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TAXATION OF THE TRUCKING INDUSTRY

TAXATION *of the* TRUCKING INDUSTRY

By

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FOREWORD

The motor-transport business is a rapidly growing addition to our domestic transport system. As a vital segment of our transportation system, it is subject to many of the problems of financing and taxation common to other modes of transportation, and to other relatively new and expanding industries. In addition, there are many problems peculiar to the motor-transport business, arising from characteristic differences in motor transportation from other modes of transportation.

The data upon which this study is based are taken, for the most part, from published reports of the Interstate Commerce Commission, and from unpublished records in the files of the Commission. The tables in Appendix B give financial and tax data for five segments of the trucking industry—Household Goods, Heavy Machinery, Liquid Petroleum, Motor Vehicles, and Retail Store Delivery—for the United States as a whole and by geographic regions, and are herein published for the first time. The compilation of these data from unpublished records in the files of the Interstate Commerce Commission was made possible by the cooperation of the Commission, and by funds granted by The Ohio State University Research Foundation to the University for aid in fundamental research.

VIVA BOOTHE, *Director*

PREFACE

This study of the taxation of the trucking industry emphasizes general relationships between taxes and the motor carriers of property, and, to some extent, all operators of vehicles on the highways.¹

The study of the impact of government fiscal activities on the motor commodity-carrier industry, more commonly called the trucking industry, is multi-sided. It involves consideration of the general impact of revenue collections and public expenditures, the particular effects of alternative methods of taxing the trucking industry, and the desirability of different expenditure allocations.

The first chapter is a summary of the industry's taxation trends. The second and third chapters are concerned primarily with the different special taxes levied upon motor vehicles with particular emphasis on the manner in which these taxes affect the trucking industry. The analyses of these two chapters are of a general economic nature and are aimed at an understanding of the economic impact of the gasoline, license, gross-earning, and ton-mile taxes. The concluding portion of the third chapter analyzes highway productivity and highway costs.

The fourth chapter is devoted entirely to the information obtained from leaders of the trucking industry through personal interviews and questionnaires. The analysis is largely on the basis of attitudes expressed toward taxes, and the attitudes that would be expected from examination of financial statistics.

The fifth chapter is devoted to showing the absolute and relative tax burden of Class I truckers in the different sections of the United States. It also includes references to the information obtained regarding attitudes of truckers toward certain taxes.

The final section is the appendix. It includes many ratios calculated from unpublished Interstate Commerce Commission data. It summarizes financial data by geographical areas and by

¹ This study was supported, in part, by funds granted by The Ohio State University Research Foundation to the University for aid in fundamental research.

taxes paid by the entire trucking industry and by five selected segments of the industry. These data will be useful to readers interested in specialized phases of the general problem.

RICHARD W. LINDHOLM

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TAXATION OF THE TRUCKING INDUSTRY

CHAPTER I

TRUCKING INDUSTRY TAX TRENDS, 1940-1950

The motor commodity-carrier industry has become one of the great industries of the nation and is now a very important portion of the total transportation system. This study has as its purpose the examination of taxes paid by this great industry. This monograph examines the development of the industry, the different types of taxes paid, geographical and intra-industry variations of tax burdens, and attitudes of the leadership of the industry toward different taxes paid.

TABLE I—NUMBER, TOTAL ASSETS, AND OPERATING REVENUE, CLASS I
MOTOR CARRIERS OF PROPERTY, UNITED STATES, 1940-1949

Year	Number of Carriers	Total Assets (Millions of Dollars)	Operating Revenues (Millions of Dollars)
1940	1,120	191	470.2
1941	1,233	241	621.5
1942	1,315	265	673.0
1943	1,477	324	766.5
1944	1,734	370	855.7
1945	1,910	403	920.0
1946	2,075	496	1,095.1
1947	2,151	599	1,478.0
1948	2,421	732	1,946.0
1949	2,542	...	2,109.0

Source: Calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics

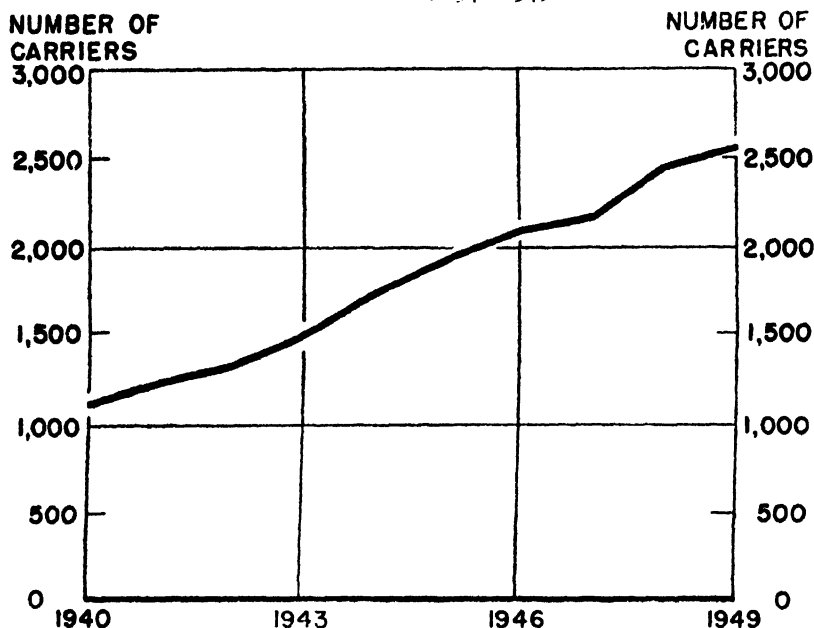
Tables 1, 2, and 3 and Charts 1, 2, and 3 present data showing the rate at which the industry has grown during the period from 1940 through 1949. The total assets of Class I carriers of the industry have risen from \$191 million in 1940 to \$732 million only eight years later (Table 1). This is a phenomenal growth record, and available data indicate that it is continuing in the 1950's at the very rapid rate established during the 1940's.¹ Up to and including 1949 this growth of assets was accompanied by a rapid increase in the number of Class I truckers as well as the growth

¹ Operating revenues of Class I truckers were 19 per cent and 27 per cent greater in the first and second quarters, respectively, of 1950 than in the same quarters of 1949.

of established companies. This is the most desirable type of industrial development in a democratic capitalistic economy.

Table 1 and Chart 1 indicate the great increase in the number of Class I carriers engaged in the motor commodity-carrier busi-

CHART 1—NUMBER OF CLASS I MOTOR CARRIERS OF PROPERTY,
UNITED STATES, 1940-1949



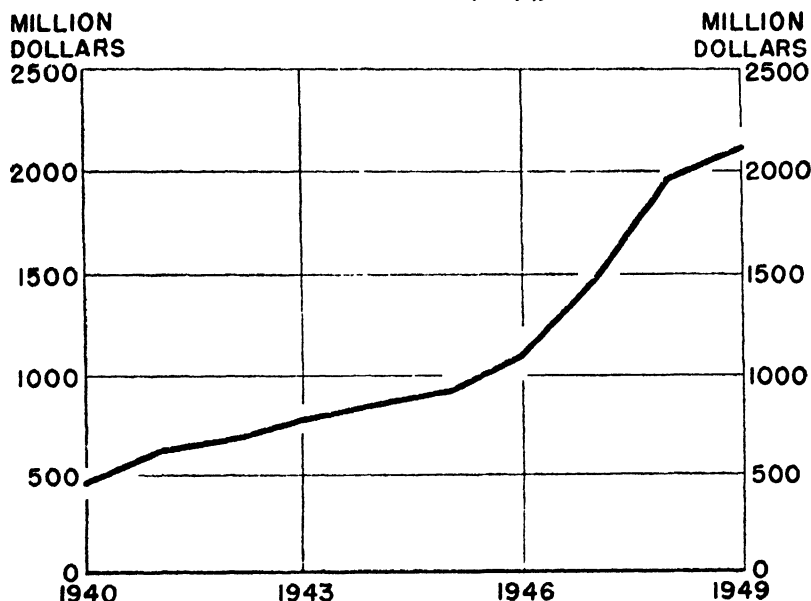
Source: Table 1

ness.² The trucking industry remains an area of competitive commercial activity. In 1940 there were 1,120 Class I carriers; by 1946, 2,075; and by the end of 1949, the number had expanded to 2,542.³

The best measure of the growth of the industry is shown by

² Class I carriers are those with annual gross operating revenues in excess of \$100,000. Since January 1, 1950, Class I carriers have been only those with annual gross operating revenues in excess of \$200,000. This change will increase the accuracy of Class I motor carrier data but will make the data after 1949 partially noncomparable with those of the previous ten-year period.

³ This total will drop rather sharply in 1950 as the result of the new annual gross operating revenue requirement of \$200,000.

CHART 2—OPERATING REVENUE OF CLASS I MOTOR CARRIERS OF PROPERTY,
UNITED STATES, 1940-1949

Source: Table 1

TABLE 2—TAXES AS A PER CENT OF OPERATING REVENUE, CLASS I MOTOR
CARRIERS OF PROPERTY, UNITED STATES, 1940-1949

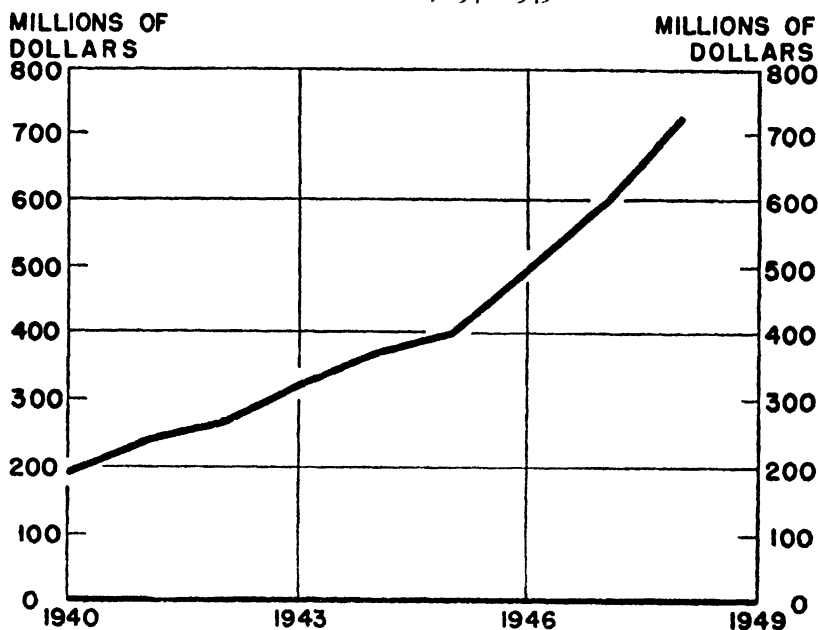
Year	PER CENT OF OPERATING REVENUE	
	Operating Taxes and Licenses	Income Taxes
1940	7.26 ^a	1.02
1941	7.12	1.45
1942	6.73	2.49
1943	6.56	2.23
1944	6.44	1.87
1945	6.48	1.16
1946	6.01	1.20
1947	5.27	1.55
1948	4.43	1.64 ^b
1949	4.45	...

^a Calculated from data provided by 643 carriers only.^b First quarter of 1948.

Source: 1940 through 1946—calculated from *Statistics of Class I Motor Carriers*, The Interstate Commerce Commission, Bureau of Transport Economics and Statistics; 1947 through 1949—calculated from data obtained from publications of the American Trucking Association.

the expansion of its operating revenues which increased from about \$470 million in 1940 to about \$1,100 million in 1946 and to \$2,109 million in 1949 (Table 1 and Chart 2). Operating revenues have expanded at a more rapid rate than assets (Chart 3); and,

CHART 3—TOTAL ASSETS OF CLASS I MOTOR CARRIERS OF PROPERTY,
UNITED STATES, 1940-1949

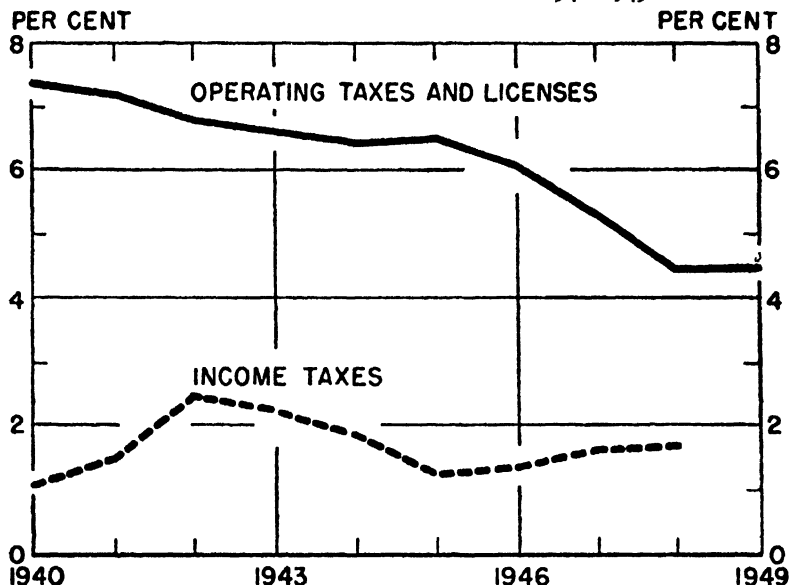


Source: Table 1

of course, in both cases the expansion has been very great and very rapid. It would not be an over-optimistic forecast to predict that the Class I carriers and former Class I carriers will increase their assets to nearly one billion dollars in 1951, and that the total operating revenues will be approximately three billion.⁴

⁴The meager data available indicate that the portion of the trucking activity conducted by Class I carriers has not changed greatly. Gross operating revenues of Class I, II, and III totaled \$3 billion in 1949.

CHART 4—TAXES AS A PER CENT OF OPERATING REVENUE, CLASS I MOTOR CARRIERS OF PROPERTY, UNITED STATES, 1940-1949



Source: Table 2

Note: See Source Table for Explanatory Footnotes

Chart 4 and Table 2 present data relating operating taxes and licenses to operating revenues. These data indicate that, with the exception of 1945, operating taxes as a percentage of operating revenues have decreased continuously from 1940 through 1948. The ratio in 1949 was practically the same as that of 1948. The continual reduction of operating taxes as a portion of operating revenues has undoubtedly provided a portion of the stimulation that brought about the great growth of the trucking industry during the same period. In 1940, operating taxes were over 7 per cent of operating revenues while by the first quarter of 1948 they had been reduced to less than 5 per cent. During the same period, as indicated by Table 2, income taxes as a percentage of operating revenues increased from 1 per cent to 1.6 per cent. The increase in income taxes reduced to some extent the added profitability that arose from reduced operating taxes, but, certainly, the in-

crease was not sufficient to eliminate the investment stimulation of falling operating tax expenditures.

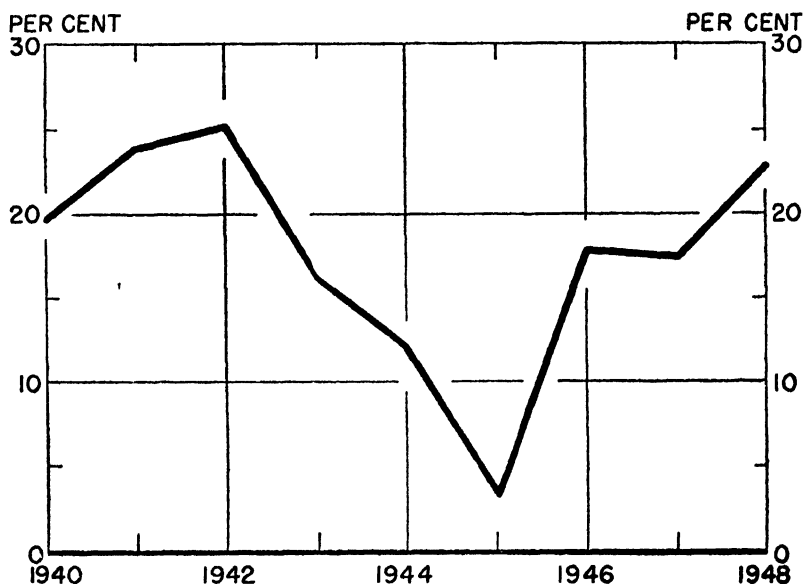
The most important determiner of the speed with which an industry grows is the per cent that net profits are of net worth (Table 3 and Chart 5). This ratio has certainly had a retarding effect on the quantity of funds invested in the trucking industry. It has forced the industry to grow against the current, as it were.

TABLE 3—NET CARRIER OPERATING PROFITS AS A PER CENT OF NET WORTH,^a
CLASS I MOTOR CARRIERS OF PROPERTY, UNITED STATES, 1940-1948

Year	1940	1941	1942	1943	1944	1945	1946	1947	1948
Per Cent	19.77	24.01	25.04	16.11	12.10	3.32	17.70	17.53	22.84

^a Net worth is the sum of corporate capital stock, uncorporate capital and unappropriated surplus (earned and unearned). The profits are stated at a minimum because "ending" net worth, i.e., as at the end of each year, was used, as reported by the carriers. Source: Calculated from *Statistics of Class I Motor Carriers*, The Interstate Commerce Commission, Bureau of Transport Economics and Statistics.

CHART 5—NET CARRIER OPERATING PROFITS AS A PER CENT OF NET WORTH,
CLASS I MOTOR CARRIERS OF PROPERTY, UNITED STATES, 1940-1949



Source: Table 3

Note: See Source Table for Explanatory Footnotes

That the industry has been strong enough to do this is shown by Chart 1 which indicates that assets continued to expand rapidly throughout the 1940-1948 period. The low point of profits as a per cent of net worth was reached in 1945. Actually, throughout the period of World War II, the trucking industry showed a continual reduction of earnings as a per cent of net worth. Between 1942 and 1945, net carrier operating profits decreased from 25 per cent of net worth to less than 4 per cent. Needless to say, the excess profits taxes of the war period did not apply generally to the trucking industry.

Profits as a per cent of net worth increased sharply in the first postwar year and by 1948 were up again to the 1940-1942 average. The increase of assets in 1948 amounted to \$133 million, the largest in the history of the industry and an expansion in one year of 22 per cent. However, the developments of 1950 are similar to those of 1942 and could quickly lead to another crisis in the earnings ratios of the trucking industry. The trucking industry does not prosper on the large-scale orders of a war economy but rather is adapted to the less-than-carload shipments of perishable and durable consumer goods of a peacetime economy.

The development of Class I motor carriers of property shown in the charts and tables of this chapter is largely the general statistical picture of the development of the entire trucking industry from 1940 through 1949. (During the 1940's, Class I motor carriers have accounted for about 65 per cent of the for-hire trucking business of the nation.) The data of this chapter show an industry whose leaders had sufficient courage to continue to expand their investment during the World War II period despite a falling net operating profit net worth ratio. They picture an industry which has been able greatly to expand its earnings since the low point of 1945 and which is, at present, making very substantial earnings on investment. The data also show that operating taxes have not increased as rapidly as revenues; therefore, operating taxes have affected profits in a manner similar to fixed costs under conditions of expanding activity, and have tended to make the industry one of decreasing costs. Operating taxes of motor carriers of property in both the manner of expend-

iture and the variation of relative burden, at least during periods of expanding activity, have some similarity to the costs attributed to the provision of roadbed by the railroads.

The period covered in this analysis does not include a year of falling operating revenues. Therefore, it is not possible to generalize from the data as to whether operating taxes act like fixed costs during a period of declining operating revenues; however, all indications point to that relationship. Undoubtedly, the greatest reason for the failure of these taxes to rise as rapidly as operating revenues has been the failure of these taxes to rise as rapidly as other costs. This same lag is likely to exist when costs are falling. If this is the situation, and later analyses and information tend to confirm the relationship, operating taxes will act more like fixed costs during periods of expanding and contracting activity related to rising and falling prices than during a period of expanding or falling operating revenues with stable prices. The failure of operating taxes from 1940 to 1949 to move upward as rapidly proportionally as truckers operating revenues has, in a real sense, provided a subsidy to the motor carriers of property.

At times the trends of taxes, revenues, and earnings of different regions have varied considerably from the national average. However, the national average does not give an over-all distorted picture. The national trends of vital motor carrier data which have been presented and briefly discussed are given on an I. C. C. region basis in Tables 1 through 10 of Appendix A.⁵ An examination of these tables in Appendix A provides the reader from

⁵ The I. C. C. geographical groupings are as follows:

Region I (New England Region)—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

Region II (Middle Atlantic Region)—Delaware, District of Columbia, Maryland, New Jersey, New York, Pennsylvania, and West Virginia.

Region III (Central Region)—Illinois, Indiana, Michigan (Lower Peninsula), and Ohio.

Region IV (Southern Region)—Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia.

Region V (Northwestern Region)—Michigan (Upper Peninsula), Minnesota, North Dakota, South Dakota, and Wisconsin.

Region VI (Mid-Western Region)—Iowa, Kansas, Missouri, and Nebraska.

Region VII (Southwestern Region)—Arkansas, Louisiana, Oklahoma, and Texas.

Region VIII (Rocky Mountain Region)—Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming.

Region IX (Pacific Region)—Arizona, California, Nevada, Oregon, and Washington.

every section of the nation an opportunity to compare the development in his region with that in other regions. An example of interesting regional variation is evident in Table 5 of Appendix A which gives operating profits as a per cent of net worth for the period from 1940 through 1946. In 1940, profits enjoyed by truckers of the Southwestern region were below the national average; in 1942, they were considerably above the national average; and, in 1943, they were much higher than those of any other region. This continued to be largely the situation until 1946 when the profits of the Central and New England regions became considerably greater than those of the Southwestern region. The relative profitability of the truckers of the Southwestern region appears to have been favorably affected by the war. Their earnings topped those of the nation from 1942 through 1945 (with the exception that the earnings of the Central region were slightly higher in 1944), the period of active United States participation in World War II.

Interesting comparisons are also evident between the different tables of Appendix A. For example, by comparing Table 4 with Table 5, it is seen that the relative position of regions established by income taxes as a per cent of operating revenues varies considerably when operating profits as a per cent of net worth are used as a basis of rating. The Central region earned the highest profits in 1946 as measured by per cent of net worth, but this region did not pay the highest income taxes as measured by per cent of operating revenues. In 1948, higher income taxes than those of the Central region, as measured by per cent of operating revenues, were paid in the Rocky Mountain, Southern, Pacific, and Southwestern regions. This variation is caused by a number of factors; of these, the more important are size of earnings obtained from activities other than those classified as motor carrier, portion of equipment leased, portion of activity undertaken within corporate organization, and type of hauling operation. The analysis of these factors is beyond the scope of the discussion here.^a

^a Appendix B presents a detailed analysis of the effect of type of hauling operation on tax burden.

A comparison of Tables 1 and 2 of Appendix A gives an excellent idea of the relative size of trucking activity in the different regions. The Central region is the most important with about a third of the total operating revenues from Class I motor carriers of property arising from within this region. However, the Middle Atlantic region, from which nearly a third less operating revenues arose, has 567 Class I motor carriers of property in 1946 whereas there are only 475 in the Central region. In 1949, there were 708 Class I motor carriers of property in the Middle

TABLE 4—SPECIFIED TAXES AS PER CENTS OF OPERATING REVENUE, CLASS I MOTOR CARRIERS OF PROPERTY, UNITED STATES, 1940-1949

Year	TAX AS A PER CENT OF OPERATING REVENUE				
	Gasoline and Oil and Other Fuel	Vehicle Licenses and Registration Fees	Real Estate and Personal Property	Social Security	Other Operating Taxes
1940 ^a	4.00	2.68	0.25	1.66	0.18
1941	3.07	2.10	0.21	1.53	0.20
1942	2.78	2.09	0.22	1.40	0.24
1943	2.68	1.99	0.23	1.37	0.29
1944	2.62	1.76	0.19	1.26	0.61
1945	2.60	1.82	0.20	1.21	0.65
1946	2.41	1.70	0.20	1.09	0.61
1947 ^b	2.61	1.65	0.24	1.03	0.57
1948 ^b	2.45	1.52	0.24	0.99	0.22
1949 ^c	1.95	1.41	0.18	0.73	0.16

^a Based on data supplied by 643 carriers only.

^b Based on data of inter-city carriers operating owned equipment principally.

^c Based on ATA data on 1501 inter-city carriers with a total operating revenue of \$1,486,177,000.

Source: Calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics.

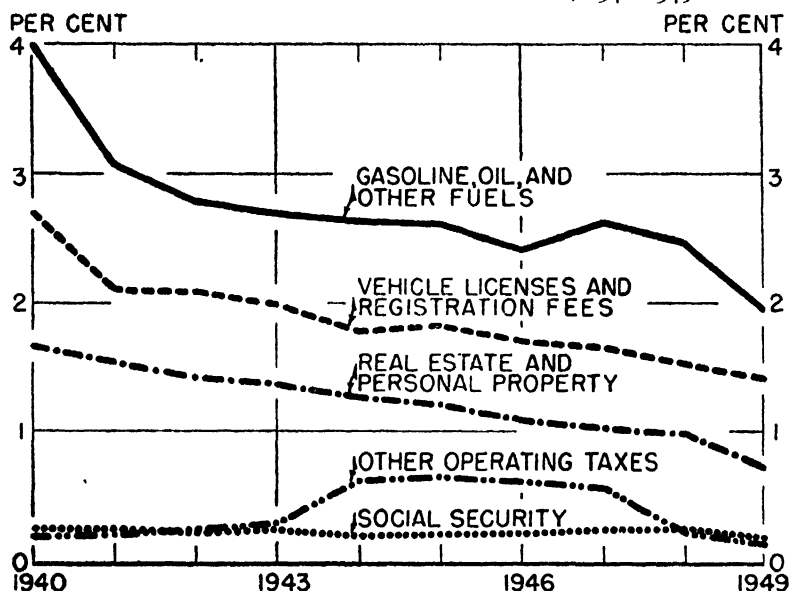
Atlantic region with an average investment in operating property of \$284 thousand and 632 in the Central region with an average investment of \$325 thousand.

Trucking operations of the Central region have continued on a much larger scale than those of the Middle Atlantic. In fact, Class I trucking companies of the Central region were considerably larger as measured by operating revenues (but not when measured by net worth as is shown by Table 6 of Appendix A) than the national average. The average operating revenues of

Class I truckers outside the Central region was about one-half million dollars in 1946, and the average within the Central region was about three-fourths million dollars.

This interesting comparison between net worth and operating revenues in the different regions is shown in Tables 2 and 6 of

CHART 6—SPECIFIED TAXES AS A PER CENT OF OPERATING REVENUE, CLASS I MOTOR CARRIERS OF PROPERTY, UNITED STATES, 1940-1949



Source: Table 4

Note: See Source Table for Explanatory Footnotes

Appendix A. The variation between net worth and operating revenues shown by these two tables is largely determined by the following factors: amount of rented equipment used, amount of financing taking place through debt creation, and, also, type of trucking activity.

Table 4 and Chart 6 show national summaries of the trends in individual operating taxes. The tax data are presented as a per cent of operating revenues. These trends are also based

entirely upon summaries of operating statistics provided by Class I motor carriers of property to the I. C. C. Each individual operating tax shows the decrease to be expected from the general decline of all operating taxes as a per cent of operating revenues. An exception is provided by the category "other operating taxes," which showed a rather rapid increase between 1943 and 1945. The increase resulted from the introduction of special Federal excise taxes during World War II. These taxes were 0.65 per cent of operating revenue in 1945 but showed a steady decrease in the postwar years.

The fuel and oil taxes are the most important taxes paid by the motor carriers of property. In 1940, they were 4 per cent of operating revenues, but by 1943 they had fallen to 2.68 per cent, and in 1946 they were but 2.41 per cent. The trend was reversed by the general postwar state gasoline tax increases, but the continuation of the previous trend is evident again in 1948. During this seven-year period when gasoline and oil and other fuel taxes decreased from 4 per cent to 2.41 per cent of operating revenues, or by nearly 40 per cent, the next most important operating tax group, vehicle licenses and registration fees, decreased by only a little over 21 per cent, and income taxes measured in the same manner increased slightly. In 1950, the gasoline taxes were relatively much less important as taxes paid by motor carriers of property than they were in 1940, despite the general increase of state gasoline tax rates.⁷

Vehicle licenses and registration fees is the second most important group of operating taxes paid by motor carriers of property. These taxes measured as a per cent of operating revenues were less in 1949 than at any time during the ten-year period for which data are available. During the 1940-1949 period, vehicle licenses and registration fees decreased less than gasoline taxes, but more than the other two groups of operating taxes showing general declines. The trend of income taxes and the miscellaneous "other operating taxes" categories was upward during the period with a reversal of this trend becoming apparent in the "other-operating-tax" collections in 1946.

⁷ The relationship between gasoline taxes and benefits is discussed on pp. 33-42.

Real estate and personal property taxes remained relatively constant during the same period. However, a slight downward drift is indicated.

The social security taxes decreased continuously as a per cent of operating revenues from 1940 through 1949. During the ten-year period, social security taxes decreased by more than 50 per cent.

The category, "other operating taxes," remained unimportant during the period but the drift was upward until 1946 when a decline began that brought the 1950 level below that of 1940. These taxes did not even reach three-fourths of 1 per cent of operating revenues; however, they were considerably more important than real estate and personal property taxes.

CHAPTER II

THE ECONOMICS OF HIGHWAY FINANCE

The modern American highway system, in that it enables a great variety of transportation activities to take place over its surface, is similar to the great highway systems of the past. The American highway is a convenient way for a family to take a sight-seeing tour, for a salesman to cover his territory, for a farmer to bring his products to market, or for a manufacturer to transport his goods. All persons using the highways certainly benefit from their existence. However, the benefits arising from the highways are not limited to the particular person moving or being moved over its surface in a certain type of vehicle, or to the person who has directly contracted to have goods moved over its surface. Benefits of the highways are enjoyed very generally. The benefits of good highways are widely diffused and often the persons benefitting most make little or no direct use of highway facilities.

The gasoline tax, various license taxes assessed upon motor vehicles, gross receipts and mileage taxes in some states, and in addition the portion of general revenues spent on highways are all justified and accepted by taxpayers because they are considered to be levied on the basis of benefit. (The word benefit is used to include the idea of efficient use of resources.) The basis is created by the relationship between benefit enjoyed and tax payment of a particular person. This, in turn, is determined by the manner in which the funds are collected and spent by the receiving government.

THE GASOLINE TAX

The gasoline tax is the most important single source of funds for meeting highway construction and maintenance expenditures. However, all the revenues collected by the states through the application of this tax are not made available for highway expenditures. For example, the largest and smallest states, Texas and

Rhode Island, use a rather large portion of the amount collected in gasoline taxes for other purposes. In the analysis to follow it is assumed that all state gasoline tax collections are used on the highways. The error involved is admittedly important but will be less in the future, for the trend is toward the adoption of constitutional amendments to prohibit the use of gasoline collections for any purpose other than the construction and maintenance of highways. (By 1950 this type of an amendment had been adopted by twenty-two states, an increase of five since 1945.)

The Federal government also levies a gasoline tax. This tax is not legislatively related to expenditures upon highways; however, the collections are usually referred to when Federal grants-in-aid for highway purposes are being considered. The Federal gasoline tax collections are part of the general revenues of the Federal government and are available for Federal expenditures of all types.¹

GASOLINE TAX RELATED TO BENEFIT

The analysis of the gasoline tax at this time is limited to the state tax; further, it is assumed that the tax is placed only upon gasoline used to propel vehicles over the public highways. This is very largely the true situation; and, as pointed out above, it is also assumed that all the money collected is spent on the highways. Undoubtedly, the discussion of the gasoline tax in this rather restricted sense gives a more favorable position to the relationship of this government revenue to benefit than actually exists.

In the first instance, gasoline taxes are paid by the persons directly utilizing the highways by operating vehicles over them. However, the economic burden of the gasoline tax does not remain upon those making the original tax payment. Also, the portion of the tax and the speed with which its burden is shifted varies.² The process of tax shifting changes the relative tax burden actually borne by the different purchasers of gasoline.

¹ In the fiscal year 1949, the Federal government collected \$504 million in gasoline taxes and the states collected \$1,361 million. The Federal gasoline tax is levied on all gasoline, whereas the state tax is largely limited to gasoline used in vehicles operated on the public highways.

² The term *shifting* is used to indicate that the economic burden of the tax has been transferred by one person or organization to another. The person or organization finally

The gasoline tax paid by the head of a household taking his family for a ride into the country results in quite a different relationship between original impact and incidence from that of a tax levied upon gasoline consumed in a truck owned by a public utility company. In the case of the consumer of joyriding, it is very difficult to see how the economic burden of the gasoline tax could be borne by anyone other than the person deciding to make this type of luxury expenditure. In the case of the public utility company, the rates charged consumers of the products of the utility are determined by expenses. As a result, the gasoline tax will be shifted by charging higher utility rates. Undoubtedly, both the consumer of joyriding and the consumer of public utility services, or the consumer of goods or services produced with the aid of public utility services, benefit from the existence of adequate highways. However, the sacrifice and the benefit enjoyed by the joyrider are very closely related, whereas in the case of the consumer of public utility services they are only realized after a rather lengthy journey through the price system.

Because after a short delay the public utility corporation can shift the entire tax, it would be logical to assume that the corporation derives no benefit from highway utilization. This is true insofar as profits permitted are no larger a percentage of fixed investment whether or not highways are available. However, it is doubtful that benefit is usually considered in this sense, for if benefit and profit are identical, neither the consumer of the joyride nor the operator of a large profitless trucking company derived benefit.

The above very simple analysis of the concept of benefit varies sufficiently with what is generally assumed at first blush that the entire idea must be examined with some care at this time. This will be done largely through investigation of the concept of benefit and its relation to gasoline taxes. Further, the analysis will assist in explaining and understanding the entire problem of highway finance.

bearing the economic burden of the tax bears the incidence. The impact of the tax is borne by the payer of the tax to the government. On occasion the term *impact* may refer to taxpayers who do not actually make payments to the government but who make payments to other private groups acting largely as collectors.

Benefits arising from public expenditures are very popular general justifications for tax collections. Typically, the idea is not sufficiently analyzed to determine if the persons advocating this type of tax collection favor collection from those who at first glance appear to be benefiting, or collecting from all those benefiting, directly and indirectly. A careful consideration of the levying of taxes on the basis of benefit derived from the expenditure of the funds collected must assume a definite tax incidence. If the final burden or incidence is to correspond with benefits, the shifting of a tax becomes the final determiner of the individuals or groups upon whom the original impact of the tax should rest. In other words, in order to levy a tax based upon the benefits arising from the expenditure of collections, it is necessary to determine both the place where the final burden comes to rest, and the manner in which the final benefits arising from the expenditure of funds collected are distributed. The advocates of the levy of gasoline taxes on the basis of benefit have necessarily assumed that the final burden of the gasoline tax is distributed very similarly to the final distribution of the benefits arising from expenditures on highways. This assumption cries for examination in at least two respects: (1) Is the final burden of the gasoline tax actually distributed in the same manner as final highway benefits? (2) Does the market equate benefit and price when a joint purchase of two products is made?

These two questions cannot be answered completely with the data obtainable, but it is possible to point out relationships which will aid in arriving at tentative conclusions.

In answer to the first question, it can be accepted as a generalization that all persons, without exception, benefit from expenditures on highways, and that all persons also bear a portion of the burden of the gasoline tax. A person who does not own a car and who never travels on the highway benefits through the purchase of commodities which in many cases were transported over highways at one time or another. These products were moved over the highways because this type of transportation was the more expedient. The person purchasing these goods obtains them fresher and cheaper as the result of highway expenditures. This

person also pays a portion of the costs of highway provision as provided through the levy of gasoline taxes. (At least this is the case if the gasoline tax is not shifted back onto the owners of oil wells or truck firms.) The payment of gasoline taxes is made through higher prices of commodities moved at one time or another by motor transportation. However, prices are determined by so many factors that the effect of changed gasoline tax levels is very difficult to trace.

If the gasoline tax were paid by producers operating under very competitive conditions, the price would be apt to increase by very nearly the allocated amount of the tax. Even under these conditions price would rise slightly more than the tax because of the common practice of using percentage markups. If the tax were paid by monopolist owners of resources, the gasoline tax would very likely not result in equivalent price increases. This would certainly be the case if the monopolist were already charging the full monopoly prices. Also, an equivalent price increase of products hauled would not arise if the rates charged by the trucking industry or the haulers of products were determined by a public commission, and if existing controlled rates created profits in excess of minima and therefore a case for tariff increases would not be made, and if commissions were generally slow to adjust rates.

PROBLEM OF BENEFIT NOT REFLECTED IN PRICE

It is likely that the price paid by consumers for commodities would reflect only very inaccurately costs arising from gasoline tax levies. Price would reflect the actual change in costs arising from the payment of gasoline taxes only if a very high degree of competition existed, if there were constant per-unit-of-transportation-service costs, and, in addition, if percentage markups and administered prices were abandoned. It is not likely that these requirements will exist in the immediate future. However, despite these variations in the reflection of gasoline tax payments in commodity prices, prices do in general indicate the effects of gasoline taxes. For example, it is very unlikely that higher gasoline taxes will directly cause a reduction of commodity prices;

however, this might be an indirect result. An indirect reduction if it arose would occur through reduced transportation costs by more than the amount of additional expenditure on highways. This reduction of costs due to better highways would be less, however, than if the funds spent on highways were obtained from sources not directly related to the costs of providing motor transportation.

Such an increase in cost which would arise from higher gasoline taxes would not be closely related to benefit. In some cases, the movement of goods and personnel over highways is very advantageous and the producer and consumer stand to gain much from highway utilization. In other cases, the advantage of highway use rather than rail, air or water may be very little. In both cases, the price of the product will tend in a very general way to increase by the amount of the gasoline tax. In the latter case, the price increase due to the tax tends to equal the benefit, but in the first case, the benefit is much more than the amount of the tax. This of course would be the situation even though a high degree of competition existed and the practice of percentage markups were abandoned.

The payment of a portion of the gasoline tax through the purchase of commodities that have at some point in the production process had their costs increased through the assessment of the gasoline tax does not, as indicated in the above paragraph, mean that this payment corresponds with benefit. However, to the extent that benefits are properly valued in the market place, the total price paid for gasoline including tax does not exceed benefit,^a for transportation facilities utilizing the highways would not have been utilized if the additional cost outweighed benefit as measured in the market through prices. A person purchasing a commodity in the market would never pay through price of the commodity more for truck transportation than the benefit arising from gasoline use and tax expenditure, and frequently would pay less than this combined benefit. If this is the effect prices would tend to fall through the availability of truck transportation.

^a A competitive market and a good income distribution is assumed.

This relationship between tax and benefits can be expanded to include individuals and groups directly paying a tax levied upon gasoline consumed. An individual would not purchase gasoline for consumption upon the highways and thus pay the state gasoline taxes unless the benefit arising from its consumption was calculated to be at least equal to that which would arise from any other use of the funds. In all cases, therefore, the total benefit from gasoline use would be at least equal to benefit sacrificed by allocating revenue to purchase gasoline including the tax rather than to some other use.

THE PROBLEM OF JOINT PURCHASE

The second question (Does the market equate benefit and price when a joint purchase of two products is made?) brings in the additional difficulty of separation of benefits arising from gasoline power and from road use. A gallon of gasoline is purchased because the benefit expected from the expenditure of funds in that manner is at least equal to that which would arise from their expenditure in some other manner. However, the gasoline and the tax are purchased together, and the utilities arising from each are required to enjoy the other; in economic terminology, they are complimentary goods. The benefit derived from the expenditure of the tax is very difficult to separate from the benefit obtained from the gasoline. It is quite possible that the result of separation would be to judge the purchase of the gasoline economical and the tax payment uneconomical. Actually, when a purchase of gasoline is made, two distinct utilities are bought: one is the power which can be obtained from the gasoline and the other is a smooth surface upon which to operate the vehicle moved through the utilization of the power of the gasoline. These joint benefits cannot be completely separated, yet this must be attempted if a serious effort is to be made to determine whether the gasoline tax paid is greater than the benefits obtained from the expenditure of funds collected, or for that matter, to determine whether the gasoline tax has any relationship to benefits.

If the benefit of the highway were separated from that of gasoline or power from a smooth surface, it appears that most of

the benefit arises in each case from only one. The power of gasoline would be of much less value or benefit if good highways were not available upon which to operate vehicles using gasoline, and certainly the highways would be of considerably decreased benefit if gasoline were not available as a source of power. An examination of the two products discloses that there are more readily available substitutes for gasoline and its power than for highways and their provision of a smooth surface. It is doubtful, however, that the mere indispensableness of a particular factor provides a very useful measure of the benefit derived from its utilization. That is to say, the closeness of substitutes should not be considered to reduce the benefits obtained from the use of a particular good or service although it is undeniably true that it does affect the price which can be obtained. 'The best determiner of benefit available in a market economy is: How much will be paid for gasoline and roads when they are purchased separately?

The purchase of gasoline that is not used in vehicles along the highways gives an idea of the value of gasoline as a single product; the payment of tolls to use a road indicates the value of the single product smooth surface.¹ In both cases it appears that the money value of the benefit derived from each of the products alone is equal to the cost of providing it. However, in the case of the purchase of roads, that is, the payment of tolls, financing has been possible only in cases of the most strategically located highways. Examples do not exist in the United States of the successful collection of tolls to pay for the construction and maintenance of secondary and tertiary roads. Nevertheless, a large portion of the funds required to construct and maintain these roads is obtained from gasoline tax collections. It is doubtful that those who pay for secondary and tertiary roads through the forced combination of the gasoline tax with the price of gasoline would voluntarily allocate their resources to this activity.

The possibility exists of making a greater payment for roads in the form of the gasoline tax than would be induced by benefits. This is much less the case regarding gasoline; in fact, tax-free

¹The toll comparison is weakened by the payment of gasoline taxes on gasoline consumed on toll highways.

power sources are available, such as electricity, gas, coal, and the like, but they are not used. Of course, like other purchases, the price of this joint purchase is only as high as what might be called the least benefit.⁵ Very likely the vast majority of the persons making the joint purchase enjoy a benefit considerably greater than represented by joint price.

The justification of the gasoline tax on the basis of benefit amounts to this: The price paid for the joint purchase of gasoline (power and roads) is not greater than the benefit derived. The portion of the total price paid which is allocated for roads is apt to be greater than the cost of the service but less than the benefit even at the margin; whereas the portion allocated to power is less than cost (considering cost of replacing a scarce resource) and more than benefit at the margin. As a result, the mere fact that persons are willing to pay a particular gasoline tax as a part of the price of gasoline does not also mean that the monetary value of the benefit derived from roads is equal to the amount paid as tax.

The following conditions would have to be met if the incidence of the gasoline tax were to correspond closely with benefits received by the different persons and groups bearing the burden of the tax.

1. The net gasoline tax must be different for every person purchasing gasoline. The amount charged different purchasers would have to be determined on the basis of an average economical benefit accruing to the different groups utilizing gasoline. If a uniform tax rate were applied, it would have to be very high, with large refunds extended to those groups receiving benefits less than the amount of tax assessed.

2. Legislation would have to be passed and enforced, which would prevent shifting of the tax by the person upon whom the original impact fell. An alternative procedure would be to determine the exact manner in which the tax burden was shifted.

It is extremely doubtful that either of these conditions could or even should be met in the United States.

⁵ The term *joint purchase* is used here to indicate the purchase of two distinct products which cannot be separately purchased and utilized. The term *joint product* is well established as referring to several products that necessarily arise from a certain productive activity.

THE PROBLEM OF BASIS OF FINANCING

The collection of a tax as a part of the price system is an advantage in the United States. The tax payment under these conditions appears to be voluntary and directly related to benefit, for it is a part of the price of gasoline purchased for use in propelling vehicles along roads that are constructed and maintained with funds obtained from the assessment of the tax. Although the total price of the joint purchase certainly is not more than the total benefit, the total price may, of course, be considerably less. This is always the situation when products are distributed through the market. This type of injustice is rather generally accepted in the private economy as being unavoidable."

In the public economy, that is, economic activity carried on by the government, payment according to what corresponds with ability to pay and benefit is very common. The collection and expenditure of gasoline taxes is within the public economy. It would be quite proper, therefore, to require the rich to pay a high price (tax) for the same services available to the poor at a much lower price (tax). Also, based upon this same concept, the person or group benefiting a great deal from a particular government activity should pay more than those receiving less benefit. This is likely to change the payments made by different individuals and also by different income brackets. Charging according to the dictates of the market or the price system is an inadequate method of collection according to ability or benefit, basic canons of a sound tax program. These aims can be accomplished only by charging different individuals and groups different prices for the same service.

The use of the gasoline tax as a method of financing public expenditures is an attempt to apply the principles of the market

"The quite obvious injustice is sometimes explained away by stating that utilities are equalized. Bread bought by a poor man gives much greater satisfaction than bread bought by a rich man; also, the money used by the poor man to obtain the bread involves a much greater sacrifice; therefore, equals are exchanged for equals. This does not explain away the injustice involved when a very rich man buys bread and gets a great deal of satisfaction from it.

In German literature the use of the price system to gain state revenues has been considered socialistic and taxes the correct revenue source for a free enterprise, capitalist economy.

and the private economy to an activity carried on within the public economy. If a particular activity is desirably financed through charging a market-type price, that is, price equal to marginal benefit measured in money units, that in itself is an important argument favoring the location of the activity within the private economy rather than the public economy. Its continuation in the public economy could be justifiably considered socialistic.

The operation and financing of nearly all roads by the government is actually a scheme whereby the greater quantity of benefits derived from the utilization of certain roads (highway surplus) is made available through gasoline tax collections for the construction and maintenance of roads from which a much smaller direct benefit is derived. This is a common and justifiable method of finance within the public economy when related to individuals; in the case of highway finance, it is accomplished through the collections made according to the ability of highways, not individuals utilizing them. It is, then, in this very special sense, only, a levy related to ability to pay. Frictions and problems usually arise when the gasoline tax is evaluated on the basis of private economy judgments (this basis at first appears to be the correct one, for the tax is a part of the price) without realizing that rules of the public economy are the ones which should be applied. The implications of this are particularly important when the tax is related to the commercial users of the roads.

It is very difficult to levy a gasoline tax closely related to benefit as was pointed out on page 42. This tax canon is more efficiently reached by use of permissive licenses or taxes, as is shown on pages 45-49. The gasoline tax could be made a better tax by relating it more closely to individual ability-to-pay and resource conservation. For example, the tax could be levied on an *ad valorem* basis with progressive rates, which would increase the amount of taxes paid by the purchasers of the better grades of gasoline. Or the rates could be determined with regard to the utilization and conservation of natural resources. A gasoline tax aimed at resource conservation would be collected at the well or the refinery and would vary depending upon the resource from

which the gasoline was extracted. If the gasoline were made from coal, the tax might be zero; if the gasoline were made from easily available and quickly exhausted wells the tax might be very high, and so on.

Neither of these very important considerations appears to have been given serious attention in the levy of the gasoline taxes. In fact, these logical bases have not even been considered. Rather, gasoline tax rates have remained of the specific type and uniform charges have been made which apply to all types of gasoline and all types of gasoline consumption by vehicles using highways. These charges have been made in an attempt to provide funds required for highway purposes. However, the existing gasoline tax has been found lacking in meeting even the limited goal of financing highway construction for, at present, the funds for highway development appear to be inadequate.

PUBLIC PRICING AND EFFICIENT RESOURCE USE

The previous pages have contained an analysis of the gasoline tax in relation to benefit. The analysis was weakened by necessary shortage of data, and, in addition, was largely limited to relationships closely associated with the commercial use of highways. Nevertheless, the discussion throws into sharp relief the flimsy base upon which the entire benefit justification for the levy of gasoline taxes is built. In the pages that follow, two much more definite and particularized concepts aimed at the economic goal of efficient resource use will be examined, namely: (1) that tax collections from each individual should be adequate to pay costs incurred in furnishing highway facilities utilized by that individual, and (2) that collections should be adequate to cover total costs but not particularly related to allocated cost of facilities used.⁷

The previous analysis of the gasoline tax in relation to benefit received referred to costs as a possible measurement of benefit. (See page 41) The benefit and cost justifications of the gasoline tax are often combined, and, as a result, considerable confusion

⁷ Actually, as will be evident in the following discussion, these two concepts are not separable and they must be combined when analyzed.

of thought has frequently arisen. Actually, it is only possible at the margin to assume that costs are equal to benefit, and, then, only under very ideal conditions. The resources of the community are distributed in the most efficient manner, according to the rules of the market economy, if marginal cost is equal to selling price. However, this is quite different from saying that cost equals benefit. Under conditions of perfect competition, this equating arises only in the case of the marginal purchaser of the utility or product.⁸ It is only the person obtaining the smallest benefit justifying purchase who equates his benefit with selling price and, therefore, under conditions of perfect competition equates the cost with benefit. The ordinary person who assumes that cost determines benefit, or that cost equals benefit, is usually not thinking of a relationship of this very particularized type. Rather, it is an example of loose thinking with the logic drawn from the idea that a product or service is worth what it costs.

CHARGING FOR HIGHWAY SERVICES AND BEST USE OF RESOURCES

The highway system of the nation is rather similar to a public utility, and some of the problems and procedures relating to pricing in these industries are also applicable to the problem of highway-user taxes. Also, in many cases, the provision of highway service is a decreasing cost activity. The supply price of the provision of a unit of highway service decreases with the provision of additional numbers of units. Stated differently, the cost of providing a smooth surface for a particular vehicle decreases as the number of vehicles utilizing the surface increases. A decreasing supply price usually exists when the provision of the service requires a large fixed investment which is apt to be under utilized. This is often the situation with electric and other utility provision units, and is also often true of highways.

The idea that it is not desirable when supply costs are decreasing to raise all the costs of providing a unit of a product or service

⁸The marginal person is the one just willing to purchase the product at the present price and who would cease to buy if the price increased. See the discussion of public pricing in "Prices and Costs in Nationalized Undertakings," by C. A. R. Crosland, *Oxford Economic Papers*, January 1950, pp. 51-68; "Production and Price Policy in Public Enterprise" *Economica* February 1950, p. 1; and "The Pricing of Public Utility Undertakings" by A. M. Henderson *Manchester School* September 1947, p. 242.

through price assessed became quite common in economic literature during the early portion of the 1930's. The desirability of subsidizing a decreasing-cost industry through the expenditure of general tax revenue has been advocated by such distinguished economists as the late Alfred Marshall and A. C. Pigou.⁹ They believed in setting prices in those industries experiencing decreasing supply costs below those required to meet costs and to pay the resulting deficit from the general revenue. This policy was advocated by these economists and many others because they believed that it *would make possible a more efficient use of the nation's resources*. Such a policy if applied to highway finance would recommend that user taxes raise only a portion of the revenue needed to construct and maintain highways and that a portion of the cost be obtained from general revenues. The use of general revenues under these circumstances would not be justified by any vague idea of general benefit from highways, but would be based entirely on the desirability of a certain action to increase the efficiency of resource use.¹⁰ Recently, the desirability of this type of price policy and the subsidy of a decreasing-cost industry has been doubted by a number of economists working in the field.

The economic desirability of setting price below average cost when the supply cost is decreasing is based upon the old and well established conclusion of economic theory that price charged should be equal to marginal cost. Stated differently, resources are used most efficiently when the price obtained from the sale of a unit is just equal to the cost of producing the last unit which can be sold at that price. This appears to be a very logical and sound position and should bring about the most efficient use of resources.¹¹ However, when this guide is used in determining the

⁹ Marshall, Alfred, *Principles of Political Economy* (8th ed. London, England. Macmillan & Co. 1920), Book V, Chap. XIII, paragraphs 5-7, pp. 472-75. Pigou, A. C., *Economics of Welfare* (4th ed. London, England. Macmillan & Co. 1946), Chap. XI, paragraphs 10-12, pp. 22-25.

¹⁰ Prof. A. C. Pigou expresses the idea in this manner: "These conclusions, taken in conjunction with what has been said in the preceding paragraphs, create a presumption in favor of State bounties to industries in which conditions of decreasing supply price simpliciter are operating." (*Op. Cit.* p. 224).

¹¹ This statement, of course, is made on the assumption that the distribution of income existing in the society is optimum and as a result of this the prices offered correctly indicate the relative value of different products.

price (assuming that all goods and services are sold at one price) to be charged by an industry with decreasing supply costs, the price is below average costs and a subsidy is required if the industry is to continue. This arises because the cost of producing each additional unit is below the average cost of producing all previous units; therefore, if a single price is set so that it equals marginal costs, it is necessarily below average costs and a subsidy is required if production costs are to be met. For example, if it costs ten cents to produce one carrot, seven cents the next, five cents the next, and four cents the next, the total cost of producing carrots cannot be met by selling all four carrots at a price of four cents each. To cover costs, the price per carrot must be six and one-half cents.

The objections to the above highly-recommended pricing procedure and subsidy have been two-fold. First, it has been advocated that instead of charging one price, a number of different prices should be asked for the services offered. This would permit the covering of all costs and at the same time each price charged would be equal to the marginal cost. The basis of the position is that actually there are many marginal costs and also many consumers, and some of the consumers are willing to pay the high costs of the first units produced whereas others are only willing to pay the low costs of the last units produced. Secondly, it has been pointed out that the need of a subsidy for a decreasing-cost industry, if a single price is set at marginal cost, destroys the obvious test of cost and returns as a means of determining whether the project is economical, and how much additional investment should be made in the area. Both of these qualifications of the traditional desirable price policy for a decreasing-cost industry possess considerable merit, and, in addition, are closely related to problems of charging for road services.¹²

RESOURCE USE RELATED TO DISTRIBUTION OF COSTS

The conventional levy and expenditure of the gasoline tax is similar to the charging of a single price for the services of a

¹² See Coase, R. H., "The Marginal Cost Controversy," *Economica* Vol. XIII (1946), pp. 169-182, and Vickrey, William, "Some Objections to Marginal-Cost Pricing," *The Journal of Political Economy*, Vol. LVI (1948), pp. 218-238.

decreasing-cost industry. If a single price is used, the broad policy alternatives are setting the price at marginal cost and subsidizing from general revenues the difference between costs and revenues, or setting the price at average cost. In the latter, no loss is incurred, but the price charged is greater than the cost of the last unit produced, and the best use of resources is prevented. If the price is set at average cost, the total cost is met from sales, but the quantity of resources used in highway construction would not be as great as required for efficient use of resources. (The verity of both of these statements is influenced by the pricing policy followed in other areas.)

Both of these difficulties can be eliminated by charging different users of the service different prices; this is called multi-part pricing. An example of this type of pricing for highway services would be charging one price for the privilege of using the highway and another price for the privilege of using it at a particular time. Under this scheme, the price charged for the use of the highway would be equal to the allocated cost of the provision of the highway plus the allocated portion of the additional expenditure made necessary because of utilization at particular times. For instance, a two-lane highway would be adequate between the hours of midnight and 6 a. m., a three-lane highway between 6 a. m. and 7 a. m., a four-lane highway from 7 a. m. to 9 a. m., and the like. The increase and the decrease of highway service needed during different hours would be the basis of charges made for highway use during different periods of the day. Extra charges could also be made on vehicles which traveled very slowly on grades and the like. These charges could be administered through the sale of windshield stickers. The non-owners of stickers would use side roads.

Another type of multi-part pricing would be based on demand rather than the cost of providing the service. For example, a user of a highway who received an additional benefit such as that resulting from a highway necessary to gain access to property owned, would be charged a higher price.

The basic reasons for all multi-part pricing are to cover total costs and in this way to eliminate the need for subsidies, and at

the same time to prevent an uneconomical restriction of the quantity of service produced. These advantages do not arise under conditions of decreasing cost with a single price equal to average cost.

PROBLEMS OF EQUATING TOTAL COSTS AND TOTAL REVENUE

It is very difficult to establish multi-part prices based on the marginal cost of providing service to users. One of the difficulties is related to the number of different prices which must be set at marginal costs to equalize the total income of a decreasing-cost industry and the total cost, and thus to eliminate the need for subsidy. Exact determination is not practical in a general analysis such as this. However, the number of different prices need not be large if the quantity of the product or service consumed is not decreased excessively when the selling price is increased. In addition, the possibility of a need for a subsidy is greatly reduced if the quantity of the product or service which consumers are willing to purchase at various prices brings forth total revenues which are considerably greater than the total cost. Stated more technically, multi-part pricing would be much more certain of providing revenues equal to total cost if the demand for the product is rather inelastic.

Another problem inherent in multi-part pricing is that of making consumers pay various prices for the same product. Merely because the marginal cost of providing different units of the same product differs, this does not of itself mean that persons consuming the units can be made to pay various prices. It is usually not true that, merely because a person will pay a considerably higher price for a product or service rather than give up the satisfaction, he will also pay this higher price if the product or service can be obtained more cheaply. Actually, of course, exactly identical units of highway services are not purchased because each person uses the highway at a different time, also one user will be interested in speed, whereas another will be interested in an economical surface over which to move heavy loads; yet they demand a very similar type of highway provision. Despite this obvious differentiation of service, the problem remains of the

individual willing to pay a high price to use a certain amount of highway service and only a rather low price to use an additional amount of very similar service.

This difficulty is highlighted, when along with this case, there is placed the example of another individual purchaser of the same highway service who can pay only the price covering the cost of the final unit of service. The difficulty lies in making the first individual pay a high price because he has the ability to do so and because the benefit is great while charging the other individual a much lower price because his ability is less but great enough to cover the last marginal cost used in setting prices. Despite these very serious shortcomings, multi-part pricing does have the possibility of partially working out a compromise; and, providing it can be readily administered, this method of pricing uses resources more efficiently than does the pricing of products and services produced with decreasing supply costs at either marginal cost or average cost.

CHAPTER III

CONSIDERATION OF PARTICULAR HIGHWAY USER TAXES

The establishment of payment for highway services is a problem including the following elements: 1. price policy for a publicly owned, decreasing-cost industry; 2. the best method of taxing a product closely related to natural resources; 3. and taxing a transportation service that utilizes publicly-owned roadbeds and competes with a transportation service which owns its own roadbed. The analyses of the previous chapter have scrutinized a number of aspects of this very complicated problem.

The discussions of this study do not enter into the controversy between the railroads and the trucking companies regarding their respective treatment by legislative bodies and government agencies. This quite barren discussion is avoided by assuming that the motor-transport industry should pay costs reasonably allocated to it, and that the alertness of competing interests will largely make this a reality. Under these assumptions, the problem of paying for the portion of highway services utilized by the trucking industry becomes one of collecting the requisite amounts in the manner which will encourage the most efficient use of resources; that is, in the most economical manner.

This chapter considers, in the light of the previous economic analyses, the different taxes paid by the trucking industry which are special trucking-industry taxes, or are considered to be taxes closely related to the transportation industry. This restriction avoids, at this time, consideration of such general taxes as the property, social security, and income taxes.

RELATING THE GASOLINE TAX TO COST OF HIGHWAY SERVICE

Eliminating for the moment the consideration of efficient resource use, the existing type of gasoline tax would allocate

highway expenditures equitably on the basis of highway costs if:

1. The capital investment made on each highway per gallon of gasoline consumed by vehicles moving over it during a period of time were equal and
2. The maintenance expenditure required were in exact proportion to the amount of gasoline consumed in moving vehicles over the highway.

These elaborate requirements are nothing more than what must be assumed when the gasoline tax is considered just, because it correctly allocates the cost of providing highway services without any consideration of benefit. "Correctly" in this case means allocation in relation to expenditure required to provide the portion of the highway services consumed by each user of the highway. The belief that this relationship actually exists between expenditure upon gasoline taxes and consumption of highway services is a popular idea that formerly possessed considerable truth, but which has long since outlived its usefulness as either good-roads propaganda or as an intelligent generalization.¹

When a man drives his private car over a hard-surfaced, little-used country lane, he is consuming much more highway service than when he drives his car along a well-traveled highway. Also, a person driving his car along a highway in the North where frost-heaves and snow-removal costs are high is consuming much more highway service than a person driving in the South. A person driving his car over a road built across a swamp or a road in which deep cuts were made to reduce the grade is consuming much more highway service than a person driving across a gently rolling prairie. However, in all cases, the quantity of gasoline consumed per mile, and, therefore, the amount of tax paid would be approximately the same.

Although a heavy vehicle consumes more gasoline than a light vehicle, all studies have indicated that gasoline consumption per pound decreases as the vehicle increases in size.² This is one

¹ A dissenter, although generally opposed to excise taxes, was Henry C. Simons who thought that the gasoline tax was the one desirable tax levied upon a commonly consumed commodity. He wrote: "Levies like the gasoline taxes might well be retained indefinitely—being eminently defensible as charges for special services of government to a class (or to a form of consumption) which does not merit subsidy." (*Economic Policy for a Free Society*. Chicago, Ill. University of Chicago Press. 1948, p. 68.)

² A 4,000 pound passenger car and load will consume one gallon of gasoline in going 18 miles, while a truck ten times as heavy will consume only about four times as much gasoline, or one gallon for every 4.5 miles.

important reason why truckers are always pressing state legislatures for more liberal laws relating to capacity and weight and length limitations. Furthermore, although a speeding vehicle will consume more gasoline per mile than one proceeding at a more moderate rate, the additional funds required to build highways to accommodate these high speeds appear to be considerably greater than the additional taxes arising from greater gasoline consumption. Actually, straight roads with few steep grades and ample width for passing will reduce gasoline consumption per vehicle mile. However, this type of highway is, of course, much more expensive to construct.

A major argument used by those recommending the improvement of the existing highway system is that good roads reduce gasoline consumption. On the other hand, if gasoline taxes of the present type are to efficiently collect cost-of-road-service utilized, the amount of gasoline consumed per vehicle mile would have to increase as the road was improved. However, the increased traffic arising because of road improvement is often enough to cover the additional costs, despite the reduced consumption of gasoline per vehicle mile. A portion of this additional traffic arises from a movement to the new highway from the older highways, and another portion from an expansion of motor vehicle use due to improved highway conditions.

This lack of correlation between gasoline tax collections and cost of road service provided could not be remedied without a sharp decrease of efficiency in resource use. It would require making the highway very elaborate where traffic is dense and road maintenance and construction cost per vehicle mile is low. On the other hand, where the traffic is not great, practically no attempt would be made to maintain the road, very little money would be spent to improve grades, and the like. This would be similar to a policy of altering a person to fit the suit rather than altering the suit to fit the person.

The expenditure of the collections from the present type of gasoline tax upon the highway on which the gasoline was consumed would result in a very bad use of resources. Resources utilized for highway construction would be inefficiently allocated,

and energy in the form of gasoline would be wasted propelling vehicles along many inadequately prepared surfaces. If it is considered important that highway collections equal the cost of service provided, it would appear much more sensible to change the revenue-collection system rather than the expenditure, and in this manner continue to finance what is generally deemed an economical highway program.

It is the opinion of the writer that there is nothing sacred (and certainly it has not been true in the past) about the idea that collections from the users of highway facilities should equal the cost of providing the particular highway facility utilized. In fact, any attempt to equate cost with tax paid is apt to be so complicated that the administrative costs would be prohibitive.

Certainly, the private economy does not reach this goal in its activities, and it was pointed out above that it is not even a desirable goal for the public economy to achieve. In other words, it is quite possible to favor a gasoline tax without also considering it desirable that highway tax collections equal the cost of highway provision. But if this attitude is adopted, the gasoline tax must be considered solely on its merits as a tax when compared with other possible revenue sources.

CONSIDERATION OF LICENSE TAXES AND CAPACITY AND WEIGHT TAXES

The requirement that a license be purchased for a motor vehicle before it can be operated upon the public highways antedates the levy of the gasoline tax as a source of revenue directly related to highway use. The experience of California in the early development of state highway finance is of particular interest as an example of the early use of license fees and taxes.

Legislation adopted in California in 1905 provided for the regulation of the operation of motor vehicles and required a registration of motor vehicles and the payment of a \$2 license fee. The proceeds from the sale of licenses were placed in the State General Fund and were not allocated for highway purposes. In 1913, California replaced the \$2 license fee with a system of taxes graduated according to horsepower. The tax was graduated from \$5

on motor vehicles under 20 horsepower to \$30 for motor vehicles over 60 horsepower. In 1915, the tax was changed to a flat rate of 40 cents per horsepower. The receipts from this tax were substantial and in 1923 amounted to about 20 per cent of the total tax receipts of the state; most of the money collected was made available for state and local expenditures upon highways. In 1923, after the adoption of the gasoline tax, the license tax in California upon privately owned vehicles, with a few minor exceptions, was set at a flat \$3 rate. The license taxes upon commercial vehicles continued to be levied at graduated rates, but the rates were graduated according to weight rather than horsepower. After 1923, the gasoline tax quickly became the chief source of funds for highway financing.

The great popularity of the gasoline tax and its ability to provide large revenues forced license taxes into the background as a method of highway finance. Nevertheless, all states have continued to levy license taxes, and many states charge additional registration fees and capacity and weight taxes; the revenues collected remain substantial.³

The collection of motor vehicle license taxes, registration fees, and capacity and weight taxes is justified on many bases. In the case of the levy of the license tax upon motor vehicles, the following are the most commonly given justifications: (In some cases these justifications are not applicable to commercial vehicles.)

1. The license tax is a levy in lieu of property taxes. Transportation property subject to license taxes is often exempt from state and local property tax levies.

2. Certain motor vehicles are most likely to be driven during periods of peak traffic. These brief periods of peak traffic necessitate a large portion of the expenditures for highway construction and traffic regulation and justify the levy of a uniform license tax not closely related to the total use of the highways.

3. A license tax can be considered a method of paying for parking facilities, tracing stolen vehicles, and other services provided by government which directly benefit vehicle owners. The tax thus becomes a justifiable municipal revenue.

³ Motor vehicle and operator licenses provided \$540 million of revenue to the states in 1947; motor vehicle fuel taxes brought in \$1,124 million during the same period. Licenses and registration fees are the second most important operating taxes paid by Class I truckers.

4. The flexibility of the license tax makes it particularly useful. For example, the license tax on certain vehicles can be varied so that the burden will correspond rather closely to ability to pay.

License taxes, registration fees, and capacity and weight taxes have proved useful in the taxation of commercial vehicles, and possibilities exist for expanding their use. The principal special justifications for levying these taxes upon commercial motor vehicles can be summarized as follows:

1. License taxes levied upon commercial vehicles can be varied depending upon the type of vehicle, the type of product carried, and the type of ownership. These possibilities are particularly important if policy decisions require the discouragement or encouragement of business activity of certain types.

2. License taxes can be levied to equalize per-ton-mile tax payments made by the owners of vehicles of different sizes. For example, the gasoline tax per ton mile is less in the case of a very large vehicle than a medium-sized truck; diesel fuel consumed per ton mile is less than gasoline consumed. This tax saving can be largely eliminated by levying license taxes on different classes of vehicles at rates which adequately consider this fuel consumption difference.

3. It is a convenient levy to be assessed by municipalities upon local haulers largely utilizing municipally-provided facilities. In fact, it would be desirable if these local motor carriers paid a considerable local license tax based on gross receipts with the provision that the amounts paid to municipalities be deductible from state gasoline tax payments made.

4. The license tax can be used to obtain additional funds from particular types of motor carriers that require exceptional public expenditures. Motor carriers falling in this category would be vehicles with a great weight upon each axle, vehicles carrying dangerous or valuable cargoes, and the like.

5. Finally, the license tax has a great advantage over the gasoline tax in that it can be much more conveniently levied upon particular owners utilizing particular tariff schedules. This advantage means that the tax can be levied in a manner that corresponds much more closely with ability, benefit, and cost than is possible with the gasoline tax.

The license type tax when levied upon commercial vehicles possesses disadvantages which are important and which have prevented the tax from developing into a more important source of highway revenues. The more important weaknesses are as follows:

1. The tax is levied as a stated sum and cannot be readily varied to correspond with use or revenues arising from employment of certain vehicles.

2. The tax is not apportionable as are gross-earnings and mileage taxes. This makes it particularly awkward for use in taxing interstate truckers. Its lack of apportionability causes the injustice which arises from requiring commercial motor haulers operating in several states to purchase several licenses. The effect of this is to put the interstate carrier at a tax disadvantage to the intrastate carrier.

CONSIDERATION OF GROSS-EARNINGS TAXES

The levy of a gross-earnings tax was a rather popular method of state taxation of railroads during the last quarter of the 19th century. It was not levied upon motor carriers until a much later period. In fact, the gross-earnings tax levied only upon commercial operators of vehicles originated in the 1920's, but did not become quantitatively significant until the 1930's.¹

About half of the states levy taxes upon the gross earnings of certain classes of motor carriers, but only a few of the state levies can be called highway-user taxes. The tax is more commonly levied upon motorbus companies than upon commodity carriers. The various gross-earnings or gross-receipts taxes levied within the different states have very little in common other than that they are levied on gross earnings. These different gross-earnings taxes can be rather arbitrarily divided into four groups.

1. Those that are in lieu of *ad valorem* property taxes.
2. Business taxes.
3. Taxes or fees levied to support regulatory bodies.
4. Highway-user taxes.

It is the fourth type of gross-earnings tax that is of most interest in an analysis of the different special taxes paid by commodity motor carriers.

The advantage of the gross-earnings tax when assessed upon commodity motor carriers are as follows:

1. The gross-earnings tax is more directly related than is the gasoline tax to the economic benefit obtained from highway use. It is obvious that a liability to pay the gross-earnings tax does not arise if the truck is operated empty.
2. The tax is useful in compensating for some of the inequities arising

¹The gross-earnings tax as a highway-user tax is levied in seven states (1945). From *Carrier Taxation* by the Board of Investigation and Research (Washington, D. C. Government Printing Office. 1945), 79th Congress, 1st Session, House Document No. 160, p. 193.

from the gasoline tax. For example, dangerous and valuable high-tariff cargoes would bear an increased burden of gross-earnings taxation.

The disadvantages of a gross-earnings tax are many, and when all the disadvantages are combined and compared with the advantages, and with the alternative ways of obtaining revenues from commodity motor carriers, the gross-earnings tax does not recommend itself very highly. The disadvantages of gross-earnings taxes when assessed upon commodity motor carriers are as follows:

1. The tax when levied upon commodity motor carriers is very difficult to administer.⁵
2. The tax is not closely related to ability to pay and would be more burdensome on new companies than on the old and well established.
3. The tax is likely to be levied upon only a portion of the industry, such as the common carriers, whereas trucking activities performed by shippers would be tax exempt.
4. It is doubtful that the gross-earnings tax allocates highway costs on the basis of highway service utilized more equitably than do a number of other taxes which are much more easily administered and which would bear much more equally on the different segments of the industry.⁶

The gross-earnings tax is less well adapted to the taxation of commodity motor carriers than it is to the taxation of railroads or passenger motor carriers. The reduced desirability of the tax as a motor carrier tax arises from the large portion of the trucking industry which does not operate on a common carrier basis.

The gross-earnings tax cannot be accurately applied to the large number of commodity carriers moving their own products, such as the farmers, coal and lumber companies, gasoline dealers, and the like. This portion of the industry does not, and, by the nature of the activity, perhaps should not keep accurate records

⁵ The gross-earnings tax used in California with moderately restricted coverage requires the services of 40 auditors and 12 investigators in addition to about an equal number of clerical employees. The auditors must check not only the records of the carriers but also of the shippers.

⁶ "The gross-earnings tax is by nature inapplicable to private carriers except when they deliver goods to customers and bill them separately for the delivery service. It is, therefore, necessarily loosely related to the extent of highway use. Even among the carriers for hire it is poorly correlated with highway use because it tends to be higher for carriers of high-value cargoes than for carriers of equal quantities of low-value commodities and because it is based upon charges rendered to cover terminal as well as line-haul services." (*Carrier Taxation* by the Board of Investigation and Research. Washington, D. C. Government Printing Office. 1945, 79th Congress, 1st Session, House Document No. 160, p. 228).

of the portion of total gross earnings arising from trucking activities. The gross-earnings tax cannot be applied to private carriers, and, as a result, the levy of the tax tends to encourage this type of trucking activity and discourage truckers from holding themselves out as common carriers. It is doubtful that the encouragement of this segment of the motor commodity carrier industry is particularly desirable, and if it were, better and more forthright means could be developed for accomplishing the purpose.

CONSIDERATION OF MILEAGE TAXES

Mileage taxes were introduced during the same period that the gross-earnings tax was first being applied to motor carriers. The mileage tax is more popular than the gross-earnings tax and collects about 25 per cent more revenues.⁷ Like the gross-earnings tax, the mileage tax varies greatly from state to state. In some states it is applicable only to passenger carriers for hire, and in other states, only to certain interstate operators. The base varies also and vehicle miles, load ton miles, gross ton miles, capacity ton miles, and axle miles have been used. The rates charged are both flat and graduated. Sometimes the rates vary depending upon whether the vehicle is registered in the state or in some other state. In addition, mileage acquired in certain ways for example, within 25 miles of headquarters, is exempt.

The principal advantages of the mileage tax when assessed upon commodity motor carriers are as follows.

1. The tax is very flexible and by the use of different rates and different bases can be levied in about any manner considered just or desirable in accomplishing a particular purpose.
2. The tax is useful in evening out some of the inequities arising from the collection of the gasoline tax, for example, the smaller per ton gasoline consumption of large vehicles and their greater road damage and road space utilization.
3. A step in administration is removed by the collection of a mileage tax rather than a gross-earnings tax on interstate movement of goods. There is this saving because the basis of allocating gross earnings arising in a particular state is often on the basis of mileage traveled in the state.

⁷ In 1945, mileage taxes were exacted from motor carriers in 19 states and the District of Columbia, excluding Illinois and Maryland, whose vehicle registration taxes are computed with reference to mileage operated (*Ibid.*, p. 228).

4. A mileage tax will obtain revenues for the state when the vehicle is operated along the highway empty as well as when loaded; this is true of the gasoline tax but not of the gross-earnings tax. The mileage tax is thus closely related to the period of time during which a portion of the highway is occupied by vehicles.

5. The mileage tax can be readily applied to private carriers, and unlike the gross-earnings tax, is not largely restricted to common and contract carriers.

The disadvantages of the mileage tax are also quite impressive. The principal shortcomings of this tax are as follows.

1. The tax is difficult to administer. In reports to the tax-collecting agency, the mileage traveled by vehicles reported can be readily falsified unless sealed odometers are mounted on one of the wheels of each taxable vehicle. These odometers must be attached also at the state boundary to vehicles passing through the state, which necessitates ports of entry.⁸

2. The tax is expensive to administer. Attaching odometers, checking readings, and preventing tampering are expensive. In addition, billing the operators and owners for the amount of tax due is costly. Finally, establishing ports of entry would be necessary, and this is costly.⁹

3. The mileage tax is not closely related to ability to pay.

The weaknesses of the mileage tax are important and should not be minimized. The rather poor compliance record of the tax in the past has arisen from an unwillingness on the part of the state collecting agencies to install odometers to eliminate self-reporting of mileage. These meters would be relatively expensive if the tax were a minor source of revenue; however, if mileage taxes were to be a major source of highway revenue obtained from motor commodity haulers, the expenditure for odometers would not be excessive. The reading of meters and the collecting of the tax would be no more expensive or complicated than the reading of meters and the collecting for the quantity of water, gas, or electricity consumed.

The great advantage of the mileage tax is its extreme flexibility. The rates and bases of the tax can be combined in many ways so that whatever is desired can be accomplished. For example, the rate per mile applied to a trailer or truck with a

⁸The odometer is not used by any of the nineteen states utilizing the mileage tax.

⁹The experience of states using the mileage tax shows that ports of entry are a necessary part of the enforcement of the tax. Also, the exchange of information between contiguous states is necessary if compliance is to be assured.

very large gross weight could be very high while the rate per mile for a truck of medium size could be considerably less. In fact, if it were determined that a certain size or type of truck consumes a great quantity of highway service, such as very slow vehicles, the rate per mile could be assessed at a height sufficient to discourage this type of motor transport. In doing this the efficiency of resource use would be increased. The same aim could be accomplished by license taxes, but the mileage tax is an improvement over the license tax because it is also related to the quantity of highway use of each vehicle.

HIGHWAY PRODUCTIVITY AND HIGHWAY COSTS

The total amount that individuals are willing to pay for highways is determined by the money value of the total utility realized from government construction and maintenance of highways. A large surplus arises directly from utilization of the main highways but a small surplus or deficit from secondary and tertiary roads. By tying the financing of all types of roads together through the levy of a tax such as that on gasoline, it has been possible to finance all highway expenditures that are considered either socially or individually desirable from the economic income arising from highway utilization. This method of finance is considered just by those who believe it right and correct for all highway financing to take place from income arising directly from utilities obtainable from the use of the highways. This idea expressed in the language of the man on the street is that "The highways should pay for themselves." The justice of this relationship appears obvious at first glance; however, an examination of its basis reveals the concept to be of doubtful validity.

The core of the idea can be most readily seen through asking and attempting to answer the question, "Why should a person or legal entity utilizing one highway be selected to finance other highways which are not used?" Obviously, it cannot be justified by utilization, for, by definition, the highway is not sufficiently used by the taxpayer to pay for its construction and maintenance. The indirect benefit accruing to the user of the highway producing economic utilities with a money value sufficiently great to

aid in the financing of other highways is not necessarily any greater than the benefit enjoyed by any other member of the community utilizing a material resource producing a surplus. This generalization, though largely accurate, needs to be modified to some extent.

The feeder roads contribute to the traffic of the main road and therefore increase traffic density. This is apt to bring about a decrease in the cost per vehicle utilizing the through highway, which is of direct benefit to the utilizer of the main highway solely because it reduces the costs allocated to him. Also, the availability of branch roads increases the value of the through highway, for it provides access to places that could otherwise be reached only with considerably greater inconvenience. These are the direct benefits enjoyed by the user of the main highway because of secondary roads. Actually, the additional benefit accruing to the users of branch roads as a result of the existence of the main road appear to outweigh the flow in the opposite direction.

It has for a long time been realized that branch roads are of great value in uniting the nation into a single homogeneous unit. These roads contribute greatly to the desirability of farm and city life by increasing the ease of contact between the rural and urban areas. They are of great direct economic value to the owners of rural property and to all residents of the cities. All these benefits arising from secondary and tertiary roads supply an important justification for financing these roads largely through the expenditure of general revenues collected on the conventional basis of ability to pay.

The idea that "roads should pay for themselves" is apt to bring about an undesirable use of resources. The construction and maintenance of highways is likely to be determined by the ability of the surplus collections from highways to finance additional highway construction. During certain periods, this may mean too great a use of resources for highways, and during certain other periods, too little. The difficulty is very similar to that experienced by a business firm that is limited in its expansion to the profits arising from its operations and that also has always had to reinvest in the business the total profits arising from operations. This is

very apt to mean an inefficient expansion program and generally uneconomical operations. The same weakness is inherent in the concept that "roads should pay for themselves."

Certain roads connecting vital points could produce a substantial surplus of revenues. There appears to be no sound reason why these revenue surpluses should be invested in that highway or that they should be invested in any highway, or that the price for the use of a road should be set so that these surpluses arise. Perhaps the best general rule is to set price at the point at which marginal cost equals average revenue or selling price. At this point (or at a number of points if multi-part pricing is used, and if the judgments of the price system are to be accepted), the most efficient use of resources takes place; but the use of only one price at this level requires a subsidy if costs per unit are decreasing. This point perhaps should be only approximated and practical government highway finance would cover costs and the ratio price to marginal costs would be substantially the ratio existing in other industries.¹⁰ This method of pricing would largely eliminate the financing of secondary and tertiary roads with surpluses earned by the main roads.

¹⁰ See the footnote on page 46 for consideration of this problem by British economists.

CHAPTER IV

WHAT TRUCKERS THINK OF TAXES AND THEIR EXPENDITURE

INTRODUCTION

The effects of taxes upon an industry are not determined entirely by the relative weight of the tax as a percentage of net income or gross investment. The total effect of taxes does not consist entirely of rational and logical conclusions to be drawn from accounting data. Taxes affect business decisions and particularly the political action of businessmen because of the attitudes which they create in the minds of business leaders. Also, although every tax is an expense of business, the importance of this expense differs among firms and industries. This variation will make a particular tax create different attitudes in the minds of the business leaders. Finally, the nuisance cost of a tax may be so great that antagonism from this source outweighs any economic advantage which the tax may possess.

Undoubtedly, these psychological and political effects of a tax are important, and an understanding of them is necessary for intelligent fiscal action. In an effort to obtain some information of tax effects that are destroyed or are not brought out in financial statements, the writer contacted leaders in the trucking industry through personal interviews and questionnaires. The response of the industry in both cases was forthright and constructive.¹

Personal interviews were limited to motor property carrier leaders in the New England, Middle Atlantic, Central, and Southern regions. The remainder of the nation was covered by questionnaire only. In all cases, an effort was made to contact both the large and the small carriers, the short- and the long-distance haulers, and the various specialized and general freight carriers. Because of limited finances and time, it was impossible to

¹ The questionnaire and interview coverage upon which opinions of commodity motor carrier executives are based is shown in table at top of page 50.

<i>Region</i>	<i>Number of Questionnaires Sent Out</i>	<i>Number of Completed Questionnaires Returned</i>	<i>Number of Interviews Made</i>
Total All Regions	252	65	64
New England	31	10	14
Middle Atlantic	23	2	20
Central	40	15	12
Southern	30	6	18
Northwestern	25	5	..
Mid-Western	17	3	..
Southwestern	34	7	..
Rocky Mountain	28	7	..
Pacific	24	6	..
Unclassified	..	4	..

cover a large number of carriers in each region. The carriers actually contacted were determined on the basis of recommendations obtained from representatives of the Interstate Commerce Commission, American Trucking Associations, Inc., and local Chamber of Commerce representatives. The commodity carriers contacted do not represent the entire industry in the sense that an attempt was made to establish and contact a sample that would accurately represent the entire industry. The results obtained from interviews and questionnaires are nothing more than statements of opinion from a random group of truckers operating in the different sections of the United States.

Certainly a study of this type cannot pretend to establish final conclusions. However, this would also be true if every trucker in the country or a sample of the entire industry had been contacted. For it is quite impossible to give a correct weight or the correct importance to the opinions of the executives of different companies. The best that can be done is to indicate the factors that motor commodity haulers consider important in the levy of taxes. It is believed that the conducting of the interviews and the wording of the questionnaire were such that an accurate expression of opinion was obtained of the points covered, and also that no important factor was entirely neglected. The general agreement of the industry upon the effects of certain taxes provides a rather strong base for stating definite conclusions. In addition, certain geographical differences and cer-

tain differences dependent upon the type of trucking activity are sufficiently sharp to become the basis for tentative conclusions of the variations in the burdens of taxes among the different portions of the industry. (The variation of tax burden by type of carrier activity is carefully analyzed in appendix B.) The entire discussion in this chapter must be considered with a sufficient realization of the limitations inherent in this type of analysis, and of the additional weaknesses possessed by this particular study.

TAX ATTITUDE

The expression of attitudes regarding a tax is likely to be considered rather unscientific and as a result shrugged off as not being particularly useful. There exists a common belief that conclusions which can be backed by totals, averages, and the like are much more accurate than those which are based only upon the expression of opinions by informed persons. This attitude toward the accuracy of different economic findings is undoubtedly founded upon the earlier development of scientific research in areas where measurement and study of relationships was readily accomplished by the use of averages, totals, and ratios. A basic weakness of the use of figures to determine the effects of taxes is that it is not possible to determine with certainty the effect which particular relationships have upon management decisions. In fact, it is quite possible that, in making decisions and expressing attitudes regarding particular taxes, management is not even aware of the effects of certain taxes upon its type of trucking activity in relation to that of other motor commodity haulers. Therefore, if it is assumed that a particular tax is undesirable because totals and averages show such to be the case, it cannot also be assumed that these considerations are important in setting the attitudes of management, or that they have an effect upon management decisions.

To determine how a certain tax actually affects the development of an industry, it is necessary to examine the tax in a number of respects. For example, the expected effect of a tax levied in a certain manner must be examined. This was done to a consider-

able extent in Chapter III. In addition, the tax must be examined in regard to the burden as measured by various financial data such as invested capital, operating income, and the like. This type of analysis was emphasized in Chapter I. Also, it is possible to relate the tax burden of particular segments of the industry to the relative growth which each segment has experienced (see appendix B). Furthermore, the growth of the entire industry can to some extent be related to the tax burden. However, all of these comparisons gain or lose much of their apparent meaning when they are compared with management attitudes and the bases for management decisions.

In many cases it was difficult to determine whether management decisions which an executive said were closely related to tax levies were actually determined in this manner. There is always the danger that, to be agreeable, the interviewee will attribute much more to the factor under discussion than is actually the situation. Or the particular decision may have been made or the attitude formed some time before; also, the fact that taxes are mentioned to the exclusion of other factors may lead the executive to believe that taxes played a much more important part than was actually the base. Then, too, the fact that taxes are paid without much evidence of benefit related to expenditure leads some business leaders to believe that good policy requires that they do everything possible to place taxes in an unfavorable light. If the leader possesses this latter attitude, any undesirable development is attributed to taxes.

It is difficult either in an interview or in the use of a questionnaire to eliminate leading questions, or for the interviewer to prevent his personality or attitudes from having an effect on the answers obtained. The writer tested the effect of asking the same question after considerable discussion and with different phrasing and emphasis. On several occasions the interviewee gave answers that were directly contradictory.

This change of opinion arose perhaps partly because the executive did not possess well-formulated ideas regarding taxes, or, perhaps, because he had failed to consider certain factors brought

out in the conversation which appeared to be sufficiently convincing to warrant the change. Fortunately for the reliability which may be placed in the discussions of this chapter, the attitudes of executives of motor commodity haulers were usually quite well established and apparently had been a part of the thinking of the interviewed executive for quite some time. However, this is *not* encouraging with regard to the possibility of acceptance of new ideas regarding taxation, and highway finance in particular, by the leadership of the trucking industry.

The discussion of the attitudes of trucking executives of taxes and the effect which these executives believed a particular tax had upon their particular firm will proceed in the order in which the taxes are listed on the questionnaire (see appendix A). The discussion will include both the information developed in the questionnaire regarding particular taxes and the relationships brought out in interviews with motor commodity carrier executives. The analysis will not indicate the relative popularity among leaders in the industry of the different tax relationships. Rather, the discussion will attempt to show variation of opinion and the reasons why leaders favor a certain type and oppose another type of tax. It is believed that this is as much as can be obtained from this type of analysis; and, as a justification for its presentation, it is believed that this provides valuable information that should be used by government officials and economists in the levy of business taxes, generally, and, particularly, in the determination of a tax program for the trucking industry.

STATE GASOLINE TAX

The first tax listed in the questionnaire and the largest tax paid by the trucking industry is the state gasoline tax. The rate of the tax varies from state to state, but the average rate is now about 5 cents a gallon. Most state highway departments and state legislatures consider the tax a payment for the use of the highways. Because of this, there is the feeling that gasoline consumed traveling on the highways of a particular state should be purchased in that state. This has resulted in the establishment of

administrative devices aimed at forcing users of state highways to purchase in a particular state the gasoline consumed in that state.

Much of the criticism of the state gasoline tax, especially by the executives of the large trucking companies, was related to the dictation by state legislatures of the location of refueling. (Many states have eliminated this problem through reciprocal arrangements.)

The necessity of paying a certain portion of gasoline taxes to a particular state involves additional administrative expenditure at the very least, and in many cases requires the establishment of uneconomical fueling stations. The trucking industry generally finds it convenient to establish repair and fueling stations at transportation centers determined by road or freight movement conditions. The necessity of refueling within certain states reduces the ability of the industry efficiently to establish these centers.

In addition to the requirement that a certain amount of fuel be purchased in a state passed through, the purchase of a rather expensive license is also often required. This practice and the difficulties arising from it are closely related to the following features of trucking activity.

1. Taxes levied on the trucking industry are considered payments for highway service consumed.
2. Highways utilized by truckers are provided by the states largely through the expenditure of funds obtained from the levy of taxes upon road users.
3. A considerable portion of truck traffic is necessarily interstate.

A solution to the problems arising from interstate operation and state provision of highways was suggested by a number of trucking executives. The solution offered was: Federal provision of highways utilized by interstate truckers. It was believed that if this were done the difficulties arising from attempts to determine the amount which should be paid in various states for the use of the highways in each state would be largely eliminated. The trucking industry must of necessity be an interstate activity. The rolling stock of the industry is privately owned and adapted to interstate operations. However, the roadbed over which this equipment operates is not entirely adapted to interstate traffic.

The physical adaptation is satisfactory, that is, highway widths, traffic rules, and the like; however, the financing of this roadbed is on an intrastate basis and unsatisfactory. The roadbed is controlled and largely financed, although Federal financing has also been very important, by state and local governments. The obvious, desirable reform from the viewpoint of interstate truckers is to put the financing of the roadbed on an interstate basis, and a method of accomplishing this is to have Federally-provided interstate highways.

If the highways used by truckers were constructed with Federal funds, the necessity of buying gasoline in a particular state or paying gasoline tax to a particular state would cease to exist. This type of solution eliminates one problem but in so doing creates additional difficulties. Vehicles traveling on these Federally-constructed, through highways would have to pay a Federal gasoline tax, and, in turn, should be exempt from the state gasoline tax. This, of course, would create considerable administrative difficulty.

In addition to the administrative problems, it would require a very great change in the concept of the Federal gasoline tax. A solution that comes to mind is for the Federal government to provide from general revenues a large portion or all the funds required to construct and maintain certain through routes. As a condition of obtaining these funds, the states would have to permit interstate traffic to operate over them without meeting gasoline purchase requirements and the like. The expenditure of Federal funds in this manner could be justified on the basis of provision for defense transportation needs and efficient utilization of the nation's resources.

EXPENDITURE OF COLLECTIONS

The gasoline tax is also criticized by truckers because the funds collected are frequently spent for purposes not closely related to the trucking industry. Every state spends a portion of the funds obtained from the gasoline tax on roads seldom if ever used by truckers, and upon highways on which truck traffic is actually prohibited. In addition, many states spend gasoline tax funds to

meet the costs of education, general government expenditures, and the like. The expenditure of gasoline tax funds in this manner was criticized because the tax is considered to be in the nature of a fee and a payment for services enjoyed. Actually, it is impossible to spend the funds in a manner that will correspond exactly with services enjoyed. These difficulties are perhaps inherent in the financing of highway expenditures with gasoline tax collections.

Although a number of truckers criticized the state gasoline tax on the two bases given above, the tax was generally considered fair. Nearly all the executives contacted believed the tax fairly equitable and did not consider it particularly harmful to the development of the industry. It was surprising to the interviewer that the truckers hauling bulky, low-tariff commodities did not think the burden of the gasoline tax unfair to them in comparison to the haulers of light, high-tariff commodities. Apparently, the inherent tendency of the gasoline tax to be a larger portion of the costs of a trucking firm moving heavy, low-tariff items has not been considered important. (See Appendix B.) However, there was, as is indicated in Chapter V, a slightly more hostile attitude toward the state gasoline tax in the South where the rates of the tax are higher and the portion spent for purposes other than highway construction and maintenance is larger.

SUMMARY

In summary, the attitudes of truckers toward the state gasoline tax are:

1. The tax is a fairly equitable method of assessments for cost of highway service.
2. The tax is to be preferred over most other taxes because its payment does not require additional records and book work.
3. Because the tax is a part of the price of gasoline, it is considered more as a portion of the normal costs of business activity than is the case of most other taxes. For this reason, less of the antagonism has developed than is likely to exist just because a tax is a tax.
4. The tax has weaknesses when applied to interstate motor carrier movements. The establishment of reciprocal arrangements between the states has been quite successful, but this cannot solve the problem of states

with a small amount of originating traffic but a large amount of traversing traffic, such as Kentucky and Wisconsin.

5. The justification of the gasoline tax is completely based upon payment for road service, yet it is often spent for other purposes or for roads not utilized by the taxpayer. Truck company executives see little reason for a high tax on gasoline unless the collections are used for construction and maintenance of highways used by truckers.

6. Truckers in states where the gasoline tax is very high consider the tax more undesirable than do truckers in states where the rate is near the national average.

7. The gasoline tax is often neither quickly nor completely shifted in prices charged for motor-carrier service. Frequently, motor carriers are unable to obtain rate increases until a considerable time has elapsed since the original imposition of additional gasoline taxes. This situation is not unique with gasoline tax increases; it usually arises when prices are determined by a government agency, as is true of the motor-carrier industry.

8. Truckers operating large trucks that move more freight with less gasoline consumption are neither more favorable toward the state gasoline taxes nor more against them than the operators of small trucks. Also, truckers operating largely within a single city expressed approximately the same attitude as truckers engaged largely in long-distance hauling. The varying effect of the tax depending upon the type of trucking activity and the varying benefit from highway expenditures have apparently not been seriously considered by motor-freight executives.²

FEDERAL GASOLINE TAX

The second tax listed in the questionnaire is the Federal gasoline tax. Generally, executives considered this tax to be about as desirable as the state gasoline taxes. In the states where the state gasoline tax approximated the national average, the Federal gasoline tax was rather frequently rated below the state tax; but in states where the state tax was very high, the Federal tax was frequently rated above the state gasoline tax. This favorable attitude toward the Federal Tax is somewhat surprising, for the Federal collections from the gasoline tax are *not* allocated to highway purposes, but rather become a part of the general Federal revenues. Undoubtedly, the leaders of the trucking industry are looking beyond the mere allocation of taxes for a particular

² One trucker interviewed in New York City did not worry much about the height of the gasoline tax because, as it was explained, all of his trucks were electrically powered.

expenditure purpose and are considering the quantity of funds spent on the type of highways utilized by the trucking industry. Here the record of the Federal government undoubtedly compares very favorably with that of the states.

Federal expenditures during a number of years in the 1930's were considerably greater than the collections obtained from the assessment of the various special Federal excises upon gasoline, tires, automobile parts, and the like. During the period of World War II, both the Federal government and the states collected considerably more from their gasoline taxes than was spent on highways. The Federal expenditures for highways during the postwar period have annually been approximately \$80 million below Federal gasoline tax collections and only about one-third of total excise collections related to motor vehicles.

COMPARED WITH OTHER FEDERAL EXCISES

When the amount and principal type of Federal highway expenditures are considered, the favorable attitude toward the levy of a Federal gasoline tax is not entirely unexpected. But it would have appeared more logical to have grouped the Federal gasoline tax with other Federal collections related to motor vehicles. The effect of this grouping in light of the much greater Federal collections than expenditures on highways would have been a reduction of the desirability of the Federal gasoline tax. The situation, however, is that the Federal gasoline tax is considered a much better tax than the other Federal excises closely related to motor vehicle operation. Almost without exception, the trucking company executives consider the taxes on tires, trucks, and parts much less desirable than the Federal gasoline tax. These other Federal excises related to motor-vehicle operation are listed next in the questionnaire, and the possible reasons for this variation are discussed below.

The Federal gasoline tax is 1.5 cents per gallon. It is levied on all gasoline and is not limited to gasoline consumed on the highways. Also, it is not a retail tax as are the state gasoline taxes. The Federal tax is assessed at the refinery or at the point of import. For this reason, the Federal tax is even more a part of

the price of gasoline than are the state taxes. The low rate when compared with state gasoline taxes, and the inclusion of the tax in the price of gasoline have undoubtedly tended to increase the favorable attitude toward the tax.

All the points previously brought out regarding relative burdens and the like of state gasoline taxes are also applicable to analyses of the Federal gasoline tax. However, because of the lower rate of the Federal tax, trucking company executives were less likely to mention the inequities involved.

FEDERAL TAX ON TIRES, TRUCKS, AND PARTS

The third tax included in the questionnaire is the Federal tax on tires, trucks, and parts. This tax is generally regarded as one of the least desirable taxes levied on the industry. In practically all instances these taxes are considered less desirable than the Federal gasoline tax. The reasons given for believing the tax bad were usually related to the idea that the tax was unjust because similar taxes were not levied on the rolling stock of competing types of transportation. In these cases, competition is usually considered as limited to the railroads. This, of course, can also be correctly said of the gasoline tax; this tax or a similar tax is not levied upon the typical fuel used by the railroads. However, this was seldom mentioned when the gasoline tax was discussed, but was usually mentioned when the Federal taxes on tires, trucks, and parts were under consideration.

COMPARED WITH FEDERAL GASOLINE TAX

It is difficult to determine the reasons for this difference in attitude toward the Federal excise tax on gasoline and the Federal tax on tires, trucks, and parts. Certainly, the difference cannot exist because of the manner in which the funds collected are spent, for in both cases they become a part of the general revenue. The favorable attitude toward the Federal gasoline tax might exist because of the carryover of the idea of the special allocation of state gasoline taxes for expenditure upon highways. If this is the situation, the attitude is, of course, not founded upon a basis of fact. This, then, is a good example of a tax which creates a

different attitude than would be expected from the examination of pertinent data. The attitudes indicated provide a basis for recommending Federal government emphasis of the gasoline excise; funds can be collected in this manner with the creation of less ill will.

The consumption of tires, trucks, and parts is perhaps as closely related to the consumption of highway services as the consumption of gasoline. In both cases, the correlation can be criticized as not being as close as desirable. The destruction of trucks and parts is likely to be relatively greater for local haulers when compared to tire and gasoline consumption than for long-distance haulers, and Federal government expenditure for the provision of municipal streets and roads has been considerably less than that for through roads. This will not be so true in the future, for Federal funds under the new grants will also be available for expenditure on municipal streets.³ However, none of the executives contacted indicated the small Federal expenditure on municipal streets as a cause of their attitude; and, despite the logical basis it seems to provide, it is doubtful that it should be given an important place in the explanation of the unfavorable attitude toward these Federal excises.

RATES OF TAXES

The rates of the Federal excises on truck bodies and chassis, parts and accessories, and tires at the time of interviews were:

<i>Taxable Item</i>	<i>Rate of Tax</i>
Automobile truck bodies	5% of manufacturer's sale price
Automobile truck chassis	5% of manufacturer's sale price
Parts and accessories	5% of manufacturer's sale price ⁴
Inner tubes	9¢ per pound
Rubber tires	5¢ per pound ⁵

³ The Federal-Aid Highway Act of 1948 provides for a Federal highway expenditure of \$450 million for two years. Of this grant, \$125 million will be spent in urban areas.

⁴ Rates on bodies and chassis and parts and accessories in 1932-1939 were 2 per cent of manufacturer's sale price. In 1940 they were raised to 2½ per cent. The present rate has been in effect since 1941.

⁵ Rates on inner tubes in 1939 were 4 cents per pound and tires 2.5 cents per pound. In 1940, the rates were increased to 4.5 cents and 2.5 cents, respectively. The present rates went into effect in 1941. The tax was originally enacted in 1932.

FEDERAL CORPORATION INCOME TAX

The Federal corporation income tax is paid only by those trucking concerns organized as corporations. However, it is partially true that the attitude of individual enterprises and partnerships toward the individual income tax reflects, to some extent, the attitude which these persons would have toward a corporate income tax if they were subject to it. Both the corporate income tax and the individual income tax were considered just taxes, and some executives went so far as to say that they believed all revenues required by government should be collected through the assessment of income taxes. However, the majority of the executives in all areas of the country believed that the income taxes were particularly burdensome to the trucking industry.

The executives not favoring income tax collections often believed that the tax was just and a good method of obtaining revenue, but because of unusual conditions it was not considered desirable that the trucking industry pay the tax. The unusual conditions were that the trucking industry had a great need for investment within the industry of all the funds earned. The industry, because of its organization into a large number of small companies and because of the past unfortunate financial record of certain companies, has found it very difficult to obtain outside financing.

EFFECT OF EARNINGS FOR REINVESTMENT

Executive after executive said that his business had expanded through the reinvestment of profits. It was very unusual to contact a motor-freight company that had not grown almost entirely from reinvested earnings. Although the expansion of American business through the reinvestment of profits is very common, the extensiveness of the use of this method and also the possibilities of expanded operations are apparently above average in the motor-freight-carrier industry. Very nearly every trucking executive contacted believed that all profits arising from his business operations could be wisely invested in the expansion of his trucking firm.

The reduction of earnings through the collection of income taxes was usually considered the equivalent of a reduction of useful investment of an amount equal to the taxes collected. Therefore, the collection of income taxes on earnings arising from the trucking industry was considered a direct reduction of productive private investment. Leaders of the industry pointed out, also, that additional investment in the motor-transport industry would reduce the monopoly control of railroads and would strengthen the position of competitive industry generally. This, it was argued, would be of value in the preservation of efficient capitalism.

EFFECT ON RATES AND PROFITS

The entire basis of this argument of the undesirability of income taxes arises from the false assumption that profits before income taxes will remain the same if income taxes are removed. This would only be true of the rather small number of trucking enterprises organized as partnerships and private enterprises. It would not be true of the large number of enterprises operated as corporations.

The corporate income taxes paid by a corporation are treated similarly to other expenses in determining the rates adequate to obtain a fair return.⁶ Theoretically, therefore, the reduction of corporate income taxes would merely bring forth sufficiently large rate reductions to reduce profits after income taxes to the level existing prior to the tax reduction. The fact that executives contacted do not consider this the existing relationship indicates that the determination of the rates charged by the industry is not sufficiently accurate, at least when expenses are reduced, to eliminate the creation of windfall gains. If this is the case, and apparently it is, it would be supposed that the reduction of any tax (and, of course, any expense) and not only the income tax,

⁶ See United States Supreme Court cases, *Galveston Electric Co. v. City of Galveston*, 258 U. S. 388 (1922); *Georgia Ry. & Power Co. v. Railroad Comm. of Georgia*, 262 U. S. 625 (1923); and Interstate Commerce Commission cases *Increased Common Carrier Truck Rates in the East*, 42 M. C. C. 633, 647, and *Minnelusa Oil Corp. v. Continental Pipe Line Co.*, 258 I. C. C. 41, 48-49. The I. C. C. findings in *Increased Railway Rates, Fares, and Charges* (1942, 248 I. C. C. 545, 546), held that Federal income taxes should not be included as expenses but this stands by itself and has not been followed in subsequent decisions.

would have the same effect. This would mean that cost reduction, although general, would increase profits and thus expand the quantity of funds available for investment. This would appear to provide a basis for a general reduction of taxes and not for the reduction of any particular tax, but executives of trucking concerns organized as corporations considered the corporate income tax much more closely related to the quantity of profits and therefore expansionary investment than any other tax or any other expense. This apparently illogical attitude in the case of an industry operating under regulated prices appears to arise from these factors:

1. Corporate income taxes are determined by the size of profits and are deducted directly from profits. For this reason, they appear to be more closely related to the size of profits than other taxes or expenses. This appearance largely indicates the fundamental relationship of an industry *able to determine its own prices*. However, it does not accurately indicate the situation within an industry with prices determined by a public authority which sets tariffs at a height that will produce only a certain adequate profit rate after taxes.

2. Popular discussions of taxes found in business magazines emphasize the ability of the corporate income tax to reduce the quantity of funds available for reinvestment. The trucking executive has been influenced by these popular discussions. He has failed to realize that the situation is different in his case because the corporate income tax is considered an expense in the determination of rates which can be charged.

3. The effects of the corporate income tax appear on occasion to have been confused with those of the personal income tax. The executive is aware that personal income taxes reduce the amount of funds he has available for reinvestment and he incorrectly transfers this relationship to the corporate income tax. This latter tendency is quite apparent from the questionnaires where the executive frequently gave the same rating to the corporate and personal income tax.

The excess profits taxes assessed upon corporations during World War II were not a heavy burden on the trucking industry. Not a single executive contacted considered this tax undesirable. This favorable attitude existed partly because excess profits tax payments of this industry had not been great, and, also, because the tax had been repealed at the time the executives were contacted and profits at the time were soaring.

The effects of state corporation taxes were generally considered similar to Federal corporation taxes but less so because the rates were much lower.

EFFECT OF TAX RATES

The Federal corporation tax rates were lower for corporations having a net income below \$50,000 per year. (This point was reduced to \$25,000 in 1950.) This encourages the organization of a number of small corporations having a net income of approximately \$25,000. At least this would be the undoubted expectation if the prices which the firm could charge were not determined by a public commission. Despite the dampening of this tendency by public commission price determination, several trucking executives indicated that an important consideration in their establishment of a number of corporations rather than the parent corporation was the possibility of enjoying lower Federal corporate income tax rates.

If a corporation earns profits above \$25,000 a year, it is subject to an additional expense not borne by the smaller and/or less profitable corporations. The tariffs established by the I. C. C. are usually determined by the expenses and the earnings of many trucking firms. Thus, if the expenditures of one corporation for corporate income taxes are a larger percentage of profits, that corporation is at a relative disadvantage. This is very similar to the type of disadvantage which the corporation would suffer if any of its other expenditures to obtain certain materials or services were greater than those paid by the typical trucking company. However, in the case of the corporate income tax expense, the ordinary avenues of reduction cannot be utilized. Greater efficiency of operation or renegotiation of supplier contracts, common methods of reducing other expenditures, will increase rather than decrease corporate income tax payments. A fundamental basis of opposition to the tax by business executives is, undoubtedly, that corporate tax expenditures increase rather than decrease as the result of efficient management and operational advantages. The only way that the management of a corporation can reduce the corporate income tax without decreasing profits (and as long as

the corporate income tax rate is less than 100 per cent this alternative would be unattractive) is to divide the company into a number of sub-divisions with each sub-division earning less than \$25,000 of net profits annually.

Actually, the inclusion of the corporate income tax along with other expenses in providing the basis for rate determination creates an anomaly. The corporate income tax certainly reduces profits, and certainly a fair return should be considered upon the basis of earnings after all deductions including those of corporate income taxes, however, the corporate income tax cannot be reduced by greater efficiency of operation which is true of the majority of the other items included. Its inclusion makes possible, to a degree, the increase or maintenance of tariffs even though corporate expenditures per dollar of income have been decreased. This, of course, is the reverse of the basis for tariff increases; rather, it would be generally considered the basis for their decrease. What happens is that a portion of the profit expansion arising from decreased costs is lost through increased corporate income taxes which in turn decreases the tariff reduction.

RATES OF TAX

The Federal corporate income tax rates (1946-1949) were as follows:

NORMAL TAX^a

<i>Normal-Tax Net Income</i>	<i>Rates</i>
Up to \$5,000.....	15%
\$ 5,000 - \$20,000	\$ 750 plus 17% of excess over \$ 5,000
\$20,000 - \$25,000	\$3,300 plus 19% of excess over \$20,000
\$25,000 - \$50,000	\$4,250 plus 31% of excess over \$25,000
Over \$50,000	24% of entire amount

SURTAX

<i>Surtax Net Income</i>	<i>Rates</i>
Up to \$25,000	6%
\$25,000 - \$50,000	\$1,500 plus 22% of excess over \$25,000
Over \$50,000	14% of entire amount

^a For 1951 the corporate tax rate structure is simplified and increased. The normal rate is 25 per cent on all earnings and an additional 20 per cent on earnings above \$25,000 a year. For 1950 the maximum total corporate tax was 42 per cent.

FEDERAL INDIVIDUAL INCOME TAX

The fifth tax listed in the questionnaire is the Federal individual income tax. When the firm is organized as a corporation, this tax is a personal tax rather than a business tax; but it becomes to a considerable extent a business tax when the undertaking is operated as an individual proprietorship or partnership. The attitude of many of the executives toward this tax was very similar to that expressed of the corporate income tax. A difference of attitude depending upon whether the business was organized as a corporation or as a proprietorship or partnership was apparent in both the questionnaires and the interviews, but the degree of difference was not as great as expected. The actual difference of attitude was that executives heading a proprietorship or partnership were much more apt to consider the individual income tax more restrictive of investment than the corporate income tax.

DEPENDENCE ON TYPE OF ORGANIZATION

A typical trucking company organized as a proprietorship or partnership has very little opportunity to obtain outside capital for expansion. These companies, even more than those organized as corporations, must rely upon net earnings for additional investment funds. The individual income tax definitely directly decreases the amount of possible expansion by proprietorship and partnership trucking firms. Some executives believe the individual income tax more undesirable than other taxes in this respect because the amount of tax paid increases with the efficiency of operation (operation efficiency measured by net profits). Therefore, the tax discourages efficiency and decreases the possibility of the whole industry becoming more efficient through the rapid expansion of those companies most efficiently managed.

Despite the prevalence of the above attitudes regarding income taxes and investment, almost all executives agreed that the individual income tax was one of the most just taxes. They thought that the amounts of income taxes paid varied with ability-to-pay, and that ability-to-pay was a desirable basis for the determination of government revenue collection. None of the executives contacted who operated a trucking business as a proprietorship or

partnership mentioned that income taxes paid as individual income taxes could not be considered as an expense in obtaining rate increases whereas other taxes related to the business could. Also, none of the executives mentioned that corporate income taxes were considered by the I. C. C. to be an expense in setting rates, whereas individual income taxes were not.

This latter point would be of practical importance (1) if a large portion of particular commodities were carried by noncorporate carriers, and (2) if total income tax payments of noncorporate firms were considerably greater than similarly situated corporate firms. If the second situation should exist, the business would usually incorporate to avoid the higher taxes. However, firms were contacted in which other circumstances outweighed the tax advantage of incorporation, and the business remained unincorporated despite a considerably greater tax burden. Also, of course, businesses organized as corporations exist which have a greater tax burden on income arising from the business than they would if they were organized as a proprietorship or partnership, but the other advantages of incorporation outweigh the tax disadvantage. It would also be unusual for proprietorship and partnership operators to do such a large portion of a certain type of trucking that their costs and earnings would determine rate schedules.

The individual income tax rates paid by a trucking executive are frequently only partly determined by earnings obtained in trucking activities. Thus, an attitude toward the individual income tax would not be completely determined by relationships arising from activities related to the trucking industry. In the interviews, the executives who appeared to have very high incomes were usually more opposed to the individual income tax than were the marginal operators. However, several operators who were not high individual income-tax payers thought it very unfair for the government to take away a portion of the little they had been able to earn. The thought in the minds of these owners was that, if they were sufficiently fortunate to make a profit after paying all the various taxes assessed upon them by the local, state, and Federal governments, they should be permitted to keep it, and

that it was a little unfair to then take a portion of these net earnings in taxes.

The trucking companies organized as proprietorships and partnerships are most closely concerned with the individual income tax as a business tax. These are also the companies in which the leadership has had the least opportunity to analyze the effects on their businesses of different types of tax payments. Often, small operators merely repeated types of generalizations of the individual income tax that are commonly given in the press without having also determined whether their businesses were actually affected in a similar manner. When interviewed, these operators frequently said that they paid the taxes required of them and that that was all they knew about the subject. One small successful commodity carrier owner expressed the extreme attitude toward taxes by stating, "Don't even think about taxes; don't bother brain about taxes."

SOCIAL SECURITY TAXES

The sixth tax listed in the questionnaire is the unemployment compensation tax. This is one of the two taxes levied to finance the provision of social security benefits to the American employee. The other social security tax, and seventh listed in the questionnaire, is the old-age and survivors insurance tax. Trucking executives, generally, had a favorable attitude toward both of these taxes. However, the attitude toward the old-age and survivors insurance tax was somewhat more favorable than toward the unemployment compensation tax. A number of executives thought the social security tax coverage was inadequate, both in regard to the number of persons included under the act and the amount of salary taxable.

The courts have decided, in a number of instances, that a master-servant relationship does not exist between a truck operator and a trucking company if the company operates as a jobber and merely provides loads for owner-operators.⁷ This has meant

⁷ If an independent contractor rather than an employee relationship exists, the compensation paid is non-taxable under the Social Security Act. A basic case setting down the basis for determination of a master-servant relationship existence is that of *National Relations Board v. Hearst Publications, Inc.*, 322 U. S. 111 (1943). A leading case setting down the basis for determination of an independent contractor relationship existence

that truckers operating on this basis are able to avoid paying social security taxes. It also means, of course, that the drivers of these trucks would not qualify for social security benefits.

A number of executives of well-established trucking companies thought that these court decisions gave the trucking operations organized on a jobber relationship an unfair tax advantage. Also, it was the opinion of a number of truckers interviewed that actually a master-servant relationship does exist between the management of companies operated on a jobber basis and the various operators of trucks employed to haul for them. The basic difficulty arises from the incomplete coverage of the United States social security legislation. If all persons were covered, and if the entire program were financed either through special taxes as it is today or from general revenues, the apparent tax favoritism toward a particular method of carrying on trucking activity would not exist. However, such is not the case, and the portion of trucking activity carried on under a jobber relationship is favored by the present legislation. The recent increase in the social security tax rates and legislative provision for further increases would, without the substantial expansion of the coverage also provided, intensify the present problem.

The general opinion of management is that the social security tax collection is a desirable way to finance the payment of social security benefits. This was the opinion of even those leaders who thought that the tax was unjust in its comparative treatment of trucking companies operating on a jobber basis and those directly employing their truck drivers to operate company-owned or rented equipment. The local haulers appeared to have the

within the intent of the Social Security Act was *Glenn v. Standard Oil Co.*, 148 F. 2d 51 (1945).

The United States Supreme Court in *United States v. Silk*, 331 U. S. 704 (1947) gave an opinion directly related to the use of owner-operated trucks. Mr. Justice Reed delivered the opinion which sustained the opinions of the lower courts that the owner-operated truckers hauling for the Greyvan Lines, Inc., were independent contractors and the Greyvan Lines, Inc., was not required to pay social security taxes on their compensation. In the words of Justice Reed: "These driver-owners are small businessmen. They own their own trucks. They hire their own helpers. In one instance they haul for a single business, in the other for any customer. The distinction, though important, is not controlling. It is the total situation, including the risk undertaken, the control exercised, the opportunity for profit from sound management, that marks these driver-owners as independent contractors." (Justices Black, Douglas, and Murphy dissented from the Court's opinion.)

same opinion of the tax as long-distance haulers despite the tendency for the social security taxes to be a larger portion of the revenue of short- than long-distance haulers. Also, haulers such as household-goods carriers who make relatively large wage payments held the same attitude toward the tax as petroleum haulers and others making relatively small wage payments (see appendix B). The same situation existed in the case of social security taxes as in the case of the gasoline tax; the relatively large payers of the tax had approximately the same attitude toward the revenue source as the relatively small payers. This, however, was not the case in regard to income taxes and is not true of gasoline taxes when the comparison of burdens is made on a geographical basis rather than on an industry basis. These differences are difficult to explain, but the following certainly have some effect: ignorance of personal burden in relation to average; tax considered as part of cost and not as tax; and, finally, a greater awareness of geographical variation and its effect on the competitive position.

The more favorable attitude of the leaders of the trucking industry toward the old-age and survivors insurance tax than toward the unemployment compensation tax was to be expected, and is based very likely largely upon the following considerations:

1. The unemployment compensation tax is paid entirely by the employer, and the rate is often higher than that of the old-age and survivors insurance tax.
2. If the business is organized as a corporation, the executives expect to benefit from old-age and survivors insurance coverage but do not expect to receive unemployment benefits.
3. Frequently, the employees who were the most troublesome were also the ones who obtained unemployment benefits. The payment of these benefits, in turn, increases the tax rate applicable to the firm.
4. The attitude of executives was obtained during a period of great prosperity when the need for unemployment benefit payments appeared to be almost nonexistent, whereas old-age and survivors benefits were considered important and needed.

The attitudes of executives toward the unemployment tax was affected by the manner in which the funds collected were spent. This is particularly true of this tax because in most states the

amount spent for unemployment benefits to former employees of a particular firm or industry determines the tax rate. In addition, many of the executives interviewed reported individual cases in which they thought payments that should not have been made or that should not have been made from their balance had been made and added to their account. Finally, the avoidance ability of truckers operating on a jobber basis was considered particularly irritating in the case of unemployment compensation taxes because the benefits arising from coverage appeared to be so small in 1948.

FEDERAL TAX ON TRANSPORTATION OF PROPERTY

The eighth tax listed in the questionnaire is the Federal tax on the transportation of property. This tax, imposed as a special World War II levy, is assessed at a 3 per cent rate upon the carrying costs charged. It is added to the bill presented to the customer, and, is not paid by the trucking companies; rather, it is paid by the individuals and firms having goods hauled by commercial transport companies. The transport companies act as collectors of the tax and not as payers.

COST OF COLLECTION

Executives rated this tax from very bad to very good. However, the number of executives considering the tax very bad far outnumbered those considering it very good. The tax is considered bad for two quite different reasons. The larger number of executives, but perhaps representing primarily the operators of smaller companies, consider the tax bad because of the additional records that must be kept. They consider the tax very expensive to collect. They believe that the government could get the same amount of revenue much more easily, and less expensively. They are, however, in doubt as to what the source of this revenue should be. These executives also believe that the tax as a percentage of charges and added to the bill presented the customer is much more completely shifted onto the customer than the additional expenses incurred in keeping the records and the like, required to collect the tax. It follows that these executives

believe, too, that the Federal tax on the transportation of property is more completely shifted than any of the other taxes which are levied on profits or which become a part of the costs of doing business. Nevertheless, they do not like the tax and generally rated it bad on the questionnaire.

EFFECT ON FOR-HIRE CARRIERS

The tax was considered bad by a number of the leaders of the larger companies primarily because it was levied only on trucking activity carried on for hire. This meant that industries and companies carrying their own commodities were exempt. The result is that the tax favors trucking operations by companies and individuals carrying their own products and discourages for-hire hauling of products. This, it appears, is a more basic criticism of the tax than that of administrative cost. The two combine to make the tax particularly unfavorable to for-hire trucking operations. The effect is very similar to that arising from the gross-earnings tax.⁸

Some leaders of the industry liked the transportation tax because they thought that it was not great enough to make it worthwhile for a particular company to do its own trucking if it had not been economically desirable for it to do so previously. Therefore this disadvantage of the tax was unimportant while the amount paid was very definitely passed on to the customer and this advantage was considered very real. These leaders admitted that the tax increased the cost of transporting commodities. However, the tax was considered so low that it did not reduce the amount of commodities moved (particularly during prosperous 1948) and was definitely passed on to the consumer of trucking services because of the manner of collection. Thus, the tax affected profits only through the administrative costs involved, and these were considered much more unimportant by some truckers than by others. It appeared that the administration of the tax caused very little extra trouble if the company had already established an efficient accounting system; however, it also varied depending upon the type of trucking activity.

⁸ See pp. 59-62 for an analysis of the gross-earnings tax.

TRANSPORTATION TAX FOR GENERAL REVENUE

The assessment of a tax upon transportation charges and then making the funds collected available for general revenue is not a particularly desirable public finance operation. Increases in transportation costs are certainly largely passed through the entire economy in higher prices. Actually, there are many more economic reasons for the payment of subsidies to the transportation industry than there are for collecting a tax on its gross receipts. This criticism when applied to the collection of the Federal tax on the transportation of property by the trucking industry is less severe than the criticism applied to the collection of a similar tax from the railroad industry. The reason for the difference is that the Federal government, except during war years, spends large sums for highway construction and maintenance and the like, which directly aids the trucking industry, whereas this relationship does not exist in the case of the railroad industry.

It has been previously pointed out that a tax which is considered at least partially a user tax should not be levied on the basis of the manner in which the activity is organized. Rather, it would appear that the logical procedure is to levy a user tax directly upon highway utilization. This appears to provide the basic reason for the belief by leaders in the trucking industry that the transportation tax should not be considered a user tax but rather merely a quite undesirable method of obtaining general government revenues. The transportation tax is levied upon all commodity transportation bills, and commodities not moved by for-hire carriers are exempted.

A gross receipts or transportation tax is much better as a railroad tax, for very few firms own a railroad, but definitely this is not the case with trucks. This difference is, of course, very apparent to leaders of the trucking industry; but Congress in enacting the transportation tax considered this basic difference in the organization of these two types of transportation insufficient to warrant different tax treatment.

VEHICLE LICENSES AND REGISTRATION FEES

The ninth tax listed in the questionnaire is a group of taxes

which are usually collected under the title vehicle licenses and registration fees. These taxes were generally considered bad revenue measures but desirable police measures. It is generally believed that they should not be greater than required to cover the cost of reasonable regulation of truck traffic. They were nearly unanimously considered a bad method of collection for highway utilization. Leaders in the trucking industry considered this group of taxes a fair type of revenue source as long as the rates were low and appeared to be a reasonable charge for regulation.⁹

The leaders of the industry in nearly all instances pointed out the difficulties inherent in interstate traffic if licenses and registration fees are set at a high level. When these taxes were discussed, the conversation would frequently turn to emphasizing the desirability of having them levied and collected by the Federal government. This was, however, not unique with these taxes. Leaders of interstate trucking companies frequently recommended that all levies with the exception of the property taxes and toll collections be made by the Federal government. The basis for their recommendation was fundamentally that their operations were regional and national rather than state or local, and that taxes levied on this basis would be better (more just) because they would correspond more nearly with the manner in which the business was organized and operations planned.

A number of leaders of the trucking industry considered vehicle licenses as assessed in their area the most undesirable tax levied upon their firm. They thought that the vehicle and registration fees interfered with the efficient operation of their businesses. They pointed out that the tax prevents a flexible interchange of equipment between states which decreases the efficiency of operation and as a result increases the public cost of transportation. This is a serious charge against any tax, and the administrative and/or individual justice advantages must be very great to warrant its collection when it acts to decrease efficiency of operation. It is very doubtful that the desirable features

⁹ See discussion on pages 55-59 for an analysis of the various possibilities of this type of revenue.

of the current rather crude vehicle licenses and registration fees collected from the trucking industry outweigh the tendency of the tax to create inefficiency in interstate truck transport.

TOLL COLLECTIONS

The tenth tax listed is not called a tax (that is also true of licenses and registrations which are called fees) but rather is labeled toll collections.¹⁰ Generally, the leaders of the trucking industry consider the payment of tolls an acceptable method of collecting revenues. There was a good deal of enthusiasm among trucking company leaders for the great toll roads that have been recently constructed or that are now being contemplated. The delay required of trucks to make the fee payment was considered unimportant and was not thought to reduce materially the efficiency of truck transportation operations. While the provision of good through highways and the elimination of steep grades contribute a great deal to the efficiency of truck transportation, at present these advantages appear to many leaders of the trucking industry to be more readily obtainable through the establishment of toll roads than through the construction and improvement of free highways.

EXPANSION OF USE

The writer discussed the possibilities of expanding the use of tolls as a method of highway and street finance. The leaders of the industry believed generally that the expansion of toll roads would not be harmful to the industry. However, they believed that if tolls were used to finance the principal highways used by truckers, the various other user taxes, particularly the gasoline tax, should be eliminated. Executives pointed out that if a toll road is completely financed with tolls collected from users, the gasoline consumed (according to the prevailing theory of justification of the gasoline tax) propelling vehicles over these roads

¹⁰ The common differentiation between a tax and a fee is that the tax is spent for a general public purpose, whereas the expenditure of the fee is closely related to the provision of a special benefit to the individual or firm making the payment. The terms toll, fee, and price have almost the same meaning, that is, they are payments for services directly enjoyed; and the payment need not be made unless that particular service is desired.

should be exempt from the state gasoline tax. The leaders of the industry did not think that this type of exemption or refund would be administratively difficult, particularly when applied to trucks.¹¹

At present, tolls are paid almost entirely by that section of the trucking industry engaged in long-distance hauling and are limited largely to the Eastern section of the United States. The local haulers, it would appear, should benefit from the development of toll roads, for it should increase the funds available (particularly if the gasoline tax continues to be collected in the present manner) to construct and maintain local roads without requiring the local truckers to make larger contributions.

The attitudes expressed by leaders of the trucking industry did not reflect the differences that the type of reasoning indicated above would lead one to expect. The local haulers' attitude toward tolls was approximately the same as that of the long-distance hauler. Also, the attitude of leaders toward tolls varied little between geographical areas which would indicate that the attitude of truckers toward tolls remains about the same whether the truckers are merely contemplating the possibility of paying them or whether they are actually paying tolls for road use.

The payment for road service through the use of tolls is very old and was tried in the United States prior to the introduction of free roads financed with public funds. The basic economic disadvantage of supplementing highway revenues through tolls is that they are collected from users of through highways who are already paying considerably more than the cost of the highway service used.

The cost per dollar of toll revenue obtained varies depending upon the amount of travel and the frequency of highway access that is considered desirable. However, the cost is very apt to be greater than if the revenues were obtained through the levy of a tax such as a gasoline tax. The license fee could be used to reduce collection costs.

The use of tolls has the advantage of flexibility, and the intro-

¹¹ The administrative problems would arise largely when the exemption was also granted to private vehicles.

duction of new techniques have greatly reduced collection costs. It is quite possible that it will be the most just and economically most desirable way to finance expensive highway construction that will be of great value to the immediate users of the facility provided. Examples of this type of highway provision would be mountain roads that eliminate grades through the use of tunnels and the like, and through overhead or underground highways to connect thickly-populated areas. Tolls can be efficiently collected from users of these types of roads, and the immediate benefit enjoyed by the user is so great that he is quite willing to pay a rather substantial charge.

PROPERTY TAX

The eleventh tax listed is the personal property tax, and the twelfth is the real property tax. These two taxes are quite similar in origin and are yet in many areas very similar in the manner of administration. The attitudes of truckers toward property taxes vary greatly. The general attitude, however, was one of apathy. The tax was not considered too great nor was it considered levied in a manner that hindered the economic functioning of the trucking industry. Several executives contacted believed the property tax itself was a bad tax and should be abolished, but not a single executive thought the tax placed an unfair burden upon the trucking industry.

It has been argued on occasion that the trucking companies of the nation should pay a property tax upon the assessed valuation of the portion of the total highway system which could be allocated to truckers or on the basis of proportional use of additional construction costs arising from making a highway suitable for truck use. This, it has been argued, would make the taxes paid comparable with those assessed upon the railroads.¹² The introduction of this idea of allocating the value of public property to the various private utilizors of the property would constitute a major revolution in the application of the property tax.

The basis for the assessment of property taxes upon public

¹² See *Carrier Taxation*, particularly pp. 31-32. The real property of intercity motor carriers of property is about 12 per cent of total assets whereas it is about 50 per cent of the total assets of railroads.

property is that the goods and services produced with this property are sold in competition with goods and services produced with the aid of private property that is subject to the property tax. The highways are considered by some to fall within this category. The services performed by publicly-owned and property-tax-free highways compete with the services provided by privately-owned and taxable railroad roadbeds. This competition is considered sufficient to justify either the assessment of property taxes upon highways or the exemption of railroad roadbeds from property taxes. The desirability of adopting one of these alternatives appears quite just at first glance; further examination reveals a number of pitfalls.

The users of highways are subject to taxes that are not collected from the users of railroad roadbeds and pipe lines. These taxes may, in many instances, be considerably more than the additional taxes arising from the utilization of taxable roadbeds; in any case, they are substantial and should be included in any consideration of the problem.

Also, privately-owned roadbeds considered as general purpose land acquire an increased value along with other property as the result of the provision of adequate highways; other types of transportation possessing a smaller amount of property will not benefit as much. In addition, the railroads obtained large quantities of real estate from the Federal and state governments as grants-in-aid; the utilizers of highways did not directly participate in similar gifts. All these factors and a number of others must be included before an answer can be given to the problem of the taxation of roadbeds.¹³

SPECIAL STATE OR LOCAL TAXES

The thirteenth item listed in the questionnaire is related to the special or unusual taxes levied by the particular state in which the trucking firm does business. The leaders of the industry very seldom rated these taxes good; however, they were rated fair and bad with about equal frequency. The tendency among leaders of

¹³ See *Public Aids to Domestic Transportation* by the Board of Investigation and Research, 79th Congress, 1st Session, House Document No. 159 (Washington, D. C. U. S. Government Printing Office—1945), for the best analysis of this problem.

the trucking industry is to consider that unusual taxes levied in their states place an additional burden upon their particular firms. They tend to forget about tax rates that may be below average in their states, or taxes that their states do not levy but which are levied in many states.

The leaders of the industry tend to consider new and unusual taxes levied in other states more desirable than the taxes of their own states. At the same time the leaders of the industry residing in states utilizing these unusual taxes tended to consider them quite undesirable.

CHAPTER V

GEOGRAPHICAL VARIATION IN THE TAXES OF THE TRUCKING INDUSTRY IN 1945 AND 1946

INTRODUCTION

This chapter is a brief study of the geographical variations in the taxes borne by the trucking industry in 1945 and 1946. The data upon which the calculations are based were obtained largely from the *Statistics of Class I Motor Carriers* for the years ending December 31, 1945, and December 31, 1946. This publication is prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

In addition to the statistical variations noted in taxes collected in the different geographical areas, this study also includes references to attitudes toward taxes expressed by truckers in different areas, through interview or questionnaire. The attitudes expressed in this chapter were obtained from the same sources as those discussed in considerable detail in Chapter IV.

The discussion is developed by relating geographical tax variations to the expression of tax attitudes of truckers located in different sections of the country. The two types of information supplement each other to provide a more complete and accurate picture of the geographical variation in the taxation of the trucking industry. The geographical variation of attitudes and tax payments proves very useful in attempting to evaluate the effect of taxes on the future growth and development of the industry.

The expressions of attitudes which were obtained do not represent a scientific sample of all truckers in the regions. However, considerable effort was made to interview or contact by questionnaire representative truckers in each of the different I. C. C. regions. The writer gives these expressions of attitudes in the belief that they express in a tolerably accurate manner the geographical variation in truckers' attitudes toward taxes.

The taxes of truckers in different geographical areas vary in the percentage of the total obtained from each particular tax group. The difference in the relative importance of taxes is vital because (1) there is a variation in the effect of different taxes upon business decisions and business profits, and (2) the collections from certain taxes are customarily used to directly benefit highway transportation.

Table 5 shows the percentage of each of the six groups of taxes used in this analysis to the total taxes levied on Class I motor commodity carriers throughout the nation by each of the nine geographical regions. The national average data indicate the relative importance of each of the different groups of taxes upon this portion of the transportation industry. The variation in regional averages depends upon the proportion of each group of taxes to the taxes paid in that particular area.¹

This type of comparison provides a general picture of the differences in the relative importance of each of the tax groups in the total tax burden in the different geographical regions. The first impression gained is that a great overall similarity exists. Closer examination reveals differences within this pattern which are of considerable significance: for example, the relatively greater importance of license and registration fees in the West, the greater relative importance in the Middle Atlantic and Pacific regions of the income taxes, and the relatively high gasoline taxes in the Southern and New England regions. (It must be remembered that in this type of comparison a high percentage may merely mean that all other taxes are low and does not necessarily mean a high rate.)

In this study the tax burden is measured almost entirely by stating taxes as a percentage of operating revenue. It is believed that the ratio of taxes to operating revenue is more meaningful than any other single ratio. *The tax-operating revenue ratio is particularly useful because it shows the portion of the freight revenue dollar going to taxes and is, in addition, consistent with the businessman's point of view that operating revenues constitute a fund out of which all expenses are to be paid.*

¹ The states included within the different regions are listed in Table 10.

RELATIVE TAX BURDEN

Table 5 shows the manner in which the total tax burden was distributed among the different taxes in each of the different geographical areas in 1945. Table 6 shows the total tax burden

TABLE 5—PERCENTAGE DISTRIBUTION OF SPECIFIED TAXES LEVIED ON CLASS I MOTOR CARRIERS, BY TYPES OF TAXES, BY GEOGRAPHIC REGIONS, 1945

Geographical Region	Gasoline, Other Fuel, and Oil Taxes	Vehicle Licenses and Registration Fees	Real Estate and Personal Property Taxes	Social Security Taxes	Other Operating Taxes	Income Taxes	Total Taxes
	Per Cent of Total Taxes						
National Average	34.06	23.85	2.56	15.82	8.51	15.20	100.00
New England	40.86	15.18	5.73	17.56	7.84	12.83	100.00
Middle Atlantic	34.24	16.25	1.52	17.44	7.14	23.41	100.00
Central	34.49	23.91	2.90	17.28	6.89	14.53	100.00
Southern	44.19	24.27	2.18	12.44	9.34	7.58	100.00
Northwestern	36.34	36.02	1.69	16.29	5.08	4.58	100.00
Mid-Western	30.44	32.46	3.49	15.78	6.18	11.65	100.00
Southwestern	38.09	27.25	2.98	12.75	7.94	10.99	100.00
Rocky Mountain	27.23	35.27	2.95	13.49	9.28	11.78	100.00
Pacific	22.93	27.38	2.33	14.88	14.79	17.69	100.00

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the Year Ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947.

TABLE 6—TOTAL TAXES AS A PERCENTAGE OF OPERATING REVENUES, CLASS I MOTOR CARRIERS, BY GEOGRAPHIC REGIONS, 1945 AND 1946

Region	Per Cent of Operating Revenues		Per Cent of National Average in 1945
	1945	1946	
National Average	7.65	7.30	100.00
New England	6.61	6.72	86.50
Middle Atlantic	7.49	6.45	97.96
Central	6.28	6.34	82.16
Southern	8.67	8.66	113.46
Northwestern	8.85	8.15	115.72
Mid-Western	7.73	7.69	101.14
Southwestern	8.50	8.37	111.22
Rocky Mountain	9.62	9.38	125.80
Pacific	9.50	9.07	124.27

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the Year Ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947, and unpublished *Statistics of Class I Motor Carriers for the Year Ended December 31, 1946*.

as a percentage of total operating revenue for each of the regions. The average of the entire nation in 1945 was 7.6 per cent of operating revenue, and in 1946, 7.3 per cent. This is also the approximate burden in the Middle Atlantic and Mid-Western regions. The taxes of truckers are the largest percentage of operating revenues in the Rocky Mountain and Pacific regions and the smallest in the Central region. Taxes as a percentage of operating revenues are below average only in the three Northeastern regions (New England, Middle Atlantic, and Central). In 1946, taxes as a percentage of operating revenues were down slightly from 1945. Exceptions to this general downward drift of 1946 were the New England and Central regions where total taxes as a per cent of operating revenues were slightly above 1945.

RELATIVE WAGE AND GASOLINE EXPENDITURES

It is fully realized that the use of the ratio of taxes to operating revenues does not provide a perfect measure of tax burden. A principal difficulty is the great variation in the portion of operating revenues going to labor and to the purchase of fuel among different types of trucking activity. If labor costs are great, the relative portion of total taxes arising from social-security-tax payments increases whereas if fuel expenditures are great, gasoline and other fuel and oil taxes are relatively expanded.

The importance of this type of cost variation on tax collections

TABLE 7—SALARIES AND WAGES AS A PERCENTAGE OF OPERATING REVENUES,
CLASS I MOTOR CARRIERS, BY REGIONS, 1945

Region	Per Cent of Operating Revenues	Per Cent of National Average
National Average	47.76	100.00
New England	51.67	108.17
Middle Atlantic	50.49	105.71
Central	47.79	100.05
Southern	40.64	85.09
Northwestern	49.28	103.17
Mid-Western	46.38	97.11
Southwestern	43.46	90.99
Rocky Mountain	42.16	88.27
Pacific	49.54	103.71

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the Year Ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947.

is much greater when the tax burden is compared on the basis of the type of trucking activity than it is on the basis of the type of comparison made in this chapter. (See Appendix B for a comparison of type of trucking activity.) Each geographical area contains a variety of trucking operations; this partially cancels geographical variation due to different types of trucking.

Table 5 bears out this observation. Table 7 shows the relative unimportance of regional variation in salaries and wages as a percentage of operating revenues. The data show salaries and wages, however, to be relatively slightly more important in the thickly-populated areas of the nation. This arises largely from the shorter hauls in these areas and because wages tend to be slightly higher where the population density is greater. If the hauls are short, a larger portion of operating revenues arises from loading and unloading charges; this is largely labor cost.

The variation in gasoline tax payments among geographical areas is much greater than that in social-security-tax payments. (Social-security-tax payments are largely determined by wage payments.) This greater difference exists because, in the areas where hauls are longer, and where, as a result, a larger portion of operating revenue arises from hauling activity, the state gasoline tax rates are also higher. Therefore, the variation in gasoline taxes does not arise entirely from a difference in the type of trucking activity as would be the case of social-security taxes with their largely uniform rates, but rather is caused partly by regional differences in tax rates.²

RELATIVE PROFITABLENESS

The average regional profits of motor commodity carriers are a smaller percentage of operating revenues in the areas where taxes are the greatest. This inverse relationship between profits and taxes is clearly shown in Table 8. However, a number of exceptions can be noted, particularly the very high profits and

² In 1945, gasoline, other fuel, and oil taxes were 1.05 per cent of the operating revenues of the 50 Class I household-goods carriers and 4.34 per cent (400 per cent greater) of the operating revenues of the 101 petroleum carriers. Social-security taxes were 0.65 per cent of the operating revenue of Class I household-goods carriers and 0.90 per cent of the operating revenues of the petroleum carriers.

TABLE 8—VARIATIONS FROM THE NATIONAL AVERAGE IN OPERATING PROFITS, AND OPERATING TAXES AS PERCENTAGES OF OPERATING REVENUES, CLASS I MOTOR CARRIERS, BY REGIONS, 1945

Region	Operating Taxes as Per Cent of National Average	Operating Profits as Per Cent of National Average
National Average	100.00	100.00
New England	88.92	153.19
Middle Atlantic	88.49	158.94
Central	82.81	136.58
Southern	123.66	0 ^a
Northwestern	130.22	73.70
Midwestern	105.39	0 ^a
Southwestern	116.75	204.28
Rocky Mountain	130.88	140.87
Pacific	120.63	15.39

^a The zero given for the Southern and Midwestern regions arises because the Class I Commodity Motor Carriers in these two regions experienced a net operating loss.

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the Year Ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947.

rather high taxes relative to the national average existing in the Southwestern region.

The inverse relationship between taxes and profits tends to suggest that high taxes cause low profits. However, it must not be forgotten that profits result from many factors other than the amount of total taxes. A positive rather than inverse relationship

TABLE 9—GASOLINE, OTHER FUEL AND OIL TAXES AS A PERCENTAGE OF OPERATING REVENUES, CLASS I MOTOR CARRIERS, BY REGIONS, 1945 AND 1946

Region	Per Cent of Operating Revenues		Per Cent of National Average	
	1945	1946	1945	1946
National Average	2.60	2.41	100.00	100.00
New England	2.70	2.40	103.76	99.66
Middle Atlantic	2.56	2.35	98.47	97.80
Central	2.17	1.94	83.18	80.64
Southern	3.83	3.60	147.21	149.86
Northwestern	3.22	3.06	123.48	127.22
Mid-Western	2.35	2.30	90.40	95.66
Southwestern	3.24	3.18	124.36	132.26
Rocky Mountain	2.62	2.43	100.55	101.12
Pacific	2.13	2.10	83.68	87.27

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the Year Ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947, and unpublished *Statistics of Class I Motor Carriers for the Year Ended December 31, 1946*.

would be forecast if it were assumed that taxes on profits were a relatively important portion of the total tax burden. The inferences which could be made between taxes and profits would be much more important if it could also be assumed that all things other than taxes were equal in the various geographical areas; however, this assumption cannot be made.

TABLE 10—GASOLINE TAX RATES, BY STATES, BY I. C. C.
GEOGRAPHICAL GROUPINGS, 1945

Region	Cents per Gallon	Region	Cents per Gallon
1. New England Region		5. Northwestern Region	
Connecticut	3	Michigan (upper peninsula)	3
Maine	4	Minnesota	4
Massachusetts	3	North Dakota	4
New Hampshire	4	South Dakota	4
Rhode Island	3	Wisconsin	4
Vermont	4		
2. Middle Atlantic Region		6. Mid-Western Region	
Delaware	4	Iowa	4
District of Columbia	3	Kansas	3
Maryland	4	Missouri	2
New Jersey	3	Nebraska	5
New York	4		
Pennsylvania	4	7. Southwestern Region	
West Virginia	5	Arkansas	6½
		Louisiana	7
3. Central Region		Oklahoma	7½
Illinois	3	Texas	4
Indiana	4		
Michigan (lower peninsula)	3	8. Rocky Mountain Region	
Ohio	4	Colorado	4
		Idaho	6
4. Southern Region		Montana	5
Alabama	6	New Mexico	5
Florida	7	Utah	4
Georgia	6	Wyoming	4
Kentucky	5		
Mississippi	6	9. Pacific Region	
North Carolina	6	Arizona	5
South Carolina	6	California	3
Tennessee	7	Nevada	4
Virginia	6	Oregon	5
		Washington	5

Source: *Public Finance of Air Transportation* by Richard W. Lindholm (Bureau of Business Research, The Ohio State University, Columbus, Ohio, 1948), p. 59.

An example of a geographic variant that affects both the profitableness of trucking and the taxes paid is the difference in population density. As previously mentioned, where the population is more dense a larger portion of trucking activity is local

hauling. This is also the portion of trucking activity which bears relatively low gasoline taxes (because the distances traveled are not great), and which makes relatively high profits. (Tables 9 and 12.) This geographical difference in type of trucking activity is certainly part of the reason for the relatively low taxes and high profits in the New England and Middle Atlantic regions. Nevertheless, this does not explain the high profits and low taxes of the Central region where all types of trucking are highly developed, or in the Southwestern region which is sparsely populated and where long-distance hauling is important.

The conclusion which can be drawn from the data in Table 8 is that taxes tend to be low in the areas where profits are high. Also, the taxes on profits are not of sufficient relative importance in this industry to cause a substantial increase in taxes paid when profits of one region are substantially higher than those of another region. For example, in 1945, the taxes in the Southern region where all carriers experienced a net loss were a greater portion of operating revenues than in the Southwestern region where profits were the highest of the entire nation.

The results of interviews and questionnaires completed in the Southern and Southwestern regions show the effects upon the tax attitudes held by the owners of trucking firms of the great difference in profitableness of trucking operations in the two regions. In the Southwest, where the profits of truckers are relatively very high, 75 per cent of the owners contacted considered the corporate and individual income taxes undesirable. Several truckers in the Southwest considered income taxes the most undesirable type of tax. In the Southern region, 75 per cent of the owners contacted considered income taxes a good or fair tax, and none considered these taxes the least desirable. In the South, where trucking activities are not very profitable, taxes increasing costs are considered very bad; whereas in the Southwest where profits are high, the income tax is considered much less desirable than in the South.

The attitude of truckers toward the income taxes and other taxes are discussed in greater detail in Chapter IV.

FUEL TAXES

Table 9 shows that fuel taxes paid by truckers as a percentage of operating revenues are highest in the South, with the Southwest and Northwest following close behind. This difference is partly determined by the type of trucking operation and the population density; however, relative gasoline tax rates are also important.

The gasoline tax rates of the states of the various regions are shown in Table 11. The state gasoline tax rates are definitely

TABLE 11—FUEL AND OIL TAXES AS A PER CENT
OF OPERATING REVENUES, 1945

Tax	50 Household-Goods Carriers	101 Petroleum Carriers	30 Motor Vehicle Carriers
Gasoline, Other Fuel, and Oil Taxes	% 1.0497	% 4.3365	% 4.0528

Source: Calculated from data provided by the American Trucking Association, September 25, 1947.

higher in the Southern and Southwestern regions. In addition to the state gasoline taxes in the South, local gasoline taxes are quite common, which, of course, increased the tax burden of motor carriers of property.

In 1945, the gasoline taxes at 83 per cent of the national average were lowest in the Central and Pacific regions; in 1946, the gasoline taxes of the Central region became the lowest. The low gasoline taxes in the Pacific region are to a considerable extent counterbalanced by the greater miscellaneous taxes paid as indicated in Table 16; this, however, is not the case in the Central region.

The attitude of truckers toward the state gasoline tax appears to be closely related to the prevailing rates and to the burden of the tax as a percentage of operating revenues. For example, the tax is generally considered less desirable in the Southern than in the Central region.

Not a single trucker interviewed or contacted by questionnaire in the Southern region considered his state gasoline tax desirable, while the majority of truckers in the Central region considered

the state gasoline tax a good tax. In the Southern region, the Federal gasoline tax was considered a better tax than the state gasoline tax, whereas in the Central region, state gasoline taxes were definitely preferred over Federal gasoline taxes. None of the truckers in the Southern region or in the Central region considered the tax the least desirable levied, but a number of truckers in the Central region considered the gasoline taxes the most desirable levied on the industry. None of the truckers contacted in the Southern region agreed with this attitude.

TABLE 12—LOCAL AND LONG-DISTANCE TRUCKING ACTIVITY
IN SELECTED REGIONS, 1945

Region	NUMBER OF CARRIERS			OPERATING REVENUES (In Millions)		
	Total all Carriers	Total Local Carriers	Local Car- riers as a Per Cent of all Carriers	All Carriers	Local Carriers	Local Car- riers as a Per Cent of all Carriers
Central Region	463	115	24.84	\$261	\$38	14.56
Southern Region	161	9	5.59	86	2	2.32
Pacific Region	222	76	34.23	114	33	29.01

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the year ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947.

The fuel tax burden varies with the type of trucking activity as well as with the geographical area. Table 11 indicates the variation in the gasoline tax burden of three specialized commodity motor carrier operations. (See appendix B for a more detailed analysis.) The relative unimportance of the gasoline tax to household-goods carriers is the expected relationship.

Another factor affecting the importance of fuel taxes is the relative importance of long- and short-distance hauling. In the more densely populated areas, the portion of long-distance hauling in relation to short-distance hauling decreases. This relationship is indicated very clearly when the data in Table 9 are combined with those in Table 12 which gives the total number of carriers and the number of local carriers in the Central, Southern, and Pacific regions. The fuel taxes are comparatively high

in the Southern and low in the Central and Pacific regions, and the amount of local motor carrier activity is much more important in the Central and Pacific regions than in the Southern region. The high gasoline tax rates and the small amount of local hauling combine to raise the Southern gasoline tax burden considerably above the average for the nation.

The gasoline tax gives a false impression of equality. The fact that the tax is an equal number of cents per gallon of gasoline does not mean that the burden of the tax is equally distributed. This is true whether equality is measured on the basis of tax power unit, miles traveled, or profits made. If low test gasoline is purchased, the tax is a greater percentage of the purchase price, and the tax per unit of heat or power is greater than if high test gasoline were used. A trucker carrying a cargo that bears a high tariff, for example, motion picture film, pays a smaller percentage of revenue for gasoline tax than a hauler of low tariff bulky commodities.

VEHICLE LICENSES AND REGISTRATION FEES

The second most important group of operating taxes as a percentage of operating revenues in 1945 and 1946 was that of vehicle licenses and registration fees. The analysis here is concerned primarily with the geographical variation in these revenue sources, and other causes of variation will be discussed only to the extent that they modify what might at first appear to be an entirely geographically determined variation.

Table 13 shows the geographical variation in the burden of vehicle licenses and registration fees upon all Class I commodity motor carriers in 1945 and 1946. In 1946, vehicle licenses and registration fees decreased as a percentage of operating revenues. The drop in this ratio occurred in all regions, except the Southern region.

The Southern region which in 1945 was 47.21 per cent above the average in the case of fuel taxes was also above average in the case of vehicle licenses and registration fees, but only by 15.46 per cent. It was in the Rocky Mountain and the Northwestern

TABLE 13—VEHICLE LICENSES AND REGISTRATION FEES AS A PERCENTAGE OF OPERATING REVENUES, CLASS I MOTOR CARRIERS, BY REGIONS, 1945 AND 1946

Region	Per Cent of Operating Revenues		Per Cent of National Average	
	1945	1946	1945	1946
National Average	1.82	1.70	100.00	100.00
New England	1.00	0.87	55.07	51.09
Middle Atlantic	1.22	1.13	66.77	66.38
Central	1.50	1.41	82.38	82.91
Southern	2.11	2.11	115.46	123.92
Northwestern	3.19	2.89	174.78	169.46
Mid-Western	2.51	2.14	137.67	125.75
Southwestern	2.32	2.07	127.10	121.19
Rocky Mountain	3.39	3.37	186.06	197.57
Pacific	2.60	2.51	142.66	147.33

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the year ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947, and unpublished *Statistics of Class I Motor Carriers for the year ended December 31, 1946*.

regions that the burden of the vehicle licenses and registration fees was the greatest. The burden was the least in New England where it was but 55 per cent of the average of all regions.

The results of the interviews and questionnaires completed by truckers in the regions having high vehicle licenses and registration fees does not indicate a belief that this type of tax is particularly bad despite the relatively high rates. Actually, the truckers of New England where vehicle licenses and registration fees as a percentage of operating income are the lowest in the nation are much more opposed to this type of tax than the truckers of the Rocky Mountain and the Northwestern regions where the tax is relatively high. None of the truckers contacted considered this the most desirable method of raising revenue, but none of them considered it the worst tax now paid by truckers. In New England, where the tax is relatively very low, over half of the truckers contacted considered the tax bad, whereas in the Rock Mountain area, where the tax is relatively high, most truckers rated the tax as fair.

Next to the income tax, vehicle licenses and registration fees can be made to vary most closely with profits. This possibility has not been utilized in the United States.

REAL ESTATE AND PERSONAL PROPERTY TAXES

Real Estate and personal property taxes are, as was indicated in Table 5, the least important of the tax groups analyzed here. Relatively, this source of revenue has become of less importance throughout the nation. The variation in collection from region to region shows to some extent the total relative importance which the tax retains in different parts of the nation. Also, this tax is apt to be greatest where storage and warehouse activities are closely associated with the movement of goods.

TABLE 14—REAL ESTATE AND PERSONAL PROPERTY TAXES AS A PERCENTAGE OF OPERATING REVENUES, CLASS I MOTOR CARRIERS, BY REGIONS, 1945 AND 1946

Region	Per Cent of Operating Revenues		Per Cent of National Average	
	1945	1946	1945	1946
National Average	.20	.20	100.00	100.00
New England	.38	.39	193.71	195.66
Middle Atlantic	.11	.12	58.05	59.38
Central	.18	.18	93.20	92.18
Southern	.19	.21	96.47	104.09
Northwestern	.15	.16	76.29	78.56
Mid-Western	.27	.24	137.81	121.49
Southwestern	.25	.24	129.69	121.80
Rocky Mountain	.28	.30	144.81	152.72
Pacific	.22	.23	112.93	115.74

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the year ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947, and unpublished *Statistics of Class I Motor Carriers for the year ended December 31, 1946*.

Table 14 indicates that real estate and personal property taxes as a percentage of operating revenues were relatively greatest in the New England, Mid-western, and Rocky Mountain regions, and smallest in the Middle Atlantic region. These taxes as a percentage of operating revenues were substantially unchanged in 1946 from 1945 in the country as a whole; they were a slightly smaller portion of operating revenues in 1946 than in 1945 in the Central, Mid-Western and Southwestern regions, and a slightly larger portion in all other regions.

The property tax is rated by New England truckers as a fair (not good, not bad) tax, even though, or as a result of this atti-

tude, the tax in New England in 1945 was 94 per cent above the average for all regions. The attitude of truckers in the Northwestern and Middle Atlantic regions where the tax is relatively low was approximately the same as that of New England truckers. Occasionally, a trucker in each of the different regions expressed violent opposition to the tax because it bore such a small relationship to taxpayer ability or taxpayer use of government-provided facilities.

SOCIAL SECURITY TAXES

Social security tax rates are more nearly uniform throughout the nation than are the three groups of taxes previously discussed. The payment rates for old-age and survivors insurance are identical in all areas of the nation, and the variations in unemployment compensation rates are not great.

Social security tax payment variations are largely due to differences in the percentages of total expenditures going to labor and also partially to different salary levels. This latter factor has an effect because social-security tax payments are made only on the first \$3,000 of annual wage. If many salaries are above this level, social security taxes will decrease as a portion of operating revenues, even though salaries and wages are a constant portion of operating revenues. This would tend to decrease the importance of social security taxes in the high-wage areas, for example, Pacific and Middle Atlantic regions. In 1946, social security taxes, like gasoline taxes and licenses and fees, were a smaller portion of operating revenues than in 1945. Social-security tax payments were lower in 1946 than in 1945 in all the regions of the Interstate Commerce Commission.

The very low regional percentage of variation from the national average shown in Table 15, when compared with the variation shown by the three previous taxes, highlights the impact of the varying state tax rates. The higher social security taxes of the West are due to a relatively more liberal unemployment compensation legislation in that area, and the rather larger portion of trucking activity that is local. (See Table 12.)

In the case of social-security taxes, the lowest region in 1945

TABLE 15—SOCIAL SECURITY TAXES AS A PERCENTAGE OF OPERATING REVENUE, CLASS I MOTOR CARRIERS, BY REGIONS, 1945 AND 1946

Region	Per Cent of Operating Revenues		Per Cent of National Average	
	1945	1946	1945	1946
National Average	1.21	1.09	100.00	100.00
New England	1.16	1.12	96.01	102.34
Middle Atlantic	1.31	1.25	108.01	114.98
Central	1.09	0.91	89.73	83.43
Southern	1.08	1.00	89.21	91.43
Northwestern	1.44	0.92	119.17	84.11
Mid-Western	1.22	1.02	100.89	93.11
Southwestern	1.08	1.06	89.62	97.52
Rocky Mountain	1.30	1.23	107.32	112.84
Pacific	1.41	1.36	116.93	124.32

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the year ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947, and unpublished *Statistics of Class I Motor Carriers for the year ended December 31, 1946*.

was only 11 per cent below the average, and the highest region was 19 per cent above the average for a total variation of only 30 per cent. In the case of gasoline, other fuel, and oil taxes, the variation was 64 per cent; vehicle licenses and registration fees, 131 per cent; real estate and personal property taxes, 136 per cent; other operating taxes, 159 per cent; and income taxes, 116 per cent. This small relative variation in social security tax payments arises from rate uniformity and from the relatively constant portion of operating revenues spent for wages in the different regions.

OTHER OPERATING TAXES

The "other-operating-taxes" category includes a group of miscellaneous taxes. The major portion of the total amount arises from various state sales taxes and also from special Federal taxes upon trucks and truck parts. The reasons for differences from region to region are the tremendous variations in state and local taxes assessed upon business enterprises. However, regional variations in type of truck activity also have an effect. Long-distance hauling requires the purchase of more tires and parts (subject to special Federal taxes) than does local hauling. This, however, does not explain the importance of this type of tax in the Pacific

region. This high rate in the Pacific region is explained by the special state ton-mile and transportation taxes applied in this area. The national average of these taxes was lower in 1946 than in 1945; however, a slight increase was shown in the New England and Pacific regions (Table 16).

TABLE 16—OTHER OPERATING TAXES AS A PERCENTAGE OF OPERATING REVENUES, CLASS I MOTOR CARRIERS, BY REGIONS, 1945 AND 1946

Region	Per Cent of Operating Revenues		Per Cent of National Average	
	1945	1946	1945	1946
National Average	.65	.61	100.00	100.00
New England	.52	.54	79.69	88.01
Middle Atlantic	.53	.49	82.23	80.79
Central	.43	.40	66.53	65.44
Southern	.81	.66	124.60	108.26
Northwestern	.45	.40	69.05	65.37
Mid-Western	.48	.46	73.48	75.46
Southwestern	.68	.66	103.78	108.83
Rocky Mountain	.89	.81	137.22	133.64
Pacific	1.40	1.42	215.99	233.92

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the year ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947, and unpublished *Statistics of Class I Motor Carriers for the year ended December 31, 1946*.

The truckers contacted in the Pacific region were not enthusiastic about the special gross-receipt and ton-mile taxes assessed. Almost every trucker contacted believed these taxes bad; a number of truckers considered them to be the worst taxes paid, even worse than the Federal taxes on equipment which are generally considered the most undesirable taxes paid by the industry. The gross-receipts tax is not used in the New England region. A number of New England truckers contacted indicated a belief that it would be very desirable to introduce the tax in their area. This is perhaps not much more than another example of seeing the grass on the other side of the fence as being the greener.

INCOME TAXES

The major portion of income taxes paid are Federal income taxes and are therefore uniform throughout the nation. The amount paid is determined by the profitableness of the under-

taking and by the type of business organization. The income taxes reported here are corporate income taxes. Thirty-three states assess corporate income taxes at moderate rates, and thirty-one states collect an individual income tax, also with moderate rates. The individual income taxes are not included in these ratios. Income taxes as a percentage of operating revenues were greater in 1946 than in 1945 despite a reduction in Federal corporate tax rates. Only in the Middle Atlantic and Pacific regions were the income tax ratios lower in 1946.

TABLE 17—INCOME TAXES AS A PERCENTAGE OF OPERATING REVENUE, CLASS I MOTOR CARRIERS, BY REGIONS, 1945 AND 1946

Region	Per Cent of Operating Revenues		Per Cent of National Average	
	1945	1946	1945	1946
National Average	1.16	1.29	100.00	100.00
New England	.85	1.41	72.98	108.86
Middle Atlantic	1.75	1.11	150.83	85.56
Central	.91	1.49	78.51	115.51
Southern	.66	1.09	56.60	83.94
Northwestern	.41	.73	34.84	56.29
Mid-Western	.90	1.53	77.47	118.08
Southwestern	.93	1.15	80.38	89.15
Rocky Mountain	1.13	1.24	97.45	95.54
Pacific	1.68	1.46	144.58	112.49

Source: Calculated from data given in *Statistics of Class I Motor Carriers for the year ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947, and unpublished *Statistics of Class I Motor Carriers for the year ended December 31, 1946*.

Because income taxes paid are determined by profits, the amount paid in other taxes partly determines the amount of income tax. High operating taxes in a region should be partially reflected in reduced income taxes. However, the tendency in this direction would not appear to be much greater in the case of tax expense than for other expenses—such as expenditures for wages and fuel. The high profits in the Southwestern region as a percentage of operating revenues are perhaps partly explained by the availability of fuel and by an unorganized labor supply.

The amount of income taxes paid is not always greatest in the region where the profits are greatest. This can be seen by comparing Table 8 with Table 17. For example; the profits of the

Northwestern region were 74 per cent of the national average (three regions had average profits below this level), and the income taxes paid were 34 per cent of the National average (which was the lowest). The profits of the Southwestern region were 104 per cent above the national average, but income taxes were but 80 per cent of the national average.⁴

The profit data in Table 8 are based upon operating profits, whereas the income tax paid is determined on the basis of total profits. This, for example, explains part of the great difference between the income taxes paid in the Middle Atlantic and Central regions where the portion of the industry organized as corporations and where operating profits as percentages of operating revenues are approximately the same; however, the average size of firm is much smaller in the Middle Atlantic region which has some effect. Despite this, nonoperating or non-carrier profits in the Middle Atlantic region were over five times as great as those of the Central region.⁵

Other less important causes of this variation are the prevalence of state income taxes and the average size of the trucking firms of the area. The size of the trucking firm also influences the type of organization. Where the trucking firms are large, the portion of activity conducted through corporations is great. This is an important cause of the higher income taxes in the more thickly-populated and industrial regions. For example, in the Middle Atlantic region where income taxes are relatively the highest as a percentage of operating revenues, the trucking companies are 24 per cent larger, as determined by the size of the operating revenues, than the average of the nation.⁶

⁴ See this discussion on pp. 85-92 for the causes of this variation.

⁵ Non-carriers profits of Middle Atlantic Class I carriers in 1945 were \$3,967,190 and those of the Central region were \$704,741. The total carrier revenues and carrier profits were greater in the Central than in the Middle Atlantic region.

⁶ Calculated from data given in *Statistics of Class I Motor Carriers for the Year Ended December 31, 1945*, Bureau of Transport Economics and Statistics, Interstate Commerce Commission, Statement No. 4714, Washington, D. C., July, 1947.

Appendix A, Tables 9 and 10, contains ratios of taxes to operating revenues by type of trucking service for all the Interstate Commerce Commission regions.

APPENDIX A

TAX AND FINANCIAL DATA FOR CLASS I MOTOR CARRIERS OF PROPERTY BY GEOGRAPHIC REGIONS

APPENDIX A

MOTOR CARRIER TAX AND FINANCIAL DATA BY REGIONS

TABLE 1—NUMBER OF CLASS I MOTOR CARRIERS OF PROPERTY,
BY REGIONS, 1940-1946

Region	1940	1941	1942	1943	1944	1945	1946	1949
	Number							
New England	112	129	132	137	153	168	178	243
Middle Atlantic	288	326	344	401	462	515	567	708
Central	296	314	330	366	426	463	475	632
Southern	96	105	111	127	152	161	179	250
Northwestern	45	51	55	61	78	86	85	113
Mid-Western	64	72	75	78	97	104	114	185
Southwestern	83	89	92	109	135	150	156	197
Rocky Mountain	20	22	27	30	38	41	45	71
Pacific	116	125	149	168	193	222	246	329
Total	1,120	1,233	1,315	1,477	1,734	1,910	2,045	2,728

Source: 1940 through 1946—calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics; 1949—American Trucking Association data.

TABLE 2—OPERATING REVENUES OF CLASS I MOTOR CARRIERS OF PROPERTY,
BY REGIONS, 1940-1946

Region	1940	1941	1942	1943	1944	1945	1946
	Millions of Dollars						
New England	\$ 38.7	\$ 54.9	\$ 57.0	\$ 51.6	\$ 56.3	\$ 62.2	\$ 73.7
Middle Atlantic ...	97.8	127.7	141.3	154.7	194.2	217.7	255.5
Central	169.2	221.4	214.7	233.7	255.2	261.1	322.8
Southern	47.3	63.5	76.1	94.1	81.7	85.5	94.5
Northwestern	16.3	21.5	25.5	30.7	37.0	39.8	48.7
Mid-Western	24.4	31.3	33.5	40.3	44.3	45.8	58.2
Southwestern	30.0	39.1	42.3	56.5	65.5	74.0	83.7
Rocky Mountain ..	6.7	9.8	13.3	14.7	17.9	20.3	26.2
Pacific	39.8	52.2	69.2	90.2	103.6	113.6	132.0
Total	\$470.2	\$621.5	\$673.0	\$766.5	\$855.7	\$920.0	\$1,095.1

Source: Calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics.

TABLE 3—OPERATING TAXES AND LICENSES AS A PER CENT OF OPERATING REVENUES, CLASS I MOTOR CARRIERS OF PROPERTY, BY REGIONS, 1940-1948

Region	1940	1941	1942	1943	1944	1945	1946	1947	1948 ^a
	Per Cent of Operating Revenue								
New England	6.81	6.51	6.09	6.03	5.93	5.76	5.31	4.85	4.80
Middle Atlantic	6.46	6.26	5.87	5.84	5.80	5.74	5.35	4.52	4.37
Central	5.96	5.94	5.42	5.34	5.33	5.37	4.84	4.25	3.52
Southern	10.58	10.02	9.09	8.35	7.93	8.02	7.58	6.57	6.02
Northwestern	8.95	8.77	8.76	8.58	8.38	8.44	7.42	6.01	5.87
Mid-Western	7.66	7.68	7.28	7.02	6.97	6.83	6.16	5.86	5.21
Southwestern	8.44	8.44	8.26	7.35	7.30	7.57	7.21	6.38	5.69
Rocky Mountain	9.23	10.16	9.00	8.44	8.57	8.48	8.15	6.96	6.62
Pacific	9.02	8.71	8.12	7.72	7.60	7.82	7.62	7.04	7.02
All Carriers	7.26	7.12	6.73	6.56	6.44	6.48	6.01	5.27	4.81

^a First Quarter of 1948.Source: Calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics; 1947 and 1948—calculated from data obtained from publications of the American Trucking Association.

TABLE 4—INCOME TAXES AS A PER CENT OF OPERATING REVENUES, CLASS I MOTOR CARRIERS OF PROPERTY, BY REGIONS, 1940-1948

Region	1940	1941	1942	1943	1944	1945	1946	1947	1948 ^a
	Per Cent of Operating Revenue								
New England	.86	1.90	3.04	1.40	1.19	.84	1.41	1.51	1.21
Middle Atlantic	.63	1.02	1.83	2.59	2.57	1.75	1.11	1.49	1.23
Central	1.28	1.55	1.80	1.49	1.45	.91	1.49	1.38	1.67
Southern	1.10	1.33	2.46	1.28	1.04	.66	1.09	1.54	2.54
Northwestern	.78	1.08	1.90	1.49	.76	.41	.73	.93	1.05
Mid-Western	.55	1.13	1.65	1.56	1.23	.90	1.53	1.44	.94
Southwestern	1.26	1.86	4.14	3.42	1.27	.93	1.15	1.80	2.04
Rocky Mountain	1.17	.91	5.65	6.04	2.53	1.13	1.24	2.34	2.60
Pacific	1.14	1.87	4.52	4.14	3.50	1.68	1.46	2.10	2.20
All Carriers	1.02	1.45	2.49	2.23	1.87	1.16	1.29	1.55	1.64

^a First Quarter of 1948.Source: Calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics; 1947 and 1948—calculated from data obtained from publications of the American Trucking Association.

TABLE 5—OPERATING PROFITS AS A PER CENT OF NET WORTH,^a CLASS I MOTOR CARRIERS OF PROPERTY, BY REGIONS, 1940-1946

Region	1940	1941	1942	1943	1944	1945	1946
	Per Cent of Net Worth						
New England	17.44	32.21	34.90	13.61	10.12	5.34	23.31
Middle Atlantic ...	12.85	18.72	20.45	14.08	11.30	4.26	14.20
Central	32.62	35.14	25.23	17.38	16.81	5.94	28.72
Southern	26.03	26.41	24.59	3.12	7.69	-5.04 ^b	18.74
Northwestern	16.63	18.11	21.67	18.79	9.59	3.32	17.17
Mid-Western	20.17	22.22	20.79	11.78	4.33	-.96 ^b	19.77
Southwestern	16.96	23.92	33.70	29.93	14.07	6.14	14.05
Rocky Mountain	19.64	23.02	36.42	24.65	10.02	4.77	16.36
Pacific	11.65	13.27	22.68	18.38	11.75	.37	6.37
All Carriers ...	19.77	24.01	25.04	16.11	12.10	3.32	17.70

^a Net worth is the sum of corporate capital stock, noncorporate capital, and unappropriated surplus (earned and unearned). The profits are stated at a minimum, because "ending" net worth, i.e., as at the end of each year, was used, as reported by the carriers.

^b Loss.

Source: Calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics.

TABLE 6—NET WORTH OF CLASS I MOTOR CARRIERS OF PROPERTY, BY REGIONS, 1941-1946

Region	1941	1942	1943	1944	1945	1946
	Millions of Dollars					
New England	\$ 10.1	\$ 11.0	\$ 10.4	\$ 11.7	\$ 13.0	\$ 15.6
Middle Atlantic	30.2	31.5	45.4	54.7	59.4	61.2
Central	29.4	33.4	37.3	43.2	43.9	53.2
Southern	10.6	16.9	16.4	13.4	13.2	16.3
Northwestern	4.9	5.4	6.3	6.6	6.4	7.5
Mid-Western	5.4	6.0	9.5	10.0	10.2	13.1
Southwestern	11.2	12.7	15.5	17.9	18.0	20.3
Rocky Mountain	2.2	2.9	3.6	3.8	4.4	5.4
Pacific	21.8	26.3	28.2	32.2	34.2	36.9
Total	125.7	146.1	172.5	193.8	202.8	229.4

Source: Compiled from *Statistics of Class I Motor Carriers*, The Interstate Commerce Commission, Bureau of Transport Economics and Statistics.

TABLE 7—OPERATING PROFITS AS A PER CENT OF OPERATING REVENUES, CLASS I MOTOR CARRIERS OF PROPERTY, BY REGIONS, 1940-1948

Region	1940	1941	1942	1943	1944	1945	1946	1947	1948 ^a
	Per Cent of Operating Revenue								
New England	3.50	5.90	6.73	2.75	2.11	1.12	4.95	4.60	1.54
Middle Atlantic	3.43	4.42	4.57	4.13	3.19	1.16	3.40	5.31	4.76
Central	4.81	4.67	3.92	2.77	2.85	1.00	4.73	4.64	6.21
Southern	4.75	4.43	5.45	.55	1.26	-78	3.23	5.45	8.49
Northwestern	4.27	4.12	4.57	3.84	1.71	.54	2.66	3.44	3.74
Mid-Western	3.72	3.80	3.74	2.78	.98	-21	4.44	4.65	4.89
Southwestern	5.34	6.88	10.16	8.19	3.86	1.49	3.41	7.27	8.18
Rocky Mountain	5.46	5.05	7.98	5.99	2.15	1.03	3.35	6.76	6.95
Pacific	4.94	5.54	8.61	5.75	3.66	.11	1.78	5.25	5.33
All Carriers	4.39	4.86	5.44	3.63	2.74	.73	3.71	5.11	5.77

^a First Quarter of 1948.

Source: 1940 through 1946—calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics; 1947 and 1948—calculated from data obtained from publications of the American Trucking Association.

TABLE 8—GASOLINE, OIL, AND OTHER FUEL TAXES AS A PER CENT OF OPERATING REVENUES, CLASS I MOTOR CARRIERS OF PROPERTY, BY REGIONS, 1940-1946

Region	1940 ^a	1941	1942	1943	1944	1945	1946
	Per Cent of Operating Revenues						
New England	3.45	3.06	2.90	2.80	2.77	2.70	2.40
Middle Atlantic ...	3.98	3.03	2.77	2.61	2.66	2.56	2.35
Central	3.55	2.37	2.09	2.16	2.15	2.17	1.94
Southern	6.08	5.28	4.54	4.14	3.85	3.83	3.60
Northwestern	3.70	3.22	2.99	3.10	3.23	3.22	3.06
Mid-Western	3.55	2.66	2.41	2.40	2.36	2.35	2.30
Southwestern	4.46	4.03	3.66	3.22	3.13	3.24	3.18
Rocky Mountain ...	3.23	3.73	3.17	2.83	2.82	2.62	2.43
Pacific	3.29	2.83	2.42	2.18	2.15	2.18	2.10
All Carriers ..	4.00	3.07	2.78	2.68	2.62	2.60	2.41

^a The data for 1940 cover only 643 carriers, all intercity carriers using owned equipment principally. These are the only carriers for which gasoline taxes were listed separately. Source: Calculated from *Statistics of Class I Motor Carriers*, Interstate Commerce Commission, Bureau of Transport Economics and Statistics.

TABLE 9—TOTAL OPERATING TAXES AND LICENSES AS A PER CENT OF OPERATING REVENUES, CLASS I MOTOR CARRIERS OF PROPERTY, BY TYPE OF SERVICE, BY REGIONS, 1940 AND 1945

REGION	TYPE OF SERVICE										Per Cent Change 1945 from 1940 All Class I Carriers
	Intercity, Common Carriers with Owned Equipment		Intercity, Contract Carriers with Owned Equipment		Intercity, with Leased Equipment		Local Service		All Class I Carriers		
	1940	1945	1940	1945	1940	1945	1940	1945	1940	1945	
	Per Cent of Operating Revenue										
New England	7.21	6.00	8.71	7.16	5.14	3.67	5.72	5.01	6.81	5.76	-15.40
Middle Atlantic	7.25	6.49	8.10	6.99	4.78	4.15	6.63	5.33	6.46	5.74	-11.21
Central	8.14	6.47	7.92	7.81	4.01	3.72	7.14	5.77	5.96	5.37	-9.96
Southern	11.17	9.24	13.10	11.00	8.15	5.81	8.22	5.47	10.58	8.02	-24.20
Northwestern	9.59	8.59	10.93	10.98	7.13	7.85	8.63	7.02	8.95	8.44	-5.72
Mid-Western	9.33	8.23	9.15	9.09	6.82	5.45	5.79	4.87	7.66	6.83	-10.84
Southwestern	9.03	7.88	11.27	8.96	7.15	5.84	7.94	7.16	8.44	7.57	-10.37
Rocky Mountain	9.99	9.53	a	9.21	5.19	8.28	7.94	6.03	9.23	8.48	-8.05
Pacific	9.98	9.17	9.59	8.71	8.18	6.65	5.97	5.64	9.02	7.82	-13.33
All Carriers	8.72	7.48	9.05	8.22	5.12	4.70	6.68	5.61	7.26	6.48	-10.66

^a There were no Class I Contract Carriers in this region in 1940.

Source: Calculated from data given in *Statistics of Class I Motor Carriers* (for the year ended December 31, 1945), Interstate Commerce Commission, Bureau of Transport Economics and Statistics, Statement No. 4714, Washington, D. C., July, 1947.

TABLE 10—TOTAL TAXES AS A PER CENT OF OPERATING REVENUES, CLASS I MOTOR CARRIERS OF PROPERTY OF PROPERTY BY TYPE OF SERVICE, BY REGIONS, 1940 AND 1945

REGION	TYPE OF SERVICE										Per Cent Change 1945 from 1940 All Class I Carriers					
	Intercity, Common Carriers with Owned Equipment				Intercity, Contract Carriers with Owned Equipment				Intercity, with Leased Equipment			Local Service		All Class I Carriers		
	1940		1945		1940		1945		1940			1945			1940	1945
	Per Cent of Operating Revenue															
New England	8.13	6.76	8.96	7.70	6.07	3.69	6.04	7.01	7.67	6.61	-13.79					
Middle Atlantic	7.93	6.84	8.60	7.91	5.10	4.52	7.80	10.11	7.09	7.49	+ 5.62					
Central	9.54	7.15	11.88	9.46	4.78	4.21	8.62	8.27	7.24	6.28	-13.22					
Southern	12.26	9.63	15.55	12.35	8.75	6.62	9.29	9.29	11.67	8.67	-25.68					
Northwestern	10.50	8.83	11.63	11.18	7.72	8.03	8.84	8.69	9.73	8.85	- 9.08					
Mid-Western	9.88	8.56	10.51	9.54	6.97	5.66	8.73	8.54	8.22	7.73	- 5.88					
Southwestern	10.65	8.55	12.30	8.97	7.74	7.10	8.97	9.50	9.70	8.50	-12.36					
Rocky Mountain	11.05	9.99	a	9.21	8.34	8.70	7.97	10.63	10.40	9.62	- 7.52					
Pacific	10.92	9.54	10.30	8.82	8.73	6.70	8.57	10.64	10.16	9.50	- 6.50					
All Carriers	9.80	7.98	10.92	9.17	5.74	5.18	8.20	9.53	8.28	7.65	- 7.63					

^a There were no Class I Contract Carriers in this region in 1940.

Source: Compiled from data given in *Statistics of Class I Motor Carriers* (for the year ended December 31, 1945), Interstate Commerce Commission, Bureau of Transport Economics and Statistics, Statement No. 4714, Washington, D. C., July, 1947.

APPENDIX B

TAX AND FINANCIAL DATA FOR FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS

APPENDIX B

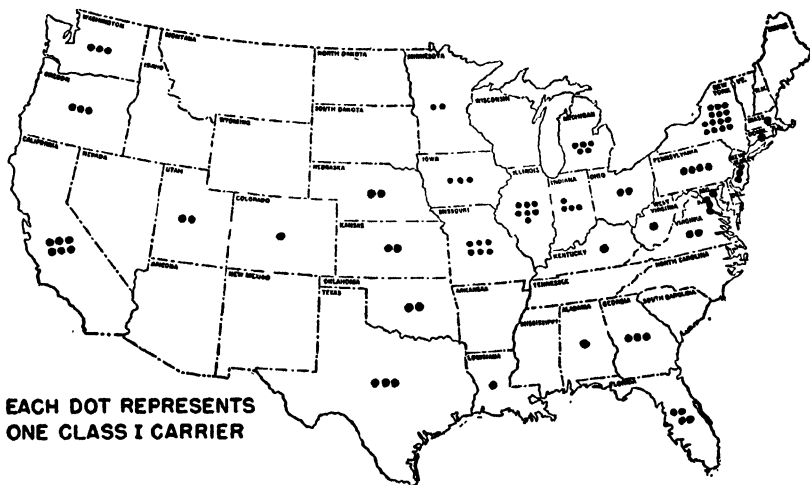
Source: The data in this appendix have been tabulated from unpublished records of the Interstate Commerce Commission with funds provided by The Ohio State University Research Foundation.

I. GEOGRAPHICAL DISTRIBUTION OF FIVE TYPES OF CLASS I MOTOR CARRIERS

The purpose of gathering these data was to provide information that would permit a consideration of the taxes paid by five specialized groups of trucking concerns. The trucking activities summarized are limited to five types of Class I carriers, classified by the Interstate Commerce Commission as haulers of (1) household goods, (2) heavy machinery, (3) liquid petroleum, (4) motor vehicles, and (5) retail store delivery, during 1945 and 1947.

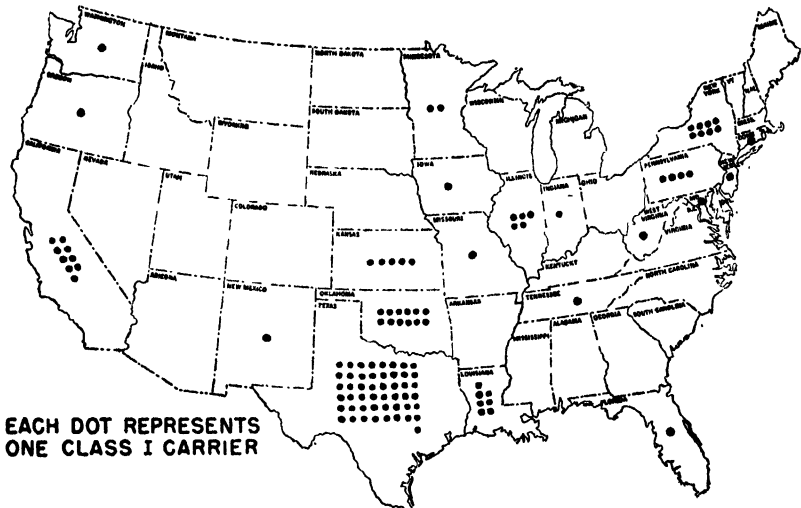
Maps 1-5 on the following pages show the geographical location of the 5 types of carriers for which data are given. The selection of only Class I carriers resulted in the exclusion of the smaller carriers; the effect of this, as is apparent from the maps,

MAP 1—THE LOCATION OF MOTOR CARRIERS OF HOUSEHOLD GOODS



Source: These data have been tabulated from unpublished records of the I.C.C. with funds provided by the Ohio State University Research Foundation.

MAP 2—THE LOCATION OF MOTOR CARRIERS OF HEAVY MACHINERY

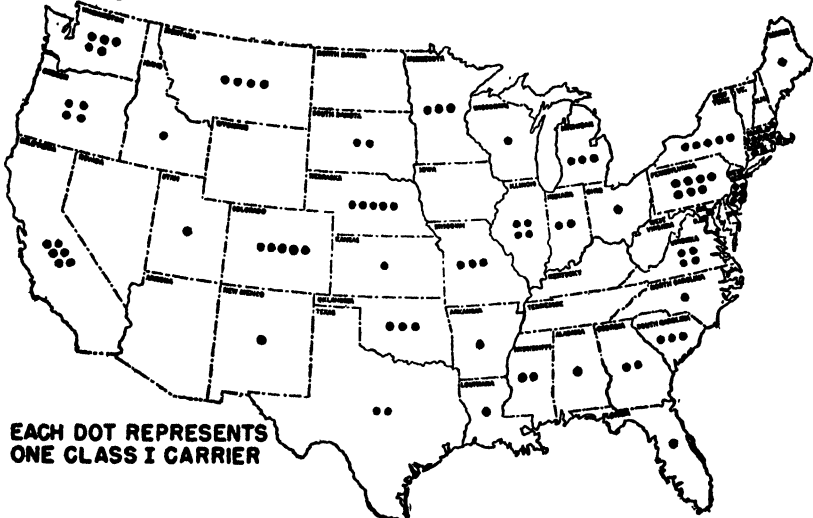


Source: These data have been tabulated from unpublished records of the I.C.C. with funds provided by the Ohio State University *Research Foundation*.

is to concentrate the activities under consideration in the areas of greater population and industrial concentration.

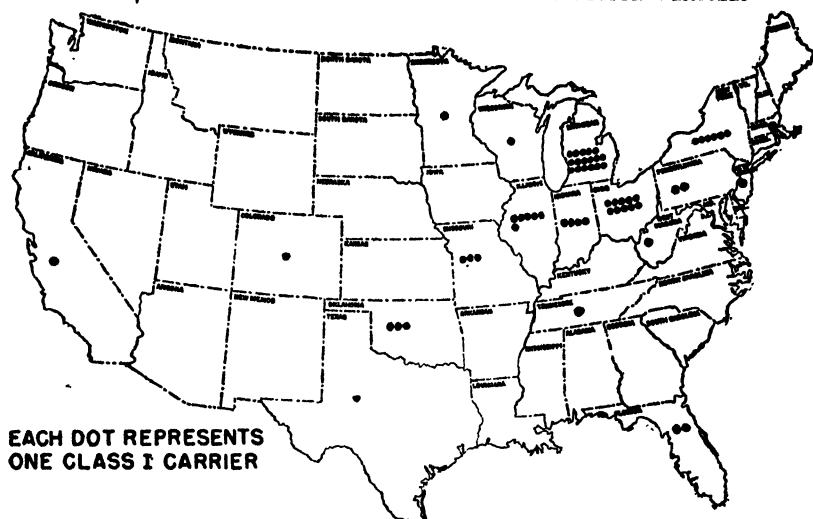
The activities of the five types of specialized truckers con-

MAP 3—THE LOCATION OF MOTOR CARRIERS OF LIQUID PETROLEUM



Source: These data have been tabulated from unpublished records of the I.C.C. with funds provided by the Ohio State University *Research Foundation*.

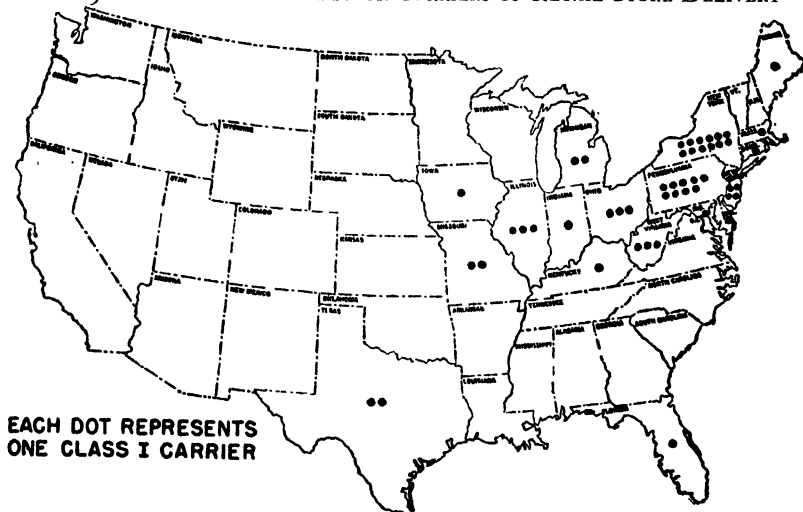
MAP 4—THE LOCATION OF MOTOR CARRIERS OF MOTOR VEHICLES



Source: These data have been tabulated from unpublished records of the I.C.C. with funds provided by the Ohio State University *Research Foundation*.

sidered are distributed over the entire nation. However, each of the specialized types of haulers evidences a geographical concentration, partially determined by industry location. The carriers of

MAP 5—THE LOCATION OF MOTOR CARRIERS OF RETAIL STORE DELIVERY



Source: These data have been tabulated from unpublished records of the I.C.C. with funds provided by the Ohio State University *Research Foundation*.

heavy machinery are concentrated in the petroleum producing areas of Texas, Oklahoma, California, and Louisiana. The carriers of motor vehicles are largely located in Michigan and Ohio with Indiana, Illinois, and New York activity also important. The location of the carriers of household goods, liquid petroleum products, and retail store delivery are largely determined by population distribution.

The differences in the concentration of the operations of the specialized carriers cause a differential in tax burden between specialized carriers that may arise from the differences in the motor carrier taxes of the states. This, of course, is a factor which must be considered in utilizing the data given in the following pages. However, it is not of great importance other than in the case of gasoline tax payments. Even in the case of the gasoline tax, the importance is less than indicated by variation in state tax rates because of the relative unimportance of Class I trucking activity in the states with either unusually high or low taxes. Of course, the influence of this factor of difference in state tax rates and concentration of activity is of negligible importance in determining the size of the Federal tax collections.

II. STATISTICS OF TAXES AND SELECTED FINANCIAL DATA FOR FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, UNITED STATES, AND BY GEOGRAPHIC REGIONS, 1945 AND 1947

The tables here presented may be grouped into five sections:

1. Tables 1-5 provide a summary picture of taxes and other financial data for five types of Class I Motor carriers of property for the years 1945 and 1947, and show the dollar and the per cent change from 1945 to 1947.
2. Tables 6-10 give the aggregate data for the five types of carriers on a geographical basis, and Table 11 shows the total tax burden as measured by total operating taxes as a per cent of total revenue, for each of the five types of carriers, by geographic regions.
3. Tables 12-17 show the relative importance of each of six types of taxes to each of the five types of carriers in each geographic region.
4. Tables 18-27 give dollar figures for taxes and other financial data.
5. Tables 28 and 29 give additional selected financial data.

TOTAL TAXES, OPERATING REVENUE, NET WORTH, AND
OPERATING PROFITS FOR FIVE TYPES OF CLASS I MOTOR
CARRIERS, 1945 AND 1947—(TABLES 1-5)

Table I summarizes the aggregate taxes paid by each of the five specialized haulers for 1945 and 1947, and the amount of change from 1945 to 1947. The outstanding facts gleaned from the data in this table are the expansion of tax payments by each of the carrier types between 1945 and 1947, and the very great expansion of tax payments by the motor vehicle carriers as a group, due to the resumption of automobile production for civilians.

TABLE 1—TOTAL OPERATING TAXES, FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Type of Carrier	Total Operating Taxes (In Dollars)		Change 1947 from 1945	
	1945	1947	Dollars	Per Cent
Household Goods ..	\$1,108,433	\$ 1,838,204	+\$ 729,771	+ 65.84
Heavy Machinery ..	1,900,115	2,725,366	+ 825,251	+ 43.43
Liquid Petroleum ..	3,316,926	4,406,201	+ 1,089,275	+ 32.84
Motor Vehicles	9,951	4,133,968	+ 4,124,017	+ 41,443.24
Retail Store Delivery	875,457	1,183,584	+ 308,127	+ 35.20
Total	7,210,882	14,287,323	+ 7,076,441	+ 98.14

Source: Computed from Table 21.

TABLE 2—OPERATING REVENUES OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Type of Carrier	Operating Revenue (In Dollars)		Change 1947 from 1945	
	1945	1947	Dollars	Per Cent
Household Goods ..	\$ 32,221,610	\$ 60,029,906	+\$ 27,808,296	+ 86.30
Heavy Machinery ..	25,957,369	41,410,564	+ 15,453,195	+ 59.53
Liquid Petroleum ..	41,460,326	64,209,713	+ 22,749,387	+ 54.87
Motor Vehicles	140,435	74,241,193	+ 74,100,758	+ 52,765.16
Retail Store Delivery	13,361,583	21,600,729	+ 8,239,146	+ 61.66
Total	113,141,323	261,492,105	+ 148,350,782	+ 131.12

Source: Computed from Table 18.

Table 2 shows operating revenue increases for each of the five types of Motor Carriers from 1945 to 1947. The greatest increase in operating revenue was in the motor vehicle carrier group; the smallest increase, in the liquid petroleum carrier group.

TABLE 3—EFFECTIVE OPERATING-TAX RATES: OPERATING TAXES AS A PER CENT OF OPERATING REVENUES, FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, 1945 AND 1947

Type of Carrier	Operating Taxes as a Per Cent of Operating Revenue		Change 1947 from 1945	
	1945	1947	Points	Per Cent
Household Goods ..	3.44	3.06	— .38	—10.99
Heavy Machinery ..	7.32	6.58	— .74	—10.09
Liquid Petroleum ..	8.00	6.86	—1.14	—14.22
Motor Vehicles	7.09	5.57	—1.52	—21.42
Retail Store Delivery	6.55	5.48	—1.07	—16.37
All Carriers ...	6.37	5.46	— .91	—14.27

Source: Computed from Tables 1 and 2.

Table 3 gives the aggregate tax data in a more meaningful form through relating taxes paid in 1945 and 1947 to operating revenues for the same periods and reporting the total of taxes as a percentage of operating revenue.

Table 4 gives the totals of net worth which can be utilized along with the data in Table 1 to obtain comparisons similar to those in Table 3 but with taxes related to net worth rather than operating revenue. This can also be done with operating profits by using data in Table 5.

The outstanding facts of Table 3 are: (1) when the tax increases given in Table 1 are compared with the operating revenue increases (Table 2), the tax burden as measured by per cent of operating revenue decreases, and (2) the greatest percentage decrease was enjoyed by the motor vehicle carriers.

TABLE 4—NET WORTH^a OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Type of Carrier	Net Worth (In Dollars)		Change 1947 from 1945	
	1945 ^b	1947 ^b	Dollars	Per Cent
Household Goods ..	\$ 4,888,434	\$ 9,665,609	+\$ 4,777,175	+ 97.72
Heavy Machinery ..	10,563,002	14,089,044	+ 3,526,042	+ 33.38
Liquid Petroleum ..	8,645,278	13,454,419	+ 4,809,141	+ 55.63
Motor Vehicles	18,007	9,062,113	+ 9,044,106	+ 50,225.50
Retail Store Delivery	2,105,808	3,705,508	+ 1,599,700	+ 75.97
All Carriers ...	26,220,529	49,976,693	+ 23,756,164	+ 90.60

^a Capital Stock and private and partnership capital and all unappropriated surplus.

^b Closing figures are given, i.e., amounts at the end of each year.

Source: Computed from Table 20.

TABLE 5—OPERATING PROFITS OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Type of Carrier	Operating Profits (In Dollars)		Change 1947 from 1945	
	1945	1947	Dollars	Per Cent
Household Goods ..	\$ 402,378	\$ 132,967	—\$ 269,411	— 66.95
Heavy Machinery ..	1,284,978	2,404,122	+ 1,119,144	+ 87.09
Liquid Petroleum ..	238,279	3,990,986	+ 3,752,707	+ 1,574.92
Motor Vehicles	— 34,774	3,795,113	+ 3,829,887	^a
Retail Store Delivery	538,344	1,402,570	+ 864,226	+ 160.53
All Carriers ...	2,429,205	11,725,758	+ 9,296,553	+ 382.70

^a Not a meaningful per cent.

Source: Computed from Table 19.

TOTAL TAXES, OPERATING REVENUE, NET WORTH, AND
OPERATING PROFITS, FOR FIVE TYPES OF CLASS I MOTOR
CARRIERS, BY GEOGRAPHIC REGIONS—(TABLES 6–10)

Table 6 shows aggregate tax collection data for the five types of Class I Motor Carriers for each of the geographic regions utilized by the Interstate Commerce Commission (ICC) in reporting their data, and Table 7 shows the growth in operating revenue. The point of greatest interest in these tables is the large increase in tax payments and in operating revenue between 1945 and 1947, particularly in the Central region. However, when

TABLE 6—TOTAL OPERATING TAXES FOR FIVE TYPES^a OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Region	Operating Taxes (In Thousands of Dollars)		Change 1947 from 1945	
	1945	1947	Dollars	Per Cent
New England	\$ 300	\$ 455	+\$ 155	+ 52
Middle Atlantic ..	1,324	2,407	+ 1,083	+ 82
Central	1,413	4,764	+ 3,351	+ 237
Southern	791	1,045	+ 254	+ 32
Northwestern	132	287	+ 155	+ 117
Mid-Western	352	678	+ 325	+ 92
Southwestern	1,552	2,549	+ 997	+ 64
Rocky Mountain ...	363	466	+ 103	+ 28
Pacific	983	1,636	+ 654	+ 66
All Carriers ...	\$7,211	\$14,287	+\$7,076	+ 98

^a Household Goods, Heavy Machinery, Liquid Petroleum, Motor Vehicles, Retail Store Delivery.

Source: Computed from Table 21.

TABLE 7—OPERATING REVENUES OF FIVE TYPES^a OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHICAL REGIONS, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Region	Operating Revenue (In Thousands of Dollars)		Change 1947 from 1945	
	1945	1947	Dollars	Per Cent
New England	\$ 3,913	\$ 6,652	+ 2,738	+ 70
Middle Atlantic	20,128	46,714	+ 26,586	+ 132
Central	35,977	110,373	+ 74,396	+ 207
Southern	9,994	13,786	+ 3,792	+ 38
Northwestern	2,483	5,428	+ 2,945	+ 119
Mid-Western	5,488	11,070	+ 5,581	+ 102
Southwestern	20,255	37,682	+ 17,428	+ 86
Rocky Mountain	3,930	8,965	+ 5,035	+ 128
Pacific	10,973	20,823	+ 9,849	+ 90
All Carriers	\$113,141	\$261,492	+\$148,351	+ 131

^a Household Goods, Heavy Machinery, Liquid Petroleum, Motor Vehicles, Retail Store Delivery.

Source: Computed from Table 18.

taxes are expressed as a per cent of operating revenues, the Central region was the only region with a tax increase as shown in Table 8. The concentration of motor vehicle carriers in the Central region was an important factor in causing the Central region to show the greatest expansion in operating revenue.

Tables 9 and 10 provide the net worth and operating profit data necessary to make a comparable calculation of tax payments as a percentage of those financial totals.

TABLE 8—EFFECTIVE OPERATING-TAX RATES: OPERATING TAXES AS A PER CENT OF OPERATING REVENUES, FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Region	Operating Taxes as a Per Cent of Operating Revenue		Change 1947 from 1945	
	1945	1947	Points	Per Cent
New England	7.66	6.84	— .82	— 11
Middle Atlantic	6.58	5.15	— 1.43	— 22
Central	3.93	4.32	+ .39	+ 10
Southern	7.92	7.58	— .34	— 4
Northwestern	5.33	5.29	— .04	— 1
Mid-Western	6.24	6.12	— .30	— 5
Southwestern	7.66	6.76	— .90	— 12
Rocky Mountain	9.42	5.20	— 4.04	— 44
Pacific	8.96	7.86	— 1.10	— 12
All Carriers	6.37	5.46	— .91	— 14

Source: Computed from Tables 6 and 7.

TABLE 9—NET WORTH^a OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Region	Net Worth (In Thousands of Dollars)		Change 1947 from 1945	
	1945	1947	Dollars	Per Cent
New England	\$ 1,161	\$ 1,917	+ 756	+ 65
Middle Atlantic . . .	4,658	8,994	+ 4,335	+ 93
Central	5,311	14,311	+ 9,000	+ 169
Southern	1,569	3,247	+ 1,678	+ 107
Northwestern	401	728	+ 327	+ 81
Mid-Western	1,751	3,199	+ 1,448	+ 83
Southwestern	6,164	9,911	+ 3,747	+ 61
Rocky Mountain . . .	786	1,563	+ 777	+ 99
Pacific	4,419	6,107	+ 1,688	+ 38
All Carriers . . .	\$26,221	\$49,977	+\$23,756	+ 91

^a Capital Stock and Private and Partnership Capital and all unappropriated surplus.
Source: Computed from Table 20.

The data given in Tables 6 through 10 are similar to those shown in Tables 1 through 5 but the comparisons are on a regional basis, requiring the lumping of taxes paid by the five types of Class I Motor Carriers and comparing this total with operating revenues, net worth, and operating profits of these carriers. To the extent that the five types of carriers under consideration are typical for the region, the relative average importance of taxes in the different regions is made available.

TABLE 10—OPERATING PROFITS OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, AND PERCENTAGE CHANGE FROM 1945 TO 1947

Region	Operating Profits (In Thousands of Dollars)		Change 1947 from 1945	
	1945	1947	Dollars	Per Cent
New England	\$ -39	\$ 182	+\$ 221	^a
Middle Atlantic . . .	15	1,415	+ 1,400	+ 9,458
Central	745	3,732	+ 2,987	+ 401
Southern	101	917	+ 816	+ 810
Northwestern	93	307	+ 214	+ 231
Mid-Western	135	484	+ 350	+ 260
Southwestern	1,328	2,895	+ 1,567	+ 118
Rocky Mountain . . .	-29	395	+ 423	^a
Pacific	81	1,399	+ 1,319	+ 1,636
All Carriers . . .	\$2,429	\$11,726	+\$9,297	+ 383

^aNot meaningful per cent.
Source: Computed from Table 19.

TOTAL TAXES AND SPECIFIED TAXES AS PER CENTS OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS, BY GEOGRAPHIC REGIONS, 1945 AND 1947 (TABLES 11-17)

The core of the tax data presented in this appendix is found in Tables 11 through 17. Table 11 shows total operating taxes as a percentage of operating revenue for each of the five different types of truckers for each ICC geographical area for the years 1945 and 1947. All these rather detailed comparisons of the importance of different taxes paid by each trucking group of each geographical area are measured by the per cent which they are of operating revenues. Similar ratios based on operating profits (Table 19) or net worth (Table 20) can be computed from the tax data given in Tables 21-27. Operating revenues, because they appeared to be a compromise—part way between net worth and operating profit—were selected as the basis for the calculations actually made.

Table 11 shows all operating taxes and licenses as a per cent of operating revenues by ICC geographic regions. This provides an overall summary of the weight of taxation of these selected groups of truckers which operate in each ICC region. The summary shows that the United States average of taxes decreased for each group of truckers considered. Also, with the single exception of the Central region, the average tax burden borne by each group of truckers in each region decreased.

Taxes as a per cent of operating revenue are highest as a national average in the heavy machinery trucking group and lowest in the household goods trucking group. A large portion of the explanation for this relationship is the low gasoline, other fuel, and oil taxes of the household goods carriers (Table 12) and the high income taxes of the heavy machinery carriers (Table 17).

The highest average taxes on all groups of carriers are collected in the Pacific region with the Southern region close behind. In 1947 the lowest taxes were still paid in the Central region despite this region experiencing the only increase in taxes between 1945 and 1947. The highest tax bill as measured by these tables was paid by the liquid petroleum carriers in the Pacific region in 1945. The second highest tax bill was in 1947 and also in the Pacific

region. This time the highest tax was paid by the motor vehicle carriers. The lowest total taxes were paid by the Rocky Mountain household goods carriers in 1947 and the next lowest, by the household goods carriers of the Central region, also in 1947.

TABLE II.—TOTAL OPERATING TAXES AND LICENSES AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Per Cent of Operating Revenue										
Household Goods										
1945	3.44	...	4.71	2.64	5.97	3.73	5.69	4.31	3.80	6.94
1947	3.06	5.40	4.03	2.28	4.91	4.54	4.03	5.15	2.16	6.16
Heavy Machinery										
1945	7.32	9.77	8.78	4.81	...	3.26	5.63	7.51	...	7.05
1947	6.58	5.91	7.99	4.52	8.58	4.04	6.32	6.61	5.04	6.52
Liquid Petroleum										
1945	8.00	7.46	7.02	6.27	7.99	6.24	7.44	9.51	10.92	11.31
1947	6.86	7.59	5.76	5.67	7.91	5.00	7.37	7.39	6.58	9.30
Motor Vehicles										
1945	7.09	7.09	...	...	...	...	...	...	...	...
1947	5.57	5.76	4.50	5.40	8.81	7.37	6.92	7.80	6.68	9.63
Retail Store Delivery										
1945	6.55	7.91	5.71	6.46	10.22	...	6.71	8.19	...	...
1947	5.48	7.28	4.73	5.31	8.91	...	6.36	7.95	...	...
All Carriers										
1945	6.37	7.66	6.58	3.93	7.92	5.33	6.42	7.66	9.24	8.96
1947	5.46	6.84	5.15	4.32	7.58	5.29	6.12	6.76	5.20	7.86

Source: Computed from Tables 18 and 21.

TABLE 12—GASOLINE, OTHER FUEL, AND OIL TAXES AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	Per Cent of Operating Revenue								Pacific
		New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	
Household Goods										
1945	1.01	...	1.51	.84	2.36	1.24	1.50	.69	.32	1.43
1947	.96	1.65	1.39	.73	1.80	1.87	.96	1.89	.40	1.69
Heavy Machinery										
1945	2.58	1.31	2.17	1.74	...	1.32	1.78	3.01	...	1.62
1947	2.29	.59	1.76	1.66	3.86	1.60	2.33	2.55	2.14	1.46
Liquid Petroleum										
1945	4.03	4.19	4.17	2.89	4.40	3.36	3.47	5.28	4.55	4.53
1947	3.47	4.03	3.50	2.67	4.82	2.72	3.47	3.88	2.93	3.54
Motor Vehicles										
1945	3.20	3.20	...	...	...	...	...	...	...	...
1947	2.90	3.26	2.36	2.78	4.69	5.34	3.48	4.27	2.62	3.78
Retail Store Delivery										
1945	2.81	4.04	2.54	2.44	4.13	...	2.94	3.27	...	...
1947	2.20	3.47	1.89	1.99	3.22	...	2.48	4.11	...	...
All Carriers										
1945	2.69	4.00	3.10	1.51	4.11	2.65	2.46	3.22	3.55	2.90
1947	2.44	3.49	2.46	2.00	4.08	2.99	2.49	2.84	2.12	2.58

Source: Computed from Tables 18 and 22.

TABLE 13—VEHICLE LICENSES AND REGISTRATION FEES AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Per Cent of Operating Revenue									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-western	South-western	Rocky Mountain	Pacific
Household Goods	1.14	...	.95	.93	1.95	1.09	1.62	1.87	2.32	2.06
	1.03	.75	.83	.88	1.55	1.44	1.33	1.61	1.34	1.63
Heavy Machinery	2.49	2.91	1.76	1.55	...	.67	1.45	2.67	...	2.97
	2.29	2.17	1.82	1.69	2.54	1.36	1.66	2.41	1.52	2.55
Liquid Petroleum	2.07	1.40	1.32	1.73	1.71	1.31	2.20	2.76	4.50	3.29
	1.89	1.58	1.03	1.61	1.83	1.33	2.34	2.32	2.27	3.29
Motor Vehicles	.50	.50	...	...	...	...	...	...	...	...
	1.34	.60	.71	1.40	2.56	.83	1.79	1.81	2.25	.76
Retail Store Delivery	1.72	2.05	1.17	2.08	3.13	...	2.16	2.00	...	...
	1.42	1.85	.97	1.72	3.04	...	2.26	.88	...	...
All Carriers	1.86	1.60	1.29	1.25	1.86	1.18	1.88	2.64	3.99	2.93
	1.56	1.33	.97	1.26	2.01	1.25	1.86	2.29	1.96	2.68

Source: Computed from Tables 18 and 23.

TABLE 14—SOCIAL SECURITY TAXES AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Per Cent of Operating Revenue										
Household Goods										
1945	.67	...	1.33	.49	.81	1.11	1.11	1.05	.62	1.20
1947	.50	.71	1.16	.28	.68	.92	.80	1.03	.12	1.16
Heavy Machinery										
1945	1.14	3.36	3.60	.85	...	.90	1.02	.72	...	1.33
1947	.98	1.46	2.98	.77	.79	.84	1.02	.71	.80	1.27
Liquid Petroleum										
1945	.89	.86	.79	1.15	.67	1.03	.89	.52	.78	1.15
1947	.64	.78	.62	.64	.55	.50	.74	.41	.50	.85
Motor Vehicles										
1945	1.06	1.06	...	...	...	...	...	...	...	...
1947	.91	.51	1.02	.90	.74	.73	1.15	.99	1.14	1.68
Retail Store Delivery										
1945	1.33	1.24	1.47	1.21	1.56	...	1.13	.69	...	...
1947	1.21	1.15	1.36	1.00	1.51	...	.96	.70	...	...
All Carriers										
1945	.94	1.07	1.43	.73	.76	1.03	1.04	.71	.74	1.22
1947	.79	.79	1.12	.66	.69	.64	.92	.71	.44	1.04

Source: Computed from Tables 18 and 24.

TABLE 15—REAL ESTATE AND PERSONAL PROPERTY TAXES AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Per Cent of Operating Revenue										
Household Goods										
1945	.11	...	.09	.08	.08	...	.54	.11	.15	.10
1947	.11	.08	.08	.07	.30	...	.46	.13	.15	.10
Heavy Machinery										
1945	.24	1.57	.16	.20	...	.32	.27	.23	...	.31
1947	.26	1.35	.29	.22	.09	.18	.32	.24	.11	.27
Liquid Petroleum										
1945	.18	.48	.07	.15	.13	.11	.28	.09	.19	.37
1947	.18	.63	.06	.15	.18	.09	.32	.11	.13	.32
Motor Vehicles										
1945	1.84	1.84	...	...	...	...	...	...	...	...
1947	.11	.32	.04	.10	.36	...	.11	.07	.34	.19
Retail Store Delivery										
1945	.20	.37	.07	.30	.65	...	.16	.17	...	...
1947	.18	.42	.11	.19	.60	...	.17	.15	...	...
All Carriers										
1945	.18	.54	.08	.12	.17	.11	.32	.20	.18	.29
1947	.15	.51	.09	.10	.26	.08	.29	.21	.15	.25

Source: Computed from Tables 18 and 25.

TABLE 16—OTHER OPERATING TAXES AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	Northwestern	Midwestern	Southwestern	Rocky Mountain	Pacific
Per Cent of Operating Revenue										
Household Goods										
1945	.49	...	.83	.29	.68	.30	.53	.60	.39	2.15
1947	.46	2.21	.56	.31	.58	.32	.48	.48	.14	1.57
Heavy Machinery										
1945	.86	.62	1.04	.48	...	.08	1.12	.88	...	.82
1947	.76	.34	1.14	.18	1.33	.06	1.00	.70	.47	.98
Liquid Petroleum										
1945	.84	.53	.66	.34	1.09	.43	.67	.86	.89	1.97
1947	.69	.57	.54	.60	.53	.31	.51	.66	.74	1.30
Motor Vehicles										
1945	.47	.47	...	...	...	...	...	...	...	...
1947	.31	1.07	.37	.22	.45	.48	.39	.66	.34	3.22
Retail Store Delivery										
1945	.49	.20	.45	.43	.75	...	.32	2.05	...	...
1947	.47	.39	.40	.40	.56	...	.49	2.11	...	...
All Carriers										
1945	.71	.45	.66	.32	1.01	.35	.63	.90	.77	1.60
1947	.52	.73	.51	.30	.55	.31	.57	.71	.52	1.35

Source: Computed from Tables 18 and 26.

TABLE 17—INCOME TAXES AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-western	South-western	Rocky Mountain	Pacific
Per Cent of Operating Revenue										
Household Goods										
1945	1.32	...	2.44	1.07	1.40	0	4.30	.80	.77	1.40
1947	.71	...	1.95	.44	.33	0	1.75	1.11	0	1.39
Heavy Machinery										
1945	3.90	3.94	29.88	.47	...	0	0	.92	...	1.51
1947	1.66	16.91	2.97	.47	.06	1.38	0	1.33	0	3.11
Liquid Petroleum										
1945	.46	1.21	.62	.16	.14	.15	.63	.08	0	1.35
1947	1.41	.43	1.39	1.18	1.32	1.75	1.63	.11	0	3.21
Motor Vehicles										
1945	.61	.61	...	...	...	...	...	...	...	...
1947	1.85	2.76	1.94	1.81	3.59	4.07	1.45	.09	.74	0
Retail Store Delivery										
1945	.91	.41	1.01	.85	0	...	1.91	0	...	...
1947	1.33	.31	1.22	.86	2.66	...	3.16	1.20	...	...
All Carriers										
1945	1.55	1.08	4.78	.81	.29	.10	1.88	.80	.18	1.40
1947	1.41	1.74	1.65	1.20	1.56	1.97	1.58	1.08	.06	2.71

Source: Computed from Tables 18 and 27.

DOLLAR AMOUNT OF OPERATING REVENUE, OPERATING PROFIT, NET WORTH, TOTAL OPERATING TAXES, AND OF SPECIFIED TAXES, FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS, BY GEOGRAPHIC REGIONS, 1945 AND 1947 (TABLES 18-27)

TABLE 18—AMOUNT OF OPERATING REVENUE FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Amount of Operating Revenue (In Dollars)										
Household Goods										
1945	\$ 33,221,610	\$..	\$ 2,259,515	\$ 22,822,750	\$ 1,289,653	\$ 533,445	\$ 1,569,524	\$ 639,158	\$ 920,152	\$ 2,177,413
1947	66,029,966	221,313	5,861,740	36,877,194	2,063,134	611,240	2,634,313	1,449,678	2,733,577	5,037,717
Heavy Machinery										
1945	25,957,369	156,530	2,635,295	1,321,372	..	311,582	1,033,234	16,677,029	..	3,822,327
1947	41,410,564	259,706	3,174,036	1,259,861	340,835	785,618	2,088,624	28,141,657	239,844	5,120,203
Liquid Petroleum										
1945	41,460,326	2,563,659	8,891,773	8,604,029	7,851,322	1,637,604	1,533,791	2,403,555	3,001,110	4,973,483
1947	64,209,713	2,975,349	15,496,639	12,663,933	7,585,304	2,937,982	2,461,251	4,435,110	5,395,115	10,409,030
Motor Vehicles										
1945	140,435	140,435	10,766,658	52,396,932	2,139,243	..	1,985,538	2,905,707	686,896	255,647
1947	74,241,193	2,011,929	..	..	..	..	..	..	..	..
Retail Store Delivery										
1945	13,361,583	1,052,639	6,341,695	3,227,840	852,811	..	1,351,830	534,768	..	..
1947	21,600,729	1,183,324	11,415,316	5,234,826	1,117,213	..	1,899,919	750,131	..	..
Total										
1945	\$113,141,323	\$3,913,263	\$20,128,278	\$ 35,976,991	\$ 9,993,786	\$2,482,631	\$ 5,488,379	\$20,254,510	\$3,030,262	\$10,973,223
1947	261,492,105	6,051,621	46,714,389	116,372,746	13,785,729	5,427,683	11,069,645	37,682,283	8,965,412	20,822,597

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 19—OPERATING PROFIT FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Amount of Operating Profit (In Dollars)										
Household Goods	\$ 402,378	\$...	\$ -76,128	\$ 436,936	\$ 90,062	\$ 6,849	\$ -3,767	\$ -67,549	\$ 37,312	\$ -21,337
1945	132,967	-28,261	-97,175	297,260	116,006	-33,351	-96,996	-67,256	82,392	-234,002
Heavy Machinery										
1945	1,284,978	-78,262	-114,538	169,424	...	67,213	2,267	1,257,222	...	- 18,348
1947	2,404,122	-84,312	-566,002	58,542	-13,186	38,870	213,792	2,312,817	47,000	396,601
Liquid Petroleum										
1945	238,279	45,085	- 5,808	- 11,969	14,364	18,609	49,122	74,567	-65,996	120,305
1947	3,990,986	83,899	671,532	681,284	500,043	183,841	110,003	308,013	243,165	1,209,206
Motor Vehicles										
1945	- 34,774	-34,774	...	...	...	...	...	...	...	...
1947	3,795,113	151,275	530,429	2,400,796	212,494	117,709	111,552	221,387	22,042	27,429
Retail Store Delivery										
1945	538,344	29,030	211,278	150,464	- 3,658	...	87,092	64,138	...	...
1947	1,402,570	59,173	681,894	293,701	101,510	...	146,107	120,185	...	...
Total	\$ 2,429,205	\$ -38,921	\$ 14,804	\$ 744,855	\$ 100,768	\$ 92,671	\$ 134,714	\$1,328,378	\$ -28,684	\$ 80,620
1945	11,725,758	181,774	1,415,028	3,731,583	916,867	307,069	484,458	2,895,146	394,599	1,399,234

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 20—NET WORTH FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Net Worth (In Dollars)									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Household Goods										
1945	\$ 4,888,434	\$...	\$ 969,194	\$ 1,595,369	\$ 456,347	\$ 195,911	\$ 682,337	\$ 169,168	\$ 202,310	\$ 617,798
1947	9,665,609	129,138	1,963,706	3,549,135	910,715	142,075	979,772	356,608	359,175	1,275,285
Heavy Machinery										
1945	10,563,002	265,769	1,351,096	652,724	...	84,629	502,133	5,432,591	...	2,274,060
1947	14,089,004	419,124	1,415,556	737,852	50,307	123,164	1,054,114	8,275,924	79,840	1,933,163
Liquid Petroleum										
1945	8,645,278	695,107	1,644,891	2,256,201	1,064,645	120,494	284,787	468,181	584,020	1,526,952
1947	13,454,419	782,114	2,983,749	2,968,246	1,526,534	321,679	399,892	534,068	1,088,162	2,849,975
Motor Vehicles										
1945	18,007	18,007	...	...	...	...	...	...	...	...
1947	9,062,113	328,541	1,026,366	5,981,196	555,704	140,906	309,319	635,577	35,734	48,770
Retail Store Delivery										
1945	2,105,808	182,265	693,087	806,632	47,610	...	281,682	94,532	...	...
1947	3,705,508	257,962	1,604,207	1,074,694	203,412	...	455,944	109,289	...	...
Total	\$26,220,529	\$1,161,148	\$4,658,268	\$5,310,926	\$1,568,602	\$401,034	\$1,750,939	\$6,164,472	\$786,330	\$4,418,810
	49,976,653	1,916,879	8,993,584	14,311,123	3,246,672	727,824	3,199,041	9,911,466	1,562,911	6,107,193

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 21.—TOTAL AMOUNT OF OPERATING TAXES AND LICENSES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Amount of Operating Taxes (In Dollars)										
Household Goods										
1945	\$ 1,108,433	\$...	\$ 106,517	\$ 601,708	\$ 76,951	\$ 19,921	\$ 89,372	\$ 27,558	\$ 35,724	\$ 151,082
1947	1,838,204	11,948	236,291	884,671	127,712	27,768	106,063	74,680	58,978	310,093
Heavy Machinery										
1945	1,900,115	15,300	231,381	63,597	...	10,168	58,198	1,252,073	...	269,398
1947	2,725,366	15,351	253,655	56,984	29,246	31,779	131,976	1,860,312	12,092	333,971
Liquid Petroleum										
1945	3,316,926	191,363	624,025	539,303	627,248	102,140	114,166	228,537	327,653	562,491
1947	4,406,201	225,795	892,305	715,190	600,281	146,973	181,475	327,550	348,815	967,817
Motor Vehicles										
1945	9,951	9,951	...	...	...	...	...	...	...	...
1947	4,133,968	115,864	484,795	2,829,822	188,417	80,580	137,310	226,670	45,901	24,609
Retail Store Delivery										
1945	875,457	83,288	361,883	208,658	87,164	...	90,652	43,812	...	...
1947	1,183,584	86,193	539,554	277,792	99,594	...	120,802	59,649	...	...
Total	\$ 7,210,882	\$ 299,902	\$ 1,323,806	\$ 1,413,266	\$ 791,363	\$ 132,299	\$ 352,388	\$ 1,551,980	\$ 362,977	\$ 982,971
1947	14,287,323	455,151	2,406,600	4,764,459	1,045,250	287,100	677,626	2,548,861	465,786	1,636,490

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 22—AMOUNT OF GASOLINE, OTHER FUEL, AND OIL TAXES PAID BY EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Amount of Tax (In Dollars)									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Household Goods										
1945	\$ 325,882	\$...	\$ 34,006	\$ 192,774	\$ 30,417	\$ 6,591	\$ 23,569	\$ 4,385	\$ 2,935	\$ 31,205
1947	577,299	3,643	81,759	284,884	46,931	11,438	25,169	27,457	10,990	85,028
Heavy Machinery										
1945	668,949	2,043	57,124	22,962	...	4,048	18,412	502,511	...	61,849
1947	949,689	1,545	55,897	20,889	13,164	12,593	48,618	717,297	5,137	74,549
Liquid Petroleum										
1945	1,669,721	107,452	370,903	248,865	345,151	55,104	53,174	126,060	136,654	225,458
1947	2,225,825	119,948	542,695	336,377	365,519	79,836	85,294	171,875	155,688	368,593
Motor Vehicles										
1945	4,499	4,499	...	...	...	...	...	...	...	...
1947	2,154,743	65,587	253,593	1,456,226	100,324	58,324	69,088	123,954	17,992	9,655
Retail Store Delivery										
1945	375,080	45,562	161,276	78,832	35,219	...	39,700	17,491	...	...
1947	475,428	41,109	216,043	104,368	35,924	...	47,178	30,806	...	...
Total										
1945	\$ 3,044,131	\$ 156,556	\$ 623,309	\$ 543,433	\$ 410,787	\$ 65,743	\$ 134,855	\$ 651,347	\$ 139,589	\$ 318,512
1947	6,382,984	231,832	1,149,987	2,202,744	561,862	162,191	275,347	1,071,389	189,807	537,825

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 23—AMOUNT OF VEHICLE LICENSES AND REGISTRATION FEES PAID BY EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Amount of Tax (In Dollars)									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Household Goods										
1945	\$ 368,336	\$...	\$ 21,575	\$ 211,989	\$ 25,174	\$ 5,814	\$ 25,434	\$ 11,947	\$ 21,544	\$ 44,859
1947	618,402	1,649	48,538	341,618	40,353	8,799	35,066	23,325	36,704	82,350
Heavy Machinery										
1945	646,827	4,558	46,383	20,422	...	2,072	14,946	444,846	...	113,600
1947	950,121	5,638	57,685	21,343	8,647	10,726	34,641	677,076	3,657	130,708
Liquid Petroleum										
1945	856,518	35,812	117,764	148,606	134,265	21,449	33,810	66,236	135,161	163,415
1947	1,213,015	47,142	160,227	203,498	139,105	39,187	57,558	103,077	120,333	342,888
Motor Vehicles										
1945	705	705	...	...	...	...	...	...	...	...
1947	991,395	12,148	76,399	733,414	54,822	9,099	35,507	52,615	15,455	1,936
Retail Store Delivery										
1945	229,757	21,585	74,240	67,280	26,724	...	29,209	10,719	...	...
1947	305,822	21,905	110,734	89,818	33,930	...	42,849	6,586	...	...
Total										
1945	\$ 2,102,143	\$ 62,660	\$ 259,962	\$ 448,297	\$ 186,163	\$ 29,335	\$ 103,399	\$ 533,748	\$ 156,705	\$ 321,874
1947	4,078,755	88,482	453,583	1,389,691	276,857	67,811	205,621	862,679	176,149	557,882

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 24—AMOUNT OF SOCIAL SECURITY TAXES PAID BY EACH OF FIVE TYPES OF CLASS I
MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North- western	Mid- Western	South- western	Rocky Mountain	Pacific
Amount of Tax (In Dollars)										
Household Goods	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
1945	214,846	...	30,073	112,369	10,405	5,935	17,418	6,733	5,786	26,125
1947	301,535	1,577	68,145	110,634	17,654	5,605	21,096	14,964	3,196	58,664
Heavy Machinery										
1945	296,239	5,261	94,839	11,288	...	2,812	10,541	120,675	...	50,823
1947	406,359	3,783	94,629	9,680	2,702	6,575	21,244	200,950	1,909	64,887
Liquid Petroleum										
1945	367,953	22,121	70,255	99,206	52,454	16,827	13,674	12,529	23,455	57,432
1947	408,208	23,139	96,701	80,799	41,796	14,727	18,161	18,319	26,415	88,151
Motor Vehicles										
1945	1,492	1,492	...	...	...	...	...	...	...	...
1947	678,725	10,260	110,086	470,837	15,885	7,937	22,748	28,868	7,811	4,293
Retail Store Delivery										
1945	177,859	13,101	93,374	39,111	13,287	...	15,273	3,713	...	...
1947	261,785	13,660	155,225	52,532	16,858	...	18,230	5,280	...	...
Total	\$ 1,058,389	\$ 41,975	\$ 288,541	\$ 261,974	\$ 76,146	\$ 25,576	\$ 56,906	\$ 143,650	\$ 29,241	\$ 134,380
1945	2,056,612	52,419	524,786	724,482	94,895	34,844	101,479	268,381	39,331	215,995
1947										

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 25—AMOUNT OF REAL ESTATE AND PERSONAL PROPERTY TAXES PAID BY EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Amount of Tax (In Dollars)									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Household Goods										
1945	\$ 34,628	\$...	\$ 2,011	\$ 18,863	\$ 1,057	\$...	\$ 8,437	\$ 675	\$ 1,411	\$ 2,174
1947	64,535	188	4,925	28,513	7,692	...	12,015	1,904	4,222	5,076
Heavy Machinery										
1945	62,639	2,465	4,203	2,635	...	985	2,744	37,773	...	11,834
1947	106,364	3,508	9,288	2,795	292	1,426	6,637	68,531	252	13,635
Liquid Petroleum										
1945	73,530	12,273	6,074	13,051	9,972	1,792	4,273	2,060	5,730	18,305
1947	116,158	18,672	9,338	18,543	13,691	2,707	7,962	4,968	7,109	33,168
Motor Vehicles										
1945	2,590	2,590	...	...	...	...	...	...	...	...
1947	78,531	6,431	4,632	52,507	7,741	...	2,260	2,160	2,303	497
Retail Store Delivery										
1945	26,794	3,936	4,494	9,649	5,550	...	2,163	912	...	...
1947	38,364	4,950	12,287	10,103	6,672	...	3,220	1,132	...	...
Total										
1945	\$ 200,091	\$ 21,264	\$ 16,782	\$ 44,198	\$ 16,579	\$ 2,777	\$ 17,617	\$ 41,420	\$ 7,141	\$ 32,313
1947	403,952	33,749	40,470	112,461	36,088	4,133	32,094	78,695	13,886	52,376

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 26—AMOUNT OF "OTHER OPERATING TAXES" PAID BY EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Amount of Tax (In Dollars)									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Household Goods										
1945	\$ 157,379	\$...	\$ 18,852	\$ 65,713	\$ 8,775	\$ 1,578	\$ 8,276	\$ 3,818	\$ 3,648	\$ 46,719
1947	276,432	4,891	32,924	119,021	15,082	1,926	12,717	7,030	3,866	78,975
Heavy Machinery										
1945	224,083	973	27,454	6,290	...	251	11,555	146,268	...	31,292
1947	312,933	877	36,156	2,277	4,541	459	20,836	196,458	1,137	50,192
Liquid Petroleum										
1945	350,204	13,705	59,029	29,575	85,406	6,968	10,235	20,752	26,653	97,881
1947	441,546	16,894	83,344	75,955	40,170	9,085	12,500	29,311	39,270	135,017
Motor Vehicles										
1945	665	665	...	...	...	...	...	...	...	...
1947	230,093	21,438	40,085	116,357	9,645	5,220	7,707	19,073	2,340	8,228
Retail Store Delivery										
1945	66,057	2,104	28,499	13,786	6,384	...	4,307	10,977	...	...
1947	102,185	4,569	45,265	20,971	6,210	...	9,325	15,845	...	...
Total	\$ 798,388	\$ 17,447	\$ 133,834	\$ 115,364	\$ 100,565	\$ 8,797	\$ 34,373	\$ 181,815	\$ 30,301	\$ 175,892
1947	1,363,189	48,669	237,774	334,581	75,648	16,690	63,085	267,717	46,613	272,412

Source: Compiled from unpublished records of the Interstate Commerce Commission.

TABLE 27—AMOUNT OF INCOME TAXES PAID BY EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Amount of Tax (In Dollars)									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Household Goods										
1945	\$ 426,434	\$...	\$ 55,098	\$ 243,113	\$ 18,034	\$...	\$ 67,500	\$ 5,143	\$ 7,123	\$ 30,423
1947	427,102	...	114,221	172,070	8,672	...	46,190	16,030	...	69,919
Heavy Machinery										
1945	1,011,655	6,173	787,339	6,200	...	...	...	154,090	...	57,853
1947	687,489	43,915	94,132	5,896	199	10,846	...	373,368	...	159,133
Liquid Petroleum										
1945	190,005	30,934	55,019	13,731	11,017	2,473	9,673	1,856	...	65,302
1947	908,454	12,916	215,903	148,911	99,846	51,401	40,178	5,000	...	334,299
Motor Vehicles										
1945	850	850	...	...	...	...	...	...	...	...
1947	1,370,819	55,482	208,921	948,596	76,872	44,485	28,722	2,640	5,101	...
Retail Store Delivery										
1945	121,232	4,299	63,778	27,296	...	...	25,859	...	...	...
1947	287,061	3,711	139,666	44,902	29,705	...	60,077	9,000	...	...
Total										
1945	\$ 1,750,176	\$ 42,256	\$ 961,234	\$ 290,340	\$ 29,051	\$ 2,473	\$ 103,032	\$ 161,089	\$ 7,123	\$ 153,578
1947	3,680,925	116,024	772,843	1,320,375	215,294	106,732	175,167	406,038	5,101	563,351

Source: Compiled from unpublished records of the Interstate Commerce Commission.

OPERATING PROFITS AS A PER CENT OF OPERATING REVENUE AND OF NET WORTH FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS, BY GEOGRAPHICAL REGION, 1945 AND 1947 (TABLES 28 AND 29)

The data in Tables 28 and 29 show that for the five industry segments the ratios of operating net income to operating revenues and net worth more than doubled from 1945 to 1947, with the percentage points of increase of the net worth ratio exceeding that of the operating revenue ratio.

The sensational expansion of motor vehicle carriers necessitates their partial elimination in comparing the development of the selected industry segments. With carriers of motor vehicles excluded, the greatest increase in both ratios was experienced by the liquid petroleum carriers. The household goods carriers alone experienced a reduction in these ratios.

In 1947 the retail store delivery carriers had the highest ratio of net operating income to operating revenues, and their net worth ratio was next to the top. The net worth ratio of the carriers of motor vehicles was highest in 1947.

A comparison of the data of these tables with that of Table 2 shows that the high earning segments, as shown by the operating revenues and net worth ratios, paid lower taxes than the heavy machinery and liquid petroleum carriers. Table 4 shows that the household goods carrier group, which experienced a reduction in its operating revenues and net worth ratios, made the greatest (with the exception of the motor vehicle carriers) increase in net worth. Net worth expansion was next highest in the retail store delivery segment.

TABLE 28—OPERATING PROFIT AS A PER CENT OF OPERATING REVENUES FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS 1945 AND 1947

Type of Carrier and Year	Per Cent of Operating Revenue									
	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Household Goods										
1945	1.25	..	-3.37	1.91	6.98	1.28	—	—10.57	4.02	— .98
1947	.22	-12.77	1.66	.76	4.46	— 5.46	—	— 4.64	3.01	— 4.65
Heavy Machinery										
1945	4.95	-50.00	-4.35	12.82	..	21.57	.22	7.54	..	— .48
1947	5.81	-32.46	-17.83	4.65	— 3.87	4.95	10.24	8.22	19.60	— 7.75
Liquid Petroleum										
1945	.57	1.76	— .07	— .14	.18	1.14	3.20	3.10	— 2.20	2.42
1947	6.22	2.82	4.33	5.41	6.59	6.26	4.47	6.94	4.58	11.62
Motor Vehicles										
1945	—24.76	-24.76	..	..	..	..	..	..	..	..
1947	5.11	7.52	4.93	4.58	9.93	10.77	5.62	7.62	3.21	10.73
Retail Store Delivery										
1945	4.03	2.76	3.33	4.66	— .43	..	6.44	11.99	..	..
1947	6.49	5.00	5.97	5.61	9.09	..	7.69	16.02	..	..
All Carriers										
1945	2.15	— .99	.07	2.07	1.01	3.73	2.45	6.56	— .73	.73
1947	4.48	2.73	3.03	3.38	6.65	5.66	4.38	7.68	4.40	6.72

Source: Computed from Tables 18 and 19.

TABLE 29—OPERATING PROFITS AS A PER CENT OF NET WORTH^a FOR EACH OF FIVE TYPES OF CLASS I MOTOR CARRIERS OF PROPERTY, BY GEOGRAPHIC REGIONS, 1945 AND 1947

Type of Carrier and Year	Total U. S.	New England	Middle Atlantic	Central	Southern	North-western	Mid-Western	South-western	Rocky Mountain	Pacific
Per Cent of Net Worth										
Household Goods										
1945	8.23	..	— 7.85	27.39	19.74	3.50	— .55	— 39.93	18.44	— 3.45
1947	1.38	— 21.88	4.95	8.38	12.74	— 23.47	— 9.90	— 18.86	22.94	— 18.35
Heavy Machinery										
1945	12.16	— 29.45	— 8.48	25.96	..	79.42	.45	23.14	..	— 8.07
1947	17.06	— 20.12	— 39.98	7.93	— 26.21	31.56	20.28	27.95	58.87	20.52
Liquid Petroleum										
1945	2.76	6.49	— .35	— .53	1.35	15.44	17.25	15.93	— 11.30	7.88
1947	29.66	10.73	22.51	22.95	32.76	57.15	27.51	57.67	22.35	42.43
Motor Vehicles										
1945	— 193.11	— 193.11	..	..	..	..	..	..	..	..
1947	41.88	46.04	51.68	40.14	38.24	83.54	36.06	34.83	61.68	56.24
Retail Store Delivery										
1945	25.56	15.93	30.48	18.65	— 7.68	..	30.92	67.85	..	..
1947	37.85	22.94	42.51	27.33	49.90	..	32.04	109.97	..	..
All Carriers										
1945	9.26	— 3.35	.32	14.02	6.42	23.11	7.69	21.55	— 3.65	1.82
1947	23.46	9.48	15.73	26.07	28.24	42.19	15.14	29.21	25.25	22.91

^a As of the end of the year.

Source: Computed from Tables 18 and 20.

APPENDIX C

QUESTIONNAIRE: TAXATION OF THE TRUCKING INDUSTRY

A RESEARCH FOUNDATION PROJECT
THE OHIO STATE UNIVERSITY
COLUMBUS 10, OHIO

Name of person completing questionnaire..... Official Position.....
Name and address of company.....
Type of trucking (commodity, region).....
Type of permit..... ICC Classification.....

Please express your attitude toward the taxes listed by checking the line under *good*, *fair*, or *bad*. Use as a basis for your decision all pertinent relationships that come to mind, e.g., inconvenience, justice, manner of expenditure, etc.

	<i>Good</i>	<i>Fair</i>	<i>Bad</i>
State gasoline tax			
Federal gasoline tax			
Tax on tires, trucks and parts.....			
Federal corporation income tax.....			
Federal individual income tax.....			
Unemployment compensation tax.....			
Old-age and survivors insurance tax.....			
Federal tax on transportation of property.....			
Vehicle licenses and Registration fees.....			
Toll collections			
Personal property tax			
Real property tax			
Special taxes of your state.....			

Which tax do you consider least desirable?.....

Why?.....

Which tax do you consider most desirable?.....

Why?.....

If it is assumed that the same amount of funds is to be raised by government assessment of taxes upon truckers as is raised at present, how should the money be obtained? Indicate the most desirable relationship between different taxes by checking the line above the list which most nearly corresponds with your idea of the way the tax burden upon truckers should be divided.

Gas tax	34%	Gas tax	44%	Gas tax	50%	Gas tax
Licenses	24	Licenses	41	Income tax	50	Licenses
Real Estate	3	Real Estate	2		100%	Real Estate
Social Sec.	15	Social Sec.	7			Social Sec.
Other oper. tax	8	Other oper. tax	6			Other oper. tax
Income tax	16	Income tax	0			Income tax
	100%		100%			

