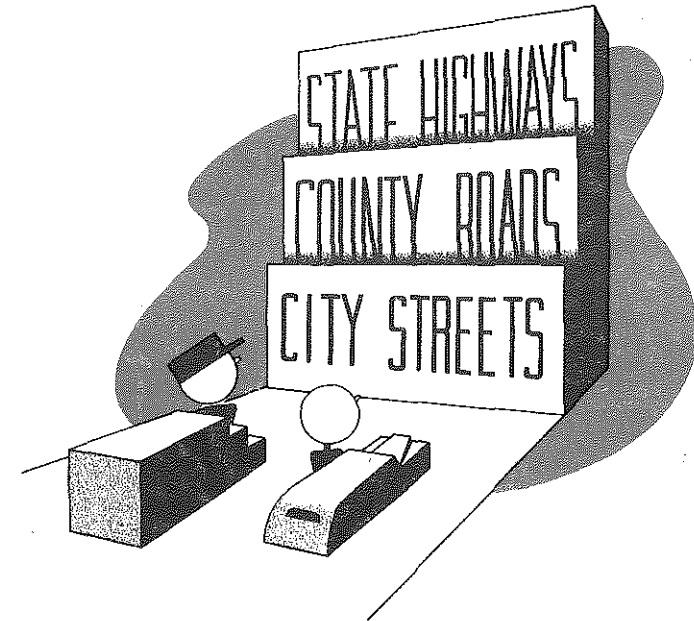


HE
5633
M5.H5
1947
no.1707

C. 2
LIBRARY-michigan dept. of
state highways - LANSING

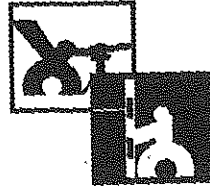
THE HIGHWAY TRANSPORTATION PROBLEM IN MICHIGAN

HIGHWAY LIBRARY
MICHIGAN DEPARTMENT OF STATE
HIGHWAYS
LANSING, MICH.
P. O. DRAWER "K" 48904



LIBRARY-michigan dept. of
state highways - LANSING

A STATEMENT FOR THE GOVERNOR AND THE LEGISLATURE



OTTO S. HESS, GRAND RAPIDS, PRESIDENT
HARRY T. WARD, LANSING, VICE PRESIDENT

C. W. LUCAS, FLINT, SECRETARY
WALTER TOEBE, LANSING, TREASURER

MICHIGAN GOOD ROADS FEDERATION

512 TUSSING BUILDING, LANSING 7

March 12, 1947

The Honorable Kim Sigler
Governor of Michigan
and
Members of the Legislature

Gentlemen:

Inadequacy of Michigan state highways, county roads and city streets for present and future traffic needs is widely recognized. Opinions differ as to proper legislative and fiscal measures to overcome this situation.

Official and private groups representing various highway transportation interests in the state, including the user groups, have joined in sponsoring a factual study of the problem. It is financed by federal aid road funds plus grants from the sponsoring organizations. The U.S. Public Roads Administration is providing staff assistance on certain phases.

This is the first time a study of this character has been carried on by all affected private and public groups in any state. It should provide a reliable source of information on highway matters. The study will continue through 1947.

To keep the Legislature informed on our work, we would welcome meetings during the year with the Highways Committee of the Senate and the Roads and Bridges Committee of the House — or with such special interim committees as the Legislature might see fit to name.

Sincerely,

Otto S. Hess
President

OSH

BOARD OF DIRECTORS

OTTO S. HESS, A. O. CUTHBERT, MICHIGAN ASSOCIATION OF ROAD COMMISSIONERS AND ENGINEERS
WALTER TOEBE, PAUL GREENE, MICHIGAN ROAD BUILDERS ASSOCIATION
HARRY T. WARD, RALPH F. SWAN, MICHIGAN STATE HIGHWAY DEPARTMENT
JOHN H. HUSS, MICHIGAN MUNICIPAL LEAGUE
DON B. SMITH, MICHIGAN TRUCKING ASSOCIATION
CLAY CAMPBELL, MICHIGAN PETROLEUM INDUSTRIES

WILLIAM A. PALMER, TOURIST AND RESORT ASSOCIATION
RICHARD HARFEST, AUTOMOTIVE INDUSTRY
R. W. ROBERTS, JR., A. M. DAVIS, D. C. TINEY, GEORGE W. SWART,
W. H. WALLACE, MEMBERS AT LARGE
FRANK HERRICK, MICHIGAN AUTOMOBILE DEALERS ASSOCIATION
C. W. LUCAS, MICHIGAN MOTOR BUS

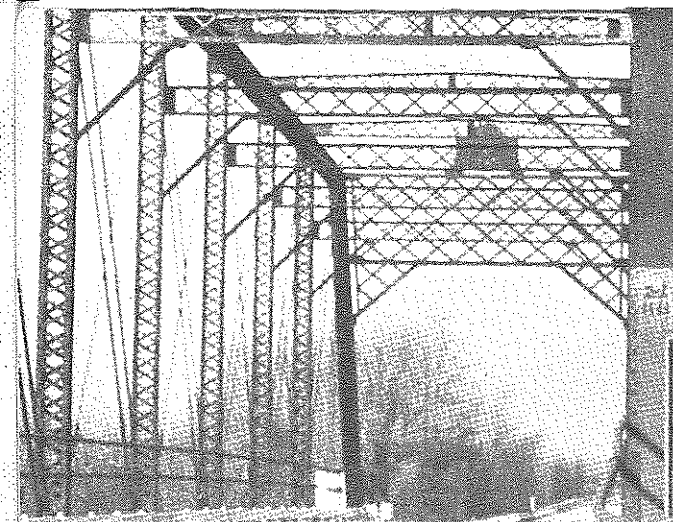
HIGHWAY STUDY COMMITTEE

DON B. SMITH, CHAIRMAN
CHARLES M. ZIEGLER, STATE HIGHWAY COMMISSIONER
LE ROY C. SMITH, COUNTY ROAD ASSOCIATION OF MICHIGAN
JAY F. GIBBS, MICHIGAN MUNICIPAL LEAGUE
RICHARD HARFEST, AUTOMOBILE CLUB OF MICHIGAN
WALTER TOEBE, MICHIGAN ROAD BUILDERS ASSOCIATION
J. P. BUCKLEY—ENGINEER-DIRECTOR

LIBRARY-michigan dept. of
state highways - LANSING

COOPERATING
PUBLIC ROADS ADMINISTRATION
FEDERAL WORKS AGENCY

HIGHWAY LIBRARY
MICHIGAN DEPARTMENT OF STATE
HIGHWAYS
MICHIGAN



ONE WAY
BRIDGE
TRAFFIC



THE PROBAB





Since the late '20s the gap between traffic demands and highway development has widened steadily in Michigan.

Rural property taxes for roads were practically abandoned as a result of the depression starting in 1929. Since then, state and local road units have had to spread funds thin. Federal work relief road programs in the late '30s were mostly of a maintenance nature and added little of permanent value to the highway plant.

During four war years, normal road improvement stopped. Road maintenance was handicapped. Heavy war industrial traffic pounded main routes. With traffic now back at 1941 peaks and still rising, Michigan is only beginning to feel the accumulated effect of road deficiencies.

Three general classes of road needs are evident:

- A large mileage of county roads require fairly smooth, dustless, all-weather surfaces, reasonably safe in design.
- Many main state trunklines must be rebuilt to standards of width, curvature and other design elements to make them operationally safer and to overcome traffic bottlenecks on high-volume sections.
- Entirely new facilities must be built in cities to meet intolerable congestion, accident and parking problems along main thoroughfares.

The problem is to measure these deficiencies, and others not so readily apparent, in relation to (1) practical standards for facilities that would mean safe, economical and efficient motor transportation, and (2) the amount the people of Michigan wish to pay for a yearly construction program to wipe out the deficiencies in a reasonable number of years.

The Objective

To solve the problem, some facts not now available must be obtained.

The Highway Study Committee has set out to gather and present the facts. All highway interests in Michigan are taking active part in the work.

Since the study will have little value unless followed by appropriate legislation, the Committee has welcomed expressions of interest and cooperation from the Governor and various Legislative committees, and offers its services to these officials.

The study proposes to obtain facts that will:

- Determine road and street needs in Michigan, using standards that are practical and attainable.
- Suggest a program the state, county and city agencies can follow to meet road needs over a reasonable time period.
- Outline policies and practices for state, county and city highway administration.
- Give the Legislature a logical basis for deciding which highways should be administered by state, county and city agencies in the public interest.
- Provide a sound basis for legislation on administrative and fiscal matters.

A balanced road program will reflect the interests of individual

motorists, commercial users of highways, and the various public agencies having jurisdiction over roads and streets. Membership of the Highway Study Committee was selected to represent these interests.

The Method

The U. S. Public Roads Administration and the Michigan State Highway Department have offered the Committee the use of all data collected in the Michigan Highway Planning Survey, and assistance of state and federal road engineering specialists.

The Highway Planning Survey is a continuing state-federal program. In the last decade it has accumulated extensive material on road use and condition, and fiscal and traffic data, in every Michigan county. The material is used in various state-federal road activities.

On many phases the material is adequate for Committee purposes. On some phases it is markedly incomplete. Missing data must be collected and salient facts analyzed in relation to each other.

Although no conclusions can be presented in this preliminary report, some highlights from the available material are included in the following pages. They will indicate some of the facts that must be weighed.

Collection, analysis and interpretation of facts obviously will require time. The Committee expects to present its final report early in 1948.

MICHIGAN DEPENDS ON HIGHWAY TRANSPORTATION

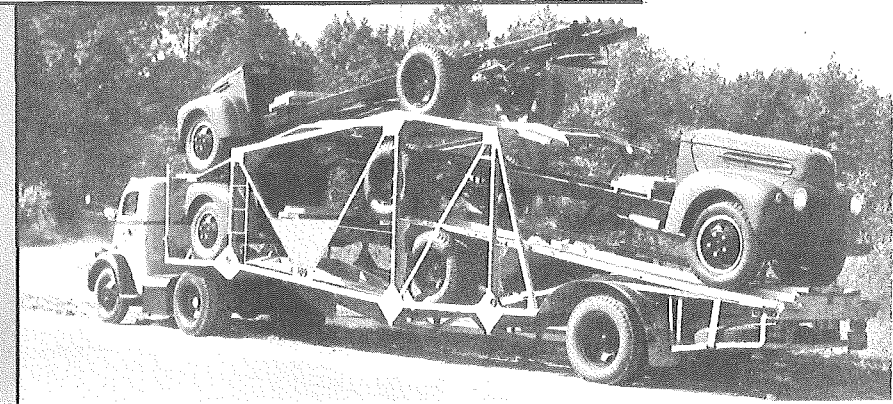
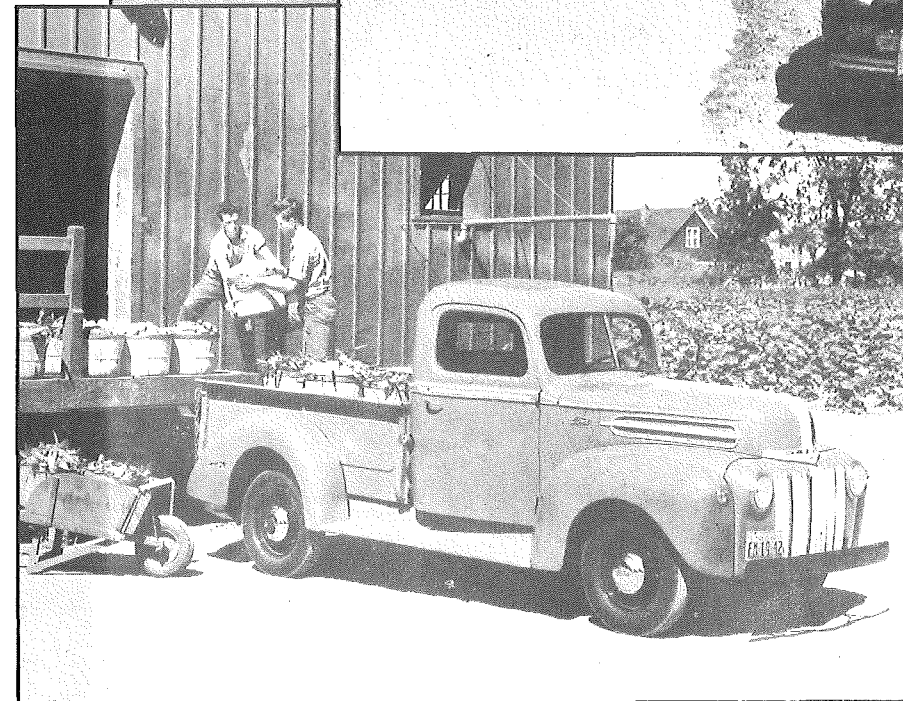
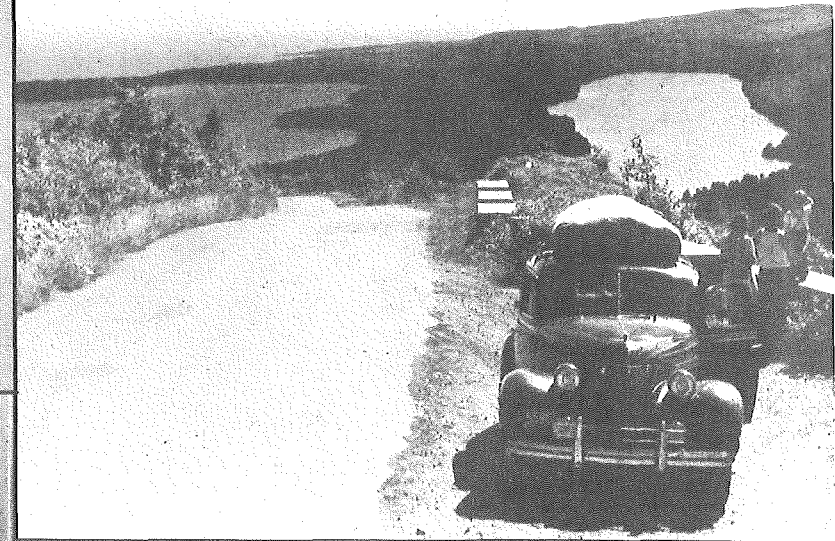
More than in any other state, highway transportation developments have been responsible for Michigan's economic growth.

All parts of the economy of the state—industry, tourist and resort trade, natural resources, and agriculture—are geared to the road and street system.

Over 90 percent of all motor vehicles made in America are made in Michigan, so that industry has unusual importance to the state. Well over a half million people, or nearly one-fourth of the state's workers, are in the motor transportation field. Commercial drivers make up nearly a third of the total.

Automotive factories are largely assembly plants for parts and equipment made in other plants in Michigan and other states. The bulk of such items move over the highways to the final assembly lines.

Nine of every ten vacationists at Michigan recreation areas come by motor vehicle—mainly from Detroit and other Southern Michigan cities, but also from population centers of nearby states. The tourist and resort industry has been estimated as a half billion dollar business for Michigan residents, making that field second only to automobile manufacturing in economic importance.



ROADS LINK OUR ECONOMIC

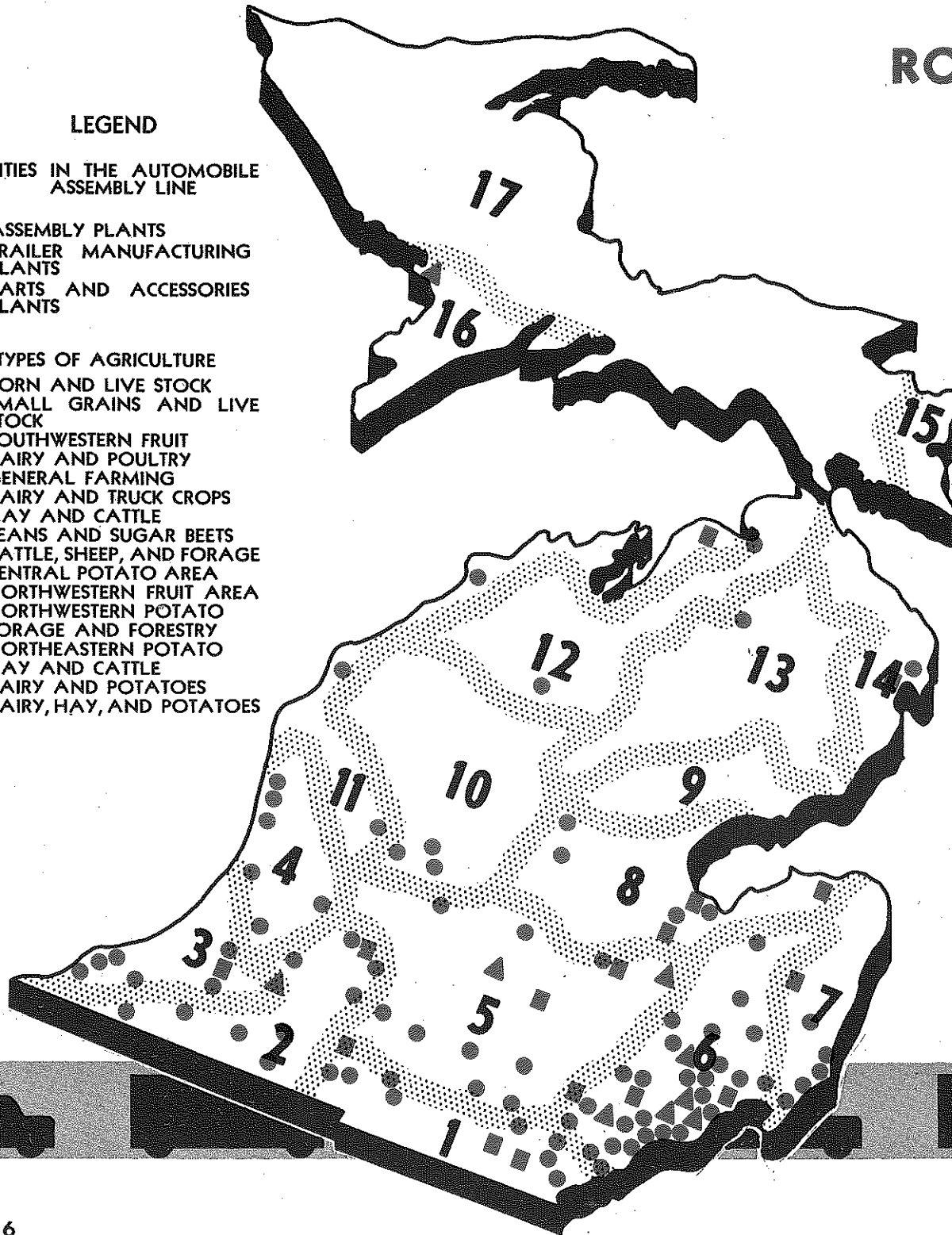
LEGEND

CITIES IN THE AUTOMOBILE ASSEMBLY LINE

- ▶ ASSEMBLY PLANTS
- TRAILER MANUFACTURING PLANTS
- PARTS AND ACCESSORIES PLANTS

TYPES OF AGRICULTURE

1. CORN AND LIVE STOCK
2. SMALL GRAINS AND LIVE STOCK
3. SOUTHWESTERN FRUIT
4. DAIRY AND POULTRY
5. GENERAL FARMING
6. DAIRY AND TRUCK CROPS
7. HAY AND CATTLE
8. BEANS AND SUGAR BEETS
9. CATTLE, SHEEP, AND FORAGE
10. CENTRAL POTATO AREA
11. NORTHWESTERN FRUIT AREA
12. NORTHWESTERN POTATO
13. FORAGE AND FORESTRY
14. NORTHEASTERN POTATO
15. HAY AND CATTLE
16. DAIRY AND POTATOES
17. DAIRY, HAY, AND POTATOES



The state's diversified agricultural industry also depends on highway transportation. Four of every five farms have at least one motor vehicle. Virtually all farm products move to final markets or central assembly points by highway.

The vast fruit-growing regions of Western Michigan have reached full development since the coming of motor vehicles and improved roads that made possible the rapid movement of perishable produce from orchard to market. Last year's peach crop was trucked to twenty-eight states.

In mining, forestry, and oil fields, trucks and highways have opened new areas to development in recent years. Approximately 117,000 rural school children are carried daily on school buses, traveling more than 15 million miles a year. Rural mail carriers drive 18 million miles a year to serve 300,000 farm homes.

AND RECREATION RESOURCES

Just as in rural areas, dependence on motor transportation has increased steadily in cities.

Virtually all movement of goods in urban areas is by truck. Most farm products reach town over the highway. Three of every four industrial workers in Michigan reach their jobs by private automobile.

Twenty-one cities have substituted rubber-borne vehicles for street railways in the last two decades, leaving only the Detroit area with local railway lines.

The main role of motor transportation is the short daily movement of people and goods. The automobile is a necessity in modern life—77 percent of all trips are for essential purposes.

Per capita ownership of motor vehicles in the state is well above national averages.

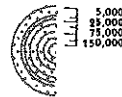
There were 1,603,299 motor vehicles registered in Michigan in 1946, or one for every

3½ people in the state.

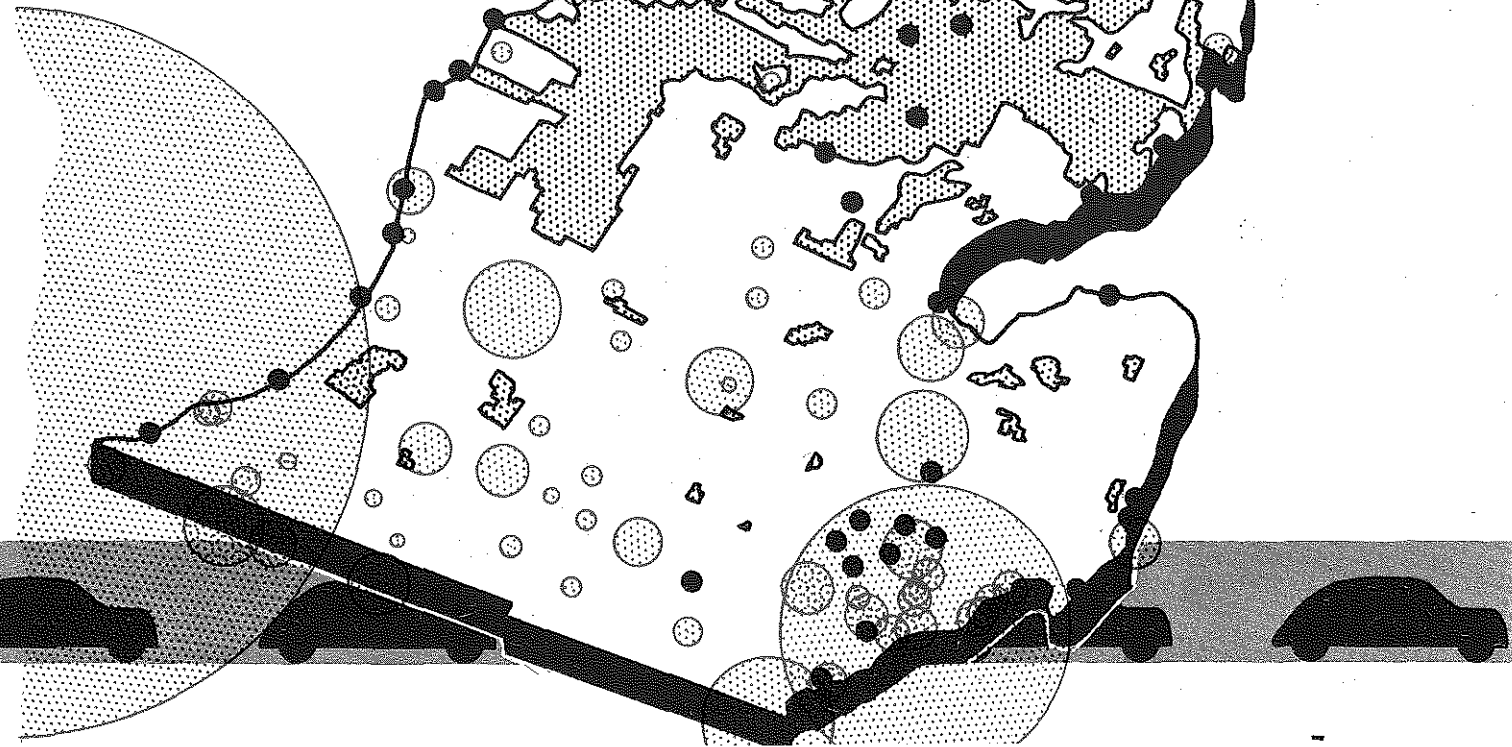
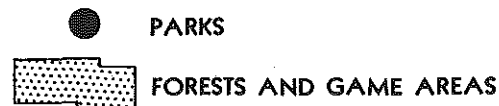
HIGHWAY LIBRARY
MICHIGAN DEPARTMENT OF STATE
HIGHWAYS
LANSING, MICH.
P. O. DRAWER "K" 48904

LEGEND

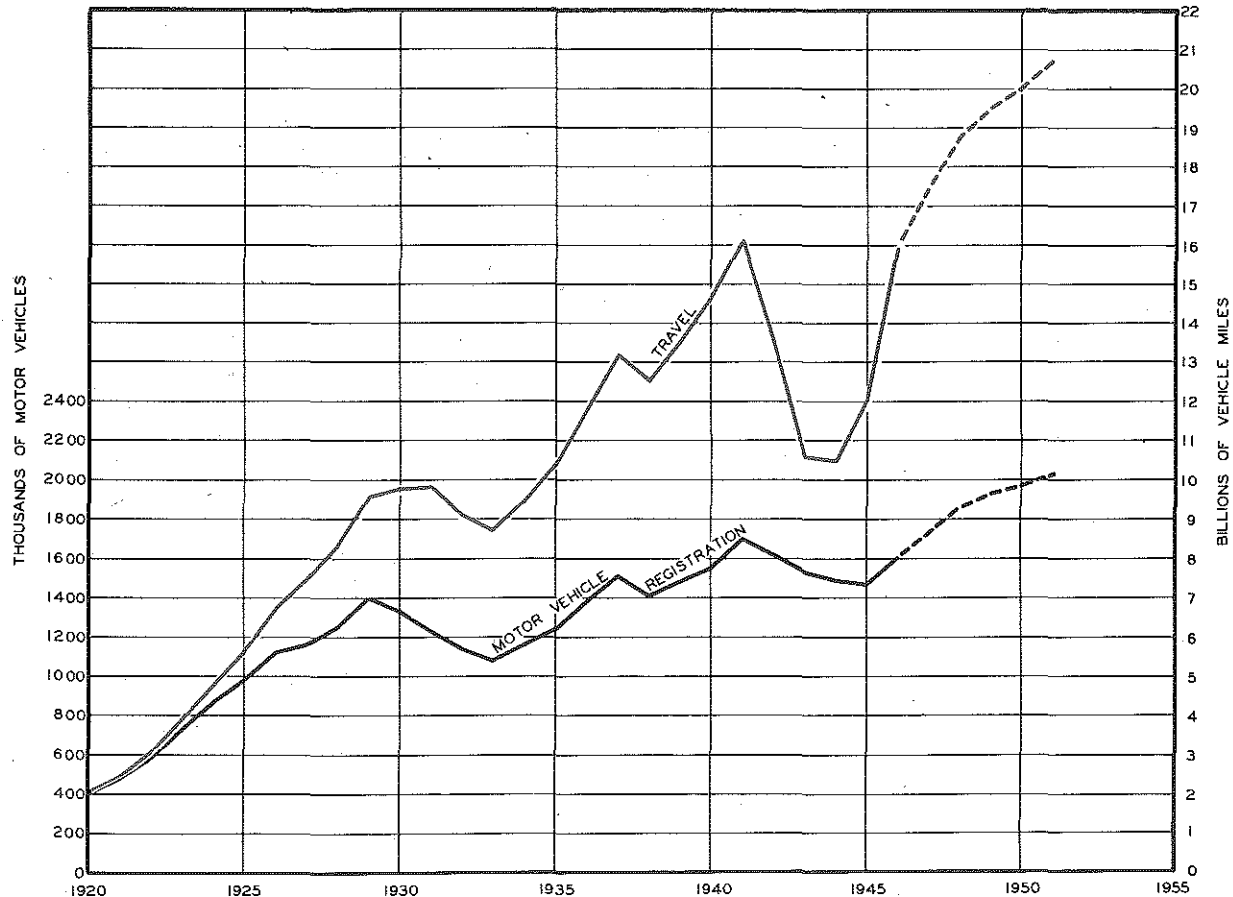
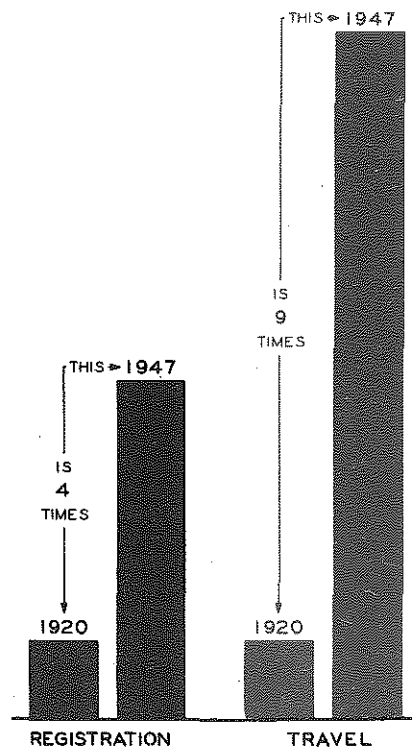
POPULATION CENTERS



RECREATION AREAS



TRAVEL RISING TO NEW LEVELS



These charts show what Michigan road agencies have been confronted with since 1920. A road or street can quickly become unsafe or congested if traffic rises above the amount provided for in the design, or if driving speeds increase beyond those allowed for in road curvature, sight distance and other design elements.

Roads and streets in Michigan today must carry nine times as much traffic as they did in 1920. Vehicles are bigger and heavier. Speeds are higher. Although total vehicles in use rose only four times, the

average vehicle today is used more than twice as much as in 1920.

This means not only that main highways and streets are frequently congested, but also that ownership and use of vehicles in farm areas have soared, making it necessary to open up thousands of additional miles of county roads to all-weather travel.

Michigan traffic by 1955 is expected to be more than a third above 1946—and still rising!

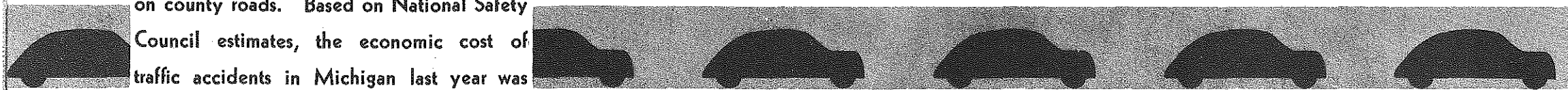
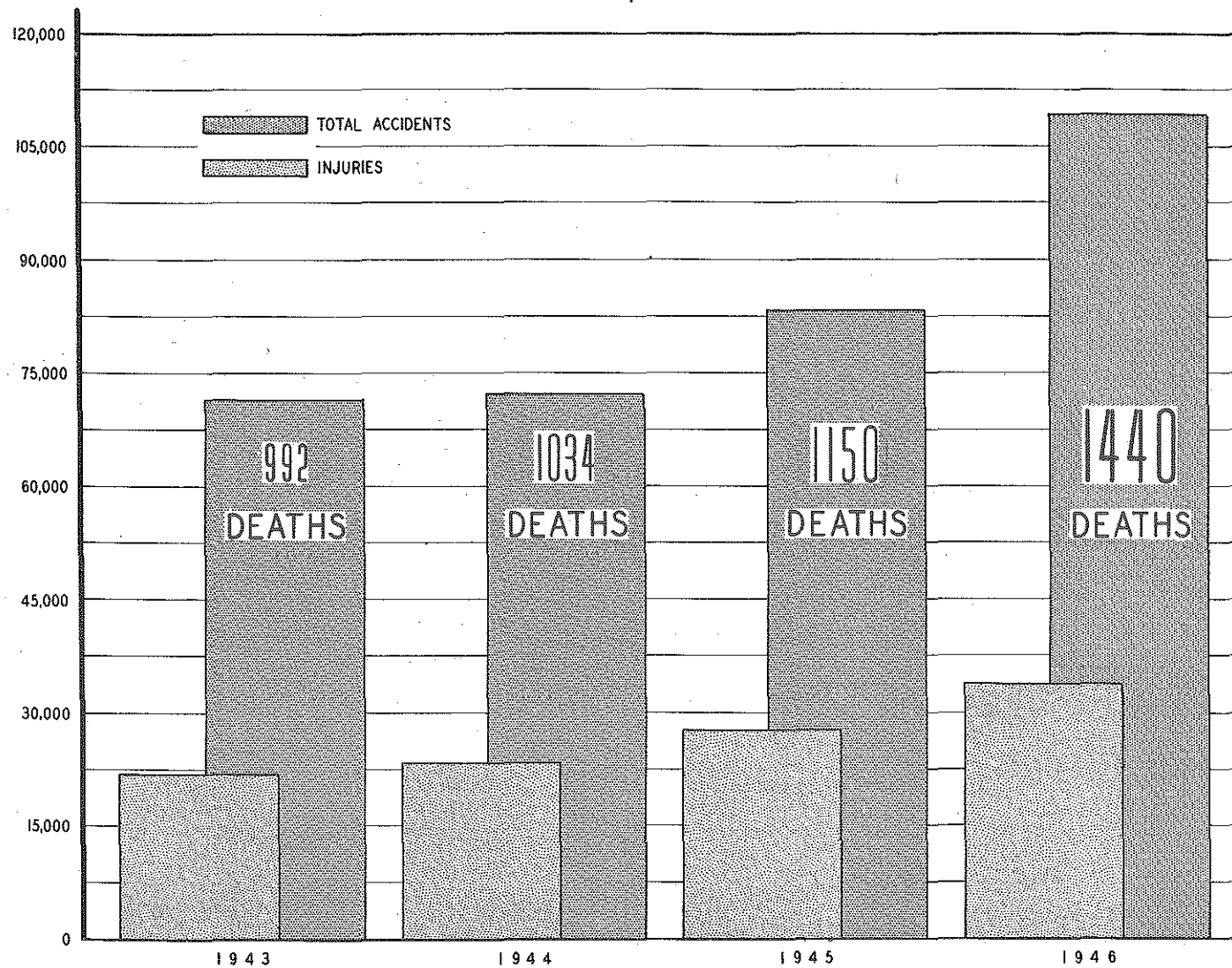
Increased traffic brings increased problems.

ACCIDENTS GOING UP TOO

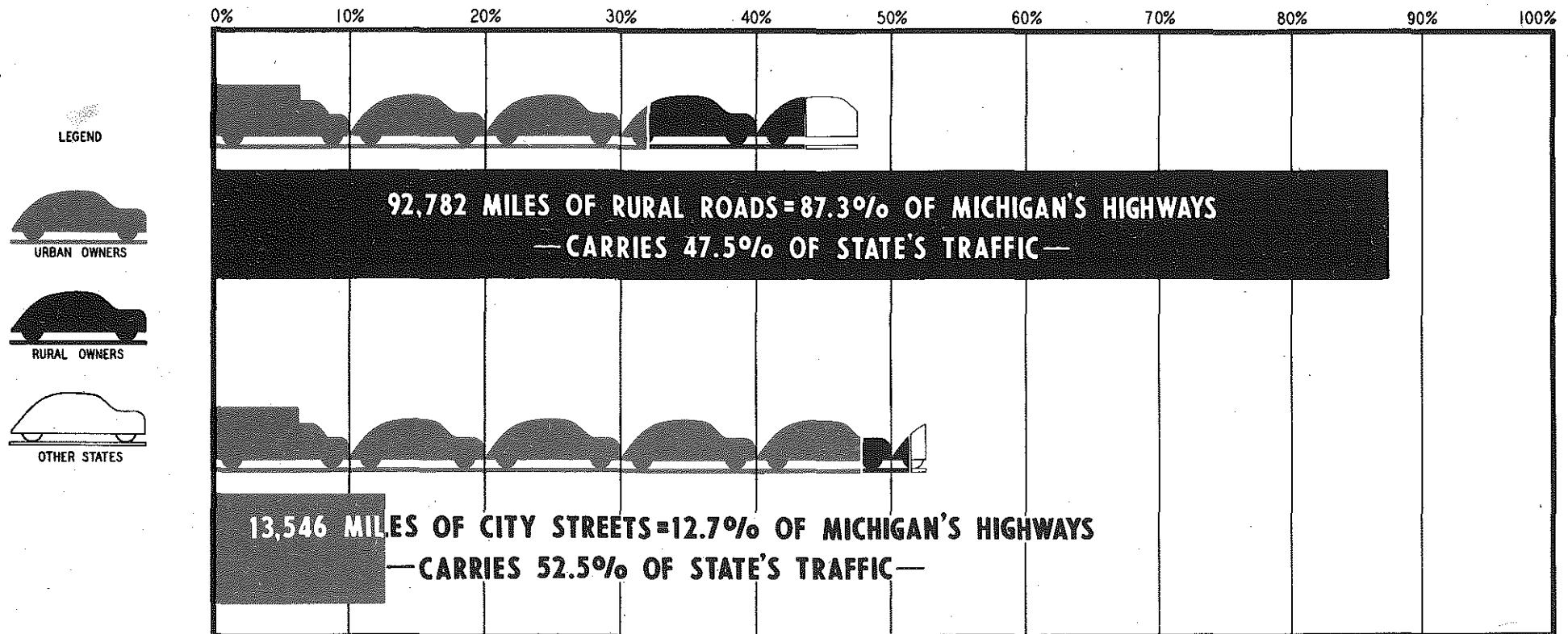
Some 1,440 men, women and children were killed on Michigan roads and streets last year. That was 448 more than in 1943. More people will be killed this year—and next year—and the year after that—unless all the proved methods for reducing this toll are applied vigorously by all the public agencies charged with accident prevention.

Traffic safety depends on the three E's of enforcement, education and engineering. Ample records show that properly engineered highways and streets cut accidents, and cut them permanently—making the job of enforcement and education better able to achieve still more reductions.

Last year's traffic deaths were divided as follows: 37 percent on city streets, 38 percent on state highways, and 25 percent on county roads. Based on National Safety Council estimates, the economic cost of traffic accidents in Michigan last year was \$65,000,000.



WHO USES . . . RURAL ROADS . . . CITY STREETS



Since 71 percent of Michigan's population is urban, it is not surprising that more than one-half of total motor travel is on urban state trunklines and other city streets. However, two-thirds of the traffic on rural roads comes from the cities.

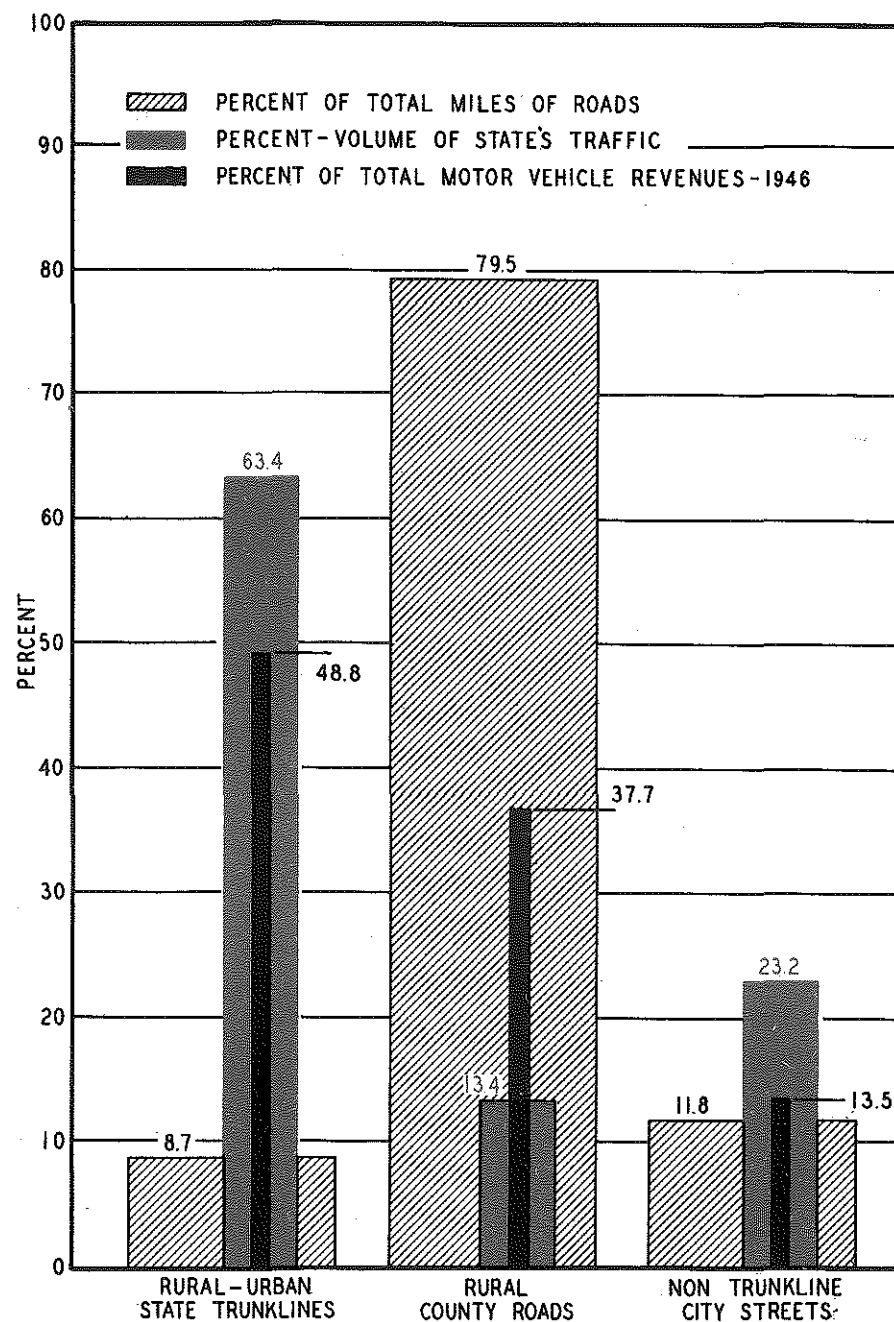
Vehicles from out of the state, while important to Michigan's prosperity, account for a small part of total travel.

The total road network serves the people as a whole rather than separate groups.

COMPARISONS

There are 106,329 miles of public roads and streets in Michigan, divided into three main groups:

1. State highways, with 8,248 rural and 1,038 urban maintained miles. This system has 9 percent of the total mileage, 63 percent of total traffic, and received 49 percent of motor vehicle revenues in 1946. These highways are the backbone of Michigan's road network.
2. County roads, 84,535 miles in length with 79 percent of total mileage, 14 percent of total traffic, and receiving 38 percent of last year's motor vehicle revenues. They are roads over which farm products and natural resources go to market and the rural and suburban families maintain necessity and social contacts.
3. Local city streets, 12,508 miles in length. These are 12 percent of total mileage, have 23 percent of total traffic, and received 13 percent of motor vehicle revenues last year. They give access to homes, industry and business places.



HIGHWAY FINANCE

During most of the last Century, township highway commissioners were responsible for rural wagon roads in Michigan. Farmers could "work out" their road tax. In the cities, street commissioners hired workers, paid by local property taxes.

In 1893 a constitutional amendment authorized the Legislature to permit counties to levy road taxes and borrow money for county road systems. Shortly afterward the automobile arrived and motorists joined forces with bicycle clubs in carrying on a good-roads campaign.

In 1905 the constitution was amended again to permit use of state funds for roads. The Legislature established the State Highway Department, set aside \$30,000 for state-aid roads, and voted chauffeur and vehicle-registration fees to help finance roadbuilding.

By 1913 property taxes for rural roads had risen to six million dollars a year. But the roads "went nowhere". The Legislature responded to demands of farmers and other groups by creating a primary state trunk-line system and naming the cities and villages to be connected.

Two years later the state motor vehicle weight tax (license fee) was adopted, for state and county road financing. In 1917 the Legislature qualified for the new federal aid road program by providing necessary matching funds. In 1919 the need for expansion of state roads became so great that Michigan voters approved a \$50 million bond issue for building state trunklines. (This was finally paid off in 1944 at a total cost of \$80 million.)

In 1925 counties and townships ceased financial contributions to state highways and concentrated on increasing local road work. A state gasoline tax of two cents a gallon was adopted. Two years later

it rose to three cents, where it has remained since, and the state was authorized to participate in the cost of state trunklines inside all cities.

In 1931 and the next few years, as a result of the depression, the counties gradually abandoned virtually all property and general taxes for road purposes.

Township road systems (over 68,000 miles) were consolidated with county systems, to improve efficiency and to assist in financing these roads. State motor vehicle revenue aid to counties was increased, and cities and villages were given a share. The motor vehicle weight tax was reduced on passenger cars from 55 cents to 35 cents per hundred pounds, where it is now.

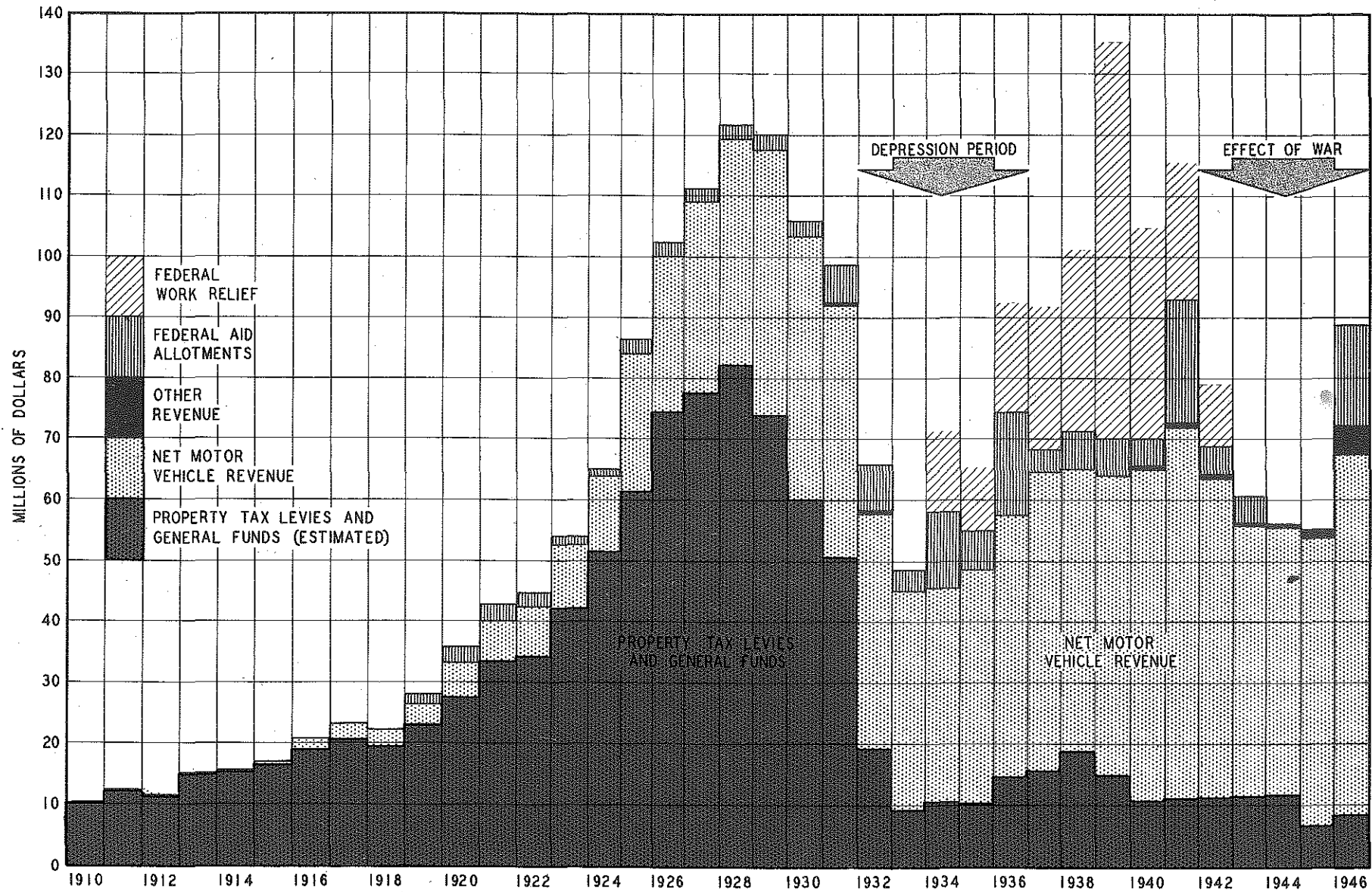
With almost all property and general taxes for roads abolished except in cities, and with motor vehicle tax revenues spread over a constantly larger mileage of roads and streets, large-scale construction projects on major routes became increasingly difficult to finance.

Debts Down, Maintenance Up

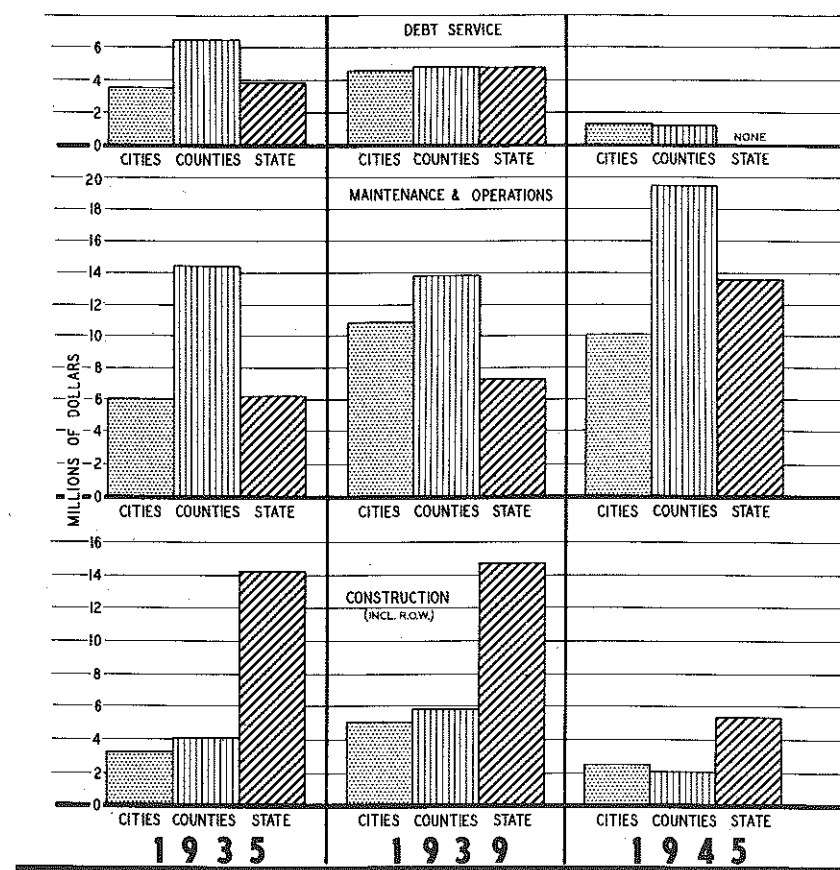
For the three years in which full data are available, the chart on page 14 shows construction, maintenance and debt payments by state, county and city road agencies.

The rising maintenance costs mean less funds available for construction. The highway debt situation has improved, however. The state now has no road debt, and county road debt is down to \$5½ million. Information on present street debt in cities is not now available but the figure is undoubtedly well below the \$36½ million urban total of 1935.

SOURCES OF FUNDS FOR HIGHWAYS » ROADS » STREETS



WHERE THE MONEY WENT



Federal Aid

Important to Michigan road development since 1917 has been the federal aid highway program, which is distinct from federal work relief road programs of the '30s. Under 1944 expansion of this program by Congress, Michigan is eligible for \$16,638,432 a year in federal road funds compared to an average of \$4,439,766 a year in the last three prewar years.

Federal aid funds are distributed through the state highway departments for paying up to half of construction costs and up to a third of right-of-way costs on state and local projects which meet certain federal rules.

Program Expanded

Formerly limited chiefly to state trunklines, the federal aid program now is enlarged to include federal-state-local cooperation on extensive county and city projects.

Under the national distribution formula, \$5,682,433 of the total federal funds for Michigan each year must be spent on federal aid routes inside cities of over 5,000 population, \$6,826,974 goes to regular rural and urban federal aid routes on the state trunkline system, and \$4,129,025 goes to federal aid secondary routes, including roads in cities below 5,000 population.

At the suggestion of Michigan counties, the federal aid secondary funds in the state will be spent 73 percent on county roads and 27 percent on state trunklines.

The county allocations are divided among the counties on the basis of road mileage, population and area. Certain sparsely settled counties appear unable to take full advantage of federal aid because of lack of funds after meeting regular maintenance and operating costs. In 1946, many counties depended entirely on their share of the special liquor tax to match federal aid secondary funds.

The federal aid funds for cities are programmed to specific projects by the State Highway Department. Under the state's Dykstra Act of 1931, cities included in the program must supplement the state's share of costs in amounts varying up to 50 percent in cities over 50,000.

Current road funds available to some cities from local and state sources are not sufficient to permit them to participate in the new federal aid road program under terms of the Dykstra Act.

Under present conditions of high costs and greater maintenance problems, the federal aid road program represents a large portion of the highway construction work under way in Michigan.

Failure or inability of any governmental unit in the state to take full advantage of the federal aid program means an economic penalty to that unit and a retarding of needed road work.

Travel Related to Road Funds

Revenue Distribution

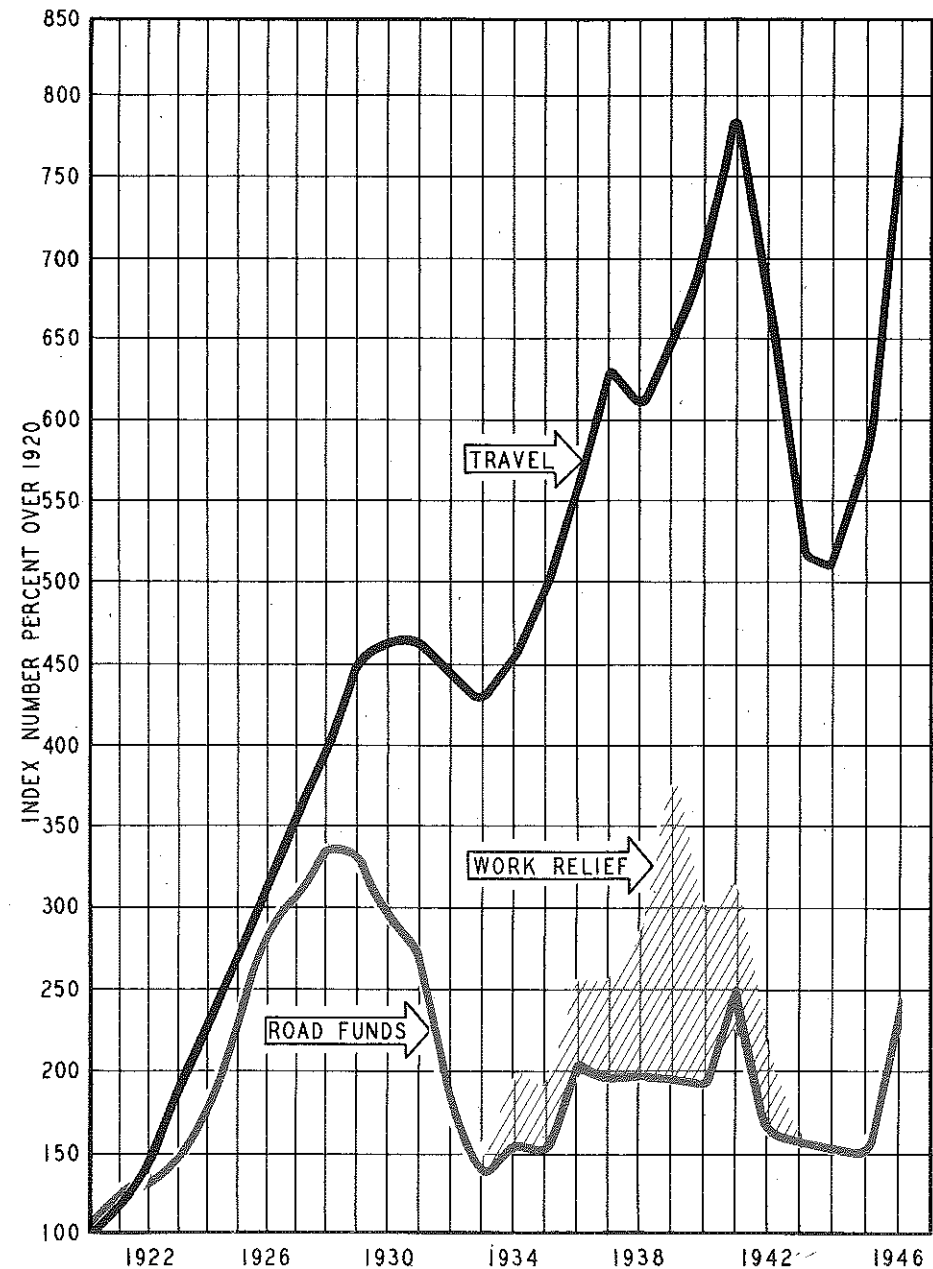
The basic laws governing distribution of motor vehicle gasoline and weight tax revenues in Michigan today were adopted in the early '30s.

Amounts paid to the State Highway Department, counties and cities are shown on page 16 for typical recent years. By constitutional amendment adopted in 1938, all funds must be spent solely for highway purposes.

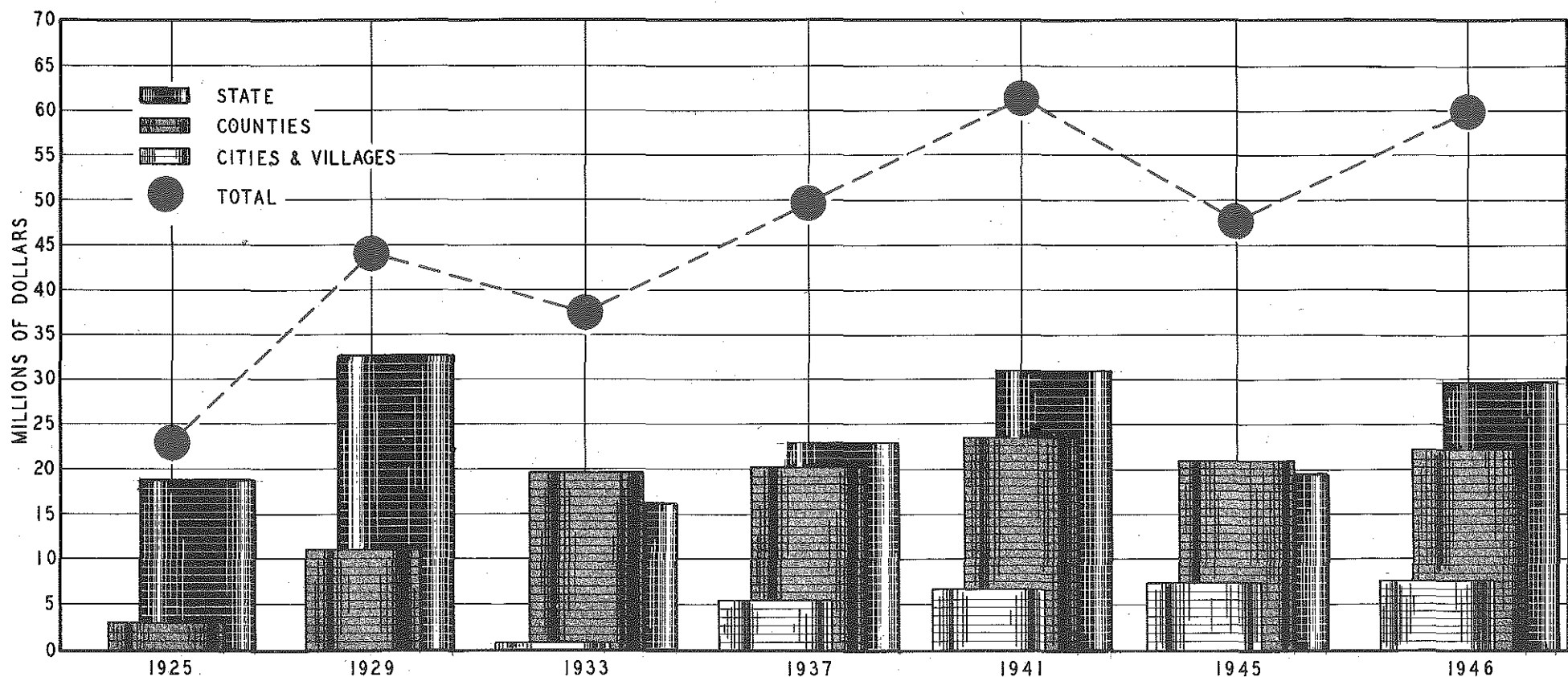
The entire state vehicle weight tax is returned to counties, cities and villages. An eighth of the yearly total is divided equally among all counties and the rest is returned on the basis of weight-tax collections from the residents of each county.

From the state gasoline tax, counties receive \$2,550,000 a year. Each county gets a percent of the total equal to its percent of the total weight-tax proceeds.

When the revenue from these two funds reaches each county, internal distribution is governed by legislative formula. Half the yearly total goes to general county highway work. In counties having road bond



Distribution of Motor Vehicle Revenue in Typical Years



obligations, part of the remainder is earmarked to these obligations. Of the balance, half may be applied by the county to former township roads by three-fifths vote of the Board of Supervisors. The rest is divided between the county and its cities and villages on a population basis.

Another \$4,000,000 from the gasoline tax goes to counties yearly on the basis of certified miles of former township roads. Finally

\$200,000 from the gasoline tax goes to certain counties for snow removal, on the basis of inches of snow-fall in the previous year.

The remainder of the gasoline tax, minus costs of collection of both the gasoline and weight tax, goes to the State Highway Department. In addition, the Department receives funds from several miscellaneous licensing operations, comparatively minor in total.

WHAT ARE THE ROAD NEEDS?

Many evidences of deficient traffic facilities are apparent to motorists.

Some state highways and county roads are narrow, rough, poorly surfaced, hazardous. Some city streets are highly congested and others sorely in need of surface repairs. Some high-accident locations exist and there are some urgent parking problems in downtown areas.

Engineering analysis of facts now must determine:

- The type of service each class of road and street is called on to provide.
- Standards of construction required to achieve safe and adequate traffic service on a practical basis.
- The gap between present conditions and desirable standards, which adds up to total needs.

When these needs, measured by recognized engineering standards, are determined and related to each other, it will be possible for the people of Michigan and their public officials to decide intelligently to what extent they wish to meet the needs, and how quickly.

Some preliminary material on road needs is available. But the gathering of data on a uniform and complete basis, so they can be analyzed and interpreted as a whole, is a major part of the present study.

State Trunklines

The State Highway Department lists a current program of \$170 million for urgently needed construction, involving 1,600 miles of roads and 325 bridges and grade separations.

Estimates that include additional current critical requirements for projects on state trunklines reach a tentative total of \$300 million.

The immediate state needs include:

A limited mileage of express highways to handle the worst of urban congestion.

Four-lane divided roads on the most overloaded main rural routes.

Extensive replacement of worn-out pavement.

Pavement or surface treatment on certain gravel roads.

Resurfacing to preserve deteriorating pavement.

Replacement of narrow and unsafe bridges.

Separation of some of the most dangerous rail-highway grade crossings.

County Roads

A recent survey of 51 counties by the County Road Association showed that 7½ percent of their roads, or nearly 4,000 miles, need immediate rebuilding, and 222 bridges are urgently required.

The cost totals \$63,700,000 at 1946 prices or \$39,810,000 at 1940 prices. These data cover only immediate critical requirements and not complete needs.

An example of total county needs is a recent comprehensive study by one county which showed that 29 percent of its roads, or 322 miles, are seriously deficient; that 56 bridges or 25 percent of the total must

be rebuilt, and that it will take 12 years under anticipated revenues to overcome these present deficiencies.

This county study properly classified all roads according to types of service they provide, and established standards for various traffic volumes. It made clear a need for certain re-grouping of county roads into main, secondary and local classes, for systematic improvement and administration.

City Streets

The Michigan Municipal League's recent survey of 42 cities with 63 percent of the state's urban population indicated that 72 miles of state trunklines, or 30 percent of trunkline mileage in these cities, are critically deficient.

Other urgent needs included 610 miles of local street improvements (11 percent of local street mileage), 32 grade separations and 55 off-street parking facilities. Total cost is estimated at \$54,993,000 at 1946 prices or \$33,738,000 at 1940 prices.

This does not include Detroit expressway projects now under way as joint state-federal-city-county undertakings. The Detroit City Plan Commission reports a need for 105 miles of expressways, nearly 150 miles of improvement of other arteries, nine railroad grade separations, plus work on a large mileage of local streets that are seriously below standard.

Under present programs, the Detroit expressway projects will take 27 years to carry out, and other work will proceed with comparable slowness.

Another large city estimates that of 28 miles of arterial improvements urgently needed, half must be deferred 10 years for lack of funds. Of eight bridges and grade separations needed, only one can be built; of four off-street parking projects, three cannot be financed.

The State Highway Department has made comprehensive traffic studies in four urban areas this past year, and is carrying out four more. They will provide new and helpful information on urban traffic problems.

Rising Costs

Higher costs of labor, materials and equipment seriously hamper Michigan road agencies today in their efforts to carry on an adequate maintenance program and meet urgent construction needs. Without the greater federal aid construction funds now available, these problems would be even worse.

Vast improvements in roadbuilding and maintenance equipment make the cost of a given amount of road work far lower today than in 1920. However, construction prices respond quickly to changes in labor and material costs. Last year unit prices were 65 percent above 1940 levels in Michigan.

Moreover, the unit prices are only part of the story. Modern traffic demands higher road construction standards—wider pavements and shoulders, easier grades, smoother curves, and other features.

On heavily traveled urban and rural routes, needed elements may include such safety and capacity features as a center strip between opposing traffic streams, underpassing or overpassing of major intersections and railroad lines, and costly acquiring of land for wider right-of-way.

This means more units of labor and materials are required per mile of construction, because of these higher design standards.

Although initial costs for proper standards may be high, in the end they mean real economy. If a heavily traveled road is not built to standards adequate for present and future traffic, experience shows that the initial investment often is lost through a need to rebuild the road long before its surface life is ended.

While today's unit prices undoubtedly will drop eventually, there is no present indication of a break. Unit prices on road construction contracts awarded late in 1946 in Michigan were 11 percent above those earlier in the year. The present study will include a determination of expected price trends.

Maintenance costs also have risen. The County Road Association has state-wide figures showing a 52 percent composite increase for 1946 over 1940. This is due to a 69 percent rise in labor price, a 47 percent rise in equipment price, and a 29 percent rise in material price.

Sample studies of state highway and city maintenance costs indicate that these same ratios apply rather generally through the state.

Future Revenues

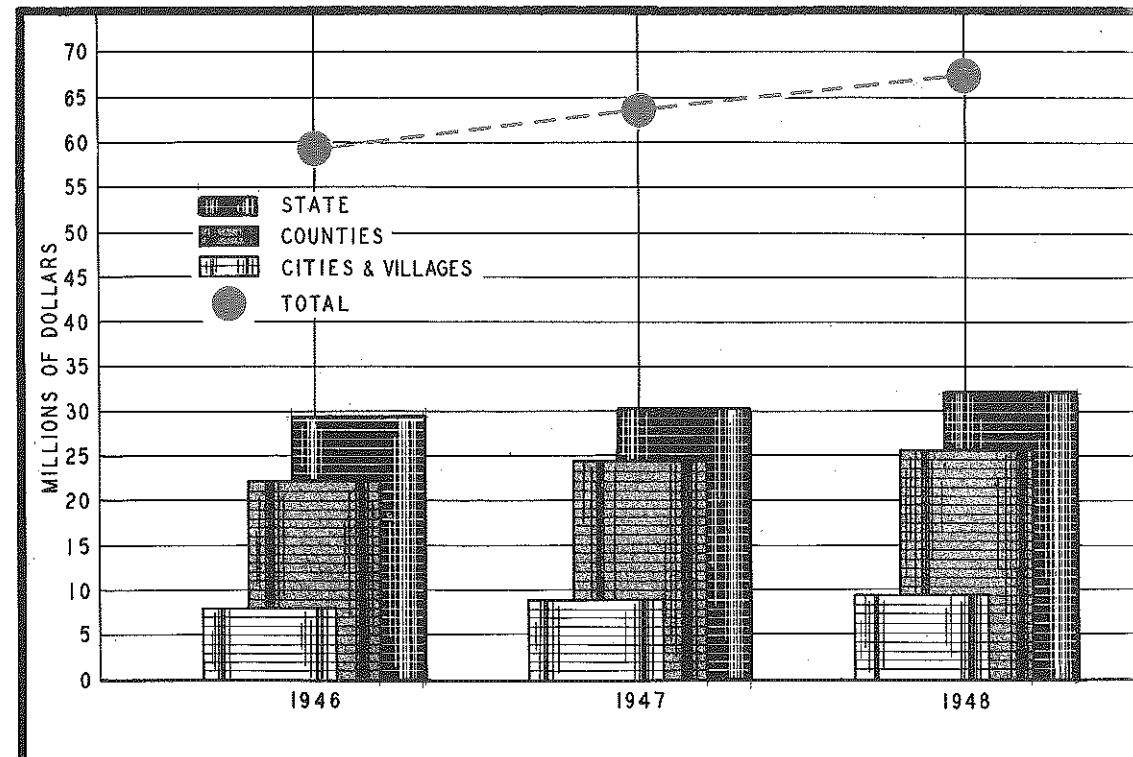
Estimates of state gasoline and weight taxes for 1947 and 1948, and their distribution to state and local governmental units under the present allocation laws, are shown in the chart. No estimate has yet been made of property taxes that will be used by cities and counties for road purposes in these years.

The chart, when compared with the one on page 16, shows that

counties and cities can expect slightly higher motor vehicle revenues than in past peak years. The State Highway Department will have revenues near its best past level.

Until all pertinent facts are gathered and analyzed, and revenue projections are made for the future, it is not practical for the Highway Study Committee to draw conclusions as to the extent to which present fiscal measures can meet highway needs.

Motor Vehicle Revenue Outlook



Summary

This statement shows some of the basic aspects of the highway transportation problem in Michigan:

- Highway transportation is indispensable to Michigan. All parts of the economy—industry, tourist and resort trade, natural resources and agriculture—are dependent on the road and street system.
- Highway travel is back to pre-war levels—and still rising.
- There are 106,329 miles of state highways, county roads and city streets in Michigan. Many miles of construction and reconstruction are required on each system.
- Modern highways are needed for safety—1,440 persons were killed on Michigan highways in 1946.
- Funds available for highways, roads and streets have been seriously reduced since the early '30s because of the drastic reduction in property taxes for road purposes.
- Some counties and some cities are unable to match federal aid construction funds after meeting maintenance and operating costs.
- Immediate construction needs facing the state, counties and cities are beyond the ability of these agencies to finance from present revenue sources.

The work of the Highway Study Committee will continue through 1947. All facts on the complete highway, road and street needs will be gathered and analyzed.

Roads and streets are built to serve the wants of people. Those wants cannot fairly be measured, or highway needs determined, without considering the number and kind of motor vehicles that travel over the roadways, the amount of traffic they produce, and the way in which the travel is distributed over roads and streets.

Where do people want to go? How many to Grand Rapids and how many to Saginaw? When?

LIBRARY-michigan dept. of
state highways - LANSING