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**FINANCING
MICHIGAN HIGHWAYS
ROADS AND STREETS**

1910 - 1946

MICHIGAN
STATE HIGHWAY DEPARTMENT
Charles M. Ziegler
State Highway Commissioner

FINANCING
MICHIGAN HIGHWAYS
ROADS AND STREETS
1910--1946

Prepared by
Michigan State Highway Department
Planning and Traffic Division
in cooperation with
Public Roads Administration
Federal Works Agency
for
MICHIGAN GOOD ROADS FEDERATION
HIGHWAY STUDY COMMITTEE

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INTRODUCTION

Highway administrators base decisions on facts. Engineering problems always involve consideration of finance. To supply the facts about engineering and financing Michigan highways, roads and streets, the Michigan State Highway Department in cooperation with the Public Roads Administration initiated a state-wide highway planning survey in 1935.

Financial data were obtained from the best possible sources, analysed, compared and related to other data and the results tabulated in form for use by highway administrators. It became the most complete and authoritative source of highway financial information then existing and has formed the basis for a continuing collection and analysis of financial information.

The Planning and Traffic Division of the Michigan State Highway Department assumed these continuing duties of the Highway Planning Survey and has continued the essential operations necessary to keep the data of the Survey up to date. When the Michigan State Highway Department in cooperation with the Public Roads Administration agreed to perform the staff work for a complete analysis of highway needs in Michigan for the Michigan Good Roads Federation, a comprehensive summary of the financial information was prepared. The results are stated in this report.

The report is supplemented by:

- 1 - The completed initial tabulations of the Highway Planning Survey for the available historical period ending in 1939.
- 2 - Financial information accumulated from basic sources since 1939 through the year 1946.

Complete sources of information are indicated in the tabulations which are supplemental to this report, and which are available in the files of the Planning and Traffic Division of the Michigan State Highway Department.

SECTION A

SOURCES AND DISTRIBUTION OF HIGHWAY FUNDS--1910-1946

SUMMARY

Governments in the state have raised more than two billions of revenues in the support of roads and streets since these have been improved and maintained to accommodate motor vehicles principally. Taxes on property and those on motor vehicles have contributed substantially equal amounts. Assistance from the federal government through cash grants-in-aid and emergency relief expenditures account for 15.6 percent of the total of 2.4 billions from all sources. (Chart 1)

Over this period there has been a marked change in both the base and collection responsibility of this support. Local property taxation, which earlier defrayed the entire bill, has given way in large measure to motor vehicle taxation collected by the state. General revenue presently is at the 1913 level and represents only 14 percent of total highway funds. State taxation for highways was carried into a new area in 1945 with the imposition of a tax for two years on alcoholic spirits and the restriction of a part of the revenue for road expenditure by counties. Excluding the 3.5 millions received from this temporary source, general revenues for highways presently are at the 1910 level. (Chart 2)

Percentages of their total highway funds raised by local units themselves clearly show the displacement between fund collection and expenditure. From 1925, when the motor fuel tax was first levied, through 1930, urban streets were yet financed wholly from local revenues. During the last five years, ending in 1946, this local support averaged 51 percent of total funds. In the preceding five years it had dropped to 31.4 percent. Over the 1942-1946 years, counties, which since 1936 have had jurisdiction over all township rural roads as well as their own system, raised but 2.4 percent of total revenues made available to

them for highways; between 1925 and 1930 their self-support was 76 percent. Federal assistance, which provided 52.7 percent of total funds at its maximum in 1939, and then decreased, has been increasing in late years and further augments this trend. (Chart 3)

The over-all result of local taxation, distribution of state-collected revenues, and federal assistance over the years since 1910 has been a nearly equal support for state trunklines, county rural roads and their extensions in cities, and city streets. Counties and townships have received some 827 millions, or 34.3 percent; to this they have contributed nearly 345 millions in local taxes. Cities and villages have had for expenditure 871 millions, or 36.2 percent and have raised more than 661 millions of this. The state has retained 542 millions of motor vehicle revenue which, with 15 millions of general funds and 152 millions of federal assistance, has provided a little more than 709 millions, representing 29.5 percent of the total, for its trunkline system. (Chart 4)

CHART 1

SOURCES OF HIGHWAY SUPPORT IN MICHIGAN
ALL ROADS & STREETS
1910 TO 1946
AMOUNT AND PERCENT OF TOTAL

AMOUNT - MILLIONS OF DOLLARS

1200

1000

800

600

400

200

42.7%

41.7%

15.6%

GENERAL
REVENUES

MOTOR VEHICLE
REVENUES

FEDERAL
ASSISTANCE

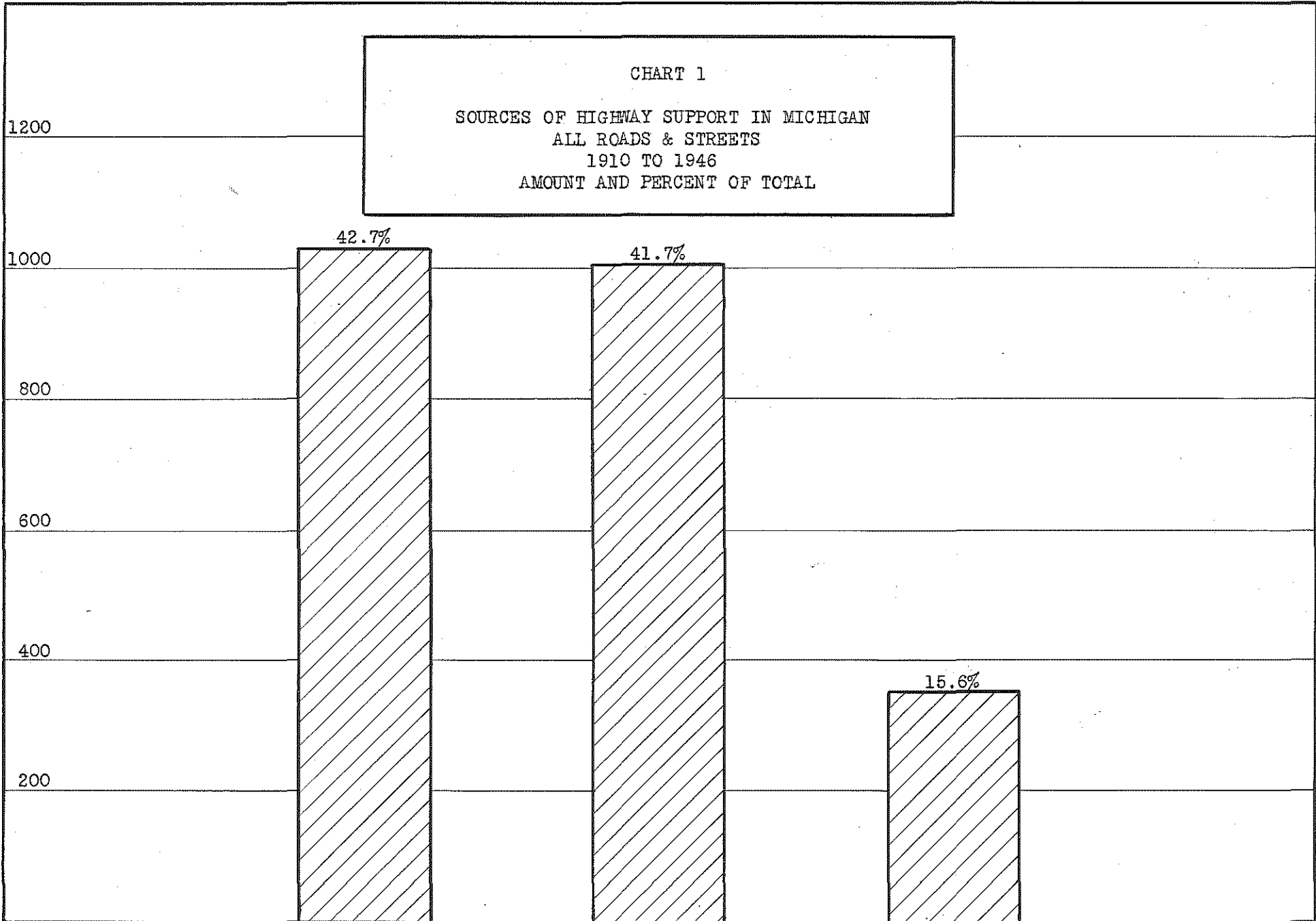


CHART 2

FUNDS AVAILABLE FOR ALL ROADS AND STREETS IN MICHIGAN
PERCENT OF ANNUAL TOTAL DERIVED FROM EACH OF THREE PRINCIPAL SOURCES
AT SIX-YEAR INTERVALS BETWEEN 1910 AND 1946

PERCENT OF TOTAL ANNUAL HIGHWAY FUNDS

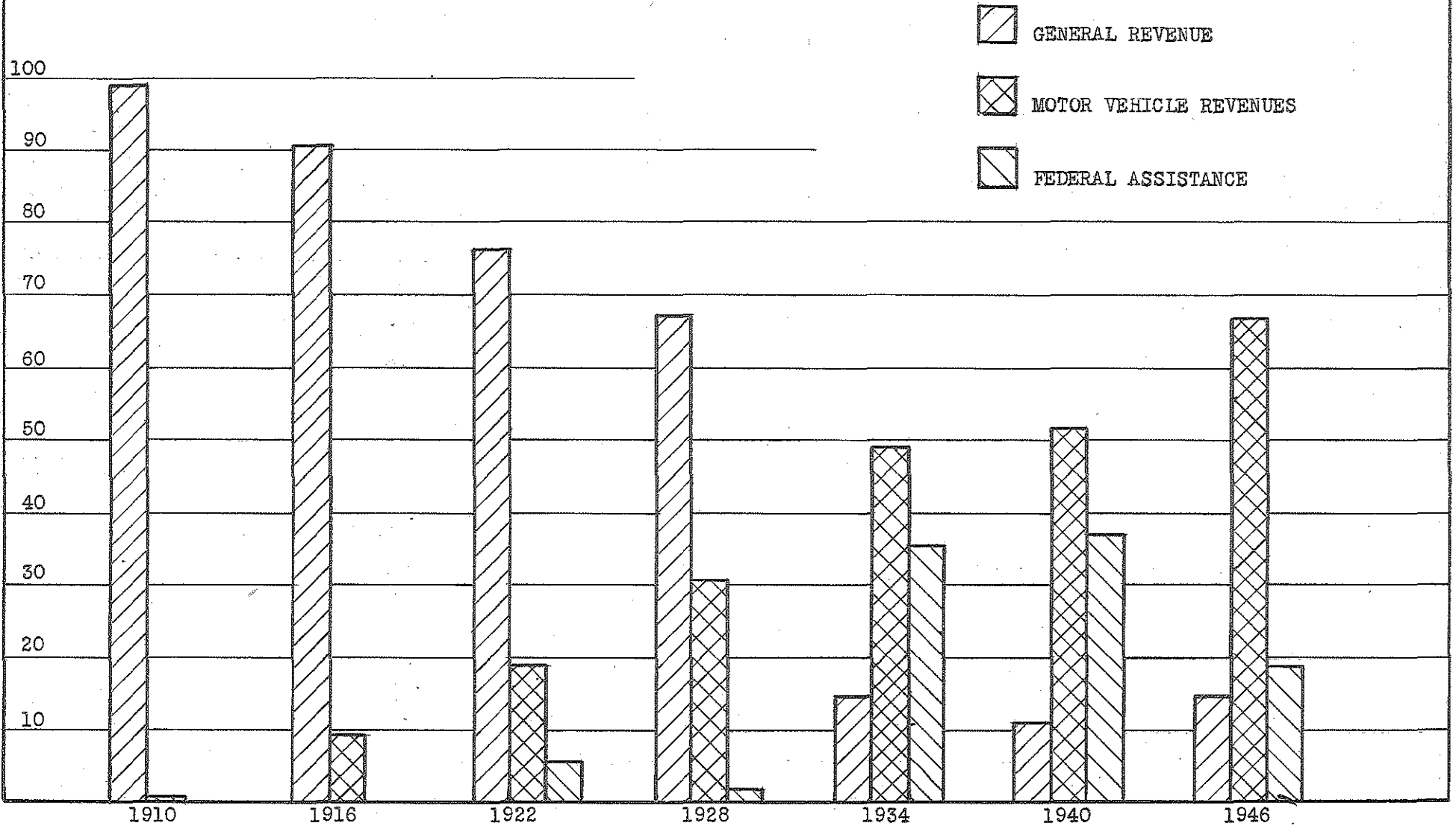





CHART 3

SUPPORT FOR ALL ROADS AND STREETS IN MICHIGAN
RAISED AND RETAINED BY EXPENDING GOVERNMENTAL UNITS THEMSELVES
AS PERCENT OF THEIR TOTAL HIGHWAY FUNDS OVER FIVE-
YEAR PERIODS BETWEEN 1927 AND 1946

PERCENT OF THEIR TOTAL HIGHWAY FUNDS RAISED BY UNITS THEMSELVES

-  STATE GOVERNMENT
-  COUNTIES & TOWNSHIPS
-  CITIES & VILLAGES

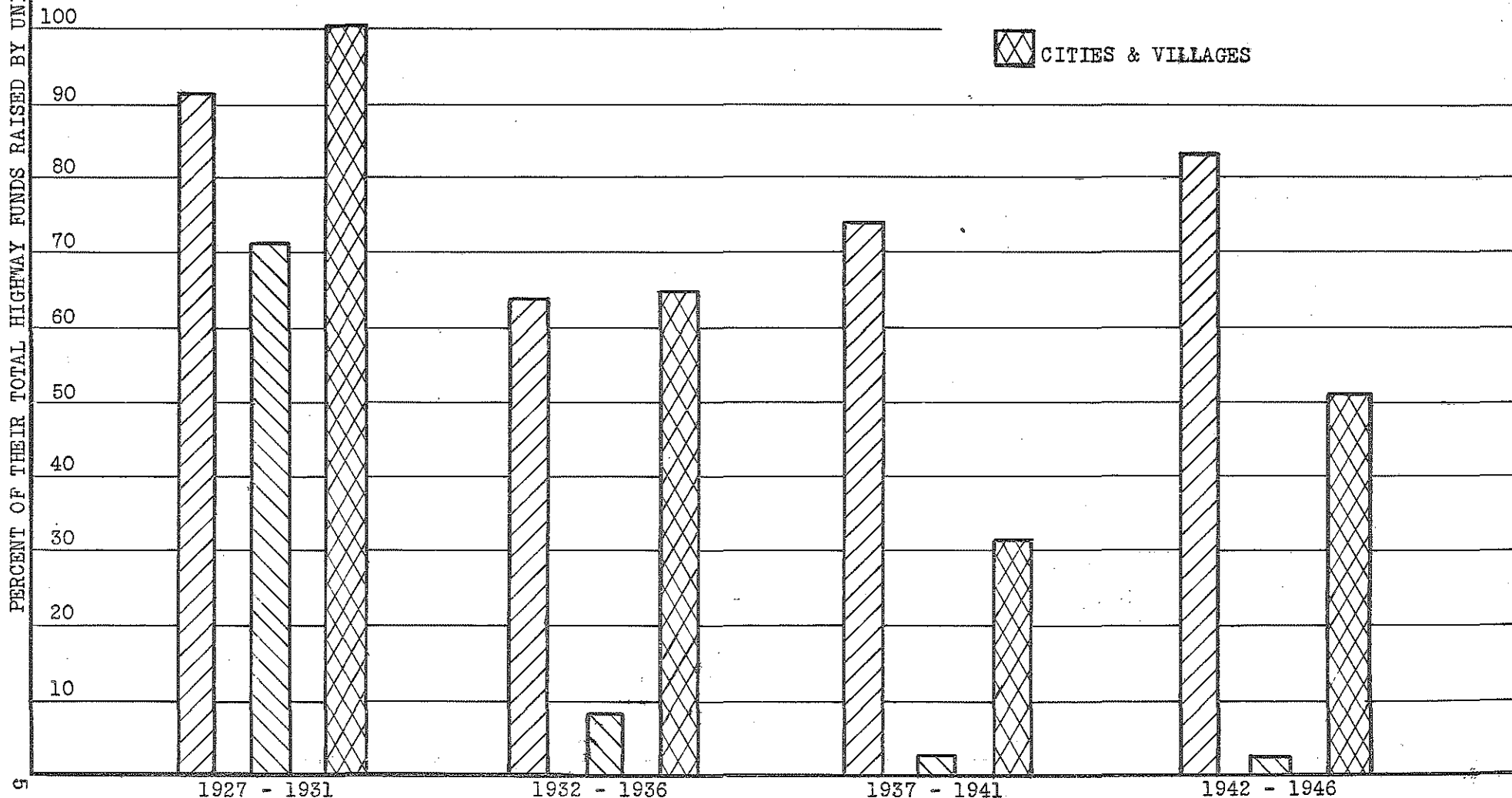






CHART 4

TOTAL ROAD AND STREET SUPPORT IN MICHIGAN
AMOUNT & PERCENT OF TOTAL RECEIVED BY EXPENDING UNITS
PERIOD 1910 TO 1946

RECEIPT BY EXPENDING UNIT - PERCENT OF TOTAL HIGHWAY FUNDS

-  FEDERAL FUNDS
-  STATE & FEDERAL FUNDS
-  STATE FUNDS
-  LOCAL SUPPORT

40

30

20

10

1000

900

800

700

600

500

400

300

200

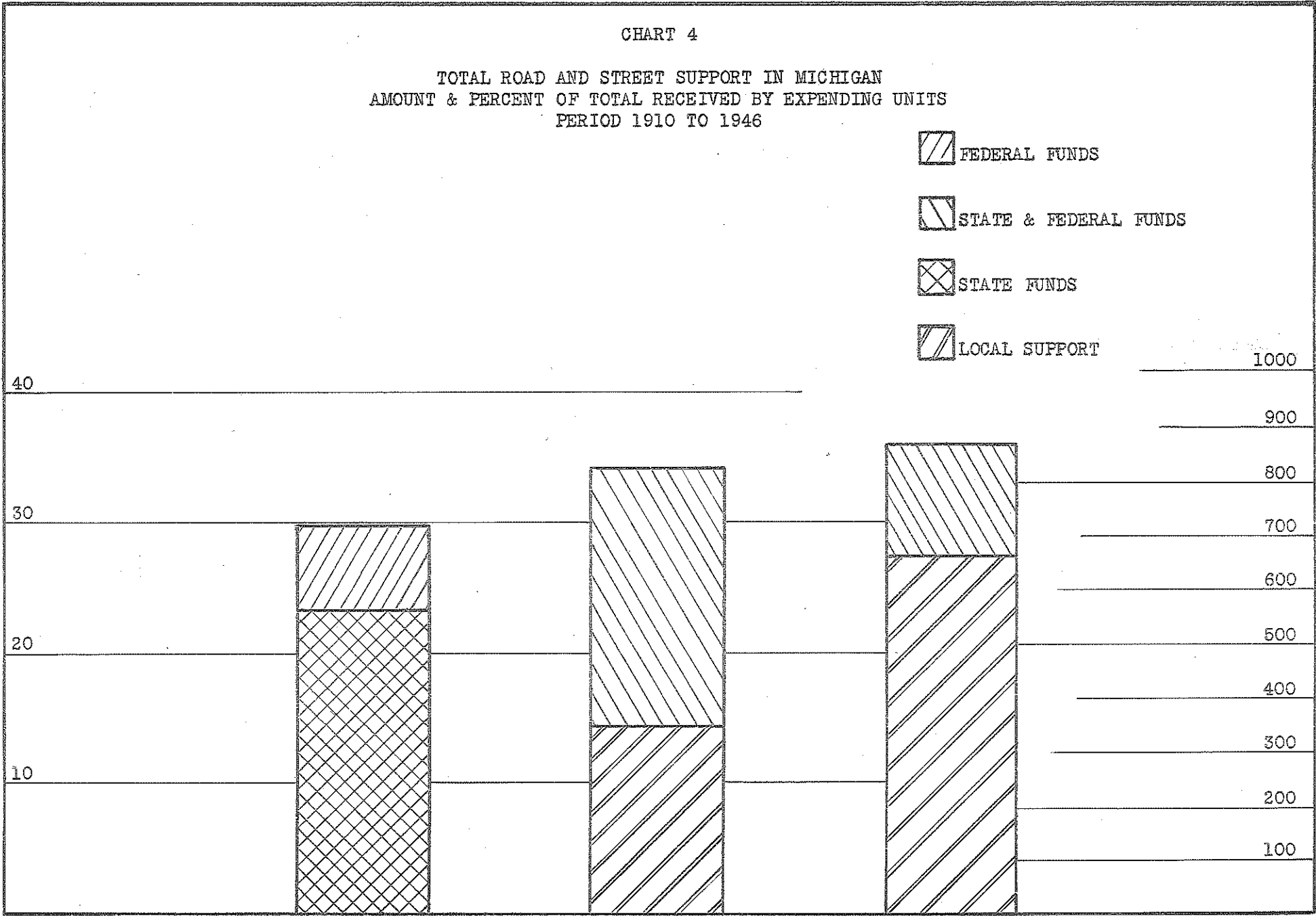
100

AMOUNT - MILLIONS DOLLARS

STATE

COUNTIES &
TOWNSHIPS

CITIES &
VILLAGES

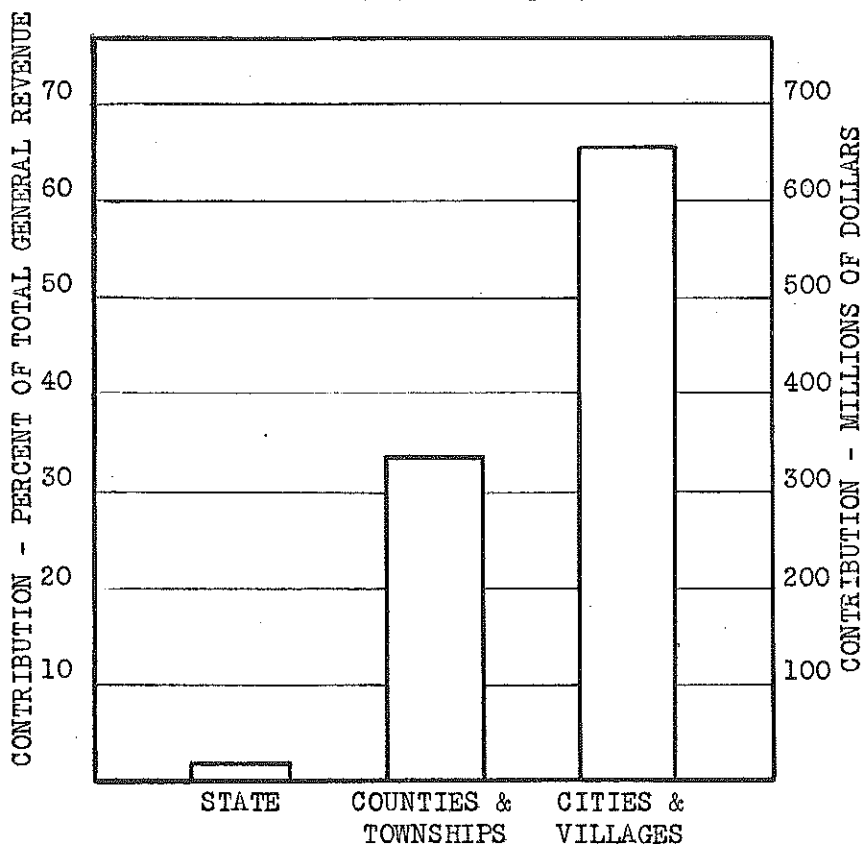


1. GENERAL REVENUE

General revenues have defrayed 42.7 percent of the total road and street bill. The total of more than one billion dollars represents principally a direct levy upon property through general property taxes and special benefit assessments levied, or specifically budgeted, for highways. Although at the state level the tax base has been expanded during late years and since 1934 has not included general property taxation, the chief support of local government still resides in the general property tax. Because of this and the small amount of state general fund revenues, fund appropriation elements may also be considered to have their source in this tax. Thus general revenue in its entirety may be considered as representing tax on property.

Urban local units have raised slightly less than two-thirds of the total general revenue available for highways, roads and streets, counties one-third and the state about 2 percent. (Chart 5)

CHART 5
GENERAL REVENUES FOR ROADS AND STREETS IN MICHIGAN
AMOUNT & PERCENT CONTRIBUTED BY THE SEVERAL GOVERNMENTS
PERIOD 1910 TO 1946



Until 1925, when the entire fiscal responsibility for rural trunkline highways was placed upon the state, the burden of all highway support fell preponderantly upon local governments and was carried by property taxation. Between 1910 and 1924 the state raised for highways some 5.5 millions of general funds and 56.3 millions of motor vehicle funds. It distributed to rural jurisdictions some 25 millions - almost half - of motor vehicle revenues. Concurrently, however, rural units had raised through property taxes some 172 millions; and cities and villages had raised an equal amount. Of the total of 420 millions between 1910 and 1924, general revenues account for 83 percent of total funds. The state raised or administered or both 18 percent of the total funds expended, including federal aids.

Until 1915 only urban municipalities levied special benefit assessments for highways. Legislation enacted in that year extended this prerogative to counties, and between 1910 and 1933, when the act was repealed, extensive use was made of this method.

Simultaneously with the sharp economic recession of the early 1930's, general revenues collapsed as a principal source of highway support. They had increased rather uniformly from 10 millions in total in 1910 to more than three times this amount in 1922, after which they increased rapidly, reaching 82 millions in 1928. Thereafter they decreased more rapidly reaching, by 1933 the 1908 level of less than 8 millions. Subsequently general revenues averaged about 12 millions annually, substantially the amount in 1911.

It is of interest that motor vehicle revenues did not decline in like proportion. In 1934, at their lowest since 1928, the 35 millions collected were only about 5 percent less than the 1928 amount and 17 percent below the highest collection of 1929.

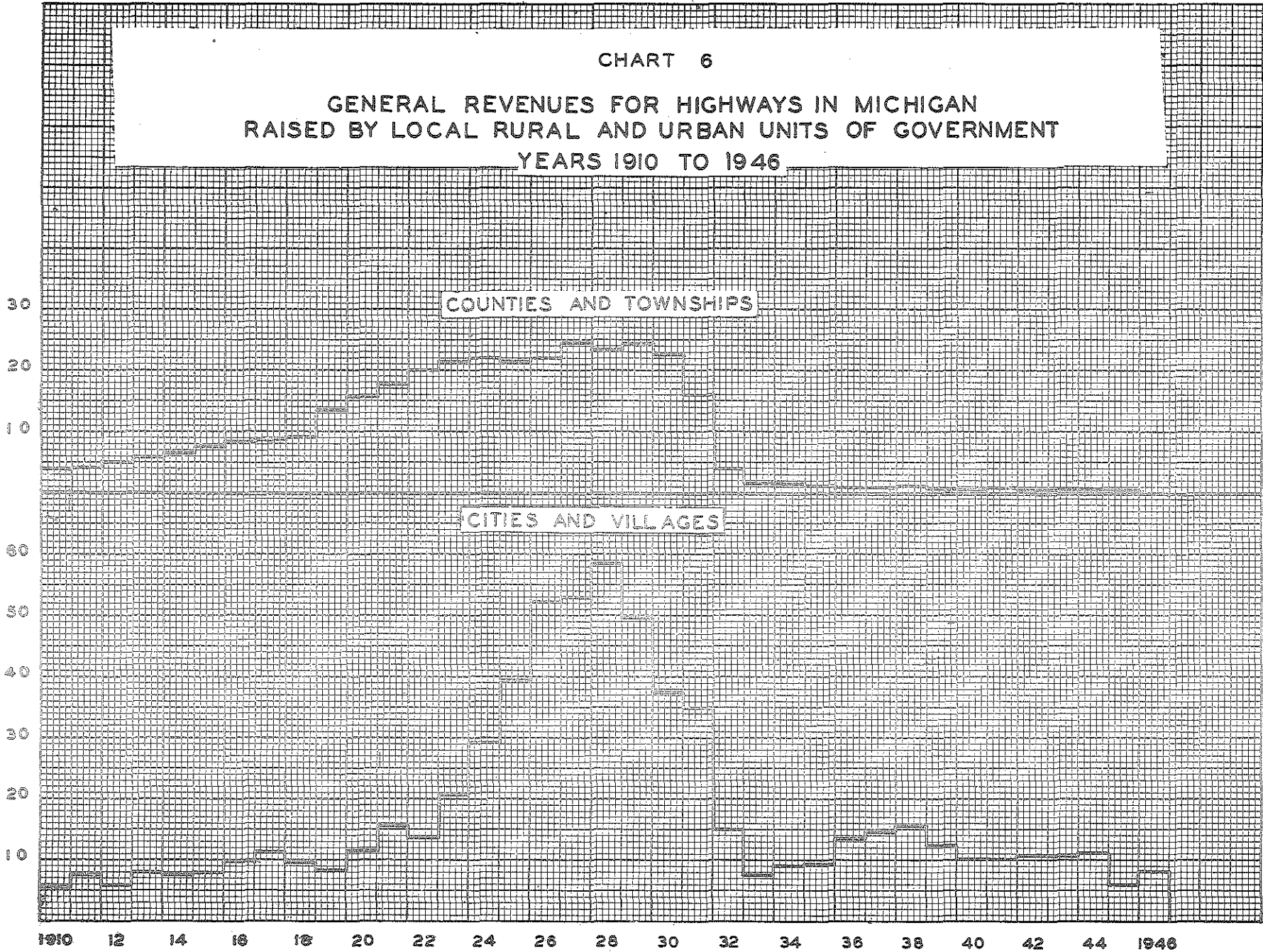
Three developments significant in relation to general revenues followed the collapse of these in support of highways. In 1931 the transfer of jurisdiction of township roads to counties was initiated, and by 1936 was completed. This was followed in 1932 by a constitutional amendment limiting general property taxation for all purposes to one and one-half percent of assessed valuation. Among all urban incorporations, however, the operation of this amendment is mandatory in only eleven cities. Finally, the state general property tax was abandoned after 1934.

Coincidentally, delinquencies in property tax payments were reaching new levels. In the state as a whole tax delinquencies had been increasing from 1925--they were then 10.0 percent. After 1931 this increased rapidly to 36 percent in 1932 and in 1933 forty percent of all property tax payments were delinquent.

The decline of general revenue support for highways since 1930 has been much greater in rural than in urban jurisdictions. Over the 15 years between 1931 and 1945, counties and townships raised but 11.9 percent, while cities and villages raised 45.3 percent, of the respective amounts they raised over the preceding 15 years. Over the five years between 1942 and 1946, counties raised 12.3 percent, while cities and villages raised 61.1 percent respectively, of amounts they raised over the five years between 1931 and 1935. (Chart 6)

CHART 6
GENERAL REVENUES FOR HIGHWAYS IN MICHIGAN
RAISED BY LOCAL RURAL AND URBAN UNITS OF GOVERNMENT
YEARS 1910 TO 1946

GENERAL REVENUE RAISED ANNUALLY—MILLIONS OF DOLLARS



1910 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 1946

2. MOTOR VEHICLE REVENUE

Between 1910 and 1946, one billion dollars, or 41.7% of highway funds originated as imposts upon motor vehicles. Of this total 47.7% has derived from registration fees, now known as weight tax, 51.1% from tax on motor fuels, known as the gasoline tax, and the remaining 1.2% from various licenses and fees.

(Chart 7)

Some 46% of total motor vehicle revenues for highways has been distributed to local governments for their expenditure over these years. Rural jurisdictions have received some 386 millions, or 38.5%, and urban governments 75 millions, representing 7.5%. (Chart 8)

The percentage of total motor vehicle taxes represented yearly by this share for local governments has varied widely. Legislation has appropriated for this distribution fractions, totals or specified amounts of one or both weight and motor fuel tax revenues. The average return to local units over the period is only slightly below the 47.7% of the total revenue represented by weight tax which comprised practically the entire revenue in 1916 when payment to counties started. This share dropped to a low of 15.6% in 1925 with the large increase in total revenue brought about by the new gasoline tax. It increased to 59.7% in 1934 when the distribution formula was changed to return the entire weight tax and in addition more than five millions of gasoline tax revenue. Over the last fourteen years an average of 55.6% of total net motor vehicle funds has been paid to counties. Since 1932, 20.4% of the funds paid to counties has been passed on to cities and villages, pursuant to legislation of that year. (Charts 9 & 10)

Insofar as is determinable, and except for some diversion for relief purposes early in the depression, all motor vehicle revenues collected by the state, less that portion used to defray collection expense, have been used by the state, and by the local governments which ultimately received portions of these, entirely for road purposes. Before 1938, when the state constitution was amended to guarantee this, these funds had been generally regarded by the public and govern-

CHART 7

MOTOR VEHICLE HIGHWAY REVENUE IN MICHIGAN
PERCENT OF TOTAL CONTRIBUTED BY EACH TAX SOURCE
PERIOD 1910 TO 1946

CONTRIBUTION - PERCENT OF TOTAL MOTOR VEHICLE REVENUE

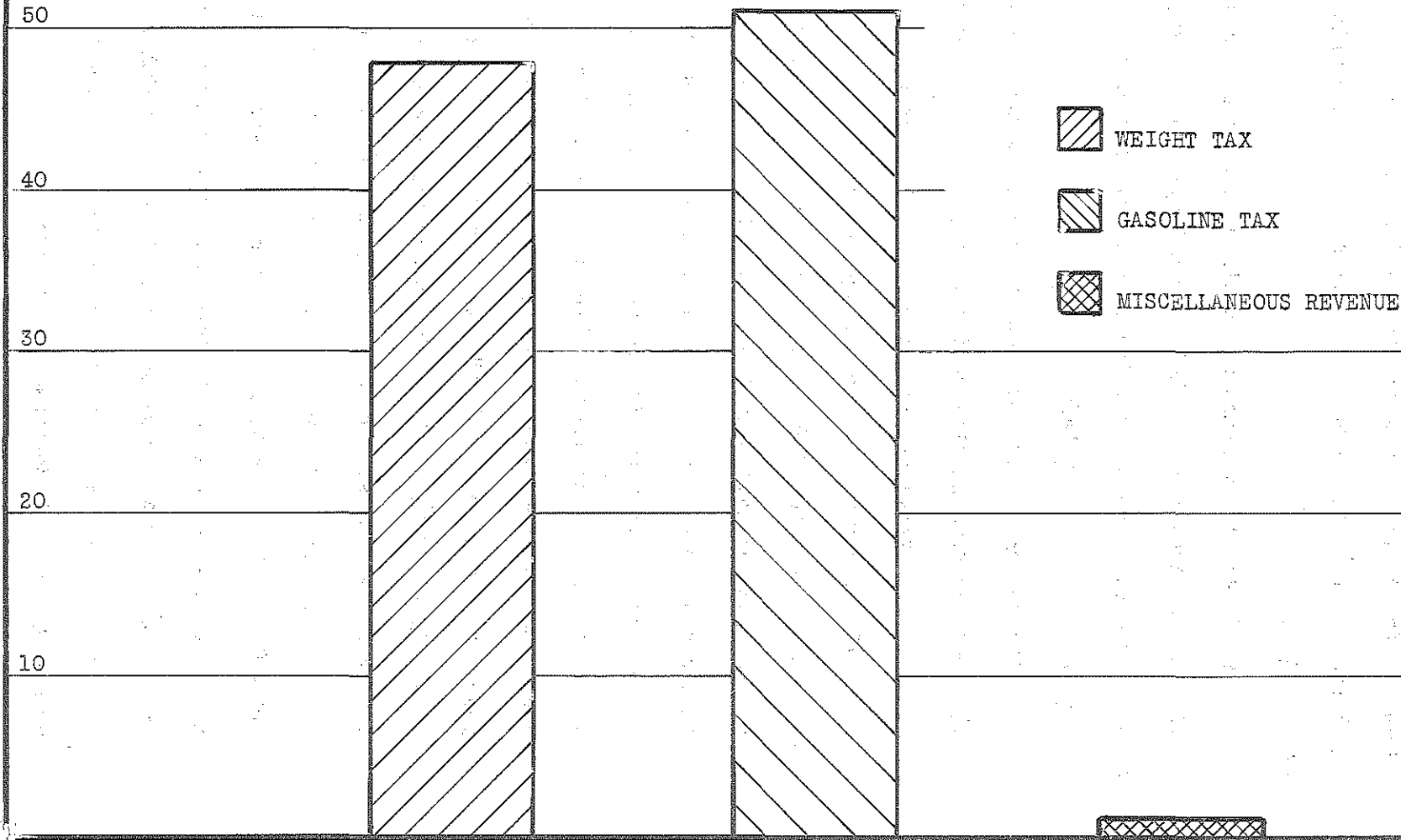


CHART 8

MOTOR VEHICLE HIGHWAY REVENUE IN MICHIGAN
PERCENT OF TOTAL DISTRIBUTED TO AND EXPENDED BY GOVERNMENTAL UNITS
PERIOD 1910 TO 1946

DISTRIBUTION - PERCENT OF TOTAL MOTOR VEHICLE REVENUE

60

50

40

30

20

10



STATE



COUNTIES & TOWNSHIPS



CITIES & VILLAGES

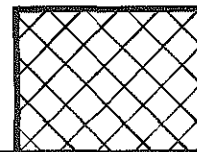
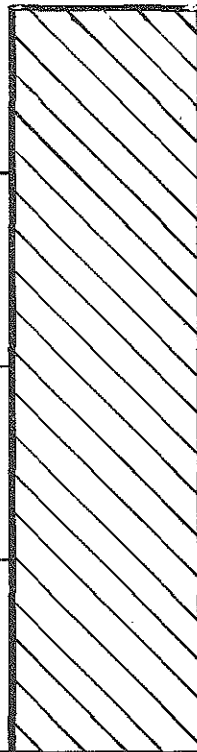
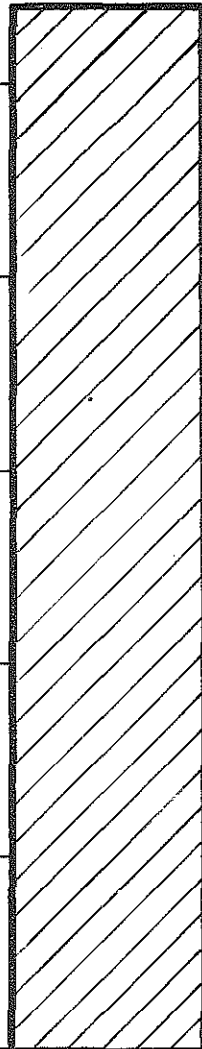


CHART 9

MOTOR VEHICLE NET REVENUE FOR HIGHWAYS IN MICHIGAN
TOTAL RECEIPTS AND DISTRIBUTION TO LOCAL GOVERNMENTS

YEARS 1910 TO 1946

MILLIONS OF DOLLARS

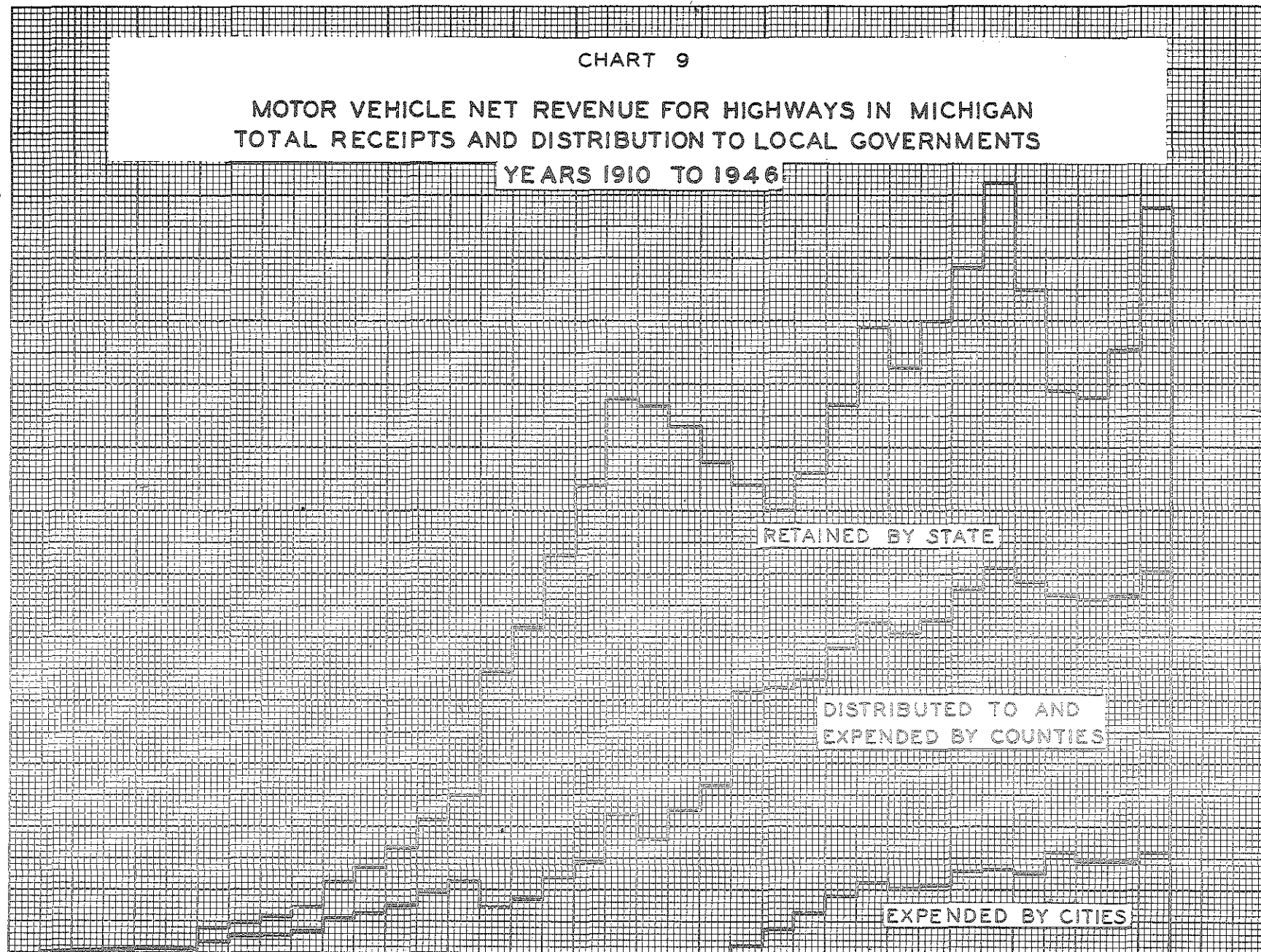
60
50
40
30
20
10

RETAINED BY STATE

DISTRIBUTED TO AND
EXPENDED BY COUNTIES

EXPENDED BY CITIES

1910 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46



ments administrators as dedicated to this use. Indeed, in view of the specification to this effect of all pertinent legislation beginning with that of 1915, it would appear to have been exceedingly difficult to successfully divert them to other purposes.

Legislation was enacted early in 1933 which permitted, over the last seven months of that year, the use of some gasoline tax revenue for the payment of previously incurred county welfare relief indebtedness. This applied only to such surpluses of this revenue as remained after specified highway tax relief priority requirements had been met. Counties received in 1933 a total of some 14.6 millions of gasoline tax funds. The amount diverted for relief purposes is unknown and consequently is not reflected in the data herein.

WEIGHT TAX

Since 1916 some 478 millions of dollars have been obtained for highway expenditure from taxes on the motor vehicles themselves. Although registration of motor vehicles was required as early as 1905, the fees were intended only to defray the expense incurred in carrying out this licensing. However, legislation of 1915, becoming effective the following year, established a tax per se on motor vehicles, expressly in lieu of other taxes, and based upon both their horse power and weight. This same legislation provided that all monies received from such taxes be applied to the building and improving of the highways of the state, and further, that one half the amount collected in each county be returned to that county for such highway use. In 1932 this act was legislatively recognized as "The Weight Tax Act"; even before the revenues had come to be spoken of as "weight tax".

Some 341.8 millions, representing 71.4% of the total, of weight tax funds have been distributed to counties. Since 1934 the entire proceeds have been returned. Between 1925 and 1934 six millions of these funds were allocated; and between 1916 and 1925 one-half were so committed. (Chart 11)

CHART II
 WEIGHT TAX NET REVENUE FOR HIGHWAYS IN MICHIGAN
 TOTAL RECEIPTS AND DISTRIBUTION TO LOCAL GOVERNMENTS
 YEARS 1916 TO 1946

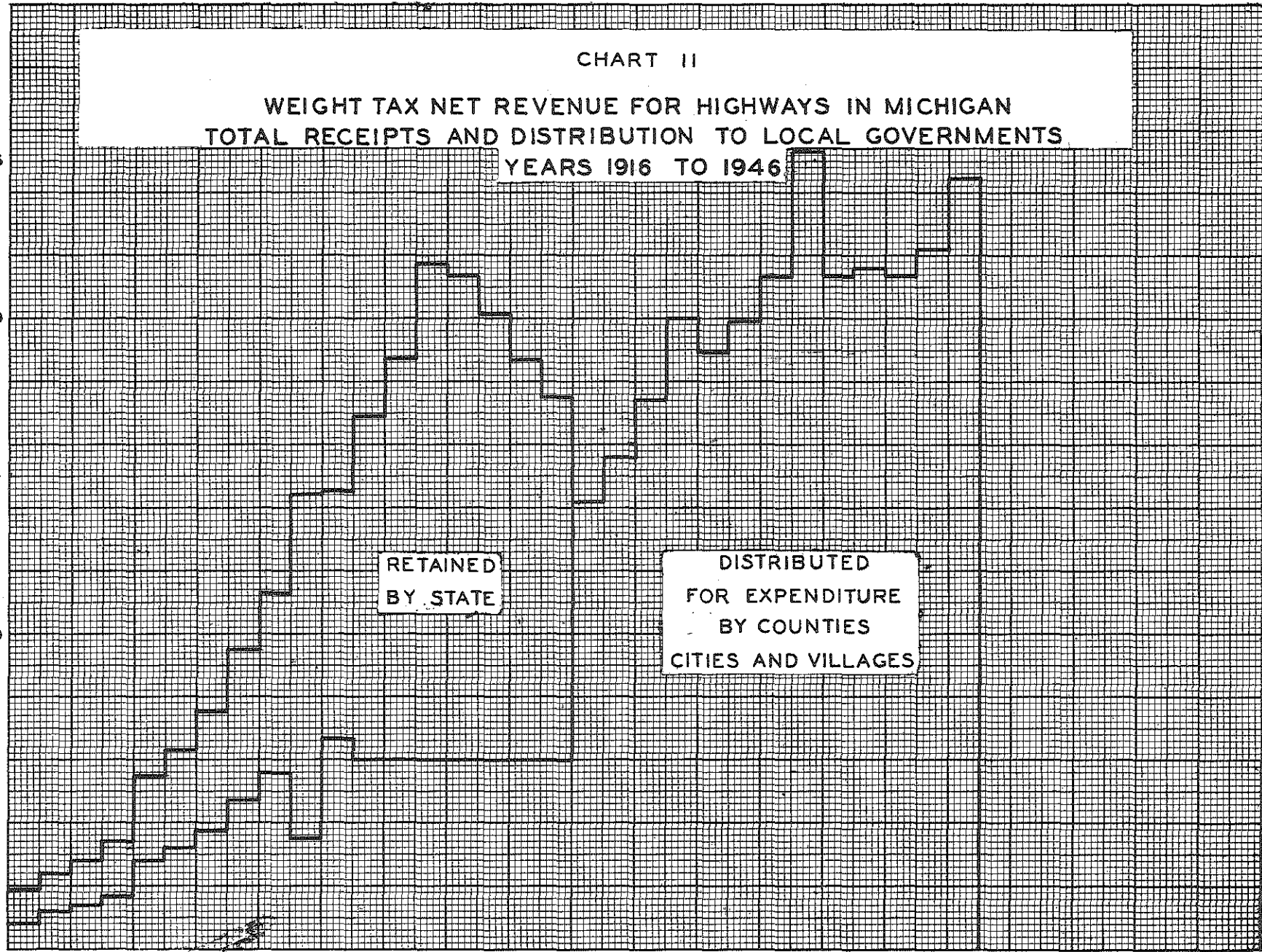
MILLIONS OF DOLLARS

25
 20
 15
 10
 5

1916 18 20 22 24 26 28 30 32 34 36 38 40 42 44 1946

RETAINED
 BY STATE

DISTRIBUTED
 FOR EXPENDITURE
 BY COUNTIES
 CITIES AND VILLAGES



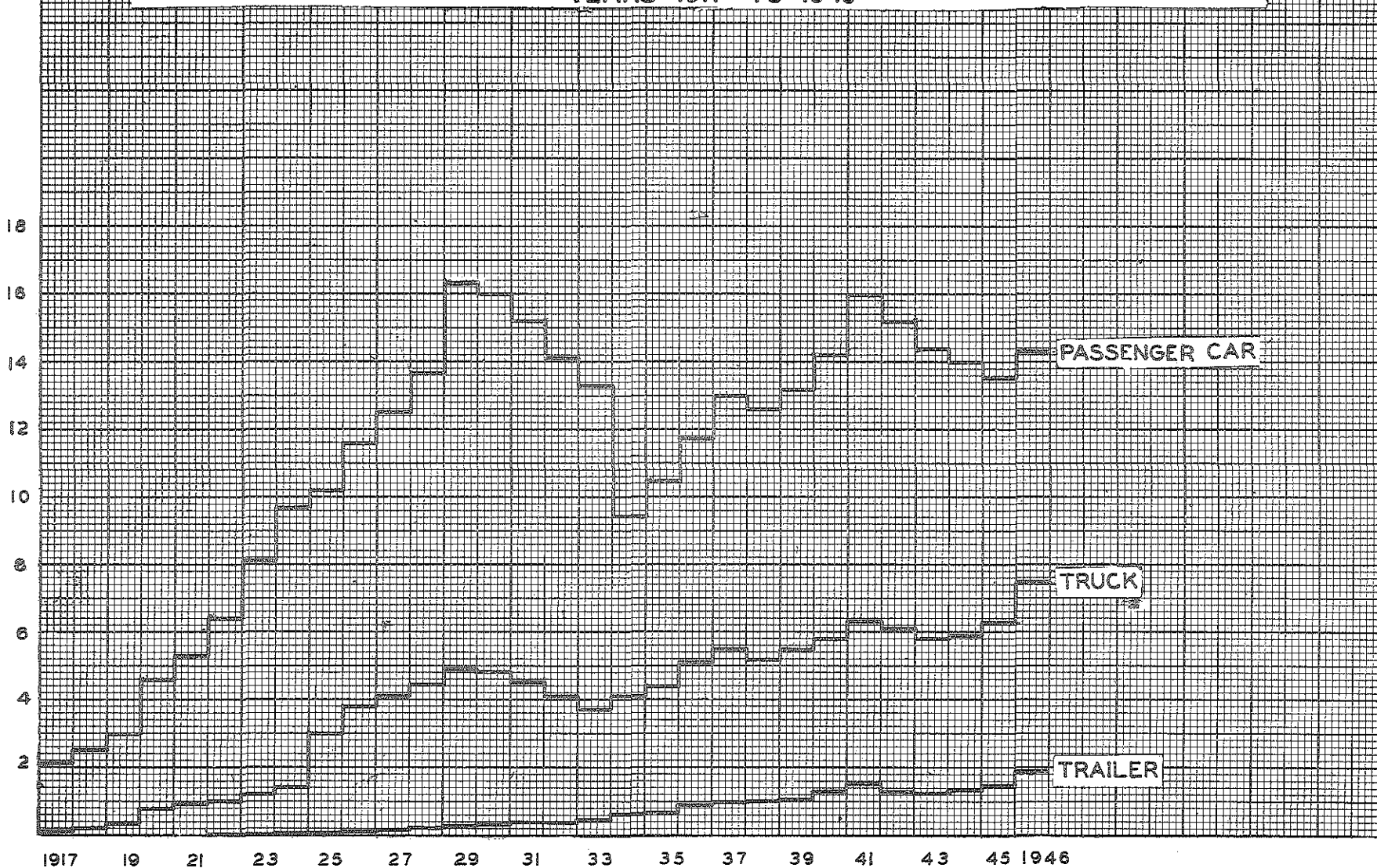
Passenger cars have contributed 71% of the total weight taxes, and trucks 24.6%. Trailers account for 3.9% and the remaining 0.5% originates in licenses on motorcycles, hearses and ambulances, and those paid by dealers and manufacturers. Farm trucks, since 1937 when legislation singled these out for taxation at less than the commercial rates which theretofore had applied, have contributed 8.5% of the revenue paid by all trucks during these years. The revenues from these trucks, as well as from all commercial vehicles has been increasing at a faster rate than those from passenger cars. (Chart 12)

Since 1916 there have been a number of changes in rates of weight tax and also as to the classes of vehicles to which they apply. Until 1925 the tax was computed from both the horsepower and weight of the vehicle, except that there was a nominal license plate fee for these as well, and license plates for motorcycles and for use of manufacturers and dealers were at a fixed rate. In 1925 the rates which had been based upon horsepower and weight were changed to reflect vehicle weight only. Passenger car rates were established at 55 cents per hundredweight. In 1934 this rate was lowered to 35 cents. Legislation in 1937 provided a special rate to farmers for trucks which they owned and operated solely in their business and not for hire, at 50 cents per hundredweight. Previously these had been taxed at commercial vehicle rates which were graduated from 65 cents to \$1.25 per hundredweight, the higher rates applying to the heavier vehicles. This act also extended this 50 cent rate to ambulances and hearses used in business and not for hire; and established a rate for house car trailers.

CHART 12

WEIGHT TAX RECEIPTS IN MICHIGAN
FROM PASSENGER CARS, TRUCKS AND TRAILERS
YEARS 1917 TO 1946

RECEIPTS - MILLIONS OF DOLLARS



In 1941 the rate for farm trucks was further reduced to 35 cents per hundredweight, and there was established a special category for trailers and semi-trailer owned and operated by farmers, the rates for which were 35 cents to 50 cents per hundredweight, as compared with the commercial trailer rates of 50 cents or one dollar per hundredweight, depending upon weight, which had formerly applied to them. This legislation also provided that busses of church, parochial or grammar schools were to be issued license plates at the rate of 50 cents per pair, without other tax, placing these in the same rate category as vehicles owned by governments of the state.

The latest rate change occurred in 1945 when that applying to commercial trailers weighing between 500 and 1,000 pounds, which had been 50 cents, was increased to one dollar per hundredweight.

GASOLINE TAX

The motorist has paid the larger part of his support of highways through tax on motor fuel. Initiated in 1925, nine years after the weight tax was imposed, the gasoline tax has yielded to date more than 513 millions of dollars. It has been the only significant source of funds for state trunklines since the weight tax was allocated in full to local governments in 1934. Even in the years before this it had provided one half the state system funds, on an average. (Chart 13)

Since 1925, 23.4% of the net gasoline tax revenue received has been paid to local road and street jurisdictions. This represents an average payment to them of 6.3 millions. The present commitment is 6.75 millions.

There have been only two significant changes in motor fuel tax rates. In 1927 the rate was increased from two cents to three cents per gallon. This applied equally to all types of motor fuel. Legislation in 1947 established a rate of five cents per gallon on all fuel used by automotive highway vehicles having diesel-type engines.

**GASOLINE TAX NET REVENUE FOR HIGHWAYS IN MICHIGAN
TOTAL RECEIPTS AND DISTRIBUTION TO LOCAL GOVERNMENTS
YEARS 1926 TO 1946**

CHART 13

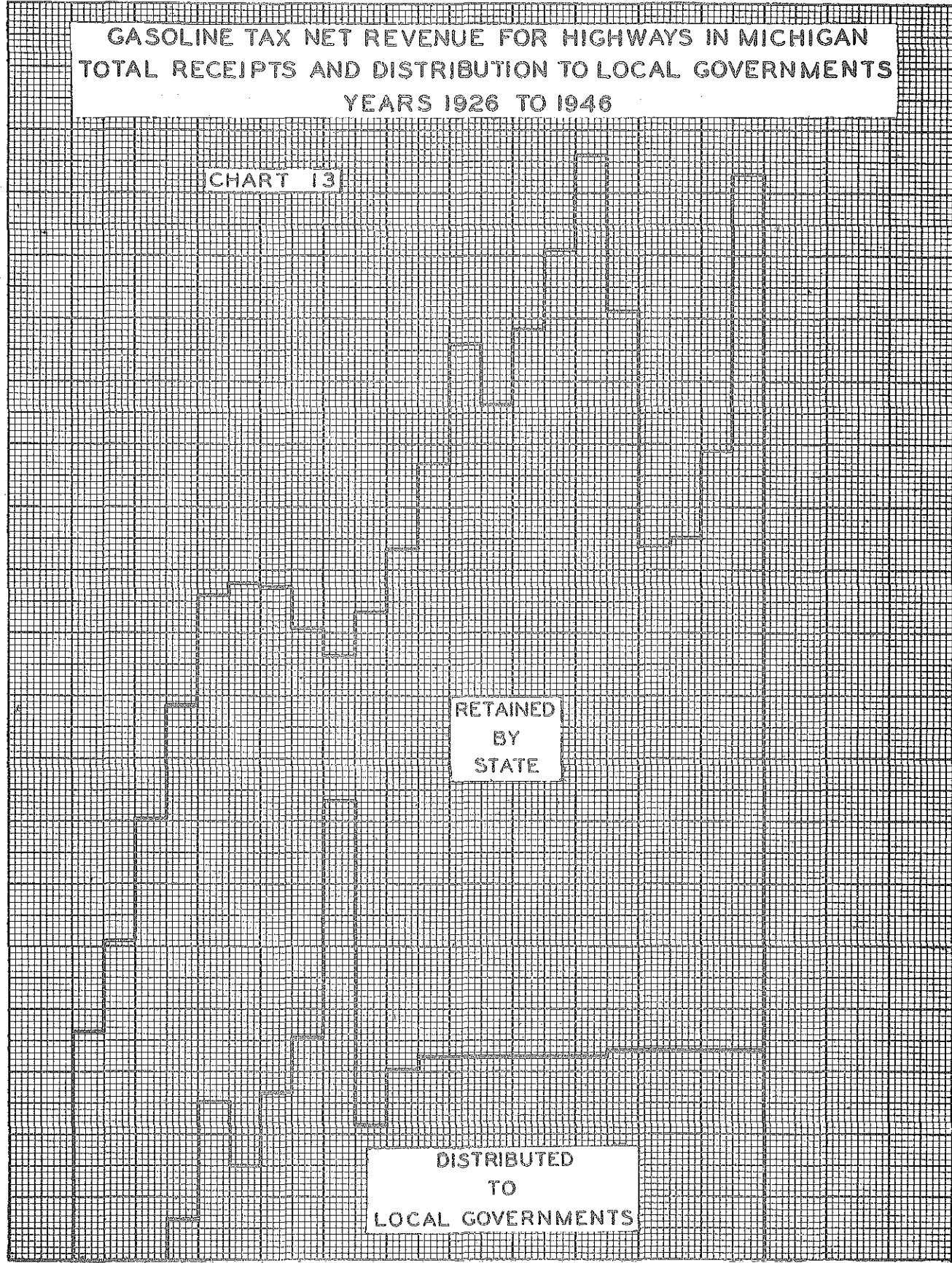
MILLIONS OF DOLLARS

35
30
25
20
15
10
5

RETAINED
BY
STATE

DISTRIBUTED
TO
LOCAL GOVERNMENTS

1925 27 29 31 33 35 37 39 41 43 45 46



FEDERAL ASSISTANCE

Highway development in Michigan has been benefitted over the past twenty years by the expenditure of some 376 millions of dollars of federal funds. Over the 1910-1946 period this represents 15.6% of total road and street support. Begun in 1917, grant-in-aid allotments have been made in each succeeding year but two during the recent war. These allotments account for 38.9% of the total federal aid. The remaining and larger part is represented by emergency relief expenditures made between 1934 and 1942. (Chart 14)

State trunklines have received 40.5%, county and township roads 24.2% and city and village streets 35.3% of the total federal financial assistance. All but 8% of trunkline aid is represented by funds allotted for expenditure by the state under matching or special authorizations. Conversely, all but 6% of county rural road and all city and village street federal assistance has been through the expenditure of relief funds directly by the various federal agencies. (Charts 15 & 16)

These relief expenditures undoubtedly did not produce the dollar value of highway improvements that would have resulted had these funds been spent by the established road and street departments. The Federal Board of Investigation and Research, after exhaustive study of the country-wide activities of these relief agencies, set 75% as representing the real value of their expenditures in resulting improvements. However, the funds were spent during a period of economic deflation wherein the dollar purchased substantially more than during years immediately preceding and following, tending therefore to offset this discount in value of expenditure. Since no attempt has been made in this study to evaluate expenditures of any year or period on the basis of price indices, the dollar value of the improvements necessarily will have varied widely between 1910 and 1946. Because of this and the fact that, in total, relief expenditures for highways represent less than 10% of the total highway support, they have been included without adjustment.

CHART 14

FEDERAL ASSISTANCE FOR HIGHWAYS IN MICHIGAN
 ALLOTMENTS AND RELIEF EXPENDITURES
 YEARS 1917 TO 1946

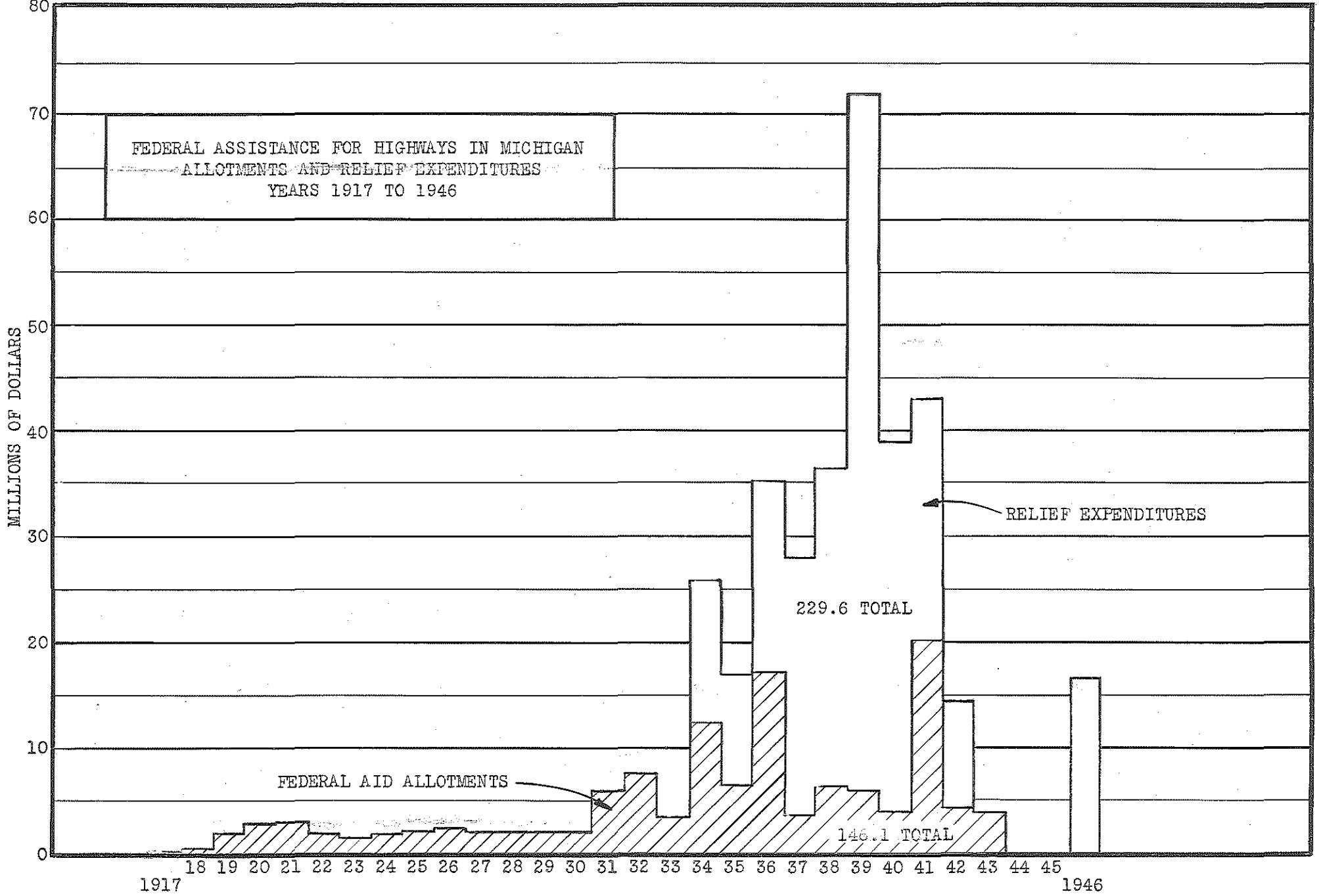


CHART 15
FEDERAL ASSISTANCE FOR HIGHWAYS IN MICHIGAN
PERCENT OF TOTAL BENEFIT ACCRUING TO STATE AND LOCAL GOVERNMENTS
THROUGH EXPENDITURE ON THEIR RESPECTIVE ROAD SYSTEMS
PERIOD 1917 TO 1946

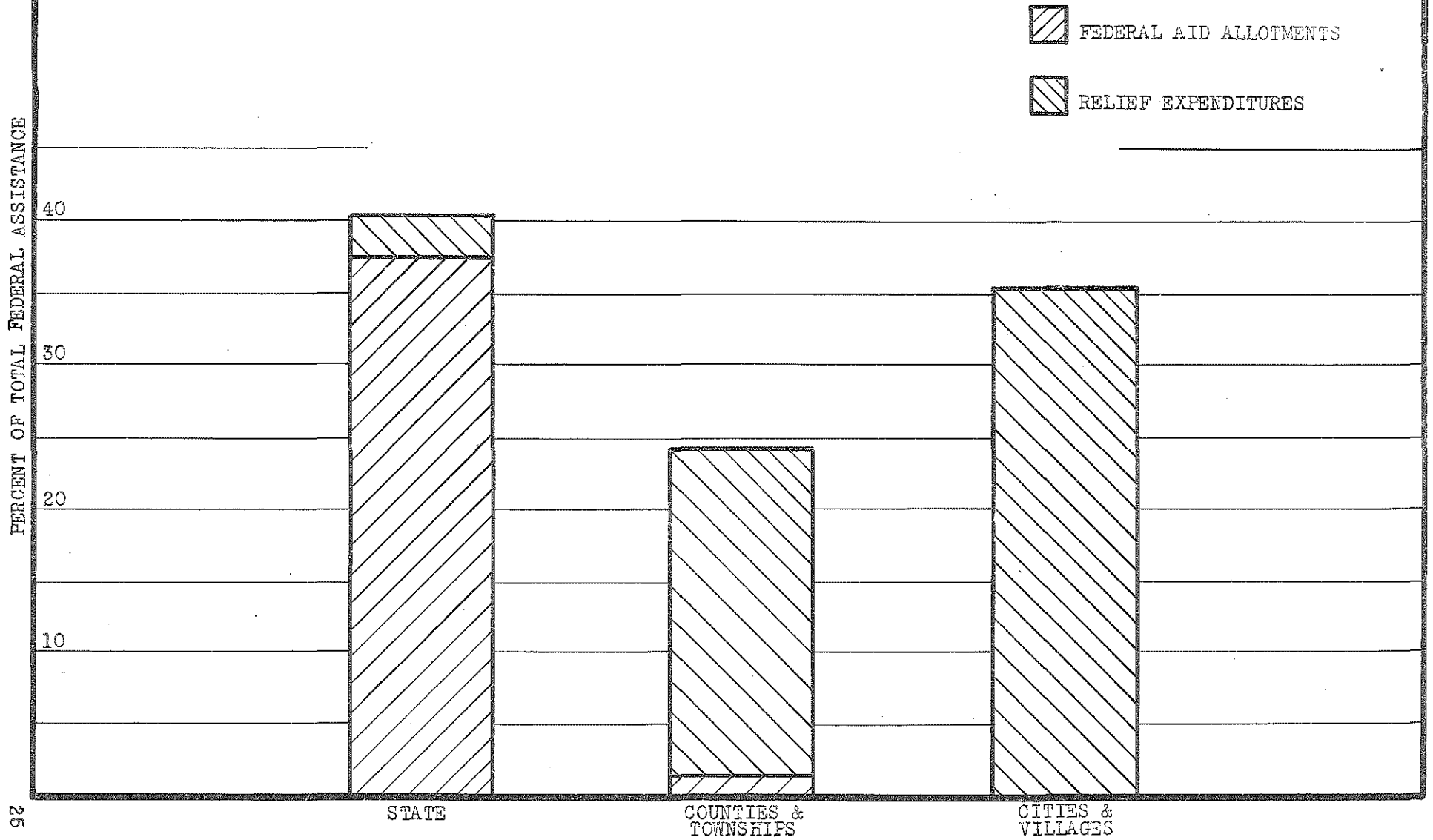
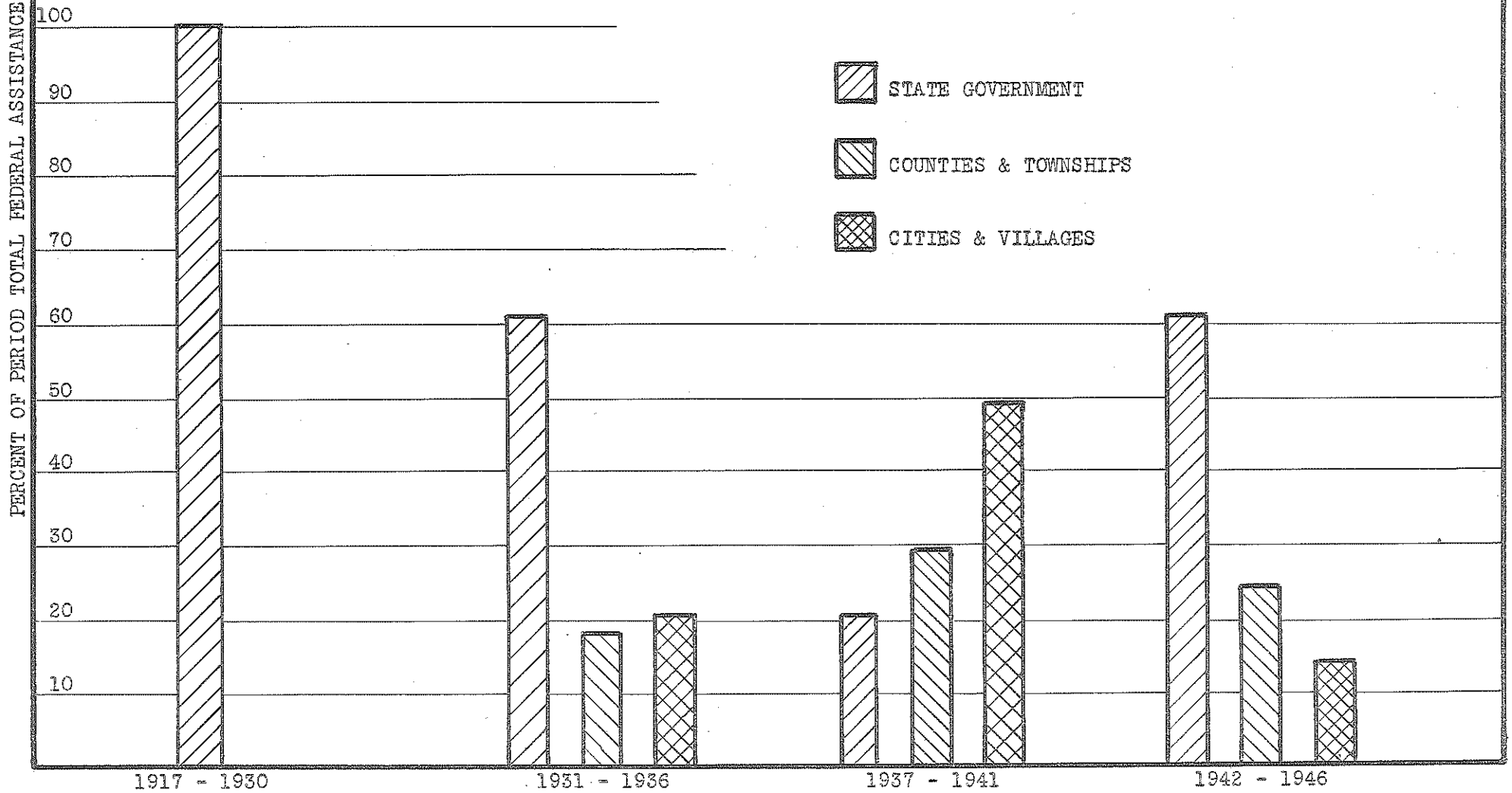


CHART 16

FEDERAL ASSISTANCE FOR HIGHWAYS IN MICHIGAN
BY UNIT OF GOVERNMENT WHOSE SYSTEM WAS IMPROVED
THROUGH ALLOTMENTS AND RELIEF EXPENDITURES
PERIOD AVERAGE PERCENTAGES OF TOTAL
BETWEEN 1917 AND 1946



Federal assistance for highways was initiated by the Federal-aid Road Act of 1916, allotments resulting from which were first received in 1917. This act provided for federal participation up to 50% of total cost, and not to exceed five thousand dollars per mile, of rural roads over which United States mails were being or might thereafter be transported. Funds were allocated among the states by a formula employing in equal weight area, population and post road mileage. This aid was available, however, only to states in which a state highway department had been created. The initiative in determining what roads were to be improved and the kind of improvement was left with the state, as well as the supervision of construction. The federal government, however, protected its investment by making its participation a reimbursement of part of the total cost after this had been paid by the state, and contingent upon federal approval of quality of workmanship. It also required that improvements so made be properly maintained.

The Federal Highway Act of 1921 effected three notable changes in federal aid highway policy. It required the states, with federal approval, to designate a system of primary interstate and intercounty roads, limited initially to 7% of total rural road mileage. The earlier legislation had permitted development of sections of roads so scattered as to preclude system development in many instances. Because maintenance funds were not available to many state departments and derived through uncertain action of local governments, the 1921 legislation imposed specifically upon the state the duty of providing adequate maintenance, and authorized the employment directly for that purpose of needed amounts from the aid funds apportioned to any state which failed to adequately maintain previously built federal-aid roads. Finally, the act authorized payment of more than 50% of total cost of roads in states wherein large areas of land were owned by the federal government, and from which no tax revenues could be derived.

During the economic depression following 1929 numerous further changes in

federal highway policy were made. Beginning in 1930, special appropriations were made as advances of state shares of cost, to be repaid by deduction from subsequent federal aid allotments. In 1934 these advances were made outright grants. A special appropriation not requiring matching by states was made in 1933 to relieve unemployment. For the distribution of this among the states the earlier formula was modified to give greater weight to population. This legislation also, for the first time, permitted federal funds to finance part or all of the cost of surveys and plans, and provided for the use of part of the funds for extensions of federal aid system roads in municipalities having a population of 2,500 or more. Legislation in 1934 first provided federal aid for secondary or feeder roads; in the Emergency Relief Appropriation Act of 1935 the first specific allocation was made for the elimination of hazards at railroad grade crossings.

National defense and war needs continued the divergence from original policies. In 1940 federal aid funds previously authorized were made expendable, upon request of the Secretaries of War or Navy or other authorized national defense agency, to pay the entire engineering costs of surveys, plans and supervision of construction urgently needed for national defense. The Defense Highway Act of 1941 made appropriations available, without regard to formula apportionment among states, for all or any part of the cost of rights-of-way and construction of roads, bridges or tunnels required for access to military reservations or defense industry sites. This act also authorized additional appropriations for the correction of critical deficiencies of the strategic highway network previously approved by the War Department; provided for consideration of claims occasioned by damage to roads by Army or Navy; and appropriated funds for surveys and plans for future development of the strategic highway network and bypasses around or extensions into municipalities. In 1943 the definition of construction was amended to

include cost of right-of-way and funds previously authorized were made expendable for this purpose.

The Federal Aid Highway Act of 1944, the latest pertinent legislation, comprehends a greatly enlarged federal participation in highway development. Intended "... to establish a pattern for a long-range program of highway development designed for national defense and to serve the major classes of highway traffic. ...", it provides for the designation, and inclusion in the federal aid highway systems, of a National System of Interstate Highways limited to 40,000 miles in total; and for a system of principal secondary and feeder roads, to include farm-to-market, rural mail and school bus routes. For the first time federal aid funds are authorized and limited to expenditure on the Federal Aid System in urban places with a population of 5,000 or more. Appropriations are included for a three year period for projects on the federal aid highway system in both rural and urban areas, for forest highways and forest development roads and trails, and for roads and trails in national parks and Indian reservations. In the selection of highway system routes under this legislation conservation, development of national resources and economic and social values are given greater weight than is the existing numerical traffic volume.

SECTION B

SECTION B

USE OF HIGHWAY FUNDS--1910-1946

SUMMARY

Highway expenditures made by the state and local governments since 1910 total, substantially, the tax revenues and federal funds received for that purpose. Offsetting those expenditures financed from borrowings not yet repaid, are fund balances which have accumulated, and which exceed them by less than fifteen millions of dollars.

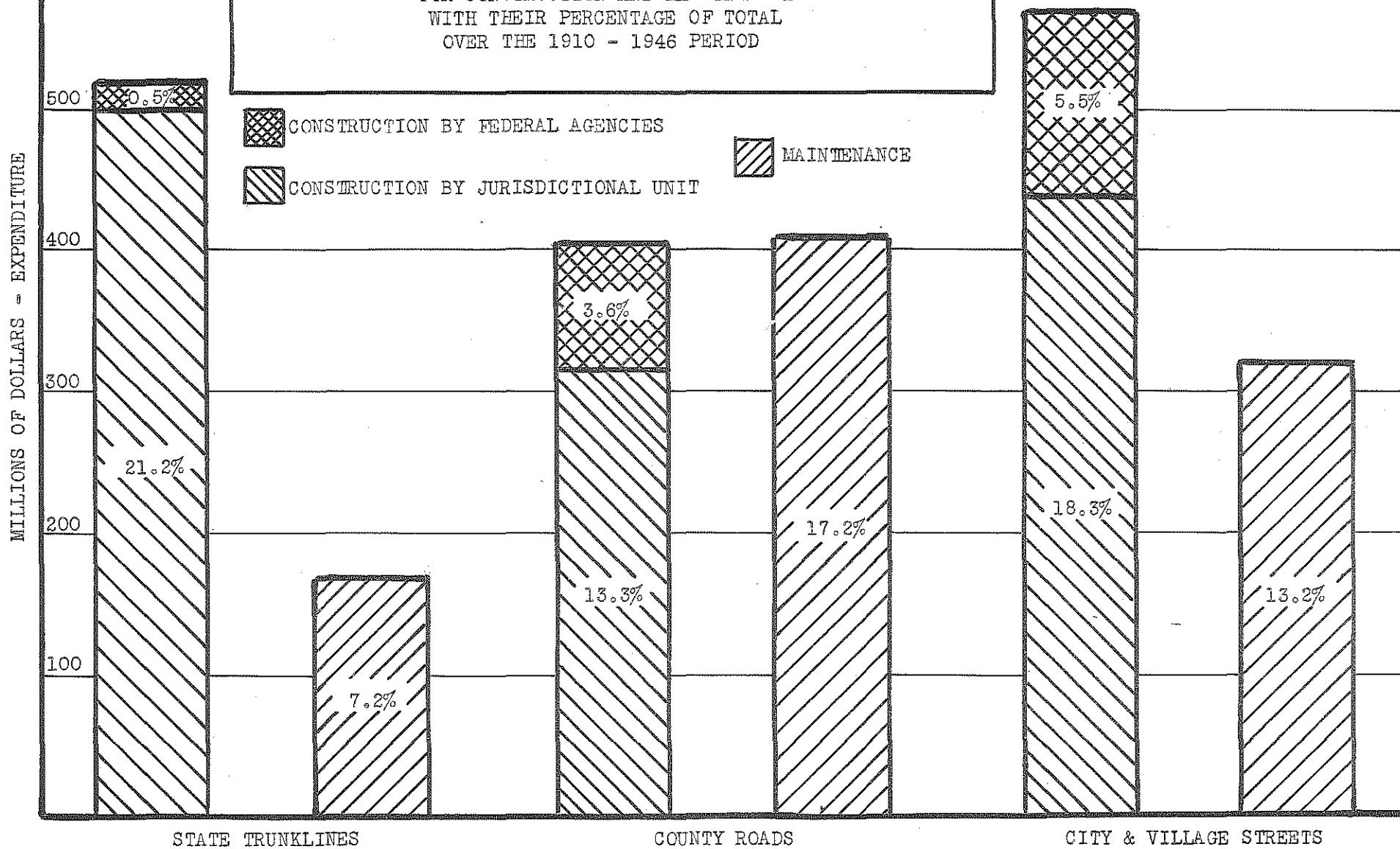
Some 90.4% of the total of 2.4 billions has been expended by the units themselves, the remainder having been spent directly by federal unemployment relief agencies between 1934 and 1942. Federal grants-in-aid have reimbursed the state and county governments for some 138.7 millions of dollars of their construction expenditures. These represent 9.3% of the total construction outlay, and 5.8% of the total highway expenditure between 1910 and 1946. Federal funds in total have paid 15.4% of the entire highway bill over these years, and 24.7% of the total construction expenditure. They have been used only for construction.

The three jurisdictional groups comprising all highways are represented in the total expenditure by those made for them as follows: 28.9% for state trunklines, 34.1% for county roads, and 37.0% for city and village streets.

Of the total spent for highways, 62.4% has been for their construction and 37.6% for their maintenance. The maintenance portion of total expenditure for roads that now are under county jurisdiction is more than one-half, and is the highest among the three groups. It is lowest for state trunklines. (Chart 17)

CHART 17

HIGHWAY EXPENDITURES IN MICHIGAN
MADE ON TRUNKLINES, COUNTY ROADS AND CITY & VILLAGE STREETS
FOR CONSTRUCTION AND MAINTENANCE
WITH THEIR PERCENTAGE OF TOTAL
OVER THE 1910 - 1946 PERIOD



The terms "construction" and "maintenance" as here used are broadly, rather than specifically, indicative of the two basic and major functions of highway administration. Together they comprise the total. The expenditures for both include dollar pro rata allocations of any separately reported administration and overhead expense, and those for construction include also interest paid on indebtedness incurred for roads and streets.

Uniform, meaningful and clearcut accounting for road and street finance, unfortunately, is uncommon among governments, and few local units keep statistics of operations over past years. Stimulated by their legal responsibility to report to the state their yearly receipts and disbursements of road monies, and by requirements involving the reimbursement of maintenance expenditures made by them on trunklines, county road commissions have made notable progress in the direction of uniformity in accounting. Among cities and villages, however, the practice varies widely, and not uncommonly street finance operations are included with those for other activities. Fundamentally this confusion stems from uncertainties among all highway jurisdictions as to (1) the activities properly belonging in the road and street category, (2) the extent to which, and the principles by which "costs" of these can and should be determined, and (3) the accounting procedures most suitable. Disparities in viewpoint as to what constitutes "construction" and what "maintenance" is part of this confusion and expenditures as reported cannot but reflect it.

1. STATE TRUNKLINES

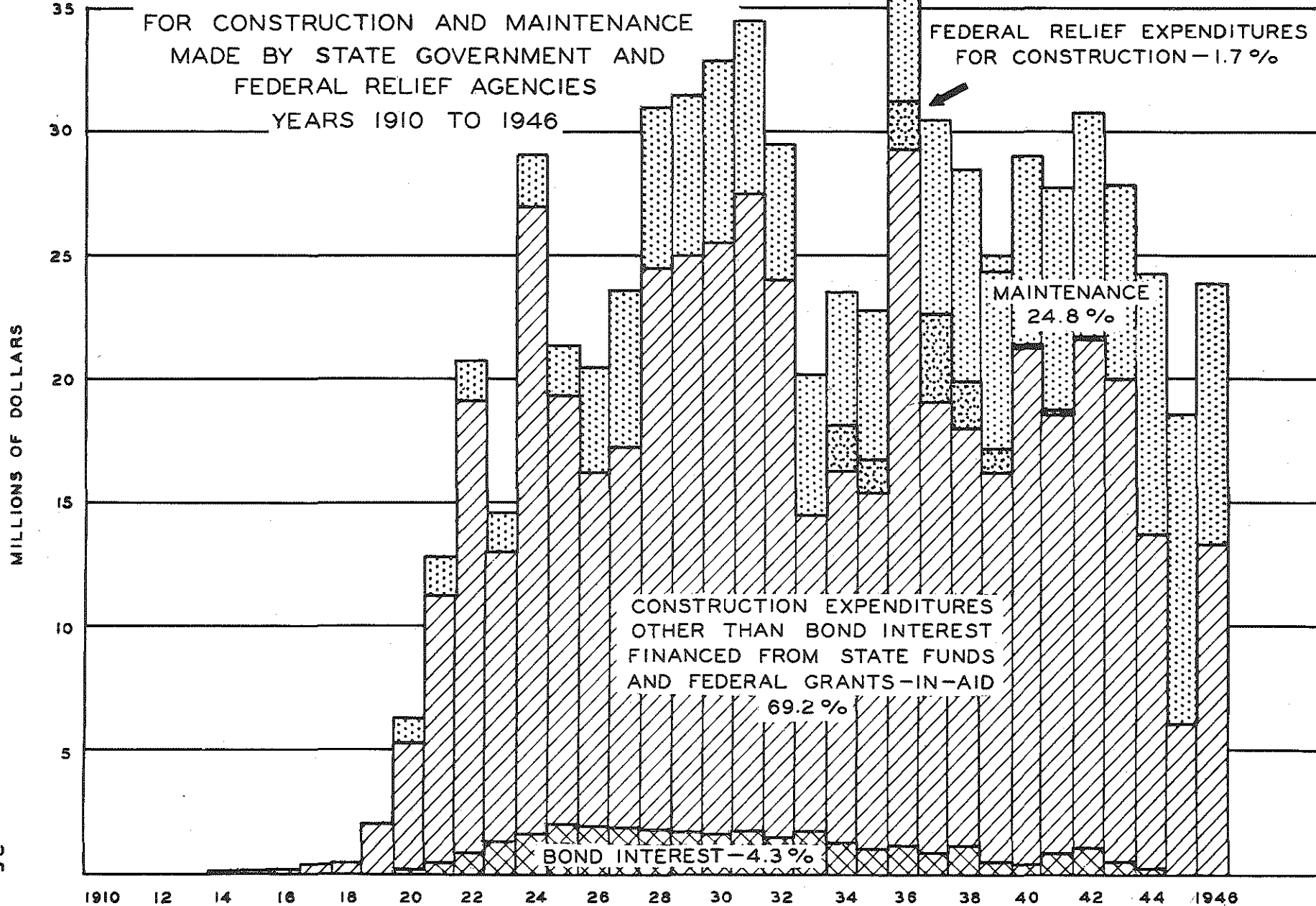
Over the last thirty seven years some 688.8 millions of dollars of state-government-collected and federal funds have been spent by these governments to develop and maintain a system of trunkline highways over the state. This represents 28.9% of the total expended for all roads and streets. Except for 11.6 millions of federal relief expenditures, accounting for 1.7% of the total for trunklines, and for 2.2% of the total of construction outlay for trunklines, these have been administered by the State Highway Commissioner and his Department. Yearly amounts increased from twelve thousand dollars in 1910 to a maximum of 36.5 millions in 1936. They have averaged 18.6 millions over the thirty seven year period, and 25.4 millions since 1920. (Chart 18)

This total does not include all expenditures made on roads that presently are included in the trunkline system. Prior to 1919, shares ranging between 25% and 50% of the cost of roads then designated as trunklines were borne by local governments. Between 1919 and 1925 this local participation decreased to between 5% and 25%, and in 1926 the entire fiscal responsibility for rural trunklines devolved upon the state. Since then, however, almost 2600 miles of roads, representing 28% of the present total, have been added to the trunkline network. There is, of course, no way of ascertaining the expenditures made by local governments on these after 1910 and before they were incorporated into the state system. Expenditures, therefore, are only those made by the state, and directly by federal agencies, and after the roads and streets had been designated as trunkline elements.

Construction, for which 75.1% of the trunkline total expenditure has been made, was given early impetus by the flotation of a fifty-million-dollar bond issue to get the motorist "out of the mud". Approved by the voters in April of

CHART 18

EXPENDITURES FOR TRUNKLINES IN MICHIGAN
FOR CONSTRUCTION AND MAINTENANCE
MADE BY STATE GOVERNMENT AND
FEDERAL RELIEF AGENCIES
YEARS 1910 TO 1946

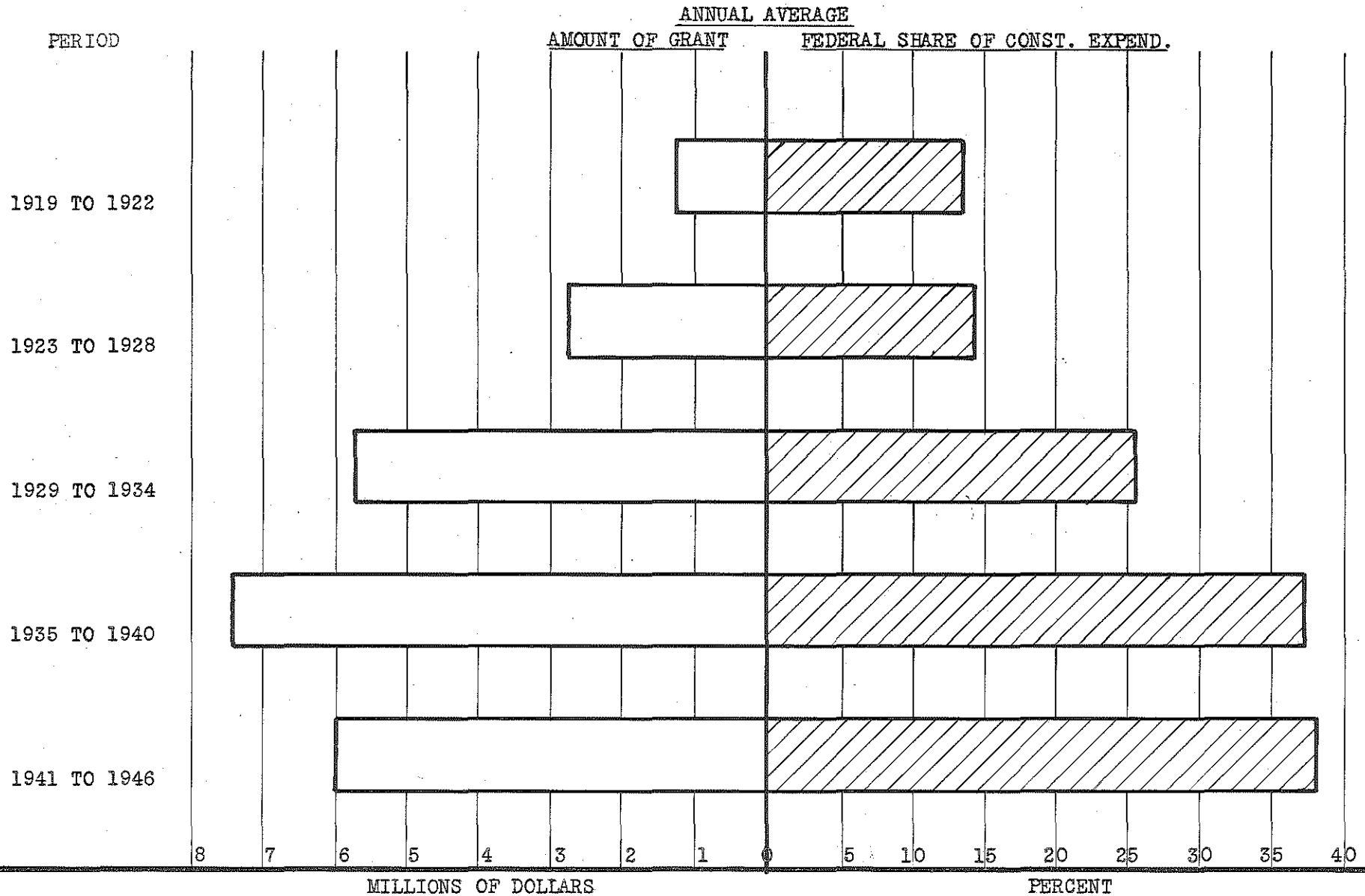


1919, this resulted in large expenditures over the years immediately following. Indeed, these annual outlays equalled, on the average, those of recent years. Simultaneously motor vehicle registrations and usage increased greatly. By the end of 1922 more than half the securities had been marketed, and by the end of 1930 more than half the debt service payments had been made. This borrowing, therefore, advanced trunkline improvement at least eight years. This does not, however, take into account that the retirement of the debt so early was made possible only by the increase in revenues engendered by this accelerated improvement of highways. By 1924 motor vehicle revenues had more than doubled, and by 1930 were ten times, their 1919 amount, permitting, after 1924, the use for debt service alone of more of these funds than the entire 1919 collection. Had construction been financed from annual revenues that otherwise would have prevailed, it is certain that many more than eight additional years would have elapsed before a comparable stage of trunkline development could have been achieved. The connecting of isolated segments, improved under state reward policies, into a truly intergrated, statewide network - which may well be the most significant accomplishment of the program - would have lagged even more. The premium paid for this acceleration has been some 29.9 millions of dollars of interest on bonds that now have been or from balances on hand can be, retired.

The federal government has assisted materially the financing of trunkline development. Since 1919 some 136.2 millions of grant-in-aid funds have been received as reimbursements and in addition federal relief agencies have spent 11.6 millions on trunkline construction. Since 1919 when they were first received, grants-in-aid have ranged in annual amounts between 0.4 millions and 15.3 millions of dollars, and have averaged 4.86 millions. The share of annual construction expenditure which they defrayed has varied between a low of 7.1% in 1929 and a high of 68.8% in 1934, averaging 26.3%. Over the twenty eight years they have been increasing both in amount and in relation to the total outlay for construction. (Chart 19)

CHART 19

TRUNKLINE CONSTRUCTION EXPENDITURES BY MICHIGAN STATE GOVERNMENT
 FINANCED BY FEDERAL GRANTS-IN-AID
 AMOUNT, AND SHARE OF CONSTRUCTION EXPENDITURE
 OVER PERIODS FROM 1919 TO 1946



Some 73.5% of total construction expenditures since 1910 have been for roads themselves, 11.1% for bridges, 9.6% for rights-of-way and 5.8% for interest on the bond issue - the final payment for which was made in 1944. (Chart 20)

Maintenance expenditures represent 24.9% of the total expenditures for trunklines in the period 1910-1946. They increased from 1.0 millions in 1920 to 11.8 millions in 1946 and have averaged 6.4 millions over this period. Their averages over six-year periods from 1923 show a steady and almost uniform increase in amount, and a much larger part of total expenditure in recent years. Construction outlays have averaged 19.0 millions annually since 1920. (Chart 21)

CHART 20

STATE TRUNKLINE CONSTRUCTION EXPENDITURES IN MICHIGAN
PERCENT OF TOTAL REPRESENTED BY PRINCIPAL ITEMS
PERIOD 1910 to 1946

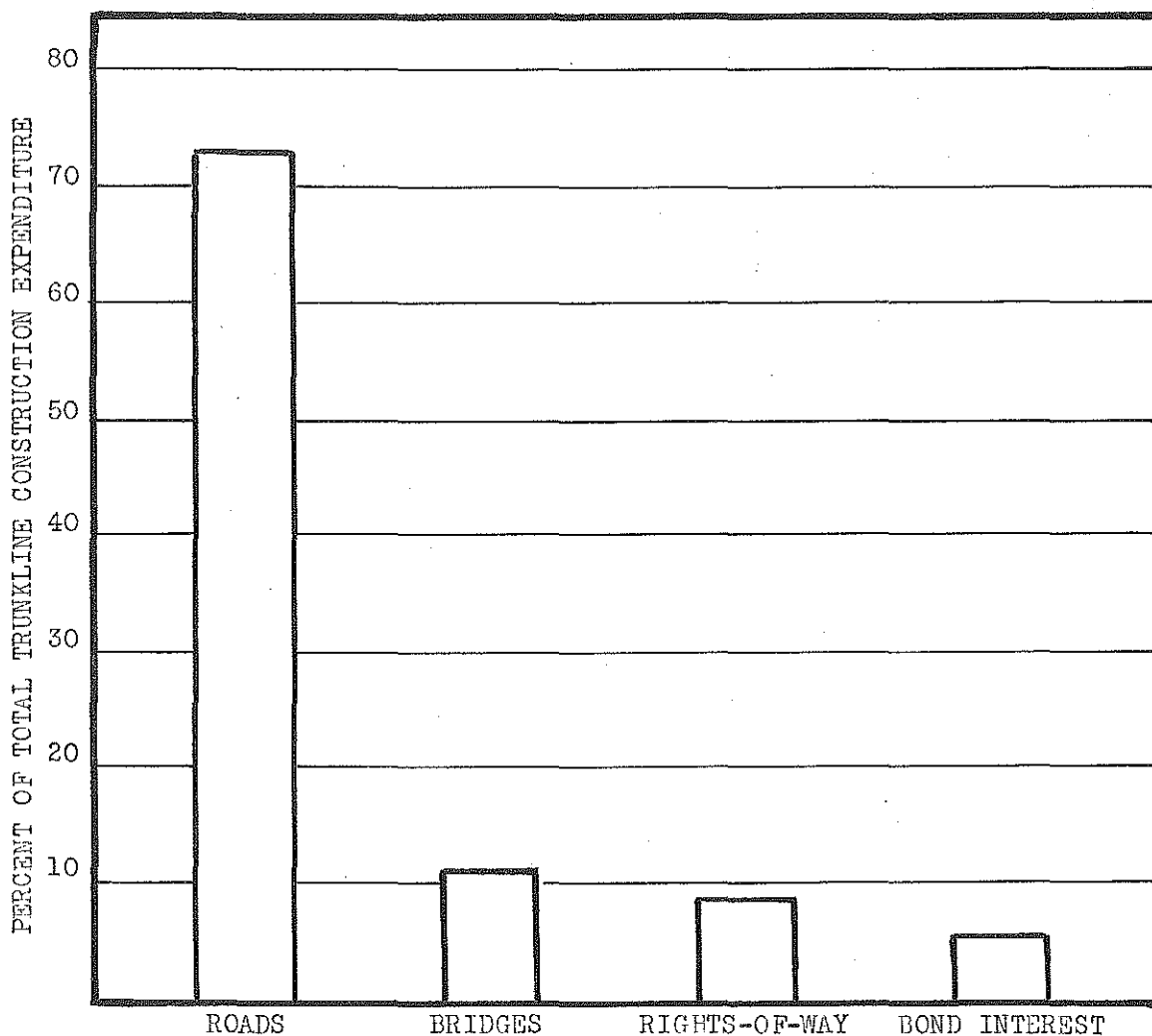
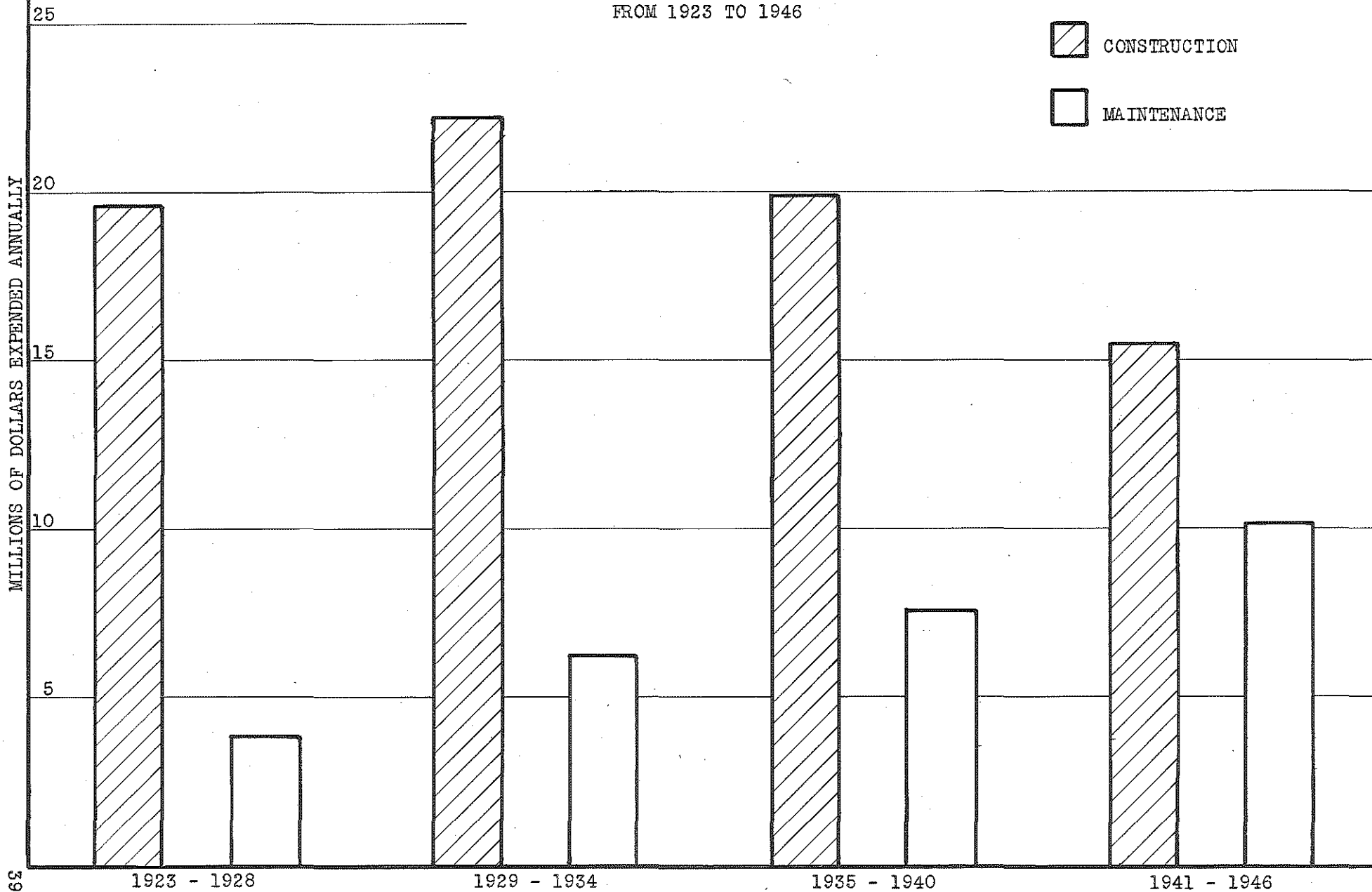


CHART 21
TRUNKLINE CONSTRUCTION AND MAINTENANCE EXPENDITURES IN MICHIGAN
AVERAGE ANNUAL AMOUNTS OVER
SIX-YEAR PERIODS
FROM 1923 TO 1946



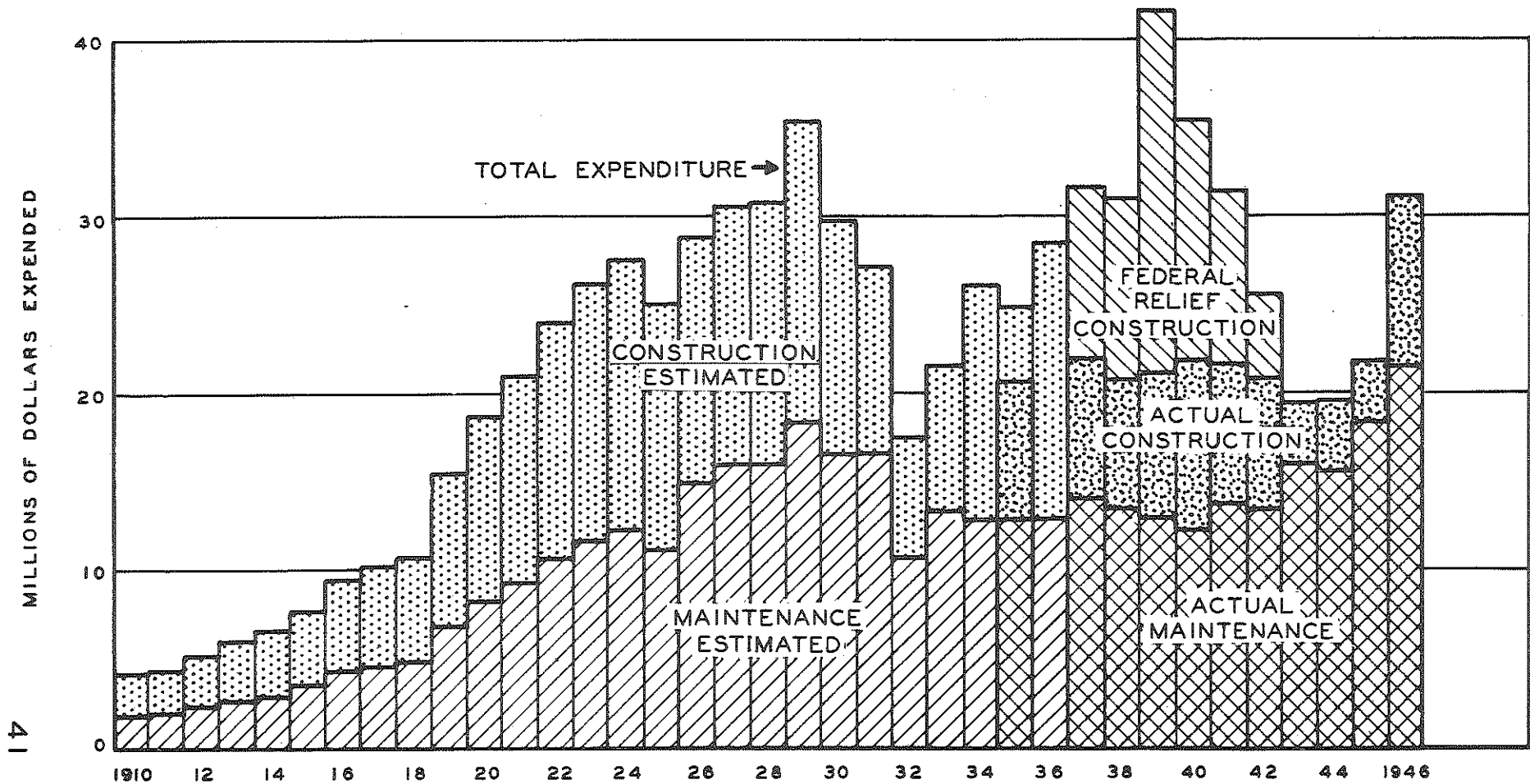
2. COUNTY ROADS

Expenditures by counties and townships on roads which, since 1936 have all been under the jurisdiction of counties, have aggregated 728.3 millions of dollars since 1910. Some 85.4 additional millions were spent on these by federal relief agencies between 1934 and 1942, bringing the total to 813.7 millions, of which, direct federal expenditure represents 10.5 percent. Included in the 89.5 percent spent by the counties and townships is 0.3 percent which has been defrayed from grant-in-aid reimbursements received from the federal government. The total expenditure is less than the sum of yearly revenues raised for the purpose since it reflects both the use of borrowings not yet repaid and the accumulation county road fund balances.

It is estimated that 49.6 percent, representing 403.8 millions, of the total expenditure on these roads has been employed in their construction and 50.4 percent in their upkeep. Details of the expenditures of counties over the last ten years are afforded by the county road commission finance reports annually furnished the state. Similar data are also available for 1935 from the Highway Planning Survey jointly conducted by the state and the Public Roads Administration. These, together with tabulations, furnished by the latter, of nation-wide expenditures for county and local roads since 1921 have been employed in this estimate. The derivation of annual distribution of these expenditures in years preceding 1935 is predicated upon the assumption that they were proportional to the revenues raised in support of the roads. It is recognized that substantial borrowings by some counties were productive of funds in excess of these revenues in some years and diminished the amounts from revenues available for construction by the debt service requirements in subsequent years. The fact, however, that indebtedness was not incurred and retired at the same time by all counties and townships tends to bring the total expenditures of all units closer to the revenue level. As derived, these expenditures display a pattern similar generally to that shown by the expenditures for other systems and are believed to

CHART 22

COUNTY AND TOWNSHIP HIGHWAY EXPENDITURES IN MICHIGAN
 BY THE UNITS THEMSELVES AND BY FEDERAL AGENCIES
 FOR CONSTRUCTION AND MAINTENANCE
 FROM RECORDS AND ESTIMATES BASED UPON NATIONAL CRITERIA
 YEARS 1910 TO 1946



reasonably well hypothecate actual conditions. (Chart 22)

About one-half of the construction expenditure made on roads under county control over the last ten years has been by federal relief agencies. Some 68.1 millions of dollars have been spent by them, and 69.6 millions by the counties for this purpose. Together these represent 47.7 percent, and maintenance represents remaining 52.3 percent of the total of 288.9 millions spent for all county roads since 1937. Of the 24.1 percent of the total represented by the construction expenditures of the counties themselves, 0.9 percent has been defrayed by federal grants-in-aid, leaving 23.2 percent from funds raised within the state. Included in this are 2.6 percent for interest on road debt, 4.3 percent for right-of-way expense, and 16.3 percent for actual on-the-road construction activities. (Chart 23)

Considering only the expenditures made by the counties themselves, over these ten years, 57.1 percent has been made for county primary roads and 42.9 percent for those formerly under township control. The former, representing some 126.2 millions of dollars, included 31.4 percent for maintenance and 25.7 percent for construction. The percentage applicable to local rural roads formerly under township jurisdiction, and representing 94.7 millions of dollars, comprises 37.1 percent for maintenance and 5.8 percent for construction.

Maintenance of all county roads has taken 68.5 percent of the total expenditure made by the units themselves during these ten years. The 31.5 percent employed in construction included 3.4 percent for interest payments, 5.6 percent for rights-of-way and 22.5 percent for other construction outlays. (Chart 24)

It is to be understood that the county and township road expenditures, like those for city streets, have included over the years covered herein, those made on roads that subsequently were taken over into the state trunkline system. Included also are expenditures made on urban extensions of county primary roads, and those made in areas over which in some instances urban incorporations later extended their boundaries. They are the total of expenditures on roads that were under the jurisdiction of the rural governments at the time.

CHART 23

COUNTY ROAD EXPENDITURES IN MICHIGAN
 BY THE UNITS THEMSELVES AND BY FEDERAL AGENCIES
 FOR CONSTRUCTION AND MAINTENANCE
 YEARS 1937 TO 1946

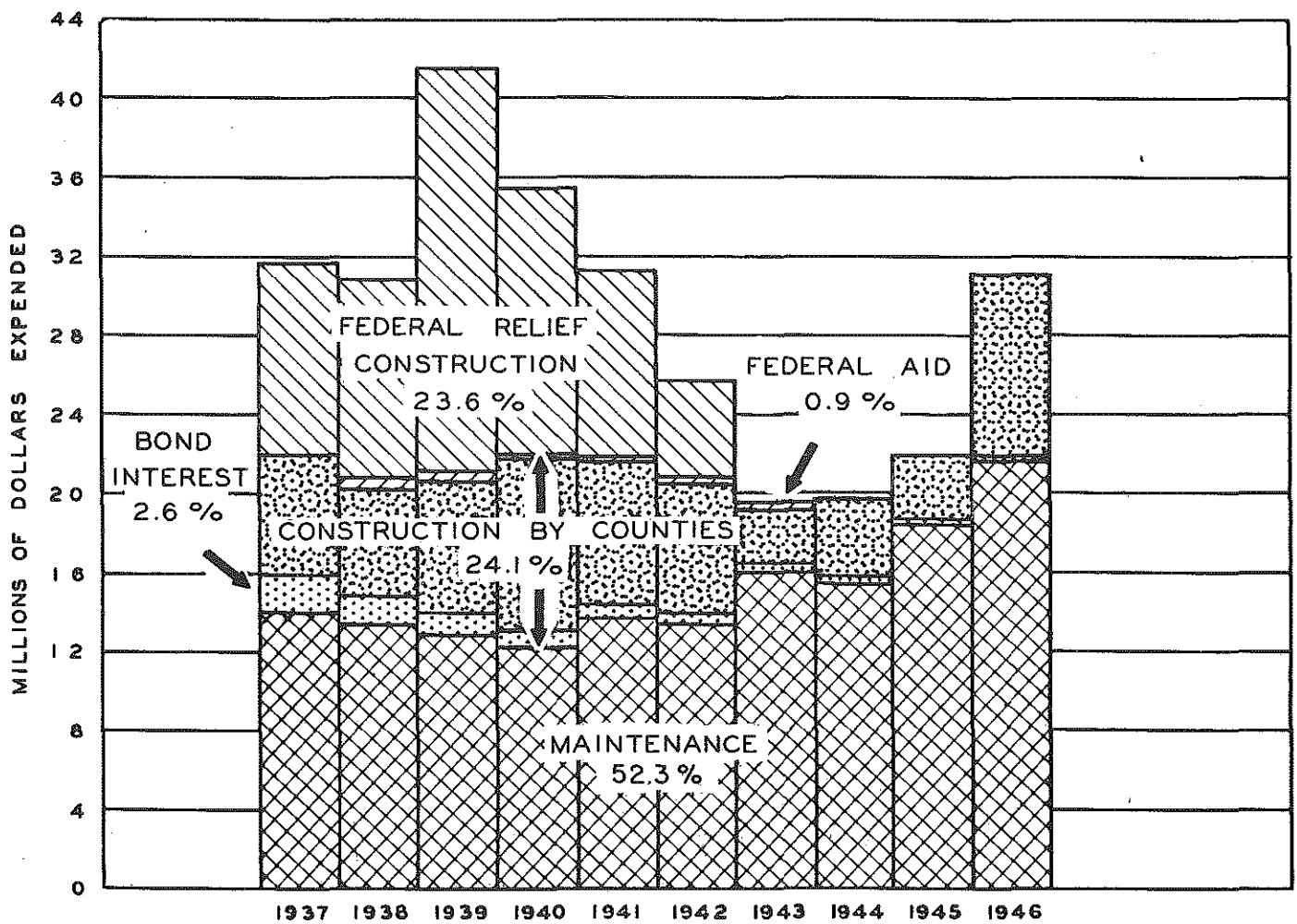
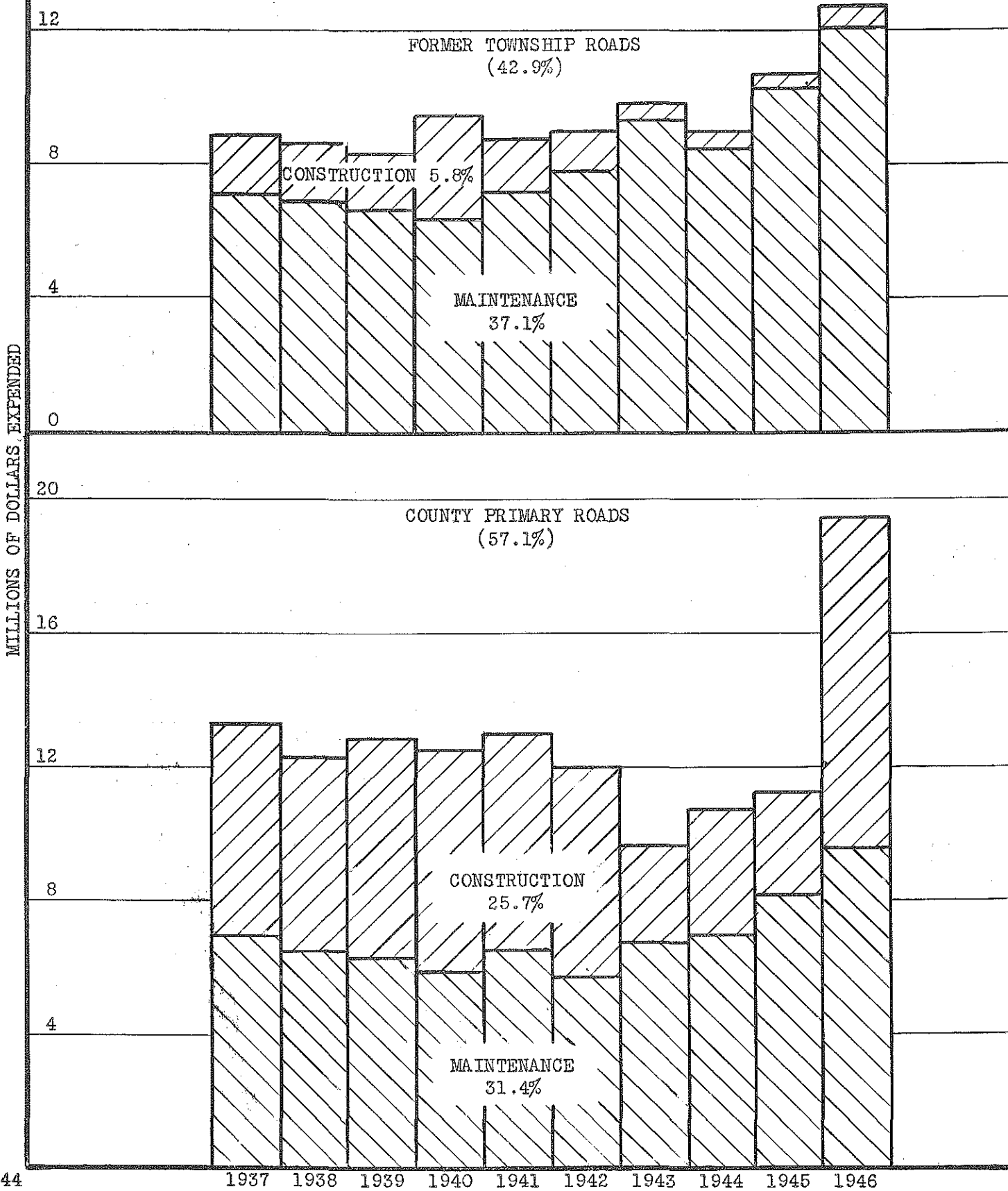


CHART 24

HIGHWAY EXPENDITURES BY THE COUNTIES IN MICHIGAN
ON COUNTY PRIMARY AND FORMER TOWNSHIP ROADS
FOR CONSTRUCTION AND MAINTENANCE
YEARS 1937 TO 1946



3. CITY AND VILLAGE STREETS

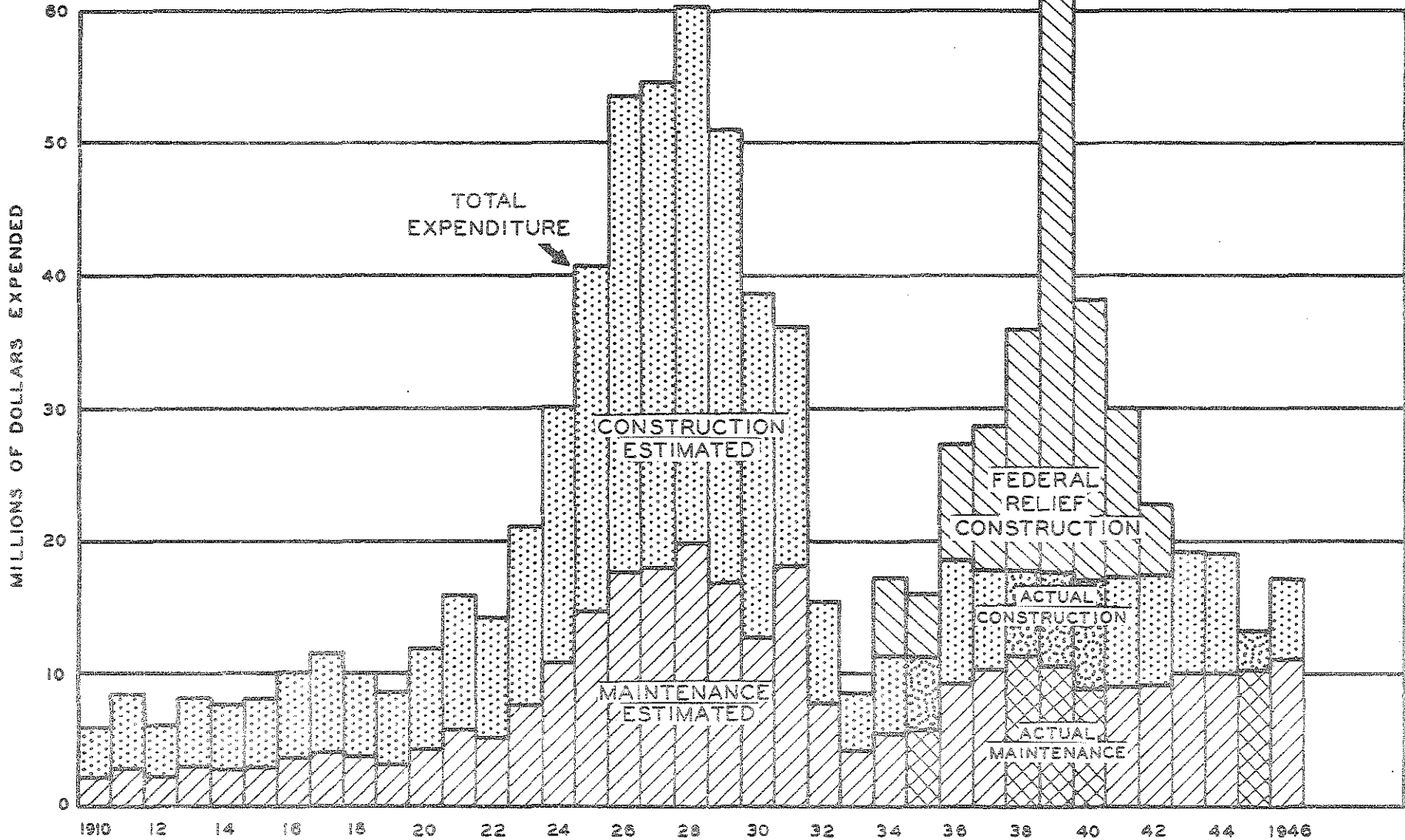
Expenditures on city and village streets, other than those made by the state and counties on their respective trunkline and county primary road systems, have totaled 884.9 millions of dollars since 1910. By some seventy-one millions the highest highway expenditure made by any of the three jurisdictions, this accounts for 37.0 percent of the total made by all. The urban units themselves spent 752.2 millions, or 85 percent of their total, and federal relief agencies the remainder.

This total street expenditure represents the aggregate of yearly funds made available for the purpose and in addition, 13.8 millions of dollars from borrowings that remained as debt at the end of 1946. Street fund balances are assumed to be negligible at this time.

Based upon data gathered by the state, in cooperation with the Public Roads Administration, for the years 1935 and 1937 to 1939, and by the Michigan Municipal League for 1945, and by the use of Public Roads Administration figures on nation-wide expenditures of cities and villages yearly since 1921, it is estimated that 64.4 percent of the 1910-1946 total for streets has been utilized for their construction and 35.6 percent for their maintenance. This is indicative of an annual average of 15.4 millions for construction and 8.5 millions for maintenance.

Although data covering the yearly street expenditures of all urban units are nowhere gathered, it is believed that the amounts of these have been in substantial proportion to the tax revenues raised for that purpose. Borrowings have been made in large amounts over the period but large retirements were often made coincidentally, and the amount now outstanding is about one year's average expenditure. On this basis, expenditures have ranged between six millions and 62.3 millions in 1939 when some 44.7 millions of federal expenditures were made. Including federal expenditures the thirty-seven-year average is 23.9 millions annually and is 20.3 millions when considering only expenditures of the local governments themselves. (Chart 25)

CITY AND VILLAGE STREET EXPENDITURES IN MICHIGAN
 BY THE UNITS THEMSELVES AND BY FEDERAL AGENCIES
 FOR CONSTRUCTION AND MAINTENANCE
 ESTIMATED FROM STATE AND NATIONAL CRITERIA
 YEARS 1910 TO 1946



The agency by which significant street finance data could be gathered now obtains in the Municipal Finance Commission. Created in 1943, this commission requires all municipalities to report their yearly finance operations and their indebtedness. The forms presently furnished for this purpose, however, do not provide for exhibiting road and street expenditures separately. Many of the units do not separate these in their own accounting. Another significant omission is the lack of identification of the purpose for which the original bonds of re-funded issues were marketed. Enabling legislation in 1932 was followed by extensive re-fundings and this is still being done on a large scale. In the process, and in the absence of requirements to the contrary, this identification is frequently lost, and when re-funding bond issues are subsequently re-funded it has been impossible to ascertain the purpose for which all the securities so covered were originally issued.

SECTION C

SECTION C

THE FINANCIAL PICTURE TODAY

SUMMARY

Support for all roads and streets in Michigan today is 87% of what it was twenty years ago, and is only 38% above the average over the past thirty-seven years.

Today this support derives almost entirely from revenues from the state and federal governments. In 1946 only 9.7% was raised by the local units. Some 71.8% of total highway revenues were collected by the state, and federal aid furnished 18.5%. Motor vehicle revenues were the source of 66% of the total support and represented 92% of all highway revenue collected by the state. In 1926 some 72% of all highway support came from property taxation.

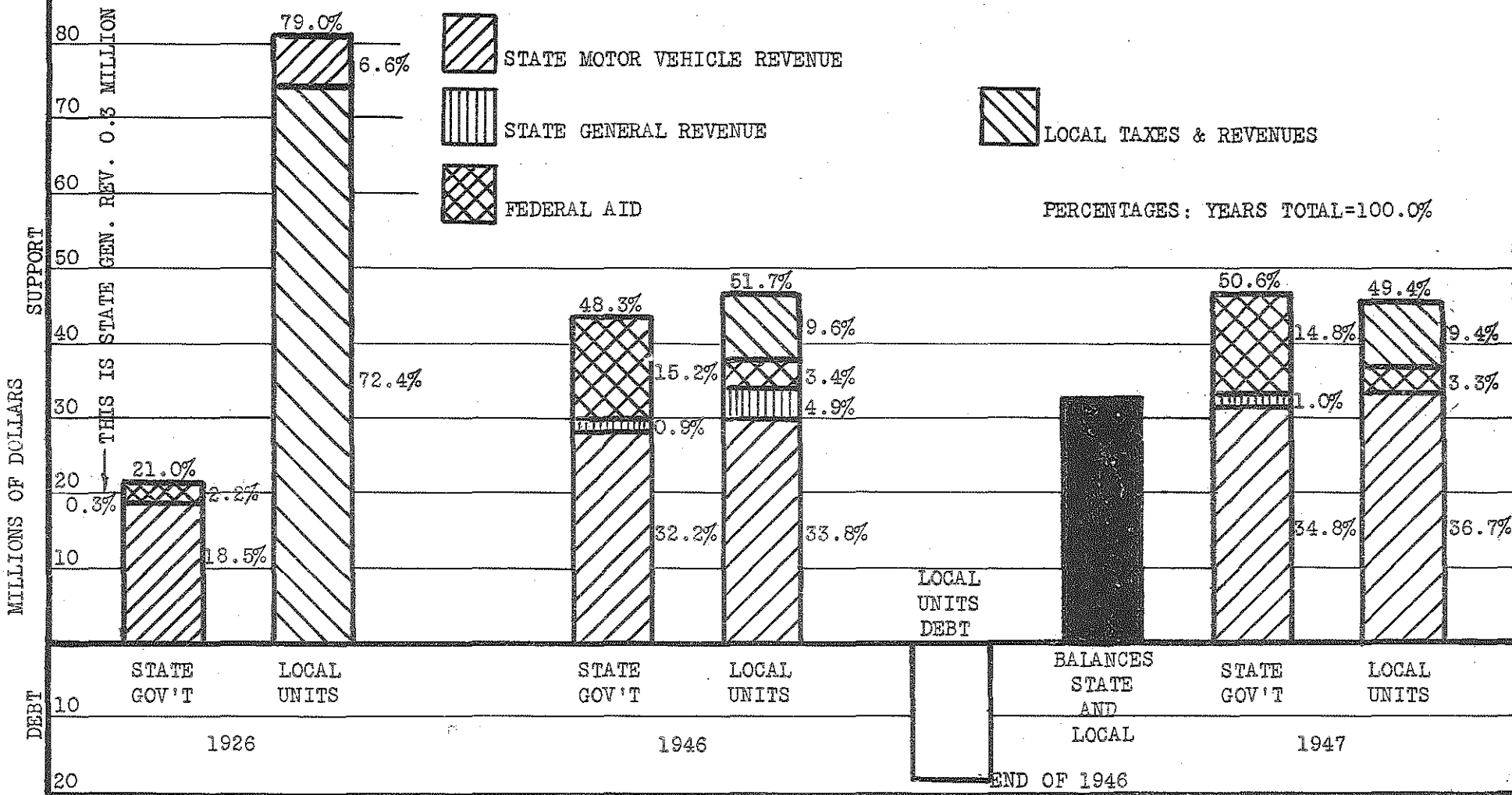
In 1946 the state distributed to local governments some 34.7 millions of dollars, or 54% of the total of 64.5 millions it collected for highways. The local governments' share of federal aid was 3.0 millions, or 18% of the 16.6 millions total of allotments.

Road and street jurisdictions began 1947 with some 32 millions of funds available for expenditure, and with outstanding bonded debt of some 18 millions. Collections thus far indicate that motor vehicle revenue will this year exceed that of 1946 by about 7 millions of dollars. Of the anticipated total of 66 millions of motor vehicle revenues, local units will receive approximately 33.8 millions. (Chart 26)

Users of Michigan's roads and streets paid in 1946 an average of 3.7 mills in gasoline and weight taxes for each mile they traveled. Total highway taxes per mile of motor vehicle operation were higher in 42 other states.

CHART 26

ROAD AND STREET SUPPORT IN MICHIGAN SOURCE AND DISTRIBUTION
FOR STATE AND LOCAL GOVERNMENTS YEARS 1926 AND 1946 AND FORECASTS FOR 1947



1. GENERAL REVENUES

Property tax support of highways was less in 1946 than in 1910, notwithstanding that for all purposes governments in the state raised by property taxes in 1946 six and one-half times what they raised in 1910. Elsewhere than in cities and villages, general revenues have diminished to negligible importance for highways and even in urban governments they provide little more than half the funds currently expended for streets.

State-collected general revenue, an unimportant element of highway support except in a few past years, reached an all-time high of 5.3 millions of dollars in 1946. All but 0.9 millions was distributed to local units - some 0.8 millions of racing fees went to cities and 3.6 millions of alcoholic spirits and severance taxes were distributed to counties for road purposes.

In 1947 state general revenue for highways will be less than one million dollars. The expiration of the 1945-enacted tax on alcoholic spirits in May, and legislation committing the entire proceeds of oil and gas severance taxes to the state's general fund and removing the street-expenditure requirement on horse racing fees returned to cities leave only Straits of Mackinaw ferry tolls in this category. These tolls, which brought in 0.8 millions in 1946, go to defray ferry operating expenses.

County property taxes assessed for highways in 1946 were only 42% of the 1910 levy and lower than in any intervening year. They were levied in Allegan, Chippewa, Gogebic, Marquette, Menominee and St. Clair counties and in a total of 0.36 millions. These taxes in 1945 were 0.51 millions, in 1910 were 0.86 millions and in 1927 were 9.62 millions of dollars.

Township highway taxes, totaling 0.14 millions in 1946, have been lower in only four other years since 1910. They were then 3.26 millions, and they were 15.35 millions in 1929. The 1946 levy is at the average level since 1941. The 1946 levies were made by forty-four townships in Allegan, Emmet, Gogebic, Huron,

Ionia, Kent, Newaygo, Ottawa and Saginaw counties.

City and village property tax support for streets - some 8 millions of dollars - is now at about the 1913 level, which it reached again in 1933 after having been six and seven times as high in the 1920's. Levies for all purposes, however, were 11% higher in 1946 than in 1945. These taxes for all purposes have increased to more than eight times their 1910 amount.

2. MOTOR VEHICLE TAXES AND RATES

With tax payments of 59.2 millions of dollars in 1946, motor-vehicle-user support of highways was within two millions of the war-stimulated peak of 1941. The 65.8 millions of net revenue to be collected in 1947 will be 11% more than that of 1941. These are net revenues remaining for highway expenditure after deduction of collection costs, which in 1946 were 2.1 millions - 3.4% of gross total revenues.

Weight tax and motor-fuel tax are the principal components of this support. Miscellaneous licenses and fees produced 3.2% of the total in 1946 - within 0.2 millions of enough to pay administration and collection expense in connection with all motor vehicle imposts. Fees are collected by the weight tax division of the office of the secretary of state for municipal license plates, automobile dealer licenses and for transferring and duplicating license plates. The certificate of title division issues, transfers and duplicates certificates of title and collects the fees for these. The fees from both these sources are credited to the state highway fund. Operator and chauffeur license fees and the fee imposed with the sale of half-year license plates - not issued for passenger cars in 1947 - go to the state's general fund and are not available for highway expenditure.

WEIGHT TAX

Weight tax collections were approximately 24 millions of dollars in 1946, an amount previously exceeded only in 1941. This tax will yield some 27 millions in 1947. Weight tax revenue has averaged 21.6 millions over the last ten years.

These are gross collections. Since the entire weight tax, except for the nominal amount paid by out-of-state owners, is distributed to local governments and other motor vehicle revenues must defray collection costs, the net figure has limited significance. Cost of operating the division which collects weight tax and carries on other related activities was 3.5% of the total of taxes and fees collected in 1946.

Motor vehicle weight tax, with minor exceptions, is based upon vehicle weight. Tax rates increase by steps, with increase in vehicle weight, for powered, non-farm commercial vehicles, and for semi-trailers and trailers other than coach type. For powered, non-farm commercial vehicles, which include trucks, truck tractors and passenger cars used commercially, there are four rate brackets, from \$0.65 to \$1.25 per hundred pounds of vehicle weight; for semi-trailers and trailers other than coaches there are two such rate brackets for each, farm and non-farm, usage. Hearses and ambulances have a special rate of \$0.50 per hundredweight, and there are flat fees for motorcycles, motor bicycles and farm wagons. Passenger cars and all other motor vehicles are taxed at \$0.35 per hundred pounds. (Chart 27)

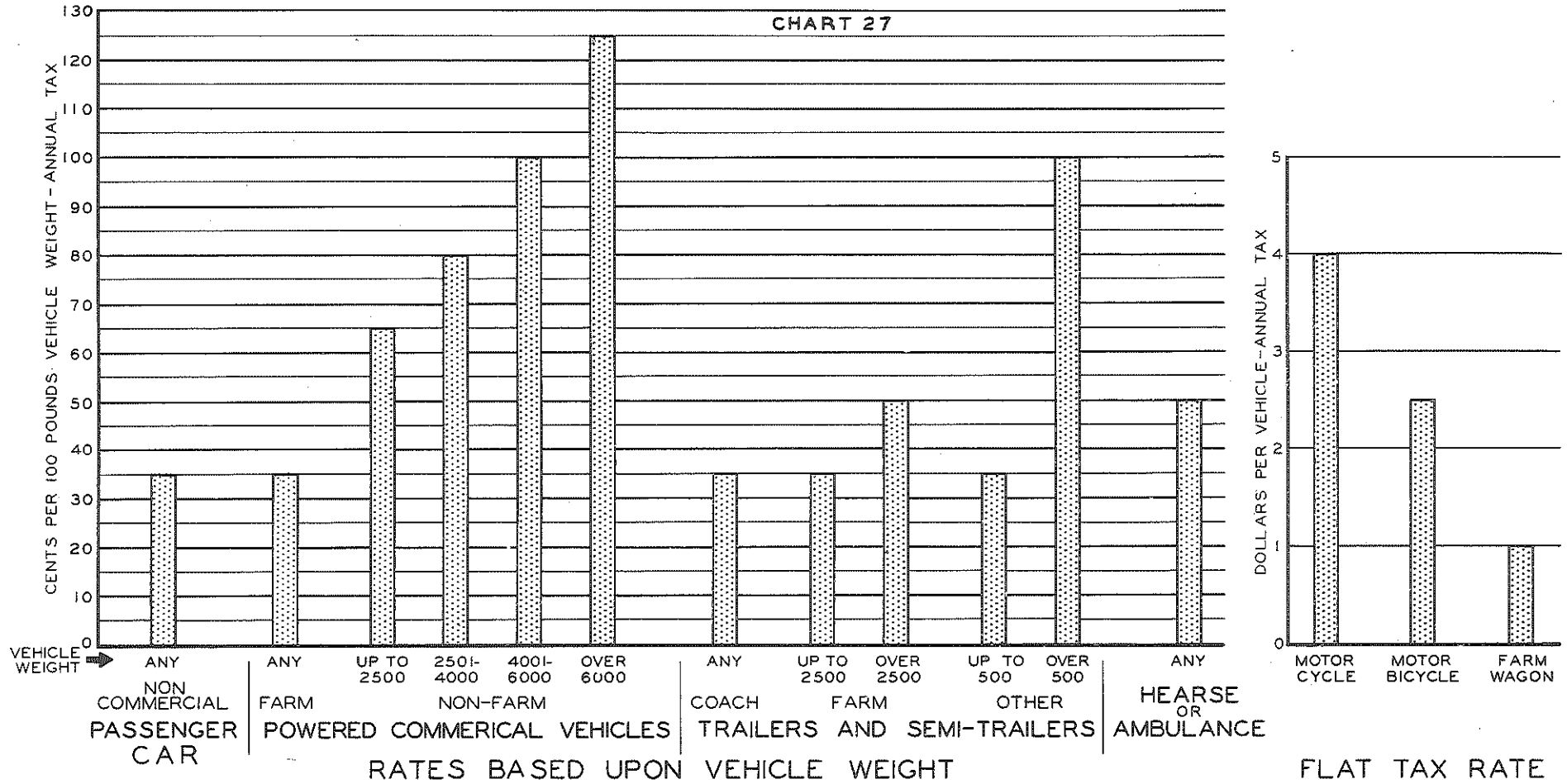
MOTOR FUEL TAX

With the enactment in 1947 of legislation taking diesel motor fuel out of the gasoline classification and establishing a special rate - of 5 cents per gallon - on this, the earlier "gasoline tax" designation for motor fuels becomes "motor-fuel tax" in reference to future revenues. The gasoline tax rate remains at 3 cents per gallon.

The 1946 net revenue of 34.6 millions of dollars from tax on gasoline was only 0.6 millions less than in 1941. This tax has produced an average of 29.2 millions annually since 1937. Motor-fuel tax in 1947 is expected to yield highway revenues of more than 39 millions of dollars. These are net amounts after deduction of collection costs, which in 1946 represented 0.81% of the gross amount collected.

To facilitate collection, the law makes the wholesale dealer responsible for the payment of motor-fuel tax and on his entire sales, whether for ultimately taxed uses such as for highway vehicles, aircraft, or for propelling vessels - enacted in 1947, or for tax-free uses such as for agricultural machinery. The consumer recovers taxes paid on fuels for his tax-free uses through refunds made by the Secretary of State upon application.

MOTOR VEHICLE WEIGHT TAX RATES IN MICHIGAN AS OF NOVEMBER 1, 1947



MANUFACTURERS OR DEALERS LICENSE PLATES- (MINIMUM OF 2) FIRST THREE \$15.00 EACH
FOURTH AND ADDITIONAL \$5.00 EACH

MOTOR CARRIER FEES

Motor carrier fees, collected by the Public Service Commission, are of negligible importance in the support of highways in Michigan. In 1946 the total collection was some 670 thousands of dollars. Of this, 40% was retained, in accordance with pertinent legislation, to defray administration and collection expense, and some 402 thousands of dollars were transferred to the state highway fund.

Legislation recognizes four classes of for-hire vehicles. These are "common motor carrier of property", "common motor carrier of passengers", "contract motor carrier of property", and "contract motor carrier of passengers". Carrier operators pay a fee with initial and annual renewal applications for certificates of public convenience and necessity, and in addition a per-mile privilege fee on each vehicle. The rates are as follows:

Application Fee	Initial	\$10.00
	Annual Renewal	5.00
Privilege Fee - Gross Vehicle Weight		
	11,000 lbs. and under	0.001 per mile
	11,001 to 15,000 lbs.	0.0015 per mile
	Over 15,000 lbs.	0.002 per mile

Gross weight for freight-carrying vehicles, including trucks, trailers and semi-trailers, is the empty weight of the vehicle plus twice the manufacturer's rated capacity; for a truck tractor is the weight of the vehicle; and for a passenger bus is the weight of the vehicle plus the product of the number of people that may be seated, including the driver, by 150 pounds.

3. FEDERAL AID

Michigan was allotted 16.6 millions of federal funds for the fiscal year ending in 1947. These included 6.8 millions for projects on the federal-aid highway system, 5.7 millions for those on this system and in urban areas, specifically, and 4.1 millions for those on principal secondary and feeder roads comprising the federal-aid-secondary system. By agreement with counties, 73% of the secondary road funds are expended on sections of the system that are under county jurisdiction, and the remainder on portions that are state trunklines.

This allotment covers the second of three consecutive years for which equal amounts were apportioned to the state under the authorizations in the 1944 amendment of the Federal-Aid Road Act. Presently about half the funds for the last of the three years have been committed by contracts or agreements.

The 1944 legislation specified that funds were to be available for one year beyond the end of the one for which they were authorized and thereafter amounts unexpended, or not covered by formal project agreements with the Commissioner of Public Roads, would lapse. In 1946, however, because construction facilities were in short supply, and upon petition by the American Association of State Highway Officials, Congress extended by one year the period over which the funds for any given year would be available.

4. MOTOR VEHICLE REVENUE DISTRIBUTION

Weight and gasoline tax revenues in the amount of some 30.3 millions of dollars, and representing 51.2% of all motor vehicle revenues collected by the state, were distributed to local governments in 1946. This amount is 2.2 millions more than the average annual return to them over the last ten years. For 1947 the distribution will probably be some 33.8 millions.

Counties passed on to cities and villages 8.0 millions of dollars of these funds in 1946. The 22.3 millions they retained provided 97.4% of the support for county roads that year. Since 1937 counties have retained an average of 21.5 millions for their own expenditure.

The formulas by which motor vehicle revenues are distributed are, to say the least, complicated and unwieldy. They are testimony to the urgent need for a broader, more fundamental approach to the solution of highway problems. An outstanding feature of their inadequacy is that they provide for re-distributions by and among local units thereby obscuring objectives and results. (Charts 28 and 29)

The state distributes all weight tax and 2.55 millions of gasoline tax revenue to counties in accordance with a formula that is common to the legislation for both and for which the provisions for use and distribution by the counties are the same. Seven-eighths of these funds are distributed to counties in proportion as weight tax collections in the respective counties, and one-eighth uniformly among all of them. Half of the amount so distributed is committed to general highway purposes. Up to, but not exceeding two-thirds of the other half of the county receipt from these funds is required to be used for reduction of highway assessments and taxes in order of three specified priorities. A fourth priority provides for the expenditure on former township roads, taken over by the counties after 1931, of not more than 50% of the funds remaining from this half of the total after the first three priorities have been satisfied. Funds

CHART 28

DISTRIBUTION OF MOTOR VEHICLE REVENUE IN MICHIGAN
TO STATE HIGHWAY DEPARTMENT, COUNTIES, AND CITIES & VILLAGES
YEAR 1946

STATE HIGHWAY DEPT. RECEIVES--
1. NET GAS TAX LESS \$6,750,000
2. FOREIGN VEHICLE WEIGHT TAX
& NET MISC. LICENSES & FEES,
LESS WEIGHT TAX COLLECTION
EXPENSE

LOCAL GOVERNMENTS RECEIVE--
1. ALL WEIGHT TAX EXCEPT FROM
FOREIGN VEHICLES
2. \$6,750,000 OF GASOLINE TAX
(SEE CHART 29)

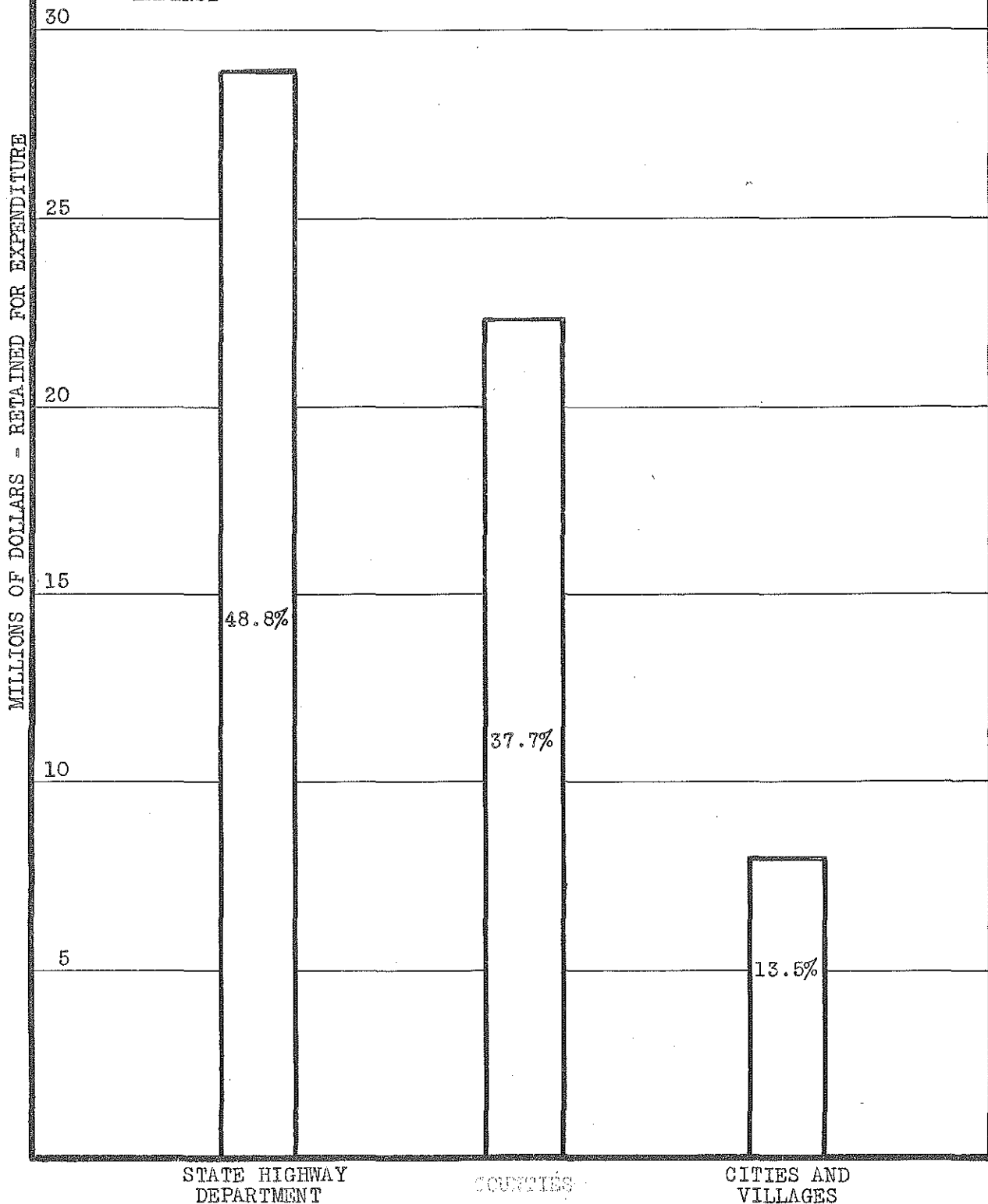


CHART 29

LEGISLATIVE PROVISIONS IN MICHIGAN
FOR DISTRIBUTION OF MOTOR VEHICLE REVENUE TO COUNTIES, CITIES AND VILLAGES
WITH PRIORITIES GOVERNING EXPENDITURE AND RE-DISTRIBUTIONS
As of November 1, 1947

USAGE & PRIORITIES

50% { To be used for highway purposes under the jurisdiction of the County Road Commissioners subject to the approval of the County Board of Supervisors.

WEIGHT TAX-ENTIRE
Act No. 302, P.A. 1915
as amended.

1. Tax relief not to exceed 2/3 of this 50%

- a. Relief of assessments under Covert Road Act.
- b. Reduction of taxes on general County road and bridge bonds.
- c. Reduction of taxes for general highway township bonds.

2. Maintenance, as ordered by County Board of Supervisors, of city and village streets and township roads taken over by County. Not to exceed 50% of funds remaining from (1.) above.

GASOLINE TAX
\$2,550,000
Act No. 150, P.A. 1927
as amended.

50%

3. Remainder apportioned to county and to cities and villages in proportion as population.

County

- a. The improvement, repair and maintenance of County roads and bridges; payment of compensation and expenses of County Road Commissioners.
- b. Maintenance of additional township mileage taken over under provisions of the McNitt-Holbeck-Smith Act and the widening, improvement and construction of county roads.
- c. Maintenance, improvement, and acquisition of county roadside parks and parkways.

Cities & Villages

- a. Payment of City's or Village's share of State Trunk Line and Federal road maintenance.
- b. Payment of City's or Village's share of projects undertaken under Dykstra Act. (Act 131 P.A. 1931)
- c. Improvement, repair and maintenance of streets, highways, bridges or grade separations.
- d. Payment of bonds and interest or other obligations of Cities or Villages for street, highway, bridge or grade separation improvement.
- e. Refunding of special assessments levied for construction of State Trunk Lines within Cities and Villages.

DISTRIBUTION TO COUNTIES
7/8 in proportion as weight tax collection in county.
1/8 uniformly among all counties.

GASOLINE TAX
\$4,000,000
Act No. 130, P.A. 1931
as amended.

1. Maintenance of township roads taken over by counties.

DISTRIBUTION TO COUNTIES
In proportion as mileage of township roads taken over under above act.

2. Improvement of township roads taken over by counties.

GASOLINE TAX
\$200,000
Act 1, P.A. 1937 E.S.
as amended.

To be used for snow plowing and removing (all county roads) and for the purchase of machinery and maintenance of machinery therefore.

DISTRIBUTION TO COUNTIES
In proportion as "inch-miles" of snow fall in counties as determined by State Highway Commissioner.

remaining after fourth-priority expenditures are required to be apportioned among the county and cities and villages within it in proportion to the population in each. The expenditure of the portion received by the county under this apportionment is governed by three priorities, under each of the first two of which county roads may be improved, and which, in total, cover maintenance, construction and improvement of all roads and bridges and county roadside parks and parkways. The city and village funds so apportioned are covered by five expenditure priorities of which the first three are for street improvement and maintenance and the last two for the payment of debt service and refunding of assessments for state trunkline highways.

By provisions of the McNitt-Holbeck-Smith enactment of 1931, counties now receive 4 millions of dollars annually from the state highway fund for the maintenance and improvement, in this order of priority, of roads taken over from townships under this legislation. Presently gasoline tax is the source of the only funds available for this purpose. Distribution is made among counties in proportion to their percentages of total miles of these roads taken over. This act also prohibits the levying by townships of taxes for highways except when motor vehicle revenue is insufficient and then only subject to the approval of the county board of supervisors, and limited to a rate of three mills.

For snow removal purposes an additional 200 thousands of dollars are distributed annually to counties under a continuing appropriation initiated in 1937. These funds, too, derive from the gasoline tax at this time. The apportionment is made in accordance with the inch-miles of snowfall prevailing in the county during the previous year as determined by the state highway commissioner. This appropriation was apportioned among thirty eight counties during the winter of 1946-47.

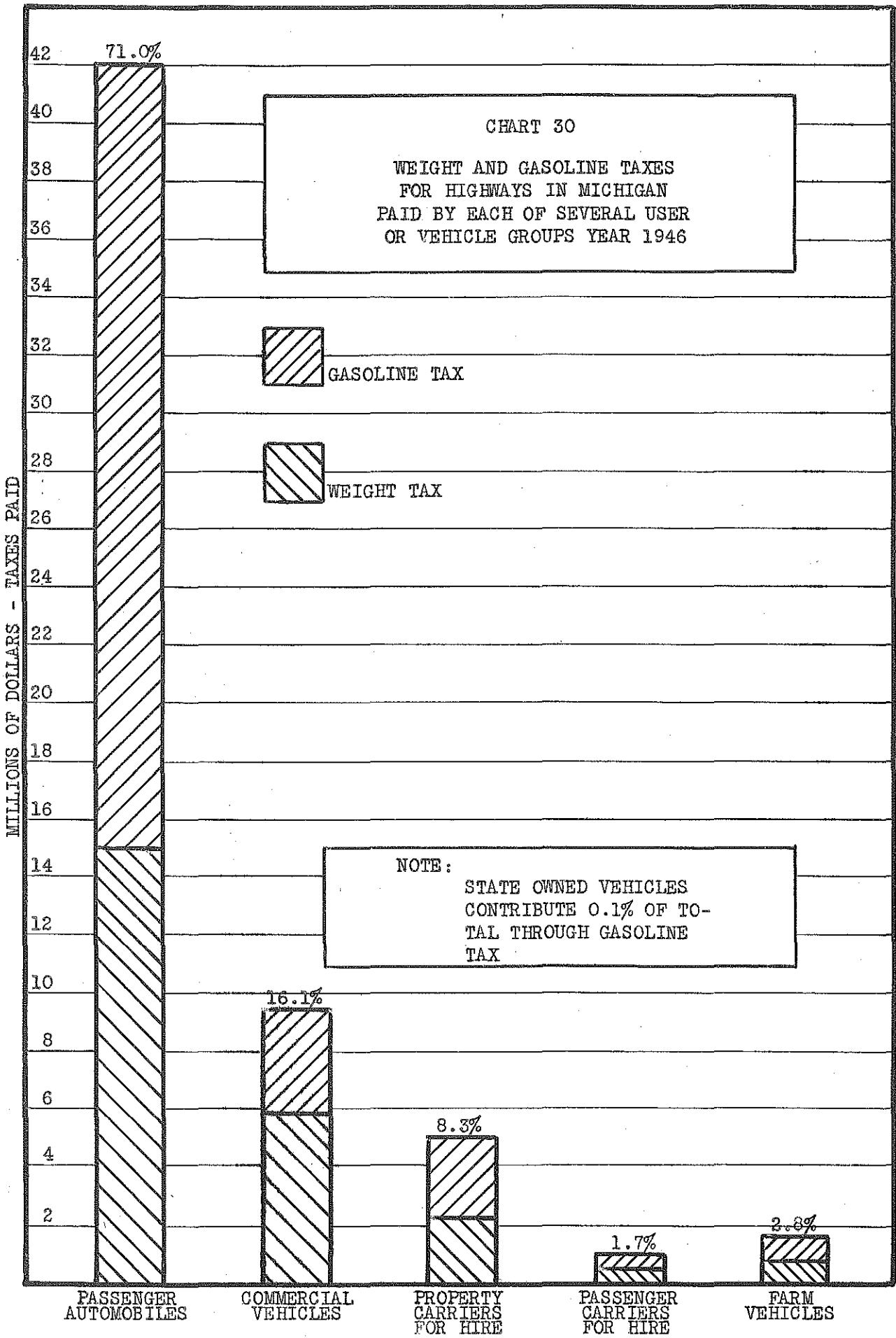
5. IMPACT OF TAXES ON HIGHWAY USERS

With one passenger automobile to each 1.15 families and one self-propelled motor vehicle to each family in the state in 1946, and in an economy to which the motor vehicle is nothing less than indispensable, the soundness of differentiating between the motorist and others as taxpayers may be open to question. However, certain taxes impinge upon the motor vehicle owner directly and bringing these together and determining the highway user groups paying them and the relation of taxes to vehicle operating costs will conduce to a better understanding of this important taxation element. Some of these taxes go to the support of highways, others do not.

Weight and motor-fuel tax revenues supporting highways derive principally from passenger automobiles. In 1946, 71% of the 59 millions of dollars total of these funds came from passenger cars and the trailers which are used with some of them. Similarly, the next larger highway support - 16.1% - came from non-farm commercial vehicles other than for-hire carriers. For-hire carriers of property paid 8.3% and carrier buses paid 1.7% of the total. Vehicles licensed under farm tax rates contributed 2.8%, and gasoline tax from state-owned vehicles accounted for 0.1% of all highway motor vehicle taxes. (Chart 30)

The average combined motor-fuel and weight taxes, including the per-vehicle share of the weight tax on trailers identified with the group, paid for each Michigan-registered, self-propelled motor vehicle in 1946 was as follows: passenger automobile \$28.69; non-farm commercial vehicle other than carrier \$76.67; for-hire carrier of property \$173.10; for-hire bus \$394.58; and farm commercial vehicle \$33.43.

Another significant aspect of these taxes is their per-mile value. Passenger cars were driven an average of 9,189 miles in 1946 and obtained 15.05 miles per gallon of gasoline. Motor-fuel and weight taxes, combined, per mile of travel averaged: for passenger cars 3.12 mills, for non-farm commercial




vehicles other than carriers 9.37 mills; for property carriers 8.13 mills; for passenger buses 8.89 mills; and for farm commercial vehicles 5.95 mills. The weight tax element of these, of course, is in inverse proportion to the annual average miles a given vehicle is driven. (Chart 31)


Over the fiscal year ending in 1946, motorists in the state paid in federal excise and state retail sales taxes some 55 millions of dollars that were not expended for highways. The distribution of these taxes among user groups probably will not differ materially from that of the taxes for highways. Federal taxes on sales of vehicles, parts and accessories, tires, batteries, oil and motor fuel were 40 millions of dollars. They have averaged 24 millions since 1937. The state's retail sales tax on the same items amounted to 15 millions in 1946 and 30 millions this year. It has averaged 13.5 millions over the last ten of the fourteen years in which it has been collected. (Charts 32 and 33)

Taxes for highways represent 5.5% of the cost of operating the average passenger automobile in Michigan today. Including sales taxes and those collected by the federal government, all taxes paid on this passenger car are 10.8% of the owner's average annual total cost. Motor fuel costs are twice this, as is depreciation. Maintenance, insurance, interest and garaging together cost three times as much, and lubrication and tires together as much as do all taxes. All operating costs, including taxes, are 5.7 cents per mile. (Chart 34)

CHART 31

MOTOR-FUEL AND WEIGHT TAX PER-MILE COSTS IN MICHIGAN
APPLYING TO THE PRINCIPAL HIGHWAY USERS
YEAR 1946

 MOTOR-FUEL TAX

 WEIGHT TAX

MILLS PER MILE OF USAGE - AVERAGE TAX



PASSENGER CARS

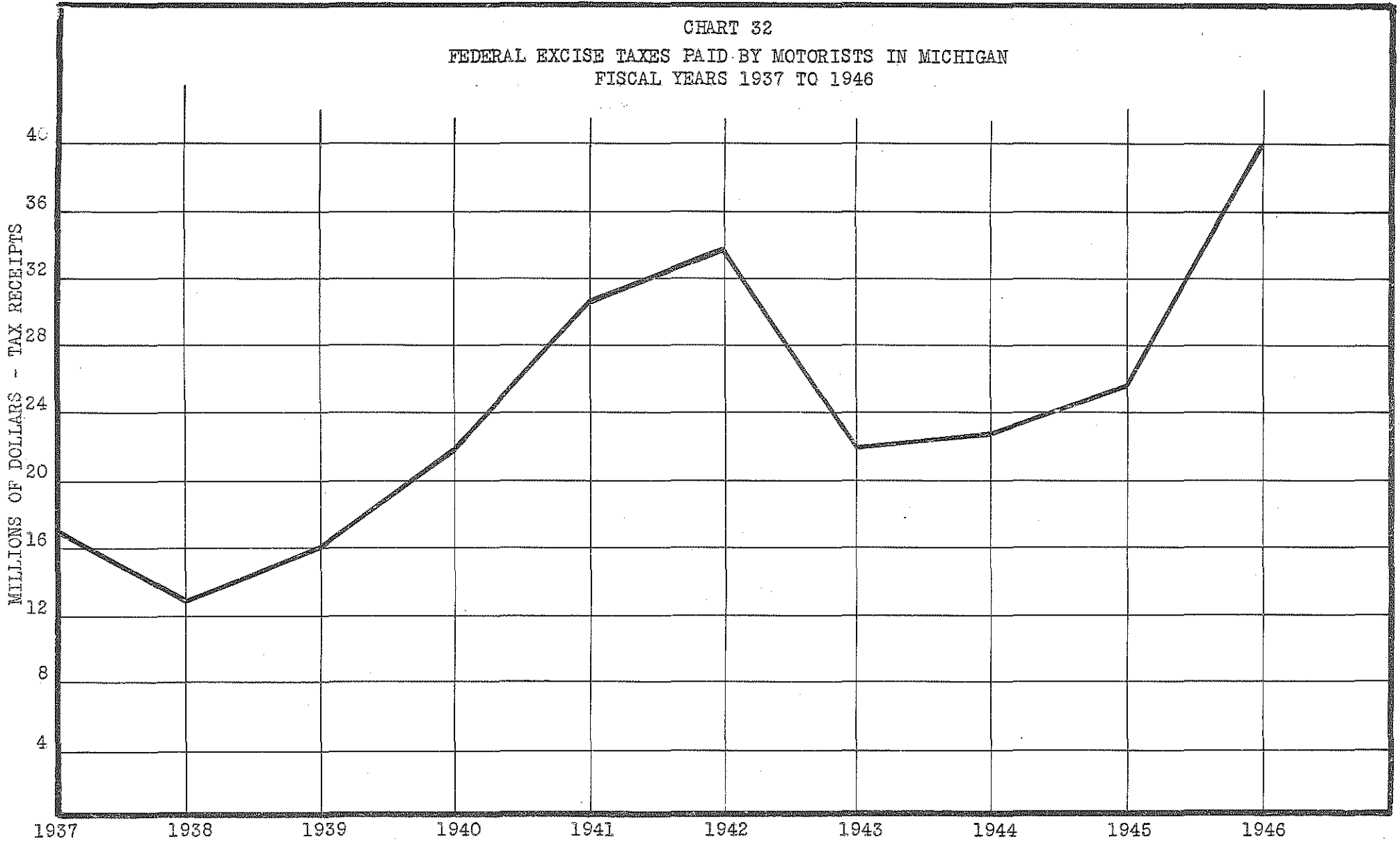
FARM TRUCKS

COMMERCIAL TRUCKS

PROPERTY CARRIERS

CARRIER BUSES

CHART 32
FEDERAL EXCISE TAXES PAID BY MOTORISTS IN MICHIGAN
FISCAL YEARS 1937 TO 1946



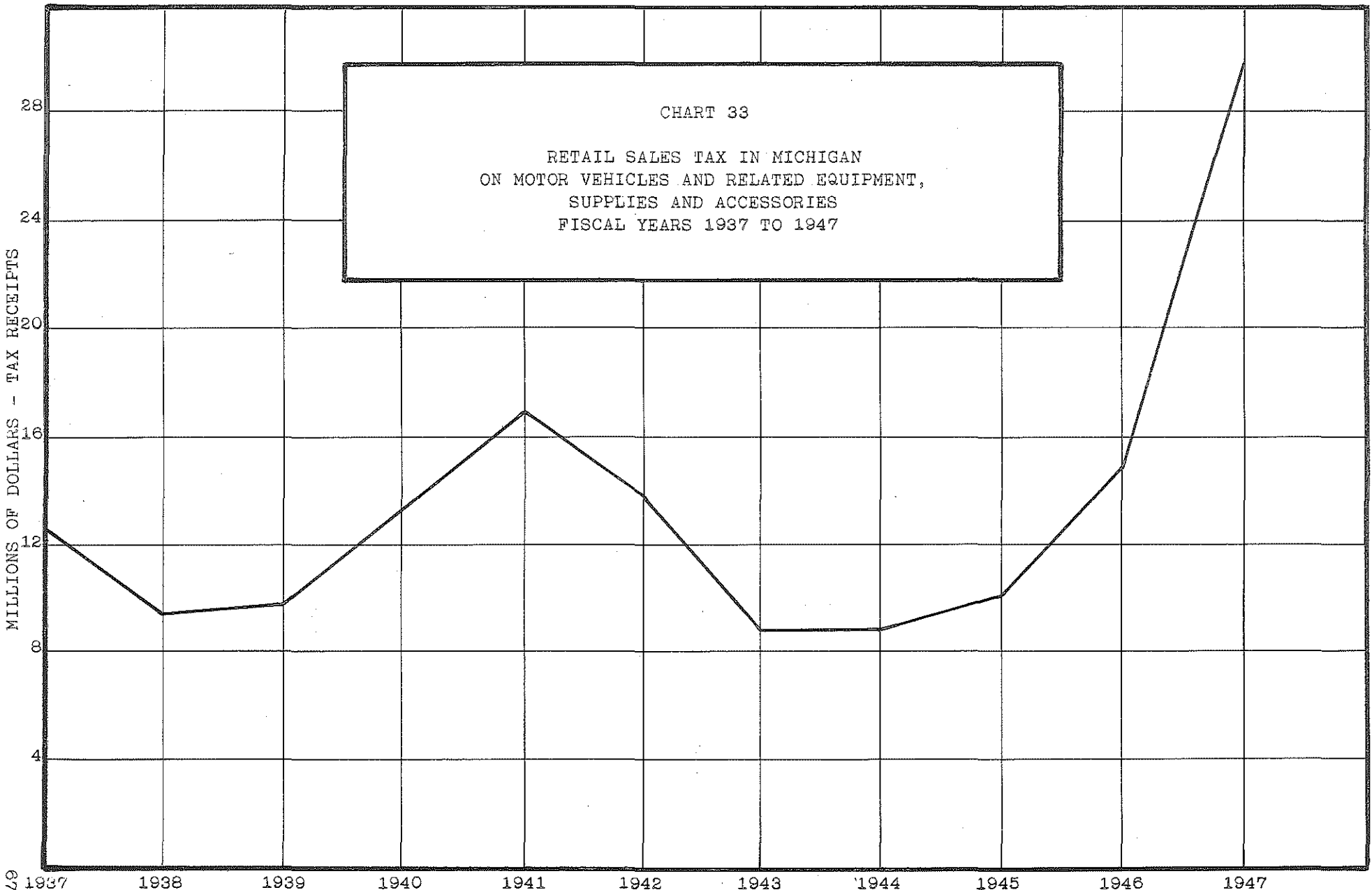
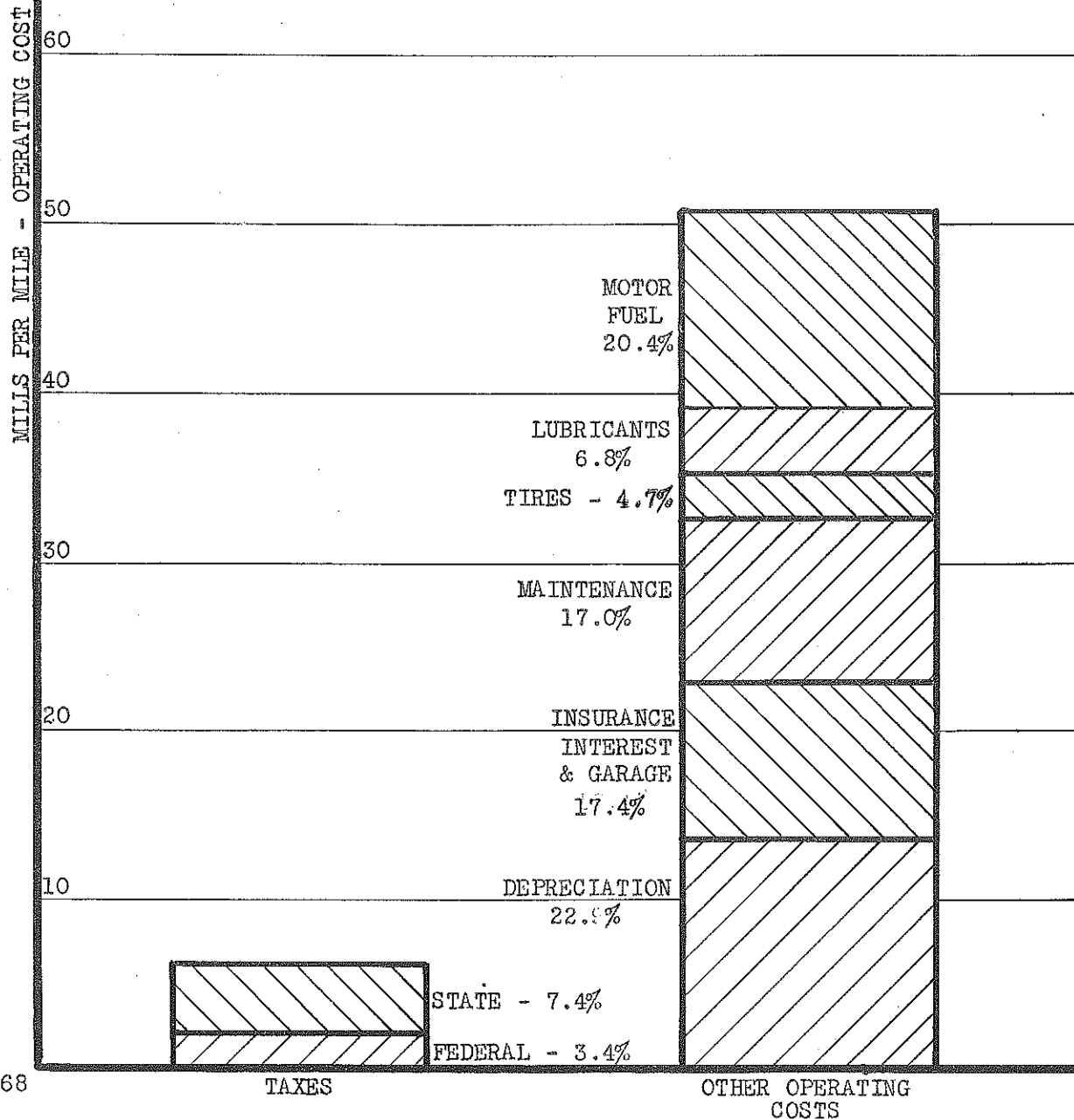


CHART 33
RETAIL SALES TAX IN MICHIGAN
ON MOTOR VEHICLES AND RELATED EQUIPMENT,
SUPPLIES AND ACCESSORIES
FISCAL YEARS 1937 TO 1947

29 1937 1938 1939 1940 1941 1942 1943 1944 1945 1946 1947

CHART 34

AVERAGE PASSENGER AUTOMOBILE OPERATING COSTS IN MICHIGAN
TAXES COMPARED WITH OTHER ELEMENTS
MILLS PER MILE OF USAGE
BASED UPON 1946 AVERAGE OF 9189 TOTAL MILES
AND PRICES OF 1947



6. HIGHWAY-USER TAXATION IN OTHER STATES

At this time gasoline tax rates are higher in 43 states, and in the District of Columbia, than in Michigan. Only Missouri, with 2 cents per gallon, has a lower rate, and four states in all have a 3-cent rate. (Chart 35)

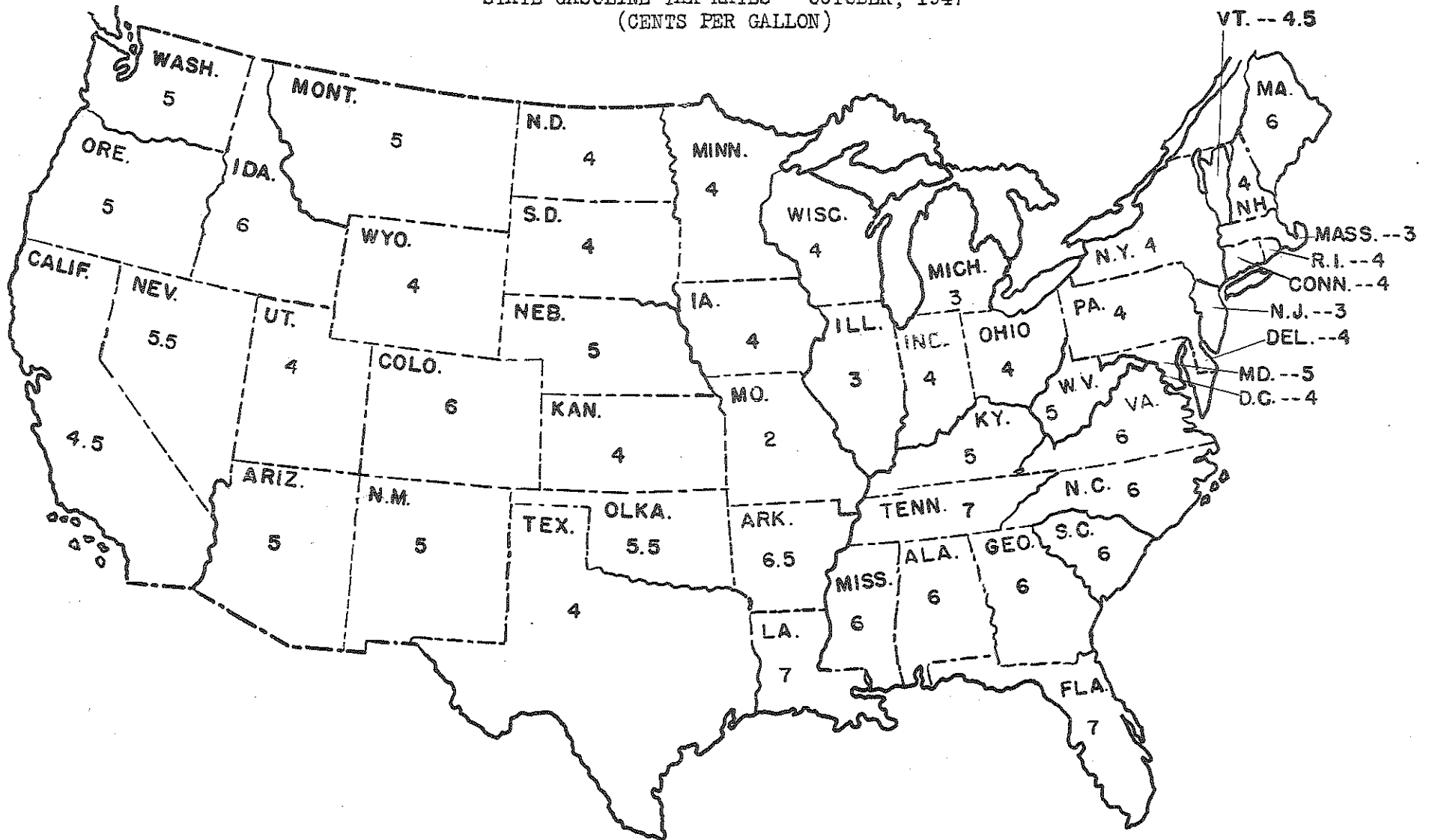
Variations in motor-vehicle tax rate structures among the states make simple comparisons of other than motor-fuel taxes generally impracticable. However, by the application of tax rates to specific vehicles and for fixed mileages, the taxes that would be paid in each of the states can be determined and comparison of these serves to indicate a state's taxation level in respect to other states or the national average. The state of Kansas made such a study and released the data in 1946.

Based upon these data, with motor fuel tax rates as of July 1, 1947, Michigan's weight, motor-fuel, carrier ton-mile, and total taxes have been compared with the nationwide averages pertaining to passenger cars of two weights, a $4\frac{1}{2}$ -ton tractor and semi-trailer contract carrier, a 9-ton tractor and semi-trailer common carrier, and a 37-passenger bus in interstate service. Data were not given permitting comparisons for non-farm, non-carrier commercial vehicles. In this study the District of Columbia was included as a 49th state.

Except for passenger car weight tax, which is 17% and 20% higher, weight, motor-fuel and ton-mile taxes in Michigan on all vehicles are substantially below national averages. The total tax is well below that average for all vehicles. Motor-fuel tax is 64.6% of the national average for all vehicles. Weight tax varies between 74.9% and 120.2%, ton-mile tax, which applies in less than one-third of the states, varies between 19.6% and 26.4%, and total taxes range from 57.3% and 71.2% of the respective national average. (Charts 36, 37, 38 and 39.)

CHART 35

STATE GASOLINE TAX RATES - OCTOBER, 1947
(CENTS PER GALLON)



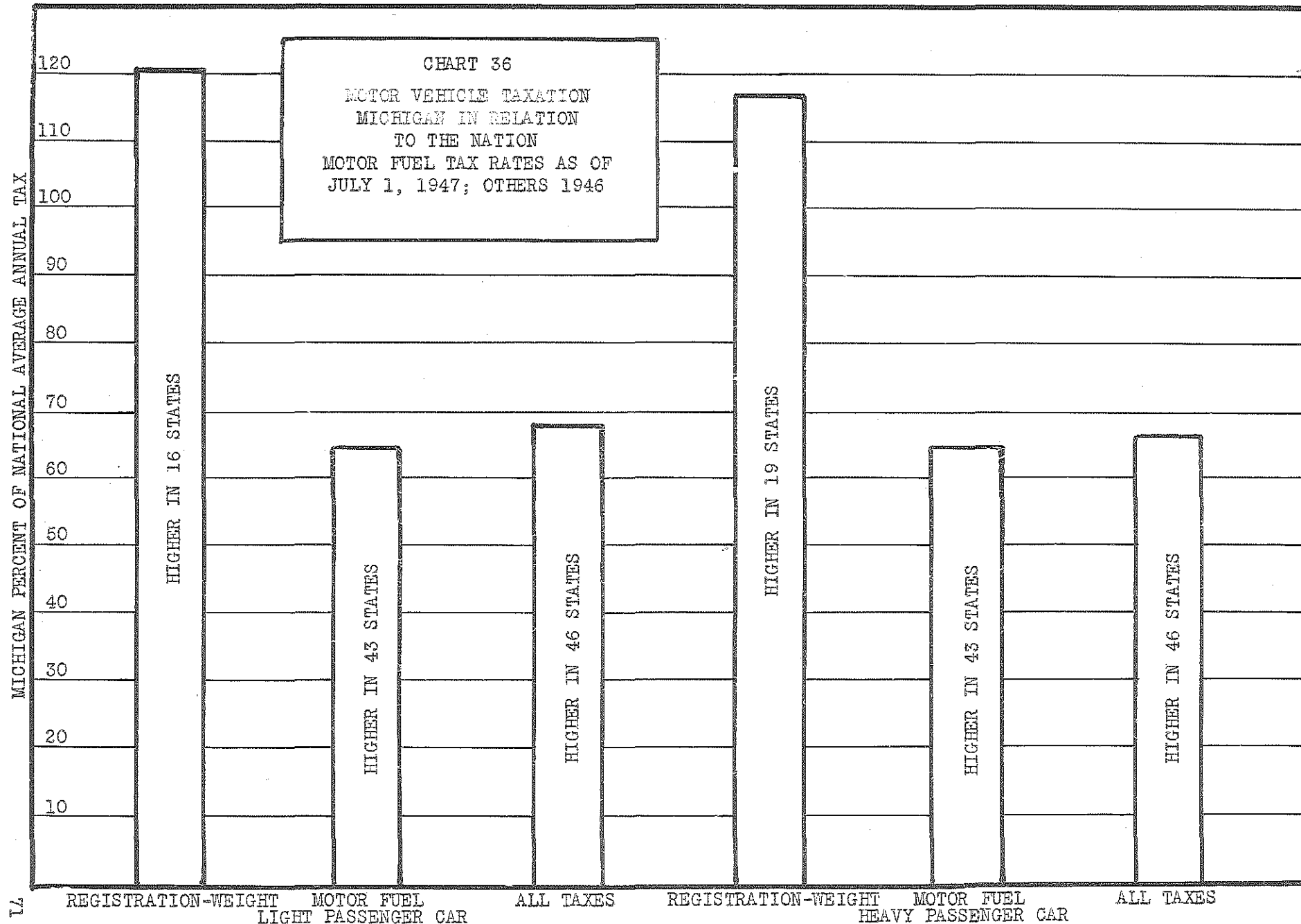


CHART 37

MOTOR VEHICLE TAXATION
MICHIGAN IN RELATION TO THE NATION
37-PASSENGER MOTOR BUS IN INTERSTATE SERVICE
MOTOR FUEL TAX RATES AS OF JULY 1, 1947; OTHERS 1946

MICHIGAN PERCENT OF NATIONAL AVERAGE ANNUAL TAX

100
90
80
70
60
50
40
30
20
10

HIGHER IN 15 STATES

HIGHER IN 43 STATES

HIGHER IN 13 OF THE 15 STATES
IN WHICH TAX APPLIES

HIGHER IN 43 STATES

REGISTRATION-
WEIGHT

MOTOR FUEL

TON MILE

ALL TAXES

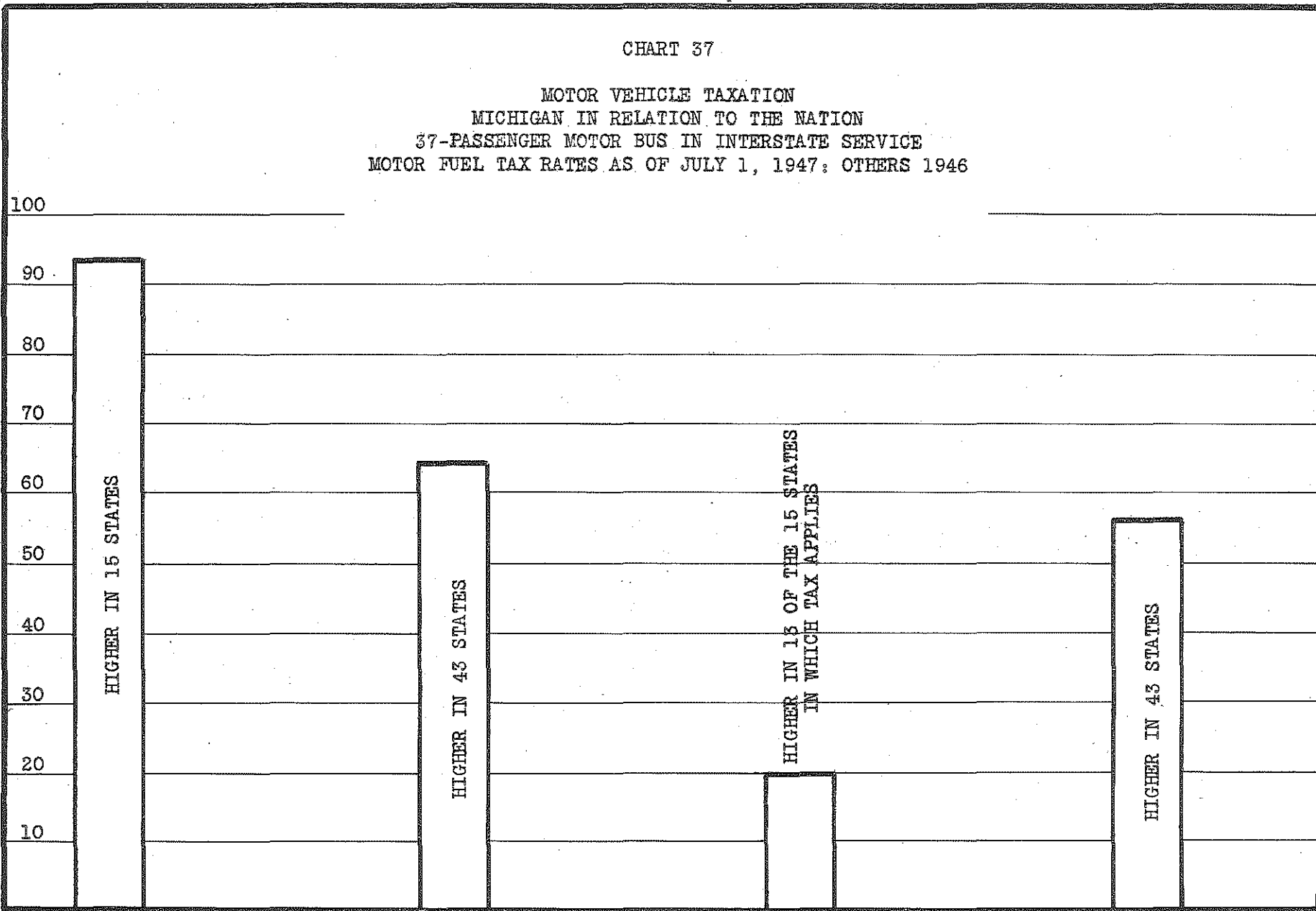


CHART 38

MOTOR VEHICLE TAXATION
MICHIGAN IN RELATION TO THE NATION
4½-TON TRACTOR & SEMI-TRAILER CONTRACT CARRIER
MOTOR FUEL TAX RATES AS OF JULY 1, 1947; OTHERS 1946

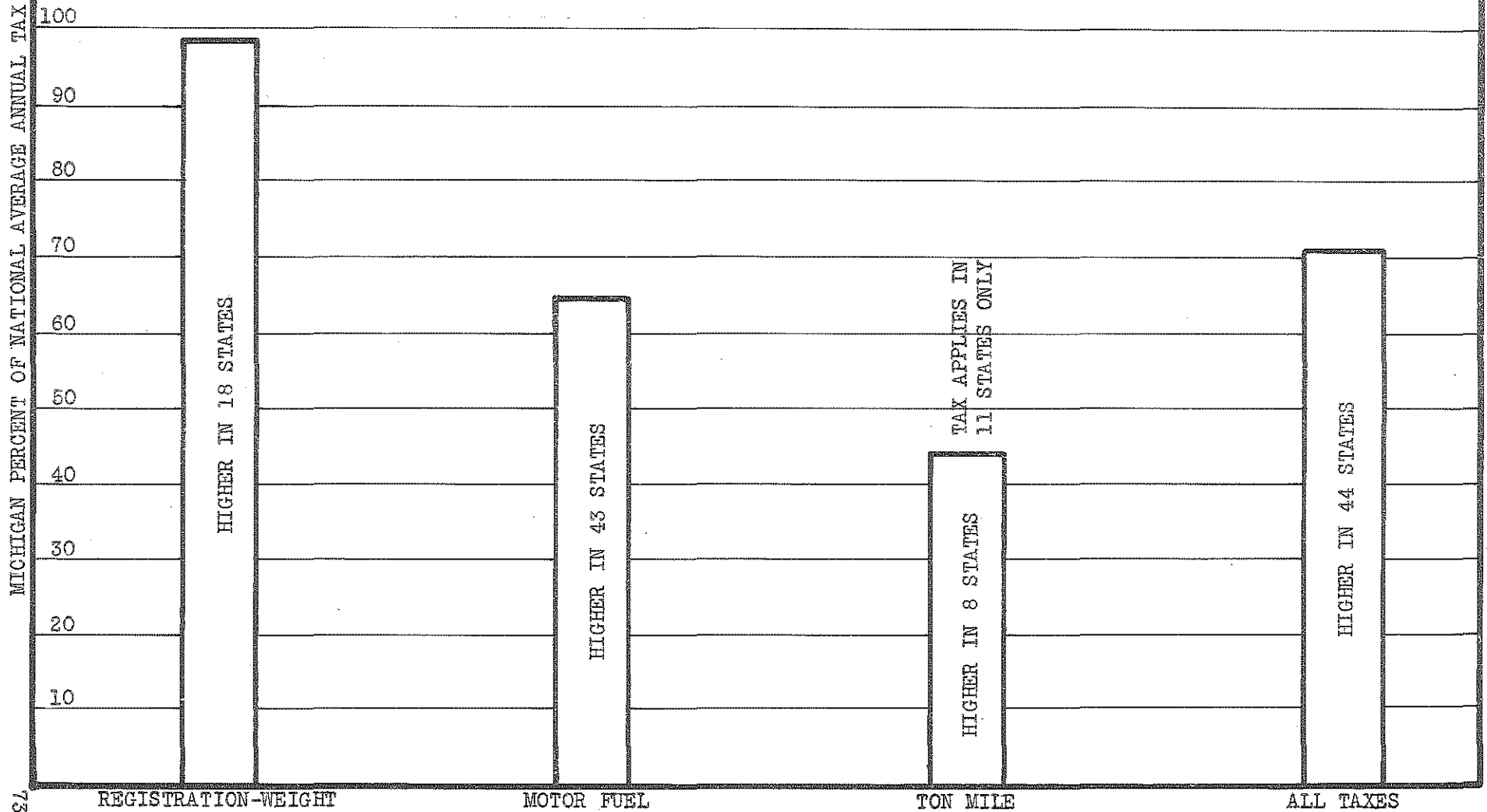


CHART 39

MOTOR VEHICLE TAXATION
MICHIGAN IN RELATION TO THE NATION
9-TON TRACTOR & SEMI-TRAILER COMMON CARRIER
MOTOR FUEL TAX RATES AS OF JULY 1, 1947; OTHERS 1946

MICHIGAN PERCENT OF NATIONAL AVERAGE ANNUAL TAX

100
90
80
70
60
50
40
30
20
10

REGISTRATION-WEIGHT

HIGHER IN 27 STATES

MOTOR FUEL

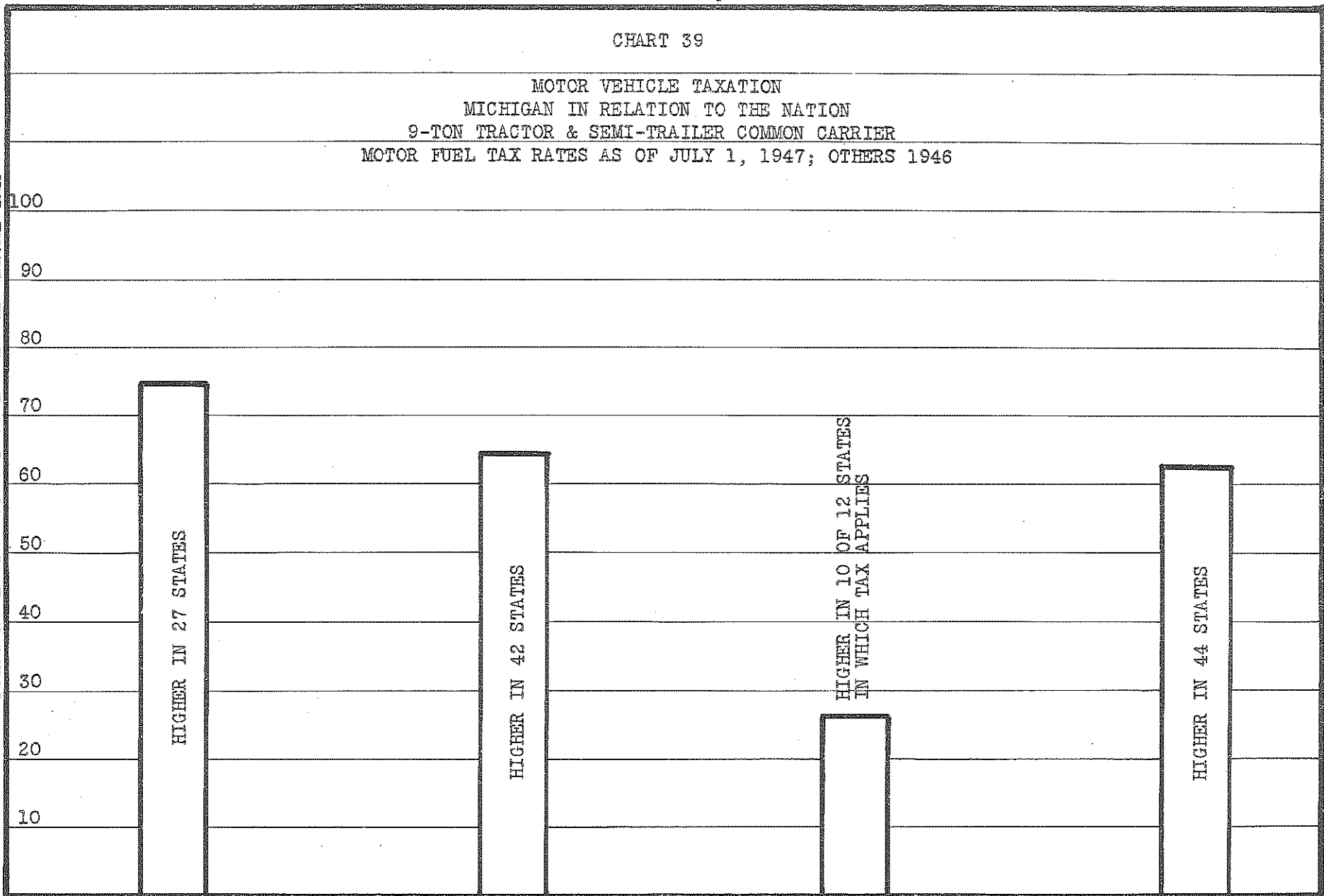
HIGHER IN 42 STATES

TON MILE

HIGHER IN 10 OF 12 STATES
IN WHICH TAX APPLIES

ALL TAXES

HIGHER IN 44 STATES



7. INDEBTEDNESS

Bonded indebtedness for roads and streets in the state was outstanding in a total of 18 millions of dollars at the end of 1946. Included in this were 13.7 millions incurred by cities and villages and 4.3 millions for roads now under the jurisdiction of counties.

The state's only highway bonds outstanding were 248 thousands of those in connection with the 50-million issue marketed after 1919. Since cash in the highway bond sinking fund account was some 41 thousands in excess of requirements for its retirement, this obligation is regarded as liquidated.

The state highway fund received in 1946 an appropriation of 5 millions of dollars for specific planning and construction projects, to be repaid by March 1, 1949. At the end of 1946 this was still intact and accordingly this appropriation is herein disregarded both as indebtedness and as cash balance.

The 13.7 millions of bonds of cities and villages, that is believed to represent the outstanding total of those issued for street purposes, include about 7.1 millions held by Detroit, 4.5 millions by other urban places in Wayne County and 2.1 millions by places elsewhere. They include 1.1 millions of bonds issued for street lighting purposes, of which 0.7 millions are those of Detroit, 0.2 millions of other Wayne County cities and villages and 0.2 millions of places elsewhere.

The 4.3 millions of outstanding highway indebtedness incurred by, or involving, counties include about 0.4 millions of general obligation road and bridge bonds, 3.2 millions of county Covert Road bonds, and 0.7 millions of inter-county Covert bonds. General obligation issues by the counties, or by townships and taken over by counties with the roads they financed, are outstanding in the following amounts, by counties:

GENERAL ROAD AND BRIDGE
BONDS OUTSTANDING - END OF 1946

COUNTY	
Allegan	\$ 1,000
Iron	66,000
Marquette	35,000
Monominee	55,000
Osceola	4,000
Ottawa	185,000
St. Joseph	3,600
Total	\$349,600

Bonds issued to finance improvements of county roads under the Covert Road Act of 1915 were outstanding in amounts, by counties, as follows:

COUNTY	COUNTY COVERT ROAD BONDS OUTSTANDING - END OF 1946
Macomb	\$ 1,207,000
Monroe	10,000
Oakland	2,010,000
St. Clair	2,000
Total	\$ 3,229,000

The remaining element of highway indebtedness involving counties is that incurred for improvement of inter-county roads under the Covert Road Act. Costs for these were apportioned among counties and were further subdivided into one or more of county-at-large, township-at-large and special-assessment-district shares. Allocations were made by the state highway commissioner and he was, and is, responsible for the administration of all finance in connection with these roads. At the end of 1946 the gross outstanding total of these bonds aggregated 724 thousands of dollars. At the same time there were cash, securities and investment assets in the fund in a net total of some 398 thousands of dollars, of which 240 thousands were directly applicable for debt retirement and 158 thousands were ultimately returnable to the counties. Notwithstanding that these assets eventually revert to counties, they are presently in escrow and in the custody of the state and cannot be utilized until the obligations are retired. Therefore they are regarded here as an earmarked item of state funds. The outstanding obligations and assets appear on the following page in a manner to show the financial situation of each assessed group in each county.

INTER-COUNTY COVERT ROAD OBLIGATIONS OUTSTANDING
AND ASSET BALANCES ON HAND
December 31, 1946

County and Units Within	Bonds Outstanding	Other Obligations	Total Obligations	Cash and Investments	
				Applicable to Obligations	In Escrow For County
	\$	\$	\$	\$	\$
<u>Macomb</u>					
At-Large	99,678	6,901	106,579	527	18,094
Districts	36,368	4,868	41,236	3,348	11,498
Townships					
Erin	-	4,062	4,062	-	-
Shelby	2,779	-	2,779	830	-
Sterling	13,868	-	13,868	4,139	-
Warren	52,265	10,153	62,418	16,259	-
Total Twps.	68,912	14,215	83,127	21,228	-
County Total	204,958	25,984	230,942	25,103	29,592
<u>Monroe</u>					
At-Large	-	-	-	-	1,403
<u>Oakland</u>					
At-Large	258,469	9,000	267,469	100,443	9,643
Districts	132,157	11,725	143,882	44,771	20,350
Townships					
Farmington	18,422	-	18,422	5,231	887
Royal Oak	23,088	-	23,088	13,655	-
Southfield	48,165	-	48,165	21,798	7,103
W.Bloomfield	12,413	-	12,413	2,510	-
Total Twps.	102,088	-	102,088	43,194	7,990
County Total	492,714	20,725	513,439	188,408	37,983
<u>St. Clair</u>					
At-Large	4,056	-	4,056	4,056	2,973
<u>Washtenaw</u>					
At-Large	6,797	-	6,797	6,797	3,976
<u>Wayne</u>					
At-Large	-	1,263	1,263	-	93,720
Districts	15,475	-	15,475	15,475	32,748
Townships					
Gratiot	-	-	-	-	1,676
Gr. Pointe	-	-	-	-	1,735
Total Twps.	-	-	-	-	3,411
County Total	15,475	1,263	16,738	15,475	129,879
<u>All Counties</u>	724,000	47,972	771,972	239,839	205,806
<u>Net Total Obligation Over All Assets - All Counties</u>				\$	326,327

8. HIGHWAY FUND BALANCES

At the end of 1946 governments in Michigan had some 32.4 millions of dollars available for road and street expenditure. The state held 16.3 millions of funds that it would later spend itself, 0.6 millions of Detroit's share of the balance remaining in the state-administered tri-partite program with Wayne County, and for Wayne County an equivalent amount, and 1.9 millions of weight tax due counties. County balances of funds available for use totaled about 13 millions, and with funds administered, or due them, by the state almost 15.5 millions were available for expenditure to their benefit in 1947. Other than the 0.6 millions held by the state for the Detroit-Wayne County-State program, cities and villages are regarded as having no street fund balances. Whatever unknown amounts there may be are undoubtedly small, occur in the smaller units, and are of negligible importance in the total highway picture. These balances in some detail are shown on the following page.

Known Balances of Road and Street Funds
At the End of Year 1946

By Unit in Which Held, Commitments, and Presently Available for Expenditure
to the Benefit of the Indicated Unit

<u>Unit, Fund & Item</u>	<u>Known Balance</u> <u>End of 1946</u>	<u>Presently Available</u> <u>For Expenditure</u> <u>For Benefit of Unit</u>
<u>State</u>		
Highway Fund		
Loan From General Fund	\$ 5,000,000	-
Weight Tax Due Counties	1,857,911	-
Investments Held	162,000	\$ 162,000
Cash-Available for Expenditure	14,938,221	14,938,221
Balance in Reserve for Detroit-Wayne		
County-State Program		
State Portion	1,207,379	1,207,379
County Portion	603,690	-
City Portion	603,690	-
 Total Highway Fund	 24,372,891	 16,307,600
Highway Bond Sinking Fund		
Excess of Cash Over Bonds Outstanding	41,141	41,141
Assessment District Road Fund		
Assets Applicable to Bond Retirement	239,839	-
Assets in Escrow for Counties	157,834	-
 Total Assessment District Road Fund	 397,673	 -
 State Total	 24,811,705	 16,348,741
<u>Counties</u>		
Balances		
Sinking Fund Investments	1,303,188	-
Agency and Trust Funds	122,350	-
Cash-Available for Expenditure	12,972,678	12,972,678
County Portion Detroit-Wayne Program	-	603,690
Weight Tax Receivable From State	-	1,857,911
 Counties Total	 14,398,216	 15,434,279
<u>Cities and Villages</u>		
Balances in Units - Unknown, but believed negligible		
Detroit Portion Detroit-Wayne County- State Program	-	603,690
 All Units Total	 39,209,921	 32,386,710
 Total Less General Fund Loan	 \$34,209,921	 \$ 32,386,710

SECTION D

SECTION D

HIGHWAYS AND OTHER PUBLIC EXPENDITURES

One-fifth of the funds supporting all governments in the state are spent for roads and streets. This is the average over the fifteen years since 1932, and it represents 82.5 millions of dollars yearly. Highway expenditures were 25.4 percent of the total in 1936 and only 12.7 percent in 1945.

Over this period, education has taken 27.6 percent of the total for all purposes and an annual average of 113.6 millions of dollars. Its percentage of total, yearly, has been as low as 21 percent and as high as 33 percent. More is spent for education than for any other single purpose.

Public benefits in connection with health, recreation, police, penal and correctional institutions, courts, welfare and the like, require about 40 percent, and general government functions about 12 percent of the yearly revenues of all governments. The combined percentage of these has varied only narrowly from the 52.3 percent average, except in 1935 when extensive unemployment relief brought it to more than 62 percent. (Chart 40)

The Federal government has furnished 13.7 percent of this support of all Michigan governments - 5.2 percent by way of funds and 8.5 percent through its own emergency relief expenditures. Together, these represent some 846 millions of dollars. This 13.7 percent Federal contribution comprises 5.5 percent for highways, 1.4 percent for education, and 6.8 percent for all other purposes.

CHART 40

SUPPORT OF GOVERNMENTS IN MICHIGAN
 (INCLUDING FEDERAL ASSISTANCE)
 FOR HIGHWAYS IN RELATION TO THAT FOR ALL PURPOSES
 YEARS 1932 TO 1946

