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**COST OF GOVERNMENT IN THE
UNITED STATES, 1925-1926 .**

**STUDIES IN TAXATION AND
PUBLIC FINANCE**

**PUBLISHED BY THE
NATIONAL INDUSTRIAL CONFERENCE
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COST OF GOVERNMENT IN THE UNITED STATES 1925-1926



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FOREWORD

THE business of government is today the third largest business in the United States, exceeded in its annual turnover only by manufacturing industry and agriculture. The business of providing public services is surely no less important than these other businesses for the security and welfare of the American people, but it differs from them in one significant respect: it is everybody's business, and as such it tends easily to become nobody's business. It may fairly be said that the community gives far less thought and energy to regulating and controlling the business of government than it does to the supervision of other businesses of far less magnitude. Yet it is the community that pays the governmental bill, and the responsibility falls upon it to devote at least as much thought to making the business of government efficient, to lowering the cost and improving the quality of the services the taxpayer buys, as has been applied in industry and trade to give the consumer a better product at a lower price.

The first step in this direction is, of course, a better and more widespread knowledge, on the part of its customers, of the facts regarding the financial position of the business of government. It is a strange reflection upon the business sense of our supposedly businesslike American public that, till recently, even the most elementary and obvious facts regarding the total volume of taxation, public expenditure and indebtedness in our federal, state and local governments have not been available, so that the growth in the business of government could not be measured in any comprehensive and regular way from year to year.

In its series of studies of the cost of government, of which the present is the fifth, the Conference Board has sought to fill this public need. With increased experience in assembling and handling such data, the Board's studies have become steadily more comprehensive in scope and systematic in

method. In the present volume particularly they have been made more intensive in character as well. While it has been important for the American public to have impressed upon it the sheer bulk of the business of government and the tremendous significance in our economic life of its rapid growth, the time has passed when the mere size of the figures involved, or the fact that they become larger year by year, are features of chief interest or significance to the average American citizen, who has long since become accustomed to large numbers in every aspect of his life. As the staggering totals are presented year after year, the natural response which they invite is the question: What of it? The high standards of living which go with a productive and prosperous country make themselves felt in the demand for more and better public, as well as private, services and if the public wants them and can afford them it is the business of government to supply them. The important questions which the public may well ask are: how its money is being spent, whether the cost of the services it demands is fairly distributed and whether it is getting its money's worth for what it pays.

It will be long before these questions can be answered in any such comprehensive and accurate way as can those regarding the total cost of government. But in the present volume a start has been made in this direction, and accordingly greater emphasis has been placed upon such subjects as the functional distribution of expenditures, sources of tax revenues, debt retirement, and upon the financing of education, highways and roads; and attention is drawn to the work of local taxpayers' associations in cultivating an active public interest in fiscal questions. If public attention were increasingly directed to such matters, now that it has been brought to realize that government is a costly business, it would the better appreciate the need of making it an efficient one, and be the better prepared to seek out ways of doing so.

This volume is the result of an investigation conducted by Mr. W. J. Shultz and assistants, of the Conference Board's Research Staff, under the supervision of the Staff Economic Council.

FOREWORD

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In the preparation of its studies the National Industrial Conference Board avails itself of the experience and judgment of the business executives who compose its membership, and of recognized authorities in special fields, in addition to the scientific knowledge and equipment of its Research Staff. • The publications of the Board thus finally represent the result of scientific investigation and broad business experience, and the conclusions expressed therein are those of the Conference Board as a body.

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THE COST OF GOVERNMENT IN THE UNITED STATES

INTRODUCTION

GENERAL CONSIDERATIONS .

WITH the advance of industrialism, the scope of governmental activities has grown steadily until today it embraces practically all aspects of social life. The state today builds highways, bridges, ports and canals; it provides free education; it maintains hospitals; it operates public utilities; it has entered the field of insurance. It not only regulates the conduct of other organizations and enterprises to a greater extent than formerly: it is itself an independent entrepreneur in many fields.

Almost every act of government is intended to be performed for the benefit of an individual, of a group, or of society as a whole. The community establishes and supports government because it finds its services indispensable. The beneficiaries of governmental activities have a moral and legal obligation to defray their costs. But what measures the share which the individual is under obligation to contribute to meet the cost of government?

To answer this question it is necessary to analyze the functions of government. These may be roughly classified into four categories. The first, limited in scope, comprises those functions which perform a definite and measurable service to individuals, for which the individuals benefiting thereby alone pay the cost. In this category belong the operation of certain public utilities which are run at cost or at a profit, as well as certain legal services of government, particularly those involving the procedure of recording.

The second class of government activities includes those functions which confer a special benefit upon individuals and

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groups, but in which there is besides a common social benefit, and the cost of which others beside the immediate beneficiaries pay. Many services of the government, like the postal system, and many public utilities, such as metered municipal water systems whose operation involves a loss covered by general taxation, and the larger number of road construction projects, come under this heading.

By far the greatest number of the activities of present-day governments fall into the two remaining classes. On the one hand are the functions which confer a common benefit upon all members of the state and for which a part pay, and on the other hand, there are activities which confer a special benefit upon certain individuals or groups who are more or less unable to assist in bearing the costs involved which, therefore, fall wholly or partly upon others. In the first group belong such activities of a governmental body as the protection of life and property, national defense and the maintenance of the judicial system, while the second group includes poor relief and the whole list of public charities, public hospitals, sanatoriums and asylums.

It is obvious that in the case of the two latter categories the benefit derived by the individual from a governmental function can not serve as the measure of the taxes to be laid upon him. In the one case it is impossible to measure the benefit; in the other, those who are the beneficiaries are so precisely because they are unable to pay the cost. The cost of maintaining a system of free public education evidently can not be apportioned among the members of society according to the benefit received. While certain individuals and families benefit more than others public education benefits society as a whole and should be supported by all. So, too, if those who are taken care of by the relief activities of government were able to pay their cost, there would be no need for them at all. There is to be sure no single principle of taxation which can be applied rigidly to all cases; but wherever possible it is desirable to distribute the burdens of taxation among the taxpayers according to the benefits received, when these can be measured, and according to the taxpayer's relative ability to support the government when the benefit accrues to society as a whole. Important as is

this problem of achieving the necessary flexibility and equity in the distribution of tax burdens, progress toward it has been of necessity difficult and slow, depending as it does in great measure upon the spread of a better understanding of the facts regarding the growth of governmental expenditures and of the taxation and indebtedness in which they are reflected. In this volume some of the special aspects of taxation which raise broad problems of the distribution of tax burdens and benefits are discussed; but its primary purpose is to present a clear and comprehensive picture of the total cost of government in the United States in all its divisions, and of the ways in which that cost is met.

PURPOSE AND SCOPE OF STUDY

The state differs from private enterprises in that it tends to regulate its revenues according to its expenditures. It is, therefore, proper to begin a study of the cost of government with an analysis of public expenditures. This analysis must be comprehensive enough and cover a sufficiently long period of time to give an accurate picture of past developments and present tendencies in which allowance is made for changes in the value of money and in the needs and resources of the country. Accordingly the disbursements of the various governmental authorities, federal, state and local, given in Chapter I, cover a period from the fiscal year ended in 1890 to and including the fiscal year ended in 1925, and are related to price changes and to changes in population and in the number of persons gainfully employed. Moreover, since the way in which the public funds are spent determines the value of the government's activities, an analysis is given of the distribution of public expenditures according to the purposes for which disbursements were made. The trend of expenditures of the Federal Government is compared with that of the state and local governments in order to show the changing proportions of federal, state and local expenditures in the combined total.

Borrowing and taxation are alternative methods of raising public funds. Moreover, the public debt affects to a large extent governmental needs for revenue. Consequently, the

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analysis of public expenditures is followed by a discussion in Chapter II of the problems of indebtedness and borrowing. In view of the extraordinary obligations of the Federal Government incurred during the war, special consideration is given to the problem of federal debt retirement. The growth of this debt and the prospective sources of debt reduction are analyzed. Because of their direct relation to the federal debt, the funding agreements with the various debtor nations are presented in brief outline. The policy of the World War Foreign Debt Commission, as revealed in its reports, is stated; the character of the funding agreements and changes in the amount of the foreign debt are discussed, but no attempt is made to consider the question from the point of view of international relations. The indebtedness of the state and local governments is noted and the present distribution of the state and local debt is studied functionally, by governmental groups, and by geographic divisions.

The analysis of public expenditures and of the factors underlying the debt situation leads to a discussion of the country's tax bill. In order to understand how the needs for governmental revenue were met and to determine in a general way the burden of taxation, the statistics of tax collections over a long period of years are given in Chapter III and are related to changes in the purchasing value of money, in population, in the number of persons gainfully employed and in national income. The trends of federal, state and local tax collections are compared, and the relative importance of the Federal Government as a taxing agency is determined.

In a country as large as the United States, where the concentration of population and wealth varies from state to state and even from county to county, and where the various governmental authorities depend on different systems of taxation, the statistics of total tax collections must be supplemented with the figures showing the geographic distribution of these tax collections, so as to indicate the burden of state and local tax collections in the individual states, as well as to what extent the various states contribute to the support of the Federal Government. This question is discussed in Chapter IV, thus completing the statistical analysis of public expenditures and of tax collections which is

necessary for an approach to the more intricate problems of social and economic distribution of the country's tax burden.

A complete study of the distribution of the tax burden among the different economic groups and business interests has yet to be made. The factual material for such a study is limited in scope and lacking in precision, and much detailed and painstaking research must be done before a comprehensive statement of the distribution of tax burdens can be made. In Chapter V special attention is given to the farm tax problem, to the issues of corporation and business taxation and to the distribution of taxes by income classes. Special problems created by the issue of tax exempt securities are noted. Such conclusions as are reached in this connection are, of necessity, limited or conditional. The analysis presented is neither final nor comprehensive, but it may serve as a foundation for further statistical research into these controversial fields.

In view of the increasing proportion of public expenditures, especially on the part of the state and local governments, which goes to the support of education and to the construction and maintenance of highways, the fiscal aspects of education and of the road-building and road-maintaining activities of the various governmental authorities are discussed in Chapters VI and VII respectively. The increase in public school expenditures is noted and compared with the increase in the number of children of school age, school enrollment and attendance. The relative ability of the states to support education is analyzed, as well as the actual support given by each state to its educational institutions. The growth of state and local expenditures for education is analyzed by geographic divisions and related to the sources from which the funds were derived. The participation of the state governments in school support is compared with that of the local authorities, and the growth of federal aid to education is discussed. The development of the country's highway system over a period of years, the distribution of highway expenditures and the sources of highway revenue are analyzed for the country as a whole and for the individual states and geographic divisions. A comprehensive review of the motor vehicle license charge laws in the various states

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is given, and the principles of rate graduation and discrimination are discussed.

The rapid expansion of public expenditures and the increasing interest in questions of taxation during the last decade have attracted the attention of the public and have resulted in the formation of special organizations, known as taxpayers' associations, having in view various activities in relation to these questions. This development is of interest because it raises the question of the possibility and methods of manifesting a more active public interest in and control over fiscal affairs, particularly in the local governments, where it appears to be most necessary. The organization, purposes and accomplishments of these associations, as reported to the National Industrial Conference Board in replies to questionnaires, are discussed in Chapter VIII. The Conference Board itself does not attempt to pass a judgment on the effectiveness of the various forms of taxpayers' associations in controlling public expenditures and in arousing the interest of the public in questions of government finance, but brings together as part of this study of the problem of the mounting costs of government what is believed to be the first collection of information regarding one type of effort being made to meet that problem.

As between this study and those similar to it which the Conference Board has issued in past years certain important changes of classification of data and method have been made. For convenience in reference as well as for completeness of description this material, relating to methods used, sources of data, terms, etc., has been brought together in a single discussion in Appendix B, where it will serve the needs of the technical student without disturbing the general reader. It should be mentioned here, however, that all years mentioned refer to fiscal or accounting years unless the calendar year is specified.

CHAPTER I

PUBLIC EXPENDITURES IN THE UNITED STATES

PUBLIC monies are disbursed in the United States by many governmental agencies of diverse types. The greatest single disbursing authority is the Federal Government. In addition there are 48 state governments and their political subdivisions which are all charged with the disbursement of public funds. Cities, with populations in excess of 2,500, numbered 2,787 in 1920, while the smaller cities, towns and villages numbered 12,905. The 3,200 and some odd counties into which the 48 states are divided are further subdivided into school districts, townships, road and bridge districts, park districts, fire districts and districts for water improvement, for water supply, for drainage, for levees, for mosquito and thistle eradication, and for other independent and special purposes. These special districts greatly outnumber the total of counties. Each of this host of semi-independent governmental agencies contributes its part to the total of the country's public expenditures.

THE VOLUME AND TREND OF GOVERNMENTAL EXPENDITURES

The expenditures of governments are for two purposes— for the purchase of commodities and services, and for the payment of interest and the redemption of matured indebtedness. When the payments for redemption are included in the total of expenditures, that is, when the expenditures given are *gross* figures, there is a duplication of items. Expenditures financed by borrowing are included when they are made and also when the debt is repaid.

The warrant for this procedure is that it is *gross* expenditure that determines the governmental income that must be raised, by taxation, by borrowing, or by fees and charges. For this reason, the figures for public expenditures given

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in the following pages represent *gross* expenditures, unless otherwise stated.

Governmental Expenditures in Current Dollars

During the fiscal year ended in 1925,¹ the gross expenditures of the governmental authorities of the country amounted to \$11,124 millions, as against \$10,983 millions in the preceding year, and \$2,919 millions in 1913. The public expenditures during the fiscal year ended in 1925 were 1.3% higher than those of the year before, 8.4% higher than those of the fiscal year ended in 1923, and 281.1% above those of 1913.

As shown in Table 1² and Chart 1, the major divisions of governmental authority did not take part equally in the increase in expenditures which occurred in the fiscal year 1925. The expenditures of the Federal Government *declined* by \$356 millions, or 8.64%, as compared with the preceding year, while the state and local governments were responsible for an *increase* of \$497 millions, or 7.24%, making a net increase of \$141 millions for the country as a whole. The combined expenditures of all local governments increased by \$408 millions, or 7.53%, in the course of the year, while the expenditures of the state governments increased by \$89 millions, or 6.18%.

During the same period the population of the country increased more rapidly than did its public expenditures. Consequently the per capita expenditure in the fiscal year ended in 1925 was 17 cents lower than in the preceding year. It was, however, \$66.17, or 218.82% higher than in 1913. On the basis of the number of persons gainfully employed

¹ The Federal Government uses an accounting year, beginning on July 1st and ending on June 30th. A number of state and local governments follow the same practice. Most of them, however, use different annual accounting periods. The term "fiscal year ended in 1925" or simply 1925 embraces all annual accounting periods of the various governmental agencies which end in any month of that calendar year. See Appendix B of this volume for full description of the methods employed in this study in this and other respects. Throughout this chapter the statement of a year without further qualification indicates the fiscal year ending in that calendar year.

² Estimates of government expenditures after 1922 do not agree with the figures published in the "Cost of Government, 1924-1925," because of the revisions in the method and accounting period used by the Conference Board. For discussion of the method of estimating government expenditures, see Appendix B.

**TABLE 1: TOTAL GROSS GOVERNMENT EXPENDITURES,
UNITED STATES, FISCAL YEARS 1890 TO 1925¹**

Disbursing Authority	1890	1903	1913	1923	1924	1925
<i>Amount (in millions)</i>						
Federal ²	\$291	\$475	\$692	\$3,885	\$4,121	\$3,765
State.....	77	182	383	1,244	1,441	1,530
Local ³	487	913	1,844	5,136	5,421	5,829
Total.....	\$855	\$1,570	\$2,919	\$10,265	\$10,983	\$11,124
<i>Per Capita</i>						
Federal.....	\$4.61	\$5.87	\$7.17	\$34.78	\$36.24	\$32.63
State.....	1.22	2.25	3.97	11.14	12.67	13.26
Local.....	7.73	11.27	19.10	45.98	47.67	50.52
Total.....	\$13.56	\$19.39	\$30.24	\$91.90	\$96.58	\$96.41
<i>Per Person Gainfully Employed</i>						
Federal.....	\$12.48	\$15.04	\$17.76	\$91.64	\$96.62	\$87.74
State.....	3.30	5.76	9.83	29.35	33.79	35.66
Local.....	20.89	28.91	47.31	121.16	127.10	135.84
Total.....	\$36.67	\$49.71	\$74.90	\$242.15	\$257.51	\$259.24

¹ Data on federal expenditures from annual reports of the U. S. Secretary of the Treasury; data on state expenditure from U. S. Bureau of the Census, "Wealth, Debt and Taxation" series and "Financial Statistics of States" series; for sources and method of obtaining figures for local expenditures see Appendix B, p. 284, and Appendix C, p. 292.

² Expenditures for the District of Columbia deducted from federal total and included in local.

there was an increase in public expenditures of \$1.71, or less than two-thirds of one per cent, over 1924, and \$184.34, or 246.11%, over 1913.

Governmental Expenditures in Terms of Purchasing Power

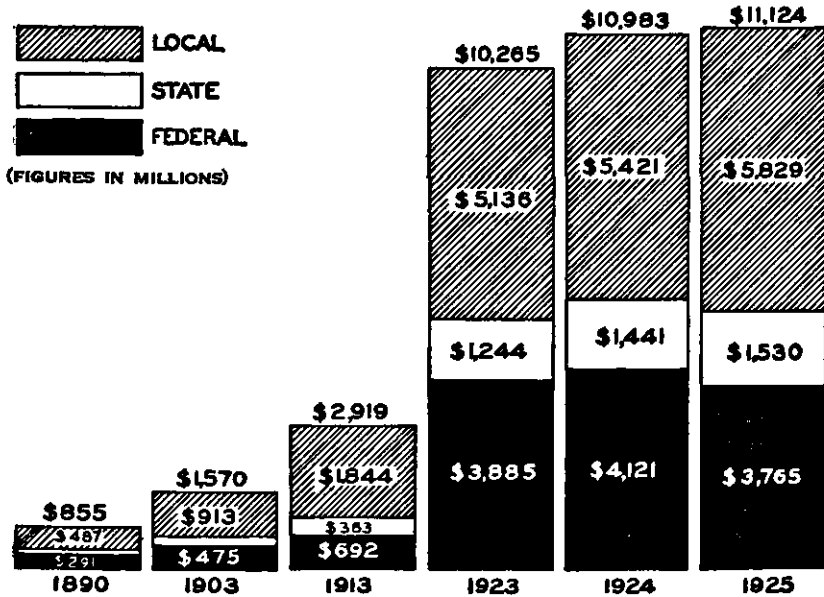
Expenditures are properly measured by the goods and services which they command. Since the purchasing power of the dollar fluctuated considerably during the war and post-war periods, it is necessary to state all governmental costs in terms of a dollar of constant purchasing power in order to eliminate the effect of price fluctuations. The expenditures of the various governmental authorities are expressed in "1913" dollars¹ or at 1913 prices, in Table 2 and

¹ Based on the index of wholesale prices of commodities of the U. S. Bureau of Labor statistics.

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CHART 1: VOLUME OF GOVERNMENT GROSS EXPENDITURES, UNITED STATES, 1890 TO 1925

(National Industrial Conference Board)



VOLUME OF EXPENDITURES EXPRESSED IN '1913' DOLLARS UNITED STATES, 1890-1925

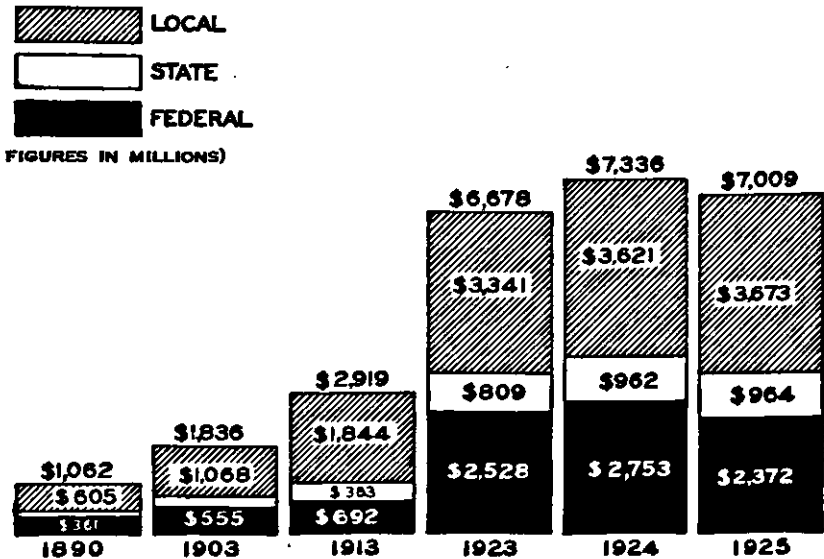


Chart 1 for the period 1890 to 1925. With the increase in prices thus taken account of, it is seen that the "true" total of public expenditures in the fiscal year ended in 1925 was actually 4.5% less than in the preceding year and less than two and one-half times as great as in 1913.

TABLE 2: VOLUME OF GROSS GOVERNMENT EXPENDITURES, FISCAL YEARS 1890 TO 1925, EXPRESSED IN "1913" DOLLARS¹

Disbursing Authority	1890	1903	1913	1923	1924	1925
<i>Amounts (in millions)</i>						
Federal.....	\$361	\$555	\$692	\$2,528	\$2,753	\$2,372
State.....	96	213	383	809	962	964
Local.....	605	1,068	1,844	3,341	3,621	3,673
Total.....	\$1,062	\$1,836	\$2,919	\$6,678	\$7,336	\$7,009
<i>Per Capita</i>						
Federal.....	\$5.73	\$6.85	\$7.17	\$22.63	\$24.21	\$20.56
State.....	1.52	2.63	3.97	7.24	8.46	8.36
Local.....	9.59	13.19	19.10	29.92	31.83	31.83
Total.....	\$16.84	\$22.67	\$30.24	\$59.79	\$64.50	\$60.75
<i>Per Person Gainfully Employed</i>						
Federal.....	\$15.48	\$17.57	\$17.76	\$59.63	\$64.54	\$55.28
State.....	4.12	6.74	9.83	19.10	22.58	22.47
Local.....	25.94	33.82	47.31	78.81	84.90	85.60
Total.....	\$45.54	\$58.13	\$74.90	\$157.54	\$172.02	\$163.35

¹ United States Bureau of Labor Statistics' wholesale price index used.

It is unlikely that the decline in "true" expenditures for 1925 foreshadows a downward trend. The purchasing power of the dollar declined in 1925, but it increased in 1926. During the fiscal year ended in 1926, the expenditures of the Federal Government were \$3,936 millions, an increase of 4.54% over those of the preceding year. Stated in "1913" dollars, this figure becomes \$2,607 millions, an increase of 9.91% over the 1925 total. If the previous trend in expenditures of the state and local governments in terms of current dollars continued through 1926, and on the basis of tax collection figures it is reasonable to believe that it did,¹ the total of "true" expenditures of all governmental authori-

¹ See p. 73 of this volume.

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ties in 1926 must have exceeded the 1925 figure by a considerable amount.

Distribution of Public Expenditures

As shown in Table 3, the importance of the Federal Government as a disbursing authority declined steadily during the pre-war period. Whereas 34% of all gross expenditures had been made by the Federal Government in 1890, the proportion was only 23.7% in 1913. During the war years federal expenditures completely overshadowed all others. In recent years, state and local expenditures have increased rapidly, and the relative importance of the federal item has again declined. Whereas in 1923 federal expenditures represented nearly one-half of the total, by 1925 they had declined to 34% of the total.

TABLE 3: PERCENTAGE DISTRIBUTION OF GROSS GOVERNMENTAL EXPENDITURES, FISCAL YEARS 1890 TO 1925

Disbursing Authority	1890	1903	1913	1923	1924	1925
Federal.....	34.0	30.3	23.7	37.9	37.5	34.0
State.....	9.0	11.6	13.1	11.9	13.1	13.4
Local.....	57.0	58.1	63.2	50.2	49.4	52.6
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

It is not likely that this proportion will be greatly reduced in the immediate future. Federal expenditures for commodities and services have been greatly reduced during the last few years. Increases, rather than reductions, in federal expenditures for these items are likely to be necessary in the future.¹ At the same time, interest payment on the national debt, although decreasing in amount, will be a recurring item of expenditure, and the redemption of the debt itself is a burden that can not be escaped. Moreover, there is evidence that active forces are at work to check the great increase in expenditures of the state and local governments which has marked the immediate post-war period.

The trend of the distribution of expenditures as between the state and local governments has not been altogether regular during the thirty-five years under consideration. In

¹ See p. 15 of this volume.

a general way, however, the proportion of the states' disbursements has tended to increase. State governments have been effecting centralized control of the more important functions of government, such as education and highway construction and maintenance, while instituting a policy of state aid to local governments. The growing popularity of these movements in many states accounts for much of the increase in proportion of state expenditures.

FEDERAL DISBURSEMENTS

The effectiveness of a government's activities is determined in part by the purpose for which its funds are used as well as by the efficiency with which they are spent. Table 4 shows the net and gross expenditures of the Federal Government from 1923 to 1926.

TABLE 4: NET AND GROSS FEDERAL EXPENDITURES OF THE FEDERAL GOVERNMENT, FISCAL YEARS 1923 TO 1926
(Source: Annual Reports of the Secretary of the Treasury)

Federal Expenditures	1923		1924		1925		1926	
	Amount (Thousands)	Amount (Thousands)	Per Cent Increase or (-) Decrease	Amount (Thousands)	Per Cent Increase or (-) Decrease	Amount (Thousands)	Per Cent Increase or (-) Decrease	
Net expenditures ¹	\$2,214,650	\$2,082,202	-5.98	\$2,148,585	3.19	\$2,231,263	3.85	
Interest ²	1,055,924	940,603	-10.92	881,807	-6.25	831,938	-5.66	
Debt redemption ²	614,391	1,098,567	78.81	734,848	-33.11	873,089	18.81	
Gross Total	\$3,884,965	\$4,121,372	6.09	\$3,765,240	-8.64	\$3,936,290	4.54	

¹ On the basis of daily treasury statements, unrevised.

² On the basis of daily treasury statements, revised.

The disbursements of the Federal Government for debt service, that is, for the payment of interest and for the redemption of matured debt obligations, have constituted a large part of its gross expenditures during recent years. The proportion of its expenditures during the four fiscal years 1923 through 1926, which was devoted to debt service, was 44.8%.

The interest charges on this debt have decreased each year as the principal of the debt was either redeemed or

TABLE 5: PERCENTAGE DISTRIBUTION OF FEDERAL GOVERNMENT EXPENDITURES,¹ FISCAL YEARS 1924 TO 1926

(Source: Annual Reports of the Secretary of the Treasury)

Purposes of Disbursement	1924		1925		1926		1924-1926	
	Per Cent of Net Total	Per Cent of Gross Total	Per Cent of Net Total	Per Cent of Gross Total	Per Cent of Net Total	Per Cent of Gross Total	Per Cent of Net Total	Per Cent of Gross Total
General government.....	17.5	8.8	17.6	10.0	15.9	9.0	17.0	9.3
Protection.....	63.1	31.9	63.3	36.2	61.1	34.6	62.5	34.2
Education.....	.5	.2	.6	.3	.7	.4	.6	.3
Highways.....	4.4	2.2	4.5	2.6	4.6	2.6	4.5	2.4
Other developments.....	6.9	3.5	6.6	3.8	6.8	3.9	6.8	3.7
Social welfare.....	3.7	1.9	3.9	2.2	3.2	1.8	3.6	2.0
Miscellaneous.....	.1	.1	.2	.1	.1	.1	.1	.1
Public utilities.....	3.8	1.9	3.3	1.9	7.6	4.3	4.9	2.7
Net total.....	100.0	50.5	100.0	57.1	100.0	56.7	100.0	54.7
Debt redemption.....	..	26.7	..	19.5	..	22.2	..	22.9
Interest.....	..	22.8	..	23.4	..	21.1	..	22.4
Gross total.....	..	100.0	..	100.0	..	100.0	..	100.0

¹ On basis of warrants issued.

refunded at a lower rate. This annual decrease, however, has not been sufficient to offset completely the increases in the net expenditures of the Federal Government. This general balancing of decreases in interest payments and increases in net expenditures has made the payments for debt redemption the determining element in the federal budget. Since there was no regularity in the payments for debt redemption during those years, the gross total of federal expenditure has fluctuated in accordance with the magnitude of these payments.

The indications are that interest payments will continue to decline in 1927 and should decline even more sharply in the fiscal year ending June 30, 1928, if the plan to convert the Second Liberty Loan bonds, bearing $4\frac{1}{2}\%$ interest, into Treasury Notes bearing $3\frac{1}{2}\%$ interest, takes effect. Further savings of interest will depend upon the debt reduction program of succeeding years.¹ There is little hope, on the other hand, of any decrease in the expenses of the general departments of the Federal Government, and the \$2,082 millions spent in the fiscal year ended in 1924 are likely to represent the low mark for some time.²

Functional Distribution of Federal Expenditures

As shown in Table 5, 62.5% of the current departmental expenditures during the three-year period, 1924 to 1926, were chargeable to protective activities. A small part of expenditures for protection represented regulatory functions of an economic nature, covering the activities of the Federal Trade and Interstate Commerce Commissions. A somewhat larger proportion represented charges created by past wars in the form of rehabilitation programs, pensions and bonuses for soldiers. By far the greater part of the total expenditures charged to protection went to the support of the army and navy and to military construction programs.

As reported by the Secretary of the Treasury,³ these military functions absorbed more than 30% of the expenditures

¹ For an analysis of the public debt and debt reduction see Chapter II, p. 25.

² See the Annual Report of the Secretary of the Treasury, for the fiscal year ended June 30, 1926, pp. 6-7.

³ *Ibid.*, p. 31.

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out of ordinary receipts between 1920 and 1923. In 1924, the proportion was 29.9%; in 1925 it rose to 30.5%, and then declined to 29.8% in 1926, making an average of 30.1% for the three-year period, 1924 through 1926. Since 90% of the gross expenditures of the Government were paid out of ordinary receipts, these military functions accounted for 27.1% of the gross expenditures during this period. In addition police activities accounted for 1.9%, and expenditures for the welfare of war veterans covered 5.2%, thus bringing the total to the 34.2%, as shown in Table 5. The military and war-relief expenditures of the Government, together with the public debt charges created by the war, accounted for 77.4% of the gross total of federal expenditures between 1924 and 1926.

In comparison, other items of federal expenditure are insignificant. General government expenses, including the administration of justice and the executive department of the Government, accounted for 17% of the net total of expenditures and 9.3% of the gross total during the three-year period, 1924 to 1926. This leaves but 20.5% of the net total and 15.2% of the gross total to be distributed for education, highways, other developments, social welfare, public utilities and miscellaneous activities.

Changes in Distribution of Federal Expenditures

The distribution of net expenditures during this three-year period shows little significant variation. The increase in expenditures for public utilities in the fiscal year ended June 30, 1926 to 7.6% of the net total, as against an average of 4.9% for the three years, was partly due to an increase in the deficit of the Post-Office, which amounted to \$39.5 millions in 1926 as compared with \$23.2 millions in 1925. There was also an increase of \$10.6 millions in the postal deficit between 1923 and 1925, but this was more than balanced by a decrease in the war deficit payments to railroads and by a decrease in the expenditures of the Shipping Board. The proportion of the net total going to highways increased from 4.4% in 1924 to 4.5% in 1925 and to 4.6% in 1926, because of the increased federal aid to state road-building programs. The increasing proportion of the net total spent

for education is largely accounted for by greater federal aid for vocational education and by increased expenditures for the Smithsonian Institution.

STATE AND LOCAL EXPENDITURES

The extraordinary wartime fiscal demands of the Federal Government served to encourage the strictest economy on the part of state and local governments. Instead of expanding their activities during the war, the state and local governments curtailed their expenditures even in their normal functions. Since the war, however, the volume of federal expenditures declined materially below the wartime level, while state and local expenditures were expanded rapidly. This was particularly true in the case of construction programs which had been neglected during the war and could no longer be postponed.

Functional Distribution of State and Local Expenditures

There are marked differences between the functional distribution of state and local expenditures and the apportionment of federal disbursements. Expenditures for education and for highways, which absorbed less than 3% of the gross total of federal expenditures in 1925, constituted exactly one-half of state and local governmental costs in that year, as shown in Table 6. Expenditures for protection were 63.3% of the federal net total, and only 11% of the state and local net total expenditures.

Expenditures for education are the biggest single item in the state and local budget. In most states education is primarily a function of the local governments, and they spend over four times as much for this purpose as the state governments. Moreover, the local governments spend a larger proportion of the total expenditures for schools than the state governments. The \$1,731.8 millions spent for schools by the localities in 1925 represented 34.1% of their net expenditures, whereas the \$433.7 millions spent by the states was 28.1% of their net total.

Contrary to popular belief, the local governments spend more for roads and streets than do the state governments.

TABLE 6: FUNCTIONAL DISTRIBUTION OF GOVERNMENTAL EXPENDITURES, FISCAL YEAR 1925

(Source: National Industrial Conference Board)

Purpose of Disbursement	Amounts in Millions of Dollars			Percentage Distribution					
	Federal ¹	State ² and Local	Total	Federal ¹		State ² and Local		Total	
				Net Total	Gross Total	Net Total	Gross Total	Net Total	Gross Total
	General government.....	378.2	488.5	866.7	17.6	10.0	7.5	6.6	10.0	7.8
Protection.....	1,360.0	725.4	2,085.4	63.3	36.2	11.2	9.8	24.1	18.7
Education.....	12.9	2,153.8	2,166.7	.6	.3	33.1	29.2	25.1	19.5
Highways.....	96.7	1,470.8	1,567.5	4.5	2.6	22.6	20.0	18.1	14.1
Economic developments.....	141.8	65.5	207.3	6.6	3.8	1.0	.9	2.4	1.9
Social welfare.....	83.8	935.9	1,019.7	3.9	2.2	14.4	12.7	11.8	9.1
Miscellaneous.....	4.3	150.9	155.2	.2	.1	2.3	2.0	1.8	1.4
Public utilities.....	70.9	512.3	583.2	3.3	1.9	7.9	7.0	6.7	5.2
Net total ³	2,148.6	6,503.1	8,651.7	100.0	57.1	100.0	88.2	100.0	77.7
Debt redemption.....	734.8	284.3	1,019.1	..	19.5	..	3.9	..	9.2
Interest.....	881.8	581.5	1,463.3	..	23.4	..	7.9	..	13.1
Gross total ³	3,765.2	7,368.9	11,134.1	..	100.0	..	100.0	..	100.0

¹ Total of federal expenditures on daily treasury statement basis, distributed functionally on warrant basis.

² Includes about ten million dollars interdepartmental transfers which cannot be eliminated in the functional distribution; does not include federal aid to the states.

³ Not all the totals represent the exact sum of their respective columns because of the rounding out of all figures to the nearest thousand.

TABLE 7: FUNCTIONAL DISTRIBUTION OF STATE AND LOCAL EXPENDITURES, FISCAL YEAR 1925

(Source: National Industrial Conference Board)

Purpose of Disbursement	Amounts in Millions of Dollars			Percentage Distribution					
	State ^a	Local ^b	Total	State ^a		Local ^b		Total	
				Net Total	Gross Total	Net Total	Gross Total	Net Total	Gross Total
General government.....	94.2	394.3	488.5	6.1	5.7	7.8	6.8	7.3	6.5
Protection.....	191.7	533.7	725.4	12.4	11.6	10.5	9.1	11.0	9.7
Education.....	433.7	1,731.8	2,165.5	28.1	26.2	34.1	29.7	32.7	29.0
Highways.....	563.0	1,009.3	1,572.3	36.4	34.0	19.9	17.3	23.8	21.0
Economic developments.....	60.6	4.9	65.5	3.9	3.7	.1	.1	1.0	.9
Ⓢ Social welfare.....	186.8	750.0	936.8	12.1	11.3	14.8	12.9	14.2	12.5
Miscellaneous.....	5.5	145.4	150.9	.3	.3	2.9	2.5	2.3	2.0
Public utilities.....	11.4	500.9	512.3	.7	.7	9.9	8.6	7.7	6.8
Net total ^c	1,546.9	5,070.2	6,617.2	100.0	93.5	100.00	87.0	100.0	88.4
Debt redemption.....	39.1	245.2	284.3	..	2.4	..	4.2	..	3.8
Interest.....	67.7	513.8	581.5	..	4.1	..	8.8	..	7.8
Gross total ^d	1,653.7	5,829.2	7,483.0	..	100.0	..	100.0	..	100.0

¹ Includes federal aid to states, state aid to local governments, but not local aid to state governments.

² Includes local aid to state governments, but not state aid to local governments.

³ Not all the totals represent the exact sum of their respective columns because of the rounding out of all figures to the nearest thousand.

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However, the proportion of road expenditures to total expenditures is higher for the states than for the local governments. The \$563 millions spent by the states for this purpose in 1925 was 36.4% of their net total of expenditures, whereas the \$1,009.3 millions spent by the local governments represented less than 20% of their net total.

Rather marked differences between the states and the localities are also to be noted in the distribution of expenditures among other functions. Expenditures for general government, representing the costs of legislation, administration and the overhead charges of government, were 6.1% of the net total of state expenditures in 1925, and 7.8% of the local net total. State expenditures for protection of persons and property, which include highway patrol, the regulation of industry and labor, and the support of the National Guard, accounted for 12.4% of the net total. Local expenditures for police, fire and other protection to persons and property, though greater in volume than the state expenditures for similar functions, were only 10.5% of the total departmental disbursements. Developmental enterprises for the encouragement of agriculture and for the conservation and preservation of forests are almost entirely state functions, the counties occasionally making small appropriations or offering bounties in the interest of agriculture. Social welfare projects account for a greater proportion of local than state expenditures. The operation of public utility enterprises is a distinctly local function. In 1925, local governments spent 9.9% of their net total for the construction and maintenance of public utilities, such as waterworks and municipal car lines, whereas the states spent less than one per cent of their total net expenditures for this purpose.

Municipal Expenditures

The cities of the United States have a highly standardized form of local government. The rôle of the counties varies from the position of a mere administrative unit for state government purposes, as in the New England states, to that of a centralized unit for the administration or supervision of town, township, village and special district activities.

The special districts also vary considerably in purpose and powers and in their interrelation with county or state governments. City government, on the other hand, whatever its relation to the state, is mainly concerned with the conditions and governmental functions created by a highly concentrated population group. Probably for this reason a high degree of uniformity exists in the distribution of city expenditures, as a comparison of the 1925 expenditures of cities in five population groups in Table 8 indicates.

The overhead and undistributed charges of municipal government, as reflected by expenditures for general government and miscellaneous items, represented a greater proportion of the total expenditures for cities with populations exceeding 300,000 than for smaller cities. Expenditures for social welfare, as represented by recreational activities and charities, hospitals and institutions for correction, also absorbed a greater proportion of the expenditures of larger cities. The proportion of expenditures going to education varied inversely with the size of the cities; the cities with populations in excess of 500,000 spent 27.7% of their total for this purpose in the fiscal year ended in 1925, while cities of 30,000 to 50,000 population spent 37.2% of their total funds for educational purposes. In regard to expenditures for construction and municipal utilities, the figures in Table 8 seem to indicate that the size of the cities does not play an important part in determining the relative amount of expenditures for these purposes.

FUNCTIONAL DISTRIBUTION OF COMBINED GOVERNMENTAL EXPENDITURES

In the foregoing discussion, considerable variations in the distribution of expenditures among the various governmental functions, according to the disbursing agency, were indicated. The combined effect of these variations appear in the last two columns of Table 6 and in Chart 2. Of the combined gross total of governmental expenditures in 1925, 77.7% went to the support of the various departmental activities, 9.2% for debt redemption and 13.1% for interest. In spite of the heavy demands upon the United States governmental

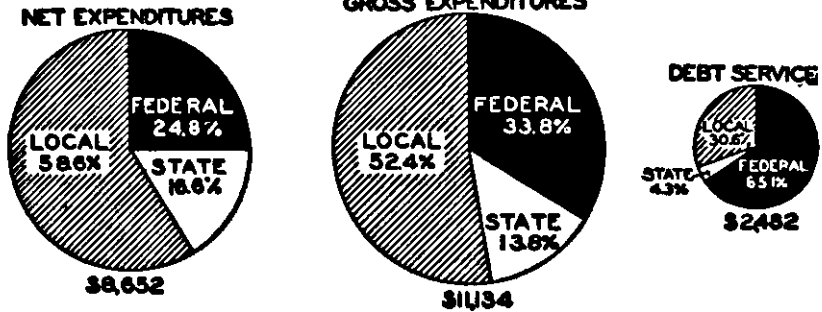
CHART 2: DISTRIBUTION OF PUBLIC EXPENDITURES, UNITED STATES, 1925

(National Industrial Conference Board)

FEDERAL
 STATE
 LOCAL

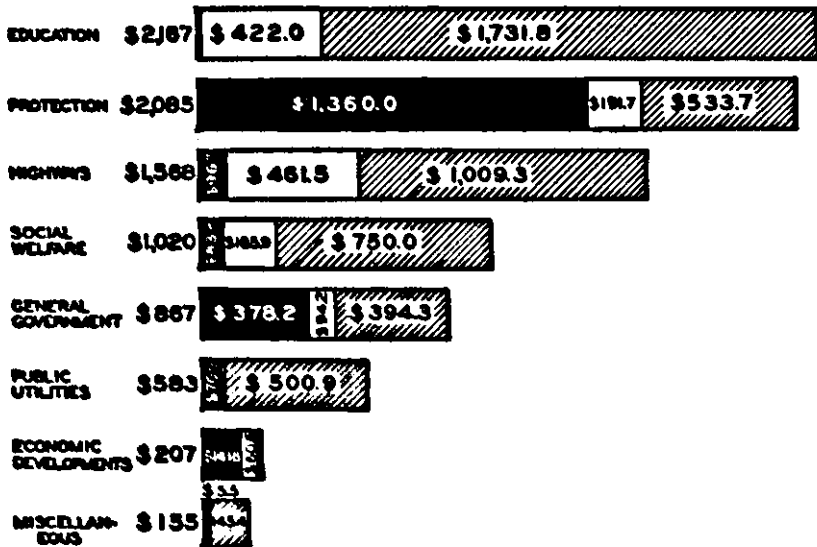
(FIGURES IN MILLIONS)

BY GOVERNMENTAL AGENCIES

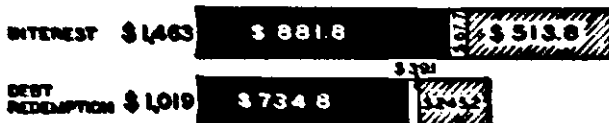


BY FUNCTIONS

NET EXPENDITURES



DEBT SERVICE



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system occasioned by the national defense, education is the chief function of government, as measured by the total expenditures. The protection of persons and property and national defense in 1925 accounted for 24.1% of the net total expenditures, while 25.1% was spent for education. Next in order were highways, with 18.1%, social welfare with 11.8% and general government with 10%.

CHAPTER II

THE PUBLIC DEBT

THERE is a close interrelation between the amounts and purposes of the borrowings of the states and of the local political divisions, because these borrowings are in turn dependent upon the closely related distribution of functions and the correlated tax systems of these two governmental groups.

The debt of the Federal Government is, however, an entirely independent problem. The greater part of the federal public debt is an aftermath of the war. A considerable proportion of the federal debt, furthermore, represents an extension of the Government's financial credit to the Allied governments and to special, official credit organizations, such as the Federal Farm Loan system. The debt of the Federal Government has, thus, to some extent, created problems similar to those of private finance. State and local indebtedness, on the other hand, more closely approximates industrial credit, and is for the most part offset by assets of a capital nature, such as roads, highways and public buildings.

THE FEDERAL PUBLIC DEBT

The World War left very heavy charges on the Treasury of the Federal Government. In order to meet the extraordinary obligations incurred during the prosecution of the war, it was necessary not only to increase taxes immediately, but to defer final payments on the expenses of the war by floating bond issues. At the same time, it was necessary, or at least seemed advisable, to finance the Allies, whose tax resources and domestic credit were rapidly approaching the exhaustion point. As a result, the Federal Government now has a public debt about twice as great as the combined debts of all other governmental agencies in the country. The maturing interest

obligations of the wartime debt and the charges necessary for the retirement of this debt must continue to burden American taxpayers for many years to come.

Program of Debt Retirement

In 1919¹, the national debt of the United States exceeded twenty-five billion dollars. A part of this total had been incurred to meet war expenses of the Federal Government; a part represented loans to the Allied powers during and immediately after the war. There was no certainty when or how the debt owed to the United States would be repaid. Even before material demobilization was completed, the Government set itself to the task of financial demobilization, not counting, for the time being, upon the prospect of foreign payments. The Government mapped out a program for the retirement of the entire public debt of \$25 billions without the aid of foreign payments, although flexible provisions were made for such payments from the debtor countries as the future might bring.

In general, there are two guiding principles on which the Government's debt retirement policy has been based. In the first place, principal and interest obligations have been paid out of the general funds in the Treasury, while a secure and constant balance has been maintained against contingencies. In the second place, sections of the outstanding debt have been converted with a view to obtaining better interest rates, postponing maturities and securing a more regular maturity rate.

Provisions for Debt Retirement

The minimum requirements for debt redemption were established by Congress at the time the loans were floated, and are regarded by the Treasury as an essential element of the contract by which the debt obligations were sold to the public. An annual sinking fund appropriation is provided for that portion of the national debt known as the "domestic debt," which is the amount of the bonds and notes outstanding under the Liberty Bond and Victory Loan Acts, less the

¹ Figures for state and local borrowings given in this chapter are for calendar years; all other figures are for fiscal years.

par value of foreign obligations received by the United States under the Liberty Loan Acts. In all, this domestic debt amounted to about ten billion dollars. The sinking fund appropriation equals $2\frac{1}{2}\%$ of the amount of the domestic debt outstanding on July 1, 1920. The law provides that all interest which would be payable in the course of a fiscal year on the securities bought through the Sinking Fund is to be added to the Fund. Furthermore, it is provided that the Treasury shall cancel those securities of the federal debt received in payment of estate taxes. The franchise tax receipts from Federal Reserve and intermediate credit banks must also be applied to debt reduction, as well as government securities received by forfeiture and by gift. As shown in Table 9, the Sinking Fund and these items of internal revenue accounted for one-third of the total debt retirement during the seven-year period 1920 to 1926.

Finally, by the terms of the funding agreements made between the United States and various debtor nations, the Federal Government accepts its own securities in payment of the interest as well as of the matured principal of debts owing to the United States. The amount of debt retired each year by this arrangement has increased steadily since 1923, when the first funding agreements with Great Britain and with Finland were made.

In addition to these obligatory provisions, the Federal Government may devote to the retirement of the national debt any balance in the general fund of the Treasury, as well as any annual surplus of ordinary receipts over ordinary expenditures. It is significant that up to June 30, 1926, more than 50% of the reduction of the national debt was accomplished through voluntary retirements rather than through compliance with the minimum requirements laid down by law. The relative importance of the various sources of debt reduction is graphically shown in Chart 3.

Debt Retirement from Foreign Debt Payments

Under present arrangements, the foreign debt owing to the United States can not be viewed as an immediate source of debt retirement, except as the debtor nations may choose to make payments of principal or interest in United States

TABLE 9: SOURCES OF FEDERAL PUBLIC DEBT RETIREMENT, FISCAL YEARS 1920 TO 1926

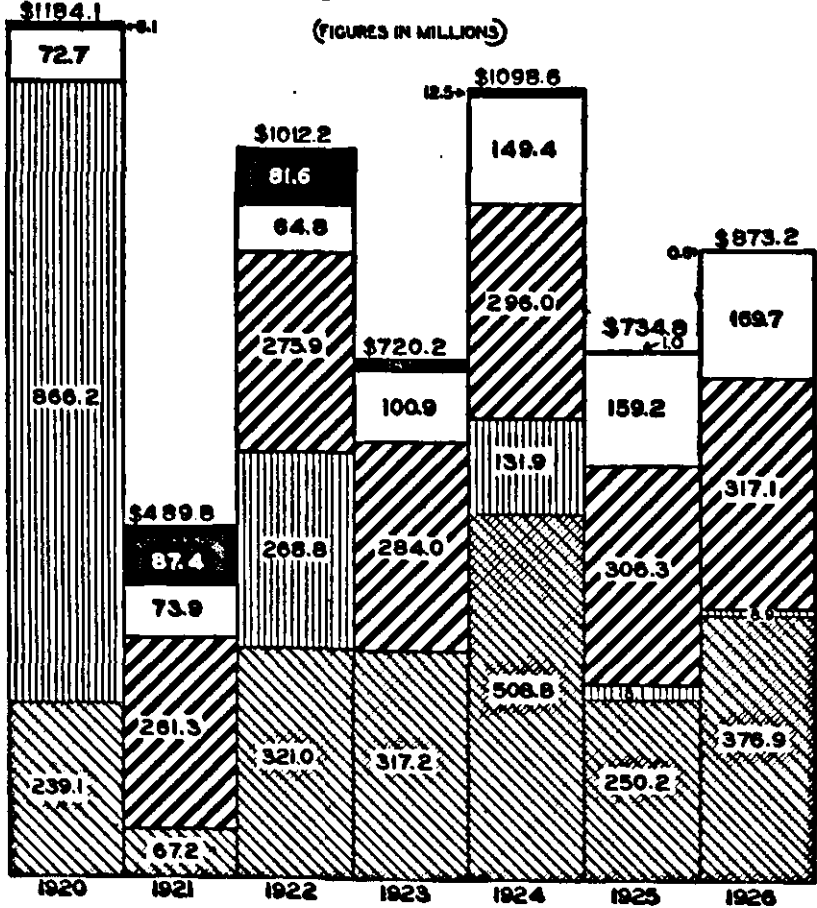
(Source: Daily Treasury Statements)

(In Millions)

Sources	1920	1921	1922	1923	1924	1925	1926	1920-1926	
								Amount	Percentage Distribution
Sinking fund.....	..	\$261.3	\$275.9	\$284.0	\$296.0	\$306.3	\$317.1	\$1,740.6	29.8%
Principal of foreign obligations.....	\$72.7	73.9	64.8	32.1	61.5	23.2	33.4	361.6	6.2
Interest on foreign obligations.....	..	..	..	68.8	87.9	136.0	136.3	429.0	7.4
Internal revenue.....	6.1	87.4	81.6	18.1	12.5	1.0	0.6	207.3	3.5
Total chargeable to ordinary receipts.....	\$78.8	\$422.6	\$422.3	\$403.0	\$457.9	\$466.5	\$487.4	\$2,738.5	46.9
Surplus.....	239.1	67.2	321.0	317.2	508.8	250.2	376.9	2,080.4	35.7
Decrease in net balance of general fund.....	866.2	..	268.8	..	131.9	18.1	8.9	1,293.9	22.2
Total retirements.....	\$1,184.1	\$489.8	\$1,012.2	\$720.2	\$1,098.6	\$734.8	\$873.1	\$6,112.8	104.8
Increase in net balance of general fund.....	..	173.0	..	105.8	..	..	..	278.8	4.8
Net total.....	\$1,184.1	\$316.8	\$1,012.2	\$614.4	\$1,098.6	\$734.8	\$873.1	\$5,834.0	100.0

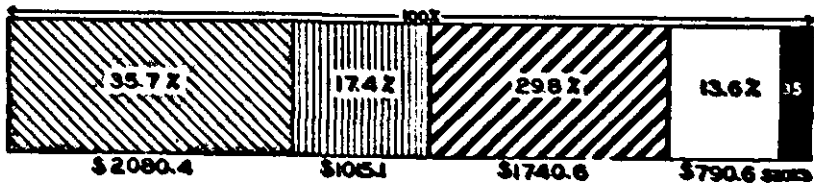
CHART 3; SOURCES OF FUNDS FOR FEDERAL DEBT RETIREMENT, 1920 TO 1926

(National Industrial Conference Board)



TOTAL AMOUNT PAID TO DATE

NET TOTAL \$5834.0



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securities. As indicated above, when these securities are so received, they must be retired. However, it can not be anticipated that such payments will always be made in these obligations of the Federal Government, since the debtor countries will purchase these securities and offer them in payment only when their market value falls below par. Up to June, 1926, \$790.6 millions of the \$1,097 millions of debt payments were made in these securities.

If the principal or interest payments are made in cash, such payments are classified as ordinary receipts and go into the general fund of the Treasury. To the extent that they contribute towards the creation of an annual surplus, they may be indirectly utilized in debt retirement. It is just as likely, however, that the existence of such a surplus, derived in part from foreign debt payments, may be used by political interests as a lever for excessive tax reduction, and so in the end obstruct the program of debt reduction.

TABLE 10: DEBT PAYMENTS OF FOREIGN GOVERNMENTS TO THE UNITED STATES, 1920 TO 1926

(Source: Daily Treasury Statements)

Year	Payments on Principal (in Thousands)	Payments on Interest (in Thousands)	Total Receipts on Foreign Debt Obligations (in Thousands)	Total Ordinary Receipts of the Federal Government (in Thousands)	Per cent that Foreign Debt Payments are of Ordinary Receipts
1920.....	\$70,545	\$3,751	\$74,297	\$6,694,565	1.11%
1921.....	83,678	31,143	114,821	5,624,933	2.04
1922.....	48,674	26,549	75,223	4,109,109	1.83
1923.....	31,657	201,332	232,989	4,007,145	5.81
1924.....	61,090	160,685	221,774	4,012,045	5.53
1925.....	23,248	160,390	183,638	3,780,149	4.86
1926.....	34,147	160,091	194,238	3,962,756	4.90
1920-1926.	\$353,039	\$743,941	\$1,096,980	\$32,190,702	3.41

As indicated in Table 10, the receipts from the payment of principal of, and interest on, foreign debts have been a very small proportion, 3.4%, of the ordinary receipts of the Federal Government. Up to June, 1926, the payments made in securities, and hence immediately retired, were less than one-fourth of the retirements from the annual surpluses and the unencumbered balance.

Reduction of the Federal Debt

Prior to America's entry into the war, the total interest-bearing debt of the United States was \$1,023 millions. It bore interest at rates ranging from 2% to 3%. By 1919, the amount of these pre-war bond issues had been reduced to \$833 millions, and by 1926 to \$766 millions. This item is inconsiderable, however, beside the huge total of the debt incurred between 1917 and 1919. Table 11 and Chart 4 show the changes in the federal public debt from June 30, 1919, through December 31, 1926. It will be seen that the federal debt reached its peak in 1919 after the issue of approximately seven billion dollars of the Fourth Liberty Loan, which raised the interest-bearing debt of the Federal Government to \$25,234.5 millions. Of this amount, \$17,187.7 millions represented bonds maturing, for the most part, within ten to thirty years. Somewhat less than \$4,500 millions of the total debt consisted of treasury notes and savings certificates which were to mature within five years, while certificates of indebtedness maturing within one year from the date of issue amounted to \$3,625 millions. The non-interest-bearing securities amounted to \$247.5 millions, making a total gross debt of \$25,482 millions outstanding. Against this total there was, as an asset, the net balance free from encumbrance in the general fund, exceeding one billion dollars, which left a net debt of \$24,479.3 millions on June 30, 1919.

By January, 1927, each class of interest-bearing debt¹ had been reduced, and the total interest bearing debt had been decreased by \$6,412 millions. The net balance in the Treasury available for debt retirement had, however, also decreased to the extent of almost one billion dollars. Actually, then, the net total of debt reduction up to January, 1927, was about \$5,500 millions. The *retirement* of debt obligations has thus proceeded at an average of \$833 millions annually, while the annual average for the *reduction* of the nation's indebtedness has been \$701 millions.

¹ The non-interest-bearing debt is not considered here except as it affects the net total. The matured debt on which interest has ceased consists of about six million dollars in old issues, probably lost, but still kept on the books, and of varying amounts recently matured, but not presented for redemption. The debt bearing no interest consists in addition of the various types of money in circulation, including national banknotes, less the gold reserve.

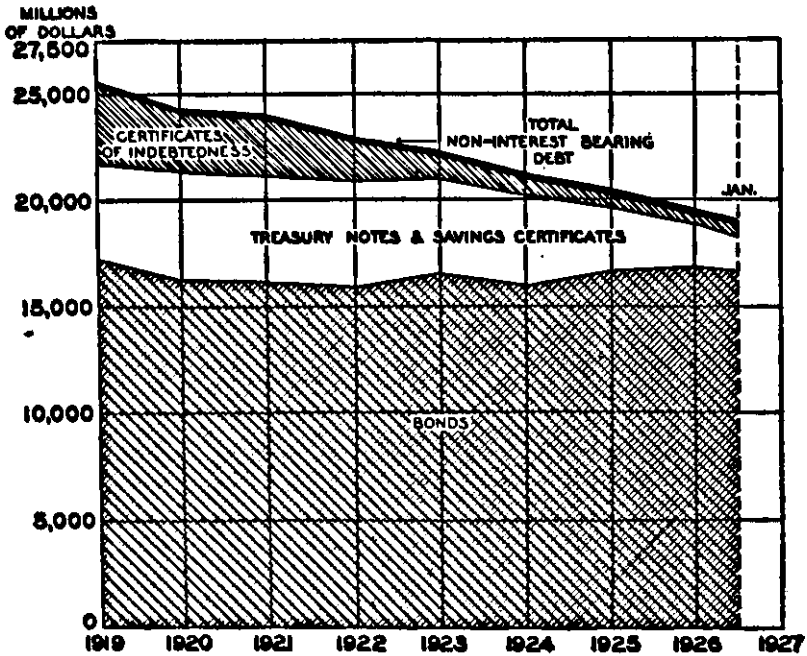
TABLE 11: CHANGES IN AMOUNTS OF FEDERAL PUBLIC DEBT OUTSTANDING AT CLOSE OF EACH FISCAL YEAR, 1919 TO 1926

(Source: Annual Reports of the Secretary of the Treasury)

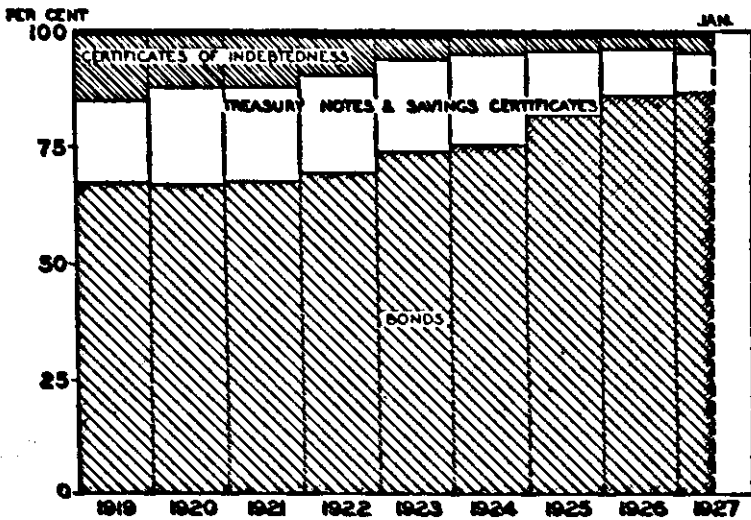
(In Millions)

Items of Federal Debt	1919	1920	1921	1922	1923	1924	1925	1926	Dec. 31, 1926
Bonds.....	\$17,187.7	\$16,218.4	\$16,119.0	\$15,965.4	\$16,624.8	\$16,025.5	\$16,842.3	\$16,928.3	\$16,630.3
Treasury notes and savings certificates.....	4,421.8	5,073.8	4,919.1	4,916.8	4,351.4	4,148.6	2,789.9	1,972.2	1,553.2
Certificates of indebtedness.....	3,625.0	2,768.9	2,699.3	1,828.8	1,031.4	807.5	578.7	483.3	639.0
Total interest-bearing debt.....	\$25,234.5	\$24,061.1	\$23,737.4	\$22,711.0	\$22,007.6	\$20,981.6	\$20,210.9	\$19,383.8	\$18,822.5
Matured debt on which interest has ceased.....	11.1	6.7	10.9	25.3	98.2	30.2	30.2	13.3	12.2
Debt bearing no interest.....	236.4	230.1	228.0	227.8	243.9	239.3	275.1	246.1	240.0
Total non-interest-bearing debt.....	\$247.5	\$236.8	\$238.9	\$253.1	\$342.1	\$269.5	\$305.3	\$259.4	\$252.2
Gross total.....	\$25,482.0	\$24,297.9	\$23,976.3	\$22,964.1	\$22,349.7	\$21,251.1	\$20,516.2	\$19,643.2	\$19,074.7
Net balance in treasury free from encumbrances.....	1,002.7	def. 33.0	162.7	def. 32.3	193.8	73.1	77.0	70.5	..
Net debt.....	\$24,479.3	\$24,330.9	\$23,813.6	\$22,996.4	\$22,155.9	\$21,178.0	\$20,439.2	\$19,572.7	..
<i>Per Cent Increase (+) or Decrease (-) from Preceding Year</i>									
Bonds.....	..	- 5.6	-0.6	- 1.0	+ 4.1	- 3.6	+ 5.1	+ 0.5	- 1.8
Treasury notes and savings certificates.....	..	+14.7	-3.0	..	-11.5	- 4.7	-32.8	-29.3	-21.2
Certificates of indebtedness.....	..	-23.6	-2.5	-32.2	-43.6	-21.7	-28.3	-16.5	+32.2
Total interest-bearing debt.....	..	- 4.6	-1.3	- 4.3	- 3.1	- 4.7	- 3.7	- 4.1	- 2.9
Net debt.....	..	- 0.6	-2.1	- 3.4	- 3.7	- 4.4	- 3.5	- 4.2	..

CHART 4: FEDERAL DEBT OUTSTANDING, 1919 TO 1926
 (National Industrial Conference Board)



PERCENTAGE DISTRIBUTION



Trend of Short-Term Debt

The short-term debt issue, which received its greatest development as an adjunct to the floating of national loans during the war is now an essential instrument in the process of liquidating the war debt and meeting its interest payments. In the United States, the short-term federal debt has taken two forms—treasury certificates of indebtedness redeemable within a year's time, and treasury notes and savings certificates with maturities up to five years. The volume of outstanding certificates of indebtedness has declined steadily since 1919 and at a much faster rate than the total of interest-bearing debt. Whereas in 1919 these certificates formed 17.5% of the total interest-bearing debt, they were reduced to 10.2% of the total by June 30, 1926. The course of treasury notes and savings certificates which mature within five years has not been so regular. During the fiscal year ended in 1920, when the bonded debt was reduced by \$969.3 millions, it was necessary to increase these notes by \$652 millions, bringing their total at the close of that fiscal year to \$5,073.8 millions. Thereafter the total of these notes and certificates outstanding declined gradually until June, 1924, when a very rapid decline began, so that on December 31, 1926, there were only \$1,553.2 millions of treasury notes and savings certificates outstanding. The conversion of \$1,360.2 millions of the Second Liberty bonds drawing 4¼% into 3½% treasury notes in March, 1927, and the present plan of the Secretary of the Treasury to convert the remaining \$1,697.4 millions of this loan into short-term notes in the fall of 1927, will increase the amount of these notes to over \$4,000 millions.

Adjustment of Bonded Debt

Contrary to popular opinion, there has been an increase in the bonded debt of the Federal Government in recent years, as long-term bonds were used to replace a portion of the retired short-term notes. During the fiscal year ended June 30, 1923, there was an issue of \$764 millions of 4¼% treasury bonds maturing between 1947 and 1952; in 1925 two issues of 4% treasury bonds were made amounting to \$1,047 millions and maturing between 1944 and 1954; a

final issue of \$495 millions in $3\frac{3}{4}\%$ treasury bonds maturing between 1946 and 1956 was made in 1926. The effect of these transactions in short- and long-term debts has been steadily to decrease the total interest-bearing debt, although, in so doing, the bonded debt has been increased. On June 30, 1926, the bonded debt of the Federal Government was greater than at the close of any fiscal year since 1919. The bulk of the 1919 bonded debt consisted of Liberty Loans maturing within ten to thirty years from the date of original issue. Their partial retirement has been largely offset by later issues of treasury bonds at a lower rate of interest maturing within twenty to thirty years.

Future Debt Retirement

It has been estimated¹ by the Secretary of the Treasury that at the present rate of retirement the domestic debt, representing war expenditure of the Federal Government and excluding that part of the national debt that covers loans to the Allied nations, will have been discharged by 1944. During the eighteen-and-a-half-year period beginning with July, 1925, the \$8,713 millions of the domestic debt outstanding will bear interest aggregating \$4,042 millions, making a total payment of \$12,755 millions. Were this debt to be retired over a sixty-two-year period, that is, at the same rate as provided in our funding agreements with the debtor nations, the interest charges would amount to over \$16,126 millions, thus requiring total payments aggregating \$24,839 millions. The reduction of the period of maturity of the domestic debt by about 70% effects a reduction in the total payments of approximately 50%.

Should all of the public debt obligations, including foreign loans as well as the domestic debt, be retired at the rate maintained during the past seven years, more than \$14,000 millions would be retired between January, 1927 and 1944, leaving less than \$5,000 millions outstanding. The prospects and the desirability of maintaining, decreasing or increasing this annual rate of debt reduction depends upon the Government's general expenditure needs and upon its tax policy.

¹ Annual Report of the Secretary of the Treasury, 1926, pp. 24-25.

Prospective Sources of Compulsory Debt Reduction

As indicated above, the Treasury's debt reduction program has been based on funds from six sources—internal revenue receipts from the franchise tax on Federal Reserve and intermediate credit banks, receipts of securities in payment of the federal estate duty, the annual sinking fund appropriations and interest payments on unmatured securities held by the Sinking Fund, principal and interest payments on the foreign debt made in United States securities, any unencumbered balance in the Treasury, and finally any annual surplus of receipts over expenditures. The first four of these sources are compulsory; the Treasury has no choice but to apply them to debt reduction. The last two sources are voluntary.

Debt retirement from internal revenue declined in the fiscal year ended in 1923 and was reduced to an insignificant proportion of the total retirement in the fiscal years ended in 1925 and 1926. These decreases were due to the downward tax revisions in 1921 and 1924, which among other changes reduced the revenue from the franchise tax on Federal Reserve and intermediate credit banks and from the estate duty. There is, therefore, at the present time little prospect of any considerable debt retirement from the tax revenue provided directly for this purpose.

It is quite within the powers of Congress to increase the required annual sinking fund appropriation, which at present amounts to about \$250 millions. The present Secretary of the Treasury, however, has put himself on record as being opposed to this procedure.¹ There is, however, the possibility of an obligatory enlargement of this appropriation through the requirement that interest on unmatured bonds, held by the Fund, must be paid into the Fund. This situation has persisted, in fact, since the first sinking fund appropriation in 1921. Bonds are bought by the Treasury when they fall below par. When the bonds are above par, the Sinking Fund is applied to the retirement of the maturing or called debt. Up to the present time a considerable portion of the Sinking Fund has been employed in the purchase of Third Liberty Loan bonds bearing 4¼% interest and maturing in

¹ *Ibid.*, p. 7.

September, 1928. All of the \$317.1 millions at the disposal of the Fund during 1926 was expended in this manner. The annual sinking fund appropriation is thus likely to increase until 1928.

However, this advantage is possible only as long as United States securities can be purchased in the market below par. Unless there were a marked rise in interest rates, it is not likely that these securities will depreciate considerably below par for any length of time, because in that case the debtor nations would make payments to the United States in these securities, and their purchases would be of sufficient volume to bring the market rate of United States bonds to or above par. Moreover, since the maturing debt will continue for some time to be greater than the sinking fund appropriation, the Sinking Fund will frequently be used to retire maturing obligations on which no interest will accrue. The extent of the increases in appropriations for the Sinking Fund is thus obviously limited, and the appropriations must, in the end, fall to the minimum requirements of about \$250 millions annually.

The conclusion is inevitable that the future will see no expansion of the sources of obligatory debt retirement. Instead it is likely that these will suffer a marked shrinkage. Will this be offset by an expansion of the voluntary sources of debt retirement?

Prospective Sources of Voluntary Debt Reduction

Between 1920 and 1924, the national debt was reduced nearly one billion dollars by devoting to this end the unencumbered balance found in the Treasury. During 1925 and 1926, however, debt retirements from this source have been nil. There simply has been no balance to be drawn upon. The seventy to eighty million dollars that have remained in the Treasury at the end of each fiscal year since 1924 have represented no more than a safe working margin.

Apparently then, with the prospect of a decrease in the obligatory sources of debt retirement, and with the possibility of further retirement out of a treasury balance eliminated, there will have to be a huge increase in the size of the annual surplus if the hope of the Secretary of Treasury of

maintaining debt reduction at the same rate in the future as in the past is to be fulfilled. Is this likely or possible?

Given the present revenue situation, what is the possibility of future surpluses? Two factors determine this possibility: the future increase or decrease of federal departmental expenditures, and the future variations in the "ordinary receipts" of the Federal Government.

In the preceding chapter it was indicated that the aggregate net expenditures of the Federal Government have been increasing even in the face of the rising purchasing power of the dollar. The statement of the Secretary of the Treasury that "it does not seem probable that we can contemplate a reduction in Government expenditures in the next few years"¹ further indicates that surplus revenues are not likely to occur through departmental savings. On the expenditures side, then, the annual surplus available for debt retirement must depend chiefly upon the saving in interest payments. The savings in interest payments have been increasing by about \$50 millions annually in the last few years. To the extent that the expenses of the general departments of the Government continue to increase, as they have in the past few years, not all of the annual savings in interest on the public debt will remain as surplus. It must also be remembered that the annual savings of interest depend upon continued reduction in the public debt as well as upon refundings at lower interest rates. The more slowly present debt retirement proceeds, the smaller will be the amount of saved interest available for future retirement.

The "ordinary receipts" of the Federal Government during the past few years have been drawn from three main sources—non-tax receipts from the liquidation of war assets and from back tax collections, cash payments of principal and interest on foreign debts, and tax revenues.

The aggregate receipts of the Government from the liquidation of wartime and post-war capital investments, including war supplies, loans to railroads, investments in the War Finance Corporation and in the bonds of the Federal Land Banks, amounted to \$950 millions in the last five fiscal years, 1921 to 1926. During the same period the collection of

¹ *Idem.*

back taxes exceeded the refunds of taxes by \$400 millions. It is estimated that net receipts from similar sources during the current year will be \$250 millions. In the fiscal year ending June 30, 1928, however, only \$50 millions are anticipated from non-tax revenue. On June 30, 1926, there remained only about \$400 millions in capital investments, most of which are of doubtful or slow character, and it was expected that the fiscal year ended in 1927 would be the last in which back taxes would appear as a material net receipt.¹

As has already been indicated, it is unlikely that the market rate for United States securities will decline sufficiently to enable the debtor nations to profit by making their payments to the United States in these securities. Consequently, these payments will be made in cash and will swell the "ordinary receipts" of the Federal Government and, hence, the surplus. Under the refunding agreements, there will be a steady but slow increase of the total of interest and principal payments, and in the end, the total of these payments will more than cover the amount of the national debt, but it seems to be the opinion of the present Administration that too much dependence should not be placed on this item.

The predominant factor in "ordinary receipts," however, is the tax revenue. Although tax rates were reduced in the 1926 revision of the tax system, increased prosperity is expected to yield an increase in tax revenue. This factor, combined with certain governmental economies, forced by the failure of Congress to pass the 1927 deficiency bill, created a surplus of \$635.8 millions in the fiscal year ended June 30, 1927, which can be applied to debt reduction. A substantial reduction of the public debt in 1927, as well as a decrease in interest obligations for 1928, thus seems to be assured. The tax revision of 1926 is, however, expected to effect a decrease of about \$50 millions in miscellaneous tax collections in 1928, since rate changes in the federal tax system are not reflected in the collections until one to two years after they take effect. Thus, the recent revision of tax rates, combined with the expected decline in the collection of back taxes and in the liquidation of capital assets, should reduce considerably the surplus in 1928. It is, there-

¹ U. S. Department of the Treasury, Annual Report of the Treasury, 1926, p. 8.

fore, unlikely that the loss of funds formerly available for debt reduction out of specific internal revenue items and out of the general fund balance will be to any extent offset by future increases in the annual surplus.

Debt Reduction and Tax Reduction

The Treasury Department has been holding fast to both horns of a dilemma by the argument that "a balance should be maintained between debt reduction and tax reduction which is fair to all interests in our country." It was possible to maintain this program up to the present because of the large funds from back taxes and investments which were available for debt reduction and by reason of increasing business prosperity which yielded greater revenues in the face of reduced tax rates, increased tax exemptions and the repeal of certain miscellaneous taxes. Though a large surplus and substantial debt reduction were possible in the fiscal year 1926-27, the prospects for 1927-28 are not so certain.

As already indicated, the present Secretary of the Treasury favors the retirement of the public debt of the United States at a more rapid rate than that fixed for the debtor nations. From now on, the greater part of this reduction of the national debt must be financed out of current tax revenue. All further debt retirement in excess of receipts from the debtor nations will thus be reflected in the federal tax burden, whether this excess retirement be accomplished through the Sinking Fund or out of surplus revenue. In view of the unfortunate political concomitants of surplus financing, it might be advisable in the near future to enlarge the sinking fund appropriation, thus adding to the obligatory sources of debt retirement, and effecting a corresponding reduction in future surpluses. Such action would make more certain the early redemption of the national debt, but it would not in any way relieve the pressure on the tax revenues.

In the future, the issue will have to be drawn between continued debt reduction and continued tax reduction. Eventually, of course, the two programs will be allied. When the greater part of the national debt has been paid off, there will no longer be the pressure for tax revenues to meet interest and matured principal obligations. Then tax reduc-

tion will be not only a possibility, but a fiscal necessity. But so long as the bulk of the debt remains unpaid, a fairly high level of federal taxes must be maintained if only to cover interest payments upon it. The sooner the debt is retired, the smaller the eventual interest total will be.

Effect of the Soldiers' Bonus Law

If for once history does not repeat itself and future years do not see additional bonus and pension grants for political reasons, the Soldiers' Bonus Law in its present form will have the effect of postponing final payment on a portion of the federal debt. The Government is required to pay annually into the bonus fund, and charge as a government expenditure, a premium calculated to meet the obligations of the twenty-year endowment insurance provided by the Bonus Law. The premiums received by the bonus fund must be invested in United States securities. Instead of buying these securities in the open market, the Treasury has followed the policy of selling to the fund Government obligations with maturities arranged so as to meet satisfactorily the actuarial requirements of the fund. Upon the maturity of most of the regular bond issues, which will have occurred by 1944, there will be in the fund about \$2,500 millions to \$3,000 millions of government securities, the sale of which to the fund during the twenty-year period will have given the Treasury sufficient funds to retire a like amount of ordinary bonds in the hands of the public. In 1944, it will most likely be necessary for the Treasury to refund the securities in the fund by the sale of new securities to the public in order to provide the cash necessary for redemption of the endowment insurance. The Bonus Law thus has the effect of refunding some two and a half to three billion dollars of the public debt into a series which will not mature until 1944, at which time they will necessarily have to be refunded into an issue with later maturities.

FOREIGN DEBT SETTLEMENTS

By the act of Congress approved February 9, 1922,¹ the World War Foreign Debt Commission was created with

¹ Amended by the Act of February 28, 1923, and further amended by the Act of February 21, 1925.

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authority to negotiate independent debt settlements with each of the debtor nations. After the conclusion of debt agreements with all but five debtor nations, the commission ceased to exist on February 9, 1927. The funding agreements concluded by the commission cover \$9,811,094,094.03 of the principal of the foreign indebtedness to the United States, or more than 97% of the total principal amount of obligations outstanding when the commission was created.

Funding Agreements

The funding agreements with Estonia, Finland, Great Britain, Hungary, Lithuania, Poland and Rumania have been ratified by the United States and by these countries, and the new obligations provided for in the funding agreements have been delivered to the United States. The agreements with Belgium, Italy and Latvia have been ratified by the United States and by the several debtor governments, but the formal completion of the transaction is not yet accomplished. The agreement with Czechoslovakia has been approved by the United States, but the action to ratify it has not yet been taken by the Czechoslovak Republic. The agreements with France and Jugoslavia have been approved by the House of Representatives, but not by the Senate. The French Government has not yet ratified the agreement,¹ while the agreement with Jugoslavia has been approved by that country.

The Unfunded Debt

By joint resolution of Congress, approved April 6, 1922, the time of payment of principal and interest of the Austrian debt was postponed until June 1, 1943. Only five other nations have not funded their debts to the United States. These nations owe less than three per cent of the total principal amount of foreign obligations held by the United States. By far the greatest of these five debtors is Russia, whose government is not recognized by the United States. Armenia has no government at all. Liberia is soon expected to meet its debt of \$35,000 principal and accrued interest in cash.

¹ See U. S. Department of the Treasury, *Annual Report of the Secretary of the Treasury, 1926*, p. 56. At date of publication the situation remains unaltered.

Nicaragua has been meeting its obligations regularly, and the \$27,000 outstanding on November 15, 1926, has already been paid. Under a contract, dated February 25, 1927, however, Nicaragua purchased surplus war supplies aggregating \$217,718, for which the United States government holds 6% notes maturing on and after January 31, 1929. The only other country which has not settled its debt to the United States is Greece. Though the Greek Government named its representative for negotiation, its debt was not funded, but a request was made for additional advances under credits heretofore established. In keeping with its policy of withholding governmental and bank credit from debtor nations which have "refused to adjust or make a reasonable effort to adjust their debts to the United States,"¹ the Government took the position that no advance to Greece could be made without specific authority from Congress.

Changes in the Amount of Foreign Debt

The changes in the foreign debt owing to the United States over a period of years are shown in Table 12. Though the value of the principal of this debt declined after 1923, its gross value increased until 1925 by the accrual of unpaid interest. Between June 30, 1925, and November 15, 1926, a reduction in the total of this debt occurred in accordance with refunding agreements. The recapitulation in Table 12 indicates the changes in the amounts of the principal and interest after 1923, when these original claims were combined to make up the principal of the funded debts. In 1925, though almost five billion dollars of foreign debts had been funded by that time, the interest accrued and unpaid was greater than in 1923. This was due to the fact that the debtors, whose interest obligations were greatest in 1923, did not conclude funding agreements until the fiscal year ended in 1926. Great Britain, France and Italy owe more than 90% of the foreign obligations held by the United States. The two latter countries were responsible for 83.3% of the unpaid interest outstanding in 1923 and for 88.6% in 1925. Great Britain, however, whose debt was funded prior to 1925, owed no interest in 1923 or in 1925.

¹ See Annual Report of the Secretary of the Treasury, 1925, page 54.

TABLE 12: FOREIGN DEBT OWING TO THE UNITED STATES, AT CLOSE OF FISCAL YEAR 1921 TO 1926¹

(Source: Annual Reports of the Secretary of the Treasury)

(In Thousands)

Country	1921			1922			1925			1926		
	Principal	Accrued Interest Unpaid	Total	Principal	Accrued Interest Unpaid	Total	Principal	Accrued Interest Unpaid	Total	Principal	Accrued Interest Unpaid	Total
Armenia.....	\$11,960	\$1,079	\$13,039	\$11,960	\$2,303	\$14,263	\$11,960	\$3,499	\$15,459	\$11,960	\$4,097	\$16,057
Austria.....	24,056	1,443	25,499	24,056	4,330	28,386	24,056	7,217	31,273	24,056	8,660	32,716
Belgium.....	377,564	42,700	420,264	377,029	77,434 ²	454,463	376,154	40,751	416,905	415,680	..	415,680
Cuba.....	8,575	..	8,575	..	..	..	..	..	..	..	..	..
Czechoslovakia.....	91,180	9,804	100,984	91,880	19,026	110,906	91,880	23,120	115,000	112,000	..	112,000
Estonia.....	13,999	1,390	15,389	13,999	2,790	16,789	13,999	1,764	15,763	13,830	1,469	15,299
Finland.....	8,282	598	8,880	8,282	718	9,000	8,910	..	8,910	8,863	..	8,863
France.....	3,358,104	358,411	3,716,515	3,340,606	650,052	3,990,658	3,340,516	963,496	4,304,012	4,025,000	..	4,025,000
Great Britain.....	4,166,318	509,174	4,675,492	4,600,000	..	4,600,000	4,554,000	..	4,554,000	4,530,000	..	4,530,000
Greece.....	15,000	..	15,000	15,000	1,500	16,500	15,000	3,000	18,000	15,000	3,750	18,750
Hungary.....	1,686	101	1,787	1,686	303	1,989	1,973	..	1,973	1,963	..	1,963
Italy.....	1,648,034	202,280	1,850,314	1,647,997	367,082	2,015,079	1,647,869	394,131	2,042,000	2,037,000	..	2,037,000
Latvia.....	5,132	387	5,519	5,132	900	6,032	5,132	643	5,775	5,775	546	6,321
Liberia.....	26	2	28	26	5	31	26	..	33	26	9	35
Lithuania.....	4,982	498	5,480	4,982	996	5,978	6,045	7	6,045	6,105	..	6,105
Nicaragua.....	..	..	..	176	..	176	84	..	84	27	..	27
Poland.....	135,621	10,742	146,363	155,931	26,540	182,471	178,560	..	178,560	178,560	17,864	196,424
Rumania.....	36,128	4,058	40,186	36,128	7,671	43,799	36,128	11,283	47,411	44,390	..	44,390
Russia.....	192,601	30,773	223,374	192,601	49,302	241,903	192,602	68,390	260,992	192,601	77,998	270,599
Jugoslavia.....	51,153	5,440	56,593	51,038	10,549	61,587	51,038	15,653	66,691	62,650	..	62,650
Total.....	\$10,150,401	\$1,178,880	\$11,329,281	\$10,578,509	\$1,221,501	\$11,800,010	\$10,555,932	\$1,532,954	\$12,088,886	\$11,685,486	\$114,393	\$11,799,879
Recapitulation												
Principal of obligations under Liberty Loans.....	..	..	\$9,434,775	..	..	\$9,842,468	..	..	\$5,241,375	..	..	\$202,756
Interest of obligations under Liberty Loans.....	..	..	1,155,502	..	..	1,168,871	..	..	1,500,928	..	..	..
Principal of obligations under sale of surplus supplies.....	..	..	574,674	..	..	595,088	..	..	510,890	..	..	433
Interest of obligations under sale of surplus supplies.....	..	..	11,727	..	..	26,931	..	..	17,489	..	..	..
Principal of obligations under sale of relief supplies.....	..	..	140,952	..	..	140,953	..	..	54,179	..	..	40,481
Interest of obligations under sale of relief supplies.....	..	..	11,651	..	..	25,699	..	..	14,537	..	..	..
Principal funded debts (covering prior principal and interest obligations).....	..	..	..	..	..	..	..	..	4,749,488	..	..	11,441,816
Principal—total.....	10,150,401	..	10,150,401	10,578,509	..	10,578,509	10,555,932	..	10,555,932	..	..	11,685,486
Interest—total.....	1,178,880	..	1,178,880	1,221,501	..	1,221,501	1,532,954	..	1,532,954	..	114,393	114,393
Grand total—principal and interest.....	\$11,329,281	..	\$11,329,281	\$11,800,010	..	\$11,800,010	\$12,088,886	..	\$12,088,886	..	\$114,393	\$11,799,879

¹ As of November 15, 1926; as of June 30, for all other years.

² No interest due on Nicaraguan notes until maturity, as is the case of certain Belgian obligations aggregating \$2,284,151.

TABLE 13: ANALYSIS OF FOREIGN DEBT OWING TO THE UNITED STATES, JUNE 30, 1926

(Source: Annual Report of the Secretary of the Treasury, 1926)

(In Thousands)

Debtor Countries	Original Obligations			Funded Debt Transactions				Date of Agreement on Funded Debt	Payments on Account of Principal ¹	Net Principal of Debt November 15, 1926	Accrued Interest ²	Total Indebtedness November 15, 1926
	Principal of Obligations under Liberty Loan Acts	Principal of Obligations for Sale of Surplus Act July 9, 1918	Principal of Obligations for Sale of Relief Surplus Acts February 25, 1919 and March 30, 1920	Payments on Account of Principal Prior to Funding Debt	Original Principal as Funded	Accrued Interest as Funded	Principal of Debt as Funded					
Belgium.....	\$349,214	\$29,873		\$2,057	\$377,030	\$40,750	\$417,780	Aug. 18, 1925	\$2,100	\$415,680	..	\$415,680
Czechoslovakia.....	61,974	20,604	\$9,301	1,786	91,880	23,120	115,000	Oct. 13, 1925	3,000	112,000	..	112,000
Estonia.....	..	12,213	1,786	1,933 ³	12,066	1,764	13,830	Oct. 28, 1925	..	13,830	\$1,469	15,299
Finland.....	..	..	8,282	..	8,282	718	9,000	May 1, 1923	137	8,863	..	8,863
France.....	2,997,478	407,341	..	64,304	3,340,516	684,484	4,025,000	Apr. 29, 1926	..	4,025,000	..	4,025,000
Great Britain.....	4,277,000	..	..	202,182	4,074,818	525,182	4,600,000	June 19, 1923	70,000	4,530,000	..	4,530,000
Hungary.....	..	..	1,686	..	1,686	253	1,939	Apr. 25, 1924	20	1,963 ⁴	..	1,963
Italy.....	1,648,034	..	..	364	1,647,869 ⁵	394,131	2,042,000	Nov. 14, 1925	5,000	2,037,000	..	2,037,000
Latvia.....	..	2,522	2,610	..	5,132	643	5,775	Sept. 24, 1925	..	5,775	546	6,321
Lithuania.....	..	4,159	822	..	4,982	1,048	6,030	Sept. 22, 1924	60	6,105 ⁶	..	6,105
Poland.....	..	83,683	75,984	..	159,667	18,893	178,560	Nov. 14, 1924	..	178,560	17,864	196,424
Rumania.....	25,000	12,923	..	1,799	36,122 ⁷	8,462	44,590	Dec. 4, 1925	200	44,390	..	44,390
Jugoslavia.....	26,780	24,978	..	720	51,038	11,812	62,850	May 3, 1926	200	62,650	..	62,650
Total funded debt....	\$9,385,480	\$598,296	\$100,471	\$273,359	\$9,811,094⁸	\$1,711,260	\$11,522,354		\$80,717	\$11,441,816	\$19,879	\$11,461,695
Armenia.....	..	..	11,960	..	..	..	..	..	..	11,960	4,097	16,057
Austria.....	..	..	24,056	..	..	..	..	..	..	24,056	8,660	32,716
Greece.....	15,000	..	..	..	..	..	..	..	..	15,000	3,750	18,750
Liberia.....	26	..	..	..	..	..	..	..	..	26	9	35
Nicaragua.....	..	167	..	..	..	..	..	..	140	27	..	27
Russia.....	187,730	406	4,466	..	..	..	..	..	..	192,602	77,998	270,600
Total unfunded debt....	\$202,756	\$573	\$40,482	\$273,359	..	..	..		\$140	\$243,671	\$94,514	\$338,185
Grand total debt⁹....	\$9,588,237	\$598,869	\$140,953	\$273,359	..	\$1,711,260	..		\$80,857	\$11,685,487	\$114,393	\$11,799,873

¹ Since date of funding, in cases of funded debt.

² Increase over amount funded due to exercise of options to pay one-half of interest in bonds of debtor government. There has been thus added to the principal of the funded debt of Hungary and Lithuania \$41,555.50 and \$135,225.00 respectively.

³ The reported original principal as funded is in excess of the sum of the obligations outstanding against Italy and Rumania, at the time of funding, by \$199,466.34 and \$4,451.54 respectively.

⁴ The totals do not always equal the exact sums of their component parts because of the reduction of all figures to the nearest thousand.

⁵ Allowed as credit by funding agreement.

The changes in the foreign debt obligations effected during the negotiation of debt settlements by the Debt Commission are presented in Table 13. It may be seen that only \$273 millions of the original principal of obligations were retired prior to the funding of the several debts. At the time of the funding, \$1,711 millions of accrued interest was included in the principal as funded. This amount, however, represents a reduction of the unpaid interest accruals under the terms of the original obligations. The rate of interest on the original loans was $3\frac{1}{2}\%$, but was subsequently increased to 5% . Infixing the principal of the funded debt, the Commission computed accrued interest on the basis of $4\frac{1}{4}\%$, to December 15, 1922 and 3% thereafter. The interest accruing under the previous terms of the loans was thus, in part, cancelled.

Character of the Funding Agreements

The Debt Commission was without power to cancel outright any part of the principal of obligations held by the United States. It had full power, however, to settle the terms of payment by fixing the period of maturity and the interest rates to be charged. The debt settlement with Great Britain provided for the payment of the principal over a period of sixty-two years. The same period was used in all other funding agreements. Since the funding agreements provide in all cases for lower interest rates than are currently charged on private loans, there has been a substantial reduction in the present value of the foreign debt. In this manner a part of the foreign debt has been, in effect, cancelled.

The settlement with each country was negotiated on the basis of its presumed capacity to pay. The schedules of payments over the 62-year period were so arranged as to make the burden of the debt relatively lighter during the first few years in order not to interfere with the process of post-war economic recovery and stabilization. The concessions which the Debt Commission made to the debtor nations consisted in reduction of the rates of interest charged which were actually a form of debt cancellation. The interest rates provided by the several funding agreements differ

considerably according to the Commission's estimate of the various debtors' capacities to pay. Great Britain has retained under the funding agreement most of its original burden, having to pay 3% interest during the first ten years and 3½% thereafter. Italy, on the other hand, will pay an average rate of interest over the 62-year period of only 0.4%, while under the Mellon-Berenger debt agreement France will pay an average interest rate of 1.6%.

TABLE 14: AVERAGE INTEREST RATES UNDER VARIOUS DEBT AGREEMENTS

(Source: United States Department of the Treasury)

Country	Principal of Funded Debt (Thousands)	Total Interest On Funded Debt (Thousands)	Average Interest Rates (Approximate)	
			On Debt as Funded	On Original Principal Including Back Interest
Belgium.....	\$417,780	\$310,051	1.790%	1.840%
Czechoslovakia.....	115,000	197,811 ¹	3.327	3.433
Estonia.....	13,830	19,501	3.306	3.404
Finland.....	9,000	12,695	3.306	3.402
France.....	4,025,000	2,822,674	1.641	1.955
Great Britain.....	4,600,000	6,505,965	3.306	3.415
Hungary.....	1,939	2,754	3.306	3.407
Italy.....	2,042,000	365,677	.405	.815
Latvia.....	5,775	8,184	3.306	3.426
Lithuania.....	6,030	8,502	3.306	3.420
Poland.....	178,560	257,128	3.306	3.408
Rumania.....	44,590	77,916	3.321	3.358
Jugoslavia.....	62,850	32,328	1.030	1.356
Total.....	\$11,522,354	\$10,621,186		

¹ Without regard to any options that have been or may be exercised.

The average rates of interest¹ under the provisions of the several funding agreements have been computed by the United States Treasury Department and are presented in Table 14. Even after taking into consideration interest accrued prior to the funding, Italy, Jugoslavia, France and Belgium are charged with less than 2% interest. Each of the other debtors, however, will pay about 3.3%. These debtor nations have the same schedule of interest rates, but the payments on funded principal for Czechoslovakia and Ru-

¹ The average rate of interest is the rate at which successive payments must be discounted for the aggregate of discounted payments to equal the principal of the funded debt. See *The New York World*, June 21, 1926, article by Irving Fisher.

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mania have been deferred to later years, when the high interest rate is charged, thus bringing their average interest rate above that for Great Britain.

TABLE 15: TOTAL AMOUNTS TO BE RECEIVED UNDER RE-FUNDING AGREEMENTS¹

(Source: Data from the United States Department of the Treasury; calculations by National Industrial Conference Board)

Country	Principal (Thousands)	Interest (Thousands)	Total (Thousands)	Percent- age Dis- tribution of Principal	Percent- age Dis- tribution of Total
Belgium.....	\$417,780	\$310,051	\$727,831	3.6	3.3
Czechoslovakia.....	115,000	197,811 ²	312,811	1.0	1.4
Estonia.....	13,830	19,501	33,331	.1	.2
Finland.....	9,000	12,695	21,695	.1	.1
France.....	4,025,000	2,822,674	6,847,674	35.0	30.9
Great Britain.....	4,600,000	6,505,965	11,105,965	39.9	50.1
Hungary.....	1,939	2,754	4,693	..	..
Italy.....	2,042,000	365,677	2,407,677	17.7	10.9
Latvia.....	5,775	8,184	13,959	.1	.1
Lithuania.....	6,030	8,502	14,532	.1	.1
Poland.....	178,560	257,128	435,688	1.5	2.0
Rumania.....	44,590	77,916	122,506	.4	.5
Jugoslavia.....	62,850	32,328	95,178	.5	.4
Total.....	\$11,522,354	\$10,621,186	\$22,143,540	100.0	100.0

¹ Without regard to any options that have been or may be exercised.

² Includes deferred payments which will be funded into principal.

The effect of these different interest rates is shown in Table 15. Though Great Britain is responsible for only 39.9% of the funded foreign debt, she is expected to pay more than half of the total amount to be eventually received by the United States from these payments. Italy, owing 17.7% of the principal amount of funded obligations, will pay only 10.9% of the eventual total. France and Belgium also will pay a lesser proportion than is represented by the principal of their funded debts.

The extent to which the present value of the foreign obligations has been reduced is shown in Table 16. Finland and Latvia have been allowed the least reduction, while Italy has benefited most. The reduction, as measured by the 5% interest rate on the foreign debts funded, is shown in the 5% discount column. The United States Government, however, has been borrowing on long-term bonds at 3¾% and 3⅜% interest. The 3½% discount column, therefore,

TABLE 16: PRESENT VALUE OF FUNDED FOREIGN DEBTS

(Source: United States Department of the Treasury)

Country	Debt Prior to Funding, Including Accrued Interest (Thousands)	Present Value on Basis of Stated Interest Rates and Percentage that Present Value is of Debt Prior to Funding					
		1 Per Cent (Thousands)	Per Cent	4½ Per Cent (Thousands)	Per Cent	5 Per Cent (Thousands)	Per Cent
Belgium.....	\$483,426	\$302,239	62.5	\$225,000	46.5	\$191,766	39.7
Czechoslovakia.....	123,854	124,995	100.9	91,964	74.3	77,985	63.0
Estonia.....	14,143	14,798	104.6	11,392	80.5	9,915	70.1
Finland.....	9,190	9,630	104.8	7,413	80.7	6,452	70.2
France.....	4,230,777	2,734,250	64.6	1,996,509	47.2	1,681,369	39.7
Great Britain	4,715,310	4,922,702	104.4	3,788,470	80.3	3,296,948	69.9
Hungary....	1,984	2,076	104.6	1,596	80.4	1,388	70.0
Italy.....	2,150,150	782,321	36.4	528,192	24.6	426,287	19.8
Latvia.....	5,893	6,181	104.9	4,755	80.7	4,137	70.2
Lithuania...	6,216	6,452	103.8	4,967	79.9	4,322	69.5
Poland.....	182,324	191,283	104.9	146,825	80.5	127,643	70.0
Rumania....	46,945	48,442	103.2	35,172	74.9	29,507	62.9
Jugoslavia...	66,164	30,286	45.8	20,030	30.3	15,919	24.1
Total.....	\$12,036,376	\$9,175,655	..	\$6,862,285	..	\$5,873,638	..

better represents the discounting of the funded debt from the standpoint of the United States. On this basis, there has been no reduction in value of their debts for most of the debtor nations. The exceptions are France and Belgium, which had their debts reduced to 64.6% and 62.5% respectively, and Yugoslavia and Italy, whose debts after funding represented 45.8% and 36.4% of the original face value of their principal and accrued interest. The debtor governments, however, without exception, have to borrow at higher values than does the United States government. Therefore, to them, these refundings represent considerable reductions.

Schedule of Maturities

Should the Mellon-Berenger agreement be ratified by the United States Senate and by the French Parliament, the aggregate of principal and interest on the funded debt obligations held by the United States would mature according to the schedule presented in Table 17. It may be seen that the amounts received by the United States Government from this source will increase continually until 1983. Payments under this schedule will probably continue for many years after the present public debt of the United States is retired.

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TABLE 17: TOTAL OF ANNUAL INTEREST PAYMENTS AND MATURITIES OF PRINCIPAL UNDER REFUNDING AGREEMENTS

(Source: Annual Reports of the United States Department of the Treasury; aggregated by *Wirtschaft und Statistik*, January, 1927)

Year	Interest and Matured Principal (In Thousands)	Year	Interest and Matured Principal (In Thousands)
1923	\$167,917	1956	\$370,315
1924	167,642	1957	371,937
1925	168,160	1958	374,011
1926	210,676	1959	374,295
1927	210,282	1960	374,598
1928	214,728		
1929	214,761	1961	381,015
1930	218,296	1962	379,099
		1963	382,067
1931	233,294	1964	381,943
1932	245,306	1965	383,631
1933	279,887	1966	386,767
1934	294,893	1967	386,605
1935	299,894	1968	388,955
1936	312,588	1969	392,141
1937	327,400	1970	394,123
1938	331,809		
1939	336,261	1971	397,920
1940	345,646	1972	399,935
		1973	400,849
1941	352,298	1974	401,596
1942	356,458	1975	403,274
1943	355,613	1976	404,245
1944	361,648	1977	405,944
1945	360,759	1978	408,426
1946	359,747	1979	409,892
1947	363,533	1980	410,243
1948	362,336		
1949	361,039	1981	417,610
1950	362,034	1982	419,047
		1983	422,419
1951	367,399	1984	418,337
1952	368,236	1985	227,316
1953	369,961	1986	228,842
1954	372,569	1987	221,500
1955	371,569		
			Total \$22,143,540¹

¹ Total is not the sum of component items because of the rounding out of figures to nearest thousand.

These payments, as mentioned above, may be made in cash or in United States securities. Which medium of payment is chosen will depend, of course, on the market value of these securities. Table 18 shows that several debtor countries, and particularly Great Britain, have paid the

TABLE 18: FOREIGN DEBT PAYMENTS TO UNITED STATES ON ACCOUNT OF FUNDED OBLIGATIONS TO JUNE 30, 1927

(Source: United States Treasury)

(In thousands)

Country	Date of Funding	Payments on Principal			Payments on Interest			Total Payments ¹		
		Cash	In United States Obligations	Total	Cash	In United States Obligations	Total	Cash	In United States Obligations	Total
Belgium.....	Aug. 18, 1925	\$4,200	..	\$4,200	\$3,740	..	\$3,740	\$7,940	..	\$7,940
Czechoslovakia.....	Oct. 13, 1925	6,000	..	6,000	..	..	..	6,000	..	6,000
Estonia.....	Oct. 28, 1925	75	..	75	100	..	100	175	..	175
Finland.....	May 1, 1923	141	\$45	186	1,049	\$155	1,204	1,190	\$200	1,390
France.....	Apr. 29, 1926	10,000	..	10,000	..	..	..	10,000	..	10,000
Great Britain.....	June 19, 1923	36	94,964	95,000	49,761	565,644	615,405	49,797	660,608	710,405
Hungary.....	Apr. 25, 1924	30	..	30	161	..	161	192	..	192
Italy.....	Nov. 14, 1925	5,000	5,000	10,000	..	..	..	5,000	5,000	10,000
Latvia.....	Sept. 24, 1925	8	..	8	87	..	87	95	..	95
Lithuania.....	Sept. 22, 1924	92	..	92	322	..	322	414	..	414
Poland.....	Nov. 14, 1924	1,000	..	1,000	1,750	..	1,750	2,750	..	2,750
Rumania.....	Dec. 4, 1925	500	..	500	..	..	..	500	..	500
Jugoslavia.....	May 3, 1926	400	..	400	..	..	..	400	..	400
Total.....		\$27,482	\$100,009	\$127,491	\$56,970	\$565,799	\$622,769	\$84,453	\$665,808	\$750,261

¹ Not all the totals represent the exact sum of their component parts, because the figures are rounded out to the nearest thousand.

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larger part of their matured debt in short-term securities of the United States Government which, at certain intervals, were quoted below par. Of the \$750 millions of debt payments received up to June 30, 1927, \$666 millions were made in these securities.

STATE AND LOCAL BORROWINGS

Whereas the Federal Government has been actively reducing the total of its indebtedness, the states and the local governmental authorities have been rapidly adding to the total of their debt. As shown in Table 19, during the four years 1923 through 1926, the state and local governments incurred \$5,118 millions of new indebtedness, exclusive of refunding issues.

TABLE 19: STATE AND LOCAL BONDS ISSUED, 1923 TO 1926

(Source: *Commercial and Financial Chronicle*)

Issuing Authority	1923	1924	1925	1926	Total 1923-1926
<i>Amount (in Thousands)</i>					
States.....	\$232,725	\$249,517	\$161,919	\$130,574	\$774,735
Counties.....	170,487	206,823	229,414	204,417	811,141
School districts.....	152,048	174,407	198,054	172,323	696,832
Municipalities and special civil divisions.....	507,860	768,206	810,250	857,743	2,944,059
Gross total.....	\$1,063,120	\$1,398,953	\$1,399,638	\$1,365,057	\$5,226,768
Refunding issues.....	20,002	19,315	47,545	21,516	108,378
Net total.....	\$1,043,118	\$1,379,638	\$1,352,093	\$1,343,541	\$5,118,390
<i>Percentage Distribution</i>					
States.....	21.8	17.8	11.6	9.6	14.8
Counties.....	16.0	14.8	16.4	15.0	15.5
School districts.....	15.2	12.5	14.1	12.6	13.4
Municipalities and special civil divisions.....	47.0	54.9	57.9	62.8	56.3
Gross total.....	100.0	100.0	100.0	100.0	100.0
Refunding issues.....	1.9	1.4	3.4	1.6	2.1
Net total.....	98.1	98.6	96.6	98.4	97.9

More than half of the new borrowings—56.3%—during these four years was made by the municipalities and the minor civil divisions. School districts, as a group, accounted for 13.4% of the total borrowing. Contrary to popular

opinion, counties borrowed even more than the state governments during this period. The loans of the former totalled \$811 millions and of the latter \$775 millions.

The peak year for state and local net borrowing was 1924, when the total of \$1,380 millions was reached. Although the gross borrowings of 1925 exceeded those of 1924, the proportion representing refunding issues was much larger and hence the net borrowing showed a slight decline. In 1926, both gross and net borrowings declined. The peak year of state borrowing was 1924, when \$250 millions of state bonds were sold. There was a sharp drop to \$162 millions in 1925, and in 1926 the figure was \$131 millions. The borrowings of counties and of school districts increased through 1925, but declined in 1926. Municipalities and the minor civil divisions, however, have been borrowing at an ever-increasing rate. In 1923, they sold \$508 millions of bonds as compared with \$858 millions in 1926. Consequently, the indebtedness of these governments represents a growing proportion of the total of state and local indebtedness. In 1923, 47% of the state and local borrowings were for municipalities and local civil divisions; in 1924 the proportion was 54.9%; in 1925 it was 57.9%, and in 1926, 62.8%.

Functional Distribution of New Borrowings

The distribution of the borrowings of the state and local governments according to the purpose of issue is shown in Table 20 and in Chart 5. Of the net total of bonds issued from 1923 through 1926, about \$61 millions, or 1.2%, represented funding of short-term or current indebtedness previously incurred. The outstanding function for which bonds were issued was the construction of roads, streets and bridges. The borrowings for highways during the four-year period amounted to \$1,453 millions, or 28.4%, of the net total. Schools and school buildings accounted for \$1,081 millions, or 21.1%, of the total. Education and highways between them thus accounted for nearly 50% of the net total of new borrowings. The \$1,576 millions borrowed by municipalities to finance the construction of water, sewer and drainage systems, of harbor and water frontage, and of other improvements constituted 31% of the total amount borrowed. Irriga-

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tion and flood prevention, two functions which fall within the field of county activity, accounted for 2.1%, and the soldiers' bonus obligations issued by the states represented 3.4% of the total. It is to be noted that the amounts of bonds issued under state soldiers' bonus laws declined from \$92 millions in 1923 to \$4 millions in 1926. This development was to be expected.

TABLE 20: FUNCTIONAL DISTRIBUTION OF STATE AND LOCAL BONDS ISSUED, 1923 TO 1926

(Source: *Commercial and Financial Chronicle*)

(In Thousands)

Purpose of Issue	1923	1924	1925	1926	Total 1923-1926	Percentage Distribu- tion
General buildings and fire.....	\$47,250	\$88,662	\$58,218	\$71,002	\$265,132	5.18
Parks and museums.....	29,880	30,740	20,367	41,823	122,810	2.40
Schools and school buildings.....	208,329	288,523	323,921	260,274	1,081,047	21.12
Roads, streets, bridges.....	314,466	380,770	392,676	364,809	1,452,721	28.38
Sewer and drainage.....	89,219	94,456	130,486	108,559	422,720	8.26
Water.....	86,831	144,214	117,263	142,939	491,247	9.60
Improvements.....	63,489	107,652	191,612	230,244	592,997	11.59
Electric light and gas.....	15,795	20,501	19,970	12,499	68,765	1.34
Rapid transit, ferries, canals..	18,116	25,831	12,857	45,107	101,911	1.99
Harbor and water frontage.....	19,540	26,389	15,328	17,951	79,208	1.55
Irrigation.....	14,475	19,358	22,696	13,610	70,139	1.37
Flood prevention..	4,054	16,071	9,807	8,124	38,056	.74
Soldiers' bonus....	92,000	72,050	7,650	4,000	175,700	3.43
Miscellaneous....	20,248	48,143	14,105	12,008	94,504	1.85
Funding.....	19,426	16,278	15,137	10,592	61,433	1.20
Net Total.....	\$1,043,118	\$1,379,638	\$1,352,093	\$1,343,541	\$5,118,390	100.00

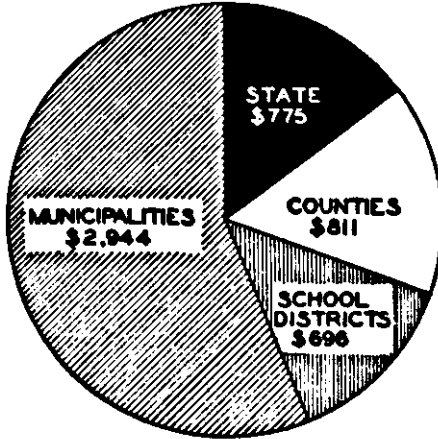
STATE AND LOCAL INDEBTEDNESS

The greater part of the public debts of states and of localities represents liabilities set over against tangible capital assets which have been financed out of the borrowed money. Among the conditioning factors that entered into the decision to undertake these projects were the size of the borrowing division, its population and its economic resources.

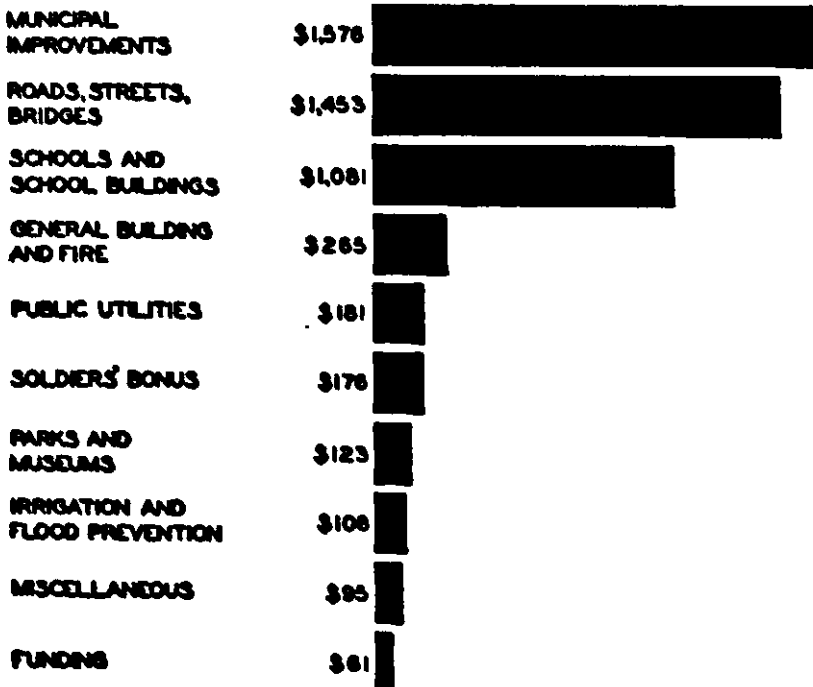
CHART 5: STATE AND LOCAL BONDS ISSUED IN UNITED STATES, 1923 TO 1926

(National Industrial Conference Board)

DISTRIBUTION OF GROSS BORROWINGS BY GOVERNMENTAL AUTHORITY
(FIGURES IN MILLIONS)
\$5,227



DISTRIBUTION OF NET BORROWINGS BY PURPOSE OF ISSUE



These debts are burdens because the money loaned must be eventually repaid to the lenders, and because this repayment must be financed, in the long run, by taxation. The ease or difficulty of this repayment depends upon the factors of size, population and economic resources. These measures of relative debt burden are necessarily conditional, since the social and economic circumstances of the borrowing division may have changed greatly by the time of the debt's maturity.

State and Local Net Bonded Debt

In Table 21 are presented the figures for the combined *net bonded* state and local debt¹ in 1913, 1922 and 1925, and the relation of the combined debt in each of these years to population and wealth. In 1913, the total state and local net bonded debt of the country was \$3,196 millions, or \$33.11

TABLE 21: COMBINED STATE AND LOCAL NET BONDED INDEBTEDNESS¹ IN 1913, 1922 AND 1925

Year	Combined State and Local Debt (Millions)	Population ² (Millions)	Wealth (Millions)	Per Capita Debt	Ratio of Debt to Wealth	Per Cent Increase of Actual Debt over Preceding Figure	Per Cent Increase of Per Capita Debt over Preceding Figure	Per Cent Increase of Ratio of Debt to Wealth over Preceding Figure
1913	\$3,196.2 ³	96.5	\$186,300 ⁴	\$33.11	.017	..	..	..
1922	7,264.2 ⁵	109.9	320,804 ⁶	66.10	.023	127.3	99.6	35.3
1925	9,865.2 ⁴	115.4	355,300 ⁶	85.50	.028	35.8	29.3	21.7

¹ Less the amount in sinking funds.

² Figure from U. S. Bureau of the Census, "Wealth, Debt and Taxation, 1913," Vol. I.

³ Figure from U. S. Bureau of the Census, "Wealth, Debt and Taxation, 1922—Public Debts."

⁴ For computation of 1925 figure, see Appendix B, p. 288.

⁵ Figures from U. S. Bureau of the Census, new revision.

⁶ Figure from U. S. Bureau of the Census, "Wealth, Debt and Taxation, 1913," Vol. II.

⁷ Figure from U. S. Bureau of the Census, "Wealth, Debt and Taxation, 1922—Wealth."

⁸ Figure from National Industrial Conference Board, Press Release, March 27, 1927.

¹ The term "net bonded debt" as used in this volume refers to the bonded debt less sinking fund assets of the state and local governments. This measure of state and local indebtedness necessarily ignores floating debt, which is a significant item in the finances of some state and local governments. Complete figures for floating indebtedness, however, can not be obtained.

per capita. In 1922, it rose to \$7,264 millions, an increase of 127.3%. During this interval population had also increased, so that the increase of per capita debt was 99.6%, to \$66.10. During the next three years, as a result of the borrowings greatly in excess of retirements and sinking fund increases, state and local net bonded indebtedness mounted to \$9,865 millions and the per capita debt to \$85.50.

During these years the wealth of the country increased even more rapidly than population, so that the increase in the ratio of state and local indebtedness to national wealth between 1913 and 1922 was only 35.3%. During the next three years the increase of this ratio was 21.7%.

There was considerable variation in the relative increases of the debts of the several classes of governmental authorities between 1913, 1922 and 1925. These variations are shown in Table 22. Between 1913 and 1922 the net bonded debt of cities with populations exceeding 30,000 increased by only 61.4%, as compared with the 237.6% increase for other local governments. State indebtedness increased by 205.4% during the nine-year interval, while the combined local debt was 119.5% higher in 1922 than in 1913. During the three-year interval from 1922 to 1925, the increases shown by the different political divisions were fairly uniform. The combined state and local debt advanced by 35.8%, the state debt by 41.9% and the local debt by 35.6%. During this

TABLE 22: NET BONDED INDEBTEDNESS OF STATE AND LOCAL GOVERNMENTS, 1913, 1922 AND 1925

(In thousands)

Governmental Authority	1913	1922	Per Cent Increase 1913 to 1922	1925	Per Cent Increase 1922 to 1925
Total state and local..	\$3,196,158	\$7,264,197	127.3	\$9,865,197	35.8
States.....	287,856	879,075	205.4	1,247,657	41.9
Total local.....	2,908,302	6,385,122	119.5	8,661,025 ¹	35.6
Cities over 30,000.....	1,948,852	3,146,280	61.4	4,486,057	42.6
Other local.....	959,450	3,238,842	237.6	4,174,968	28.9

¹ \$43,485,000 of indebtedness in Massachusetts, included in the state total, is also included in the individual totals for cities over 30,000 and for other local governments, although it has been deducted from the combined total for all local governments.

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three-year period, however, the cities had the highest rate of increase, 42.6%, whereas the indebtedness of the other subsidiary civil divisions increased only 28.9%.

As shown in Table 23, the indebtedness of municipalities, resting as it does upon the limited population group of city dwellers, has been consistently above the average of the combined state and local indebtedness, when both are reckoned on a per capita basis. However, during the thirteen-year period under consideration, the *increase* of the per capita debt of the cities was much slower than the increase of the combined per capita debt of state and local governments, the figures being 71.7% and 161.3% respectively. The per capita indebtedness of the states during this period increased 272.2%.

TABLE 23: PER CAPITA NET BONDED INDEBTEDNESS OF STATE AND LOCAL GOVERNMENTS, 1913, 1922 AND 1925

Governmental Authority	1913	1922	Per Cent Increase 1913 to 1923	1925	Per Cent Increase 1923 to 1925
Total state and local . .	\$33.11	\$66.10	99.6	\$85.50	29.3
States	2.98	8.00	168.5	10.40	30.0
Cities over 30,000	64.55	81.22	25.8	110.83	36.5

Interrelation of State and Local Net Bonded Indebtedness

In 1913, the net bonded indebtedness of the states represented 9% of the combined state and local net bonded debt. In 1922, this proportion was 12.1% and in 1925 it was 13.1%. This increase is the result of the expansion of the functions of the state governments during this period, particularly in the field of highway construction. This rise in the ratio of state indebtedness to local indebtedness parallels the similar shift in expenditure and revenue relations between the two governmental groups which are noted in Chapters I and III of this volume.

However, as indicated in the preceding section of this chapter, a check appears to be operating upon further borrowing by the state governments since 1922, whereas up to 1926, at least, the cities and minor civil divisions continued to borrow at an increasing rate. During the period 1922 to

1925, differences in provisions for retirement of earlier debt issues offset this decline in state borrowings, so that the increase of the outstanding state debt was actually slightly greater than the increase of the outstanding local debt. If the present trend of borrowing continues, however, its cumulative effect must eventually make itself felt, and the proportion of the outstanding state indebtedness to the total of outstanding indebtedness will once more decline.

Functional Distribution of State and Municipal Indebtedness

To the extent that the general functions of states and of cities overlap, it is to be expected that the purposes of their borrowings must overlap. To the extent that their respective functions differ, the purpose of their borrowings will be independent. Table 24 indicates that nearly one-fifth of the state governments' outstanding debt in 1925 was for military and war-relief purposes, whereas the cities had not borrowed at all for these purposes.

TABLE 24: FUNCTIONAL DISTRIBUTION OF STATE AND MUNICIPAL INDEBTEDNESS, 1925

(Source: United States Bureau of the Census, "Financial Statistics" of States and of Cities)

Functions	State	All Cities ¹ Over 30,000	Cities ¹ Over 500,000	Cities of 300,000 to 500,000	Cities of 100,000 to 300,000	Cities of 50,000 to 100,000	Cities of 30,000 to 50,000
General government buildings	.8%	1.9%	2.3%	1.9%	1.3%	2.0%	1.4%
Armories	.3	..	..	..	..	..	..
Agricultural purposes	.2	..	..	..	..	..	..
Police and fire departments	..	1.4	1.8	.8	1.2	1.4	1.1
Sewers and sewage disposals	..	11.2	12.9	9.2	11.1	8.7	9.8
Highways	53.2	18.8	20.0	15.8	17.5	19.7	22.1
Charities, hospitals and corrections	1.1	1.9	2.7	3.1	.6	.9	.3
Schools, libraries and museums	1.2	21.3	16.2	17.7	24.6	31.5	30.2
Parks, playgrounds and reservations	1.1	4.3	5.4	5.6	3.1	2.8	2.2
Public utilities	10.3	26.5	28.6	29.0	26.4	20.5	19.0
Municipal service enterprises	..	.2	.4	..	.1	..	.1
Soldiers' and sailors' relief and homes	18.0	..	..	..	..	..	..
War loans	.5	..	..	..	..	..	..
Combined or unreported purposes	7.8	7.2	6.6	8.5	8.3	5.7	5.9
Miscellaneous	.7	2.4	1.9	3.7	2.6	2.3	1.7
Funding and refunding	4.8	2.9	1.2	4.7	3.2	4.5	6.2

¹ Excluding New York.

TABLE 25: COMBINED STATE AND LOCAL BONDED INDEBTEDNESS, 1913, 1922 AND 1925

States and Geographic Divisions	Bonded Debt Less Sinking Funds (Thousands)			Per Capita Debt			Rank of States by Size of Per Capita Debt			Ratio of Debt to Wealth Per Cent			Rank of States by Ratio of Debt to Wealth		
	1913 ^a	1922 ^a	1925 ^a	1913 ^a	1922 ^a	1925 ^a	1913	1922	1925	1913 ^a	1922 ^a	1925 ^a	1913	1922	1925
United States	\$3,196,158	\$7,264,197	\$9,865,197	\$39.11	\$66.10	\$85.50	..	..	..	1.75	2.31	2.83	..	..	..
New England	361,664	482,326	571,238	52.93	62.90	71.62	..	..	..	3.08	1.98	2.07	..	..	..
Maine	21,168	38,816	39,955	28.19	50.02	50.77	14	31	38	2.11	1.93	1.76	12	27	34
New Hampshire	9,299	12,852	14,034	21.39	28.75	31.05	26	42	43	1.43	.94	.90	22	45	46
Vermont	5,128	7,085	8,879	14.45	20.10	25.19	39	45	44	1.03	.84	.95	31	46	45
Massachusetts	256,591	296,604	352,800	72.75	74.32	85.13	2	18	18	4.09	2.28	2.40	1	22	24
Rhode Island	26,679	41,202	51,922	47.38	64.38	76.44	5	21	25	2.74	2.14	2.39	5	24	25
Connecticut	42,799	85,767	103,648	35.59	58.66	65.93	11	25	28	1.82	1.62	1.72	16	32	36
Middle Atlantic	1,342,336	2,343,192	2,924,519	66.16	101.80	120.66	..	..	..	2.86	3.02	4.32	..	..	..
New York	986,120	1,536,130	1,734,193	103.43	142.98	155.36	1	1	3	3.94	4.15	4.32	2	2	5
New Jersey	132,752	298,886	458,585	48.42	89.35	127.38	4	8	5	2.23	2.53	3.45	9	18	11
Pennsylvania	223,464	508,176	731,741	27.89	56.20	77.22	16	27	23	1.40	1.76	2.28	24	30	26
East North Central	439,593	1,300,004	1,862,316	22.76	57.88	77.87	..	..	..	1.12	1.89	2.42	..	..	..
Ohio	210,555	545,704	659,954	41.33	90.02	102.00	8	7	13	2.34	2.95	3.16	8	11	15
Indiana	58,550	138,877	186,044	21.09	46.29	60.11	28	35	31	1.10	1.57	1.91	29	33	33
Illinois	88,653	217,610	407,216	14.98	32.27	57.42	37	39	35	.58	.98	1.70	43	43	37
Michigan	48,936	301,716	472,764	15.82	76.77	110.36	36	17	10	.93	2.65	3.64	36	17	10
Wisconsin	32,899	96,097	126,338	13.53	35.29	44.39	40	38	40	.77	1.22	1.44	40	41	39
West North Central	200,981	598,376	826,850	16.84	46.92	63.50	..	..	..	.66	1.30	1.65	..	..	..
Minnesota	46,263	165,750	201,079	21.23	66.78	77.01	27	20	24	.86	1.94	2.15	38	26	29
Iowa	23,626	112,170	158,271	10.34	46.50	65.40	46	34	29	.31	1.07	1.41	48	42	40
Missouri	53,697	95,645	172,009	16.13	27.82	49.37	35	43	39	.95	.96	1.55	35	44	38
North Dakota	4,817	20,386	14,167	8.03	31.66	22.09	47	40	45	.23	.83	.55	49	47	48
South Dakota	6,928	38,843	40,525	11.52	59.03	59.49	43	24	32	.53	1.33	1.21	45	38	43
Nebraska	27,227	77,253	99,476	22.20	58.17	72.56	24	26	26	.74	1.45	1.73	41	35	35
Kansas	38,423	88,329	141,323	22.38	49.35	77.95	23	32	22	.85	1.41	2.11	39	37	30
South Atlantic	234,735	674,011	1,118,650	18.36	46.11	72.56	..	..	..	1.63	2.31	3.39	..	..	..
Delaware	6,610	22,150	29,680	31.60	96.72	124.71	12	5	7	2.20	3.54	4.19	10	3	7
Maryland	58,425	117,063	149,580	43.40	78.20	95.88	7	15	14	2.65	2.93	3.36	6	12	13

	District of Columbia	7,610	156		20.78	.33		30	49	..	.65	.01	..	42	49	..
	Virginia	59,803	113,589	143,917	27.90	47.63	57.89	15	33	34	2.53	2.32	2.60	7	21	21
	West Virginia	8,684	67,725	109,293	6.67	44.03	66.72	48	36	27	.36	1.45	2.08	47	36	32
9	North Carolina	31,071	159,940	327,157	13.38	59.97	116.34	41	23	9	1.89	3.52	6.19	14	5	2
	South Carolina	18,921	50,562	67,143	12.04	29.14	37.22	42	41	42	1.53	2.10	2.48	19	25	22
	Georgia	30,084	56,622	57,062	11.13	18.98	18.40	44	46	46	1.42	1.45	1.31	23	34	41
	Florida	13,527	86,204	234,818	16.42	77.52	185.84	34	16	1	1.47	3.53	8.30	21	4	1
	East South Central	143,749	307,133	402,550	16.77	32.97	48.54	..	..	..	1.98	2.36	2.78	..	..	..
	Kentucky	25,502	38,180	46,062	10.94	15.55	18.37	45	47	47	1.14	1.07	1.17	30	40	44
	Tennessee	55,653	119,880	145,623	24.90	50.26	59.49	20	30	33	3.02	2.84	3.01	4	13	17
	Alabama	36,532	57,314	94,263	16.55	23.76	37.72	33	44	41	1.85	1.91	2.89	15	28	18
	Mississippi	26,062	91,759	116,602	14.52	51.24	65.12	38	28	30	2.16	4.21	4.80	11	1	3
	West South Central	190,528	372,739	769,090	20.56	53.59	68.15	..	..	..	1.46	2.88	3.56	..	..	..
	Arkansas	8,130	9,900	19,395	4.98	5.48	10.32	49	48	48	.48	.38	.68	47	48	47
	Louisiana	68,066	113,857	154,666	39.96	61.81	81.40	9	22	21	3.48	3.33	4.08	3	7	8
	Oklahoma	37,307	109,274	124,794	20.96	51.04	54.40	29	29	36	1.21	2.74	2.95	28	16	16
	Texas	77,023	339,708	470,235	18.56	69.37	90.22	32	19	16	1.22	3.45	4.37	27	6	4
	Mountain	79,110	290,519	380,650	26.51	81.80	99.07	..	..	..	1.12	2.38	2.79	..	..	..
19	Montana	11,319	50,284	56,519	26.13	83.67	84.11	19	12	20	1.01	2.26	2.26	32	23	27
	Idaho	8,603	42,220	48,029	23.85	90.99	94.55	22	6	15	1.51	2.75	2.70	20	14	20
	Wyoming	3,513	16,816	25,247	21.69	80.46	110.25	25	13	11	1.00	1.72	2.22	33	31	28
	Colorado	20,920	77,778	130,204	24.74	79.12	125.20	21	14	6	.91	2.41	3.75	37	19	9
	New Mexico	6,340	15,133	19,886	18.75	40.90	51.79	31	37	37	1.30	1.78	2.10	26	29	31
	Arizona	9,254	39,329	51,327	37.43	105.16	119.92	10	4	8	2.05	2.99	3.35	13	10	14
	Utah	10,771	42,199	42,629	27.03	89.22	84.58	18	9	19	1.37	2.75	2.47	25	15	23
	Nevada	2,390	6,760	6,809	29.73	87.33	87.96	13	10	17	.53	1.25	1.21	44	39	42
	Pacific	209,484	695,897	1,019,334	45.08	116.25	155.55	..	..	..	1.54	2.95	3.90	..	..	..
	Washington	54,800	121,473	157,100	45.18	85.42	104.04	6	11	12	1.74	2.37	2.79	17	20	19
	Oregon	19,398	106,607	128,647	27.35	130.49	149.07	17	2	4	.95	3.12	3.41	34	8	12
	California	135,266	467,817	733,587	49.65	124.85	175.50	3	3	2	1.60	3.11	4.39	18	9	6

¹ United States Bureau of the Census, "Wealth, Debt and Taxation—1913."

² United States Bureau of the Census, "Wealth, Debt and Taxation—1922."

³ Estimated by National Industrial Conference Board. For method of estimating, see Appendix B, p. 288.

⁴ Population figures from United States Bureau of the Census, "Estimates of Population of the United States."

⁵ Population figures from United States Bureau of the Census, "Latest Population Estimates," Letter of January, 1927.

⁶ Wealth figures from United States Bureau of the Census, "Estimated National Wealth—1922."

⁷ Wealth figures estimated by National Industrial Conference Board.

TABLE 26: STATE AND LOCAL BONDED INDEBTEDNESS BY STATES AND GEOGRAPHIC DIVISIONS, 1913, 1922, 1925

(Source: United States Bureau of the Census, "Wealth, Debt and Taxation" series, and calculations by National Industrial Conference Board)

States and Geographic Divisions	1913			1922			1925			Per Cent State Debt is to Total Debt		
	States (thousands)	Cities 30,000 and Over (thousands)	Other Political Sub-divisions ¹ (thousands)	States (thousands)	Cities 30,000 and Over (thousands)	Other Political Sub-divisions (thousands)	States (thousands)	Cities 30,000 and Over (thousands)	Other Political Sub-divisions (thousands)	1913	1922	1925
United States	\$287,856	\$1,948,852	\$959,450	\$879,075	\$3,146,280	\$3,238,842	\$1,204,172	\$4,486,057	\$4,174,968	9.01	12.10	12.21
New England	92,066	183,310	86,288	109,135	259,009	114,182	56,327	314,870	200,041	25.46	22.63	9.86
Maine	1	7,519	13,648	12,654	5,469	20,693	14,081	10,138	15,736	..	32.60	35.24
New Hampshire	1,211	1,090	6,998	3,018	4,606	5,228	685	5,289	8,060	13.02	23.48	4.88
Vermont . . . . .	..	..	5,128	2,112	..	4,973	1,842	..	7,037	..	29.81	20.75
Massachusetts	78,883	140,076	37,632	75,968	176,712	43,924	25,211	204,995	122,594	30.74	25.61	7.15
Rhode Island	4,907	17,735	4,037	9,338	26,268	5,596	10,372	34,393	7,157	18.39	22.66	19.98
Connecticut	7,064	16,890	18,845	6,045	45,954	33,768	4,136	60,055	39,457	16.51	7.05	3.99
Middle Atlantic	83,808	1,052,227	206,301	251,857	1,599,403	491,932	343,700	1,989,159	591,660	6.24	10.75	11.75
New York	84,451	828,897	72,772	186,515	1,213,474	136,141	227,459	1,341,866	164,868	8.56	12.14	13.12
New Jersey . . . . .	..	72,196	60,556	16,349	136,975	145,562	51,316	191,707	215,562	..	5.47	11.19
Pennsylvania	643	151,134	72,973	48,993	248,954	210,229	64,925	455,586	211,230	..	9.64	8.87
East North Central	515	231,550	207,528	94,116	519,357	686,531	222,283	921,600	708,433	.12	7.24	12.00
Ohio	157	129,467	81,245	29,583	235,214	280,907	18,752	368,893	272,309	..	5.42	2.84
Indiana	655	9,272	48,623	426	17,847	120,604	1,335	58,947	125,762	1.12	.31	.72
Illinois	17	61,862	26,774	12,738	77,973	126,899	125,838	194,552	86,826	.02	5.85	30.90
Michigan . . . . .	..	17,577	31,359	49,205	147,302	105,209	74,494	241,086	157,184	..	16.31	15.76
Wisconsin . . . . .	..	13,372	19,527	2,164	41,021	52,912	1,864	58,122	66,352	..	2.25	1.48
West North Central	2,144	99,221	99,616	70,004	113,450	414,922	131,303	219,447	476,100	1.07	11.70	15.88
Minnesota	900	30,872	14,491	19,476	53,562	92,712	14,717	74,916	111,446	1.95	11.75	7.32
Iowa . . . . .	..	9,693	13,933	185	16,369	95,616	19,061	33,559	105,651	..	.16	12.04
Missouri	181	33,946	19,570	30,308	19,993	45,344	51,278	54,548	66,183	.34	31.69	29.81
North Dakota	820	..	3,997	5,614	..	14,772	4,067	..	10,100	17.02	27.54	28.71
South Dakota . . . . .	..	..	6,928	14,421	..	24,422	15,474	..	25,051	..	37.13	38.18
Nebraska . . . . .	..	15,522	11,705	..	13,014	64,239	..	35,274	64,202	..	..	..
Kansas	243	9,188	28,992	..	10,512	77,817	26,706	21,150	93,467	.63	..	18.90

South Atlantic.....	47,327	106,456	81,968	117,531	203,066	253,414	186,875	277,720	654,065	20.16	17.44	16.71
Delaware.....	501	3,992	2,117	5,798	9,278	7,074	7,313	10,076	12,291	7.58	26.18	24.64
Maryland.....	7,334	46,326	4,765	21,929	82,277	12,857	21,803	101,343	26,434	12.55	18.73	14.58
District of Columbia..		7,610			156							
Virginia.....	19,483	23,001	17,319	21,206	58,180	34,203	17,602	82,792	43,523	32.58	18.67	12.23
West Virginia.....		1,626	7,058	24,181	3,331	40,213	38,408	8,958	61,927		35.70	35.14
North Carolina.....	7,533	2,155	21,383	33,326	10,836	115,778	91,522	25,442	210,193	24.24	20.84	27.97
South Carolina.....	5,522	5,427	7,972	5,225	7,597	37,740	4,950	10,893	51,300	29.18	10.33	7.37
Georgia.....	6,352	11,688	12,044	5,381	16,558	34,683	5,003	20,841	31,218	21.11	9.50	8.77
Florida.....	602	3,625	9,300	485	14,853	70,866	274	17,375	217,169	4.45	0.56	.12
East South Central.....	22,864	49,464	71,931	48,868	76,255	184,010	52,602	97,762	252,196	15.58	15.26	13.07
Kentucky.....	4	15,890	9,616	2,477	16,874	18,829	24	19,804	26,282		6.49	
Tennessee.....	11,794	22,257	21,602	17,554	43,114	59,212	14,550	57,463	73,610	21.19	14.64	9.99
Alabama.....	9,057	11,317	16,158	14,494	16,267	26,553	23,670	20,485	50,108	24.79	25.29	25.11
Mississippi.....	1,507		24,555	12,343		79,416	14,406		102,196	5.78	13.45	12.35
West South Central.....	20,288	76,330	93,908	23,837	120,502	428,400	22,579	178,104	568,407	10.65	4.16	2.94
Arkansas.....	1,236	295	6,599	2,530	1,214	6,156	2,443	2,512	14,440	15.21	25.56	12.60
Louisiana.....	12,019	38,792	17,255	13,679	43,904	56,274	12,327	49,847	92,492	17.66	12.01	7.97
Oklahoma.....	3,055	7,578	26,674	3,526	11,966	93,782	3,396	28,188	93,210	8.19	3.23	2.72
Texas.....	3,978	29,665	43,380	4,102	63,418	272,188	4,413	97,557	368,265	5.16	1.21	.94
Mountain.....	9,792	11,513	51,806	28,296	81,545	220,678	38,396	53,560	288,704	13.39	18.18	10.09
Montana.....	965	275	10,079	4,313	1,579	44,392	4,319	1,704	50,496	8.53	8.58	7.64
Idaho.....	2,057		6,546	5,516		36,704	5,052		42,977	23.91	13.06	10.52
Wyoming.....	117		3,396	3,776		13,040	2,403		22,844	3.33	22.45	9.52
Colorado.....	1,144	5,413	14,363	9,509	18,244	50,025	11,335	38,874	79,995	5.47	12.23	8.71
New Mexico.....	1,129		5,211	4,560		10,573	3,915		15,971	17.81	30.13	19.69
Arizona.....	2,999		6,255		3,513	35,816	2,171		49,156	32.41		4.23
Utah.....	1,210	5,825	3,736	9,020	8,209	24,970	7,843	12,972	21,814	11.23	21.37	18.40
Nevada.....	171		2,219	1,602		5,458			5,451	7.15	23.70	19.94
Pacific.....	9,562	189,787	80,115	127,431	223,888	844,773	150,107	433,855	435,372	4.56	18.31	14.73
Washington.....	331	40,675	13,794	12,260	47,499	61,714	10,986	87,012	59,102	.60	10.09	6.99
Oregon.....	1	11,417	7,980	38,927	23,723	43,957	39,704	53,214	53,729	.01	36.51	30.86
California.....	9,230	87,695	38,341	76,244	152,471	239,102	99,417	311,629	322,541	6.82	16.30	13.55

¹ Exclusive of rural school district debt.

TABLE 27: LOCAL BONDED INDEBTEDNESS BY STATES AND GEOGRAPHIC DIVISIONS, 1913, 1922, 1925

(Source: United States Bureau of the Census, "Wealth, Debt and Taxation" series, and calculations by National Industrial Conference Board)

States and Geographic Divisions	Total Local Debt (thousands)			Per Cent Debt of Cities 30,000 and Over is to Total Local Debt			Per Capita Debt of Cities 30,000 and Over ^a		
	1913	1922	1925	1913	1922	1925	1913	1922	1925
United States.....	\$2,908,302	\$6,385,122	\$8,661,025	67.0	49.3	51.8	\$64.55	\$81.22	\$110.83
New England.....	269,598	373,191	514,911	68.0	69.4	61.2	57.64	65.82	80.20
Maine.....	21,167	26,162	25,874	35.5	20.9	39.2	122.64	52.20	92.34
New Hampshire.....	8,088	9,834	13,349	13.5	46.8	39.6	14.67	57.20	63.65
Vermont.....	5,128	4,973	7,037	..	..	..	..	..	..
Massachusetts.....	177,708	220,636	327,589	78.8	80.1	62.6	63.13	67.03	77.06
Rhode Island.....	21,772	31,864	41,550	81.5	82.4	82.8	52.60	63.29	88.74
Connecticut.....	35,735	79,722	99,512	47.3	57.6	60.3	34.58	65.86	87.59
Middle Atlantic.....	1,258,528	2,091,335	2,580,819	83.6	76.5	77.1	92.99	120.20	147.51
New York.....	901,669	1,349,615	1,506,734	91.9	89.9	89.1	122.63	155.31	169.96
New Jersey.....	132,752	282,537	407,269	54.4	48.5	47.1	48.68	76.18	110.57
Pennsylvania.....	224,107	459,183	666,816	67.4	54.2	68.3	49.19	67.41	118.16
East North Central.....	439,078	1,205,888	1,630,033	52.7	43.1	56.5	34.86	53.45	87.86
Ohio.....	210,712	516,121	641,202	61.4	45.6	57.5	68.15	85.82	129.14
Indiana.....	57,895	138,451	184,709	16.0	12.9	31.9	17.83	19.54	61.81
Illinois.....	88,636	204,872	281,378	69.8	38.1	69.1	22.42	22.19	51.74
Michigan.....	48,936	252,511	398,270	35.9	58.3	60.5	19.49	83.99	116.25
Wisconsin.....	32,899	93,933	124,474	40.6	43.7	46.7	23.82	51.69	68.76
West North Central.....	198,837	528,372	695,547	49.9	21.5	31.6	39.67	38.81	71.96
Minnesota.....	45,363	146,274	186,362	68.1	36.6	40.2	47.37	71.90	95.81
Iowa.....	23,626	111,985	139,210	41.0	14.6	24.1	29.51	38.02	76.78
Missouri.....	53,516	65,337	120,731	63.4	30.6	45.2	29.54	16.05	42.06
North Dakota.....	3,997	14,772	10,100	..	..	..	..	..	..
South Dakota.....	6,928	24,422	25,051	..	..	..	..	..	..
Nebraska.....	27,227	77,253	99,476	57.0	16.8	35.5	88.02	50.43	129.52
Kansas.....	38,180	88,329	114,617	24.1	11.9	18.5	47.02	43.26	80.93
South Atlantic.....	187,408	556,480	931,775	56.3	36.5	29.8	52.82	69.52	88.08
Delaware.....	6,109	16,352	22,367	65.3	56.7	45.0	43.89	81.04	83.29
Maryland.....	51,091	95,134	127,777	90.7	86.5	79.3	80.63	103.71	127.27

District of Columbia.....	7,610	156	..	100.0	100.0	..	21.86	0.36	..
Virginia.....	40,320	92,383	126,315	57.0	63.0	65.5	70.73	113.54	144.00
West Virginia.....	8,684	43,544	70,885	18.7	7.7	12.6	19.83	21.56	53.65
North Carolina.....	23,538	126,614	235,635	9.2	8.6	10.8	58.22	79.67	109.48
South Carolina.....	13,399	45,337	62,193	40.5	16.8	17.5	58.50	69.46	95.26
Georgia.....	23,732	51,241	52,059	49.2	32.3	40.0	35.21	37.00	43.98
Florida.....	12,925	85,719	234,544	28.0	17.3	7.4	31.80	67.79	95.99
East South Central.....	121,396	280,286	849,948	40.7	29.8	27.9	51.59	71.47	81.97
Kentucky.....	25,506	35,703	46,086	62.3	47.3	43.0	44.42	50.02	48.98
Tennessee.....	43,859	102,326	131,073	50.7	42.1	43.8	64.09	99.73	121.79
Alabama.....	27,475	42,820	70,593	41.2	38.0	29.0	44.58	54.75	64.75
Mississippi.....	24,555	79,416	102,196	..	..	..	..	..	..
West South Central.....	170,238	548,902	746,511	44.8	22.0	23.9	71.29	72.38	98.01
Arkansas.....	6,894	7,370	16,952	4.3	16.5	14.8	5.62	12.21	33.85
Louisiana.....	56,047	100,178	142,339	69.2	43.8	35.0	100.06	98.09	105.53
Oklahoma.....	34,252	105,748	121,398	22.1	11.3	23.2	66.29	55.14	112.78
Texas.....	73,045	335,606	465,822	40.6	18.9	20.9	57.47	70.34	95.57
Mountains.....	63,318	252,228	842,254	18.2	12.5	15.6	24.74	55.01	94.72
Montana.....	10,354	45,971	52,200	2.7	3.4	3.3	6.68	37.57	39.89
Idaho.....	6,546	36,704	42,977	..	..	..	..	..	..
Wyoming.....	3,396	13,040	22,844	..	..	..	..	..	..
Colorado.....	19,776	68,269	118,869	27.4	26.7	32.7	16.99	53.49	109.57
New Mexico.....	5,211	10,573	15,971	..	..	..	..	..	..
Arizona.....	6,255	39,329	49,156	..	8.9	..	..	110.40	..
Utah.....	9,561	33,179	34,786	60.9	24.7	37.3	55.10	51.77	77.30
Nevada.....	2,219	5,158	5,451	..	..	..	..	..	..
Pacific.....	199,902	568,466	869,227	69.9	39.4	49.9	67.89	85.02	155.00
Washington.....	54,469	109,213	146,114	74.7	43.5	59.6	73.60	91.24	164.59
Oregon.....	19,397	67,680	88,943	58.9	35.1	39.6	46.30	88.23	128.87
California.....	126,036	391,573	634,170	69.6	38.9	49.1	69.61	82.84	156.04

¹ The nine states showing no per capita debt had no cities of 30,000 or over within their boundaries. Washington, D. C., had wiped out its net debt prior to 1925. Phoenix, Arizona, was classified among cities over 30,000 by the Census in 1922, but not in 1925.

CHART 6: STATE AND LOCAL INDEBTEDNESS PER CAPIT BY STATES, 1913, 1922 AND 1925

(National Industrial Conference Board)

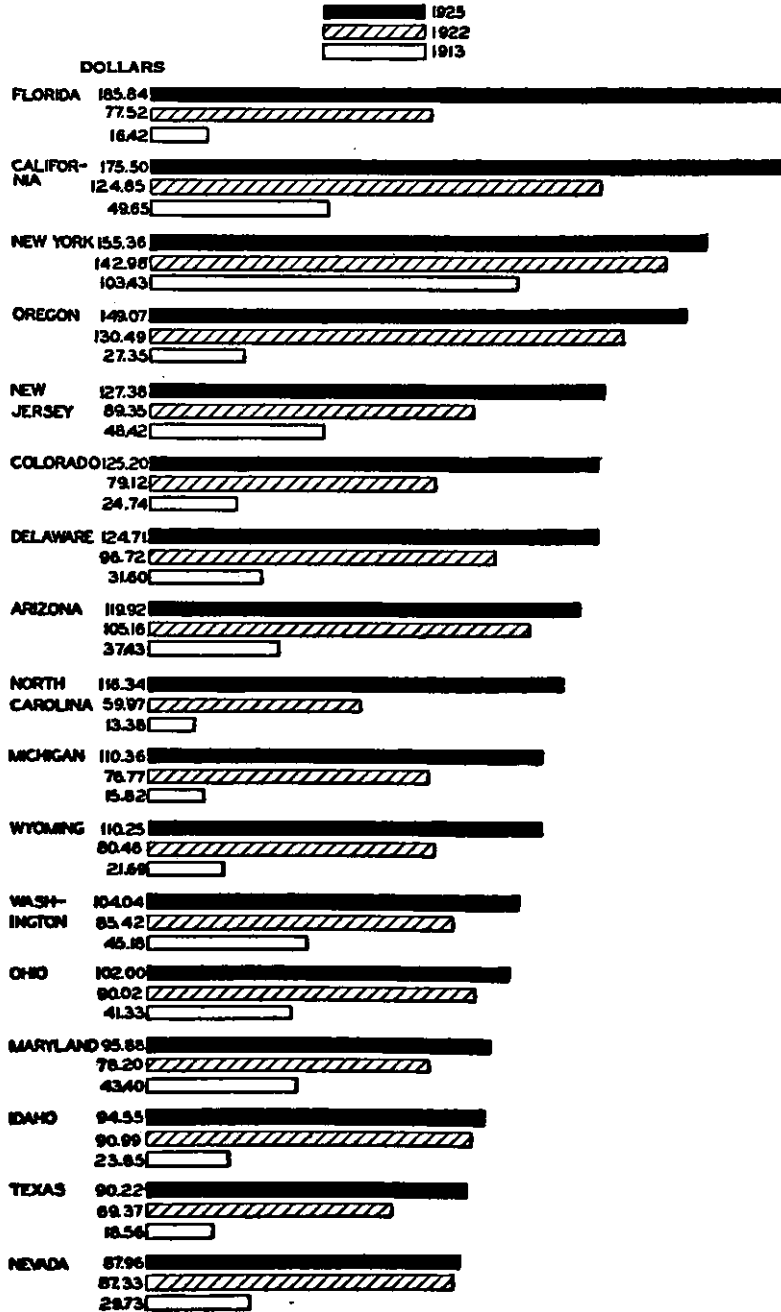
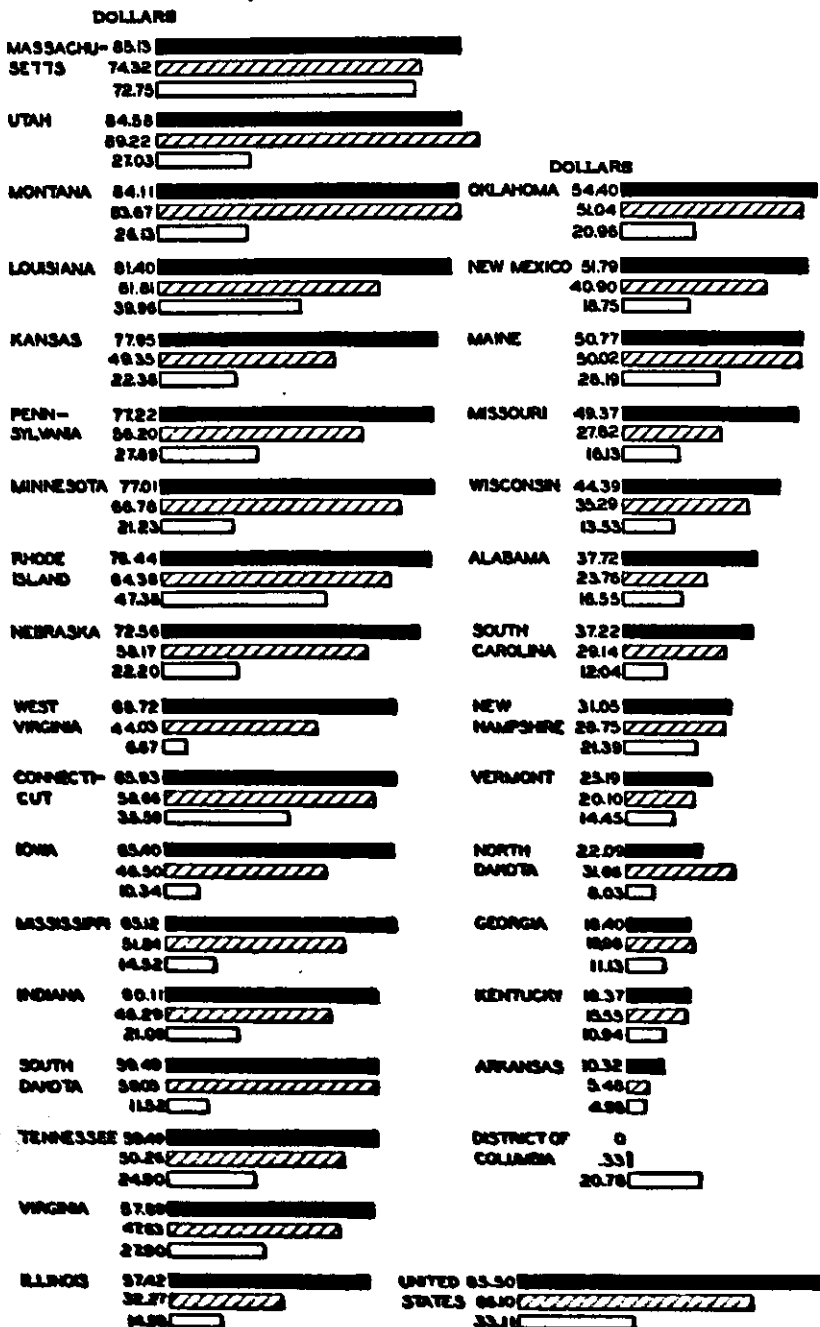


CHART 6: STATE AND LOCAL INDEBTEDNESS PER CAPITA, BY STATES, 1913, 1922 AND 1925—(Continued)

(National Industrial Conference Board)



On the other hand, cities often finance police and fire department improvements through borrowing and float loans to construct sewage disposal systems, whereas state governments do not concern themselves with these activities. Otherwise, as indicated in Table 24, the borrowings of the states and of the cities more or less supplement each other.

More than 53% of the outstanding indebtedness of the state governments in 1925 was incurred for highway construction. A considerable portion of municipal expenditures for street construction is financed by special assessments. Less than one-fifth of the outstanding debt of the cities in 1925 was incurred for this purpose.

The reverse situation obtains in the case of indebtedness covering the construction of school buildings and libraries. Only 1.2% of the outstanding debt of the states in 1925 represented outlays for this purpose, while the proportion in the case of cities was 21.3%. In the same year the indebtedness of the cities incurred for public service enterprises represented 26.5% of the total, as against only 10.3% in the case of the state governments.

Table 24 indicates that, in general, the size of a city does not directly affect the functional distribution of its indebtedness. In only two classes of debt is there any marked difference between cities when grouped by population. The proportion of indebtedness incurred for the construction of school buildings to the total outstanding debt is higher in the smaller cities than in the larger. This relationship is quite in accordance with the inverse correspondence between the proportion of municipal expenditures devoted to education and the size of the disbursing municipality, as shown in Table 8.¹ Also, according to Table 24, the proportion of municipal debt representing funding and refunding operations is markedly lighter in the smaller cities.

State and Local Net Bonded Indebtedness

Tables 25, 26 and 27 and Chart 6 show the combined state and local net bonded indebtedness for the three years 1913, 1922 and 1925.

¹ See above, p. 22.

CHAPTER III

VOLUME OF TAXATION

IN normal times the trend of tax collections more or less parallels the trend of public expenditures. During the war and afterwards, during the early post-war years, this interrelation was rudely shaken. From 1917 to 1919, the heavy borrowings of the Federal Government were responsible for the dislocation. From 1920 through 1924, the Federal Government was able to finance a considerable proportion of its expenditures from non-tax funds, i. e., from the billion-dollar balance in the Treasury in 1920 and from the sale of war supplies. At the same time the state and local governments floated a series of loans to finance heavy capital outlays. During the last two years, however, there has been, and it is to be anticipated that henceforth there will be, a closer coordination between public expenditures and tax revenues.

THE COUNTRY'S TAX BILL

The amount of taxes collected annually by all governmental authorities in the country is presented in Table 28 and Chart 7.¹ In 1925² the total tax bill was \$7,891 millions, and in 1926 it rose to \$8,555 millions. The taxes collected by the federal, by the state and by the local governments in 1926, in each case, exceeded the 1925 collections.

Total tax collections increased during the thirteen-year interval, from the fiscal year ended in 1890 to that ended in 1903, from \$875 millions to \$1,382 millions. During the ten-year interval, between the fiscal year ended in 1903 and

¹ The estimates of tax collections after 1922 do not agree with the figures published in "The Cost of Government," 1926, because of the revisions in the method and accounting period used by the Conference Board. For discussion of the method of estimating tax collections, see Appendix B, pp. 289 ff.

² Throughout this chapter the statement of a year without further qualification indicates the fiscal year ending in that calendar year.

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that ended in 1913, they rose to \$2,194 millions. In the fiscal year ended in 1919, at the close of the war period, the tax collections amounted to \$7,465 millions, 240.2% above the 1913 figure. Two years later, the peak of \$8,838 millions was reached. Decreases during the next two years brought the 1923 figure down to \$7,234 millions. Since that year the increase in tax collections has been unbroken.

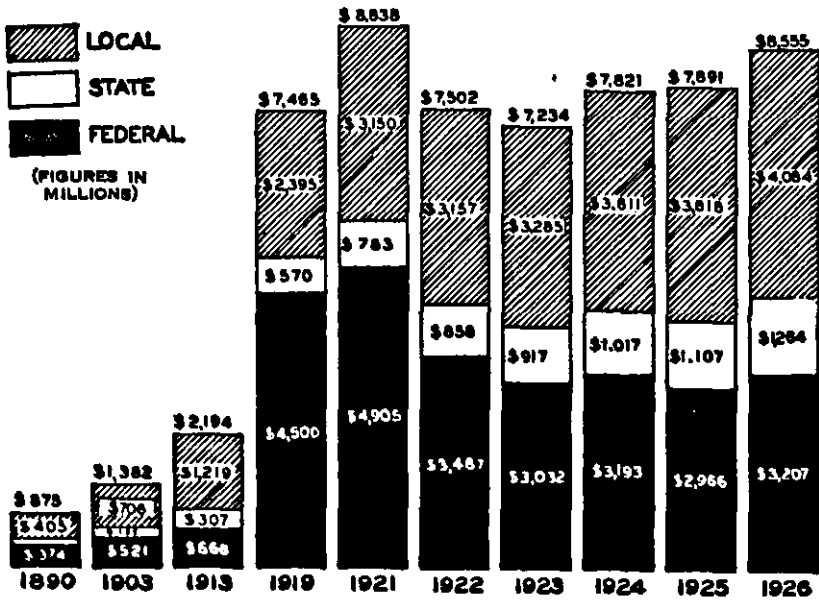
TABLE 28: TOTAL VOLUME OF TAXATION IN THE UNITED STATES, 1890 TO 1926

Taxing Authority	1890	1903	1913	1919	1921	1922	1923	1924	1925	1926
<i>Amount (in millions)</i>										
Federal . . .	\$374	\$521	\$668	\$4,500	\$4,905	\$3,487	\$3,032	\$3,193	\$2,966	\$3,207
State	96	155	307	570	783	858	917	1,017	1,107	1,264
Local	405	706	1,219	2,395	3,150	3,157	3,285	3,611	3,818	4,084
Total	\$875	\$1,382	\$2,194	\$7,465	\$8,838	\$7,502	\$7,234	\$7,821	\$7,891	\$8,555
<i>Per Capita</i>										
Federal . . .	\$5.93	\$6.43	\$6.92	\$42.86	\$45.23	\$31.73	\$27.15	\$28.08	\$25.71	\$27.38
State	1.52	1.91	3.18	5.43	7.22	7.81	8.21	8.94	9.59	10.79
Local	6.43	8.72	12.63	22.81	29.05	28.73	29.41	31.75	33.09	34.87
Total	\$13.88	\$17.07	\$22.73	\$71.10	\$81.50	\$68.27	\$64.77	\$68.77	\$68.39	\$73.04
<i>Per Person Gainfully Employed</i>										
Federal . . .	\$16.04	\$16.50	\$17.14	\$109.04	\$117.14	\$82.76	\$71.52	\$74.86	\$69.12	\$74.25
State	4.11	4.91	7.88	13.81	18.69	20.37	21.63	23.85	25.80	29.21
Local	17.37	22.35	31.28	58.03	75.23	74.93	77.49	84.66	88.97	94.64
Total	\$37.52	\$43.76	\$56.30	\$180.88	\$211.06	\$178.06	\$170.64	\$183.37	\$183.89	\$198.10

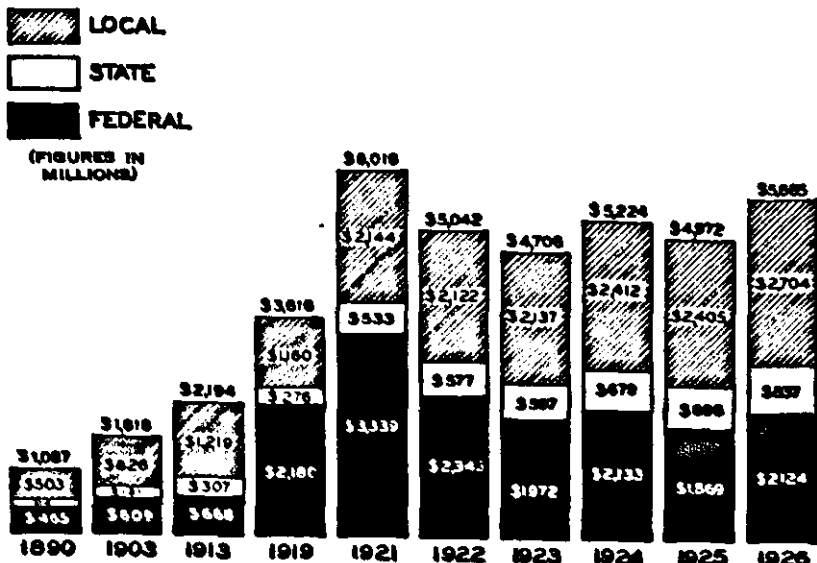
These changes in the total of tax collections, however, do not represent the operation of a uniform group of governmental agencies, or the effect of a common set of factors. The fiscal activities of the Federal Government are, except for the minor items of subventions to the states for highway construction and agricultural study and education, quite independent of state and local finance. Except during the wartime period, the state and local tax bill has overshadowed the federal collections. At the same time, the federal collections have always been of sufficient magnitude materially to affect the total of tax collections.

CHART 7: VOLUME OF TAX COLLECTIONS, UNITED STATES, 1890 TO 1926

(National Industrial Conference Board)



VOLUME OF TAX COLLECTIONS EXPRESSED IN '1913 DOLLARS UNITED STATES, 1890-1926



Political Distribution of Tax Collections

Table 29 shows the proportions of the total taxes collected annually by federal, state and local authorities. During the war, the Federal Government collected more than sixty per cent of the total tax bill, but after 1919 the proportion collected by the Federal Government declined steadily until the fiscal year ended in 1926, when federal taxes amounted to 37.5% of the total tax collections. The share of the state governments in the total tax bill increased regularly during this period, until in the fiscal year ended in 1926 the states collected 14.8% of all taxes. Local governments shared with the states in the increasing proportion of state and local taxes until the fiscal year ended in 1926, when the proportion of local taxes declined slightly, from 48.4% in 1925 to 47.7% in 1926.

TABLE 29: PERCENTAGE DISTRIBUTION OF TAX COLLECTIONS, 1890 TO 1926

Taxing Authority	1890	1903	1913	1919	1921	1922	1923	1924	1925	1926
Federal.	42.7	37.7	30.4	60.3	55.5	46.5	41.9	40.8	37.6	37.5
State...	11.0	11.2	14.0	7.6	8.9	11.4	12.7	13.0	14.0	14.8
Local...	46.3	51.1	55.6	32.1	35.6	42.1	45.4	46.2	48.4	47.7
Total.	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Federal Tax Collections

During the last decade of the nineteenth century and during the early years of the twentieth century, federal taxes were increasing somewhat more slowly than state and local taxes. After the United States entered the World War, however, the federal tax bill became stupendous, increasing from \$668 millions in 1913 to \$4,500 millions in 1919 and to \$4,905 millions in 1921.

The program of federal tax revision, begun in 1921, reduced the 1922 collections to \$3,487 millions. The full effects of federal tax revision, however, were not felt until a year or two after the inauguration of the new tax program. Moreover, federal taxes, consisting chiefly of income and business taxes and customs duties, are particularly sensitive to business conditions. The combined effects of the 1921

tax revision and of the business depression which followed soon after the war, brought the 1922-23 tax collections down to \$3,032 millions.

In 1924, another federal tax revision bill was passed, further reducing the rates and narrowing the subjects of taxation. However, the partial industrial recovery of the preceding year resulted in a slight increase in the 1923-24 tax collections. The full effects of the 1924 revision, coupled with the business relapse of 1924, brought the 1924-25 collections down to \$2,966 millions. In 1926, the last downward revision of tax rates to date became law. Once again, a lowering of rates chanced to coincide with increased collections based on the preceding year's business, and the federal tax collections rose to \$3,207 millions in the fiscal year ended June 30, 1926. Contrary to early expectations federal tax collections continued their rise in the fiscal year 1926-27, increasing to \$3,337 millions.

State and Local Tax Collections

State and local tax revenues go to the support of governmental functions which are in most cases identical or supplementary. Both state and local tax collections have been increasing steadily since the fiscal year ended in 1890. In the fiscal year ended in 1925, local governments raised \$3,818 millions by taxes, while the tax bill of the forty-eight state governments in the same year was \$1,107 millions. In the fiscal year ended in 1926, the local taxes amounted to \$4,084 millions, while the total for the states was \$1,264 millions.

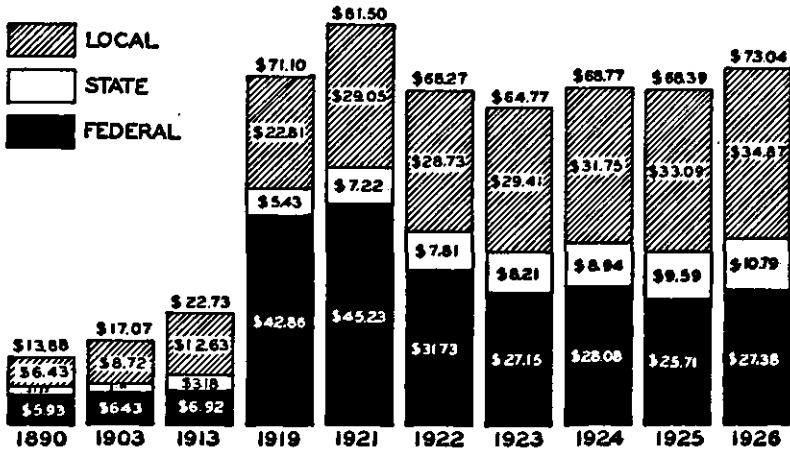
RELATIVE GROWTH OF POPULATION AND OF TAXES

With the growth of the country's population, taxes may have been expected to increase. The relation of taxes to population is, furthermore, a rough measure of the changes in the burden of taxation. Between 1890 and 1921, per capita taxes increased from \$13.88 to \$81.50. The decline in the volume of taxation during 1922 and 1923 was reflected in an even greater proportional decline in the taxes per capita which fell to \$64.77 in 1923. Taxes per capita again increased to \$68.77 in 1924. During the next year the popula-

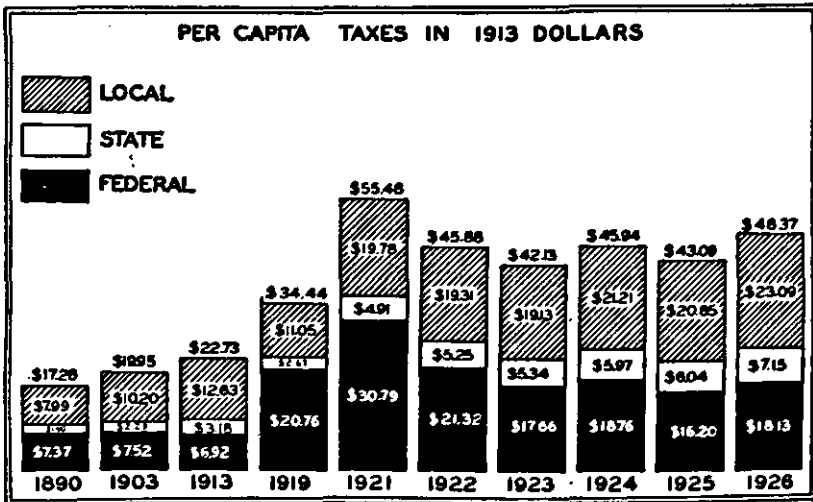
CHART 8: BURDEN OF TAXATION, UNITED STATES, 1890 TO 1926

(National Industrial Conference Board)

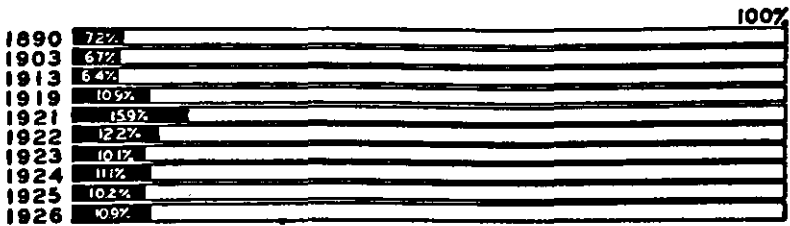
PER CAPITA TAXES IN CURRENT DOLLARS



PER CAPITA TAXES IN 1913 DOLLARS



PER CENT THAT TAXES ARE OF NATIONAL INCOME



tion increased at a greater rate than the taxes, so that in 1925 taxes per capita declined to \$68.39. In 1926, the per capita tax rose to \$73.04. As may be seen from Table 28 and Chart 8, the decline in per capita taxes in three of the years since 1921 was caused by fluctuations in federal tax collections, since both state and local taxes per capita have been increasing steadily.

Taxes per person gainfully employed are a somewhat better measure of the burden of taxation than per capita taxes. On the basis of persons gainfully employed, the tax burden has been increasing annually since the fiscal year ended in 1923, from \$170.64 in that year to \$198.17 in the fiscal year ended in 1926.

TAXES IN TERMS OF THE PURCHASING POWER OF THE DOLLAR

The taxes collected by the various governmental agencies are paid in dollars which have a varying purchasing power from year to year according to price fluctuations. Facts stated in terms of dollars represent an adequate measure of increase or decrease only if dollars remain constant in value. It is desirable, therefore, in order to show the "true" trend of tax collections over a long period of time, to convert the annual volume of taxation to the common standard of dollars of constant purchasing power. It is necessary to know what proportion of tax collections was due to changes in the government's demand for revenue and what proportion to changes in the value of the dollars by which it is measured. For this purpose, the value of the dollar in purchasing commodities at wholesale in a given year is commonly used. Table 30 shows the annual tax collections expressed in terms of "1913" dollars, or in commodities at 1913 wholesale prices.¹

Prices reached their highest level in 1919, when they were twice those of 1913. If expressed in "1913" dollars or at 1913 prices, the extraordinary tax bill in 1919, amounting to \$7,465 millions, is reduced to \$3,616 millions. That is, practically 50% of the increase in tax collections between 1913 and 1919 was due to decreases in the value of the dollar. A decline in prices and an increase in taxes in 1921 raised the tax

¹ U. S. Bureau of Labor Statistics wholesale price index used.

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TABLE 30: VOLUME OF TAX COLLECTIONS EXPRESSED IN "1913" DOLLARS, 1890 TO 1926¹

Taxing Authority	1890	1903	1913	1919	1921	1922	1923	1924	1925	1926
<i>Amount (in millions)</i>										
Federal..	\$465	\$609	\$668	\$2,180	\$3,339	\$2,343	\$1,972	\$2,133	\$1,869	\$2,124
State...	119	181	307	276	533	577	597	679	698	837
Local...	503	826	1,219	1,160	2,144	2,122	2,137	2,412	2,405	2,704
Total..	\$1,087	\$1,616	\$2,194	\$3,616	\$6,016	\$5,042	\$4,706	\$5,224	\$4,972	\$5,665
<i>Per Capita</i>										
Federal..	\$7.37	\$7.52	\$6.92	\$20.76	\$30.79	\$21.32	\$17.66	\$18.76	\$16.20	\$18.13
State...	1.90	2.23	3.18	2.63	4.91	5.25	5.34	5.97	6.04	7.15
Local...	7.99	10.20	12.63	11.05	19.78	19.31	19.13	21.21	20.85	23.09
Total..	\$17.26	\$19.95	\$22.73	\$34.44	\$55.48	\$45.88	\$42.13	\$45.94	\$43.09	\$48.37
<i>Per Person Gainfully Employed</i>										
Federal..	\$19.92	\$19.30	\$17.14	\$52.82	\$79.74	\$55.62	\$46.53	\$50.00	\$43.55	\$49.20
State...	5.11	5.74	7.88	6.69	12.72	13.69	14.07	15.93	16.26	19.39
Local...	21.58	26.13	31.28	28.11	51.21	50.36	50.42	56.55	56.06	62.65
Total..	\$46.61	\$51.17	\$56.30	\$87.62	\$143.67	\$119.67	\$111.02	\$122.48	\$115.87	\$131.24

¹ U. S. Bureau of Labor index of wholesale prices used.

bill in that year, expressed in "1913" dollars, to \$6,016 millions. The decline in "true" taxes from \$5,224 millions to \$4,972 millions between 1924 and 1925 is striking, particularly when considered in connection with the decline in per capita taxes on a current dollar basis. In 1926, however, "true" taxes increased again to \$5,665 millions.

The tailoring of the state and local tax demands to fit federal needs during the war period is well illustrated when taxes are considered in terms of "1913" dollars. While federal taxes, on this basis, increased from \$668 millions in 1912-13 to \$2,180 millions in 1918-19, both state and local taxes declined during the same period. Expressed in "1913" dollars, state taxes declined from \$307 millions in 1913 to \$276 millions in 1919, while local taxes declined from \$1,219 millions to \$1,160 millions during the same period.

Between 1919 and 1921 the "true" taxes of the federal, state and local governments increased rapidly to \$3,339 millions, \$533 millions and \$2,144 millions respectively. State taxes thereafter increased annually, while local taxes

remained at a rather constant level until 1924, when they rose to \$2,412 millions. In 1925, local taxes remained practically at the same level as in the preceding year, but in 1926 they increased to \$2,704 millions.

TAX COLLECTIONS AND NATIONAL INCOME

The burden of taxation is best measured by the proportion of national income which is diverted to governmental functions by the tax process. Table 31 and Chart 8 show the percentage ratio of taxes to national income from 1890 to 1926.¹

TABLE 31: TAXES AND NATIONAL INCOME, 1890 TO 1926

Taxing Authority	1890	1903	1913	1919	1921	1922	1923	1924	1925	1926
<i>National Income (in millions)</i>										
	\$12,080	\$20,500	\$34,400	\$68,260	\$55,597	\$61,633	\$71,558	\$70,768	\$77,313	\$78,649
<i>Per Cent that Taxes Are of National Income</i>										
Federal.	3.1	2.5	1.9	6.6	8.8	5.7	4.2	4.5	3.8	4.1
State...	.8	.8	.9	.8	1.4	1.4	1.3	1.5	1.4	1.6
Local...	3.3	3.4	3.6	3.5	5.7	5.1	4.6	5.1	5.0	5.2
Total.	7.2	6.7	6.4	10.9	15.9	12.2	10.1	11.1	10.2	10.9

According to this method of measurement taxes were most burdensome in 1921, when 15.9% of the national income was diverted into the treasuries of the federal, state and local governments. The tax burden declined sharply to 10.1% of the national income in 1923. Since 1923, the variations in tax collections and in national income have been more or less parallel, so that the burden of the country's taxes, as measured by their ratio to national income, has remained relatively constant, between 10% and 11%. In 1926, federal taxes amounted to 4.1% of the national income, local taxes to 5.2%, and state taxes to 1.6%.

THE TREND OF THE TAX BURDEN

Chart 9 shows the *relative* rather than *absolute* variations in the federal, state and local tax collections during the period 1913 to 1926. The data are plotted on a logarithmic scale,

¹ Tax figures for fiscal years; income figures for calendar years.

and the slope of each line shows the *rate* of the tax increase or decrease; that is, a given vertical distance on the chart represents a constant percentage of increase or decrease at all points of the chart. For example, the distance from \$1,000,000,000 to \$2,000,000,000 along the vertical scale is the same as the distance between \$2,000,000,000 and \$4,000,000,000, although the absolute increase in the second case is twice as great. Thus the slopes of any two lines on the chart are directly comparable. It is therefore possible to compare the rate of increase or decrease in tax collections in actual dollars and in "1913" dollars, as well as the rates of increase and decrease in the tax collections of the various governmental agencies.

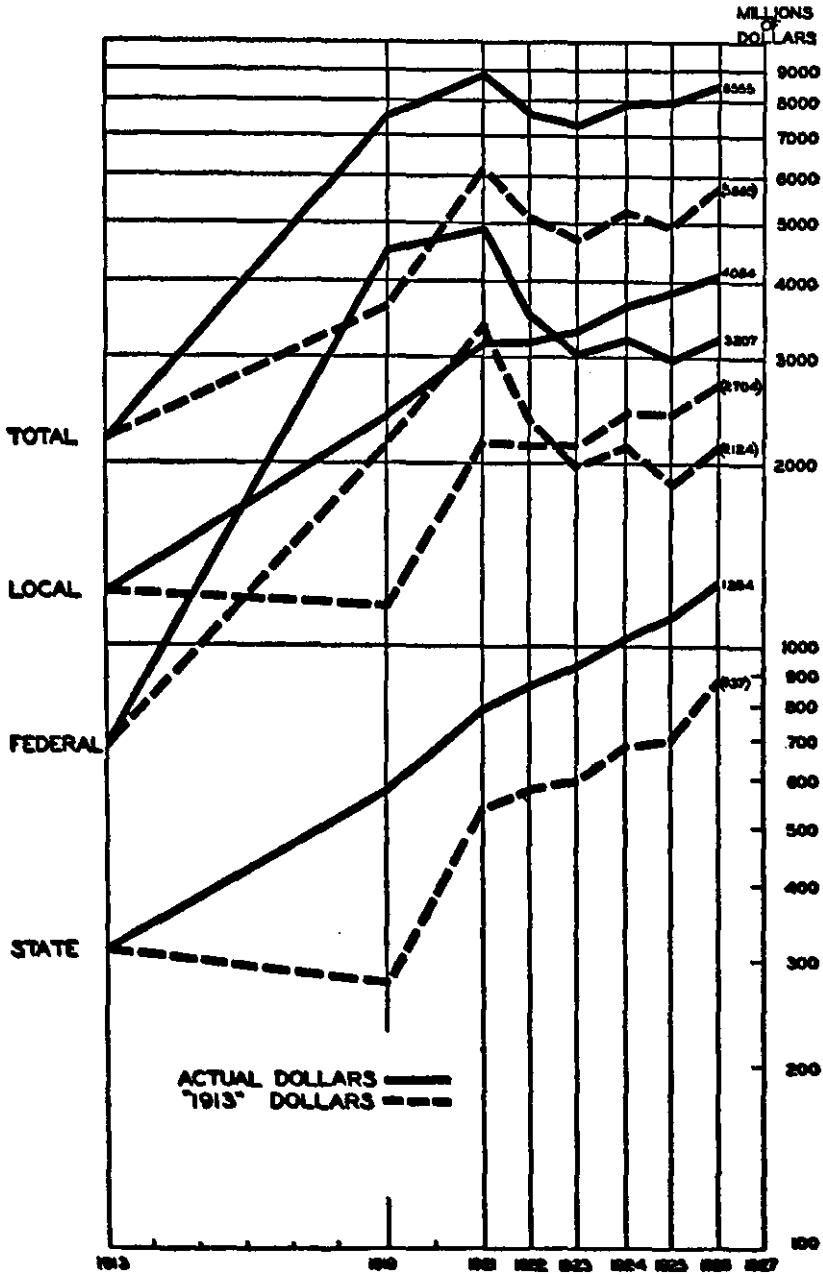
The rates of change in the federal tax collections have varied widely since 1912-13. The actual tax receipts increased rapidly until 1920-21, fell to a low point in 1922-23, and alternately increased and decreased thereafter. Expressed in "1913" dollars, the variations in the rates of change in tax collections of the Federal Government are even greater than if stated in actual dollars, as may be seen by comparing the lines on the chart which represent these tax collections.

Stated in actual dollars, state and local taxes have increased uninterruptedly since the fiscal year ended in 1913; but when allowance is made for changes in the purchasing power of the dollar, the changes in these tax collections have been exceedingly irregular, as may be seen from Tables 28 and 30. When these tax collections are plotted on a logarithmic scale, as in Chart 9, the annual variations in the rates of increase or decrease are greater than those in the absolute amounts shown in Table 30. However, when the relative changes from year to year are considered in actual dollars, a regular upward trend may be observed.

There have been two coincidental periods during which the rate of increase in taxes for each type of governmental authority was approximately constant. During the first period, ended in 1921, both state and local taxes increased somewhat faster than during the period since 1921. During the years since 1921, the *trend* in both state and local tax collections has been quite marked.

CHART 9: TREND IN TAX COLLECTIONS, UNITED STATES, 1913 TO 1926

(National Industrial Conference Board)



A close comparison of the two lines on Chart 9 shows that after 1919 the increase of state tax collections was at a rate somewhat greater than the increase of local tax collections. Since 1921, the average annual rate of the increase of local taxes has been 5.3% between 1921 and 1926, while state taxes increased annually at an average rate of 10.1% between these years.

If a straight line be drawn on the chart connecting the point representing 1921 state tax collections and the point representing 1925 collections, the three intervening points, for 1922, 1923 and 1924 collections respectively, would fall so close to the line as almost to touch it. In fact, two of them would touch any but the most finely drawn line. This is as markedly defined a trend as any to be found in economic science. Between 1925 and 1926, however, state taxes increased by the extraordinary rate of 14%.

In the case of local tax collections, there was a lag in 1922. The increase between 1923 and 1924, however, was greater than the average, and since 1924 the rate of increase has been fairly constant. A straight line connecting the point for 1921 collections with the point for 1926 collections would almost cover the lines between 1924, 1925 and 1926.

The greater rate of increase in state as compared with local taxes, is to be attributed to the undertaking, by many state governments, of governmental functions, such as, highway construction and maintenance, and educational support, which formerly fell in larger measure to the local governments. This also accounts for the extraordinary increase in state tax collections in 1926. Since the volume of local taxes is more than three times as great as the combined state tax bill, the transfer of a relatively small proportion of local taxes to state authority will be reflected by a far greater percentage increase in state taxes.

Though both state and local tax collections have been increasing at a markedly constant rate, the rate of increase of the combined total of these taxes has not been so regular as that of either state or local taxes independently. In recent years, the combined total of state and local taxes probably represents a more uniform basis for comparison of year to year changes than either the state or the local

taxes alone. This combined total of tax collections increased by 2.1% between 1921 and 1922 and by 4.7% during the following year. In 1924, it was explained above, local taxes increased at an unusually great rate, balancing the lag in 1922. The combined total of taxes in 1924 thus increased by 10.1%, then by 6.4% in 1925, and by 8.5% in 1926.

It has been asked, not without alarm, whether the continued rise in both state and local tax collections indicates the operation of factors pointing to an indefinite period of annual tax increases. Are state and local governmental authorities regularly extending their grasp to control an increasing amount of revenue, irrespective of changes in prices or in the national income or in the current needs for revenue? The fact, however, that the trend of taxes in recent years has been regularly upward does not necessarily imply the operation of a law susceptible of mathematical measurement. Nor must the regularity in the rate of increase in taxes be attributed to a uniform policy of governmental representatives to add regularly a little to what the taxpayer has become accustomed to pay annually.

The explanation of the situation should be sought in the trend and distribution of expenditures. In the long run, the tax bill must be balanced with the expenses of government. The nation-wide program of highway and educational development, carried on since the war, is reflected in the increasing tax bills. It is impossible to say, at the present time, whether these programs and the attendant increases in taxes, have reached the turning point. But it may be expected that as the state and local highway and education programs approach completion, the tax increase will abate. In fact, when the current programs are completed, taxes should decline, although not as rapidly as expenditures for the purposes, since there will remain a large burden of school and highway indebtedness to be paid off in later years. If recent experiences are repeated, however, there will develop new demands upon governmental authorities and further extensions of the functions of government. There may then follow another period of rising expenditures and taxes, at a rate determined by the magnitude of the new undertakings.

CHAPTER IV

GEOGRAPHIC DISTRIBUTION OF TAX COLLECTIONS

THE preceding chapter presented the facts as to the total of taxes collected and their relation to the population and to national income. Were there a single universal tax system for the entire country and were population and economic resources evenly distributed, the entire story of the tax burden would be told in the figures of the totals. Instead, each state and locality has its independent revenue requirements and, within limits, its independent tax system. The concentration of population and wealth in some sections of the country and the relative poverty of others result in a correspondingly uneven distribution of tax burdens as between states and regions.

DISTRIBUTION OF FEDERAL TAX COLLECTIONS

The consideration of federal tax *collections* in the following pages is not equivalent to a study of the distribution of the federal tax *burden*. The latter subject would require a complete and detailed study of the incidence of the federal taxes. In a general way, it is known that the customs duties and the excises are more or less diffused throughout the entire population irrespective of their points of collection. Since the legal situs of corporations and the residence of individuals rarely coincide exactly with their fields of economic operation, there is even for these taxes, a divergence between the state to which the collection is attributed and the state in which the burden of the taxes is actually borne. Moreover, to the extent that the corporations are used as collection agencies for taxes which are ultimately shifted to individual consumers or stockholders who reside outside of the state in which the corporation is located, the geographic distribution of federal tax revenues on the basis of collections does not truly represent the distribution of the federal tax burden.

For purposes of the following study, customs revenues have been distributed among the states on the basis of population, while the other federal tax revenues have been attributed to the state of collection.

Factors in Regional Distribution

The geographic distribution of federal tax collections is determined by the relative concentration of wealth, population and industrial activity in the various sections of the country. As shown in Table 32, the Middle Atlantic states and the East North Central group paid nearly three-fifths of the total of federal taxes in 1924-25. A single state, New York, paid 22.8% of the total, Pennsylvania paid 9.3% of the federal taxes, and Illinois' share was 7.5%. In that year, Michigan paid \$77 millions of the \$124.7 millions collected through the excise on automobiles and on auto parts; this brought Michigan's proportion of the total federal tax collections up to 6.9% and ranked it immediately below Illinois. Similarly, the payment of a large proportion of the tobacco excise in North Carolina raised this state to fifth rank, with a proportion of 5.8%. Ohio, next in order, paid 5.5% of the federal taxes, California 4.5% and New Jersey 4.0%. These eight states paid nearly two-thirds of the federal tax bill.

TABLE 32: DISTRIBUTION OF FEDERAL TAXES BY STATES AND GEOGRAPHIC DIVISIONS, FISCAL YEARS 1925 AND 1926

States	Federal Taxes, 1925			Federal Taxes, 1926	
	Amount (thousands)	Per Cent Increase or (-) Decrease over		Amount (thousands)	Per Cent Increase or (-) Decrease over 1925
		1924	1922		
United States.....	\$3,130,649	- 6.3	-11.7	\$3,413,147	9.0
New England.....	227,357	-11.8	-25.7	229,079	.8
Maine.....	12,736	-28.4	-26.8	13,773	8.1
New Hampshire.....	6,648	-17.1	-10.2	6,417	-3.5
Vermont.....	5,053	- 5.3	- 5.3	5,191	2.7
Massachusetts.....	138,871	-12.5	-24.1	139,855	.7
Rhode Island.....	19,615	-16.4	-48.2	20,337	3.7
Connecticut.....	44,434	.1	-19.2	43,506	-2.1
Middle Atlantic.....	1,131,838	- 4.8	-12.9	1,221,291	7.9
New York.....	712,248	- 4.3	-12.6	790,314	11.0
New Jersey.....	127,335	- 1.4	7.8	130,621	2.6
Pennsylvania.....	292,052	- 7.3	-20.3	300,356	2.8

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TABLE 32: DISTRIBUTION OF FEDERAL TAXES BY STATES AND GEOGRAPHIC DIVISIONS, FISCAL YEARS 1925 AND 1926—Continued

States	Federal Taxes, 1925			Federal Taxes, 1926	
	Amount (thousands)	Per Cent Increase or (—) Decrease over		Amount (thousands)	Per Cent Increase or (—) Decrease over 1925
		1924	1923		
East North Central	\$728,438	— 7.7	—13.5	\$797,925	9.5
Ohio.....	173,376	— 5.8	—18.3	188,555	8.8
Indiana.....	53,363	—12.1	—15.3	55,327	3.7
Illinois.....	235,824	— 5.2	—19.4	252,673	7.1
Michigan.....	216,048	—10.5	.6	247,347	14.5
Wisconsin.....	49,827	— 7.9	—16.2	54,023	8.4
West North Central	192,946	—10.9	—22.8	208,814	8.2
Minnesota.....	40,496	— 8.1	—25.6	47,134	16.4
Iowa.....	25,318	—15.2	—20.2	26,220	3.6
Missouri.....	78,343	— 8.7	—20.8	85,591	9.3
North Dakota.....	4,048	— 9.2	.5	4,267	5.4
South Dakota.....	4,478	—14.5	— 5.4	4,568	2.0
Nebraska.....	14,092	—19.1	—28.3	14,408	2.2
Kansas.....	26,171	—11.6	—28.0	26,626	1.7
South Atlantic	402,398	— 2.8	9.6	468,484	16.4
Delaware.....	9,460	—20.8	42.3	12,839	35.7
Maryland.....	38,557	— 7.8	—24.3	38,379	— .5
District of Columbia.....	16,868	—43.6	—13.0	19,671	16.6
Virginia.....	60,577	4.6	11.2	73,389	21.1
West Virginia.....	24,293	—12.1	—36.9	23,932	—1.5
North Carolina.....	180,430	5.3	37.5	206,659	14.5
South Carolina.....	15,298	—13.1	—11.0	14,043	—8.2
Georgia.....	30,117	—11.7	— 2.4	29,957	— .5
Florida.....	26,798	24.1	50.2	49,615	85.1
East South Central	103,292	— 3.4	2.2	104,396	1.1
Kentucky.....	40,338	— 1.1	— 2.3	39,559	—1.9
Tennessee.....	28,764	— 5.7	— 3.2	29,668	3.1
Alabama.....	21,467	— 1.7	10.3	22,123	3.1
Mississippi.....	12,723	— 7.7	19.7	13,046	2.5
West South Central	122,898	— 6.2	— 9.4	139,427	13.4
Arkansas.....	14,382	— 7.6	11.0	14,464	.6
Louisiana.....	26,389	—10.9	— 8.6	25,979	—1.6
Oklahoma.....	22,559	— 7.3	—11.3	29,683	31.6
Texas.....	59,568	— 3.2	—13.0	69,301	16.3
Mountain	45,695	— 5.5	— 5.9	53,756	17.6
Montana.....	5,617	— 7.0	4.3	12,507	122.7
Idaho.....	4,158	— 4.2	14.7	3,966	—4.6
Wyoming.....	2,775	—12.0	.5	2,747	—1.0
Colorado.....	19,192	— 4.8	—17.3	20,103	4.7
New Mexico.....	2,703	— 9.4	10.0	2,686	— .6
Arizona.....	3,707	— 8.7	10.8	4,152	12.0
Utah.....	6,551	1.2	— 2.0	6,618	1.0
Nevada.....	992	—13.1	— 9.4	977	—1.5
Pacific	175,990	— 6.9	— 9.1	189,976	7.9
Washington.....	22,160	—15.3	—21.7	21,859	—1.4
Oregon.....	12,354	—15.4	—42.5	11,865	—4.0
California.....	141,476	— 4.5	— 1.6	156,251	10.4

Middle Atlantic and East North Central States

Since the largest proportion of federal taxes is contributed by the Middle Atlantic and East North Central states, it is to be expected that variations in the total federal revenue collections from year to year will be reflected in the figures for the individual states of these two groups. Or rather, as the collections in these states vary, so will the total for the country vary. Columns 2, 4 and 6 of Table 32 substantiate this assumption.

Between 1921-22 and 1924-25, federal tax collections as a whole declined as a result of a downward revision of tax rates. In 1925-26, despite the continuing effects of earlier revisions, business prosperity was reflected by an increase in the internal revenue. Of the eight predominantly industrial states comprising the Middle Atlantic and the East North Central groups, in only two states—Michigan and New Jersey—tax collections varied considerably from the national trend during the period covered. However, the trend in income tax collections in these two states paralleled closely that of the country as a whole, the variations in the totals being due to changes in the collection of miscellaneous taxes. The divergent variation in Michigan is explained by the independent influence of the automobile excise tax in determining the trend of federal tax collections in that state.

South Atlantic States

This group of states presents the widest fluctuations in federal tax collections from year to year, both in relation to the trend for the country as a whole and among themselves. In this connection the South Atlantic states may be subdivided into three groups:

(1) Delaware and the District of Columbia showed the widest variations from the general trend during the period covered in Table 32. This was largely due to the fact that a nine million dollar collection of back taxes on alien property was attributed to the District of Columbia in 1923-24, and a similar three million dollar payment of back taxes was made in Delaware in the same year.

(2) Florida, North Carolina and Virginia showed an in-

crease in federal tax collections. In the two latter states the greater part of this increase reflected the growth in collections from the tobacco excise. In Florida, the biggest item in this increase was the expansion of income tax collections from \$8.1 millions in 1923-24 to \$12.1 millions in 1924-25 and to \$34 millions in 1925-26. A part of this increase in taxable income may reflect an actual influx of capital into the state by reason of the state's widely advertised constitutional prohibition of income and inheritance taxation. By far the greater part of this increase in taxable income, however, particularly in 1925-26, resulted from the Florida boom. In 1925 and 1926, speculators and investors liquidated their holdings at highly inflated prices in anticipation of the impending collapse of the boom. The capital gains of the entire boom period were thus reported in these two years, and hence the income tax collections were correspondingly exaggerated.

(3) Maryland, West Virginia, South Carolina and Georgia showed decreases in the amounts of their federal tax collections. In all of these states, except Maryland, the declines in income tax payments were the major items in the decrease. In Maryland, income tax collections between 1922 and 1925 remained constant, as contrasted with the national trend, but the receipts from miscellaneous taxes declined because of the decline in the state's tobacco industry.

Other Regional Groups

Table 32 records a slight shifting in federal tax collections from the New England and West North Central states to the South Atlantic and East South Central states, reflecting a corresponding shifting of industrial activity. The decline in federal tax collections in these northern states between 1921-22 and 1924-25 was much greater than for the country as a whole, while the increase in 1925-26 did not keep pace with the increase of total federal taxes. In the southern states, on the other hand, the reverse has been true. It also appears that federal taxes collected in the Mountain states in 1925-26 were extraordinarily heavy. This, however, was due entirely to an item of \$6.7 millions collected by the Government as a tax on the estate of an individual.

DISTRIBUTION OF STATE AND LOCAL TAX COLLECTIONS

The greater part of each state's state and local tax collections represents a burden which is localized within the state. A few states¹ obtain a considerable proportion of their state revenues from corporations which transact no business in the state, by providing favorable corporation laws. Part of the gasoline taxes, also, may be collected from individuals who do not reside, own property, or earn income within the state. These cases, however, are exceptions, and the tax revenue involved is only a small proportion of the total of state and local tax collections. Property taxes far outweigh all other state and local taxes combined, and the essential burden of these taxes is definitely localized. The state and local taxes are thus more or less representative of the tax burden within the states. The volume per capita and the recent trend of the taxes collected are presented by states and geographic divisions in Table 33.

The three states comprising the Middle Atlantic group collected more taxes in 1925 than any other geographic division, New York leading all other states with \$709.5 millions. Pennsylvania followed, with \$378.5 millions. In the same year, the eight Mountain states collected less than any other geographic division, Nevada having the lowest total of tax collections, with \$6.5 millions. The bare amount of taxes collected, however, does not in itself represent the burden of these taxes, since the relative ability of the states to pay taxes varies considerably.

Per Capita Tax Collections

Since 1913, the amount of state and local taxes collected in Nevada has been smaller than in any other state, but its per capita tax collections have been the highest in the country. In 1925, the average share which each person in Nevada contributed toward the support of its state and local governmental agencies amounted to \$83.69, as against an average of \$42.69 for the country as a whole. California came next, with a per capita tax of \$70.49 and was followed by Oregon, whose per capita tax in 1925 was \$63.62. In the same year

¹ Notably, Delaware, Florida, Maine, Maryland and Virginia.

TABLE 33: STATE AND LOCAL TAX COLLECTIONS, BY STATES AND GEOGRAPHIC DIVISIONS, 1922 TO 1925

States and Geographic Divisions	Total State and Local Taxes			Per Capita			Per Cent Increase or Decrease (—) of Per Capita Taxes	
	1922 (thousands)	1924 (thousands)	1925 (thousands)	1922	1924	1925	1924 Over 1922	1925 Over 1924
United States.....	\$4,015,619	\$4,628,625	\$4,925,744	\$36.54	\$40.70	\$42.69	15.27	6.42
New England.....	855,884	896,022	420,634	46.41	50.16	52.67	11.28	6.21
Maine.....	27,925	32,287	32,643	35.99	41.23	41.48	15.62	1.10
New Hampshire.....	19,359	19,215	20,149	43.31	42.70	44.58	— .74	4.86
Vermont.....	12,052	14,853	15,220	34.20	42.14	43.19	23.24	2.47
Massachusetts.....	209,112	234,914	249,479	52.40	57.25	60.20	12.34	6.20
Rhode Island.....	24,001	26,983	28,583	37.50	40.39	42.08	12.42	5.93
Connecticut.....	63,435	67,770	74,560	43.39	44.06	47.43	6.83	10.02
Middle Atlantic.....	1,051,867	1,230,769	1,315,598	45.47	51.51	54.28	17.01	6.89
New York.....	595,881	670,463	709,499	55.46	60.79	63.56	12.52	5.82
New Jersey.....	155,904	207,947	227,598	46.61	59.04	63.22	33.38	9.45
Pennsylvania.....	300,082	352,359	378,501	33.19	37.71	39.94	17.42	7.42
East North Central.....	932,342	1,032,509	1,076,476	41.51	44.15	45.25	10.74	4.26
Ohio.....	251,019	270,185	277,980	41.41	42.57	42.96	7.64	2.89
Indiana.....	121,356	137,789	144,051	40.45	44.94	46.54	13.54	4.54
Illinois.....	248,955	279,748	291,035	36.92	40.04	41.04	12.37	4.03
Michigan.....	186,672	206,519	219,673	47.50	49.44	51.28	10.63	6.37
Wisconsin.....	124,340	138,268	143,737	45.66	49.22	50.50	11.20	3.96
West North Central.....	517,946	571,800	587,585	40.62	44.19	45.12	10.40	2.76
Minnesota.....	121,241	146,207	141,941	48.85	56.85	54.36	20.59	— 2.92
Iowa.....	111,343	118,998	120,616	46.16	49.21	49.84	6.88	1.36
Missouri.....	95,025	99,879	116,388	27.64	28.78	33.41	5.11	16.53
North Dakota.....	29,358	32,427	32,130	45.59	50.51	50.11	10.45	— .92
South Dakota.....	31,845	36,916	37,227	48.40	54.77	54.64	15.92	.84
Nebraska.....	58,011	55,738	56,419	43.68	41.04	41.15	— 3.92	1.22
Kansas.....	71,123	81,635	82,864	39.73	45.18	45.71	14.78	1.51
South Atlantic.....	301,006	372,064	414,473	20.59	24.50	26.88	23.61	11.40
Delaware.....	8,005	9,482	9,577	34.96	40.35	40.24	18.45	1.00

Maryland.....	45,763	55,212	56,778	30.57	35.83	36.40	20.65	2.84
District of Columbia.....	12,921	14,508	17,650	27.49	28.96	34.34	12.28	21.66
Virginia.....	46,618	54,485	58,287	19.55	22.18	23.45	16.88	6.98
West Virginia.....	42,294	56,305	58,380	27.50	35.04	35.64	33.13	3.69
North Carolina.....	46,162	56,371	68,619	17.31	20.37	24.40	22.12	21.73
South Carolina.....	23,420	30,195	38,589	13.50	16.93	21.39	28.93	27.80
Georgia.....	41,537	45,105	48,220	13.92	14.71	15.54	8.59	6.91
Florida.....	34,285	50,401	58,373	30.83	41.04	46.20	47.01	15.82
East South Central.....	164,476	175,538	198,998	17.08	19.11	21.52	13.64	13.36
Kentucky.....	46,609	52,655	59,775	18.99	21.13	23.83	12.97	13.52
Tennessee.....	42,912	48,471	51,158	17.99	19.96	20.90	12.95	5.54
Alabama.....	29,229	32,972	35,058	12.12	13.34	14.03	12.81	6.33
Mississippi.....	35,725	41,440	53,007	19.95	23.14	29.60	16.00	27.91
West South Central.....	233,538	293,325	314,391	21.85	26.41	27.86	25.60	7.18
Arkansas.....	20,471	26,539	29,182	11.33	14.28	15.52	29.64	9.96
Louisiana.....	51,023	60,052	64,289	27.70	31.91	33.84	17.70	7.06
Oklahoma.....	53,074	66,705	70,153	24.79	29.67	30.58	25.68	5.17
Texas.....	108,970	140,029	150,767	22.25	27.37	28.93	28.50	9.67
8 Mountain.....	151,912	169,817	168,547	42.52	45.23	43.86	12.45	-75'
Montana.....	24,253	27,893	27,092	40.35	42.85	40.32	15.01	-2.87
Idaho.....	18,717	21,543	21,841	40.34	43.52	42.99	15.10	1.38
Wyoming.....	8,490	12,249	11,767	40.62	54.93	51.38	44.28	-3.94
Colorado.....	46,016	51,143	51,627	46.81	49.99	49.64	11.14	.95
New Mexico.....	11,046	9,614	10,363	29.85	25.30	26.99	-12.96	7.79
Arizona.....	19,692	19,789	18,743	52.65	48.15	43.79	.49	-5.29
Utah.....	17,034	21,379	20,636	36.01	43.28	40.94	25.51	-3.48
Nevada.....	5,764	6,207	6,478	74.46	80.19	83.69	7.69	4.37
Pacific.....	817,550	886,781	829,042	53.05	60.60	65.47	21.80	10.93
Washington.....	68,776	80,204	79,503	48.37	54.05	52.65	16.62	-8.7
Oregon.....	41,402	51,797	54,904	50.68	61.01	63.62	25.11	6.00
California.....	207,372	254,780	294,635	55.34	62.92	70.49	22.86	15.64

90 COST OF GOVERNMENT IN UNITED STATES

Washington's per capita tax amounted to \$52.65, thus bringing the per capita tax for the Pacific Coast states to \$65.47, which was considerably higher than the per capita tax of any other geographic division.

In thickly populated regions the burden of taxation is distributed among a relatively large number of taxpayers; and on this presumption their per capita tax, other things being equal, should be lower than in sparsely populated sections of the country. But since concentration of population means, as a rule, concentration of industry and greater governmental needs, the per capita taxes of the industrial states of the North in 1925 were, with the exception of Pennsylvania, Illinois and Rhode Island, higher than the average for the country as a whole. In the District of Columbia and in all southern states, with the exception of Florida, the per capita taxes in 1925 were below the country's average. The following table shows the per capita taxes and population per square mile in three northern and three southern states and in the United States as a whole.

State	Per Capita Tax in 1925	Population per Square Mile in 1920
United States.....	\$42.69	35.5
New York.....	63.56	217.9
New Jersey.....	63.22	420.0
Massachusetts.....	60.20	479.2
Alabama.....	14.03	45.6
Arkansas.....	15.52	33.9
Georgia.....	15.54	49.3

It should be noted, however, that per capita taxes are not a good measure of the burden of taxation. The ability of the southern states to pay taxes, as measured in terms of their per capita income, is considerably below that of the industrially developed states; and were comparative income figures available for the individual states, they would show that the southern states rank very high as to relative tax burdens.¹

Recent Increases in Tax Collections

Though the southern states still collect the lowest per capita taxes in the country, tax collections in the South have

¹ See Chapter V, p. 133.

been increasing more rapidly than in any other part of the country in recent years. Between the fiscal years ended in 1922 and 1924 the taxes of the four West South Central states increased 25.6% and those of the eight states and the District of Columbia, in the South Atlantic division, increased 23.6% as against an average increase of 15.3% throughout the country. The four East South Central states showed an increase of only 13.6% during the same period, but their taxes increased 13.4% between the fiscal years ended in 1924 and 1925, the highest increase for that period in any section of the United States. During this period taxes increased 11.4% in the South Atlantic states and 7.2% in the West South Central states, as against an average increase of 6.4% for all states.

It is significant that the two states which have been most prominent in the use of tax exemption programs to attract residents and business, showed the highest increases in the volume of tax collections between the fiscal years ended in 1922 and 1925. Florida amended its Constitution in 1924 to prohibit the taxation of income, estates and inheritance, after its taxes had increased by 47% between the fiscal years ended in 1922 and 1924. In the year following, its taxes increased by 15.3%, showing an increase more than twice as great as the average increase of state and local taxes throughout the country. Part of this increase was the result of Florida's new corporation law, designed to attract corporations doing no business in the state. The law, which combines a high initial tax with exemption from annual franchise taxes, affords no basis for continuing revenues, while the constitutional prohibition of estate and inheritance taxes makes it impossible for Florida to recover any proportion of the taxes paid to the Federal Government on the estates of its resident decedents. Mississippi, which recently exempted certain manufacturing property from taxation, increased its tax collections 16% between the fiscal years ended in 1922 and 1924. Its collections in the fiscal year ended in 1925 increased by 27.9%, or more than those of any other state. The Carolinas also increased their taxes at an unusually high rate between 1922 and 1925. Tennessee and Alabama are the only southern states whose tax increases were less

than the average for the country during the four-year period 1922–1925. The Pacific states also showed rapidly increasing tax collections in recent years because of the tax trend in California and Oregon.

The combined tax collections of the eight Mountain states declined in the fiscal year ended in 1925, as compared with the previous year. In the seven West North Central states tax increases were considerably below the average for the country as a whole between the fiscal years ended in 1922 and 1925. All these states are economically dependent upon agricultural and mining activities. The burden of farm taxes became so great by 1923–1924, while farm profits were decreasing, that they became a subject of considerable alarm.¹ The comparative trend of taxation in the predominantly agricultural states no doubt indicates the rôle of retrenchment of public expenditures as a part of the general program of farmers' relief. The only state in the West North Central division which showed an increase in tax collections above the country's average in 1925 was Missouri, which is to a large extent an industrial state.²

The heavy burden of state and local taxes upon the mining industries aggravated the fiscal situation in the Mountain states. These eight states collected three-quarters of one per cent less in taxes in 1925 than in 1924. New Mexico and Arizona collected less taxes in both 1924 and 1925 than in 1922, while Montana, Wyoming and Utah showed a decline in taxes between 1924 and 1925.

Local Tax Collections

Since local taxes constitute over three-fourths of the combined state and local tax bill of the country, it may be presumed that the regional trends of tax collections noted in the preceding section have been dictated by developments of the local tax system. This presumption does not always apply to individual states, for in some states, notably in Delaware and in several of the West South Central states, the last few years have seen a marked shifting of governmental

¹ See Chapter V, p. 108.

² For explanation of the apparent tax increases in some of the West North Central states between 1922 and 1924 see p. 93, footnote 1.

functions from the localities to the state governments, with corresponding alterations in the tax system. Such shifting of governmental functions and alterations in the tax system result from the development of centralized control of those activities which are characteristic of both state and local governments rather than from any tendency in the growth of taxes. The supervision, direction or cooperation of the state governments in fiscal functions which were formerly left entirely to local authorities has necessarily become more common throughout the country with the growth of highway construction and educational activity. The tendency toward centralization has been further advanced by the desire to equalize the tax burden geographically within the state. Until the present, however, local taxes have remained a sufficiently high proportion of the total in most parts of the country to have been the predominating influence in determining the trend of taxation.

The local tax collections by states and regional divisions, together with the percentage increases or decreases from 1922 to 1926, are given in Table 34. Clearly, the local taxes were the responsible factor in holding the rate of increase in tax collections of the West North Central and Mountain states below the average for the country as a whole between 1922 and 1925 which was noted in the preceding section.¹ From 1925 to 1926, the increases of local tax collections were 1% in the West North Central states and 4.1% for the Mountain states, whereas the average increase of local taxes for the country was 7%. Iowa, Nebraska and Montana actually reduced their local tax collections in 1926 as compared with the preceding year.

The greatest increases of local taxes in recent years are found in the South Atlantic and in the Pacific states. In the former group of states, the average increase from 1922 to 1924 was 22.8%; from 1924 to 1925 it was 9.4%, and from 1925 to 1926 it was 12.3%. Florida and North Carolina were

¹The figures contained in the official state reports of 1922 for local property taxes exceed in Minnesota, Iowa and South Dakota the corresponding figures of the Census Bureau's by a considerable amount, but it is impossible to find the basis for the discrepancy. Should this difference have entered in later years in the same proportion to total taxes as in 1922, the increases between 1922 and 1924 would be reduced to the following figures: Minnesota, 6%; Iowa, 3%; Kansas, 1%.

TABLE 34: LOCAL TAX COLLECTIONS, BY STATES AND GEOGRAPHIC DIVISIONS, 1922 TO 1926

States and Geographic Divisions	Local Taxes Collected				Per Cent Increase or (—) Decrease		
	1922 (thousands)	1924 (thousands)	1925 (thousands)	1926 (thousands)	1924 over 1922	1925 over 1924	1926 over 1925
United States.....	\$3,157,477	\$3,611,165	\$3,818,374	\$4,083,793	14.37	5.74	6.95
New England.....	276,162	309,422	329,480	358,272	12.04	6.48	8.74
Maine.....	18,755	20,596	20,509	22,161	9.82	— .42	8.06
New Hampshire.....	13,797	13,983	14,388	15,435	1.35	2.90	7.28
Vermont.....	8,106	9,842	10,026	10,251	21.42	1.87	2.24
Massachusetts.....	171,014	197,361	211,520	231,173	15.41	7.17	9.29
Rhode Island.....	17,563	20,013	21,154	22,555	13.95	5.70	6.62
Connecticut.....	46,927	47,627	51,883	56,697	1.49	8.94	9.28
Middle Atlantic.....	831,258	956,587	1,020,539	1,103,401	15.08	6.69	8.12
New York.....	478,824	530,900	557,098	584,102	10.88	4.93	4.85
New Jersey.....	119,541	160,858	176,276	200,718	34.56	9.58	13.87
Pennsylvania.....	232,893	264,829	287,165	318,581	13.71	8.43	10.94
East North Central.....	765,096	853,057	888,595	942,073	11.50	4.17	6.02
Ohio.....	209,979	233,419	246,332	263,992	11.16	5.53	7.17
Indiana.....	102,878	110,995	113,981	117,054	7.89	2.69	2.70
Illinois.....	213,394	237,452	242,517	261,473	11.27	2.13	7.82
Michigan.....	140,675	161,283	170,373	182,152	14.65	5.64	6.91
Wisconsin.....	98,170	109,908	115,392	117,402	11.96	4.99	1.74
West North Central.....	421,516	457,870	466,446	470,146	8.62	1.65	1.01
Minnesota.....	91,606	104,244	102,886	104,126	13.80	— 1.30	1.21
Iowa.....	89,360	96,030	95,417	91,948	7.46	— .64	— 3.64
Missouri.....	78,565	82,059	91,005	96,657	4.45	10.90	6.21
North Dakota.....	24,511	26,420	25,226	25,326	7.79	— 4.52	.40
South Dakota.....	27,556	29,907	29,723	29,976	8.53	— .62	.85
Nebraska.....	47,434	48,348	49,209	48,510	1.93	1.78	— 1.42
Kansas.....	62,484	70,862	71,980	73,603	13.41	1.58	2.25
South Atlantic.....	220,367	270,613	295,961	332,242	22.80	9.37	12.26
Delaware.....	4,086	4,586	4,707	4,823	12.24	2.64	2.46
Maryland.....	33,321	41,116	41,497	43,262	23.39	.93	4.25

District of Columbia.....	12,921	14,508	17,650	21,730	12.28	21.66	23.12
Virginia.....	28,330	33,141	34,768	37,860	16.98	4.91	8.89
West Virginia.....	32,694	43,275	44,481	46,777	32.36	2.79	5.16
North Carolina.....	36,229	42,366	49,338	55,288	16.94	16.46	12.06
South Carolina.....	16,421	21,166	24,966	25,952	28.90	17.95	3.95
Georgia.....	30,668	31,595	33,045	34,895	3.02	4.59	5.60
Florida.....	25,697	38,860	45,509	61,655	51.22	17.11	35.48
East South Central.....	109,592	128,888	144,018	158,358	15.78	18.50	6.49
Kentucky.....	31,233	37,617	41,228	42,869	20.44	9.60	3.98
Tennessee.....	32,791	35,168	36,809	39,548	7.25	4.67	7.44
Alabama.....	18,924	21,573	22,967	24,097	14.00	6.46	4.92
Mississippi.....	26,645	32,528	43,009	46,841	22.08	32.22	8.91
West South Central.....	178,468	208,634	216,552	229,865	20.27	8.80	6.15
Arkansas.....	14,027	15,498	15,104	17,202	10.49	-2.54	13.89
Louisiana.....	34,322	42,877	46,081	50,334	24.93	7.47	9.21
Oklahoma.....	46,359	57,086	55,533	60,918	23.14	-2.72	9.70
Texas.....	78,760	93,173	99,834	101,411	18.30	7.15	1.58
Mountain.....	116,968	132,178	131,764	137,126	18.00	-.81	4.07
Montana.....	20,837	24,404	23,401	22,916	17.12	-4.11	-2.07
Idaho.....	15,237	17,806	18,026	18,462	16.86	1.24	2.42
Wyoming.....	6,242	9,564	9,239	9,872	53.22	-3.40	6.85
Colorado.....	37,061	40,512	41,033	43,153	9.31	1.29	5.17
New Mexico.....	7,955	7,324	7,892	8,026	-7.93	7.76	1.70
Arizona.....	13,377	14,573	13,924	15,469	8.94	-4.45	11.10
Utah.....	11,967	13,629	13,708	14,610	13.89	.58	6.58
Nevada.....	4,287	4,361	4,541	4,618	1.73	4.13	1.70
Pacific.....	248,064	298,923	326,024	357,813	21.75	10.17	9.60
Washington.....	50,889	54,393	55,145	57,468	6.89	1.38	4.21
Oregon.....	28,492	36,357	38,925	41,775	27.60	7.06	7.32
California.....	163,673	205,173	231,954	258,070	25.36	13.05	11.25

TABLE 35: STATE TAX COLLECTIONS BY STATES AND GEOGRAPHIC DIVISIONS, 1922 TO 1925

States and Geographic Divisions	State Taxes			Per Cent Increase or (-) Decrease		Per Cent State Taxes are of Combined State and Local Taxes		
	1922 (thousands)	1924 (thousands)	1925 (thousands)	1924 Over 1922	1925 Over 1924	1922	1924	1925
United States.....	\$858,142	\$1,017,460	\$1,107,370	18.57	8.84	21.37	21.98	22.48
New England.....	79,722	86,600	91,154	8.63	5.26	22.40	21.87	21.67
Maine.....	9,170	11,691	12,134	27.49	3.79	32.84	36.21	37.17
New Hampshire.....	5,562	5,232	5,761	-5.93	10.11	28.73	27.23	28.59
Vermont.....	3,946	5,011	5,194	26.99	3.65	32.74	33.74	34.13
Massachusetts.....	38,098	37,553	37,959	-1.43	1.08	18.22	15.99	15.22
Rhode Island.....	6,438	6,970	7,429	8.26	6.59	26.82	25.83	25.99
Connecticut.....	16,508	20,143	22,677	22.02	12.58	26.02	29.72	30.41
Middle Atlantic.....	220,609	274,182	295,059	24.28	7.61	20.97	22.28	22.43
New York.....	117,057	139,563	152,401	19.23	9.20	19.64	20.82	21.48
New Jersey.....	36,363	47,089	51,322	29.50	8.99	23.32	22.64	22.55
Pennsylvania.....	67,189	87,530	91,336	30.27	4.35	22.39	24.84	24.13
East North Central.....	167,246	179,452	187,881	7.30	4.70	17.94	17.38	17.45
Ohio.....	41,040	36,766	31,648	-10.41	-13.92	16.35	13.61	11.38
Indiana.....	18,478	26,794	30,070	45.00	12.23	15.23	19.45	20.87
Illinois.....	35,561	42,296	48,518	18.94	14.71	14.28	15.12	16.67
Michigan.....	45,997	45,236	49,300	-1.65	8.98	24.64	21.90	22.44
Wisconsin.....	26,170	28,360	28,345	8.37	-.05	21.05	20.51	19.72
West North Central.....	98,430	113,930	122,139	18.15	7.21	18.62	19.92	20.79
Minnesota.....	29,635	41,963	39,055	41.60	-6.93	24.44	28.70	27.51
Iowa.....	21,983	22,968	25,199	4.48	9.71	19.74	19.30	20.89
Missouri.....	16,460	17,820	25,383	8.26	42.44	17.32	17.84	21.81
North Dakota.....	4,847	6,007	6,904	23.93	14.93	16.51	18.52	21.49
South Dakota.....	4,289	7,009	7,504	63.42	7.06	13.47	18.99	20.16
Nebraska.....	10,577	7,390	7,210	-30.13	-2.44	18.23	13.26	12.78
Kansas.....	8,639	10,773	10,884	24.70	1.03	12.15	13.20	13.13
South Atlantic.....	80,638	101,451	118,512	25.81	16.82	26.79	27.27	28.59
Delaware.....	3,919	4,896	4,870	24.93	-.53	48.96	51.63	50.85
Maryland.....	12,442	14,096	15,281	13.29	8.41	27.19	25.53	26.91

District of Columbia.....									
Virginia.....	18,288	21,344	23,519	16.71	10.19	39.23	39.17	40.35	
West Virginia.....	9,600	13,030	13,899	35.73	6.67	22.70	23.14	23.81	
North Carolina.....	9,933	14,005	19,281	40.99	37.67	21.52	24.84	28.10	
South Carolina.....	6,999	9,029	13,623	29.00	50.88	29.88	29.90	35.30	
Georgia.....	10,869	13,510	15,175	24.30	12.32	26.17	29.95	31.47	
Florida.....	8,588	11,541	12,864	34.39	11.46	25.05	22.90	22.04	
East South Central.....	44,882	48,652	54,985	8.40	13.02	29.05	27.72	27.63	
Kentucky.....	15,376	15,038	18,547	-2.20	23.33	32.99	28.56	31.03	
Tennessee.....	10,121	13,303	14,349	31.44	7.86	23.59	27.45	28.05	
Alabama.....	10,305	11,399	12,091	10.62	6.07	35.26	34.57	34.49	
Mississippi.....	9,080	8,912	9,998	-1.85	12.19	25.42	21.51	18.86	
West South Central.....	60,070	84,691	97,839	40.99	15.52	25.72	28.87	31.12	
Arkansas.....	6,444	11,041	14,078	71.34	27.51	31.48	41.60	48.24	
Louisiana.....	16,701	17,175	18,208	2.84	6.01	32.73	28.60	28.32	
Oklahoma.....	6,715	9,619	14,620	43.25	51.99	12.65	14.42	20.84	
Texas.....	30,210	46,856	50,933	55.10	8.70	27.72	33.46	33.78	
Mountain.....	34,049	37,644	38,788	10.56	-2.29	22.55	22.17	21.82	
Montana.....	3,416	3,489	3,691	2.14	5.79	14.08	12.51	13.62	
Idaho.....	3,480	3,737	3,815	7.39	2.09	18.59	17.35	17.47	
Wyoming.....	2,248	2,685	2,528	19.44	-5.85	26.48	21.92	21.48	
Colorado.....	8,955	10,631	10,594	18.72	-.35	19.46	20.79	20.52	
New Mexico.....	3,091	2,290	2,471	-25.91	7.90	27.98	23.82	23.84	
Arizona.....	6,315	5,216	4,819	-17.40	-7.61	32.07	26.36	25.71	
Utah.....	5,067	7,750	6,928	52.95	-10.61	29.75	36.25	33.57	
Nevada.....	1,477	1,846	1,937	24.98	4.93	25.62	29.74	29.90	
Pacific.....	74,496	90,858	103,018	21.96	13.38	23.46	23.49	24.01	
Washington.....	17,887	25,811	24,358	44.30	-5.63	26.01	32.18	30.64	
Oregon.....	12,910	15,440	15,979	19.60	3.49	31.18	29.81	29.10	
California.....	43,699	49,607	62,681	13.52	26.36	21.07	19.47	21.27	

largely responsible for the high increase in local taxes in the South Atlantic states. The average increase of the Pacific group of states over the four year period was 46.9%. California was responsible for the greater part of this increase.

State Tax Collections

Table 35 shows the state tax collections by states and by regional divisions for the fiscal years ended in 1922, 1924 and 1925. It is evident that in most parts of the country the proportion of state tax collections to combined tax collections has been increasing. This tendency is most marked in the West South Central states, but individual states elsewhere—Connecticut, Georgia, Illinois, Indiana, Minnesota, New Hampshire, New York, North Dakota, South Dakota, Tennessee and Texas—illustrate the same development.

This increasing importance of state taxation, indicated in a summary form in Table 29, is largely the result of the growth of centralized supervision and control of highway construction¹ and education. In recent years the states have assumed responsibility for a considerable mileage of roads and highways; and in order to finance their construction and maintenance, they levy motor vehicle charges and gasoline taxes. These have had considerable effect in swelling the total of state tax collections. Moreover, it is not unusual now for states to levy mill taxes for road purposes, the revenue from which is redistributed to the localities on a basis independent of the amount collected in each locality. Similarly, state aid for education² is growing in importance, necessitating increased state tax revenues.

Several exceptions to this general tendency should be pointed out.

In five states—Arizona, Massachusetts, Nebraska, New Mexico and Ohio—the state tax collections in 1925 were considerably below those of 1922.

DISTRIBUTION OF COMBINED TAX COLLECTIONS

Tables 36, 37 and 38 present in a summary form the geographic distribution of federal state taxes and local taxes for the years 1922, 1924 and 1925.

¹ See Chapter VIII.

² See Chapter VII.

DISTRIBUTION OF TAX COLLECTIONS

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TABLE 36: VOLUME OF TAX COLLECTIONS DISTRIBUTED BY STATES, FISCAL YEAR 1922

States	Combined Federal State and Local Taxes (thousands)	Federal Taxes (thousands)	Combined State and Local Taxes (thousands)	State Taxes (thousands)	Local Taxes (thousands)
Alabama	\$48,686	\$19,457	\$29,229	\$10,305	\$18,924
Arizona	23,037	3,345	19,692	6,315	13,377
Arkansas	33,431	12,960	20,471	6,444	14,027
California	351,193	143,821	207,372	43,699	163,673
Colorado	69,209	23,193	46,016	8,955	37,061
Connecticut	118,457	55,022	63,435	16,508	46,927
Delaware	14,653	6,648	8,005	3,919	4,086
District of Columbia	32,310	19,389	12,921	..	12,921
Florida	52,132	17,847	34,285	8,588	25,697
Georgia	72,401	30,864	41,537	10,869	30,668
Idaho	22,343	3,626	18,717	3,480	15,237
Illinois	541,541	292,586	248,955	35,561	213,394
Indiana	184,340	62,984	121,356	18,478	102,878
Iowa	143,055	31,712	111,343	21,983	89,360
Kansas	107,460	36,337	71,123	8,639	62,484
Kentucky	87,895	41,286	46,609	15,376	31,233
Louisiana	79,885	28,862	51,023	16,701	34,322
Maine	45,313	17,388	27,925	9,170	18,755
Maryland	96,686	50,923	45,763	12,442	33,321
Massachusetts	392,083	182,971	209,112	38,098	171,014
Michigan	401,390	214,718	186,672	45,997	140,675
Minnesota	175,685	54,444	121,241	29,635	91,606
Mississippi	46,353	10,628	35,725	9,080	26,645
Missouri	193,938	98,913	95,025	16,460	78,565
Montana	29,637	5,384	24,253	3,416	20,837
Nebraska	77,678	19,667	58,011	10,577	47,434
Nevada	6,859	1,095	5,764	1,477	4,287
New Hampshire	26,760	7,401	19,359	5,562	13,797
New Jersey	274,021	118,117	155,904	36,363	119,541
New Mexico	13,504	2,458	11,046	3,091	7,955
New York	1,411,089	815,208	595,881	117,057	478,824
North Carolina	177,371	131,209	46,162	9,933	36,229
North Dakota	33,426	4,068	29,358	4,847	24,511
Ohio	463,248	212,229	251,019	41,040	209,979
Oklahoma	78,507	25,433	53,074	6,715	46,359
Oregon	62,889	21,487	41,402	12,910	28,492
Pennsylvania	666,656	366,574	300,082	67,189	232,893
Rhode Island	61,837	37,836	24,001	6,438	17,563
South Carolina	40,611	17,191	23,420	6,999	16,421
South Dakota	36,580	4,735	31,845	4,289	27,556
Tennessee	72,626	29,714	42,912	10,121	32,791
Texas	177,427	68,457	108,970	30,210	78,760
Utah	23,719	6,685	17,034	5,067	11,967
Vermont	17,386	5,334	12,052	3,946	8,106
Virginia	101,099	54,481	46,618	18,288	28,330
Washington	97,067	28,291	68,776	17,887	50,889
West Virginia	80,804	38,510	42,294	9,600	32,694
Wisconsin	183,831	59,491	124,340	26,170	98,170
Wyoming	11,252	2,762	8,490	2,248	6,242
Total	\$7,559,360	\$3,543,741	\$4,015,619	\$858,142	\$3,157,477

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TABLE 37: VOLUME OF TAX COLLECTIONS DISTRIBUTED BY STATES, FISCAL YEAR 1924

(National Industrial Conference Board)

State	Combined Federal State and Local Taxes (thousands)	Federal Taxes (thousands)	Combined State and Local Taxes (thousands)	State Taxes (thousands)	Local Taxes (thousands)
Alabama.....	\$54,815	\$21,843	\$32,972	\$11,399	\$21,573
Arizona.....	23,850	4,061	19,789	5,216	14,573
Arkansas.....	42,112	15,573	26,539	11,041	15,498
California.....	402,989	148,209	254,780	49,607	205,173
Colorado.....	71,311	20,168	51,143	10,631	40,512
Connecticut.....	112,164	44,394	67,770	20,143	47,627
Delaware.....	21,432	11,950	9,482	4,896	4,586
District of Columbia.....	44,439	29,931	14,508	..	14,508
Florida.....	71,995	21,594	50,401	11,541	38,860
Georgia.....	79,195	34,090	45,105	13,510	31,595
Idaho.....	25,883	4,340	21,543	3,737	17,806
Illinois.....	528,424	248,676	279,748	42,296	237,452
Indiana.....	198,515	60,726	137,789	26,794	110,995
Iowa.....	148,863	29,865	118,998	22,968	96,030
Kansas.....	111,249	29,614	81,635	10,773	70,862
Kentucky.....	93,430	40,775	52,655	15,038	37,617
Louisiana.....	89,664	29,612	60,052	17,175	42,877
Maine.....	50,077	17,790	32,287	11,691	20,596
Maryland.....	97,048	41,836	55,212	14,096	41,116
Massachusetts.....	393,568	158,654	234,914	37,553	197,361
Michigan.....	447,857	241,338	206,519	45,236	161,283
Minnesota.....	190,250	44,043	146,207	41,963	104,244
Mississippi.....	55,228	13,788	41,440	8,912	32,528
Missouri.....	185,715	85,836	99,879	17,820	82,059
Montana.....	33,931	6,038	27,893	3,489	24,404
Nebraska.....	73,153	17,415	55,738	7,390	48,348
Nevada.....	7,349	1,142	6,207	1,846	4,361
New Hampshire.....	27,236	8,021	19,215	5,232	13,983
New Jersey.....	337,120	129,173	207,947	47,089	160,858
New Mexico.....	12,596	2,982	9,614	2,290	7,324
New York.....	1,414,607	744,144	670,463	139,563	530,900
North Carolina.....	227,738	171,367	56,371	14,005	42,366
North Dakota.....	36,883	4,456	32,427	6,007	26,420
Ohio.....	454,278	184,093	270,185	36,766	233,419
Oklahoma.....	91,038	24,333	66,705	9,619	57,086
Oregon.....	66,403	14,606	51,797	15,440	36,357
Pennsylvania.....	667,362	315,003	352,359	87,530	264,829
Rhode Island.....	50,450	23,467	26,983	6,970	20,013
South Carolina.....	47,804	17,609	30,195	9,029	21,166
South Dakota.....	42,154	5,238	36,916	7,009	29,907
Tennessee.....	78,974	30,503	48,471	13,303	35,168
Texas.....	201,564	61,535	140,029	46,856	93,173
Utah.....	27,850	6,471	21,379	7,750	13,629
Vermont.....	20,191	5,338	14,853	5,011	9,842
Virginia.....	112,410	57,925	54,485	21,344	33,141
Washington.....	106,371	26,167	80,204	25,811	54,393
West Virginia.....	83,949	27,644	56,305	13,030	43,275
Wisconsin.....	192,352	54,084	138,268	28,360	109,908
Wyoming.....	15,403	3,154	12,249	2,685	9,564
Total.....	\$7,969,239	\$3,340,614	\$4,628,625	\$1,017,460	\$3,611,165

DISTRIBUTION OF TAX COLLECTIONS 101

TABLE 38: VOLUME OF TAX COLLECTIONS DISTRIBUTED BY STATES, FISCAL YEAR 1925

State	Combined Federal, State and Local Taxes (thousands)	Federal Taxes (thousands)	Combined State and Local Taxes (thousands)	State Taxes (thousands)	Local Taxes (thousands)
Alabama.....	\$56,525	\$21,467	\$35,058	\$12,091	\$22,967
Arizona.....	22,450	3,707	18,743	4,819	13,924
Arkansas.....	43,564	14,382	29,182	14,078	15,104
California.....	436,111	141,476	294,635	62,681	231,954
Colorado.....	70,819	19,192	51,627	10,594	41,033
Connecticut.....	118,994	44,434	74,560	22,677	51,883
Delaware.....	19,037	9,460	9,577	4,870	4,707
District of Columbia.....	34,518	16,868	17,650	..	17,650
Florida.....	85,171	26,798	58,373	12,864	45,509
Georgia.....	78,337	30,117	48,220	15,175	33,045
Idaho.....	25,999	4,158	21,841	3,815	18,026
Illinois.....	526,859	235,824	291,035	48,518	242,517
Indiana.....	197,414	53,363	144,051	30,070	113,981
Iowa.....	145,934	25,318	120,616	25,199	95,417
Kansas.....	109,035	26,171	82,864	10,884	71,980
Kentucky.....	100,113	40,338	59,775	18,547	41,228
Louisiana.....	90,678	26,389	64,289	18,208	46,081
Maine.....	45,379	12,736	32,643	12,134	20,509
Maryland.....	95,335	38,557	56,778	15,281	41,497
Massachusetts.....	388,350	138,871	249,479	37,959	211,520
Michigan.....	435,721	216,048	219,673	49,300	170,373
Minnesota.....	182,437	40,496	141,941	39,055	102,886
Mississippi.....	65,730	12,723	53,007	9,998	43,009
Missouri.....	194,731	78,343	116,388	25,383	91,005
Montana.....	32,709	5,617	27,092	3,691	23,401
Nebraska.....	70,511	14,092	56,419	7,210	49,209
Nevada.....	7,470	992	6,478	1,937	4,541
New Hampshire.....	26,797	6,648	20,149	5,761	14,388
New Jersey.....	354,933	127,335	227,598	51,322	176,276
New Mexico.....	13,066	2,703	10,363	2,471	7,892
New York.....	1,421,747	712,248	709,499	152,401	557,098
North Carolina.....	249,049	180,430	68,619	19,281	49,338
North Dakota.....	36,178	4,048	32,130	6,904	25,226
Ohio.....	451,356	173,376	277,980	31,648	246,332
Oklahoma.....	92,712	22,559	70,153	14,620	55,533
Oregon.....	67,258	12,354	54,904	15,979	38,925
Pennsylvania.....	670,553	292,052	378,501	91,336	287,165
Rhode Island.....	48,198	19,615	28,583	7,429	21,154
South Carolina.....	53,887	15,298	38,589	13,623	24,966
South Dakota.....	41,705	4,478	37,227	7,504	29,723
Tennessee.....	79,922	28,764	51,158	14,349	36,809
Texas.....	210,335	59,568	150,767	50,933	99,834
Utah.....	27,187	6,551	20,636	6,928	13,708
Vermont.....	20,273	5,053	15,220	5,194	10,026
Virginia.....	118,864	60,577	58,287	23,519	34,768
Washington.....	101,663	22,160	79,503	24,358	55,145
West Virginia.....	82,673	24,293	58,380	13,899	44,481
Wisconsin.....	193,564	49,827	143,737	28,345	115,392
Wyoming.....	14,542	2,775	11,767	2,528	9,239
Total.....	\$8,056,393	\$3,130,649	\$4,925,744	\$1,107,370	\$3,818,374

CHAPTER V

SOCIAL AND ECONOMIC DISTRIBUTION OF TAX BURDENS

PRESUMABLY, tax revenues cover the cost of those governmental functions which benefit, not specific individuals or groups, but society as a whole. The modern fiscal ideal is to distribute the burden of these taxes among individuals and groups as nearly as possible in proportion to their economic ability.

The ideal can be achieved only by a practical and comprehensive understanding of the facts of the social distribution of the tax burden. The time for a comprehensive statement of the distribution of tax burdens, however, is not yet arrived. Much detailed and painstaking research must be done before this goal is even approached. The best program for the immediate present is careful, inductive research into those fields of public finance where the need for factual information is greatest, even though they be unrelated to each other. In the following pages several of these fields are explored.

THE TAX BURDEN ON AGRICULTURE

During 1925-26, the farmers of the country paid \$890 millions in direct taxes.¹ Less than \$7.5 millions of the \$890 millions of direct taxes paid by the farmers represented payments of federal income taxes.² The remaining \$882.5 millions or more were for state and local taxes. This amount represented about 17% of the \$5,292 millions of state and local taxes collected during the same year.

General Increase of Farm Taxes

During 1919, the farmers of the country paid \$621 millions in taxes.³ A year later they paid \$750 millions. In 1921-22

¹ U. S. Department of Agriculture, "Crops and Markets," July, 1926.

² Agricultural corporations paid six and one-half million dollars of federal income taxes for the calendar year 1924. In 1923, only \$44 millions of net farm income were reported by individuals on their federal tax schedules.

³ National Industrial Conference Board, "The Agricultural Problem in the United States, 1926," pp. 56, 57.

the figure rose to \$848 millions. The next year saw a slight easing of the farm tax burden, but in 1923-24 the high mark for farm taxes of \$892 millions was reached, while very slight decreases occurred in the next two years.¹

Statistics gathered by the United States Department of Agriculture on operator-owned farms show a similar increase in the amount of farm taxes paid.² In 1919-20 the taxes on such farms amounted to \$388 millions. In the next year they totalled \$545 millions. By 1922-23 they had increased to \$617 millions. In 1924-25 they amounted to \$635 millions. An equal amount was paid in 1925-26.

During the period 1919 to 1924-25, the amount of direct taxes, mostly state and local, paid by farmers increased 43.5%. This increase of farm taxes was not a post-war phenomenon. Prior to 1919 there had also been long periods of increasing farm taxes. In 1909, the farmers of the country paid \$225 millions in taxes,³ while ten years later their tax bill was \$621 millions. In the crop year 1913-14 the average of state and local farm taxes per acre was \$0.314; in the crop year 1921-22 it was \$0.709.⁴

Increase of Farm Taxes in Selected States

Index numbers of farm taxes per acre for ten states are shown in Table 39. For each state or section of a state, the farm taxes per acre in 1919 have been chosen as the basis of comparison; that is, the farm taxes per acre during the period covered have been calculated as percentages of the 1919 figure,⁵ which is taken as 100. A comparison of the figures shows that, while farm taxes have not increased uniformly in all states, in most of the states there has been some, and usually a very decided, increase. In Iowa, the amount of taxes collected from the farmers in 1910 was less than 33%

¹ These figures represented the taxes paid by farmers. The amount of taxes charged against them was much greater, particularly during the years 1920 through 1922. See Kansas Agricultural Experiment Station, Bulletin 234, p. 19.

² U. S. Department of Agriculture, "Crops and Markets," Vol. III, Supp. 7, p. 229.

³ National Industrial Conference Board, "The Agricultural Problem," p. 56.

⁴ U. S. Department of Agriculture, "Weather, Crops and Markets," March 17, 1923, p. 251.

⁵ This year 1919 was a boom year for agriculture, and hence somewhat misleading as a base, but it is the one year for which statistics of taxation are available for all the states considered in this connection.

of the amount collected in 1919. In Illinois and in Missouri, the 1910 farm taxes amounted to about 40% of those collected in 1919. In Kansas and in Ohio, the 1910 farm taxes were slightly over 50% of the 1919 farm taxes. In practically every state for which data are available, the 1920, 1921 and 1922 farm taxes exceeded those of 1919. In 1923, farm taxes increased in some states and declined in others, but the figure in Table 40 shows that for the country as a whole the decreases outweighed the increases. In 1924, farm taxes increased again, but in 1925 and 1926 the farmers paid less in taxes than in 1924, indicating that a check, at least of a temporary nature, had been placed on the rise of farm taxes.

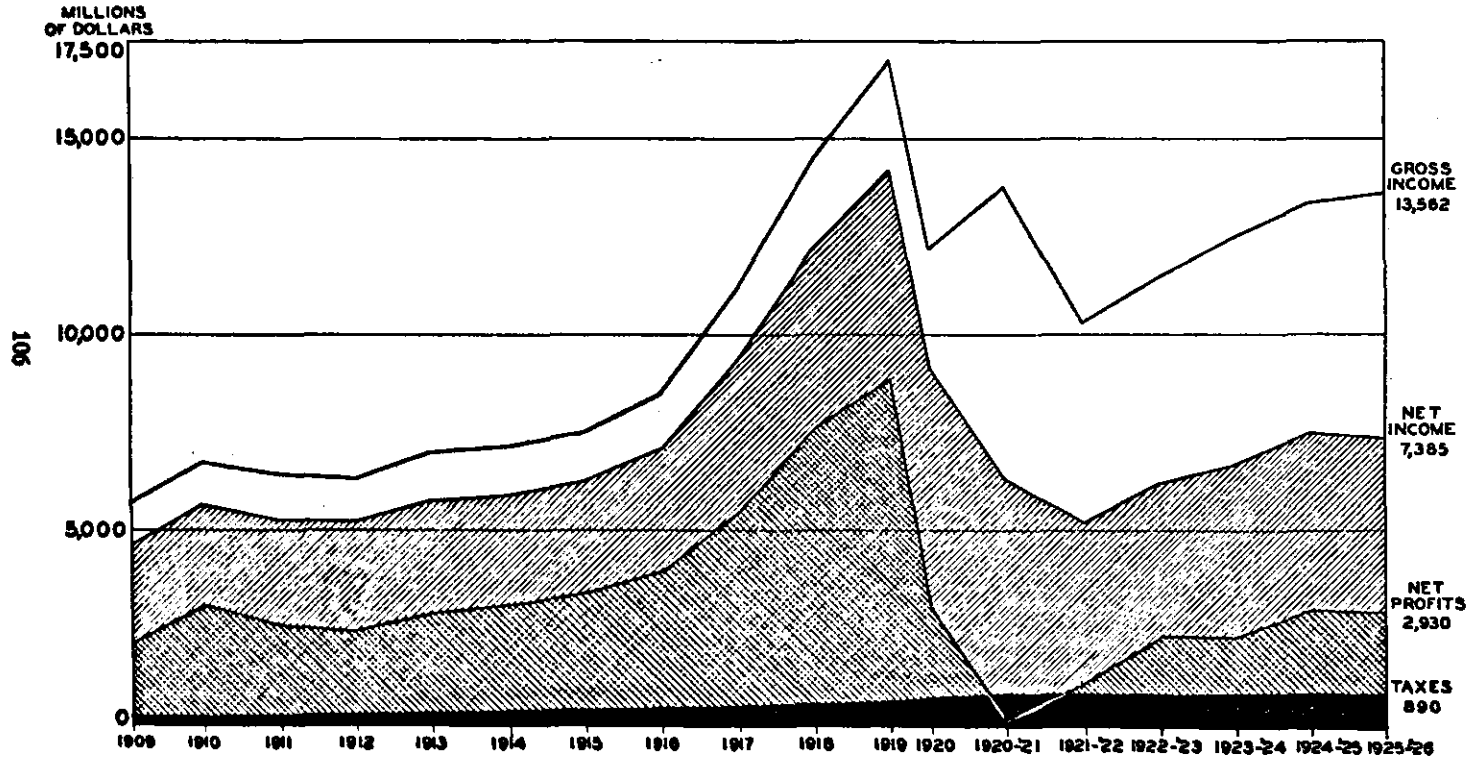
Relation of Farm Taxes and Farm Income

Taxes are felt as a burden only in relation to other factors. The most important of these conditioning factors is income. As between two individuals, one with a small income and the other with a large income, a tax of a given amount is a much heavier burden to the former. If an individual enjoys a large income in one year and a small income in another year, a tax of a given amount constitutes a heavier burden to him in his less prosperous period. The proportion of the farmer's income which is absorbed by his taxes constitutes the crux of the farm tax problem.

From the beginning of the present century through the crop year 1919-20, the farmers of the country enjoyed an income that increased steadily from year to year. A significant political reflection of this economic circumstance was the disappearance of the radical agrarian movements which had troubled the politics of the last years of the nineteenth century and which rose into prominence again in the present decade when the farmer once more faced "hard times." Taxes increased during the first two decades of the twentieth century, but the farm income kept pace with the increase in taxes. In fact, during the three years 1917, 1918 and 1919, the increase in the income far outstripped that in farm taxes.

Since 1920, the tale has been different. The farmer's income has been cut to less than one-half of what he enjoyed during

CHART 10: FARM INCOME AND FARM TAXES, UNITED STATES, 1909 TO 1925-26
 (National Industrial Conference Board)



the prosperous years of the war. His taxes, however, have continued to increase. Tax payments which were hardly felt in 1919 became a crushing burden in 1922. It is this absence of correlation between farm income and farm taxes which constitutes the "farm tax problem."

The data on incomes and taxes for all farms are shown in Table 40 and Chart 10 and for operator-owned farms in Table 41. The gross income¹ of the farmers of the country increased from \$5,647 millions in 1909 to \$7,473 millions in 1915. Costs of production also rose during this period, but the net income² and the net profits³ showed a gratifying increase. Taxes, however, increased even more rapidly. Whereas 4.9% of the net farm income was absorbed by taxes in 1909, the proportion in 1915 was 6.4%. In 1909, farm taxes amounted to 11% of the farmers' net profits, as against 11.7% in 1915. In 1919, the gross farm income was nearly seventeen billion dollars, while the net farm income exceeded fourteen billions of dollars. Despite their very material increase during the intervening years, 1915 to 1919, the taxes paid by the farmers in 1919 represented only 4.4% of their net income and only 7% of their net profit; that is, less than in 1909.

In the two crop years, 1920-21 and 1921-22, the situation was entirely different. The expenses of raising a large crop in 1920-21 that was marketed at extremely low prices left the farmers with a net income of only \$6,269 millions, while their net profits amounted to only \$138 millions. The \$806 millions in taxes paid in this year took nearly 13% of the net farm income. Agricultural production was reduced in 1921-22; and although the gross farm income in that year declined by

¹ *Gross farm income*, as the term is used in the text of this study and in Table 40 and later tables, includes, among other items, the rental value of farm homes. The calculation of the amount of this item was based on estimate of the United States Department of Agriculture that the rental value of farm residences averaged \$180 per farm in 1924-25. This figure is probably too high; thus an element of over-statement runs throughout the series of figures for gross farm income in Table 40 and in the text.

² *Net farm income* represents gross farm income minus all expenses of production (including interest on indebtedness and rent paid to non-operators) before deduction of taxes.

³ *Net farm profits* represent net farm income minus the value of the labor put into production by the farmer and his family before deduction of taxes. The calculated value of the farmer's labor is based on the wage scale for agricultural help.

TABLE 40: FARM TAXES AND FARM INCOME IN THE UNITED STATES, 1909 TO 1925-26

(Source: National Industrial Conference Board, "The Agricultural Problem in the United States," pp. 56-57)

	Calendar Years												Crop Years					
	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26
Gross income.....	Millions \$5,647	Millions \$6,757	Millions \$6,418	Millions \$6,338	Millions \$6,985	Millions \$7,157	Millions \$7,473	Millions \$8,461	Millions \$11,190	Millions \$14,463	Millions \$16,947	Millions \$12,186	Millions \$13,750	Millions \$10,313	Millions \$11,449	Millions \$12,453	Millions \$13,324	Millions \$13,562
Net income before deduction of taxes.....	4,611	5,657	5,258	5,172	5,750	5,923	6,241	7,062	9,346	12,181	14,171	9,144	6,269	5,180	6,218	6,707	7,455	7,385
Net profits before deduction of taxes.....	2,069	3,096	2,572	2,406	2,910	3,119	3,408	3,974	5,538	7,581	8,857	3,013	138	1,091	2,273	2,279	2,982	2,930
Taxes.....	225	240	260	285	315	350	400	450	500	550	621	750	806	848	834	892	891	890
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Taxes as proportion of gross income.....	4.0	3.6	4.1	4.5	4.5	4.9	5.4	5.3	4.5	3.8	3.7	6.2	5.9	8.2	7.3	7.2	6.7	6.6
Taxes as proportion of net income before deduction of taxes.....	4.9	4.2	4.9	5.5	5.5	5.9	6.4	6.4	5.3	4.5	4.4	8.2	12.9	16.4	13.4	13.3	12.0	12.1
Taxes as proportion of net profits before deduction of taxes.....	10.9	7.8	10.1	11.8	10.8	11.2	11.7	11.3	9.0	7.3	7.0	24.9	584.1	77.7	36.7	39.1	29.9	30.4

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TABLE 41: FARM TAXES AND FARM INCOME FOR OPERATOR-OWNED FARMS IN THE UNITED STATES, 1919-20 TO 1925-26

(Source: U. S. Department of Agriculture, "Crops and Markets," Vol. III, Supp. No. 7)

	1919-20	1920-21	1921-22	1922-23	1923-24	1924-25	1925-26
Gross income.....	Millions \$15,719	Millions \$12,668	Millions \$9,214	Millions \$10,366	Millions \$11,288	Millions \$12,003	Millions \$12,415
Net income before deduction of taxes.....	8,422	4,951	3,879	4,981	5,516	6,079	6,238
Net cash income ¹ before deduction of taxes.....	5,535	2,306	1,750	2,813	3,156	3,752	3,714
Taxes.....	388	545	582	617	626	635	635
	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent	Per cent
Taxes as proportion of gross income.....	2.5	4.3	6.3	6.0	5.5	5.3	5.1
Taxes as proportion of net income as above.....	4.6	11.0	15.0	12.4	11.3	10.4	10.2
Taxes as proportion of net cash income as above.....	7.0	23.6	33.3	21.9	19.8	16.9	17.1

¹ Net income minus value of farm produce consumed on the farms.

nearly three and one-half billion dollars, the cutting down of the expenses of production held the decline of net income to about one billion dollars. A minimum of labor was put into production by the farmers and their families in 1921-22, so that the reduced allowance for this factor actually resulted in an increase of the net farm profits over the preceding year. The \$848 millions of taxes paid in this year by the farmers consumed 16.4% of the net farm income and 77.7% of the net farm profits.

Since 1921-22, there has been an improvement in the farmer's economic position, as measured by his gross income, his net income and his net profits. At the same time, as indicated above, there has been a check to the increase of farm taxes. In 1924-25 and in 1925-26, taxes paid by the farmers represented 12% of their net farm income and about 30% of their net profits.

Farm Taxes and Farm Income in Selected States

The differences between states and districts in the relative burdens of farm taxes are great. In 1919, the United States Department of Agriculture made a survey of farm taxes and farm rents in thirty-one counties located in twenty-six states. It found that the proportion of farm taxes to farm rents varied from 5% in South Hampton County, Virginia, to 65% in Chester County, Pennsylvania.¹ In the North Central states, the proportion ranged from 11.7% to 38%; in the southern states, from 5.6% to 29.2%; and in the western states, from 9.8% to 37.8%. In 1924, as indicated in Table 42, the proportion of taxes to gross income of farmers varied from 5.8% in the North Atlantic states to 10.1% in the East North Central states, and the proportion of taxes to net income varied from 12.1% in the South Central states to 18.3% in the western states. In 1925, farm taxes as a proportion of gross income ranged from 5.7% in the North Atlantic states to 9% in the East North Central states, and as a proportion of net income, from 11.6% in the North Atlantic states to 16.3% in the western states.

The proportion of farm cash rents or of farm income absorbed by farm taxes over a period of years in nine states—Colorado,

¹ U. S. Department of Agriculture, "Agriculture Yearbook, 1924," p. 266.

TABLE 42: TAXES AND INCOME ON THE AVERAGE FARM, BY GEOGRAPHIC DIVISIONS, 1923 TO 1925

(Source: United States Department of Agriculture, Crops and Markets, Vol. III, Supp. 7, p. 230)

	United States			North Atlantic		East North Central		West North Central		South Atlantic		South Central		Western	
	1923	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925	1924	1925
Gross income.....	Millions \$2,240	Millions \$2,434	Millions \$2,551	Millions \$2,856	Millions \$2,884	Millions \$2,275	Millions \$2,485	Millions \$2,961	Millions \$3,174	Millions \$1,689	Millions \$1,642	Millions \$1,876	Millions \$1,740	Millions \$3,179	Millions \$3,718
Net income before deduction of taxes.....	1,115	1,252	1,323	1,216	1,408	1,295	1,411	1,498	1,599	867	891	1,145	998	1,388	1,665
Net profits before deduction of taxes.....	245	463	530	304	465	473	543	407	651	367	390	629	454	419	671
Taxes.....	190	192	191	167	164	230	223	239	246	122	119	138	122	254	271
	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent	Per Cent
Taxes as proportion of gross income.....	8.5	7.9	7.5	5.8	5.7	10.1	9.0	8.1	7.8	7.2	7.2	7.4	7.0	8.0	7.3
Taxes as proportion of net income before deduction of taxes.....	17.0	15.3	14.4	13.7	11.6	17.8	15.8	16.0	15.4	14.1	13.4	12.1	12.2	18.3	16.3
Taxes as proportion of net profits before deduction of taxes.....	77.6	41.5	36.0	54.9	35.3	48.6	41.1	58.7	37.8	33.2	30.5	21.9	26.9	60.6	40.4

Illinois, Indiana, Iowa, Michigan, Missouri, North Dakota, Ohio and Wisconsin—is shown in Table 43. The proportion of net farm rent absorbed by farm taxes in 1919 varied from 10.1% in Missouri to 40.2% in the Detroit section of Michigan. During 1921 and 1922, farm taxes were greater than the cash rents received for farms in northern Michigan, leaving a sizable deficit for that period. In other parts of the state and in parts of North Dakota, over 60% of the amounts of cash rent received was absorbed by farm taxes. As late as 1923, taxes took 88.4% of cash rents in Wells County, North Dakota.

In those states where an estimate of farm income has been made—in Ohio, Indiana, Illinois, Iowa, Missouri and in Wisconsin—farm taxes in 1919 absorbed from 6% to 9% of the farmers' net income. During the next three years, the income of the farmers in these states decreased markedly while the taxes increased. From 40% to 85% of the net income received by the farmers in 1922 went to pay taxes.

As was noted above, in 1924 and 1925 the increase of farm taxes in many states was stopped. These years witnessed marked improvement in the farmer's economic position. As late as 1925, however, he was still paying from one-fifth to one-sixth of his net income in taxes.

Relation of the Property Tax to the Farm Tax Burden

Practically the only direct state and local tax paid by farmers is the property tax. Twelve states¹ tax personal income, but farmers do not have to report farm produce consumed on the farm and are taxed only on net *cash* income. In the great majority of cases farmers pay little or no income tax, since the personal exemption allowed exceeds their cash income. The circumstances of the property tax, therefore, are a major factor of the farm tax problem.

The present property taxes of the states, in so far as they are levied on farm property, are proportional taxes. The tax collected from the farmer is in proportion to the value of his land and his personal property. In a few states there

¹ Delaware, Massachusetts, Mississippi, Missouri, New York, North Carolina, North Dakota, Oklahoma, South Carolina, Virginia and Wisconsin. New Hampshire levies a tax on income from intangibles only. See National Industrial Conference Board, "The Fiscal Problem in Illinois," 1927, pp. 191, 203 ff.

TABLE 43: RATIO OF TAXES TO CASH RENT AND FARM INCOME IN SELECTED STATES

(National Industrial Conference Board)

Year	Farm Taxes as Percentage of Cash Rent in												Farm Taxes as Percentage of Net Income and Net Profits in													
	Colorado ¹	Indiana ²	Michigan ³							Missouri ⁴	North Dakota ⁵			Ohio ⁶	Illinois ⁷		Indiana ⁸	Iowa ⁹		Missouri ¹⁰		Ohio ¹¹	Wisconsin ¹² (Dane City)			
			Detroit	Thumb	South	East Central	Central	West	Upper		Trail	Wells	Kettlinger		Net Income	Net Profit		Net Returns	Net Income	Net Profit	Net Income			Net Profit	Net Profit	Net Income
1910	6.5	8.0	..	5.8	7.6	7.6	9.7	..	..			
1911	9.3	12.0	..	6.6	9.1	8.8	11.8	..	..			
1912	9.9	12.6	..	7.2	10.0	10.4	14.0	..	..			
1913	17.1	17.1	..	7.7	10.3	11.7	16.6	..	12.3					
1914	21.4	13.2	16.5	..	8.9	12.1	11.7	15.6	..	13.9				
1915	26.9	14.0	17.3	..	10.5	14.2	13.0	18.0	13.8	..				
1916	26.3	14.0	16.6	..	12.6	16.9	15.6	23.7	..	..		
1917	28.9	11.6	12.7	..	8.0	9.1	12.6	15.1	..	..		
1918	32.2	6.7	7.3	..	4.2	4.6	6.7	8.1	8.5	6.7				
1919	23	12.7	40.2	39.8	25.4	24.7	30.1	27.3	37.5	10.1	14.0	18.3	..	31.1	6.4	7.5	..	6.5	7.5	7.8	10.0	..	9.0			
1920	..	23.1	42.7	59.2	51.1	50.9	50.2	46.6	114.4	11.7	49.6	44.6	..	34.0	9.0	11.7	23.9	9.9	12.7	9.8	14.1	..	..	
1921	..	39.1	69.4	63.3	59.9	83.6	53.7	62.7	120.3	19.2	65.2	55.6	71.6	37.8	17.1	21.6	41.5	23.9	60.1	26.7	33.9	30.5	..			
1922	..	45.1	61.8	57.3	52.3	45.4	59.0	62.8	152.6	18.6	60.2	45.8	25.0	41.0	47.0	79.7	47.5	54.7	88.5	84.9	137.9	..	..	
1923	38	..	65.6	65.9	75.3	52.0	76.1	75.4	132.5	*20.1	53.2	88.4	44.8	..	28.1	44.8	39.6	26.4	30.7	36.0	50.6	..	19.1			
1924	61.1	57.8	63.4	44.8	68.4	60.5	86.7	17.1	26.2	42.4	..	29.9	40.0	34.2	46.5	16.2	22.5			
1925	33	..	51.3	65.6	51.8	46.6	57.7	52.9	94.6	..	14.1	17.7	19.5	..	20.8	29.4	..	23.0	28.4	27.5	34.5			

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¹ Data from U. S. Department of Agriculture, press release March 10, 1927.
² Data from C. O. Brannon, "Taxes in Relation to Earnings of Farm Real Estate," in *Annals of Amer. Ac. of Pol. Soc. Sc.*, CXVII, p. 41.
³ Data from U. S. Department of Agriculture, press releases.
⁴ Data from C. O. Brannon, *op. cit.*
⁵ Data from North Dakota Agriculture College Experimental Station, Bulletin 203, p. 15.
⁶ Data from U. S. Department of Agriculture, "Taxation of Farm Real Estate in Indiana," 1919, p. 9.
⁷ Data from Interstate Commerce Commission, Docket 17,000, *Ex parte* 87.
⁸ Data from U. S. Department of Agriculture, "Agriculture Year Book, 1924."
⁹ Data from Interstate Commerce Commission, *op. cit.*
¹⁰ Data from Interstate Commerce Commission, *op. cit.*
¹¹ Data from Ohio Agriculture Experimental Station, *Bimonthly Bulletin*, Volume XX, No. 2, p. 85.
¹² Data from University of Wisconsin, Agriculture Experimental Station, Bulletin 393, p. 18.
^{*} Upper figure—four southern counties; lower figure—twenty-three northwestern counties: University of Missouri, Agriculture Experimental Station, "Taxation of Farms in Missouri," pp. 4, 5.

products is set in a world market where the farmer must compete with the low-cost crops of the newly cultivated areas of Canada and South America. In the United States there has been an extensive settlement in regions of low-grade soils or in regions poorly supplied with transportation facilities. The returns from cultivation in these sections of the country can barely support the cultivator and his family, and yield little or no return on the investment. Economic inertia and sentiment continue to keep these areas under cultivation. The land thus continues to have a certain value, particularly in the assessor's eye, but its income is barely sufficient to cover the expenses of the cultivator. Moreover, agriculture is sensitive to the stimulus of high prices, and increases of the area under cultivation follow immediately after a prosperous crop year. It is a more difficult matter to reduce the area under cultivation in periods of agricultural depression. Consequently, there are frequent periods of agricultural overproduction with accompanying low profits and only rarely periods of underproduction with corresponding high profits. Finally, the relative immobility of agricultural capital should be taken into consideration. There is, in general, a constant flow of industrial capital from low-profit into higher-profit enterprises. Until recent years, the only alternative investment known to the farmer was farm mortgages, which normally do not bear a particularly high rate of interest. Even though the return on the farmer's capital invested in land might be low, he hesitated to invest it otherwise. Any surplus over his living needs was "dug into the soil," regardless of the rate of return.

This tendency of farm profits to remain at a low ratio as regards farm values was augmented during the first two decades of the present century by two additional factors. In the first place, during the greater part of this period the rate of interest on farm mortgages was declining. There was thus less and less of a tendency for this type of investment to draw any capital away from land. In the second place, the income of the average farmer increased steadily throughout this period, and particularly during the years of the World War. It is not surprising that after a long period of prosperity the farmer came to believe that a regular increase of

his income was one of the immutable laws of nature. He capitalized the further increases which he anticipated and added them to the value of his property. By 1920, a considerable proportion of the assessed value of his property, on which his taxes were based, was speculative,¹ and he was paying taxes on a value which did not represent income received at the time or could not be justified by the income later.

Because the ratio of farm income to property value is thus persistently below the ratio of return on other property and because the taxes paid by the farmer are based on his property value and not upon his income, he has to pay taxes which represent a larger proportion of his income, as compared with other economic groups.

Incidence of Farm Taxes

In general, the farmer can not shift the taxes laid upon him. He is producing more than sufficient to supply the needs of the country. The surplus of his produce is marketed abroad, where it must compete with the produce from a number of countries where agricultural costs of production are lower than in the United States. Up to the present, this surplus has determined, for the more important crops, the price which the farmer received for his whole crop. Demand factors determine his price, and not supply factors over which he can exercise a degree of control. The farmer can not add the amount of his tax to the price of his products, because the determination of this price is not in his hands.

It is argued that the excess of farm taxes over the general tax level is shifted through capitalization. That is to say, when a man buys a farm, he takes into consideration the proportion of his income that will be absorbed by taxes and makes an allowance for this in the price he is willing to pay. He thus starts out no more heavily burdened than individuals engaged in other business activities. A more accurate way of

¹It has been estimated that in 1920 the following proportions of farm land values in different parts of the country represented speculative capitalization of anticipated increases of farm income: Iowa, 55%; Southern Ohio, 47.7%; Southern Wisconsin 46.9%; Eastern Nebraska and South Dakota, 61.4%; North Central Illinois, 51.8%; Southern Minnesota, 63.3%. See C. R. Chambers, "Farm Land Income and Farm Land Values," in *American Economic Review*, Vol. XIV, p. 683.

presenting the situation would be to say that each new tax increase, in excess of the rate of taxation on other economic groups, is immediately capitalized into a lower value of farm property. There are two alternative views of the increase in farm taxes. It may be considered as an addition to the annual payments the farmer is called upon to make out of his income, or it may be looked upon as a lump deduction from the value of his property at the time of levy, thus discounting any additional tax burden in future years. In the latter case he feels the effect of the increased levy when he seeks to sell his property. One way or the other, however, it is very definitely a burden upon the farmer.

Farm Tax Relief

It should be realized, in the first place, that the crisis of the farm tax problem appears to be past. There has been a slow but persistent increase of gross and net farm income since 1922. Tax rates have continued to rise in most states; but, as farm values have declined since 1920, the assessments based upon these values have also been reduced. As a result, the amount of taxes which the farmers have had to pay since 1920 has not increased as rapidly as in earlier years.

It can not be denied, however, that in the past the farmers of the country have had a heavier tax burden to bear, in view of the circumstances of their occupation, than other economic groups. As long as the general property tax is the predominant element in the tax system of the United States, this condition must necessarily persist.

The local governments are almost exclusively dependent for their revenue on the general property tax. For administrative reasons, this situation is not likely to change in the near future. State governments, on the other hand, can develop other sources of revenue. The prerequisite in any program of farm tax relief, then, it is claimed, would be to shift some of the functions hitherto exercised by the local governments—such as education, road construction and maintenance, and social welfare—to the state governments. An alternative method would be to further develop systems of state aid or of the distribution of state-collected taxes among the localities, so as to relieve their revenue demands.

Were either of these programs put into effect the tax levies of the local governments could be cut down, provided the states did not raise the additional revenue from the general property tax but from other sources, such as inheritance, income and business taxes. Finally, the heavy burden which general property taxation places upon the farmers could be somewhat mitigated by such tax reforms as classification, which would derive a larger proportion of the revenue raised from classes of property other than farm realty, even though it gave legislative sanction to lower rates on intangibles and other non-farm property.

It should be realized that effecting farm tax relief by any of these methods would shift a portion of the farmer's tax burden to other economic groups, particularly to business enterprise. Therefore, only to the extent that the farmer is consistently overtaxed should any such program of relief be entered upon. The farm tax problem resulting from stable taxes and unstable income must be approached from another angle—that of stabilization of farm income. It is an economic, not a fiscal, problem.

CORPORATION TAX PAYMENTS

As a legal entity, a corporation can own property, make profits and accumulate surpluses, and as such is subject to taxes. From the economist's point of view, however, a corporation is only a means to an end. It is an instrument utilized by individuals to make a profit through industrial or commercial processes. Individuals hold the title to the corporation and, hence, indirectly its property and earnings belong to them. The taxes paid by the corporation represent, in whole or in part, deductions from the profit (or dividends, plus accumulation of surplus) which the holders of the title would otherwise receive from it.

Because the great majority of corporations are business instruments, the taxes they pay have the characteristics of business taxes. The most important of these is that a considerable proportion of the taxes paid by corporate bodies is eventually shifted to the consumers of their products. Some of these taxes are definitely added to the prices, and gross

receipts are thereby increased by the amount of such taxes. To the extent that this shifting of taxes occurs, any relationship of total taxes paid to income or to profits is not a satisfactory measure of the ultimate burden of corporation taxes on the shareholders of the corporation.

For a complete analysis of the burden of corporation taxes upon shareholders it would be necessary statistically to determine the conditions of the incidence of the corporation taxes. This problem will not be approached in the following pages. The figures for corporate tax payments, however, are valid for comparisons from year to year, and for limited comparisons as to the relative severity of the taxes as between industries or between states. Such estimate of the distribution of corporation tax burdens among shareholders of various income classes as is made in this chapter is largely hypothetical. It is not offered as a statement of fact, but as an indication of what might obtain.

Corporation Tax Payments by Types of Industry

Table 44 shows the relation of the taxes paid by corporations to their net profits¹ in 1922, 1923, and 1924. In 1924, the net profits (before deduction of taxes) of the corporations of the country were \$8,465 millions. In the same year the corporations paid \$2,551 millions in taxes, or 30.1% of their net profits. In 1923, the proportion of taxes to net profits was 27.8%. In 1921, a year of industrial depression, when gross income, and hence net profits, were exceptionally low, the proportion was 82.7%.

The figures in Table 44, in general, indicate in a striking way the relative extent to which the tax burden may affect the consumer and the enterprise in corporate business as a whole. If all taxes were added to the prices of the goods and services provided, they would add about 2 cents to the average dollar taken in by all corporations combined in 1924. If, on the other hand, they were paid wholly out of earnings, they would absorb over 30% of the net profits of the industries as a whole. Precisely where they fall in practice, of

¹ The net profits of a corporation equal its taxable income plus non-taxable interest from tax-exempt securities and dividends from other corporations. The net profits are thus equivalent to gross income minus business expenses.

TAXES TO NET PROFITS, 1922 TO 1924

(Source: United States Bureau of Internal Revenue)

Industrial Groups	Gross Receipts 1924 (Thousands)	Net Profits 1924 (before Deduction of Taxes) (Thousands)	Taxes, 1924		Per Cent Taxes to Gross Receipts 1924		Per Cent Taxes to Net Profits 1924		Per Cent Total Taxes to Net Profits	
			State and Local Taxes (Thousands)	Federal, State and Local Taxes (Thousands)	State and Local Taxes	Federal, State and Local Taxes	State and Local Taxes	Federal, State and Local Taxes	1923	1922
All Corporations:										
Agriculture and related industries.....	\$810,958	\$27,440	\$18,951	\$26,979	2.34	3.33	69.06	98.32	44.20	85.73
Mining and quarrying.....	4,860,667	104,857	109,628	145,449	2.26	2.99	104.55	138.71	93.25	62.32
Manufacturing.....	53,994,723	3,585,527	480,449	936,183	.89	1.73	13.40	26.11	22.39	25.37
Construction.....	2,213,611	108,550	9,886	24,526	.45	1.11	9.11	22.59	25.24	35.32
Transportation and other public utilities.....	10,206,039	1,902,707	447,978	610,734	4.39	5.98	23.54	32.10	32.98	37.31
Trade.....	35,129,501	1,008,170	153,501	283,652	.44	.81	15.23	28.14	24.73	28.24
Public service, professional amusements, hotels, etc.....	2,633,835	196,659	43,911	67,371	1.67	2.56	22.33	34.26	35.22	39.89
Finance, banking, insurance, etc.....	9,441,666	1,508,447	322,305	447,354	3.41	4.74	21.37	29.66	32.20	31.82
Combinations, predominant industry not ascertainable.....	455,376	22,440	6,063	8,875	1.33	1.95	27.02	39.55	27.36	30.98
Inactive concerns.....	327	40	33	33	10.09	10.09	2	2	2	2
Total.....	\$119,746,703	\$8,464,757	\$1,592,705	\$2,551,156	1.33	2.13	18.82	30.14	27.75	30.75
Corporations Reporting Net Income:										
Agriculture and related industries.....	\$566,633	\$78,280	..	\$17,708	..	3.13	..	22.62	..	..
Mining and quarrying.....	2,598,703	332,061	..	94,324	..	3.63	..	28.41	..	..
Manufacturing.....	45,396,807	4,271,612	..	834,011	..	1.84	..	19.52	..	..
Construction.....	1,787,363	146,167	..	21,352	..	1.19	..	14.61	..	..
Transportation and other public utilities.....	9,124,622	1,950,467	..	556,001	..	6.09	..	28.51	..	..
Trade.....	28,637,561	1,266,135	..	252,926	..	.88	..	19.98	..	..
Public service, professional amusements, hotels, etc.....	2,050,886	249,578	..	56,653	..	2.76	..	22.70	..	..
Finance, banking, insurance, etc.....	7,038,305	1,667,271	..	345,976	..	4.91	..	20.75	..	..
Combinations, predominant industry not ascertainable.....	359,436	34,751	..	6,768	..	1.88	..	19.47
Inactive concerns.....
Total.....	\$97,560,316	\$9,996,322	..	\$2,185,719	..	2.24	..	21.87

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¹ Gross receipts less all authorized deductions except taxes.

² Deficit.

course, can not be determined, for it depends upon the nature of the tax and upon the character of the industry and its competitive position. In 1924, taxes paid by corporations in agriculture and related industries would have been nearly sufficient to wipe out any surplus for dividends or capital extensions for the industry as a whole, while in mining and quarrying taxes exceeded net profits by over 38%.¹ It is to be noted that for this group of industries, the ratio of taxes to net profits increased steadily from 1922 through 1924.

Public Utility Corporation Taxes

If the percentage of gross receipts going for taxes be taken as a measure of relative burdens, it is seen that for all corporations, as well as for those reporting net income, the transportation and public utilities and the finance, banking and insurance groups stand highest. In 1924, 5.98 cents of every dollar taken in by the railroad, telephone and telegraph, electric light and power, gas and electric railway companies went for taxes, and 4.74 cents of every dollar spent for financial, banking and insurance services. It is significant also that taxes in the transportation and public utilities group were equivalent to a larger percentage (28.5%) of the net profits of corporations reporting net income than in any other group.

As is indicated in Table 44, federal income and profits taxes form the smaller part of the taxes paid by corporations, and the proportion of state and local taxes in the total burden is especially large in the case of transportation and other public utilities.

If it were possible to separate the railroads from other public utilities as reported in the "Statistics of Income," the indications are that the relative burden on the latter would appear still higher. This is suggested by the fact that, according to the data of the Interstate Commerce Commission, taxes of Class I railroads in 1924 were 5.49% of the gross receipts. Since this percentage is somewhat below the average shown in the Statistics of Income for transportation

¹ In part, this high ratio of taxes to net profits in the extractive industries has been due to depressive tendencies in this field. A more significant factor in producing this high ratio is the depletion allowance which these industries deduct in determining their taxable income.

and public utilities combined, it is evident that the percentage for the latter group alone would be higher than the average for both.

The following figures of the ratio of taxes to gross receipts of public utilities for 1922 afford a further indication of this fact and may be compared with the corporation data for the same year shown in Table 44.

	Per Cent Taxes to Gross Receipts	Per Cent Taxes to Net Profits
Class I railroads.....	5.17	44.89
Central electric light and power stations	6.88	25.13
Commercial.....	7.41	26.85
Municipal.....	.75	3.04
Electric railways.....	6.18	53.12
Private.....	6.28	54.61
Municipal and state.....	1.76	10.03
Telephone companies.....	7.13	32.62
Telegraph systems.....	4.54	22.41

For gas plants no comprehensive figures are available since the Census of Manufactures of 1919. In that year the total taxes for these plants were 5.74% of the aggregate value of products, as compared with 3.34% for all manufacturing industries. In New York State, according to the Public Service Commission, taxes disbursed by gas companies were 6.87% of the gross receipts in 1922.

Corporation Taxes by States

Table 45 shows the proportion of the net income of corporations reporting from each state which was absorbed by their taxes in 1924. Federal taxes are at identical rates for all corporations. Therefore, although differing degrees of prosperity in the several states and regional divisions affect the relative amounts of gross income and hence of net profits reported, and consequently cause varying ratios of federal taxes to net profits, in the long run there can be no difference in the relative burdens of the federal corporations taxes between states and regional divisions. State and local taxes on corporations, however, vary from state to state and, combined with differences in the relative prosperity of state groups of industries, produce marked differences in the relative tax burdens.

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TABLE 45: NET PROFITS AND TAXES OF CORPORATIONS, 1924

(Source: United States Bureau of Internal Revenue)

States	Net Profits of Domestic Corporations (Thousands)	State and Local Taxes (Thousands)	Federal, State and Local Taxes (Thousands)	Per Cent of Net Profits	
				Devoted to State and Local Taxes	Devoted to All Taxes
United States.....	\$8,419,614	\$1,586,536	\$2,541,007	18.8	30.1
New England.....	530,765	139,957	210,048	26.4	39.6
Maine.....	38,355	9,522	13,460	24.8	35.1
New Hampshire.....	8,643	2,318	3,433	26.8	39.7
Vermont.....	8,261	1,949	3,075	23.6	37.2
Massachusetts.....	332,480	91,581	136,574	27.5	41.1
Rhode Island.....	25,296	9,681	15,546	38.3	61.5
Connecticut.....	117,730	24,906	37,960	21.2	32.2
Middle Atlantic.....	3,806,615	632,600	1,026,209	16.6	27.0
New York.....	2,596,489	434,889	701,053	16.7	27.0
New Jersey.....	315,347	43,707	76,804	13.9	24.4
Pennsylvania.....	894,779	154,004	248,352	17.2	27.8
East North Central.....	2,002,386	347,102	583,120	17.3	29.1
Ohio.....	436,856	86,185	141,423	19.7	32.4
Indiana.....	104,247	21,950	36,016	21.1	34.5
Illinois.....	776,737	136,173	224,563	17.5	28.9
Michigan.....	541,009	71,422	133,189	13.2	24.6
Wisconsin.....	143,537	31,372	47,929	21.9	33.4
West North Central.....	551,294	126,160	190,339	22.9	34.5
Minnesota.....	136,736	38,002	52,777	27.8	38.6
Iowa.....	45,244	12,320	18,237	27.2	40.3
Missouri.....	238,178	43,157	71,795	18.1	30.1
North Dakota.....	3,671	2,035	2,545	55.4	69.3
South Dakota.....	3,097	1,761	2,185	56.9	70.6
Nebraska.....	24,132	6,470	9,591	26.8	39.7
Kansas.....	100,236	22,415	33,209	22.4	33.1
South Atlantic.....	576,842	113,837	178,928	19.7	31.0
Delaware.....	78,476	5,913	11,375	7.5	14.5
Maryland.....	100,194	21,987	32,619	21.9	32.6
District of Columbia.....	58,270	10,955	17,129	18.8	29.4
Virginia.....	80,922	19,481	29,852	24.1	36.9
West Virginia.....	43,527	13,251	19,801	30.4	45.5
North Carolina.....	95,902	14,374	25,004	15.0	26.1
South Carolina.....	10,993	7,176	8,837	65.3	80.4
Georgia.....	44,737	10,646	16,829	23.8	37.6
Florida.....	63,821	10,054	17,479	15.8	27.4
East South Central.....	152,155	30,464	50,650	20.0	33.3
Kentucky.....	63,372	8,459	16,514	13.3	26.1
Tennessee.....	45,485	10,289	16,596	22.6	36.5
Alabama.....	34,438	6,206	10,533	18.0	30.6
Mississippi.....	8,860	5,510	7,007	62.2	79.1
West South Central.....	225,221	58,928	91,071	28.2	40.4
Arkansas.....	16,067	3,423	5,475	21.3	34.1
Louisiana.....	52,096	15,193	21,918	29.2	42.1
Oklahoma.....	14,192	9,180	13,906	64.7	98.0
Texas.....	142,866	31,132	49,772	21.8	34.8

TABLE 45: NET PROFITS AND TAXES OF CORPORATIONS,
1924—*Continued*

(Source: United States Bureau of Internal Revenue)

States	Net Profits of Domestic Corporations (Thousands)	State and Local Taxes (Thousands)	Federal, State and Local Taxes (Thousands)	Per Cent of Net Profits	
				Devoted to State and Local Taxes	Devoted to All Taxes
Mountain	\$111,954	\$32,768	\$46,794	29.3	41.8
Montana	5,319	3,443	4,487	64.7	84.4
Idaho	4,475	2,705	3,519	60.4	78.6
Wyoming	1,882	1,139	1,649	60.5	87.6
Colorado	69,778	14,558	22,396	20.9	32.1
New Mexico	781	1,012	1,335	129.6	170.9
Arizona	6,232	2,698	3,613	43.3	58.0
Utah	23,922	6,415	8,811	26.8	36.8
Nevada	435 ¹	798	984	1	1
Pacific	482,382	104,720	163,851	22.6	35.4
Washington	51,965	18,292	25,082	35.2	48.3
Oregon	1,904	9,064	12,608	476.1	662.2
California	408,513	77,364	126,161	18.9	30.9

¹ Deficit.

As between regional groups of states, however, there is little difference. The highest proportion of state and local taxes to net profits in 1924—29.3%—was found in the Mountain states. The New England states showed a proportion of 26.4% and the West South Central states one of 26.2%. The lowest proportion—16.6%—was in the Middle Atlantic states, while in the East North Central states the proportion was 17.3%. In general, the high ratio in the Mountain states can be explained by the peculiarities in the reporting of mining income¹ in those states, and the large deficits of New England textile establishments in 1924 partly explain the high ratio in that region.

Among the individual states, Delaware corporations paid 7.5% of their net profits in taxes. This low proportion is explained by the large share of the state's revenue raised by charges on foreign corporations,² which lifts a corresponding tax burden from the domestic tax system.

The opposite extreme was found in Nevada. At the end of the year the corporations of that state showed a deficit in-

¹ See footnote 1, p. 120 of this volume.² See National Industrial Conference Board, "The Fiscal Problem in Delaware," 1927, p. 82.

stead of a profit, even without making allowance for taxes. Consequently, the state and local taxes had the effect of increasing an already existing deficit. In New Mexico and Oregon, state and local taxes on corporations amounted to more than the net profits of the year, so that a deficit resulted.

State and Local Corporate Taxes Distributed among Individuals

The taxes paid by corporations must ultimately be a charge on individuals. Taxes which are not shifted to the persons using the services or products of corporations, reduce the corporate surplus and are therefore eventually reflected in a reduction of corporate savings. The distribution among shareholders of the burden of such part of the corporation taxes as are not shifted to consumers could be determined if it were known how the shares of the taxed corporations are distributed; but this information is not available. The nearest substitute is the distribution of dividends among the various income classes. In individual cases, of course, the receipt of dividends is not an exact measure of the holdings of corporation shares, but if dividend receivers are taken in groups according to the total income received, the proportion of individual income derived from corporate dividends for each income class gives a rough measure of the distribution of share holdings.

As shown in Table 46, in 1924 individuals with incomes from \$1,000 to \$8,000 derived less than 10% of their income from dividends. Individuals with incomes between \$8,000 and \$14,000 derived between 10% and 20% of their income from dividends. As the amount of personal income increases, it is noticeable that the proportion of income derived from dividends increases. In the case of incomes in excess of \$5,000,000, the proportion in 1924 was 84.52%. Consequently, to whatever extent corporation taxes fall on shareholders, they represent a relatively heavier burden on the higher income classes than on the lower.

Thus should it be discovered that the greater part of the corporation taxes are borne by the shareholders, the distribution of such taxes among such shareholders would tend to offset somewhat the regressive character of the state and

TABLE 46: PERCENTAGE OF DIVIDENDS TO INCOME

(Source: United States Bureau of National Revenue, "Statistics of Income for 1924")

Income Classes		Income, Including State and Local Taxes (Thousands)	Dividends (Thousands)	Per Cent Dividends to Income
Under	\$1,000.....	\$293,145	\$26,714	9.11
\$1,000-	2,000.....	3,760,499	82,136	2.18
2,000-	3,000.....	5,574,797	143,342	2.57
3,000-	4,000.....	4,309,943	181,039	4.20
4,000-	5,000.....	2,955,972	199,812	6.76
5,000-	6,000.....	912,742	59,234	6.49
6,000-	7,000.....	743,544	61,517	8.27
7,000-	8,000.....	607,243	58,857	9.69
8,000-	9,000.....	494,808	57,108	11.54
9,000-	10,000.....	439,251	55,389	12.61
10,000-	11,000.....	363,432	57,138	15.72
11,000-	12,000.....	327,004	55,023	16.83
12,000-	13,000.....	286,594	53,275	18.59
13,000-	14,000.....	258,688	50,916	19.68
14,000-	15,000.....	234,026	47,676	20.37
15,000-	20,000.....	921,276	214,804	23.32
20,000-	25,000.....	669,446	178,829	26.71
25,000-	30,000.....	509,165	148,893	29.24
30,000-	40,000.....	718,244	231,773	32.27
40,000-	50,000.....	487,482	174,405	35.78
50,000-	60,000.....	352,832	138,314	39.20
60,000-	70,000.....	278,491	112,939	40.55
70,000-	80,000.....	209,222	84,568	40.42
80,000-	90,000.....	175,120	74,696	42.65
90,000-	100,000.....	135,113	58,219	43.09
100,000-	150,000.....	410,635	181,732	44.26
150,000-	200,000.....	209,054	91,665	43.85
200,000-	250,000.....	137,527	57,490	41.80
250,000-	300,000.....	77,718	34,188	43.99
300,000-	400,000.....	119,712	59,019	49.30
400,000-	500,000.....	71,714	33,022	46.05
500,000-	750,000.....	129,151	61,727	47.79
750,000-	1,000,000.....	45,807	22,716	49.59
1,000,000-	1,500,000.....	49,408	16,663	33.73
1,500,000-	2,000,000.....	22,058	8,212	37.23
2,000,000-	3,000,000.....	44,584	24,308	54.52
3,000,000-	4,000,000.....	15,193	10,514	69.20
4,000,000-	5,000,000.....	17,073	11,080	64.90
5,000,000 and over.....		37,815	31,962	84.52
Total.....		\$27,405,528	\$3,250,914	11.86

local taxes paid directly by individuals.¹ The degree to which taxes are shifted from the original taxpayer to other agencies is, however, at present indeterminate except in the broadest outlines of theory.

¹ See below, p. 127 and Table 47.

STATE AND LOCAL TAXES CHARGED TO PERSONAL AND TO INDIVIDUAL BUSINESS INCOMES

Full data are not available on the state and local taxes paid by individuals in relation to their net income. An individual whose net income does not exceed the non-taxable limit is not required to file a federal income tax return unless his gross income exceeds \$5,000. For the individuals reporting, however, the data are available by states and by income classes, and the business taxes and business income may be separated from the totals.

In general, it is discovered that state and local taxes bear little relation to tax paying ability as measured by income. There are wide variations between individuals and between classes. Such trend as is in evidence is regressive, rather than progressive.

This lack of correlation between taxes charged and relative income results from the present organization of the system of state and local taxes. The property tax is the basis of this system. Twelve states had laws providing for personal income taxes in 1924,¹ but their income from this source was but a small fraction of their property tax revenue. In the upper income classes, property holdings have a general, but not a definite, relation to income received. In the lower income classes there is hardly any relation. The vagaries of the administration of the property tax further upset such relationship as might otherwise exist.

Total Taxes and Business Taxes Related to Income

The proportion that taxes paid by individual business enterprises were to the income from such enterprises in 1924 was 0.2% lower than the proportion of the combined total of taxes paid by income tax paying individuals to the income of such individuals. This difference is the effect of several independent factors. On the one hand, taxes on residences and other classes of property which yield only psychic income, as well as personal taxes on income and polls which do not enter as a charge upon business even when imposed on busi-

¹ Though Oregon's law has since been declared unconstitutional, the taxes paid under that law were deductible in the 1924 federal income tax returns.

ness income, are included in the total of state and local personal and business taxes. On the other hand, business income includes income from professions and these are, except in the states providing for personal income taxes, subject to very light taxation, if to any at all.

This set of factors is balanced to within two-tenths of one per cent by another set which tends to increase business taxes. The business taxes are heavily weighted by special license charges and by severance taxes. Though property taxes apply uniformly to business and non-business property, many state legislatures have made special provision for assessment which makes it more difficult to avoid taxes on business property than on property not used in the regular course of business. The relative weight of each of these factors is, however, not at present possible of statistical analysis.

Distribution of Tax Ratios by Income Classes

The proportion that combined personal taxes are to combined personal income in the various income classes appears in Table 47. Beginning with the income class between \$3,000 and \$4,000, the proportion that taxes are to income declines rather steadily as personal income increases,—that is, the greater an individual's income, the smaller the proportion of his income withdrawn by state and local taxation. In the highest income classes the percentages fluctuate very widely, because of the small number of returns in each class. These returns must necessarily represent taxes paid in only a few states. The fluctuations in these classes are caused by the wide variations of tax burdens and tax systems in different states rather than by variations in the distribution of income and property between classes.

There is no such uniform trend in the proportion of business taxes to business income. In the lowest and highest income classes, the tax ratios are above the average. The income classes falling between \$3,000 and \$50,000 in 1924 paid less than the average business taxes in proportion to business income. The exceptionally low proportion of business taxes to business income in these groups may be attributed to the fact that professional income subject only to light, if any,

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TABLE 47: RELATIVE BURDEN OF STATE AND LOCAL PERSONAL AND BUSINESS TAXES ON INDIVIDUALS, BY INCOME CLASSES, 1924

(Source: U. S. Bureau of Internal Revenue)

Income Classes	Total Income ¹ (Thousands)	Income and Taxes (Thousands)	Income Taxes and Contributions (Thousands)	Total State and Local Personal and Individual Business Taxes (Thousands)	Per Cent Taxes to Income and Taxes	Per Cent Taxes to Income, Taxes and Contributions	Business Income (Thousands)	Business Taxes (Thousands)	Per Cent Business Taxes to Business Income
Under \$1,000	\$235,451	\$283,292	\$293,145	\$47,841	16.89	16.32	\$96,082	\$12,331	12.83
\$1,000-2,000	3,564,474	3,697,361	3,760,499	132,887	3.59	3.53	499,247	24,948	5.00
2,000-3,000	5,277,147	5,497,279	5,574,797	220,132	4.00	3.95	1,075,191	44,905	4.18
3,000-4,000	4,054,049	4,238,456	4,309,943	184,407	4.35	4.28	1,063,649	32,162	3.02
4,000-5,000	2,773,875	2,898,872	2,955,972	124,997	4.31	4.23	730,592	21,674	2.97
5,000-6,000	856,951	895,495	912,742	38,544	4.30	4.22	200,808	7,018	3.49
6,000-7,000	700,743	729,596	743,544	28,833	3.95	3.88	149,548	5,449	3.64
7,000-8,000	572,453	595,904	607,243	23,451	3.94	3.86	115,338	4,165	3.61
8,000-9,000	466,944	485,363	494,808	18,419	3.79	3.72	89,030	2,743	3.08
9,000-10,000	144,349	150,828	155,251	16,479	3.82	3.75	74,884	2,280	3.04
10,000-11,000	344,101	357,221	363,432	13,120	3.67	3.61	57,398	1,832	3.19
11,000-12,000	309,548	321,529	327,004	11,981	3.73	3.66	49,742	1,512	3.04
12,000-13,000	271,526	281,678	286,594	10,152	3.60	3.54	42,441	1,191	2.81
13,000-14,000	245,388	254,262	258,688	8,874	3.49	3.43	36,329	1,067	2.94
14,000-15,000	220,654	230,140	234,026	9,486	4.12	4.05	31,907	894	2.80
15,000-20,000	873,577	905,439	921,276	31,862	3.52	3.46	113,459	3,163	2.79
20,000-25,000	634,182	657,289	669,446	23,107	3.52	3.45	73,433	2,005	2.73
25,000-30,000	486,956	503,020	509,165	16,064	3.19	3.15	50,788	1,419	2.79
30,000-40,000	689,549	711,717	718,244	22,168	3.11	3.09	65,670	1,723	2.62
40,000-50,000	469,696	484,370	487,482	14,674	3.03	3.01	38,851	1,113	2.86
50,000-60,000	338,923	350,832	352,832	11,909	3.39	3.38	23,314	1,116	4.79
60,000-70,000	268,516	277,169	278,491	8,653	3.12	3.11	17,042	434	2.55
70,000-80,000	202,515	208,439	209,222	5,924	2.84	2.83	10,112	330	3.26
80,000-90,000	168,542	175,004	175,120	6,462	3.69	3.69	10,013	480	4.79
90,000-100,000	131,368	135,335	135,113	3,967	2.93	2.94	8,030	408	5.08
100,000-150,000	397,386	409,860	410,635	12,474	3.04	3.04	13,872	434	3.13
150,000-200,000	201,301	207,455	209,054	6,154	2.97	2.94	5,936	217	3.66
200,000-250,000	129,557	134,614	137,527	5,057	3.76	3.68	4,467	204	4.57
250,000-300,000	73,202	76,068	77,718	2,866	3.77	3.69	2,604	230	8.83
300,000-400,000	116,042	119,504	119,712	3,462	2.90	2.89	1,230	70	5.69
400,000-500,000	67,481	70,038	71,714	2,557	3.65	3.57	1,240	175	14.11
500,000-750,000	125,107	128,368	129,151	3,261	2.54	2.52	1,708	40	2.34
750,000-1,000,000	46,347	47,357	45,807	1,010	2.13	2.20	278	10	3.60
1,000,000-1,500,000	46,360	47,531	49,408	1,171	2.46	2.37	1,234	88	7.13
1,500,000-2,000,000	22,753	23,057	22,058	304	1.32	1.38	2	9	4
2,000,000-3,000,000	37,125	42,515	44,584	5,390	12.68	12.09	..	..	..
3,000,000-4,000,000	13,460	14,019	15,193	559	3.99	3.68	14	..	..
4,000,000-5,000,000	14,678	14,959	17,073	281	1.88	1.65	..	..	..
5,000,000 and over	32,500	33,056	37,815	556	1.68	1.47	..	..	..
Total.....	\$25,894,776	\$26,974,291	\$27,405,528	\$1,079,515	4.00	3.94	\$4,755,483	\$177,839	3.74

¹ Capital net gain from sales of assets held for more than two years is included in net income, but capital net loss from sale of assets held more than two years and prior year loss are not deducted.

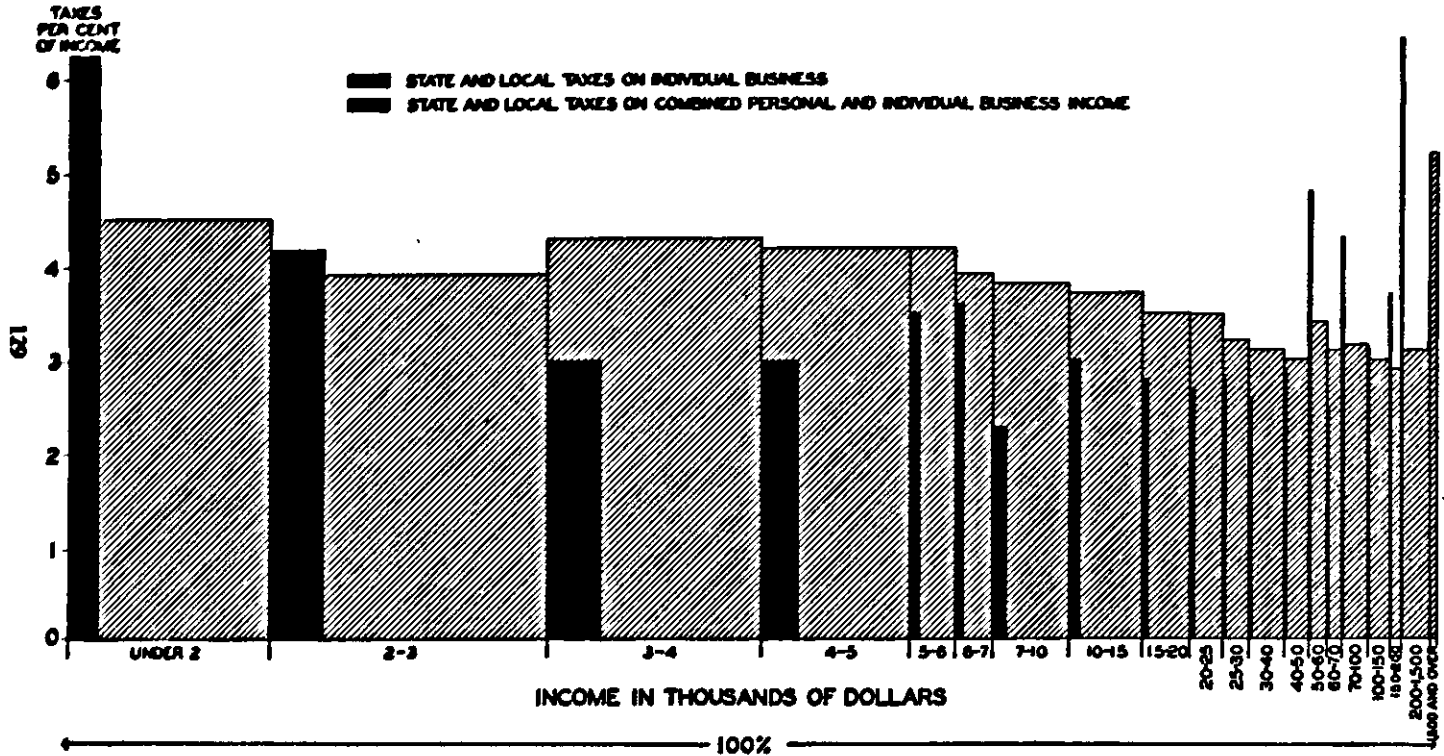
² Tax larger than income.

³ No tax.

taxes composes a large element of business income in these classes.

The great variability of the ratios of business taxes to business income in the higher income brackets is caused by the small number of business enterprises reported in each of

CHART 11: BURDEN OF STATE AND LOCAL PERSONAL AND BUSINESS TAXES, BY INCOME CLASSES, 1924
 (National Industrial Conference Board)



these upper brackets. All income classes over \$50,000 combined received less than 10% of the total business income. An exceptional profit or loss in any of the enterprises reported in the higher income brackets therefore materially affects the ratio for the entire bracket.

The ratios of state and local taxes on individual business enterprises to the income from such enterprises, and of state and local personal taxes in general to personal income are shown graphically for the 1924 income classes in Chart 11. The cross-hatched rectangles indicate the tax burden on the combined personal income of the various income classes. The black rectangles indicate the tax burden on income from individual business. The proportion that the income of each class is to the total of income reported in the year is shown by the horizontal spread of each rectangle. The ratio of the taxes on the class to its income is shown by the height of the rectangle. The decline of the proportion of taxes to income as the amount of income increases is evident from the slope of the tops of the cross hatched rectangles after the \$4,000 class. The chart also shows clearly the low proportion of the taxes on income to the amount of such income from individual business for the income classes between \$3,000 and \$50,000.

Cumulative Calculation of Relative Personal and Business Tax Burdens

Table 48 presents the proportions of combined personal taxes to combined personal income and of individual business taxes to individual business income in both ascending and descending cumulations.¹ As higher income brackets are added to the ascending cumulation, it is noticeable that both the proportion of combined taxes to combined income and the proportion of business taxes to business income decline. The proportion of business taxes to business income, however, reaches its average at a much lower income level than the ratio of combined taxes to combined income, reflecting the greater concentration of business income, and hence business taxes, in lower income classes.

¹ In an ascending cumulation, higher brackets are successively added to lower; in a descending cumulation, lower brackets are successively added to higher brackets.

The descending cumulation of business income and business taxes reflects, of course, the same low proportion in the middle incomes which was shown in Table 47. The consistency with which the proportion of business taxes to business income for the higher incomes classes remains above the average despite the variability noted in Table 47, suggests that, on the whole, these classes bear a relatively heavier business tax burden than the average. Their relative burden in this respect, however, is not so great as that of the income classes under \$4,000.

Altogether, the state and local taxes paid on individual enterprises represent a greater burden on income classes under \$40,000 than on those above this level. Moreover, the more the income level chosen for comparison is below this figure, the greater is the disparity in relative tax burdens.

In the case of combined personal income and combined personal taxes, it is found that the dividing level is at \$750,000. Taxpayers who received less than \$750,000 in income in 1924 paid relatively heavier taxes than those who received more. One explanation of this situation is that taxpayers in the higher income brackets receive a larger proportion of their income from intangibles, and under the present state and local tax systems this type of property escapes a considerable part of its taxes.

For the income classes under \$4,000 and over \$20,000, the state and local taxes paid on business income represent a heavier burden than the taxes paid on personal income. The fact that the relative burden of business taxes should be lighter for the income classes from \$4,000 to \$20,000 is explained by the relatively large proportion of the business income of these classes which is composed of lightly taxed personal income.

Total and Business Tax Burdens by States

The variability of tax burdens on individuals by states is presented in Table 49. The average proportion of total tax to total income is 3.93%; the average business tax ratio is 3.73%.¹ Of the forty-eight states and the District of

¹ The average ratios in Table 50 are .01% less than in Table 48, because territorial possessions are included in the figures of Table 48.

TABLE 49: DISTRIBUTION OF STATE AND LOCAL TAXES ON INDIVIDUALS BY STATES AND GEOGRAPHIC DIVISIONS, 1924

(Source: Data from United States Bureau of Internal Revenue; Calculations by National Industrial Conference Board)

States and Geographic Divisions	Total Income (Including Taxes and Contributions) (In thousands)	Total State and Local Taxes (In thousands)	Business Income (In thousands)	Business Taxes (In thousands)	Per Cent Taxes Aro of Income	
					Total	Business
United States.....	\$27,356,528	\$1,077,513	\$4,750,401	\$177,489	3.94	3.74
New England.....	2,445,778	98,179	402,639	15,322	4.01	3.81
Maine.....	145,224	6,401	33,403	1,249	4.41	3.74
New Hampshire.....	99,825	3,796	17,383	718	3.80	4.13
Vermont.....	67,786	2,504	14,407	607	3.69	4.21
Massachusetts.....	1,414,103	58,137	223,730	8,956	4.11	4.00
Rhode Island.....	205,342	6,764	23,776	579	3.29	2.44
Connecticut.....	513,498	20,577	89,940	3,213	4.01	3.57
Middle Atlantic.....	9,475,143	327,703	1,520,545	44,652	3.46	2.94
New York.....	5,491,733	183,728	836,513	14,953	3.35	1.79
New Jersey.....	1,262,035	51,300	211,260	7,154	4.06	3.39
Pennsylvania.....	2,721,375	92,675	472,772	22,545	3.41	4.77
East North Central.....	6,204,618	245,318	996,191	34,579	3.95	3.47
Ohio.....	1,493,192	53,210	239,325	7,031	3.56	2.94
Indiana.....	494,724	20,748	97,756	3,365	4.19	3.44
Illinois.....	2,562,358	95,187	417,102	12,204	3.71	2.93
Michigan.....	1,128,822	56,575	176,679	8,356	5.01	4.75
Wisconsin.....	525,522	19,598	65,329	3,623	3.73	5.53
West North Central.....	1,945,804	87,457	359,908	14,771	4.49	4.10
Minnesota.....	405,568	19,213	67,219	2,955	4.74	4.40
Iowa.....	323,786	18,171	65,288	2,470	5.61	3.78
Missouri.....	675,648	26,166	109,088	3,559	3.87	3.26
North Dakota.....	51,809	2,487	15,863	857	4.80	5.40
South Dakota.....	71,069	3,953	23,901	1,534	5.56	6.42
Nebraska.....	203,030	9,868	49,270	2,337	4.86	4.74
Kansas.....	214,894	7,599	29,279	1,059	3.54	3.62
South Atlantic.....	2,131,803	91,724	394,535	19,402	4.30	4.92
Delaware.....	66,658	2,614	11,184	302	3.92	2.70
Maryland.....	494,282	15,879	89,745	3,995	3.21	4.45
District of Columbia.....	268,629	8,477	40,349	1,851	3.16	4.59
Virginia.....	249,756	11,139	50,942	2,347	4.46	4.61
West Virginia.....	243,929	11,213	57,578	2,603	4.60	4.52
North Carolina.....	223,126	13,942	48,305	3,017	6.25	6.25
South Carolina.....	87,793	5,073	17,182	1,153	5.78	6.71
Georgia.....	225,304	8,809	30,668	1,667	3.91	5.44
Florida.....	272,326	14,578	48,582	2,467	5.35	5.08
East South Central.....	757,475	32,731	147,790	8,442	4.32	5.71
Kentucky.....	255,308	10,346	55,344	3,062	4.05	5.53
Tennessee.....	241,020	10,557	49,472	1,907	4.38	3.85
Alabama.....	168,942	5,003	19,584	877	2.96	4.48
Mississippi.....	92,205	6,825	23,390	2,596	7.40	11.10
West South Central.....	1,276,104	68,094	288,608	14,395	5.34	4.99
Arkansas.....	118,777	5,258	29,457	1,247	4.43	4.37
Louisiana.....	235,103	9,617	38,171	1,730	4.09	4.53
Oklahoma.....	229,047	13,125	48,323	2,452	5.73	5.07
Texas.....	693,177	40,094	172,657	8,926	5.78	5.17
Mountain.....	659,461	23,780	160,996	8,140	3.61	5.06
Montana.....	113,841	4,531	26,541	1,544	3.98	5.82
Idaho.....	55,141	2,276	14,736	746	4.13	5.06
Wyoming.....	64,127	2,673	19,175	1,035	4.17	5.40
Colorado.....	215,276	5,678	47,382	1,880	2.64	3.97
New Mexico.....	33,458	1,215	9,103	546	3.63	6.00
Arizona.....	61,802	2,806	15,956	840	4.54	5.26
Utah.....	87,110	3,546	19,917	1,128	4.07	5.66
Nevada.....	28,706	1,055	8,186	421	3.68	5.14
Pacific.....	2,460,342	102,527	479,189	17,786	4.17	3.71
Washington.....	416,549	17,766	109,928	4,401	4.27	4.06
Oregon.....	203,294	10,322	42,114	2,361	5.08	5.61
California.....	1,840,499	74,439	327,147	11,024	4.04	3.36

Columbia, only twelve states impose a business tax burden below the average, indicating that the average is heavily weighted by low burdens in the larger states. There is a more even spread in the range of combined tax burdens, and seventeen states and the District of Columbia show combined tax burdens below the average.

The industrial states, on the whole, impose a light tax burden as measured by income. New York, Rhode Island, Ohio, Illinois, and Missouri impose a tax burden below the average both on business and on combined income. In addition, Pennsylvania, Wisconsin and the District of Columbia impose a combined tax burden which is below the average. The less affluent states of the South have the highest tax burden, as measured by income, while the agricultural states of the Middle West have a tax burden somewhat above the average.

There is a much greater variability of business tax burdens than of combined tax burdens. The former range from 1.79% to 11.1% of business income. The latter range from 2.64% to 7.41% of combined income. Business taxes, like total taxes, are lightest in the industrial states, New York being lowest with 1.79%. The southern states have the heaviest business taxes, Mississippi withdrawing 11.1% of its business income by such taxes. The extraordinarily high business tax ratios in the South reflect the dependence of the southern governments on license taxes for a considerable share of their tax revenue. The states which levy income taxes, but exempt personal property from taxation, show very light tax charges against business income, because income taxes are charged only against total personal income, while personal property taxes may, in part, be charged to non-incorporated business. New York and Delaware, for this reason, show a much smaller business tax burden than their total tax burden.

THE FEDERAL INCOME TAX

When the war created heavy demands on the treasuries of the leading governments throughout the world, it was necessary to extend the sources of public revenue. One of the most important developments in the tax policy in nearly all countries was the growth in relative importance of income taxes.

"In Great Britain the percentage of revenue from income tax to total tax revenue has increased from 29% in the pre-war year to 47% in 1921-22; in India from 4% to 19% in the same period . . . In Japan the pre-war percentage was 10, and it is now 36. Only in the rarest of instances has the income tax borne a less proportion of total tax revenue than in the pre-war period."¹

Changes in the federal revenue system of the United States paralleled those of other countries. Between 1916 and 1920, the income tax collections increased from 17.2% to 71.7% of the total tax revenue of the Federal Government. A falling off of collections, as the result of the post-war depression, reduced the proportion to 65.4% in 1921. During the next few years the tax revision program was more generous with the income tax than with other taxes, so that the proportion of income tax collections to total tax revenue declined to 58% in 1926. The income tax remains, however, of prime importance in the federal revenue system.

Though it is probable that a share of the taxes on corporation income or on business income of individuals may not be shifted, most of the personal income taxes rest on the individuals who pay them. Thus, in marked contrast to state and local tax systems in this country, federal taxation, as a result of the high income tax, adheres to the currently accepted principle of "ability" as a basis for taxation. This is particularly true of the personal income tax which provides for graduated rates.

Personal Income Taxes

Immediately after the Sixteenth Amendment to the Constitution was adopted in 1913, an income tax law was passed, providing surtax rates graduated from 1% to 6% on incomes in excess of \$20,000, in addition to a normal tax of 1% on all net income in excess of the personal exemption for individuals. The progressive surtaxes on incomes over \$20,000 were increased to a maximum of 13% in 1916. In 1917, the surtaxes were applied to incomes in excess of \$5,000 and were graduated from 1% for the lowest class to 63% for incomes over \$2,000,000. Under the 1918 revenue law, applicable to

¹ George Findlay Shirras, "The Science of Public Finance," MacMillan Co. 1924, p. 237.

incomes received from 1918 to 1921 inclusive, the surtax rates were slightly increased, to a maximum of 65%, and the progression was made more rapid, income in excess of \$1,000,000 being subject to the maximum rate. In addition, the normal tax rates were graduated for the first time, taxable income under \$4,000 paying 6%, while 12% was charged against the remainder.

The Revenue Act of 1921 initiated the program of tax reduction. Under its provisions, the surtaxes on income of 1922 and 1923 were reduced, particularly in the higher brackets. Net income over \$6,000 was subject to surtax, and the maximum rate of 50% was applied to net income in excess of \$200,000. The second reduction, which took effect in 1924, reduced the normal tax rates by distinguishing three classes, instead of two. The 1926 Revenue Act, which applies to all incomes for 1925 and 1926 made a further reduction in both normal and surtax rates.

Distribution of Income Tax Payments by Income Classes

The progressive feature of the federal income tax is strongly illustrated by Table 50, which shows the federal income taxes charged against 1924 income classes for collection in 1925. The average amount of tax per individual reporting in each income class increased steadily from \$5.70 per person reporting less than \$1,000 net income to \$3,686,735 for each individual reporting net income in excess of \$5,000,000. A similar progression is indicated by the proportion of total income absorbed by the tax.¹ In general, the proportion decreases very rapidly as the income brackets decrease.² There are irregularities in the income classes above \$1,500,000 because of the small number of individuals in each of these classes. The irregularities in the income classes below \$10,000 are caused by the fact that varying proportions of the returns in these classes claim personal exemptions in excess of the net income reported. The income classes be-

¹ Total income includes tax-exempt interest and contributions, after allowing for capital net losses for 1924.

² In the income class under \$1,000, individuals required to pay federal income taxes reported only \$13 millions. The taxable income class under \$1,000 includes wives whose husbands claimed the full benefit of the joint exemption of \$2,500, and individuals filing a return for a fraction of a year.

tween \$3,000 and \$1,000,000, however, show an effective progression in the percentage of tax to total income.

TABLE 50: FEDERAL INCOME TAXES CHARGED AGAINST 1924 INCOME, BY INCOME CLASSES

(Source: United States Bureau of Internal Revenue, "Statistics of Income for 1924")

Income Classes	Number of Returns	Total Income ¹ (Thousands)	Net Tax		Per Cent of Tax to Total Income	Per Cent Statutory Tax ² to Income	Per Cent Tax Allowance to Income	Per Cent Tax Allowance to Statutory Tax ²
			Amount (Thousands)	Average Amount Per Return				
Under \$1,000 ...	344,876	\$245,304	\$146	\$5.7	.06	1.32	1.26	95.45
\$1,000-2,000 ...	2,413,881	3,627,612	10,432	6.7	.29	.48	.19	39.58
2,000-3,000 ...	2,112,993	5,354,665	10,207	13-	.19	.55	.36	65.45
3,000-4,000 ...	1,181,156	4,125,536	12,392	15	.30	.48	.18	37.50
4,000-5,000 ...	619,744	2,830,975	14,473	25	.51	.65	.14	21.54
5,000-6,000 ...	155,654	874,198	6,015	40	.69	.78	.09	11.54
6,000-7,000 ...	107,685	714,691	5,951	57	.83	.89	.06	6.74
7,000-8,000 ...	76,106	583,793	5,771	78	.99	1.17	.18	15.38
8,000-9,000 ...	54,610	476,389	5,522	104	1.16	1.40	.24	17.14
9,000-10,000 ...	43,275	422,772	5,568	132	1.32	1.57	.25	15.92
10,000-11,000 ...	32,471	350,312	5,156	159	1.47	1.94	.47	24.23
11,000-12,000 ...	26,579	315,023	5,337	201	1.69	2.40	.71	29.58
12,000-13,000 ...	21,472	276,443	5,324	248	1.93	2.78	.85	30.58
13,000-14,000 ...	17,961	249,814	5,285	294	2.12	3.09	.97	31.39
14,000-15,000 ...	15,013	224,540	5,242	349	2.33	3.44	1.11	32.27
15,000-20,000 ...	49,878	889,414	25,899	519	2.91	4.29	1.38	32.17
20,000-25,000 ...	27,842	646,339	25,827	928	4.00	5.81	1.81	31.15
25,000-30,000 ...	17,432	493,101	24,906	1,429	5.05	7.17	2.12	29.57
30,000-40,000 ...	19,464	696,076	45,910	2,359	6.60	9.02	2.42	26.83
40,000-50,000 ...	10,165	472,808	38,544	3,792	8.15	11.44	3.29	28.76
50,000-60,000 ...	6,019	340,924	35,909	5,634	9.95	13.70	3.75	27.37
60,000-70,000 ...	3,978	269,838	30,652	7,705	11.36	16.05	4.69	29.22
70,000-80,000 ...	2,579	203,298	26,244	10,176	12.91	18.34	5.43	29.61
80,000-90,000 ...	1,912	168,658	24,722	12,930	14.66	20.22	5.56	27.50
90,000-100,000 ...	1,328	131,146	21,109	15,895	16.10	22.34	6.24	27.93
100,000-150,000 ...	3,065	398,161	75,678	24,691	19.01	27.15	8.14	29.98
150,000-200,000 ...	1,084	202,900	44,391	40,951	21.88	32.10	10.22	31.84
200,000-250,000 ...	542	132,470	30,690	56,625	23.17	34.84	11.67	33.50
250,000-300,000 ...	250	74,852	17,399	69,597	23.24	36.53	13.29	36.38
300,000-400,000 ...	320	116,250	28,642	89,506	24.64	38.01	13.37	35.17
400,000-500,000 ...	137	69,157	17,129	125,029	24.77	39.98	15.21	38.04
500,000-750,000 ...	192	125,890	30,765	160,232	24.44	41.37	16.93	40.92
750,000-1,000,000 ...	50	44,797	11,821	236,413	26.39	42.61	16.22	38.07
1,000,000-1,500,000 ...	37	48,237	12,739	344,293	26.41	43.67	17.26	39.52
1,500,000-2,000,000 ...	13	21,754	5,261	404,693	24.18	44.19	20.01	45.28
2,000,000-3,000,000 ...	15	39,191	10,265	684,343	26.19	44.84	18.65	41.59
3,000,000-4,000,000 ...	4	14,634	3,608	901,922	24.65	45.17	20.52	45.43
4,000,000-5,000,000 ...	3	16,792	4,274	1,424,772	25.45	45.46	20.01	44.02
5,000,000 and over ...	3	37,259	11,060	3,686,735	29.68	45.76	16.08	35.14
Total.....	7,369,788	\$26,326,013	\$704,265	\$95.6	2.68	5.05	2.37	46.93

¹ Total income equals taxable income for federal purposes (after payment of state and local taxes) plus tax-exempt income and contributions, and minus capital net losses.

² After taking into account tax credits on earned income and the minimum personal exemptions, weighted for each class in proportion to the net income from which \$1,000 per return and the net income from which \$2,500 per return was deductible. The proportional income reported by taxable persons to income entirely non-taxable in the first ten classes was also taken account of.

The percentage of tax to total income represents *the effective tax rate*; that is, the rate which must be applied to total actual income (as distinguished from taxable income) to yield the tax actually charged. The average effective in-

come-tax rate in 1924 was 2.68%. The average tax rate provided by the Revenue Act of 1924, however, if applied to all income reported, after taking account of the 25% credit on earned income up to \$10,000, the personal exemptions and the income reported by persons not subject to the federal income tax, would have been 5.05%. The statutory allowances thus effected a reduction of the nominal or statutory tax rate by 46.93%, reducing the effective tax by 2.37% of the total income.

Provisions for Allowances and Personal Exemptions

The allowances made by the federal income tax which cause the difference between the statutory and effective tax rates are as follows:

1. Contributions, not exceeding 15% of the net income, without the benefit of this deduction.
2. Tax-exempt interest.
3. Prior year losses.
4. Dividends, and interest on federal securities not wholly exempt, both of which are exempt from the normal tax rates.
5. Capital net gains which may be returned for taxation at 12½% in lieu of both normal and surtax rates.

The Revenue Act of 1924 permitted the deduction of \$2,500 from the net income of a husband and wife or of a head of a family, \$1,000 from the net income of any other individual and, in addition, \$400 for each dependent. The effect of these provisions has been taken account of in computing the statutory tax rates for Table 50. In the lower brackets, this flat exemption lowers the statutory rate significantly. The effect of the personal exemption declines in proportion as the income increases, so that in the higher income brackets, though the tax rates are higher, the reductions in rate effected by the personal exemption become smaller.

The taxes saved as a result of the five factors enumerated above, increase in proportion to income as the amount of income returned increases. Individuals in the income classes receiving less than \$13,000 in 1924, reduced their taxable income, on the average, less than one per cent by these allowances. Those in income classes receiving over \$100,000, on

the other hand, reduced their taxable income by more than ten per cent. The range of savings in proportion to income varied between 0.06% for the income class between \$6,000 and \$7,000 and 20.52% for the income class between \$3,000,000 and \$4,000,000.

Tax-Exempt Securities

Early in the post-war period, the problem of tax-exempt securities loomed large as a fiscal issue, both in programs of borrowing and as a factor to be considered in determining the rates of the federal income tax.¹ It is an issue that has been badly clouded by partisan prejudice and which has suffered much from the deductive method of approach.

There are two classes of tax-exempt securities—those whose interest is totally exempted from the surtaxes of the federal income tax as well as from the normal tax, and those whose interest is exempted from the normal rate of the income tax but is subject to its surtax. The former group comprises all state and local bond issues (which by judicial interpretation of the Constitution of the United States are immune from federal taxation both in capital value and yield), the First Liberty Bond issue and the Federal Farm Loan Bonds. At present, interest on the principal up to \$5,000 of the other federal securities, except treasury notes, is exempted from surtaxes to each individual. Until July 2, 1926, there was an additional exemption from surtaxes on principal up to \$50,000 of the 4% and 4½% Liberty Bonds.

The amounts of such totally tax-exempt securities outstanding since 1912 are shown in Table 51. From \$4,341 millions in 1912, the totally tax-exempt securities outstanding increased to \$15,263 millions in 1926. The bulk of this increase resulted from the issuance of state and local securities, which amounted to \$11,171 millions in 1926 and represented 73.3% of the total. It is believed that this type of security cannot be removed from the tax-exempt class without an amendment to the Constitution, a revision which was considered by Congress in 1922.² The Federal Farm

¹ See Andrew Mellon, "Taxation, the People's Business," MacMillan Company, 1924, Ch. IV.

² H. J. Res. 211 and 232, 67th Congress, 2nd Session.

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Loan Bonds outstanding increased from \$29 millions in 1917 to \$1,786 millions in 1926, while the First Liberty Bonds, during the same period, decreased from \$2,961 millions to \$2,146 millions. The total of United States government bonds wholly exempt from taxation did not reach four billion dollars in any year.

TABLE 51: WHOLLY TAX-EXEMPT SECURITIES OUTSTANDING OUTSIDE OF SINKING FUNDS AT CLOSE OF CALENDAR YEARS 1912 TO 1926

(Source: United States Department of the Treasury)

Year	Amount (in Millions)				
	Total	State and Local	Territories and Insular Possessions	Federal Farm Loan System	First Liberty Bonds
1912	\$4,341	\$3,342	\$34		\$965
1913	4,834	3,833	34		967
1914	5,009	4,004	36		969
1915	5,333	4,324	38		971
1916	5,715	4,700	43		972
1917	8,043	5,009	44	\$29	2,961
1918	7,655	5,203	45	100	2,307
1919	8,213	5,648	47	225	2,293
1920	8,736	6,158	56	228	2,294
1921	9,831	7,110	72	355	2,294
1922	10,895	7,717	115	769	2,294
1923	12,006	8,462	118	1,132	2,294
1924	13,439	9,680	119	1,346	2,294
1925	14,368	10,540	129	1,531	2,168
1926	15,263	11,171	142	1,786	2,164

TABLE 52: PARTIALLY EXEMPT FEDERAL SECURITIES AT CLOSE OF CALENDAR YEARS 1917 TO 1926

(Source: United States Department of the Treasury)

Year	Amount (in Millions)	Year	Amount (in Millions)
1917	\$4,155	1922	\$20,189
1918	18,514	1923	19,349
1919	23,302	1924	18,418
1920	21,451	1925	17,815
1921	20,894	1926	16,659

Table 52 shows the volume of federal securities, outstanding at the close of each fiscal year, which are fully exempt from the normal income tax but only to a limited extent, if at all, from the surtaxes. These securities increased from \$4,155

millions in 1917 to \$23,302 millions in 1919. Thereafter there was a continuous decline until 1926, when \$16,659 millions remained in the hands of the public.

Tax Exemption and Surtax Rates

The higher the surtax rate which the individual would have to pay upon the yield of a taxable security, the greater is the value of the tax-exempt securities. A $3\frac{1}{2}\%$ Liberty Bond should have the same value to an individual with an annual net taxable income in excess of \$100,000 in 1926 as a taxable bond yielding $4\frac{2}{3}\%$; a 5% municipal bond should be equivalent to a taxable bond yielding $6\frac{2}{3}\%$ for individuals in the highest income brackets. In earlier years, when the surtax rates were higher, the differential value of a tax-exempt bond to an individual in the higher income classes was correspondingly greater.

On the basis of such calculations, it has been argued, more frequently in the past than today, that the thirty-two billions of tax-exempt securities would gravitate entirely into the possession of the wealthy few who would, to that extent, escape their income tax payments. It has been held that this development would operate so as to nullify completely any but the mildest progression in income tax rates.¹ Two independent statistical analyses indicate that these fears were greatly exaggerated, although there is evidence that within limits this line of reasoning was sound.

Ownership of Tax-Exempt Securities, 1916-1924

The returns of 4,063 individuals who reported net incomes of \$100,000 or over in 1916, were analyzed for the Senate for the period 1916 to 1924.² During these years there was a considerable decline in the income reported by these individuals. Only a small proportion of this shrinkage of incomes, however, was due to investments in tax-exempt securities. Other and more important circumstances were responsible

¹ Hearings before the Committee on Ways and Means, Part I, January 16, 18, and 19, 1922, "Tax Exempt Securities" (H. J. Res. 102, 211, 231 and 232), pp. 21-23.

² "Investigation of the Bureau of Internal Revenue," Report No. 27, part 2, United States Senate, 69th Congress, First Session, 1926.

for this decline in the taxable income. Some of these factors, such as splitting up the income among members of the family, the creation of non-voluntary trusts, incorporation, and taking losses on investments at the close of the year in order to reduce the net income, were definitely intended to avoid income tax payment. These methods of avoiding taxes were rather common during this period of extraordinarily high surtaxes. Other factors in the decline of taxable income were the result of changing business conditions, such as the decline in interest rates, and the general business depression of 1920 and 1921. In view of the wide annual fluctuations of some individual incomes, it must also be remembered that a fair proportion of the individuals represented in the 4,063 returns showing net incomes of \$100,000 or more in 1916, may have been reporting income accumulated over a period of years but not realized until 1916 or exceptionally high incomes realized for some special reason during that year. The latter situation was particularly common between 1916 and 1919.

An analysis of the distribution and trend of tax-exempt holdings indicates that, to a limited extent, tax-exempt holdings are associated with surtax rates. Table 53 presents the tax-exempt interest received between 1918 and 1924 by individuals who had incomes in excess of \$100,000 in 1916. The ratio of tax-exempt interest received by these individuals to their total income increased steadily from 3.62% in 1918 to 10.56% in 1924. This tendency was more marked in the higher income brackets. This increasing ratio was to be expected in view of the rapid issue of tax-exempt securities during this period. However, it should be noted that during the period of high surtaxes, the tax-exempt holdings of these high income classes increased more rapidly than the total of such bonds outstanding. There was clearly a concentration of holdings in the higher income classes. Between 1918 and 1919, the increase of tax-exempt interest reported by these classes was ten times as great as the increase of bonds outstanding; in 1920 the increase was three times as rapid. Data for the years 1921, 1922 and 1923 are lacking, but the same trend probably continued. In 1924, the surtax rates were reduced. So decided was the shift in tax-exempt hold-

TABLE 53: TAX-EXEMPT INTEREST RECEIVED 1918-1924, BY INCOME CLASSES OF 1916

(Source: Report No. 27, Part 2, United States Senate, 69th Congress, 1st Session)

Income Class	1918		1919			1920			1924		
	Interest	Per Cent of Total Income	Interest	Per Cent of Total Income	Per Cent Increase Over 1918	Interest	Per Cent of Total Income	Per Cent Increase Over 1919	Interest	Per Cent of Total Income	Per Cent Increase Over 1920
\$100,000-\$200,000.....	\$6,793,516	2.65	\$12,091,683	4.46	77.99	\$13,829,725	6.74	14.37	\$18,692,779	7.26	35.16
200,000- 300,000.....	4,139,253	3.72	7,073,316	6.35	70.88	8,593,699	11.04	21.49	12,241,034	11.68	42.44
300,000- 400,000.....	2,364,547	3.31	4,420,496	6.10	86.95	5,141,284	11.29	16.31	5,376,418	8.84	4.57
400,000- 500,000.....	1,562,939	4.15	2,590,534	7.20	65.75	3,387,691	14.24	30.77	4,394,083	14.22	29.71
500,000-1,000,000.....	4,129,559	4.69	6,547,175	7.62	58.54	8,061,716	11.53	23.13	12,447,385	14.88	54.40
1,000,000 and over.....	6,011,297	4.78	10,239,784	8.67	70.34	12,336,200	16.76	20.47	16,078,604	13.62	30.34
Total received.....	\$25,001,111	3.62	\$42,962,988	6.18	71.84	\$51,350,315	10.35	19.52	\$69,230,303	10.56	34.82
Securities outstanding....	7.29	6.37	53.83

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TABLE 54: TAX-EXEMPT SECURITIES, 1924 AND 1925

(Source: United States Department of the Treasury)
(Amounts in Millions)

Securities	Reported by Individuals ¹			Outstanding at Close of Year		
	1924	1925	Per Cent Increase or (-) Decrease	1924	1925	Per Cent Increase or (-) Decrease
State, local and territories.....	\$2,553	\$2,450	-4.03	\$9,680	\$10,540	8.88
Farm loan system.....	440	472	7.27	1,346	1,531	13.74
United States (and possessions).....	737	702	-4.75	2,413	2,297	-4.81
Total wholly tax-exempt.....	\$3,730	\$3,624	-2.84	\$13,439	\$14,368	6.91
Partially tax-exempt.....	1,626	1,410	-13.28	18,418	17,815	-3.27
Grand Total.....	\$5,356	\$5,034	-6.01	\$31,857	\$32,183	1.02

¹ With net income of \$5,000 or more.

ings in anticipation and as a result of this change that it offset the continuing concentration of holdings that may have occurred during 1921 and 1922, and the increase of tax-exempt interest reported by these high income classes between 1920 and 1924 was less than the increase of the outstanding tax-exempt debt.

Ownership of Tax-Exempt Securities—General

The thirty-two billion dollars of totally and partially tax-exempt securities represent the maximum holdings the interest on which may be claimed by individuals as free from income taxation. There are, however, other agencies in the market for tax-exempt securities. Corporations, which have been paying a $12\frac{1}{2}\%$ or $13\frac{1}{2}\%$ normal tax rate and no surtaxes (since the war-profits taxes were repealed) are exempt from all income taxes on the yield of partially as well as wholly exempt securities. Such organizations as banks and insurance companies, and the large corporations which maintain sinking funds or reserves invested in sound securities may be expected to own a large proportion of government bonds. In addition, certain trust funds and also charitable, benevolent, educational and other non-profit-making institutions which are not subject to income taxes, hold a considerable proportion of government securities. Only part of the interest on the outstanding tax-exempt securities is, therefore, reported on the personal income tax returns.

Table 54 shows the several classes of tax-exempt securities held by individuals reporting net incomes of \$5,000 or more, and the amounts outstanding in 1924 and 1925. Of the \$13,439 millions of totally tax-exempt securities outstanding in 1924, \$3,730 millions or 27.8% were held by individuals with incomes of \$5,000 or more. Though the proportion of tax-exempt securities held by individuals is too small to warrant the assumption that they are primarily instruments of income-tax avoidance, there is sufficient indication in Table 54 that the exemption granted for these securities has entered as a factor in determining their ownership. The partially tax-exempt securities should be of more value to corporations than to individuals, because they accord total exemption from the normal rates only. Only 16.8% of these

securities are held by the individuals represented in Table 54, as against 27.8% of the wholly tax-exempt securities.

A comparison of the changes between 1924 and 1925 strengthens this conclusion. The income reported for 1925 was subject to taxation at the rates provided by the 1926 Revenue Act, which were considerably lower than the 1924 rates, particularly for the higher income brackets. Though this tax reduction was not provided for by Congress until 1926, it was generally anticipated and might be expected to be reflected in the decline of individual holdings of non-taxable bonds. While all partially and wholly tax-exempt securities outstanding increased by 1% between 1924 and 1925, the amount held by individuals declined by 6%. Wholly tax-exempt securities outstanding increased 6.9%, while individual holdings declined by 2.9%. State and local securities reported by individual income tax payers declined by 4% in the face of an increase of 8.9% in the outstanding securities. Federal Farm Loan Bonds in the hands of individuals increased by only half the proportion of the increase in these bonds outstanding. Only in the case of the 3½% Liberty Bonds was there no decline between 1924 and 1925 in the proportion of individual holdings. Finally, it should be noted that more than one-half of the non-taxable securities reported were held by individuals receiving less than \$100,000 net annual income.¹

The burden of the statistical evidence compiled by the Internal Revenue Bureau is that, although tax-exempt investments have been to some extent used to avoid the heavier federal surtaxes, such investments among individuals in the higher income brackets have not been nearly so great as anticipated. That the volume of investments in tax-exempt

¹ Unfortunately, a further analysis by income classes can not be made. Apparently there is more carelessness in reporting tax-exempt securities and the interest therefrom than in other parts of the income tax schedule. For example, the ratio of interest reported from First Liberty Loan Bonds to the value of such bonds reported might be expected to be 3½%. Actually, in 1924, the ratio of interest to holdings reported for all income classes was 3.64% and for some classes it exceeded 4%. Since all interest received during the year must be reported, while security holdings are reported only as of the end of the year, this disproportion of interest to security holdings might mean that some individuals had disposed of their holdings to corporations after they had already received their interest. If such were the case, the tax-exempt interest received by individuals in 1925 should be 3½% or less of the holdings of individuals at the end of 1924. Instead, it is found that the ratio was 3.66%.

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securities on the part of the very wealthy is not very striking is confirmed by the Treasury Department's summary of public debt transactions which show a considerable number of $3\frac{1}{2}\%$ Liberty Bonds of small denominations still outstanding.

The available evidence seems to indicate that the concentration of tax-exempt securities in the possession of high income tax payers has been greatly exaggerated in both the public and official mind.

CHAPTER VI

FISCAL ASPECTS OF EDUCATION

THE schools, colleges, state universities and teacher-training institutions of the United States under public control absorb a greater proportion of governmental expenditures than any other single governmental activity. More than two billion dollars, or over 25% of all governmental expenditures, went for the support of educational institutions during the fiscal year ended in 1925. Two billion dollars annually is a huge bill; and while it is generally recognized that the taxpayer's money could not be better invested, prudence and restraint are as desirable in this as in all other matters of public finance. It is likely that the law of diminishing returns applies to education, as well as to other public activities. Progress in education must continue. The future will, no doubt, see greater expenditures for schools than in the past; but educational progress must be regulated and controlled by a knowledge of the facts and an understanding of the issues involved.

EXPENDITURES FOR PUBLIC SCHOOLS

In 1890,¹ the country's bill for grammar and high school education was \$140.5 millions. Ten years later it was \$215 millions. In 1910, it rose to \$426 millions; a decade later it was \$1,036 millions. In 1925, the most recent year for which full figures are available, \$1,946 millions were spent on grammar and high schools. At present, expenditures for these schools undoubtedly exceed two billion dollars annually.

During the two decades, 1890 to 1910, expenditures for public education increased twofold. In the fifteen-year period, 1910 to 1925, the increase was 356.5%. What factors were responsible for this stupendous increase?

¹ All dates in this chapter represent school years.

Effect of Price Changes

The figures just given are in dollars of current purchasing power; that is, dollars with a buying value measured by the price level of the year to which the data refer. Had the value of the dollar remained stable during the period covered, the figures would indicate the "true" trend of school expenditures. It is a matter of common knowledge, however, that the dollar in education, as in other matters, does not purchase the same quantity and quality of goods and services today as it did a decade or two ago. In order, therefore, to arrive at the "true" increase in school expenditures it is necessary to take into account the increase in the prices of all the factors which enter into school costs, including salaries. The extent of the difference between "true" and apparent costs is shown in Table 55 and Chart 12, in which appropriate price index numbers are applied to the various items of school cost, thus reducing all to the level of 1913 prices.

The apparent twofold increase in school costs between 1890 and 1910 is reduced to 137% when the costs are stated in dollars of constant value. The apparent increase of 356.5% between 1910 and 1925 is similarly reduced to a "true" increase of 160.7%. It is significant that, whereas there was an apparent increase of 71.1% in school expenditures between 1915 and 1920, there was actually a decrease of 12.5% in "true" school expenditures during this five-year period.

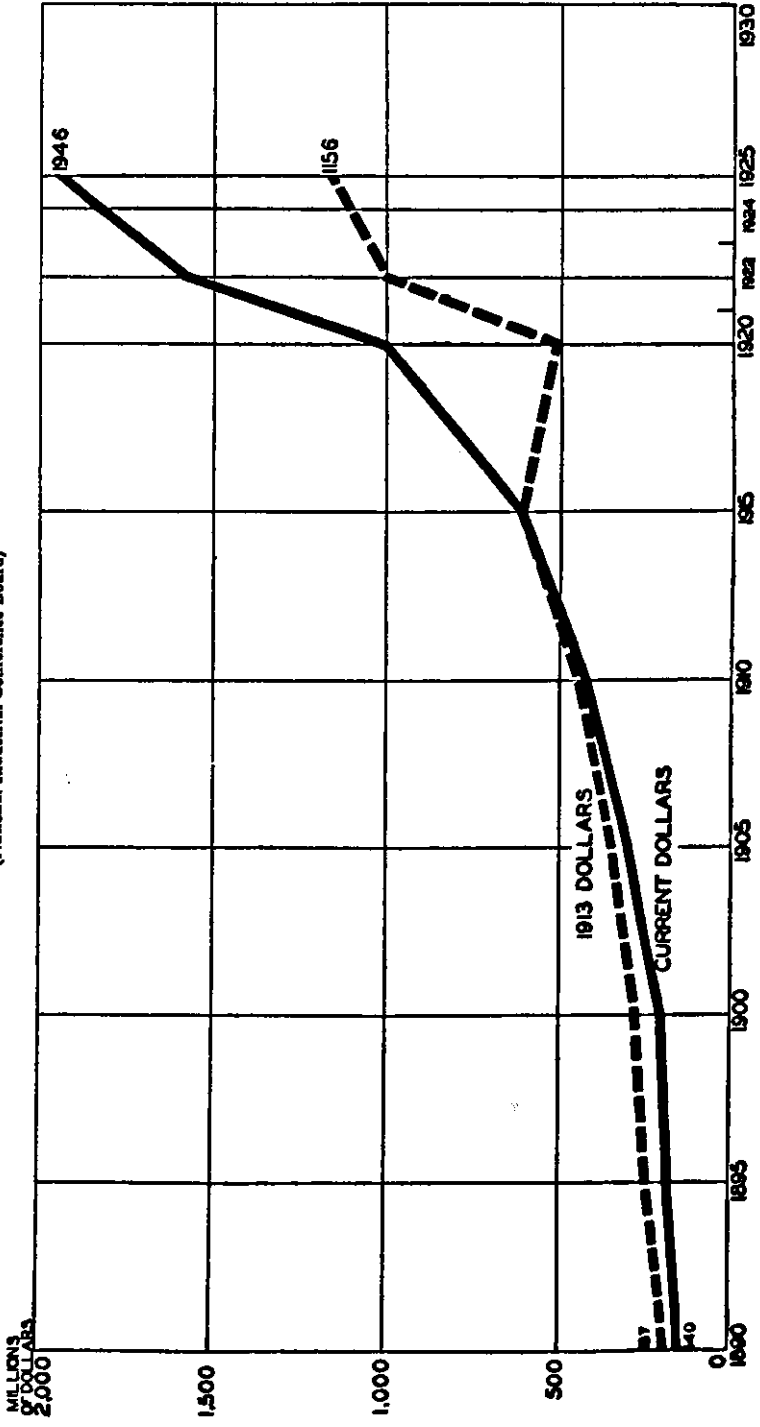
During the war years, school expenditures, like all other state and local governmental functions not immediately connected with the war, were cut to the irreducible minimum. In this period, teachers' salaries lagged far behind the soaring cost of living, with the result that many members of the profession were drawn into other more lucrative activities. The construction of urgently needed school buildings was postponed until part-time sessions became the rule rather than the exception in most of the larger cities.

By 1920, there had developed a marked decrease in educational efficiency that was evident to laymen as well as to educators. The heavy increase of school expenditures since 1920 has represented, in large part, a regaining of the ground lost during the half-decade 1915 to 1920.

(Source: United States Bureau of Education, "Statistics of State School Systems" Series)

	1890	1895	1900	1905	1910		1915	1920	1922	1924	1925
<i>School expenditures in actual dollars (in thousands)</i>											
Total school expenditures except fixed expenses . . .	\$139,908	\$174,609	\$212,565	\$286,816	\$416,945	Salaries	\$410,140	\$687,838	\$995,855	\$1,092,824	\$1,156,828
						Supplies	23,479	57,954	73,329	90,562	100,671
						Fuel and light	25,820	57,853	79,515	83,701	86,167
						Construction	92,481	138,189	275,347	349,622	390,226
						General maintenance	41,635	66,819	85,091	109,188	116,633
Fixed expenses	600	1,200	2,400	4,800	9,305	Fixed expenses	11,906	27,498	63,718	94,847	95,572
Total school expenditures	\$140,508	\$175,809	\$214,965	\$291,616	\$426,250	Total school expenditures	\$605,461	\$1,036,151	\$1,572,855	\$1,820,744	\$1,946,097
<i>Price indices</i>											
Snyder general price level . . . . .	.75	.72	.76	.82	.96	N. I. C. B. cost of living	1.015	1.985	1.579	1.650	1.695
						U. S. Bureau of Labor non-agricultural products . . . . .	.967	2.306	1.608	1.546	1.582
						N. I. C. B. fuel and light	1.030	1.678	1.817	1.701	1.685
						N. I. C. B. building costs . . . . .	.980	2.308	1.740	1.923	1.942
						Snyder general price level	1.03	2.13	1.70	1.81	1.86
Fixed expenses	1.00	1.00	1.00	1.00	1.00	Fixed expenses	1.00	1.00	1.00	1.00	1.00
Total school expenditures . . . . .	.75	.72	.76	.82	.96	Total school expenditures	1.009	1.974	1.585	1.645	1.683
<i>School expenditures in "1913" dollars (in thousands)</i>											
Total school expenditures except fixed expenses . . .	\$186,544	\$242,513	\$279,691	\$349,776	\$434,318	Salaries	\$404,079	\$346,518	\$630,687	\$662,317	\$682,494
						Supplies	24,280	25,132	45,603	58,578	63,635
						Fuel and light	25,068	34,477	43,762	49,207	51,138
						Construction	94,368	59,874	158,245	181,811	200,940
						General maintenance	40,422	31,370	50,054	60,325	62,706
Fixed expenses	600	1,200	2,400	4,800	9,305	Fixed expenses	11,906	27,498	63,718	94,847	95,572
Total school expenditures	\$187,144	\$243,713	\$282,091	\$354,576	\$443,623	Total school expenditures	\$600,123	\$524,869	\$992,069	\$1,107,085	\$1,156,485

CHART 12: EXPENDITURES FOR PUBLIC SCHOOLS, UNITED STATES, 1890 TO 1925
 (National Industrial Conference Board)



Effect of Increased Enrollment

Table 56 shows some of the factors other than that of price changes which were responsible for the increase of school expenditures. The rapid growth of the country's population during the years under consideration has added to the number of children who should and who do attend school. In 1890, there were 18.5 million children of school age in the country. In 1910, the number was 24.2 millions,¹ an increase of 30.7%. In 1925, the number rose to 29.7 millions, an increase of 22.5% over the 1910 figure. But whereas in 1890 only 68.6% of the children of school age were enrolled in schools, in 1910 the percentage was 73.5, and in 1925 it was 83.² The actual enrollment increased from 12.7 millions in 1890 to 17.8 millions in 1910 and to 24.6 millions in 1925.

In 1890, the average school term consisted of 134.7 school days. In 1910, it was 157.5 school days. In 1925, it was 169.6 school days. This lengthening of the school term has involved a corresponding increase in the salaries paid to teachers. It has also resulted in greater maintenance and general repair costs, as well as greater outlays for supplies.

Moreover, whereas in 1890 only 64.1% of the children enrolled actually attended school each day, improved attendance laws and better transportation facilities increased this proportion to 72.1% in 1910, and to 80.5% in 1925. This increase of attendance, however, has not necessarily increased school cost in the same proportion. In fact, it involves a greater use of classroom with a corresponding lowering of unit costs. Nevertheless, in the long run, this improvement in the attendance ratio has carried with it a definite addition to school costs.

It has been estimated that it costs about two and a half times as much to educate a high school student as a grammar school student.³ Had the proportion of high school students to the total number of students enrolled remained constant during the period considered, this factor could be ignored.

¹ Aged 5 to 17 years, inclusive.

² In 1895, there were nineteen states without compulsory education laws. By 1920, every state had such a law on its code. During these years, moreover, there was a steady raising, from one to four years, of the ages of the children covered by these laws. U. S. Bureau of Education, Biennial Report, 1922, Vol. 1, p. 5.

³ *Idem*.

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However, in 1890 only 1.6% of the total number of school children enrolled were attending high school. In 1910, the proportion was 5.1% and in 1925 it was 15%. This factor alone accounts for 4.7% of the increase in school costs between 1890 and 1910, and for 14.2% of the increase between 1910 and 1925.

The total number of school days attended by all school pupils is the ultimate quantitative measure of the education that the schools are called upon to provide. In 1890, the number of school days attended by all pupils was 1,098.2 millions. In 1910, it was 2,011.5 millions and in 1925, 3,362.8 millions. If each day attended by a high school student be reckoned as equivalent to two and a half times the grammar school student's day—since this is the ratio of the relative costs of these two groups—the figures become respectively 1,124.6 million days, 2,158.3 million days and 4,119.5 million days.

Between 1890 and 1910, the increase in weighted school attendance was 91.9%. During the same period "true" school expenditures increased 137%. Between 1910 and 1925, weighted school attendance increased 90.9%. The "true" expenditures during this period increased 160.7%.

"True" expenditures per child per school day attended, when the latter factor is weighted to take account of the changing proportion of high school enrollment, is the most accurate mathematical measure of variations in school costs. The "true" expenditure per child per school day attended in 1890 was \$0.166. In 1910, it was \$0.205, and in 1925, \$0.281. The increase of school expenditures thus measured in relation to school needs has not been excessive. During the twenty years 1890 to 1910, the increase was 23.5% and between 1910 and 1925 it was 37.1%. The annual increase during the thirty-five year period under consideration was less than 2%.

Factors in the Increase of School Costs

Three sets of factors have united in the past to increase expenditures for school purposes. In the first place, changes in the price level affect the final price that must be paid for education, but they do not directly affect the quantity or quality of the education afforded.

In the second place, increased enrollment, the lengthening of the school term and the improved average of attendance necessitate increases in the quantity of education that must be supplied. The cost of education does not necessarily increase proportionally with the quantity supplied. The departmental subdivision of subject-teaching, which is possible in larger schools, is far more efficient and in the end cheaper than the general instruction offered in the one-teacher school. Until very recently, however, this concentration of school attendance occurred only in the larger cities; and the higher cost of all items, particularly the higher salaries that had to be paid to city teachers, more or less offset the economies from this source.

Finally, there has been a definite improvement in the quality of education supplied, although this can not be measured in quantitative terms. This better education necessarily costs more. The last few years have seen a marked raising of the standards of teacher training. To an increasing extent, college preparation, as well as normal school training, is required for all grades of teachers. Higher salaries must be paid

TABLE 56: FACTORS IN THE INCREASE OF SCHOOL EXPENDITURES

(Source: United States Bureau of Education, "Statistics of State School Systems" Series)

	1890	1895	1900	1905	1910	1915	1920	1922	1924	1925
Children of school age	18,543,201	19,911,050	21,404,322	23,410,800	24,239,948	26,425,100	27,728,788	28,627,201	29,345,911	29,705,264
Pupils enrolled	12,722,581	14,243,765	15,503,110	16,468,300	17,813,852	19,704,209	21,578,316	23,239,227	24,288,808	24,648,291
Per cent of children of school age enrolled	68.6	71.5	72.4	70.3	73.5	74.6	77.8	81.2	82.8	83.0
Per cent of pupils enrolled attending each day	64.1	67.0	68.6	69.7	72.1	76.1	74.8	79.3	78.8	80.5
Average length of school year (days)	134.7	139.5	144.3	150.9	157.5	159.4	161.9	164.0	168.3	169.6
Total days attended by all pupils (thousands)	1,098,233	1,331,775	1,534,823	1,732,845	2,011,477	2,389,085	2,615,161	3,034,907	3,219,093	3,362,822
Per cent of pupils in high school	1.6	2.5	3.3	4.1	5.1	6.7	10.2	12.3	14.0	15.0

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to those better equipped teachers. New courses and new curricula, particularly those of a vocational nature, are being added to the school schedule. Summer courses and evening classes are being constantly expanded.

Consolidated Schools and Pupil Transportation

One of the most notable improvements in the quality of education offered in rural schools in recent years has been accomplished through the consolidation of groups of small one-teacher schools into single school units. In the larger, consolidated school, a greater specialization of teachers is possible and better building and equipment facilities can be provided. There are now over fifteen thousand such schools in the country.

The one disadvantage of the consolidated school is the distance which pupils from the outlying districts must travel to reach it. As a result, an essential part of the equipment of such schools is a fleet of motor busses to collect the children in the morning and to return them to their homes in the afternoon. The cost of such transportation during recent years is indicated in Table 57.

TABLE 57: EXPENDITURES FOR SCHOOL TRANSPORTATION

(Source: United States Bureau of Education Bulletin, 1925, No. 22)

Year	Number of States Reporting	Expenditures for Transportation	Per Cent of Current Expenditures	Estimated Expenditure for All States
1917-18	38	\$7,961,291	1.6	\$10,300,000
1919-20	39	14,489,423	1.8	16,500,000
1921-22	41	21,816,744	2.0	25,500,000
1923-24	47	29,628,252	2.1	30,350,000 ¹
1924-25 . . . . .	..	..	2.2 ²	33,300,000 ³

¹ Estimated on basis that expenditures for transportation were of total current expenditures in 47 states reporting.

² Estimated on increase of proportion of current expenditures devoted to transportation in preceding years.

³ Estimated by applying estimated ratio of transportation expenditures to current educational expenditures to the total of current school expenditures for the school year 1924-25.

When the transportation of pupils is included, consolidated schools often cost more than the integrated one-teacher

schools. Of course, the improved quality of rural education which they make possible more than offsets this increased cost. Many of the states have taken cognizance of this factor and are extending special state aid to consolidated school districts. In 1924, twenty-three states¹ accorded aid to the local school districts to encourage the transportation of school children.

Functional Distribution of School Expenditures

Table 58 shows the school expenditures from 1890 through 1925, divided into capital outlays, payments for salaries and all other expenditures. During these years there has been a marked trend in the distribution of the total expenditures among these items. The proportion devoted to the salaries of teachers and administrators has decreased markedly. In 1890, this item accounted for 65.3% of all school expenditures. Ten years later it was 64%. In 1914, salaries represented 59.6% of the total school expenditure. In 1920, this percentage declined to 59.2%, while in 1925 only 51.5% of all school expenditures went for salaries.

The proportion devoted to capital outlays varied irregularly from 1890 to 1920. Even before the war, there was a lack of adequate school accommodations. By the end of 1920, as a result of the almost total stoppage of construction during the war, school accommodations had become decidedly insufficient. In part to make up this shortage of accommodation, in part to meet the increased enrollment of the past few years and in part through a desire to improve existing accommodations, there has been a burst of school construction since 1920. Total school expenditures increased rapidly during the five years after 1920, but the outlays for construction increased even more rapidly. In 1905, the proportion of school expenditures represented by outlays for construction was 19.3%, in 1920 it was 14.8% and in 1925 it rose to 22.4%.

¹ Connecticut, Delaware, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Hampshire, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, Texas, Vermont, Virginia, Washington, West Virginia, Wisconsin and Wyoming. See Table 64, p. 170 of this volume.

TABLE 58: FUNCTIONAL DISTRIBUTION OF SCHOOL EXPENDITURES, 1890 TO 1925

(Source: United States Bureau of Education, "Statistics of State School Systems" Series)
(In thousands)

Type of School Expenditure	1890	1895	1900	1905	1910	1915	1920	1922	1924	1925
Capital outlays.....	\$26,207	\$29,437	\$35,451	\$56,416	\$69,978	\$102,756	\$153,543	\$305,941	\$388,469	\$433,585
Teaching salaries.....	91,836	113,872	137,688	177,463	253,915	345,006	613,405	885,475	978,065	1,006,409
Other expenditures.....	22,463	32,500	41,826	57,738	102,357	157,698	269,204	389,255	454,210	506,104
Total school expenditures.....	\$140,507	\$175,809	\$214,965	\$291,617	\$426,250	\$605,461	\$1,036,151	\$1,580,671	\$1,820,744	\$1,946,097

The steady decrease since 1890 of the proportion of school expenditures devoted to salaries has been offset by a steady increase in the proportion of "other expenditures." In 1890, this item represented 16% of the total. In 1900, it was 19.5%; in 1910, 24%; in 1920, 26%, and 26.1% in 1925. This increase is explained by the general tendencies of school activity during this period. The lengthening of the school term, noted above, involves greater expenditures for fuel and light, for janitors' wages, for repairs and for general maintenance. Improved school buildings necessitate higher maintenance expenditures. The expansion of evening school, summer school, and auxiliary school activities has added to this item. Progress in vocational and technical education means more expensive supplies. The item of growing costs of transporting pupils must be taken into consideration. All these improvements in the quality and the quantity of education have combined to swell this category of school expenditures out of proportion to other elements.

Expenditures on City Schools

In Chapter I it was indicated¹ that the proportion of city expenditures devoted to education varies inversely with the size of the cities. In 1925, cities with populations in excess of 500,000 utilized 27.7% of their total expenditures for school purposes,

¹ See p. 21 of this volume.

while cities with populations between 30,000 and 50,000 spent 37.2% of their total funds for education. However, the total of public expenditures in the larger cities is much greater per capita than the per capita public expenditures of smaller cities. The differences between the city groups in per capita public expenditures exceed the differences between them in proportions of total expenditure devoted to education. Consequently the largest cities have the highest per capita expenditure for education. The average per capita expenditure for cities over 500,000 was \$21.68 in 1925. In cities between 30,000 and 50,000 it was \$17.88.

Both the proportion of total expenditures devoted to education and the per capita expenditures for education vary widely in cities of the same size. In 1924, out of thirty-five cities with populations exceeding 100,000, Yonkers, New York, had a per capita school expenditure of \$33.14 as against \$5.77 in Nashville, Tennessee. Out of fifty cities with populations between 30,000 and 100,000, Mt. Vernon, New York, had the high per capita expenditure for schools of \$34.69, and Charleston, South Carolina, the low per capita expenditure of \$8.41.¹

The calculation of the school expenditures of cities of varying size on a per pupil basis indicates that the larger cities have the higher per pupil cost. The average of annual current school expenses per pupil in thirty-five cities with populations exceeding 100,000 was \$104.82 in 1926. The average for sixty cities with populations between 30,000 and 100,000 was \$92.85 in the same year; for seventy cities between 10,000 and 30,000 it was \$85.35; for eighty-two cities with populations between 2,500 and 10,000 the average was \$74.80.²

Finally, it should be noted that the functional distribution of expenditures for city schools bears a definite relation to the size of the city. This is evidenced in Table 59, which shows the functional distribution of school expenditures in cities with populations exceeding 100,000, in those with populations between 30,000 and 100,000, and in those with populations between 10,000 and 30,000. Despite the fact that a

¹ U. S. Bureau of Education, Statistical Circular, No. 4, 1925.

² U. S. Bureau of Education, Statistical Circular No. 7, March, 1927.

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greater development of part-time schools, of continuation schools, of night schools and of auxiliary agencies in general is to be found in the larger cities, and that their proportion of total expenditures devoted to these expenditures is greater than in the smaller cities, the proportion of total expenditures devoted to salaries of teachers and supervisors is also higher in the larger cities. The explanation of this phenomenon is the higher cost of living in the larger cities, which necessitates higher salary schedules than in the small cities. The savings in the larger cities occur in the factors of general control, in the centralized purchasing of supplies and particularly in the items of repair and maintenance.

TABLE 59: FUNCTIONAL DISTRIBUTION OF CURRENT EXPENDITURES FOR CITY SCHOOLS, 1924

(Source: Biennial Survey of Education)

Expenditures for	Cities over 100,000	Cities between 30,000 and 100,000	Cities between 10,000 and 30,000
	Per cent	Per cent	Per cent
General control.....	2.8	3.1	4.0
Salaries of supervisors and teachers.....	69.1	66.8	65.5
Textbooks and supplies.....	3.3	3.7	3.9
Part-time continuation schools.....	0.8	0.6	0.3
Night schools and universities.....	1.4	0.9	0.4
Summer schools.....	0.3	0.2	0.1
Operation of plant and repairs.....	12.7	14.6	14.9
Auxiliary agencies.....	2.8	2.7	2.5
Fixed charges.....	1.4	1.7	1.9
Interest.....	5.4	5.7	6.5
Total current expenditures.....	100.0	100.0	100.0
Proportion of gross expenditures.....	68.5	70.6	72.0

COMPARATIVE SUPPORT OF EDUCATION BY THE STATES

The individual states and the regional groups of states differ widely in the educational obligations laid upon them, in their relative resources, in the support they accord to their school systems, and in the results they obtain from their school expenditures. These differences are analyzed in the following pages.

Relative Ability of the States to Support Education

The relative ability of a state to support education is determined by two factors—the number of children for whom

it is called upon to provide educational facilities and the economic resources upon which it can draw to provide such facilities. In Table 60 the two factors are combined by relating the economic resources of each state at the opening of the present decade to the number of its children of school age (5 to 17 years, inclusive). Two measures of economic resources are used—the average annual total income of each state from 1919 through 1921 and their annual average income during this period plus one-tenth of the wealth of each state as reported in 1922.¹

The New England, the Middle Atlantic and the Pacific states are well above the country's average in ability to support education by either standard of measurement. Eight of the ten highest ranking states are found in these regional divisions, and all of these states rank in the upper half. The southern states as a group are considerably below this average; the index number for the East South Central states is 41.4, when the average for the country is set at 100. The ten lowest ranking states are found in these groups; only Delaware and Maryland of this group of states rank with the upper half of the states.

The two extremes in ability to support education are California and Mississippi. The annual total income from 1919 to 1921 per child of school age in the former was \$5,673; in the latter it was \$848. When one-tenth of the 1922 wealth of these states is added, the figures become \$7,887 and \$1,217, respectively. On the income basis, California's ability to support education is 112.6% *above* the country's average and Mississippi's is 68.2% *below*. On the basis of income plus wealth, California's ability to support education is 106.7% *above* the country's average and Mississippi's ability is 68% *below*.

Relative Support of Education by States

As shown in Table 61, there has been a rapid increase in the average annual school expenditures per child of school age. In 1910, the country's average was \$17.04; in 1918 it was

¹ A more detailed discussion of these measures of relative ability to support education is found in National Industrial Conference Board, "The Fiscal Problem in Delaware," 1927, pp. 113-115, and National Education Association, "The Ability of the States to Support Education," Research Bulletin, Vol. 4, Nos. 1 and 2, 1926.

TABLE 60: RELATIVE ABILITY OF THE STATES TO SUPPORT EDUCATION

(Source: National Education Association, "Ability of the States to Support Education")

States and Geographic Divisions	Average Annual Total Income, 1919-1921 (Thousands)	Average Annual Total Income, 1919-1921, Plus 1/2 of Wealth, 1922 (Thousands)	Children of School Age, 1920	Average Total Income Per Child of School Age	Average Total Income, 1919-1921, Plus 1/2 of Wealth, 1922, Per Child of School Age	Index of Ability to Support Education Measured by Average Annual Total Income, 1919-1921, per Child of School Age	Index of Ability to Support Education Measured by Average Annual Total Income, 1919-1921, Plus 1/2 of Wealth, 1922, per Child of School Age	Rank of States by Ability to Support Education Measured by Average Annual Total Income, 1919-1921, per Child of School Age	Rank of States by Ability to Support Education Measured by Average Annual Total Income, 1919-1921, Plus 1/2 of Wealth, 1922, per Child of School Age
United States.....	\$73,806,095	\$105,108,251	27,651,283	\$2,669	\$3,801	100.0	100.0	..	..
New England.....	6,446,521	8,887,954	1,708,036	3,774	5,204	141.4	136.9	..	..
Maine.....	505,402	706,056	180,434	2,801	3,913	104.9	102.9	20	24
New Hampshire..	314,169	451,583	99,775	3,149	4,526	118.0	119.1	15	16
Vermont.....	224,540	308,744	84,188	2,667	3,667	99.9	96.5	22	29
Massachusetts....	3,699,901	4,997,984	875,109	4,228	5,711	158.4	150.2	3	4
Rhode Island....	549,378	741,811	143,011	3,842	5,187	143.9	136.5	5	9
Connecticut.....	1,153,131	1,681,776	325,519	3,542	5,166	132.7	135.9	10	10
Middle Atlantic....	21,025,976	28,792,296	5,381,156	3,907	5,351	146.4	140.8	..	..
New York.....	11,230,989	14,934,515	2,361,888	4,755	6,323	178.2	166.4	2	3
New Jersey.....	2,813,431	3,992,850	767,979	3,663	5,199	137.2	136.8	7	8
Pennsylvania....	6,981,556	9,864,931	2,251,289	3,101	4,382	116.2	115.3	16	17
East North Central..	16,271,400	23,153,700	5,163,643	3,151	4,484	118.1	118.0	..	..
Ohio.....	4,245,504	6,094,459	1,331,685	3,188	4,577	119.4	120.4	13	14
Indiana.....	1,772,039	2,655,011	712,772	2,486	3,725	93.1	98.0	24	28
Illinois.....	5,663,234	7,886,513	1,564,806	3,619	5,040	135.6	132.6	9	11
Michigan.....	2,829,970	3,970,456	871,856	3,246	4,554	121.6	119.8	11	15
Wisconsin.....	1,760,653	2,547,261	682,524	2,780	3,732	104.2	98.2	21	26
West North Central.	7,821,377	12,423,264	3,256,384	2,402	3,815	90.0	100.4	..	..
Minnesota.....	1,624,161	2,478,952	615,733	2,638	4,026	98.8	105.9	23	21
Iowa.....	1,431,942	2,483,110	597,914	2,395	4,153	89.7	109.3	28	20
Missouri.....	2,050,831	3,048,972	859,277	2,387	3,548	89.4	93.3	29	31
North Dakota....	325,222	571,999	198,799	1,636	2,877	61.3	75.7	37	34
South Dakota....	420,570	713,167	177,188	2,374	4,025	88.9	105.9	30	22

	Nebraska.....	834,902	1,366,909	344,436	2,424	3,969	90.8	104.4	27	23
	Kansas.....	1,133,749	1,760,155	463,037	2,449	3,801	91.8	100.0	26	25
	South Atlantic.....	6,051,255	8,798,375	4,151,858	1,458	2,119	54.6	55.7	..	..
	Delaware.....	162,829	225,406	52,535	3,099	4,291	116.1	112.9	17	18
	Maryland.....	1,108,291	1,507,364	361,297	3,068	4,172	114.9	109.8	19	19
	Virginia.....	1,026,856	1,516,013	689,398	1,489	2,199	55.8	57.9	39	39
	West Virginia.....	796,571	1,264,363	433,832	1,836	2,914	68.8	76.7	34	33
	North Carolina...	961,034	1,415,345	838,845	1,146	1,687	42.9	44.4	43	43
	South Carolina...	546,053	786,537	569,916	958	1,380	35.9	36.3	47	47
	Georgia.....	969,017	1,358,693	933,368	1,038	1,456	38.9	38.3	44	45
	Florida.....	480,604	724,654	272,667	1,763	2,658	66.1	69.9	35	35
	East South Central..	3,061,067	4,360,105	2,770,682	1,105	1,574	41.4	41.4	..	..
	Kentucky.....	926,281	1,284,520	702,391	1,319	1,829	49.4	48.1	41	41
	Tennessee.....	869,341	1,292,166	707,933	1,228	1,825	46.0	48.0	42	42
	Alabama.....	763,989	1,064,194	769,256	993	1,383	37.2	36.4	46	46
	Mississippi.....	501,456	719,225	591,102	848	1,217	31.8	32.0	48	48
	West South Central.	5,224,773	7,210,861	3,168,754	1,649	2,276	61.8	59.9	..	..
161	Arkansas.....	564,827	824,788	563,659	1,002	1,463	37.5	38.5	45	44
	Louisiana.....	817,869	1,159,555	557,553	1,467	2,080	55.0	54.7	40	40
	Oklahoma.....	1,115,906	1,515,258	636,340	1,754	2,381	65.7	62.6	36	38
	Texas.....	2,726,171	3,711,260	1,411,202	1,932	2,630	72.4	69.2	33	36
	Mountain.....	2,245,757	3,466,367	882,756	2,544	3,927	95.3	103.3	..	..
	Montana.....	279,737	502,056	137,344	2,037	3,655	76.3	96.2	31	30
	Idaho.....	299,992	453,386	121,560	2,468	3,730	92.5	98.1	25	27
	Wyoming.....	152,882	250,506	47,068	3,229	5,322	121.0	140.0	12	7
	Colorado.....	739,143	1,062,084	231,833	3,188	4,581	119.4	120.5	14	13
	New Mexico.....	172,880	258,063	107,990	1,601	2,390	60.0	62.9	38	37
	Arizona.....	267,472	398,901	86,941	3,076	4,588	115.2	120.7	18	12
	Utah.....	268,486	422,034	134,601	1,995	3,135	74.7	82.5	32	32
	Nevada.....	65,165	119,337	15,419	4,226	7,740	158.3	203.6	4	2
	Pacific.....	5,657,969	8,015,329	1,168,014	4,844	6,862	181.5	180.5	..	..
	Washington.....	1,148,818	1,661,058	309,294	3,714	5,370	139.2	141.3	6	6
	Oregon.....	656,200	998,146	179,601	3,654	5,558	136.9	146.2	8	5
	California.....	3,852,951	5,356,125	679,119	5,673	7,887	212.6	207.5	1	1

TABLE 61: RELATIVE STATE SUPPORT ACCORDED TO EDUCATION

(Source: Data from United States Bureau of Education, "Statistics of State School Systems" series. Calculations by National Industrial Conference Board)

States and Geographic Divisions	Annual Educational Expenditures per Child of School Age (5 to 17 Years, Inclusive)				Index of Support Accorded to Education (Average for the Country = 100)				Ranking of States by Support Accorded to Education			
	1910	1918	1922	1925	1910	1918	1922	1925	1910	1918	1922	1925
United States.....	\$17.04	\$27.58	\$55.22	\$65.51	100.0	100.0	100.0	100.0	..	..	..	..
New England.....	23.69	33.65	58.36	73.92	139.0	122.0	105.7	112.8	..	..	..	..
Maine.....	17.04	24.75	45.14	52.47	100.0	89.7	81.7	80.1	30	33	35	33
New Hampshire.....	17.79	31.69	48.41	58.55	104.4	114.9	87.7	89.4	29	27	28	30
Vermont.....	20.55	29.75	48.85	50.98	120.6	107.9	88.5	77.8	24	29	27	34
Massachusetts.....	27.68	36.34	63.21	79.76	162.4	131.8	114.5	121.8	6	20	24	15
Rhode Island.....	20.63	27.45	48.38	59.61	121.1	99.5	87.6	91.0	23	30	29	29
Connecticut.....	21.35	36.16	62.13	85.39	125.3	131.1	112.5	130.3	20	21	25	11
Middle Atlantic.....	23.77	33.78	63.90	91.04	139.5	122.5	115.7	139.0	..	..	..	..
New York.....	25.09	33.48	75.28	108.90	147.2	121.4	136.3	166.2	12	24	15	3
New Jersey.....	27.33	40.92	79.07	103.39	160.4	148.4	143.2	157.8	8	13	14	5
Pennsylvania.....	21.14	31.71	46.80	68.24	124.1	115.0	84.8	104.2	21	26	31	22
East North Central.....	21.59	35.97	74.31	78.59	126.7	130.4	134.6	120.0	..	..	..	..
Ohio.....	23.71	40.51	84.20	73.55	139.1	146.9	152.5	112.3	16	16	9	21
Indiana.....	21.71	38.68	87.68	82.09	127.4	140.2	158.8	125.3	19	18	7	14
Illinois.....	24.15	33.13	64.08	76.26	141.7	120.1	116.0	116.4	14	25	23	18
Michigan.....	19.24	41.67	79.21	96.93	112.9	151.1	143.4	148.0	28	11	13	8
Wisconsin.....	15.57	25.18	57.91	65.47	91.4	91.3	104.9	99.9	31	32	26	24
West North Central.....	19.10	37.04	72.41	74.91	112.1	134.3	131.1	114.3	..	..	..	..
Minnesota.....	22.49	39.36	82.92	82.14	132.0	142.7	150.2	125.4	18	17	10	13
Iowa.....	20.14	50.23	82.33	93.47	118.2	182.1	149.1	142.7	26	5	11	9
Missouri.....	13.45	25.43	47.70	57.82	78.9	92.2	86.4	88.3	32	31	30	31
North Dakota.....	27.19	44.43	74.08	61.74	159.6	161.1	134.2	94.2	9	7	16	27
South Dakota.....	22.59	34.78	85.84	77.22	132.6	126.1	155.5	117.9	17	22	8	17
Nebraska.....	20.77	40.87	87.72	74.26	121.9	148.2	158.9	113.4	22	14	6	19
Kansas.....	19.54	34.51	73.47	78.05	114.7	125.1	133.0	119.1	27	23	17	16

South Atlantic	7.18	11.87	26.95	35.60	42.1	43.0	48.8	54.3	..	..	..	..
Delaware	11.28	16.32	46.37	60.43	66.2	59.2	84.0	92.2	35	39	32	28
Maryland	10.49	16.47	40.13	54.88	61.6	59.7	72.7	83.8	36	38	37	32
District of Columbia	37.30	42.72	71.09	107.60	218.9	154.9	128.7	164.2	2	8	21	4
Virginia	6.77	12.24	30.06	28.84	39.7	44.4	54.4	44.0	42	40	40	42
West Virginia	11.57	16.79	40.96	49.59	67.9	60.9	74.2	75.7	34	37	36	35
North Carolina	4.40	8.26	25.31	39.20	25.8	29.9	45.8	59.8	48	46	42	40
South Carolina	5.72	8.96	16.31	25.82	33.6	32.5	29.5	39.4	45	44	45	43
Georgia	5.32	8.12	14.08	17.53	31.2	29.4	25.5	26.8	46	47	49	48
Florida	9.36	17.34	34.01	49.11	54.9	62.9	61.6	75.0	37	35	39	36
East South Central	5.81	9.37	18.29	21.82	34.1	34.0	33.1	33.3	..	..	..	..
Kentucky	7.98	11.81	19.93	24.12	46.8	42.8	36.1	36.8	40	41	44	44
Tennessee	6.32	11.05	21.01	23.60	37.1	40.1	38.0	36.0	43	42	43	45
Alabama	4.25	7.98	16.19	17.48	24.9	28.9	29.3	26.7	49	48	46	49
Mississippi	4.46	6.55	15.84	22.80	26.2	23.7	28.7	34.8	47	49	47	46
West South Central	9.00	14.96	33.01	36.58	52.8	54.2	59.8	55.8	..	..	..	..
Arkansas	5.99	8.87	15.18	17.80	35.2	32.2	27.5	27.2	44	45	48	47
Louisiana	7.90	10.20	28.99	34.07	46.4	37.0	52.5	52.0	41	43	41	41
Oklahoma	12.99	19.42	45.54	42.88	76.2	70.4	82.5	65.5	33	34	34	37
Texas	9.09	17.03	35.92	42.06	53.3	61.7	65.0	64.2	39	36	38	38
Mountain	24.21	46.97	76.21	75.83	142.1	170.3	138.0	115.8	..	..	..	..
Montana	31.40	88.93	92.03	66.50	184.3	322.4	166.7	101.5	5	1	4	23
Idaho	23.87	42.51	73.09	64.40	140.1	154.1	132.4	98.3	15	9	19	25
Wyoming	25.77	51.01	98.52	102.97	151.2	185.0	178.4	157.2	11	4	3	6
Colorado	27.03	41.00	79.57	102.69	158.6	148.7	144.1	156.8	10	12	12	7
New Mexico	9.27	30.56	46.36	41.89	54.4	110.8	84.0	63.9	38	28	33	39
Arizona	20.40	53.01	73.26	73.96	119.7	192.2	132.7	112.9	25	3	18	20
Utah	25.08	40.66	70.46	62.80	147.2	147.4	127.6	95.9	13	15	22	26
Nevada	35.51	46.62	105.03	125.03	208.4	169.0	190.2	190.9	3	6	2	2
Pacific	34.51	48.84	109.67	126.03	202.5	177.1	198.6	192.4	..	..	..	..
Washington	40.66	41.96	91.32	84.75	238.6	152.1	165.4	129.4	1	10	5	12
Oregon	27.39	38.62	72.57	86.67	160.7	140.0	131.4	132.3	7	19	20	10
California	33.72	56.26	127.26	153.38	197.9	204.0	230.5	234.1	4	2	1	1

\$27.58, in 1922, \$55.22 and in 1925, \$65.51. During this period the individual states have varied widely in their relative school support, but in a general way the regional groups of states have maintained their respective relative positions. The Pacific states have consistently been the most liberal in their school expenditures. The Mountain states and the Middle Atlantic states have stood next in order, though the former have been rapidly slipping behind. The southern states, on the other hand, have consistently been far below the country's average.

In recent years, California has had the highest expenditure per school child—\$127.26 in 1922 and \$153.38 in 1925. Nevada ranked second, having spent \$125.03 per school child in 1925. New York, which had ranked fifteenth in 1922, had achieved third place by 1925, with an expenditure per school child of \$108.90. At the other end of the list were Alabama and Georgia, with expenditures per school child, respectively, of \$17.48 and \$17.53 in 1925.

Relationship between Ability and Support

A comparison of the rankings of the states in Tables 60 and 61 shows that there is usually a close relationship between the ability of a state to support education and the support which it accords its schools. Eight of the twelve states with the greatest ability to support education are found among the twelve highest according to support accorded to education. Eleven of the twelve states ranking lowest according to ability to support education are found among the twelve lowest according to support accorded to education. In the middle groups, as might be expected, there is greater dispersion of distribution.

It is not likely that, in the past, the states have deliberately expanded their school systems to harmonize with their relative economic resources. Rather, there has been more or less similar pressure to provide improved school systems in all states. In certain states such improvements could be carried out because the necessary funds were available or could be raised without difficulty. In others these projects have not been acted upon because of the lack of fiscal resources. It is to be noted, however, that both the high and the low groups

of states spend less on their school system than the relation of their ability to the country's average would warrant.

Relative Educational Accomplishment

Relative ability to support education and relative school support are capable of more or less definite measurement, since there is a definite unit applicable to each—in the first case, dollars of income or of income plus wealth per child of school age, and in the second case, dollars of school expenditure per child of school age. There is no such definite unit of comparison for measuring educational accomplishment. The two indexes of relative educational accomplishment, developed by Dr. Leonard Ayres and by Dr. Frank Phillips, respectively, are based on weighted averages of a series of independent factors.¹ The ranking of states by these two methods for selected years is given in Table 62.

In 1925, of the twelve highest states according to educational expenditures per school child, nine are found in the highest quartile in both the Ayres and the Phillips index. Of the twelve lowest states according to relative school expenditure, nine are found in the lowest quartile of the Ayres index and eight in the lowest quartile of the Phillips index. Obviously, this agreement is too close to be attributed to chance. There is a clear relationship, though not an absolute one, between school expenditures and educational accomplishments.

SOURCES OF SCHOOL REVENUE

An analysis of school revenues from 1890 through 1925 shows in a general way that the totals of the revenue available for school purposes have paralleled the figures for school expenditures. During the thirty-five year period covered, however, there have been marked changes in the composition of this revenue, as may be seen from Table 63.

State and Local Borrowings for School Purposes

No complete record was kept of state and local borrowings for school purposes until the present decade. Prior to 1920,

¹ For discussion and comparison of these two methods see Frank M. Phillips, "Educational Ranking of States by Two Methods," Bruce Publishing Company, Milwaukee, 1925.

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TABLE 62: EDUCATIONAL RANKING OF THE STATES

States and Geographic Divisions	Educational Ranking of the States by the Ayres Index ¹					Educational Ranking of the States by the Phillips Index ²			
	1890	1900	1910	1918	1924 ³	1910	1918	1922	1924 ⁴
New England									
Maine.....	23	26	30	32	31	28	31	28	27
New Hampshire.....	18	25	27	27	30	30	23	27	33
Vermont.....	22	19	28	29	33	27	29	29	29
Massachusetts.....	1	1	3	8	9	3	8	21	21
Rhode Island.....	4	5	9	24	20	9	27	31	26
Connecticut.....	5	4	11	10	13	19	24	23	22
Middle Atlantic									
New York.....	3	2	7	12	3	4	12	6	4
New Jersey.....	7	8	5	4	4	5	13	9	5
Pennsylvania.....	9	14	15	20	18	25	22	24	20
East North Central									
Ohio.....	12	11	13	11	5	20	6	3	3
Indiana.....	24	15	16	16	16	13	11	4	10
Illinois.....	14	12	10	22	15	6	21	17	15
Michigan.....	15	17	18	9	6	7	5	5	7
Wisconsin.....	16	23	22	30	17	24	16	12	11
West North Central									
Minnesota.....	25	20	20	18	11	14	10	11	6
Iowa.....	17	22	29	6	22	22	4	7	12
Missouri.....	32	29	31	31	32	31	28	30	32
North Dakota.....	33	21	26	14	25	23	20	22	24
South Dakota.....	31	24	25	26	19	21	9	16	14
Nebraska.....	30	16	21	21	24	8	25	10	18
Kansas.....	20	30	23	25	21	18	17	18	13
South Atlantic									
Delaware.....	26	32	33	35	27	37	39	33	28
Maryland.....	11	18	32	34	26	34	35	34	31
Virginia.....	37	41	40	39	41	44	36	38	37
West Virginia.....	39	34	35	38	35	35	38	37	35
North Carolina.....	44	48	47	44	40	45	43	41	42
South Carolina.....	46	46	48	48	47	43	42	48	45
Georgia.....	45	43	43	43	44	41	45	47	47
Florida.....	28	39	41	37	37	39	44	39	39
East South Central									
Kentucky.....	34	35	39	41	42	40	40	44	38
Tennessee.....	40	40	42	40	43	48	41	42	43
Alabama.....	43	47	44	45	45	42	48	46	44
Mississippi.....	38	45	46	47	46	47	46	45	46
West South Central									
Arkansas.....	41	44	45	46	48	46	47	43	48
Louisiana.....	42	42	38	42	39	36	37	40	40
Oklahoma.....	38	38	34	33	34	32	33	32	34
Texas.....	35	37	36	36	38	33	34	35	36
Mountain									
Montana.....	8	9	6	1	29	12	18	15	30
Idaho.....	36	33	19	17	28	17	14	19	23
Wyoming.....	21	28	24	23	8	26	30	26	17
Colorado.....	6	7	12	13	7	11	7	13	8
New Mexico.....	47	36	37	28	36	38	32	36	41
Arizona.....	13	31	17	3	12	29	15	25	25
Utah.....	27	10	8	7	23	10	19	20	19
Nevada.....	10	6	4	15	2	16	26	8	16
Pacific									
Washington.....	19	13	1	5	10	1	1	1	1
Oregon.....	29	27	14	19	14	15	3	14	9
California.....	2	3	2	2	1	2	2	2	2

¹ Data from Leonard P. Ayres, "An Index Number for State School Systems."
² Data from Frank M. Phillips, "Educational Ranking of States by Two Methods."
³ Data from Frank M. Phillips, "Educational Rank of the States, 1924," Table 1.
⁴ *Ibid.*, Table 3.

TABLE 63: SCHOOL REVENUES, 1890 TO 1925

(Source: United States Bureau of Education, "Statistics of State School Systems" Series)
(In thousands)

Classified Revenue	1890	1895	1900	1905	1910	1915	1920	1922	1924	1925
Federal aid.....	..	..	..	..	..	..	\$2,475	\$2,891	\$3,986	\$4,692
Permanent funds.....	\$7,745	\$7,801	\$9,152	\$13,194	\$14,096	\$17,080	26,487	23,767	24,666	24,096
State taxes and appropriations.....	26,345	34,638	37,887	44,349	64,605	91,104	134,279	210,708	237,660	240,115
County taxes.....	} 97,223	118,915	149,487	210,168	312,222	456,957	{ 103,618	138,647	149,498	168,133
Local taxes.....											655,279	967,684	1,073,608	1,175,450
Other current revenue.....	11,882	15,211	23,240	34,108	42,141	24,511	47,982	100,545	129,020	92,681
Total current revenue.....	\$143,195	\$176,565	\$219,766	\$301,819	\$433,064	\$589,652	\$970,120	\$1,444,242	\$1,618,438	\$1,705,167
Bonds.....	167,346	277,109	305,315	306,375
Gross revenue.....	\$1,137,466	\$1,721,351	\$1,923,753	\$2,011,542

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Percentage Distribution

Federal aid.....3	.2	.2	.3
Permanent funds.....	5.4	4.4	4.2	4.4	3.3	2.9	2.7	1.6	1.5	1.4
State taxes and appropriations.....	18.4	19.6	17.2	14.7	14.9	15.4	13.9	14.6	14.7	14.1
County taxes.....	} 67.9	67.4	68.0	69.6	72.1	77.5	{ 10.7	9.6	9.2	9.9
Local taxes.....											67.5	67.0	66.4	68.9
Other current revenue.....	8.3	8.6	10.6	11.3	9.7	4.2	4.9	7.0	8.0	5.4
Total current revenue.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Per cent that bonds are of gross revenue..	..	..	..	..	..	..	14.7	16.1	15.9	15.2

however, only an inconsiderable proportion of school funds was raised through loans. The construction of schools was considered, and rightly so, a capital expense of a *continuing* nature, which should be met out of taxation.

By the end of the war period, there was a wide-spread dearth of school buildings. It was urgent that construction on a large scale should be undertaken at once. The necessary funds could not be raised immediately without creating an excessive tax burden. Hence school districts, towns, cities and even counties borrowed extensively to finance the construction of much needed school buildings. The \$167 millions so raised in 1920 represented 14.7% of the total school funds of that year. In 1922, the proportion of total funds raised by borrowing was 16.1%. In 1925, it was 15.2%.

State and Local Taxes for School Purposes

From 1890 through 1910, state and local taxes comprised about 85% of the total of current revenue available for school purposes. Since 1915, the proportion has been over 90%; in 1925 it was 92%.

During the thirty-five year period covered, although the state governments increased their appropriations for school purposes every year, the proportion of their contribution to the total of current revenue tended to decline in view of the more rapid expansion of local school revenues. In 1895, the school revenues of the state were 29.1% as large as those of the local governments. In 1920, the ratio was only 17.8%.

During the last few years, however, this trend has been reversed. Educators have pointed to the wide disparity in the relative resources of local districts. Within the borders of a state, even within the limits of a single county, there are to be found districts which, with all the good will in the world, are financially unable to supply even the barest minimum of education to their children, whereas there are other more fortunate districts, which can build and maintain the most up-to-date schools and hardly feel the resulting tax burden. It has come to be realized that the providing of adequate educational opportunities is a general social function as well as a local obligation. An increasing number of states are making provision for state school funds to be distributed

among the counties and districts so as to equalize educational opportunities. This project of equalization is new,¹ but only in recent years has it gained much headway.

The older principle of state school aid was based upon the encouragement of the local districts to make adequate school provision. The distribution of state funds by this principle had the effect of according the greatest aid to those districts which needed it least, and withholding it from the poorer districts. It was argued that a very small contribution by the state would serve as an encouragement to the local districts; hence there was no need for the state to raise any large proportion of the total school fund. This attitude explains, in part, the relative increase of local school revenues as against state school funds until 1920. This argument does not apply to the principle of equalization. If the state plans actually to make up the deficiencies of the poorer counties or school districts, it must face the necessity of making a substantial contribution. The extreme position is that of Delaware, where the state has assumed the entire responsibility for the current expenditures of the school system, and even anticipates the assumption of the burden of school construction.²

The systems of state school support at present in operation are shown in Table 64. It will be noted that all but three states—Arkansas, Iowa and South Dakota—provide for a state equalization grant. The next most popular basis, particularly in the western groups of states, is that of enumeration—that is, distribution of state aid according to the number of school children. However, this method of distributing state aid is viewed with growing disfavor, and is being discarded. Several regional trends in systems of state aid are noticeable. The New England and Middle Atlantic states, for example, include grants for tuition of non-resident students and grants to supplement the salaries of supervisory officers with equalization and other bases. The West North Central states combine grants to consolidated schools and grants to high schools with their other grants.

¹ See E. P. Cubberly, "School Funds and their Apportionment," New York Teachers College, Columbia University, 1905, and Robert D. Baldwin, "Financing Rural Education," Rural Series Press, 1927.

² See National Industrial Conference Board, "The Fiscal Problem in Delaware," 1927, p. 129.

Federal Aid to State Public Schools

Federal aid to the public school systems of the states began in 1917 with the passage and approval of the Smith-Hughes Act. This law provided for federal subventions to the states to pay a part of the salaries of teachers of vocational training. An earlier law, the Smith-Lever Act of 1914, provided federal subventions to universities for extension work in agriculture and home economics; but these funds do not apply to the primary or secondary school systems of the states.

Certain other revenues of the states from the Federal Government can be, and usually are, applied to school purposes. A small percentage of the proceeds of public land sales goes to the states on condition that they do not tax such land for five years after the sale. One-fourth of the receipts from federal forest reserves is paid to the states and may be used for either school or road purposes. Finally, a law was passed in 1920 which provided that the states wherein federal mineral lands are located shall receive 20% of the value of the leases of such land for past production and 37½% for future production. So far, only California and Wyoming have benefited to any extent from this arrangement.

Federal aid did not assume any importance in the school budgets until the school year 1917-18. In 1920, the states received \$2.5 millions from the Federal Government; this represented 0.3% of their current school revenues for that year. In 1925, federal school aid amounted to \$4.5 millions or 0.3% of the current school revenue.

Permanent School Funds

A number of states, particularly those in the West and Middle West, have received considerable school revenue in the past in the form of income from permanent school funds. For the most part, these funds were built up from the sales of reserved "sixteenth" sections of the public lands in these states. In many cases these school funds were spent injudiciously. Those states that regulated the sales of the school lands wisely and which invested the funds carefully, now receive a comfortable school revenue from these investments.

The income from these funds is not elastic and has not increased as rapidly as other items of the school revenue. Whereas in 1890 the yield of these school funds represented 5.4% of the total of the year's school revenue, in 1925 the proportion was only 1.4%.

SYSTEMS OF PUBLIC SCHOOL SUPPORT

As indicated in the preceding sections of this chapter, public school support is still predominantly a function of local school districts, with the counties and the states contributing only a small proportion of the total revenue required. From state to state, however, there are wide divergences in the relative proportions of this school revenue contributed by these three governmental divisions. There are also marked differences from state to state in the methods employed to raise school revenue.

Local School Revenue Systems

Table 65 presents the methods of raising school revenue at present employed by the local school districts. Only three states, Arkansas, Maryland and Tennessee, have completely discarded local support of education. Two others, Alabama and New Mexico, allow the districts to make levies for high-school support only. The others vary from almost complete dependence on district school support, as in Kansas, to the Delaware system, where practically the entire burden of education is assumed by the state.

The general property tax is the usual basis of local school support. In the forty-three states where the school districts are empowered to provide school revenue by local levies, the property tax is either the sole source of this revenue or at least the major source. Curiously enough, despite the fact that the school-district system of educational support leads to under-support rather than to over-support, limitations upon the taxing power of the districts, wherever they have been set, are usually maximum rather than minimum limitations. Two states only, Vermont and Wisconsin, have specific minimum limitations, but thirty-two states have maximum limitations. Most of these states specify flat maximum rates for all districts, but a few vary the limitation according to the

TABLE 65: FINANCES OF LOCAL SCHOOL SUPPORT, 1926¹

State	Statutory district general school levy: a—Limitations. b—Increase over limitation rate by popular vote.	Permissible district special school levies: a—High school. b—Debt service. c—Construction d—Kindergarten.	Other district school revenues: a—Poll tax.	Limitation of district school debt.
Alabama.....		b—3 mills.		
Arizona.....	a—1½ mills.	d.		2%
Arkansas....				
California....	a—3 mills.	a—1 mill.		
Colorado....	a—2 mills.	a—4 mills.		
Connecticut..	No limitation.			
Delaware....	No limitation.		a—optional.	5%
Florida.....	a—1 mill as per Constitution.	b—5 mills as per Constitution.		20% as per Constitution.
Georgia.....	a—5 mills.	b—5 mills.		Bonds must have 30 yr. maturity.
Idaho.....	a—10 mills; b—to 15 mills.	5 mills a or b.	One-half of county licenses to rural district. ¼ of municipal fines to incorporated district.	
Illinois.....	a—District under 200,000, 20 mills; over 200,000, 19.2 mills; b—30 mills and 29.2 mills respectively.	a—10 mills; c—7½ mills limitation but vote may raise to 10 mills; 0.8 mill for textbooks.		
Indiana.....	a—Cities over 400,000, 4 mills.	b; d—2 mills; 7½ mills for equipment; 7½ mills to extend term.	a—\$1 for equipment and \$.25 to extend term in incorporated districts.	
Iowa.....	a—\$70 to \$80 per pupil, if levy is over \$1000.	a—\$100 per pupil limitation.		
Kansas.....	a—Rural, 6¼ mills; cities, 20 mills.	a—Rural, 6 mill limitation; b—cities.		
Kentucky....	a—subdistrict, 2¼ mills; district, 2¼ to 12¼ mills; cities, 7¼ to 15 mills.	b.	a—\$2 on white males.	
Louisiana....	a—3 mills; New Orleans, 7 mills.			

¹ Based on Bureau of the Census, "Digest of State Laws Relating to Taxation and Revenue, 1922," checked by a survey of recent state legislation.

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TABLE 65: FINANCES OF LOCAL SCHOOL SUPPORT,
1926—Continued

State	Statutory district general school levy: a—Limitations b—Increase over limitation rate by popular vote.	Permissible district special school levies: a—High school. b—Debt service. c—Construction. d—Kindergarten.	Other district school revenues: a—Poll tax.	Limitation of district school debt.
Maine.....	No limitation.		a—\$3 male in unorganized territory.	
Maryland....			Income tax.	
Massachusetts....	5 mills.			
Michigan....	No limitation.	a—Township; b; teachers' home levy.		Cities over 250,000, 5%; districts, 15%.
Minnesota...	a—30 mills but not over \$60 per capita; cities, 35 mills.	b—When debt exceeds 15% of valuation; c—10 mills.		
Mississippi...	No limitation.	c—To extend term.	a—In cities.	
Missouri....	No limitation.	b. Special levies.	3% increase by popular vote.	
Montana....	a—10 mills; b.			
Nebraska...	District: a—8 mills; b—20 mills. Cities: a—lump sum according to size; b.			% voteratification.
Nevada.....	a—2½ mills.	b: 2½ mills for textbooks.		
New Hampshire.	2½ mill town tax.			
New Jersey..	a—7½ mills; b.	b.		5%
New Mexico.		b; 5 mill limitation.		6%
New York...	No limitation.			
North Carolina...	a—3 mills.	a—Townships, 1 to 3 mills; cities, 10 mill limitation.	a—30c to 90c for township high school	
North Dakota	a—14 mills; b—21 mills, by ¾ vote.	a—10 mills.		
Ohio.....	a—3 mills; b.			
Oklahoma...	a—5 mills; b—10 mills.	c—3 to 5 mills.		
Oregon.....	a—Districts under 100,000, 6½ mills; over 100,000, 5 mills; b—10 mills. \$620, minimum.			

TABLE 65: FINANCES OF LOCAL SCHOOL SUPPORT, 1926—Continued

State	Statutory district general school levy: a—Limitations. b—Increase over limitation rate by popular vote.	Permissible district special school levies: a—High school. b—Debt service. c—Construction. d—Kindergarten.	Other district school revenues: a—Poll tax.	Limitation of district school debt.
Pennsylvania	a—1st class, 8 mills; 2d class, 20 mills; 3d and 4th classes, 25 mills.	Two and one-half to 3 mills for bringing teachers' salaries up to minimum standard in 2d, 3d, and 4th class districts. Education law fines.	a—\$1 to \$5.	
Rhode Island	3 mills			
South Carolina...	a—15 mills.	a—2 mills; b.		4% to 8% according to size of district.
South Dakota....	a—Land assessed under \$50 per acre, 25 mills; over \$50, 10 mills; b—25 mills.			5%
Tennessee....				
Texas.....	5 mills.	b—5 mills.		1%
Utah.....	No limitation.			
Virginia.....	5 to 10 mills.		a; dog tax.	17%
Vermont.....	Not less than 7½ mills.			
Washington..	10 mills; b—20 mills.	b.	5%; debt must be in serial bonds.	
West Virginia	a—5½ mills; b.	c—2 mill limitation but additional 2 mills may be voted.		2½%
Wisconsin....	Minimum—¼ of state apportionment; a—20 mills.			
Wyoming....	a—3½ mills; b—8½ mills.	a—5 mill limitation; c—10 mill limitation.		

population of the districts or distinguish between rural districts and incorporated places. These maximum limitations vary from a rate of one mill in Florida to a thirty mill rate in Minnesota; in a few cases lump-sum maxima or amounts per student are set instead of maximum rates. Of the thirty-two states setting maximum rates for their school districts, twelve permit these maxima to be exceeded within specified limits by special vote of the taxpayers of the districts.

In addition to the general district property tax levy, a majority of the states permit the districts to make special levies for specific purposes. These special levies do not come under the maximum limitations of the general levy. The most common purposes for which these levies are specified are to pay interest upon and to amortize the school debt of the district. A number of states permit such special levies to provide for high school maintenance. In Arizona the school districts may levy an additional rate, beyond the 1.2 mill general levy limitation, for the equipment and maintenance of kindergartens. In at least four states—Minnesota, Mississippi, Oklahoma and West Virginia—special levies may be voted for school construction costs. Other purposes for which special levies may be made in various states are to purchase textbooks, to extend the school term, to build teachers' homes, and to provide for the payment of teachers' salaries higher than the state standard.

In several states the school districts have other sources of revenue, supplementary to the property tax. In seven states—Indiana, Kentucky, Maine, Mississippi, North Carolina, Pennsylvania and Virginia—the school districts receive revenue from poll taxes. In Idaho the school districts receive one-half of the county license revenue, while the incorporated districts receive one-half of the municipal fines. In Rhode Island the fines go to the district in which they are collected. The Massachusetts school districts receive a portion of their revenue from supplementary income taxes.

County School Revenue Systems

Table 66 shows that in only thirty-two states are the counties empowered to contribute at all to school support.¹ In at least six² of these thirty-two states the counties at present make no use of their power to raise school revenue. In only twenty-six states, then, do the counties at present make any

¹ The sixteen states in which the counties raise no part of the school revenue are Arkansas, Connecticut, Delaware, New Hampshire, New York, Rhode Island, Pennsylvania, Utah, Vermont, Maine, Massachusetts, Michigan, Minnesota, Nebraska and West Virginia. Of these sixteen, six—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont—are New England states where the counties, as governmental subdivisions, exist in only the most rudimentary form.

² Iowa, Minnesota, Nebraska, New Mexico, Texas and Utah.

TABLE 66: FINANCES OF COUNTY SCHOOL SUPPORT, 1926¹

State	General County School Levy	Special County Educational Levies: a—Special High School Levy	Other Revenues: a—Polls b—Fines, etc. c—Land sales
Alabama.....	By Constitution, 1 mill.		
Arizona.....	Basis of school revenue.		a.
Arkansas.....			a.
California.....	\$30 per elementary pupil; \$60 per high school pupil, but 5 mill limitation.	a— $\frac{1}{2}$ mill for kindergarten.	
Colorado.....	For teachers' salaries only; 5 mill limitation.		
Connecticut			
Delaware			
Florida.....	3-10 mills.		a.
Georgia.....	May levy.		
Idaho.....			One-half of license.
Illinois.....			b; c.
Indiana			
Iowa.....	1-3 mills, ² additional, 2 mill levy by popular vote.		
Kansas.....		a— $\frac{1}{2}$ to 4 mills according to population and assessed value.	
Kentucky....	2 $\frac{1}{2}$ to 5 mills.		
Louisiana....			c.
Maine			
Maryland....	Basis of school system.		
Massachusetts			
Michigan			
Minnesota....	1 mill. ²		
Mississippi...	Outside of regular school districts additional general levy to extend school time beyond constitutional 4 mo.	3 mills agricultural school tax.	a; c; dog tax.
Missouri.....	6 $\frac{1}{4}$ -10 mills.	Building, 4 mill sinking fund and interest levies permitted.	b; c; escheats.
Montana.....	6 mills.		b; c; $\frac{1}{2}$ inheritance tax; unused road funds.
Nebraska.....	35 mill limitation. ²	10 mills for new construction. ²	
Nevada.....	5 mill limitation.	Interest and sinking fund levy.	
New Hampshire			
New Jersey...	May levy.		
New Mexico..	18 mills limitation. ²		

¹ Based on Bureau of the Census, "Digest of State Laws Relating to Taxation and Revenue, 1922," checked by a survey of recent state legislation.

² Not collected.

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TABLE 66: FINANCES OF COUNTY SCHOOL SUPPORT,
1926—Continued

State	General County School Levy	Special County Educational Levies: a—Special High School Levy	Other Revenues: a—Polls. b—Fines, etc. c—Land sales.
New York			
North Carolina....	Up to 3½ mills to meet deficiencies.		
North Dakota	1 mill.		
Ohio.....	15 mill county, plus district limitation.		b; fees.
Oklahoma....	2 mills.		b; escheats; estrays; marriage license fees.
Oregon.....	\$20 per child 4 to 20 years of age.	a.	One-quarter of Forest Funds reserves.
Pennsylvania			
Rhode Island			
South Carolina	3 mills.		a—\$1.
South Dakota.	Unorganized counties—10 mill limitation.	a—½ to 3 mills.	
Tennessee....	\$5 per school child.	a.	
Texas.....	7½ mill limitation. ²		
Utah.....	7 to 12 mill limitation, ² according to ratio of assessed values per school child.		
Vermont			
Virginia.....	1 to 4 mills; may be increased by popular vote to 7 mills.		b—compulsory school law fines.
Washington..	5 mill limitation.		
West Virginia			
Wisconsin....	May levy.		
Wyoming....	3 mill limitation.		a—\$2; b.

² Not collected.

contribution toward school support. There is an evident tendency to discard the county as a school fiscal agency.

As in the case of district levies, a maximum limitation is usually placed upon the county levies; in few actual cases, however, is this limitation rate even approached. In addition to the general levy, a few states permit special levies, the most usual purpose of such special levies being for high-school maintenance. Besides property tax levies, the counties in several states receive educational revenue from sources, such as poll taxes, fines and forfeitures, rentals of riparian rights and land sales.

State School Revenue Systems

Analysis of the elements of state support of education presents difficulties on account of the complexity of the sources of school revenue. Table 67 shows that forty states receive more or less revenue from permanent educational funds.¹ As has been indicated, the revenue from permanent educational funds is small, and the sources from which the principal (and consequently the interest) of these funds can be increased are for the most part few and unimportant.

The property tax is still the basis of state educational support. In some cases, among which Delaware is now included, the states which have practically discarded the property tax for all other state purposes, have retained it for the maintenance of state educational institutions and for educational subventions.² There are three ways in which a state may levy property taxes for school purposes: first, a general mill tax may be levied on all taxable property, the proceeds of which are to be devoted to a general school fund; second, the laws may provide for the levying of a general mill property tax sufficient to raise a fixed sum, leaving the rate undetermined; and third, a general mill tax may be levied for special purposes, such as physical education, or high-school normal training departments.³ Twenty states⁴ make use of property taxes of the first type, the rates varying from seven-tenths of one mill in Wisconsin to five mills in New Mexico. Five states⁵ raise school revenue by property taxes of undetermined rates, the exigencies of the year determining the rate for the year. In the case of Texas, this provision for a mill tax of undetermined rate (one to five mills) is in addition to the provision for a regular three-and-one-half-mill tax. Ten states⁶ levy special mill taxes of the third type, for specified

¹ The eight states receiving no revenue from permanent educational funds are Georgia, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maryland and Missouri.

² See Newcomer, *op. cit.*, p. 56.

³ Fletcher H. Swift, "State Policies in Public School Finance," U. S. Bureau of Education, Bulletin No. 6, 1922, pp. 34-35.

⁴ Alabama, Arkansas, Delaware, Florida, Illinois, Indiana, Kentucky, Louisiana, Maine, Maryland, Minnesota, Montana, New Hampshire, New Mexico, Oklahoma, Tennessee, Texas, Vermont, Virginia and Wisconsin.

⁵ Arizona, New Jersey, Texas, Utah and Washington.

⁶ Arizona, Arkansas, Colorado, Idaho, Indiana, Louisiana, Minnesota, Oklahoma, Utah, and Washington.

TABLE 67: FINANCES OF STATE SCHOOL SUPPORT, 1926¹

State	a—State Revenue from Permanent Funds and School Lands	Specified Mill Tax for General School Purposes	Unspecified Mill Tax for General School Purposes	Mill Taxes for Special Educational Purposes	Special Tax Earmarked to Educational Purposes: a—Poll Tax. b—Dog Tax c—Whole or Part of Income Tax d—Whole or Part of Inheritance Tax e—Whole or Part of Corporation Tax f—Teacher's License Fee	Legislative Appropriation (Most Recent Legislation): a—Appropriation for General School Purposes b—Appropriation for State University	Other Revenue: a—Escheats b—Fines, Forfeitures c—Land Sales d—Estrays
Alabama.....	a.	3 mills, alternative to legislative appropriation.			a—Certain license taxes.	a—Alternative to 3 mill tax.	a.
Arizona.....	a.		Equal to \$25 per school child.	1 mill for State University. \$2500 for instruction of blind.	a.	a—\$221,500, 1923; \$3305.96 to each county. b—\$275,000.	a.
Arkansas.....	a.	3 mills.		.2 mill for vocational education.	f.		a; b—cigarette sale violation.
California.....	a.				a; e.	a—By Constitution, not less than \$30 per school child.	Interest on bonds on decedents' estates.
Colorado.....	a.			1 mill teachers' retirement fund.	f.		a; b.
Connecticut...	a.						
Delaware.....	a.	2½ mills.			c; e—Filing fee.	a—\$2.25 per school child plus equalization appropriation. \$82,500 for school debt, interest, etc. b—\$152,000.	
Florida.....	a.	1 mill.					b.

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Georgia.....				a; b—Show license fee; 50% of all state revenue.	a—\$32,500. b—\$25,000.	
Idaho.....	a.		$\frac{1}{8}$ mill for State University.		b—\$249,250.	a.
Illinois.....	a.	1.33 milla.	Fractional taxes for various purposes.	a; c—Certain licenses.	Surplus revenue.	a; saline fund.
Indiana.....		.7 mill.			a—\$909,900. \$150,000 for consolidation (1924-25).	a; b; c; d.
Iowa.....				c—Insurance company tax.		a; b; d.
Kansas.....				d.		
Kentucky.....		2 $\frac{1}{2}$ milla.	$\frac{1}{4}$ mill for State University.	a; d.		
Louisiana.....		2 $\frac{1}{2}$ milla.		e—One-half savings bank and franchise tax.	a—Equal to 6% of total school fund plus \$100,000 equalization appropriation.	
Maine.....	a.	3.33 milla.		b—Certain license taxes.		b.
Maryland.....		1 $\frac{1}{2}$ milla, '22; .89 milla, '24.		c.	a—\$100,000 to General School Fund until it equals \$5,000,000; other appropriations.	
Massachusetts.....	a.			b.	a—\$207,250.	
Michigan.....	a.		.23 for State University.	c.	Legislature is given such power; b—\$57,000.	
Minnesota.....	a.	1 mill.			a—Not less than $\frac{1}{5}$ of total revenue.	a; b—proceeds from state tobacco warehouses.
Mississippi.....	a.			c—One-half tax on foreign insurance companies.		
Missouri.....						

¹ Based on Bureau of the Census, "Digest of State Laws Relating to Taxation and Revenue, 1922," checked by a survey of recent state legislation.

TABLE 67: FINANCES OF STATE SCHOOL SUPPORT, 1926—Continued

State	a—State Revenue from Permanent Funds and School Lands	Specified Mill Tax for General School Purposes	Unspecified Mill Tax for General School Purposes	Mill Taxes for Special Educational Purposes	Special Tax Earmarked to Educational Purposes: a—Poll Tax. b—Dog Tax c—Whole or Part of Income Tax d—Whole or Part of Inheritance Tax e—Whole or Part of Corporation Tax f—Teacher's License Fee	Legislative Appropriation (Most Recent Legislation): a—Appropriation for General School Purposes b—Appropriation for State University	Other Revenue: a—Escheats b—Fines, Forfeitures c—Land Sales d—Entrays
Montana.....	a.	5 mills.			c— $\frac{1}{2}$; $\frac{1}{3}$ of gas tax.	Equalization appropriation.	b. a; b; 2% gross receipts from toll roads and bridges.
Nebraska.....	a.						
Nevada.....	a.				d— $\frac{1}{4}$.		
182 New Hampshire..	a.	3 $\frac{1}{4}$ mills in unorganized parts of the state.			b—Excess over damage payments; e.		
New Jersey....	a.		Sufficient when added to appropriation to equal 2 $\frac{1}{4}$ mills.		a; c—Railway taxes.	a—\$100,000 to compensate withdrawal of railways from local taxation.	
New Mexico....	a.	5 mills.			a.	b—\$97,500.	a; b.
New York.....	a.				e—Portion of tax on bank shares.	a—\$1,350,000 for teachers' salaries. a—\$3,295,000 in '20, heavier since. b—\$989,550.	
North Carolina	a.						
North Dakota.	a.						b; c—ferry licenses.
Ohio.....	a.					Unappropriated monies, plus equalization appropriation.	

Oklahoma.....	a.	Not to exceed 2 mills.		$\frac{1}{4}$ mill for equalization fund.	\$500,000 equalization appropriation; b—\$45,000.	a; b.
Oregon.....	a.					
Pennsylvania..	a.				2c per acre charge on forest preserves. Auctioneer license tax.	a. a—\$300,000 annually.
Rhode Island..	a.					b.
South Carolina	a.					
South Dakota..	a.				a; b.	a—\$41,403.64.
Tennessee.....	a.	.8 mill.	Sufficient with other resources to maintain school six months. Levy plus interest on school fund must equal \$15 per school child.		$\frac{1}{2}$ of revenue.	
Texas.....	a.	3.5 mills.			a; $\frac{1}{4}$ of occupation tax; $\frac{1}{2}$ of gas tax.	a—\$1,500,000 (1926-27).
Utah.....	a.			.2 mill high school levy.		a—\$25 per child.
Vermont.....	a.	1 mill.			License taxes.	
Virginia.....	a.	Not to exceed 5 mills.			a; d; e.	a; b.
Washington...	a.		Levy plus interest on school fund must equal \$20 per child.	2 mills plus levy for university and normal schools.		a; b.
West Virginia..	a.				a; license taxes, marriage license.	
Wisconsin.....	a.	.7 mill.			c— $\frac{1}{6}$ of normal rate on incomes over \$3000; e—\$200,000 from corporation license fees.	a—\$1,000,000; \$25,000 to high schools.
Wyoming.....	a.					

purposes, such as support of a state university, vocational education, teachers' retirement fund, equalization fund and high-school levy.

Among the special taxes which are earmarked, entirely or in part, for state educational purposes in the various states are poll taxes, dog taxes, income taxes, inheritance taxes, corporation taxes, teachers' license fees and even gasoline taxes. Fifteen states¹ derive educational revenue from poll taxes. Only two states, Delaware and Massachusetts, earmark their income taxes to their school funds. Wisconsin has a supplementary income tax at one-sixth of the normal rate on incomes over \$3,000, the revenue from which goes to the state school fund. At least four states² divert all or a part of their inheritance taxes to educational purposes. As column 5 of Table 67 indicates, the application of revenue from corporation taxes to school purposes is very common.

In addition to this system of earmarking specific taxes for educational purposes, nearly all the state legislatures make larger or smaller annual educational appropriations out of their general funds. The size of these appropriations necessarily varies, according to the educational needs of the state and according to the extent of other provisions for meeting these needs. It is coming to be the general and decidedly effective practice to meet the greater part of the year's educational expenditures out of the rather inflexible earmarked revenues and local tax levies, using the legislative appropriation mainly as an element of flexibility, to be expanded or reduced from year to year as the immediate needs of the year dictate.

PUBLIC AID TO COLLEGES

The people of the United States, through the benevolence of individuals and through the provision of their legislative bodies, have been liberal in their support of higher education. One of the first actions in each of the English-settled colonies, after the immediate material necessities of life were secured, was to create a college or university for the education of a colonial ministry.

¹ Alabama, Arizona, Arkansas, Colorado, Idaho, Indiana, Iowa, Kansas, Louisiana, New Jersey, New Mexico, South Dakota, Texas, Virginia and West Virginia.

² Kentucky, Louisiana, Montana and Virginia.

By the "Purchase Act" of July 27, 1787, two townships in each state, formed out of the Northwest Territory, had to be reserved for the support of a state university. This established a precedent which was followed in all states, except in the original thirteen states and in Vermont, Kentucky, Maine, Texas and West Virginia, in which states, for obvious reasons, the Federal Government has never owned any land.

Federal Aid to Higher Education

By the first Morrill Act of July 2, 1862, it was provided that each state should receive 30,000 acres of public land (valued at about \$1.25 per acre) or an equivalent value in script, for each of its senators and representatives. This value was to be set aside as a permanent fund to assist agricultural education. Although it was not anticipated at the time that the agricultural colleges, created as the result of this grant, would ally themselves with the state universities, this was in many cases found to be a practical expedient, and this association of institutions is now found in half of the states.

The second Morrill Act of August 20, 1890, provided annual federal appropriations for the agricultural colleges eventually to amount to \$25,000 per state. The Nelson Amendment of 1907 raised this federal appropriation to \$50,000 per state.

Meanwhile, an act of May 2, 1887, had allowed \$15,000 annually to each state for the support of agricultural experimental stations. The Adams Act of March 4, 1907, raised this annual subvention to \$30,000. In all states these experimental stations are associated with the agricultural colleges and are, in effect, used as laboratory adjuncts to these colleges. Thus these aids supplement the Morrill-Nelson subventions.

The Smith-Lever Act of 1914 provided for cooperation between the Federal Government and the states in the support of extension work by agricultural colleges. Finally, the Smith-Hughes Act of 1917 provided for a federal subsidy, which now amounts to \$3,000,000 annually, for agricultural and vocational education and for the training of teachers in these subjects. The states have to match the federal subventions.

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TABLE 68: SYSTEMS OF SUPPORT OF STATE COLLEGES AND UNIVERSITIES, 1922-23

(Source: U. S. Bureau of Education, Bulletin 1924, No. 28, pp. 56-7)

States and Geographic Divisions	Number of Colleges	Mill Tax		Appropriation			Assigned Special Tax
		General	Special	Biennial	Annual	Special	
New England.....	6	..	..	4	2	..	..
Maine.....	1	..	..	1	..	..	..
New Hampshire.....	1	..	..	1	..	..	..
Vermont.....	1	..	..	1	..	..	..
Massachusetts.....	1	..	..	..	1	..	..
Rhode Island.....	1	..	..	..	1	..	..
Connecticut.....	1	..	..	1	..	..	..
Middle Atlantic.....	4	..	..	1	3	..	..
New York.....	2	..	..	..	2	..	..
New Jersey.....	1	..	..	..	1	..	..
Pennsylvania.....	1	..	..	1	..	..	..
East North Central.....	10	6	1	5	..	2	..
Ohio.....	3	..	1 ¹	3	..	..	..
Indiana.....	2	2	..	..	..	..	..
Illinois.....	1	1	..	..	..	..	..
Michigan.....	3	2	..	1	..	2	..
Wisconsin.....	1	1	..	1	..	1	..
West North Central.....	11	1	..	9	2	..	..
Minnesota.....	1	1	..	..	1	1	..
Iowa.....	2	..	..	1	1	..	..
Missouri.....	1	..	..	1	..	..	..
North Dakota.....	1	..	..	1	..	..	..
South Dakota.....	3	..	..	3	..	..	..
Nebraska.....	1	..	..	1	..	..	..
Kansas.....	2	..	..	2	..	..	..
South Atlantic.....	17	..	..	13	3	1	2
Delaware.....	1	..	..	1	..	..	..
Maryland.....	1	..	..	..	1	..	..
Virginia.....	4	..	..	4	..	..	..
West Virginia.....	1	..	..	..	..	..	..
North Carolina.....	2	..	..	2	..	..	1 ¹
South Carolina.....	4	..	..	1	2	1 ¹	1 ¹
Georgia.....	2	..	..	2	..	..	..
Florida.....	2	..	..	2	..	..	..
East South Central.....	6	2	..	3	3	..	2
Kentucky.....	1	1	..	1	..	..	1 ¹
Tennessee.....	1	1	..	..	1	..	1 ¹
Alabama.....	2	..	..	2	2	..	..
Mississippi.....	7	..	..	7	..	..	1
West South Central.....	7	..	..	7	..	..	..
Arkansas.....	1	..	..	1	..	..	1 ¹
Louisiana.....	1	..	..	1	..	..	..
Oklahoma.....	3	..	..	3	..	..	..
Tennessee.....	2	..	..	2	..	..	..
Mountain.....	14	10	3	4	1	1	..
Montana.....	3	3	..	..	..	..	..
Idaho.....	1	..	..	1	..	..	..
Wyoming.....	1	1	1 ¹	..	..	1	..
Colorado.....	3	2	2 ¹	1	..	..	..
New Mexico.....	2	..	..	2	..	..	..
Arizona.....	1	1	..	..	1	..	..
Utah.....	2	2	..	..	..	..	..
Nevada.....	1	1	..	..	..	..	..
Pacific.....	5	5	..	..	1	1	..
Washington.....	2	2	..	..	..	1	..
Oregon.....	2	2	..	..	1	..	..
California.....	1	1	..	..	..	..	..

¹ For building purposes.
¹ Slight revenue from escheats.
¹ Clemson Agricultural College receives special appropriations for non-collegiate work and from a fertilizer tax.
¹ Inheritance tax, corporation and personal income tax.
¹ Kerosene tax to Alabama Polytechnic Institute.
¹ Severance tax.

State Aid to Higher Education

All of the states contribute in greater or lesser degree to the support of their state colleges and universities. As shown in Table 68, this support takes three forms.

Sixteen states¹ have state property taxes which are devoted, in whole or in part, to the support of state educational institutions. In several of these states and in others not included in this group, special mill taxes are sometimes levied for particular purposes—usually to finance building or the purchase of equipment.

All of the states which do not earmark a regular mill tax to the support of their state universities, make regular biennial or annual appropriations. In most of these states the appropriations are for a biennial period. South Carolina makes biennial appropriations for the University of South Carolina, and annual appropriations for the State Medical College. Colorado supports both the state university and the state agricultural college by regular mill taxes, but makes annual appropriations to the state School of Mines. A few states make special appropriations for particular projects to supplement the annual tax revenue or the regular appropriation.

Finally, a few states assign the revenues from taxes, other than their property taxes, to their universities. The Alabama Polytechnic Institute draws income from a state tax on kerosene. The University of North Carolina receives a slight revenue from escheats. Clemson Agricultural College in South Carolina receives the proceeds from a fertilizer tax. The Agricultural College of the University of Louisiana receives support from the state severance tax.

Statistics of Federal and State Aid

In 1924, as shown in Table 69, the Federal Government contributed \$13,641,424 to the support of various colleges and universities throughout the country. States and cities contributed \$92,252,549. The federal aid was destined to the general support and maintenance of the institutions

¹ Arizona, California, Colorado, Illinois, Indiana, Kentucky, Michigan, Minnesota, Montana, Nevada, Oregon, Tennessee, Utah, Washington, Wisconsin and Wyoming.

TABLE 69: FEDERAL AND STATE SUPPORT OF COLLEGES AND UNIVERSITIES, 1924

(Source: United States Bureau of Education, Bulletin, 1925, No. 45)

States and Geographic Divisions	Federal Subventions	State Subventions for Current Costs	Combined Subventions for Current Costs	State Subventions for Capital Costs	Total Combined Subventions	Total Current Income of State Institutions	Total Income of State Institutions	Total Current Income of All Institutions	Total Income of All Institutions	Per Cent Current Subventions Are of Current Income of State Institutions	Per Cent All Subventions Are of Total Income of State Institutions	Per Cent Current Subventions Are of Current Income of All Institutions	Per Cent All Subventions Are of Total Income of All Institutions
United States.....	\$13,641,424	\$73,423,956	\$87,065,380	\$18,828,593	\$105,893,973	\$154,010,803	\$183,233,664	\$300,054,582	\$388,242,587	56.5	57.8	29.0	27.3
New England.....	722,538	2,318,397	3,040,935	355,455	3,396,390	7,779,678	9,318,708	36,136,673	54,815,520	39.1	36.4	8.4	6.2
Maine.....	144,061	390,278	534,339	160,000	694,339	921,957	1,081,957	1,566,439	2,299,583	58.0	64.2	34.1	30.2
New Hampshire.....	111,263	334,103	445,366	5,000	450,366	861,171	866,171	2,369,548	2,569,686	51.7	52.0	18.8	17.5
Vermont.....	123,473	162,230	285,703	..	285,703	1,228,308	1,930,879	1,270,569	1,991,402	23.3	14.8	22.5	14.3
Massachusetts.....	111,234	987,372	1,098,606	161,797	1,260,403	3,595,606	4,237,403	22,731,031	34,023,090	30.6	29.7	4.8	3.7
Rhode Island.....	104,006	115,941	219,947	..	219,947	378,174	378,174	1,868,453	2,637,898	58.2	58.1	11.8	8.3
Connecticut.....	128,501	328,473	456,974	28,658	485,632	794,462	824,124	6,330,633	11,293,861	57.5	58.9	7.2	4.3
Middle Atlantic.....	1,698,154	7,029,377	8,727,531	971,261	9,698,792	23,117,353	27,405,150	61,477,318	74,901,860	37.8	35.4	14.2	12.9
New York.....	1,099,245	4,144,457	5,243,702	537,030	5,780,732	10,125,794	11,919,737	35,607,651	43,465,826	51.8	48.5	14.7	13.3
New Jersey.....	175,474	429,817	605,291	341,623	946,914	1,118,719	1,914,073	3,828,646	5,720,161	54.1	49.5	15.8	16.6
Pennsylvania.....	423,435	2,455,103	2,878,538	92,608	2,971,146	11,872,840	13,571,340	22,041,021	25,715,873	24.2	21.9	13.1	11.6
East North Central.....	1,366,837	17,754,707	19,121,544	6,564,542	25,686,086	32,443,012	40,851,822	59,280,504	83,093,705	58.9	62.9	32.3	30.9
Ohio.....	283,598	4,063,750	4,347,348	2,006,715	6,354,063	8,213,323	11,083,766	14,559,068	21,545,587	52.9	57.3	29.3	29.5
Indiana.....	263,861	2,585,086	2,848,947	420,526	3,269,473	4,335,172	5,606,068	7,659,369	9,996,605	65.7	58.3	37.2	32.7
Illinois.....	323,878	4,000,843	4,324,721	243,213	4,567,934	5,531,559	5,774,772	18,173,344	27,682,048	78.2	79.1	23.8	16.5
Michigan.....	250,998	4,337,650	4,588,648	2,636,465	7,225,113	9,026,359	11,711,707	10,644,719	13,517,407	50.8	61.7	43.1	53.5
Wisconsin.....	244,502	2,767,378	3,011,880	1,257,625	4,269,505	5,336,599	6,675,509	8,244,004	10,352,058	56.4	64.0	36.5	41.2
West North Central.....	1,627,581	16,297,752	17,925,333	3,423,730	21,349,063	28,433,905	32,007,527	43,084,804	50,072,429	63.0	66.7	41.6	42.6
Minnesota.....	262,663	3,612,834	3,875,497	1,182,492	5,057,989	7,167,511	8,395,023	9,825,652	11,662,755	54.1	60.3	39.4	43.4
Iowa.....	310,270	4,622,310	4,932,580	1,324,000	6,256,580	7,934,549	9,258,549	11,817,423	13,577,337	62.2	67.6	41.7	46.1
Missouri.....	297,046	1,659,853	1,956,899	406,697	2,363,596	2,863,338	3,346,357	7,250,014	9,213,829	68.3	70.6	27.0	25.7
North Dakota.....	155,269	1,479,257	1,634,526	70,041	1,704,567	2,095,859	2,165,900	2,196,539	2,326,580	78.0	78.7	74.1	73.3

South Dakota.....	177,051	997,439	1,174,490	318,000	1,492,490	1,574,652	1,917,652	2,073,602	2,442,620	74.6	77.8	56.6	61.1
Nebraska.....	191,019	1,582,009	1,773,028	..	1,773,028	3,016,710	3,016,710	4,262,230	4,454,405	58.8	58.8	41.6	39.8
Kansas.....	234,263	2,344,050	2,578,313	122,500	2,700,813	3,781,286	3,907,336	5,659,344	6,394,903	68.2	69.1	45.6	42.2
South Atlantic.....	4,231,049	7,424,405	11,655,454	3,404,605	15,060,059	20,691,683	26,664,547	34,051,582	44,411,564	56.3	56.5	34.2	33.9
Delaware.....	100,742	162,242	262,984	..	262,984	463,757	463,757	463,757	463,757	56.7	56.7	56.7	56.7
Maryland.....	2,302,457	635,032	2,937,489	..	2,937,489	5,255,728	7,127,266	6,851,194	8,807,954	55.9	41.2	42.9	33.4
District of Columbia.....	323,769	..	323,769	..	323,769	575,309	656,023	2,372,700	2,562,994	56.3	49.4	13.6	12.6
Virginia.....	284,005	1,135,474	1,419,479	244,453	1,663,932	3,665,661	4,204,288	6,828,334	8,415,687	38.7	39.6	20.8	19.8
West Virginia.....	224,317	965,500	1,189,817	555,000	1,744,817	1,567,654	2,125,654	1,976,700	2,754,182	75.9	82.1	60.2	63.4
North Carolina.....	342,130	1,710,329	2,052,459	1,959,650	4,012,109	3,569,978	5,529,628	5,712,581	9,378,505	57.5	72.6	35.9	42.8
South Carolina.....	225,906	1,484,391	1,710,797	327,565	2,038,362	2,459,869	2,787,434	3,897,840	4,560,862	69.5	73.1	43.9	44.7
Georgia.....	271,114	689,389	960,503	..	960,503	2,036,220	2,355,053	4,566,743	5,749,703	47.2	40.8	21.0	16.7
Florida.....	156,609	641,548	798,157	317,937	1,116,094	1,097,507	1,415,444	1,381,733	1,717,920	72.7	78.6	57.8	65.0
East South Central.....	1,103,664	2,891,931	3,995,595	..	3,995,595	7,015,350	7,108,050	13,215,335	15,457,137	57.0	56.2	30.2	25.8
Kentucky.....	282,253	773,078	1,055,331	..	1,055,331	1,674,785	1,767,485	3,433,774	4,694,214	63.0	59.7	30.7	22.5
Tennessee.....	309,042	773,583	1,082,625	..	1,082,625	1,582,429	1,582,429	4,442,527	5,071,181	68.4	68.4	24.4	21.3
Alabama.....	276,720	658,449	935,169	..	935,169	1,726,445	1,726,445	2,684,109	2,972,817	54.2	54.2	34.8	31.5
Mississippi.....	235,649	686,821	922,670	..	922,670	2,031,691	2,031,691	2,654,925	2,718,925	45.4	45.4	34.7	33.9
West South Central.....	1,228,648	6,352,022	7,580,670	2,449,237	10,029,907	11,706,370	14,159,539	19,196,808	24,696,906	64.8	70.8	39.5	40.6
Arkansas.....	263,535	529,207	792,762	..	792,762	1,075,072	1,079,004	1,736,593	2,316,734	73.7	73.5	45.6	34.2
Louisiana.....	232,754	654,361	887,115	1,458,519	2,345,634	1,274,690	2,733,209	2,637,085	4,860,586	69.6	85.8	33.6	48.3
Oklahoma.....	247,028	1,861,396	2,108,424	581,450	2,689,874	2,870,235	3,451,685	3,463,745	4,245,497	73.5	68.0	60.9	63.4
Texas.....	485,311	3,307,058	3,792,369	409,268	4,201,637	6,486,373	6,895,641	11,359,385	13,274,089	58.5	60.9	33.4	31.7
Mountain.....	1,077,714	4,692,306	5,770,020	1,080,101	6,850,121	8,516,547	9,596,648	9,895,141	11,186,053	67.8	71.4	58.3	61.2
Montana.....	139,738	779,105	918,843	268,666	1,187,509	1,314,133	1,582,799	1,477,102	1,827,768	69.9	75.0	62.2	65.0
Idaho.....	151,057	720,387	871,444	54,375	925,819	1,164,147	1,218,522	1,262,258	1,353,267	74.9	76.0	69.0	68.4
Wyoming.....	109,497	258,469	367,966	230,780	598,746	570,252	801,032	570,252	801,032	64.5	74.7	64.5	74.7
Colorado.....	145,869	1,386,037	1,531,906	331,087	1,862,993	2,331,485	2,662,572	2,937,652	3,342,842	65.7	70.0	52.1	55.7
New Mexico.....	152,706	193,067	345,773	15,000	360,773	614,766	629,766	614,766	629,766	56.2	57.3	56.2	57.3
Arizona.....	124,092	485,128	609,220	122,634	731,854	883,168	1,005,802	883,168	1,005,802	69.0	72.8	69.0	72.8
Utah.....	146,092	680,072	826,164	17,000	843,164	1,175,045	1,192,045	1,686,392	1,721,466	70.3	70.7	49.0	49.0
Nevada.....	108,663	190,041	298,704	40,359	339,263	463,551	504,110	463,551	504,110	64.4	67.3	64.4	67.3
Pacific.....	585,239	8,661,059	9,248,298	579,662	9,827,960	14,306,905	16,121,673	23,716,417	29,607,413	64.6	60.1	39.0	33.2
Washington.....	186,644	1,689,163	1,875,807	246,362	2,122,176	3,101,247	3,347,616	3,533,155	3,971,917	60.5	63.4	53.1	53.4
Oregon.....	173,778	2,275,321	2,449,099	56,000	2,505,099	2,918,843	2,974,843	3,740,308	4,297,057	83.9	84.2	65.5	58.3
California.....	224,817	4,698,575	4,923,392	277,293	5,200,685	8,286,815	9,799,214	16,442,954	21,338,439	59.4	53.1	29.9	24.4

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benefited, but \$18,828,593 of the state and local aid—slightly less than one-fifth of the total—was earmarked to aid construction projects.

All state institutions receiving federal and state aid, of course, have additional sources of income from fees, from funds and from donations. It is to be noted, however, that the federal and state aid represented a much larger proportion of the total income of the benefited colleges in the western states than in the East. State and federal aid represented only 37.8% of the current income of the state universities in the Middle Atlantic states, and 35.4% of their total income. In the Mountain states the proportions were 67.8% and 71.4% respectively.

The greater dependence of the state universities of the West on federal and state support is more strikingly shown when individual states, instead of regional groups, are compared. The two states where the proportion of federal and state aid to the total income of the state universities in 1924 was highest were Oregon and North Dakota, with proportions respectively of 83.9% and 78%. The two states with the lowest proportion of federal and state aid to the total income of the state universities were Vermont and Pennsylvania, with proportions respectively of 23.3% and 24.2%.

Moreover, the West is more dependent upon state colleges and universities for its higher education than is the East. As yet, heavily endowed institutions are the exception rather than the rule in the West. In the New England states in 1924, only 21.5% of college activity (measured by available current revenue) was accomplished through state institutions, whereas in the Mountain states the proportion was 86.1%. Consequently, the federal and state aid to western state universities represent a many times greater proportion of the total college revenues of the region than the federal and state aid received by eastern state universities. In New England, only 8.4% of the current revenues of colleges and universities in 1924 represented federal and state subventions. For the state of Massachusetts the proportion was 4.8%. In the Mountain states the proportion was 58.3% and in the West North Central states it was 41.6%.

CHAPTER VII

FISCAL ASPECTS OF HIGHWAY CONSTRUCTION AND MAINTENANCE

HIGHWAYS and roads are not normally thought of as public utilities, yet they belong in this category as surely as do municipal water systems and power plants. They represent capital investments made through the government, and it is assumed that, if properly maintained, they will continue to yield benefits over a long period of time. It is to be noted also that their method of financing has taken on many characteristics of public utility financing. Through the motor vehicle license charges and the gasoline taxes, a large portion of the cost is placed directly upon the immediate beneficiaries of the highways—the owners and users of private cars and trucks—and to this extent the improved road and highway system of the country has become self-supporting. The remainder of the cost, representing the general social benefit, remains a charge on all taxpayers. The proportion of highway costs borne by the users of automobiles and trucks has been steadily increasing, until in 1925, as will be shown later,¹ it amounted to almost 50% of that year's current highway bill.

In 1925², the various governmental authorities in the United States spent over \$1,500 millions³ for road and highway construction and maintenance and for municipal streets. Larger expenditures than this were made only for education and for the combined protective functions of the various governments. In 1925, expenditures for rural roads and highways alone amounted to \$1,241 millions. And yet, as recently as twenty years ago, road and highway expenditures were an insignificant item in the public budget. In 1904, it is doubtful if the total of all road and highway expenditures exceeded \$80 millions. Ten years later, in 1914, it amounted

¹ See p. 221 of this volume.

² Dates in this chapter refer to calendar years.

³ Includes city streets and waterways. See p. 287 of this study.

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to about \$240 millions. The extraordinarily rapid expansion of these road-making and road-maintaining activities during the past decade has tremendously magnified the revenue problem of the state and local governments.

THE COUNTRY'S ROAD AND HIGHWAY SYSTEM

For the United States the term "highway" is a twentieth-century concept. In the nineteenth century, the traffic on the country's roads was almost exclusively confined to short hauls by farmers to market centers and to a few venturesome bicyclists. Long distance haulage and the great movement of industrial commodities which the end of the century witnessed were carried on by railroad and water.

The advent of the automobile represented a revolution in transportation, and one of its projections has been to give vivid significance to the term "highway." Engineers now classify roads into arterial primary highways which link the industrial and commercial centers of the country; into secondary or lateral roads which radiate from local centers into surrounding rural territory; and into local roads which serve the countryside. The heavily-travelled primary highways require expensive and durable pavements. Macadam, gravel, sand clay, and even graded dirt satisfy the requirements of most market roads. Local byways and trails for the most part must remain as they always have been—winding, unsurfaced, ungraded and picturesque.

The Increase of Total Mileage

The road and highway mileage of the United States was 2,151,379 miles in 1904. As shown in Table 70, during the next five years the increase in mileage amounted to less than 50,000 miles, but between 1909 and 1914 there was an increase of almost 250,000 miles. The next seven years, covering the period of the war, saw an increase of 500,000 miles. By December, 1925, the network of the country's roads and highways exceeded 3,000,000 miles.¹

¹ It should be noted that facilities for the collection of data in 1925 were superior to those in 1914, 1909 and in 1904, and it may be there were roads in existence in these years which were not reported.

TABLE 70: TOTAL AND IMPROVED HIGHWAY MILEAGE BY STATES AND GEOGRAPHIC DIVISIONS, 1904, 1909, 1914, 1921 AND 1925

(Source: United States Bureau of Public Roads)

Geographic Divisions	Total Highway Mileage	Highway Mileage per 100 Sq. Miles of Area	Highway Mileage per 100 of Population	Surfaced Mileage	Surfaced Mileage per 100 Sq. Miles of Area	Surfaced Mileage per 100 of Population	Surfaced Mileage as Proportion of Total Mileage
<i>1904</i>							
United States.....	2,151,379	72.3	2.6	153,530	5.2	.18	7.1
New England.....	88,706	143.1	1.5	16,796	27.1	.28	18.9
Middle Atlantic.....	188,417	188.4	1.1	10,460	10.5	.61	5.6
East North Central..	364,775	148.7	2.1	72,919	29.7	.43	20.0
West North Central..	589,190	115.4	5.4	11,303	2.2	.10	1.9
South Atlantic.....	263,933	98.1	2.4	9,147	3.4	.08	3.5
East South Central..	194,913	108.6	2.5	15,640	8.7	.20	8.0
West South Central..	226,305	52.7	3.0	2,398	.6	.03	1.1
Mountain.....	122,231	14.2	5.8	1,499	.2	.07	1.2
Pacific.....	112,909	35.5	3.5	13,368	4.2	.41	11.8
<i>1909</i>							
United States.....	2,199,645	74.0	2.4	190,476	6.4	.21	8.7
New England.....	87,026	140.4	1.3	19,338	31.2	.29	22.2
Middle Atlantic.....	181,508	181.5	.9	19,530	19.5	.10	10.8
East North Central..	380,994	155.2	2.1	75,042	30.6	.41	19.7
West North Central..	586,260	114.8	5.0	13,727	2.7	.12	2.3
South Atlantic.....	275,450	102.4	2.3	18,400	6.8	.15	6.7
East South Central..	188,915	105.2	2.2	19,075	10.6	.23	10.1
West South Central..	261,703	60.9	2.9	6,672	1.5	.08	2.6
Mountain.....	125,962	14.7	4.7	2,784	.3	.10	2.2
Pacific.....	111,827	35.2	2.6	15,908	5.0	.37	14.2
<i>1914</i>							
United States.....	2,445,761	82.2	2.5	257,292	8.7	.26	10.5
New England.....	86,718	139.9	1.3	18,038	29.1	.26	20.8
Middle Atlantic.....	185,771	185.8	.9	31,516	31.5	.15	17.0
East North Central..	405,245	165.0	2.1	94,365	38.4	.48	23.3
West North Central..	650,059	127.3	5.4	14,968	2.9	.12	23.0
South Atlantic.....	297,192	110.5	2.3	32,154	12.0	.25	10.8
East South Central..	205,191	114.3	2.4	27,627	15.4	.32	13.5
West South Central..	312,182	72.6	3.3	13,815	3.2	.15	4.4
Mountain.....	163,117	19.0	5.5	4,881	.6	.16	3.0
Pacific.....	140,286	44.1	2.9	19,928	6.3	.41	14.2

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TABLE 70: TOTAL AND IMPROVED HIGHWAY MILEAGE BY STATES AND GEOGRAPHIC DIVISIONS, 1904, 1909, 1914, 1921 AND 1925—(Continued)

Geographic Divisions	Total Highway Mileage	Highway Mileage per 100 Sq. Miles of Area	Highway Mileage per 100 of Population	Surfaced Mileage	Surfaced Mileage per 100 Sq. Miles of Area	Surfaced Mileage per 100 of Population	Surfaced Mileage as Proportion of Total Mileage
<i>1921</i>							
United States.....	2,941,294	98.9	2.7	387,760	13.0	.36	13.2
New England.....	83,295	134.4	1.1	17,725	28.6	.23	21.3
Middle Atlantic.....	186,935	186.9	.8	38,946	39.0	.17	20.8
East North Central..	412,753	168.1	1.9	124,298	50.7	.56	30.1
West North Central..	759,820	148.8	6.0	30,223	5.9	.24	4.0
South Atlantic.....	365,567	135.9	2.6	61,178	22.7	.44	16.7
East South Central..	242,745	135.2	2.7	41,478	23.1	.46	17.1
West South Central..	416,617	96.9	3.9	23,986	5.6	.23	5.8
Mountain.....	306,382	35.7	8.7	15,539	1.8	.44	5.1
Pacific.....	167,180	52.6	2.8	34,387	10.8	.58	20.6
<i>1925</i>							
United States.....	3,006,081	101.1	2.6	521,259	17.5	.45	17.3
New England.....	84,346	136.1	1.0	22,115	35.7	.28	26.2
Middle Atlantic.....	192,537	192.5	.8	52,758	52.8	.22	27.4
East North Central..	410,562	167.2	1.7	151,159	61.6	.63	36.8
West North Central..	760,675	148.9	5.8	51,516	10.1	.39	6.8
South Atlantic.....	374,756	139.3	2.5	75,788	28.2	.50	20.2
East South Central..	252,076	140.4	2.7	54,758	30.5	.59	21.7
West South Central..	418,675	97.4	3.7	34,310	8.0	.30	8.2
Mountain.....	334,489	38.9	8.6	32,827	3.8	.84	9.8
Pacific.....	177,965	55.9	2.7	46,028	14.5	.69	25.9

This development was not uniform in different parts of the country. In the New England states, for example, road and highway mileage decreased from 1904 to 1921, as sections of hill roads were abandoned; between 1921 and 1925, however, there was a 1.3% increase in the total mileage in these states. In the Mountain states, on the other hand, there was a very great increase in highway mileage between 1904 and 1921.

The progress of new road construction between 1904 and 1925 has had the effect of bringing all parts of the country closer to the average, when road mileage is related to surface area. However, when road mileage is related to population, it is seen that the variations from the average were much greater in 1925 than in 1904. The reason for this curious

relationship is that the greater part of the new road construction was in the sparsely settled western states where hitherto roads had been few and far between. In the East, with its compact population, it was not necessary to build many new roads, as the countryside was well supplied.

Table 70 shows that in 1904, 7.1% of the total highway mileage of the country was graded and surfaced, as compared with 10.5% in 1914 and 17.3% in 1925. All parts of the country, with the exception of the New England states, where even in 1904 a considerable proportion of the road and highway mileage had been surfaced, shared in this development. The increase in surfaced mileage was most spectacular in the western states, for they had fewer miles of surfaced roads to begin with in 1904.

State Highway Support

It was early seen that highway construction—the building of arterial, primary roads for interurban traffic—was an issue that transcended township and even county lines. As early as 1891, New Jersey provided for state aid as an encouragement to the construction of a system of surfaced arterial highways by the counties and made an appropriation of \$75,000 for 1892.¹ Massachusetts followed suit in 1892 and Connecticut and California made similar provision in 1895. Indiana, South Carolina and Texas, the last three states to take such action, did so in 1917.²

It was not long before it was realized that “the inevitable consequences of local control of primary roads are piecemeal construction, inadequate and varying construction and maintenance standards, lack of coordination and the continuance of costly gaps in the system, excessive costs because of the lack of knowledge of recent developments and of the results of scientific tests and investigations.”³ State aid was felt to be insufficient; there should be state control of the construction and maintenance of arterial highways, at least. As in the case of the state aid policy, the New England and Middle Atlantic states, with Maryland and California, were the first

¹ Public Roads, March, 1919.

² U. S. Department of Agriculture, “Agriculture Year Book,” 1924, p. 98.

³ Highway Finance Committee of the National Tax Association, “Problems of Highway Finance,” *Proceedings of the National Tax Association Conference, 1924*, p. 417.

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to adopt the system of outside control, the only exception in this group being Vermont. Massachusetts deserves the credit for having originated the idea of establishing a system of state highway construction and maintenance, largely through the aid and control of the state.¹ In Pennsylvania 10,236 of the 91,556 miles of roads and highways, or 11.2%, were state routes in 1914; in Maryland the state mileage was 1,178, or 7.2%, of the total.

TABLE 71: STATE AND LOCAL HIGHWAY MILEAGE, 1921 AND 1925

(Source: United States Bureau of Public Roads)

Geographic Divisions	Total Highway Mileage	State Highway Mileage	Local Highway Mileage	Per Cent of Total Mileage That is State Mileage
<i>1921</i>				
United States.....	2,941,294	198,592	2,742,702	6.8
New England.....	83,295	10,548	72,747	12.7
Middle Atlantic.....	186,935	17,529	169,406	9.4
East North Central.....	412,753	27,908	384,845	6.8
West North Central.....	759,820	37,477	722,343 ²	4.9
South Atlantic.....	365,567	26,470	339,097	7.2
East South Central.....	242,745	5,555	237,190	2.3
West South Central.....	416,617	30,866	385,751 ²	7.4
Mountain.....	306,382	28,672	277,710	9.4
Pacific.....	167,180	13,567	153,613	8.1
<i>1925</i>				
United States.....	3,006,081	274,909	2,731,172	9.1
New England.....	84,346	12,290	72,056	14.6
Middle Atlantic.....	192,537	26,201	166,336	13.6
East North Central.....	410,562	36,485	374,077	8.9
West North Central.....	760,675	47,003	713,672	6.2
South Atlantic.....	374,756	34,456	340,300	9.2
East South Central.....	252,076	22,501	229,575	8.9
West South Central.....	418,675	39,612	379,063	9.5
Mountain.....	334,489	42,058	292,431	12.6
Pacific.....	177,965	14,303	163,662	8.0

¹ In 1921 Kansas had 128,552 miles of rural roads; no state roads.

² In 1921 Arkansas had 74,866 miles of local roads; no state roads.

As shown in Table 71, there were 198,592 miles of highways reported to the federal Bureau of Public Roads as under state control in 1921. These state highways constituted

¹ Public Roads, February, 1919.

6.8% of the total road and highway mileage of the country. The proportion was highest in the New England, Middle Atlantic and Mountain states, 12.7% in the first group and 9.4% in the two latter groups. It was lowest in the Central states. Vermont, which entered upon a program of state control somewhat later than its neighbors, led all the states in 1921, with 29.1% of its roads and highways under state control. In Colorado and New Mexico the proportions were 16.9% and 12.1%, respectively. In Rhode Island the ratio was 15.3%. Maryland alone of the southern states could show a proportion above 10%.

By the close of 1925, the proportion of roads and highways under state control for the country as a whole had risen from 6.8% to 9.1%. The regional groups of states continued to occupy the same relative position in this year as in 1921. However, it was now Rhode Island that had the highest proportion of its road and highway system under state control—768 miles out of a total of 2,374 miles, or 32.4%. Vermont followed closely with a proportion of 30%. New Mexico had a proportion of 19%, New York 17.1% and Maryland 15.5%.

Progress in Construction of Surfaced Roads

As shown in Table 72, of the 153,530 miles of improved roads and highways in the country in 1904, 149,509 miles, or 97.4%, were surfaced with sand-clay mixtures, gravel or macadam. For the horse-drawn traffic of the day, these surfaces, and particularly the water-bound macadam, were sufficient. They held their grades and, if they rutted, traffic was not seriously impeded; moreover, such unevenness was easily repaired with a scraper and roller. California, by this year, had constructed 2,541 miles of oiled roads and Ohio was experimenting with 44 miles of such roadway. Indiana had 98 miles of brick roads and Illinois, Minnesota and Iowa had shorter stretches. In the South Atlantic states, shell roads were very common, while stretches of chert and slag surfacing were to be found in other states.

By 1909, an even larger proportion of road and highway mileage, 98%, was surfaced with sand-clay, gravel or water-bound macadam. California was temporarily abandoning

TABLE 72: HIGHWAY MILEAGE BY TYPES, 1904, 1909, 1914, 1921 AND 1925

(Source: United States Bureau of Public Roads)

Geographic Divisions	Total Mileage Surfaced	Sand-clay, Gravel and Water-bound Macadam Mileage	Per Cent Sand-clay, Gravel and Water-bound Macadam Roads to Total Mileage Surfaced	Surfaced-treated and Bituminous Macadam Mileage	Per Cent Surfaced-treated and Bituminous Macadam Roads to Total Mileage Surfaced	Asphalt and Bituminous Concrete Mileage	Per Cent Surfaced-treated and Bituminous Concrete Roads to Total Mileage Surfaced	Portland Cement Concrete Mileage	Per Cent Portland Cement Concrete Roads to Total Mileage Surfaced	Brick Mileage	Per Cent Brick Roads to Total Mileage Surfaced	Other Road Mileage	Per Cent Other Roads to Total Mileage Surfaced
<i>1904</i>													
United States.....	153,530	149,506	97.3	2,587	1.7	3	1	..	..	113	.1	1,321	.9
New England.....	16,796	16,786	99.9	2	.1	..	..	..	..	..	..	8	.1
Middle Atlantic.....	10,460	10,420	99.6	..	..	..	..	..	..	..	..	40	.4
East North Central.....	72,919	72,761	99.8	44	.1	3	1	..	..	98	.1	13	.1
West North Central.....	11,303	10,914	96.6	..	..	..	..	..	..	15	.1	374	3.3
South Atlantic.....	9,147	8,540	93.4	..	..	..	..	..	..	..	..	607	6.6
East South Central.....	15,640	15,566	99.5	..	..	..	..	..	..	..	..	74	.5
West South Central.....	2,398	2,338	97.5	..	..	..	..	..	..	..	..	60	2.5
Mountain.....	1,499	1,499	100.0	..	..	..	..	..	..	..	..	..	..
Pacific.....	13,368	10,682	79.9	2,541	19.0	..	..	..	..	..	..	145	1.1
<i>1909</i>													
United States.....	190,476	186,795	98.0	1,253	.7	9	1	2	1	289	.2	2,128	1.1
New England.....	19,338	19,315	99.9	23	.1	..	..	..	..	..	..	..	..
Middle Atlantic.....	19,530	19,139	98.0	311	1.6	9	1	..	1	31	.2	40	.2
East North Central.....	75,042	74,730	99.6	61	.1	..	..	..	..	236	.3	15	.1
West North Central.....	13,727	13,043	95.0	50	.4	..	..	2	1	22	.2	610	4.4
South Atlantic.....	18,400	17,381	94.4	10	.1	..	..	..	..	..	..	1,009	5.5
East South Central.....	19,075	18,977	99.5	2	.1	..	..	..	..	..	..	96	.5
West South Central.....	6,672	6,442	96.6	15	.2	..	..	..	..	..	..	215	3.2
Mountain.....	2,784	2,761	99.2	23	.8	..	..	..	..	..	..	..	..
Pacific.....	15,908	15,007	94.3	758	4.8	..	..	..	..	..	..	143	.9

1914

United States.....	257,292	226,115	87.9	14,121	5.5	500	.2	2,173	.8	1,692	.7	12,691	4.9
New England.....	18,038	14,514	80.5	1,773	9.8	45	.25	42	.25	1	¹	1,663	9.2
Middle Atlantic.....	31,516	19,104	60.6	3,881	12.3	149	.5	246	.8	519	1.6	7,617	24.2
East North Central....	94,365	91,102	96.5	1,639	1.7	..	..	708	.8	760	.8	156	.2
West North Central....	14,968	14,773	98.7	111	.8	..	..	36	.2	19	.1	29	.2
South Atlantic.....	32,154	28,581	88.9	1,540	4.8	306	1.0	43	.1	367	1.1	1,317	4.1
East South Central....	27,627	27,203	98.4	266	1.0	..	..	19	.1	..	..	139	.5
West South Central....	13,815	12,331	89.3	188	1.4	..	..	32	.2	..	..	1,264	9.1
Mountain.....	4,881	4,596	94.2	53	1.1	..	..	11	.2	..	..	221	4.5
Pacific.....	19,928	13,911	69.8	4,670	23.4	..	..	1,036	5.2	26	.1	285	1.5

1921

United States.....	387,760	321,274	82.9	29,573	7.6	6,579	1.7	15,611	4.0	3,333	.9	11,390	2.9
New England.....	17,725	13,779	77.7	2,766	15.6	571	3.2	353	2.0	9	.1	247	1.4
Middle Atlantic.....	38,946	15,281	39.2	11,061	28.4	1,578	4.1	2,340	6.0	572	1.5	8,114	20.8
East North Central....	124,298	109,683	88.2	5,910	4.8	552	.5	5,633	4.5	1,733	1.4	787	.6
West North Central....	30,223	28,737	95.1	374	1.2	124	.4	817	2.7	157	.5	14	.1 ¹
South Atlantic.....	61,178	52,446	85.7	4,344	7.1	1,035	1.7	1,753	2.9	778	1.3	822	1.3
East South Central....	41,478	38,928	93.9	2,097	5.1	141	.3	209	.5	11	¹	92	.2
West South Central....	23,986	22,167	92.4	711	3.0	379	1.6	314	1.3	22	.1	393	1.6
Mountain.....	15,539	14,778	95.1	98	.6	127	.8	520	3.4	..	..	16	.1
Pacific.....	34,387	25,475	74.1	2,212	6.4	2,072	6.0	3,672	10.7	51	.2	905	2.6

1925

United States.....	521,259	412,859	79.2	54,092	10.4	10,756	2.1	37,748	7.2	4,875	.9	929	.2
New England.....	22,115	11,608	52.5	8,894	40.2	836	3.8	752	3.4	8	¹	17	.1
Middle Atlantic.....	52,758	23,450	44.4	18,242	34.6	2,211	4.2	7,478	14.2	1,236	2.3	141	.3
East North Central....	151,159	129,167	85.4	5,772	3.8	1,046	.7	12,814	8.5	2,119	1.4	241	.2
West North Central....	51,516	44,805	87.0	2,904	5.6	173	.3	3,314	6.4	307	.6	13	¹
South Atlantic.....	75,788	59,665	78.7	8,063	10.7	2,341	3.1	4,560	6.0	975	1.3	184	.2
East South Central....	54,758	49,038	89.6	4,222	7.7	721	1.3	643	1.2	31	¹	103	.2
West South Central....	34,310	28,295	82.5	4,018	11.7	612	1.8	1,253	3.6	132	.4	..	..
Mountain.....	32,827	31,218	95.1	118	.4	346	1.0	1,075	3.3	..	..	70	.2
Pacific.....	46,028	35,613	77.4	1,859	4.1	2,470	5.4	5,859	12.7	67	.1	160	.3

¹ Less than .05 %.

its oiled roads, and in 1909 there were only 738¹ miles of such roads in the state, as against the 2,541 miles in 1904. A number of other states had constructed short lengths of surface-treated macadam roads, but the total mileage in the country was now only 1,253 miles. Pennsylvania had built nine miles of asphalt roadway, and Nebraska could boast the novelty of two miles of Portland cement concreted roads. The mileage of brick roads had more than doubled, and there was considerable increase in the miscellaneous group.

By 1914, serious consideration was being given to the problems of highway construction raised by the advent of the automobile. As yet there was no large interurban movement of heavy trucks, but passenger cars had become common on the roads. The result was a rapid increase of highway mileage, surfaced to meet the growing needs of the new automobile traffic.

It was not simply that those stretches of highway, now being improved for the first time, were surfaced with the more durable materials. Existing sand-clay and gravel mileage was replaced by asphalt and concrete. In the New England and Middle Atlantic and Pacific states, several thousand miles of water-bound macadam highways were given a bituminous coating between 1909 and 1914, in order to make them more suitable for motor vehicular traffic. By the end of 1914, there were 14,121² miles of oiled and surface-treated highways in the several states.

In the same year there were 500 miles of asphalt and bituminous concrete highways, mostly in the Middle and South Atlantic states. Over 2,000 miles of highway were surfaced with Portland cement concrete; California alone had 1,036 miles of such highways. There were 1,692 miles of brick highways, for the most part in the Middle Atlantic and East North Central states. Moreover, there was experimentation with every type of surfacing imaginable at this time, from coral to sheet steel, and the unclassified types of surfacing amounted to nearly 13,000 miles. As a result of

¹ 653 miles of oiled dirt roads and 85 miles of bituminous macadam.

² Includes 10,500 of bituminous macadam roads, the remainder being oiled dirt and similar surfacings.

these developments the mileage of the clay and gravel and macadam roads was now but 87.9% of the total.

During the war period much urgent highway construction was postponed, but there was nevertheless significant transformation of the country's highway system. In the Middle Atlantic states, in 1921, 28.4% of the surfaced road and highway mileage was of bituminized macadam and another 6% was of Portland cement. In California, 2,613 miles of the 14,275 miles of surfaced highway was surfaced with Portland cement concrete.

In all, of the 387,760 miles of surfaced roads and highways in the country in 1921, 82.9% were still of sand-clay, gravel or water-bound macadam, 7.6% were of surface treated macadam, 1.7% were of asphalt and bituminous concrete, 4% of Portland cement concrete, and somewhat less than 1% were of brick, while 2.9% were of miscellaneous materials.

Between December 31, 1921 and January 1, 1926, there was a further decrease in the proportion of sand-clay, gravel and macadam mileage to total surfaced mileage, although there had been an increase in the actual mileage of these types of roads during the interval. The proportion for the country as a whole was 79.2%. The lowest average was in the Middle Atlantic states where the proportion was 44.4%. The Mountain states averaged 95.1%.

Surface treated macadam highways represented 10.4% of the country's surfaced mileage in 1925, and asphalt and bituminous roads, 2.1%. The proportion of Portland cement concrete highways, meanwhile, had increased to 7.2%. In the Middle Atlantic states 14.5% of the surfaced highways were of this type, and in the Pacific states 12.7%.

Surfaced Highways by States, 1925

Table 73 presents the road and highway situation by individual states as of December 31, 1925. It is seen that there was wide variation among the states. Whereas at the end of 1925 Indiana had 65.8% of its total road and highway mileage surfaced, in four states—Montana, North Dakota, Oklahoma and Wyoming—the proportion was less than 2%. In South Dakota, there was but a single mile of concrete roadway and none of asphalt or even surface-treated macadam.

TABLE 73: HIGHWAY

(Source: United States)

States	Total Highway Mileage	State Highway Mileage	Local Highway Mileage	Per Cent State to Total Highway Mileage	Total Mileage Surfaced	Per Cent Roads Surfaced to Total Mileage	Sand-clay, Gravel, and Water-bound Macadam Mileage	Per Cent Sand-clay, Gravel, and Water-bound Macadam Roads to Total Mileage Surfaced
Alabama.....	61,541	3,954	57,587	6.4%	13,560	22.0%	13,004	95.9%
Arizona.....	22,552	2,014	20,538	8.9	3,191	14.1	2,675	83.8
Arkansas.....	74,865	8,295	66,570	11.1	6,499	8.7	5,617	86.4
California.....	79,197	6,591	72,606	8.3	18,002	22.7	11,355	63.1
Colorado.....	67,839	8,933	58,906	13.2	8,600	12.7	8,341	97.0
Connecticut...	13,346	1,872	11,474	14.0	2,609	19.5	211	8.1
Delaware.....	3,796	506	3,290	13.3	781	20.6	79	10.1
Florida.....	31,389	5,616	25,773	17.9	10,193	32.5	6,369	62.5
Georgia.....	97,892	6,232	91,660	6.4	18,711	19.1	17,295	92.4
Idaho.....	35,402	4,627	30,775	13.1	12,116	34.2	11,860	97.9
Illinois.....	96,300	4,794	91,506	5.0	15,228	15.8	9,706	63.7
Indiana.....	73,131	3,936	69,195	5.4	48,126	65.8	45,284	94.1
Iowa.....	102,921	6,674	96,247	6.5	5,986	5.8	5,416	90.5
Kansas.....	127,964	7,386	120,578	5.8	3,194	2.5	1,675	52.4
Kentucky.....	68,704	8,000	60,704	11.6	17,231	25.1	14,810	85.9
Louisiana.....	39,803	7,000	32,803	17.6	5,184	13.0	5,024	96.9
Maine.....	20,765	1,459	19,306	7.0	4,279	20.6	3,473	81.2
Maryland.....	14,715	2,276	12,439	15.5	4,536	30.8	2,050	45.2
Massachusetts	19,083	1,542	17,541	8.1	7,890	41.3	2,291	29.0
Michigan.....	77,283	6,706	70,577	8.7	21,515	27.8	17,782	82.7
Minnesota.....	108,081	6,955	101,126	6.4	24,385	22.6	23,557	96.6
Mississippi....	56,108	5,501	50,607	9.8	9,910	17.7	9,319	94.0
Missouri.....	110,500	7,640	102,860	6.9	10,610	9.6	6,933	65.3
Montana.....	67,177	7,957	59,220	11.8	1,189	1.8	1,149	96.6
Nebraska.....	87,805	6,256	81,549	7.1	2,550	2.9	2,441	95.7
Nevada.....	23,171	2,997	20,174	12.9	1,251	5.4	1,168	93.4
New Hampshire	13,917	2,196	11,721	15.8	1,947	14.0	1,010	51.9
New Jersey....	17,722	1,290	16,432	7.3	7,609	42.9	4,090	53.7
New Mexico....	48,295	9,159	39,136	19.0	2,441	5.1	2,369	97.1
New York.....	82,041	14,068	67,973	17.1	26,304	32.1	9,460	36.0
North Carolina	67,850	6,134	61,716	9.0	20,096	29.6	16,761	83.4
North Dakota..	106,498	6,174	100,324	5.8	1,784	1.7	1,777	99.6
Ohio.....	84,883	10,784	74,099	12.7	37,972	44.7	30,864	81.3
Oklahoma.....	134,262	5,589	128,673	4.2	1,686	1.3	806	47.8
Oregon.....	49,752	4,446	45,306	8.9	10,755	21.6	9,443	87.8
Pennsylvania..	92,774	10,843	81,931	11.7	18,845	20.3	9,900	52.5
Rhode Island..	2,374	768	1,606	32.4	777	32.7	161	20.7
South Carolina	64,634	4,951	59,683	7.7	10,061	15.6	9,677	96.2
South Dakota..	116,906	5,918	110,988	5.1	3,007	2.6	3,006	100.0
Tennessee.....	65,723	5,046	60,677	7.7	14,057	21.4	11,905	84.7
Texas.....	169,745	18,728	151,017	11.0	20,941	12.3	16,848	80.4
Utah.....	23,477	3,228	20,249	13.7	3,132	13.3	2,796	89.3
Vermont.....	14,861	4,453	10,408	30.0	4,613	31.0	4,462	96.7
Virginia.....	59,237	5,077	54,160	8.6	9,782	16.6	6,948	71.0
Washington....	49,016	3,266	45,750	6.7	17,271	35.2	14,815	85.8
West Virginia..	35,243	3,664	31,579	10.4	1,628	4.6	486	29.8
Wisconsin.....	78,965	10,265	68,700	13.0	28,318	35.9	25,531	90.2
Wyoming.....	46,576	3,143	43,433	6.7	907	1.9	860	94.8
Total.....	3,006,081	274,909	2,731,172	9.1%	521,259	17.3%	412,859	79.2%

¹ Less than .05%.

MILEAGE BY TYPES, 1925

Bureau of Public Roads)

Surfaced and Bituminous Macadam Mileage	Per Cent Surfaced and Bituminous Macadam Roads to Total Mileage Surfaced	Asphalt and Bituminous Concrete Mileage	Per Cent Asphalt and Bituminous Concrete Roads to Total Mileage Surfaced	Portland Cement Concrete Mileage	Per Cent Portland Cement Concrete Roads to Total Mileage Surfaced	Brick Mileage	Per Cent Brick Roads to Total Mileage Surfaced	Other Roads Mileage	Per Cent Other Roads to Total Mileage Surfaced
365	2.7%	142	1.0%	49	.4%	..	..	..	..
..	..	114	3.6	402	12.6	..	..	..	..
318	4.9	348	5.4	216	3.3	..	..	..	..
1,707	9.5	1,197	6.6	3,743	20.8	..	..	..	..
..	..	40	.5	219	2.5	..	..	..	..
1,900	72.8	149	5.7	347	13.3	2	.1%	..	..
191	24.5	23	2.9	481	61.6	6	..	1	.1%
1,738	17.1	899	8.8	278	2.7	726	7.1	183	1.8%
554	3.0	151	.8	710	3.8	1	..	..	..
60	.5	83	.7	43	.3	..	..	70	.6
208	1.4	75	.5	5,009	32.9	222	1.5	8	.1
705	1.5	188	.4	1,730	3.6	218	.4	1	.1
..	..	..	..	537	9.0	33	.5	..	..
286	8.9	11	.4	1,003	31.4	219	6.9	..	..
2,045	11.9	70	.4	195	1.1	9	.1	102	.6
110	2.1	18	.4	14	.3	18	.3	..	..
744	17.4	4	.1	58	1.3	..	..	..	..
1,539	33.9	62	1.4	881	19.4	4	.1	..	..
4,860	61.6	469	5.9	250	3.2	6	.1	14	.2
1,204	5.6	279	1.3	2,008	9.3	10	.1	232	1.1
75	.3	99	.4	626	2.6	15	.1	13	.1
309	3.1	27	.3	233	2.4	22	.2	..	..
2,538	23.9	49	.5	1,073	10.1	17	.2	..	..
6	.5	2	.2	32	2.7	..	..	..	..
5	.2	14	.6	67	2.6	..	..	..	..
33	2.6	3	.2	47	3.8	23	.9	..	..
857	44.0	67	3.4	13	.7	..	..	..	..
1,549	20.4	1,041	13.7	788	10.4	..	..	..	..
..	..	1	.1	71	2.9	40	.5	101	1.3
13,035	49.5	281	1.1	3,173	12.1	328	1.2	27	.1
1,161	5.8	974	4.9	1,113	5.5	87	.4	..	..
..	..	..	..	7	.4	..	..	..	..
3,021	8.0	504	1.3	1,914	5.0	1,669	4.4	..	..
309	18.3	75	4.5	464	27.5	32	1.9	..	..
..	..	982	9.1	330	3.1	..	..	..	..
3,658	19.4	889	4.7	3,517	18.7	868	4.6	13	.1
417	53.7	147	18.9	49	6.3	..	..	3	.4
49	.5	142	1.4	193	1.9	..	..	..	..
..	..	..	..	1	.1	..	..	..	..
1,503	10.7	482	3.4	166	1.2	..	..	..	..
3,281	15.7	171	.8	559	2.7	..	..	1	.1
11	.3	76	2.4	249	8.0	82	.4	..	..
116	2.5	..	..	35	.8	..	..	..	..
2,283	23.3	12	.2	539	5.5	..	..	..	..
152	.9	291	1.7	1,786	10.3	67	.4	160	.9
548	33.7	78	4.8	365	22.4	151	9.3	..	..
634	2.2	..	..	2,153	7.6	..	..	..	..
8	.9	27	3.0	12	1.3	..	..	..	..
54,092	10.4%	10,756	2.1%	37,748	7.2%	4,875	.9%	929	.2%

The 3,006 miles of roadway that were surfaced and graded were of the cheaper and less effective sand-clay and macadam types. In Connecticut, on the other hand, only 16.1% of the surfaced roadways of the state were still of this type.

In Delaware, 61.6% of the surfaced roads and highways were of durable concrete at the end of 1925. In a considerable number of other states, however, the mileage of concrete highways was insignificant. While some states could show complete highway *systems*, there were others that had still to make their first efforts toward planning and constructing such coordinated systems.

DISTRIBUTION OF HIGHWAY EXPENDITURES

In 1925, the state and local governments spent \$1,241 millions for highways (exclusive of city streets). The functional distribution of this expenditure is shown in Table 74.

Expenditures for Highway Construction

The country is still engaged upon a program of road and highway construction which began before the war and which, if the plans of the federal Bureau of Public Roads and of the state highway departments are carried out, will continue for years to come. Of the total of \$1,241 millions spent for roads and highways in 1925, \$651.9 millions, or more than 50%, was spent on new construction projects. The West North Central states devoted the largest proportion of their road and highway expenditures to construction projects, their percentage being 62.5. This group of states has always been well above the average in the proportion of its total road and highway mileage to area and to population, but only a very small proportion of this road and highway system was improved up to 1921, as was shown in Table 70. Between 1921 and 1925, however, their mileage of surfaced roads was nearly doubled. In 1925, these states embarked upon a broad program of highway improvement; their expenses for new construction were high, whereas increased payments for repair and upkeep and for service on the highway debt were still in the future.

It should be noted that the five states in this group in

which construction expenditures constituted more than 70% of their highway bills—Missouri, North Dakota, South Dakota, Nebraska and Kansas—all had very small proportions of their road and highway mileages surfaced in 1925, as shown in Table 73.

The two states that ranked lowest in 1925 in the proportion of construction outlays to total road and highway expenditure were Rhode Island and Arkansas. In the former the proportion was 27.1%, in the latter 28.7%. In Rhode Island, the proportion was low because the state had practically completed its highway program in 1925 and had a well-knit system of roads and highways, a large proportion of which was surfaced. In Arkansas, on the contrary, the highway system is in the hands of the local governments, with little or no state control. In the past an excessive proportion of this construction by the localities has been financed by borrowing, with the result that more than one-third of the \$17,201,000 spent on highways in Arkansas in 1925 went to service on the road and highway debt.

Expenditures for Highway Debt Service

Of the total of \$1,241 millions spent on the country's roads and highways in 1925, \$176.4 millions, or 14.1%, were devoted to the payment of interest and to the repayment of principal on highway indebtedness. Seven states—New Hampshire, Vermont, Connecticut, Wisconsin, North Dakota, Kansas and Arizona—reported no payments for debt service. On the other hand, in Arkansas, debt service absorbed 33.7% of the total of road and highway expenditures in 1925, and in New Jersey the redemption of \$20,589,000 of the highway debt in that year accounted for nearly two-fifths of the state's total road and highway bill.

SOURCES OF HIGHWAY REVENUE

During the twenty-year period of highway finance under consideration, changes of far-reaching significance have occurred in the sources and distribution of highway revenue. These changes are reflected in Tables 75 and 76 and Chart 12, which present the amounts of road and highway revenue

TABLE 74: FUNCTIONAL DISTRIBUTION OF HIGHWAY EXPENDITURES, 1925

(Source: United States Bureau of Public Roads)

States and Geographic Divisions	Total Expenditures (Thousands)	Expenditures, State Roads (Thousands)	Expenditures, County and Town Roads (Thousands)	Per Cent State Highway Expenditures are to Total Expenditures	Construction of Road and Bridges		Maintenance of Road and Bridges		Administration and Engineering		Miscellaneous Expenses		Bonds, Notes, etc. Payments on Principal		Bonds, Notes, etc. Payments on Interest	
					(Thousands)	Per Cent	(Thousands)	Per Cent	(Thousands)	Per Cent	(Thousands)	Per Cent	(Thousands)	Per Cent	(Thousands)	Per Cent
United States.....	\$1,241,045	\$623,549	\$617,496	50.2	\$651,931	52.5	\$315,875	25.5	\$40,703	3.3	\$56,121	4.5	\$96,634	7.8	\$79,781	6.4
New England.....	\$61,090	\$37,544	\$23,546	61.5	\$29,582	48.4	\$25,747	42.2	\$2,148	3.5	\$2,034	3.3	\$782	1.3	\$797	1.3
Maine.....	10,977	7,080	3,897	64.5	4,068	37.1	5,582	50.8	240	2.2	534	4.9	119	1.1	434	3.9
New Hampshire.....	5,588	4,027	1,561	72.1	1,838	32.9	3,438	61.5	87	1.6	225	4.0	..	..	..	..
Vermont.....	4,449	3,618	831	81.3	2,548	57.3	1,671	37.6	100	2.2	130	2.9	..	..	..	..
Massachusetts.....	25,608	11,608	14,000	45.3	15,817	61.8	7,804	30.5	1,021	3.9	200	.8	537	2.1	229	.9
Rhode Island.....	3,876	3,028	848	78.1	1,049	27.1	1,995	51.5	352	9.1	220	5.7	126	3.2	134	3.4
Connecticut.....	10,592	8,183	2,409	77.3	4,262	40.3	5,257	49.6	348	3.3	725	6.8	..	..	..	..
Middle Atlantic.....	\$237,177	\$125,433	\$111,744	52.9	\$122,328	51.6	\$48,559	20.5	\$8,658	3.6	\$14,744	6.2	\$28,618	12.1	\$14,270	6.0
New York.....	84,357	44,343	40,014	52.6	46,165	54.7	14,263	16.9	3,086	3.7	10,274	12.2	4,919	5.8	5,650	6.7
New Jersey.....	51,611	20,081	31,530	38.9	16,989	32.9	6,462	12.5	1,810	3.5	1,907	3.7	20,589	39.9	3,854	7.5
Pennsylvania.....	101,209	61,009	40,200	60.3	59,174	58.5	27,834	27.5	3,762	3.7	2,563	2.5	3,110	3.1	4,766	4.7
East North Central.....	\$255,032	\$113,037	\$141,995	44.3	\$145,265	56.9	\$55,437	21.8	\$5,500	2.2	\$6,725	2.6	\$26,759	10.5	\$15,346	6.0
Ohio.....	73,626	24,086	49,540	32.7	34,075	46.3	22,729	30.9	744	1.0	1,914	2.6	9,976	13.5	4,188	5.7
Indiana.....	49,991	14,518	35,473	29.0	21,260	42.5	11,549	23.1	551	1.1	1,209	2.4	11,027	22.1	4,395	8.8
Illinois.....	44,551	35,774	8,777	80.3	32,532	73.0	5,844	13.1	1,812	4.1	382	.9	740	1.6	3,241	7.3
Michigan.....	55,584	30,875	24,709	55.5	36,284	65.3	6,787	12.2	1,609	2.9	2,366	4.3	5,016	9.0	3,522	6.3
Wisconsin.....	31,280	7,784	23,496	24.9	21,114	67.5	8,528	27.3	784	2.5	854	2.7	..	..	..	..
West North Central.....	\$174,669	\$82,942	\$91,727	47.5	\$113,800	65.2	\$37,888	21.7	\$7,163	4.1	\$9,547	5.5	\$2,687	1.5	\$3,584	2.0
Minnesota.....	42,739	16,350	26,389	38.3	22,689	53.1	13,165	30.8	1,819	4.2	2,935	6.9	..	..	2,131	5.0
Iowa.....	31,161	14,108	19,053	42.5	14,270	45.0	12,425	37.5	1,233	3.7	4,267	12.9	966	2.9	..	..
Missouri.....	41,224	31,594	9,630	76.6	32,615	79.1	3,126	7.6	1,986	4.8	1,307	3.2	1,125	2.7	1,065	2.6
North Dakota.....	6,209	1,862	4,347	30.0	4,881	78.6	705	11.4	389	6.3	234	3.7	..	..	..	..
South Dakota.....	13,056	6,378	6,678	48.9	9,605	73.6	1,858	14.2	551	4.2	428	3.3	300	2.3	314	2.4
Nebraska.....	15,720	5,243	10,477	33.4	11,253	71.6	3,373	21.4	348	2.2	376	2.4	296	1.9	74	.5
Kansas.....	22,560	7,407	15,153	32.8	18,487	81.9	3,236	14.4	837	3.7	..	..	..	..	..	..
South Atlantic.....	\$182,793	\$102,706	\$80,087	56.2	\$94,948	51.9	\$42,102	23.0	\$6,686	3.7	\$8,691	4.7	\$13,262	7.3	\$17,104	9.4
Delaware.....	4,777	3,493	1,284	73.1	3,041	63.7	461	9.7	101	2.1	222	4.6	431	9.0	521	10.9
Maryland.....	15,553	12,025	3,528	77.3	6,177	39.7	5,160	33.2	243	1.6	207	1.3	2,480	15.9	1,286	8.3

Virginia.....	22,259	13,753	8,506	61.8	13,943	62.6	5,652	25.4	313	1.4	761	3.4	520	2.4	1,070	4.8
West Virginia.....	29,082	16,123	12,959	55.4	15,419	53.0	4,791	16.5	1,166	4.0	946	3.3	4,147	14.2	2,613	9.0
North Carolina.....	46,337	32,127	24,963	69.3	23,962	51.7	7,554	16.3	2,199	4.8	4,254	9.2	2,750	5.9	5,618	12.1
South Carolina.....	16,337	8,924	7,413	54.6	8,038	49.2	4,937	30.2	723	4.4	540	3.3	800	4.9	1,299	8.0
Georgia.....	17,943	7,777	10,166	43.3	6,518	36.3	7,587	42.3	1,033	5.8	1,120	6.2	547	3.1	1,138	6.3
Florida.....	30,505	8,484	22,021	27.8	17,850	58.5	5,960	19.5	908	3.0	641	2.1	1,587	5.2	3,559	11.7
East South Central.....	\$91,567	\$44,988	\$46,579	49.1	\$43,099	47.1	\$27,994	30.5	\$2,920	3.2	\$4,692	5.1	\$4,162	4.6	\$8,700	9.5
Kentucky.....	22,118	14,916	7,202	67.4	12,341	55.8	7,383	33.4	568	2.5	836	3.8	405	1.8	585	2.7
Tennessee.....	26,728	14,379	12,349	53.8	12,560	47.0	6,447	24.1	1,290	4.8	2,680	10.0	622	2.4	3,129	11.7
Alabama.....	18,286	10,917	7,369	59.7	9,432	51.6	4,429	24.2	835	4.5	606	3.3	888	4.9	2,096	11.5
Mississippi.....	24,435	4,776	19,659	19.5	8,766	35.9	9,735	39.8	227	.9	570	2.4	2,247	9.2	2,890	11.8
West South Central.....	\$102,473	\$49,691	\$52,782	48.5	\$41,753	40.8	\$34,957	34.1	\$2,684	2.6	\$4,873	4.8	\$8,330	8.1	\$9,876	9.6
Arkansas.....	17,201	8,200	9,000	47.7	4,932	28.7	3,000	17.4	480	2.8	2,988	17.4	2,600	15.1	3,200	18.6
Louisiana.....	16,111	8,611	7,500	53.4	7,764	48.2	4,889	30.3	364	2.3	88	.6	1,230	7.6	1,776	11.0
Oklahoma.....	25,177	12,895	12,282	51.2	10,949	43.5	11,673	46.4	694	2.7	461	1.8	700	2.8	700	2.8
Texas.....	43,985	19,985	24,000	45.4	18,108	41.2	15,395	35.0	1,146	2.6	1,336	3.0	3,800	8.6	4,200	9.6
Mountain.....	\$45,496	\$27,277	\$18,219	60.0	\$24,282	53.4	\$12,948	28.5	\$1,761	3.9	\$2,883	6.3	\$2,196	4.8	\$1,426	3.1
Montana.....	4,514	1,261	3,253	27.9	1,654	36.6	2,106	46.7	280	6.2	226	5.0	55	1.2	193	4.3
Idaho.....	7,525	3,565	3,960	47.4	4,789	63.6	1,882	25.0	266	3.6	101	1.3	317	4.2	170	2.3
Wyoming.....	4,638	3,973	665	85.7	2,415	52.1	955	20.6	216	4.7	406	8.7	500	10.8	146	3.1
Colorado.....	10,073	5,565	4,508	55.2	4,631	46.0	3,398	33.7	250	2.5	816	8.1	600	5.9	378	3.8
New Mexico.....	3,737	3,315	422	88.7	2,258	60.4	944	25.3	160	4.3	241	6.5	20	.5	114	3.0
Arizona.....	4,048	2,443	1,605	60.4	2,048	50.6	1,379	34.1	352	8.7	269	6.6				
Utah.....	7,249	4,099	3,150	56.5	3,950	54.5	1,731	23.9	59	.8	609	8.4	565	7.8	335	4.6
Nevada.....	3,712	3,056	656	82.3	2,537	68.4	553	14.9	178	4.8	215	5.8	139	3.7	90	2.4
Pacific.....	\$90,748	\$39,931	\$50,817	44.0	\$36,874	40.6	\$30,243	33.3	\$3,183	3.5	\$1,932	2.2	\$9,838	10.8	\$8,678	9.6
Washington.....	15,710	7,846	7,864	49.9	7,255	46.2	4,767	30.3	719	4.6	657	4.2	1,948	12.4	364	2.3
Oregon.....	27,369	13,994	13,375	51.1	13,630	49.8	4,935	18.0	661	2.4	649	2.4	4,602	16.8	2,892	10.6
California.....	47,669	18,091	29,578	38.0	15,989	33.5	20,541	43.1	1,803	3.8	626	1.3	3,288	6.9	5,422	11.4

1 Includes equipment machinery and materials (\$22,497 thousands).

2 Includes payments for interest and retirements of primary road bonds.

3 Includes \$1,464 thousands for registration and control of motor vehicles.

TABLE 75: SOURCES OF STATE AND LOCAL HIGHWAY REVENUE, 1904, 1914, 1921 AND 1925

(Source: United States Bureau of Public Roads)
(Amounts in Thousands)

Geographic Divisions	Total Current Highway Revenue	Federal Aid	Current State Highway Revenue					Current Local Highway Revenue					Bonds			
			Total	Property Taxes	Motor Vehicle License Charges	Gasoline Taxes	Other Highway Revenue	Total	Property Taxes	State Labor	Motor Vehicle License Charges	Gasoline Taxes	Other Highway Revenue	Total	State	Local
<i>1904</i>																
United States.....	\$75,966	\$250*	\$2,635	\$2,635	..	..	..	\$73,081	\$53,263	\$19,818	..	..	..	\$3,658	..	\$3,658
New England.....	7,384	..	1,119	1,119	..	..	..	6,265	6,265	..	..	..	..	..	..	..
Middle Atlantic.....	13,855	..	1,434	1,434	..	..	..	12,421	10,667 ¹	1,754	..	..	..	..	..	..
East North Central.....	17,427	..	..	..	..	..	..	17,427	13,613 ¹	3,814 ¹	..	..	..	2,186	..	2,186
West North Central.....	10,417	..	..	..	..	..	..	10,417	7,370 ¹	3,047 ¹	..	..	..	65	..	65
South Atlantic.....	7,221	..	14	14	..	..	..	7,207	4,429 ¹	2,778 ¹	..	..	..	87	..	87
East South Central.....	6,639	..	..	..	..	..	..	6,639	2,225 ¹	4,414	..	..	..	383	..	383
West South Central.....	6,324	..	..	..	..	..	..	6,324	3,082 ¹	3,242 ¹	..	..	..	937	..	937
Mountain.....	2,309	250*	57	57	..	..	..	2,002	1,471	531 ¹	..	..	..	..	..	..
Pacific.....	4,390	..	11	11	..	..	..	4,379	4,141	238	..	..	..	..	..	..
<i>1914</i>																
United States.....	\$185,349	\$240*	•	•	•	•	•	•	•	•	•	•	•	\$54,915	\$17,973	\$36,942
New England.....	13,510	..	\$5,595	•	•	•	•	•	\$7,915	•	•	•	•	1,926	1,485	441
Middle Atlantic.....	30,397	..	9,937	•	•	•	•	•	20,460	•	•	•	•	10,468	10,000	468
East North Central.....	38,571	..	4,410	\$4,410	•	•	•	•	34,161	\$32,411	\$983	\$465	•	17,874	•	17,874
West North Central.....	32,635	..	1,904	1,904	•	•	•	•	30,731	28,014	736	1,147	•	4,85	•	485
South Atlantic.....	19,723	..	4,290	4,174	\$116	•	•	•	15,433	14,131	728	194	•	380	•	4,705
East South Central.....	8,893	..	163	145	18	•	•	•	8,730	7,736	905	42	•	3,862	•	3,862
West South Central.....	10,649	..	587	577	10	•	•	•	10,062	9,120	566	1	•	4,684	•	4,684
Mountain.....	9,063	240*	1,022	992	30	•	•	•	7,800	7,568	•	47	•	393	•	393
Pacific.....	21,909	..	•	•	•	•	•	•	•	•	•	•	•	10,518	6,488	4,030

* Federal road construction and maintenance in Yellowstone National Park

1921

United States	\$711,329	\$77,561	\$182,953	\$67,227	\$101,110	\$3,378	\$11,238	\$450,815	\$379,093	..	\$16,405	\$306	\$55,011	\$438,109	\$113,304	\$324,805
New England	40,564	2,905	19,131	6,150	11,629	..	1,352 ^a	18,530	18,335	..	..	..	195	5,890	2,385	3,505
Middle Atlantic	108,762	7,441	51,934	29,177	22,341	..	416	49,367	47,286	..	..	..	2,101	59,543	45,129	14,414
East North Central	179,549	11,888	32,928	12,470	19,281	..	1,177 ^b	134,773	104,957	..	7,354	..	22,462 ^c	101,550	10,157 ^d	91,393
West North Central	119,352	14,636	24,153	3,687	17,867	..	2,599 ^e	80,563	70,939	..	2,708	..	6,916	34,291	6,186	28,105
South Atlantic	70,251	11,267	17,345	3,773	11,127	734	1,711 ^f	41,639	37,443	..	..	..	4,196	67,407	27,113	40,294
East South Central	34,729	5,281	6,786	1,548	4,670	438	130	22,662	18,708	..	..	..	3,954	25,551	..	25,551
West South Central	36,376	10,930	5,420	623	4,667	104	26	40,026	31,043	..	2,660	66	6,257	82,128	685	81,443
Mountain	41,460	9,178 ^g	10,517	5,784	2,099	653	1,991 ^h	21,765	19,335	..	693	240	1,497	19,908	5,570	14,338
Pacific	60,244	4,035 ⁱ	14,739	4,015	7,439	1,449	1,836 ^j	41,470	31,047	..	2,990	..	7,433	41,841	16,079	25,762

1925

United States	\$959,156	\$92,777	\$358,509	\$53,469	\$199,926	\$89,498	\$15,616	\$508,170	\$412,823	..	\$46,546	\$24,834	\$23,967	\$285,815	\$141,402	\$144,413
New England	58,312	3,178	31,547	4,850	21,364	3,732	1,561 ^a	23,588	23,349	..	..	..	239	1,084	934	150
Middle Atlantic	163,305	13,640	76,061	23,671	46,877	2,945	2,568	73,604	62,838	..	7,494	2,000	1,272	77,521	46,104	31,417
East North Central	193,745	13,959	58,259	5,363	41,665	9,637	1,394	121,527	98,282	..	11,837	3,263	8,145	59,002	33,484	25,518
West North Central	146,479	14,364	53,513	3,836	31,984	15,998	1,695 ^b	78,603	70,267	..	5,291	885	2,160	29,726	17,000	12,726
South Atlantic	122,200	10,940	52,479	3,603	21,497	19,796	5,583	58,781	49,751	..	850	5,304	2,876	59,731	31,449	28,282
East South Central	60,256	8,211	15,123	799	7,110	6,876	338	36,922	28,785	..	3,722	3,294	1,121	24,649	8,100	16,549
West South Central	94,086	11,550	29,818	..	16,067	12,904	847	52,718	38,102	..	10,611	1,792	2,213	22,840	..	22,840
Mountain	42,293	11,494 ^c	11,907	3,633	2,742	4,651	881	18,892	10,855	..	2,816	1,221	4,000	1,969	1,319	650
Pacific	78,780	5,443	29,802	5,474	10,620	12,959	749 ^d	43,535	30,594	..	3,925	7,075	1,941	9,293	3,012	6,281

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^a Geographic divisions containing one or more states where the proportion of labor paid in cash cannot be determined.

^b Geographic divisions containing one or more states where the proportion of cash paid in labor cannot be determined.

^c Amounts cannot be determined and distribution of the total made.

^d Contains (Ohio) \$90 thousands special levy on benefited land and \$76 thousands special assessments.

^e The figures given for five states, Idaho, New Mexico, Utah, Nevada and Washington, include federal and forest aid, but the amount cannot be determined.

^f Includes \$154 thousands for rental of equipment, etc. (Connecticut); \$100 thousands donations, and \$106 thousands revolving fund (Rhode Island); and \$618 thousands assessments (Massachusetts).

^g Includes \$222 thousands for rental of machinery (Illinois); and \$451 thousands rentals machinery, etc., and \$320 thousands reimbursements for engineering (Wisconsin).

^h Includes \$1,521 thousands assessment certificates (Iowa); \$108 thousands corporation tax (Missouri); and \$106 thousands revolving fund (South Dakota).

ⁱ Includes \$939 thousands donations to state (Delaware); \$842 thousands miscellaneous refunds and transfers, and \$321 thousands convict labor appropriation (Virginia); and \$250 thousands sales and rentals of machinery, etc. (Georgia).

^j Includes \$319 thousands rental of equipment (Montana); \$215 thousands federal forest funds, \$284 thousands oil royalties, \$234 thousands donations, and \$125 thousands rental of equipment (Wyoming); and \$60 thousands state prison fund (Arizona).

^k Includes \$1,218 thousands federal forest allotment (California).

^l Ohio's amount (\$6478 thousands) consists almost entirely of assessments against abutting property and transfers from various funds.

^m Includes \$881 thousands refunds received on equipment, materials, etc., less refund paid federal aid to towns (Connecticut).

ⁿ Includes \$248 thousands special assessments against abutting property (Iowa).

^o Includes \$530 thousands federal forest road funds (Oregon).

^p Includes oil royalties paid by the United States Government,—Montana (\$30 thousands) and Wyoming (\$1,133 thousands).

TABLE 76: PERCENTAGE DISTRIBUTION OF STATE AND LOCAL HIGHWAY REVENUE, 1904, 1919, 1921 AND 1925
(National Industrial Conference Board)

Geographic Divisions	Federal Aid	Current State Highway Revenue					Current Local Highway Revenue					Bonds		
		Total	Property Taxes	Motor Vehicle License Charges	Gasoline Taxes	Other Highway Revenue	Total	Property Taxes	Statute Labor	Motor Vehicle License Charges	Gasoline Taxes	Other Highway Revenue	State	Local
1904														
United States.....	.3	3.5	3.5	..	..	96.2	70.1	26.1	..	..	..	..	100.0
New England.....	..	15.2	15.2	..	..	84.8	84.8	..	..	..	..	..	..
Middle Atlantic.....	..	10.4	10.4	..	..	89.6	77.0	12.6	..	..	..	..	..
East North Central.....	..	..	..	..	..	100.0	78.1	21.9	..	..	..	..	100.0
West North Central.....	..	..	..	..	..	100.0	70.8	29.2	..	..	..	..	100.0
South Atlantic.....	..	.2	.2	..	..	99.8	61.3	38.5	..	..	..	..	100.0
East South Central.....	..	..	..	..	..	100.0	33.5	66.5	..	..	..	..	100.0
West South Central.....	..	..	..	..	..	100.0	48.7	51.3	..	..	..	..	100.0
Mountain.....	10.8	2.5	2.5	..	..	86.7	63.7	23.0	..	..	..	..	..
Pacific.....	..	.3	.3	..	..	99.7	94.3	5.4	..	..	..	..	..
1914														
United States.....	.1	..	..	..	..	..	..	..	..	..	..	32.7	67.3
New England.....	..	41.4	..	..	..	58.6	..	..	..	..	..	77.1	22.9
Middle Atlantic.....	..	32.7	..	..	..	67.3	..	..	..	..	..	95.5	4.5
East North Central.....	..	11.4	11.4	..	..	88.6	84.1	2.5	1.2	..	8	..	100.0
West North Central.....	..	5.8	5.8	..	..	94.2	85.8	2.3	3.5	..	2.6	..	100.0
South Atlantic.....	..	21.8	21.2	.6	..	78.2	71.6	3.7	1.0	..	1.9	..	100.0	
East South Central.....	..	1.8	1.6	.2	..	98.2	87.0	10.2	.5	..	.5	..	100.0	
West South Central.....	..	5.6	5.4	.2	..	94.4	85.6	5.3	.0	..	3.5	..	100.0	
Mountain.....	2.6	11.3	11.0	.3	..	86.1	83.6	..	.5	..	2.0	..	100.0	
Pacific.....	..	..	..	..	..	..	..	..	..	..	..	61.7	38.3
1921														
United States.....	10.9	25.8	9.5	14.2	.5	1.6	63.3	53.3	..	2.3	.0	7.7	25.9	74.1
New England.....	7.1	47.2	15.2	28.7	..	3.3	45.7	45.25	40.5	59.5
Middle Atlantic.....	6.8	47.7	26.8	20.5	..	.4	45.5	43.6	1.9	75.8	24.2
East North Central.....	6.6	18.3	6.9	10.7	..	.7	75.1	58.5	..	4.1	..	12.5	10.0	90.0
West North Central.....	12.3	20.3	3.1	15.0	..	2.2	67.4	59.3	..	2.3	..	5.8	18.0	82.0
South Atlantic.....	16.0	24.6	5.4	15.8	1.0	2.4	59.4	53.4	6.0	40.2	59.8
East South Central.....	15.2	19.6	4.5	13.4	1.3	.4	65.4	53.8	11.4	..	100.0
West South Central.....	19.3	9.7	1.1	8.3	.2	.1	71.0	55.1	..	4.7	.1	11.1	.8	99.2
Mountain.....	22.1	25.4	14.0	5.0	1.6	4.8	52.5	46.6	..	1.7	.6	3.6	28.0	72.0
Pacific.....	6.7	24.3	6.7	12.3	2.4	3.1	68.8	51.5	..	5.0	..	12.3	38.4	61.6
1925														
United States.....	9.7	37.3	5.6	20.8	9.3	1.6	53.0	43.0	..	4.9	2.6	2.5	49.5	50.5
New England.....	5.5	54.1	8.4	36.6	6.4	2.7	40.4	40.04	86.2	13.8
Middle Atlantic.....	8.4	46.6	14.5	28.7	1.8	1.6	45.0	38.4	..	4.6	1.2	.8	59.5	40.5
East North Central.....	7.2	30.1	2.9	21.5	5.0	.7	62.7	50.7	..	6.1	1.7	4.2	56.7	43.3
West North Central.....	9.8	36.3	2.6	21.8	10.9	1.2	53.7	48.0	..	3.6	.6	1.5	57.2	42.8
South Atlantic.....	9.0	43.0	4.6	17.6	16.2	4.6	48.0	40.6	..	.7	4.3	2.4	52.7	47.3
East South Central.....	13.6	25.1	1.3	11.8	11.4	.6	61.3	47.7	..	6.2	5.5	1.9	32.9	67.1
West South Central.....	12.3	31.7	..	17.1	13.7	.9	56.0	40.4	..	11.3	1.9	2.4	..	100.0
Mountain.....	27.3	28.2	8.6	6.5	11.0	2.1	44.5	25.4	..	6.7	2.9	9.5	67.0	33.0
Pacific.....	6.9	38.0	7.0	13.5	16.5	1.0	55.1	38.6	..	5.0	9.0	2.5	32.4	67.6

NOTE: For footnotes references, see Table 75.

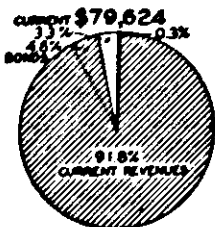
CHART 13: SOURCES OF ROAD AND HIGHWAY REVENUE, UNITED STATES, 1904, 1921 AND 1925

(National Industrial Conference Board)

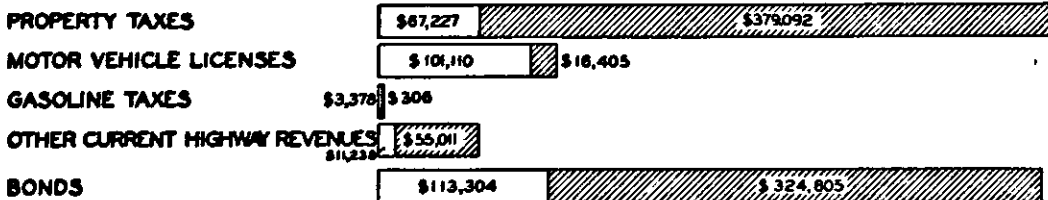
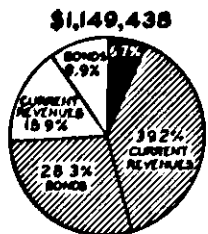
(Figures in thousands)

FEDERAL AID
 STATE REVENUES
 LOCAL REVENUES

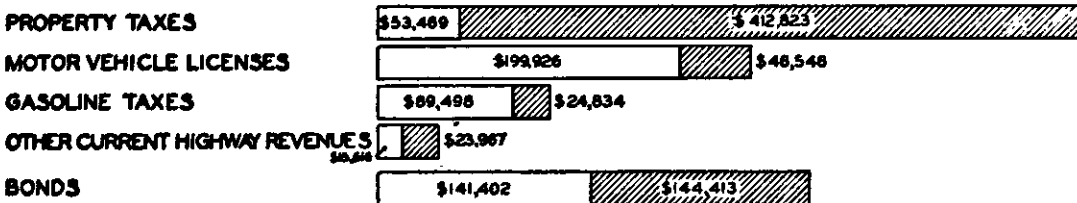
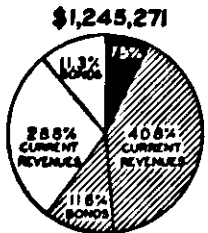
1904



1921



1925



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raised in 1904, 1909, 1921 and 1925 in each of the regional groups of states, and the percentage distribution of this revenue by types of revenue and by the governmental agencies that raised the revenue.

State vs. Local Highway Support

Of the \$75,965,995 of current highway revenue raised in 1904, local governments were responsible for \$73,080,473, or 96.2%. The contribution of the states to the country's highway program was less than 3.5%. All of the highway bond issues of that year, except in Massachusetts, were floated by local governments.

Ten years later, in 1914, the states raised 17% of the country's current road and highway revenue,¹ and were responsible for 32.7% of the year's highway bonds. In 1921, the states raised 25.8% of the current road and highway revenue and local governments 63.3%, while federal aid represented 10.9% of the total. In 1925, the proportions were 37.3%, 52.9% and 9.7% respectively. In this year, moreover, 49.5% of the \$285,815,138 of highway bonds were state issues.

To put it in another way, between 1904 and 1925 the current road and highway revenue of the states increased 136-fold, whereas local road and highway revenue increased less than sevenfold. This change in the proportions of state and of local highway revenue parallels the growing responsibility of the states for the construction and maintenance of roads and highways.

Proportion of Current Revenues to Loans

Twenty years ago, 93% of the roads of the country were of dirt, ungraded, rutted and cobbled. Most of them were never "constructed"; they developed out of foot and cow-paths. No large outlays of money were necessary to lay out such roads or to condition them. Statute labor or the ordinary tax revenues sufficed to cover the cost of any new construction that was undertaken, as well as to maintain existing roads. Only for the gravelling of main travelled roads and for the paving of city streets did borrowing become neces-

¹ The Pacific states, where a distribution of the road and highway revenue cannot be made, are not included in this calculation.

sary. The \$3,657,621 of highway funds borrowed by local governments in 1904 represented only 4.6% of the gross road and highway revenue of the year.

The concrete and bitumen highways suited to the rapid and heavy automobile traffic of today are engineering feats of the first magnitude. Their cost runs into tens of thousands of dollars per mile. It would be unwise, if not impossible, to construct such highways entirely out of tax revenues. Either an intolerable tax burden or a disastrous retardation of construction would result.

The construction of highway *systems* during the past ten years could only be, and has been accomplished, through a liberal resort to the public credit. In 1914, 22.9% of the gross road and highway revenue of the year was derived from loans. In 1921, a sum of \$438,109,273 was borrowed for highway construction, and it constituted 38.1% of the year's gross road and highway revenue. The peak of borrowing for highway purposes was reached during the years 1920 to 1923. Since 1923, there has been a decline in such borrowings. In 1925, such loans totalled \$285,815,138.

Principles of Borrowing for Highway Purposes

Certain fundamental principles are important in determining borrowing for highway construction and maintenance. It is generally held that only original construction should be financed through loans. During the lifetime of a highway it may have to be resurfaced and more or less completely repaired several times. These processes are best treated as current expenses to be met out of tax revenues. Any other policy would be a doubtful use of the borrowing power.

The need of a soundly constructed, well paved system of highways suitable for motor traffic was quickly felt as the automobile was developed into a universal medium of transportation. An immense amount of expensive road construction had to be undertaken—and to be undertaken immediately—by both the states and the localities. Here was a "rush job," and there could be no adapting it to the sluggish flow of tax revenues. Several states, like Delaware,¹ have

¹ See National Industrial Conference Board, "The Fiscal Problem in Delaware," 1927, p. 41.

now completed their highway system as originally planned. Other states will bring their programs to completion within the next few years. However, even after these initial state systems are finished, there will still remain a considerable mileage of highway to be constructed each year, as new territories are opened up and as cities expand in size and importance. This later highway construction will be a capital expenditure of a "continuing" character. It could be very properly covered by tax revenues rather than by borrowing.¹

Statute Road Labor

During the nineteenth century, the public roads were constructed and maintained exclusively by local governments—counties, townships and road districts—and the work upon them was done by statute labor. Instead of collecting taxes and paying for hired road labor out of this revenue, the freeholders of each district were called upon to work for a specified number of days on the roads of their districts. They came together at the appointed time with plows, barrows, scrapers and rollers and, in a leisurely, neighborly fashion, they put their local roads into condition for the season. As late as 1889, no cash or property taxes for road purposes were levied in Kentucky, South Carolina, Georgia, Alabama, Mississippi, Louisiana, Nebraska or Utah.² By 1904, although all states had provided for financing the construction and maintenance of roads and highways either by property taxes or by labor taxes payable in cash, labor and cash were in many cases more or less interchangeable. Twenty-five states still had statute labor taxes on their books, and eleven others had poll taxes payable in labor.

Of the \$75,965,995 of current road and highway revenue in 1904, \$19,818,236—more than one-quarter—represented the value of statute labor utilized by the localities. The proportion was highest in the East and West South Central states, where the percentages were respectively 66.5 and 51.3. In Mississippi the proportion was 78%, and in Alabama

¹ This was the opinion of the Committee on Highway Finance of the National Tax Association, *Proceedings*, 1924, p. 418; see, also, National Industrial Conference Board, *op. cit.*, pp. 65-66.

U. S. Bureau of Public Roads, Bulletin 32, p. 20.

it was 79.7%. In the New England states, on the other hand, statute labor had been completely commuted into cash payments, while in the Pacific states it represented only 5.4% of the total current road and highway revenue.

A complete classification of road and highway revenue in all states is not available for 1914, but whereas statute labor constituted 35.4% of the current highway revenues of the North Central, South Central, South Atlantic and Mountain states in 1904, in 1914 the proportion for these states was only 3.3%. Even in the East South Central states, statute labor represented only 10.2% of the total highway revenue in 1914. By 1921, this type of roadway maintenance had practically disappeared.

Road Property Taxes

The property tax has always been, and still is, the predominant element in the total of current road and highway revenue. As other sources of highway revenue have been developed, however, its relative importance has declined. In 1904, nearly three-fourths of the current road and highway revenue represented local and state property taxes and state appropriations for the most part derived from property taxes. In 1925, the proportion was 48.6%.

It is significant that in 1904 and in 1914 practically the entire road and highway revenue of the state governments was derived from property taxation. The local governments of the country, utilized both contract labor and convict labor, and in 1914 they raised considerable revenue from other sources, such as saloon licenses. During the past decade, this situation has been reversed. The states have developed the motor license charge and the gasoline tax, which in 1921 and in 1925 contributed far more state highway revenue than did state property taxes and appropriations. The local governments also receive some roadway revenue from motor license charges and gasoline taxes, but not nearly as much as the states. They have discarded statute labor¹ and have not developed any other sources of highway revenue. Consequently, while in 1921 and 1925 property taxes

¹ New York state still provides for statute labor for the removal of snow from rural roads.

contributed only 36.7% and 14.9% respectively of the current road and highway revenue of the state governments, the proportions for the local governments were 84.1% and 81.2% respectively.

Special Highway Assessments

The special assessment, or "betterment tax," has long been used by cities in the United States to finance the paving of their streets. The theory is that such street construction and paving adds definitely and measurably to the value of abutting property. The whole of the cost of the operation, or a part of the cost, is therefore charged directly to the property. In theory the charge should never exceed the added increment of value, and in practice the law usually protects property owners from such overcharge.

States have made little or no use of the special assessment in constructing their highway systems. It has not been an uncommon method of financing the construction of rural roads, however. In fact, when small road districts are set up, charged with constructing and maintaining specific short sections of roads and highways, and financing this activity by property taxes, the effect is often that of levying special assessments, although the procedure is cloaked under the form of the property tax.

In Arkansas, where constitutional restrictions limit both local borrowing and local property taxes, the special assessment has come to be the main support of the rural roadway programs. The road charges are levied on the neighboring farmers, usually on an acreage basis, with allowance for distance from the road in question. So utilized, the special assessment is found to have serious drawbacks. Beyond question, the value of the roads constructed exceeds the cost of the construction and maintenance, but this value accrues in very small part to abutting property owners. Their crops have a world market, and better roads reduce the cost of transportation to only a slight degree. The resulting improvement of social life is hardly measurable in terms of dollars and cents. The farmer proprietor finds that he must pay far more for the highway passing his property than he gains in dollars and cents benefit.

This must always be the experience of throwing the entire burden of rural highway construction on local special assessments. Highways are costly projects. They are worth while because they link city with city, and stimulate the general economic development of the region. Only to a minor degree does abutting property gain an increased value, and the amount of the increase is not likely to equal the cost of a modern permanently constructed highway.¹

Motor Vehicle License Charges

The first state to obtain revenue from motor vehicle license charges was New York. In 1901, these charges totalled \$954.² As one state after another provided for motor vehicle registration, even though regulation and not revenue was the aim of these laws,³ the revenue obtained from this source increased by leaps and bounds. In 1913, \$8,192,253 was collected from these charges. In 1920, the figure was \$102,546,212. Five years later, it amounted to \$260,619,621; and in 1926, to \$288,282,352.⁴

As will be seen from Table 78⁵ not all of this revenue from motor vehicle license charges is utilized for road and highway purposes. Of the \$260,619,621 collected in 1925, \$14,149,003 were utilized for other than road and highway purposes. This is a much lower proportion than in the early days of the tax. In 1914, of the \$5,356,020 collected by the North and South Central states, the South Atlantic states and the Mountain states, \$3,285,675 was diverted to other than highway purposes.

As the motor vehicle license revenue has increased in amount, and as an increasing proportion of it has come to be earmarked to road and highway construction and maintenance, its relative importance as a contribution to highway revenue has increased. In 1904, not a single state was using

¹ On the Arkansas situation, see C. O. Brannen, *National Tax Association Bulletin*, Vol. 12, pp. 136-7, and an article in *Agriculture and Finance*, Dec. 1926, by the same author.

² H. R. Trumbower, "Motor-Vehicle Taxation," *Review of Reviews*, Vol. 71, p. 642.

³ See p. 224 of this volume.

⁴ Martin, "The Motor Vehicle Registration License," *National Tax Association Bulletin*, April, 1927.

⁵ See p. 228 of this volume.

motor vehicle license revenue specifically for roadway purposes. In 1914, in the North and South Central states, the South Atlantic states and the Mountain states—for which groups of states data are available, but which at that time were not making as extensive use of motor vehicle license charges as the New England or Middle Atlantic states—the proportion of motor vehicle license revenue to total current road and highway revenue was 1.7%. In 1921, the proportion was 16.5% for all states, and in 1925 it was 25.7%. It is to be noted that the proportion of motor vehicle license revenue to total current highway revenue is highest in the New England and Middle Atlantic states, where it was respectively 28.7% and 20.5% in 1921, and 36.6% and 33.3% in 1925; it is lowest in the Mountain states, where it was 6.7% in 1921 and 13.1% in 1925.

As may be seen from Table 78, the states vary widely in their distribution of motor vehicle license revenue between the state and the localities. On the one hand, in the New England states all of this revenue has consistently been retained by the state governments. On the other hand, in the Mountain states in 1925, more than half of this revenue was distributed to the counties and localities. In all states, both in 1921 and in 1925, considerably more than four-fifths of such part of this revenue as was utilized for road purposes went to the states.

Gasoline Taxes

In 1919, four states—Colorado, New Mexico, North Dakota and Oregon—levied gasoline taxes. The revenue collected in these four states during the year was \$1,363,902. Two years later \$5,382,111 was collected from gasoline taxes in fourteen states. In 1925, the total revenue from this source was \$146,028,940. In 1926, \$187,603,231 of gasoline taxes were collected. By June 30, 1927, all but two states—New York and Massachusetts—were levying gasoline taxes. As in the case of motor vehicle license charges, the entire revenue from gasoline taxes is not earmarked to road and highway construction and maintenance. In 1921, \$1,698,651 of the \$5,382,111 collected went into the general funds of state and local governments. In 1926, \$9,074,466 of the

\$187,603,231 collected was diverted to other than road purposes.

It is significant that those states that draw the greatest proportion of their road and highway revenue from motor vehicle license charges depend least upon gasoline tax revenue. Only 6.4% of the road and highway revenue of the New England states in 1925 came from gasoline taxes. In the Middle Atlantic group, where until 1927 only Pennsylvania levied such a tax, the proportion was 3%. In the industrial East North Central states it was 6.7%. These low proportions in the East North Central states are contrasted sharply with the 25.5% proportion in the Pacific states and that of 20.5% in the South Atlantic states. In the Mountain states more road and highway revenue was derived from gasoline taxes than from motor vehicle license charges in 1925.

The distribution of gasoline tax revenue between the state governments and the localities in the several regional groups of states parallels closely the distribution of the motor vehicle license charges.

Federal Highway Aid

Prior to 1916 the only direct interest taken by the Federal Government in the country's highway program was the construction of roads through Yellowstone National Park in Wyoming. States which had federal forest reserves within their borders received grants from the Federal Government to compensate them for the withdrawal of this property from the tax lists, and this money was in many cases used for road construction.

The Federal Aid Road Act, signed July 11, 1916, made appropriations for federal aid for state road construction, and authorized the Secretary of Agriculture to contribute to the improvement of post roads up to one-half of the cost of their improvements, providing that the grant did not exceed \$10,000 per mile. To qualify for such aid a state had to have a state highway department, with adequate authority and equipment to cooperate with the Federal Government.

The Federal Highway Act of 1921 authorized the Secretary of Agriculture, in cooperation with state highway departments, to designate a system of main interstate and inter-

county highways, eventually to have a mileage of about 200,000 miles, to which federal highway aid should be applied. This system, as planned, will link together almost all of the cities with populations exceeding 5,000. The mileage of this federal system in each state is limited to 7% of the state's existing road mileage. The Federal Government's contribution to this system will be proportioned to the cost of constructing the various sections, \$15,000 per mile being the maximum aid. The Acts of 1916 and 1921 and subsequent amendments have also appropriated \$77,000,000 to construct 13,622 miles of highway through and adjacent to the national forests.

The \$79,333,226 of federal highway and forest road aid in 1921 represented 11.1% of the total of current road and highway revenue of the year. Federal aid in 1925 amounted to \$92,180,406,¹ but because of the increased volume of state and local highway revenue, it was only 9.7% of the total for the year. Federal highway aid is most important to the less prosperous states of the South and West. In 1925, while federal aid contributed only 5.5% to the total road and highway revenues of the New England states and 6.9% to the Pacific states, the proportion for the Mountain states was 27.2% and 13.6% for the East South Central states.

Highways as Self-supporting Investments

Parallel with the shifting of highway support from local to state finance, and even to federal finance through the growth of federal aid, there has occurred a marked shift of highway support from the general tax-paying public to the users and beneficiaries of the country's highway system through the increasing dependence upon motor vehicle license charges and gasoline taxes. In 1904, the revenue received from license charges was barely sufficient to cover registration costs. At that time, such revenue was not earmarked to highway purposes. Ten years later, 1.7% of the current highway revenue of the North and South Central states, of the South Atlantic states and of the Mountain states was derived from these charges. In 1925, the motor vehicle license charges, earmarked to highway support, and the

¹ Exclusive of federal oil royalties.

newly developed gasoline taxes totaled \$360.8 millions and represented 37.6% of the total current highway revenue of the year. If the \$92.2 millions of federal aid, which was more than covered by federal excise taxes on motor vehicles, parts and tires, is added to this figure, it becomes clear that the users of roads paid nearly 50% of the current highway bill in 1925. In individual states—Connecticut, Illinois, Michigan, New Hampshire, Rhode Island and Vermont—more than half of the current highway revenue was derived from the motor vehicle license changes and from gasoline taxes alone.

In 1926, the motor vehicle license charges and the gasoline taxes yielded a highway revenue of \$476 millions or \$117 millions more than in the preceding year. In 1927, a still greater increase in these taxes may be expected as a result of action taken by the last sessions of the legislatures increasing the rates of motor vehicle license charges and gasoline taxes, and an analysis of highway revenues for 1926 and 1927 would show a still greater proportion of highway costs transferred from property to the users of roads.

Moreover, a portion of the highway revenue derived from property taxation is a direct creation of the highway system. Not only have values along the main routes increased markedly because of their proximity to these routes, but there has been a general increase in valuations resultant upon the easier communication made possible by the construction of highways and their use by the automotive traffic.

Highway Revenues in Individual States

In general, as has been indicated, there are marked regional differences in the sources and distribution of road and highway revenue. In the case of individual states these variations are even more marked, as indicated in Table 77, which shows the percentage distribution of the 1925 highway revenue by states.

Whereas the country-wide average of state contributions to road and highway revenue in 1925 was 37.3%, it is seen that in Connecticut the proportion was 74.6%, whereas in Montana it was only 3.2%. Similarly, whereas federal aid represented only 3.5% of the road and highway revenue of

TABLE 77: PERCENTAGE DISTRIBUTION OF STATE AND LOCAL HIGHWAY REVENUE BY STATES, 1925

(Source: United States Bureau of Public Roads)

States	Total Current Highway Revenue (Thousands)	Federal Aid	Current State Highway Revenue					Current Local Highway Revenue					Bonds		
			Total	Property Tax	Motor Vehicle License Charges	Gasoline Taxes	Other Highway Revenue	Total	Property Taxes	Motor Vehicle License Charges	Gasoline Taxes	Other Highway Revenue	Total (Thousands)	State	Local
United States.....	\$959,456	9.7%	37.3%	5.6%	20.8%	9.3%	1.6%	53.0%	43.0%	4.9%	2.6%	2.5%	\$285,815	49.5%	50.5%
Alabama.....	10,581	22.0	18.4	..	18.0	..	.4	59.6	37.4	1.4	19.8	1.0	7,201	94.4	5.6
Arizona.....	3,649	19.4	41.4	17.8	11.1	11.5	1.0	39.2	25.2	11.4	..	2.6	..	..	..
Arkansas.....	20,190	9.1	32.9	..	15.6	17.3	..	58.0	43.1	14.9	..	..	2,300	..	100.0
California.....	43,698	6.6	32.6	9.4	7.5	15.7	..	60.8	38.7	5.8	15.9	.4	3,016	..	100.0
Colorado.....	9,018	16.0	30.7	11.4	7.3	10.2	1.8	53.3	30.7	4.6	8.9	9.1	1,087	95.9	4.1
Connecticut.....	12,992	6.8	74.6	16.2	42.9	8.7	6.8 ^a	18.6	18.6	..	..	..	..	..	..
Delaware.....	2,756	12.8	39.7	..	24.7	12.4	2.6	47.5	44.8	2.7	..	1	2,866	34.4	65.6
Florida.....	21,956	4.9	34.6	2.3	11.6	20.6	.1	60.5	42.3	3.5	7.5	7.2	16,025	..	100.0
Georgia.....	17,883	14.5	24.3	..	16.1	7.8	.4 ^b	61.2	53.1	..	6.9	1.2	941	..	100.0
Idaho ¹⁰	7,178	15.9	20.4	5.6	1.9	12.5	.4	63.7	27.9	14.4	..	21.4	664	24.6	75.4
Illinois.....	25,634	10.6	52.9	..	50.9	..	2.0	36.5	35.3	..	..	1.2	23,533	100.0	..
Indiana.....	38,812	9.3	25.4	2.5	10.6	10.9 ^a	1.4	65.3	62.0	..	2.5	.8	9,947	..	100.0
Iowa.....	29,140	4.3	34.7	..	31.1	2.7	.9 ^c	61.0	53.3	1.6	3.0	3.1	180	..	100.0
Kansas.....	23,325	10.3	26.8	.2	14.1	12.5	..	62.9	58.2	4.7	..	..	1,236	..	100.0
Kentucky.....	15,093	12.3	46.5	5.2	23.9	17.0	.4	41.2	36.8	2.7	..	1.7	1,000	..	100.0
Louisiana.....	11,963	6.6	48.2	..	28.1	19.6	.5	45.2	43.5	..	..	1.7	6,340	..	100.0
Maine.....	9,057	3.5	53.5	11.1	24.1	13.3	5.0	43.0	43.0	..	..	..	911	100.0	..
Maryland.....	10,632	7.4	65.2	30.5	18.0	14.4	2.3	27.4	27.4	..	..	..	2,700	81.4	18.6
Massachusetts.....	24,351	3.5	39.0	3.1	35.9	..	..	57.5	56.7	..	..	.8	..	..	..
Michigan.....	39,419	9.1	41.2	2.1	33.2	5.9	..	49.7	34.0	13.4	..	2.3	12,230	81.4	18.6
Minnesota.....	33,763	6.1	45.6	5.8	28.9	9.1	1.8	48.3	47.4	..	..	.9	12,597	14.7 ^b	85.3
Mississippi.....	18,390	9.0	7.4	..	.5	6.5	.4	83.6	67.3	8.3	6.5	1.5	3,532	..	100.0
Missouri.....	25,303	16.2	47.7	..	28.7	16.7	2.3	36.1	34.8	..	..	1.3	15,558	97.4	2.6
Montana.....	3,951	19.9 ^a	3.2	..	..	2.5	.7	76.9	46.5	21.8	5.3	3.3	105	..	100.0
Nebraska.....	16,699	11.4	29.8	4.7	6.3	18.8	..	58.8	44.4	13.3	..	1.1	..	..	..

Nevada.....	2,969	58.4	20.6	4.0	6.5	4.9	5.2	21.0	13.6	.1	6.9	.4	100	100.0	..
New Hampshire.....	4,403	9.8	54.7	..	36.6	15.9	2.2	35.5	35.3	..	..	.2	..	..	..
New Jersey.....	30,449	8.0	47.3	15.6	31.7	7	1	44.7	32.6	11.8	..	.3	25,830	31.0	69.0
New Mexico.....	4,080	47.0	41.5	21.4	6.9	12.7	.5	11.5	8.6	2.1	..	.8	..	..	..
New York.....	73,889	8.1	48.7	25.5	19.8	2	3.4	43.2	37.9	5.3	..	..	4,536	29.7	70.3
North Carolina.....	26,562	7.5	50.0	..	16.0	19.7	14.3	42.5	42.5	..	..	..	21,228	81.3	18.7
North Dakota.....	5,635	16.1	9.8	2.7	6.6	..	.5	74.1	59.9	6.2	..	8.0	..	..	..
Ohio.....	61,843	4.4	20.7	6.1	9.6	5.0	..	74.9	51.3	10.6	3.7	9.3	8,292	..	100.0
Oklahoma.....	22,292	14.8	18.0	..	.8	16.1	1.1	67.2	34.6	17.8	8.0	6.8	4,500	..	100.0
Oregon.....	20,953	6.3	42.9	6.6	18.1	14.6	3.6 ^a	50.8	39.5	5.8	.3	5.2	4,949	60.9	39.1
Pennsylvania.....	58,967	8.7	43.7	.2	38.3	5.0	.2	47.6	42.2	..	3.4	2.0	47,155	77.9	22.1
Rhode Island.....	3,721	8.3	74.6	19.9	49.4	5.3	..	17.1	16.2	..	..	.9	173	13.3	86.7
South Carolina.....	10,062	13.9	45.5	..	17.7	23.4	4.4	40.6	22.3	..	11.8	6.5	2,069	..	100.0
South Dakota.....	12,613	13.5	33.1	7.0	9.5	14.8	1.8	53.4	44.1	9.3	..	..	155	..	100.0
Tennessee.....	16,192	14.7	29.6	.1	9.3	19.3	.9	55.7	42.6	10.2	..	2.9	12,916	10.1	89.9
Texas.....	39,641	14.1	33.8	..	23.6	8.8	1.4	52.1	41.6	9.2	..	1.3	9,700	..	100.0
Utah.....	6,731	18.0	33.0	4.2	8.4	18.0	2.4	49.0	29.7	..	..	19.3	13	100.0	..
Vermont.....	3,788	10.2	61.4	7.3	37.4	13.3	3.4	28.4	28.4	..	..	..	..	..	..
Virginia.....	17,182	10.9	47.6	10.8	21.9	13.7	1.2	41.5	32.9	..	7.2	1.4	1,037	..	100.0
Washington.....	14,129	8.6	46.6	..	25.2	21.4	..	44.8	38.3	1.3	.3	4.9	1,328	..	100.0
West Virginia.....	15,168	5.6	42.8	..	24.4	13.5	4.9	51.6	50.2	..	..	1.4	12,865	85.5	14.5
Wisconsin.....	28,037	4.7	20.8	..	19.6	5	1.2	74.5	71.4	..	..	3.1	\$5,000	..	100.0
Wyoming.....	4,717	54.0 ^d	32.2	5.8	10.8	9.5	6.1	13.8	12.2	..	..	1.6	..	..	..

¹ Includes oil royalties paid by the United States Government—Wyoming (\$29,954) and Montana (\$1,132,604).

² All receipts distributed to counties.

³ No gasoline tax in 1925—Idaho, Massachusetts, New Jersey and New York.

⁴ Excludes \$1,000,000 gasoline tax distributed to counties.

⁵ Not applicable for state highway fund until after July 1st.

⁶ Includes federal forest road funds—Georgia (\$34,663) and Oregon (\$529,942).

⁷ Includes \$247,900 special assessments against abutting property.

⁸ Includes \$881,494 refunds received on equipment, materials, etc., less refunds paid federal aid to towns.

⁹ County bonds secured as state obligations.

¹⁰ Idaho's distributions are for 13 months; fiscal year changed.

Maine and Massachusetts, for Nevada it was 58.4% and for Wyoming (including federal roads constructed in Yellowstone National Park) it was 54%.

In Wisconsin, property taxes contributed over 70% of the total of road and highway revenue. In the two states where federal aid represented more than half of the current road and highway revenue—in Nevada and Wyoming—property taxes contributed less than 20% of the current total. The proportion of motor vehicle license revenue to total road and highway revenue varied from 50.9% in Illinois to 6.6% in Nevada. The proportion of gasoline tax revenue varied from zero in Illinois, Massachusetts, New Jersey and New York to 35.2% in South Carolina.

MOTOR VEHICLE LICENSE CHARGE LAWS

The first state to provide for motor vehicle registration was New York in 1901. In 1903, Connecticut, Massachusetts, Minnesota, Missouri, New Jersey and Pennsylvania made similar provision. The other states fell rapidly into line. Louisiana in 1924 was the last state to take this step. The rates of these motor vehicle license charge laws have been increased rapidly, increasing their burden upon automobile users. In 1914, the average fee paid by a 1¼-ton truck was \$6.43; in 1924 it was \$31.15. A 3½-ton truck paid \$8.36 in 1914 and \$85.75 in 1924. For 5-ton trucks the increase during the same period was from \$8.80 to \$139.39.¹

Early Motor Vehicle License Charges

A few years later the states came to realize that the motor vehicle license charges might be utilized as a source of revenue. This could be accomplished by making the license charge annual, and by increasing the rate of the charge. Heavy charges, however, magnified the possibilities of injustice as between automobiles of different character and quality, and it was only natural that yardsticks, by which the tax might be fairly graduated, were sought.

¹ Estimate by Thomas H. MacDonald, quoted in Commission on Commerce and Marine Bankers Association, "Automotive Transportation and Railroads," New York, 1927, p. 34.

The first yardstick applied was the horsepower of the motor. This basis of graduation was first employed by the states of New Jersey, Ohio and Vermont in 1906. At the time, the principles behind this step were not at all clear. In a general way it was felt that the higher powered cars were the more valuable, and that such graduation tended to introduce an element of proportionality into the tax. At the same time, it was argued that the higher powered cars necessitated better constructed and more expensive highways and that it was only fair that they should share a part of the resulting cost.

In every year after 1906, graduation in one form or another was introduced into the motor vehicle license charges of one or more states. In a majority of cases horsepower was used as the basis of graduation. Several states also discriminated between different kinds of motor-driven vehicles, imposing heavier charges on automobiles than on motorcycles.

Development of Rate Discrimination

As the motor vehicle license charge increased in importance as a source of revenue, several marked lines of development became noticeable. In the first place, discrimination in the charges according to the type of vehicle soon became almost universal. By 1917, all the states, except Arkansas and West Virginia, discriminated in one way or another between vehicles of different types.¹ In most cases the line was drawn between automobiles and motorcycles. However, a growing number of states were now discriminating between passenger cars and trucks, usually taxing the former more heavily as luxuries, thus introducing a note of sumptuary discrimination. Several states, as early as 1917, had special rates for steam-driven and electric vehicles and for trailers.

By 1921, a further discrimination had been introduced. Some of the states were now levying special taxes on common carriers—either buses and taxis or trucks for hire, or both. These taxes were usually higher than those on private cars. In many cases their form was that of a supplementary levy in addition to the regular private car rates. The theory was apparently that a greater privilege was involved in the use of

¹ Martin, *loc. cit.*

publicly built roads by these vehicles, which had an earning power because of the existence of the roads. This doctrine of privilege was now entering into the discrimination between passenger cars and trucks, with the result that the rates on the latter were now coming to be higher than the rates on passenger cars. Belief that heavy trucks resulted in greater wear and tear on the highways was also responsible for this change of attitude.

Development of Rate Graduation

As was pointed out, the first motor vehicle license charges were at flat rates. After 1906, the element of graduation was rapidly introduced. Those who felt that the charge on automobile owners should be an offset to the cost of constructing and maintaining highways, assented to graduation because they felt that the larger, higher powered cars were more destructive to the highways than smaller cars and, hence, should pay more. Those who looked on the charge as a pure tax upon automobile users also accepted the principle of graduation, because they argued that the larger, more powerful cars were owned by richer individuals who could afford higher taxes.

In the beginning, horsepower was generally agreed upon as the most practical basis of graduation and nearly all of the early graduated motor vehicle charges utilized this base. In 1917, thirty-seven states made use of horsepower as the sole criterion for the graduated rates on passenger cars. However, there was already considerable feeling that horsepower was not an accurate measure either of the destructiveness of an automobile or of the tax-paying ability of its owner. By 1917, Delaware had introduced gross weight as the basis of graduation for passenger cars. Florida had introduced seating capacity, and Idaho, net weight.

As soon as a discrimination was made between passenger cars, it was realized that horsepower alone was practically worthless as a criterion of graduation, whether the principles involved were destructiveness, privilege or ability. From the very beginning there was wide variation and experimentation in this field. In 1917, only fifteen states used horsepower as the sole basis of graduation for truck charges. Five others

combined it with other criteria. Other states were using carrying capacity, net weight, and gross weight, singly or in combination.

With each year the complexity and confusion of bases increased. By 1921, horsepower (measured by various formulas in different states), gross weight, net weight, value, character of tires, and number of previous registrations were all in use, singly or in combination, as criteria for graduating the charges on passenger cars. In the case of trucks, there were fifteen combinations of criteria in practice, with capacity the most popular one.

Recent years have seen, not a simplification, but a further growth of complexity in the system of motor vehicle license charges. The legislatures have become obsessed by the idea that special taxes upon motorists should be definitely and minutely measured by damage done to the roadways by the individual vehicle. Refinement has been added to refinement in the fruitless search to encompass each and every factor responsible for road damages. Were the revenue from these charges utilized solely for maintaining auto highways and repairing the damage done by motor traffic there might be some excuse for this tendency, but the development becomes farcical when it is borne in mind that these license charge revenues are used for road construction as well as road maintenance.

In the case of common carriers, there is a similar tendency towards overrefinement in measuring their special privilege. The use of gross receipts and mileage as bases for their license charges is actually dangerous. By imposing upon the common carriers the burden of keeping special records of these items, legislatures run the risk of causing motor vehicle license charges to be viewed as nuisance taxes, and of provoking an unnecessary hostility. Sure bases for charges invite perjury on the part of the companies, and they are the more likely to attempt evasion because they feel they have a just grievance. A tabular analysis of the motor vehicle license charge laws in force on January 1, 1927, is presented in Table 78. The table shows the bases of license charges and the disposition of motor vehicle license revenue in the forty-eight states and the District of Columbia.

TABLE 78: MOTOR VEHICLE LICENSE CHARGES IN FORCE ON JANUARY 1, 1927

(Source: Motor Vehicle Conference Committee, "Special Taxation for Motor Vehicles," 1927; checked by reference to state laws)

States	Key				Key	Key
	a—flat rate b—horse power c—gross (car and load) weight d—net (unladen) weight e—capacity (seating or ton) f—mileage g—value		h—gross receipts i—tires j—age k—minimum fee l—special base for irregular route m—discrimination by terminal points		1—steam propelled cars 2—electric vehicles 3—trailers 4—hearses 5—tractors 6—"u-drive-its" 7—convertible passenger and light truck vehicles 8—vehicles used exclusively for transporting school children	a—to cost of collection and overhead b—to state for road purposes c—to counties, purpose not designated d—to counties for road purposes e—to localities, purpose not designated f—to localities for road purposes
	Bases of License Charges					
	Privately Owned Motor Vehicles		Common Carrier Motor Vehicles		License Charges on Miscellaneous Motor Vehicles	Disposition of Motor Vehicle License Revenue
Passenger Cars	Trucks	Passenger Cars	Trucks			
Alabama	b—\$11.25 to \$30.	e—\$15 to \$1,000.	e—\$37.50 to \$90; (jitney buses taxed by size of cities served).		1—\$25. 2—\$20. 3— $\frac{1}{2}$ drawing vehicle rate. 4—\$10 to \$50, according to size of city served. 5—(Except on farms) \$100.	a— b—80% of net collections. c or e—20% of net collections, on collection basis.
Arizona	b—\$5 to \$15.	e—\$10 to \$25.	af— $\frac{1}{2}$ mill per passenger capacity mile.	ef—2 mills per ton capacity mile.	4—Same as private passenger cars.	a—Not to exceed \$25,000, b—balance.
Arkansas	b—12 $\frac{1}{4}$ per H.P. c—55¢ per 100 lbs.; k—\$15.	e—\$17.50 to \$400; i— $\frac{1}{4}$ more for trucks over 1 ton capacity.	Same as for private passenger cars, plus e—\$2.50 per seat.	1 $\frac{1}{4}$ times charge on private trucks.	3—\$15 to \$50, by capacity. 4—\$25.	b—All but \$3,000,000, d—\$3,000,000, on population basis.
California	a—\$3.	d—Flat rate \$3, plus \$5 to \$20 by net weight; i—\$3, and double net weight schedule.	h—4 $\frac{1}{4}$ % in lieu of all taxes except municipal privilege and gasoline taxes.	h—5% in lieu of all taxes except municipal privilege and gasoline taxes.	1—\$13. 2—\$13 for private passenger cars, and from \$40 to \$80 by net weight for private trucks. 3—Same as private trucks. 4—Same as private trucks.	a—Not to exceed 20%, b—50% of balance, d—remainder, on collection basis.
Colorado	g— $\frac{1}{4}$ % j—50% reduction	e—\$10 to \$50 for 5 tons, and \$25 per addi-	Same as for private passenger cars, plus		3—\$10 for 2 ton capacity, and \$5 per additional ton.	a— b—50% of net collec-

	after 5th year, 50% reduction after 8th; k—\$5.	tional ton.	l—\$20 for 9 seat capacity, and \$1 per additional seat.		4—Same as private passenger cars.	tions. d—50% of net collec- tions, on collection basis.
Connecticut	b—\$4 per cu. in. displacement; k—\$15.	e—\$15 to \$250 for 6 tons, and \$100 per addi- tional ton; f—higher rates up to 4 1/2 tons.	e—\$15 for 7 seat capacity, with additional charge per addi- tional seat, so that 50 seats equals \$241, h—30% for intrastate or inter- urban routes, fm—1¢ per mile traveled within state for interstate routes.		1—75¢ per H.P., \$15 minimum. 2—75¢ per H.P., \$5 minimum. 3—Same as private trucks. 4—\$2, and either private pas- senger or truck rate, which- ever is higher. 5—Same as private trucks.	b—All.
Delaware	c—\$2 per 1/4 ton.	c—\$2 per 1/4 ton.			3—Same as trucks, except for over 1/4 ton equipped with metal tires, when the rate is double. 4—No fee.	b—All.
Florida	d—50¢ per 100 lbs.	d—75¢ per 100 lbs. of 1 1/4 tons, and \$1.50 per additional 100 lbs.; i—double rate for 1 1/4 ton, additional, 1 1/4 rate. (Solid tire rate for airless cushions on tires, except for 1 ton truck, when it is 40% less.)	de—up to 7 seat capacity, 75¢ per 100 lbs., plus \$5 per seat; graduation up to \$1.50 per 100 lbs., plus \$15 per seat for over 16 seat car; i—higher net weight schedule on over 7 seat car.	c—75¢ per 100 lbs. of 1 1/4 tons, and \$1.50 per addi- tional 100 lbs.; i—same rate of in- crease as for pri- vate trucks.	3—Same as private trucks. 4—\$20. 6—Same as private passenger cars, plus \$10.	a—Collection expenses; then 5% for mainte- nance of State Road Department, b—70% of net collec- tions, d—25% of net collec- tions where collected.
Georgia	h—\$11.25 for 23 H.P., and 60¢ per additional H.P.	e—\$15 to \$1,125.	Same as for private passen- ger cars, plus e—over 9 seats, \$75.		2—Same as for gas cars. 4—Same as private trucks.	a—, b—net collections to be expended in the coun- ties on post road mileage basis.
Idaho	e—\$12 for 1 ton, and \$1 per addi- tional 100 lbs.; j—10% reduction after 2nd year; further reduction after 3rd year.	ec—\$12 or \$17.50 for 1/4 ton capacity, depend- ing upon gross weight. e—\$22.50 to \$110 for 1/4 ton to 5 ton capac- ity, and \$50 per addi- tional ton; i—higher rates for over 1/4 ton capacity; spe- cial high rates for metal tires.	h—5%.	h—5%.	3—\$15 to \$75 by ton capacity, higher rates for solid, and special high rates for metal tires. 4—Hearses, same as 1 1/4 ton private trucks; ambulances, private passenger car or private truck rates, accord- ing to chassis type.	b—10%, d—90%, where collected.

* Steam propelled and electric vehicles are private passenger cars when not otherwise stated.

TABLE 78: MOTOR VEHICLE LICENSE CHARGES IN FORCE ON JANUARY 1, 1927—(Continued)

(Source: Motor Vehicle Conference Committee, "Special Taxation for Motor Vehicles," 1927; checked by reference to state laws)

States	Key				Key	Key
	a—flat rate b—horse power c—gross (car and load) weight d—net (unladen) weight e—capacity (seating or ton) f—mileage g—value		h—gross receipts i—tires j—age k—minimum fee l—special base for irregular route m—discrimination by terminal points		1—steam propelled cars ¹ 2—electric vehicles ¹ 3—trailers 4—hearses 5—tractors 6—"u-drive-its" 7—convertible passenger and light truck vehicles 8—vehicles used exclusively for transporting school children	a—to cost of collection and overhead b—to state for road purposes c—to counties, purpose not designated d—to counties for road purposes e—to localities, purpose not designated f—to localities for road purposes
	Bases of License Charges					
	Privately Owned Motor Vehicles		Common Carrier Motor Vehicles		License Charges on Miscellaneous Motor Vehicles	Disposition of Motor Vehicle License Revenue
	Passenger Cars	Trucks	Passenger Cars	Trucks		
Illinois	b—\$8 to \$25.	c—\$12 to \$150.	Same as for private passenger cars, plus c—\$1 per 100 lbs.	Same as private trucks, plus c—\$1 per 100 lbs.	2—\$12. 3—\$6 to \$50 by gross weight. 4—Same as private passenger cars.	b—All.
Indiana	bd—\$5 to \$10.	e—\$6 to \$200.	e—\$6 per seat. m— $\frac{1}{16}$ regular rate for intra-urban cars; $\frac{1}{8}$ regular rate for interstate routes.		1—Same as for gas cars. 2—\$5. 3—\$3 to \$50 (semi-trailers \$10 to \$125) by ton capacity. 4—Same as private passenger cars. 5—\$25.	a— b—balance.
Iowa	c—40¢ per 100 lbs.; f—1% k—\$10.	e—\$15 to \$300 for 6 tons; i—higher rates for solid, and special high rates for metal tires. m— $\frac{1}{2}$ of regular fee for intraurban trucks over 2 tons.	Same as for private passenger cars, plus cf— $\frac{1}{2}$ ¢ per ton mile; i—double ton-mileage rate.	Same as for passenger carriers for hire.	2—Same as for gas cars. 3—\$10 to \$60, by ton capacity; higher rates for solid and metal tires. 4—Same as 1 ton private truck.	a—6% 50¢ per registration retained by counties for expenses and reimbursement fund; d—balance, on area basis.
Kansas	d—\$8 for 1 ton, 50¢ per addi-	e—\$8 to \$100 for 5 tons, and \$25 per addi-	Same as for private passenger cars, plus	Same as for private trucks, plus	2—\$10 for private passenger cars, and private gas truck	a—50¢ per registration to Secretary of State,

	ditional 100 lbs.	ditional ton.	f—\$40 to \$230; but m— $\frac{1}{2}$ capacity charge for intra- urban trucks.	←\$40 to \$200.	rate for trucks. 3—\$5 per ton capacity (Trailers attached to trucks for hire pay $\frac{1}{2}$ drawing vehicle rate). 4—Same as 1 ton private truck.	b—75% of balance, all but \$25,000 to be re- distributed to coun- ties for roads upon equalization and as- sessed valuation bases, d—remainder, where col- lected.
Kentucky	b—25¢ per H.P., c—40¢ per 100 lbs.	e—\$20 to \$300 for 5 tons, and \$30 per addi- tional ton.	Same as private passenger cars plus, c—\$1 for 100 lbs., e—from \$5 per seat, plus \$10 bus tag charge, to \$15 per seat with \$50 bus tag charge; j—\$2.50 per seat in addition to private car rate.		2—Same as for gas cars. 4—Up to 38 H.P., \$20; over 38 H.P., \$30. 6—Same as passenger cars, plus \$2.50 per seat.	a— b—balance.
Louisiana	b—66¢ per H.P.; k—\$15.	b—66¢ per H.P.; a—\$10 per $\frac{1}{2}$ ton in cities over 10,000 population; others, from \$10 per $\frac{1}{2}$ ton for 1 ton, graduated from \$12.50 to \$150 per additional $\frac{1}{2}$ ton; k—\$25.	b—66¢ per H.P., c—\$2 per seat for 7 seats; grad- uated to \$6 per seat over 30 seats; k—\$25.		3—Same as trucks. 4—Same as trucks. 5—(Except on farms.) Same capacity rate as trucks; minimum \$25.	b—All.
Maine	b—25¢ per H.P., d—25¢ per 100 lbs., i—double net rate fees; k—\$10.	e—\$10 to \$110 for 4 tons; i— $\frac{1}{2}$ additional.	Double private passenger rate.		1—Same as for gas cars. 2—Same as for gas cars. 3—15¢ per 100 lbs. by gross weight; higher rates for solid and metal tires. 4—Same as $\frac{1}{2}$ ton truck. 5—Same as private passenger cars, with higher rates for metal tires.	a— b—balance.
Maryland	b—32¢ per H.P.	b—32¢ per H.P. la—\$10 to \$500 by capac- ity only.	cef— $\frac{1}{2}$ ¢ to $\frac{1}{4}$ ¢ per passenger mile depending upon gross weight of vehicle; i—higher rate for gross weight of more than 3 $\frac{1}{2}$ tons. l—Same as private passenger cars.	cef— $\frac{1}{2}$ ¢ to $\frac{1}{4}$ ¢ per ton mile depend- ing upon gross weight; i—higher rates if gross weight is more than 7 tons.	2—Trucks with solid tires, up to 5 tons capacity, double solid tire gasoline-propelled pri- vate truck rate. 3—\$10 for 1 ton capacity, and \$20 per additional ton; dou- ble rate for metal tires. 4—Same as private passenger cars. 5—\$25.	a— b—80% of net collec- tions, f—20% of net collections to City of Baltimore

TABLE 78: MOTOR VEHICLE LICENSE CHARGES IN FORCE ON JANUARY 1, 1927—(Continued)

(Source: Motor Vehicle Conference Committee, "Special Taxation for Motor Vehicles," 1927; checked by reference to state laws)

States	Key				Key		Key	
	a—flat rate b—horse power c—gross (car and load) weight d—net (unladen) weight e—capacity (seating or ton) f—mileage g—value		h—gross receipts i—tires j—age k—minimum fee l—special base for irregular route m—discrimination by territorial points		1—steam propelled cars 2—electric vehicles 3—trailers 4—hearses 5—tractors 6—"u-drive-its" 7—convertible passenger and light truck vehicles 8—vehicles used exclusively for transporting school children		a—to cost of collection and overhead b—to state for road purposes c—to counties, purpose not designated d—to counties for road purposes e—to localities, purpose not designated f—to localities for road purposes	
	Bases of License Charges							
232	Privately Owned Motor Vehicles		Common Carrier Motor Vehicles		License Charges on Miscellaneous Motor Vehicles	Disposition of Motor Vehicle License Revenue		
	Passenger Cars	Trucks	Passenger Cars	Trucks				
Massachusetts	h—\$10 to \$25.	c—50¢ per 100 lbs.; k—\$20.	e—\$4 or \$5 per seat, depending upon seating capacity; k—\$20.		2—Trucks—25¢ per 100 lbs. by gross weight. 3—½ truck rate; solid tires, truck rate; metal tires, double truck rate. 4—Same as private trucks. 5—\$10. 7—\$15. 8—\$2.	a— h—balance.		
Michigan	d—55¢ per 100 lbs.	d—65¢ per 100 lbs. for 1½ tons, and from 80¢ to \$1.25 per additional 100 lbs.	d—\$1.55 per 100 lbs.		1—Same as for gas cars. 2—Same as for gas cars. 3—50¢ per 100 lbs. for ½ ton, and \$1 per additional 100 lbs.; by net weight. 4—Same as private trucks. 5—If operated on highways. Same as trucks.	b—All but \$6,000,000, d—\$6,000,000, on collection basis.		
Minnesota	g—2½%, j—depreciation allowed for age; k—\$10 to \$12.50, depending upon net weight.	g—2½%, j—depreciation allowed for age; k—\$15 to \$150 depending upon capacity.	g—10%, j—depreciation allowed for age; k—\$250 to \$350 depending upon seating capacity.	g—2½% for trucks transporting dairy and farm products; 5% for service trucks; 10% for general transport.	2—Passenger and trucks, same as for gas cars. 3—2½% of value, and \$2 per ton capacity; depreciation allowed for age. 4—Same as private passenger cars.	b—All.		

				ization for hire trucks, depreciation allowed for age.	5—Same as private trucks.	
Mississippi	b—10¢ per H.P., c—40¢ per 100 lbs., k—\$10.	a—\$10 to \$400; i—over 1 ton semi-pneumatic, ¼ additional; over 1 ½ tons solid ½ additional.	Same as for private passenger cars, plus ¼ per seat per each county served where gross weight is over 1 ½ tons.	1 ½ times private truck rate.	2—\$15. 3—\$10 to \$50 by ton capacity. 4—\$25. 8—\$10.	a—3%, d—balance, where collected.
Missouri	b—\$7.50 to \$37.50. (Municipalities may levy fees to ¼ of state fees.)	e—\$10.50 to \$36 for 8 tons, and \$15 per additional ton. (Municipalities may levy fees to ½ of state fees.)			1—\$10.50. 2—\$7. 3—¼ truck rate; ¾ truck rate for semi-trailers. 4—Same as private passenger cars.	a— b—balance.
Montana	b—\$7.50 to \$22.50.	e—\$10 to \$200.	Same as for private passenger cars, plus, in accordance to size and width, fee not to exceed \$10.	Same as for passenger carriers for hire.	2—\$15. 4—Private passenger cars or private trucks depending upon type of chassis.	a— b—50% of net collections, d—50%, on collection basis.
Nebraska	c—\$8 for 1 ton, and 50¢ per additional 100 lbs.	e—\$8 to \$15 for 2 tons, and 50¢ per additional 100 lbs.	a—\$32 for first seat, and \$7 per additional seat.		3—\$3 for ¼ ton gross weight, and 50¢ per additional 100 lbs. 4—Same as for private trucks.	a—5¢ per license to counties where collected, and 2 ½ % of balance to state, b—30% of remainder, d—balance, where collected.
Nevada	c—50¢ per 100 lbs.	c—30¢ per 100 lbs.	h—4%.	Same as for passenger carriers for hire.	2—Passenger cars, same as for private gas trucks. 3—Same as for private trucks. 4—Same as for private passenger cars.	a—50¢ per registration, b—balance.
New Hampshire	c—35¢ to 60¢ per 100 lbs., k—\$10.	c—35¢ to 60¢ per 100 lbs.; i—20¢ per 100 lbs. additional; metal tires, 60¢ per 100 lbs. additional; k—\$10 for pneumatic; \$15 for solid tires.	Same as for private passenger cars. (Local authorities may fix special license fees.)	Same as for passenger carriers for hire.	3—Same as private trucks. 4—Same as private passenger cars. 5—Same as private trucks (farm tractors; ½ private truck rate).	a— b—balance.
New Jersey	b—40¢ per H.P. for 29 H.P. if 50¢ per H.P. if more.	e—\$10 to \$24 for 2 ½ tons, and \$3 per additional ¼ ton.	a—\$15 to \$40 for 30 seats, and \$2 per additional seat.		3—Same as trucks. 4—Same as trucks. 5—Same as trucks (farm tractors, \$3).	a— b—balance.

TABLE 78: MOTOR VEHICLE LICENSE CHARGES IN FORCE ON JANUARY 1, 1927—(Continued)

(Source: Motor Vehicle Conference Committee, "Special Taxation for Motor Vehicles," 1927; checked by reference to state laws)

States	Key		Key		Key	
	a—flat rate	h—gross receipts	1—steam propelled cars ¹		a—to cost of collection and overhead	
	b—horse power	i—tires	2—electric vehicles ²		b—to state for road purposes	
	c—gross (car and load) weight	j—age	3—trailers		c—to counties, purpose not designated	
d—net (unladen) weight	k—minimum fee	4—hearses		d—to counties for road purposes		
e—capacity (seating or ton)	l—special base for irregular route	5—tractors		e—to localities, purpose not designated		
f—mileage	m—discrimination by terminal points	6—"u-drive-its"		f—to localities for road purposes		
g—value		7—convertible passenger and light truck vehicles				
		8—vehicles used exclusively for transporting school children.				
Bases of License Charges						
Privately Owned Motor Vehicles		Common Carrier Motor Vehicles		License Charges on Miscellaneous Motor Vehicles	Disposition of Motor Vehicle License Revenue	
Passenger Cars	Trucks	Passenger Cars	Trucks			
New Mexico	d—\$7 for 1 ton, and 50¢ per additional 100 lbs.	e—\$15 for 1 1/4 tons, and 50¢ per additional 100 lbs.; i—1/4 additional.	e—\$25, \$3 per seat; i—1/4 additional.	e—\$25, and 75¢ per 100 lbs.; i—1/4 additional.	1—Same as for gas cars. 2—\$12 or \$25 according to seating capacity. 3—Private truck trailers: \$5 for 1/4 ton capacity, and 50¢ per additional 100 lbs., trucks for hire: \$15, and 75¢ per 100 lbs. carrying capacity; passenger car trailers: \$15, plus 75¢ per 100 lbs. carrying capacity, and \$3 per seat, 1/4 additional for solid tires. 4—Same as private passenger cars.	a—5% b—63 1/4%, must be used in counties, on collection basis, d—31 1/4%, on collection basis.
New York	d—50¢ per 100 lbs. up to 1 1/4 tons, and 75¢ per additional 100 lbs.; k—\$8 to \$10 according to cylinders. (Snowmobiles \$4.)	c—\$16 for 2 tons, and \$8 per additional ton.	e—\$15 to \$67.50 for 30 seats, and \$2 per additional seat. ma—\$10, plus municipal fees for intraurban cars.		2—\$10. 3—\$5 to \$30 for 14 tons gross weight, and \$5 per additional ton. 4—Hearses—same as trucks; ambulances \$15. 7—\$12 if net weight is not more than 1800 lbs.	b—75% d—25%, on collection basis; New York City's share goes to General Fund.
North Carolina	b—\$12.50 to \$40.	e—\$12.50 to \$310.	1/4 additional to private car rates. (Cities and towns may charge \$50 per car in	Same as for passenger carriers for hire.	1—Same as for gas cars. 2—Passenger cars or trucks, same as for gas cars.	a—Not to exceed 10% b—balance.

			lies of all other charges.)		3—\$15 per ton capacity. 4—No fee.	
North Dakota	h—10¢ per H.P., d—20¢ per 100 lbs., g—1%, j—reductions on 2nd, 3rd and 4th registra- tions; k—\$15.	Same as for private passenger car, plus e—\$5 per ton for 1½ tons, to \$60 per ton for 5 tons.	Same as for private passen- ger cars, plus e—\$10 per seat, and fees to Railroad Commission from \$15 to \$25 according to capacity, k—on irregular routes, fee to Railroad Commission is less than on regular routes.	Same as for private trucks, plus e—\$10 to \$250, and fees to Railroad Commission: \$15 for 3 ton capacity, and \$2 per additional ton, l—on irregular routes, fee to Railroad Com- mission is less.	2—\$2 in lieu of H.P., and other fees same as for private pas- senger cars. 4—Hearses—same as private passenger cars; ambulances —no fee.	a—\$150,000, b—\$130,000 and ¼ of balance, d—remainder, on collec- tion basis.
Ohio	b—\$4 to \$10.	d—70¢ per 100 lbs. up to 1¼ tons, and from 90¢ to \$1.15 per addi- tional 100 lbs.; k—\$4.	e—\$40 to \$230. le—\$20 to \$150.	e—\$40 to \$200. le—\$20 to \$150.	1—Same as for gas cars. 2—Same as for gas cars. 3—Same as for private trucks, but minimum fee, \$2.50. Trailers on trucks for hire, pay ½ drawing vehicle rate. 4—Same as private passenger cars. 5—Same as private trucks (farm tractors exempt).	a— b—50%, less expenses, d or e—50%, on collec- tion basis.
Oklahoma	g—\$12.50 for \$500, and \$1.50 per additional \$100, j—20% reduction each of 3 years; k—\$8.	e—\$15 to \$300, j—reduction according to age; k—\$8.	Same as for private passen- ger cars, plus f—2 mile per mile.	Same as for private passen- ger cars, plus f—2 mile per mile.	4—Same as private passenger cars. 5—50¢ per H.P., 10% reduc- tion yearly—minimum 20¢ per H.P.	b—40%, d—45%, on collection basis, f—15%, on collection basis.
Oregon	d—\$15 to \$97.	Tire width—\$52.50 to \$105; i—higher rates, depend- ing upon width of tires. m—¼ of above (inter- urban) rate for intra- urban truck.	Same as private passenger cars, plus ef—¼ mill per passenger mile on improved highways, le—(Taxis) 1¼ times private passenger car rates, plus \$4 per seat if not operated under municipal franchise.	Same as private trucks, plus ef—1 mill per ton mile on improved highways.	2—Passenger cars or trucks, ¼ more than gas cars. 3—¼ of private truck schedule. 4—Hearses private passenger car rate if not more than 1 ton capacity; ambulances—pri- vate passenger rate if oper- ated within 5 mile radius, otherwise rate of passenger car for hire. 7—"For hire cars"—Private trucks tire width charge, and ¼ mill per passenger mile, plus ¼ mill per ton mile, and 50¢ per inch tire width. No tire width charge for intra- urban routes.	a— b—75% of net collec- tions, d—25% of net collections on collection basis.

TABLE 78: MOTOR VEHICLE LICENSE CHARGES IN FORCE ON JANUARY 1, 1927—(Continued)

(Source: Motor Vehicle Conference Committee, "Special Taxation for Motor Vehicles," 1927; checked by reference to state laws)

States	Key				Key		Key	
	a—flat rate b—horse power c—gross (car and load) weight d—net (unladen) weight e—capacity (seating or ton) f—mileage g—value		h—gross receipts i—tires j—age k—minimum fee l—special base for irregular route m—discrimination by terminal points		1—steam propelled cars ¹ 2—electric vehicles ¹ 3—trailers 4—hearses 5—tractors 6—"u-drive-its" 7—convertible passenger and light truck vehicles 8—vehicles used exclusively for transporting school children.		a—to cost of collection and overhead b—to state for road purposes c—to counties, purpose not designated d—to counties for road purposes e—to localities, purpose not designated f—to localities for road purposes	
	Bases of License Charges							
236	Privately Owned Motor Vehicles		Common Carrier Motor Vehicles		License Charges on Miscellaneous Motor Vehicles	Disposition of Motor Vehicle License Revenue		
	Passenger Cars	Trucks	Passenger Cars	Trucks				
Pennsylvania	b—40¢ per H.P.; k—\$10.	d—\$15 to \$140; i—\$18.75 to \$200.	e—\$20 for 5 seats and either \$2 or \$5 per additional seat, depending upon total number of seats. ¼ additional (fee not to exceed \$250).		2—Private trucks \$15 to \$140 according to gross weight. 3—\$2 to \$50 according to net weight; tractor trailers: \$5 to \$25 according to gross weight. 4—Same as private passenger cars. 5—Same as trucks; metal tires, double rate. (Farm tractors, flat rate \$5; hauling tractors, flat rate \$50.)	a—, b—net collections.		
Rhode Island	b—25¢ per H.P., c—25¢ per 100 lbs.; i—higher weight rates per 100 lbs. for solid and metal tires.	Same as private passenger cars.	Double rate of private passenger cars.	Same as passenger carriers for hire.	1—Same as for gas cars. 2—Same as for gas cars. 3—15¢ per 100 lbs. gross weight; higher rates for solid and metal tires. 4—Hearses—same as private trucks; ambulances—same as private passenger cars. 5—Same as private passenger cars.	a—Not to exceed \$149,000, b—net collections.		

<p>North Carolina</p>	<p>d—\$9 for 1 ton, and \$3 per additional $\frac{1}{2}$ ton.</p>	<p>e—\$15 to \$400; i—double above rate.</p>	<p>cf—$\frac{1}{2}$ mill per passenger mile; gross weight not to exceed 6 $\frac{1}{2}$ tons; i—gross weight not to exceed 3 $\frac{1}{2}$ tons; k—20,000 miles.</p>	<p>cf—$\frac{1}{4}$¢ to $\frac{1}{2}$¢ per ton mile, depending upon gross weight; i—higher rates from 5 to 7 tons gross weight. le—\$15 to \$250.</p>	<p>3—\$10, and \$4 per $\frac{1}{2}$ ton carrying capacity; double rate for solid tires. 4—Same as private trucks. 8—\$1, flat rate.</p>	<p>a—20%; any remainder to aid county road construction, b—80% to be expended in counties where collected.</p>
<p>South Dakota</p>	<p>d—\$13 to \$35.</p>	<p>e—\$15 to \$75.</p>	<p>h—3% i—4%</p>	<p>Same as passenger carriers for hire. (Registered with Railroad Commission, but having private contract or having no specific rates for services— e—\$20 to \$100; i—$\frac{1}{2}$ more.</p>	<p>3—Same as private trucks. 4—No fee.</p>	<p>a—2% b—50%, of which $\frac{1}{6}$ must be spent in counties where collected for roads, d—48%, where collected.</p>
<p>Tennessee</p>	<p>h—50¢ per H.P.</p>	<p>b—50¢ per H.P., e—\$15 to \$50.</p>	<p>Same as private passenger cars, plus e—\$4 to \$14 for 7 seats, and \$2 per additional seat.</p>		<p>2—\$12.50 for passenger cars; \$12.50 plus \$5 per ton capacity for trucks. 3—\$7.50 to \$25 by ton capacity. 4—Same as private passenger cars. 5—\$25.</p>	<p>b—50% d—50% distributed equally.</p>
<p>Texas</p>	<p>b—17 $\frac{1}{4}$¢ per H.P.; minimum, \$4. d—40¢ per 100 lbs. for 1 ton, and from 50¢ to 75¢ per additional 100 lbs.</p>	<p>b—17 $\frac{1}{4}$¢ per H.P., c—30¢ per 100 lbs. for 3 tons, and 40¢ to \$4 per additional 100 lbs; i—higher gross weight rates.</p>	<p>Same as for private passenger cars, plus e—\$4 per seat.</p>		<p>1—Same as for gas cars. 2—Same as for gas cars. 3—Same as trucks, but no H.P. charge; higher weight rate for metal tires. 4—Same as trucks. 5—25¢ per 100 lbs. for 2 tons gross weight, and from 50¢ to \$2 per additional 100 lbs.</p>	<p>b—All but 17 $\frac{1}{4}$¢ per H.P. fee, d—17 $\frac{1}{4}$¢ per H.P., where collected.</p>
<p>Utah</p>	<p>b—\$5 to \$12.50.</p>	<p>e—\$5 to \$100; i—\$25 to \$140; metal tires, higher.</p>	<p>ef—2 $\frac{1}{2}$ mills per passenger mile on improved roads, and 1 mill on unimproved roads.</p>	<p>ef—$\frac{1}{4}$¢ per ton mile on improved roads, and $\frac{1}{8}$¢ on others.</p>	<p>1—\$10 or \$15 according to H.P. 2—\$15. 3—\$10 to \$50 by ton capacity; higher rate for solid and metal tires. 4—Either private passenger or private truck rate, as owner chooses.</p>	<p>a— b—net collections.</p>

TABLE 78: MOTOR VEHICLE LICENSE CHARGES IN FORCE ON JANUARY 1, 1927—(Continued)

(Source: Motor Vehicle Conference Committee, "Special Taxation for Motor Vehicles," 1927; checked by reference to state laws)

States	Key		Key		Key	
	a—flat rate b—horse power c—gross (car and load) weight d—net (unladen) weight e—capacity (seating or ton) f—mileage g—value	h—gross receipts i—tires j—age k—minimum fee l—special base for irregular route m—discrimination by terminal points	1—steam propelled cars 2—electric vehicles 3—trailers 4—hearses 5—tractors 6—"u-drive-its" 7—convertible passenger and light truck vehicles 8—vehicles used exclusively for transporting school children.	a—to cost of collection and overhead b—to state for road purposes c—to counties, purpose not designated d—to counties for road purposes e—to localities, purpose not designated f—to localities for road purposes		
	Bases of License Charges					
	Privately Owned Motor Vehicles		Common Carrier Motor Vehicles		License Charges on Miscellaneous Motor Vehicles	Disposition of Motor Vehicle License Revenue
	Passenger Cars	Trucks	Passenger Cars	Trucks		
238 Vermont	d—85¢ per 100 lbs.; k—\$14.	c—60¢ to 85¢ per 100 lbs., depending upon total weight; k—\$25.	ce—\$1 per 100 lbs. if over 7 seat capacity; otherwise private passenger car rate; k—\$30.		3—Private passenger car trailers, \$5; private truck trailers \$10. 4—80¢ per 100 lbs. net weight; minimum \$25. 5—90¢ to \$1 per 100 lbs., according to total gross weight.	b—\$250,000 must be expended in towns on roads.
Virginia	d—70¢ per 100 lbs.; k—\$12.25.	e—\$15 to \$200.	def—1¼¢ to 1½¢ per passenger mile, depending upon weight of vehicle k—20,000 miles.	ef—¼¢ to ½¢ per ton mile depending upon capacity; i—slightly higher. l—Same as private trucks, plus a—\$50.	1—Same as for gas cars. 2—Same as for gas cars. 3—\$10 first ton capacity, and \$3 per additional ¼ ton. Trailers attached to tractors—private truck rate, depending upon capacity of trailer. 4—Hearses—\$50 for those with restricted routes; others, private truck rate; ambulances—private passenger car rate.	a— b—net collections.
Washington	d—\$10 for ¼	d—\$10 for ¼ ton, and	b—(Taxi)—same as private	Same as for pri-	3—Attached to trucks—same	a—,

	ton, and 60¢ per additional 100 lbs.	either 40¢ or 50¢ per additional 100 lbs. 40¢ or 50¢ per 100 lbs. on trucks over $\frac{1}{2}$ ton capacity.	cars, plus \$25. d—\$25 for $\frac{1}{2}$ ton, and 60¢ per additional 100 lbs. e—\$1 per seat; h—up to 1% to cover cost of supervision and regulation; i—\$5 less.	rate. Passenger car for hire trailers—\$10 less than its drawing vehicle; 4—Same as private passenger car.	b—balance after payment of expenses and amounts to counties and cities, d and f—\$1,400,000, apportioned on mileage basis to cities, and on road expenditure basis to counties.	
West Virginia	d—\$13 for 1 ton, and 60¢ per additional 100 lbs.	e—\$18.75 to \$112.50; i— $\frac{1}{2}$ more.	of— $\frac{1}{4}$ ¢ per passenger mile; k—\$75. a—\$75 flat rate.	of— $\frac{1}{4}$ ¢ to $\frac{1}{2}$ ¢ per ton mile depending upon capacity. l— $\frac{1}{2}$ more than private truck rate, of— $\frac{1}{2}$ additional.	3—Private truck trailers—\$2.50 first ton capacity, \$3.75 per additional ton; double rate for solid tires; truck for hire—trailers, double rate. 4—Same as private passenger cars. 5—\$20 to \$180 by gross weight. 7—Capacity 1 ton or less, flat \$15.	a—, b—net collections.
Wisconsin	d—\$10 to \$26, j— $\frac{1}{2}$ less if in operation over 5 years.	e—\$10 to \$45 for 5 tons, and \$5 per additional $\frac{1}{2}$ ton.	3 $\frac{1}{2}$ times private truck rate. m—Intraurban cars pay 3 times rate of private truck.		3—For over 1 $\frac{1}{2}$ tons, $\frac{1}{2}$ truck rate. 4—(Municipal owned \$1.) Same as private passenger cars. 5—(Except on farms.) Truck rate.	a—balance after expenses and allotments to counties and localities, d—allotments for state roads in counties on state road mileage basis, and for county roads, f—allotments for state-aid roads, and on population basis, for local roads.
Wyoming	b—\$8 to \$20, e—\$1 per seat over 7.	e—\$15 to \$150; i—\$15 to \$190 by ton capacity.	Same as for private passenger cars.		1—Same as for gas cars. 2—Same as for gas cars. 3—Over $\frac{1}{2}$ ton, same rate as truck. 4—Same as for private passenger cars.	b—All.
District of Columbia	a—\$1.	a—\$1.	e—\$6 flat charge for 1 to 9 seats, over 9 seats, \$12.		1—\$15. 2—\$11 for passenger cars; for trucks—\$20 for $\frac{1}{2}$ ton capacity, and \$2 per additional $\frac{1}{2}$ ton. 4—Same as for private passenger cars.	To general fund.

240 COST OF GOVERNMENT IN UNITED STATES

By January, 1927, Delaware was the only state that made no discrimination between passenger cars, trucks and common carriers. In every other state discrimination between one or another of these three classes of motor vehicles is to be found.

As shown in Table 79, seven states (including Delaware) and the District of Columbia do not discriminate between privately owned passenger cars and trucks. Additional three states use the identical bases in estimating the charges on passenger cars and on trucks, but the rates are higher in the case of trucks. In three states, basic charges for trucks are identical with those for passenger cars, but additional charges, on other bases, are levied upon trucks. Thirty-six states have completely independent systems of determining the license charges on passenger cars and on trucks.

TABLE 79: DISCRIMINATION IN MOTOR VEHICLE LICENSE CHARGES, 1927

(National Industrial Conference Board)

Similarities in Bases and Rates for Different Classes of Vehicles	States
1. Identical bases and rates for private passenger cars and private trucks.	Delaware, District of Columbia, Maryland (pneumatic tires only), Minnesota (different basis for minimum fee), Nevada, New Hampshire (pneumatic tires only), and Rhode Island.
2. Identical bases for private passenger cars and private trucks but higher rates for latter.	Florida (pneumatic tires only), Michigan and Nebraska.
3. Identical bases and rates for private passenger cars and private trucks with additional charge on latter.	Louisiana, North Dakota and Tennessee.
4. Identical bases and rates for private passenger cars and common carriers.	Delaware, Maryland (irregular routes only), Missouri, New Hampshire (local authorities may make additional charges) and Wyoming.
5. Identical bases for private passenger cars and common carrier passenger cars, but higher rates for latter.	Maine, Michigan, Minnesota, North Carolina (local authorities may make additional charges) and Rhode Island.
6. Identical bases and rates for private passenger cars and common carrier passenger cars but additional charges on latter.	Arkansas, Colorado, Connecticut, Georgia, Illinois, Iowa, Kansas (for interurban vehicles only), Kentucky, Louisiana, Mississippi, Montana, North Dakota, Oklahoma, Oregon (regular routes only), Tennessee, Texas and Virginia (irregular routes only).

TABLE 79: DISCRIMINATION IN MOTOR VEHICLE LICENSE CHARGES, 1927 (Continued)
(National Industrial Conference Board)

Similarities in Bases and Rates for Different Classes of Vehicles	States
7. Identical bases and rates for private trucks and common carrier trucks.	Alabama, Colorado, Connecticut, Delaware, District of Columbia, Georgia, Indiana, Kentucky, Louisiana, Maine, Massachusetts, Michigan, Missouri, Nebraska, New Jersey, New York, Pennsylvania, Tennessee, Texas, Vermont, Wisconsin and Wyoming.
8. Identical bases for private trucks and common carrier trucks but higher rates on latter.	Arkansas, Illinois, Minnesota (minimum fee on private trucks only), Mississippi, New Mexico, South Carolina (pneumatic tires and irregular routes only), and West Virginia (irregular routes only).
9. Identical bases and rates for private trucks and common carrier trucks with additional charge on latter.	Kansas, North Dakota, Oregon, Virginia (irregular routes only) and Washington.
10. Identical bases and rates for common carrier passenger cars and trucks.	Idaho, Iowa, Montana, Nevada, New Hampshire, North Carolina, Oklahoma, Rhode Island, Virginia (irregular routes only).
11. Identical bases for common carrier passenger cars and trucks, but different rates.	Arizona, California, Maryland (when routes of both are regular) Minnesota (minimum fee on passenger carriers for hire only), New Mexico, Ohio, South Carolina (when routes of both are regular; minimum fee for passenger carriers for hire only), South Dakota (when routes of trucks are regular), Utah, and West Virginia (when routes of both are regular; minimum fee for passenger carriers for hire only).

Discrimination between private and common-carrier trucks is not yet so widespread as other forms of discrimination. Twenty-one states, in addition to the District of Columbia, do not use any form of discrimination. Seven states use identical bases for calculating the charges, with higher rates on the common carriers, and five states provide for identical bases and other rates, with an added charge laid on common carriers.

The charges on common-carrier passenger cars are more nearly related to those on common-carrier trucks than to those on private passenger cars. Nine states make no discrimination between common-carrier passenger cars and

trucks, while only five (including Delaware) have the same rates for private and for common-carrier passenger cars.

Graduation for Private Passenger Cars

Table 80 shows the systems of rate graduation now applied to private passenger cars. It will be noted that there are two cases of flat rates—in California and in the District of Columbia. These are not archaic remnants of an earlier period of highway finance, but rather they represent super-refinements of modern fiscal principle. Both in California and in the District of Columbia, it is felt that there should be a low equal privilege charge on all cars, irrespective of any

TABLE 80: BASES OF RATE GRADUATION FOR PRIVATE PASSENGER CAR LICENSE CHARGES, 1927

(National Industrial Conference Board)

Bases	States
1. Flat rate.	California, District of Columbia.
2. Horsepower (minimum fee).	Alabama, Arizona, Georgia, Illinois, Maryland, Massachusetts, Missouri, Montana, New Jersey, North Carolina, Ohio, Tennessee and Utah; Connecticut, Louisiana and Pennsylvania.
3. Horsepower plus gross weight (minimum fee).	Kentucky;
4. Horsepower plus gross weight plus character of tires.	Arkansas and Mississippi.
5. Horsepower plus net weight.	Rhode Island.
6. Horsepower plus net weight plus character of tires (minimum fee).	Indiana and Texas.
7. Horsepower plus net weight plus value modified by age of vehicle (minimum fee).	Maine.
8. Horsepower plus capacity.	North Dakota.
9. Gross weight (minimum fee).	Wyoming.
10. Gross weight modified by age of vehicle.	Delaware, Nebraska and Nevada;
11. Gross weight plus value (minimum fee).	New Hampshire.
12. Net weight (minimum fee).	Idaho.
13. Net weight modified by age of vehicle.	Iowa.
14. Value modified by age of vehicle (minimum fee).	Florida, Kansas, Michigan, New Mexico, Oregon, South Carolina, South Dakota, Washington and West Virginia;
	New York, Vermont and Virginia.
	Wisconsin.
	Colorado, Minnesota and Oklahoma.

other criteria. Combined with this should be a charge proportional to their use of the highways and streets. This second charge is covered by the 2 cent gasoline tax levied by these governments.

Sixteen states, as shown in Table 80, still use horsepower as the sole basis for the graduation of their charges on passenger cars. In three of these sixteen states the regularity of the graduation is modified by provision for a minimum fee. Nine other states combine the criterion of horse-power with additional criteria. Arkansas, Kentucky and Mississippi add gross weight to horsepower, and Rhode Island makes a further discrimination according to the character of tires, in addition to gross weight and horsepower. Indiana, and Texas combine net weight with horsepower; Maine makes a further discrimination according to the character of tires, while North Dakota in addition makes an allowance according to the age of the vehicle. Wyoming combines horsepower with seating capacity.

Next to horsepower, net weight is the most popular criterion. Twelve states use it as the sole basis of graduation. As noted above, four states combine net weight with horsepower, Wisconsin combines it with an allowance based on the age of the car.

Four states—Delaware, Nebraska, Nevada and New Hampshire—use gross weight as a sole criterion. Idaho, in addition, makes an allowance based on age; Iowa combines gross weight and value. Four other states, as noted above, combine the criteria of gross weight and horsepower.

Finally, three states—Colorado, Minnesota and Oklahoma—base their motor vehicle charges on the criterion of value, modified by an allowance based on the age of the car.

Graduation for Private Trucks

The District of Columbia levies a flat rate charge upon private trucks as upon private passenger cars. The forty-eight states employ nine separate criteria, either singly or in combination, to graduate their charges on private trucks. These nine criteria are horsepower, gross weight, net weight, capacity, value, age of the vehicle, width of the tires, character of the tires and limit of the route.

244 COST OF GOVERNMENT IN UNITED STATES

As evidenced by Table 81, which shows the present systems of graduation for private trucks, capacity is the most popular criterion. Twelve states make capacity the sole basis of graduation. Twelve states combine it with graduation on the basis of the character of the tires. Iowa adds to these two the additional determinant of scope of route. Louisiana and Tennessee combine the criteria of capacity and horsepower. Washington combines capacity and net weight.

TABLE 81: SYSTEMS OF RATE GRADUATION FOR PRIVATE TRUCKS, 1927

(National Industrial Conference Board)

Bases	States
1. Flat rate.	District of Columbia.
2. Horsepower.	Maryland (pneumatic tires only).
3. Horsepower plus gross weight plus character of tires.	Rhode Island and Texas.
4. Horsepower plus net weight plus value modified by age of vehicle plus capacity (minimum fee).	North Dakota.
5. Horsepower plus capacity (minimum fee).	Tennessee; Louisiana.
6. Gross weight. (minimum fee).	Delaware, Illinois, Nebraska, Nevada, New Jersey, New York and Wisconsin; Massachusetts and Vermont.
7. Gross weight plus character of tires (minimum fee).	New Hampshire.
8. Net weight (minimum fee).	Michigan; Ohio.
9. Net weight plus character of tires.	California, Florida and Pennsylvania.
10. Net weight plus capacity.	Washington.
11. Capacity.	Alabama, Arizona, Colorado, Georgia, Indiana, Kansas, Kentucky, Missouri, Montana, North Carolina, South Dakota and Virginia.
12. Capacity plus character of tires. (minimum fee).	Arkansas, Connecticut, Idaho (for over ½ ton capacity trucks), Maine, Maryland (solid tires only), Mississippi, New Mexico, South Carolina, Utah, West Virginia and Wyoming; Oklahoma.
13. Capacity plus character of tires and lower fees for intraurban routes.	Iowa.
14. Capacity depending upon gross weight.	Idaho (trucks under ½ ton capacity only).
15. Value modified by age of vehicle (minimum fee).	Minnesota.
16. Tire width plus character of tires and lower fees for intraurban routes.	Oregon.

Nine states make gross weight the sole criterion. New Hampshire modifies it by a further graduation according to the character of tires. Rhode Island and Texas combine gross weight with horsepower and have higher rates for trucks with solid tires. Two states Michigan and Ohio use net weight as the sole criterion. Three others—California, Florida and Pennsylvania—add the criterion of the character of the tires. As noted above, Washington combines net weight and capacity.

Only six states make any use of horsepower as a criterion for graduating the charge on trucks. In Maryland, it is used as the sole base for trucks with pneumatic tires. In Louisiana and Tennessee, it is combined with capacity. In Rhode Island and Texas, it is combined with gross weight and character of tires. In North Dakota, a complicated combination of the principles of horsepower, net weight and value (with an allowance for the age of the vehicle) and capacity is utilized.

One state, Minnesota, bases its charge on the value of the truck, with an allowance for its age. Oregon makes basic use of the unusual criterion of tire width, modifying this by the criteria of the character of the tires and of the scope of the route. The principle that the motor vehicle charge should be proportional to the highway damage, caused by the particular vehicle, has been so far accepted by legislatures, and nineteen states now provide separate rates for trucks with pneumatic tires and for those with solid tires.

Graduation for Common Carriers

As was indicated in Table 79, two tendencies are discernible in the methods of determining the rates for common-carrier passenger cars and trucks. The more dominant of the two is the provision for identical or related bases for both common-carrier passenger cars and trucks. The other is to relate the charges on common-carrier passenger cars to those on private passenger cars, and similarly to relate the charges on common-carrier trucks to those on private trucks.

All the bases used in graduating the rates on private motor vehicles are found in the taxation of common carriers. Additional bases of mileage, gross receipts and character of the

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route are also used in some states. Ten states¹ use mileage as a criterion; in all these states, except in Connecticut and Oklahoma, mileage is closely combined with other criteria, so that the basis actually used is either "ton-mile" or "capacity-mile." Seven states² use gross receipts alone as a criterion, or in connection with other bases, or for certain sub-classifications of common carriers. Eleven states³ differentiate in their systems of rate determination between common-carrier vehicles with regular routes and those operating on call. Five states⁴ discriminate between common carriers with intraurban or interstate rates.

¹ Arizona, Connecticut, Iowa, Maryland, Oklahoma, Oregon, South Carolina, Utah, Virginia and West Virginia.

² California, Connecticut, Idaho, Nevada, North Carolina, South Dakota and Washington.

³ Alabama, Kentucky, Maryland, North Dakota, Ohio, Oregon, South Carolina, South Dakota, Virginia, Washington, West Virginia.

⁴ Connecticut, Indiana, Kansas, New York, Wisconsin.

CHAPTER VIII

TAXPAYERS' ASSOCIATIONS

AS IS evident from earlier chapters, the post-war years have been marked by an unprecedented growth of state and local expenditures, a rapid expansion of public debt and an increasing burden of taxation. To these tendencies the public has not been altogether apathetic. The example of the Federal Government, with its strict control of public expenditures through its budgetary machinery and the reduction of its taxes which has thus been made possible, has encouraged many to believe that the adoption of similar control of local and state expenditures and the awakening of public opinion to the significance of the situation might stem the rising tide of appropriations and eliminate unnecessary and wasteful expenditure of public funds.

To this end various civic bodies have from time to time lent their energies. National organizations, such as the Manufacturers' and Merchants' Federal Tax League, the National Tax Association, Chamber of Commerce of the United States and the National Industrial Conference Board, have bent their energies toward inquiry into the facts of the country's fiscal problems. National and state organizations of manufacturers, merchants, agricultural groups and of other economic interests have developed a sincere concern in the issues of taxation and public expenditure, and many of them are actively engaged in stimulating greater efficiency and economy in government finance. Finally, a distinct type of social organization, the taxpayers' association, has arisen, with no other end in view than to promote the most effective and least onerous methods of raising the public revenue and to secure, if possible, its economical and judicious expenditure.

The effort to prepare a comprehensive list of taxpayers' associations disclosed the fact that public interest in matters of taxation and public expenditure, however keen it might

be at certain times and places, was in a sense frequently incidental and often sporadic. It is incidental in that it forms one of the functions of many organized civic bodies, such as boards of trade, chambers of commerce, bureaus of municipal research and similar agencies. Commercial organizations commonly have committees on taxation, and in the field of municipal finance such committees not infrequently make their voices heard and their influence felt. Though not exclusively occupied with financial questions, the municipal research bureaus, where they are effectively organized, keep a watchful eye on the public purse and scrutinize keenly its replenishment and use.

The interest in state and local revenue and expenditure is often sporadic. Some unusual situation may galvanize existing agencies into life or result in the creation of new organizations. These agencies, old and new, may on such occasions make a brave display of activity, but few of them succeed in maintaining permanent organizations. Under the pressure of an emergency, often upon the urge of some magnetic organizer, taxpayers' associations come into being, develop a promising activity, only to wither away.

Over a hundred taxpayers' associations were organized since 1920, but less than one third of them are functioning at present. Active associations of state-wide scope in 1927 were found in twenty-two states—eleven western states,¹ ten eastern states² and in one of the South Atlantic states.³ Several of the western state associations, notably those of Arizona and California, have created a network of local associations throughout their states which are affiliated with the parent state associations.

ORGANIZATION OF TAXPAYERS' ASSOCIATIONS

In general, all taxpayers' associations, whether their interests are state-wide or confined to counties or cities, display a similar form of organization. In the average taxpayers'

¹ Arizona, California, Minnesota, Missouri, Montana, Nevada, New Mexico, North Dakota, Oregon, Utah, Washington.

² Illinois, Indiana, Kansas, Kentucky, Massachusetts, New York, Ohio, Pennsylvania, Rhode Island, Wisconsin.

³ Delaware.

association, an advisory board is elected by the general membership. An executive committee of five to fifteen members is selected from the advisory board. The officers of the association and its secretary or staff function under the direction of this committee. However, the advisory board is not infrequently omitted. In one instance, a "board of directors" takes the place of the usual advisory board, and an "advisory committee" is added, composed of the chairmen of the local committees of the counties, cities and districts.

Staff

Few associations employ paid staffs. Only five report that they have more than one paid secretary. One state association employs a staff of twelve, two county organizations have from three to five paid employees, and one city organization is employing five. This latter also "hires periodically accountants, engineers, attorneys, etc., as the needs demand"; it also secures gratuitous service from its members. As might be expected, the associations with permanent staffs are among the more active organizations.

Financial Support

Financial support, so far as contributed through membership dues, is obtained either by dues proportioned to the property tax paid by each member (or to the assessed value of his property) or by a flat rate, both systems being about equally common in operation. The rate of dues of the first type is usually 1% of the property tax paid, but in one association it is one-half of 1%. One dollar is the customary flat fee, although one county association charges \$3 in addition to voluntary contributions from sustaining members.

Representation of Group Interests

Representation of the taxpayers' various interests, through group organization of the members or in the composition of the council, may be based either upon regional divisions or upon business interests. Two of the more highly developed state associations have both forms of representation. One has a board of directors composed of representatives from specific business interests; agriculture, manufacturing, retail, wholesale and jobbing, public service, hotels, communi-

cation, transportation, banking, insurance, law, engineering, "profession at large," and home owners. At the same time, it has organized local taxpayers' committees as branches of the state association in each county and in some of the larger cities. The other association has a general committee composed of representatives of agriculture, manufacturing and other group interests. In order to reach county interests, analogous county committees have been established throughout the state. The members of these local associations are appointed by the general committee, the farmer representative of the latter appointing the farmer representative on the county committee, the banker, the banker representative, and so on.

One state association has an executive committee composed of a Republican and a Democrat from each county—a combination of political interest with regional. Other state organizations are built purely upon the regional basis, usually county representation, but one reports that it "is an organization of the more prominent business organizations and associations" of the state, deriving "its financial support from the three large farm organizations of the state, the state bankers' association, state federation of labor, city chambers of commerce, and other business and professional associations."

The county and city taxpayers' associations generally do not indicate any definite grouping of interests. In one county organization, however, the advisory board is appointed by the president who selects one person from each township and village, and two from each precinct of the city located in that county—in other words, a regional grouping.

OBJECTIVES OF TAXPAYERS' ASSOCIATIONS

The objectives of taxpayers' associations may be distinguished as (a) the prevention of current extravagances in appropriation of public funds or of faulty financing, and (b) general improvement of the system of taxation. Where both aims are stated, there is usually a decided emphasis upon the one or the other. In several associations effort is definitely focused upon one objective to the exclusion of the other.

No direct or necessary relation is observable between the objective of the organization and its form or scope. A strong staff is as advantageous in determining the facts with regard to current expenditures as in preparing a campaign to "equalize" taxation. An organization without even a paid secretary may endeavor to check current government extravagance. Organizations with or without staffs may be discovered agitating for fundamental changes in legislation.

The majority of the associations expressly avoid touching the problems of tax revision as tending to arouse conflict between the divergent interests of their members. This is indicated by the following excerpts from their correspondence:

"We pay no attention to the distribution of the tax burden, considering that to be the business of the interests affected."

We "confine . . . consideration and efforts to an analysis of proposed expenditures in which all these different taxpaying people find common cause," and "avoid the dangerous shoals of equalization, for that must be left to the individual groups."

"The Association shall not need to change the present tax system, nor to change the rate of taxation, except as economies may bring about a uniform reduction of taxes."

In general it appears that associations which aim primarily to correct the fundamental system of taxation are those called in existence by some specific emergency. Very often they are "one-man" affairs, run by enthusiastic reformers. The more practical and successful associations tend to emphasize current economies in public expenditure.

Besides tax reform and curtailment of expenditures, a general campaign against excessive bond issues has been carried on by both state and local organizations. Other important specific objectives stated in replies to the Conference Board are the reduction of election costs, the reduction of school expenditures, the amendment of the "uniform tax system" and the establishment of budget control.

METHODS OF PROCEDURE

The existence of an organization for protection of the taxpayer is in itself a force for good government. The associa-

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tions themselves are quite aware of this fact, as may be seen from this reply to the Conference Board's questionnaire:

"The mere fact of being on the job every day in the year is a splendid safeguard and has had a wonderful effect on the public officials; they, knowing their actions are being watched, are careful in certain expenditures.

"We have already, just because we are organized, been the means whereby many administrative features have been improved."

Publicity

Publicity is the means most generally used for obtaining results. The popular vote is the source of power behind all taxpayers' associations. If the public can be acquainted with the facts and can be sufficiently interested to promise action, the officials are usually ready enough to comply with the requests of an association. Indeed, one association writes, "we have found that taxpayers are often more to blame for public extravagance than their officials."

The newspaper is the customary channel of publicity though, in at least one instance, this was proved unsatisfactory, as evidenced by the following excerpt:

"We have attempted to mould public opinion through the press, but soon found that we could not depend on that means of spreading our gospel as most of the press was controlled by powerful moneyed concerns which through the large amount of advertising and other means had complete control over the press."

The more common feeling on this point is stated by another organization:

"Our best medium for affecting public opinion is through newspaper statements which we send out practically every week. These statements are approximately a half column in length and give such information as would be of interest to the public. In these statements we include expressions which suggest the necessity for retrenchment in public expenditures and careful consideration of bond issues. Even when these statements are not published in newspapers, they do reach the editor and are reflected in the attitude of the newspapers on questions of administration."

Most of the associations print pamphlets and leaflets for general distribution. These are generally irregular or occasional. One very active western association publishes a

monthly magazine carrying a digest of state tax news and reprints of articles, as well as essays and articles by the staff of the association.

Public meetings are less frequently attempted, the difficulty of attracting adequate attendance apparently being too great.

Study Groups

One of the most interesting experiments in utilizing other organizations for the distribution of tax information is described as follows:

"Another part of our organization procedure is the formation of study groups throughout the State. These study groups are composed mostly of women and were started at the request of some of the Federated Women's Clubs. We have two women in the Association who conduct regularly established tax classes which are made up of representatives from a large number of individual clubs. These individual representatives who attend these tax classes, or tax councils, go back into their own organizations and report on each of the meetings which they attend. At each one of these councils we try to present some particular phase of taxation bringing out all of the facts related thereto, always being careful never to make a mis-statement or a statement that could be termed as propaganda, it being the desire on our part to conduct an educational campaign on the highest possible plane, for it is thus we obtain the confidence of the public."

Cooperation with Public Officials

Important as is "publicity" in reaching the voters and compelling the attention of public officials, the most active and successful associations employ other methods, holding the popular dictum as a reserve force when all other methods fail. After all, few people are really interested in tax affairs further than to grumble whenever the payments fall due. What they want is not so much an agency to inform them, to teach or advise them how to protect their interests, as an organization to protect their interests *for them*, troubling them only in cases of exceptional importance. The more attention and action are required of the individual taxpayer, the less he is inclined to support an organization which, after all, can save him only a few dollars one way or another in his own tax bill.

Constant friendly cooperation with officials appears to be a most effective method used by taxpayers' associations.

"We aim to establish close contact with public officials, and, in the main, have been successful. We have been far more successful in curbing expenditures before they reach the stage of conviction in the minds of the public officials than we have been in those cases where their opinions are already formed."

"We do most of our work by personal contact with members of the legislature and public officials."

One state association, endeavoring to promote a sound budget system for its state and the counties, describes its procedure as follows:

"We step in and offer our services in assisting local bodies to prepare budgets. We visit counties, cities, towns, and villages during the season of the preparation of the budgets and assist in their preparation upon forms prescribed by the State Tax Commission. Through the opportunities afforded us of working with the legislature, we have been able to maintain our budget laws and improve them from year to year and also to maintain tax limitations. We visit various counties of the state as often as we can, trying to get to each county in the state at least once a year. At such times we talk with members of boards of county commissioners, county officials, city councils, and city officials, making suggestions for possible improvements in administration.

Another organization has developed the following program:

"The county committees meet with public officials of their counties and analyze all the proposed expenditures in the form of levies, bond issues for school districts, roads, etc. . . . There is no disposition to criticize, but rather to assist them in putting efficiency and economy in public administration."

According to the replies received from taxpayers' associations, considerable tact is necessary in this method of direct contact, for public officials are sometimes sensitive about their dignity and prerogatives. No hint of superiority or didactic attitude should appear in the relation of taxpayers' associations with government officials. One association states as its definite conclusion, that "no successful tax association has ever achieved worthwhile results through a program of baiting public officials."

It is worthy of remark that only three associations specifi-

cally refer to any policy of participation in the formal public budget hearings.

Court Action

Recourse to courts is infrequent. One association, organized to correct a specific evil that required judicial action, was compelled to go to the courts during the first four years of its existence, "but since that time, we have received the assistance and cooperation of the officials." Only three other associations reported to the Conference Board that occasionally they had to resort to legal action.

SPECIFIC EXAMPLES OF SUCCESSFUL ORGANIZATIONS

Because so many aspects of the work of taxpayers' associations, although highly effective in results, are intangible in method, it is difficult properly to allocate credit and to make comparisons. Divergence in programs and the natural differences in aims and methods between large and small organizations add to the difficulty of comparison. The choice of the organizations exhibited below as examples of successful operation has therefore been more or less arbitrary. They have been selected on the basis of their activity and their apparent success, in so far as these could be determined from correspondence with them and concerning them.

State Associations

ASSOCIATION A (established in 1920, reorganized and incorporated in March, 1926).

Organization: This association has a board of nineteen directors representing various business interests. Its executive committee is chosen from the board of directors. Its officers are president, chairman of the board, vice-president, secretary-treasurer and executive secretary. It has an advisory committee, composed of the chairmen of its local committees. These local committees are organized as branches of the state association.

*Not all of our county and city committees will have organizations calling for a full-time secretary, but they will all at some time or

other have programs that demand that some money be expended for research. Wherever it is necessary for local committees to have paid employees, they are paid by the State Association proper, which directs the raising of a sufficient budget for the requirements of all local committees."

This association employs a paid research staff to make studies for the state association itself and for the local committees. It also employs a "tax counsellor," formerly connected with the state tax department and thoroughly familiar with the problems of the local tax units, who advises the local committees on their particular problems. An editorial division publishes a monthly magazine and a series of brochures. There is a field service staff which acts in a research capacity and promotes the organization of local units.

The present membership is five thousand. Fifty thousand members are anticipated. Membership in the local units carries with it membership in the state organization. The dues are one dollar, including subscription to all publications.

Objectives: Originally, improvement of tax system; now, "economy and efficiency in administration and expenditure of public moneys."

Methods: Thorough and impartial investigation of facts before action; "no statement until all the facts are available and we are in a position to prove our contention, and offer a practical suggestion for betterment"; publicity through monthly publications, brochures, newspaper releases, etc.; contact with officials and, through local committees, "sitting in" at budget-making time; educational activity through "study groups" or classes composed of representatives from local women's clubs, for study of current tax problems.

ASSOCIATION B (incorporated in September, 1923).

Organization: This association has an executive committee of nine members. Its officers are president, vice-president, treasurer, secretary and thirteen congressional district vice-presidents. All of these officers serve without remuneration. County associations, considered as part of the central body but maintaining their own officers and retaining own membership dues, are associated with the state organization. A research bureau is maintained "when funds

permit . . . for the purpose of advising and giving information to members." The annual dues are one dollar.

Objectives: The principal objective of the association is "to aid, encourage and promote the reduction of public expenses and taxes in the state . . . and in the counties, cities and other political subdivisions thereof." Less strongly emphasized is the purpose "to aid and assist in obtaining such legislation as may be deemed wise and necessary for obtaining a proper and equitable assessment of property and collection of taxes for public revenue."

Methods: Publicity through newspaper releases and brochures. A calendar of events of interest to the taxpayer is published, which contains such data as dates for assessment, for appeals, for budget hearings, and so forth.

ASSOCIATION C (established in September, 1925).

Organization: This association has an executive committee of seven members, elected by members of association. Its general council, which advises the executive committee, is elected and consists of one member from each county (usually the chairmen of the local committees). Its officers are president, vice-president, treasurer and secretary, all serving without compensation, and a paid director who is a tax expert. Its staff consists of a paid director, a clerk, and a stenographer. An attorney is retained at a nominal fee to advise on current matters. Extra fees are paid when cases are carried to court.

The membership of this association is from 150 to 500. Its annual dues are $\frac{1}{2}$ of 1% of property taxes paid by each member during the previous year. Its annual budget is between \$10,000 and \$12,000.

Objectives: To promote economy in administration and obtain legislation for proper and equitable assessment of property and collection of taxes.

"The most important work of our Association since its inauguration has been in securing legislation for state and local governmental budgets . . . The legislation having been enacted, it is due to the efforts of our Association that the whole budget system has been made effective."

Methods: Cooperation with local officials, particularly in the preparation of their budgets; publicity through a bi-

monthly bulletin and the newspapers; occasional recourse to courts.

ASSOCIATION D (established in 1922).

Organization: This association operates without constitution or by-laws. It has a general committee composed of ten members, each of whom represents one of the major business interests of the state. Its officers are the chairman of the committee, a vice-chairman, a treasurer and a secretary.

Associated with the state association are county committees, composed of representatives of each business interest, "according to the complexion of the outstanding industries of each county," appointed by the respective members of the general committee (the county farmer members appointed by the farmer representative on the general committee, and so on).

The annual dues of the association are one dollar. Major expenses have been met by contributions, each committee member pledging a certain proportion to be collected by him from his respective industry. County expenses are similarly met by the county committees.

Objective: "In the interest of all the taxpayers in this state, to assist in bringing about economies, consistent with efficiency, in the administration of our public affairs."

Methods: This association believes strongly in cooperation with public officials.

"The General Committee is in touch with the legislature in deciding upon the state's appropriations and analyzing with them each item on the budget. . . . The county committees meet public officials of their counties and analyze all the proposed expenditures in the form of levies, bond issues for school districts, roads, etc."

It issues releases to the newspapers. The state committee is constantly in touch with each local association, and in 1925 it tried the experiment of calling a state convention.

"On December 7th a convention was held of all county committees throughout the state with the General Committee. About two hundred and fifty representatives were present. We believe this is the first meeting of its kind ever held in the United States where so complete a cross section of the taxpayers of the entire state were in attendance. It cemented the interests of the taxpayers throughout

the state and gave public officials to understand that the taxpayers are now organized and expect to find out what distribution is being made of the tax dollar."

ASSOCIATION E.

Organization: The officers of this association are its president, two vice-presidents, and an executive secretary, all of whom serve without compensation. Affiliated with it are county and city taxpayers' associations.

Objective: "Reduction of taxation by reduction of expenditures and the adoption of systems of efficiency, and the practice of rigid economy in governmental affairs." Its record in the promotion of revisory legislation is notable. It has interested itself in the passage of an executive budget, in a serial bond law, in a tax commission law, and in other similar legislation.

Methods: It seeks contact with officials. "Insofar as we are able to influence local organizations, we endeavor to have them pursue a course of friendly cooperation with public officials." In promoting legislation, "we have prepared statistics, drafted the bills, explained them to legislative committees and 'lobbied' them through successfully." It publishes a monthly news sheet.

ASSOCIATION F (incorporated in 1891).

Organization: This association has a board of trustees. Its officers are an unpaid president and treasurer and a paid secretary-manager. "The association is supported by dues and contributions" from its 300 members.

Objective: To obtain "improvements in the tax laws of this state" and to stimulate more efficient administration.

Methods: "Results have been secured through educational work and cooperation with other organizations. . . . This association has never conducted litigations, nor criticized the details of public expenditures."

County Associations

ASSOCIATION A (established in 1911).

Organizations: This county taxpayers' association has a president, five vice-presidents, who serve gratuitously, and a

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paid secretary. The secretary is director of research. Stenographers and clerks are hired "according to work to be done."

Its annual dues are three dollars. Sustaining members (larger taxpayers, merchants, banks and so forth) contribute "what they think should be their share of the undertaking." Its highest membership was 1,500.

Objectives:

"To correct existing evils and inequalities in taxation; promote economy in public expenditures, both state and local, and to formulate and announce the most progressive economic thought and administrative experience available for the correct guidance of public opinion, legislative and administrative action on all questions pertaining to state and local taxation."

Methods:

"Careful unbiased investigation . . . When this is done, the most successful means we have found, before making the investigation public, is to confer with those in authority and try to convince them of the savings that can be made. If then they will not heed the warning, there is no other recourse but to turn on the 'light of publicity' and keep it burning by publishing a bulletin or report, most generally in pamphlet form, and sending it to the citizens. If there is any merit to the suggestions, the elected officials cannot long withstand the searchlight if it is kept burning over a particular spot. Dealing in generalities will gain little. Investigations must be thorough and recommendations definite."

ASSOCIATION B (established in June, 1925).

Organization: This association has an advisory board of 42 members, consisting of one representative from each township and village, and two from each city precinct within the county. It has an executive committee of seven members, including the president and secretary. All serve gratuitously except the secretary, who receives one-half of the membership dues. On the qualifications of the secretaries for such county organizations, this association writes:

"We advocate a young attorney as a secretary as he is greedy to get an acquaintance throughout the county and is willing to work for a nominal sum . . . Being a legal adviser, he knows when he is taking steps in the right direction and the law will back us up."

The annual dues of this association are one dollar. Its

membership is between four hundred and five hundred. It describes one aspect of its membership policy as follows:

"We made it a point to enroll the best attorneys in our city so we would have their good will in time of need, and it strengthens our association from a legal point of view against public officials who are always advocating expenditure of the taxpayers' money."

Objective: To prevent unnecessary expenditures.

Method: Moral pressure of the organization upon public officials.

ASSOCIATION C (incorporated in January, 1914).

Organization: This association has a board of 25 directors, representing town associations within the county. Its officers are a president, a vice-president, and a secretary-treasurer, all of whom serve gratuitously. Its membership consists of town associations and sustaining members. Its annual budget is between \$4,000 and \$5,000.

Objectives: This association was originally organized to put a stop to the "boom lot" evil with its resulting inflation of assessment values and uncollectable taxes. Subsequently it set itself to promote economy in financial administration.

Methods:

"During the first four years of our existence we were compelled to go to the courts, but since that time, we have received the assistance and cooperation of the officials and our duties lie primarily in making the necessary research for them."

The association's report for 1923 gives an analysis of the finances of the various county government departments, a detailed comparison covering nearly twenty years, with full explanations and constructive criticism. It is an exceptional piece of work.

City Associations

ASSOCIATION A (established in May, 1924).

Organization: This association has an advisory board of not more than one hundred, selected by the membership of the association. This board elects an executive committee of five to nine members. The officers of the association are a

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president, a secretary and a treasurer who serve gratuitously, and a paid manager.

In 292 out of 300 precincts of the city, there are local organizations which cooperate with the city association.

The staff of the association consists of the manager, five full-time research assistants, two office assistants and two organizing assistants. Considerable gratuitous assistance is obtained from members.

The annual dues of the association are 1% of the general property tax of each member. Its annual budget is about \$30,000.

Objectives: "(1) to reduce taxes; (2) to keep the public bonded debt within bounds; (3) to stop wasteful and unnecessary expenditures of public funds."

Methods: Taxpayers meetings, publicity and personal contact with public officials. Although the organization is built upon the political framework, and thus is given a political complexion, it is non-partisan in principle. In its reply to the Conference Board the organization states:

"We do not sponsor candidates for office and are strictly non-partisan so far as party politics is concerned, but the very type of organization cannot help but have an influence on politics, and it is because of that that our movement can do what other movements have been unable to do."

ASSOCIATION B (established in June, 1921).

Organization: This association has a board of fifteen directors elected from its membership and representing major business interests and sections. Its officers are a president, a vice-president, and a secretary-treasurer. Its staff consists of an executive secretary and of three to five assistants. No gratuitous services are rendered.

It has about 600 members. The annual dues are 1% of the total property tax paid by each member.

Objectives: Current economy and efficiency, and legislative revision. It describes itself as

"A non-political citizens' agency, organized to promote effective citizenship, study public business, cooperate with officials, and specifically to work for economy and efficiency in governmental affairs."

Methods: Publicity through other civic organizations, newspapers, bulletins. It encourages close contact with public officials. It has had recourse to courts upon occasion.

ASSOCIATION C (established in September, 1921).

Organization: This association has a board of 36 trustees. Its officers are a president, two vice-presidents, a treasurer, a manager and counsel. Its staff consists of the manager and one paid assistant. The research staff of the city organization also serves as a research bureau for the state taxpayers' association, the latter being equipped with no permanent staff. "The local organization has had such a large share in the state's side of tax reduction as to make that part of the work practically a function of our local league."

The dues of the local association are one dollar per annum. "Our annual budget (from \$8,000 to \$10,000 a year) is secured from subscriptions on the same basis as a Chamber of Commerce."

Objectives: Reduction of expenditures and promotion of wise financial administration.

Method: Publicity is the chief method employed by this organization in achieving its objectives.

"The reason why we . . . have been able to accomplish these results is that we have carried on a continuous campaign of educating the people on the cost of government and its waste and the necessity for tax reduction, in order to get back in our borders the new capital and industry necessary for our development. Our local organization has a mailing list for its publications of approximately 5,000 real property taxpayers."

CHAPTER IX

GENERAL SUMMARY AND CONCLUSIONS

AS a nation grows, it is inevitable that the cost of the upkeep of its governmental organization should also rise, because national growth as reflected in the increase in population, development of large urban centers, economic and particularly industrial expansion, creates numerous problems which demand governmental supervision and control. Expansion of governmental activities, which carries with it increasing public expenditures, is justifiable, however, only if it is a reflection of intelligent demand for those activities. For this demand to be intelligent, the voters of the country must acquaint themselves with at least the primary facts of the finances of their governments. They should know the amount and purpose of public expenditures, the sources from which the necessary revenue is obtained and the more salient effects of the country's system of expenditures and taxation.

PUBLIC EXPENDITURES

Gross expenditures of all governmental authorities of the United States increased from \$855 millions in 1890¹ to \$1,570 millions in 1903. Ten years later their expenditures amounted to \$2,919 millions, while in 1923 they rose to \$10,265 millions. In 1925, the last year for which complete figures are available, the cost of governmental organization of the United States totalled \$11,124 millions. From 1890 to 1925 the total of public expenditures increased 1,201%; the increase from 1913 to 1925 was 281.1%. During the last year for which data are available, i. e., from 1924 to 1925, the increase was only 1.3%.

During these years the United States has increased in population by 83.3% and in wealth by 446.6%. Moreover, there has been a change in price levels that must be taken

¹ Throughout this summary the statement of a year without further qualification indicates the fiscal year ending in that calendar year.

into consideration when measuring the true growth of the cost of government. When the public expenditures of the country are expressed in dollars of a constant purchasing power, in "1913" dollars or at 1913 prices of commodities at wholesale, and when the increase in population is taken into account, it is found that relative per capita public expenditures increased 354% from 1890 to 1925 and just a little over 100% from 1913 to 1925, while there was an actual decrease of 1.4% between 1924 and 1925.

It is not likely, however, that the decline in "true" expenditures for 1925 foreshadows a downward trend. After declining in 1925, the purchasing power of the dollar increased in 1926. During the fiscal year ended in 1926, the expenditures of the Federal Government were \$3,936 millions, an increase of 4.54%. Stated in "1913" dollars, this figure becomes \$2,607 millions, showing an increase of 9.91% over the 1925 total. Statistics of expenditures of the state and local governments are not available for 1926 but, if the previous trend in current dollar expenditures of these governments had continued through 1926, and there are indications that it has done so, the total of "true" expenditures of all governmental authorities of the United States must have exceeded the 1925 figure by a considerable amount.

On the basis of the number of persons gainfully employed in the United States, public expenditures, expressed in current dollars, increased from \$36.67 in 1890 to \$259.24 per person gainfully employed in 1925; in "1913" dollars these figures become \$45.54 and \$163.35 respectively. In 1924, each person gainfully employed in the United States paid \$172.02 ("1913" dollars) to defray the cost of government, or \$8.67 more than in 1925, while in current dollars expenditures per person gainfully employed were \$1.73 greater in 1925 than in 1924. Comparison of the figures in Table 82 indicates clearly that the decrease in the purchasing power of the dollar, caused by rising prices, was mainly responsible for the enormous increase in public expenditures since 1913.

The Federal Government was mainly responsible for the check to the expansion of public expenditures during recent years. Slight increases in the running expenses of the Federal Government from 1923 to 1925 were more than

TABLE 82: TOTAL GOVERNMENT EXPENDITURES, UNITED STATES, 1890 TO 1925

Year	Gross Expenditures					
	In Current Dollars (In millions)	In "1913" Dollars (In millions)	Per Capita		Per Person Gainfully Employed	
			In Current Dollars	In "1913" Dollars	In Current Dollars	In "1913" Dollars
1890	\$855	\$1,062	\$13.56	\$16.84	\$36.67	\$45.54
1903	1,570	1,836	19.39	22.67	49.71	58.13
1913	2,919	2,919	30.24	30.24	74.90	74.90
1923	10,265	6,678	91.90	59.79	242.15	157.54
1924	10,983	7,336	96.58	64.50	257.51	172.02
1925	11,124	7,009	96.41	60.75	259.24	163.35

offset by decreases in interest payments as a result of refunding and debt redemption. While federal expenditures have thus been declining materially from their wartime peak, state and local expenditures have been increasing. This tendency has markedly changed the respective proportions of federal, state and local expenditures in the combined total. In 1890, the Federal Government disbursed 34% of all gross expenditures. In 1913, the proportion was only 23.7%. As a result of the extraordinary demands upon the Treasury of the United States during the World War, federal expenditures completely overshadowed all others, amounting to 80% of the total in 1919. In 1925, federal expenditures again constituted only 34% of all governmental expenditures of the country, while state and local expenditures amounted to 66% of the total.

Functional Distribution of Public Expenditures

In 1925, military and protective activities accounted for 36.2% of the gross expenditures of the Federal Government; payment of interest for 23.4%; debt redemption for 19.5%; general government for 10%; highway construction and maintenance for 2.6%; and educational activities for 0.3%. In the same year expenditures for education represented 29.2% of the total gross expenditures of the state and local governments; highway construction and maintenance accounted for 20%; debt redemption and payment of interest for 11.8%; protection and military activities for 9.8%, and general government for 6.6%.

Expenditures for education are the largest single item in the state and local budgets, and the smallest item in the federal budget. In 1925, the local governments spent \$1,731.8 millions or 29.7% of their gross expenditures for schools; the state governments spent for the same purpose \$433.7 millions or 26.2% of their gross expenditures, while the Federal Government spent only \$12.9 millions on its educational activities.

The largest single item of the total cost of government in 1925 was debt service, that is, the payment of interest on the public debt and the redemption of matured obligations; \$2,482.4 millions, or 22.3% of the gross total, were spent for this purpose. Education came next, with \$2,166.7 millions; \$2,085.4 millions were spent for protection, while expenditures for roads, streets and canals accounted for \$1,567.5 millions. Of the combined net total of governmental expenditures in 1925, 25.1% was spent for education; 24.1% for the protection of persons and property and for national defense; 18.1% for road and highway construction and maintenance; 11.8% for social welfare, and 10% for general government.

EXPENDITURES FOR EDUCATION

As the most important item of net public expenditures the cost of public education deserves special consideration. In 1890,¹ the country's bill for grammar and high schools under public control was \$140.5 millions. Ten years later it was \$215 millions; in 1910 it rose to \$426 millions; a decade later it amounted to \$1,036 millions. In 1925, the last year for which full figures are available, public school expenditures increased to \$1,946 millions. From 1890 to 1925, public expenditures for education increased 717.7%. During the fifteen years, 1910 to 1925, the increase was 356.5%. Of the increase between 1910 and 1925, the decreased purchasing power of the dollar was responsible for 195.8%, while increase in the number of children of school age, a higher proportion of enrollment, and better attendance accounted for 90%. When price changes and all factors of material expansion are considered, the true increase in public expenditures for education from 1910 to 1925 was only 37.1%.

¹ Expenditures for education are for school years.

From 1890 through 1925, the proportion of school expenditures devoted to salaries of teachers and administrators declined from 65.3% to 51.5%. This relative decline was offset by increases in the proportion devoted to new construction, especially in recent years, and in the proportion devoted to general maintenance.

The Pacific and Middle Atlantic states show the greatest ability to support education, as measured by the number of children for whom they must provide educational facilities and by the economic resources upon which they can draw to provide such facilities. These states also make the most liberal provisions for their school systems. The southern states, in general, as measured by these criteria, rank low in their ability to support education.

ROAD AND HIGHWAY CONSTRUCTION AND MAINTENANCE

In 1904,¹ the total road and highway mileage of the country was 2,151,379 miles; in 1925, it was 3,060,081 miles. In 1904, 7.1% of the total was surfaced, as compared with 17.3% in 1925. In view of the fact, however, that facilities for the collection of data in 1925 were superior to those in 1904, there may have been roads in existence in the earlier year which were not reported.

Expenditures for Roads and Highways

One result of this road and highway development has been a rapid increase in government expenditures for road and highway construction and maintenance. In the year 1904, \$75,965,995 were raised for highway purposes, and of this amount \$19,818,236 represented the value of statute labor. In 1925, the country's road and highway bill (exclusive of the cost of city streets) was \$1,241 millions. A considerable part of this increase is accounted for by the growing activity of the state governments in road and highway construction. Whereas the state governments raised only 3.5% of the current highway revenue in 1904, in 1925 their proportion was 37.3%. In the same year, the state governments issued 49.5% of the \$285.8 millions of road and highway bonds.

In 1925, \$651.9 millions, or more than 50% of the total road and highway expenditures, represented new construc-

¹ Highway figures for calendar years.

tion, while \$176.4 millions or 14.2% of the total was spent for the payment of interest on highway indebtedness and for the repayment of this indebtedness.

Sources of Highway Revenue

Highways represent capital investments made through the government and are expected to yield benefits over a long period of time. In recent years the method of financing highway construction and maintenance has taken on many characteristics of public utility financing. A large portion of the cost has been placed upon the immediate beneficiaries of the highways through the motor vehicle license charges and the gasoline taxes.

This development has paralleled the shifting of highway support from local to state finance, and even to federal finance through the growth of federal aid. In 1904, the revenue received from license charges was barely sufficient to cover registration costs. In 1925, the motor vehicle license charges, earmarked to highway support, and the newly developed gasoline taxes, amounted to \$360.5 millions and represented 37.6% of the current highway revenue of the year. If the \$92.2 millions of federal aid, which was more than covered by federal excise taxes on motor vehicles, parts and tires, is added to this figure, it becomes clear that nearly 50% of the current highway revenue in 1925 was paid by the users of roads. In individual states—Connecticut, Illinois, Michigan, New Hampshire, Rhode Island and Vermont—more than half of the current highway revenue in that year was derived from the motor vehicle license charges and gasoline taxes alone.

In 1926, these license charges and gasoline taxes yielded a highway revenue of \$476 millions or \$117 millions more than in 1925. The yield from these taxes may be expected to increase even more rapidly in 1927 as a result of action taken by the last sessions of the legislatures increasing the rates of the motor vehicle license charges and gasoline taxes.

PUBLIC DEBT

In 1919, the gross debt of the Federal Government amounted to \$25,482 millions. A part of this total repre-

sented loans to the Allied Powers made during and immediately after the war; a part had been incurred to meet war expenses of the Federal Government. By January, 1927, this debt had been reduced to about nineteen billion dollars. Sinking fund appropriations accounted for 29.8% of this six billion dollar reduction; 22.2% was repaid out of the billion dollar balance remaining in the Treasury of the United States after the war; 13.6% represented foreign debt payments made in United States securities; and earmarked internal revenue accounted for 3.5%. The remaining 35.7% was repaid out of the annual treasury surpluses.

As a part of the process of this debt reduction, there have been fundings of short-term debt into bonded debt and conversions of bonded debt into short-term debt, with a view to effecting savings in interest and a better maturity schedule. The net result of these operations between July, 1919, and December, 1926, was to reduce the bonded debt by \$557.4 millions and the short-term debt by \$5,854.6 millions; but, in accomplishing this, the treasury balance of over one billion dollars was consumed.

The amount of annual sinking fund appropriations for the redemption of the national debt is more or less fixed. Foreign debt payments in United States securities, which are directly cancelled, and foreign debt payments in cash, which go to swell the ordinary receipts and hence the possible annual surpluses, are complementary and will, under the terms of the funding agreements, increase slowly from year to year. The unencumbered balance in the Treasury from which one billion dollars of the debt was retired is now consumed. Therefore, if the rate of retirement during the last few years is to be maintained, greater demand will have to be made on the annual surpluses. Departmental expenditures of the Federal Government can hardly be reduced any further, and on the revenue side, one source of debt reduction, receipts from sales of war assets, is rapidly declining in importance. To maintain the present rate of debt reduction, then, will prove a heavy drain upon tax revenues.

There was a surplus of \$635.8 millions in the fiscal year 1926-27, which can be applied to debt reduction. The tax revision of 1926, however, is likely to cause a decrease of about

\$50 millions in miscellaneous tax collections in 1928. This fact and the expected decline in the collection of back taxes and in the liquidation of capital assets should reduce considerably the surplus in 1928. It is therefore unlikely that the loss of funds formerly available for debt reduction out of specific internal revenue items and out of the treasury balance will be to any extent offset by future increases in the annual surplus. In the future, the government may have to decide between continued debt reduction and continued tax reduction, since from now on the greater part of the reduction of the national debt must be accomplished through current tax revenue and will be reflected in the federal tax burden.

FOREIGN DEBT SETTLEMENTS

Nearly ten billion dollars of the principal of the foreign debt owing to the United States has been funded out of a total of about twelve billion dollars. The debt settlements provide for a series of payments, ranging from \$210 millions in 1927 to \$422 millions in 1983. According to the existing debt agreements, the entire debt owing to the United States will be liquidated by 1987, when principal and interest payments will have totaled \$22,144 millions.

The average rates of interest under the provisions of the funding agreements range from 0.4% in the case of Italy to about 3.3% for Great Britain and all other debtor nations, with the exception of Jugoslavia, France, and Belgium, which are charged less than 2% interest even after taking into consideration interest accrued prior to the funding.

Great Britain will pay more than 50% of the total amount to be eventually received from these payments, although she is responsible for only 40% of the funded debt. Italy, France and Belgium will pay a lesser proportion than is represented by the principals of their funded debts.

STATE AND LOCAL BORROWINGS

While the Federal Government has been actively reducing its debt during the last few years,¹ the state and local governments have been increasing their indebtedness. During the

¹ Figures for state and local borrowings are for calendar years.

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four years 1923 through 1926, these governments incurred \$5,118 millions of new indebtedness, exclusive of refunding issues. More than 50% of the new borrowings was made by the municipalities and the minor civil divisions; 13.4% was incurred by school districts. During the same period counties borrowed \$811 millions and the state governments \$775 millions.

A complete functional distribution of the combined indebtedness of the states and of the localities can not be calculated. It should be noted, however, that more than 50% of the indebtedness of the state governments in 1925 was incurred for road construction, 18% for soldiers' and sailors' homes and 10% for public utilities. In the case of cities with populations in excess of 30,000, 30% of their indebtedness in 1925 was incurred for streets and sewers, 26.5% for public utilities and 21.3% for schools.

In 1913, the total state and local debt of the country was \$3,196 millions, or \$33.11 per capita. In 1922, it rose to \$7,264 millions, or 127.3%; because of the increase in population, however, the per capita debt increased to only \$66.10, or 99.6%. During the next three years the total debt rose to \$9,865 millions and the per capita debt to \$85.50. The ratio of the state and local debt to national wealth increased from 1.7% in 1913 to 2.8% in 1925.

From 1922 to 1925, the total of state and local borrowings increased with each year. The figures for 1926 indicate that this trend has been checked. The net borrowings of state and local governments in 1926 amounted to \$1,343.5 millions, and this sum is lower than the amount borrowed in either 1924 or 1925.

TAXATION

The tax collections of the country, expressed in current dollars, reached their peak in 1921, when they totaled \$8,838 millions, as compared with \$875 millions in 1890 and \$2,194 millions in 1913. As a result of the federal program of tax reduction, which offset continued increases in tax collections on the part of the state and local governments, the total collections were reduced to \$7,234 millions in 1923. Since that year there has been an unbroken increase in tax

collections, until in 1926 they amounted to \$8,555 millions, a figure slightly below the peak of 1921. These variations are shown in Table 83 in summarized form.

TABLE 83: TOTAL TAX COLLECTIONS, UNITED STATES, 1890 TO 1926

Year	Tax Collections					
	In Current Dollars (In Millions)	In "1913" Dollars (In Millions)	Per Capita		Per Person Gainfully Employed	
			In Current Dollars	In "1913" Dollars	In Current Dollars	In "1913" Dollars
1890	\$875	\$1,087	\$13.88	\$17.26	\$37.52	\$46.61
1903	1,382	1,616	17.07	19.95	43.76	51.17
1913	2,194	2,194	22.73	22.73	56.30	56.30
1919	7,465	3,616	71.10	34.44	180.88	87.62
1923	7,234	4,706	64.77	42.13	170.64	111.02
1924	7,821	5,224	68.77	45.94	183.37	122.48
1925	7,891	4,972	68.39	43.09	183.89	115.87
1926	8,555	5,665	73.04	48.37	198.17	131.24

During this period the population of the country and the number of persons gainfully employed increased steadily, by 83.3% and 84% respectively, while the price level and national income varied. Consequently, when expressed in terms of the purchasing power of the dollar, or as a proportion of national income, the increase in tax collections has been neither so regular nor so pronounced as when expressed in current dollars.

In 1921, 15.9% of the national income was absorbed by taxes, as compared with 10.9% in 1919. The tax burden declined to 10.1% of the national income in 1923. Since that year the ratio of taxes to national income has remained relatively constant, between 10% and 11%. In 1926, federal taxes amounted to 4.1% of the national income, local taxes to 5.2%, and state taxes to 1.6%, as compared with 6.6%, 0.8%, and 3.5% respectively in 1919.

Since 1919, the share of the Federal Government in the total tax collections of the country has been declining. Whereas in that year the Federal Government was responsible for 60.3% of the nation's taxes, in 1926 federal taxes amounted to only 37.5% of the total tax collections. In 1890, the Federal Government collected 42.7% of the country's taxes; in 1903, the percentage was 37.7, and in 1913 the share of the Federal Government was 30.4%.

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The proportion of the country's tax collections absorbed by the state and local governments is shown in the following table:

Year	State Governments	Local Governments
1890.....	11.0%	46.3%
1903.....	11.2	51.1
1913.....	14.0	55.6
1919.....	7.6	32.1
1921.....	8.9	35.6
1922.....	11.4	42.1
1923.....	12.7	45.4
1924.....	13.0	46.2
1925.....	14.0	48.4
1926.....	14.8	47.7

In 1913, state and local governments collected 69.6% of the total tax bill of the nation. During the war this proportion declined sharply, because state and local fiscal requirements were reduced in order not to interfere with the function of the Federal Government in connection with the conduct of the war. In 1919, state and local taxes amounted to only 39.7% of the total tax bill. In the past few years, however, the share of these governments in the country's tax collections was about 60%.

The rates of increase of state and local taxes during the last few years have been markedly regular. This increase may be attributed chiefly to the nation-wide growth in expenditures for road and highway construction and maintenance, and for educational support.

Geographic Distribution of Tax Collections

Because of their overwhelming preponderance in population and concentration of wealth, the Middle Atlantic and the East North Central states paid nearly three-fifths of the federal taxes in 1925. New York alone contributed 22.8% of the federal tax collections.

In recent years, federal tax collections from the New England and West North Central states have been declining, whereas those from the South Atlantic and South Central states have increased, reflecting an expansion of industrial activity in these sections of the country.

Since local taxes compose so large a proportion of the combined state and local tax collections, it is to be expected that the general trends are to a large extent determined by

the local tax collections. In harmony with this view, it is found that the most rapid increases of local taxes in recent years have occurred in the Pacific and in the South Atlantic states. The average increase for the former group from 1922 through 1926 was 46.9%. The lowest rates of increase during these years were in the West North Central and in the Mountain states.

As a result of the centralization of highway and school functions, the proportion of state taxes to combined tax collections is increasing. This is most noticeable in the West South Central states.

The modern fiscal ideal is to distribute the burden of taxation among individuals and groups according to their economic ability. The achievement of this ideal depends on a practical and comprehensive understanding of the factors which determine the distribution of tax burdens.

THE TAX BURDEN ON AGRICULTURE

Available evidence indicates that the crux of the farm tax problem lies in the uncertain relationship of farm taxes and farm income. Farm taxes, based on property values, are a stable factor, while farm income varies widely from period to period according to the circumstances of agricultural production. From 1909 to 1915, the gross income of the farmers increased from \$5,647 millions to \$7,473 millions. The net income and the net profits showed a gratifying increase, but taxes increased even more rapidly. The burden of farm taxes, therefore, increased from 4.9% in 1909 to 6.4% in 1915, as measured by net farm income, and from 10.9% to 11.7%, as measured by net profits. From 1915 to 1919, farm income and farm profits increased much more rapidly than taxes, and the burden of farm taxes decreased during this period to 4.4%, as measured by net income, and to 7.0%, as measured by net profits. The tremendous decline in farm income and farm profits during the next two years made the farm taxes appear an unbearable burden. In 1921, the net income of the farmers amounted to \$6,269 millions, and their net profits to \$138 millions. In that year farm taxes absorbed nearly 13% of the farmer's net income. In the succeeding year taxes absorbed 16.4% of the net farm income and 77.7%

of the net farm profits. By 1926, the ratio of farm taxes to farm income had fallen to 12% and the ratio of farm taxes to farm profits to 30.4%.

In general, taxes on agriculture are found by the Conference Board to be a greater burden, when measured by income or profits, than are the taxes on other economic activities. Property taxes constitute the basic element of the state and local tax systems, and they bear more heavily upon the farmer than upon other economic groups because of the low ratio of farm income to farm property values. Contributing factors to this low ratio of farm income to farm values are the economic inertia characteristic of agriculture, the lack of alternative investments and the capitalization of anticipated profits during the first two decades of the present century.

The crisis of the farm tax problem seems to be past. Gross and net farm income have increased slowly but persistently since 1922. Farm values have declined since 1920, so that the assessments based on these values have also been reduced, thus offsetting the rise in tax rates which continued in most states.

TAX BURDEN ON CORPORATIONS AND INDIVIDUALS

The ratio of taxes paid by corporations to their net profits in recent years has varied from 82.7% in 1921 to 27.8% in 1923. In 1924, taxes absorbed 98.3% of the net profits of agricultural corporations, 26.1% of the net profits of manufacturing corporations, and 30.1% of the net profits of all corporations.

In general, state and local taxes bear little relation to the tax-paying ability of individuals as measured by their income. Such trend as is in evidence is regressive, rather than progressive. Since the corporation dividends constitute a relatively greater proportion of the income of the higher income classes than of the lower income classes, and since corporation taxes, to the extent that they are not shifted to consumers, represent a reduction from dividends which otherwise might have been paid, the corporation taxes represent a relatively heavier burden on the higher income classes. The federal income tax, both in its statutory rates and in its

effect, is definitely progressive. It is to be noted, however, that the statutory deductible allowances effect a much greater saving in taxes to the higher income classes than to the lower.

Governmental expenditures and, consequently, indebtedness and taxation have increased rapidly in this country during the past quarter of a century. The expansion of the country in population and wealth which has necessitated increased activity on the part of all branches of the government concerned, the steadily broadening scope of the functions of government, the legacy of the war in the form of a heavy national debt, which is being paid off now and whose redemption will be an obligation for years to come, and the decreased purchasing value of the dollar, are the four primary factors in the increase of the cost of government.

An increase in taxation, public borrowing and public expenditures is justifiable only if it is a reflection of the public demand for government services and benefits. This demand is made effective through representative government. The voters and taxpayers of the country are thus in a position to control public expenditures and keep them at a level which, in the opinion of the majority, is in accord with the best interests of the country. In this connection, a useful service is being rendered by taxpayers' associations and similar civic organizations whose purpose is to disseminate knowledge of public fiscal affairs and impress the voter with the importance of understanding the business of government.

APPENDIX A

LIST OF TAXPAYERS' ASSOCIATIONS

THIS list expressly excludes civic organizations, bureaus of research, chambers of commerce and similar organizations whose interests are not confined to taxpayers' problems. It includes all taxpayers' associations that have been operative during the years 1922 through 1927. Organizations marked with an asterisk (*) were either reported as inoperative by June 1927 or made no reply to a final check questionnaire sent to them in that month.

State	Location	Name of Association	Officer	Scope
Arizona	Bisbee.	Cochise County Taxpayers' Association.	Vance Johnson, Secy.	County.
	Clifton.	Greenlee County Taxpayers' Association.	H. E. Brubaker, Secy.	County.
	Globe.	Gila County Taxpayers' Association.	W. H. Keegan, Secy.	County.
	Jerome.	Yavapai County Taxpayers' Association.	A. Dumbauld, Secy.	County.
	Nogales.	Santa Cruz County Taxpayers' Association.	R. E. Moore, Secy.	County.
	Phoenix.	State Taxpayers' Association, 503 Luhrs Building.	V. Harvey, Secy.	State.
	Safford.	Graham County Taxpayers' Association.		County.
California	*Los Angeles.	California Income Taxpayers' Association, 924 Washington Building.		State.
	Los Angeles.	California Taxpayers' Association, Subway Terminal Building.	Vance H. Evans, Ex. Secy.	State.
	Los Angeles.	Tax Relief Association of California, 418-20 American Bank Building.	Stoughton Cooley, Secy.	State.
	*Oakland.	Alameda County Taxpayers' Association.	E. W. Williams, Secy.	County.
	*Salinas.	Monterey County Taxpayers' Association.	J. W. Grimes.	County.
Connecticut . . .	*Hartford.	The Landlords' and Taxpayers' Association, 50 State Street.	Jas. W. Knox, Secy.	City.

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State	Location	Name of Association	Officer	Scope
Delaware.....	Wilmington.	Taxpayers' Research League of Delaware, 303 Industrial Trust Building.	Russell Ramsey, Dir.	State.
Georgia.....	*Atlanta.	Georgia Taxpayers' League, 69 N. Pryor Street.	Frank Weldon, Secy.	State.
Illinois.....	Chicago.	Civic Federation of Chicago, 105 W. Monroe Street.	Douglas Sutherland, Secy.	State.
	Chicago.	Czechoslovak Taxpayers' Association, 5407 W. 22nd Pl.		Local.
	Chicago.	Lawndale Taxpayers' Association, 3437 W. 23rd St.	Louis Kyailka, Secy.	Local.
	Chicago.	26th Ward Taxpayers' Association, 1652 Throop St.	Frank Vilimek, Secy.	Local.
Indiana.....	Indianapolis.	Indiana Taxpayers' Association, 315 Hume-Mansur Building.	Harry Miesse.	State.
Kansas.....	Topeka.	Kansas State Taxpayers' Organization.	J. M. Kessler, Secy., 217 W. 21st St.	State.
	Kansas City.	Civic Tax League of Kansas.	E. M. Baddington, Pres.	State.
Kentucky.....	Louisville.	Kentucky Tax Reform Association, Columbia Building.	P. N. Clarke, Secy.	State.
Massachusetts	Boston.	Massachusetts Taxpayers' Conference Committee, 11 Beacon St.	Philip Nichols, Ch.	State.
Minnesota....	Duluth.	Taxpayers' League of St. Louis County, 917 Torrey Bldg.	R. M. Goodrich, Secy.	County and City.
	*Mankato.	Taxpayers' Association of Blue Earth County, 317 Coughlan-Hickey Bldg.	O. W. Walker, Pres.	County.
	Minneapolis.	Minnesota Taxpayers' Association, 928 McKnight Bldg.	H. J. Miller, Ex. Secy.	State.
	Minneapolis.	Taxpayers' Association of Minneapolis, 928 McKnight Bldg.	H. J. Miller, Mgr.	City.
	*St. Paul.	Taxpayers' Association of St. Paul.		City.
Missouri.....	Kansas City.	Taxpayers' League, 924 Baltimore Ave.	Pierre R. Porter, Secy.	State.
Montana.....	*Chester.	Liberty County Taxpayers' Association.	Frank Baker, Pres.	County.
	*Conrad.	Pondera County Taxpayers' Association.	James Sanders, Pres.	County.
	*Dayton.	Lake County Taxpayers' Association.	J. A. Shaffer, Secy.	County.

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State	Location	Name of Association	Officer	Scope
	*Fairview.	Richland County Taxpayers' Association.	C. P. Collins, Pres.	County.
	*Glasgow.	Valley County Taxpayers' Association.	J. Pattison, Pres.	County.
	*Glendive.	Dawson County Taxpayers' Association.	Frank P. Fleming, Pres.	County.
	*Havre.	Hill County Taxpayers' Association.	Geo. B. Bourne.	County.
	*Harlowton.	Wheatland County Taxpayers' Association.	E. C. Baxter, Pres.	County.
	*Helena.	Lewis and Clark County Taxpayers' Association.	Geo. Freeman, Secy.	County.
	Helena.	Montana Taxpayers' Association, P. O. Box 577.	John Edgerton.	State.
	*Kalispell.	Flathead County Taxpayers' Association.	H. G. Miller.	County.
	*Lewistown.	Fergus County Taxpayers' Association.	J. Quickenden, Pres.	County.
	*Livingston.	Park County Taxpayers' Association.	O. T. Armstrong, Pres.	County.
	*Missoula.	Missoula County Taxpayers' Association.	Frank Thomas, Pres.	County.
	*Roundup.	Musselshell County Taxpayers' Association.	L. R. Carroll, Pres.	County.
	*Sheridan.	Madison County Taxpayers' Association.	William Rhodes, Pres.	County.
	*Toston.	Broadwater County Taxpayers' Association.	B. B. Briscoe, Pres.	County.
Nevada.....	Reno.	Nevada Taxpayers' Association, 307 Reno National Bank Bldg.	F. N. Fletcher, Dir.	State.
New Mexico..	Santa Fe.	Taxpayers' Association of New Mexico, P. O. Box 557.	Rupert F. Asplund, Dir.	State.
New York....	Albany.	New York State Tax Association, 95 State St.	Chas. J. Tobin, Pres.	State.
	Buffalo.	Realty Tax Association, 328 Prudential Bldg.	William Speidel, Mgr.	City.
	Bronx.	Highbridge Taxpayers' Association, 1431 Boscobel Ave.	Ulysses S. Tanco.	Local.
	*Bronx.	Taxpayers' Alliance, 1495 Hoe Ave.	E. L. Franz.	Local.
	*Brooklyn.	Allied Boards of Trade and Taxpayers' Association, 983 Madison St.	M. J. McDonough, Secy.	
	*Brooklyn.	Bath Beach Taxpayers' Association, 47 First St.	M. G. Magrath.	Local.

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State	Location	Name of Association	Officer	Scope
	*Brooklyn.	Central Flatbush Taxpayers' Association, 216 E. 21st St.	Gregory Weinstein.	Local.
	Brooklyn.	Flatbush Taxpayers' and Civic Association, 1290 New York Ave.	F. C. Wandmacher.	Local.
	*Brooklyn.	Greenpoint Taxpayers' and Citizens' Association, 114 Greenpoint Ave.	Edward Welch, Pres.	Local.
	*Brooklyn.	Taxpayers' Protective Association of Brooklyn, 576 Decatur.	C. F. Harwood.	Local.
	Brooklyn.	Twenty-eighth Ward Taxpayers' Protective Association, 110-04 195th St., Hollis, N. Y.	H. Edelmann, Secy.	Local.
	*Brooklyn.	Van Sicklen Taxpayers' Association, Inc., 2800 Ocean Parkway.	W. E. Burgess, Secy.	Local.
	*Brooklyn.	Vanderveer Park Taxpayers' Association, 1266 New York Ave.	Albert Kuelling, Secy.	Local.
	*Brooklyn.	Windsor Place Taxpayers' Association, 248 Windsor Pl.	John Koehn, Secy.	Local.
	*Brooklyn.	Woodlawn Taxpayers' Association, 1641 Gravesend Ave.	Arthur E. Billington, Secy.	Local.
	Manhattan.	New York Tax Reform Association, 154 Nassau St.	A. C. Pleydell.	State.
	Manhattan.	Suffolk County Taxpayers' Association, 45 Cedar St.	Marvin Shiebler.	County.
	Manhattan.	Westside Taxpayers' Association, 271 W. 125th St.	B. L. Rullman.	Local.
	*Queens.	Astoria Taxpayers' and Business Men's Association, 135 Fulton Ave., L.I.C.	W. H. Thompson, Secy.	Local.
	*Queens.	College Point Taxpayers' Association, 21 N. 13th St., College Point.	Robt. C. Koehl, Secy.	Local.
	*Queens.	Glendale Taxpayers' Association, 17 Deyo St.	M. Duncuff.	Local.
	*Queens.	Westbridge Taxpayers' Association, 130th St. near Jamaica Ave.	Arthur C. Brown, Secy.	Local.

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State	Location	Name of Association	Officer	Scope
	*Yonkers.	Ninth Ward Citizens' and Taxpayers' Improvement Association.		Local.
	*Yonkers.	Yonkers Taxpayers' Association.		City.
North Dakota.	*Bismarck.	Burleigh County Taxpayers' Association.		County.
	Wahpeton.	North Dakota Taxpayers' Association.	Dan R. Jones, Secy.	State.
Ohio.....	*Akron.	The Taxpayers' Union.	Jacob Pfeiffer.	
	*Cincinnati.	Taxpayers' Association of Hamilton County, 614 Race St.	C. W. Ireland.	County.
	Columbus.	Ohio Tax Association, 149 E. State St.	W. T. Tolp.	State.
Oregon.....	*Astoria.	Clatsop County Taxpayers' Association.		County.
	Portland.	State Taxpayers' Association of Oregon, Oregon Bldg.	L. B. Smith, Secy.	State.
	*Roseburg.	Douglas County Taxpayers' League.	H. O. Parqueter.	County.
Pennsylvania.	*Harrisburg.	Taxpayers' League of Harrisburg, Union Trust Bldg.	J. D. Royal.	City.
	Uniontown.	Taxpayers' Association of the Connellsville Region.	R. M. Fry, Secy.	County.
Rhode Island..	Providence.	Rhode Island Tax League, 830 Hospital Trust Bldg.	Jas. B. Littlefield.	State.
Utah.....	Salt Lake City.	Utah Taxpayers' Association, Kearns Bldg.	Alfred C. Rees, Secy.	State.
	Salt Lake City.	Western States Taxpayers' Association	Alfred C. Rees, Secy.	Twelve western states.
Washington...	*Asotin.	Asotin County Taxpayers' Association.	M. J. Crabb, Secy.	County.
	*Colville.	Stevens County Taxpayers' Association.	A. R. Myers, Pres.	County.
	*Ephrata.	Grant County Taxpayers' League.	J. H. Smith, Pres.	County.
	*Goldendale.	Klickitat County Taxpayers' Association.	Frank Fenton, Pres.	County.
	*Mount Vernon.	Skagit County Taxpayers' Association.	Alfred Polson, Pres.	County.
	*Okanogan.	Okanogan County Taxpayers' Association.	N. E. Whitworth, Pres.	County.
	*Pasco.	Franklin County Taxpayers' Association.	B. B. Horrigan.	County.
	*Pomeroy.	Garfield County Taxpayers' Association.	J. O. Loreg, Pres.	County.
	*Raymond.	Pacific County Taxpayers' Association.	A. J. Langanback, Secy.	County.

LIST OF TAXPAYERS' ASSOCIATIONS

State	Location	Name of Association	Officer	Scope
	*Republic.	Ferry County Taxpayers' Association.	J. S. Bedier, Pres.	County.
	*Ritzville.	Adams County Taxpayers' Association.	R. B. Ott, Pres.	County.
	Rosalia.	Whitman County Taxpayers' Association.	C. W. Wagner.	County.
	Seattle.	Lower Cost of Government League.	E. H. Thomas.	State.
	*Seattle.	State Federation of Taxpayers' Associations, L. C. Smith Bldg.	C. E. Arney, Secy.	State.
	*Seattle.	Washington Tax Limit League, 214 Empire Bldg.	F. C. Jackson, Secy.	State.
	*Spokane.	Taxpayers' Economy League of Spokane.	L. M. Livengood, Mgr.	County.
	*Tacoma.	Pierce County Taxpayers' Association, Tacoma Bldg.	J. E. Grant, Secy.	County.
	*Walla Walla.	Columbia County Taxpayers' Association.	J. J. Edwards, Pres.	County.
	*Waterville.	Douglas County Taxpayers' Association.	J. M. Stoddard, Pres.	County.
	*Wilbur.	Lincoln County Taxpayers' Association.	L. A. Dyar, Pres.	County.
Wisconsin.....	Rice Lake.	Wisconsin Taxpayers' League.	A. F. Ender.	State.
Wyoming.....	*Kemmerer.	Lincoln County Taxpayers' Association.	Jas. P. Rosenberg.	State.

APPENDIX B

METHODOLOGY

In many cases the preceding text and tabular material represents a summation of lengthy and often complicated computations. As a matter of record and to provide a check upon its calculations the National Industrial Conference Board believes that the principles and methods of these computations should be fully stated.

SOURCES OF DATA

Data on federal finances are drawn almost exclusively from the reports of the Secretary of the Treasury and from the departmental figures published in the annual treasury reports.

For its figures on state finances, the Conference Board has relied upon the "Financial Statistics of States" series of the United States Bureau of the Census, and upon correspondence with this Bureau, unless otherwise indicated.

There is no centralized source for data covering the annual finances of local governments. The United States Bureau of the Census, in connection with its decennial census reports, has given certain fiscal statistics of the local governments in its series on "Wealth, Debt and Taxation." For intermittent years, however, the Bureau of the Census reports in "The Financial Statistics of Cities" series only the accounts of cities with populations in excess of 30,000. The basic material on local taxes and expenditures must be obtained through the regular or intermittent surveys of local accounts published by certain of the states and by a sampling of published local reports or by questionnaires.

Finally, extensive use has been made of the published documents of the United States Department of Agriculture, of the Bureau of Education, of the Bureau of Public Roads and of the Bureau of Internal Revenue. Through the courtesy of the officials of these departments, the Conference Board has been permitted access to much hitherto unpublished material.

Annual Accounting Period

In the Conference Board's preceding Cost of Government studies, the accounting period used in the determination of tax revenues, government expenditures and government indebtedness was the calendar year. The arguments favoring the use of this accounting period are that it is a definite unit applicable to all governmental organizations and that it permits direct comparison

between tax and public expenditure data and such measures as national income and wealth.

In the present study, the accounting period used is that of fiscal years ending in a given calendar year. This lacks the definiteness of the calendar year period. The following reasons, however, decided the Conference Board to make the change:

1. In few cases do the fiscal years of governmental authorities coincide with the calendar year. To bring about an exact equivalence would involve the application of fractional calculations to the numberless accounts of the local authorities which is beyond the range of present possibility. The sampling method, used by the Board in its earlier studies, involved a possibility of error which is avoided in the use of fiscal years.

2. The United States Bureau of the Census uses fiscal years in its "Financial Statistics of States" and "Financial Statistics of Cities" series. The adoption of the same accounting period by the Conference Board permits it to make direct use of the data in these series.

It should be noted that data on state and local borrowings are drawn from the *Commercial and Financial Chronicle*, and these figures are for calendar years.

Calculation of Public Expenditures

Federal expenditures are fully reported in the annual reports of the Secretary of the Treasury. The figures presented in Table I are based upon the daily Treasury statements, with the expenditures of the District of Columbia excluded. The net total of expenditures and the figure for interest payments in Table 4 are from the unrevised daily treasury statements, as reported in the Annual Report of the Secretary of the Treasury, 1926. The figure for debt redemption is from the revised daily treasury statements. The revised statement takes into account transactions reported *after* the close of the fiscal year, but the difference between the two statements is insignificant.

The figures for the departmental expenditures and interest payments of the state governments are from the "Financial Statistics of States" series. The figures for debt redemption were obtained from the "State and Local Compendium" of the *Commercial and Financial Chronicle*. The totals in Table I include disbursements in aid of local projects but do not include the expenditures out of funds received from the Federal Government or from local governments.

Since 1913, the United States Bureau of the Census has published no data on local expenditures, except for cities with popu-

lations in excess of 30,000. The following data on local expenditures are immediately available: complete reports by the authorities of several states on the finances of their local governments, the Census Bureau statistics on cities over 30,000, the United States Bureau of Education calculation of local school expenditures and the United States Bureau of Public Roads' figures on local highway expenditures. The reports on local finance from those states which collected data provided a fairly broad sample. On the basis of this sample, the proportions that school expenditures and road expenditures were to total local departmental expenditures (except for cities above 30,000) in each year were estimated. These proportions were applied to the school expenditures and road expenditures for all local governments (exclusive of cities over 30,000). The two independent estimates so obtained were found to be in close agreement. The average of the two estimates plus the departmental expenditures of cities with a population exceeding 30,000 was taken to represent the net total of local expenditures for the year. To obtain the gross total, payments for interest and debt redemption had to be added. The yearly figure for local redemption was obtained from the "State and Local Compendium" of the *Commercial and Financial Chronicle*. The interest payments of cities over 30,000 were reported in "The Financial Statistics of Cities." Interest payments of other local governments were estimated by multiplying their outstanding indebtedness by the average interest rate on local indebtedness. The gross total of local expenditures so obtained compares very closely with the total for local taxes, borrowings and miscellaneous revenues, after allowing for increases in cash balances and in sinking fund assets.

Functional Classification of Public Expenditures

To the extent that certain governmental functions are carried on solely by the federal or state or local governments, each category has a somewhat independent content for the several governmental divisions. There is, however, sufficient overlapping of functions and, in general, sufficient agreement in the social effects of the independent functions to make a common classification under broad categories worth while. The items included under each heading in Tables 6 and 7 are as follows:

1. General government includes, in addition to the expenses of the executive, legislative and judiciary branches of government, all other overhead charges, such as the salaries and expenses of minor administrative bureaus and officials, election expenses, government buildings, printing and stationery.

2. Protection includes all expenses of police, fire, war and navy departments and all pensions and grants to retired employees of these departments. It also covers corrective and penal institutions, and the expenses of government departments charged with the regulation of labor and industry, or of any particular professional or business activity.

3. Education covers the expenses of the administrative bureaus or officials, as well as the direct expenditures for schools and libraries.

4. Highways include streets, roads, bridges, waterways and the overhead administration charges in connection with their construction and maintenance.

5. Economic development includes conservation and reclamation projects, agricultural encouragement, expenditures for the eradication of crop-destroying insects or of diseases of domesticated animals and the expenses of administration incidental to these functions. The harbor improvements of the Federal Government are covered under this title, but the municipal harbor improvements which have a rental value for the local government are not included.

6. Social welfare activities of the several governmental divisions are the most diverse of all. There are the costs of charity, and relief of the poor, aged or sick, usually undertaken by local governments. Of a quite distinct nature are the expenditures for economic welfare, such as, workmen's compensation and the supervision of the conditions of women and children in industry. Falling between these extremes are expenditures for pensions of former civil government employees, mothers' pensions, recreation, sanitation and health. The federal expenditures by the Bureau of Indian Affairs have also been classed as social welfare.

7. Miscellaneous covers the items undistributed in the available reports.

8. Public utilities cover public service enterprises operated under governmental authority for revenue. Only the expenditures not charged off against operating revenue are included.

The net total is the sum of these eight groups of departmental expenditures. The figure for *interest* covers the interest on public indebtedness, and *debt redemption* represents the net retirements, excluding refundings and conversions. It does not include additions to sinking funds. In the case of state and local expenditures, it covers the bonded debt retired by cash payments.

Determination of Functional Classification

The daily treasury statements do not report federal departmental expenditures in sufficient detail for functional analysis.

The percentage distribution of federal expenditures in Table 6 was therefore based on the Treasury's record of warrant authorizations. There is usually a lag between the issue of an expenditure warrant and the actual payment made upon it. However, over a period of years the functional distribution of warrants and cash expenditures tends to become identical. The percentage distribution so obtained from the warrant figures was applied to the total of cash expenditures to obtain the dollar-and-cents distribution given in Table 6.

The percentage distribution of state expenditures, shown in Table 7, includes federal aid expenditures, as well as state aid to local governments. All disbursements by state governments were included for the purpose of comparison with local expenditures. In 1925, about ten million dollars of interdepartmental transfers on account of capital outlays could not be eliminated from the state accounts. In the figures for combined state and local expenditures in Table 6, federal aid to the states has been eliminated.

The figures for local education and highway expenditures, and for interest and debt redemption payments were obtained from the various sources noted above. The distribution of other departmental expenditures was made by sampling. The figures for local expenditures in Table 7 include state aid; this item has been eliminated from the combined total in Table 6.

Public Indebtedness

The data on the public debt of the Federal Government and on the foreign debt owing to the United States were obtained from the annual reports of the Secretary of the Treasury or through correspondence with the Treasury Department. The figures for annual state and local borrowings were taken from the "State and Local Compendium" of the *Commercial and Financial Chronicle*. The functional distribution of the state and of the municipal indebtedness is published annually in "The Financial Statistics of States" and in "The Financial Statistics of Cities," respectively. The volume of state and local net bonded indebtedness, as presented in Tables 25, 26 and 27, is found for 1913 and 1922 in the census volumes on "Wealth, Debt and Taxation" for those years. The 1925 figures were computed as follows:

To the net bonded state and local debt of each state in 1922 were added the bonds issued in 1923, 1924 and 1925, as reported by the *Commercial and Financial Chronicle*. From this total was subtracted the amount of bonds retired in those years, obtained from the same source. The total sinking fund assets of the states and of cities over 30,000 in each state were computed for 1922

from the census volume on "Public Debt," and for 1925 from "The Financial Statistics of States" and from the "Financial Statistics of Cities." The net bonded debt of each state and of the grand total was then corrected in accordance with the changes in the sinking fund assets thus computed. Changes in the sinking fund assets of local governments exclusive of cities over 30,000 are not available.

The net bonded indebtedness of state governments was computed from "The Financial Statistics of States," and the net bonded indebtedness of cities over 30,000 was computed from "The Financial Statistics of Cities." The indebtedness of other local governments is represented by the difference between the sum of these two and the total state and local net bonded debt.

In the tables of Chapter III, the net total of state and local bonds outstanding was calculated as \$9,865,197,000. It is obvious, in view of the method by which the figure was computed, that it covers the bonds issued and the bonds retired between the close of the fiscal year of each governmental unit and December 31, 1925, but does not take account of the issues and retirements during the corresponding period in 1922. This element of error cannot be eliminated in the distribution of the debt between state and local authorities nor in the distribution by states. For the combined total of state and local bonded indebtedness, however, the difference can be estimated. According to calculations of the Institute of Economics,¹ 23.7% of the calendar year borrowings and 21.8% of the calendar year retirements are made between the close of governmental fiscal years and the end of the corresponding calendar years. During this period there were borrowings in excess of retirements amounting to \$211,474,000 in 1922 and \$244,952,000 in 1925. The net bonded indebtedness at the close of the fiscal accounting periods of all state and local governments was therefore \$9,831,719,000 in 1925.

State and Local Taxes

State and local taxes for 1890, 1903, 1913 and 1922 were obtained from the United States Bureau of the Census' reports on "Wealth, Debt and Taxation." For all other years, state and local taxes were obtained from independent sources.

The state taxes include, in addition to all taxes collected by the state for its own use, all taxes collected locally and turned into the state treasury directly out of the tax funds. Local collections include taxes collected under the supervision of state departments or officials which revert to the respective local treasuries in pro-

¹Charles O. Hardy, "Tax Exempt Securities and the Surtax," 1926, pp. 173-182.

portion to the amount collected in each locality, in addition to the taxes collected in accordance with local ordinances or levies. Funds received by one governmental unit out of the treasury of another government, in aid of an expenditure program, are not included in the taxes of the government receiving the disbursement, though the money available for such purpose be definitely limited to certain tax receipts.

The Computation of Local Tax Collections

Complete collection figures for local taxes are reported in very few states. In most states the Auditor, Comptroller or Treasurer reports the share of inheritance, income, gasoline, motor vehicle license and other taxes received by the subsidiary local governments. In other cases, where the share of such taxes received by the local governments is in direct proportion to the state's share, these local taxes can be easily computed. These special tax receipts, however, form a very small proportion of the tax revenue of the local governments.

Property taxes comprise more than ninety per cent of local tax revenues. Unfortunately, property taxes are reported on the basis of levies instead of receipts. The estimate of local property tax collections from year to year must therefore be made on the basis of the levies reported. The chief problem resulting from the calculation of collections from levies is the determination of the fiscal year to which the taxes are to be ascribed.

The length of time between the levy of a property tax and its collection varies from several months to over a year according to the laws of the several states. Though the tax usually becomes a lien and is charged as a public account on the date of the levy, it could not properly, in the study at hand, be charged as of the date of levy. In order to bring all the local data into conformity with federal and state taxes, it was necessary to determine within which fiscal-year period the levies reported as of a particular date were collectible. This was accomplished through a careful examination of the tax laws bearing on this point in each state. In a majority of cases it was found that for most of the local governments in a state, the collection of the property tax was made in the fiscal year following the levy. In this study, such tax receipts have been charged to the fiscal year following that of the levy.

There are several states which make incomplete reports or no reports at all of their local property tax levies. In these cases, an attempt was made to secure representative samples of local government levies, and the index of increase or decrease derived from these samples was applied to the total of levies reported for

1922 in the Census Bureau's "Wealth, Debt and Taxation" series. The developments in the city tax levies of such states, as reported in the Census Bureau's "Financial Statistics of Cities" series, provided a further check on these estimates.

This use of levy data to estimate property tax collections does not make allowance for tax delinquency or back tax collections. For most of the states there is no way at present to estimate the effect of variations in these factors. Except in years of exceptional agricultural depression or prosperity, however, they tend to offset each other, with a slight balance on the side of the delinquencies.

In most states, as indicated above, definite data on local receipts from special taxes are available, and these were added to the estimated total of local tax collections. In the few states where there was no indication whatsoever as to the trend in these special tax collections, they were assumed to have increased since 1922 at the same rate as the ascertainable taxes. If the property taxes registered a decline from 1922 on, the figure for miscellaneous tax collections in later years was maintained at the 1922 figure.

It is evident that the Conference Board's estimates of local tax collections were not made by any rule of thumb method applied to all cases. Each state was considered individually on the basis of available data, the tax system obtaining, and the definite situation involved. When figures on the same subject reported independently by two or more officials were found to be in disagreement, the discrepancies were cleared up by correspondence, and the figures most reliable, consistent with other available data in the state, were used.

State by State Distribution of Federal Tax Collections

The state by state distribution of federal tax collections in Table 33 was estimated by adding the customs duties, prorated on a population basis, to the collections in each state reported by the Bureau of Internal Revenue. The totals in Table 33 differ from the federal tax collections in Table 28 for three reasons:

1. Some of the collections entering the Bureau of Internal Revenue reports at the close of the fiscal year are not recorded in the treasury accounts until the beginning of the succeeding fiscal year.
2. Refunds are not accounted for by states and are therefore not deducted in Table 33.
3. Federal taxes from territorial possessions of the United States are included in Table 28, but these territories are not included in Table 33.

APPENDIX C

FOOTNOTES TO TABLE 35

Maine.—Property and poll taxes from letter of Board of State Assessors, dated February 14, 1927. Other taxes estimated on basis of 1922 ratio, United States Bureau of the Census, "Wealth, Debt and Taxation: Tax Collections—1922."

New Hampshire.—Total taxes from annual reports of State Tax Commission and letter from the Commission to the Conference Board, dated January 26, 1927.

Vermont.—Property and poll taxes from biennial reports of Commissioner of Taxes. Other taxes estimated on basis of 1922 ratio.

Massachusetts.—For 1924 and 1925, property, poll, income and corporation taxes, from annual reports of the Commissioner of Corporations and Taxation, Licenses and permits from reports of Statistics of Municipal Finance. For 1926, property and poll taxes from letter of Commissioner of Corporations and Taxation, dated January 25, 1927. Taxes on income, corporations, licenses and permits estimated on basis of trend over period of years.

Rhode Island.—Property taxes from letter of Board of Tax Commissioners dated January 17, 1927; polls estimated by 1922 ratio to property taxes. Licenses estimated by data for cities over 30,000. Special district taxes estimated by ratio to total taxes in 1922. Licenses for 1926 estimated by trend over period of years.

Connecticut.—Data from annual reports of the State Tax Commissioner on "Information on Collection of Taxes" and biennial reports. The greater accuracy of the 1925 data accounts, in part, for the apparently larger increase in 1925 and also for the apparently small increase between 1922 and 1924.

New York.—For 1924 and 1925, all data from annual reports of State Comptroller on "Municipal Accounts" and annual reports of State Tax Commission. For 1926, property taxes from "Annual Report of State Tax Commission, 1925" and letter from the Commission dated January 29, 1927. Other taxes estimated on basis of trend over period of years in property taxes and in other taxes.

New Jersey.—For 1924 and 1925, annual reports of State Board of Taxes and Assessments. For 1926, property taxes from "Annual Report of State Board of Taxes and Assessments, 1925." Other taxes estimated from available samples.

Pennsylvania.—For 1924 and 1925, property taxes from Department of Internal Affairs, Bureau of Statistics and Information. Other taxes estimated on basis of 1922 ratio and data from "Financial Statistics of Cities." For 1926, municipal property tax levies obtained from "Financial Statistics of Cities, 1925." Other taxes estimated on basis of trend in municipal taxes over period of years, corrected on basis of relation of municipal property tax increases and total tax increases.

Ohio.—Total taxes from annual reports of State Tax Commission, and annual reports of State Auditor.

Indiana.—Property taxes from annual statistical reports of Indiana Legislative Bureau, annual reports of State Board of Tax Commissioners and letter from State Board dated January 27, 1927. Other taxes estimated on basis of 1922 ratio.

Illinois.—Property taxes from biennial reports of State Auditor, "Taxes Extended," corrected by annual estimate of delinquencies. Other taxes estimated on basis of 1922 ratio.

Michigan.—Property taxes from biennial reports of State Tax Commission and letter from the Commission of January 18, 1927. Municipal licenses estimated on basis of data for cities over 30,000 and ratio in 1922. Other taxes from biennial reports of Auditor General. Municipal licenses for 1926 estimated on basis of trend over period of years.

Wisconsin.—All taxes from data prepared by Wisconsin Tax Commission, for its biennial report, 1926, and letter from the Commission of April 5, 1927.

Minnesota.—Property taxes from Minnesota Tax Commission and State Auditor's reports. For 1924 and 1925, municipal licenses on basis of cities over 30,000 and 1922 ratio. Inheritance, vessel tonnage and railroad gross earnings taxes from Auditor's reports. Other taxes on basis of 1922 ratio. For 1926, all other than property taxes on basis of trend over a period of years in relation to property tax trend.

Iowa.—All taxes from Auditor's annual reports on "Valuation and Taxes" and on "Municipal Accounts." The State Auditor's data show \$6,558,000 more in 1922 local tax collections than the Bureau of the Census report. This accounts for almost all of the apparent increase between 1922 and 1924.

Missouri.—County and school district, general and special property taxes from biennial reports of State Auditor. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated on basis of 1922 ratio.

North Dakota.—Property taxes from reports of State Tax Commission. Other taxes estimated by 1922 ratio.

South Dakota.—Property, poll and dog taxes from reports of Department of Finance, Division of Taxation. Inheritance taxes for 1924 and 1925 equal one-ninth of state's share as reported in "Financial Statistics of States"; for 1926, estimated by trend over period of years. License taxes for all years estimated by ratio to property taxes in 1922.

Nebraska.—Property and polls from reports of State Tax Commission. Other taxes estimated by ratio in 1922.

Kansas.—Property and dog taxes from reports of State Tax Commission and letter from Public Service Commission dated January 31, 1927. Local inheritance taxes are one-ninth of state's share. Polls and licenses estimated by ratio in 1922.

Delaware.—All taxes for 1924 and 1925 from "The Fiscal Problem in Delaware," National Industrial Conference Board, 1927. For 1926, all county and town taxes from "The Fiscal Problem in Delaware." Other taxes estimated by ratio of county and town taxes to total over a period of years.

Maryland.—General and special property taxes from biennial reports of State Tax Commission, computed from tax rates and assessed valuations. Baltimore licenses for 1924 and 1925 from "Financial Statistics of Cities"; other taxes estimated from 1922 ratio. For 1926, Baltimore licenses and other taxes estimated by ratio to total over period of years.

District of Columbia.—All taxes for 1924 and 1925 from "Financial Statistics of Cities"; for 1926, from "Finances of the District of Columbia," by the Auditor.

Virginia.—County property taxes from reports of State Accountant on "Comparative Cost of Local Government." Local poll, gasoline, inheritance and dog taxes from biennial reports of State Auditor. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated by ratio in 1922.

West Virginia.—Property taxes from reports of State Tax Commission. Other taxes estimated by ratio in 1922.

North Carolina.—All taxes for 1924 and 1925 from annual reports of Commissioner of Revenue; for 1926, estimated on basis of trend over period of years.

South Carolina.—County and school district property taxes and gasoline taxes from reports of Comptroller-General. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated by 1922 ratio.

Georgia.—General and special property taxes from annual reports of Comptroller-General, computed on basis of average rates on property of railroads and other public utilities. Other taxes estimated by ratio in 1922.

Florida.—County and school district property, gasoline and motor vehicle taxes from Comptroller's annual reports. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated by ratio in 1922.

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Kentucky.—Estimates from sample of counties and cities obtained by questionnaire and from "Financial Statistics of Cities."

Tennessee.—County property taxes from biennial reports of Department of Finance and Taxation. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated by ratio in 1922.

Alabama.—Estimated from sample of cities and counties obtained by questionnaire and from "Financial Statistics of Cities."

Mississippi.—County taxes for 1924 from Biennial Report of State Auditing Department. All other taxes, and all taxes for 1925 and 1926, estimated from sample obtained by questionnaire.

Arkansas.—Estimated from sample of counties and cities obtained by questionnaire and from "Financial Statistics of Cities."

Louisiana.—County and civil district property taxes from annual reports of State Tax Commission. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated by ratio in 1922.

Oklahoma.—Estimated from sample of counties and cities obtained by questionnaire and from "Financial Statistics of Cities."

Texas.—Estimated from sample of counties and cities obtained by questionnaire and from "Financial Statistics of Cities."

Montana.—Property, poll and motor vehicle license taxes obtained from biennial reports of State Board of Equalization. Other taxes estimated by ratio in 1922.

Idaho.—Property taxes from biennial reports of Auditor of State and telegram from the Auditor of April 13, 1927. Other taxes estimated by ratio in 1922.

Wyoming.—Property taxes from biennial reports of State Board of Equalization. Polls as in 1922. Licenses and permits estimated on basis of trend of state taxes on same subjects over period of years.

Colorado.—For 1924 and 1925, property, poll, gasoline and motor vehicle taxes from biennial reports of State Auditor. Other taxes estimated on basis of "Financial Statistics of Cities" and ratio in 1922. For 1926, taxes estimated on basis of "Financial Statistics of Cities" and trend over a period of years.

New Mexico.—Property taxes from biennial reports of State Tax Commission. Other taxes estimated by ratio in 1922.

Arizona.—Property taxes from biennial reports of State Tax Commission. Other taxes constant.

Utah.—Property taxes from biennial reports of State Auditor. Other taxes estimated by ratio in 1922.

Nevada.—Property taxes from annual reports of State Controller and "County and City Budgets" filed with State Tax Commission. Other taxes estimated by ratio in 1922.

Washington.—Property taxes from annual reports of Division of Municipal Corporations. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated by ratio in 1922.

Oregon.—Property taxes from State Tax Commission's published data. Cities over 30,000 from "Financial Statistics of Cities." Other taxes estimated by ratio in 1922.

California.—For 1924 and 1925, all taxes from annual reports of State Controller on "Financial Transactions of Municipalities and Counties" and letter from State Controller dated January 25, 1927. For 1926, property taxes from letter dated January 25, 1927. Other taxes estimated by ratio to total over a period of years.

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