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SOCIAL CHANGES IN 1929

Edited by

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CONTENTS

INTRODUCTION 869

POPULATION. *P. K. Whelpton* 870

NATURAL RESOURCES. *George Otis Smith* 881

INVENTIONS AND DISCOVERIES. *Clark Tibbitts* 888

PRODUCTION. *Dorothy Wescott* 900

FOREIGN POLICY. *Quincy Wright* . 910

LABOR. *David J. Saposs* 923

EARNINGS. *Paul H. Douglas and Charles J. Coe* 935

EMPLOYMENT AND UNEMPLOYMENT. *William A. Berridge* 947

SOCIAL AND LABOR LEGISLATION. *Samuel McCune Lindsay* 967

PUBLIC HEALTH AND MEDICINE. *Harry H. Moore* 982

COMMUNICATION. *Ernest W. Burgess* 991

COMMUNITY ORGANIZATION. *Leroy E. Bowman* 1002

RURAL LIFE. *Charles Josiah Galpin* . . . 1010

THE FAMILY. *Ernest R. Groves* 1017

CRIME. *Arthur Evans Wood* . 1027

ORGANIZED RELIGION. *C. Luther Fry* . 1042

RACE RELATIONS. *Melville J. Herskovits* 1052

EDUCATION. *Arthur J. Klein* . 1063

GOVERNMENT. *J. P. Chamberlain* . 1072

STATUS OF THE CHILD. *Phyllis Blanchard* 1085

THE STATUS OF WOMEN. *Chase Going Woodhouse* . 1091

SOCIAL CHANGES IN 1929

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INTRODUCTION

THIS volume on the social changes in 1929 was preceded by two earlier volumes on the changes in 1928 and in 1927. The purpose of these volumes is to assess the various significant social changes yearly. They are not intended to be the conventional yearbook, containing a mere list or record of events. The idea is to publish each year a series of research papers on these various fields of our social life undergoing change. The authors in general analyze, interpret, appraise, and study the causes and interrelations of these changes. Attempts indeed are sometimes made to look into the future. As these articles become more in the nature of research papers, they may fail somewhat in being comprehensive. They may deal only with some especially significant aspect of change in the general field represented by the title. But the reader of a series of these volumes may expect to get a very good picture of changes over a fairly wide range. It thus comes about that some of the articles are not held strictly to the preceding year. They may embody changes in the preceding decade. In some few cases the preceding annual data are not all in by the time of going to press. This is notably true of vital statistics; material on population, for instance, cannot be presented for the immediately preceding year. So also the list of topics covered changes from year to year, in the interest of realism and of research. The great body of the articles are, of course, factual and the conclusions and analyses are those that flow from the data, though the selection of points and the emphasis may be in accord with values and purposes on which there is fairly general agreement.

It is hardly necessary to develop the point here that it is hoped that these studies of social change will be of practical importance.

POPULATION

TRENDS IN DIFFERENTIALS OF TRUE INCREASE AND AGE COMPOSITION

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ABSTRACT

Recent social changes include important downward shifts in true natural increase, especially for whites in the New England, Middle Atlantic, West North Central, and southern states, which leave the South as the only area producing much of a surplus in people, either white or black. The passing of the foreign-born and the rural-urban migration partially account for these trends. The declines in true increase will speed up the shift in age composition, children and young adults giving way to middle-aged and elderly persons to such an extent that serious problems of adjustment will be created before 1950 in such fields as employment, old age pensions, city-planning programs, consumer demand, and even in the level of living standards.

Among the social changes now going on are found important shifts in the differentials of natural increase between various population groups. The question of differentials has been much discussed in the past, but it is only fairly recently, with additions to the birth registration area and the development of the Dublin and Lotka method of computing rates, that differentials can be measured accurately. Trends of differentials not only indicate the changes that have been taking place in the contribution to population growth from various groups of people, but in addition they throw much light on the extent and duration of probable future increases in population, and forecast rather striking shifts in age composition, with related social problems. These recent changes in population differentials and the effect they will have on the future age composition, together with certain consequences of the two movements, will be the field for discussion here.

Trends of crude birth- and death-rates of most population groups have been distinctly downward since 1920. The fact that the birth-rate has fallen more rapidly than the death-rate in most instances indicates a downward trend in true rate of increase for most groups. That differentials in true increase have been changed in absolute amount, perhaps sufficiently to change the relative standing of certain groups, is indicated by the lack of uniformity in the movement

of crude rates. For example, in certain large cities the crude birth-rate of whites declined 17 per cent from 1920 to 1928,[1] while that of Negroes went up over 3 per cent; the saving in infant mortality of whites in these cities was 26 per cent, while in certain southern states it was less than 2 per cent; and the crude death-rate of whites in these cities decreased 8 per cent, while in the Pacific states it increased 5 per cent.

For any who are not familiar with true rates for births, deaths, and natural increase, calculated according to the Dublin and Lotka method, it should be stated that they are based on the stable age and sex composition that would result in any population group if the actual specific birth- and death-rates of this group at some given time were to remain in operation indefinitely and no migration were to occur.[2] Because of this fact, true rates are much superior to either crude or standardized rates for measuring the power of natural increase inherent in a population group.

Groups to be used in ascertaining and interpreting trends in differentials since 1920 must be chosen from the 1920 birth registration area in the main, since only here are the basic facts of specific birth- and death-rates available. For whites, it is believed that Massachusetts, Connecticut, and New York are representative of the northeastern industrial states, except Pennsylvania, which is shown separately. Ohio, Indiana, Michigan, and Wisconsin include most of the East North Central division; Minnesota, Nebraska, and Kansas should be fairly typical of the West North Central division; Virginia, North Carolina, South Carolina, and Kentucky should represent the South fairly well; the Pacific states are all included; and the nine large cities should be a fair sample of their size class. For Negroes, the southern states, northern states, and large cities used in this discussion should be quite typical of the main Negro groups.

In 1928, the true rate of natural increase of each of the seven white groups and of southern Negroes was lower than in 1920, the

[1] Acknowledgment is due Dr. T. F. Murphy, chief statistician for vital statistics, Bureau of the Census, who has kindly furnished birth and death data of 1928 for certain parts of the registration area in advance of publication.

[2] Louis I. Dublin and Alfred J. Lotka, "On the True Rate of Natural Increase," *Journal of the American Statistical Association*, Vol. XX (September, 1925).

declines varying from 3.5 per thousand for whites in the Pacific states to 7.0 for whites in Minnesota, Nebraska, and Kansas. Although the crude death-rate declined in each case, except whites in the Pacific states, the crude birth-rate declined still more rapidly. For the two remaining groups—Negroes in certain northern states and cities—the true rate of natural increase in 1928 was 3.7 and 2.8 per thousand above the respective 1920 rates. In both these cases there was a slight rise in the crude birth-rate, coupled with a

TABLE I

TREND OF BIRTH- AND DEATH-RATES, AND TRUE NATURAL INCREASE, 1920 TO 1928

	CRUDE BIRTH-RATE*			INFANT MORTALITY†			CRUDE DEATH-RATE*			TRUE RATE OF NATURAL INCREASE*		
	1920	1928	Change	1920	1928	Change	1920	1928	Change	1920	1928	Change
Whites.												
Mass., Conn., N.Y	23.0	18.6	−4.4	86.7	61.4	−23.5	13.7	12.5	−1.2	1.9	−4.3	−6.2
Pennsylvania	25.2	20.1	−5.1	95.0	69.9	−25.1	13.5	11.8	−1.7	11.8	4.9	−6.9
Ohio, Ind., Mich., Wis.	22.6	19.0	−3.6	82.2	64.0	−18.2	12.7	11.5	−1.2	8.6	3.3	−5.3
Minn., Neb., Kan	23.2	18.7	−4.5	66.4	53.5	−12.9	10.6	9.9	−.7	10.1	3.1	−7.0
Va., N.C., S.C., Ky.	28.7	23.9	−4.8	72.9	72.0	−.9	11.1	10.8	−.3	19.7	12.8	−6.9
Calif., Ore., Wash	18.6	16.9	−1.7	69.8	56.8	−13.0	12.4	13.0	.6	3.2	−.3	−3.5
Large cities‡	23.8	19.6	−4.2	87.3	64.1	−23.2	13.3	12.3	−1.0	6	−5.1	−5.7
Negroes:												
Southern states§	28.3	25.2	−3.1	128.2	111.9	−16.3	17.3	17.0	−.3	13.0	8.9	−4.1
Northern states‖	21.6	23.0	1.4	162.0	117.0	−45.0	21.0	20.1	−.9	−4.8	−1.1	3.7
Large cities¶	23.3	24.1	.8	156.2	114.6	−41.6	21.2	20.3	−.9	−12.7	−9.9	2.8

* Per thousand population.

† Per thousand births.

‡ Baltimore, Boston, Cleveland, Detroit, New York, Philadelphia, Pittsburgh, San Francisco, Washington.

§ Maryland, Virginia, North Carolina, South Carolina, Kentucky.

‖ Massachusetts, Connecticut, New York, Pennsylvania, Ohio, Indiana, Michigan, Kansas.

¶ Baltimore, Boston, Chicago, Cleveland, Detroit, New York, Philadelphia, Pittsburgh, Washington.

slight fall in the crude death-rate, due largely to a marked saving of infant lives. Rates for all groups are given in Table I, together with the movement from 1920 to 1928.

Judging from these trends, the parts of the white population that are contributing to natural increase are becoming smaller and smaller. In 1920, all the white groups in Table I showed a potential growth according to the true rates, although that of the nine large cities was negligible in size. By 1928, however, these cities and the northeastern industrial states, except Pennsylvania, were well out of the surplus class, with the Pacific states just below the line. Since

their true rates are minus quantities, they could not maintain their numbers from within if 1928 specific birth- and death-rates continued in operation, but would be forced to draw on other groups even to maintain a stationary population, to say nothing of a growth in numbers. Pennsylvania and the North Central states have a small excess over maintenance, but not enough to contribute much to the growth of neighboring deficit states, except by cutting heavily into their own increase. The only divisions now capable of contributing a large surplus to the white population are those of the South; to an increasing extent, the South will be the source of additions to the native white population in years to come.

Among the Negro groups there were no changes from a true natural increase to a decrease or vice versa, but rather an approach to a stationary population, the true increase diminishing in the southern states, and the true decrease being reduced in the northern states and cities. Although the Negroes did not lose ground in every group as did the whites, the net effect was a loss, for the southern sample shown here, with a downward movement, is typical of over three-fourths of the nation's Negroes who still live below the Mason and Dixon line, even after the great migration of recent years. On the whole, however, the true rate of Negroes declined considerably less than that for whites, the drop of 4.1 in the rate for southern Negroes being less than that of any white group except the Pacific states.

One rather striking point about the declines in true natural increase for the white groups is that no stopping place is indicated on the surface. It might have been thought in 1920 that the white population of the large cities, which was practically stationary from the standpoint of true rates, might remain close to that level, the birth-rate already being so low that future declines would be small. As a matter of fact, however, the decline in true natural increase for the cities was nearly as much as that for the southern states, which had the highest true rates for births and natural increase of any group in 1920. Furthermore, next to the smallest decline in natural increase occurred among southern Negroes who had the second largest true rates for births and natural increase in 1920. On the other hand, however, the two northern Negro groups, with negative rates in

1920, did rebound from their low position, but they were then so abnormal in age and sex composition, and have since received so much migration, that this change loses much of its significance.

While there were minor changes in the absolute differences between any two groups from 1920 to 1928, only two groups changed their relative position. Northern Negroes, which ranked ninth among these groups in 1920, advanced to seventh place in 1928, surpassing whites in Massachusetts, Connecticut, and New York, and the large cities. The East North Central states surpassed their neighbors to the west, but the margin in 1928 was too small to be significant.

TABLE II

TREND OF WHITE BIRTHS BY NATIVITY OF MOTHER, 1920 TO 1928

	Births to Native Mothers		Births to Foreign Mothers		Total Excess of Births in 1928 over 1920
	Number in 1920	Excess in 1928 over 1920	Number in 1920	Excess in 1928 over 1920	
Mass., Conn., N.Y. .	187,760	15,968	166,416	−50,639	−34,671
Pennsylvania. .	149,325	3,784	64,627	−26,919	−23,135
Ohio, Ind., Mich., Wis	271,183	9,520	61,552	−18,098	− 8,578
Minn., Neb., Kan.	108,783	− 7,480	15,821	− 7,629	−15,109
Va., N.C., S.C., Ky. .	183,201	−10,960	1,642	− 867	−11,827
Calif., Ore., Wash. . .	77,964	10,982	22,944	2,752	13,734

If the white groups outside the South could be subdivided into native-born and foreign-born and true rates calculated for each part, the importance of one factor in causing the trends in true increase shown in Table I would be made clear. This classification is simple in 1920, but cannot be made at all accurately in 1928. A comparison of the number of births by nativity of mother may be suggestive, however, using the figures given in Table II. In Massachusetts, Connecticut, and New York, the total number of white births in 1928 was 34,671 below the number in 1920, in spite of the larger population. Births to foreign-born women declined 50,639, however, being offset only in part by an increase of 15,968 in births to native women. These facts indicate that the true rate of natural increase for native whites in this area declined less than the rate for all whites. They also show that the passing of foreign-born women

from the childbearing ages is lowering the rate of increase for all whites, since the native women who are taking their place have fewer children, even though many of these women are daughters of foreign mothers. In 1920, the true rate of increase for native whites in these states was *minus* 6.0 per thousand, while for foreign whites it was *plus* 13.6; hence a change in the relative weights of these elements of the white population would have considerable effect on the rate for the entire group. A similar situation is found in Pennsylvania and the East North Central states. In Minnesota, Nebraska, and Kansas, there was a decline in the number of births to native mothers, as well as to foreign mothers. This fact, coupled with a much smaller differential between the true increase of native and foreign whites in 1920, lessens the importance of the passing of the foreign-born in explaining the downward trend in natural increase for these states from 1920 to 1928—though it still should not be overlooked. In the Pacific states, the increase in births to foreign mothers all occurred in California and undoubtedly was due to the uncurtailed immigration of Mexicans.

A second subdivision of groups that would help to explain the lower true rates for whites in 1928 is that of urban and rural. In 1920, the true rate of natural increase for rural native whites in the United States was *plus* 17.3 per thousand as against *minus* 5.6 for urban native whites. A differential in favor of the rural element also existed in nearly every state, though to a somewhat smaller degree. Since 1920, there has been a large net movement of whites from country to city—so that most states, if not all, are more urban now than then. True rates for urban and rural parts of the population in 1928 cannot be calculated at all accurately,[3] but there is every reason to believe that the excess of rural over urban rates is nearly as large as in 1920, and that total rates have declined more than either rural or urban, due to the increased "urbanness" of the population.

If the effect of the decline in the foreign-born and of rural-urban migration could be eliminated, it might be possible to find some evidence of a stopping place in the downward trend of the true rate of

[3] In addition to a dearth of specific rates by urban and rural divisions in 1928, there is the matter of urban registration of births to rural mothers discussed by Jean Downes, "The Accuracy of the Recorded Birth Statistics in Urban and Rural Areas," *Journal of the American Statistical Association,* Vol. XXIV (March, 1929).

increase for whites. Only in the southern and the West North Central states—the two areas which had the largest true rates for birth and natural increase of native whites in 1920—was the number of births to native mothers less in 1928 than in 1920. Of course, it is from these areas that young adults have migrated in large numbers to the industrial states in the last decade, which has tended to lower the absolute number of births in the native state. But after allowing for this situation, it still appears that the true rates for births and increase of native whites have fallen quite a little more in these areas than in those having lower true rates in 1920.

THE CHANGING AGE COMPOSITION

The downward trend in true natural increase since 1920 serves to emphasize the rapidity with which the age composition of the population is going to change. Even at 1920 rates, the stable age distribution for each group was quite different from the current distribution. For example, 50 per cent of the whites in large cities were between twenty and forty-nine years of age in the current 1920 population, compared with 42 per cent in the stable population, while at fifty years and over the percentages were 15 and 26, respectively. In this case there are nearly one-fifth more adults in the most productive ages, and over two-fifths less older persons past the prime of life in the 1920 population than in the stable population. Similar relative decreases of young adults and increases of persons past fifty years are found on contrasting the current and stable population for other areas. In case 1920 specific rates had remained in effect, this stable age distribution would have been reached approximately by 1975. When the true rate of natural increase drops, due to a more rapid fall in the birth-rate than in the death-rate, as has occurred since 1920, the stable population based on the newer rates is certain to have an increased proportion of older persons and a decreased proportion of younger ones than the stable population based on the earlier rates. This is the situation now as compared with 1920. As a result, an age composition similar to that of the stable population based on 1920 rates will be reached before 1975, possibly as early as 1950, and by 1975 the older ages will be still more heavily weighted.

The effects of such changes in age composition as the lowered

true rates of increase indicate as likely to come about within a generation are so important as to merit widespread attention. In the field of vital statistics, various crude rates will inevitably be affected. With fewer children and more adults, the marriage and divorce rates per thousand population may be expected to increase; although other factors, such as greater ease in obtaining divorces, will probably be of most influence here. Since the adult groups will be more heavily weighted in the older ages, the crude birth-rate should continue to fall even though some quite unexpected upward movement in specific birth-rates should set in. More striking will be the effect on crude death-rates, for with the increased proportion of older adults, crude death-rates will increase in spite of any decreases in specific rates that appear probable. There is some indication of upward tendencies in specific death-rates at ages above thirty or forty which, if continued, will combine with age changes to further swell the crude death-rate. But even without this cause at work, it will be necessary to become reconciled to increasing crude death-rates, realizing that they may not be due at all to any setback in medicine, public health, or accident prevention, but are simply the result of an older population.

With a 50 to 100 per cent increase in the proportion of persons past fifty years of age, our social and economic organization must be overhauled to care for them. Already we have the problem of the middle-aged person out of work, technological unemployment hitting older workers particularly hard. Will the attitude regarding firing and hiring in the larger manufacturing and merchandising concerns undergo modification so that fewer employees past middle age will be dropped and these few have less difficulty in finding new jobs? Or will it become unnecessary for wage-earners to work so late in life as formerly, either because high wages permit an accumulation sufficient for self-support in later years or because an old age pension plan is put into operation by employers or the government? With the proportion of older persons in the population due for a rapid increase, will the cost of old age pensions be an unbearable burden for the working ages to carry? Such problems deserve our best thought.[4]

[4] Cf. W. S. Thompson and P. K. Whelpton, "A Nation of Elders in the Making," *American Mercury*, April, 1930.

The coming change in age composition will have an important effect on city-planning programs. The decrease in the proportion of children, coupled with the slowing up in the growth of population, should make it possible to catch up in the educational field, both from the standpoint of the physical plant and the support of properly trained and paid teachers. A surplus of school buildings may even develop which can be converted into homes for the aged. In the development of city parks there may be less need for playgrounds, but more for benches in sunny places. Continued decentralization of business and shopping centers may be desirable as increasing age on the part of a larger element of the population makes it more difficult for them to fight their way through congested centers. As far as housing is concerned, the continued fall in the proportion of children should increase the demand for small apartments, while certain types of family hotels may prosper owing to an increased number of older people unwilling, or physically unable, to keep on looking after themselves in apartments.

From the standpoint of consumer demand, a relative shift from young to old in the population will cause obvious changes. Although, with current styles, it may be difficult to distinguish grandmother from granddaughter when overtaking them on the sidewalk, there is still no question as to which extreme of age uses a wheel chair rather than a scooter. The doll and toy market should lose ground and that for wrinkle removers and hair restorers should gain, while in the outdoor line, baseball and skating outfits should give way more rapidly to those for golf. Perhaps auto sales will suffer a little, for age brings some decline in activity and desire to be constantly on the move, but radios may profit from any such development, especially with some decline in the proportion of jazz programs.

Our high standard of living may even become more difficult to maintain with these changes in age composition. While many conditions have contributed their share to improving the economic status of our citizens in the past, the importance of the increase in the proportion of persons in the working ages and the decrease in the proportion in the dependent ages before 1920 should not be overlooked.

The large immigration movement before the war, together with the birth-rate falling more rapidly than the death-rate through several preceding decades, combined to swell the proportion of younger adults, the decline in children and adolescents being greater than the increase in older persons. During the last few years, the situation has been different, and this change may continue indefinitely. Immigration is much reduced in volume and will make small contributions to the young adult group compared with pre-war decades. The birth-rate has fallen so low that large parts of the population are not maintaining their numbers according to true rates, so that the proportion of older persons will increase at the expense of the working ages as well as those younger. A continued increase in the efficiency of labor or management will thus be necessary to hold the present level of economic well-being, for future changes in age composition, unless offset by other developments, will tend to lower the standard of living instead of helping to raise it, as was the case in the past.

APPENDIX

For the method of calculating true rates of various groups for 1920 see "Differentials in True Natural Increase," *Journal of the American Statistical Association,* Volume XXIV (September, 1929).

In calculating true rates for 1928 certain assumptions are necessary. Since it is impractical to try to estimate the actual age composition of various states and cities in 1928 on which to base specific birth- and death-rates, it is assumed in each case that specific birth-rates have varied at the same percentage rate as crude birth-rates, and specific death-rates (except of infants under one, which is known for each year) the same as crude death-rates over one. The age composition of all the white groups and of southern Negroes probably averages a little older in 1928 than in 1920, hence specific birth-rates may have declined a little less than crude birth-rates, and specific death-rates a little more than crude death-rates. In the case of the Pacific states, where the crude death-rate at ages over one was higher in 1928 than in 1920, the 1920 specific death-rates at these ages are also used in 1928 on the assumption that the increase in this crude rate was due either to an underestimate of pop-

ulation or to a relative increase in older age groups rather than to an increase in specific death-rates.

Fluctuations occurring in specific birth-rates are much more important as a rule in their effect on true natural increase than are those in specific death-rates. Thus a decrease in the birth-rate from 80 to 72 per thousand women aged twenty to twenty-four results in 10 per cent fewer births, but a decrease in the infant mortality rate from 100 to 55 per thousand births results in the saving of only 5 per cent more infants. Similarly, if the female death-rate at ages under forty-seven years is such that 71,944 females out of each 100,000 born live to age forty-seven, a decrease of 10 per cent in the specific death-rate at exact ages zero and one, and by five-year age groups thereafter, would only increase the number of survivors at age forty-seven by 3.4 per cent.

It is believed that changes in the age composition of the groups under consideration have not caused the trend of specific death-rates to vary greatly from that of the crude rates at ages over one, and that the trend of specific birth-rates has been still more like that of the crude birth-rate. Accordingly, it is believed that errors resulting from applying trends of crude rates to specific rates are not significant, and that the true rates shown here for 1928 are correct to within one per thousand.

In obtaining the population of July 1, 1928, on which to base crude rates, the estimates of the Census Bureau for 1928 and previous years are followed for all groups except Negroes in northern states and cities for which these estimates are believed to be too low. The population used here for these groups is the figure which makes the crude death-rate at ages over one for 1928 equal to that for 1920 instead of considerably higher. This assumes that there have been decreases in specific death-rates at ages over one which have been offset by a relative increase in numbers in older age groups.

NATURAL RESOURCES

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ABSTRACT

Distribution of natural resources.—In comparing natural resources relative area should be considered, but in their development the function of population enters. *Water as a resource of prime importance.*—What water shortage teaches and the new interest in water conservation aroused. *Mineral production.*—Increased production in metals and fuels illustrates the growth of demand due to new uses. The overproduction of oil is a reality. *Growth of the conservation idea.*—The increasing demand for minerals is in sharp contrast with the rather constant demand for foodstuffs. Practical conservation has brought about a general change in sentiment, especially in the oil industry.

Although it is true that natural wealth is distributed unevenly among continents and countries, area is a factor not to be overlooked. The extent of a country's reserves of raw materials is in some degree a function of that country's area. Therefore, in appraising the position of the United States among the nations, it is well to remember that in area the United States is more nearly comparable with the continent of Europe than with any single country of Europe. Unless natural resources are reduced to an areal basis, the picture may be distorted.

According to the latest estimates of power resources, the potential water power of the United States, though much in excess of that of any other country in the world except Belgian and French Congo, is about a quarter less than the potential power of Europe, even after allowance is made for the larger area of Europe.

A suggestive comparison may be made between the water powers already utilized in the United States, Canada, and Japan, which three years ago led other countries in the ratio of 5, 2, and 1.2, respectively. Since then the increase of capacity has been nearly 20 per cent in the United States and 25 and 30 per cent in Canada and Japan, respectively. Corrected for area, however, this pre-eminence of the United States in water-power development is not so striking, for the capacity of installed water wheels was 3.9 horsepower per square mile for the United States, 1.2 for Canada, and 22 for Japan. The introduction of the element of area represented

brings out the relative density of water-power development in Japan.

Although natural resources bear a more or less direct relation to area, their development in response to consumptive demand is in large part a function of population. Applying this correction to statistics of production shows that the position of the United States in its annual drafts upon its natural resources, both of energy and of raw materials, is relatively high compared with that of most other nations. On a per capita basis, the production and consumption of electric power in 1929 was 822 kilowatt-hours, which is fully twice the per capita consumption of either Great Britain or Japan. The per capita consumption of electric power in Canada, on the other hand, is perhaps twice that of the United States, to which Canada exported one and a half billion kilowatt-hours last year.

Public interest in water-power development continues, and whether it is expressed in legislative debate or in popular discussion the tendency is to value too highly the unused power resource. The large capital expenditures necessary for development, the risk inherent both in construction and in early marketing of a new supply of power, and the necessity of tying the new source of energy into an established power system so as to insure a continuity of service —all these very practical phases of the subject are too often overlooked by those who interest themselves in the politics of the power question. The competitive position of fuel-generated power was perhaps never stronger than at present, and it may have been in part this handicap of keen competition that caused the increase in water-wheel capacity in this country in 1929 to be far less than for several years, being estimated at only 2 per cent.

The dependence of water power upon weather conditions was never more forcibly demonstrated than in 1929. For the first time since 1921 the production of electricity in the United States by water power has suffered a decline. This record was due simply to a shortage of water, for the fuel-generated current in meeting the increased demand for power carried a load 18 per cent heavier than in 1928 and about three times the usual annual increase. A spectacular incident illustrating the need of a steam stand-by unit for a water-power system, even of major capacity, was the emergency

service rendered by the power unit of the United States navy aeroplane carrier "Lexington," which was connected with the distribution system of Tacoma, Washington, and contributed 1,125,000 kilowatt-hours to the users of electricity in the Puget Sound region.

The shortage of water of which there has been an almost universal complaint during 1929 has had an educational effect. Through an unexpected scarcity, water receives the recognition of value that is its due. As essential to both plant and animal life, water has always received keen attention in the arid and semiarid regions of the West, where the poetic references to water in the Bible carry much more meaning than to readers knowing only the humid regions of the East. Yet even in the states blessed with more abundant precipitation engineers especially have come to realize that the available supply of water may be the controlling and even the limiting factor in the growth of industries and even of cities. It is not alone Los Angeles but many other cities that are now realizing their dependence upon this natural resource. No amount of civic pride or optimism can add a second-foot to the flow of the streams that constitute the municipal water supply or check the lowering of the water table where too great a draft is made upon the hidden stores underground.

The recent critical situation in the West, especially, represents the resultant of exceptional natural conditions over a period of several years and the usual human wastefulness over a longer period. The increasing value of water for power, for irrigation, for manufacturing processes, and above all for domestic and municipal use makes opportune a large attention to the problem of conflicting uses and the legal priority to be given to the higher use. Never has the public interest in the conservation of the country's water resources been better justified: and to be fruitful of results, that interest should find expression in studies of stream flow and of underground supply and investigations of drainage, flood control, forestry, irrigation, and power projects. The largest use of this unique resource for the highest purpose should be enforced by the best engineering and legal talent.

The mines, oil wells, and quarries of the United States showed an increase in 1929 of nearly 10 per cent over the total value of min-

eral products in 1928. There was an increase in both quantity and unit values in such leading items as copper and iron and petroleum; coal showed a marked recovery in production. The aggregate value of all minerals was $5,900,000,000, and this has been exceeded only in the years 1920, 1923, and 1926. Moreover, this value for 1929 is more than twice that for 1913, a record-breaking year, which is commonly taken as a fair measure of the pre-war capacity of the mineral industry. The present draft upon the mineral reserves of the United States represents an annual per capita consumption of about $50 worth of mineral fuels and raw materials.

The copper industry was benefited by a heavy demand which reflected increased consumption. The larger use of copper in manufactures of electrical equipment, extension of power lines, and telephone and telegraph expansion will maintain this market, while the educational activities of the producers will continue to stimulate the more general use of copper and brass. Electrification of railroads, already under way, is expected to increase the demand for copper still further in the next few years. Already the per capita consumption of copper in the United States is almost twice that of any European country, and on the other continents so little copper is now used that the growing demand resulting from higher standards of living may be expected to offset in part the new supplies of copper. Estimates of future consumption of metals are as difficult and hazardous as estimates of production, for they include forecasts of saturated markets on the one hand and of depleted reserves on the other. New uses delay the one and improved technique the other.

The coal industry, to judge from the statistics for 1929, expects increased consumption. In part this expectation is based upon the belief that the limits of efficiency in coal burning have been about reached; yet the fact that in 1929 the public-utility companies reduced their average coal consumption per kilowatt-hour seven hundredths of a pound, as against a reduction of eight hundredths in 1928, is not indicative of much let-up in the effort to economize. Moreover, for some years the best efficiency at these power plants has been about twice that of the average, again indicating that the limit of fuel economy has not been reached. The coal industry itself

is making new records in mining efficiency, especially in the mechanization of mines, a method of increasing the productivity of mine labor that makes profits possible without raising prices or lowering wages. Observers in close touch with the coal operators report in effect that less red ink is being used in stating the net results of this basic industry, which furnishes the energy for most other industries.

The production of petroleum in 1929 attained a remarkable record in view of the general activity of the leaders in the industry in seeking a curtailment. The effort that started in March and continued through the year was to hold the output for 1929 down to that of 1928, better refinery practice being proposed to provide the expected increase in gasoline requirements. This effort at conservation was partly successful, but the total output of the United States oil wells exceeded a billion barrels. Net imports of crude oil from Mexico and South America added about 5 per cent to the supply of crude oil, but this was nearly offset by about 4½ per cent of crude oil that was added to storage during the year, so that the domestic production and consumption might seem to have been fairly balanced in 1929. However, the purely domestic demand as measured by home consumption of petroleum products is much less than is indicated by the statistics of crude oil, which is the raw material of the refineries. As shown by the statistical reports of the United States Bureau of Mines, the net exports of refined petroleum products were equivalent to 106 million barrels, and stocks already sufficient were increased by another 18 million barrels of refinery products. Of crude and refined stocks together, there is now in storage in the United States more than seven months' supply.

It has been contended that domestic overproduction of crude oil is a myth and that the general oversupply is due primarily to imports. This view, however, apparently does not notice the large volume of petroleum products exported from the United States, which amounted in 1929 to half a billion dollars and constituted the third largest item in our foreign trade. This surplus from the United States refineries contributed to other countries included 14 per cent of the domestic production of gasoline, 32 per cent of the lubricating oil, 34 per cent of the kerosene, and 51 per cent of the wax. To that extent the refinery output exceeded the domestic consump-

tion plus additions to stocks. The increase in gasoline stocks during the year amounted to a week's supply, added to the nearly five weeks' supply on hand at the beginning of the year.

Although it is generally recognized that, in sharp contrast with mineral consumption and the consequent demands upon mineral industry, the consumption of agricultural products bears a definite relation to population, nevertheless the demands upon the soil resources do not reflect the increases in population. Science applied to agriculture in the United States has produced in recent years more foodstuffs from less acres, and even more dairy products from less cows. So it is that the up-to-date Malthus has somewhat more reason to forecast a mineral shortage than a food shortage. However remote a shortage or even a scarcity of minerals may seem today, the need of conservation is now much more generally accepted by the leaders in the mineral industry than it was a few years ago. Indeed, it is encouraging to review the extent to which the idea of practical conservation has taken hold of the American people.

Federal agencies have led the way in making conservation practical, not only in the newer phases of coal and oil development, but also in forestry and reclamation, in which conservation activities had an earlier start. Gradually, but without halt, the idea has taken root in the popular mind that the best use of natural wealth is the keynote of progress. Conservation might be defined as one form of insurance. The fire insurance policy saves nothing and creates nothing—it simply distributes the risk and spreads the loss of an individual among the many; so conservation in practice is only a means of better distributing the bounty of nature, whether it be coal or metal or oil, forests or water, among the many, those of today and those of tomorrow. Practical conservation does not withdraw such resources from use; rather it promotes their larger use by preventing a few from wasting what many others may need.

In the petroleum industry conservation is the word of the hour. Two years ago the Federal Oil Conservation Board remarked on the "increased interest in oil conservation as a practical policy" and the "notable indorsement given to oil conservation by the technical and trade press." This trend has been accelerated in the last twelve months.

With new discoveries of petroleum in widely distributed fields threatening to flood the country with unneeded oil and gas, the situation became acute. Waste, both physical and economic, and both actual and potential, aroused the oil operators to action. The industry began to think of production in terms of consumption requirements, and, as one oil editor remarked, once this attitude is taken the fight for stabilization is more than half won. The crying need for controlling production of gas when, because of lack of markets, such production is wasteful led to the enactment of a stringent law in California, and the industry set itself to conserve its resource through co-operative curtailment. It is this general change in sentiment, both public and private, that affords an unmeasurable indication of progress even more notable than the measure afforded by the thousands of barrels of reduction in the daily production of oil. There is a real basis for renewed faith in self-control within an industry as an effective factor in the rational regulation of our economic life. Conservation of natural resources is a workable policy.

INVENTIONS AND DISCOVERIES

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ABSTRACT

Discoveries in applied science and technological inventions have varying social effects and differ in their relative importance. In this article are listed a number of inventions reported during the year 1929 that may have significant influences. They are from the fields of medical progress, vitamins and ultra-violet rays, biology, agriculture, applied chemistry, machines and mechanical devices, engineering, physics, electricity, aviation, radio and television, safety devices, and miscellaneous fields.

The following list of inventions and discoveries reported in 1929 is selected from the field of applied science on the theory that their social effects may be significant. The reporting of inventions and discoveries is not done adequately; no doubt the best reporting is done in the fields here represented. The sources were the compilation of the National Geographic Society, the series of the Science Service, the register of patents, and the issues of the *Scientific American,* the *Literary Digest,* the *Popular Science Monthly,* and the *Scientific Monthly.* One cannot foretell, of course, with accuracy what the social effects of the inventions and discoveries selected will be. It often requires a number of years, perhaps a quarter of a century, more or less, for an invention to become diffused widely among the people so that the social effects are broadly felt. But they do have some general predictive value for future social changes. There is often quite a lapse of time before an invention becomes commercially practicable. Indeed, many inventions cannot be produced at a sufficiently low cost even to be of much social consequence. Many inventions are important because they are integrally related to other inventions. For these and other reasons the following lists are only generally indicative. The picture of possible changes they indicate is necessarily a little blurred—yet they are a very important record for social change.

MEDICINE

Scientists at the University of Wisconsin isolated the organism that causes septic sore throat and traced several epidemics to milk from cows that have a condition known as mastitis (G).[1]

Dr. J. S. Lundy, Mayo Clinic, and Dr. R. M. Isenberger, University of Kansas, announced a new anesthetic, iso-amylethyl barbituric acid. Given by mouth before the administration of local anesthesia, it lessened the apprehension of patients before operations; injected into a vein, it produced all or part of the anesthesia in 273 major operations (G).

Combining artificial respiration and adrenalin injections, Dr. J. S. Oldham, Liverpool, kept a patient's heart beating for twelve and one-half hours after all other signs of life had passed (G).

The restoration of patients suffering from catatonia dementia praecox to sanity for several minutes by the inhalation of carbon-dioxide gas was accomplished by Dr. C. D. Lake, of San Francisco (G).

Dr. R. G. Harris, Long Island Biological Laboratory, announced the isolation of a hormone which plays an important rôle in feminine health, from an internal gland secretion which forms an essential principle of small bodies called corpora lutea (G).

Out of 129 cases of infantile paralysis treated by Dr. W. D. Ayer with a newly developed serum, ninety-six made complete recoveries, twenty-five developed paralysis, and eight died. Of the twenty-five who developed paralysis, only eleven failed to make recoveries. Of the eight who died, three received the serum too late and three did not receive enough (G).

That in pneumonia the deep breathing of air containing from 5 to 7 per cent carbon dioxide reinvigorates diseased lung areas and prevents the usually fatal consolidation of tissues was announced by Drs. V. Henderson, H. W. Haggard, and E. M. Rodloff, Yale University (G).

The hormone controlling sugar in the human body was isolated by Drs. J. J. Abel and H. Jensen, Johns Hopkins University. It is

[1] Letters in parentheses refer to sources, as follows:

A, *Scientific American;* G, compilation of the National Geographic Society; L, *Literary Digest;* P, *Popular Science Monthly;* R, reports of certain research laboratories; S, *Science Service News Letter;* U, *Patent Gazette.*

found in insulin and represents the fourth of the hormones definitely isolated, the other three being those of adrenalin, thyroxin, and pituitrin (G).

That silica particles aggravate tuberculosis of the lungs more than any other known dust, while coal dust fails to produce any such aggravation is the finding of Dr. L. U. Gardner, Sorac Laboratories (G).

Drs. Cyrus C. Sturgis and Raphael Isaacs, University of Michigan, found that an ounce of extract of dried, ground hog's stomachs is as effective in the treatment of pernicious anemia as a pound of raw liver or three ounces of the most concentrated liver extract.

That liver contains a substance which will reduce the concentration of sugar in the blood, as insulin does, was reported by Drs. Harry Blatner and W. P. Murphy, of the Peter Bent Brigham Hospital, Boston (S).

A tartaric acid mold producing gluconic acid was discovered by Dr. H. T. Herrick and O. E. May, of the United States Department of Agriculture. It can be converted into calcium salt which can be injected between the muscles in the treatment of tuberculosis and rickets without producing abscesses, at 50 cents a pound as against $1 50 a pound under chemical methods (G).

VITAMINS AND ULTRA-VIOLET RAYS

Eggs were hatched from one to two days earlier under ultra-violet rays than those incubated in a normal way by Drs. C. Sheard and G. M. Higgins, Mayo Foundation (G).

Experiments with cereals indicated that rickets is not purely a result of too little vitamin D, but is primarily due to a lowering of the amount of lime in the blood, according to Dr. L. Mirvish, University of Cape Town (G).

BIOLOGY

Experiments in feeding salamanders with the anterior pituitary gland of other animals by which they were, at will, maintained as water animals, transformed into land animals, or developed to double normal size were summarized by Dr. Oscar Riddle, Carnegie Institution of Washington. He believes that with the pure hormone of this gland, the stature of human beings may be regulated (G).

By causing doves to lay an unusual number of eggs, Dr. Oscar Riddle produced females only. By crossing distantly related forms or species, he obtained males exclusively (G).

That a compound of one atom of sulphur and one of hydrogen is responsible for the cell division which produces growth in plants and animals was announced by Dr. F. H. Hommet (G).

Experiments on pigeons conducted by Dr. Oscar Riddle, of the Carnegie Institution of Washington, established the fact that abnormally sized glands can become hereditary (S).

Mutations, or sudden evolutionary changes, occur in organisms exposed to X-rays in proportion to the number of negatively charged electrons reaching the organisms, in experiments performed by Dr. Frank Blair Hanson, of Washington University, St. Louis (S).

Continued success is announced by Professor Theodore Kappanyi, of Syracuse University, in the transplantation of the eyes of fish and small animals in the eye socket, where they grew and apparently resumed their normal functions (L).

A nerve center in the lower part of the brain and definitely related to the rate of basal metabolism has been isolated by Professors Grünthal and Grafe, of Rostock University. It is supposed that this center governs the weight of the person (L).

AGRICULTURE

That dried fruits treated with sulphur dioxide regain their ability to prevent scurvy, while similar dried fruits not thus treated lose their vitamin value, is the report of Agnes Morgan and Anna Field, University of California (G).

Dr. George M. Rommel published a book, *Farm Products in Industry,* printed on paper made entirely from cornstalk pulp, with the binding fabricated from cottonseed hulls. He forecasts the day when the utilization of farm wastes may develop as remarkably as the chemical process of producing coal tar. A 100-page issue of the *Danville (Illinois) Commercial News* and a 260,000-edition of the *Prairie Farmer* were published on cornstalk paper (G).

A factory is under construction in Denmark for the manufacture of sheets of milk. Milk is dehydrated and dried into sheets, which

will keep indefinitely. When the milk is desired for use it is simply placed in water (L).

That ripening fruits and vegetables by the use of ethylene gas is not injurious to the vitamin-B content has been proved by Dr. M. F. Bobb, of the University of Maine (A).

Waste citrus fruits, which formerly cost the grower $1.00 a ton for removal, are now used in making citric acid and give a return of $12.00 a ton to the grower. The method of manufacture was developed by the United States Bureau of Standards (A).

Dr. Domenico Carbone, of the University of Bologna, Italy, inoculated silkworms against "yellowing" and "limpness" (P).

A new race of chickens without wings or toenails was announced by Dr. R. T. Renwalk, Omaha, Nebraska. Their freedom from molting enables them to overcome the slack egg-laying periods in normal hens (G).

X-ray treatments of plants to produce new varieties and to hasten evolutionary processes have been given to the seeds, growing points, pollen grains, and egg cells as well as to the germ cells themselves by Drs. T. H. Goodspeed and A. R. Olson, University of California (G).

Geranium flowers and leaves were found to be a deadly poison to the Japanese beetle by Charles H. Ballou, of the United States Department of Agriculture (S).

Freezing fruits and vegetables and marketing them in paper containers is recommended by M. A. Joslyn and W. V. Cruers, of the Fruit Products Laboratory of the University of California, in order to preserve the natural colors and flavors. Retail stores are already being equipped with refrigerating counters to handle these products (L).

The Bell Telephone Company announced that by means of its electrical stethoscope it is possible to hear the movements of larvae in fruit, and so determine whether or not precautionary measures are necessary (L).

CHEMISTRY

In tests made at the Department of Agriculture's full-sized gas-producing unit it was demonstrated that gas produced from straw may be used for lighting and heating and as a motor fuel (S).

The cause of "winter-damage" to fabrics laundered in the winter was discovered by the United States Bureau of Standards to be the presence of sulphur dioxide from winter fires, and the use of calcium bicarbonate in the final rinsing water materially reduced the loss (S).

A compound about three hundred times as sweet as sugar was evolved from corncobs by Dr. Henry Gilman and A. P. Hewlett, organic chemists at Iowa State College (S).

A semicommercial factory for the extraction of xylose from cottonseed hulls was built and put into operation by the United States Bureau of Standards in co-operation with the Alabama Polytechnic Institute, the University of Alabama, and the Federal Phosphorus Company of Anniston, Texas (S).

A new helium production plant near Amarillo, Texas, brought about the conservation of the largest helium-bearing natural-gas field known. It assures at half the former cost ample supplies of this rare non-inflammable gas for the operation of military dirigibles (S).

The National Cornstalks Processes Company began the manufacture of lumber from cornstalks on a large scale at Dubuque, Iowa. The process was developed by Professor O. R. Sweeney of the Iowa State Agricultural College. It is cheaper than growing trees, and will net the farmer at least $3.00 a ton for his stalks (R).

Dr. Otto V. Martin, of Oklahoma City, discovered a process of recovering from oil-field brine the waste water which collects near oil wells, valuable by-products, such as magnesium, used in flashlight powder and fireworks; bromide used in the manufacture of dyes, medicines, and a disinfectant; iodine; and calcium chloride (P).

Investigators at the United States Bureau of Standards at Washington have devised a method of reclaiming used crank case oil. If the method proves successful on a large scale, it will effect important savings (P).

A process for converting cornstalks, excelsior, wood chips, and crushed sugar cane into a substitute for wood which is more fire-resistant and waterproof than lumber and its equal in tensile strength was developed by Adolph Howerlander, a German chemist (G).

A plant at Lehigh, North Dakota, employing the Lurgi process for briquetting low grades of bituminous coal, is expected to solve the problem of the utilization of lignite by low-temperature carbonization. The process yields by-products which largely offset the cost of preparing the fuel (G).

A process was developed for the conversion of shale oil into rubber more resistant to abrasion than natural rubber (G).

Dr. H. I. Jones developed a poison gas, cacodyl isocyanide, which is so deadly that small amounts of it will destroy whole armies (G).

Wood waste provides a source of motor fuels under the direct control of man, according to a report to the American Chemical Society by Dr. Jacque C. Marrell and Dr. Gustave Egloff, of Chicago. Data obtained by "cracking" three types of wood tar, show that Douglas fir tar produces a highly antiknock motor fuel, that hardwood tar may be utilized for the manufacture of low-boiling tar acids and phenols, and that the products obtained from pine tar are most suitable for solvents and paint thinners (G).

University of Illinois chemists produced from ordinary sewage and cornstalks large quantities of methane gas, useful in heating and as a substitute for gasoline. Household wastes were placed in a tank and three weeks later shredded cornstalks, boiled and soaked in water and lime, were added. In another week this mixture began to produce gas in quantities sufficient for farm purposes (G).

By a process known as hydrogenation nearly 100 per cent of crude fuel oil is now converted into gasoline by the Standard Oil Company. The process was discovered by S. D. Kirkpatrick, and is one of the most significant developments in the attempt to conserve the national oil supply (A).

MACHINES AND MECHANICAL DEVICES

F. W. Fitzpatrick, of Evanston, Illinois, describes a method of mixing waste wood with cement and water to form a very strong concrete, fireproof, less than half the weight of stone concrete, not half as costly, and cheaper to transport (L).

Containing not a particle of steel, but only tungsten, carbon, and cobalt, a new alloy put on the market by the Krupp Works in Germany is yet so much harder than the finest steels that its use for

the edges of cutting tools is likely, experts think, to revolutionize those branches of industry where the cutting of hard metals is a necessity. A similar alloy was demonstrated at Bridgeport, Connecticut (L).

Westinghouse Research Laboratories announce the development of a new metal "kanel," which is much stronger than other metals at higher temperatures. It can be used for the moving parts of internal combustion engines, and is already saving about $250,000 a month in the manufacture of radio tubes where it supplants platinum. Dr. E. F. Lowry is the inventor (A).

A cotton-picking machine was demonstrated which picks cleaner, reduces the loss in cleaning, and turns out a more valuable product. It can be operated by present cotton pickers (L).

From Germany comes the announcement that corrosive metals are now made rust-proof by the use of a spray gun which covers surfaces with a thin coat of zinc or aluminum melted in the gun from a thin wire fed during operation (P).

United States Navy engineers utilize a new underwater, high-explosive tool, which drives a steel stud 3½ inches by ½ inch through a ½-inch steel plate at a single blow. With it emergency patches may be put over rents in the hulls of submarines or holes made in sunken craft for supplying the crew, through tubes, with water, liquid food, and air (G).

A patent has been granted to Alexander Flaunn, of Bridgeport, Connecticut, for a vending machine which cooks and seasons frankfurters, places them in a toasted roll which is automatically slit, and transfers the sandwich to a sanitary wrapper which mechanically closes around the contents. The machine is electrically controlled, and is operated by the insertion of a coin (A).

The General Electric Company developed a toy engine which responds automatically to such orders as "Go ahead, Casey," "Back up," and "Stop." The device may be used in elevator controls or in making furnace doors open or shut in response to a command spoken from a telephone (G).

Improvements by Dr. Still, a German, in Poulsen's Magnetic Phonograph invented in Sweden nearly thirty years ago, have made it possible, not only to use it for retaining and reproducing tele-

phone conversations, but to transmit an hour's conversation in ten minutes, slowing it up at the receiving end so as to make the words intelligible (L).

ENGINEERING

The Du Pont Company fitted out a lake type steamer capable of extracting the bromide from 7,000 gallons of sea water in a minute (G).

Heating large storage tanks of water at night when electricity is cheapest has apparently solved the problem of heating the home without ashes or chimney. The process was developed by Chester I. Hall, of Philadelphia, while a research engineer for the General Electric Company (L).

A mechanical refrigerator car operating on power derived from the wheels and reducing the weight by 3,000 pounds was developed by the North American Car Corporation for transporting perishables without iceing delays (L).

Rubber pavements are proving successful in London and elsewhere in Europe. They reduce vibration, diminish noise, and wear slowly and evenly (L).

A railway car so built that the roof can be lowered in two minutes to admit freight is in successful operation in Sweden and Australia. It does away with a great deal of the hauling of empties (L).

A combination gas and electric motor car has been evolved by the General Electric Company. The new automobile does away with the clutch and gear shift, is impossible to jerk in starting, and cannot be stalled without shutting off the engine (L).

Concrete slabs have proved their worth and are being used for beds under rails. It is expected that they will considerably increase the speed of trains and reduce construction costs (P).

The Bell Telephone Company announced plans for a transoceanic telephone cable, made possible by the development of permalloy and special station devices which make unnecessary repeater stations such as are used on long land lines (G).

PHYSICS

By running an electric current through "wild gas," which escapes from oil wells, Professor S. C. Lind and Dr. George Glocker, Uni-

versity of Minnesota chemists, recently produced a substitute motor fuel oil (P).

Dr. Aristid V. Grane, director of the Chemical Research Institute, at Shanghai, China, announces that he has isolated the element "proactinium." The existence of this element, Number 91, in the periodic chart of the elements, was foretold as long ago as 1870. "Proactinium" is rarer than radium, more active, and lasts twenty times as long (A).

ELECTRICITY

Artificial lightning of 5,000,000 volts was produced in the experimental lightning laboratory of the General Electric Company at Pittsfield, Massachusetts, by F. W. Peek, consulting engineer (S).

Photoelectric cells were used for measuring colors in the way they will affect the human eye by Dr. Clayton H. Sharp, of the Electric Test Laboratories in New York (S).

RADIO AND TELEVISION

Mr. Russell S. Ohl, of the American Telephone and Telegraph Company, patented a device for receiving radio messages on a telegraph instrument and thereby printing the message (U).

The broadcasting of weather maps by the Fultograph process was begun in Europe (S).

"Telelux," a companion to Televox, is a new robot responding to light flashes (P).

A new radiophoto apparatus capable of sending a six-hundred word letter a thousand miles in one minute was developed by Dr. Vladimir Zworykin, of the Westinghouse Electric Company (P).

Dr. Herbert Ives, Bell Laboratories, demonstrated television in color. Added to the mechanism used in ordinary television are a new type of photoelectric cells at the sending end and neon and argon lamps at the receiving end (G).

The Canadian National Railway linked together a running train and a main office by radio. A conversation was continued for two hours (G).

A new photo-radio recording process in which the impression is made on a new heat-sensitive, wax-coated paper by fine jets of hot

air controlled by the incoming radio signals was demonstrated by Captain R. H. Ranger. The jets burn away the wax in proportion to the intensity of the signals. An inky roller brushed over the sheet brings out the finished picture instantly and permanently (G).

A new television receiver that prints its picture on a fluorescent screen with a weightless pencil of cathode rays was demonstrated by Dr. Vladimir Zworykin, Westinghouse engineer (S).

Ship-to-shore wireless telephoning on the Leviathan was inaugurated commercially in December (S).

SAFETY DEVICES

The United States Bureau of Standards at Washington has developed a self-extinguishing cigarette. This safety cigarette, with an inch of cork tip "lined with water-glass air-excluding silicate," if adopted is expected greatly to reduce the fire loss in all parts of the world (L).

An apparatus for sterilizing water by means of the transmission of electric waves has been tested at the Pasteur Institute in Paris. Bacilli were found not to grow in sterilized water while they multiplied enormously in water not sterilized. The device is the invention of M. George Lakhowsky (L).

AVIATION

The Diesel engine has been adapted to aeroplanes by Captain L. M. Woolson in the laboratories of the Packard Motor Car Company. The new engine eliminates the electric ignition and carburization, two chief causes of motor failure. The motor burns ordinary fuel oil at about one-sixth the normal cost of present day airplane operation (L).

Fritz von Opel demonstrated in Frankfort, Germany, an aeroplane driven by a rocket. The plane flew 1¼ miles in 75 seconds (L).

The famous plane, "Question Mark," made a record refueling flight of 150 hours, 40 minutes and 15 seconds, only to lose it to the "Fort Worth," when the latter flew for 172 hours, 32 minutes, and 1 second; then to a Buhl-cabin sesquiplane flying 246 hours, 44 minutes; then to the "St. Louis Robin" flying 420 hours, 21 minutes, or more than 17 days (S).

MISCELLANEOUS

Emotional states of an individual may be charted in cycles, R. B. Hersey, of the University of Pennsylvania, reported (S).

First-born children are more likely to be problem children than are others in the family, Dr. Curt Rosenow, of the New York Institute for Child Guidance, concluded as a result of his studies (S).

With the new tone-conduction equipment it is possible for a partially deaf person to hear even without the use of any of the function of the outer or middle ear. A child who had never heard a human voice was recently taught in half an hour to pronounce the alphabet correctly by means of this device which attaches to any bony part of the head (A).

The "noctovisor" invented by John Baird sees into the night or the fog and detects a light invisible to the eye (L).

The General Electric Company has perfected a device that automatically turns on lights in a room when the natural light has become so dim as to cause eye strain (P).

A method of making stereoscopic motion pictures that seem to possess depth from any position and do not require any special viewing apparatus between the subject and the screen was described by Dr. Herbert E. Ives, of the Bell Laboratories (S).

A film phonograph that records sound on film as in the talking movies, and will play for several hours on a single roll of film, was demonstrated by Dr. G. H. Hewlett, of the General Electric Company (S).

Motion-picture film twice the ordinary width, making possible a screen picture the full width of an ordinary stage without loss of detail, was introduced by the Fox Film Company (S).

Progress was made toward a consideration of the international adoption of a thirteen-month year, with months of twenty-eight days each (S).

PRODUCTION

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ABSTRACT

Manufacturing and mining activity in 1929 was considerably greater than in 1928, but crop output declined and construction activity was adversely affected by the high level of money rates. *Agriculture and animal husbandry.*—While the crop in 1929 was harvested from about 1 per cent more acres than in 1928, unfavorable growing conditions resulted in somewhat lower yields. Marketings of hogs and cattle declined, but sheep marketings were above those in 1928. *Mining.*—Output of important minerals was greater than in 1928; and for copper, iron ore, and petroleum, record high figures were attained. *Manufacturing.*—Activity averaged higher than in any other year since the war. The peak of operations, however, came in the first half-year. During the last six months, curtailment was under way; and after the speculative collapse in October and November, it was particularly drastic. Operations in the closing months were at a low level. *Construction.*—New construction projects were considerably lower than in 1928.

For certain branches of industry, activity in 1929 was greater than in any other year since the war, despite considerable slackening in the last quarter. Manufacturing output, metal mining, and freight loadings reached record figures during the first half of the year, and activity continued high even into the summer months. Output was declining, however, in the third quarter of the year; and curtailment became more drastic after the stock-market panic of late October and early November. Extensive reductions occurred in November, and declines continued in December, although the pace of the declines moderated somewhat. By the close of the year, manufacturing production was well below normal, and output of metals was considerably less than in the early months of the year. For the entire year, however, output by several important industries—such as steel, automobiles, petroleum, copper, cigarettes, and boots and shoes—was greater than in any other year on record.

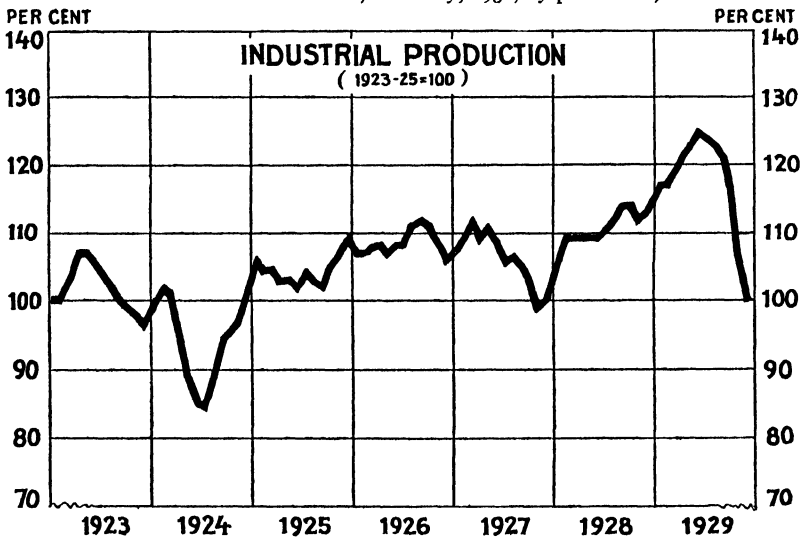
The sharp increase of industrial output in the first half of 1929 and the subsequent decline are shown by the indices on Charts I and II. The index presented on Chart I is based on data for both manufacturing and mining industries, corrected for seasonal changes but not for long-time growth; while the two indices on Chart II—manufacture and mining—are adjusted for growth as well as for seasonal changes.

Though active trade and a record volume of industrial output stimulated certain classes of building, the high level of money rates —and the resulting higher costs for new capital—had an adverse effect on construction activity in general. New construction projects for the year were 13 per cent below those of 1928; and building permits declined 12 per cent.

CHART I

INDEX OF INDUSTRIAL PRODUCTION

(Adjusted for Seasonal Variations. 1923–25 Average = 100. From the *Federal Reserve Bulletin*, February, 1930, by permission)



Crop output on the whole was less than in 1928 and also below the average for the preceding ten years. For farmers, however, the reduced production appears to have been offset by increased prices, so that the total value of crops was slightly higher than in 1928.

AGRICULTURE AND ANIMAL HUSBANDRY[1]

Crop output as a whole in 1929 was less than in 1928. The crop last year was harvested from about 1 per cent more acres than in the preceding year, but unfavorable growing conditions resulted in

[1] This section is based principally on data published by the United States Department of Agriculture in *Crops and Markets* for December, 1929, and the *Agricultural Situation* for February 1, 1930.

CHART II

ADJUSTED INDEXES OF THE VOLUME OF MANUFACTURE AND MINING

(Normal = 100. From Harvard Economic Society, Inc., by permission)

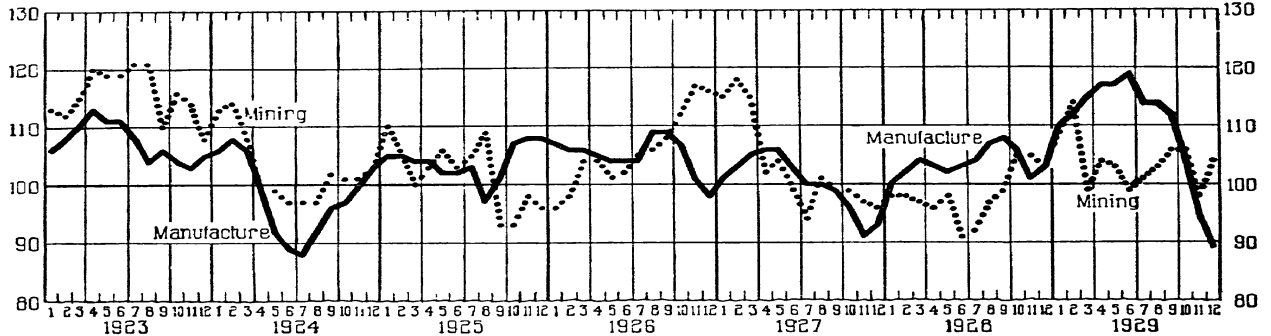
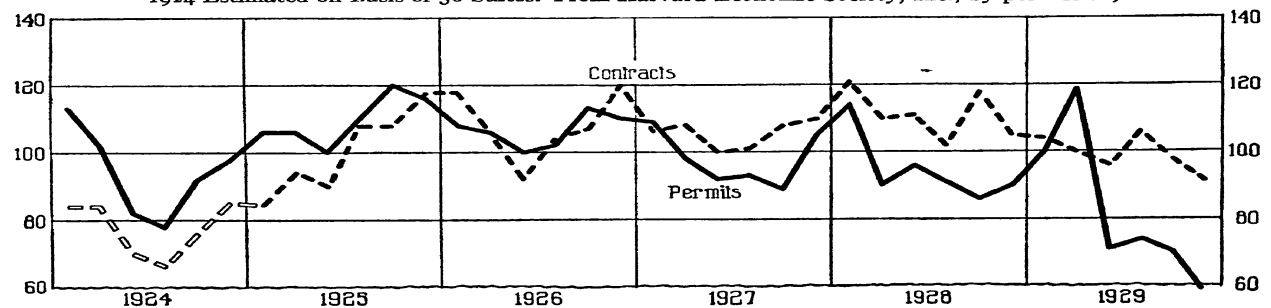


CHART III

INDEXES OF THE VALUE OF BUILDING PERMITS AND BUILDING CONTRACTS

(Bi-monthly Averages Corrected for Seasonal Variation. Monthly Average 1924–28 = 100. Contract Figures for 1924 Estimated on Basis of 36 States. From Harvard Economic Society, Inc., by permission)



somewhat lower yields. The Department of Agriculture's estimate of the yield per acre for forty-five crops combined, weighted in proportion to their relative importance, was 5.3 per cent below the yield in 1928, and 2.2 per cent below the average of the preceding ten years.

The composite production of seventeen principal crops, weighted in proportion to their ten-year average values per unit, was 4.8 per cent less in 1929 than in 1928; but for farmers, the reduced production appears to have been offset by higher prices, so that the total value of crops was slightly higher than a year earlier. The chief increases in valuation were shown by hay, fruits, vegetables, and sugar crops, and the more important decreases by grains and cotton.

The acreage of wheat increased more than 2,800,000 acres—about 5 per cent—but total production was less than in 1928. The yield per acre of winter wheat was 10.0 per cent below that for the preceding year, and that of spring wheat declined 28.3 per cent. A decrease of 10 per cent or more was also shown in the per acre yield of oats, barley, buckwheat, flax, Irish potatoes, and many of the fruit crops; while corn declined 4.3 per cent. The yield per acre of cotton increased 1.6 per cent; rice, also, was 1.6 per cent above the 1928 yield; tobacco rose 2.6 per cent; sweet potatoes increased 7.4 per cent; and important truck crops averaged 9.1 per cent higher than in 1928.

The figures for marketings of livestock in 1929 show that hog marketings were 6.4 per cent less than in 1928; and cattle marketings declined 5.1 per cent, the total for the year being smaller than in any other year since 1921. Marketings of sheep, on the other hand, increased 4.8 per cent. Butter receipts at primary markets exceeded 600 million pounds, an amount larger than that for any other recent year. Receipts of poultry were above those of 1928, but egg receipts at principal markets were lower than in the preceding year.

The report of the Department of Agriculture, as of January 1, 1930, indicates that the number of hogs on farms in the United States declined in 1929, but that the number of cattle and sheep increased. Over two-thirds of the increase in cattle numbers was due

to an increase in milk stock, including heifer calves being saved for milk cows. The number of horses and colts showed a decrease, that continued the downward movement which has been in progress for several years. Combining all livestock numbers in units which allow for differences in size and feed requirements of the several species, the composite number on January 1, 1930, was practically the same as a year earlier, and but little below January 1, 1928. It was, however, 15.2 per cent below January 1, 1920. The total value of all livestock was about 2.3 per cent less than on January 1, 1929, but was higher than at the beginning of any other year since 1921.

MINING

Output of important minerals in 1929 was greater than in 1928, and in some industries, record production was attained. On Chart II, an index of the volume of mining, adjusted for the customary seasonal changes and for long-time growth, is presented. The index moved irregularly throughout the year, but in only three of the twelve months did it fall below normal and in no month was it lower than 98 (normal=100).

Copper output was in very large volume during the year. Mine production in the United States reached 1,006,203 tons, a figure 10.7 per cent above that for 1928 and the highest ever attained; and output by smelters was larger than in any other year on record. Production of refined copper in North and South America exceeded that in 1928 by 11.2 per cent, and shipments also increased considerably. Production, however, was much greater than shipments so that stocks more than doubled during the year, and at the end of December they were the largest since 1922. Despite this accumulation of stocks, copper prices held at about 18 cents per pound (delivered, Connecticut) from the middle of April through the end of the year.

Output of slab zinc in the United States exceeded that in either 1927 or 1928, but it was 1.6 per cent less than in 1926. Consumption during the year, however, failed to keep pace with enlarged production, and stocks increased substantially. At the close of December, such stocks had risen to the highest figures reported in more than eight years. Silver production showed a gain of 7.2 per cent over 1928, and of 1.3 per cent over 1927; but it was less than

in 1926. Silver prices declined persistently throughout the year, and by December they had fallen to very low levels.

Iron ore mined in the United States last year exceeded that in 1928 by 18 per cent and was the largest since 1917. Water shipments from the Lake Superior district were greater than in any other year on record, the largest shipments occurring in the early months of the season. The total amount shipped by water and rail was only slightly less than in the record year 1916.

Petroleum production established a new record in 1929, output of crude oil exceeding one billion barrels for the first time in the history of the industry. This large total was reached despite attempts in leading oil fields to curtail operations by agreement, attempts which became more effective as the year closed. Record monthly output was reached in August when a total of 92,288,000 barrels was produced. During the last four months of the year, however, output declined, and the December figure was 11,900,000 barrels less than in August.

Bituminous coal production exceeded that in 1928 by 4.9 per cent, and the 1927 total by 1.5 per cent; but it was 8.4 per cent less than in 1926. The increase in output over 1928 occurred despite increased competition from natural gas and a decline of reserves in storage. Output of anthracite last year also was greater than in 1928, but below that in 1927.

MANUFACTURING

Manufacturing activity during the first half of 1929 was greater than at any other time since the war; but in the latter part of the year, sharp curtailment occurred—particularly after the speculative collapse in October and November—and operations in the closing months were at a low level. In the first six months, however, certain important industries made new high records; and despite curtailment in the last six months, output by these industries for the year as a whole was larger than in any other year. The month-to-month movements in manufacture, after adjustments for seasonal changes and long-time growth are shown on Chart II. The peak of activity last year was reached in June, after an upward movement that had been almost continuous for several months; but in

July a sharp decline occurred, and by December the manufacture index had fallen well below normal.

Expansion of output in the first half of 1929 was most pronounced in the iron, steel, and automobile industries; and, likewise, in the closing months of the year, contraction of operations was most severe in these industries. For the entire year, however, new high records were made. Pig-iron production was 11.7 per cent greater than in 1928; steel-ingot output increased 8.6 per cent; and automobile production exceeded that of the preceding year by 22.9 per cent. The movements of steel-ingot output and pig-iron production were similar; both reached peak figures in May, but it was not until the last quarter of the year that sharp declines occurred. The high output of steel in the first half-year was due largely to unprecedented demands from the automobile industry; and, likewise, the considerable decline in the second half of the year was brought about by sharp curtailment in requirements from automobile manufacturers. Although requirements from the railroads increased and demands from the construction industry and manufacturers of agricultural equipment were in good volume, the sharp decline in demands from the automobile industry was offset only in part; and monthly output of steel ingots fell by November to the lowest figure since December, 1927. Automobile output in the United States during 1929 exceeded 5,358,000 units. Passenger-car production increased 20 per cent; truck output, 42 per cent; and taxicab production, 160 per cent.

Record output was also attained in the cigarette, boot and shoe, and gasoline industries. Production of small cigarettes aggregated 119,038,841,560, an increase of 12.4 per cent over 1928 and of 22.5 per cent over 1927. Since 1922, cigarette production has more than doubled. Production of boots and shoes was 5 per cent greater than in 1928 and 2.9 per cent above that for 1923, the previous record year. Gasoline production amounted to 434,241,000 barrels, an increase of 15.2 per cent over 1928; output each month exceeded that in the corresponding month of 1928. Stocks of gasoline also increased considerably; and, at the close of the year, they were 30.4 per cent greater than at the end of 1928.

Activity in the cotton and wool industries averaged higher than in 1928. Cotton-textile operations were well above normal during the greater part of the year; but production of cotton goods at various times was in excess of demand, with the result that output was curtailed sharply in the summer and again at the close of the year. Activity in the wool-textile industry declined in the late spring and early summer, recovered somewhat during the autumn, and then fell off sharply in November and December. Operations in the carpet and rug industry fluctuated irregularly throughout the year, but on the whole averaged higher than in 1928.

Total output of paper in 1929 was 5.5 per cent greater than in 1928, all grades except wrapping, hanging, and newsprint showing increases. Leather production and output of Portland cement, on the other hand, were less than in either of the two preceding years. Among the food industries, wheat-flour production and sugar meltings rose slightly above the figures for 1928; cattle and hog slaughterings, however, were somewhat less than in the preceding year.

CONSTRUCTION

The adverse effect on the construction industry of the high level of money rates which prevailed during most of 1929 is evidenced in figures for contracts awarded in thirty-seven eastern states, as reported by the F. W. Dodge Company, and in Bradstreet's figures for building permits. The value of contracts awarded during the year amounted to $5,754,290,500, a decrease of 13 per cent from the total recorded for 1928, and building permits showed a decline of about 12 per cent. Chart III presents bimonthly indices for both contracts awarded and building permits, adjusted for seasonal variation but not for long-time growth. The index for contracts declined almost continuously in 1929, and the November-December figure was the lowest since 1924. The rise of the index at the middle of the year was due chiefly to a large unseasonal increase in the July figures for the public works and utilities group. Although in August the figures for this group dropped sharply, to about the June level, the decrease was not sufficient to offset the substantial advance in July.

The decline of the permits index between the early and the closing months of the year is most striking. This index, which had shown a downward tendency in 1928, shot up sharply in March and April to a peak nearly as high as that attained in late 1925, when the climax of the Florida land boom was reached. The huge increase in plans filed in New York City in March and April, prior to the signing of the Multiple Dwellings bill, accounts in large measure for this sudden spurt (and also, to some extent, for the subsequent decline) of the permits index. By the end of the year, the index had fallen to an extremely low level.

Although the construction industry in general was much less active in 1929 than in the preceding year, not all classes of construction were adversely affected. Contracts for commercial and industrial building, stimulated by the high activity in general trade and in manufacture, reached a combined total of $1,689,200,800, an increase of 11 per cent over 1928. The value of contracts awarded for public and institutional buildings of all kinds, on the other hand, declined 8 per cent, and the total for public works and utilities was 7 per cent lower than in the preceding year. The most severe decline, however, occurred in residential building, which makes up a much larger percentage of the total than any other class; such contracts last year were 31 per cent lower than in 1928.

New orders for concrete roads and streets in 1929 were below the very high level reached in 1928. The Portland Cement Association's report indicates that such orders averaged about 6 per cent less per month than in the earlier year. The volume of work on federal-aid highways continued the decline in progress during the three preceding years.

SUMMARY

Despite the slackening of activity during the last quarter of 1929, the year as a whole was the greatest business year since the war. In manufacture, the increased production was shared by almost all industries, although the greatest expansion occurred in the steel and automobile industries. Also, the curtailment following the speculative collapse was widespread, but the most severe contraction occurred in those industries which had so greatly expanded during the early months of the year. No satisfactory information is

available for commodity stocks held by producers, distributors, and consumers, in the aggregate; but from the information that is at hand, it is clear that such stocks increased somewhat in 1929. In general, however, the movement of goods into consumption during the year was large, and therefore inventories at the close of the year were not excessive, except in a few lines. Agricultural returns for 1929 were, on the whole, favorable; although crop output was slightly less than in 1928, the aggregate value increased, and the income from livestock was larger than in the preceding year. Conditions in the construction industry were in direct contrast to those in other branches of industry, and activity was the lowest in many years.

FOREIGN POLICY

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ABSTRACT

Changes in foreign policy should be measured by study of changes in public opinion on national interests and changes in external conditions affecting those interests, but some indications are furnished by examination of the official American acts or declarations with respect to international relations. President Hoover has instituted a more active policy looking toward implementing the Kellogg Pact by international co-operation. The traditional policies of treating immigration and the tariff as domestic questions, of policing the Caribbean, of assisting China to autonomy, of avoiding European commitments which might imply a duty to use force, and of promoting arbitration and disarmament have continued with an increasing tendency on the part of the administration, if not of the Senate, to adjust the others to the last policy. There has been much interest in the ideas, deduced from the Kellogg Pact, that neutrality is obsolete and that American consultation with the great powers on issues threatening war anywhere should be institutionalized.

By the foreign policy of a state we mean its behavior with reference to the environment outside its territory. It differs from international relations in that it classifies phenomena from the point of view of the single state rather than from that of the world. It results from the continuous effort of the community either to modify the external environment in order to fit its own interests or to modify its interests so as better to fit the changing world-environment.

With this conception, the changes which would affect foreign policy might naturally be classified as (1) changes in the public opinion of a community with respect to national interests, and (2) changes in the external environment affecting these interests.

Data could doubtless be assembled from debates in Congress, from the press in various parts of the country, from the resolutions of associations, etc., to indicate changes in public opinion on national interests. So also changes in the government and the policy of foreign states; in international organization; in foreign markets and sources of raw materials; in technical processes, and cultural interests might be chronicled, and deductions made as to their effect in the United States. Such a procedure, however, cannot be attempted in this brief article. We will have to content ourselves with the more superficial indications of foreign policy to be obtained from examining the occasions on which official American action or

declaration has occurred with express reference to external conditions or incidents, or to the procedure or standards for dealing with such conditions or incidents anticipated in the future. These occasions will be classified according as they relate to (1) the domestic organs controlling foreign policy; (2) domestic legislation affecting foreign interests; (3) the official American attitude on international institutions, procedures and standards; and (4) official American actions or declarations with reference to occurrences in America, the Far East, or Europe.

THE DOMESTIC CONTROL OF FOREIGN POLICY

The most important change affecting the internal machinery for conducting foreign relations during the last year has been the accession of President Hoover. Under the American system, the president has the initiative and, to a large extent, the conduct of foreign relations in hand. Mr. Coolidge perhaps well summed up his attitude on foreign affairs in his Washington's Birthday address of 1929 with the comment that the United States was at peace with the world; that our continued "detachment" was valuable for world-peace; and that Jefferson, not Washington, had warned us against "entangling alliances." The anticipation suggested by his past experience that Mr. Hoover would work strenuously for peace and manifest an engineering interest in the perfection of international machinery to this end has been fully justified, though his early insistence on tariff readjustment upward has given rise to international complaint. His effort in foreign affairs has concentrated upon implementing the Kellogg Pact, which he said in his annual message of December 3 had "raised a moral standard" which, he has indicated, needs supplementing by material procedures. To this end he has urged disarmament; entry into the World Court; general conclusion of bilateral conciliation and arbitration treaties; and utilization of these pacific procedures rather than marines, even in such regions as Nicaragua, Haiti, and China. The president has taken practical steps for carrying national public opinion with him in this policy and for improving the technical capacity of the state department to carry it out. His own numerous speeches on the subject, particularly his focusing of attention upon interests inimical to disarmament in his address of September 6, 1929, have been

significant. The latter suggestion led to the investigation by the Senate of the Shearer propaganda operations alleged to have aimed at blocking disarmament agreement at Geneva in 1927.

With regard to technical measures, President Hoover has resorted to fact-finding commissions on such matters as Haiti, and has referred to the importance of strengthening diplomatic missions, especially in the Latin-American countries, by the appointment of chiefs of mission who can speak the native language. He has also urged more efficient organization and larger appropriations for the state department. The improvements in the latter, which were indeed begun under the Coolidge administration, are manifested in the excellent series of publications begun in October, 1929. These resulted, in part, from the pressure brought by scholars throughout the country and now make available, through the superintendent of documents, the complete record of foreign policy immediately after the events. The state department has also shown increased efficiency in renegotiating treaties which have expired and in filling commissions called for by treaties in effect, particularly the conciliation commissions under the Bryan treaties.

From the standpoint of efficiency, President Hoover, like practically all of his predecessors in office, has been somewhat baffled by the Senate. This body has shown itself entirely unamenable to executive coercion, especially in tariff legislation, and the president has evidently thought it wise to deal with it cautiously, as indicated by his delay in submitting the new World Court protocol signed by an American representative at Geneva in December, 1929. Nevertheless, the Senate has done more work on treaties in 1929 than in any previous year in its history. It has consented to the ratification of forty-two treaties, which may be compared with the annual average since 1778 of five treaties and with the annual average during the twentieth century of fifteen treaties. These forty-two treaties, were largely bilateral arbitration and conciliation treaties, often renewing earlier treaties which had expired. There was, however, the important Pan-American conciliation treaty, which the United States was the first to ratify, and three multilateral treaties dealing with radio, slavery, and the liquor traffic in Africa. The second of these was negotiated by the League of Nations Assembly

in 1926 and the third by the Versailles Conference in 1919. Other subjects dealt with by these treaties were prevention of liquor smuggling into the United States; recognition of the Chinese autonomous tariff; Mexican claims; extradition; and naturalization. The Senate, however, has not yet acted on the important Pan-American arbitration treaty. A significant change in the Senate rules was adopted in June, 1929, providing for public sessions on all treaty debates unless the contrary was voted by a majority in executive session.

DOMESTIC LEGISLATION OF INTERNATIONAL EFFECT

The line between domestic and international questions is fixed by tradition, and the way in which questions of the former type become of the latter can be illustrated by the history of the last year. National defense was declared a matter of domestic policy in interpretations of the Kellogg Pact. In pursuance of this theory, Congress passed the Fifteen Cruiser bill, which was signed by President Coolidge on February 13, 1929, nevertheless, the size of armaments has come to be an ordinary matter of international negotiation.

In fact, the major international activity of the Hoover administration has been to make a treaty which will modify the applicaton of the policy announced in this legislation. The president has linked disarmament not only with world-peace but also with the saving of money for internal improvements. In his Louisville address of October 23, 1929, he suggested that such savings might be utilized for the development of internal waterways, particularly the St. Lawrence deep waterway system.

Another question, traditionally considered domestic, is immigration regulation. The national origins basis for estimating immigration quotas, application of which had been postponed for several years, went into effect July 1, 1929, in spite of President Hoover's effort to have Congress repeal it. Its effect is to reduce the total number of immigrants from 165,000 to 154,000 a year; to give more authority to consuls abroad to prevent the departure of inadmissible aliens; to double the quota from Great Britain; to increase that from Italy and considerably decrease that from Germany, Ireland, and the Scandinavian countries. This migration policy has given rise to no important international discussion, though the

Italian embassy announced on November 3, 1929, that Italians in the United States, whether or not they also possessed American nationality, might return to Italy without fear of being conscripted. The executive discretion in administering the immigration laws was illustrated in the case of Count Carolyi of Hungary, who was admitted in the winter of 1929 although previous state department decisions had excluded him.

The naturalization policy of the country was illustrated in the case of Mrs. Rosika Schwimmer, who was denied naturalization by a decision of the Supreme Court in May because of her pacifism. The same principle was applied later by an inferior court in the McIntosh case with reference to an ex-American soldier who was a professor at Yale University.

Another question which the United States has always considered domestic is the tariff. President Hoover called a special session of Congress in April, 1929, to adjust the tariff upward, and though the House passed a bill in May his efforts to speed up the Senate have thus far been unavailing. The high duties in the proposed bill have led to protests from thirty-eight nations and the Senate has investigated the allegation that propaganda against the high sugar tariff was being carried on with the knowledge and consent of the Cuban government.

The United States has participated in certain general international conferences with reference to customs formalities and import and export prohibitions and restrictions; it, however, declined to participate officially in the Economics Conference of 1927 called to consider the height of tariffs, and again it refused to participate, except through observers, in the Economic Conference called in February, 1930. It made no comment on the suggestion of the League Council in summoning this conference that states agree not to increase their tariff rates for two or three years. The American tariff has led to a certain amount of retaliation, particularly on the part of France in protection of her movie film industry. Against these French discriminations, as well as against similar discriminations by Germany, Italy, Austria, Czechoslovakia, and Hungary the United States protested in April, 1929.

The restrictions against films have been justified as necessary for

the preservation of national culture, and doubtless the same argument can be used with reference to the American prohibition policy. This policy, though essentially domestic, has led to numerous international complications, among them the negotiation of treaties providing for the capture of rum-runners beyond the three-mile limit. Several such treaties, including one with Japan, have been concluded within the last year. Canada protested that the privilege given by such a treaty with Great Britain was exceeded in shooting down the "I'm Alone" two hundred miles from shore in March. This dispute is to be arbitrated. The Hoover policy of rigorous prohibition enforcement led to the seizure of liquor destined for the Siamese legation in Washington in March and subsequent issuances of treasury regulations permitting diplomatic liquor. A little later the British ambassador declared that he would henceforth decline requests for liquor shipments, and American embassies in London, Berlin, Oslo, and Copenhagen declared themselves dry.

International complications have arisen in connection with the prohibition of opium and narcotics. The United States has made treaties on these questions, and in July the Chinese vice-consul and his wife in San Francisco were arrested and later found guilty by a Chinese court for opium-smuggling.

The foregoing comment indicates that the United States continues to treat immigration restriction and tariff as exclusively domestic questions, but that it has recognized the necessity of international co-operation in the problem of national defense and of enforcing the prohibition of alcohol and opium.

GENERAL INTERNATIONAL QUESTIONS

Great interest was attracted by the Graf Zeppelin's flight around the world in a little over twenty days, giving new evidence of the effect upon world solidarity of more rapid communications. This occurred just a month after the proclamation of the Kellogg Peace Pact on July 24, 1929. The Pact had been ratified by the United States Senate on January 15 by a vote of 85 to 1. The remaining original signatories deposited their ratifications soon after, except Japan. Difficulty arose because of the statement in Article I that the declaration renouncing war as an instrument of national policy

was "in the names of their respective peoples." There was fear that this might derogate from the imperial prerogatives of the emperor, but the difficulty was avoided by an interpretation and Japan deposited her ratification June 27. In his message to Congress, December 3, President Hoover stated that fifty-four nations had deposited their ratifications.

"Implementing the Kellogg Pact" has become the slogan of American foreign policy, the steps particularly urged in this direction being adhesion to the World Court, conclusion of arbitration and conciliation treaties, and disarmament. On February 18 Secretary Kellogg broke the long silence of the United States in regard to the Court by inviting an exchange of notes with the present signatories. The League of Nations Council took up the matter and appointed a commission, of which Mr. Root was a member. This commission proposed amendments to the statute and a new protocol for American adhesion. The "Root Plan" recognized the American veto on advisory opinions on questions in which the Court decided the United States had an interest. With respect to questions in which the United States merely claimed an interest, a procedure assuring negotiation was set forth. In the absence of agreement, the Council might ask an advisory opinion on a question which did not require the unanimous vote of the Council, even without American consent, but this would presumably terminate American accession. American interest in the Court was stimulated by the election of Charles Evans Hughes as a judge to succeed John Bassett Moore in May, 1929, by League acceptance of the Root protocol in September, and by signature of the optional clause by Great Britain, France, and other great powers at the same time. In November, Secretary Stimson informed the president in a long memorandum that he thought the new protocol of adhesion thoroughly safeguarded American interests. President Hoover commended the Court in his annual message, and on December 9, 1929, authorized the American chargé d'affaires in Switzerland to sign, in behalf of the United States, the original Court protocol, the protocol of amendment, and the protocol of American adhesion. These protocols had not yet been submitted to the Senate on March 25, 1930.

As has been noted, the United States has concluded a number of

arbitration and conciliation treaties during the last year. The most important is doubtless the Pan-American conciliation treaty which was ratified by the United States, first among the signatories. Three Latin-American states have deposited ratifications of the Pan-American arbitration treaty, but the United States Senate has not yet acted on it.

The United States has been a leading advocate of disarmament by agreement since The Hague Conference of 1899 and again assumed leadership during the meeting of the Leagues Preparatory Commission in April, 1929, when Mr. Gibson suggested a new definition for "equivalent tonnage." Soon after the advent of the Labour government in England Ambassador Charles G. Dawes and Prime Minister MacDonald made appeals for naval reduction. In July of 1929 this was given more practical effect by Mr. MacDonald's announcement of the suspension of certain naval construction, followed by President Hoover's announcement that three of the cruisers planned for the autumn would not be begun, pending the disarmament conference. In October, Mr. MacDonald visited the United States. His conversation with President Hoover resulted in an invitation on October 7, 1929, for a five-power naval disarmament conference to be held in London, January, 1930. In his Armistice Day address, President Hoover said, "We will reduce our naval strength in proportion to any other. Having said that, it only remains for the others to say how low they will go. It cannot be too low for us."

On December 31 the French government issued a statement in regard to the forthcoming conference, which pointed out that the "application of the Kellogg Pact was not organized" and that "it is only in proportion to such outside assistance as they can rely upon that nations will be in a position actually to reduce their armaments." "Technical agreements on armaments imply political agreement." On this thesis the French assumed leadership upon the opening of the London conference on January 21, 1930. Difficulties were encountered because of the different preferences of the United States and Great Britain in regard to the size of cruisers; because of the Italian demand for parity with the French; because of the Japanese desire to increase her ratio to 10-10-7; but particu-

larly because of the French insistence that she required a minimum of 724,000 tons for adequate defense. Before the fall of the Tardieu government on February 17 temporarily suspended the meeting, the United States had indicated a change in its policy since the Washington Conference by supporting Great Britain in its wish to abolish submarines. After the Tardieu government had re-established itself on March 5, the American delegation reiterated its opposition to a political pact involving military obligations, but in a declaration of March 25 indicated sympathy for a consultative pact without such implications.

The Hoover administration has not modified the attitude of its immediate predecessors in regard to military or naval sanctions for peace outside of the American and Pacific areas. It has, however, participated in several general international conferences, some economic and some political, and has tacitly approved the establishment of the Bank of International Settlements at Basle, an important institution in which American central banks will participate. It has not responded to the French suggestion for a Mediterranean Locarno to assist disarmament, but unofficially there has been much favor in the United States for the idea that neutrality is inapplicable in wars begun in violation of the Kellogg Pact, and Congress has continued to debate the Burton, Porter, Capper, and other resolutions proposing to embargo arms shipments to aggressors and otherwise to co-ordinate American policy with Article XVI of the League Covenant.

AMERICAN REGIONAL POLICIES

The American countries.—In Latin America the progress of the general arbitration and conciliation treaties signed at Washington on January 3, 1929, has already been referred to. President-elect Hoover's trip to South America in December, 1928, improved good feeling, as did the visits of President-elect Rubio of Mexico to the United States in December, 1929, and of President Vasquez of San Domingo at the same time. The United States participated in a Pan-American Trade Conference in November, 1929, and signed a treaty for the simplification of customs regulations.

The spirit of co-operation among the Latin-American countries has been manifested by the settlement of numerous disputes, in-

cluding the Tacna Arica controversy between Peru and Chile and boundary disputes between Bolivia and Argentina, between Colombia and Venezuela, and between Brazil and Argentina, Paraguay, Bolivia, Colombia, Venezuela, and British Guiana. Boundary disputes between Colombia and Nicaragua and between Guatamala and Honduras are in process of settlement. A dispute has arisen between Great Britain and the Argentine Republic in regard to sovereignty of the South Orkney Islands, and the Paraguay-Bolivia dispute over the Chaco area is not yet settled; in fact, hostilities have several times been threatened. Both the League of Nations and the Pan-American Commission have operated to preserve peace. Unsettled boundary disputes remain between Argentina and Uruguay, between Peru and Ecuador, between Panama and Costa Rica, and between Nicaragua and Honduras.

The customary police operations of the United States in the Caribbean have not entirely abated, in spite of President Hoover's announcement that the United States did not wish to be represented abroad by marines.

A revolt which broke out in Mexico in March was suppressed after an estimated loss of 4,000 men and $50,000,000 through the policy of the United States in making American surplus munitions available to the Mexican government.

Disturbances occurred in Haiti in December, 1929. Marines were dispatched, and President Hoover asked Congress to authorize a commission to study the question. This uprising had been preceded by the resignation of Mr. Millspaugh, financial adviser and general receiver of Haiti. He had had differences with other American officials in Haiti.

In April Mr. Charles G. Dawes headed a commission to assist San Domingo in reorganizing its finances. American marines continue in Nicaragua, and the Senate in February, 1929, rejected an amendment which proposed withholding funds for their support.

Canadian relations have been satisfactory. The president has indorsed the St. Lawrence deep waterway proposal, and a treaty was signed in January, 1929, with regard to diversions from the Niagara River. The government won its suit in the Supreme Court against the Chicago Drainage District with regard to diversion of

Lake Michigan water through the Chicago Drainage Canal, and is thus in a position to meet the legitimate interests of Canada in regard to the waters of the Great Lakes system.

The Far East.—The American treaty recognizing Chinese tariff autonomy was approved by the Senate on February 11, 1929, and the United States has in various notes expressed its sympathy for the Chinese desire to abolish extraterritoriality, though it has not modified its conviction that the administration of justice by China does not yet warrant that step. The Chinese government declared on December 31, 1929, "that the year 1930 is the decisive time and that the actual processes of reestablishing Chinese sovereignty by the abolition of extraterritoriality begins on January 1, 1930."

The nationalist government at Nanking has been beset by several rebellions during the year and also by Russian hostilities in northern Manchuria. The latter resulted from the Chinese seizure of the Chinese Eastern Railroad in July. Secretary Stimson and Prime Minister Briand at once reminded both China and Russia of their obligations under the Kellogg Pact, although this instrument had not yet gone into formal effect. Negotiations between China and Russia continued during the fall, but on December 2, 1929, Secretary Stimson again sent a formal reminder of the Peace Pact to the two countries. Russia resented the appeal on the ground that negotiations were progressing satisfactorily, and in fact an agreement between Soviet and Mukden representatives was soon after signed. The state department reported on December 7 that twenty-six governments had agreed to follow the American initiative on this occasion, though Poland and Switzerland had wished to delay; Germany agreed in principle but was pursuing different methods; and only two, Japan and the Soviet government, were unfavorable. The Nanking government approved the protocol with Russia settling the Chinese Eastern Railroad issue on December 6, 1929. Many Americans participated in the Institute of Pacific Relations Conference at Kyoto, Japan, in October, 1929. The problem of Manchuria attracted most attention at this unofficial international gathering.

The United States has concluded a treaty with Great Britain fixing the boundary between the Philippines and British North Bor-

neo. This followed a vigorous debate on the Philippines in the Senate, resulting, on October 9, in the defeat of the King amendment to the tariff bill providing for Philippine independence by a vote of 45 to 36. The status of the Philippines continues to be actively discussed in Congress with the sugar-growing interests and California labor advocating independence.

American policy in the Far East continues to look toward the establishment of fully independent states under native governments in that region and to welcome the co-operation of European powers to that end. The difficulties, however, which the internal instability of China present to this policy is fully recognized.

Europe.—The increasing solidarity of the European countries was exhibited in the League of Nations assembly meeting in Geneva by M. Briand's outline of a plan for a United States of Europe. There was also a certain indication of European solidarity in the general protest of these countries against the American tariff. Such events, as well as the general American policy of promoting peaceful settlements and disarmament in accordance with the Kellogg Pact, have slowly but surely led Washington into closer co-operation with Europe. Two American experts, Owen Young and J. P. Morgan, took the initiative in the commission to reconsider the reparation settlement in February, 1929. The "Young Plan" which emerged from this commission reduced German reparations and annuities to substantially the amount offered by Germany at the Versailles Conference. It was approved by the Reparations Commission in Paris on June 7 and signed by a diplomatic conference of the interested powers at The Hague in August. Further negotiations were required on certain features of it, particularly the establishment of the Bank of International Settlements. This was effected through an experts' conference at Baden-Baden, followed by another diplomatic conference at The Hague in January, 1930. The United States has participated in all of these conferences unofficially and officially in the phases directly affecting American claims against Germany.

Anglo-American relations, somewhat strained by the failure of disarmament discussions in 1927–28, have distinctly improved through co-operative action in this regard, particularly since the

advent of the Labour government in England. Mr. MacDonald visited the United States in October, and issued a joint statement with President Hoover which interpreted the Kellogg Pact "as a positive declaration to direct national policy in accordance with its pledge," declared war between the two countries "unthinkable," and pointed out that conversations were in progress to solve "old historical problems," which had "changed meaning and character" in the light of "the assumption that war between us is banished." The latter doubtless referred in part to freedom of the seas, which, however, has not been discussed formally except for President Hoover's Armistice Day suggestion "that food ships should be put on the footing of hospital ships." This suggestion seems to have fallen on barren soil. There is, however, great interest, both in America and Europe, in the suggestion that the general renunciation of war as an instrument of policy ends the possibility of neutrality.

The French debt settlement signed by Secretary Mellon and M. Berenger was finally approved by the French Parliament in July after the United States had declined to postpone the date for French payment of $400,000,000 due for post-war military purchases unless this were done. The discussion with France over tariffs and movie-film restrictions has already been mentioned.

In April Secretary Stimson declared that no change was contemplated in the policy of not recognizing the Soviet government of Russia. Nevertheless, correspondence with Russia actually occurred as a result of the latter's hostilities in Manchuria. The British government resumed formal relations with Russia on November 5, 1929.

Apart from the American participation in political conferences of primary European interest, such as those dealing with reparations and disarmament, the policy of co-operating in all non-political discussions has advanced. The advent of the Hoover administration has undoubtedly marked another milestone away from the policy of political isolation from Europe reasserted after the World War. Contact between the United States and the League of Nations is now entirely normal, and the force of events is continually making such contacts more frequent.

LABOR

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ABSTRACT

Although statistically 1929 was a normal year for labor, certain events occurred which make it one of the most dramatic years since the war. The outstanding event which stirred the country and the labor movement was the southern textile strike situation which led up to the decision of the American Federation of Labor to launch a general organizing campaign. This year also witnessed the comeback of two of the garment trades unions, but dissension is rife in the United Mine Workers union. Three new organizations were founded by the opposition elements, and because of the depression the radicals are experiencing an increased responsiveness. The conservatives are also advocating reforms characteristic of depression years.

STRIKES, LABOR BANKS, AND UNION MEMBERSHIP

Quantitatively measured, 1929 was a comparatively normal year. A larger number of strikes occurred in 1929 over 1928, but less workers participated in the 1929 strikes than in those of 1928. In 1928 there occurred 629 industrial disputes in which the number of employees involved was reported as 357,145. In 1929, on the other hand, according to the uncorrected figures of the United States Bureau of Labor Statistics, 827 strikes are recorded in which only 238,329 workers participated.

Likewise, the status of the labor banks has not changed materially although they have shown an annual decline since 1927, both in the number of banks as well as in their financial condition. A recent book on *The Labor Bank Movement in the United States,* issued by the Industrial Relations Section of the Department of Economics and Social Institutions of Princeton University, reveals that whereas twenty-seven banks functioned in 1928 the number was reduced to twenty-two by the middle of 1929. Likewise, the capital declined from $7,437,500 in 1928 to $6,687,500 in 1929. The deposits also receded from $98,183,830 to $92,072,098; and the resources dropped from $114,748,059 to $105,539,894. In view of general economic conditions and since the Brotherhood of Locomotive Engineers, the largest owner of labor banks, is still liquidating its holdings, it would seem that the trough in the decline of labor banking has not yet been reached.

If as accurate figures were available for union membership as are at hand for strikes and labor banking they would probably also show a slight decline. As has been explained in previous articles, such figures are not available for all the unions. However, the American Federation of Labor in its annual report claims a slight increase in membership over 1928. In that year it reported an average membership of 2,896,063, and for 1929 it reports a membership of 2,933,545. It is generally agreed among students of labor that this is an exaggeration, as was explained in the account of last year. It is safe to state that at best union membership remained stationary. With reference to the labor activities that are not measurable statistically, the established agencies of the labor movement have also pursued the even tenor of their ways.

UNREST IN THE SOUTH

Notwithstanding this apparently normal course of the labor movement certain events, which statistically seem insignificant, have made 1929 the most dramatic year since the stirring immediate post-war days of intense and demonstrative unrest with nation-wide strikes, internal ideologic strife centering around the Plumb Plan, nationalization of the mines, and other radical propaganda activities culminating in the 1924 LaFollette presidential campaign.

The most important event which vitally affected the labor movement and stirred the country was the general unrest and strikes in the south, centering chiefly around the textile industry. A factory working class has come into being with the rapid industrialization of the South. The two most important industries are textile and tobacco, and most of the textile industry is located in small towns known as mill villages, where the firm or firms dominate all social and economic life. The working conditions are hard, the hours ranging from eleven to twelve a day, and the wages from $8.00 to $15.00 a week. Usually all the able-bodied members of the family work, including children over twelve years of age. The living conditions are generally miserable, and the health of the workers is low. The bulk of the workers are "poor mountain whites," descendants of the oldest Anglo-Saxon stock, and colloquially known as "hill Billies."

In order to lure industry to the South, the local realtors and chambers of commerce have been featuring the "cheap and contented" 100 per cent American labor supply, which, unlike the immigrant workers of the North, was docile and wholly unresponsive to appeals of labor agitators. Whether these high-powered realtors and their allies in the chambers of commerce had short memories or conveniently forgot the pre-war textile strikes led by the United Textile Workers union and the American Federation of Labor, on the one hand, and the I.W.W., on the other, and the post-war strikes conducted by the United Textile Workers, it is uncertain. At any rate the capitalists evidently did not inform themselves but accepted the statements of the local boosters. The shock and attendant consternation were naturally intense when all these elements were rudely awakened to the realization that the 100 per cent American cheap labor was neither contented nor docile and manifested its dissatisfaction by striking.

Most of the strikes were precipitated by the introduction of efficiency and speed-up methods according to the Bedeaux system. This consisted in so reorganizing the work that each worker could attend to many more looms than formerly. The workers have dubbed it the "stretch out," because they have to exert themselves in order to cover a larger floor area, and because in order to economize time they must reach out at long range. Once the discontent became articulate, wages and hours also were raised as issues. The largest strike, that of the 5,000 rayon workers of Elizabethton, Tennessee, was brought about because of discontent over wage matters. These strikes commenced in the spring and ran into fall, although a few took place even during the winter. The area covered the Piedmont region of the two Carolinas and neighboring Tennessee. As compared to the total number of strikers in the country, the number involved in the southern textile mills was ridiculously low. Exact figures are not available, but it is authoritatively estimated that barely over 20,000 workers participated in the textile strikes.

In general, the strikers were not organized into unions, but the majority availed themselves of union leadership during the strikes. From the point of view of union contact and leadership, the strikes divide themselves into three groups. There were the so-called "lead-

erless strikes," that is, strikes of textile workers without outside professional union leadership or guidance. Something under half of the strikers participated in the "leaderless strikes," which were mostly confined to South Carolina, excepting, however, the region in the vicinity of Gastonia, North Carolina. Generally union leadership was offered but was rejected by the strikers. They seem to have been influenced in their attitude by the fact that they were mostly of the third generation in the mills and felt oriented; that they had had unfavorable experience with unions in the past; and that, because of the Communist scare superimposed upon the usual provincial spirit, these workers feared that outside organizers would arouse the bitter opposition of the employers. According to reports, all these "leaderless strikes" came off without any untoward disturbances and were either won or compromised, whereas the union-led strikes were generally attended by violence and were lost. It is highly probable that these reports of the outcome of the "leaderless strikes" are rather optimistic, for it is known that in unorganized strikes the workers are no match against the bargaining skill of the employers, who may so manipulate a settlement that an ostensible victory or compromise may turn out to be a defeat for the workers. On the other hand, in view of the general union scare, the employers were probably less resistant and more conciliatory when the union was not a party to the strike. Since the settlement of the "leaderless strikes," the workers in some of the mill villages have organized into unions and have affiliated with the United Textile Workers.

The leadership of the strikes under union auspices came from two sources. The strikes in Gastonia, North Carolina, and the surrounding territory, reaching across the border into South Carolina, were conducted by the Communist-led National Textile Workers Union. Naturally the usual volatile and demonstrative tactics were encouraged. And the proemployer elements were even more extreme. They were particularly outraged because the strike with its mass picketing, demonstrations, open air mass-meetings, and social and recreational activities was continued after the plant was operating at full capacity. The union decided, as is common even with conservative unions, on a campaign of attrition. A colony was improvised for the evicted families. Similarly, a commissary was es-

tablished where the strikers were given relief, and the union headquarters were maintained. The local press fumed and fretted, inciting the population against the "Communists," "atheists," "nigger lovers," and "northerners." Naturally such a situation is inevitably attended by violence unless the authorities conscientiously and efficiently maintain law and order. Notwithstanding that Gastonia was policed by the state militia, a masked mob descended upon the union headquarters and commissary and demolished the buildings and scattered the foodstuffs and other contents far and wide. The "law," as the police authorities are characterized colloquially, arrived just as the raiders departed. There were no arrests or prosecutions. In the course of this communal class strife, the chief of police and a woman union organizer were killed, and several men union organizers were kidnapped and flogged. The chief of police was killed while trying to enter the strikers' colony without a warrant, although it was located on private property.

The outstanding leaders, local and national, who were on the ground were arrested and tried. The trials attracted international attention. The prosecuting attorney showed an extraordinary knack for featuring the sensational and morbid in order to arouse the sympathy and prejudice of the jurors. The usual demands for a change in venue were made and granted. The first attempt resulted in a non-trial when one of the jurors went insane. The prosecution changed its tactics in the second trial by dropping the charges against the women organizers and by changing the charge from first degree murder to manslaughter in order to make more certain of a conviction. The second trial turned out to be as spectacular as the first. At the outset the judge was inclined to hold the prosecution in check, but toward the end he permitted the introduction of political and religious testimony prejudicial to the labor defendants and not germane to the issue. The antics and histrionics of the prosecuting attorney in arguing the case before the impressionistic jury by actually rolling on the floor and resorting to other fantastic gyrations were generally described by northerners as unfair and unbecoming. The defendants were found guilty and the northerners were sentenced to from seventeen to twenty years, while the Gastonians drew a lighter penalty of from twelve to fifteen years. So far no one

has been successfully prosecuted for the killing of the woman organizer who, with others, was in a truck which was waylaid by a mob on the way to an open-air mass-meeting. Nor have any of the kidnapers of the men organizers been apprehended.

The Communist-led strikes were lost.

The strikes led by the United Textile Workers and the American Federation of Labor were equally characterized by violence, litigation, and conviction of strike leaders. They differed from the Communist-led strikes in that the Federation leaders were conciliatory and took advantage of outside intervention in order to settle the strikes. But in spite of their skill as negotiators and their success in securing settlements the employers outwitted them so that the important strikes finally resulted in defeat. The outstanding strikes took place in Elizabethton, Tennessee, Ware-Shoals, North Carolina, and Marion, North Carolina. At Elizabethton, in addition to the usual wholesale arrests because of mass picketing, two of the northern leaders, one representing the Federation of Labor and the other the United Textile Workers, were kidnapped and run out of town. There were other unsuccessful attempts at kidnapping. In Ware-Shoals, the organizer, a southerner, was forced out of town during the day time with the local authorities acknowledging to him their helplessness to intervene. In Marion, where the United Textile Workers union was aided by the Emergency Strike Committee and the Conference for Progressive Labor Action (two agencies of the moderate radicals, the latter of which is described here) the strikers were much more persistent. Evictions and arrests occurred, as well as six killings of strikers, and the conviction of four labor leaders on the charge of rioting. In none of these cases were the kidnapers apprehended, and the attempt to prosecute police officers for illegal action has so far brought no results. In some instances the local churches expelled the strikers.

The New Orleans street car strike of 1,500, led by the Amalgamated Association of Street and Electric Railway Employees and the Federation, should also be mentioned in connection with the textile strikes. The issue was over the threat of the open shop although the union has been long in existence and the workers have enjoyed the closed shop. The usual injunction was granted and the typical

violence occurred. There was considerable rioting, one riot even taking place within the portals of the city hall. A number of street cars were bombed and burned and two pickets were killed. Although the workers had a strong union and were experienced unionists, this strike was also lost after a settlement negotiated by the national leaders was rejected by the strikers because it lacked a provision protecting the active union members.

THE AMERICAN FEDERATION OF LABOR

This social ferment in the South has so impressed the Federation that at its 1929 convention in October it was the outstanding topic. Indeed it successfully vied with Ramsey McDonald for attention. So significant did it loom in the minds of the delegates that a special session was set aside, during which the convention became transformed into a revival meeting rousing everybody except a few of the "hard-boiled old guard" to high pitches of emotionalism. And finally a concerted organizing campaign in the South was authorized. Since then a national gathering in Washington, at which most of the unions affiliated with the Federation were present, has mapped out specific plans for launching the campaign in 1930.

The last American Federation of Labor convention was notable for other occurrences. The post-war hysteria of previous conventions was absent. There was no "red baiting." Militaristic propaganda received a polite but firm rebuff when President Green in reply to the speech of the head of the American Legion pointed out that the Federation did not approve of militaristic agitation. The Federation also surprised everybody by overwhelmingly indorsing old age pension legislation. In previous years it had shown a veiled hostility toward this form of legislation. During the debate at the convention some of the most influential and philosophically best-grounded leaders opposed indorsement. They argued that the Federation had always functioned on the principle of voluntarism, which means that it was opposed to paternalistic legislation since that might discourage the workers from supporting their unions by expecting aid from other sources. The official family, however, stood back of the proposition and it carried.

There are two other outstanding events in the trade-union situa-

tion of 1929. For the last few years economic conditions and internal factional fights had weakened two of the unions in the garment trades—the Ladies Garment Workers and the Fur Workers unions. The leadership came temporarily under Communist domination. The old Socialist leaders enlisted the aid of the Federation and the public authorities and the battle raged. Gradually the Communist leadership was forced out, and now the old leadership is in full control of these two unions. Now they are taking advantage of favorable conditions to re-establish union control in their respective jurisdictions. The Ladies Garment Workers Union has, with the support of the large employers, conducted a successful strike of 30,000 workers in the cloak and suit branch of the trade, winning full recognition and other material concessions. It is now laying the ground for similar action in the dress and waist branch, involving some 50,000 workers. The Amalgamated Clothing Workers, functioning in the men's garment industry, avoided disastrous internal strife and has continued to extend its influence. Its most notable victory was that in the Philadelphia market where it was conducting a campaign for ten years. Its efforts were crowned with success this year in a strike of 2,200 workers.

The opposite situation prevails in the coal-mining industry. For several years now the United Mine Workers union has been meeting with reverses. Likewise it has been beset with internal strife resulting from time to time in open revolt on the part of subordinate units. In the anthracite region, where the union won its last strike and has full recognition, factional struggles occurred, resulting in the assassination of rival leaders, general defiance of the regularly constituted leaders, and abortive attempts at dual unionism. As a result of these disturbances the union situation in the anthracite region is critical.

Nor is the bituminous coal area free from similar difficulties. Since the disastrous strike of 1928 dissension has been rife. For the present the controversy has become localized in the struggle between the officials of the United Mine Workers and its Illinois District No. 12. This latter district is the only substantial bituminous coal area that still has solid union recognition and a large dues-paying membership. There had been differences since the war between

the national officials and those of the Illinois district, not so much over principles as over control of the organization. The quarrel was patched up several times, but it broke out again this fall. The immediate grounds were charges of insubordination against the district officials by the national officials over administrative matters. In reality District 12, as the only intact unit in the bituminous area, threatens to become the dominant factor by taking control from the national officials. The district officials were suspended but secured an injunction forbidding the national officials to interfere. Now the district leaders are taking the offensive by appealing to the membership and local leaders to depose the national leaders. They are attempting to unite all opposition elements except the Communists, and if they fail in deposing the present national leaders they will undoubtedly organize a rival union to the United Mine Workers and independent of the Federation.

NEW ORGANIZATIONS OF OPPOSITION ELEMENTS

During the year 1929 three new organizations were founded by opposition elements. Events that foretold the probable creation of two of these organizations were discussed in the account of last year. The progressive elements that founded Brookwood Labor College in 1921 and the more militant Socialists have organized themselves into the Conference for Progressive Labor Action, in order to carry on propaganda and promotional work for moderate radicalism and more militant organizing activity. For the present they plan to work within the existing unions and other organizations of workers, acting as a leaven that will stimulate a "new spirit and activity." The C.P.L.A. is issuing a monthly publication called *Labor Age,* as well as pamphlets and other literature, and is becoming active in the industrial, political, and educational field. In conjunction with the extension work of Brookwood Labor College, it has been particularly active in the South and has taken a keen interest in the labor situation of the coal-miners.

Closely akin in ideology is the League for Independent Political Action. Its objective is narrower in that it confines its activities to creating interest in independent political action, whereas the C.P.L.A. covers all fields of interest to the workers. Likewise the

personnel composing the L.I.P.A. is of a different nature. It is primarily composed of individuals whose activities and influence are confined to the so-called intellectuals and the middle-class and professional groups. In fact, the leadership comes from academicians like Professors John Dewey and Paul H. Douglas, religious leaders like Kirby Page and Rev. John Haynes Holmes, and publicists like Oswald Garrison Villard, Zona Gale, and W. E. B. DuBois. This League hopes to induce the liberals to ally themselves with the progressive labor forces in the formation of an independent party akin to the British Labour party, featuring the ideal of social control as against that of "rugged individualism." The League has opened headquarters in New York, is issuing literature, and has a field agent.

In contrast to these two organizations of the moderate radicals there is the Communist-led Trade Union Unity League. It was evident in 1928 that the Communists would have to abandon in part at least their boring from within the existing unions. A number of rival unions were organized, and naturally they needed a central organization for the furtherance of their mutual interests and the co-ordination of their activities. This the T.U.U.L. is designed to accomplish. Its forerunner, the Trade Union Educational League, merely brought together members of existing unions or unorganized workers who ultimately were to join existing unions. The T.U.U.L. is now encouraging the organization of separate industrial unions, and aspires to develop a rival trade-union movement to that led by the Federation of Labor. So far such unions have been organized for the garment trades, textile and mining industries. There are also small unions of shoe-workers, automobile-workers, hotel, restaurant, and cafeteria workers, and building maintenance workers. For the other industries leagues have been organized in order to lay the foundation for industrial unions, and within the next year several such will undoubtedly be brought into being. The T.U.U.L., however, declares that it has not entirely abandoned the old policy of functioning within the existing unions. This attempt to carry water on both shoulders has never been successful in the labor movement. An organization that encourages the founding of rival unions and yet attempts to work within the existing unions will

hardly be tolerated by the latter. It is highly probable that the T.U.U.L. will devote its energies primarily to the formation and guidance of new industrial unions. While these unions may cut into the membership of existing unions to a limited extent, their recruits will come chiefly from the unorganized. It is difficult to estimate the numerical strength of the T.U.U.L., but there is no doubt that the Communists have their following strategically scattered throughout the country ready to take advantage of developing situations. The T.U.U.L. claims that at its first convention some 60,000 dues-paying members were represented, and that over 700,000 workers were represented by the delegates that came from unorganized areas. While these figures are inflated there is no doubt that the showing was formidable for an initial convention.

In the meantime factional strife within the Communist party has continued unabated. By orders from the Communist International the majority group was deposed and the minority was placed in control. The majority leaders refused to accept the decision and were expelled. Foster and his faction seem now to be in favor with the powers that be of the Communist International. On a less ostentatious basis differences within the Socialist party are becoming intensified. The "old guard" element is for marking time whereas the younger and newer element is for assertive action. At times feeling runs high but still undersurface. It seems as though the old guard is yielding but the outcome is still uncertain.

Just at present with the industrial depression and extensive rationalization even affecting the skilled workers, with its consequent unemployment and the scrapping of the worker over forty, unrest is growing. Such times are propitious for the radicals of all shades. The Communists are already attracting nation-wide attention with their unemployment demonstrations in which they do not shrink from open clashes with the public authorities. The moderate radicals are also getting favorable responses. The most concrete evidence is the renewed interest in independent political action. Local labor parties are coming into existence. In Reading the Socialists are in complete control of the municipal government. The recent New York municipal campaign was also significant. Several of the dailies supported Norman Thomas, the Socialist candidate. He also

received considerable support from non-labor elements. He polled 175,000 votes, being 12 per cent of the total. Four years ago he received 39,574 votes. Of course, there were local contributing factors, but they are probably also a reflection of the general situation.

The conservatives in the movement stand to lose temporarily at least since they are in control of the unions, and during periods of depression union membership declines and union activity is abated, with the workers tending toward political and other non-industrial activity. Nevertheless the conservative leaders are bestirring themselves. The Federation has gone on record for old age pension legislation. It is also demanding extensive public works programs in order to find employment for the unemployed, and is agitating for the five-day week. Already "in the neighborhood of 1,000,000 workers are enjoying the five day week," according to an estimate of The Labor Bureau, Inc., in its January *Facts for Workers*. Because of the serious unemployment the so-called railroad brotherhoods, that is, the four unions of engineers, firemen, conductors, and trainmen, have boldly launched a campaign for the six-hour day and the five-day week.

EARNINGS

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ABSTRACT

Within the past forty years, the greatest gain in real earnings for workers employed in manufacture in the United States came after the close of the World War. While the cost of living was dropping, money earnings stayed up, and thus real earnings advanced. But in 1929, the year dealt with in this study, real earnings in manufacturing increased only about 1 per cent. This increase resulted from a rise in money earnings rather than from any break in the cost of living, for, contrary to popular supposition, the average cost of living for 1929 did not decline. Workers producing consumers' goods fared somewhat worse in 1929 than those working on producers' goods. Data on farm labor indicate an increase in money earnings of 1 per cent, whereas money earnings of unskilled labor dropped 1 per cent. A survey of union wage rates shows that there has been no change in full-time weekly earnings for the past three years

The year 1929 may be called a "1 per cent year." Although wider fluctuations took place in specific industries, and although a general slump began in November, the average variations from 1928 in the cost of living, money earnings, and real earnings, seldom exceeded 1 per cent. It must not be concluded, however, that the worker's position remained unchanged in 1929. Unemployment, which increased, particularly at the end of the year, must be taken into consideration.

MONEY EARNINGS IN MANUFACTURING

If we take the year 1929 as a whole there was an apparent increase in the average annual money earnings of those who were employed in manufacturing of approximately 1 per cent. In 1928, the average annual earnings of the wage-earners in manufacturing were $1,325, while the average for 1929 rose to $1,341.[1] These results were obtained by applying the relative changes from month to month in the average earnings of workers in identical firms as reported by the Bureau of Labor Statistics to the census average for 1927.[2] These statistics of average earnings which were collected by the Bureau covered approximately 3.1 million employees in 1928, and on the average approximately 3.5 million in 1929.

Table I not only shows the averages for 1928 and 1929 as a whole but also shows the average rate of yearly earnings for each of the

[1] This average has been computed from data published monthly in the *Monthly Labor Review* under the heading "Employment in Selected Manufacturing Industries."

[2] Or to be precise, to what the census average in December, 1927, would have been had the census earnings by months varied from the yearly average as the monthly earnings reported by the Bureau of Labor Statistics varied from their yearly average.

months as well and the relation of all these average earnings with the average for 1914. The yearly averages are obtained by multiplying the average weekly earnings for each month by 52. If these averages are analyzed, it will be seen that after the customary decline of average earnings in January, the earnings rose in February to an average of $1,368, which was 8 points, or over 3 per cent, higher than the 1928 average. The earnings remained within 1 per cent of this average until July, when they fell by 10 points, or 4 per cent, to an average of $1,297. They rebounded, however, in August to an

TABLE I

AVERAGE ANNUAL EARNING OF EMPLOYED WAGE-EARNERS IN MANUFACTURING, 1928–29

Year and Month	Average Rate of Yearly Earnings	Relative Annual Earnings (1914 = 100)
1928:		
Average	$1,325	228
1929:		
Average	1,341	231
January	1,294	223
February	1,368	236
March	1,376	237
April	1,382	238
May	1,382	238
June	1,358	234
July	1,297	224
August	1,349	233
September	1,342	231
October	1,349	233
November	1,297	224
December	1,294	223

average of $1,349 and a relative of 233 and remained at approximately this level during September and October.

The business depression of November, however, brought the index down by 9 points and 4 per cent to $1,297, and there was a further slight fall of somewhat less than 1 point in December to an average of $1,294.

THE RELATIVE COST OF LIVING

In order to appraise the relative degree of progress which the workers had achieved by 1929 and the fluctuations in their material welfare during the year, it is, however, necessary to compute an index of the relative cost of living for the year as a whole and for

the separate months as well. This has been done by (1) multiplying the indices which the Bureau of Labor Statistics compiled for thirty-two cities of the country for June and December by the relative population of each and thus obtaining a composite index for the urban areas of the country as a whole. These were reduced to a 1914 base by a process which has been described in a book written by one of the authors.[8] This index differs from that which the Bureau of Labor Statistics itself computes for the country as a whole in that it is based on a weighted average of the relatives for the individual cities, while that of the Bureau is based on (*a*) an unweighted average within each of the main items in the cost of living (i.e., food, clothing, shelter, fuel, light, etc.) of the relatives for these items in the various cities and (*b*) a weighted average of the relatives for these groups. Our index for December is approximately 4 points higher on a 1914 base than that of the Bureau, but it is believed that it is more accurate. (2) The cost of living relatives for the months between December, 1928, and June, 1929, and between the latter month and December, 1929, were found by interpolation. Here we used the monthly cost-of-living index of the National Industrial Conference Board to estimate the *relative* monthly changes according to the basic assumption that the Bureau of Labor Statistics index would move in the same relative fashion during the intervening months, and that any difference in the rates of change between the Board's index and that of the Bureau for the period as a whole would be evenly distributed over the period.

The index obtained by this method is as given in Table II.

This index shows that, contrary to the general impression, if the year 1929 be taken as a whole the cost of living did not fall but instead rose by 1 point. If the movement is studied by months, it will be seen that the index rose from 169 in January to 172 in September and October, and fell by 2 points in the last two months of the year.

REAL EARNINGS IN MANUFACTURING

By dividing the indices of money earnings by the relatives of the cost of living, we obtain the index of real earnings for manufacturing which is given in Table III.

[8] *Real Wages in the United States*, by Paul H. Douglas, p. 54.

TABLE II

INDEX OF COST OF LIVING, 1928–29

(1914=100)

Year and Month	Index of Living Costs
1928:	
Average	169
1929:	
Average	170
January	169
February	169
March	168
April	168
May	168
June	169
July	170
August	171
September	172
October	172
November	171
December	170

TABLE III

RELATIVE REAL EARNINGS OF EMPLOYED WAGE-EARNERS IN MANUFACTURING, 1928–29

(1914=100)

Year and Month	Relative Real Annual Earnings
1928:	
Average	135
1929:	
Average	136
January	132
February	140
March	141
April	142
May	142
June	139
July	131
August	136
September	135
October	136
November	131
December	131

If the year be taken as a whole, therefore, there was a gain of 1 point over the relative index for 1928. If the movement is studied by months, however, it will be seen that after the low index of 132 for January the relative rose to 140 in February and reached 142

TABLE IV

THE MOVEMENT OF MONEY AND REAL EARNINGS IN SPECIFIC MANUFACTURING INDUSTRIES, 1928–29

INDUSTRY	AVERAGE ANNUAL EARNINGS		RELATIVE MONEY EARNINGS (1914 = 100)		RELATIVE REAL EARNINGS (1914 = 100)	
	1928	1929	1928	1929	1928	1929
1. Confectionery	$ 895	$ 900	224	227	132	134
2. Meat-packing	1,372	1,382	218	220	129	130
3. Baking ...	1,371	1,380	221	223	131	131
4. Knit goods..	983	1,015	248	256	146	151
5. Silk goods	1,123	1,124	258	258	153	152
6. Cotton goods	761	780	197	202	116	119
7. Woolen goods	1,108	1,115	231	233	137	137
8. Shirts.. .	738	732	201	199	118	117
9. Men's clothing ..	1,110	1,103	222	221	131	130
10. Women's clothing. .	1,342	1,337	245	244	145	144
11. Iron and steel . .	1,727	1,779	228	235	135	138
12. Foundry and machine-shops	1,515	1,565	225	232	133	137
13. Lumber and millwork	1,308	1,302	203	202	120	119
14. Sawmills.	989	986	198	197	117	116
15. Furniture....	1,253	1,257	223	224	132	132
16. Boots and shoes	1,061	1,063	192	193	114	114
17. Leather	1,276	1,311	223	230	132	135
18. Paper boxes .	1,058	1,075	256	260	151	153
19. Paper and pulp	1,331	1,359	221	226	131	133
20. Book- and job-printing	1,712	1,728	247	249	146	147
21. Newspaper-printing	1,956	1,997	253	258	149	152
22. Petroleum-refining	1,622	1,624	212	212	125	125
23. Glass. .	1,267	1,280	225	227	133	134
24. Tobacco .	799	808	179	181	106	107
25. R.R. car-building	1,541	1,610	212	221	125	130
26. Automobiles .	1,781	1,751	222	218	131	129
27. Electrical machinery	1,383	1,389	221	222	131	131
28. Agricultural implements	1,452	1,430	203	200	120	118
29. Automobile tires.. ..	1,415	1,346	237	225	140	133
30. Carriages and wagons	1,183	1,184	190	191	113	112
31. Brass, bronze, and copper	1,541	1,582	248	254	146	150

by April. There was a fall in June and July, and in the latter month the index touched 131. The revival of August carried the index to 136, where it virtually remained during September and October. The recession of November, however, carried the index down to 131 and here it remained during December. This was 5 points, or 4 per cent, less than it had been during the preceding December.

THE MOVEMENT OF EARNINGS IN SPECIFIC MANUFACTURING INDUSTRIES

The movement of earnings has also been analyzed for a considerable number of the main manufacturing industries and the results shown in Table IV.

An interesting comparison can be made of the relative degree of progress made during the years by the workers in industries producing consumers' and producers' goods, respectively. This is done in Table V. Of the 18 consumers' goods industries, therefore, there was an actual loss in real earnings in 5, no gain in 5, gains of 2 points or less in 5 more, and increases of 3 points or more in the case of the 3 remaining industries. Of the 13 industries manufacturing producers' goods, while 4 showed a loss there was only 1 in which the real earnings remained constant, in 3 the gain was 2 points or less,

TABLE V

A COMPARISON OF THE RELATIVE MOVEMENT OF MONEY AND REAL EARNINGS IN 1929 OVER 1928 IN (1) CONSUMERS' GOODS INDUSTRIES AND (2) PRODUCERS' GOODS INDUSTRIES

CONSUMERS' GOODS			PRODUCERS' GOODS		
	Relation of 1929 Average to 1928			Relation of 1929 Average to 1928	
Industry	Average Money Earnings in Dollars	Relative Real Earnings	Industry	Average Money Earnings in Dollars	Relative Real Earnings
Confectionery	+14	+2	Iron and steel	+52	+3
Meat-packing	+10	+1	R.R. car-building	+69	+5
Baking	+ 9	0	Foundry and machine-shop	+50	+4
Hosiery and knit goods	+32	+5	Brass, bronze, and copper	+41	+4
Silk	+ 1	−1	Lumber and millwork	− 6	−1
Cotton	+19	+3	Sawmills	− 3	−1
Woolen	+ 7	0	Paper boxes	+17	+2
Shirts	− 6	−1	Paper and wood pulp	+28	+2
Men's clothing	− 7	−1	Glass	+13	+1
Women's clothing	− 5	−1	Electrical machinery	+ 6	0
Furniture	+ 4	0	Agricultural implements	−22	−2
Boots and shoes	+ 2	0	Leather	+35	+3
Book- and job-printing	+16	+1	Carriages and wagons	+ 1	−1
Newspapers	+41	+3			
Tobacco	+ 9	+1			
Petroleum	+ 2	0			
Automobiles	−30	−2			
Automobile tires	−69	−7			

while 5 showed increases of 3 points or more. On the whole, therefore, the workers in industries turning out producers' goods fared slightly better during the year than those in industries producing consumers' goods. This had been the case during the preceding year as well. The industry whose workers suffered most of all was that of automobile tires, in which the loss in real earnings was 7 per cent.

Another interesting question is that of the degree to which the average earnings decreased in the various industries during the last two months of the year when business very definitely receded. The industries with the greatest declines from October to December were as follows:

Industry	Percentage Decline in Average Earnings Oct.–Dec., 1929
Automobiles	15
Furniture	10
Women's clothing	10
Boots and shoes	9
Iron and steel	8
Lumber and millwork	6
Woolens	6
Silk	5
Foundries and machine-shops	4
Automobile tires	4

OTHER INDUSTRIES

During the latter part of 1928, the Bureau of Labor Statistics began to collect pay-roll data from a number of other industries including (1) coal-mining, both bituminous and anthracite, (2) metalliferous mining, (3) public utilities, (4) wholesale trade, (5) retail trade, and (6) hotels. The average weekly earnings are shown by months from October, 1928, on in Table VI. In computing these averages the relative changes from month to month for identical firms have been applied to the October, 1928, average. Changes in the average due to alterations in the sample have therefore been eliminated.

RAILWAY WORKERS

The wage-earning groups on the railways as reported by the Interstate Commerce Commission have been segregated, and their average earnings were as shown in Table VII. The increase in av-

erage money earnings during the year amounted then to 5 points, or about 2½ per cent, which was sufficient to raise the index of real earnings for the year from 122 to 125.

TABLE VI

AVERAGE WEEKLY EARNINGS IN VARIOUS INDUSTRIES, OCTOBER, 1928, TO DECEMBER, 1929, AS SHOWN BY REPORTS OF THE UNITED STATES BUREAU OF LABOR STATISTICS

Year and Month	Anthracite Coal	Bituminous Coal	Metalliferous Mining	Public Utilities	Wholesale Trade	Retail Trade	Hotels
1928:							
October..	$34 30	$26 82	$30 17	$29 79	$29 29	$24 02	$17 33
November	31 73	26 44	30 05	29 46	28 97	23 64	17 33
December	38 59	26 42	30 89	30 00	29 35	22 34	17 52
1929:							
January.	31 11	26 10	28 87	30 18	29 52	25 75	17 14
February	41 43	29 13	30 98	29 40	29 47	24 04	17 49
March	27 58	25 18	31 80	30 83	29 79	24 02	17 38
April .	32 45	23 49	30 65	29 28	28 91	24 14	17 07
May	37 32	28 64	30 11	29 61	29 32	23 88	17 49
June	31 25	26.77	29 60	29 76	29 11	24 36	17 09
July	30 70	25.72	28 89	30 06	29 50	22 51	17 21
August	37 97	28 59	29 99	29 28	28 88	23.88	17 00
September	40 58	28 03	31 08	30 09	30 08	23 97	17 43
October .	42 46	28 59	30 56	30 24	28 79	23 83	17 69
November	26 27	26 04	29 57	29 22	29 06	23 47	17 36
December	45 52	27 25	30 80	30 65	30 23	23 28	17 57

TABLE VII

AVERAGE YEARLY EARNINGS OF WAGE-EARNERS ON CLASS I RAILROADS

Year and Month	Average Annual Earnings	Relative Annual Earnings (1914 = 100)	Relative Real Earnings (1914 = 100)
1928:			
Average	$1,647	207	122
1929:			
Average†	1,689	212	125
January	1,729	217	129
February*	1,607	202	120
March .	1,727	217	129
April*. .	1,683	212	126
May.. .	1,703	214	127
June*.	1,641	206	122
July..	1,700	214	126
August .	1,721	216	126
September*	1,647	207	121
October.. .	1,761	222	129
November*..... . .	1,660	209	122

* The decline in the earnings during these months seems to have been due at least in part to the fewer days in the months.

† The average for 1929 includes only 11 months because December data were not available.

CLERICAL WORK

While it has not been possible to compute the average earnings of clerical workers in manufacturing establishments during the year, it has nevertheless been possible to find the averages for railway clerks, and these are given in Table VIII. The increase in money earnings during the year amounts to over 1 per cent.

TABLE VIII

AVERAGE ANNUAL EARNINGS OF RAILWAY CLERICAL WORKERS, 1928–29

Year and Month	Average Annual Earnings	Relative Annual Earnings (1914 = 100)	Relative Real Earnings (1914 = 100)
1928:			
Average	$1,689	204	120
1929:			
Average*	1,709	206	122
January	1,715	207	123
February	1,637	197	117
March.	1,715	207	123
April .	1,708	206	123
May ..	1,722	208	124
June ..	1,692	204	121
July. ..	1,728	208	122
August	1,747	211	123
September	1,686	203	119
October .	1,749	211	123
November.	1,702	205	120

* The average for 1929 includes only 11 months because December data were not available.

UNSKILLED LABOR AND FARM LABOR

The National Industrial Conference Board gathers monthly data on the average full-time weekly earnings of unskilled labor in manufacturing establishments,[4] and these are given in Table IX.

Taking the year as a whole there was virtually no change in the average earnings from those of 1928. The movement of earnings within the year showed a slight sagging through the spring and early summer, and although earnings recovered in September the fall in November amounted to no less than 7 per cent, which shows the extreme responsiveness to business conditions of the wages of unskilled labor.

The wages of farm labor are reported by the Department of

[4] See the *Monthly Letters on Industrial Relations* issued by the National Industrial Conference Board.

Agriculture four times a year[5] for four classes of labor; namely, (1) monthly workers without board, (2) monthly workers with board, (3) day-workers without board, (4) day-workers with board. Because of the difficulty of estimating the money value of board and lodging, the second and fourth classes were not considered, and only those who received their wages entirely in the form of cash were included. The earnings of the day-workers were reduced to a monthly basis by multiplying them by 20, the estimated

TABLE IX

WEEKLY EARNINGS OF UNSKILLED LABOR, 1928–29

Year and Month	Average Weekly Earnings
1928:	
Average	$24.85
1929:	
Average	24.62
January	24.66
February	25.32
March	25.27
April	25.17
May	24.81
June	24.68
July	24.45
August	24.33
September	25.04
October	24.86
November	23.13
December	23.61

average number of days worked per month on farms. These averages for this group and for the monthly workers were then combined by giving them weights of 4 and 6, respectively, which are the proportions of each who according to the Department of Agriculture are employed on farms. A weighted yearly average was then computed from the quarterly averages.

Taking the year as a whole, the increase in money earnings was slightly less than 1 per cent. Owing to the difficulty in estimating the movement of living costs in rural areas, it is impossible to tell precisely what this meant in terms of real earnings. If the urban

[5] See *Crops and Markets.*

index of the relative cost of living reflected the movement in the country, then real earnings were virtually stationary.

WAGE RATES

The yearly survey of union wage rates conducted by the United States Bureau of Labor Statistics showed the following changes in

TABLE X

AVERAGE MONTHLY EARNINGS OF FARM LABOR, 1929

	Average Monthly Earnings
1928:	
Average	$49.10
1929:	
Average*	49.37
January	47.06
April	48.12
July	49 76
October	49 68

* The average for 1929 is not entirely comparable with that for 1928 January, 1930, should be included in the study; but in the absence of these data, the figure given indicates the most probable result

TABLE XI

CHANGES IN THE AVERAGE HOURLY WAGE RATES OF CERTAIN UNION GROUPS, 1928–29

TRADE	AVERAGE HOURLY RATE		INCREASE 1929 OVER 1928
	1928	1929	
Bakers	$0 954	$0 979	0 025
Building-trade workers	1 330	1 352	022
Chauffeurs and teamsters	712	715	003
Granite and stonecutters	1 335	1 369	034
Laundry workers	447	.458	011
Firemen	1 007	1 019	.012
Longshoremen	858	.863	.005
Book- and job-printing	1 036	1 049	013
Newspaper-printing	1 220	1 241	021
Average	1 195	1 204	0.009

the average hourly rates as between 1928 and 1929.[6] The average increase for the nine trades studied was nine-tenths of a cent, or less than 1 per cent.

[6] See *Monthly Labor Review*, December, 1929, pp. 26–33; September, 1929, pp. 144–67.

Reduced to index numbers, the relatives of hourly rates, standard hours per week, and full-time weekly earnings for the union trades as a whole have been as given in Table XII for the last three years. During these years, therefore, while the hourly rates increased by 1 per cent, the standard hours per week diminished by an equal relative amount, leaving the full-time earnings per week almost precisely the same in each of the three years.

TABLE XII

RELATIVES SHOWING HOURLY RATES, STANDARD HOURS PER WEEK, AND FULL-TIME WEEKLY EARNINGS, 1927-29

	Relatives (1913 = 100)		
	Hourly Rates	Standard Hours per Week	Full-Time Weekly Earnings
1927	259 5	92 4	240 8
1928	260 6	91 9	240 6
1929	262 1	91 5	240.7

A WORD OF CAUTION

In appraising the movement of real earnings during 1929, two factors should, however, be constantly borne in mind: (1) In a period of shrinking employment such as that which characterized manufacturing, mining, and transportation during the year, the men who are laid off tend to be of less than average efficiency. Their earnings, therefore, also tend to be below the average. The removal of their names from the pay-roll will operate consequently to raise the apparent average of earnings for the establishment as a whole, even though those who remain now receive no more than they did before. But it is difficult to determine how much of the increase shown in manufacturing and on the railroads in the average of earnings is due to this cause. (2) Unemployment increased during the last quarter of the year, making the average for 1929 undoubtedly higher than that for 1928. This impaired the position of the working class, and in the opinion of the authors probably more than counterbalanced any increase which may have taken place in the earnings of those who continued to be employed.

EMPLOYMENT AND UNEMPLOYMENT

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ABSTRACT

The year 1929 was chiefly characterized by a high level of factory employment and pay-rolls. How high they were is better measured by indices adjusted to the U S. Censuses of Manufactures, than by unadjusted "link-chain" indices. The slump late in 1929 carried factory employment and pay-rolls in December down to a point abreast of their low of two years before but above those of mid-1924 and far above 1921. Railroad personnel enjoyed better employment in 1929 than in 1928, though less good than in other recent years owing chiefly to technological displacement; but their earnings were very large. Anthracite miners suffered somewhat in loss of employment and more in loss of income because of part-timing. Lack of direct information on nation-wide building employment will, it is hoped, be remedied soon. The federal government had success in measuring other non-factory employments in 1929. Progress has been made in the direct measure of unemployment through several local surveys, and completion of plans for the 1930 Census of Unemployment; but unemployment volume is still unknown.

The year 1929 was marked, in the United States, not only by important changes in the employment and unemployment situation as such, but also by certain significant steps toward more adequate statistical formulation or analysis of this two-sided problem. Both the employment and the unemployment evidence is slowly but surely showing improvement over its status in 1927 or 1928, as recorded[1] in earlier editions of "Social Changes." These improvements in data,[2] as well as the changes in employment conditions during 1929, are reviewed in the following pages as briefly as is practicable.

FACTORY EMPLOYMENT IN THE UNITED STATES

United States Bureau of Labor Statistics.—During 1929 the United States Bureau of Labor Statistics further expanded its already large sample of manufacturing establishments reporting monthly on employment and pay-rolls. Thus, the plants reporting

[1] For the earlier versions see "Employment in the United States in 1927," *American Journal of Sociology*, XXXIV (1928), 92–99; and "Employment and Buying Power in 1928," *ibid.*, XXXIV (1929), 1030–44.

[2] In 1929, as previously, the Committee on Governmental Labor Statistics of the American Statistical Association has lent effective support to such improvements of both employment and unemployment evidence.

for November and December, 1929, numbered 12,247, and employed more than 3¼ million workers for a total wage of nearly $90,000,000 a week, despite the late 1929 contraction of employment hereinafter described.

The number of separate industries represented is the same as a year ago, i.e., fifty-four, according to the definition of "industry" used by the Bureau; and they are grouped into twelve major industrial divisions, which in the main follow the census classification. The Bureau of Labor Statistics continues its earlier geographical division, which is precisely that of the Census Bureau.

All of this is real progress, in comparability as well as in comprehensiveness, even though (as to the latter point) about one-fifth of the country's factory workers are employed in industries for which the Bureau of Labor Statistics does not yet collect current data.

The problem of statistical bias.—From month to month, or over a limited period of a few months, this large and varied sample yields a highly satisfactory picture of changes in factory workers' employment or aggregate earnings; but over an extended period of several years the Bureau's index constructed from month-to-month changes is open to serious question. Indeed, such must be the case with any index of economic fluctuations constructed by "chaining" together such "link relatives." Fortunately there is, for employment, ample opportunity to check any such cumulative statistical bias, by use of the biennial data from the censuses of manufactures.

Federal Reserve Board.—Since the Bureau of Labor Statistics has never shown any disposition to check up and rectify its link-chain sample with the aid of census data, others have been obliged to undertake the work. As early as 1923 the writer established for the Federal Reserve Board a complete set of such tests and adjustments, applying them through 1921 to all (thirty-three) industries on which reliable employment and pay-roll series were then available over a satisfactory period, either from the United States Bureau of Labor Statistics or (for certain industries) from other reputable sources.[3] Similar adjustments have been made to subse-

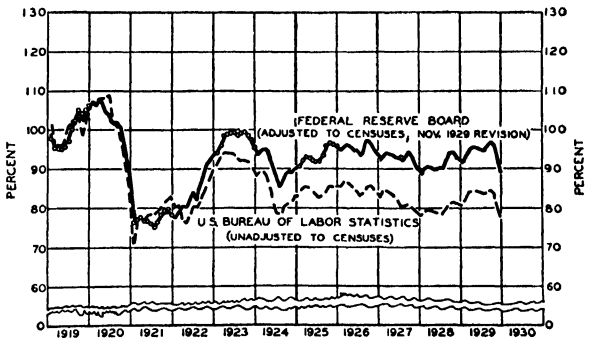
[3] First written up in the *Federal Reserve Bulletin*, IX (December, 1923), 1272–79.

quent censuses (through that of 1927) by Mr. Woodlief Thomas and Miss Aryness Joy, who have also been able to add seventeen other industries, bringing the total up to fifty, as well as to make certain refinements in the method of calculation. Thanks largely to the diligence and resourcefulness of those two investigators, the Reserve Board has been able to announce (in 1929,[4] as in 1925[5]) revised indices which appear far more dependable[6] for long-period

CHART I

TEST OF DOWNWARD STATISTICAL BIAS IN U.S.B. OF L.S. INDEX OF FACTORY EMPLOYMENT

(Base: 1919 Average = 100 Per Cent; Circled Points [o] Represent Census Relatives)



comparisons than are the crude indices of the Bureau of Labor Statistics itself.

Comparison of two factory employment indices.—Lest it be supposed that we are laboring unduly over a merely trivial source of error, we present in Chart I a comparison between the United States Bureau of Labor Statistics and the Federal Reserve Board indices of employment for the entire period 1919–29, after converting both to the initial year 1919 as a base (100). It is readily evident that the problem of statistical bias is so serious as to bring

[4] *Ibid.*, XV (November, 1929), 706–16.

[5] *Ibid.*, XI (May, 1925), 324–27.

[6] Partly for other methodological reasons as well, but chiefly because of the census adjustments.

the 1929 points for the crude index fully 12 per cent below the level of the adjusted one.[7]

Nor can it be fairly maintained that this bias is confined to the early post-war years, when economic fluctuations were especially violent and when the Bureau of Labor Statistics was gathering its data from only about a dozen industries instead of its present fifty-four. Even after 1923—about the time when the Bureau first expanded greatly its list of industries, and when a period of milder economic fluctuations set in—a gradual widening of the spread between the two indices is discernible through 1927. Furthermore, it is probable that, when the census data become available for extending the adjustment through 1929, this divergence will prove to be even wider in the years 1928 and 1929 than here appears.

Even granting that the census figures may not be quite "airtight" as to completeness, etc., it is clearly better to exclude from a crude link-chain index as much of this cumulative downward bias as we can, in the light of what the censuses do show, than to rely on sheer luck. It is not difficult to prove, whether by a priori reasoning or by empirical test, that the errors involved are by no means wholly of the compensating variety, and that Lady Luck is therefore a treacherous ally in such a case.

Failure to adjust for the non-compensating errors has misled many users of the widely quoted United States Bureau of Labor Statistics indices—exaggerating not only the severity of cyclical swings in employment but even more seriously the extent of "technological displacement" of labor from the factory industries in recent years. It is much to be hoped that effective steps will be taken to remedy this defect and prevent further misinformation as to the true employment situation before the bias accumulates still more seriously.

A weekly index.—One mark of government enterprise during 1929 was the inauguration of a weekly reporting scheme. This was avowedly a special temporary arrangement for keeping closer watch than usual upon employment in factories, and may already

[7] For a few industries the bias is upward, but for the great majority it is downward—and, for several of these, far more than 12 per cent downward.

have been discontinued before "Social Changes in 1929" reaches its readers. About 7,000 plants reported several times, beginning late in December. The president and the secretary of labor have announced some of the findings from this rather large sample; but interpretation of these statistics is necessarily open to uncertainty because so little evidence has ever been amassed to show fluctuations by weeks *within* a month. This difficulty is perhaps more serious in December and January than in several other months of the year, because of stock-taking, repairs, and other shutdowns, regular and special holidays, etc.

A weekly index established on a permanent footing would in all probability prove to be a useful guide—not only to those interested in labor conditions per se, but also to industrialists and business men as a rough-and-ready guide to weekly industrial activity. Not only could it be compiled and released more promptly and frequently than direct data on production commonly are, but also it would cover a far more comprehensive range of economic activity —industries for which it is impracticable or impossible to work out satisfactory measures of physical product. However, it is understood that the temporary weekly arrangement is practically certain not to become permanent, on the ground of expense and of difficulty in keeping up the interest of reporting employers.

Factory employment and pay-rolls in 1929.—During the year 1929 as a whole, factory employment averaged high and pay-rolls very high. Early in the year they rose in continuation of the substantial upswing which began early in 1928, and attained peaks at high, though not unprecedented, levels; but both curves sharply fell during the last quarter. The lowest point of the year was December, when both employment and pay-rolls were about on a par with the minor low point of two years before, but not as far down as 1921. They were not even down to the low of 1924—contrary to what the unadjusted index of the Bureau of Labor Statistics shows (compare first chart in this article).

Further observations on the changing course during 1929 can best be got in mind by inspection of Chart II and abridged Table I, where the latest revised indices of the Federal Reserve Board are shown for both employment and pay-rolls. Supporting data on

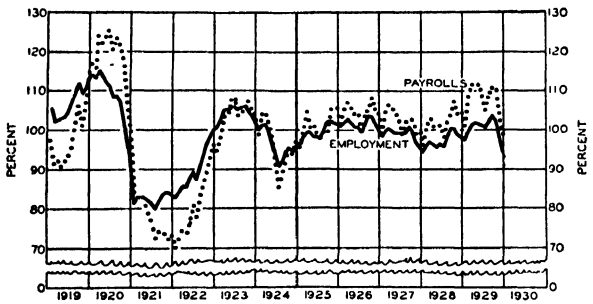
separate industrial groups—similarly adjusted to census data—are given in Table IV, appended to this article.

Labor turnover.—A project closely related to employment indices—the factory labor turnover indices developed since 1925 by the Metropolitan Life Insurance Company[8]—was transferred to the United States Bureau of Labor Statistics on July 1, 1929. The project had clearly passed beyond the experimental stage, and the federal Bureau is now considerably expanding the project; it has already expanded the index sample from about 350 to about

CHART II

LATEST REVISED INDEX OF FACTORY EMPLOYMENT AND PAY-ROLLS

(Base. 1923–25 Average = 100 Per Cent)



450 manufacturers, and is about to begin issuing, in 1930, indices for at least three separate manufacturing industries, with some others to follow as soon as practicable.

The various turnover indices behaved true to form in 1929 as theretofore. Layoffs were low throughout the first half-year and more, when the busy labor market was also manifesting itself in heavy hirings, discharges, and voluntary quits, as is usual at such times. All these movements reversed themselves in the latter part of the year, especially the last two months, as may be seen from Charts III and IV. For lack of space, further discussion must be

[8] From returns collected by its Policyholders' Service Bureau, which however canvassed and secured more returns from manufacturers not having Metropolitan group insurance than from policyholders, to avoid a possible biased sample.

omitted here; but any reader interested may find the project itself and the 1929 turnover situation more thoroughly treated elsewhere.[9]

RAILROAD EMPLOYMENT

Even though the steam railways employ on the average, in recent years, only one-fifth of the number engaged in factories, they are obviously important nevertheless. The Interstate Commerce Commission continues to issue excellent figures every month

TABLE I

RECENT COURSE OF GENERAL FACTORY EMPLOYMENT AND PAY-ROLLS IN UNITED STATES

(November, 1929, Revision of Federal Reserve Board; Adjusted to Biennial Censuses of Manufactures through 1927; Base: 1923–25 Average = 100 Per Cent)

Monthly Average for Year	Index of Number Employed	Index of Amount of Pay-Rolls	Months of 1929	Index of Number Employed	Index of Amount of Pay-Rolls
1919	106 6	98 1	January	97 4	100 9
1920	107 9	118 1	February	99 7	108 4
1921	82 4	76 8	March	101 3	111 1
1922	90 1	81 1	April	101 8	111 7
1923	104 2	103 4	May	101 6	111 5
1924	96 2	95 7	June	101 2	109 2
1925	99 7	100 9	July	100 7	104 8
1926	101 4	104 3	August	102 0	109 4
1927	98 8	102 0	September	103 4	110 5
1928	97 2	101 8	October	102 1	110 0
1929	100 4	107 4	November	98 2	102.2
			December	94 8	98 6

on employees of all types, number of hours (or days) paid for, and total compensation for the month (as distinguished from pay-roll in a representative pay period about the middle of each month, as in factory data). These figures cover only Class I railways, but that class forms almost the entire total.

The figures on employees and compensation, portrayed in Chart V, show that 1929 as a whole slightly excelled 1928, but failed to maintain the level of other recent years. Technological improvements have unquestionably led to considerable displace-

[9] W. A. Berridge, "Measuring Labor Turnover: A Report of Progress," *Personnel Journal*, VIII (1929), 197–206; also current issues of the *Monthly Labor Review* for later figures.

ment of labor from railroad employment—probably the less skilled labor, in large measure. Employees' earnings, however, remained strong until late in the year, when they shared the decline of em-

CHART III

ACCESSION AND LAY-OFF RATES IN FACTORIES

(Adjusted to Standard Month)

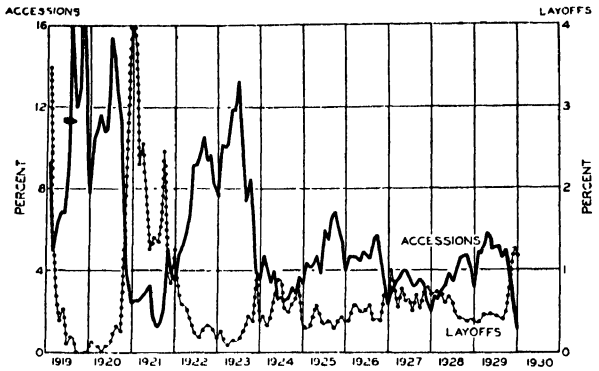
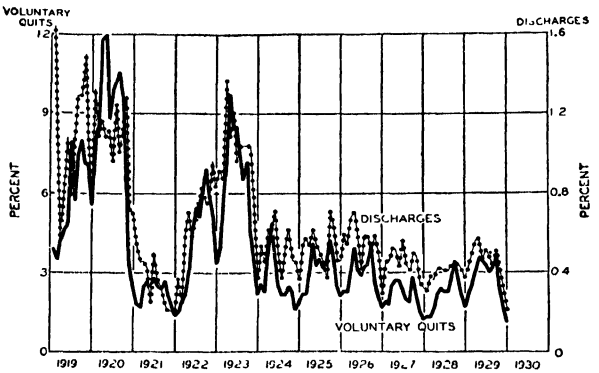


CHART IV

VOLUNTARY-QUIT AND DISCHARGE RATES IN FACTORIES

(Adjusted to Standard Month)



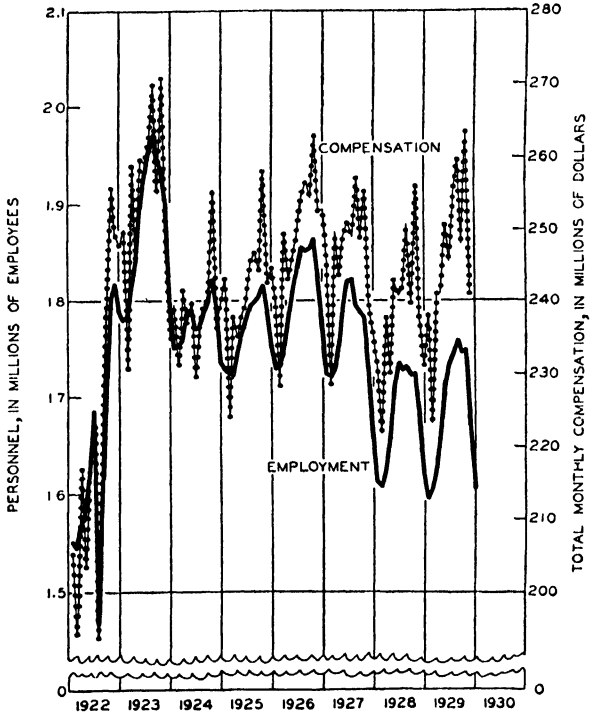
ployment. The data corresponding to the two curves on this chart are tabulated in somewhat telescoped form in the Appendix, Table V.

EMPLOYMENT IN ANTHRACITE MINES

Employment and earnings of anthracite mine-workers have been reported upon during 1929, as previously, by the Anthracite Bureau of Information. Both series are shown in Chart VI. For

CHART V

TOTAL EMPLOYMENT AND COMPENSATION OF CLASS I STEAM RAILROAD PERSONNEL



several years they have been slipping downward. Not only labor troubles, but also such economic problems as competition with other fuels (notably oil) have afflicted this industry since the war; there has also been some technological advance. The backsliding of employment in 1927, 1928, and 1929 is but a natural aftermath of these, more than of cyclical, factors.

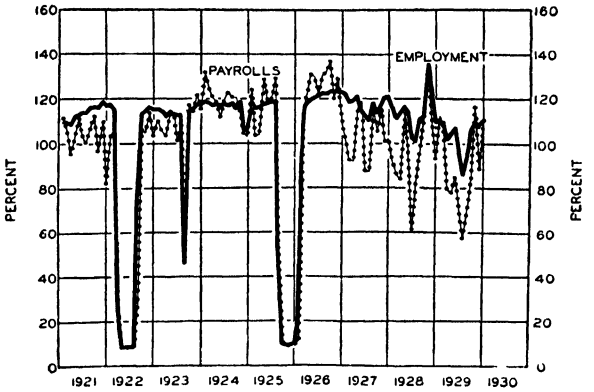
MISCELLANEOUS EMPLOYMENTS

A very praiseworthy activity of the United States Bureau of Labor Statistics during 1929 was its vigorous expansion of a group of projects undertaken in the latter part of 1928 for collecting employment and pay-roll statistics for various other activities than manufacture. Some of these projects have now reached fair proportions. In December, 1929, more than 20,000 non-manufacturing establishments, with more than 1,500,000 workers and a total

CHART VI

EMPLOYMENT AND WAGE PAYMENTS: ANTHRACITE MINING

(Base: 1923–25 Average = 100 Per Cent)



pay-roll of nearly $50,000,000 a week, were reporting. This reporting sample was distributed in the November–December, 1929, returns as given in Table II, in comparison with the manufacturers' returns.

The time is not yet ripe for a critique of this group of non-factory employment projects, or for any very sure-footed conclusions concerning the employment fluctuations which the results show for 1929. In some cases the size of sample is still rather small, and in all cases the sample has been growing so rapidly that the soundness of the data for early months is uncertain. We therefore merely recapitulate the 1929 monthly percentages of change in Table III. It is exceedingly probable that the data will in time establish their claim to definite acceptance, as the reporting system

passes beyond the development stage. Meanwhile the Bureau is to be congratulated on the initiative and energy which it has shown in this very desirable direction. Only one important industry is still uncovered, as explained in the following section.

BUILDING EMPLOYMENT AND UNEMPLOYMENT

Unfortunately, building construction is not among the activities so far represented in the employment data of the Federal Bureau of Labor Statistics in its expanded program. As everyone knows, building is a "floating" industry, in the sense that builders

TABLE II

Line of Activity	Establishments	Employees	Pay-Roll per Week
1. Manufacturing	12,247	3,265,373	$ 86,716,833
2. Coal mining	1,378	329,590	10,330,850
Anthracite	162	121,391	4,785,556
Bituminous	1,216	208,199	5,545,294
3. Metalliferous mining	346	59,554	1,814,377
4. Quarrying and non-metallic mining	655	33,660	836,195
5. Public utilities	9,463	713,110	21,514,456
6. Trade	8,102	357,225	8,622,630
Wholesale	1,778	60,275	1,882,171
Retail	6,324	296,950	6,740,459
7. Hotels	1,784	146,041	2,500,296
8. Canning and preserving	457	23,537	440,271
Total	34,432	4,928,090	$132,775,908

move about a good deal from one contract to another—sometimes taking all or part of their work forces along, sometimes dismantling altogether. The fact is also well recognized that much work is relet to subcontractors whose pay-roll records may or may not be known to the contractor himself. However, "the proof of the pudding is in the eating": these difficulties have not prevented five state organizations from constructing indices of building employment, and with results which could hardly be called unsatisfactory. In view of the great importance attained by the nation's building industry as an employer of labor in recent years, it is much to be hoped that the difficulties obstructing a national index can also be overcome. This is the only very large industry for which current employment data of a good or promising sort are

TABLE III

RECENT COURSE OF NON-FACTORY EMPLOYMENT AND PAY-ROLLS AS REPORTED BY UNITED STATES BUREAU OF LABOR STATISTICS

(Percentages of Change from Preceding Month)

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept.	Oct.	Nov	Dec.
EMPLOYMENT												
Coal Mining	+ 0 1	+ 0 8	− 3 3	− 3 1	− 1 2	− 5 3	− 4 2	+ 4 5	+ 5 2	+ 2 5	+ 0.7	+ 1 3
Anthracite	− 1 5	+ 0 3	− 7 5	+ 2 8	+ 3 0	−10 4	−10 4	+ 9 5	+11 9	+ 4 1	− 1 9	+ 2 9
Bituminous coal	+ 0 9	+ 1 2	− 0 8	− 6 2	− 3 6	− 1 9	− 0 7	+ 1 7	+ 1 6	+ 1 6	+ 2 2	+ 0 5
Metalliferous mining	+ 0 3	+ 1 6	+ 2 5	+ 3 8	+ 0 2	+ 3 0	− 2 2	+ 1 7	− 1 1	− 0 2	+ 1 1	− 4 4
Quarrying and non-metallic mining						+ 2 4	− 1 8	+ 1 9	− 0 1	− 2 8	− 4 8	− 8 6
Public utilities	− 2 1	+ 0 0	+ 0 2	+ 2 1	+ 2 6	+ 1 1	+ 1 2	+ 1 2	− 0 5	− 0 5	− 0 5	− 1 0
Trade	−17 5	− 3 9	+ 1 5	− 0 5	+ 1 6	+ 0 1	− 2 8	+ 0 1	+ 3 5	+ 3 6	+ 3 8	+14 7
Wholesale	− 2 4	− 0 9	+ 0 5	+ 0 6	+ 1 1	+ 0 2	+ 1 2	+ 0 9	+ 0 6	+ 1 1	+ 0 0	− 0 4
Retail	−20 4	− 4 6	+ 1 7	− 0 7	+ 1 8	+ 0 1	− 3 8	− 0 1	+ 4 3	+ 4 2	+ 4 9	+18 3
Hotels	+ 1 3	+ 2 7	+ 1 1	− 1 2	− 1 6	+ 1 2	+ 1 8	+ 1 5	+ 0 2	− 2 1	− 0 6	− 2 3
Canning and preserving					−31 6	+23 6	+65 5	+45 7	+13 7	−31 8	−33 6	−35 5
PAY-ROLLS												
Coal mining	− 5 1	+15 2	−15 3	−12 1	+ 6 8	− 9 4	−10 7	+13 0	+15 9	+16 5	−11 6	+15 6
Anthracite	−10 7	+21 2	−25 6	− 2 7	+12 1	−18 4	−19 8	+21 2	+32 4	+28 9	−24 9	+36 5
Bituminous coal	− 1 8	+ 9 9	− 6 9	−17 8	+ 3 0	− 2 1	− 4 8	+ 8 4	+ 6 2	+ 8 3	− 0 8	+ 2 1
Metalliferous mining	− 4 0	+ 4 3	+ 8 0	+ 5 5	+ 0 0	+ 1.0	− 6 3	+ 1 1	+ 1 9	+ 1 1	− 0 9	− 2 4
Quarrying and non-metallic mining						+ 3.1	− 5 2	+ 5 3	− 0 5	− 3 7	− 9 2	−11 1
Public utilities	− 0 8	− 1 3	+ 3 7	+ 0 4	+ 2 0	+ 1 0	+ 2 1	− 0 5	+ 0 5	+ 1.0	− 2 4	+ 1 9
Trade	−12 0	− 3 5	+ 1 8	− 0 3	+ 1 2	+ 1 0	− 1 6	− 0 7	+ 3 9	+ 2 4	+ 1 6	+11 8
Wholesale	− 1 6	− 0 3	+ 2 2	− 0 7	+ 1 2	− 0 4	+ 1 9	− 0.5	+ 3 3	− 0 6	− 0 8	+ 2 8
Retail	−14 7	− 4 5	+ 1 7	− 0 2	+ 1 2	+ 1 5	− 2 7	− 0 7	+ 4 1	+ 3 4	+ 2 5	+14 6
Hotels	+ 0 2	+ 3 6	+ 1 4	− 2 7	− 1 7	− 0 2	+ 1 1	− 0 4	+ 0 8	+ 0 0	− 0 4	− 0 9
Canning and preserving					−28 0	+ 1 0	+51 9	+64 9	+15 4	−35 3	−31 9	−30 8

not now available on a national scale—with the exception of agriculture, where the difficulties are admittedly far greater.

Massachusetts is one of the five states[10] mentioned in the foregoing. We should be led too far afield if we were to discuss all local employment conditions or projects—interesting and informing though they are; but what lends special interest to the Massachusetts project is that a trade-union unemployment index has also been available. Nowhere else in the country have two such companion series been constructed. Their striking relationship to each other is clearly shown by the double-deck chart; in its upper part (VII) the percentage unemployed has been plotted inverted (zero at top) to aid the eye. The correspondence is very close as to seasonality, although not uniformly as to the strength of one year compared with another, in Charts VII and VIII.

Unfortunately the Massachusetts Department of Labor and Industry discontinued collecting the building unemployment data in December, 1929, so leaving in mid-air, at a very critical time, several important problems of comparative validity and related matters of scientific significance, as well as forcing the industry and the business public to rely solely upon the sample data from contractors. Thus passes the only remaining unemployment series compiled by any government organization in this country, for any industry. The Massachusetts Department collected trade-union data on unemployment for many years, beginning as far back as 1908; and although the writer was never among those who regarded the data as properly measuring the true extent of unemployment at a given time, this series (like that collected in New York State until 1916) has been demonstrated to have a high degree of "barometric" value. This action of the Massachusetts Bureau in December, 1929, therefore marks a step *backward,* on the road toward adequate unemployment research—necessary though the action doubtless was from a Bureau standpoint.

UNEMPLOYMENT SURVEYS

American Federation of Labor index.—The only current unemployment series worth mentioning is the unofficial one of the

[10] Others are Illinois, Wisconsin, Pennsylvania, and Ohio; in three of these, various other non-factory employments have long been studied with success.

CHART VII

PERCENTAGE UNEMPLOYED AMONG UNIONIZED BUILDING TRADES OF MASSACHUSETTS

(Scale Inverted)

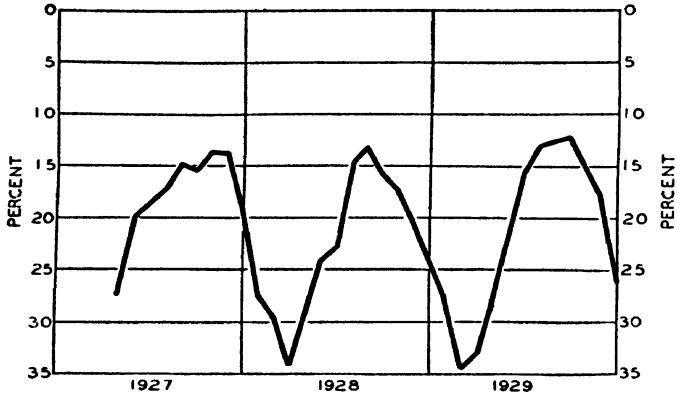
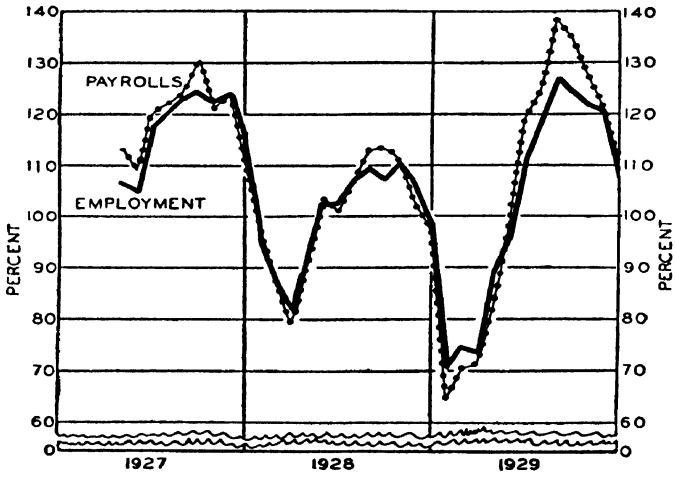


CHART VIII

EMPLOYMENT AND PAY-ROLLS OF BUILDING CONTRACTORS IN MASSACHUSETTS

(1928 Average = 100 Per Cent)



American Federation of Labor,[11] which continued in 1929 its monthly canvass of unions begun two years ago. The unionized trades now reporting are distributed over twenty-four cities. This series must be carried on somewhat longer before it can be properly judged.

During 1929 official authorization was given for collecting unemployment figures in connection with the 1930 census of population, and a definite program and schedule were at length agreed upon late in the year by the Bureau of the Census in consultation with an Advisory Committee. We are also able to report that several intensive surveys were actually made by local agencies in various centers—notably Baltimore, Philadelphia, and Buffalo—which deserve special mention.

Baltimore survey.—In February, 1929, the Maryland commissioner of labor and statistics made his second annual survey of unemployment in Baltimore, using identically the 1928 schedule and collecting his data through the police department as before.[12]

Only 13,177 persons were found totally unemployed and seeking work in February, 1929, as compared with 15,473 for February, 1928. The department estimates that the 1929 figure represents only 1.6 per cent of the total number of residents, or 3.4 per cent of those customarily working for wages or on their own account. Further details are available in a special report issued by the Maryland commissioner of labor and statistics, also in the *Monthly Labor Review* for May, 1929.

Philadelphia survey.—In April, 1929, a survey was made in Philadelphia by the Bureau of Compulsory Education in co-operation with the Wharton School of Finance and Commerce (Drs. J. Frederic Dewhurst and E. A. Tupper). It was a sample of 31,551 families, drawn from 166 city blocks and constituting about 6½ per cent of the total employable supply; the sample was "selected with a view to giving adequate representation to people of different economic status and to racial variations." Considerably more un-

[11] Published monthly in the *Federationist*, the March, 1928, issue of which contains a brief description of the project.

[12] The third survey in this series is being made in February, 1930, in the same manner as that of 1929.

employment was tabulated than in Baltimore two months before Altogether 7.8 per cent of all able-bodied wage-earners in these families were reported to be wholly unemployed because of inability to find work; 2.6 per cent were idle because of sickness etc. Further details may be found in a special report scheduled for publication during the spring of 1930 by the Department of Industrial Research of the University of Pennsylvania, also in the *Monthly Labor Review* for February, 1930.

Buffalo survey.—The Buffalo study was made in November 1929, by Drs. F. C. and F. E. Croxton for several organizations jointly. It was a sample study of 15,164 persons, and followed much the same pattern as the Columbus, Ohio, studies made annually from 1921 through 1925 by F. E. Croxton and Mary L Mark. Although the canvass was made after a considerable recession had taken place in factory employment, the survey disclosed that only 5.4 per cent of the 15,164 adults enumerated were totally unemployed because of slack work. Very complete details may be found in the forthcoming *Special Bulletin 163* of the New York State Department of Labor, or in a later publication of the Buffalo Foundation, or in briefer form in the *Monthly Labor Review* for February, 1930.

Answering a question which has been raised in several quarters, we take this opportunity to state that the Metropolitan Life Insurance Company has not made any recent survey of unemployment as it did in co-operation with the United States Bureau of Labor Statistics[13] in 1915.

United States census of unemployment.—After the federal government authorized a census of unemployment to be taken in connection with the 1930 census of population, the Bureau of the Census worked out, with the guidance of an Advisory Committee, a schedule which was definitely adopted late in 1929. The plan[14] is to make a separate tabulation for every person who *usually* works at a gainful occupation but was not at work on the day before the enumerator's visit—or on the last regular working day. Retired persons, young people seeking their first jobs, and women

[13] Bulletin 195, *Unemployment in the United States.*

[14] Several special studies will probably be undertaken also.

TABLE IV

RECENT COURSE OF FACTORY EMPLOYMENT AND PAY-ROLLS IN INDUSTRIAL GROUPS

(November, 1929. Revision of Federal Reserve Board; Adjusted to Biennial Censuses of Manufactures through 1927; Base: 1923–25 Average = 100 Per Cent)

INDUSTRIAL GROUP	AVERAGE FOR YEAR							MONTHS OF 1929											
	1923	1924	1925	1926	1927	1928	1929	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec.
EMPLOYMENT																			
Iron and steel and their products	104.4	97.2	98.4	101.3	96.8	95.4	98.9	97.1	98.3	99.3	99.7	100.7	100.8	99.8	101.0	101.0	99.4	97.0	92.2
Machinery	107.7	93.6	98.7	107.9	100.0	98.7	116.1	106.7	110.4	113.8	116.7	119.1	120.8	121.5	119.4	119.5	118.7	115.0	112.1
Textiles	105.3	95.2	99.6	97.9	100.8	95.1	96.9	95.9	98.0	101.0	99.3	97.3	96.3	91.5	94.2	98.4	99.8	97.1	94.3
Food products	102.0	100.0	98.0	98.5	99.1	98.6	99.7	98.6	98.8	97.6	96.2	97.3	99.2	99.8	99.7	102.4	104.2	101.6	100.5
Paper and printing	99.3	99.8	101.0	103.6	103.1	101.7	104.2	102.5	103.4	103.1	102.5	102.8	103.2	103.6	104.1	106.0	106.1	106.7	106.9
Lumber and products	100.9	98.1	101.0	100.5	92.3	88.1	88.2	85.5	85.8	86.6	88.2	89.2	90.0	90.5	92.2	91.8	90.1	86.7	81.6
Transportation equipment	106.9	94.9	98.3	98.3	88.4	90.6	94.6	94.0	99.0	100.5	101.7	101.5	97.6	96.4	95.5	94.8	90.2	82.9	81.3
Leather and products	106.2	96.3	97.5	96.8	97.3	93.5	93.7	91.9	94.1	92.7	90.6	90.3	89.4	94.6	98.1	99.5	99.3	94.4	90.0
Cement, clay, and glass	100.8	99.0	100.2	101.9	97.5	92.3	89.6	84.3	82.5	86.8	90.5	93.1	93.8	91.2	93.8	93.6	91.9	88.9	82.3
Non-ferrous metals	107.1	95.1	97.9	99.5	97.4	96.6	101.1	102.4	106.1	107.9	107.7	105.3	102.9	100.5	99.8	98.6	98.5	93.6	89.9
Chemicals	101.5	95.9	102.6	102.8	103.9	105.3	112.3	107.6	110.9	115.5	119.0	110.3	107.9	108.9	111.2	114.5	116.1	113.8	111.8
Rubber products	102.5	91.8	105.7	104.6	104.0	108.6	108.3	112.2	112.3	113.3	114.3	115.3	115.0	114.2	111.5	108.3	102.7	91.2	89.2
Tobacco products	105.8	98.8	95.4	90.8	93.6	93.8	91.6	84.1	92.0	92.0	91.3	90.3	91.4	90.5	93.0	93.7	95.0	96.1	89.2
PAY-ROLLS																			
Iron and steel and their products	103.8	96.7	99.4	104.2	98.5	99.9	106.0	101.3	107.2	108.5	110.5	111.6	109.9	103.5	109.3	108.9	107.9	100.0	93.5
Machinery	107.0	92.6	100.4	111.9	103.5	103.7	125.5	112.3	120.7	126.5	129.5	131.9	131.6	128.2	127.5	127.9	129.0	121.6	119.9
Textiles	105.8	94.4	99.8	98.4	104.1	96.4	99.7	97.0	103.6	108.8	103.2	99.3	97.8	90.4	97.4	103.0	105.7	96.2	93.8
Food products	100.1	100.5	99.4	101.2	102.4	102.5	104.5	102.2	102.5	101.2	100.4	103.1	105.6	105.6	105.0	108.1	108.8	105.5	105.5
Paper and printing	96.1	99.7	104.2	110.4	110.1	109.8	114.5	111.4	113.0	114.9	113.3	114.3	113.6	111.4	112.8	116.3	117.8	117.2	118.2
Lumber and products	100.0	98.4	101.6	102.0	95.1	92.5	90.6	83.4	86.5	88.4	90.9	92.8	92.2	93.5	94.7	96.6	96.8	89.2	82.7
Transportation equipment	107.1	93.2	99.7	99.1	91.3	97.2	103.5	93.6	111.4	113.9	117.0	116.0	107.9	97.1	106.8	103.3	99.8	89.4	85.6
Leather and products	106.8	95.5	97.8	98.1	98.6	92.4	93.1	90.2	94.5	91.4	87.9	88.1	89.8	97.6	105.0	104.3	100.0	83.9	84.1
Cement, clay, and glass	98.9	100.7	100.3	101.5	96.2	90.4	87.0	79.0	81.0	84.8	89.3	91.8	92.5	86.1	91.2	91.3	90.6	86.4	80.2
Non-ferrous metals	105.3	94.8	99.9	103.0	100.3	107.1	115.2	117.4	124.1	127.6	127.0	123.1	117.0	112.6	113.2	112.1	112.5	99.6	96.1
Chemicals	99.8	96.3	103.9	111.0	109.7	108.0	113.4	106.3	111.3	113.6	117.8	113.1	111.2	111.2	113.0	116.0	118.2	115.6	114.0
Rubber products	101.5	92.7	105.8	106.2	108.5	114.8	119.3	118.8	145.8	146.7	150.2	146.5	120.6	115.1	110.9	104.9	100.9	85.9	85.0
Tobacco products	104.2	99.4	96.3	92.1	91.1	88.4	87.7	76.3	82.3	84.4	86.1	86.1	88.5	87.9	90.6	93.4	94.2	94.3	88.8

keeping house at home who have no other occupation and are not seriously trying to get a job are all excluded.

The following questions are to be asked of other persons:

Does this person have a job of any kind?
If this person has a job—
- Why was he not at work yesterday (or on the last regular working day)?
- Does he lose a day's pay by not being at work?
- How many days did he work last week?
- How many days in a full-time week?

If this person has no job of any kind—
- Is he able to work?
- Is he looking for a job?
- For how many weeks has he been without a job?
- Reason for being out of a job?

It is impossible to appraise the disjointed local surveys of unemployment until this nation-wide unemployment census of April 1, 1930, is completed and the data analyzed and released. It is equally impossible to appraise on a priori grounds the merits or demerits of the unemployment census itself. Few if any unemployment authorities are entirely satisfied with the schedule and procedure involved; it represents rather a compromise between what would seem desirable or even necessary to secure adequate definition of terms, etc., and what is considered expedient in census practice. Even though every measure that seemed practicable to the census authorities has been taken to define the terms in such a way as to get a genuine measure of unemployment in the economic sense, the careful observer will do well to cherish no very sanguine hopes in regard to the acceptability of the findings until they are issued and critically reviewed.

TABLE V

RECENT COURSE OF RAILROAD EMPLOYMENT AND COMPENSATION ON CLASS I STEAM RAILROADS, INCLUDING SWITCHING AND TERMINAL COMPANIES

(Interstate Commerce Commission)

Monthly Average for Year	All Employees (Thousands)	Average Compensation per Month (Thousands)	Months of 1929	All Employees (Thousands)	Total Compensation per Month (Thousands)
1922	1,645	$222,431	January	1,595	$236,456
1923	1,880	253,596	February	1,606	223,062
1924	1,777	238,908	March	1,628	241,150
1925	1,769	241,675	April	1,666	241,235
1926	1,806	249,184	May	1,714	250,745
1927	1,761	246,059	June	1,736	245,765
1928	1,680	238,507	July	1,745	254,895
1929	1,686	244,987	August	1,760	259,985
			September	1,748	248,012
			October	1,750	263,661
			November	1,681	240,797
			December	1,605	234,081

TABLE VI

RECENT COURSE OF EMPLOYMENT AND PAY-ROLLS IN ANTHRACITE MINING

(Anthracite Bureau of Information; Base: 1923 25 Average = 100 Per Cent)

Monthly Average for Year	Index of Employment	Index of Pay-Rolls	Months of 1929	Index of Employment	Index of Pay-Rolls
1921	113 8	102 8	January	109 8	112 6
1922	69 0	60 4	February	109 4	107 0
1923	108 8	106 0	March	101 3	79 5
1924	115 8	117 7	April	104 1	77 4
1925	75 4	76 4	May	107 2	85 4
1926	113 8	116 0	June	95 4	71 0
1927	117 4	102 7	July	85 6	56 8
1928	113 4	97 1	August	93 6	68 9
1929	103 3	88 0	September	105 5	83 4
			October	109 8	116 6
			November	107 6	87 6
			December	110 8	110 3

TABLE VII

RECENT COURSE OF EMPLOYMENT AND UNEMPLOYMENT IN BUILDING INDUSTRY OF MASSACHUSETTS

(Massachusetts Department of Labor and Industry, Division of Statistics)

	EMPLOYMENT AND PAY-ROLLS AS REPORTED BY CONTRACTORS, ETC. (BASE: 1928 AVERAGE = 100 PER CENT)		PERCENTAGE UNEMPLOYED AS REPORTED BY TRADE UNIONS
	Employment	Pay-Rolls	
1927	117 9*	119 5*	17 7*
1928	100 0	100 0	22 6
1929 ..	103 0	105 3	21 3
1929:			
Jan ..	70 2	64 6	27 5
Feb...	74.5	70 7	34 3
March	73.7	71 4	32 9
April	89 0	82 3	27 9
May	95 8	100 6	21 5
June	111 7	118 8	15 5
July.	119 4	124 0	12 9
Aug	127 2	138 8	12 4
Sept	124 4	134 4	12 0
Oct	121 5	127 0	14 9
Nov	120 3	119 9	17 8
Dec	108 6	111 3	26 2

* Monthly averages for last nine months; no corresponding data collected for first three months of 1927.

SOCIAL AND LABOR LEGISLATION

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ABSTRACT

Noteworthy changes in the social legislation enacted in 1929 by Congress and the legislatures of forty-four states, two territories, and two insular possessions of the United States are reviewed. In the matter of public poor relief the most significant and far-reaching legislation for many years was the Public Welfare Law of New York, which repealed the patchwork of one hundred years. It is a modern workable law providing for relief of the poor in their homes as well as in institutions, for suitable care of children in their homes, and for adequate medical care for those who need it whether destitute or not. In New York in the field of housing, planning, and zoning, the new Multiple Dwelling Law, which supersedes the Tenement House Law in New York City, attempts less successfully at present, but through later amendments with probable ultimate success, to modernize an important subject of public regulation and concern. In public health, education, and recreation, though much legislation was enacted, there is little departure from routine procedure previously established. In public morals there is in the matter of prohibition the famous Jones Law to promote the better enforcement of the National Prohibition Acts by increasing the penalties and making felonies of certain minor violations under certain circumstances. Humane legislation provides many new protections for animals, for abandoned and neglected children, and for the treatment of prisoners. Labor legislation covers a wide range of measures for the protection of women in industry, and for the extension and improvement of workmen's compensation laws for industrial accidents and occupational diseases. Child labor legislation shows progress in scope and extent, and some improvement in standards. Old age pensions and old age relief and security are subjects of increasing discussion and public concern with some tentative legislation of an experimental character.

NOTEWORTHY CHANGES IN SOCIAL LEGISLATION

American social legislation covered in this article is confined to that of the federal government and that of the states holding legislative sessions during the year. The scope and more important aspects of social legislation will be comprised under the following topics: public poor relief; public health; public recreation; public education; housing, planning and zoning; public morals, including social hygiene and vice control, regulation of drugs and narcotics, prohibition of intoxicating liquor, etc.; labor legislation and social insurance; humane legislation, including the prevention of cruelty to animals and children, child welfare, treatment of prisoners, etc. Some legislative enactments may be classified under more than one of these headings, and references to social legislation may be found in the special articles on government, education, crime, public

health and medicine, and elsewhere in this number of the *Journal*. Space limitations make only the most summary treatment of the more significant measures possible with a few citations and references that may aid the reader who wishes to make a more detailed examination of statutes.

Legislatures held regular or special sessions in 1929 in forty-four states of the United States and in two territories, Alaska and Hawaii, and in two insular possessions, Porto Rico and the Philippines. In addition the second session of the Seventieth Congress enacted legislation for the District of Columbia and the federal jurisdiction.

PUBLIC POOR RELIEF

The new Public Welfare Law (C. 565. L. 1929) in New York, approved by Governor Roosevelt, April 12, went into effect January 1, 1930. It is the most far-reaching and significant poor law legislation in the entire country. Many states have tried less successfully in recent years to revise and recast an antiquated, illogical, and inadequate system of public poor relief, and New York has now repealed and wiped out some 140-odd amendments, exemptions, and special applications of its century-old Poor Law and substituted a coherent, human, workable, modern law which undoubtedly will take better care of the poor at less cost to the state and will lessen preventable poverty and provide constructive measures for the rehabilitation of families. The change in names from Poor Law to Public Welfare Law, from county superintendent of the poor to county commissioner of public welfare, from city and town overseer of the poor to city and town public welfare officer, from almshouse to county or city home, from outdoor relief to home relief, is in itself significant of a new purpose and a new adaptation of community resources and concern to new tasks and problems which have been pressing for solution.

The new law is optional as to whether relief shall be administered on the county basis or partly town and partly county. Three counties, Washington, Erie, and Putnam have already, since January 1, 1930, adopted the county basis and put the new machinery into full force. The old poor law contemplated care in an almshouse as the chief method of relief, while the new public welfare law provides

that "as far as possible, families shall be kept together and . . . . whenever practicable, relief and service shall be given to the poor person in his home." The new law provides that each county outside of certain cities which have their own independent establishments and become independent city public welfare districts becomes a county public welfare district, administered by a county public welfare commissioner, an elected officer. Another striking difference between the old Poor Law and the Public Welfare Law is that the Public Welfare Law makes provision for all types of medical care mandatory and extends responsibility of public welfare officials to include persons who are otherwise able to maintain themselves but need medical care, though they are not actually destitute.

The Public Welfare Law deals exhaustively with the care of children, while only one section of the old law did so specifically in the provision that no child under sixteen should be sent to a jail or county almshouse but should be cared for in a reformatory, family home, orphanage, hospital, or other suitable institution. Public welfare officials are now made responsible for the welfare of all children not otherwise exclusively under the care of boards of child welfare or children's courts, and emphasis is put on the necessity for adequate investigation, and the methods to be used in each type of care are prescribed. A primary method is the care of childrer with their families.

While the provisions for home relief as a town function administered by town officials and paid for from town taxes would permit in many cases adequate relief of the aged, Mr. Homer Folks, speaking for the State Charities Aid Association, which sponsored the new Public Welfare Law, says that adequate relief of the aged will not be secured under it in the near future because it still remains a town system and the load should be equalized over a larger area. The Association has come to the conclusion that the administration of relief to the aged, as relief and not as a pension, and under direct state auspices at state expense, offers the greatest hope of meeting that need. The new Public Welfare Law in New York is well geared into a modern up-to-date system of public administration in child welfare, public health, and other public social efforts. It promises

to exert a great influence upon other states and throughout the entire country. Some minor legislation in poor law matters such as that determining the residence requirements of public relief in California (C. 252) and Pennsylvania (No. 203), and in the matter of tax levies for poorhouses elsewhere than in Philadelphia and Allegheny counties in Pennsylvania (No. 474), may be noted.

HOUSING, PLANNING, AND ZONING

The outstanding piece of housing legislation during the year 1929, was the Multiple Dwelling Law in New York (C. 713), (C. 61-A, Consol. L.), which became effective April 18, 1929, and superseded the Tenement House Law in the city of New York but did not repeal that statute, which is still in force as a state law, limited in application to the city of Buffalo. Other cities, towns, and villages outside the city of New York may by local law adopt the general provisions of the Multiple Dwelling Law as far as they are appropriate to local conditions. The new law treats multiple houses generally and specifically, defines the technical terms used in its provisions, and attempts to clarify the status of converted, altered, damaged, uncompleted and completed dwellings, proceeding from regulations applicable generally to all housing, old and new, to provisions relating exclusively to questions of fireproof construction which apply more particularly to new buildings. Space will not permit a detailed description of this elaborate statute, which will require considerable amendment and judicial construction before it will serve the needs of this community as well as the old law did or realize the hopes of its proponents to meet the new requirements of changing conditions.

The new law was first held unconstitutional in the lower courts as conflicting with the Home Rule Law and as impairing the rights of the local legislature of New York City, but this objection was overruled in the higher courts and the law was sustained upholding the rights of the state to control the standards of housing on a statewide basis, though applicable locally. A comparison of some of the features of the old and new law has been made by Mr. Lawson Purdy, who represents the best expert leadership in the commission which sought to examine and revise the Tenement House Law, ap-

plicable to the cities of New York and Buffalo (see *Housing*, XVIII [June, 1929], 88). The editor of *Housing*, Mr. Lawrence Vieller, who had a conspicuous part in the education of public opinion and in the drafting of the Tenement House Law, as well as in its initial administration when he served as deputy commissioner, considers that the new law represents a retrograde movement in housing reform and that it more nearly conforms to the desires and views of real estate and building interests and of architects who wish to secure a maximum return for their clients rather than the efforts of tenement-house reformers, based on community standards of hygiene and public safety and the desires and views of people who dwell in such buildings. He also thinks that the influence of the new Multiple Dwelling Law will not be as great on the rest of the country as that of the former Tenement House law.

No legislation of special importance in city or regional planning or in zoning requires mention. Many official and some unofficial city planning commissions were organized or began their work during the year. The United States Department of Commerce (division of building and housing) listed in December 691 municipalities as having official commissions and 41 more as having unofficial commissions. Zoning enabling acts were adopted in Arkansas, Pennsylvania (applicable to Philadelphia), Indiana, Minnesota, and in five other states (Montana, New Mexico, Vermont, West Virginia, and Wyoming) with no zoned cities as yet.

PUBLIC HEALTH, EDUCATION, AND RECREATION

Public health.—An important effort to co-ordinate the public-health activities of the federal government, to increase the personnel and its compensation, and otherwise to strengthen and improve the United States Public Health Service as now organized in the Treasury Department is embodied in the Jones-Parker bill which has been reported favorably in both houses, has passed the House of Representatives, and is expected to pass the Senate at this session. A similar bill passed the last Congress but was vetoed by President Coolidge because of certain features which caused him to doubt its constitutionality as well as its wisdom on grounds of administrative economy and public policy. The objectionable fea-

tures have been removed, and the bill in its present form has the favorable recommendation of the treasury and of the president through the Bureau of the Budget.

Public education.—The Research Division of the National Education Association has issued as *Study No. 1,* December, 1929, a review and topical summary of state school legislation in 1929. While it does not pretend to be an exhaustive digest and purposely omits consideration of minor administrative adjustments and routine appropriation measures, it is significant of the mass of educational legislation and the general interests in educational problems that it takes a monograph of fifty-seven pages to summarize only the new and proposed laws on educational topics of general interest.

In nearly every one of the forty-six state and territorial legislatures which met in 1929, significant decisions were reached affecting school policy in matters of finance. A liberalizing tendency is noticeable and also a greater effort to introduce the equalization principle both in the distribution of school funds and in taxation burdens.

Important legislation affecting the status of teachers was enacted in forty states, the chief object being better methods of certification and more liberal retirement legislation. The most important result of educational legislation is a tendency to extend the period of compulsory school attendance. Both the age limits and the minimum days' attendance have been increased. In New York, for example, compulsory school attendance covers now 190 days, including legal holidays in term time. Greater protection to health through physical examination and vaccination requirements and some attempts to raise the standard requirements for employment certificates are noticeable. The consolidation of school districts and better provision for transportation of pupils were made in nine states. There is the usual legislative effort to dictate the course of study, ranging from the requirement of instruction in physiology and hygiene concerning the effects of stimulants and narcotics to compulsory instruction in accident prevention and compulsory teaching of the Constitution.

Public recreation.—No general legislation on playgrounds was enacted and only measures of minor importance affecting recrea-

tion facilities or control, except some physical education laws, notably a Texas statute, were adopted in 1929. Illinois increased the amount of tax authorized for the establishment of playgrounds in cities exceeding 100,000 population. More strict regulation of public dance halls was provided in state laws in Minnesota, Montana, Oregon, Wisconsin, and Wyoming.

PUBLIC MORALS

Prohibition.—The Jones-Stalker Law (Public Act No. 899, approved March 2, 1929) increased the maximum penalties and made an important change in the classification of offenses under the National Prohibition Acts, which has been the subject of much controversy and is likely to have far-reaching legal consequences. The act, itself, states that it is the intention of Congress that the court in imposing sentence should discriminate between casual and slight violations and habitual sales of intoxicating liquor or attempts to commercialize violations of the law. It made the penalty imposed for each offense in a criminal prosecution for the illegal manufacture, sale, transportation, importation, or exportation of intoxicating liquor, as defined in Section 1, Title II, of the National Prohibition Act, a fine not to exceed $10,000 or imprisonment not to exceed five years or both, but did not repeal or eliminate any minimum penalty for the first or any subsequent offense provided by the act This is the most far-reaching step taken by the federal government since the enactment of prohibition for the purpose of securing its more strict enforcement. The proposals for consolidating prohibition enforcement in the Department of Justice and other measures of reform made by the Wickersham Commission appointed by President Hoover, known as the Federal Law Enforcement Commission, in its preliminary report in November, have not yet been enacted by Congress, but the consolidation proposal will doubtless receive favorable attention at an early date.

In the states, Wisconsin, acting on a state-wide referendum ordered by the Legislature which resulted in 350,337 votes for, to 196,402 against repeal of the state enforcement act, adopted a repeal act which was approved by the governor on May 29. Maryland and New York defeated bills for state enforcement acts, and Mis-

souri defeated a bill to repeal its bone-dry law of 1923. Likewise Illinois defeated a bill for a state-wide referendum on the repeal of its state Liquor Enforcement Act.

Anti-gambling statute.—California (C. 386) attacks the evil of the floating gambling ships anchored just outside the three-mile limit in the Pacific and usually flying foreign flags, by making it a misdemeanor to procure or solicit any person to visit a gambling ship, or to solicit a person to enter a boat used as the means of reaching the ship, and imposes the same penalty upon those who transport a person to a gambling ship.

HUMANE LEGISLATION

Anti-cruelty to animals or children.—Only a few specific enactments were made during 1929. Four states provided for more humane treatment of animals by requiring rest periods during shipment, by improving quarantine measures against the spread of infection, by forbidding the cropping of dogs' ears, and by prohibiting the use of saw-tooth traps, snag hooks, and spears.

Except for child labor and juvenile delinquency laws, including laws providing for juvenile courts and probation, there were few enactments directly affecting the problem of cruelty to children. Greater concern for physically handicapped children and better provision and facilities for promoting their care, education and rehabilitation are evident. Three states and one territory (Indiana, Michigan, Texas, and Hawaii) increased the penalty for kidnapping, and in the case of Michigan made the law applicable to children under fourteen instead of twelve. Both New York and Minnesota (New York, C. 684) made it an offense or provided stricter penalties for taking indecent liberties with girls. The desertion of a child under sixteen was made a felony in Texas. More strict punishment for non-support and more liberal provision for maintenance of non-supported children were made in Ohio and with respect to suspension of sentence in non-support actions in Connecticut.

Mothers' pensions or laws relative to public aid to dependent children in their own homes which now exist in forty-two states were amended during 1929 in twelve states (Delaware, Florida,

Illinois, Iowa, Maine, Maryland, Michigan, Minnesota, Nevada, New Hampshire, New York, and Wisconsin). Most of these amendments were in the nature of liberalizing the grants or the conditions of eligibility or granting state aid to local authorities in financing such pensions. A very good summary of existing standards of such legislation and of its evolution will be found in the article, "The Evolution of the Institution of Mothers' Pensions in the United States," by Ada J. Davis, this *Journal,* Volume XXXV, (January, 1930), page 573.

Prison labor.—Congress by the Hawes-Cooper Act, approved by President Coolidge early in 1929, divested articles produced by convict labor of their interstate character and thus removed the protection of interstate commerce from state regulation. This act does not go into effect until 1934, but New York anticipated it in 1928, and Oregon (C. 133) and Minnesota (C. 138) in 1929 enacted strict provisions for branding and labeling convict-made goods so that the consumer may be counted upon to give the products of free labor greater protection and a more favorable market.

The treatment of prisoners is dealt with in Washington (C. 26) by making it easier for a convict to go straight after leaving prison by providing for the restoration of his civil rights when pardoned by the governor, or at the discretion of the governor by executive action when a convict has completed the maximum term for which he was sentenced. Delaware (C. 246) amended its sterilization law which authorizes sterilization of any natural or confirmed criminal (after three felony convictions) if on examination mental abnormality appears to be the cause of his criminality. The operation is not compulsory but may be ordered by the State Board of Charities on application of the governing body of the institution in which the person is confined, or by the Board of Trustees of the State Hospital, if he is not in an institution.

Probation, both for juvenile offenders and adults, made significant progress through court decisions and administrative action, but there were only a few minor enactments relating to it. In the federal courts the permissive act of March 4, 1925 (C. 521, 43 Stat. L. 1259) is growing in favor and use by increased applications of federal judges for appropriations for more probation officers.

New Jersey enacted a law which a State Juvenile and Probation Study Commission appointed in 1927 had recommended. It clarifies the probation laws, provides uniform methods of procedure and for adult probation in all counties, and empowers courts having jurisdiction over children's or domestic-relations cases to place children and adults on probation for from one to five years. Laws which provide for more probation officers at increased salaries were passed in six states.

LABOR LEGISLATION AND SOCIAL INSURANCE

Women in industry.—No changes were made in legislation affecting the maximum number of hours women in industry may be employed. Several states passed acts to extend their protective labor legislation, notably California, which (C. 286) applied its eight-hour day and forty-eight hour week to women employed in any industry or barber shop, and (C. 40) increased the penalty to $100 for the first offense for a violation of the women's hour law. Wyoming (C. 62) makes failure to post the women's hour law in each establishment where females work a specific violation and removes the exception of "unusual pressing business or necessity" permitting employment during prohibited hours. Rhode Island (C. 1316) exempts women working by shifts during different parts of the day for a public utility from hour regulations.

In public employment applicable to all persons, California (C. 793) extends the eight-hour day on public works to apply to any political subdivision of the same; Montana (C. 116) raises the penalty for violation of the hour law for underground miners, smeltermen, and employment on public works, and this of course applies to the private employments specified. Only minor changes in six states affected rest periods, but the New York law (C. 701) giving every member of a police force one day of rest in seven, except in cases of emergency, is worth noting, and Maine's exceptions (C. 303 and C. 179) covering some telephone exchange operators and common carriers, street traders, and operators of public conveniences, such as drug stores, gasoline stations, news stands, etc., from the provisions of Sunday rest legislation, are probably an indication of greater interest in its successful application.

Kansas' new Commission of Labor and Industry (C. 258) provides for three commissioners, one of whom is charged with supervision of laws pertaining to women and children. All of the powers, authority, jurisdiction, and the duties of the Public Service Commission, with respect to labor and industry, industrial inspection, state free employment bureaus, etc., are transferred to the new Commission. New Jersey has established (C. 158) a bureau for women and children, the director to be a woman, to enforce laws and regulations governing the employment of women and children.

Oklahoma (C. 251, Special Session) repealed and re-enacted its coal-mining code in which boys under sixteen, women, and girls may be employed for office-work only and, except in cases of emergency, eight hours will constitute a day's work in coal-mining.

Minimum wage laws include the repeal (C. 9) of the Utah Minimum Wage Law for Women which covered private employment. Hawaii (Act 86) raised the minimum wage for laborers on public works to $3.00 a day. Kansas (C. 118) increased the salaries of members of police departments in certain cities of the first class, and Nevada (C. 44) raised the wage of unskilled labor on public works to not less than $4.00 for an eight-hour day for males over eighteen years of age.

Child labor.—Only minor changes in existing child labor legislation occurred in 1929, although some dangerous attempts to reduce existing standards were defeated. California (C. 546 and C. 82) provided that children under school age as well as those over school age may not work at agricultural, horticultural, viticultural, or domestic labor, while public schools are in session. It also makes provision for stricter application of the continuation school law, strengthens its prohibition of dangerous occupations by permitting exceptions for training courses only when such courses are given in the regular school building, and strengthens the requirements for vacation permits for children. Idaho (C. 164) makes compensation for accidents to minors under eighteen on basis of adult wages for the same class of labor; Minnesota (C. 250) likewise to a minor on basis of earning capacity of an adult in similar employment. Illinois (S.B. 244) strengthens its compulsory school attendance requirements and also the requirements for proof of age, work cer-

tificates, and vacation permits. Indiana, in adopting a new workmen's compensation law which was a re-enactment of a former law that had been amended in so many ways and its constitutionality called in question so that a new enactment seemed necessary, omits (C. 172) the provision for double compensation to minors injured while illegally employed. This provision in the old law had been regarded as unconstitutional and had not been enforced. Minnesota (C. 234) prohibits children under ten in theatrical employment and requires permits from the industrial commissioners for those between ten and sixteen for appearances during school terms. This is important because it brings regulatory measures under the labor authority as in the case of other employments. Missouri (S.B. 469) repealed and re-enacted and strengthened its child labor law with the usual fourteen-year standard of prohibition and regulation up to sixteen and with the usual exceptions for agriculture, domestic service, street trades, and work outside of school hours. It strengthened its restriction on hours for children under sixteen by providing for an eight-hour day and a six-day week, as well as a forty-eight hour week, and by eliminating the former permissible two hours work after 7 P.M. North Carolina under its new workmen's compensation act (C. 120) entitles minors whether legally or illegally employed to the same rights as adults. Pennsylvania strengthened its work permit requirements by making physical examination by a physician employed by school authorities requisite but free to the child, while the former requirement accepted examination by any physician approved by school with varying charges; and in the amendment of its workmen's compensation law omits to bring minors illegally employed under the regular provisions of the act. Many minor enactments to the educational and compulsory school attendance laws in several states operated to make child labor legislation more effective.

Workmen's compensation legislation made one notable advance in adding North Carolina to the compensation states and in reducing the non-compensation states to four. The act in North Carolina (C. 120) is compulsory for all public employment and elective for all private employment in which five or more workers are engaged, except agriculture and domestic service. Minors, lawfully or un-

lawfully employed, are included. The compensation standards are fairly normal and the commission form of administration is provided. Employers must insure in a stock or mutual company, but self-insurance is allowed under certain safeguards. Aliens are allowed compensation of one-half the commuted value. Arkansas enacted a new workmen's compensation law (C. 25) to cover employees of state highway commission, to whom compensation is paid from the "Protection Fund" created by crediting to the fund one-quarter of 1 per cent of wages of each employee. Other acts supplementary to existing compensation laws were passed in no less than thirty-five states, which indicates how much effort is necessary to bring this legislation up to a minimum standard of uniformity and effectiveness and to apply it to new and changing social conditions. A detailed reference to these enactments will be found in the *American Labor Legislation Review* (XIX, 440–46) and a discussion of their significance elsewhere in the *Review*.

Three states, Connecticut (C. 201), Maryland (C. 201), and Texas (C. 23, Special Session), and Congress for the District of Columbia (Public 801—Seventieth Congress, Second Session) accepted the federal Vocational Rehabilitation Act, which leaves only four states (Delaware, Kansas, Vermont, and Washington) that have not made provision for securing the benefits of the federal vocational rehabilitation co-operation with their own compensation authorities in the care of industrial cripples.

Old age pensions.—It is not yet clear whether the old age security movement which bids fair to spread over the country much like that for workmen's compensation and protective labor legislation for industrial accidents and hazards twenty years ago, and that for mothers' pensions and the protection of dependent children some fifteen years ago, will culminate in new industrial and labor legislation or new measures of public poor relief. Several states have had important commissions of inquiry at work. Since 1914, fourteen states and the territory of Alaska have passed some sort of legislation for old age pensions. Thirteen bills were introduced in the New York State legislature alone and resulted in the creation of an important commission in 1929 to study the subject, with every indication that a reasonable measure presented in 1930 would have the

support of the governor and a majority of the legislature. At its October, 1929, convention, the American Federation of Labor adopted a resolution which favored government old age pensions of not less than $300 a year for men and women after age sixty-five, if in need of assistance. The Federation also proposed to draft a model compulsory old age pension law and urge its enactment in every state. Of the fifty bills for old age pensions presented in twenty-seven state legislatures in 1929, California, Minnesota, Utah, and Wyoming adopted the measure and in six other states an old age pension bill passed one house of the legislature.

The California law is a state-wide old age pension plan (C. 530) providing a pension which when added to income from all other sources will not exceed $1.00 a day for an applicant aged seventy, who has been a citizen of the United States fifteen years and does not possess property of more than $3,000 in value. A state-aid (Aged) division in the Department of Social Welfare is created to supervise the action taken by county and city boards of supervisors who first act upon applications, provide funds, and administer locally the pensions. The state reimburses the county or city treasurer for half the total payments made to cases approved by the state authorities. The Minnesota law (C. 47) authorizes any county in the state to establish a system of old age pensions upon a majority vote of the legal voters at any election. After one or more years of operation the system may be abandoned by a majority vote of the county board. The amount of pension and qualifications of applicants are the same as in the California law. Utah (C. 76) authorizes boards of county commissioners to provide county funds to carry out the old age pension law and to provide pensions not over $25 a month to qualified applicants sixty-five years of age, incapacitated for work, and who have resided in the county five years immediately preceding application, have been United States citizens fifteen years, and do not have a yearly income exceeding $300. Wyoming (C. 87) established in each county an old age pension board to administer its act, make necessary rules and regulations, and set up an old age pension commission to fix the amount of the pension not to exceed $30 a month for qualified persons, aged sixty-five, United States citizen fifteen years with certain residence require-

ments in state and county, and the further requirement that the applicant's income does not exceed $360 a year. Provision for funds is mandatory and is made from the poor funds of the respective counties in an amount not to exceed a levy of 1¼ mills on the total assessed valuation of property within a county.

Wisconsin (C. 181) amended its old age pension law removing the requirement that a two-thirds vote of the county elected board is necessary to adopt an old age pension system, but the county board is authorized to reduce at any time or discontinue old age allowances. The county judge administers the system under the supervision of the State Board of Control.

There was more than the usual activity with regard to pensions for teachers, firemen, and policemen, and for public employees. Effort is being made to improve and extend systems for such pensions or pension funds in many states.

PUBLIC HEALTH AND MEDICINE

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ABSTRACT

Mortality and morbidity statistics.—There was probably no significant change in the general death-rate. There were indications of a lower mortality rate from tuberculosis and typhoid fever. Almost 15 per cent of the population probably suffered from attacks of influenza or grippe during the epidemic of 1928–29. *Public health measures.*—Steady progress was made in many fields, especially that of mental hygiene. Through the inauguration of the White House Conference on Child Health and Protection and the creation of the Children's Fund of Michigan, encouragement was given to the child health program of the country. *Private practice.*—The number of physicians, dentists, and nurses is apparently steadily increasing. *Hospitals and clinics.*—A tendency was observed during the last decade or two to provide in hospitals more definitely for the patient of moderate means. Approximately $16,000,000 was appropriated by the Seventieth Congress for additional hospital facilities for World War veterans. *Legal measures.*—While considerable public-health legislation was enacted, no one law stood out as especially more important than others. *Biological research.*—Encouraging progress was recorded in many fields. *Research in medical sociology and economics.*—Three commissions or committees reported progress.

There may be differences of opinion as to whether the American people, during the last decade or century, have become more or less pugnacious, more or less religious, and more or less altruistic. That they have become healthier cannot be questioned. During the year 1929 the people of the United States apparently made good average progress toward a better state of health, they have maintained at a probably higher degree of efficiency many facilities for the control of disease and the promotion of health, and they have adopted a few new and significant measures to this end.

The changes during the year in the field of public health and medicine may be considered under the following topics: mortality and morbidity statistics, public-health measures, private practice, hospitals and clinics, legal measures, biological research, and research in medical sociology and economics.

MORTALITY AND MORBIDITY STATISTICS

The 1929 death-rate for the United States was not available at the time of writing (March 8, 1930), but the records for nearly

19,000,000 industrial policyholders of the Metropolitan Life Insurance Company in the United States and Canada may be used as an accurate index of trend among the people in general. The Metropolitan death-rate for 1929 was identical with that for 1928, the rate for the United States for the latter year being 12.1 per thousand population (higher than the 1927 record low rate of 11.4). The tuberculosis mortality rate for 1929 among Metropolitan policyholders was lower than it has ever been before. Typhoid fever, too, showed the lowest death-rate ever recorded. The mortality for measles and diphtheria diminished, and for diseases and conditions associated with childbearing a low record was achieved for the century. There were fewer unfavorable aspects of the year's record. An epidemic of influenza, which began late the preceding year, resulted in an increase in the influenza and pneumonia death-rate. Organic heart disease, cancer, and diabetes also caused a relatively greater number of deaths than in 1928.

The infant mortality rate for 1928, made available in 1929, was 64.6 per thousand live births for the registration area—still lower even than that for 1927, which was 65, the lowest point reached in the history of the United States.

On the incidence and prevalence of sickness during 1929, very little data are now available. An investigation made by the United States Public Health Service in certain states concerning the influenza epidemic of 1928–29 showed that almost 15 per cent of the population canvassed suffered attacks of influenza or grippe. The incidence of smallpox probably was not greatly decreased. "It is strange," says the surgeon general in his annual report, "that year after year more cases of smallpox are reported in the United States than in any other country of the world except British India."

An unusually large number of cases of violent cerebrospinal meningitis occurred in the United States, the outbreak being traced in part to an origin in the Orient. Serum treatment was not generally or strikingly effective. A few more cases of venereal disease were reported to state departments of health for the fiscal year ending July 1, 1929, than for the previous fiscal year.

The death and birth registration areas were both increased by the admission of Nevada and New Mexico.

PUBLIC-HEALTH MEASURES

During the year plans were announced by President Hoover for a White House Conference on Child Health and Protection, and an organization was promptly provided to make preliminary investigations. The work is to be done under five divisions, one of which deals with medical service, another with public-health administration, and a third with the handicapped children. It is proposed to determine the facts which influence child life from the prenatal period through infancy, childhood, and adolescence.

A division of narcotics was established in the Public Health Service, with an assistant surgeon general in charge, which is to establish and maintain health farms for the care of narcotic addicts. A bill was introduced in Congress by Representative Porter which would provide for a scientific determination of the quantities of narcotic drugs needed by physicians. This bill has received considerable opposition and considerable support.

The Sheppard-Towner Act, which for some years has made available financial assistance to the states for the development of maternity and infant work, ceased to function July 1, 1929. Many states, however, are continuing the work with their own funds. The Rockefeller Foundation appropriated $100,000 to assist state and local agencies in reorganizing health units, especially for child and maternal hygiene. Presumably many workers previously employed under the general provision of the Sheppard-Towner Act will be maintained with this appropriation. The expenditure is to be made under the direction of the United States Public Health Service.

The Public Health Service issued an important survey of the activities of state health departments, the first one which has been made since the survey of 1914 by Charles V. Chapin.

The state departments of health of Maryland and Ohio established, during the year, bureaus of dental hygiene, each with a full-time director, making a total of twenty-one states with such bureaus. Several of the larger cities appropriated generous sums for dental hygiene among children. Among them were the following: Cleveland, $127,000; Chicago, $124,500; and Detroit, $100,000.

In the field of mental hygiene, child-guidance clinics for the treatment of behavior and personality disorders increased in number.

Many public school systems have given serious consideration to the problem of dealing more adequately with maladjustment among students; and a deeper permeation of the techniques of social agencies by mental-hygiene concepts has taken place. In the field of psychiatry it is encouraging to note that several of the more progressive medical schools have elevated the teaching of psychiatry to a position comparable to that of surgery, internal medicine, and pediatrics. A close liaison has been made with other professions, chiefly the law, and the interests of the church in psychiatric matters has increased. The twentieth anniversary of the inauguration of the mental-hygiene movement was celebrated November 14 at a dinner in New York attended by more than six hundred leaders in the fields of medicine, education, law, business, and social work.

In the field of social hygiene a conspicuous development during the year was an increased demand for teacher and leader training courses. Not only schools but churches are beginning to accept sex education as a part of their responsibility. Much time was given during the year to appraisals of conditions in cities favoring sex delinquency. The work of the Committee for Research on Syphilis has continued with emphasis upon the prevention of congenital syphilis.

Dental hygiene was furthered by the development of plans for the establishment of a chain of free clinics by the Murray and Leonie Guggenheim Foundation. Land has been purchased by the Foundation for the first unit in New York City, and more than $3,000,000, it is reported, is to be used for the construction, equipment, and endowment of this unit.

The Chamber of Commerce of the United States launched a health contest comparable to those which have been carried on for several years to reduce fire losses. Although the contest was not inaugurated until September, over one hundred Chambers of Commerce enrolled before the end of the year.

Another major foundation was created during 1929—the Childrens' Foundation of Michigan. It has received from Senator James Couzens a fund of $10,000,000 "to be used to promote the health, welfare, happiness and development of the children of Michigan and elsewhere in the world." The principal and interest of the gift

are to be spent within twenty-five years. The first work of the Foundation will be to assist in the establishment of child-health demonstrations in certain counties of Michigan.

The foundations which have been previously established, including the Carnegie Corporation, the Commonwealth Fund, the Milbank Memorial Fund, the Rockefeller Foundation, the Julius Rosenwald Fund, the Russell Sage Foundation, and the Twentieth Century Fund, continued to serve an important function in medical progress by the inauguration of pioneer measures under their own direction and that of various national agencies.

PRIVATE PRACTICE

There was evidence during 1929, in presidential and other addresses, of a growing recognition by the private practitioners of medicine of a changing order in the medical world and a growing tendency to face frankly and intelligently the problems resulting therefrom.

The American Medical Association continued to occupy a position of unique influence and leadership in the field of medicine. It has almost 100,000 members and its weekly *Journal,* probably the outstanding professional publication in the world, reaches approximately the same number.

The American Dental Association has continued to be an active force in the development of dentistry. The trustees of this Association organized during 1929 a Council on Dental Therapeutics composed of outstanding investigators in the fields of pharmacology, physiology, biochemistry, bacteriology, and the clinical branches of dentistry.

A total of 152,503 physicians was reported in the 1929 *American Medical Directory.* Excluding those who have retired, there were approximately 143,000 in active service. The number of medical-school graduates increased from 4,262 in 1928 to 4,446 in 1929.

There were about 75,250 dentists practicing in the United States in 1929, an increase over 1928. The number of graduates from dental schools in 1929 was approximately 2,510, a gain of about 200 over the previous year. The number of registered dental hygienists

has been rapidly increasing. In 1929 the training schools graduated 367, and there were 2,682 registered in the United States.

Approximately 25,300 persons were graduated from nursing schools in 1929. The number graduated in 1928, according to an "intentionally conservative estimate," was 20,000.

HOSPITALS AND CLINICS

An increasing demand for hospital care by patients of moderate means, according to a report issued early in the year by the Committee on the Cost of Medical Care, has caused a noticeable change in the construction of hospital buildings. The number of semiprivate rooms increased during the period 1908–28 from 10 per cent of the total number of beds to 23 per cent. There was also an increasing tendency to adjust rates to the needs of this large group of patients. The Baker Memorial Unit of the Massachusetts General Hospital, created entirely for patients of moderate means, was completed during the year.

Fifteen million dollars was appropriated by the Seventieth Congress, which adjourned March 4, 1929, for additional hospital domiciliary and out-patient facilities for persons entitled to hospitalization under the World War Veterans Act. The effect of this appropriation will be to increase the provisions for the free treatment of veterans for non-service disabilities and diseases.

The Wilmer Ophthalmological Institute of the Johns Hopkins University, the only such center in the country having its own building for treatment, research, and teaching in diseases of the eye, was dedicated at Baltimore. At the same institution, a department of medical history, the first in the United States, was established, and the William H. Welch Medical Library was dedicated.

A state cancer-pellagra hospital in Texas was provided by a bill passed by the 1929 legislature. Charges will be adjusted according to the patients' financial condition.

An explosion at the Cleveland Clinic caused the death of a number of patients by nitrous oxide from stored photographic negatives; and, in consequence, hospitals and clinics all over the country took steps to eliminate the hazard in stored X-ray negatives.

Regulatory legislation covering this matter was initiated in various cities and states.

To the Public Health Institute of Chicago—probably the largest venereal-disease clinic in the country and one operated on a cost basis—was added a medical board which will deal with problems of policy in regard to treatment and public relations.

During 1929 there was a tendency toward a decrease in the total number of hospitals and toward an increase in the total bed capacity. (In 1928 there were 6,852 hospitals in the country with 892,934 beds.) Hospitals and similar institutions were constructed during 1929 having a total value, according to one report, of $193,000,000.

Clinics probably increased in number, but no central agency exists for the annual collection of data regarding them. In 1927 there were more than 5,700.

LEGAL MEASURES

The sterilization of mental defectives is provided in a law enacted by the 1929 Michigan legislature. A former law had been declared unconstitutional in part because of certain discriminatory provisions not included in the new law.

A law requiring the use of prophylaxis at birth for the protection of infants against blindness was passed by the Kansas legislature. The provisions of the law may be waived if objection is filed within a certain length of time after the birth of the child.

A law establishing a state Public Health Commission to replace the old Board of Health was enacted in Rhode Island. The sanitary control of creameries and the sale and distribution of dairy products was provided in a new Montana law. California enacted a law on the sale and control of narcotics and also revised its bovine tuberculosis law.

BIOLOGICAL RESEARCH

Wider and more active interest in dental research was evident during the last year, especially in the fields of chemistry, pharmacology, physics, and metabolism. Mineral metabolism, in so far as it concerns tooth structure, was intensively studied in many places.

Isadore S. Falk, of the University of Chicago, reported that he had isolated a group of micro-organisms that apparently were the causative agents of influenza during the 1928–29 epidemic.

An aggressive program for research into the causes, prevention, and cure of mental diseases was launched in December, 1929, by the opening and formal dedication of the new Psychiatric Institute and Hospital at the Columbia-Presbyterian Medical Center in New York City in the presence of many distinguished leaders in mental medicine from this country and Europe.

The Nobel Prize in medicine for 1929 was awarded to Professor Christian Eijkman, of the University of Utrecht, and to Sir Frederick Gowland Hopkins, of the University of Cambridge, for their researches on the vitamins. The Nobel Prize in chemistry was presented to Dr. Arthur Harden, of London University, and Professor Hans von Euler, of the Stockholm High School, for their work on yeasts and sugars.

Dr. Oliver Kamm, research director of Parke, Davis and Company, was awarded a prize of $1,000 by the American Association for the Advancement of Science for his research in isolating the hormones of the pituitary gland.

Mme Marie Curie, codiscoverer of radium, visited America to attend scientific functions and to receive a gift for the purchase of a gram of radium for the Warsaw Cancer Hospital.

RESEARCH IN MEDICAL SOCIOLOGY AND ECONOMICS

The Committee on Medical Education issued, during 1929, a supplement to its third report. Many of the medical schools of the United States, it states, made important changes in their curriculums or were planning to do so during the academic year 1929–30. While a few schools have embarked on definite experimentation in medical education most of them are planning conservative readjustments which presumably have been recommended by the Commission.

The Committee on the Grading of Nursing Schools began a nation-wide co-operative survey of schools of nursing, over 80 per cent of the large schools participating. Each school analyzes its own educational activities and submits returns to the Committee. As results are secured, confidential reports are being prepared which will be submitted to the schools taking part.

The Committee on the Cost of Medical Care issued two prelimi-

nary reports—one on *Medical Facilities in the United States*, and the other on *The Extent of Illness and of Physical and Mental Defects Prevailing in the United States*. In addition, it issued the first of a series of reports on original research—*Hospital Service for Patients of Moderate Means*. Approximately fifteen other studies are under way, most of them being made by the Committee itself, but a few by collaborating national agencies. Toward the end of the year the Committee adopted a significant program of public and professional relations. The Committee's work will become a great task in co-operative thinking. It will submit tentative conclusions to the various interest groups and will seek to secure the play of many minds upon the problems growing out of its studies.

During the year there was no evidence to indicate that the usual incidence of malaria—approximately one million cases each year —was reduced. The challenge of William H. Welch must not be forgotten—"We know how to do a lot of things which we don't do, or do on a wretchedly small scale." The Committee on the Cost of Medical Care is seeking to point the way to a more effective utilization of the knowledge being made available by modern science.

COMMUNICATION

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ABSTRACT

During 1929 there was a marked trend toward the integration of the various forms of transportation and communication. The older instruments of communication like the railroad and the newspaper took the lead in organizing plans of co-ordination with their rapidly increasing competitors like the aeroplane, the motor vehicle, and the radio. During the year marked advance was made in the establishment on a commercial basis of mail and passenger aeroplane routes; sound pictures have won their contest with the silent drama; advertising found its place in the radio world; Admiral Byrd in his South Polar Expedition demonstrated the advantages of all-round equipment with the modern means of communication. Integration and co-ordination of the different forms of communication and transportation will doubtless continue.

The outstanding fact about communication in 1929 was the marked trend toward integration of its various forms. Interestingly enough, these co-ordinations were often in kinds of communication once considered hostile to each other, as railroads and buses, newspapers and radio, as well as in cases in which the relationship was obviously mutually advantageous, as in the combination of radio and aeroplane. This tendency to co-ordinate is no doubt in part a recognition by those in control of the older forms of transportation and communication that new instruments like the aeroplane, the motion picture, and the radio have secured a permanent and growing place in the economic and social life of the country. In reviewing the trends of the last year, emphasis will accordingly be placed on this tendency to combine and integrate the different facilities of transportation and communication. Incidentally, attention will also be paid to certain direct and indirect effects of the development of new types of communication upon the personal and institutional behavior of the American people.

RAILROADS, MOTOR VEHICLES, AND AEROPLANES

Passenger traffic on railroads continued to lose during 1929 and transportation by motor vehicles and aeroplanes to gain. The following table gives the comparison between decreasing railroad

transportation and the increasing use of the automobile by five-year periods 1900–1925 and for subsequent years.

A new low level indicated for passengers per capita on all steam railroads presages still further declines as the result of increased competition of the automobile, electric railroad, and aeroplane traffic.

The production of motor vehicles set a new record in 1929, reaching 5,651,000, as against 4,357,384 in 1928. The number of passenger cars was 4,846,000 in 1929. The number of automobiles in

TABLE I

NUMBER AND NUMBER PER CAPITA OF PASSENGERS CARRIED ON ALL STEAM RAILROADS* AND NUMBER AND NUMBER PER THOUSAND PERSONS OF AUTOMOBILES† FOR 1900–1929 BY FIVE-YEAR PERIODS UP TO 1925 AND BY SUBSEQUENT YEARS

Year	Passengers Carried on All Steam Railroads		Automobile Passenger Cars Registered	
	Number	Per Capita	Number	Per Thousand Persons
1900	576,831,251	7 5	8,000	0 1
1905	738,834,667	8 7	77,400	0 9
1910	971,683,199	10 5	458,500	5 0
1915	985,676,117	9 9	2,309,666	23 2
1920	1,269,912,881	11 9	8,225,859	77 3
1925	901,963,145	7 8	17,512,638	151 8
1926	874,588,786	7 4	19,237,171	164 2
1927	840,029,685	7 1	20,230,429	172 2
1928	789,860,000	6 6	21,379,125	178 0
1929	779,045,000	6.5	23,121,589	194 0

* Data of the Interstate Commerce Commission, figures for 1929 are estimated on the basis of 90 per cent returns at time of writing

† National Association of Commerce, *Facts and Figures, Automobile Industry, 1929*, p 5.

use increased 8 per cent over 1928, or from 21,379,125 to 23,121,589. But automobile traffic increased nearly 14 per cent, judging from the jump from nearly eleven billion to twelve and one-half billion gallons of gasoline used by motor vehicles. If the assumption be made that on the average one gallon of gasoline provides fifteen miles of transportation, the total mileage of motor vehicles would approximate 187.5 billion miles, or an average of approximately 7,000 miles per car during 1929. While the number of cars is expanding rapidly, evidently the use of cars is increasing even more rapidly. Returns from seventy-eight cities, with a total population of 33,000,000, give an increase in the death-rate from auto-

mobile accidents of 11 per cent, which may be compared with 8 per cent increase in number of automobiles and 14 per cent in number of miles traveled.

The co-ordination of motor coaches and trucks with railroad lines is a recent development.[1] The increase in use of motor coaches by railways since 1925 has multiplied eightfold. The 10 lines operating motor coaches in 1925 increased to 78 in 1929, and the number of motor coaches from 300 to 2,389. A similar change is to be noted in the integration of truck service with steam railway service. The 15 lines operating 900 motor trucks in 1915 expanded to 55 concerns operating 5,900 motor trucks in 1929.

The total number of motor trucks registered in 1929 is given at 3,370,000. The dependence of the consolidated-school movement upon the motor bus is significant. The number of motor buses in use last year was about 95,000; of these almost one-half, or 43,000, are used by 16,500 consolidated schools. While the automobile is held responsible for the reduction in passenger transportation on railroads, the number of carloads of automobile freight shipped over railroads in 1929 is placed at 3,600,000.

The interrelation of the automobile with the development of good roads continued apace.[2] The miles of surfaced highways reached 660,000, or 22 per cent of the total miles of highways in the United States, or an increase of 41,000 miles of surfaced highways in the last year. The total amount collected in gasoline taxes is estimated at 415 million dollars, while the total taxes levied on motor vehicles is placed at 925 million dollars.

Certain of the more remote effects of the automobile received increasing attention in 1929. A marked decrease in the demand for shoes, with its adverse economic effect upon shoe factories and retail dealers, is ascribed to the increasing use of the automobile. The tremendous increase in touring has led to a nation-wide provision of touring camps. As a consequence of the popularity of touring, summer resorts have experienced a marked reduction in patronage.

[1] Statement from Department of Commerce, quoted in *United States Daily*, January 24, 1930.

[2] From National Automobile Chamber of Commerce, *Preliminary Facts and Figures Automobile Industry, 1929.*

The extent of touring may be partially gauged by the report of the registration in Vermont of over one million tourists.

During 1929, aeronautics maintained its place of pre-eminent interest in the public eye. The spectacular event of the year was the world-girdling flight of the Graf Zeppelin in less than twenty-two days. The most significant use of the aeroplane was, however, in its skilled and successful use by Commander Richard E. Byrd in his Antarctic polar expedition, to which special reference will be made later.

The assistant secretary of commerce for aeronautics[3] is the authority for the following statistics of increased aeroplane activity in 1929 over 1928: from 11,191 to 14,387 scheduled air mail route mileage; from 10,673,000 to 16,000,000 miles in scheduled operations; from 49,000 to 85,000 passengers carried; from 4,000,000 to 8,000,000 pounds of mail carried; from 16,000 to 35,000 established airway mileage. The increase in miscellaneous flying is estimated at 18,000,000 miles in 1926, 30,000,000 miles in 1927, 60,000,000 miles in 1928, and 125,000,000 miles in 1929. With the development of aviation passenger transportation, interest naturally turns to the liability of accidents. The rate for aeroplane accidents per miles flown has been cut in half according to a comparison of fatal accidents in all classes of aircraft operations. Although the number of fatal accidents in the first six months of 1929 was 127, as against 97 for the first half of 1928, the total mileage flown per accident last year was 442,530, as against 169,944 the year before. This may be compared with a death-rate due to automobile accidents per miles traveled of one death for every eight million miles.

Among the outstanding developments of the year 1929 are those which combine aeronautics with other forms of communication as "the unprecedented linking of airlines with railroads, steamship service and automobile bus lines."[4] The most dramatic and successful combination of the aeroplane with other forms of communication was in the expedition to the South Pole by Commander Byrd. Equipped with all modern materials, such as aeroplane,

[3] Quoted in *United States Daily*, January 2, 1930.

[4] Statement by Clarence M. Young, assistant secretary of commerce for aeronautics, *United States Daily*, January 2, 1930.

radio, and motion-picture camera, he was able to achieve more in a short time than any other expedition. On his staff of forty-one men were seven aviators or aviation mechanics, three radio operators, two aerial photographers, and two motion-picture operators.[5] The full use of radio for the first time in polar expeditions kept the party at all times in touch with the outside world. "During the year of its existence Station WFA, Little America, sent out and received more than 1,000,000 words."[6]

CO-ORDINATION OF SOUND AND SIGHT

The year 1929 closed with sound pictures firmly established as an integral part of the motion-picture industry. The skepticism of those who held that "the talkies" were only a passing fad has been practically silenced by the announcement that although in 1928 only one in twenty of the motion-picture theaters was wired for sound production, the ratio had increased during the year to seven in twenty. This number of wired theaters includes practically all the first-run houses in the larger cities and provides approximately three-quarters of the total film revenues to the distributors. In the absence of exact statistics of attendance, Mr. N. G. Golden, assistant chief, motion pictures division, Department of Commerce, states:

Weekly picture theatre attendance closely parallels the population of the United States. The film houses draw an estimated weekly attendance of 120,000,000 persons, while the population, as of July 1, 1929, totals 119,206,000. The theatre attendance is reported to be an increase of 14,299,000 during the last ten years.

The aggregate number of new theatre building projects in 1929 was 539, with the estimated cost of construction totalling $157,287,500. The total number of new seats was 575,146, with the average seating capacity per project totalling 1,400. During 1928 approximately $90,000,000 was spent on theatre building and reconstruction. In 1929 this fell to $40,000,000 and based upon advance indications, approximately $120,000,000 will be spent during 1930.[7]

The popularity of talking and color films, according to Mr. Golden, has extended the run of individual pictures and forecasts the decreasing of the number of pictures produced in the future.

[5] *New York Times,* March 10, 1930. [6] *Ibid.*

[7] *United States Daily,* January 18, 1930. The *Film Year Book* of 1929 reports eighteen and one-half million seats in motion picture theaters.

It is significant to note in connection with the interrelations between the different forms of communication the rôle played in the adaptation to sound pictures by the discoveries and inventions in telephone research laboratories. In 1928 the Electrical Research Products Company was formed as a subsidiary of the Western Electric Company for the purpose of making commercially available the developments and inventions of the Bell Telephone Laboratories applicable outside the telephone field.

The Western Electric system of recording is installed in about seventy studios and used for the production of about 90 per cent of

TABLE II

NUMBER AND RATES OF TELEPHONES AND TELEPHONE CALLS, 1902–29

YEAR	TELEPHONES		TELEPHONE CALLS	
	Number	Number per Thousand Persons	Number	Number per Capita
1902	2,371,044	30	5,070,554,553	63 8
1907	6,118,578	70	10,400,433,958	118 9
1912	8,729,592	92	13,735,658,245	142 3
1917	11,716,520	112	19,809,061,085	193 9
1922	14,347,395	130	21,901,387,070	199 3
1927	18,365,486	163	26,645,000,000	224 5
1929	20,096,854	169	30,212,875,000	253 5

the talking pictures made last year. The Electrical Research Products has installed Western Electric recording apparatus in 3,300 theaters in the United States and 1,100 theaters in other countries. The Electrical Research Products is also interested in the commercial development of those contributions to electrical science in relation to modern high-speed submarine telegraph cables and the recording and reproduction of sound in connection with phonographs.[8]

The increase in number and rates of telephones and telephone calls for the period of 1902–27 is shown in Table II.

The number of telephone calls increased more rapidly in the last two years than the number of telephones. Between 1927–29 the number of telephones per thousand persons in the United States in-

[8] *Annual Report of the American Telephone and Telegraph Company for the Year 1929*, p. 9.

creased from 163 to 169, but the number of telephone calls per capita rose from 224.5 to 253.5. Daily long distance conversations increased from 3,100,000 in 1928 to 3,400,000 in 1929. Dial telephones in 1929 numbered 4,350,000, or well over 20 per cent of the total stations.

Marked developments in telephonic communication including co-ordination with aeroplane and radio are recorded in the last annual report of the American Telephone and Telegraph Company:

> During the year two additional short-wave transatlantic radio telephone channels were put in operation. The transatlantic telephone service is now being furnished over one long-wave and three short-wave radio telephone channels. In December, ship-to-shore service was inaugurated to and from the steamship "Leviathan" and it is expected that in due course this service will be extended to other steamships.
>
> Marked progress has been made during the year in the development of telephone communication with airplanes. A large number of trials and demonstrations have shown that satisfactory two-way telephony is possible between airplanes and any telephone connection in or with the Bell System. In several of the tests commercially satisfactory communication was maintained between an airplane here and telephone stations in Europe. This involved radio transmission from the airplane to the Bell telephone wire system in the United States, the transatlantic radio and the regular telephone wire system in Europe. This equipment of airplanes with telephones for navigational purposes will add greatly to the safety and efficiency of transportation by air. Ultimately it is expected that telephone service will be established between airplanes and any telephone anywhere that is connected with the Bell System.[9]

The world-wide development of telephony is evident from the fact that in 1929 practically any telephone in the United States could be connected with 85 per cent of the 34,500,000 telephones in the world.[10]

THE INTERRELATION OF THE NEWSPAPER, RADIO, AND ADVERTISING

No reliable figures are available in regard to the number of radio sets now in use in the United States. For 1928 estimates ranged from 8,000,000 to 15,000,000. Commissioner Harold A. Lafount,

[9] *Annual Report of the American Telephone and Telegraph Company for the Year 1929*, pp. 5–6.

[10] Statement of Dr. Julius Klein, Department of Commerce, *United States Daily*, January 6, 1930.

of the Federal Radio Commission, is authority for the statement that three and one-half million receiving sets were sold in 1929 as against two and one-half million in 1928.[11] The inclusion in the present federal census of a question upon the presence of a radio set in the home will give the first accurate and exact data on the distribution of the radio.

The growth of the radio was at first viewed with alarm by certain well-established institutions and enterprises. The church, grand opera, the motion picture, commercial sports, such as the prize fight, baseball, and football, and especially the newspaper were all

TABLE III

CIRCULATION IN MILLIONS OF COPIES PER ISSUE OF NEWSPAPERS AND PERIODICALS

Type	1899	1904	1909	1914	1919	1921	1923	1925	1927
Daily	15 1*	19 6	24 2	28 8	33 0	32 3	35 7	38 0	42 3
Sunday	..	12 2	13 3	16 5	19 4	20 9	24 5	25 6	27 7
Triweekly	0 2	0 3	0 3	0 5	0 5	0 5	0 4	0 4	5
Semiweekly	2 8	2 9	2 3	2 5	2 0	1 5	2 0	1.9	2 0
Weekly	31 2*	36 2	40 8	50 3	51 9	43 5	47 9	50 8	59 9
Monthly	37 0	64 3	63 3	79 2	91 7	83 5	91 7	111 9	116 3
Quarterly	11 1	11 7	16 1	18 0	18 9	21 7	22 2	22 8	21 2
All other	5 5	2 9	4 1	8 9	5 1	7 0	7 6	8 5	8 2

* In 1899, statistics on Sunday newspapers were included in the figures for daily and weekly papers and not given separately.

concerned. The fears have not been realized. Except, perhaps, in the case of prize fights radio broadcasting has, probably in the main, increased the visible attendance as well as created a great invisible audience. In fact, certain churches have tended to organize their service with chief reference to the microphone. In no case but that of the newspaper, however, have we accurate statistics, and these show no decline in the rate of increase of the daily paper. Table III gives in millions of copies per issue the circulation of newspapers and periodicals during the period 1899–1927.

According to Ayres's 1930 *Newspaper Annual* the average daily circulation of daily newspapers reached 44,110,094 copies in 1929.

In fact, the newspaper and the radio have become closely interrelated. The radio fan of necessity has to depend in large part upon the report of radio programs in the daily paper. The *List of Li-*

[11] Statement quoted in the *United States Daily*, January 6, 1930.

censed Broadcasting Stations reports some twenty broadcasting stations in the United States as owned by daily newspapers. Radio news and advertising are prominent features of newspapers.

During 1929 the radio in an increasing number of ways became an integral factor in the economic and social organization of the country. The amount expended in national advertising through the radio during 1929 was $16,760,851, as compared with $9,168,089 for the corresponding period of 1928. These figures may be compared with statistics of the outlay for national advertising in approximately seventy monthly magazines and about a dozen weekly papers and semimonthlies, which was $203,776,077 in 1929 and $191,028,940 in 1928. For farm magazines the total amounts paid for advertising were $11,092,342 last year and $10,606,643 the preceding year.[12] It might be stated, in passing, that the ratio of advertising expense to sales for 177 industrial corporations amounted to 2.32 per cent in 1929, as compared with 2.24 per cent in 1928.[13]

The most detailed statement upon radio advertising was made by President William S. Paley, of the Columbia Broadcasting System, before the Senate Committee on Interstate Commerce in connection with the Couzens bill (S.6) proposing a Federal Commission on Communication. He stated that only 22 per cent of the programs offered by his system are sponsored, as compared with 78 per cent service programs given to the network stations free of charge. Of these service programs 29 per cent are popular music; 26 per cent symphony, opera, and chamber music; 14 per cent instructive; 4 per cent religious; 3 per cent dramatic; and 2 per cent civic. A recent analysis showed that advertising announcements, themselves, consumed only about seven-tenths of 1 per cent of Columbia's time on the air.[14]

For some time radio has been installed on certain railroad observation cars, in guestrooms in some hotels, in old people's homes,

[12] Statement of Bureau of the Census, Department of Commerce. The data given are based on advertisers' one-time or single insertion rates and do not take into consideration lower rates due to long contracts.

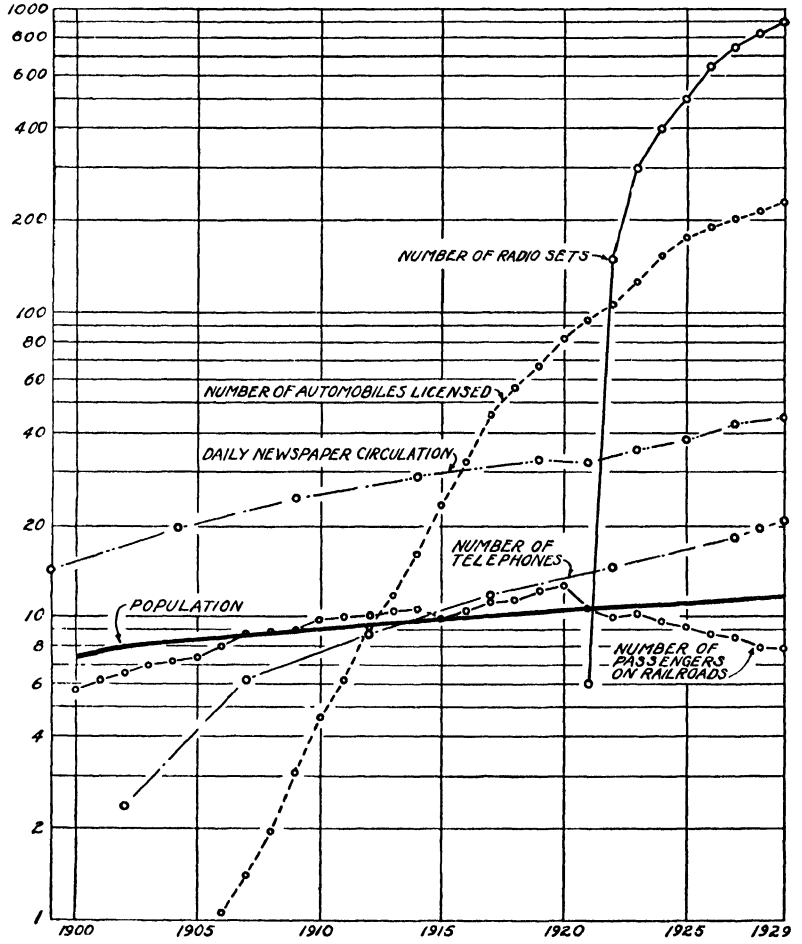
[13] *United States Daily*, January 7, 1930.

[14] *United States Daily*, January 20, 1930.

and in correctional and penal institutions. During the last year radio became an established instrument of police work. Detroit,

CHART I

RATES OF INCREASE OF DIFFERENT AGENCIES OF COMMUNICATION, OR THEIR USE, IN THE UNITED STATES, 1899–1929



which had been experimenting with radio, introduced the first system of radio broadcasting with receiving sets in police squad cars. Chicago followed suit; and later Cleveland, Berkeley (California),

Buffalo, and Highland Park (Michigan) installed the same system.[15]

The scattered use of the radio in the schoolroom and the growing development of the broadcasting of university classroom lectures and extension courses has led to the appointment by Dr. Ray L. Wilbur, secretary of the interior, of an Advisory Committee on Education by Radio. Its report in 1930 will be awaited with interest as pointing the way to the most advisable use of radio as an educational factor.

Other adaptations and integrations of radio to other forms of communication have already been indicated with reference to aeroplanes, telephones, and steamboats. In the reporting of oceanic observations, radio is becoming a valuable instrument in weather forecasting.

SUMMARY

Chart I may be of interest as graphically showing the trends in the growth of the different instruments of communication in comparison with the much slower increase of population.

The marked tendencies noted toward the integration and co-ordination of the different forms of transportation and communication will doubtless continue. The older forms, although well intrenched, have much to gain by co-ordinating their systems with the newer and more rapidly increasing agents of transportation and communication. The next few years will, however, tell the story of the real nature of the equilibrium to be established between railroad and aeroplane as agencies of long-distance transportation, and between the daily metropolitan newspaper and the radio as instruments for the reporting of events and for national advertising.

[15] *Literary Digest*, January 18, 1930, p. 45.

COMMUNITY ORGANIZATION

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ABSTRACT

The distinguishing feature of community organization as revealed in studies, organization statistics, and discussions seems to be fluidity of organization form and weakening of old forms of group loyalty. Studies of Indian communities and coastal islands show differential reactions to outside influences and consequent uneven communal organization. The community in rural districts becomes the larger and more socially effectual area. The form and problems of industrial communities are rapidly changing. Racial organizations of resistance to assimilation show evidences of accommodation to American ways. Increase in membership and financial strength of fraternal orders indicates one channel into which is flowing communal loyalties. The community is providing recreation rather than the family; and legal and civic controls are in process of development. Settlements are undergoing change and scrutiny. Community organizers are concerned to provide for possibilities of neighborhood organization through city planning rather than to regiment people in community centers or councils. Seven books on community organization appeared in 1929.

The social organization of a country in one year is so similar to that of the preceding and the following that characterization in annual terms becomes a hazardous if not necessarily inaccurate performance. Social changes do not occur generally in cycles of three hundred sixty-five days. But the attention of students and observers is necessarily limited, and attention follows styles; and, further, annual conferences crystallize the styles of limited attention. Consequently annual summaries, even in the realm of organization, seem to have a reason for writing and seem to show distinguishing characteristics. Statistics and discussion of group and community organization in 1929 seem thus to emphasize the fluidity of organization form and transfer or weakening of personal attachment and loyalty. Perhaps the results of certain underlying causes of social change, such as inventions, migrations, and newer forms of knowledge, have reached observable points; perhaps appreciation of what is happening has just come in noticeable degree out of a longer process of thinking; perhaps some of the newer forms of group and communal organization have acquired sufficient emotional connotation so that we dare to acknowledge them; perhaps change is actually occurring more rapidly.

There is, first, more recognition in the studies that have been

made of the effects of mobility on social organization, especially outside cities, perhaps partly owing to the emphasis in former years of studies of urban mobility. The communal organization of Indians has been under scrutiny and from it has come the beginning of an understanding of the part social identification plays in assimilation. The Indian "belongs" in some ways to American life, in others he does not. As he expresses himself in group organization and finds security or recognition in it, he becomes amenable to, and part of, the whole community; or to put it better, the white and the Indian community merge. In one study the Indian was shown to take little part in the institution enforcing law and order. He was not a transgressor, nor was he an understanding citizen; he was negatively good. In more than one study he is declared to be oblivious to the blandishments of Christian salvation. Yet his young folk, and to some extent he also, take to the modes of dress, the slang phrases, and other aspects of American life questionably but popularly called superficial. Apparently he belongs in some respects, in others he does not. He visits and he loves to entertain, even while his crops are wasting for want of care. There is a lack of community identification in some ways and an overemphasis of it (perhaps a compensation) in others. The interest in these studies, to the student of organization, is the assumption of the investigators of differential response on the part of Indians to American things and manners, and the resulting differential change in communal relationships.

The coastal islands came in for the same sort of study and produced a different but not contradictory picture. A giving way of old culture is associated of course with contacts with the mainland. Folkways of health are potent in America; hence it is not strange that doctors are one source of communal disorganization on the islands; likewise bootleggers, politicians looking for votes, vacationists, and, to some extent, preachers. These instances of communal organization represent more or less closed systems of culture, isolated in the past from the larger society.

In one other field communal organization has undergone considerable change in late years, namely, in the rural districts. Here, too, there has been a large measure of disorganization of group relationships, but the positive process is also more apparent. The "country"

community is becoming a thing of the past; the town and the country are joined now by the automobile and other forms of communication. The town is reaching out as well as the farmer is coming in, and the area including town and hinterland is being bound together into a unit by social, recreational, educational, and commercial ties. Burr says in *Small Towns* that the farmer is therefore dressing, building his house, and acting like his urban cousin. The older neighborhood is gone for the farmer; but the newer rural life is more social than ever and community organization is a far more potent factor. The change has meant a larger unit of administration as well as of social and business relations and the county has become for many purposes the effective community—as in health for many parts of the country.

Again arises the old specter of all students of community organization, viz., local democracy, and the question comes from all sides, Shall not the "community" (i.e., the town, village, or borough) decide all measures affecting it? Is not county administration a superimposed autocracy? The chief of the Children's Bureau of the Department of Labor met with the problem in connection with the administration of the maternity and infancy act according to which funds were made available to the states and through them to counties. Her answer (agreed to by at least one representative national gathering of community organizers) is simply that what may be found to be the effective unit for any piece of work is the community for that purpose; a vote by a resident in that organization (county in this case) is as democratic an instrument, perhaps more so, than a vote of the same resident in his town or borough; further, opportunities for co-operative local service come oftenest as suggestions from a larger or an outside agency and it is in the method of their introduction partly that democracy or autocracy inheres. In the transition from one form of communal organization to another, questions of abstract significance such as "democracy" appear to the participant subjectively in terms of old association and personal participation, to the student in objective terms of social effectiveness.

Urban change is an old story, but an added chapter comes from a source not so devoted hitherto to this form of narration, namely, industry. Industry knew much of the mobility of labor but is declar-

ing now that its welfare work is to be limited or modified by the propensity of workers to move. The Bayway (New Jersey) refinery puts up a community house for employees only to find a relatively few months see the employees scattered, less than 10 per cent remaining in the district, and the neighborhood consciousness and interest practically gone. McKenzie says the lumber camps are no longer communities. In South Michigan whole groups of employees often live from fifteen to twenty miles from their work, and Detroit, as might be expected, shows the same consequences of workingmen's use of automobiles. It is said that an associated phenomenon is that of "rural slums" a few miles outside industrial towns. In the *Ohio Social Science Journal* of May, 1929, a small town slum is described located at the outskirts of the town, possessing unique standards and mores, with a main occupation of junking and a common interest in assembling parts for dilapidated automobiles and making them go.

One indication of the greater acceptance of the results in communal organization of mobility and other manifestations of greater communicability is the ready agreement by leaders in community organization work and study that there is as much reason to set in motion those forces which will destroy cul-de-sac communities as to aid in building up those which seem to us desirable.

There is organized effort against realignment of individuals in community and group formation, especially where there has been a strong previous bond. There have been sixty-seven new buildings erected in eight and one-half years as Jewish community centers. There are probably at this moment more than 250 organizations of national scope of foreign-speaking people with 30,000 branches and 3,000,000 members. In the foreign-speaking mutual benefit societies there are cash benefits, not including real estate, of $130,000,000 and more. Many of the forms of group solidarity are practiced; homes are maintained for orphans and old people; sports, athletics, camps, and recreation are conducted; there are educational and cultural activities; newspapers (120 of them) are published. And yet there are many indications that these organizations are themselves in transitional stages; the newspapers are publishing columns in English in larger numbers than a year ago, much attention is devoted to the children; and, not least important, some of the

welfare workers in these societies are beginning to co-ordinate their efforts with those of English-speaking social workers.

In the older form of neighborhood association there was acquaintance, mutual aid, status, and mutual ethical exhortation or at least cajolery. Just what has taken the place in intimate fashion in the more urbanized life of today both in cities and the rural districts would be an interesting speculation. Probably fraternal organization is one answer, and the increase in the membership of "lodges" is partly to be explained as one result. It is estimated by the *Fraternal Monitor,* from the reports received to date, that the financial strength of the fraternal system increased about $60,000,000 in 1929 and now amounts to $940,000,000. The benefit in adult memberships of the drive for junior members inaugurated a few years ago is being felt as juniors graduate into the senior group. In 1928 the increase in junior members of benefit societies was 75,276, and on January 1, 1929, the juniors numbered 824,442. The total membership of benefit societies aggregated 10,895,529 in 123,434 lodges. Over a period of ten years, the assets of the fraternal benefit societies in millions of dollars mounts steadily: 385, 415, 477, 540, 581, 643, 711, 772, 836, 889. Junior membership over a decade shows in terms of thousands as follows: 129, 134, 195, 226, 314, 478, 514, 619, 721, 824. These figures do not include the non-benefit societies, the "social" fraternities. For 1928 the total membership of all societies is given as 27,135,969. Here is one large factor in social organization; here many are finding a place in the sun and a form of group life co-operative and intimate at least in terms and aspirations.

Group life is not so much family life and groupings of families as heretofore; of that we are sure. Figures such as the much-quoted study of apartment-house construction show that in eight years in 257 cities construction of one-family houses dropped from 58.3 to 35.2 per cent of the total, and construction of multiple dwellings increased from 24.4 to 53.7 per cent.

One of many results in communal life is that recreation is found outside the home for each person in groups of his general age and sex. Theaters and motion-picture houses are symbols of modern community association. Seating capacity and attendance mount

rapidly. Dancing is done in dance halls and cabarets. During the year a study of *Public Dance Halls* has been issued by the Children's Bureau. It is a re-emphasis of the growing concern over morals and the consequences of a change from an old, understood, and observable form of social intercourse within family, neighbors, or at least "social set" to the public, general, and, by the old rules, uncontrollable form. Other accounts, especially of commercial dance halls in small towns, reveal the same growing problem. Extensive, large-scale controls are needed in place of smaller group influences. Community legal control in the form of licensing, civic control in the form of organized societies are exercised. Control also resides more in the judgments of the individuals as self-control than in the adherence to codes.

In social work the question of change in form of social organization is reflected in the numerous studies under way seeking not only information as to needs but more especially the values and results of clubs and group work. There is a widespread effort to relate particular forms of group organization such as playgrounds, boys' clubs, etc., to lack of delinquency in the area in question, or the general conditions of health, recreation, conformity to law, etc., to a settlement or other institution. There is every likelihood that the relationship of personal character or social adequacy of a neighborhood is a much more complex matter than most of these studies assume. Settlements in particular are under scrutiny. Neighborhoods of many settlements have changed around them, and too often the institutions have not adapted to the change. Much work formerly done by settlements has been taken over by private specialized agencies and departments of government. The need of a stabilizing agency in the flux of neighborhood change is perhaps greater than ever. A significant effort in one city is the plan to bring together in a "social center" all the social, civic, relief, recreational agencies, each independent but co-operating closely in a scheme to keep the whole welfare of the entire district in a consistent picture. Research authorities agree with the summing up of practical social workers that in the entire field there are two main trends, (1) "toward the development of measuring sticks of social work problems and social work results, and (2) toward shifting of considerable of the load of

social work on public resources." The possible disintegrating effect of multiple contacts of diversified forms of social work on the personality of the affected individual has been discussed but no agreement or general trend of thought reached. The group approach so often mentioned, so little considered in social work, has been re-emphasized at least in logical inference by the recent developments in the Chicago community studies.

Finally, the community organizers have recognized that group and community organization are matters of ebb and flow. They are distinctly less doctrinaire than in any previous year as to the ideal form of communal civic or social integration. The tendency is to stress the need for such housing and city-planning as will give opportunity for co-operative relations among neighbors or "nighdwellers" if the need is felt and leadership arises. This is a far cry from the community religion of a few years ago when the drive was on to go out and get people into community organizations, democratic in the extreme and supposedly dominated by neighborly sentiments.

The note of adjustment as the fundamental idea in community organization swelled perceptibly during the year and became vocal at the national conference. This takes most definite and active form in the matter of city-planning. There are more courses in the subject; chambers of commerce are turning to it rapidly; Secretary of Commerce Whiting urges chambers of commerce to turn from boosting for new industries to city-planning; a department of the Chamber of Commerce of the United States publishes the following statistics: 751 cities of the country have city-plan commissions, 591 zoning commissions, 18 regional-plan commissions; 534 have comprehensive zoning ordinances, 841 some sort of zoning ordinances, and 89 are planning them; 240 cities have comprehensive city plans, and 84 more are on the way to them. The figures show that the following states lead: Massachusetts, New York, Illinois, New Jersey, Pennsylvania, California, Ohio. The most insistent recent emphasis is on the elimination of roadside billboards and the legal or social control of commercial exploitation of the highways. The Bureau of Public Roads of the Department of Agriculture, assisted by other bureaus, reported that 10 states use public funds for highway beau-

tification, 3 expect to, 2 use funds of local municipalities, 13 co-operate with civic and private groups, and in 19 others a great deal has been done unofficially.

The main points of interest in city-planning were: the emphasis on metropolitan regional planning in at least ten city regions; discussions of decentralization and its relation to parks, playgrounds, and other local neighborhood facilities; platting regulations to facilitate social control of land subdivision; neighborhood planning; village planning; the serious discussion of government control of architectural design. Better Homes in America reported 5,960 local community committees in 1929 as compared to 770 in 1924. The work of these committees was as much that of community-planning as anything else and consisted in co-ordinating the activities of all sorts of local civic groups, such as parent-teacher associations, women's clubs, civic improvement associations, chambers of commerce, schools, government agencies, etc., for "home improvement."

Five books pertinent to the subject appeared among others: (1) Volume VII of the *Regional Survey of New York and Its Environs, Neighborhood and Community Planning,* including "The Neighborhood Unit," by Clarence Perry; (2) *Community Conflict,* published by The Inquiry; (3) *The Changing Urban Neighborhood,* by Bessie A. McClenahan; (4) a more popular expression of wonderment at the transformation of home and neighborhood entitled *The Passing of Normalcy,* by Charles W. Wood; and (5) *The Gold Coast and the Slum,* by Harvey W. Zorbaugh. A book of great significance but of perhaps less direct bearing is *Chicago: An Experiment in Social Science Research,* edited by T. V. Smith and Leonard D. White. *Organized Crime in Chicago,* by John Landesco, which is Part III of *The Illinois Crime Survey* has great interest for the student of neighborhood changes and the conflict of communal prides and customs.

RURAL LIFE

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ABSTRACT

The economic jolt of the last ten years has opened the farmer's eyes to the futility of acquiring the effective tools of labor, without understanding the processes of national housekeeping. He has, therefore, shifted his serious thinking to the nature of the society in which as a human being he lives; and he appears virtually to have made up his mind to shoulder his way squarely into this society of equals, and secure "parity" with his fellow-men. This is the great rural social change coming to the surface during the year. Farmers have lost their old faith for happiness in the finality of hard work and a good crop, and are seeking a new faith among the doctrines of practical humanism.

If one would understand what is happening in rural life in America, one would do well to focus one's attention upon the actors occupying the center of the rural stage, namely, the farm population. The village population makes up the chorus. The suburban population plays on another stage.

Unmistakable evidence of a shift of thought and behavior on the part of farm people has come to the surface during the last year. The factors of change in the rural situation have been operating mildly for several decades and strongly during the last ten years; but only within a twelvemonth could the casual observer make a good guess as to what the social upshot would be. Now it is fairly plain that the people engaged in agriculture are headed for a seat at the family table in the dining-room of the nation. They have at last wearied of being servitors.

Traditionally the farmer's eyes were glued to land—his own land or land which he hoped to make his own—for so he thought happiness would be assured to him and his family. He could be relied upon to respond to ways and means of improving the soil of his farm, of increasing his own crops, of accepting new methods of animal husbandry for his own cattle, sheep, and hogs. He greedily absorbed from the colleges of agriculture the science of cultivating and managing his own farm. So popular were the production programs of colleges of agriculture that these institutions

brimmed with men, facilities, and formulas that enabled the farmer to "grow two blades of grass where one grew before." The colleges of agriculture are still saturated with production-makers; but the farmer, while conventionally producing as keenly as ever, has shifted his serious thinking to the nature of the society in which as a human being he lives and moves and does his work. Having learned to produce food and fiber to his heart's content—even to overproduce—much to his chagrin he found himself, his wife and children still pretty much outside the happy, prosperous national family; and he has evidently made up his mind to shoulder his way squarely into this society of equals, and to secure "parity" with the rest of his fellow-men. The economic jolt of the last ten years has done the trick—opened the farmer's eyes to the futility of simply acquiring the effective tools of labor without understanding the structure and social processes of national housekeeping. A glance at some of the tokens of change may prove informing.

The normal phenomenon of mobility of population, whether it be that of farm or city, has attained in the ten-year period just ended such unusual proportions that it is no exaggeration to say, "Every farm family has a member as a reporting correspondent in some city, and every farm neighborhood has a family from some city recently come to farming." A sane interpretation of this extraordinary mobility is that farm people have through acquaintance with city life come to a new sense of the disparity of living conditions between farm and city, and a new certainty of the social futility of *working hard, saving, owning one's own farm, and producing to the top of one's bent.* The following quotation from the 1929 *Report of the Secretary of Agriculture* sets forth the official facts of the mobility of the farm population:

> Evidence that the drift of population from the country to the town continues is contained in a survey made by this department covering 1928. Our farm population at the end of 1928, according to this estimate, was the smallest in more than 20 years. Though the gross movement of persons from the farms was somewhat smaller in 1928 than in 1927 and 1926, it comprised the formidable total of 1,960,000 persons. This figure was largely offset, however, by the movement of 1,362,000 persons from cities, leaving a net movement of 598,000 persons from the farms to the cities. The corresponding net movement for 1927

was 604,000 persons; for 1926, 1,020,000; for 1925, 834,000; for 1924, 679,000; for 1922, 1,120,000. No estimate was made for 1923. Farm population as of January 1, 1929, was estimated at 27,511,000 as compared with 32,076,960 as estimated by the census for January 1, 1910. The net loss of farm population, with allowance made for birth and mortality on the farm, was estimated at 188,000 persons, as compared with 193,000 in 1927, 649,000 in 1926, 441,000 in 1925, and a total of 2,000,000 in the years 1920 to 1925.

The farmer has not been slow to observe during the last ten years how relatively unstable and unpredictable his income is in comparison with the income of city workers. He has not been worried so much about the fact that the absolute cash income of the city worker is somewhat more than his own—for he realizes the larger expense budget of the city family—but he does fret at the fact that his own best efforts on the farm are no assurance of a stable reward from year to year. The following official tables from the *Crops and Markets,* Volume VI, No. 7, July, 1929, of the United States Department of Agriculture, indicate the situation. It is this factor of instability which operates so strongly against a rising standard of family living in rural communities comparable with the rising standard in city communities.

The following paragraph from the *Agricultural Outlook for 1930,* released for publication by the United States Bureau of Agricultural Economics on January 27, 1930, in a very conservative strain, indeed, confirms the conclusion that the situation of the farmer due to unfavorable economic conditions is charged with considerable social ferment:

> Farm income recovered considerably from 1921 to 1925, and has shown no upward tendency since then. The higher level of income during those years has helped stabilize the financial situation of farmers. Apparently land values have nearly ceased to decline but there is no assurance as yet that a stable level has been reached in all States. Farm mortgage debt appears to have reached its peak in 1928, and to be starting a gradual decline. Taxes paid by farmers have continued to mount, but with a much slower rate of increase in the last five years than in the preceding decade. Technical changes are also taking place with the rapid introduction of power machinery and the trend toward less labor and larger farms. These changes are increasing capital requirements and lowering expenses per unit of product for farmers in favorable locations, and will continue to render still more difficult the situation of farmers in so-called "submarginal" areas, and to release still more land for the production of human food instead of feed for draft animals. As a consequence of continued unfavor-

able incomes and of the general displacement of labor by machines, farm population has continued to decrease to the lowest point since 1900. During recent years, however, the net migration from country to city seems to have been reduced.

TABLE I

WAGE-EARNINGS OF FARMERS AND FACTORY EMPLOYEES

YEAR	REWARD FOR FARM LABOR AND MANAGEMENT PER FARM	EARNINGS PER PERSON EMPLOYED IN FACTORIES	INDEXES OF WAGE-EARNINGS OF	
			Average Farm Family	Average Factory Employee
1919–20	$978	$1,279	100	100
1920–21	457	1,327	47	104
1921–22	331	1,115	34	87
1922–23	501	1,208	51	94
1923–24	594	1,268	61	99
1924–25	684	1,264	70	99
1925–26	751	1,293	77	101
1926–27	696	1,305	71	102
1927–28	728	1,299	74	102
1928–29	729	1,330	75	104

TABLE II

RATES OF RETURN EARNED ON ALL FARM CAPITAL AND RATES RECEIVED BY THE VARIOUS OWNERS OF FARM CAPITAL

YEAR, JULY 1—JUNE 30	RATE EARNED ON ALL CAPITAL INVESTED IN AGRICULTURE	RATE OF INTEREST PAID ON MORTGAGE AND OTHER INDEBTEDNESS	RATE PAID ON VALUE OF CASH AND SHARE RENTED PROPERTY	RATE EARNED ON OPERATOR'S NET CAPITAL INVESTMENT
	Per Cent	Per Cent	Per Cent	Per Cent
1919–20	6 3	6 7	8 3	5 7
1920–21	5	7 0	7 3	−4 2
1921–22	1 2	6 8	5 7	−2 3
1922–23	3 2	6 8	6 2	1 2
1923–24	3 5	6 6	6 6	1 6
1924–25	4 5	6 4	7 1	3 2
1925–26	5 2	6 4	7 4	4 4
1926–27	4 3	6 3	7 1	2 9
1927–28	4 7	6 3	7 2	3 6
1928–29	4 7	6 4	7 3	3 7

No single piece of evidence of the farmer's having taken a firm stand upon a new platform is so convincing as the passage June 15, 1929, of the Congressional act entitled "An Act to establish a Federal Farm Board to promote the effective merchandising

of agricultural commodities in interstate and foreign commerce, and to place agriculture on a basis of economic equality with other industries."

This Federal Farm Board was quickly organized with a membership of outstanding business men experienced in handling various staple agricultural commodities. Congress authorized for this Board's use a revolving fund of $500,000,000 and appropriated $150,000,000 of this sum for its immediate use in loaning to approved farmer-controlled co-operative agencies for marketing farm commodities. The following summary shows the decisions of the newly formed Board:

FEDERAL FARM BOARD, JANUARY 28, 1930, SUMMARY OF AUTHORIZED LOAN COMMITMENTS TO DATE

	Commodity Agencies	Facility Improvements
Cotton	$22,720,000	$ 750,000
Grain	10,440,000	
Livestock	11,100,000	200,000
Dairy products	3,850,000	105,000
General	5,125,000	7,850,000
Total		$62,140,000

These loans have been granted to 15 cotton, 8 grain, 4 livestock, 5 dairy, and 8 general co-operative associations.

Applications for loans aggregating $62,140,000 have been granted by the Federal Farm Board. Forty cotton, grain, livestock, dairy products, and other co-operative associations have participated in these commitments.

In addition, the Board has made tentative commitments of $45,800,000 standing against the $150,000,000 appropriated from the $500,000,000 revolving fund authorized by Congress.

The co-operative associations have up to date called for only between seventeen and twenty million dollars of the commitments made to them.

That the farmer, having tasted the benefits of tax-supported utilities, educational facilities, and other modern appliances and services, is unwilling to retrench and go back to his old pioneer

way of living, though hard-pressed for funds, is evidenced by the following quoted forecast of a national economist and tax specialist at the annual meeting of the Southern Agricultural Workers, Jackson, Mississippi, February 6, 1930:

> There is little likelihood of taxation on farm property being reduced in the United States . . . . because of modern demands of farmers.
>
> Taxes on farm property as a whole may be expected to increase for some time, though the rate of increase will be materially under the average rate for the past fifteen years.
>
> The demand of citizens for expensive improvements and public services make a decline in taxes unlikely unless the States provide a taxation system for revenue from other sources.

One of the leading farm journals advertising a subscription list of 1,400,000 families, in its January, 1930, number, announced in a conspicuous prologue its intention to change its name and materially alter the viewpoint and character of the magazine, from a farm-production paper to a paper addressed to farmers as human beings. A lengthy story of a broad survey follows in the pages of the January number, ostensibly furnishing the ground for the change. The following excerpt will give a clue to the argument. Here again is a straw pointing to the farmer's recent conversion from production content to social progress:

> The need of the old-time farm trade paper is gone, and the interest in it is gone. It is not that country people are uninterested in making money, in getting along in the world; of course not. But they are sick unto death of being talked to about it all the time.
>
> Everyone approaches them as "producers" rather than as human beings.
>
> Producers are people. They are individuals, with intellectual rights as such, and with interests and capacities that they are even more anxious to develop than their material interests and capacities. They have, like the rest of us, to cope with this world of reality and to wrest a living out of it, and they will always need reliable vocational information. But they want something more.
>
> Their foundation interest is in talk of home things, including agriculture; but they want this talk to be human, broadening, inspiring, not petty, preachy, prosy; not addressed to them as if they were a class and race apart.

The rapid rise of rural sociology as a college discipline (more than five hundred institutions with a teaching staff of six hundred persons are now giving one or more courses) is an index of the power being exerted in America to socialize rural thinking and

behavior. Eight creditable textbooks on rural sociology (others in the press) evidence the faith of rural research workers in a changing rural life. New social terms in discussion of rural problems, such as "standards of living," have crept into the daily press during the last ten years. The economist of agriculture is now talking about "birth rates," "intelligence tests," the "psychology of cooperative marketing." The chairman of the Federal Farm Board in a recent public address in Washington, D.C., declared that the Board did not fear the opposition to their plans from outside trade forces; but the Board was concerned about whether farmers themselves would think along with the Board.

The great social fact about farm people is the shift in their thinking and behaving. Having lost their old faith in the finality of hard work and a good crop, they are seeking a new faith among the doctrines of practical social humanism.

THE FAMILY

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ABSTRACT

It has seemed best not to attempt to record statistics year by year. The year 1919 has seen a marked increase in attention given to problems of the family, especially problems of marriage. New organizations have been formed of great importance to the family. Legislation has been mostly a tightening of requirements for marriage and the protection of children. A large number of investigations of family problems are in process or are reported finished. There have been even more conferences held than last year, and they have not been restricted to problems of the child or the parent. Churches are attempting to stress the educational preparation for marriage and parenthood, and evidence of this appears during the year. In foreign lands, we find Turkey and India modernizing marriage, and Germany agitated over the birth-rate, and England experiencing a yearly increase in divorces.

It has seemed best not to attempt to report year-by-year statistics of marriages and births. Since the significance of statistics appears only when the family record is investigated over a considerable period of time, it will prove more useful to make the statistical statement at least not oftener than once in three years. An effort has been made to portray the happenings in the field of family and marriage in a way that is likely to be most profitable for those interested in social changes in the home and in matrimony. Co-operation has been sought from sociologists and social workers and others interested in various sections of this country and in foreign lands.[1]

From the American universities come reports of new courses on the family and increasing interest on the part of students. This is perhaps the most promising fact gathered by this investigation. Apparently from the students also is coming an increasing pressure for information regarding the problems of marriage. Students are becoming conscious of the need of concrete and practical information that will assist them in the married life which they expect soon to have. At the University of North Carolina the course on premarriage training is now given two terms instead of one as previous-

[1] The author wishes to thank correspondents who have reported material from their various sections and especially to register his appreciation of the valuable service of Miss Flora Thurston, of the National Council for Parental Education.

ly offered. It is open only to Seniors and graduate students and deals exclusively with problems of marriage in the attempt to find from experience whether instruction in preparation for marriage adjustment can be made to function later. Doubtless similar experiments are going on in other places where a portion of such instruction is appearing in courses on the family.

ORGANIZATIONS

In organizations of concern to the family 1929 has been a notable year, although some of these undertakings did not publicly function until 1930. The White House Conference on Child Health and Protection was called by President Hoover. At present committees covering every phase of family life are at work in preparation for this conference. A Division of Family Relations of the American Social Hygiene Association was created, with Anna Garlin Spencer chairman. A Committee of the American Eugenics Society was organized to advocate legislation designed to protect and advance the interests of marriage. The Life Adjustment Institute of the Mount Pleasant Congregational Church of Washington, D.C., developed its services for parents and others in need of help in solving personal problems. Steps were taken for the starting of a clinic for marriage problems at Los Angeles under Paul Popenoe, and at Chicago with the support of the Julius Rosenwald Fund. The work of the Institute of Human Relations at Yale was inaugurated.

Although established late in 1928, the following should be included in the organizations of 1929: Consumers' Research, Incorporated, Mathilde C. Hader, executive secretary, 47 Charles Street, New York City; The National Committee on Employer-Employee Relationships in the Home, Dr. Amey Watson, director, 311 S. Juniper St., Philadelphia, Pa.

There has been a marked increase in the interest of the churches in both education for marriage and family life and in providing some sort of counsel service for the married. It is beginning to be felt that education offers the best means for the church to conserve its family life and that the organization of centers offering the advice of specialists to the newly married and to parents provides in modern form the value of former pastoral assistance. As this inter-

est develops there is likely to be a delicate problem of social statesmanship demanded of the church leaders to protect the movement from becoming denominational propaganda or merely a resistance to change in family life, thereby creating a division among those who are interested in advancing the welfare of marriage and parenthood.

The Episcopal church went on record in favor of giving instruction through family relations institutes. The Presbyterian church appointed a commission to study problems of marriage and divorce. The Roman Catholic church in its *National Catholic Welfare Conference Review* for January, 1930, contains a symposium on Catholic action and the family, which well expresses the interest the church had taken in the problems of the family the preceding year. The Federal Council of Churches of Christ in America has taken an active interest in problems of the home, and the conference on marriage of the Buffalo churches was in part a result of this interest. The theological seminaries are giving greater attention to problems of parenthood in training for the ministry.

LEGISLATION

During the year forty-three of the states have had regular meetings of the legislature and many laws have been passed that concern the family. Most of these have had to do with the interests of children. Fourteen states have passed laws relating to marriage. The tendency noted last year toward stiffening requirements for marriage, especially the marriage of minors, still continues. It is clear that there is great need of objective and accurate information revealing the practical result of legislative acts that are designed to aid family life. Expectations rather than demonstrated results are largely behind many of the laws passed. Already there is evidence of two contrasting philosophies of marriage reform. On the one side are those who favor a greater restriction of marriage and are moving toward making it a special privilege for those qualified; on the other, those who desire to encourage marrying and fear, for reasons already generally approved by the mores, any limit of the right to marry lest the effort to prevent social evils create still greater ills. The legislators by impulse fall mostly within this second group,

while social workers tend toward the former. This breach is less noticeable with reference to children, and legislation to conserve child life is easier to get passed.

California prohibited except by order of the superior court the marriage of boys under eighteen or girls under sixteen. Hawaii required that the consent of the parent or guardian to the marriage of minors must be in writing, and apply to boys and girls under twenty. The law formerly exempted girls over eighteen. Also a three-day period between application and issuance of the marriage license is required. In Maine, in addition to the consent of the parent or guardian to the marriage of any person under sixteen, there must be the written consent of the judge of the probate court. In New York, the written approval of the children's court judge in addition to the consent of the parent or guardian to the marriage of girls between fourteen and sixteen years of age is required. In Vermont the law requiring a certificate from a probate or city superior court judge in addition to the consent of the parent or guardian is made to apply to a boy under eighteen or a girl under sixteen. Previously a boy had to be under sixteen and a girl under fourteen. Connecticut passed a law that marriage applications must be open to public inspection. In North Carolina, persons under twenty-one years of age have to give a five-day notice of their intention to marry, except in certain cases when the clerk of the superior court is authorized to issue a license before the expiration of this five-day period. Tennessee also provided for a five-day period between the application and the issuing of the marriage license. This requirement can be set aside by the judge or chairman of the county or probate court. It does not apply when the parent, guardian, or next of kin of the girl states under oath that she is over the statutory marriage age, or if it is known to the clerk that both contracting parties are over twenty-one. In Oregon it was voted that when two persons have lived together for more than a year and have children they shall be deemed married and such children legitimate. This bill had been passed in 1927 but vetoed by the governor. Texas made it compulsory for the man applying for a marriage license to produce a physician's certificate stating that he is free from venereal disease. A three-day notice is required between application for, and issuance of, the marriage license. Since this legislation has been in effect there has been, ac-

cording to press reports, decided opposition to it on the part of many county officials. New York's new public welfare law has many provisions that concern children and the family. It provides that families shall not be separated when it is possible to avoid this.

In Massachusetts legislation was passed creating a Children's Commission, authorized to recommend constructive changes in the laws relative to dependent, delinquent, and defective children. The Commission, organized in August, 1929, has already demonstrated the need of harmonizing conflicting legislation and of making new provisions for the care of children and the safeguarding of marriage. In New Hampshire a law was passed making it possible for women to hold and be appointed to public office on the same terms and conditions as men. Also a law was passed authorizing the sterilization of potential parents of feeble-minded offspring. After four years of effort the Missouri Women's Legislative Committee secured the passage of a child labor bill superior to the law in effect since 1923.

Need is being felt of legislation: to prevent the transportation by automobilists of young children, especially girls, long distances from their homes; to require the registration of divorces.

The agitation to repeal the present restriction on the giving of birth-control information has strengthened during the year. The appropriations of the Capper-Ketcham Act became available in the fiscal year ending June 30 and made possible additional family extension service.

STUDIES AND INVESTIGATIONS

The number of studies of the family in process or concluded is impressive. The following list is not complete, but it is both representative and suggestive. Much of this effort to interpret the family fails of practical value, because we have at present no satisfactory way of making this material available to those interested. There is need of some kind of clearing-house. As chairman of the family section of the American Sociological Society, I am hoping to work out some scheme that will prevent the present waste of information regarding the family.

Divorce in Primitive Societies. Harold E. Adams, Yale.

Cultural Conflicts in Homes of the Second-Generation Japanese. Clarence Arai, Washington.

The Non-Resident Family as a Problem of Dependency. H. D. Baab, Minnesota.

A Study of the Birth-Control Movement. George W. Baughman, Missouri.

Men's Attitudes toward Outside Activities of Married Women. Earl S. Bellman, Kansas.

Typical Combinations of Problems Presented by Clients of a Family Welfare Society. Helen Bernard, Kansas.

A Study of Family Isolation. Lee M. Brooks, North Carolina.

The Only Child: A Sociological Study of Certain Family Relationships. William Paul Carter, Chicago.

The Problem of Family Tensions. Purnell Research Project, Leona Dennis, Cornell.

A Study of Fifty Cases Aided by Widows' Pension Law of New York State. Alberta E. DeCoster, Columbia University.

A Study of Family Wealth and Welfare among Farmers of a Typical Hill-Dairy Farming Section of Southern New York. J A. Dickey, Cornell

Family Experience in the Area of Sex Education. Mrs. Miriam Dillon, Washington Research Center.

An Analysis of the Transition of Domestic Life in America Mrs. Wilma Glover Felger, Cincinnati.

Types of Farm Families and the Effects of 4-H Club Work on Family Relations. Robert G. Foster, Cornell.

A Study of Social Adjustment Problems of Selected Mexican Families in the Neighborhood Settlement Area of Los Angeles. Nellie Foster, Southern California.

The Negro Family in Chicago. Edward Franklin Frazier, Chicago.

Conditions Affecting Success in Marriage. Ernest R Groves, University of North Carolina

Administration of Mothers Pension Law in Philadelphia. Bessie Louise Hall, Bryn Mawr.

The Direction of Residential Mobility of Persons Divorced or Deserted in 1926. Agnes C Harrigan, Minnesota.

The Standard of Living of Farm Families. Randall C Hill, Missouri.

Rooming-House Life in the Lower North Side. W. R. P. Ireland, Chicago.

Migratory Families in California in Relation to Public Charity. Margaret Kalenborn, Stanford.

The Parent-Child Relationship as a Factor in Personality Development. Mrs. Gertrude S. Lawrence, Missouri.

The Mother Family. William E. Lawrence, Yale.

Changes in Mother-Daughter Relationships Occurring when Girls Go to College. Mrs. Eugenie A. Leonard, Columbia.

A Study of Home Management in Its Relation to Child Development. Omicron Nu, Phi Upsilon Omicron, and the American Home Economic Association, Ruth Lindquist, University of North Carolina.

Aspects of the Social and Economic Problems of the Home. Ruth Lindquist, University of North Carolina.

A Semi-Objective Scale for Measuring the Social Environment of Problem Children. Mary J. McCormick, Catholic University.

A Study of Marriage and Divorce in Indiana. Charles G. Metzger, Indiana.

The Family as a Social Institution in the Light of Social Psychology. Kosei Ogura, Southern California.

The Effects of the Indefinite Real Estate Situation on the Family in New York City. Max Reich, New York University.

A Sociological Case Study of Farm Families. E. Dwight Sanderson and R. G. Foster, Cornell.

A Study of Divorce and Separation in Czechoslovakia. Josephine Lucile Sanigar, Columbia.

Social Origins of Some Concepts of Freedom Held by Modern Youth. Elizabeth Scherer, Columbia.

Family Background in Male Juvenile Delinquency. Clifford R. Shaw, Chicago.

Industrial Life Insurance and Its Effects on the Low-Income Family. Maurice Taylor, Harvard

Changes in the Sex Mores in American Life. Alma I. Tucker, Southern California.

Some Problems of Family Social Work in Rural Communities Gertrude Vaile, University of North Carolina.

A Study of Social Interaction in Young Children, with Special Reference to Subordination and Domination Marjorie Walker, Minnesota.

A Social Psychological Study of the Divorce. W. Willard Waller, Pennsylvania.

Factors in the Emotional Lives of Parents Which Affect Behavior of Children. Maud E Watson, New York University School of Education.

Auto Transient Families. Robert S. Wilson, Kansas.

A Study of 250 Successful Families. Mrs. C. G. Woodhouse, North Carolina College for Women.

CONFERENCES

The earnest interest taken in the family appears in the many and varied conferences dealing with some phase of the home that have been held during the year. It is impossible and undesirable to list all of them. Many important meetings, like the state teachers' associations, have given a part of their program to a discussion of the family. These are not recorded, even though they are proving of great value in advancing family welfare.

January 8, 14, 22, 29, February 5: Child Study Association, Evening Conference, New York City.

January 9: Child Study Association, Conference on Dancing, New York City.

January 24–26: National Board of Review of Motion Pictures, New York City.

January 31—February 1: Fourth Education Conference, Ames, Iowa.

February 7–8: Child Welfare League of America, Regional Conference, Cincinnati, Ohio.

February 13–15: North Carolina Institute on Parental Education, Raleigh, North Carolina.

February 21–23: Parental Education Association, Jefferson Hotel, St. Louis, Missouri.

February 23—March 2: United Parents' Association, New York City

February 24–28: National Education Association, Department of Superintendence, Cleveland, Ohio.

March 15–16: State Home Economics Association Meeting, Topeka, Kansas.

March 18–19: State Conference on Child Development, Manhattan, Kansas.

March 21–22: Parental Education Institute, Wichita, Kansas.

March 23–24: Conference on Rural Family Relations, Merrill–Palmer School, Detroit, Michigan.

April 4–6: Ninth Educational Conference, Ohio State University

April 9: Religious Education in the Home, Hackensack, New Jersey. (Auspices Bergen County Council of Religious Education, Council of the New Jersey Congress of Parents and Teachers, and Committee of the Young Men's Christian Association)

April 10–12. American Association of University Women, New Orleans, Louisiana.

April 29—May 3: International Kindergarten Union Conference, Rochester, New York.

May 2–4: Committee on Child Development, Toronto, Canada.

May 20–23: American Association for Adult Education, University of North Carolina.

May 25: Child Study Association, Summer Play Schools Committee, Hartsdale, New York.

May 31—June 1: Annual Conference of State and Provincial Health Officers, Washington, D.C.

June 2–5: National Conference of Jewish Social Service, Atlantic City, New Jersey.

June 3–6: Annual Convention, Boys' Club Federation, Boston, Massachusetts.

June 17–20: Working Conference on Health Education, Sayville, New York.

June 17–21: Annual Convention of the National League of Nursing Education, Atlantic City, New Jersey.

June 18–20: State Convention on Child Development and Parent Education, Iowa City, Iowa.

June 24–27: Annual Meeting, American Federation of Organizations for the Hard of Hearing, Cleveland, Ohio.

June 26—July 2: Twentieth Annual Conference, National Association for the Advancement of Colored People, Cleveland, Ohio.

June 26—July 3: National Conference of Social Work and Kindred Organizations, San Francisco, California.

June 28—July 4: National Education Association, Atlanta, Georgia.
June 28: Home and School Conference, London, England.
July 1–5: Annual Meeting of the American Home Economics Association, Boston, Massachusetts.
July 4—August 4: World Federation of Education Associations, Geneva, Switzerland.
July 8–13: Public Welfare Institute, University of North Carolina.
August 5–11: Parent-Teacher Institute, University of North Carolina.
August 8–21: New Education Fellowship, World Conference on New Education, Elsinore (Helsingör), Denmark.
August 22–29: Conference on Adult Education, Cambridge, England.
September 1–7: Ninth International Congress of Psychology, Yale University
September 30—October 5: Northwestern Conference for Child Heath and Parent Education, University of Minnesota.
October 15: Manhattan Conference on Adult Education, Town Hall Club, New York City.
October 16, 22, 29: Regional Conferences on Parent Education, Child Study Association, New York City.
October 19: Conference on Leadership Training, Ohio State University.
October 24–26: National Committee on Nursery Schools, Chicago.
November 1–2: Texas State Conference of Heads of College Home Economics Departments, Austin, Texas.
November 4–8: Western Regional Conference of Nutrition Specialists and Home Economics Heads (eleven states), Las Cruces, New Mexico.
November 12–14: Land Grant College Association, Chicago, Illinois.
November 18–20: National Birth Control Conference, New York City.
November 22–24: Conference on Marriage and the Home, Buffalo Council of Churches.
December 5–6: Parent-Teacher Conference, New York City. (Auspices Teachers College and National Congress of Parents and Teachers.)
December 12–13: Statewide School for Parents, Tulsa, Oklahoma.
December 9–10: Conference of Heads of College Home Economics Departments of Oklahoma, University of Oklahoma.
December 16–17: Twenty-fifth Anniversary Conference of National Child Labor Committee, New York City.

FOREIGN COUNTRIES

Turkey.—The progressive legislation that has accompanied the recent modernizing of Turkey was referred to last year. Perhaps there has never been a more conscious or rapid changing of laws and mores relating to woman and her status, but not without creating problems of unrest and revealing great social diversities. A competent correspondent, after interviewing many in position to know,

writes that it is the consensus of opinion that both marriages and divorces are decreasing. Another writes that departures from the conventional code of morals are proportionately at least as marked in Turkey as in the United States.

England.—From the unofficial reports of the press, divorces are still increasing. The latest statistics are as follows:

ENGLAND AND WALES, 1928

Births	660,267
Divorces	4,018
Marriages	303,228
Number of divorced persons who remarried, men	2,268
Number of divorced persons who remarried, women	1,857

India.—Although the enlightened public opinion is strongly behind the law prohibiting child marriages, according to many press reports from India during 1929 thousands of child marriages have been solemnized by parents who desire to forestall the operation of the law. This law now in operation is briefly summarized as follows:

> The Child Marriage Restraint Bill applies to all communities in the whole of British India, and renders illegal the marriage of girls under 14 and boys under 18, with penalties of imprisonment and fines for all who contract, perform, conduct, or direct any such marriage, as well as for parent or guardian of any minor who contracts such a marriage, whether he promotes it, or is merely permissive or negligent in preventing it.

This measure received the full official support of the Government of India, but was strongly opposed by orthodox Brahmanism, whose representatives in the Legislative Assembly held that it would strike at the foundation of Indian society and would lead to maternity before marriage. Orthodox Moslems abstained from voting.

Costa Rica.—It is interesting that even here the changes accompanying the World War have registered their influence: "The higher classes have been influenced by the modern ideas, especially after the war, and the flapperism, although poorly digested, has changed a little the position of the woman in the home."

Germany.—There has been during the year much discussion in the newspapers of the decrease of the birth-rate. It is charged against the younger couples that they are in considerable proportion refusing to have children, that this is a reaction to the war and its aftermath.

CRIME

ARTHUR EVANS WOOD
Professor of Sociology, University of Michigan

ABSTRACT

The six prison riots which occurred in the United States in 1929 focused public attention upon penal problems. Proposed federal legislation advocates the establishment of two new penal institutions, two narcotic farms, and a federal hospital for defective delinquents. The National Commission on Law Observance and Enforcement reported in November, 1929. Its recommendations have to do principally with the enforcement of the federal prohibition laws. A comparison of convictions and commitments since 1917 shows a phenomenal increase. Prohibition violations occasion 70 per cent of the convictions but only 24 per cent of the commitments, while the narcotic law violations are only 5 per cent of the convictions, with 24 per cent of the commitments. Of importance are the appointments of Vollmer at the University of Chicago and Goddard at Northwestern University to positions in police administration. Notable changes in legislation include laws similar to the Baumes Law in Colorado and Pennsylvania, a new children's code in Wisconsin, the recognition of psychiatrists and psychologists in Ohio, and a sterilization law in West Virginia. More than a score of outstanding researches have been reported during the year.

If social change can be regarded as a result of catastrophe, there is abundant evidence for such a view in the happenings in the field of criminology in 1929. The starting-point for any discussion of significant events in this field during the year must be a statement concerning the prison riots that occurred in institutions in different parts of the country during 1929. The riots are listed with their dates, place, and something of their severity, without attempting any generalizations as to their causes.[1] Sufficient is it to say that they were instrumental in focusing public attention upon penal problems, and in setting in motion proposed reforms of an administrative and legislative character.

July 22: 1,300 of the 1,568 long-term convicts at the Clinton State Prison, Dannemora, New York, made a break for liberty that resulted in the killing of three convicts, and the wounding of six other convicts and two guards. The property damage was estimated at $173,000.

July 28: At the Auburn State Prison in New York the convicts seized guns from the arsenal, started a riot, and battled with the prison guards and state troopers for five hours. Two prisoners were killed and four escaped. The property damage was estimated at $450,000.

[1] Data from *World Almanac, 1930.*

August 1: At Leavenworth, Kansas, 900 inmates of the federal prison rebelled over food and discipline, and staged a five-hour riot in which one convict was killed and three were wounded.

August 6: Six long-term convicts made a dash for liberty which resulted in the killing of two of them and the wounding of one convict and of one guard at the Kansas State Prison, Lansing, Kansas.

October 3: A mutiny of convicts at the Colorado State Prison at Canon City lasted for a day. Seven guards and five felons were killed, four of the latter killing themselves. The property damage exceeded $300,000.

December 11: A second riot occurred at Auburn Prison in New York. The warden and several guards were captured and held as hostages. Eight convicts and the principal keeper of the prison were killed; and several other convicts and nine guards were wounded.

The significant developments in the criminological field during the year have to do with the initiation of new legislation and administrative policies, the appearance of several statistical reports of value, the publication of many researches, the continued efforts of our crime commissions, with at least one new body of this character coming on the scene, and many other related happenings. The total picture is one of resurgence of interest and of activity.

THE ACTIVITIES OF THE UNITED STATES GOVERNMENT

As a result of a *Report on Federal Prisoners and Prisons* made at the request of the United States Bureau of Efficiency for the House Special Committee on Federal Penal and Reformatory Institutions (Seventieth Congress, Second Session, 1929), a program of expansion and reorganization of our federal penal machinery has been initiated, and embodied in proposed legislation.[2] The proposed laws are as follows: (1) A bill to establish two new federal penal institutions (H.R. 6807, S. 2557). These new institutions are designed to relieve the overcrowded conditions in our present federal prisons, the plan being to establish one penitentiary in the northeastern section of the country and one federal reformatory for young first offenders at some location west of the Mississippi.[3]

[2] This report was made by Mr. Amos W. Butler, and is to be found published in full in the *Journal of the American Institute of Criminal Law and Criminology*, Vol. XX, No. 2 (August, 1929).

[3] Meanwhile, the federal reformatory for adults at Chillicothe, Ohio, already authorized, is being rushed to completion.

(2) A bill to diversify the employment of federal prisoners (H.R. 7412, S. 2559). This measure aims to decrease the idleness in our federal prisons by providing for the manufacture by prisoners of goods and materials needed by the federal government; and to make possible the more extensive employment of prisoners on roads and other public works. (3) A bill to create an independent parole board (H.R. 7413, S. 2558) of three paid members. Formerly, the superintendent of prisons, together with the prison wardens and physicians, constituted the parole authorities for federal prisons. (4) A bill to reorganize the Federal Prison Bureau and to remedy jail conditions (H.R. 7411,[4] S. 2560). This measure provides more adequate administrative organization for the promotion and supervision of the care of federal prisoners in both federal and local institutions. It creates an independent Prison Bureau with a paid director within the Department of Justice. In large, congested, urban centers it is proposed to construct a few federal jails for federal prisoners awaiting trial.[5] (5) A bill to establish a federal hospital for defective delinquents (H.R. 7410, S. 2556). This measure aims to relieve the federal prisons of these types of offenders, as well as to relieve the overcrowded condition of the government hospital for the criminal insane. These measures have been reported upon favorably by the Judiciary Committee of the House and passed by that body, though up to present writing they have not been passed by the Senate.

Other parts of this program include a bill for the increase of the number of probation officers to be appointed by federal district judges, and the establishment within the Department of Justice of a division of identification and information, which is invested with the duty of acquiring and classifying criminal identification records, and with the exchanging of such records with the authorities of states, cities, and penal institutions. This measure was prepared and sponsored by the International Association of Chiefs of Police, and was recommended by Attorney General Mitchell in his annual report. Another piece of federal legislation, passed by both houses

[4] Superseded by H.R. 7832.

[5] One federal jail has already been opened in New York City, the first federal jail ever established outside a territory.

of Congress in 1929, provides for two narcotic farms, to be operated and supervised by the United States Public Health Service. The so-called Hawes-Cooper Act, passed by Congress in 1929, provides that prison-made goods, when offered for sale outside the states where they are produced, must fall under the laws of the state where they are offered for sale.

Meanwhile, an administrative act, vitally related to the foregoing program for our federal penal institutions, is the order of the United States Civil Service Commission, placing the positions of guards in these institutions under the federal civil service with examinations for all applicants. A training center for appointees has been established in New York City, and it is hoped by the Department of Justice that the opportunities for research and public service offered by these positions will attract men of ideals and college training to apply for them.

Another administrative act of great importance during the year was the appointment of Mr. Sanford Bates as superintendent of prisons within the federal Department of Justice. Mr. Bates enters the federal service after a distinguished career in penal administration in the state of Massachusetts.

President Hoover's National Commission on Law Observance and Enforcement was established in the spring of 1929, with Mr. George W. Wickersham as chairman. The preliminary report of this Commission, under date of November 21, 1929, was submitted to Congress by President Hoover. Its recommendations have to do principally with the enforcement of the federal prohibition laws:

1. The transfer of enforcement agencies, except those dealing with industrial alcohol, from the Department of the Treasury to the Department of Justice.
2. The codification of all federal prohibition statutes.
3. The strengthening of padlock processes.
4. The relieving of the federal courts by provision that in the less severe cases prosecution should be on information rather than by indictment, and trial should be by United States commissioners, instead of by judge and jury, except that jury trial may be demanded by the accused in case of conviction.

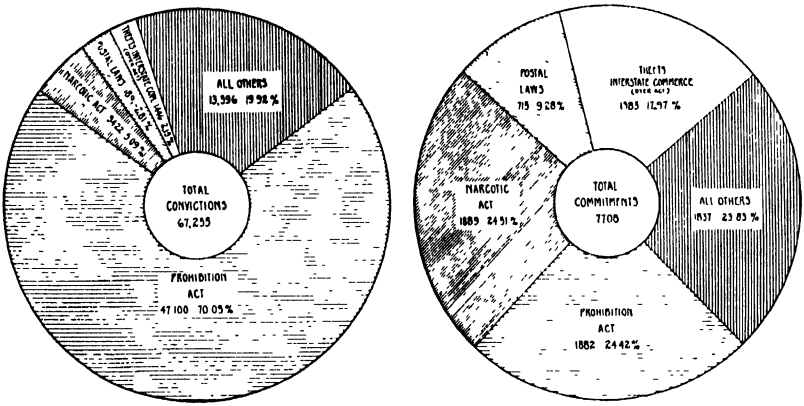
A statement may now be made relative to criminal statistics released or published by agencies of the federal government during 1929. Three charts are presented as prepared by the United States

Bureau of Efficiency in pursuance of their work for the Special Committee of the House on Federal Penal and Reformatory Institutions (Seventieth Congress, Second Session, 1929).

Chart I shows the percentage distribution of 67,255 convictions on various federal charges for 1929. One of the outstanding revelations of the chart is that whereas prohibition violations occasion 70 per cent of the convictions, they caused only 24.4 per cent of the commitments. Conversely, narcotic law violations appear in only

CHART I

THE LAWS THAT FILL THE FEDERAL PRISONS



Convictions in U.S. District Courts

Commitments to Federal Prisons

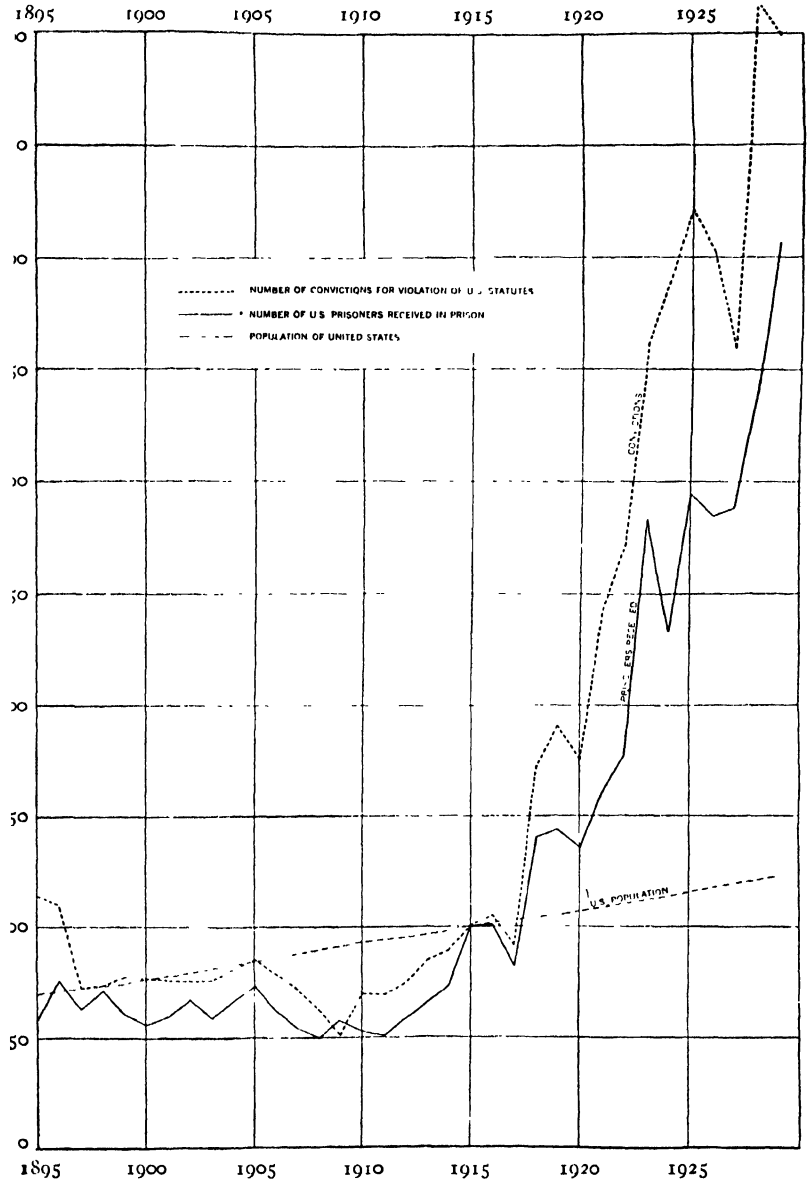
5.09 per cent of the convictions, while they occasion 24.5 per cent of the commitments.

Chart II indicates graphically the trends of convictions of federal charges, and of commitments to federal prisons from 1895 to 1929. A reasonable inference from this chart would be that the phenomenal growth of both convictions and commitments since about 1917 has been the result of new federal legislation, including special war acts, the narcotic acts, the Prohibition Act, the Dyer Act, and possibly other federal criminal statutes.

Chart III contrasts the numbers of federal prisoners eligible for parole 1910–29 with the numbers annually recommended for parole, and should be viewed in connection with our previous statement relative to proposed legislation for an independent Federal

CHART II

GROWTH OF FEDERAL CRIME AND PRISON POPULATION
1915 = 100

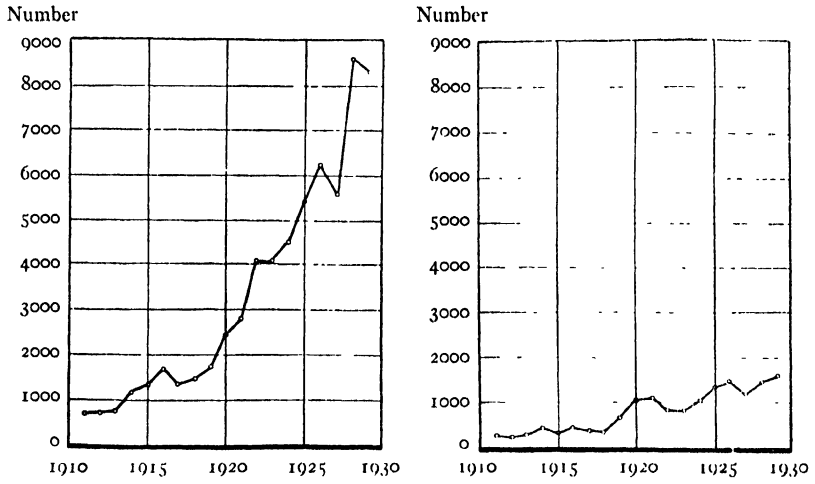


Parole Board with far more extensive facilities than have heretofore existed.

A publication of the Census Bureau for 1929, entitled *Prisoners in State and Federal Prisons and Reformatories, 1926*, is the fourth special enumeration of the prison population of the United States by the Bureau of the Census, previous ones having been made in 1904, 1910, and 1923. The one for 1926 is announced as the first of

CHART III

PAROLE STATISTICS



Number of prisoners eligible for parole annually

Number of prisoners recommended for parole annually

the annual censuses of the prison population of the country to include the inmates of the federal and state prisons and reformatories. Detailed information is included concerning 43,328 prisoners received from the courts during 1926 with facts as to sex, race, country of birth, offense, sentence, number of times imprisoned, and month of admission for those admitted; and information is included relative to 40,210 prisoners who were discharged during 1926 with facts pertaining to sex, method of discharge, length of time imprisoned, offense, sentence, and number of times imprisoned.

Another statistical publication of the Bureau of the Census in 1929, entitled *Prisoners' Antecedents,* is a supplementary study to

the census report on *Prisoners: 1923*, and contains detailed information concerning 19,080 offenders committed to state and federal penal institutions during the first six months of 1923.

Another public document published in 1929, and containing much statistical, graphical, and descriptive material relating to federal prisons and prisoners is the report of the hearings pursuant to House Resolution 233, Seventieth Congress, First Session, and published as House Report 2303, Seventieth Congress, Second Session.

Final mention is here given to Publication No. 193 of the Federal Children's Bureau, appearing in 1929 under the title, *The Child, The Family and the Court, Part I.* This study surveys from a fresh angle the status of juvenile, domestic relations, and family courts, and discusses the extent to which new judicial techniques of a more socialized character can be applied to family legal problems in which adults are involved.

ACTIVITIES PERTAINING TO THE STATES[6]

New Jersey is building a reformatory at Annandale, a state farm for prisoners at Leesburg, and is planning an extension of the state reformatory at Rahway, which is to be converted into a convict prison. This state passed legislation establishing juvenile and domestic relations courts in all counties. The new laws are based on drafts prepared by the National Probation Association.

In California a bill authorizing the establishment of "twenty-four-hour schools" in school districts for predelinquent children has been passed. Also, one providing a state reformatory for women. In addition, county parole boards for the parole of county prisoners have been provided for; and a division of probation has been set up within the state Department of Social Welfare for the supervision and standardization of probation work in the state.

In Colorado legislation similar to the Baumes law of New York has been adopted; but, significantly, the state failed to enact a

[6] To secure data relative to state activities letters were sent to the attorneys general of all the states, but as yet the replies to these have not been very informing. For additional information the author is indebted to Mr. Charles L. Chute, of the National Probation Association, to Mr. E. Stagg Whitin, of the National Committee on Prisons and Prison Labor, to Mr. William B. Cox, of the National Society of Penal Information, and to Dr. H. H. Hart, of the Russell Sage Foundation.

measure providing for a state Department of Public Welfare with supervisory powers over public and private welfare organization, including the juvenile courts and probation departments.

In Iowa measures were passed supplanting the old form of indictment with a brief form recommended by the American Law Institute; and also permitting prosecutors to comment on the defendant's refusal to testify on his own behalf.

Maine, a state with no juvenile court system, has enacted a law providing for private hearings for girls under sixteen, in cases in which the offenses are not punishable by death or life-imprisonment. Such provision already existed for boys.

Minnesota has enacted a law establishing an adult probation department in the district court of Hennepin County, enlarging and legalizing the powers and duties of probation officers in that court.

In North Carolina a Domestic Relations Court has been established in Mecklenburg County.

In Ohio counties with a population of more than 300,000 have been empowered to employ psychiatrists and psychologists.

In Oregon the Domestic Relations Court of Multnomah County has been abolished, its powers transferred to a Domestic Relations Department of the Circuit Court.

In Pennsylvania a modified "Baumes" law has been enacted, and a new state position of supervisor of paroles has been created to function under the state Board of Pardons.

In West Virginia the sterilization of mental defectives has been authorized in certain state institutions.

Wisconsin has adopted a new Children's Code, including a complete revision of the juvenile court law, in accordance with a draft prepared by the National Probation Association.

The New York State Crime Commission issued a report in 1929, under the designation of *Legislative Document No. 99* (1929). The materials in this report cover the whole field of criminology, bearing more especially upon criminal laws and court procedures. Among the studies carried on by the subcommissions of the Crime Commission, and published in the 1929 report of the latter, is a notable one on "A Study of Problem Boys and Their Brothers." It is a series of case studies of delinquents and non-delinquents in the

same families, and constitutes the tenth monograph of the Subcommission on Causes and Effects of Crimes of the New York Crime Commission.

Legislation proposed by this Commission for the present New York legislature includes the following measures: a bill for the establishment of a psychiatric clinic in the Probation Department of the New York City Court of General Sessions; a bill for the establishment in cities of 50,000 and over facilities for the physical and mental examination of delinquent children in the public schools, the state to bear one-half of the cost of same; bills for the reduction of the number of peremptory challenges of jurymen for defendants in criminal cases; for the reorganization of inferior courts in counties outside New York City, and the abolition of justices of the peace and the fee system; for the obligation on the part of judges in suspending sentences to have before them in felony cases the complete record of the criminal, including his social case history; for applying the term "conviction" to all cases, including those in which sentence has been suspended; for abolishing the technical distinctions between the different forms of larceny; and for making possible the joint indictments of larceny and forgery, permitting conviction on either charge.

The reports of the Illinois Association for Criminal Justice were published in 1929. There are sixteen of these reports, dealing chiefly with administrative legal and political machinery in the handling of felony cases. Three of the reports, however, touch upon fundamental causes, namely, those on *Juvenile Delinquency, Organized Crime in Chicago,* and the *Deranged and Defective Delinquent.* Especially original and illuminating is the report on *Organized Crime in Chicago,* prepared by Mr. John Landesco, research director of the American Institute of Criminal Law and Criminology, under an Advisory Committee consisting of Judge Andrew A. Bruce and Professor E. W. Burgess. These reports are summarized by Judge Bruce in the *Journal of the American Institute of Criminal Law and Criminology,* Volume XIX, No. 4, Part II (February, 1929).

The Michigan Crime Commission was established by the legisla-

ture in 1929. It has met and drawn up a series of elaborate projects for study for which no money was appropriated by the legislature.

The California Crime Commission was continued by the legislature in 1929.

OTHER CRIME STUDIES UNDER PRIVATE AUSPICES

Crime studies initiated or continued under private auspices during 1929 are the following:

The American Law Institute has drawn up a tentative draft of model statutes affecting criminal procedure, the same to be presented to state legislatures for their consideration and adoption. The aim is to simplify procedure and to bring about more uniformity in the states.

The National Crime Commission has continued its studies, one of which, prepared by Professor Louis N. Robinson, the secretary of one of the subcommittees of the Commission, urges the improvement of the personnel of our prisons and the placing of prison guards under civil service with special educational qualifications for the job.

The Columbia Law School with grants from one of the foundations has undertaken a survey, under the charge of Professor Jerome Michael, for the purpose of determining whether or not there is need of an Institute of Criminology in this country, and, if so, to plan such an Institute. Another project of the Columbia Law School, undertaken by Professor Raymond Moley, attempts to determine the relative advantages and disadvantages of prosecution on information and on indictment by grand jury. Studies have been made in two representative groups of states to show the workings of both systems.

Another project is that undertaken by the Judicial Council of Ohio in pursuance of proposals presented on behalf of the Institute of Law of the Johns Hopkins University by L. C. Marshall and H. E. Yntema. The Institute of Law and the Ohio Bar Association are co-operating, as are, also, the attorney general and the leading law schools of the state. A comprehensive study of the administration of justice in Ohio is planned.

POLICE

In police matters two important events occurred in 1929 which are bound to have far-reaching results for police administration in the United States. One is the appointment of Mr. August Vollmer as Professor of Police Administration in the University of Chicago; and the other is the establishment of a Crime Detection Laboratory in affiliation with Northwestern University under the direction of Colonel Calvin Goddard, a well-known expert in firearms. Thus, American universities begin to make a belated contribution to the scientific training of police, an outstanding need if the country is to be better protected against crime. Another development in police work during the year is the expansion and improvement of the curriculum of the Police School in New York City, and the plan for a crime prevention bureau in the New York Police Department, to be under the direction of a trained social service executive with the co-operation of a citizens' advisory committee.

Of publications bearing upon police work, and appearing in 1929, mention is made of the volume on *Uniform Crime Reporting*, published under the auspices of the Committee on Uniform Crime Records of the International Association of Chiefs of Police (J. J. Little and Ives Co., New York). The volume gives instructions for the classifying and recording of crimes, together with schedules of definitions of felonious crimes in the different states, to assist police in local jurisdictions adjusting their classification of felonies to accord with provisions in the laws of their states. Uniform and scientific classification and recording of crimes throughout the country is a necessary prelude to better criminal statistics. A monograph on *Police Statistics* by Mr. Bennet Mead, of the United States Bureau of the Census, is a discussion of the main categories of police statistics, and gives much comparative data from cities of the United States.

ADDITIONAL PUBLICATIONS OF NOTE DURING THE YEAR, INCLUDING RESEARCH

The year 1929 was fruitful in important publications in the field of crime. The following are brief notes on a few of the more important ones that have come to the attention of the writer:

500 Criminal Careers, by Sheldon Glueck and Eleanor T. Glueck,[7] is a monumental study of 510 men, whose sentences at the Massachusetts Reformatory, including their parole, expired in 1921–22. These men were located, or 90 per cent of them, after five years of a post-parole period, and thorough case studies were made of them, including their development prior to their last imprisonment at the Reformatory, their conduct within the institution, their behavior on parole and since their release from parole. Of 422 of these men, whose conduct beyond the parole period could be traced, 333, or 80 per cent of them, were found to have continued their criminal records. No such exhaustive study of the behavior of men through a long period after penal treatment had ceased has hitherto been made, and it throws grave doubts upon the effectiveness of our methods of reform. There is a stimulating Preface by Dr. Richard Cabot, and included in the study is a fresh attempt to measure the factors that make for and against success at parole.[8]

Delinquency Areas, by Clifford R. Shaw *et al.*,[9] is another outstanding research publication of the year, "a study of the geographical distribution of school truants, juvenile delinquents, and adult offenders in Chicago." The approach is distinctly sociological, in that there is an attempt here to relate behavior to the social and cultural setting in which it arises. The study was made with the assistance of the Local Community Research Committee of the University of Chicago, and is the second in a series of monographs published by the Behavior Research Fund of that city.

Another publication of distinction, and of extreme usefulness to students, is the *Guide to Material on Crime and Criminal Justice* by A. F. Kuhlman.[10]. This was prepared for the Committee on Survey of Research and Crime of the National Social Science Research Council. It is an exhaustive, classified bibliography on all aspects of the crime problem, and will be an invaluable tool for students and research workers.

[7] New York: Alfred A Knopf, Inc.

[8] For a previous effort of this sort, see E. W. Burgess, *Working of the Indeterminate-Sentence Law and the Parole System in Illinois, 1928.*

[9] Chicago: University of Chicago Press.

[10] New York. H. W. Wilson Co.

Two other volumes of a survey or research character appearing during 1929 were published by the National Society of Penal Information. One is the *Handbook of American Prisons and Reformatories, 1929,* with statements concerning every prison and reformatory in the country, state and federal, including data as to their location, equipment, personnel, industries, educational facilities, and other phases of their work. The other volume published by this Society is *Health and Medical Service in American Prisons and Reformatories,* by Frank L. Rector, M.D.

Mention may be made of one of a series of studies projected by the Psychopathic Clinic of the Detroit Recorder's Court appearing during the year. It is a study of "One Hundred Traffic Offenders" with reference to their psychiatric status.[11] On a personality rating a total of 293 handicapping traits were found among the group, or 2.9 per individual. These studies are under the general direction of Dr. Theophile Raphael and associates of the Clinic.

Final mention is made of *Reconstructing Behavior in Youth* by Dr. William Healy, Dr. Augusta F. Bronner, *et al.*[12] It is an extended investigation of the possibilities of readjusting delinquent children through the methods of child-placing in foster-homes, and adds abundantly to our growing fund of information relative to the possibilities of a sociological control of delinquency.

PROBATION

In the field of probation the National Probation Association reports progress in 1929 as follows: State-wide surveys of juvenile courts and probation have been conducted in Utah, North Dakota, and Iowa. Local intensive surveys in these fields have been conducted in Tampa, Florida; Denver; Omaha; and Portland, Oregon. In addition, many other cities have been visited to render assistance in problems connected with juvenile court work. The Association has worked for better juvenile court and probation legislation in a number of states and cities. Many conferences have been held in connection with meetings of other bodies, such as the National Conference of Social Work, and some of the state conferences of this

[11] See *Mental Hygiene,* Vol. XIII, No. 4 (October, 1929).

[12] New York: Alfred A. Knopf, Inc.

character. Effort has been made to secure appropriations from the federal government for more probation officers in federal courts. Several publications have been issued including the *Year Book* of the Association for 1929, which includes the papers presented at the conference in San Francisco in connection with the National Conference of Social Work.

NOTES OF INTERNATIONAL IMPORTANCE

Two deaths have occurred during the year of internationally known students of criminology. The one is that of Enrico Ferri, the distinguished Italian criminologist and one of the founders of the Positive School. He died in Rome on April 13, 1929. The other death was that of Dr. Berthold Freudenthal, of the University of Frankfort on the Main. He taught public and criminal law, and took active part in criminal law reforms, being largely responsible for the establishment of the first juvenile court in Germany. His last visit to this country two years ago was for the purpose of studying our prison systems.

ORGANIZED RELIGION[1]

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ABSTRACT

During the past year it has been possible to analyze the returns secured by the 1926 Census of Religious Bodies. These data show the magnitude of the church enterprise in this country. They indicate that 55 per cent of the people are listed on the membership rolls of the churches and that membership since 1906 has been increasing at almost exactly the same rate as the population. During the past decade, enrolment in Sunday schools has made a comparatively slow growth, while that of Roman Catholic parochial schools has been increasing relatively rapidly. The financial data collected by the government indicate that churches have recently experienced a period of great material prosperity.

During the last year it has been possible to study the preliminary returns of the last Census of Religious Bodies and to come to some conclusions as to the significance of these materials, an analysis of which shows striking changes in the status of organized religion.

Every ten years the federal government secures basic facts about the church organizations situated within the continental United States. A questionnaire is sent to each local church requesting information about its location, denominational affiliation, membership, Sunday-school enrolment, value of church buildings, expenditures for the year, and similar points. This information, together with a statement from the national headquarters of each denomination, dealing with its history, doctrine, polity, and work, is published by the government in two volumes under the title of *A Census of Religious Bodies*. The latest edition covering the year 1926 is now in press.

What, then, do the government's figures show? In the first place, they show the magnitude of the church enterprise in this country. In 1926 there were 212 separate denominations having 232,000 local churches that reported nearly 55,000,000 members. Approximately 185,000 of the churches operated one or more Sunday schools, with more than 2,000,000 officers and teachers and

[1] This paper was read at the Twenty-fourth Annual Meeting of the American Sociological Society, Washington, D.C.

21,000,000 scholars. The value of church edifices was more than $3,800,000,000. Even this enormous total represents only the value of church buildings together with the land on which they stand, and does not include such items as pastor's residences, investment property, school buildings, parish halls, monasteries, and the like which are employed for purposes not directly connected with church services although owned by the churches. Unfortunately the value of most of these excluded items is not tabulated, but parsonages alone are reported to be worth nearly half a billion dollars. Thus it becomes apparent that even the huge item of $3,800,000,000 is only a part of the total value of church property in this country.

The vast dimensions of organized religion in the United States are further emphasized by the fact that during 1926 total expenditures amounted to $817,000,000. Computed at the rate of 6 per cent, this sum represents the interest on more than $13,500,000,000. Such figures demonstrate the importance of the church in American life.

A second important point brought out by the census returns is the diversity and decentralization of organized religion in this country. The very fact that, exclusive of oriental faiths, the Bureau lists 212 separate denominations is a striking commentary upon the present religious situation. The last decade witnessed a net increase of a dozen denominations. Clearly the constitutional right to worship God according to the dictates of one's own conscience is being liberally exercised.

Most of the denominations are numerically small. There are 92 with fewer than 50 churches each, and of this number 35 have fewer than 10 churches to a denomination. Thus it happens that 20 bodies embrace about nine-tenths of the church-members reported in the census. Even this statement hardly represents the extent to which church-members are concentrated within a few major faiths. Most denominations are localized geographically. Nearly half the membership of the Congregational churches is located in New England and the Middle Atlantic states; more than six out of every ten Jews are found in New York, Pennsylvania, and New Jersey; while seven-eighths of the members of the Norwegian Lutheran church of America live in five states. Because denominations are localized

geographically, it follows that in most areas the great majority of churches and members are affiliated with a handful of denominations. Illinois, for example, holds the record, having 144 different denominations represented by one or more churches, yet even in this state 5 denominations include nearly half of all the churches.

When analyzing the denominational returns of the census, it should be kept in mind that the Bureau counts as separate denominations a number of organizations whose beliefs are very similar. For instance, the census lists 21 different Lutheran bodies. From the organizational standpoint this interpretation is correct because each of these 21 bodies constitutes a separate administrative agency, but from the viewpoint of their fundamental doctrines and polity the 21 denominations are much alike. The conclusion is therefore warranted that in spite of the large number of church bodies in America, the religious diversity is not so great as would at first hand appear to be the case.

Turning next to membership figures, analysis of the census data shows that these materials are as significant as any collected by the government, but that their interpretation is difficult. Throughout the census report, the members of a local church, and thus of the denomination to which they belong, are considered to be those persons who are recognized as constituent units of the organization. The term "member" does not mean the same thing in one denomination as in another. Among the Roman Catholic and Eastern churches all persons, even infants, are considered as members provided they have been baptized according to the rites of the church. On the other hand, certain denominations consider as members only those persons of mature years who have been baptized and enrolled. Between these two extremes there is nearly every variety of interpretation. Thus the total membership figures of the religious census cannot be used as they stand as a basis for comparison among denominations.

Recognizing this difficulty, the Census Bureau, in order to arrive at membership figures that are more comparable among denominations, regularly tries to find out from each church the number of members thirteen years of age and over. Although not all churches furnish these data, nevertheless since returns received in 1926 cov-

ered more than 45,000,000 of the country's 54,576,000 members, it is possible to estimate with considerable accuracy the membership thirteen years of age and over, for each denomination separately. Such figures, which have been compiled in connection with an interpretative analysis of religious census data now being made by the Institute of Social and Religious Research, show that the relative numerical importance of the different denominations varies considerably when measured by the comparable yardstick of their "adult" membership. According to the unadjusted figures reported to the Census Bureau, the Roman Catholic church accounted for 34.1 per cent of the country's total membership; but computed in terms of adult membership, the proportion drops to 30 per cent.

Such figures have not only academic but also practical interest. During the World War it was decided to appoint army chaplains on the basis of the relative strength of the different denominations, but a considerable controversy arose regarding the best method of arriving at their relative strength. It would seem that adult membership figures furnish the most reliable basis for this and similar purposes.

Adult membership figures computed from the government's published tables also can be used to estimate the relative strength of the church in different areas. It is only necessary to work out the proportion of the adult population that belongs to the church in a given region. For all the states, and for most of the large cities, the Census Bureau itself furnishes careful population estimates for 1926 based upon the federal enumeration of 1920 or upon 1925 state census figures wherever they are available. Thus it becomes a relatively simple matter to arrive at the percentage of the adult population in church for the different states and for cities of varying size. Of course, the very fact that these population data are estimates means that they contain certain inaccuracies; but it is believed that they are sufficiently reliable to use as a basis for making important broad generalizations. For example, computations of this kind, made as a part of the Institute's interpretative study of the religious census data, show that the proportion of the population belonging to church is comparatively high in the southern and eastern states; somewhat lower in the Middle West; and considerably lower

in the Far West. Utah, with its large Mormon population, forms an exception to the general rule. This state with nine-tenths of its adult population on the church rolls has an even higher proportion of its population connected with the church than states like North and South Carolina and Alabama, which make the best record in the East, having more than seven out of every ten persons on the church rolls. The computations show, however, that as a rule the western states have a low ratio. The states of Washington, Nevada, and Montana have a smaller proportion than three out of ten of their adult population in church. This analysis of census data therefore seems to warrant the generalization that the church is far more firmly established in the older settled sections of America than in the newer areas.

Further analysis of census materials shows that membership ratios are slightly higher in cities than they are in country areas. Using census data for the United States as a whole, the facts reveal that in cities of 2,500 and more, 58 per cent of the adult inhabitants are church-members, while in the rural districts this ratio is 52 per cent. This difference reflects the fact that many sparsely settled country areas lack churches.

A word should be said here regarding the exact significance of the ratio of membership to population. It may be felt that membership ratios tend to overestimate the strength of the churches because of the well-known fact that membership rolls often contain the names of a good many inactive individuals. For instance, an investigation made several years ago by the Institute of Social and Religious Research of 140,000 Protestant members on the rolls of village churches revealed the fact that 18 per cent of them could not be classified as "active," that is, as persons who attend church regularly and contribute to its support. These figures might lead to the conclusion that membership ratios exaggerate the church's importance; but there is equally convincing evidence that the ratios are too low rather than too high. The denominational policy of apportioning financial assessments on the basis of the number of members reported by the church tends to make for conservatism in reporting membership data.

Moreover, it is a well-known fact that many people more or less

participate in church activities even though they are not church-members. Statistics collected in connection with the last official census of Canada show that in response to the request, "Name the denomination to which you belong or are affiliated," nearly two and one-half times as many people claimed allegiance with the Methodist Episcopal church as were reported to be members by the denomination itself. An examination of these and other materials makes it evident that adult membership ratios are a dependable index of the place of the church in the life of the people.

Since the religious census has collected basically comparable statistics for several decades, the necessary information is at hand from which to ascertain whether church membership is growing more or less rapidly than the population. This issue is important, particularly because of the conflicting answers that have been given to the question. Some people hold that the church is not really keeping pace with the growth in population, while others have made optimistic statements to prove that the church in America is growing relatively rapidly. As is so often the case, these differences arise from a misunderstanding of the meaning of the available data. Even the government's figures, in this case, must be used with great caution, but they do furnish a basis for computing the growth or decline of denominations.

Several large bodies during recent years have made important changes in their definition of a member. The Jews, in sharp contrast with the method previously employed of enumerating only heads of households, now consider as members all Jews living in communities having synagogues. As a result, reported Jewish membership rose from 357,000 in 1916 to more than 4,000,000 in 1926. Obviously it would be fallacious to assume that this increase of 3,600,000 represents the growth of Jewish membership during the decade. In a somewhat similar manner, figures for the Protestant Episcopal church, the Christian Reformed church, and the twenty-one Lutheran bodies are affected by the fact that since 1916 these bodies have enlarged their definition of a member to include, not merely communicants, which was the meaning of the term previously employed, but all baptized children as well. These shifts in definition, as well as organic changes in the makeup of a number of

denominations, must be taken into account before computing their growth and decline. When allowance is made for all these factors, the government's figures show that during the last decade the country's church membership increased at almost exactly the same rate as the nation's population, but that there have been striking differences among denominations in their rates of increase and decrease.

Analysis of census figures also reveals a situation that raises far-reaching questions about the future of religious education in this country. The last decade witnessed an abrupt decline in the relative importance of the Sunday school. Between 1916 and 1926 the increase in the number of pupils in these schools did not begin to keep pace with the growth of the country's population. Indeed, the increase of pupils during the period was only 5.5 per cent compared with about 36 per cent during the previous decade. How can this startling decrease be explained? In part, at least, the answer is to be found in the policy of the Roman Catholic church, which has been rapidly developing parochial schools that take the place of Sunday schools. Statistics published in the *Official Catholic Directory* show that between 1906 and 1926 the number of children attending parochial schools increased by nearly 1,000,000 pupils or, in other words, virtually doubled. During this same period national statistics supplied by the federal Department of Education indicate that the enrolment in public elementary and high schools increased less than 50 per cent, or half as rapidly as parochial school enrolment. Conversations with well-informed representatives of the denomination bring out the point that the Roman Catholic church has found that religious instruction for half an hour a day as part of the regular parochial-school program is worth far more than a once-a-week Sunday-school class.

Even Protestant Sunday schools are not growing so rapidly as formerly. Omitting the Roman Catholic returns entirely, figures for the remaining bodies, which of course are almost exclusively Protestant, show an average increase of Sunday-school enrolment during the last decade of slightly less than 10 per cent compared with 37 per cent for the previous decade.

From certain standpoints the most surprising figures secured by the 1926 religious census have to do with church finances. Dur-

ing the last decade the religious bodies of the United States enjoyed an unprecedented period of material prosperity. The American era of economic well-being which followed the World War enormously improved the financial position of the churches. Between 1916 and 1926 the value of church edifices alone increased more than $2,160,000,000, or 129 per cent. During the same period, the general level of prices, as indicated by the combined index of retail food prices, rose only 41 per cent, or a third as rapidly.

In 1916 the value of church edifices represented an investment per adult church-member of $44.00, but by 1926 this figure had grown to $87.00. During the same period, the value of parsonages per adult member increased from $5.79 to $10.73. Presumably the other items of church property such as schools, hospitals, orphanages, and the like showed a similar increase.

Because of rapidly mounting building costs and land values since 1916, it may be felt that a large part of the increase in the valuation of church property represents merely an unearned increment rather than newly invested funds. The census figures do not distinguish between these two categories, but in the case of the Methodist Episcopal church it has been possible from published sources to compare the amount of money actually invested in church buildings during the decade with net increase in value of church edifices. This analysis, which has recently been published as a part of the Institute's study of *Trends in Protestant Giving*, reaches the conclusion that after deducting all figures relating to debts, new money put into church and parsonage property during the decade almost equals the net increase in the value of these items.

This comparison indicates that the increase in the value of church property is not mainly a matter of unearned increment; but even if it were the case, the fundamental significance of the census figures would not be changed. The fact is that the churches in the United States, whether through the appreciation in the value of their holdings or through the amount of new funds invested in their properties, have become the owners of real estate of enormous value. When it is remembered that church property is not taxable, it becomes apparent that the church is not only a great but a growing privileged interest.

In view of the tremendous increase in the value of church property, the amount of debt on church edifices becomes a subject of particular interest. To what extent has the vast increase since 1916 in church values been actually paid for? This is another important question for which an answer can be derived from the government's data. Analysis shows that there has been virtually no increase in the proportion of churches in debt. In 1916 the relative number of churches in debt was 21.7 per cent compared with 21.8 in 1926. However, the indebtedness of those churches which have any debt has increased somewhat more rapidly than the average value of church edifices. The total amount of church debts, which was $165,000,000 in 1916, reached $432,000,000 in 1926. In other words, the 1926 indebtedness amounted to 11.3 per cent of the total value of church edifices compared with 9.8 per cent in 1916. Exclusive of debts, the paid-up value of church edifices and parsonages in 1926 represented an investment of $48.00 for each American fourteen years of age and over.

The increase in the material prosperity of the churches is still more clearly brought out by an analysis of the expenditure figures obtained by the census. During the year 1926, total reported expenditures, including not only such sums as the salaries paid, the cost of maintenance of church plants, and the payments on debts, but also contributions for benevolences, denominational support, and all other purposes, amounted to $817,000,000, contrasted with only $329,000,000 in 1916. Allowing for a slight difference in the relative number of churches reporting, this means that the average church which expended $1,613 in 1916, spent $3,783 in 1926, or an increase of 134.5 per cent in ten years. This analysis therefore discloses the important fact that the financial position of the American church shows a remarkable improvement between 1916 and 1926.

Since the 1926 census introduced the valuable new feature of tabulating rural and urban figures separately, it is possible for the first time to compare national averages for city and country churches. By an urban church is meant one that is situated in an incorporated place that in 1920 had at least 2,500 inhabitants, while a rural church is one located outside such centers. On this basis it

was found that 27.7 per cent of all churches were urban and the rest were rural.

Further analysis of the census data shows that the contrast between these two groups of churches is very striking. The average country church has a total of 115 members who worship in a church building worth $6,198 and who expended $1,400 a year, or $11.29 a member. On the other hand, the average city church has a reported membership of 546, the church edifice is worth $53,538, and the annual expenditures amount to $10,011, or $17.03 to a member.

Unfortunately the figures are not available on which to base a comparison of the financial status of rural and of urban churches today with comparable data for a decade ago; but in the light of the recent agricultural depression it seems reasonable to infer that the increase among city churches has been greater than among country churches.

RACE RELATIONS

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ABSTRACT

It is difficult to detect changes of any magnitude in the status of the race problem in the United States on such a short-term base as that afforded by one year's time. However, there have been certain developments which show, after a fashion, the trends that may be looked for. In the case of the Indian, the new administration has replaced the old commissioner of Indian affairs with two men who have given years to sympathetic study of the practical problem. However, the statements of the Secretary of the Interior show a regrettable lack of comprehension of the point of view of the Indian himself in the proposed "Americanization" of the aboriginal American stock. In immigration, the proclamation of the new quotas based on "national origins" is the outstanding fact, and there is also to be noted the extension of the restrictionist feeling in the introduction of bills applying the quota system to countries of the new world. As to the Negro, there is a balancing of hopeful and sinister aspects, with perhaps a revealing light on how little progress has been made toward easing racial tensions when the incident of Mrs. Hoover's "mixed" tea-party, which included the wife of Representative Oscar De Priest, is considered and contrasted with the same furore raised by President Roosevelt's dinner to Mr. Booker T. Washington almost thirty years ago.

The problem of social change is one which must be studied on a long-term base. In the interpretation of events which cover the short space of a year, their significance is only to be grasped when these events are regarded somewhat in the light of straws showing which way the wind blows. Looked at in this manner, they may also prove of especial value in testing theories of how the problems which are being studied will resolve themselves. In the field of race relations, such theories are particularly numerous. In the main, it may be said that of the advocates of these theories, those who believe in the promotion of good will between the races are the more articulate. The question we must ask, therefore, is the extent to which their efforts have succeeded in moving the cultural imponderables of tradition, belief, prejudice, and vested interest toward a more liberal point of view. And it is with this question in mind that we attempt to review briefly the developments in the field of race relations, from the viewpoint of its three principal facets—the Indian, the immigrant, and the Negro.

THE INDIAN

It will be remembered that early in 1928 the report of the staff of the Institute for Government Research was presented to Secretary of the Interior Hubert Work, who had charge of the administration of the affairs of our Indian population. This report sketched many practices which had become abuses, and showed how, strictly from the point of view of our own culture, the Indian was receiving lamentable treatment. The commissioner of Indian affairs had been under critical fire of those persons and societies who had interested themselves in the treatment of the Indian, and it was hoped that with the inauguration of President Hoover a more satisfactory régime would be instituted. That it was the intention of the new administration not to rest content with affairs as they had been, became evident a few days after office had been assumed, since, on March 14, Commissioner Burke's resignation was accepted and the way cleared for a thorough revision of the Indian affairs office.

The report of the staff of the Institute for Government Research was persuasive. It adequately surveyed the economics of the situation, and recommended changes which should make for greater efficiency; it criticized conscientiously and ably the manner in which Indian children were treated in Indian schools, and attacked with admirable courage other abuses in our dealings with the Indians.

Yet, unfortunately, the investigators had slight interest in considering the cultural mechanisms brought into play when one civilization attempts to engulf another. Their main task, as they saw it, was to look at the problem essentially from the viewpoint of efficiency, and of the resolution of a difficult situation in which the government had become involved. And, in consequence, they failed to regard the ethnological aspects of the Indian problem—the point of view of the Indian—with the result that in planning reform only the governmental dilemma has been considered. This is clearly to be seen in the statement of Secretary Wilbur, in which, shortly after taking office, he announced the new Indian policy.

Indians, he stated, must become citizens, and every effort of the Indian Bureau must be directed toward making the Indian "a self-sustaining, self-respecting American citizen just as rapidly as this can be brought about." Agreeing that the attitude that the Indian is

"the ward of the nation" is not a good one, Secretary Wilbur unimpeachably says, "As rapidly as possible he is to have the full responsibility for himself." What is this responsibility? "Leadership must be given to Indians rather than custodianship." Our educational program for the Indians must become one which is of "a practical and vocational character," and we must develop plans "for the absorption of the Indian into the industrial and agricultural life of the nation." A very important aspect of the plan is the decentralization of the Indian Bureau, which is to be carried out as soon as possible, so that "the problem of health and education of the Indians shall become a responsibility of the various states." The training of the Indian children should not be in special schools, but they should be trained along with white children in the ordinary school systems. Scholarships in institutions of higher education should be provided, and a double program of education and health should be placed under the Bureau of Education and the Public Health Service, respectively.

Already, under this projected development, California has moved to take over the care of its Indians, and the Swing-Johnson bill, originated by the California Indian Defense Association, provides that "funds appropriated for the care and relief of Indians of California, under the direction of the Secretary of the Interior shall be expended through certain public agencies of the State of California." And already, under this plan, Indian children have been put into public schools.

Obviously, the extent to which the Indian can be made a full-fledged citizen is something which has not been taken into consideration in this program. Indeed, as far as can be seen, the Indian's willingness to give up his cultural heritage has not been ascertained, and it will constitute a point to be watched, as the plan develops in its practical manipulation. If the experience of past attempts to educate the Indians is any earnest, the trend will be only toward a further demoralization of the Indians in their attitude toward their own cultures, and a coexisting lack of inner conviction that they should become full-fledged "Americans."

The tenacity of culture has not been sufficiently studied in these days of concern over the manner in which primitive civilizations

have been disappearing. A reconsideration of the data to be gained from primitive peoples who have been in contact with the whites seems, however, to indicate that even when thought and foresight are given to suppression and change of indigenous culture, this is not always brought about. The experience of New Zealand, where the aboriginal Maori have been so thoroughly Europeanized that they have attained high office in the government of the island, may be cited as a case in point.[1] For there a "Young Maori" movement has developed, led by a native genius who has had all the benefits of a European education, and not only have the remaining fragments of the Maori culture been retained, but research into early reports has given Maori scholars leads by means of which they have been able to give their people instruction in the civilization of their ancestors. Today the Maori are making rapid strides toward the re-establishment of many phases of their old civilization.

In the final analysis, the manner in which the new Indian plan will work out is a matter of its administration. That, with intelligent and liberal interpretation, it will be of benefit to the Indians cannot be controverted, for the transfer of the control and leadership to the Indians is assuredly to be desired. It is further to be hoped that the interpretations will go to the length of giving to the Indians a leadership which will strive to develop their own Indian culture, so that the demoralization of the Indian may be checked rather than accelerated. It is a matter of happy choice that has brought Mr. C. J. Rhoads to the post of commissioner of Indian affairs, and Mr. J. H. Scattergood to that of assistant commissioner. Both of these men are well trained in affairs of the world, and both have for many years manifested a deep and intelligent interest in the working out of the Indian problem.

These new policies of the Indian affairs office and of the Secretary of the Interior constitute the outstanding development of the year in our relations with our Indian population. The effect of these policies on the Indian problem itself will be watched with the greatest interest by those concerned with social experimentation and controlled social change.

[1] Certain phases of this movement are set forth in "The Changing Maori," by F. M. Keesing, Vol. IV, *Memoirs of the Board of Maori Ethnological Research.*

THE IMMIGRANT

There has been little change in the last year from former trends in our attitude toward foreigners who wish to come to live in the United States. That the restrictionists have had the backing of popular opinion has never been doubted. The reflection of this opinion has been seen in legislation making for increasing severity in the restriction of the number and type of persons who may emigrate to the United States. The drive toward this opinion and the resulting legislation is not as simple of analysis as might appear. Not only are there perplexing social and economic factors to account for the popularity of the restrictionist movement—as witness the enthusiastic support given it by the American Federation of Labor—but there are also deep-rooted feelings based on an implicit biological theory which assumes inherent differences in temperament, capability, and congeniality, not alone in the major races of mankind, but also in the European subtypes.

After a number of experiments, this racial feeling crystallized in the passage of legislation providing for a quota system based on "national origins," the assumption having been that since the various peoples who go to make up the population of this country have got along in the past as well as they have, the best method of restriction would be to see that new arrivals come in the same proportions as have gone to make up the present population. In the opinion of the secretaries of state, commerce, and labor, whose duty it was to formulate these proportions, the task was scientifically almost impossible, and the results which they presented were given to Congress with the qualification that they had merely acted according to directions, and that they themselves had misgivings as to the accuracy of the figures which had been worked out.

It was a foregone conclusion that President Hoover, who, as Secretary of Commerce, had gone on record as opposing this method of estimating the percentages to be admitted from any one country, would bring pressure to bear to have the provision set aside before the date on which it was mandatory for him to proclaim the new quotas, and thus put them into effect. A general knowledge of the president's attitude resulted in an effort to pass legislation postponing again for a year the proclamation of these provisions, and this was actually passed by the House of Representatives the day before

the old Congress passed out of existence; the Senate, however, did not concur.

On April 16, President Hoover sent a message to Congress urging the postponement or the repeal of the national origins provision. The matter finally came to a vote on June 13, and through the determined opposition of Senator Reed, of Pennsylvania, the forces which were striving for the repeal, or the setting aside, of the provision were defeated by a vote of 43 to 37. Six days later the new quotas were announced by the government.

When we pause to consider the biological concepts underlying the philosophy which actuated the framers of this legislation, and those who were responsible for its passage, the results, which were intended to favor those countries whose population was deemed assimilable and desirable, and to prevent immigration from countries whose people were thought of as unassimilable and undesirable, are perplexing. Thus, although Great Britain and Ireland had a considerably smaller quota under the system replaced by the national origins quotas—the old quotas permitting 34,007 a year, and the new 65,721—Germany has been reduced from 51,227 per annum to 25,957; the Irish Free State from 28,567 to 17,853; and the Scandinavian countries of Norway, Sweden, and Denmark from 18,664 to 6,872. Decreases have been established for Australia, Czechoslovakia, Armenia, France, and Portugal, among others; while increased immigration is allowed from Austria, Belgium, Hungary, Italy, and the Netherlands, from Poland, Spain, and Turkey. On the face of it, it is difficult to see where the restrictionists have made their point, except in the increased number of British who may come to the United States to live, but it is relatively certain from the statements made by those who were active in securing the new quota system, that further efforts will be made to reduce more drastically the immigration from those nations conceived as undesirable.

The tendency to raise difficulties for the immigrant has taken a new form. Until last year it was comparatively easy for the Canadian, the Mexican, or the inhabitant of Central or South America to come to this country. In the Box and Johnson bills, recently introduced into the House of Representatives, this matter is also to receive attention. It is well known, of course, that there has been a great deal of feeling about Mexican immigration within recent

years. Mexicans have been entering the United States in great numbers, and the attempt to restrict their coming has made necessary a large and active border patrol for many years. The bills, which vary slightly in their figures, are so framed as to allow generous numbers of immigrants from "British North America," while drastically lowering the numbers to be admitted from Mexico, Central and South America, and the West Indies. In the Johnson bill, for example, a quota of 2,175 is allowed Mexico. This figure may be contrasted with the 40,540 persons who came into this country from Mexico in the twelve months ending June 30, 1929. It is of some interest to recognize that the tendency of restrictions seems to operate effectively whether the specific legislation bearing upon it has or has not been provided. A case in point are the figures made public by the state department, on February 12, 1930, on Mexican immigration during the seven-month period ending January 31, 1930, in support of its opposition to pending legislation in Congress for the placing of Mexico on a quota basis. It appears that a rigid visa system has been put in operation by the state department, which has reduced the immigration from Mexico by 73.1 per cent for the period under discussion—only 8,985 visas having been granted.

Another aspect of the general trend toward the greater limitation of admission to the United States deserves comment. In the course of the year, legislation was passed which made it impossible for Canadians and Mexicans working in border cities to pass freely across the border, as they had done in the past. Congressional action was sustained by the Supreme Court after some deliberation. This legislation had some unlooked-for consequences, for one result of its passage was that the difficulty of returning to the United States from a short visit to Canada appeared to parallel that of travelers coming from Europe, and that motorists visiting Canada last summer seem to have been forced to provide themselves with birth certificates, passports, or other identifying papers to insure them the right to return to their homes in the United States, after their outing.

THE NEGRO

We have heard a good deal in the last few years on the extent to which interracial co-operation has achieved its end—that southern white students have associated with Negro students in conferences;

that Negro and white clergymen have dined at one table; that members of both racial groups have gathered from time to time, in various cities of the North and South, to discuss their common problems and to adjust points of friction which have arisen. These contacts, pleasant to contemplate if one feels that the existence of repression in a society is disadvantageous and accordingly deplores its presence, have been widely discussed as to their general significance, and particularly as to the manner in which they may point to a possible way out of the racial dilemma which the Negro problem presents. If perhaps too great an optimism has been manifest in the interpretation that these events "presage a new era in race relations"—a phrase that is very current—it would not be strange. For, in fact, the basic situation is such that any series of facts which leads us to believe that the tension between whites and Negroes is lifting is more than welcome.

The question we must pose in surveying the changes in racial relations in the United States during the last year as it relates to the Negro is this: What is the evidence of change, or lack of change, in the attitude of whites toward Negroes and Negroes toward whites, and in the general position of the Negro as a minority group?

A number of the developments which came into being justify optimism, and chief among them is the development in Negro education. The traditional attitude concerning Negro education, which since the time of Mr. Booker T. Washington has held so strongly, and which has resulted in the diversion of practically all available funds for Negro education to those institutions which centered their attention upon making manual workers of their students, seems to have been revised. As a result, we find that there has been a material strengthening of those institutions which aim to train for the professions, or which, indeed, give the student a general intellectual training without any specialized professional preparation. The funds which various organizations and individuals have made available to Fisk University, to Howard University, and to others, the consolidation of Spelman and Moorehouse Colleges with Atlanta University are an index of this new tendency, which may be looked for to broaden the educational opportunities of Negroes. Facilities for professional training have also received attention. The develop-

ment of Mahari Medical College in Nashville, the strengthening of the medical department of Howard University, and the provision of hospitalization for Negroes, and the training of Negro internes in Chicago with funds raised to rehabilitate the Provident Hospital are among the examples to be cited.

The smallness of the number of lynchings has held over a second year. The social scientist is, however, warned by one writer not to ignore the point that in those areas where lynching was formerly most prevalent, the homicide rate has materially increased.[2] The implication is that the lynching technique has merely been transferred to this other method of removing those persons who may be thought socially objectionable, and it appears that the conviction of the killer is as difficult when he is an individual as it was when the killing was done by a mob.

In other aspects of life the Negro has received recognition and enlarged opportunity. He has successfully carried on legal appeals and publicity campaigns which have undoubtedly aroused the sympathy of thoughtful persons who, in the ordinary course of events, would have been more or less neutral on the Negro problem. Illustrations of these points may be had in the battle against the absolute segregation of Negroes in city districts which has been continued, and the struggle for protection against personal molestation of Negroes in the South, which the courts have aided by specific rulings. The election of a number of Negroes to posts of responsibility may also be noted, the outstanding instance being that of Mr. Oscar De Priest, who was elected to the House of Representatives from one of the Chicago districts. Another important appointment is that of Mr. Charles S. Johnson to represent the United States on an impartial commission of the League of Nations to investigate the charge of the existence of forced labor in Liberia.

Attempts at segregation in churches aroused attention last autumn, by the announced intention of the Rev. William S. Blackshear, rector of the Protestant Episcopal Church of St. Matthew's, Brooklyn, to exclude several Negro parishioners from the church. The Rev. Mr. Blackshear had the sympathy of Monsignor John L. Belford, pastor of a Brooklyn Catholic church, who announced that if Negroes "became numerous" in his church they would be ex-

[2] H. B. Davis, "A Substitute for Lynching," *Nation*, CXXX (1930), 12–14.

pelled. The vigorous protests which these announcements evoked and the great mass of publicity which they attained may be said to show the reaction to open restriction of Negroes in the northern states, and to indicate that the preponderance of feeling is that such direct measures are ill advised. The position of these two pastors was repudiated by their respective heads, the Rt. Rev. E. M. Stires, bishop of the Episcopal Diocese of Long Island, and Cardinal Patrick Hayes, of the Roman Catholic church in New York.

An occurrence—trivial in itself, to be sure—which had given much food for thought to critical students of social processes is the incident of the White House tea of June 2. In view of this, it appears to me to be of value here to sketch a few brief facts which bear upon it.

On June 13, an obscure notice in the daily newspapers announced that Mrs. Hoover had entertained the wife of the Negro Congressman, Mr. Oscar De Priest, at a Congressional tea at the White House. The day following the publication of the news of Mrs. De Priest's visit, a resolution was presented to the Texas state Senate attacking President Hoover for having sanctioned the reception of a Negro woman at the White House. This was followed, on June 16, by the adoption of a resolution in the Florida House of Representatives—by a vote of 71 to 15—condemning "certain social policies of the administration in entertaining negroes in the White House on a parity with white ladies." The next day Senator Cole Blease offered a resolution in the United States Senate "to request the Chief Executive to respect the White House," but this attempt to bring the matter in the national body met with little response, and was mainly countered with indignant demands that the resolution, and Senator Blease's remarks on it, be expunged from the record.

The Senate of Mississippi was presented on June 24 with a concurrent resolution "unreservedly condemning" the entertainment of Mrs. De Priest, and this was adopted on the third of July. The Georgia House of Representatives adopted the following resolution by a vote of 179 to 5, on June 27:

Resolved, By the Georgia General Assembly, that we deeply regret the recent occurrences in the official and social life of the national capitol which have a tendency to revive and intensify racial discord;

That, inasmuch as such occurrences tend to delude the negro population

of the country into believing that social equality and intermingling with the white race is a possibility for them, they are exceedingly injurious to the negro himself and should be discouraged by all who have the welfare of the negro at heart.

These official pronouncements may, indeed, be said to represent the lag which is characteristically to be looked for in official opinion. At the same time, they may be said to represent the expression of opinion of those who are close to the numerically preponderant mass of their constituents, and therefore cannot be said to be negligible, though to regard them as representing all phases of attitude which prevail in their constituencies would without doubt be fallacious.

The extent to which public opinion was aroused by the incident is to be seen in the testimony of Mr. Julian Harris, who reported on conditions in Georgia in the *New York Times,* under the date of July 7: "It would require several columns to give an accurate picture of the torn and harassed South. . . . . Which is to say that today, despite the fact that it is practically a month since Mrs. Hoover's mixed tea took place, some of us are still seething in white hot indignation."

On July 3, the government took official cognizance of the situation when Secretary Davis issued a list of Negroes who had been entertained by former presidents. The list was signed by Mr. Mark Phillips, commissioner of conciliation. At the end of the list the remark appears that "the additional search directed by the Secretary is in course of preparation."

This "tempest in a teapot," as it has been called, is of social significance because it is one of those occurrences which, though insignificant in itself, yet reveals the state of matters with great clarity. How far has the attempt to remove the prejudice against the Negro, which has been prosecuted with so much effort, been successful since the time when President Roosevelt entertained Mr. Booker T. Washington in 1903? Objectively there do not seem to be any essential differences either in the general character or the violence of the reactions which the two occurrences called forth.

Once again we are presented with the problem of discerning fundamental change toward a given end, desired by a minority of the population, when that end is at variance with the traditional set of attitudes of the great mass of their fellow-citizens.

EDUCATION

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ABSTRACT

William J. Cooper was appointed commissioner of education, and Dr. Ray Lyman Wilbur, secretary of the interior. The Office of Education during 1929 commenced its survey of secondary education throughout the country. Other educational developments in 1929 were the accrediting of Negro colleges according to their ability to do work acceptable for admission to medical schools by the American Medical Association; the decision of the Southern Association of Colleges and Secondary Schools to inaugurate a policy of rating Negro colleges within its territory; the appointment of a commission by the American Council of Education to study the problem of introducing social sciences in the public schools; the creation of a single board of control for all the public higher educational institutions of the state of Oregon; the study of the problems of articulation between the different units of the American public-school system, including elementary, secondary, collegiate, university, and professional education contained in the *Seventh Yearbook of the Department of Superintendence of the National Education Association;* and the Carnegie report on college athletics.

The year 1929 resulted in rather extraordinary educational activity on the part of the federal government. These activities are of nation-wide interest; their significance is not in all cases easy to estimate. In general, however, the trend has been toward better definition of the functions of the national government in education and continuation of service relationships to state and private educational agencies through wider co-operative effort.

In so far as the year has been characterized by federal educational activity of different character and greater extent than had formerly been the case, the fact is due in large part to changes in governmental personnel and to the extremely favorable official relationships that were thus created.

In February, 1929, William John Cooper resigned as state superintendent of education in California, to assume the office of United States commissioner of education, made vacant by the resignation of Dr. John J. Tigert in the fall of 1928. A month after this appointment, President Hoover selected another Californian, Dr. Ray Lyman Wilbur, president of Stanford University, as secretary of the Interior Department. Thus the official channels for federal educational business were commanded by Californians, all of whom

were keenly interested in education. The advocates of a "federal department of education with a secretary in the president's cabinet" hoped that their cause might be realized. This hope was dashed, however, when the secretary of the interior, with the approval of the president, formally repudiated advocacy of such a transformation. In a formal statement read before the annual meeting of the American Council on Education in May, 1929, he declared:

> The place of the national government is not that of supplying funds in large amounts for carrying on the administrative functions of education in the communities, but to develop methods, ideals, and procedures, and to present them, to be taken on their merits. The national government, too, can give widespread information on procedures, can report on what is going on in different parts of the country and in the world, and can unify to some extent the objects of those in the field of education in so far as unification is desirable. There is a distinct place for this sort of thing in the administrative side of the national government, but it should not be recognized as an administrative position with large funds at its disposal. *A Department of Education similar to the other departments of the Government is not required.* An adequate position for education within a department, and with sufficient financial support for its research, survey and other work, is all that is needed.

This statement was followed by action that may or may not be of far-reaching significance to American education, but certainly emphasizes the intention to reduce the educational administrative functions of the United States Interior Department to the minimum and to formulate policies for greatly enhanced non-administrative educational work by the federal government that may materially affect the educational activities of other departments.

Of relatively minor practical importance but indicative of the policy expressed by Secretary Wilbur was the change of the name of the United States Bureau of Education to the United States Office of Education.

Of more importance than this change of name is the attempt to formulate more exact definition of the functions of the federal government in education. For this purpose Secretary Wilbur called a conference of leading educators on June 7, 1929. Dr. C. R. Mann, director of the American Council on Education, was designated as chairman, and Mr. J. W. Crabtree of the National Education Association, secretary. Three subcommittees were organized: one

under the chairmanship of Dr. James E. Russell to consider the educational activities of the national government; one headed by President Lotus D. Coffman, of the University of Minnesota, to consider subsidies to the colleges; and the third, to study other subsidies under the direction of Mr. Frank Cody, superintendent of the Detroit schools. This commission later secured $100,000 from the Rosenwald Fund to finance the study, and Dr. Henry Suzzalo was chosen to direct the work.

It will be noted that the work of the Commission, as indicated by the subcommittees, gives considerable emphasis to matters of subsidy. This fact and the discussions of the Commission have led to concern in certain quarters lest the Commission report a general disapproval of federal aid for education in the states.

At the present time the more important federal aids to state education consist of annual income from land grants made available by the Morrill Act of 1862, the flat appropriations derived from the Morrill Act of 1890, and the Nelson Amendment of 1907. In addition, funds for research, especially for agricultural research, are made available through the Hatch Adams and the Purnell Acts. In none of these cases does the grant of federal money carry an obligation to the state to appropriate further funds. Two of the federal subsidies—the Smith-Lever funds for agricultural extension and the Smith-Hughes funds for vocational education—do require that the state or local community provide an amount of money equal to the federal grant. Since it is the land-grant colleges and vocational education that receive the major portion of federal monies, some concern has been felt by the beneficiaries lest the committee disturb existing arrangements. This fear is probably not justified since both these interests are adequately represented on the Commission, and the character of the other members is such as will effectively prevent distortion of logical conclusions.

In harmony with President Hoover's plan for determining facts and seeking advice from well-informed experts as a basis for formulating policy, several special educational commissions, in addition to that upon the relations of the federal government to education, have been set up. These include a national commission to consider the problems of illiteracy, a commission to consider the educational

uses of the radio, and, indirectly, a commission on the entire problem of social welfare.

The national study of secondary education for which funds had been requested of Congress in 1928 by Dr. J. J. Tigert, then commissioner of education, was inaugurated in July, 1929. Commissioner Cooper retains the general direction of the survey, but has secured Dr. L. V. Koos as associate director in immediate charge of the professional and technical aspects of the study. Mr. Carl A. Jessen, of the staff of the Office of Education, is acting as assistant to the commissioner in charge of the business and mechanics of the survey and of certain elements of the study itself.

As announced, the plans for the survey definitely provide that it shall not be a study of urban secondary education alone. Special attention will be paid to the problems of high-school education in the smaller communities and rural areas. It will include an examination of the growth and present status of secondary education in the United States, the forms of its administration, the types of high-school organization, the articulation of the high school with the levels both below and above the secondary level, and will treat the curriculums in considerable detail. Of special interest is the plan to study the secondary-school population and its related problems. As outlined by the committees serving on the staff of the commission, this phase of the study will investigate the proportions of secondary-school population in and out of school in relation to age, race, sex, intelligence, and social economic status. In this connection, special inquiry will attempt to determine the articulation of the schools with the occupational life of secondary-school graduates.

In harmony with the purposes and methods of national service to the schools of the country through organized service demanded by various groups, a paragraph was introduced into the Interior Department appropriation bill in the fall of 1929 looking to a national study of teacher-training in the United States. Two hundred thousand dollars is asked for this purpose in order to make "a study of the qualifications of teachers in the public schools, the supply of available teachers, the facilities available and needed for teacher training, including courses of study and methods of teaching."

This project, which will probably be made effective by congres-

sional action, is of special importance in view of the development during 1929 of the rather general conviction that there is an oversupply of teachers. Considerable evidence has been assembled to indicate that this is a fact so far as actual numbers are concerned. However, many educators question whether the supply of well-qualified teachers is excessive. Further, it is claimed by no one that the oversupply extends to all phases and subject-matter fields. Educators who are interested in the deficiencies and inequalities of rural education are especially concerned lest measures be taken to reduce the supply without sufficient attention to the need for more and better-trained teachers in rural schools. This group, therefore, regards the proposed teacher training study as of special importance in that it hopes that from such a study plans of procedure and measures of relief may be devised.

Attention was called in this review of education for 1928 to the fact that opportunities available to Negroes for preparation to enter medical schools were very restricted. As was indicated, this was a situation that affected the medical care of a very large proportion of our population. The American Medical Association, upon the basis of a survey of Negro colleges and universities made by the United States Bureau of Education in 1928, prepared and published in 1929 a reclassification of the Negro colleges upon the basis of their ability to do work acceptable for admission to medical schools. Up to the time of the publication of this new classification, the American Medical Association had rated only five Negro colleges in the United States as doing work that would be accepted at par for admission to medical schools. The new classification rates twenty-five Negro colleges as prepared to offer acceptable work for admission to medical schools. Such a tremendous expansion of approved premedical work should greatly facilitate training of Negro physicians.

Of hardly less importance than the expansion of opportunity thus provided is the fact that the American Medical Association issued the new list with the statement that any college which will pay the cost of reinvestigation may be examined annually in order that due recognition can be given for such improvements as have been made. This enlightened policy is in striking contrast to con-

ditions that previously based judgment of the ability of Negro colleges to offer premedical work upon facts that were in some instances ten years old.

It should be noted in this connection that the American Medical Association does not wish to encroach upon the accrediting and classification functions of the regional and national accrediting associations of colleges and secondary schools. The ratings given by the American Medical Association list are not intended to refer to four years of work given by the institutions but represent the ability of Negro colleges to offer two years of acceptable premedical college work. The list is effective only until such time as provision is made for the classification or approval of colleges for Negro students by the established regional accrediting associations.

The only regional association which does not rate Negro colleges within its territory has been that of the Southern Association of Colleges and Secondary Schools. It is of extreme educational importance and of great sociological interest, therefore, that at the meeting of the Association in December, 1929, the Association voted without a dissenting voice to rate both Negro colleges and high schools within its territory. A committee was appointed for this purpose with Mr. H. M. Ivy, superintendent of schools at Meridian, Mississippi, as chairman. There seems to be no reason why this decision of the Southern Association to assume responsibility for passing judgment upon the quality of the work of Negro colleges and high schools should not be carried to completion within the near future, except the necessity of securing approximately $25,000 for the prosecution of the investigation. In view of the national importance of the action of the Southern Association and the splendid opportunity it gives for the improvement of race relationships, it is difficult to believe that the required funds will not be forthcoming.

Probably the proposal of the year that is most important from the standpoint of its potential effect upon actual instruction in the schools is that made by Dr. C. H. Judd, of the University of Chicago, before the American Council on Education in May, 1929. Dr. Judd pointed out that the timidity of the colleges in attacking social problems is accentuated in the public schools. "It is striking-

ly true that the rank and file of even the college students of the country are relatively little affected by the social sciences, and that high school and elementary school pupils are hardly reached at all."

Yet society depends upon these schools to prepare the rank and file of its citizens for participation in the community life of the nation in such fashion as will enable them to vote and act intelligently upon economic and social problems of national and state concern. The school authorities, for safety's sake, quite generally hesitate to introduce live social discussion and instruction, or they are unable to do so since such work usually affects the standing or the advantage of one or another social or economic group. Dr. Judd made a plea for the appointment of a commission to carry on a series of experiments under ordinary school conditions for the purpose of securing and sifting a large body of material which might be formulated in such a way that it might be utilized in the schools "with sufficient sanction behind it so that teachers will be free from the inhibitions which now handicap them in devising social instruction." The American Council on Education appointed such a commission under the chairmanship of Dr. Judd, and co-operative arrangements have been made with several school systems whereby the plan may be financed. The significance of this development is apparent from the statement of the principle that will control its activities. "The proposal is not that social studies be added to the present curriculum, but that a comprehensive reconstruction of the curriculum be undertaken with a view to making social studies the core to all that is taught in the schools."

Attempts to secure unity of educational effort and consideration of the problems involved occupied an increasingly important position during 1929. In the field of higher education the most striking movement in this direction was the creation of a single board to control all the public higher educational institutions of Oregon. The five institutions had been under the control of three boards, one each for the university, the agricultural college, and the normal schools. A fourth board, that on higher curriculums, had the function of preventing and abolishing undesirable duplication of work between the institutions. These old boards were eliminated and their powers and duties lodged in a single board of nine members.

Political and local influences are guarded against by making the term of board members nine years, by restricting the governor's power of removal, by making ineligible for membership any resident of a city in which one of the institutions is located, and by permitting upon the board not more than one alumnus each from the university, the agricultural college, and the normal schools. All funds are allotted to the institutions by the board and no representative of an institution may appear before the legislature or any of its committees without the written authority of the board.

The law which established this experiment in co-ordinated control of the state public higher institutions further stipulated that prior to inauguration of the new policy the board should arrange for a survey of higher education in the state by an impartial outside agency. The United States Office of Education has been invited to undertake this survey and will complete the work in 1930. In order to insure that the board has continuous and comparable information concerning the institutions under its control, the law made provision for the employment of an executive secretary "fully qualified by educational training, ability, and experience."

Of somewhat different character and scope, but equally indicative of educational interest in unity of effort on the part of the various agencies and levels of education, was the *Seventh Yearbook* of the Department of Superintendence of the National Education Association, published in 1929. This publication was devoted entirely to the problems of articulation between the different units of the American public-school system—elementary, secondary, collegiate, university, and professional. It is significant also that the commission which prepared this *Yearbook* was continued, with instructions to carry on further investigation of the same subject for report in the *Yearbook* to appear in 1931.

Another publication that disturbed academic calm to a greater extent than any report since that on medical education was the Carnegie report on college athletics which appeared in October, 1929. The importance of this report lies not alone in the facts submitted in regard to the commercialism of college athletics and the exploitation of athletic ability by educational institutions. It is of even

greater value in that it provides disinterested outside leadership in attack upon a situation with which college and university presidents cannot deal effectively at first instance. They are seriously handicapped by the fact that the public is ignorant of the effects of commercialized college athletics upon educational standards, and misinterprets intercollegiate contests as evidence of undergraduate enthusiasm. The report should tend to change the attitude of the public and to make it realize that the forces which largely mold the present form of intercollegiate athletics are those traceable to the financial returns to the institutions and to the newspapers that provide the ballyhoo.

GOVERNMENT

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ABSTRACT

Congress has laid the foundations for a great publicly owned water power by authorizing the building of the Boulder Dam, but allows its operation by private companies under lease. Among the states, Utah has launched long-distance planning of public works as a relief for unemployment. The Pennsylvania state government has been reorganized on the basis of the single-headed department with the advisory commission, and even administrative commissions within the departments, still testifying to the fear of a powerful bureaucracy as well as the practical necessity of groups of men for the semi-legislative and semi-judicial work of administration. Unpaid commissions as a means of supervising executive officials and of rule-making testify in other states that a highly centralized government has not yet found favor in this country. The session laws of last year show that the use of professional bodies to control the members of their own professions is an accepted form of administrative organization. Decisions of the Supreme Court have sustained the presidential pocket veto, the power of the secretary of war, under statute, to regulate the flow of water from Lake Michigan, and have regularized the position of an administrative court, the Board of Tax Appeals.

Governmental changes as shown by the legislation of 1929 show development of the same tendencies toward centralized government organized under single-headed departments in the more important industrial states with the persistence elsewhere of the citizens' commission, either unpaid or paid a small *per diem* to carry on both the administrative and the rule-making duties of the government. The most interesting and important of these commissions is that in Utah, which initiates the long-distance planning idea which has been so vigorously urged by official and unofficial spokesmen recently, since unemployment has become a serious problem in this country. The project in its full development calls for planning the construction needs of the state over a long period, and then permitting an administrative body to determine at what time the particular plans should be carried out, in order that the work may be realized when most needed to supply employment. Of course, in some cases projects cannot be delayed, but must be completed as soon as possible in order to meet a need. The task of determining, under local and political pressure, which projects should be at once begun

and which should be delayed is no simple one, nor is it easy to determine when unemployment threatens and the time is ripe for releasing work.

The Utah act is only a beginning, but it is significant for students of government. It is notable that the legislature on the recommendation of the governor has confided the delicate and important task of determining just when the particular work should be done and of controlling its expenditure, not to the state administration, but to a body of unpaid citizens appointed by the governor, themselves selecting their own administrative force. This is the opposite pole to the movement for centralizing power and responsibility in the hands of the governor and the official administration.

Another interesting use of the citizens' commission to effectuate a sort of guild organization of trades and professions is freely illustrated in the last year. Licensing of such persons is the approved method of testing their capacities by examination and disciplining them by withdrawing or suspending licenses. This power of professional life and death, however, is not placed in the hands of the regular officers of the state, but is kept within the group regulated by requiring that members of that group alone shall be appointed to the commission, and not infrequently on the recommendation of their professional association.

FEDERAL GOVERNMENT

Outstanding in legislation affecting the federal government is the Boulder Canyon Project Act.[1] The secretary of the interior is authorized to construct and operate the dam at Boulder Canyon and a canal taking the waters of the Colorado River into Imperial Valley in California, and to construct also a hydroelectrical power plant. A fund of $165,000,000 is set aside for the work, to be advanced as called for by the secretary of the interior. All money received from the operation of the project is to be paid into the fund. Before beginning construction the secretary must assure that it shall be self-supporting by contracting for sale of water or power for a sum sufficient to insure payment of expenses and operation and maintenance, and within fifty years the repayment of the cost

[1] Public 642 45 Stat. at L. 1057.

of the plant plus interest. The dam is to remain government property managed by the secretary of the interior, who may, however, lease units of the plant with the right to generate electrical energy or make a general lease of the use of the waters for power. Under the provisions of the leases the secretary may regulate service by the lessee to the public.

The only other statute of importance in the organization of government is the central purchasing act,[2] the purpose of which is the concentration under one administrative head of the purchase of supplies for the executive branch of the government. The secretary of the treasury is authorized to administer the service through the General Supply Committee, and the finances are taken care of by creating a special fund in the treasury from which payments may be made, to be reimbursed by the departments and establishments for which purchases are made.

STATE GOVERNMENT

Long-range planning.—The year 1929 witnessed the first fruits of the idea of the long-range planning of public works sponsored by President Hoover as a means of regulating unemployment. It is to the state of Utah that must go the credit of initiating what may be a very deep-seated reform in which is implicit, not alone the immediate purpose of distributing the use of state money so that it will accomplish the social purpose of relieving unemployment, but also the further object of providing a more orderly and intelligent development of building plans of the state through concentrating in the hands of a single state agency, control, not only of the planning of state construction, but also of the duty of determining the order of importance of the projects to be undertaken.

By chapter 101,[1] the Utah legislature created a commission of five citizens to be appointed by the governor with the consent of the Senate, for four-year terms, except that the first appointments were divided, two for two years, the others for four years, so that there would be a degree of overlapping which would assure a certain continuity in the policy of the commission and would make

[2] Public 833 45 Stat. at L. 1341.

[1] Law of 1929, Utah Unless otherwise indicated, chapter and page numbers refer to the session laws of 1929 of the state mentioned.

temporary political exigencies less controlling. To remove the commission farther from partisan political control and make it representative of the best class of citizens, the commission is not paid, which means that the governor is expected to find business men and citizens whose principal occupation is not the state service, to give their time and take responsibility for the very important duties of the commission. The commission is given further independence of the state administration by having power to appoint its own staff, headed by a secretary and a superintendent of construction. The theory of the centralization of executive control in the governor or in any branch of the state administration is completely put to one side, except so far as the auditing department has control over expense to prevent spending money for purposes not authorized by law. These purposes are very wide. The commission is authorized to make plans and contracts for state work, to acquire property and sell parcels not needed for state uses, and to submit to arbitration any controversies arising in the course of its operations. The freedom of the commission to undertake work at such periods as it deems most advantageous for the public is made very evident in the method of financing its operations. A bond issue is authorized, to be sold to the extent and at the time requested by the commission, so that money is not impounded in the treasury from tax revenue nor are bonds sold until the money is actually needed for use, but financing is provided in advance so that the commission is free to undertake its work as it pleases.

The bill originally introduced provided a program for a twenty-year period, specifying a large number of buildings for the university and for state institutions, including a provision for a new state prison. But the legislature was not willing to follow the governor so far, and as it became law the act provides for only a two-year program of building construction, but nevertheless the amount of the bond issue authorized, $1,150,000, is an earnest expression of the sincerity of the legislature in its experiment. The commission has been set up and is functioning. Its pioneering work will be of importance to the whole country.

Single-headed departments.—The reorganization of the Pennsylvania state government, chapter 175, is the outstanding expres-

sion of the trend toward the modernization of American state government during the year 1929. Scattered executive offices, boards, and commissions are assembled into nineteen single-headed departments and three independent commissions. In the case of two of the commissions, the rule-making function is prominent. The other is a semi-judicial organ. There is no reason of principle why the first two, the Board of Game Commissioners and the Board of Fish Commissioners, should not have been consultative commissions in a single-headed executive department of conservation, but the third is the Public Service Commission, whose function is so clearly judicial that it can only be exercised by a board. The governor, with the approval of two-thirds of the Senate, appoints those heads of departments who are not elective officers, and the members of all independent commissions. The terms of appointment are made to correspond with the term of the governor, by making them for four years, beginning with the third Tuesday in January after the election of the governor.

The principle of centralizing control in the head of the department, notable in New York and California, is not followed so completely in Pennsylvania, since the governor appoints the deputies in each department and many advisory boards. Furthermore, the power of the head of the department to reorganize his bureaus is subject to the approval of the Executive Board, the governor's cabinet. He may choose any six department heads who, with himself as chairman, form the Board. Unlike the federal cabinet, the Board has, however, definite powers. In addition to its control over the bureaus in the departments, it is also vested with the duty of fixing a standard compensation for the officials and employees, to which must conform department heads, who appoint their subordinates, except the deputies, and fix their compensation, subject to approval by the governor.

Boards and commissions are grouped under the departments and are not abolished. The idea of a separate local board for each state institution, rather than direct central control, a persisting decentralizing tendency, is preserved, and rule-making boards are continued, notably the Council of Education, the State Welfare Commission, the Advisory Health Board and the Industrial Board in

the Department of Labor, and in the same Board, the Workmen's Compensation Board with its combined rule-making and judicial powers. The act is an administrative code setting forth the duties and powers of the Executive Department in addition to its organization.

California and New York continue their executive reorganization on the principle of the single head in the set-up of the departments dealing with correction, which New York, chapter 243, calls the Department of Correction, and California, chapter 191, the Department of Penology. The governor and Senate in New York appoint the commissioner of correction, who holds, according to the usual New York formula, for the term of the appointing governor. He has the usual broad powers of organization of his Department and the appointment of subordinates, but there must remain in the Department two boards, the Commission of Correction, with the commissioner as chairman and seven members appointed by the governor, who receive $10 for each day actually spent on service, and the ex officio Board of Parole, consisting of the commissioner, the second assistant commissioner, the head of the Bureau of Parole, and the warden of the prison in which the candidate for parole is confined. The Commission has the usual visitorial and advisory powers with direct access to the governor and the legislature.

The California act has an interesting novelty in the method of appointment of the director. The governor must select him from the chiefs of divisions of the Department. He holds office at the pleasure of the governor and is a member of the governor's council. The Department is divided into five divisions and there must be at least a monthly meeting of the chiefs to consider questions of duplication and to improve the correlation of the service. California provides for study of its treatment of prisoners through the Division of Criminology, whose chief is the chairman of the California Crime Commission.

Washington, chapter 115, shows her approval of the principle of centralizing authority by abolishing her ex officio Highway Commission, vesting its powers and duties in a director of highways, and also consolidating in his department the duties of the state engineer. A check is set up against rash expenditure of money by requiring

the governor and the director jointly to sign all contracts for highway construction. It is very evident that the single-headed department is making progress, but it is also clear that the legislature still considers as important the check of non-salaried lay boards and commissions.

Boards and commissions.—The single-headed commissioner appointed by, and directly responsible to, the governor has not yet, however, won the whole-hearted approval of the legislature. In Ohio the system is even held to have failed in the case of control over the wild life of the states, for the legislature (p. 551) took away from the secretary of agriculture this branch of his duty and vested it in a Conservation Council of eight "reputable citizens," who serve for overlapping four-year terms and not more than four of whom may be of the same political party. Their positions are made safe from executive interference by the provision that they may be removed only for cause by the governor, or on recommendation of a majority of the Council itself. A curious split in authority appears in the appointment of the administrative officer of the department, who is appointed by the secretary of agriculture on the recommendation of the Council.

Arizona, chapter 84, is more orderly in its supervisory organ for fish and game, the head of which is an unpaid commission of three, not more than two of the same political party to serve for overlapping terms. It, however, appoints its own game and fish warden who, with the consent of the commission, appoints his deputies, thus centralizing authority and also insulating the administration of the department from executive interference.

The variety of opinion in different states as to the organization of a governmental function comes out clearly in the comparison between the Washington change in the control of its highways from a commission to a single individual as compared with the statute of Oklahoma, chapter 68, which puts the corresponding department under a Highway Commission of three. Oklahoma is perhaps traveling toward single-headed control, for the number of commissioners is reduced from five to three, and they are paid whole-time salaries in place of $10 for each day spent on duty. Thus the Commission is professionalized on a whole-time basis.

Maine, chapter 361, also will pay a full salary to its State Highway Commission of three, and adds that one of the members must belong to the political party having the second largest vote at the last gubernatorial election.

Kansas, by chapter 258, also adopts many-headed management in its new Bureau of Labor and Industry and furthermore establishes its independence from the governor by making the terms of its three members overlapping, and vesting in it the right to appoint subordinates. Representation of interests in administrative commissions, so common in labor administration, is consecrated by the requirement that one of the commissions must have been for at least five years actively identified with labor. It is not surprising that the same state, by chapter 259, creates a paid Public Service Commission of three, with overlapping terms, to have jurisdiction over public utilities. Kansas by these acts divides functions formerly in one department, but the character of the functions differs so widely that the decision of the Kansas legislature can scarcely be said to be a reversal of the tendency toward centralization.

A rational example of that tendency is Oregon 251, which combines the boards of the University, the Agricultural College, the Normal Schools, and the Board of Higher Curricula, into a Department of Higher Education under a board of nine to serve for nine-year overlapping terms. Members are appointed by the governor with Senate approval. A standing committee of six senators must approve interim appointments. Statutes establishing a tax levy for the institutions are repealed, so they will be dependent on the budget for their income.

Regulation of professions and trades.—What might be called a modern guild system under the supervision of the state is developing rapidly among the American commonwealths. The demand for the regulation of various trades and professions has been extending far beyond the learned professions to which it was originally confined. It has been freely extended to trades, and for the year 1929 the barbers seem to be particularly singled out for regulation or modification of existing regulations, but the idea has been applied to what were formerly considered business groups, notably the real estate brokers and salesmen, and title abstracters. From the gov-

ernmental point of view, it is especially interesting that it is a board of persons belonging to the profession or trade to be regulated which examines candidates, makes regulations, and has the power of suspending or revoking licenses, that is, the real power of discipline in the profession or trade. The right of appointment is usually vested in the governor, with the condition that the appointee must be a practitioner of the trade or profession as in Montana, chapter 127, which requires the members of the Board of Barber Examiners to be "practical barbers."

An interesting modification is Nevada, chapter 13, under which the State Barbers' Board must contain one journeyman barber and one employing barber, but is presided over by the secretary of the State Board of Health, thus diminishing the strict guild control, which is further weakened by the provision for county boards, who are named by the State Board of Health, but must be composed of one physician, one employing barber, and one journeyman. The State Board of Health is also given a degree of control over the State Board of Beauty Culturists by Montana, chapter 104. The three members are appointed by the governor from a list of six recommended by the Board of Health, but each member must be a hairdresser or cosmetologist. Administratively the Board of Health is, however, given a wider authority than is usual, through its power to appoint an inspector of beauty parlors to enforce regulations.

A combined board is sometimes created for allied trades as in Arizona, chapter 76, where the Board of Barbers and Cosmeticians consists of one journeyman barber, one employing barber, and two cosmeticians, who must come from different schools. The Board licenses barbers and cosmeticians and makes regulations to assure sanitary conditions in the shops, which must be approved by the Board of Health.

Another variant, the position of a dominant profession, appears in Vermont, chapter 113, where a chiropodist is added to the Board of Medical Examiners, consisting of seven doctors, when they are examining a chiropodist. Chapter 347 of Minnesota is a step away from the strict guild theory and the vesting of control in a dominant profession. It abolishes the Board of Masseurs and vests in the

Board of Medical Examiners the licensing and regulating power over masseurs, but the Board must appoint a masseur as assistant.

By chapter 416, the New York Board of Dental Technicians of three contains one practicing dentist and two technicians. In some cases there is a further recognition of the guild through requiring the appointments to be from persons recommended by the professional association. The solitary Vermont chiropodist, for example, must be named from a list submitted by the Vermont Pedic Association. In South Dakota, chapter 1, the Abstracters' Board of Examination must be recommended by the South Dakota Title Association. The Real Estate Commission of three in Arkansas, chapter 148, must be selected by the governor from a list of twelve recommended by the Arkansas Real Estate Association. A modification of the principle in California, chapter 68, requires that five of the members of the board be appointed from the Northern California Chapter of the American Institute of Architects, while the other five must be from the Southern California Chapter. The whole board makes rules, but the northern and southern boards function separately for other purposes.

In unorganized states each of these boards is answerable only to the governor and the members of its guild, but organized states assemble them under particular departments. In Pennsylvania, for instance, they are all gathered into the Department of Education, as in New York. California has a different plan. Under chapter 290, it establishes a Department of Professional and Vocational Standards, with a director appointed by and holding during the pleasure of the governor. The various professional boards are grouped in two departments, No. 1 containing the Medical and Dental Boards and the Board of Pharmacy; No. 2, the others. This division is important, since the boards in Department No. 1 may hire their own lawyers and investigators and thus control the discipline of their own professions, but as to the boards in Department No. 2, it is the director who hires the lawyers and investigators and prosecutes violations of the law and rules of the board. It is notable that the lawyers, the best organized guild in the state, are not included among the groups subject to the Department of Professional and Vocational Standards.

Extension of state control.—In spite of the decentralization evidenced by the home-rule movement, there are some cases in which the state is extending its power over the localities. One of the most important evidences of this tendency occurs in the field of taxation. Arizona, by chapter 46, creates a Board of Tax Survey of three members to assess all property in every county. After the first survey the board continues its work and conducts a new survey during each five-year period. It is to employ a qualified person as an executive and may engage a tax valuation expert to help him. The existing elective tax commission is made the Board of Tax Survey, with small salaries as members of the Board. The system of county assessment will disappear under the pressure of the professional survey. The neighboring state of New Mexico, chapter 84, authorizes the State Tax Commission to appoint one of the members of the County Board of Tax Appraisers, the other two being the county assessor and a member appointed by the county commissioners. Here again the influence of the state toward equal and full assessment is evident.

Following the same line of development, North Dakota, in chapter 259, creates a State Department of Weights and Measures to take over for the state a duty formerly exercised by the sheriffs in each county, the appointment of sealers of weights and measures, thus securing uniformity and centralized control. Another noteworthy instance is the centralization in a state bureau of the means of identification of criminals, to which bureau peace officers are required to send finger-prints and other means of identification. Authorizing acts were passed in North Dakota, chapter 116, and Arizona, chapter 16, during the last year. The chiefs of the bureau are instructed to aid local peace officers, and Arizona expressly directs them to exchange information with other states and with the central bureau at Washington.

The police functions of the state as a unit are also recognized in a new law in Minnesota, chapter 355, which gives the commissioner of highways power to appoint a law enforcement unit to enforce the laws relating to the use and operation of motor vehicles on the highways, except the speed laws. North Carolina, chapter 218, authorizes its Highway Commission to create a state highway patrol, with

apparently no limitations on its functions. In quite another field the movement for state control appears in California, chapter 540, which creates a Division of State Aid in the Department of Welfare, under a chief appointed by the director with the approval of the governor and the Board of Social Welfare. There is a state-appointed board of citizens in each county to co-operate with the county and local authorities and make recommendations. The actual administration of the act, the granting of aid, and investigations are left with the county supervisors, but they are rather pointedly told that they may use the state-appointed board of citizens as a means of investigation.

SUPREME COURT DECISIONS

In three cases the Supreme Court passed on interesting questions affecting governmental organization. The pocket veto received the sanction of the Court in *Okanagon Indians* v. *United States*.[4] The Constitution provides that the President must return a bill with his veto to Congress within ten days unless Congress prevents it by adjournment; otherwise the bill will become a law. For the first time a question came before the Court on a statute which had gone to the President less than ten days before the first session of a Congress adjourned. It was argued that the same Congress would reassemble in December and that the President was not prevented from returning the bill to an officer of the House for resubmission at the opening of the next session in December, so that the result of his not having returned the bill was that it had become law and not that it was vetoed. The Court, however, depending both on the ordinary use of language and on unbroken usage since the Constitution went into effect, sustained the power of the President to veto such bills by non-action. The position of the Board of Tax Appeals was involved in the case of the *Old Colony Trust Company* v. *Commissioner of Internal Revenue*.[5] The Revenue Act of 1926 authorized a direct appeal on the law from the Board to the Circuit Court. The question arose as to whether the decision of an appeal from an administrative board was a judicial function. The court sustained the statute, saying that a similar situation arose in the

[4] 279 U.S. 655.

[5] 279 U.S. 716.

case of other appeals from administrative tribunals like the Federal Trade Commission. There are adverse parties, the claimant and the United States, a subject matter, the question of what tax shall be paid, and the judgment is a judicial judgment.

In *Wisconsin* v. *Illinois*,[6] the power of the secretary of war under the authority of Congress to regulate the withdrawal of water from Lake Michigan through the drainage canal was sustained as an executive function, since it involved the determination of the amount of water which could be withdrawn from the lake, an expert question, said the Board, to be decided by engineers. The city of Chicago was ordered to find some other means to dispose of its sewage than the withdrawal of the huge quantity of water from the lake, which was reducing the level of the lower lakes and thus affecting the capacity of shipping in that very highly developed waterway.

In the first two decisions, it was made clear that the court passing on a case is not always deciding simply a litigation between two contending parties, but is exercising an important public function by laying down a rule of general application. In its forum then should appear representatives of the public interest as well as of the parties to the case. Following a custom of which there have been several instances of late, the Committee on the Judiciary of the House of Representatives appeared by counsel in the Okanagon Indian case to defend the position of the House, and the Committee on Taxation of the American Bar Association, aided informally by the legislative counsel of the Senate, argued for the legality of the procedure of the Board of Tax Appeals in the Old Colony Trust Company case.

[6] 278 U. S. 367.

STATUS OF THE CHILD

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ABSTRACT

The latest available statistics on birth-rate, infant mortality, and size of families are given. Growing recognition of the importance of the early years is indicated by the increasing number of nursery schools and centers for research in the psychology of the preschool child. Contemporaneous trends in the applications of social work to child welfare problems are shown in the rapid development of child guidance clinics. The popularization of child study for parent education is another important social movement. Both welfare work and research are placing more emphasis upon the social relationships of the child.

BIRTH STATISTICS

The latest United States Census report of births is for 1927. In that year, the birth registration area included all but six states. The number of live births was 2,137,836, which represents a birth-rate of 20.6 per thousand. Of the total number of live births, 1,099,287 were males and 1,038,549 were females, a proportion of 1,058 males to 1,000 females.

From the time when the birth registration area was established in 1915, the annual figures show a slight but consistent tendency toward a decline of the birth-rate. There is a similar tendency to decrease in the death-rate over the same period, with the exception of a marked increase of the death-rate in 1918 over that for the three preceding years.

In 1927, the birth-rate exceeded the death-rate by 81 per cent. A tentative estimate for 1928 gives the birth-rate as 19.7 and the death-rate as 12.0 for that year.

The birth-rate in the United States for 1927 was less than that for certain foreign countries but higher than that for others. For example, that same year Japan had a birth-rate of 33.6, Ceylon one of 39.5, Egypt one of 42.7, and Chile one of 44.8; at the other extreme, the birth-rate for Sweden was 16.1; for England and Wales, 16.6; for Austria, 17.8; and for France, 18.1.

INFANT MORTALITY

The last accurate report on infant mortality is also for 1927. There were in that year 82,931 stillbirths, the sex ratio being 1,368

males to 1,000 females. The rate was 3.9 stillbirths per hundred live births. The total deaths of infants under one year of age were 138,017, the sex ratio being 1,325 males to 1,000 females. This was an infant mortality rate of 64.6 per thousand live births. The previous record low rate of infant mortality was 70.8 in 1924.

The 1927 infant mortality rate was lower for the urban than the rural area—63.2 for the former and 65.6 for the latter. If the urban and rural infant mortality rates from 1915 to 1927 are studied, it appears that up to and including 1920 the urban was decidedly higher than the rural rate, but that from 1921 to 1927 (inclusive) the urban was slightly lower than the rural rate except in 1922 (when it was considerably higher) and 1924 (when it was only slightly higher). The figures suggest that the care of infants is improving more rapidly in the city than in the country.

SIZE OF FAMILIES IN WHICH CHILDREN LIVE

The average number of children ever born to the mothers who reported births in 1927 was 3.2 per mother. The average for foreign-born women was 3.9; for colored women, 3.7; and for native-born white women, 3.0. These averages being for mothers of all ages probably do not represent the size of the completed family. If mothers over thirty-five years of age are considered separately, the data may be more representative of the completed family. The average number of children born to mothers aged from thirty-five to thirty-nine years was 5.8, and the average number living was 5.1, while the average number born of mothers of from forty to forty-four years was 7.5, with 6.5 as the average number living.

In analyzing the size of families in relation to the occupations of the fathers, the largest average number of children was reported by wives of coal-mine operatives. For the age group of thirty-five to thirty-nine, there was an average of 7.5 births, with an average of 6.3 living; for the forty- to forty-four-year group, an average of 9.1 births, with 7.5 living. The lowest average number of children for mothers of from thirty-five to thirty-nine years was for wives of dentists—3.1 born and 2.9 living. The lowest average for the from forty- to forty-four-year-old mothers was 4.4 born and 4.0 living, reported by wives of lawyers, judges, justices, and technical engineers.

CHILD LABOR LEGISLATION

In 1924, Congress proposed a twentieth amendment to the United States Constitution to provide for the federal regulation of child labor. The Children's Bureau of Washington, D.C., gives an unofficial report of the action on the amendment by the different states at the end of 1929. According to this information, the amendment has been ratified by both houses of the legislatures in only five states. In three states it has been ratified by one house; in twenty-four states it has been rejected by both houses; in eight states rejected by one house; in two states indefinitely postponed by one house, and in six states no definite action has been taken.

The Children's Bureau is now preparing an up-to-date report of the present legislation concerning child labor in the different states.

NEWER PHASES OF CHILD WELFARE

We have become familiar with the clinical organization in which psychiatry, psychology, and social work are brought together in the interests of a well-rounded diagnostic and treatment technique of maladjusted children. Yet the first clinic employing these co-operative professional services was not established until 1891, and its patients were mostly mentally deficient children whose behavior was of an antisocial type. The first juvenile court clinic with similar personnel was not opened until some years later—in Chicago in 1909. Child guidance clinics, providing for the treatment of less severe personality and behavior problems and educational maladjustments, did not begin to be available until 1922, but the 1928 directory of psychiatric clinics lists 136 which operate under the name of child guidance, some limited to small school systems, others organized on a city-wide or county-wide basis.

The 1925 directory of psychiatric clinics published by the Commonwealth Fund showed that 209 cities in 25 states gave full- or part-time service to different types of problem children; the 1928 directory showed a spread to some 320 communities in 32 states; and a recent survey made by the United States Children's Bureau reports that there are altogether 500 such clinics in this country. Social work is an important phase of the work carried on by all these clinics, despite the classification of "psychiatric."

In spite of the increase of child guidance clinics, in which social

case work is an especially large part of the treatment program, the Commonwealth Fund has recently issued a statement that not more than 20 per cent of the population can now take advantage of these, since most of them are located in cities of more than 150,000. It is proposed to work out some method whereby smaller communities and more rural areas may also be provided with these facilities.

The recent increase in the number of nursery schools is noteworthy in view of the importance placed upon the first years of the child's life as prime factor in the later social adjustment. The United States Bureau of Education issued a list of nursery schools in January, 1930, giving the approximate number for this country as 157, a 34 per cent increase over the number reported for 1928–29.

These sample figures give some suggestion of the rapid development of organizations devoted to the improvement of the child's mental and social adjustment. Within the last five years there has been a marked acceleration of social progress in this field. Conferences of social work also have been devoting more time to discussions of the social problems of childhood. Some five years ago (in 1924) a national Orthopsychiatric Association was formed, with a membership of psychiatrists, psychologists, and social workers actively engaged in work leading to better social adjustments of children, the annual meetings being devoted to reports of research in that field. The White House Conference on Child Health and Protection has recently organized an Advisory Committee on Problems of Mental Health, which are, of course, intimately associated with problems of social adaptation.

RESEARCH CENTERS

While the chief aim of clinics and nursery schools is necessarily one of practical service, educational and research activities are also an integral part of the program in many instances. A considerable amount of literature has appeared in the form of books, pamphlets, and articles in journals, which contain data of value to child sociology, both as a pure and as an applied science.

The centers devoted primarily to research are still for the most part to be found associated with the departments of psychology in large universities. The best known are the Yale Psycho-clinic, the University of Iowa Child Welfare Research Station, the University

of Minnesota Institute of Child Welfare, and the University of California Institute of Child Welfare. The Institute at the University of California is the most recently established of these four, but has already issued some interesting contributions to the scientific literature on children and has under way a number of elaborate research projects, many being concerned with the social relationships of the child.

Since its first publications in 1926, the Minnesota Institute has produced seven books and fifty-four articles. At least three of the books and twelve of the articles have a bearing upon sociological subjects.

The studies of genius which are being carried on at Leland Stanford University, and of which the first two volumes have already been completed, are contributing statistical and other material which is of a sociological as well as psychological nature.

POPULARIZATION OF CHILD STUDY

Education for parenthood has a prominent place in the adult education movement. Child-study institutes and parent-education conferences are held regularly in several cities and states, and each year sees new areas of population drawn in on these. The parent-teacher associations are turning their meetings into child-study classes and calling upon professional workers for lectures and leadership of group discussions. The subject matter which is utilized for parent education shows a change in harmony with the new trends in child study, with a shift in emphasis from physical care and habit-training to personality and character formation and social adjustment.

The literature on child care and training has grown to a surprising volume within a few years' time. New books have appeared in rapid succession, and several new magazines have been launched. A survey of the recent literature shows that a great amount of space is given to a consideration of social relationships.

The popularization of scientific child study is undoubtedly having its effect upon the social group. It is altering public opinion and forcing a recognition of the fact that proper care of children cannot be assured by the mysterious functioning of a "parental instinct" but is something to be learned. It is intensifying the attitude that

adults who bring children into the world are assuming an enormous burden of responsibility toward those children and toward society.

Theoretically, parent education should illuminate the problems of child-rearing; but, actually, just because the rôle of parenthood is shown to be such a responsible one, there is an equal possibility that it will exaggerate unfortunate situations. For parent education often leads those who come into contact with it to analyze their previous treatment of their children, to become conscious of errors, and to react with feelings of guilt or failure. These reactions interfere with their own mental and social adjustments and create emotional tensions in the family circle which may be detrimental to the parent-child relationships.

Fortunately, the present trend is to introduce education for parenthood before, instead of after, the fact. When it is more generally given at an early age the social results will probably be entirely wholesome. But in its present state there is at least an opportunity to raise some question as to its being without any exception a desirable factor in contemporaneous social life.

BIBLIOGRAPHICAL NOTES

The University of North Carolina Press has published a selected bibliography of child sociology literature prepared by Professor Ernest R. Groves, under the title of *The Child and the Home.* The books and articles listed really cover a much wider scope of social relationships than is indicated by this title.

There are two books which should be mentioned because to some extent they serve to summarize and crystallize this new branch—child sociology. *The Child in America,* by W. I. Thomas and D. S. Thomas (Knopf, 1928), is a critical survey of behavior problems, and programs which have been undertaken in order to prevent or correct misbehavior and to insure better social adaptation. *The Child and Society,* by Phyllis Blanchard (Longmans, Green, 1928), outlines the effect of the social forces with which the child usually comes into contact, analyzes the socializing process to which the individual is subjected during childhood and adolescence, and describes some of the common ways in which the socializing process may break down to produce personality and behavior maladjustments.

THE STATUS OF WOMEN

CHASE GOING WOODHOUSE
Institute of Women's Professional Relations

ABSTRACT

In the educational field there has been an increase in the number of women teachers both in schools and in colleges and universities and they form an increasing proportion of all teachers in both groups. Also experiments in the higher education of women indicate sureness of position and self-confidence on the part of the leaders in this field. In the economic world women are gainfully employed in larger numbers, and a wider choice of occupation is open to them. In the field of politics the numbers holding office and the numbers employed in the better salaried positions are slowly increasing. Legislation in regard to the property rights of married women continues to be more favorable to them.

A century or two from now, when the history of the last seventy-five years is being written, there is no doubt that the change in the status of women not only in the United States but throughout the world will occupy a prominent place in the factors noted as influential in shaping the character of the period. Limiting the discussion to this country alone, the last few years have seen changes in the educational, economic, political, and legal status of women too numerous even to list. Only an illustration or two from each field can be given here.

The United States has gone far in the experiment of educating its women as well as its men. *Bulletin 39 of the United States Bureau of Education* (1927) shows 174,700 more girls than boys in secondary schools. In the universities and colleges in 1926, three women received a first degree to every four men. In graduate schools the enrolment of women and men is as three to five, but two men receive an advanced degree to every one woman. Of course there are still limitations which the women face. The women's colleges suffer under financial handicaps and there are remnants of restrictions on the work of women at the state universities. On the other hand, with the exception of Harvard, all the important law and medical schools are open to them. In a list of fellowships and other aids for advanced and professional work recently compiled by the Institute of Women's Professional Relations, it was a surprise to find how many were open to women even if seldom or never awarded to one.

The outstanding improvements in nursing education indicated by the work of the Committee on the Grading of Schools of Nursing, the establishment of the Yale School of Nursing, the graduate work at Teachers College, and the forward strides taken by the Army School of Nursing are signs of advancement in the profession second only to teaching in the number of women following it.

Two new institutions have been established with the purpose of experimentation in the higher education of women. The recent announcement of the program for Bennington College points to a break with traditional entrance, residence, and graduation requirements. Its purpose is to prepare young women for achievement in some adult activity, and the degree will be given only to an individual who has proved her ability to stand on her own feet and to work with skill and understanding in her chosen field. Whether the details of the Bennington plan are good or bad is not the question. Its importance lies in the fact that such an experiment with its entire cutting away from tradition, from the pattern of education developed at the institutions for men, should be initiated by a college for women. It is the latest step in a chain of developments of which the Institute of Euthenics at Vassar is an outstanding example, which indicates a feeling of sureness and of self-confidence on the part of women in the field of higher education.

The other institution referred to is the Institute of Women's Professional Relations, financed by private individuals, sponsored by the American Association of University Women, and established in January, 1929, with headquarters at the North Carolina College for Women. Briefly stated, the objectives of the Institute are to act as a clearing-house for information on the opportunities and requirements for college women in business and the professions; survey and chart present opportunities for college women; study new opportunities; co-operate with business and professional groups in securing facts on necessary aptitudes and training; co-operate with educational institutions in planning for functional education; study the problems involved in the changing position of women in economic life and in the home.

An invaluable review of the changing status of women in the economic world is found in a recent census monograph, *Women in Gainful Occupations 1870 to 1920: A Study of the Trend of Re-*

cent Changes in the Numbers, Occupational Distribution and Family Relationship of Women Reported in the Census as Following a Gainful Occupation, by Joseph A. Hill. As this study points out, the contributions of women to economic production in its commercial aspects are of such substantial proportions that not only is it impossible to ignore them as a factor in industrial progress but they are worthy of serious study as an important element in this progress.

There has been a steady increase in the percentage of women gainfully employed. It was 14.7 per cent in 1870; in 1880, 16.0 per cent; in 1890, 19.0 per cent; in 1900, 20.6 per cent; in 1910, 25.5 per cent. The apparent decrease to 24.0 per cent in 1920 is eliminated when the change in the date of the census and in the instruction to enumerators in regard to listing agricultural laborers is considered. It is interesting to note that if to the 8,202,901 women gainfully employed in 1920 are added the 22,500,000 who it is estimated are actively engaged in the care and management of their homes, we have 30,702,901 women actively employed, or 89.7 per cent of all women sixteen years of age or older. This coincides almost exactly with the 89.9 per cent of the men of the same age who are listed as actively employed.

In five occupations the number of women employed in 1920 showed a decrease. These were servant, dressmaker, or seamstress not in a factory, laundress not in a laundry, milliner and boarding- or lodging-house keeper. Together they showed a decrease from 2,458,737 in 1910 to 1,785,036 in 1920. The tendency for women to enter commercial, clerical, industrial, and professional fields was greater between 1910 and 1920 than in the previous decade. The changes in their occupational distribution are most clearly seen if large classifications are compared. In 1870, of the women in non-agricultural pursuits 60.7 per cent were servants; in 1920, 18.2 per cent. The clerical group, clerks, saleswomen, stenographers, and typists, bookkeepers, accountants, and cashiers were 0.8 per cent in 1870, 25.6 per cent in 1920. The factory group showed a slower increase, from 17.6 per cent to 23.8 per cent, and the principal professional pursuits an increase from 6.4 per cent to 13.3 per cent in the same period.

While much has been made of the fact that of the 572 occupa-

tional classifications used by the census in 1920 there were only 35 in which women were not listed, a careful examination of the figures shows 165 others in which very small numbers of women were found. In general, while there is less concentration in the occupations of women than there was fifty years ago, there is no evidence that women are gaining ground to any marked degree in occupations in which they have been hitherto represented in small numbers, nor are they entering new occupations in large numbers. Perhaps, as this census study suggests (what is happening is that they are replacing men in those occupations for which they prove themselves best fitted and that, while exceptional individuals will always be found in all lines of work, the great mass of women will find their way into certain occupations more or less to the exclusion of men.

From certain points of view women have gained ground in the professions. While about one-fifth of all employed persons are women, they account for nearly one-half of those in the professions. This is very largely due to the increased numbers in teaching. In 1870, 84,047, or 66.3 per cent, of the teachers were women; in 1920, 652,500, or 81.7 per cent. However, the administrative positions are still in the hands of men, the *Educational Directory* for 1928 listing, for example, only 6 women state superintendents of education, 9 deputy or assistant state superintendents, 45 city superintendents as compared with 2,808 men, 900 county superintendents as against 2,703 men.

In college teaching the number of women has increased. In 1910 they composed 18.9 per cent, in 1920, 30.2 per cent of college teachers. In spite of the gain in numbers, recent studies such as Marion O. Hawthorne's "Women as College Teachers" in the *Annals*, May, 1929, and Emilie Hutchinson's *Women and the Ph.D.*, a bulletin of the Institute of Women's Professional Relations, indicate a feeling of despair and resentment concerning their situation in regard to salary and promotion. The same complaints come from women in industry, where the feeling of impermanence has made the work of the labor organizer difficult. The whole question of equal pay for equal work is still far from definition to say little of solution.

That women are bearing part of the economic burden of dependents is attested by the fact that 23.4 per cent of the total number of

gainfully employed women are married. In 1920, 1 married woman out of every 11 was employed and 2 out of every 9 women at work were married. The Women's Bureau has repeatedly shown in its studies that the married woman in industry is there because of economic pressure. A study of 568 professional women by the writer ("Married College Women in Business and the Professions," *Annals*, May, 1929) shows very clearly that they are working largely for the same reason.

An interesting enterprise which should help both these groups is the recently established National Committee on Employer-Employee Relationships in the Home, of which Dr. Amey Watson, of Philadelphia, is director. The Committee proposes a program of research and experimentation to determine satisfactory working conditions in household employment, methods for putting desirable standards into practice, training requisite for household employees, and ways of providing it. The aim is to raise the whole level of household employment. The result should be to attract to this line of work many women well suited to it who are now either unemployed or in some occupation for which they are less adapted and, at the same time, to release others for employment more suited to their aptitudes and training.

In the political field women are just gaining a foothold, but with 8 women in Congress, 7 states with women in the upper chamber, and 23 with women in the lower, with women in every state on state boards of various types, with women state officials, such as equalizer of taxes, chief insurance examiner, assistant attorney, increasing in number, and with a fair sprinkling of judges, progress must be reported.

In the federal government service women have steadily gained recognition in the better-paid positions. The recent appointment of a woman to the Board of Tax Appeals, a position paying $10,000 a year, gives two women in the service this salary. A collector of internal revenue at Chicago, a collector of customs at Honolulu, a commissioner of immigration at Boston, trade commissioners at Shanghai, Rome, and Oslo are merely illustrative of a list that could be extended over a page but that represents the development of the last few years only.

In the field of private employment changes have come which cannot be reviewed here beyond mention of the increased number of appointments to important positions in the conservative field of banking. In 1929 women were listed in the official banking directory as holding positions in practically every official capacity from chairman of the board to manager of a department. This, again, is a development of the last ten years.

In the legal field much might be reported. For the first time in its meetings of fifty-six years the Institute of International Law was addressed by a woman and passed a resolution in favor of equality in private and public rights without differences based on sex. The new inheritance law of New York State deserves mention. It abolishes dower and courtesy and the distinction between real and personal property. Now the surviving spouse receives outright one-third of the entire estate of the deceased husband or wife where there are children, one-half and certain absolute amounts where there are no children but near relatives, and the entire estate where there are no near relations. Limitations on the right to will property away are strictly limited. While this may not be welcomed by those who believe in great personal freedom of action, from the point of view of the majority of married women it represents a great step forward.

The changing attitude toward the service of women on juries should be noted. In 10 states, 2 with certain qualifications, service is compulsory; in 11 states, Alaska, and the District of Columbia there is a permissive law; in 2 states the situation is uncertain; in 25 states women are ineligible.

Many more illustrations of the changing status of women might be listed, but all point in the same direction, to a growing acceptance on the part of the general public of the idea that women, like men, are individuals, each to be treated as a separate entity and not merely as a member of a class, and each to be given freedom of action and equality of opportunity so that she may find her level in the educational, economic, social, and political world.