the occupations covered by the night-work regulations being, in some cases, those employing less than half of the gainfully employed women within the state. In states having bodies similar to the Oregon Industrial Welfare Commission, established for administration of the minimum wage law, night work is sometimes prohibited by administrative order. An attempt to discourage night work by women is made in some states, also, by shortening the period which may be worked at night to less than the general maximum established by law. By the middle 1930's night work for women was regulated in specified trades and industries in nineteen states. In some the laws applied only to a few relatively unimportant occupations, and

[1] For a list of the states and the specific overtime provisions, *cf.* Women's Bureau, *Bulletin 137*, *Bulletin 111*, and 1937 supplement to *Bulletin 111*.

in others to all women engaged in manufacture.[1] The constitutionality of prohibitions of night work for women seems to be assured as a result of a Supreme Court decision in 1924, in which a New York statute forbidding night work in restaurants was upheld.[2]

Legal Limitations upon the Hours of Young Persons.—There has never been doubt concerning the constitutionality of legislation by the states limiting the hours minors may work, because minors are to an extent wards of the state, incapable of making their own contracts, and hence, the courts have invariably ruled, entitled to special guardianship and protection. Since minors are legally incapable of entering into free contracts, laws limiting the number of hours they may be gainfully employed cannot abridge any right of freedom of contract. In general, the reasoning of the courts has been that of a New York court in 1894: "So far as such regulations control and limit the powers of minors to contract for labor, there never has been and never can be any question as to their constitutionality."[3] The prohibition of child labor by the states has been discussed in detail in the preceding chapter, and restrictions upon the hours of those not prohibited from working were referred to in connection with these prohibitions. It is sufficient here to say that practically three-fourths of the states now have an eight-hour standard for children under sixteen years of age, and a majority of these set a maximum of forty-eight hours, thus prohibiting overtime work. In about twenty of the states the eight-hour standard applies to all occupations except agriculture without exemption. By the 1930's all except three states[4] prohibited work in factories between 7 P.M. and 6 A.M. Approximately three-fourths of the states extend the prohibition to cover stores, and in about twenty states it is applicable to all occupations.

Other Legal Limitations.—The problem of hours of work includes in its component parts, as has been said, the matters of the number of days constituting the working week and of night work, as well as of the basic standard and of overtime work. Night-work restrictions and limitations upon the number of days in the working week have been discussed in the cases of women and young persons; and it remains only to summarize such legal restrictions in these matters as apply to adult males.

Only a few states have enforceable laws making mandatory the "one day of rest in seven" for adult males. The great majority of them have, as has already been said, enacted the so-called "blue laws" prohibiting various kinds of work on Sundays. In twenty-five of the states, also,

[1] "State Laws Affecting Working Women," Women's Bureau, U. S. Department of Labor, *Bulletin 63*, pp. 37–41.

[2] *Radice v. New York*, 264 U. S. 292, 44 Sup. Ct. 325.

[3] *People v. Ewer*, 141 N. Y. 129, 36 N. E. 4.

[4] Nevada, Utah, and North Dakota. *Cf.* Children's Bureau, U. S. Department of Labor, *State Child Labor Standards*, for details of the night-work prohibitions.

observance of another day in the week as a day of rest secures exemption from this provision. These Sunday laws for the most part are ineffective in protecting the workers against seven days of labor. All of the states provide for exemption in cases of emergency or of "works of necessity or charity," many specifically exempt certain trades and industries, and the majority provide no means of enforcement. The result is that the great majority of workers and employers are either exempted from operation of the laws or have been able to violate them with impunity. The constitutionality of both the general Sunday laws and of those applicable to special trades or occupations has been upheld by the Supreme Court of the United States.[1] Whether general "one-day-of-rest-in-seven" laws would also be sustained cannot, of course, be stated with certainty. There has been no challenge of the laws making permissive the observance of an alternative rest day.

In contrast to the paucity of effective legislation in the United States providing for a weekly rest day, the majority of European nations now have rest-day laws and effective provisions for their enforcement. The tendency has been away from the older, unenforceable type of law, which provided that all work must cease on Sunday, to the provision that all workers must receive one day of rest in seven. Eighteen nations had by the early 1930's raised their standards of legislation to conform to the weekly rest day Convention of the League of Nations and had unconditionally ratified the Convention.[2] The purpose of the Convention is the securing of greater uniformity in the provisions for, and administration of, the weekly rest day in industry. In several of the European countries the attempt is now being made to extend the provisions of the laws to cover commercial and agricultural workers.

While regulation of night work has, as we have seen, been generally applied in the case of young persons and to a certain extent in the case

[1] In *Hennington v. Georgia*, 163 U. S. 299 (1896), the Supreme Court quoted with approval the opinion of a state court that "there can be no well-founded doubt of its [a state Sunday law] being a police regulation . . . for the frequent and total suspension of the toils, cares, and strain of mind and muscle incident to pursuing an occupation or common employment is beneficial to every individual and incidentally to the community at large. . . . Leisure is no less essential than labor to the well-being of man." The Supreme Court has also upheld a Minnesota statute which was attacked on the ground that it was discriminatory because barbering was declared not to be a work of necessity or charity and therefore not exempt from the law [*Petit v. Minnesota*, 177 U. S. 164 (1900)]. Laws prohibiting Sunday labor in specified trades have been declared to be invalid by state courts on the ground that they were discriminatory [*State v. Pocock*, 201 N. W. 610 (1925); *City of Marengo v. Rowland*, 263 Ill. 105 (1914)]. The New York Court of Appeals has upheld a one-day-of-rest-in-seven statute, declaring: "Can we say that the provision for a full day of rest in seven is so extravagant and unreasonable, so disconnected with the probable promotion of health and welfare, that its enactment is beyond the jurisdiction of the legislature?" [*People v. Klinck*, 214 N. Y. 121, 108 N. E. 278 (1915)].

[2] *Industrial and Labor Information*, Oct. 5, 1931.

of women, there is as yet no effective regulation of the night work of adult males in the United States, except that which comes as a by-product of the regulations regarding rest periods in occupations upon which depends the public safety. In other countries, however, the prohibition of night work in certain occupations has been extended to men as well as to women and minors, although generally only to a limited range of work. Approximately twenty countries, including France, Germany, Sweden, Russia, Switzerland, Norway, Finland, Italy, Belgium, Chili, Uruguay, and New South Wales, have passed laws curbing rather greatly night work in bakeries. The Mexican Constitution limits all night work to seven hours, as compared with eight hours of day work. Soviet Russia has substantially the same regulation. The hour laws of Czechoslovakia and Poland forbid in principle work between 9 or 10 P.M. and 5 A.M. The law of the Netherlands contains a similar restriction so far as factories and workshops are concerned. Still other regulations and prohibitions have been imposed by the various governments. In the aggregate, legislation regulating the work period constitutes an important segment of state intervention in the employment relations of modern economic life.

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