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Public Revenue in Ohio With Especial Reference to Rural Taxation

H. R. Moore and J. I. Falconer



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PUBLIC REVENUE IN OHIO WITH ESPECIAL REFERENCE TO RURAL TAXATION

H. B. MOORE AND J. I. FALCONER

INTRODUCTION

Taxation is of interest to farmers, since taxes make up one of the major items of expense of the farm business, since funds thus derived provide services desired by farmers and others, and since, as citizens, farmers are called upon to help decide taxation problems. It was with this in mind that the material in this bulletin was assembled.

The publication, it is hoped, presents information which will assist to an understanding of the separate parts of the tax system of Ohio and of how each part has functioned in the scheme of the entire system. There are many ramifications and details that will not be touched upon, but such elements as are discussed contain the fundamentals upon which must rest the more intricate workings of the fiscal system.

In the pages that follow the tax system of the state and local units of government has been considered, whenever possible, from the standpoint of the revenue involved over a period of years. By so doing, the fluctuations in collections and expenditures that may occur in any particular year are not misconstrued and the relative importance of the different revenue sources are better established. Thereby some of the more recent changes in the tax system are assigned their relative importance in a definite way.

It is hoped the information contained herein will aid in a clearer conception of the volume of taxation, the sources of the revenue, the administration of the funds, and their ultimate uses.

FEDERAL INTERNAL REVENUE COLLECTED IN OHIO

All units of our government—Federal, State, county, township, school district, and municipality—collect and use public revenue. Taxation by each of these will be discussed in turn.

Table 1 has been inserted to indicate the volume of Federal collections of internal revenue¹ in Ohio. A comparison of the

¹Ordinary receipts of the Federal Government come from customs duties collected at ports of entry and from internal revenue.

aggregate sums collected annually from 1913 to 1926 (Table 1) makes evident the expansion of collections to defray war costs and the subsequent contraction in the post-war years.

TABLE 1.—Collections of Federal Internal Revenue in Ohio 1913-1926

Year	Total	Per capita
1913.....	\$ 25,169,597	\$ 4.99
1914.....	25,031,262	4.86
1915.....	27,418,293	5.22
1916.....	33,743,476	6.31
1917.....	51,340,223	9.42
1918.....	300,816,780	54.15
1919.....	260,005,895	45.96
1920.....	373,746,485	64.89
1921.....	285,658,533	48.54
1922.....	192,301,680	32.13
1923.....	148,486,487	24.27
1924.....	153,524,833	24.48
1925.....	142,497,084	22.29
1926.....	155,755,623	23.87

Derived from the Annual Reports of the Secretary of The Treasury of The United States.

The greater part of this internal revenue comes from the Federal income tax. The 1926 Federal collections in Ohio were 70 percent from the income tax and 30 percent from miscellaneous internal revenue. The actual amounts collected from these sources were:

Federal income tax	\$109,070,914
Miscellaneous internal revenue	46,684,708
Total	\$155,755,622 ²

The miscellaneous internal revenue came from the following sources: distilled spirits, fermented liquors, tobacco, estate tax, manufacturers and products tax, sales (consumers' or dealers'), stamps, playing cards, oleomargarine, opium and narcotics, corporation (capital stock) tax, occupational (special) taxes, admissions, dues, and receipts from the national prohibition act.

REVENUE COLLECTED IN OHIO FOR THE USE OF STATE AND LOCAL UNITS OF GOVERNMENT³

Next to be considered will be the total revenue collected by the state and local units of government from 1913 to 1926.

²Report of Secretary of The Treasury, 1926, p. 478.

Footnote: Expenditures of Federal Funds.—The disposition of all ordinary receipts collected by the Federal Government in 1926 was as follows: civil and miscellaneous purposes, 23.57%; War Department, 10.19%; Navy Department, 8.86%; Indians, 1.38%; Veteran's Bureau and pensions, 17.39%; postal deficiencies, 1.12%; interest on public debt, 23.64%; public debt retirements, 13.85%. It is reasonable to assume that the Federal internal revenue collected in Ohio was spent according to the above apportionment. As calculated above, 73.93% of all ordinary receipts by the Federal government is traceable to expenditures for the public defense or expenditures caused by past wars. In other words, Ohio contributed thru revenue collected within the State, \$115,000,000 in 1926 for purposes directly attributable to war. This amount was practically the same as the revenue income of all local school districts in Ohio in 1926. (For discussion of Federal grants to Ohio, see page 10).

³Earnings of municipal general departments and municipal public service enterprises excluded.

Total collections of revenue for the support of state and local governments are indicated in Table 2. The period covered by the table was a time of rapid rise in taxation. If this table were duplicated by one for the period 1900 to 1913 the upward trend would be seen to be much less rapid in the earlier period than it was from 1913 to 1926. In other words, the fourteen years from 1913 to 1926 cover a time of transition in costs and in amount of service rendered. The data for 1924, 1925, and 1926 seem to indicate that a new level in fiscal expenditure has been reached and that the normal trend will in all likelihood continue upward but at a less rapid rate. The abnormal conditions attending the war period are no longer predominant factors in the increasing costs of government. But the evidence of all modern governments indicates rather definitely the tendency of the people to purchase collectively thru the agency of government, services formerly supplied either by private enterprise or not at all.

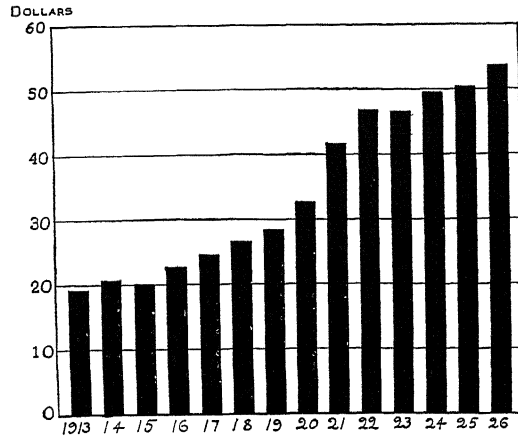


Fig. 1.—Amount of revenue per capita collected to support state and local government in Ohio, 1913-1926

TABLE 2.—Total and Per Capita Revenue Collected for Support of Ohio Governments with Relative Increase in Collections, 1913-1926

Year	Total collections		Per capita collections	
	Dollars	Relative increase (1913=100)	Dollars	Relative increase (1913=100)
1913	96,952,000	100	19.21	100
1914	107,009,000	110	20.79	108
1915	105,058,000	108	20.02	104
1916	121,348,000	125	22.68	118
1917	133,558,000	138	24.49	127
1918	147,458,000	152	26.55	138
1919	160,428,000	165	28.36	148
1920	187,516,000	193	32.56	169
1921	246,324,000	254	41.85	218
1922	280,495,000	289	46.86	244
1923	285,533,000	295	46.67	243
1924	309,814,000	320	49.40	257
1925	321,079,000	331	50.22	261
1926	349,164,000	360	53.52	279

Derived from the Annual Reports of the Auditor of Ohio.

Total revenue collections increased 260 percent in the fourteen years, 1913 to 1926, inclusive. Per capita collections in this period increased 179 percent. It is evident that part of the increase in amount of revenue collected must be ascribed to population increase. The remaining part of the increase was due to changing prices and the larger amount of service rendered. These factors will be considered later (See Indices of Tax Levies page 38).

SOURCES OF STATE AND LOCAL REVENUE

The revenue system of Ohio was founded largely on the theory that property ownership is the just basis of taxation; and it was argued that the amount of property owned regulates or measures the amount of benefit a person receives from the government and,

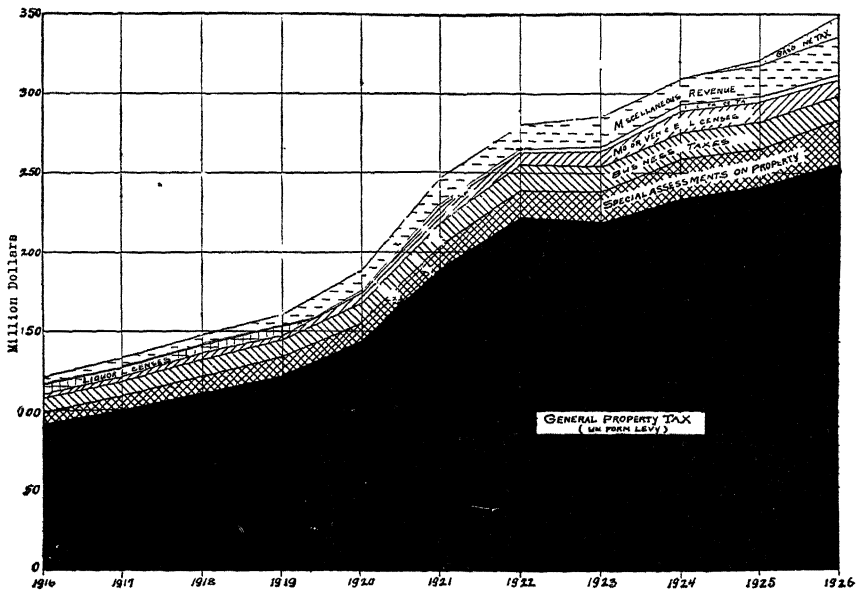


Fig. 2.—Revenue collected from the various sources for support of state and local government in Ohio from 1916 to 1926

from the standpoint of ability, that the amount of property owned by a person is a measure of his ability to pay taxes. The result was the placing of the uniform rule of property taxation in the state constitution in 1851. With the exception of a few minor changes the same rule is in effect today. More service was demanded from time to time and new taxes have been developed to help meet the cost. The most important of these taxes are the corporation

franchise tax, the corporation excise taxes, the inheritance tax, the motor fuel excise tax, and various fee and license taxes intended partly to be regulatory and partly to be producers of revenue.

These taxes and the other sources of revenue are listed in Table 3 with the percentage of the total collection which came from each source from 1916 to 1926.

Brief comment will be made on each of the sources of revenue listed in Table 3.

General property tax.—The general property tax may be defined as a tax in which the base is the entire amount of property real and personal owned by the taxpayer. Some exceptions must be made. A personal exemption (subject to legislative enactment) up to \$500 is allowed by the state constitution of 1912. Under this authority a \$100 exemption is allowed on personal property. Certain properties used for benevolent or public purposes are tax exempt. Bonds issued before 1913 by civil units within the state are tax exempt. Certificates of stock issued by Ohio corporations are tax exempt. Timber lands, subject to certain conditions, are assessed at one-half the true value. These are the more important exceptions to the uniform rule defined and applied in Ohio to real estate and to personal property, both tangible and intangible.

Special assessments.—Special assessments are in the nature of a fee, but their use has given them a special significance. Seligman has defined a special assessment as “a compulsory contribution paid once and for all to defray the cost of a specific improvement to property undertaken in the public interest and levied by the government in proportion to the special benefits accruing to the property owner.”

A wide use of special assessments has been made in Ohio. The earlier development was in the use of special assessments in defraying the cost of urban improvements. The construction of improved highways has introduced special assessments to wider rural use. While limiting the special assessment to the actual benefit accruing to the property is the theory, the difficulty lies in measuring the assumed benefit. Up to 1927, special assessments were levied only by counties, townships, and municipalities to help defray the local expense of improvements. In 1927 the state was given the authority to levy special assessments for highway improvement.

The inheritance tax.—The inheritance tax is by nature a special tax on property. The levy is made at the occasion of the death of a property owner. Collateral heirs have been taxed since

TABLE 3.—Revenue Collected in Ohio for State and Local Government, by Source, 1916-1926

Year	Total	Derived from												
		General property tax	Special assessments on property	State inheritance tax	Corporation franchise tax	Public utility excise tax	Insurance company fees and assessments	Motor vehicle license tax	Gasoline tax	Cigarette license tax	Liquor license tax	Liquor law fines	Miscellaneous fees, fines and receipts, state and local	Federal aid tax
	<i>Dollars</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
1916	121,348,000	74.65	7.10	0.31	2.22	2.64	1.30	1.81	.....	0.10	5.09	.....	4.56	0.22
1917	133,558,000	74.97	7.42	.50	2.08	2.82	1.29	1.31	.....	.11	4.02	.....	5.28	.20
1918	147,458,000	75.24	6.95	.39	2.13	2.93	1.27	1.46	.....	.12	3.99	.....	4.85	.67
1919	160,428,000	76.21	6.61	.46	2.30	3.05	1.38	1.52	.....	.12	3.20	.....	4.48	.67
1920	187,516,000	76.98	6.15	.47	2.15	3.00	1.32	2.69	.....	.39	.12	.....	5.71	1.02
1921	246,324,000	77.00	5.33	1.16	1.97	2.58	1.19	3.39	.....	.32	.....	.14	5.07	1.85
1922	280,495,000	78.74	5.61	1.06	2.09	2.92	1.27	2.63	.....	.28	.....	.43	3.62	1.35
1923	285,533,000	76.44	6.31	.93	2.13	2.18	1.25	2.75	.....	.28	.....	.83	5.66	1.24
1924	309,814,000	75.70	6.74	.93	2.10	2.38	1.21	4.38	.....	.26	.....	.97	3.90	1.43
1925	321,079,000	75.24	7.73	1.23	1.75	2.30	1.37	3.73	1.10	.27	.....	.70	3.52	1.06
1926	349,164,000	73.25	8.30	1.14	1.31	1.99	1.31	3.00	3.63	.25	.....	.53	4.35	.94

Derived from the Annual Reports of the Auditor of Ohio.

1904, but direct heirs were not taxed until 1919. The Ohio constitutional law adopted in 1912 provided for "taxation of the right to receive or succeed to, estates, . . ." But, as indicated above, the present inheritance tax was not fully developed until 1919, and the full income producing effectiveness was not established until 1921.

Revenue from the inheritance tax is divided one-half to the state and one-half to the municipality or township which was the residence of the deceased; or, in case of real property inheritance, the municipality or township in which such property is located, receives the local share. The cost of collection is deducted from the share going to the state. In 1927 the inheritance tax was broadened by the addition of a so-called estate tax on the entire estate, before division among the heirs.

Corporation franchise tax.—This franchise tax is a tax on the right to be a corporation and to do business under corporate management. The annual corporation franchise tax was introduced in Ohio in 1902. "For domestic corporations (Ohio companies), this tax is on the privilege of doing business under corporate form and for foreign corporations upon the privilege of doing business within the state". The corporation franchise tax is a so-called business tax. All revenue it produces, goes to the state general revenue fund.

Public utility excise tax and motor fuel excise tax.—Excises are indirect taxes levied on goods produced or consumed within certain territorial limits. Such taxes are called indirect because the taxpayer is not, at least in part, theoretically, the taxbearer. That is, the person who pays the tax is able to reimburse himself, by passing the burden on to some one else. Perhaps, as clear an illustration of this as can be given is the gasoline tax which is paid by dealers directly, but by consumers indirectly.

Public utility excise taxes are not so plain, because the goods produced by a public utility are often in the form of services, as transportation by railroads or communication by telegraphs or telephones. Public utility excises are for state revenue only.

The gasoline excise tax was introduced in Ohio in 1925. In 1926, the first full year of operation, the 2-cent tax yielded more than 12 million dollars. The 3-cent motor-fuel tax introduced in 1927 is yielding proportionately more. The revenue is divided, first $\frac{1}{3}$ to state road construction, then the remaining $\frac{2}{3}$ is divided 45 percent to the state, 30 percent to municipalities, and 25 percent to counties and is available for use only on roads or streets for maintenance and repair.

Insurance company taxes and fees.—Foreign insurance companies are required to pay an annual tax of 3 percent of the gross premiums on risks within the state. For domestic insurance companies the rate is one-half of 1 percent on gross premiums. Additional fees are collected from all insurance companies to cover the cost of state supervision. The revenue collected goes to the state general revenue fund.

Motor vehicle license tax and motor transportation tax.—This tax was originally introduced 1908 as a small tax to cover the cost of licensing motor vehicles for purposes of regulation. It has grown into an important source of revenue. The funds are divided equally between the state and the municipality or county in which the vehicle licensed is registered. The funds are available only for road or street maintenance and repair. A heavier tax applies to motor vehicles carrying passengers or goods for hire and is called the motor transportation tax. One-half of this tax goes to the state, and one-half is apportioned to the counties and municipalities according to the mileage of motor routes in each civil unit.

Cigarette license tax.—The cigarette license tax, wholesale and retail, yields a little less than a million dollars yearly. Three-fourths of this money goes to the state and one-fourth is used locally, being divided, one-eighth to county and one-eighth to the township or municipality in which the dealer paying the tax is located.

Liquor license tax.—The income producing value of this tax is practically nil since the adoption of prohibition. Previous to 1920 it produced between five and six million dollars annually. One-half of this money was for state use and one-half was retained locally.

Liquor law fines.—Fines, under the Crabbe Act, have in part replaced the saloon license tax as a source of income. Altho the primary intent of such fines was to suppress violation of the law, the amount of revenue so raised has averaged more than two million dollars annually for the last five years. The revenue from these fines goes, one-half for local use and one-half for state use.

Miscellaneous fees, fines and receipts, state and local.—State and local units have numerous comparatively small items of income, which, however, in the aggregate are quite important. These are analyzed in more detail when state and local revenues are discussed separately.

Federal grants.—Subventions and grants are amounts contributed by one civil division to another to aid in the support of specified functions. Subventions and grants from the Federal

government have been mainly for "Federal aid" roads in the state road system, education, agriculture, and health. Aid for education and roads is by far the largest item. The total grants coming to Ohio the last few years have been about three million dollars annually, which is a little less than 1 percent of the total revenue for state and local purposes.

The listing in Table 3 of taxes and other sources of revenue enables the reader to judge their relative fiscal importance in the revenue system of the state and local civil units considered as a whole. Chart 2 presents graphically the amount of revenue derived from these sources from 1916 to 1926.

TABLE 4.—Percentage Division of Revenue Between State and Local Governments in Ohio, 1913-1926

Year	State government	Local governments
	<i>Percent</i>	<i>Percent</i>
1913.....	16	84
1914.....	19	81
1915.....	11	89
1916.....	16	84
1917.....	16	84
1918.....	16	84
1919.....	16	84
1920.....	17	83
1921.....	20	80
1922.....	19	81
1923.....	19	81
1924.....	17	83
1925.....	14	86
1926.....	14	86

Comparison of state and local revenue collections from 1913 to 1926 indicates that the state government has collected, roughly, 16 percent and the local civil units 84 percent of the total revenue. Somewhat more or less than 16 percent of the revenue has been collected by the state in specific years as indicated by Table 4.

FUNDS COLLECTED BY THE STATE GOVERNMENT

The sources of the public funds were described above with no very definite distinction between state and local revenue, the purpose being to disclose the importance of the various sources of the public funds.

State revenue will now be considered from the standpoint of collections made by the state from 1913 to 1926. The sums collected each state fiscal year from indirect taxes and miscellaneous sources are separated in Table 5 from collections from state general property tax levies. A similar division is made in the same table to show the percentage of state revenue which was derived from the general property tax and from the other sources.

Difficulties in equitable distribution of the burden of the state general property tax has encouraged the policy of leaving property taxation entirely for local financing. This has never been fully accomplished. But, if no new levies are made in the meantime, state general property tax levies will cease when the World War compensation bonds are all retired in 1932. The World War compensation fund was the only state expense financed by a state property tax levy in 1924, 1925, and 1926. Other property tax collections by the state in the period covered by Table 5 were for aid to the state road construction fund, the State University and normal school fund, state sinking fund, and state common school fund.

TABLE 5.—Revenue Collected by the State Government 1913-1926

Year	Indirect taxes and income from miscellaneous sources		General property tax		Total state revenue
	Dollars (Thousands, i. e., 000 omitted)	Percent of total state revenue	Dollars (Thousands, i. e. 000 omitted)	Percent of total state revenue	Dollars (Thousands, i. e. 000 omitted)
1913.....	12,700	81.53	2,878	18.47	15,578
1914.....	14,272	69.47	6,272	20.53	20,544
1915.....	9,852	84.62	1,690	15.38	11,642*
1916.....	15,937	83.11	3,239	16.89	19,176
1917.....	17,560	83.97	3,351	16.03	20,911
1918.....	20,062	84.67	3,633	15.33	23,695
1919.....	20,819	84.16	3,918	15.84	24,737
1920.....	26,422	83.64	5,170	16.36	31,592
1921.....	35,356	70.16	15,038	19.84	50,394
1922.....	35,560	67.56	17,076	32.44	52,636
1923.....	40,395	75.31	13,246	24.69	53,641
1924.....	41,607	81.35	9,538	18.65	51,145
1925.....	41,178	92.68	3,254	7.32	44,432
1926.....	45,668	93.64	3,104	6.36	48,772

*The 1915 State fiscal year was only 7½ months, Nov. 16, 1914 to June 30, 1915.
Derived from the Annual Reports of the Auditor of Ohio.

State revenue classified according to nature of the source.— State revenue comes partly from taxes and partly from other sources. The business of the state government is so complicated that a listing of each separate source would result in confusion. Table 6 has been inserted to give an idea of the nature of the sources of state revenue.

As calculated in Table 6, approximately two-thirds of the revenue administered by the state government in 1926 was tax revenue. The remaining third was obtained thru transactions of such nature that the payments to the state were not, strictly speaking, tax payments. These will be explained briefly.

TABLE 6.—Sources of State Revenue With Amount and Percent Collected From Each Source in 1926, Classified to Indicate Nature of Source

Revenue source	Dollars	Percent
1 Taxes	34,653,030	67.8
2 Earnings of general departments	5,387,004	10.5
3 Grants, donations, and pension assessments	5,055,759	14.5
4 Fines, forfeits, and escheats	966,760	1.9
5 Rents and interest	2,452,852	4.8
6 Earnings of public service enterprises	255,336	.5
Total	48,772,123	100.0

Derived from Financial Statistics of State, 1926, page 64, Table 3.

1. *Earnings of general departments.*—These earnings come from transactions that are mainly contractual in nature as distinguished from taxes that are compulsory payments. That is, services, rents, and sales by the departments involve the giving of something directly of equivalent value for the payment received.

2. *Grants, donations, and pension assessments.*—Grants of public money come to the state treasury from the Federal government and from civil divisions within the state (See page 10 for discussion of Federal grants). In 1926, school districts contributed \$2,373,852 to the teachers' retirement fund held in trust by the state. Pension assessments amounting to \$1,717,776 were received from teachers for the same fund. Donations in 1926, from persons contributing sums for certain uses, amounted to \$48,487.

3. *Fines, forfeits, and escheats.*—In 1926 the state received \$966,760 in court fines and forfeits and \$1,382 in escheats. An escheat is the reversion of property to the state as, for example, in case of a deceased property holder with no heirs.

4. *Rents and interest.*—The state receives a small rental income annually from school and ministerial lands. This income accrues to the school and ministerial trust funds, which are distributed under certain legal provisions for educational and religious purposes. In 1926 these rentals amounted to \$31,409. Interest on sinking funds, public trust funds, and current funds in depositories that year amounted to \$2,421,443.

5. *Earnings of public service enterprises.*—The state income from this source is limited to various rentals derived from the 690 miles of canals and feeders in the Ohio Canal System and the five large reservoirs connected therewith.

To make plain just where the state tax income is derived, the tax sources are classified in Table 7. The objects upon which the taxes were levied and the amounts collected in 1926 are listed. For a discussion of the various taxes, see sources of State and Local Revenue, page 9.

TABLE 7.—Sources of Tax Revenue Collected for State Use and Amount Collected in 1926

Tax source	Dollars	Percent
General property tax.....	3,103,533	9.0
Inheritance tax.....	2,099,252	6.1
Corporation franchise tax.....	4,578,906	13.2
Public utility excise tax:		
Gas and natural gas companies.....	\$ 671,159	
Electric light companies.....	1,043,076	
Express companies.....	60,852	
Heating and cooling companies.....	1,896	
Messenger and signal companies.....	8,422	
Pipe line companies.....	66,763	
Sleeping car, freight lines and equipment.....	132,625	
Steam railroads.....	3,500,893	
Telegraph.....	20,140	
Telephone.....	532,499	
Union depot.....	7,165	
Water transportation.....	3,463	
Water works.....	18,250	
Electric railroads.....	875,661	
Excise tax collected by attorney general.....	10,979	
	6,953,845	20.1
Insurance company fees and assessments.....	4,566,008	13.2
Motor vehicle license tax.....	5,102,388	14.7
Gasoline excise tax.....	5,478,209	15.7
Cigarette license tax.....	641,590	1.9
Miscellaneous licenses and fees.....	2,129,299	6.1
Total.....	34,653,030	100

FUNDS COLLECTED BY THE LOCAL UNITS OF GOVERNMENT

Property taxation is the main source of revenue for the county, township, school district, and municipality. In 1926, 84 percent of all local revenue accounted for in The Auditor of State's Report was secured by uniform levies on property. Special assessments and property taxes combined, totaled nearly 95 percent of all local revenue listed that year in The Auditor of State's Report.

Table 8 presents the property taxes, assessments, and miscellaneous revenue collected by the local units of government from 1913 to 1926. The distribution of the property taxes, assessments, and miscellaneous revenue is given in percentages of the total revenue reported. But it should be observed that numerous small items of income were not assembled by the state in years past. As a result, a satisfactory account of all miscellaneous local revenue is not available for the period 1913-1926.

TABLE 8.—Revenue Collected by the Local Units* of Government in Ohio, 1913-1926

Year	Total	Derived from general property tax by—					Derived from special assessments by—				Miscellaneous revenue by all local government
		County	Township	School district	Municipality	All local governments	County	Township	Municipality	All local governments	
	<i>Dol.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
1913	81,374,000	20.14	5.61	29.30	27.14	82.19				8.46	9.35
1914	86,464,000	21.43	5.74	30.05	27.65	84.86				8.43	6.71
1915	93,515,000	21.16	6.75	31.14	28.75	87.81				8.14	4.05
1916	102,171,000	21.51	6.57	31.00	26.40	85.48				8.44	6.08
1917	112,648,000	21.62	7.45	30.69	26.16	85.92				8.80	5.28
1918	123,765,000	21.46	7.30	31.93	26.00	86.70				8.28	5.02
1919	134,952,000	21.15	7.31	32.65	26.61	87.72	1.79	.25	5.83	7.87	4.41
1920	155,924,000	21.46	7.24	35.91	24.64	89.25	1.77	.49	5.14	7.40	3.35
1921	195,931,000	21.65	6.35	35.49	25.66	89.15	1.48	.36	4.86	6.70	4.15
1922	227,858,000	18.78	5.63	39.64	25.37	89.42	1.68	.33	4.90	6.91	3.67
1923	232,380,000	17.79	5.61	40.01	24.79	88.19	1.93	.36	5.47	7.76	4.05
1924	258,669,000	17.72	5.20	40.06	23.96	86.95	2.17	.29	5.61	8.07	4.98
1925	276,750,000	17.16	5.10	39.89	24.00	86.15	2.45	.25	6.27	8.97	4.88
1926	300,393,000	17.19	4.56	38.28	24.09	84.12	2.63	.23	6.79	9.65	6.23

*County, township, school district and municipality.
Derived from the Annual Reports of the Auditor of Ohio.

Revenue of local units compared.—The percentage distribution given in Table 8 indicates that the relative amount of local revenue collected by counties, townships, and municipalities remained fairly constant from 1913 to 1926.

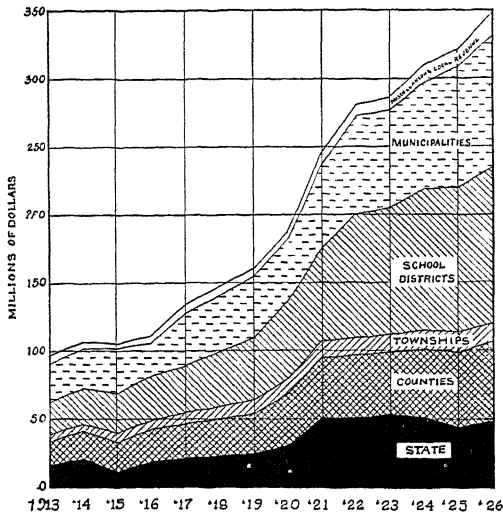


Fig. 3.—Revenue collected by the various units of government in Ohio, 1913-1926

But school taxes in this period rose from 29 to 38 percent of the total local revenue assembled in Table 8. This is, school costs increased at a faster rate than other costs. Reference to Figure 3 will assist in judging the rapidity with which school taxes increased.

In rural communities the county is preeminently the most important administrative unit of local government. City governments have broad functions; but even in urban centers, the county is important, for all general property taxes are levied, collected, and distributed thru the agencies of the county auditor and treasurer.

TABLE 9.—Tax Revenues for County Purposes 1916 and 1926

Revenue source	1916		1926	
	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>
General property tax.....	22,203,712.06	85.07	51,643,554.62	70.06
Special assessments.....	2,958,908.58	11.34	8,777,082.39	11.91
Miscellaneous.....	936,439.11	3.59	13,293,975.39	18.03
Total.....	26,099,059.75	100	73,714,612.40	100

Derived from Ohio Comparative Statistics 1916, page 25 and 1926, page 7.

Approximately one-fourth of all local revenue is for county purposes. The amounts of county property taxes and assessments for 1913 to 1926, inclusive, are given in Table 8. But no division could be made for this entire period to cover miscellaneous county revenue on account of insufficient data. Table 9 gives a more complete accounting for county income in 1916 and 1926.

That county outgo may be compared with county income, Table 10 shows the net expenditures for the various purposes in 1916 and 1926.

TABLE 10.—Net Expenditure by the 88 Ohio Counties, 1916 and 1926

Object of expenditure	1916		1926	
	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>
Appraising property.....	712,323.32	3	1,408,971.85	2
General executive.....	3,538,645.43	12	6,222,360.85	8
Judicial.....	1,621,554.42	6	2,558,385.19	3
Sheriff.....	327,378.28	1	784,466.37	1
Correctional.....	700,077.91	3	1,152,996.93	1
Agricultural.....			584,241.01	1
Inspection.....	72,431.29			
Charity.....	3,950,976.71	14	9,054,027.49	11
Engineering.....	691,061.56	2	2,419,745.50	4
Roads.....	6,880,742.79	24	34,427,251.52	43
Bridges and culverts.....	3,531,382.73	12	3,365,677.85	4
Ditches.....	769,086.97	3	720,552.05	1
Sewers, sanitary and water.....			5,525,530.18	7
Buildings and lands.....	2,064,166.49	7	4,236,352.65	5
Soldiers' relief.....	676,643.04	2	544,230.75	1
Miscellaneous.....	1,106,077.65	4	790,070.41	1
Interest.....	2,003,805.91	7	5,716,338.45	7
Total cost.....	28,646,354.50	100	79,521,199.05	100

Derived from Ohio Comparative Statistics 1916, page 11 and 1926, page 15.

Figure 4 illustrates the comparative importance, from the standpoint of costs, of the main functions performed by the county, 1913 to 1926. The outstanding items in Figure 4 are roads and bridges, which, combined, accounted for 36 percent of the total county expenditures in 1916 and 47 percent in 1926 (Table 10). Table 11, upon which Figure 4 is based, shows the property taxes levied by counties for the more important purposes from 1912 to 1926.

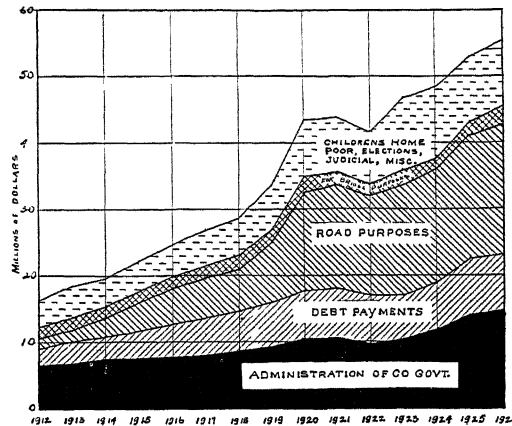


Fig. 4.—Property taxes levied for various county purposes, 1912-1926

Township taxes are comparatively small, for, even in the more rural communities, the functions performed are limited. With the growth of improved communication the tendency has been to centralize in the county government functions that were formerly performed by the town-

TABLE 11.—Property Taxes Levied for Various County Purposes 1925-26*

(Thousands, that is 000 omitted)

	Administration of county government	Debt payments	Road purposes	Bridge purposes	Judicial	Children's home	Poor	Elections	Miscellaneous	Total
	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>
1912	6,559	2,347	1,477	1,723	587	780	855	3,508	16,394	
1913	6,727	3,233	1,676	2,169	573	855	855	3,289	18,536	
1914	7,150	3,731	2,522	1,838	573	434	474	2,796	19,792	
1915	7,200	4,438	4,082	1,658	701	540	537	400	22,398	
1916	7,597	5,123	5,206	2,025	733	678	612	296	24,885	
1917	7,926	5,756	5,818	2,008	708	713	724	553	27,174	
1918	8,628	5,993	6,487	2,146	693	863	1,118	370	28,940	
1919	9,288	6,438	9,170	1,856	599	959	1,661	638	33,846	
1920	10,430	6,760	14,978	2,257	624	1,106	1,818	1,008	43,411	
1921	10,606	7,219	15,603	2,041	625	1,086	1,779	788	43,684	
1922	9,504	7,529	15,046	1,691	742	1,044	1,692	610	41,959	
1923	10,730	6,391	16,765	2,441	759	1,568	1,749	699	46,908	
1924	11,975	6,846	17,217	1,842	770	1,337	1,991	677	48,565	
1925	14,060	8,319	18,437	2,150	755	1,387	1,856	923	53,019	
1926	14,679	8,599	19,439	2,217	662	1,323	1,876	820	55,248	

*Derived from the Annual Reports of the State Tax Commission. Amounts given are sums levied which aggregate more than the total collected. See Table 8.

ship. About 5 percent of the local revenue is collected by the townships. While available data are limited, the evidence at hand* indicates that 90 percent of the township funds are used for roads, and the remaining 20 percent mainly for township administration, cemeteries, and outdoor poor relief. Some other, comparatively small, functions are performed.

Local property taxes for school purposes in 1913 to 1926, inclusive, both in urban and rural territory, are included under school district levies in Table 8.

TABLE 12.—Income of School Districts, 1916 and 1926

Source of income	1916		1926	
	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>
Revenue:				
State aid	2,512,484	7.14	2,588,819	2.25
Interest on irreducible debt and rents.....	249,770	.71	413,656	.36
State and Federal aid for vocational education	54,273	.15	673,376	.59
Local school tax.....	30,210,800	85.83	72,061,710	62.61
2.65 m. school levy.....			34,058,166	29.59
Interest on school funds	475,851	1.35	1,682,479	1.46
Tuition from other school districts.....			2,002,607	1.74
Tuition from non-resident pupils.....	774,625	2.20	189,815	.16
Fines and penalties	4,084	.01	19,761	.02
Business taxes	9,019	.03		
Other revenue receipts	906,901	2.58	1,402,741	1.22
Total revenue income.....	35,197,807	100	115,093,130	100
Non-revenue:				
Sale of bonds, with premiums and interest.....	9,216,051	74.04	9,207,023	57.90
Sale of certificates of indebtedness with interest.....	2,761,189	22.18	4,415,147	27.77
Sales of property			602,502	3.79
Insurance adjustments.....			126,575	.80
Other non-revenue receipts	469,218	3.78	1,548,838	9.74
Total non-revenue income.....	12,446,458	100	15,900,081	100
Total revenue and non-revenue income.....	47,644,357		132,993,211	

Derived from Reports of Division of Public Instruction, State Department of Education, 1916 and 1926.

As previously noted, school costs increased faster than the costs of the other units of government. The expansion in the past two decades of the services which are a part of the system of education is well enough known to require no special comment. The increased service has included: (1) lengthened school terms; (2) more and better school buildings and equipment; (3) more and better trained teachers; (4) enlarged school curriculums; (5) extra or new services, as for example, transportation of pupils, teachers retirement funds, playgrounds, and promotion of health.

Table 12 indicates the sources of income of school districts in addition to property taxes in 1916 and 1926. Table 13 gives the distribution of the school expenses classified as current, debt, and capital outlays, 1916 and 1926.

*Based on the distribution of levies in about 2,000 rural taxing districts.

TABLE 13.—Expenses of Local Schools 1916 and 1926

Expense	1916		1926	
	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>
Current.....	29,734,224	65.47	91,821,987	65.50
Debt payments.....	6,704,953	14.76	24,144,040	17.23
Capital outlays.....	8,979,288	19.77	24,212,243	17.27
Total.....	45,418,466	100	140,178,270	100

Derived from Reports of State Department of Education, 1916 and 1926.

Taxes for municipal purposes, including special assessments, amounted to nearly 31 percent of the revenue collected for local units as calculated in Table 8 for 1926. Municipalities have some income from public service enterprises and municipal industries that are usually self-supporting. Revenue collections from these sources have not been included. These and other miscellaneous collections by municipalities in addition to the revenue accounted for in Table 8, can be estimated at about \$10,000,000 annually.⁵

Local revenue from miscellaneous sources.—Local units of government received small sums of revenue from a number of sources. The aggregate of these miscellaneous funds totaled about 5 percent of the local revenue for the period 1913-1926, as calculated in Table 7. The important of these sources are classified in Table 14. As the funds collected from several of these sources are variously distributed among the local civil units, it would be difficult to apportion over a period of years the proceeds from each source going to county, township, school district, and municipality. Explanation has been made in a footnote of Table 14 to indicate the distribution authorized by law.

Local debt a cause of high taxes⁶.—The incurrence of debt by counties, school districts, municipalities, and to a lesser extent by townships, has been one of the factors in tax growth in the last two

⁵The Ohio Institute in its publication, *Ohio Governments and Where They Get Their Money*, estimates the total income of cities and villages at \$105,882,000 in 1925.

⁶Debt limitations: Expressed as a percentage of the assessed value of property on the tax duplicate of each subdivision in question. The following limitations are in force (1927) for net indebtedness:

1. County: without consent of the electors, the net indebtedness is limited to 1% on the first hundred million and $\frac{1}{2}$ of 1% on excess over one hundred million dollars on the tax duplicate; and with consent of the electors, to 3% on first hundred million and $1\frac{1}{2}$ % on excess over one hundred million.
2. Township: net indebtedness is limited to 2% of the tax duplicate and can be authorized only by vote of the electors.
3. School district: without a vote of the electors, net indebtedness is limited to one-tenth of 1% of tax duplicate; with a vote of the electors to 4%; and with vote of electors and consent of the tax commission, 6%.
4. Municipality: without vote of electors, the net indebtedness is limited to 1% and with vote of electors to 5% of the tax duplicate.

There are several exceptions to these limitations, the two important being bonds to cover public emergencies and bonds issued in anticipation of tax collections in the near future. (Derived from O. L. 112, Sec. 2293.)

TABLE 14.—Local Revenue From Miscellaneous Sources 1913-1926

Year	Cigarette tax	Inheritance tax	Liquor law fines	Liquor license tax	Automobile license	Show license fees	Gasoline tax	Fees collected by county officers	Dog and kennel tax	Total
	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>	<i>Dol.</i>
1913.....	.....	.....	.....	5,852,448	.....	.....	.....	1,461,572	294,803	7,608,823
1914.....	57,694	112,754	.....	3,824,457	.....	1,682	.....	1,511,539	294,020	5,802,146
1915.....	33,750	123,216	.....	2,088,401	.....	.....	.....	1,260,203	280,766	3,786,336
1916.....	62,262	186,445	.....	4,323,267	.....	1,632	.....	1,380,864	262,657	6,217,127
1917.....	74,024	331,698	.....	3,756,460	.....	2,042	.....	1,477,022	309,527	5,950,773
1918.....	88,380	287,549	.....	4,115,174	.....	1,917	.....	1,392,032	330,744	6,215,796
1919.....	93,813	367,222	.....	3,589,271	.....	1,332	.....	1,593,075	310,333	5,955,046
1920.....	39,049	456,268	.....	156,871	2,340,558	1,110	.....	1,906,854	339,978	5,240,688
1921.....	184,487	1,429,897	170,790	168	4,174,136	1,310	.....	1,829,463	345,746	8,135,997
1922.....	194,962	1,492,735	599,326	5,096	3,637,372	1,260	.....	2,046,534	379,818	8,357,103
1923.....	193,079	1,331,088	1,195,634	3,185	3,932,436	1,522	.....	2,341,028	414,632	9,412,604
1924.....	201,891	1,466,953	1,495,614	18,571	6,786,426	1,917	.....	2,413,008	484,892	12,869,272
1925.....	203,158	1,971,510	1,126,107	3,493	5,490,924	1,662	1,596,220	2,598,801	503,458	13,495,333
1926.....	220,358	1,984,097	923,654	1,595	5,230,579	1,825	6,967,127	2,783,226*	615,421	18,727,882

*Estimated for 1926.

Distribution—

Cigarette tax: $\frac{1}{4}$ retained locally— $\frac{1}{8}$ to county, $\frac{1}{8}$ to township or municipality.Inheritance tax: $\frac{1}{2}$ to township or municipality.Liquor-law fines: $\frac{1}{2}$ to county, township, or municipality.Liquor-license tax: $\frac{3}{10}$ to state, $\frac{7}{10}$ to county.Auto license: $\frac{1}{2}$ to county or municipality since 1920.Show license fees: $\frac{1}{2}$ to state, $\frac{1}{2}$ to county.Gasoline tax: 3 cents motor fuel tax, $\frac{1}{2}$ to state highway construction, $\frac{3}{8}$ maintenance and repair divided 45 percent to state, 25 percent to county, and 30 percent to municipality.

Derived from the Annual Reports of the Auditor of Ohio.

decades. Most of the debt may be ascribed to the financing of schools, highway improvement, and various municipal improvements on a larger scale than in any previous period. Naturally, more credit funds were used than in former times.

But another cause may be pointed out as a factor in debt growth in Ohio. A stringent tax limitation law adopted in 1911, the so-called "one percent law" resulted in financing current expenditures thru borrowing. Debt limitations were not considered so important at that time as a low tax rate. Issues of deficiency bonds became common from 1910 to 1920. Before the adoption of the tax limitation, public improvements were often partially or wholly financed directly by taxation. After the adoption of a low tax limit, public improvements were financed almost entirely by borrowing. As a result the financing of school buildings, municipal improvements, and highway construction has added extra millions to the total tax expense, much of which have been unnecessary if a "pay as you go" policy had been followed. Debt carrying charges soon amounted to an alarmingly high percentage of the total tax collections, causing financial difficulties in many taxing districts, especially in school districts and municipalities.

A comparison of indebtedness incurred by school districts from 1901 to 1911 and from 1912 to 1919 indicates that in the former period receipts from sale of bonds were less than 80 percent of the total expenditures for buildings and lands, while in the latter period receipts from sale of bonds were nearly 14 percent more than the expenditures for buildings and lands.⁷ There was 34 percent greater borrowing in the latter period when measured by the cost of capital outlays. It is conservative to consider that at least 14 percent of the 34 percent was used for current expenses. In 1916, 22.19 percent and in 1926, 22.75 percent of the general property tax for school purposes was required for debt.

An even less satisfactory condition exists in municipal financing as compared with school districts, due to mounting debt obligations. In 1916 the cities of Ohio used 44.3 percent of the municipal uniform property tax for debt purposes. In 1925 they used 44.7 percent, and 41 of the 93 cities had less than 50 percent for current expenses. County debt charges were not so high as those of cities. In 1916, 25.2 percent of the uniform county tax was for debt

⁷Based on annual reports of the Superintendent of Public instruction of Ohio.

purposes and in 1926, 22.9 percent. Township indebtedness is not a serious factor, except in isolated cases where road improvement projects have usurped the tax income for a period of years.⁸

SERVICES SUPPLIED THRU THE EXPENDITURE OF PUBLIC FUNDS

Up to this point the actual services rendered thru the use of public revenue have not been considered in enough detail to give a complete concept of how the vast amount of public funds is returned to the people in forms of service. Such a division will now be made. The many activities performed by the state and local governments make it desirable for the sake of brevity to group activities in some sort of classification not too long nor cumbersome. Such a classification is made in Tables 15 and 16. Admittedly, any short classification may be a trifle arbitrary or general in its terms.

Table 15 indicates the amount of revenue spent by the different civil units for each service, as classified, and the percentage such amount is of the total revenue spent within the state for each service.

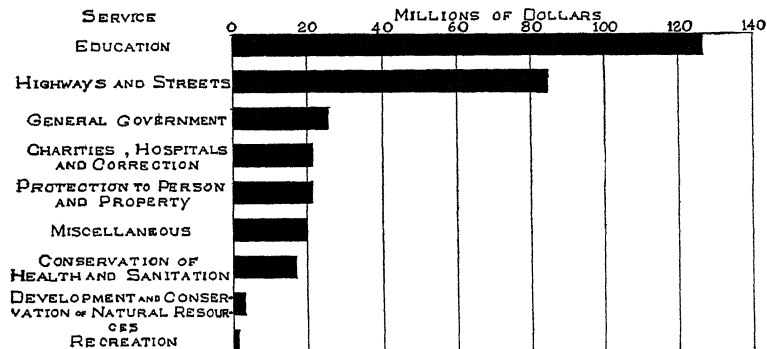


Fig. 5.—Revenue expenditures of Ohio governments in 1925 classified by service

With the exception of school districts, each of the various units of government performs a number of services. Table 16 indicates the percentage of the total revenue of each civil unit spent for each service. Figure 6 indicates graphically the total expenditure within the state for each type of service. Figure 7 indicates how the expenditure of public funds has been divided among the different units of government. Following are descriptions of services as classified in Tables 15 and 16.

⁸The foregoing percentages were derived from Ohio Comparative Statistics as issued by the Bureau of Inspection and Supervision of Public Offices.

TABLE 15.—Distribution of Estimated Revenue Expenditures for Services Performed by the Various Units of Government in Ohio, 1925

(Thousands, that is 000 omitted)

Service	State		Unit of government								Total revenue spent for each service	
			County		Township		School district		Municipality			
	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>
General government.....	2,867	11.09	13,126	50.79	1,882	7.28	.....	.....	7,972	30.84	25,847	100
Protection to person and property.....	2,719	12.51	413	1.90	.....	.....	.....	.....	18,601	85.59	21,733	100
Development and conservation of natural resources.....	2,507	100.00	.....	.....	.....	.....	.....	.....	.....	.....	2,507	100
Conservation of health and sanitation.....	595	3.53	2,530	15.03	.....	.....	.....	.....	13,711	81.44	16,836	100
Highways and streets.....	14,685	17.41	25,539	30.28	11,976	14.20	.....	.....	32,137	38.11	84,337	100
Charities, hospitals and corrections.....	8,132	37.36	6,716	30.85	940	4.32	.....	.....	5,979	27.47	21,767	100
Education.....	12,450	9.60	326	.26	.....	.....	110,388	87.73	2,657	2.11	125,821	100
Recreation.....	197	11.29	.....	.....	.....	.....	.....	.....	1,548	88.71	1,745	100
Miscellaneous.....	1,917	9.58	11,442*	57.21	.....	.....	.....	.....	6,643	33.21	20,002	100
Total (and percent of grand total)....	46,068	13.36	60,092	18.47	14,798	4.62	110,388	34.44	89,248	27.84	320,595	100
Net increase in debt and total expenditure by each unit of government, 1925												
Net increase in debt.....	.....	.....	8,957	14.87	113	.19	16,108	26.75	25,045	58.19	60,223	100
Total expenditure.....	46,069	12.10	69,049	18.13	14,911	3.92	126,496	33.21	124,293	32.64	380,818	100

*County debt payments.

Derived from Financial Statistics of States, 1925; State Auditor's Report, 1925; unpublished data, Dept. of Rural Economics.

TABLE 16.—Percent of the Estimated Total Revenue of the Various Units of Government in Ohio That Was Spent for Each Type of Service, 1925

Service	Unit of government					All units
	State	County	Township	School district	Municipality	
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	
1 General government.....	6.22	21.84	12.72		8.93	8.06
2 Protection to person and property.....	5.90	.69			20.84	6.78
3 Development and conservation of natural resources.....	5.44					.78
4 Conservation of health and sanitation.....	1.29	4.21			15.36	5.25
5 Highways and streets.....	31.89	42.50	80.93		36.02	26.31
6 Charities, hospitals, and corrections...	17.65	11.18	6.35		6.70	6.79
7 Education.....	27.02	.54		100	2.98	39.25
8 Recreation.....	.43				1.73	.54
9 Miscellaneous.....	4.16	19.04*			7.44	6.24
Total.....	100	100	100	100	100	100

*County debt payments.

General government.—The division designated “general government” covers the expenses connected with the general administration of the laws and includes the legislative, executive, and judicial expenses of the government; also the expenses of elections.

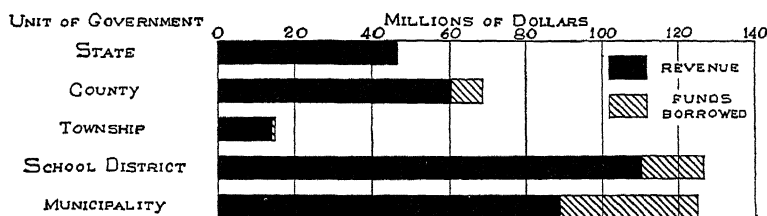


FIG. 6.— EXPENDITURE OF REVENUE COLLECTED AND FUNDS BORROWED BY THE DIFFERENT UNITS OF GOVERNMENT IN OHIO, 1925

Protection to person and property.—Protection to person and property includes police protection, militia, fish and game protection, supervision of insurance and financial institutions, regulation of certain professions, regulation of sale of feed, fertilizer, etc.

Development and conservation of natural resources.—Development and conservation of natural resources include expenditures for experiment station, development of forestry, fish and game conservation, geological survey, and some small miscellaneous expenditures by the state. Some of the expenditures under this head might be logically considered as expenditures for education for they do, in fact, overlap.

Conservation of health and sanitation.—Conservation of health and sanitation includes the prevention and treatment of communicable diseases, child welfare, food inspection, regulation of professional occupations dealing with health, and expenditures for sanitary projects such as sewage disposal and drainage.

Highways.—Highways in the sense used herewith includes all thoroughfares of travel and, therefore, means roads, streets, sidewalks, bridges, and waterways.

Charities, hospitals, and corrections.—The terminology is largely self-explanatory of the service performed. The state conducts eight hospitals for the insane, one for feeble minded, one for epileptics, one for tubercular patients, two industrial schools, two reform schools, and the Ohio penitentiary.

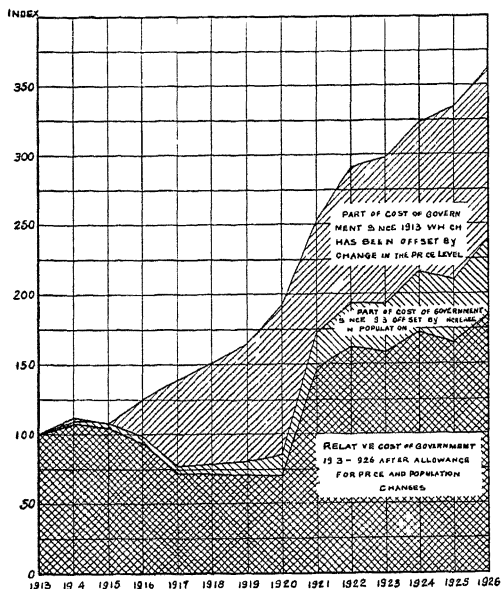


Fig. 7.—Relative cost of government in Ohio from 1913 to 1926 analyzed to indicate the importance of price changes and population increase.

Local institutions include the county infirmaries, children's homes, outdoor poor relief, county tubercular hospitals, mothers' pensions, blind relief, and institutions of similar nature conducted by some of the larger cities.

Education.—Expenditures for education include payments for all state institutions of higher learning and state aid to weak school districts. Payments for local public schools are all included in school district expenditures. Counties and municipalities spend comparatively small sums for educational work, as indicated in Table 13.

Recreation.—The state maintains certain parks and reservations that furnish recreational facilities to the public. Parks are almost a necessity in urban life and the expenditures for parks and other recreational agencies by cities are comparatively large. Expenditures of this nature by counties and townships are almost negligible.

Miscellaneous expenditures.—Some public expenditures were made which cannot be distributed because the necessary accounting information is lacking. For example, debt payments by counties were largely for roads but not entirely so. County tax revenue for debt payments has been included in miscellaneous expenditures and it amounts to more than one-half of that total. Other payments which cannot be properly assigned to any of the main headings have been classified as miscellaneous.

In addition to expenditures of revenue income amounting to more than \$320,000,000 in 1925, more than \$60,000,000 was spent that was obtained thru the use of public credit. To avoid double counting, such funds have not been considered as revenue for they were secured by mortgaging future revenue income. For sake of comparison, the net increase in debt has been inserted below Table 15. This debt increase can be ascribed mainly to outlays for municipal public service enterprises, public buildings, school buildings, highways, streets, sewers, drainage, and miscellaneous public improvements as previously discussed. With the exception of outlays for municipal public service enterprises, which are largely self-supporting, this debt increase represents a burden on future taxpayers. It may be added that the net debt increase in 1926 was \$33,000,000; an encouraging reduction when compared with 1925.

Comparison of costs.—Two items, highways and education, total nearly two-thirds of the revenue expenditures listed in Table 16, highways and other thorofares of travel accounting for 26.31 and education for 39.25 percent. Other services lose much of their significance from the standpoint of costs when compared with highways and education. The public revenue spent for education in 1925 was more than the total revenue income of the state in 1916. The combined expenditures for education and highways in 1925 were greater than all public revenue income in Ohio in 1919.

UNIFORM PROPERTY TAXES—RURAL AND URBAN

A division of uniform property taxes has been made in Table 17 to separate collections on property in municipalities from those on property in territory outside municipalities. For the sake of brevity the former will be referred to as urban and the latter as rural. Measured in current dollars, the taxes in rural territory increased 127 and in urban territory 259 percent from 1913 to 1926. In the same time, rural taxes dropped from 32 to 23 percent and

urban taxes rose from 68 to 77 percent of the total property tax collected. The rapid growth in urban population and wealth and the consequent rapid increase in urban taxes are evident.

TABLE 17.—Amount and Percent of Total Uniform Property Taxes Collected From Rural and Municipal Territory, 1913-1926

Year	Rural territory		Municipal territory		Total state	
	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>	<i>Dol.</i>	<i>Pct.</i>
1913.....	27,519,379	31.69	59,306,316	68.31	86,825,695	100
1914.....	30,537,807	33.35	61,037,848	66.65	91,575,655	100
1915.....	30,742,455	30.80	69,077,318	69.20	99,819,773	100
1916.....	31,841,271	28.30	80,667,744	71.70	112,509,015	100
1917.....	34,515,357	27.59	90,570,253	72.41	125,085,610	100
1918.....	36,288,567	26.86	98,791,734	73.14	135,077,301	100
1919.....	41,869,068	26.18	118,057,293	73.82	159,926,361	100
1920.....	55,128,549	26.84	150,257,954	73.16	205,386,503	100
1921.....	57,684,256	26.22	162,328,265	73.78	220,012,521	100
1922.....	59,235,530	26.43	164,895,227	73.57	224,130,757	100
1923.....	58,053,470	24.94	174,762,885	75.06	232,816,355	100
1924.....	60,141,845	24.54	184,916,690	75.46	245,058,535	100
1925.....	60,196,318	23.02	201,248,556	76.98	261,444,876	100
1926.....	62,498,465	22.68	213,117,594	77.32	275,616,059	100

Derived from the Annual Reports of the Auditor of Ohio and Annual Reports of the Ohio Tax Commission.

Volume of taxes per capita rural and urban.—In analyzing the tax increase of the last few years, it is desirable to consider the volume of taxes on a per capita basis. Since rural territory has a different population trend from that of urban territory, the property taxes paid in each have been separated in Table 18. Total property taxes per capita were only a little higher in municipalities

TABLE 18.—Property Taxes Per Capita in Urban and Rural Territory, 1913-1926

Year	County tax		Tax for municipal purposes in urban territory	Tax for other than municipal purposes in urban territory	Total property tax		
	Urban territory	Rural territory			Urban territory	Rural territory	88 rural townships
1913	<i>Dol.</i> 2.98	<i>Dol.</i> 3.80	<i>Dol.</i> 7.02	<i>Dol.</i> 10.39	<i>Dol.</i> 17.41	<i>Dol.</i> 15.71	<i>Dol.</i> 12.59
1914	3.22	4.43	7.65	9.72	17.37	16.51	12.87
1915	3.39	4.62	7.48	11.60	19.08	21.63	16.78
1916	3.66	5.14	8.05	13.60	21.65	21.81	16.69
1917	4.13	5.26	8.68	14.95	23.63	23.25	17.02
1918	4.38	5.75	9.23	15.85	25.08	24.39	18.68
1919	4.66	6.02	9.62	19.57	29.19	28.15	22.53
1920	5.48	6.66	12.66	23.54	36.20	32.39	26.45
1921	6.74	8.46	13.85	24.06	37.91	32.49	29.18
1922	6.63	8.56	13.36	24.23	37.59	37.04	28.61
1923	6.40	7.78	13.95	24.69	38.64	36.40	29.91
1924	7.05	8.07	14.24	25.21	39.51	37.81	30.68
1925	7.21	8.08	15.39	26.47	41.86	37.94	32.53
1926	7.63	8.81	15.79	27.34	43.13	39.49	33.66

Derived from the Annual Reports of the State Tax Commission. See Table 19 for annual estimates of population.

than in rural territory. For example, in 1926 the rural tax was \$39.49; the urban tax was \$43.13, of which amount \$15.79 was for municipal purposes. About the same ratio held in 1913 when rural taxes were \$15.71 and urban taxes \$17.41. County taxes are at the same rate on all property rural and urban within the county and so offer an interesting comparison of the relative costs to the people served. In 1913 the property tax per capita collected for county purposes was \$2.98 in urban territory and \$3.80 in rural territory. In 1926 the tax for county purposes was \$7.63 in urban and \$8.81 in rural territory.

TABLE 19.—Population of Ohio Estimated as of January 1, 1913-1927*

Year	Population*				Indices of population			
	Total Jan. 1*	In municipalities	Outside municipalities	In 88 rural townships†	Total in Ohio	In municipalities	Outside municipalities	In 88 rural townships†
1913	5,043,935	3,407,353	1,636,582	92,532	100	100	100	100
1914	5,146,143	3,513,627	1,632,416	91,736	102.0	103.1	99.7	99.1
1915	5,248,351	3,620,101	1,628,250	90,939	104.1	106.3	99.5	98.3
1916	5,350,559	3,726,175	1,624,084	90,143	106.1	109.4	99.2	97.4
1917	5,452,767	3,832,449	1,619,918	89,346	108.1	112.5	99.0	96.6
1918	5,554,975	3,938,723	1,615,752	88,550	110.1	115.6	98.8	95.7
1919	5,657,183	4,044,997	1,611,586	87,753	112.2	118.7	98.5	94.9
1920	5,759,391	4,151,271	1,607,420	87,189	114.2	121.8	98.2	94.2
1921	5,885,000	4,281,760	1,603,254	86,392	116.7	125.7	98.0	93.4
1922	5,986,000	4,386,912	1,599,088	85,596	118.7	128.8	97.7	92.5
1923	6,118,000	4,523,078	1,594,922	84,799	121.3	132.8	97.5	91.6
1924	6,271,000	4,680,244	1,590,756	84,003	124.4	137.4	97.2	90.8
1925	6,394,000	4,807,410	1,586,590	83,206	126.8	141.1	97.0	89.9
1926	6,524,000	4,941,576	1,582,424	82,410	129.4	145.0	96.7	89.1
1927	6,634,000	5,055,742	1,578,258	81,613	131.6	148.4	96.4	88.3

*Based on yearly estimates of population by Federal Bureau of Census.
†Estimated arithmetic decrease.

The total property tax per capita in 88 rural townships is given in column 7, Table 18. These townships, one in each county, were selected as being as nearly as possible 100 percent farm property. The figures indicate a somewhat lower tax per capita in these townships than in all rural Ohio. In 1926, the tax (\$33.66) in these rural townships was distributed to the various units of government in the following proportion: State 1.3 percent; county 27.6 percent; township 21.5 percent; and school district 49.6 percent.

Tax rates and valuation for taxation.—The amount of tax assessed on a given piece of property depends on two items: (1) the tax rate and (2) the value appraised for taxation. If a given sum is needed to defray the cost of the usual amount of service in a

taxing district, the tax rate tends to be set at a figure which will raise the needed revenue when applied to the value of the property in the taxing district. But a limiting factor on the tax rate in Ohio is the tax limit law. Since a tax rate above the limit proscribed by law can be authorized by vote of the people the net result is probably not far different from what it would have been without a tax limit law.⁹ Tax limitation does serve as a check on public officials who, to make an increased levy when the rate limit has been reached, must get consent by vote of the people for any rate increase.¹⁰ But public opinion is the usual criterion which regulates the amount and type of public service and the consequent financing of such service. Due to this demand for a certain standard of service the tax rate in most Ohio civil units is well above the 15-mill limit set by law. The tax rates in rural territory, villages, cities, and the average rate for the state are given in Table 20.

TABLE 20.—Tax Rates in Ohio, 1922-1926

Year	Entire state	Rural territory	City and village	City alone	Village alone
	<i>Mills</i>	<i>Mills</i>	<i>Mills</i>	<i>Mills</i>	<i>Mills</i>
1922	21.537	17.843	23.506	23.546	21.538
1923	20.322	17.478	23.017	23.288	21.321
1924	20.004	17.421	21.017	21.208	19.852
1925	20.619	17.464	21.797	22.029	20.409
1926	20.645	17.314	21.879	22.100	20.587

*Assembled from the Annual Reports of the State Tax Commission, 1922-1926.

The base for general property tax levies is the "true value in money" of all real and personal property. In case of personal property the amount is declared yearly by the property owners themselves; such declarations being subject to revision and adjustment by the county auditor and county board of revision.

The tax value of real estate is determined by a method somewhat different from that used for personal property valuation. Real estate is appraised by the auditor in each county with such assistance as he may require from appraisers appointed by him.

⁹Tax limitations: In the period from 1919 to 1927, the general assembly enacted some important legislation bearing on tax limitation and debt limitation. Prior to 1927 the tax rate limits were: county purposes, 3 mills; corporation purposes, 5 mills; township purposes, 1.5 mills; local school purposes, 3 mills in addition to the 2.65 mill school levy, which is uniform throught the state. The 87th General Assembly removed these rate limits on the different subdivisions leaving 15 mills as the outside limit. The apportionment of the funds to the various taxing districts was placed largely in the hands of the county budget commission composed of the county auditor, county treasurer, and prosecuting attorney. The 15-mill limit may be exceeded by vote of the electors or by official action guarded by legal provisions intended to meet given circumstances. These exceptions are too numerous to be considered in this brief discussion.

¹⁰Some levies are permitted outside the 15-mill limit without vote of the electors, to meet certain circumstances stated in the law. But the intention and spirit of the rate limit is to restrain any increase in the levy unless popular approval is obtained.

Periodic state wide reappraisal of real estate has been effected at rather wide intervals; 1910-1911 and 1925-1926 were the last two periods in which such state wide reappraisal was effected. Some counties were reappraised either wholly or partially at a date between 1910 and 1925. County auditors have been required to make yearly adjustments in tax values to keep the property on the duplicate at its true value in money. But outside of minor adjustments such yearly changes are impossible or at least impractical.

The true value in money for purposes of taxation has been construed to mean the value in money by sale from a willing seller to a willing buyer. This standard of value has been used to measure the equality of tax appraisal of real property in the various civil units of the state. Table 21 indicates the comparative values by counties of farm and urban real estate before and after the 1925 reappraisal.

The percentages given in Table 21 were based on actual sales and represent for the most part, the degree of equality attained by county auditors in the various counties. As further adjustment has been made by the state tax commission these percentages would hardly be applicable for 1926, 1927, or 1928. Also, the trend in sale value of real estate since 1925 has been an important factor in changing the ratio of sale value to assessed value. The percentages of tax valuation to sale value before reappraisal indicate the urgent need of frequent appraisal to effect a better degree of equality. The present law requires a state wide appraisal every six years. It is of interest to observe that of the 48 states in the union, one requires reappraisal every 10 years, one, Ohio, every 6 years, one every 5 years, eight every 4 years, one every 3 years, ten every 2 years. The remaining 26 states either require reappraisal every year or have a system of continuous appraisal.

Inequalities in appraisal for taxation.—General property taxes are mainly real estate taxes. All farm property in Ohio as valued for taxation is approximately 23 percent personal and 77 percent real estate. Farm real estate is approximately 24 percent buildings and 76 percent land. These percentages apply only to farm property. Of all taxable property in the state, public utilities excepted,¹¹ 22 percent is personal, and 78 percent real estate.¹² As such a large part of the wealth in Ohio reached for taxation under

¹¹Public utility property—for example, railroads or pipe lines—is considered as personal property for purposes of taxation regardless of its nature; land, buildings or equipment.

¹²Derived from the Annual Report of the State Tax Commission, 1926.

the present system is land and buildings, the valuation of real estate justifies the most careful consideration that all avoidable inequalities may be removed.

For the present discussion, inequalities in appraising real estate for taxation have been divided into three groups: (1) inequalities between counties; (2) inequalities between civil units within the same county; (3) inequalities between different property holdings in the same civil unit.

TABLE 21.—Ratio of Tax Valuation to Sale Value of Farm Real Estate and City and Village Real Estate in Ohio, by Counties, Before and After the 1925 Reappraisal

(Sales value=100)

County	Farm real estate		City and village real estate		All real estate in county
	Before	After	Before	After	After
Adams.....	80.21	82.51	63.25	87.17	83.91
Allen.....	.....	.....	.....	.....	.....
Ashland.....	87.66	96.65	53.14	93.26	94.39
Ashtabula.....	.....	85.37	.....	87.28	86.75
Athens.....	80.85	83.02	61.77	76.28	78.86
Auglaize.....	84.60	88.75	74.22	88.16	88.53
Belmont.....	.....	74.07	.....	74.28	74.23
Brown.....	68.83	75.75	56.19	75.00	75.40
Butler.....	45.49	89.00	56.81	118.50	115.04
Carroll.....	69.14	74.68	50.77	76.50	75.47
Champaign.....	86.42	88.00	53.95	89.00	88.60
Clark.....	86.83	90.00	75.61	86.30	87.10
Clermont.....	61.24	75.70	52.74	77.80	76.10
Clinton.....	76.09	80.00	65.88	82.13	81.00
Columbiana.....	.....	.....	.....	.....	.....
Coshocton.....	85.53	83.17	54.96	83.10	83.14
Crawford.....	95.92	89.10	56.52	92.04	91.00
Cuyahoga.....	.....	.....	.....	.....	.....
Darke.....	93.90	84.08	78.12	85.17	84.36
Defiance.....	86.70	91.19	80.77	88.04	90.17
Delaware.....	.....	.....	.....	.....	.....
Erie.....	75.60	84.11	52.07	82.61	83.01
Fairfield.....	71.06	82.62	61.01	87.00	84.38
Fayette.....	64.99	81.04	64.39	80.31	80.80
Franklin.....	.....	.....	.....	.....	.....
Fulton.....	61.69	86.80	74.19	95.60	89.24
Gallia.....	58.41	82.21	61.68	84.61	82.99
Geauga.....	49.20	71.10	54.64	72.21	71.17
Greene.....	70.46	78.05	52.53	77.33	77.81
Guernsey.....	85.46	83.54	66.85	81.31	82.49
Hamilton.....	.....	.....	.....	.....	.....
Hancock.....	71.71	81.24	54.54	93.17	82.52
Hardin.....	.....	.....	.....	.....	.....
Harrison.....	73.35	72.93	60.63	67.93	70.36
Henry.....	63.64	73.71	63.01	92.13	77.95
Highland.....	82.28	84.06	66.02	82.45	83.14
Hocking.....	87.70	85.03	52.28	81.83	83.09
Holmes.....	88.96	86.88	79.20	83.44	86.15
Huron.....	.....	.....	.....	.....	.....
Jackson.....	67.90	85.01	59.79	80.80	82.03
Jefferson.....	.....	.....	.....	.....	.....
Knox.....	83.33	83.95	55.22	81.85	82.84
Lake.....	43.47	60.38	48.04	81.14	69.10
Lawrence.....	67.73	79.72	62.83	78.87	79.19
Licking.....	86.35	86.03	66.98	83.65	84.98

The first two of these may be illustrated by Table 21. Inequalities between counties, when such exist, are not of great importance (except to public utilities with extensive holdings) if state property tax levies are kept small. The varying percentages in Table 21 are a strong argument for keeping state levies small or eliminating them entirely, unless we may hope to maintain a much better standard than has been maintained in the past.

TABLE 21.—Ratio of Tax Valuation to Sale Value of Farm Real Estate and City and Village Real Estate in Ohio, by Counties, Before and After the 1925 Reappraisal—Continued

(Sales value=100)

County	Farm real estate		City and village real estate		All real estate in county
	Before	After	Before	After	After
Logan.....					
Lorain.....	79.22	85.80	47.89	85.86	85.85
Lucas.....					
Madison.....	86.05	86.24	65.80	84.03	85.40
Mahoning.....		85.11		81.29	81.49
Marion.....	93.83	87.61	75.51	83.41	86.69
Medina.....	73.28	81.90	59.00	77.60	80.60
Meigs.....	77.35	75.24	81.33	86.69	83.59
Mercer.....		86.26		88.16	87.04
Miami.....	76.86	81.48	60.59	81.26	81.37
Monroe.....	84.39	83.88	51.54	81.58	82.84
Montgomery.....					
Morgan.....	83.34	97.52	76.70	95.95	95.96
Morrow.....	72.05	86.44	64.28	81.08	85.45
Muskingum.....					
Noble.....					
Ottawa.....		85.61		82.67	84.21
Paulding.....	78.00	78.16	81.43	85.26	79.43
Perry.....	79.34	85.03	56.20	86.85	86.17
Pickaway.....	78.61	81.79	62.80	82.80	81.56
Pike.....	83.99	87.21	61.99	86.88	87.14
Portage.....	75.00	85.00	51.95	81.56	81.60
Preble.....	77.42	80.84	72.72	84.06	82.24
Putnam.....	78.23	85.00	76.61	91.00	87.14
Richland.....	89.26	84.17	58.71	87.43	87.92
Ross.....	72.99	80.00	56.05	80.47	80.23
Sandusky.....					
Scioto.....	82.66	85.54	62.69	86.28	86.20
Seneca.....	80.11	86.27	61.11	84.20	85.05
Shelby.....	91.73	87.95	51.21	85.76	87.25
Stark.....	66.45	83.91	52.68	80.25	80.67
Summit.....					
Trumbull.....	65.82	83.59	64.62	82.17	83.09
Tuscarawas.....					
Union.....	90.22	85.98	80.26	83.18	84.51
Van Wert.....		88.63	50.08	90.19	88.08
Vinton.....	75.23	76.08	56.84	77.09	76.52
Warren.....	63.69	69.90	60.87	89.75	77.27
Washington.....		67.99		56.59	61.77
Wayne.....	74.68	81.37	47.74	76.09	77.71
Williams.....	97.21	91.29	92.63	82.45	87.47
Wood.....					
Wyandot.....	91.62	92.30	61.47	86.90	90.20
State average.....	77.16	83.00	62.64	83.78	83.24

Equitable appraisal would be greatly simplified if each county were a distinct unit for tax assessment. However, there are enough school districts and municipalities joint between adjacent counties to make it highly desirable for the sake of equality to appraise all property in the state by the same standards of value regardless of the existence or non-existence of state levies.

Inequalities between civil units within the same county are illustrated by Tables 21 and 22.

Percentages for farm real estate and city and village real estate have been assembled in separate columns in Table 21. It is evident from these data that in many counties farm property was taxed at a much higher percent of its sale value than urban property before the 1925 reappraisal. Much of this inequality before reappraisal may be ascribed to the rapid increase in value of urban realty at a time when farm real estate was declining in market value. There is enough variation pro and con, after reappraisal to indicate the difficulty experienced by the taxing officials in setting up a uniform standard for taxing units within a county. The above comparison was between rural and urban property, in other words, between townships and municipalities within each county.

TABLE 22.—Variation in Assessed Value of Farm Real Estate Between the High Appraised and Low Appraised Townships in Each of Eight Counties

County	Assessed value in percent of sale value		Variation
	High township	Low township	
Ashland.....	139.6	79.7	59.9
Brown.....	93.0	60.0	33.0
Champaign.....	97.5	82.7	14.8
Clark.....	97.1	80.5	16.6
Coshocton.....	98.8	63.4	35.4
Hancock.....	100.0	85.0	15.0
Holmes.....	96.3	80.2	16.1
Morrow.....	93.6	69.5	24.1

A comparison between townships of a county will disclose much the same condition. A limited sample is given in Table 22. The percentages in this table are between the high township and low township, after reappraisal, in each of eight counties. The data were based on sales of farm lands and tax valuation of the same lands and were collected by the real estate examiners of the State Tax Commission. As these valuations were subject to alternation by the tax commission the variations indicated in Table

22 have been adjusted in so far as the tax commission has been able to do so. Therefore, the inequalities indicated should not be construed as existing in such marked degree at the present time.

Variation in appraisal between different sized farm holdings is important enough to receive attention (Table 23). Part of the variation in Table 23 is random in nature but the data seem to indicate a tendency on the part of local appraisers to rate small farms higher than large farms.

TABLE 23.—Assessed Valuation of Farm Real Estate in Percent of Sale Price Assembled in Size Groups Based on Sale Price 1923-1927

County	Size groups based on sale price						
	1 Below \$1500	2 \$1500 to \$2999	3 \$3000 to \$4499	4 \$4500 to \$5999	5 \$6000 to \$7499	6 \$7500 to \$8999	7 \$9000 and above
	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>	<i>Pct.</i>
Adams.....	87.9	88.8	81.6	58.3	75.2	87.3	72.0
Ashtabula.....	117.2	86.6	80.0	93.2	88.7	77.0	89.1
Carroll.....	89.8	75.9	70.7	86.4	66.4	58.8	52.3
Henry.....	99.0	79.2	70.3	68.2	80.5	82.0	62.7
Average.....	98.5	82.6	75.6	76.5	77.7	76.3	69.0

Based on data supplied by the State Tax Commission 1923-1926 and further information collected by Department of Rural Economics 1926-1927.

INDICES OF TAX LEVIES

Index a.—It is difficult to compare aggregate amounts of tax levies. The mere volume of figures is hard to grasp and any such comparison is necessarily cumbersome. To a less extent the same is true of the tax per capita. A more satisfactory method is to construct an index of the values being compared, to be used in conjunction with the original items. This has been done in Table 24. An index has been constructed to cover the levies in each of the various taxing units of the state, and also taxes in rural and urban territory. The method of obtaining these indices is simple. The amount of tax levy in 1913 was taken as the base, 100. The index for other years is the relative value of the levy each of those years to the 1913 levy expressed as a percent of the 100.

Index values may be corrected for variation in the purchasing power of money and for changes of population.

Index b.—To make the burden of the 1913 tax bill, for example, comparable with the burden of the tax bill at some later date a correction must be made for the variation in the purchasing power of money. A farmer might need a hundred bushels of grain to pay

TABLE 24.—Indices of Revenue Income and Property Tax Collections:
 (a) Measured in Current Dollars, (b) Adjusted to Dollars of 1913 Purchasing Power, (c) Adjusted for Both Price and Population Change

Year	Current dollars	1913 dollars	Adjusted for price and population change	Current dollars	1913 dollars	Adjusted for price and population change	Current dollars	1913 dollars	Adjusted for price and population change
	a	b	c	a	b	c	a	b	c
	All revenue			State revenue			Local revenue		
1913	100	100	100	100	100	100	100	100	100
1914	110.4	112.6	110.4	131.8	134.5	131.8	106.3	108.5	106.4
1915	108.4	107.3	103.1	74.1	73.4	70.5	114.9	113.8	109.3
1916	125.2	98.6	92.9	123.1	96.9	91.3	125.6	98.9	93.2
1917	137.8	77.9	72.1	134.2	75.8	70.1	138.4	78.2	72.3
1918	152.1	78.4	71.2	152.1	78.4	71.2	152.1	78.4	71.2
1919	165.5	80.3	71.6	158.8	77.1	68.7	165.8	80.5	71.7
1920	193.4	85.6	66.2	202.8	89.7	78.5	191.6	84.8	74.3
1921	254.1	172.8	148.1	323.5	220.0	188.5	240.8	163.8	140.4
1922	289.3	194.9	164.2	344.6	231.2	194.8	280.0	187.9	158.3
1923	294.5	193.2	159.2	361.2	207.4	171.0	285.5	185.4	152.8
1924	319.6	215.2	173.0	348.7	185.3	149.0	317.9	211.9	170.3
1925	331.2	210.3	165.8	304.6	191.5	151.0	340.1	213.9	168.7
1926	360.1	240.1	185.5	328.3	217.4	168.0	369.1	244.4	188.8
	General property tax			General property tax, county			General property tax, township		
1913	100	100	100	100	100	100	100	100	100
1914	105.0	107.1	105.0	113.1	115.4	113.1	108.4	110.6	110.9
1915	114.5	113.4	108.9	120.8	119.6	114.9	137.8	136.4	137.1
1916	129.6	102.0	96.1	134.1	105.6	99.5	146.6	115.4	116.3
1917	144.1	81.4	75.3	148.6	84.0	77.7	183.2	103.5	104.5
1918	155.6	80.2	72.8	162.1	83.6	75.9	197.3	101.7	102.9
1919	184.2	89.1	79.4	174.2	84.6	75.4	215.4	104.6	106.2
1920	236.5	104.6	91.6	204.2	90.4	79.2	246.6	109.1	111.1
1921	253.4	172.4	147.7	258.9	176.1	150.9	271.5	184.7	188.4
1922	258.1	173.2	145.9	261.2	175.3	147.7	280.2	188.0	192.4
1923	268.1	174.1	143.5	252.3	163.8	135.0	284.6	184.8	189.5
1924	282.2	188.1	151.2	279.8	186.5	149.9	293.9	195.9	201.5
1925	301.1	189.4	149.0	289.9	182.3	143.8	308.2	193.8	199.8
1926	317.4	210.2	162.4	315.1	208.7	158.6	299.3	198.3	205.1

TABLE 24.—Indices of Revenue Income and Property Tax Collections:
 (a) Measured in Current Dollars, (b) Adjusted to Dollars of 1913 Purchasing Power, (c) Adjusted for Both Price and Population Change—Continued

Year	Current dollars	1913 dollars	Adjusted for price and population change	Current dollars	1913 dollars	Adjusted for price and population change	Current dollars	1913 dollars	Adjusted for price and population change
	a	b	c	a	b	c	a	b	c
	General property tax, school			General property tax in municipalities			General property tax for municipal purposes		
1913	100	100	100	100	100	100	100	100	100
1914	109.0	111.2	109.0	103.0	105.1	101.9	108.2	110.4	107.1
1915	122.2	121.0	116.2	116.5	115.3	108.5	121.7	120.5	113.4
1916	132.9	104.6	98.6	136.0	107.0	97.8	122.1	96.7	87.8
1917	145.0	81.9	75.8	152.7	86.3	76.7	133.4	75.1	67.0
1918	165.8	85.5	77.7	166.6	85.9	74.3	145.8	75.2	65.0
1919	184.9	89.8	78.6	199.1	96.7	81.5	162.6	78.9	66.5
1920	234.9	103.9	91.0	253.4	112.1	82.0	174.0	77.0	63.2
1921	291.8	198.5	170.1	273.7	186.2	148.1	227.2	154.5	122.9
1922	379.1	254.4	214.3	278.0	186.6	144.8	261.8	175.7	136.4
1923	390.1	253.3	208.8	294.7	191.4	144.1	280.9	169.4	127.5
1924	434.9	289.9	233.0	311.8	207.8	147.2	280.7	187.1	136.2
1925	463.2	291.3	229.7	339.3	213.4	147.1	300.8	189.2	130.5
1926	482.4	319.5	246.9	359.4	238.0	164.1	327.8	217.1	149.7
	General property tax, rural territory			General property tax, 88 rural townships					
1913	100	100	100	100	100	100			
1914	111.0	113.3	113.5	101.3	103.4	104.3			
1915	111.7	110.6	111.1	131.0	129.7	131.9			
1916	115.7	91.1	91.8	129.1	101.7	104.4			
1917	125.4	70.8	71.5	130.5	73.7	76.3			
1918	131.9	68.0	68.8	142.0	73.2	76.5			
1919	152.1	73.8	74.9	169.7	82.4	86.8			
1920	200.3	88.6	90.2	197.4	87.4	92.9			
1921	209.6	142.5	145.5	215.8	146.8	157.7			
1922	215.3	144.5	147.9	209.9	140.8	152.5			
1923	211.0	137.0	140.5	217.6	141.3	154.6			
1924	218.5	145.7	149.9	220.5	147.0	162.2			
1925	218.7	137.5	141.7	231.5	145.6	162.3			
1926	227.1	150.4	155.5	231.5	153.3	172.6			

*Applied to population in rural territory.

his tax bill in 1913. In 1920 a hundred bushels might still pay his tax bill because the increase in the price of grain tended to balance the increase in taxes. So long as the rise in taxes was balanced by an equal rise in prices of the things the taxpayer sold, there was no real increase in the tax burden. This force was operative in the period from 1915 to 1920 and actually decreased the real cost of taxation below the level of 1913, altho the tax bill measured in current dollars had more than doubled. In 1921 prices dropped while tax collections continued to rise.¹³

Index c.—Before the real burden of taxation may be placed on a comparable basis a second adjustment should be made. This adjustment is for the change in number of people served, which is also a rough measure of change in the number of people paying taxes. An index of population change was applied to make this adjustment. The resulting index in column 1 under each head is nearer a true measure of the real increase in tax burden than index 1 or 2. That is, index 1 represents the relative amount of tax money (current dollars) collected each year as compared with 1913 collections. Index 2 represents the relative burden of the tax bill each year as compared with 1913, taking into consideration the changing prices. Index 3 makes allowance for price changes and in addition, changes in population have been considered.

These indices are not presented as being perfect measures of change in volume or burden of taxation. They are simply measures of an average condition and as such may not be strictly applicable to a particular case. Figure 7 presents graphically the importance of considering the change in price levels and the change in population when considering the volume or burden of taxation over a period of years.

¹³To make an adjustment in the tax burden to compensate for the changing price level, the wholesale price index of all commodities was applied by dividing the tax index each year (column 1) by the price index of the same year and multiplying by 100 to bring the adjusted index to terms comparable with the original index.

SUMMARY

1. In view of the tax problems confronting Ohio at the present time, information concerning the volume, growth, sources of public revenue, and benefits received from the expenditure of public funds is particularly opportune.

2. Federal internal revenue collections were \$4.99 per capita in 1913; \$64.89 in 1920; and \$23.87 in 1926. The peak or war financing has been passed but expenses resulting from the war will continue to require more Federal revenue than was collected in the pre-war period.

3. Total revenue collections increased 260 percent from 1913 to 1926. Per capita collections increased 179 percent in the same period. In addition to price and population changes, the demands for greater public service have definitely increased the demands for greater public revenue.

4. The general property tax yields nearly three-fourths of all revenue for state and local purposes. Special assessments on real estate add 6 to 8 percent and bring the total revenue derived directly from property to approximately 80 percent of the total revenue.

Business taxes are important but have yielded comparatively small percentages of the total revenue. Since 1916, corporation franchise taxes have yielded approximately 2 percent; public utility excises a little more, but less than 3 percent; insurance company fees and assessments less than 1.5 percent. The state inheritance tax has yielded about 1 percent since 1920. Motor vehicle licenses and the motor fuel tax have become important sources of revenue.

5. The business taxes, licenses, inheritance tax, and motor fuel tax are the main support of the state.

6. The general property tax and special assessments are the main support in local financing, altho important aid is also received from the local share of the motor fuel tax, motor vehicle licenses, the inheritance tax, and some miscellaneous fees and licenses. A complete accounting of all miscellaneous local revenue could not be made without an immense amount of labor, hence only the part which can be accounted for has been considered in the present analysis of revenue. As accounted for, uniform property levies have been approximately 87 percent, special assessments 8 percent and miscellaneous income 5 percent of the total local revenue, 1913-1926.

Local debt has increased greatly since 1910 and so is of decided importance in tax growth. The increase has been due principally to the new type of requirements in public improvements; first, streets and highways to meet the demands of motor transportation; second, adequate school facilities in keeping with the adopted standards of education. But part of the debt has been incurred thru improper financing encouraged by a stringent tax limitation with lax debt limitation. Some remedial legislation was enacted, in the period, 1920-1927.

7. Educational costs take about 40 percent of the state and local revenue combined. Highways are second with a cost of 26 percent of the total. These two services take nearly two-thirds of the revenue income. The remaining 34 percent is about equally divided among five services: general government; protection to person and property; health and sanitation; charities, hospitals and corrections; and miscellaneous or unclassified services. Development and conservation of natural resources and recreation combined take a little more than 1 percent of the total revenue.

8. Taxes have increased rapidly in both rural and urban territory since the pre-war period. The rapid growth in urban population is a principal cause of the greater total tax increase in populous communities. But approximately as great per capita increase has occurred in rural sections. Road improvement costs and State standards for school facilities and instruction have required a heavy increase in rural taxation.

Ohio adopted the policy of tax rate limitation in 1911. But the demands for increased public service have been more insistent than the demands for lower taxes. The majority of Ohio taxing districts have exceeded the tax rate limit of 15 mills by popular vote.

General property taxation involves a huge problem of proper valuation. Personal property is often under assessed or not returned at all. Real estate bears the greater part of the burden, but great inequality in distribution of the real estate tax burden has existed on account of different standards of appraisal for different local units and for individual tracts of property within the same unit. Only one state in the union has less frequent appraisal of real property than Ohio. Forty-six states have more frequent appraisal than Ohio.

9. When measured by the indices of current purchasing power and by price and population change since 1913, some significant trends in taxation become more apparent. Considering the 1913

tax as 100 percent and making adjustment for price and population changes since 1913, the 1926 taxes were: all revenue 185 percent; state revenue, 168 percent; local revenue, 189 percent; total general property tax, 162 percent; county property tax, 159 percent; township property tax, 205 percent; school district property tax, 247 percent; property tax for municipal purposes, 150 percent; total property tax in municipalities, 164 percent; total property tax in rural territory, 155 percent; total property tax in 88 rural townships, 173 percent.