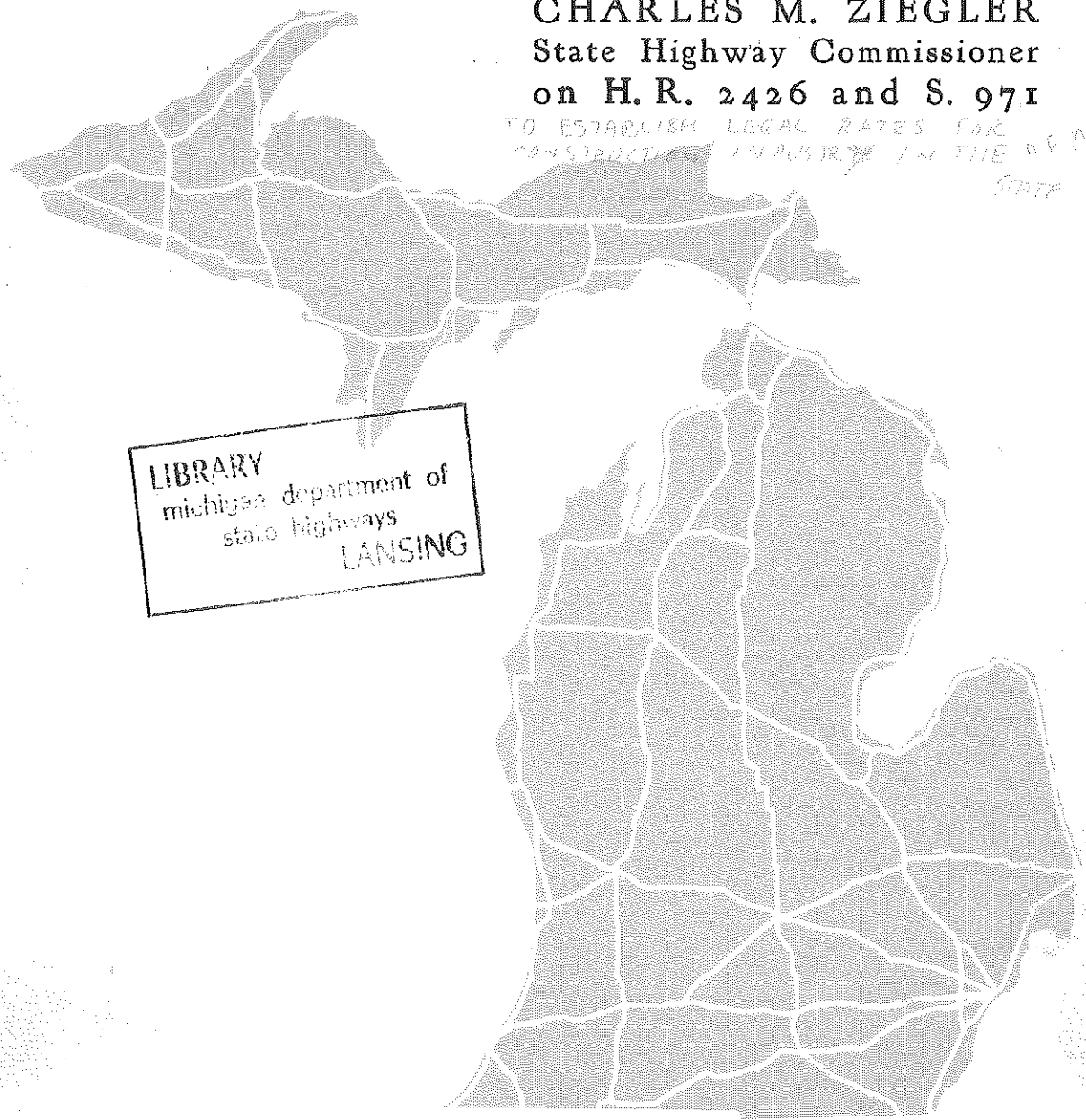


65-4033

# MICHIGAN'S POSTWAR HIGHWAY NEEDS . . . .

Statement of  
**CHARLES M. ZIEGLER**  
State Highway Commissioner  
on H. R. 2426 and S. 971

TO ESTABLISH LEGAL RATES FOR  
CONSTRUCTION INDUSTRY IN THE STATE



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state highways  
LANSING

Before the  
House Committee on Roads and  
Senate Committee on Post Roads

MARCH 9, 1944

SEP. 19, 1944

**MICHIGAN'S POSTWAR  
HIGHWAY NEEDS . . . .**

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CHARLES M. ZIEGLER  
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**BEFORE THE  
HOUSE COMMITTEE ON ROADS AND  
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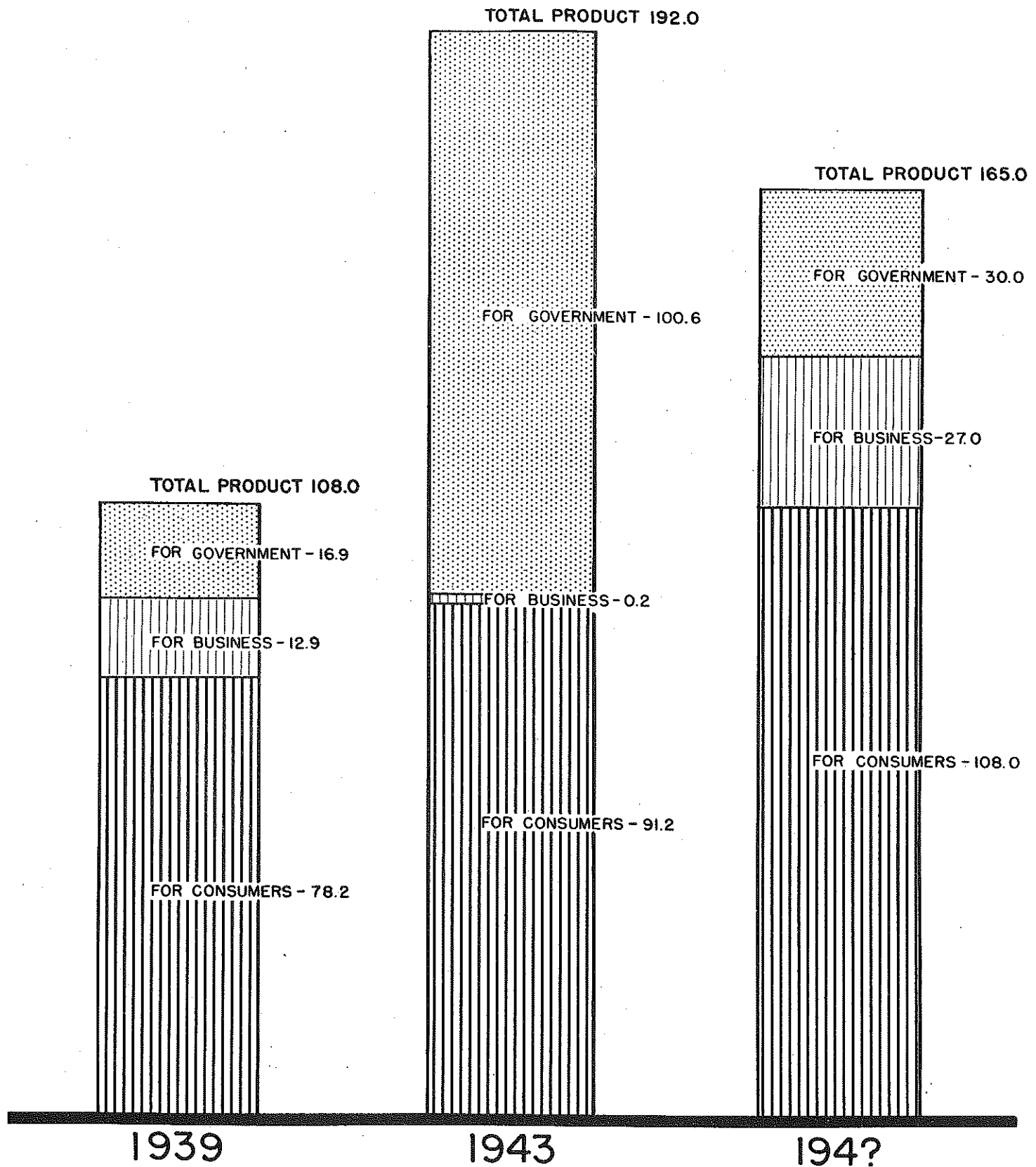
After World War I the nation was confronted with many serious postwar problems. The period following World War II may be even more serious. This condition can only be alleviated by careful analysis and planning now.

The government has estimated that postwar unemployment will rise to 8 million persons unless new job opportunities are made available to forestall this crisis. Eight million unemployed resembles too closely the unemployed total of 12,700,000 persons in 1933 and should be ample warning that we cannot afford to let postwar problems take care of themselves.

The basic necessity of a postwar program is that of providing jobs for the millions of returning soldiers and the industrial workers who will become jobless in the period of transition from a wartime to a peacetime economy. The successful solution of this problem lies in having blueprints ready and adequate financing arranged. If this pattern is carried out, we can prevent the recurrence of the economic catastrophe experienced following World War I.

Government authorities have estimated that a gross national production of 165 billions of dollars will provide a postwar economy that will create a substantial rise in the national standard of living without overproduction or unemployment. Compared to the gross national production of 108 billion in 1939, this indicates the optimistic and inspired thinking that underlies national postwar planning.

The postwar unemployment threat looms as a great menace in Michigan. The civilian population of the Detroit metropolitan area alone is up 238,000 from 1940, and more than 1000 factories with employment over 100 are located



FOR CONSUMERS' USE
  FOR BUSINESS
  FOR GOVERNMENT

# TOTAL GROSS NATIONAL PRODUCTION

IN BILLIONS OF DOLLARS — REVISED TO 1943 PRICE LEVELS — U.S. TREASURY FIGURES

COURTESY OF FORTUNE MAGAZINE

within the state outside of the Detroit area. These other industrial centers have experienced proportional population increases. Michigan is now producing approximately one-eighth of the nation's war materials. In order to do this, industrial employment has increased from 1,022,159 in 1939 to 1,628,245 in 1943.

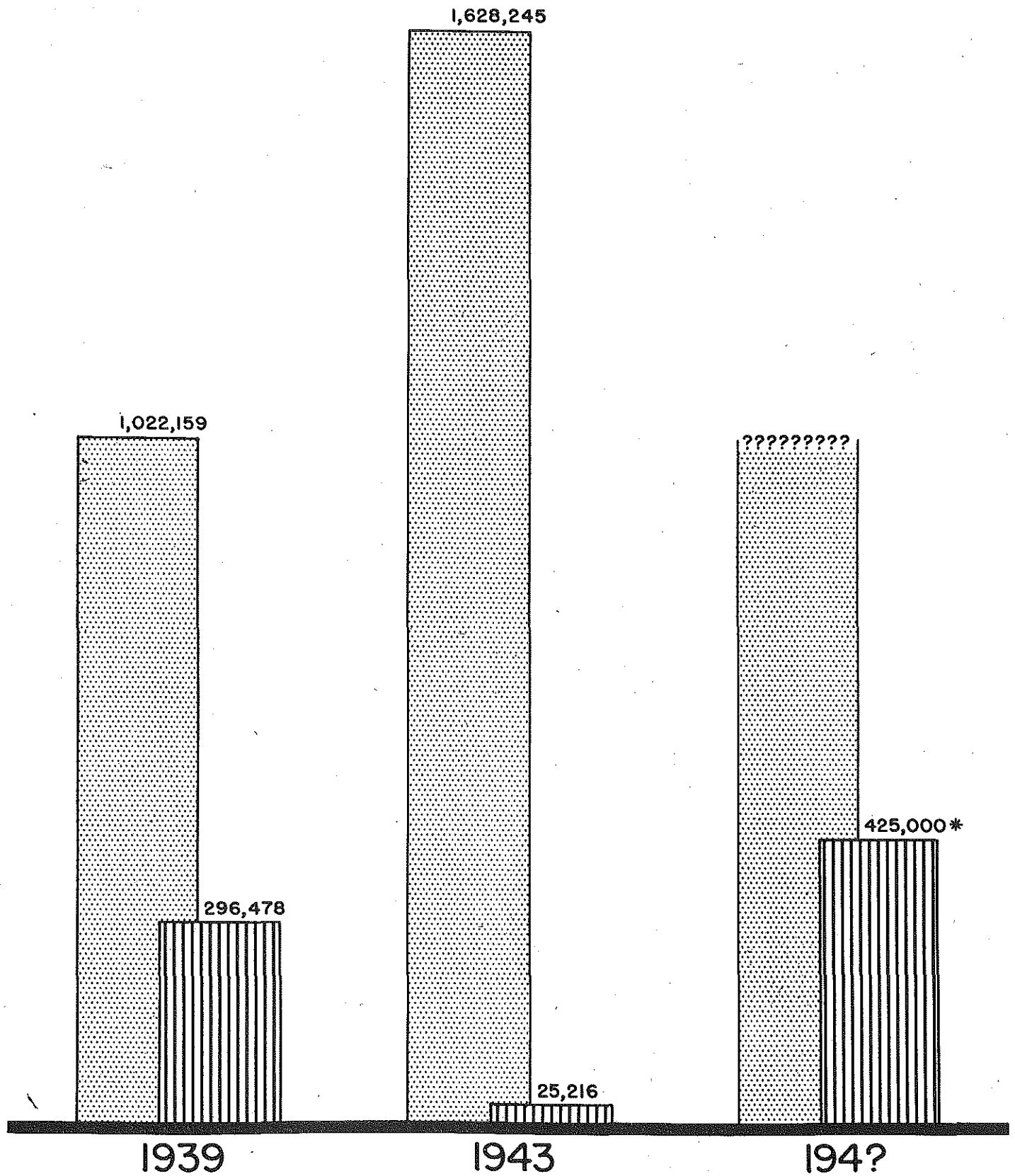
Many workers will become unemployed when machines are converted to peacetime production and are geared down an anticipated 34% below war-time peaks to match civilian consumption.

Housing shortages and high wages have induced itinerant workers to buy homes. Unemployed workers will choose the potential job opportunities of Michigan's industrial areas in preference to returning to their prewar areas. Untold thousands of women workers have found industrial jobs preferable to house work. As a result, the postwar industrial letdown will find many Michigan workers located where war jobs were, but where peacetime jobs do not exist.

Conservative estimates indicate that postwar unemployment in Michigan will reach 425,000 as compared to 296,468 in the depression year of 1933.

Reconversion of industrial machinery and the geographical redistribution of workers require time consuming adjustments. The impact of this transitional period can be cushioned only if jobs are made available immediately after the war is won as well as during the long-term period of postwar prosperity ahead.

It is generally accepted that highway construction is one of the most efficient providers of jobs. It produces necessary public facilities of great permanent value in all sections of the state rather than in only densely populated areas. A farsighted highway program with plans and specifications prepared can provide thousands of jobs. It requires action now.



EMPLOYMENT
  UNEMPLOYMENT

\* This figure is the average between minimum and maximum estimates for Michigan Unemployment

# EMPLOYMENT & UNEMPLOYMENT IN MICHIGAN

FIGURES FROM THE M.U.C.C.

Highways are the basis of the nation's development. They are the foundation upon which social and economic progress depends. It is obvious why improvements in a structure so vital to prosperity must be given priority.

### THE AUTOMOTIVE INDUSTRY

The early development of the automobile began in Michigan prior to the first World War. In that war the automobile became one of the principle elements of military transport, and greatly supplemented the railroads of the United States as a means of transportation in the overland movement of military men and materials to the coast.

Automobile manufacturing was directly responsible for the rapid and gigantic development of Michigan as an industrial State. Long before World War II automobile manufacturing had easily become the principal industry of Michigan.

In 1941, 16 of the 19 passenger car manufacturers were located in this state. These Michigan manufacturers produced most of the 3,744,300 cars built that year. Eight of the 20 motor truck manufacturers operating in the United States in 1941 were located in Michigan and these produced a majority of the more than a million motor trucks built that year.

This vast industry was promptly converted 100 per cent to the production of cannon, bombers, tanks, and other war materials amounting to one-eighth of the total of all such production in the United States. The general adaptation of the motor industry's assembly line methods made mass production possible and brings credit to the automotive industry.

One of the fundamental elements of the Michigan assembly line method is highway transportation. The raw materials are fabricated in one plant, moved to another for the manufacture of parts and sub-assemblies,

and finally arrive on the assembly line at the main plant to produce the finished product. The assembly line cannot be supplied from large stores of bulky parts. These parts must be transported on schedule to arrive just when they are needed. The motor truck is the ideal means of transport for this purpose. It can move materials from plant to plant even though they may be located miles apart. It has permitted the dispersion of the motor industry and the small subcontracting plants to the numerous locations throughout the state.

This spread of the automobile industry and the refinement of assembly line methods has created large volumes of traffic between Michigan cities and out-of-state points. In modern manufacturing there is great need for outer communication and transportation of peoples between plants. This can best be accomplished through the passenger automobile.

The dependence of Michigan industry on highway transport is definitely known. In January 1942 at the suggestion of the Public Roads Administration and other transportation agencies in Washington, the Michigan State Highway Department conducted a survey to determine the importance of the motor vehicle in war industry. Of the 1250 plants canvassed, 749 provided complete information. The survey revealed:

1. All of the 749 plants reporting shipped some part of their incoming and outgoing freight by truck.
2. The war industries depend on the motor truck for 65% of their inbound freight movements.
3. The war industries depend on the motor truck for 69% of their outbound freight movements.
4. 75% of the industrial workers depend on the private passenger car to get to and from work.

Curtailment of rail facilities in Michigan since 1942 has thrown additional burdens on the highways; they now carry an estimated 73% of all war transportation. It is evident that Michigan industry depends on



highway transport for operation and for the transportation of labor.

### THE TOURIST INDUSTRY

Second in volume and importance among Michigan industries is the Tourist business which reached a peak of \$400,000,000 a year just before the war. In its full significance this industry involves the use of all natural recreational resources for vacationing, bathing, picnicking, touring, hunting, fishing and winter sports.

The resources for outdoor recreation in Michigan are very extensive, consisting of:

1. Thousands of inland lakes all over the state and thousands of miles of streams, suited for all phases of outdoor recreation related to water.
2. Extensive Michigan shore lines along the Great Lakes - Superior, Huron, Michigan, Erie and St. Clair.
3. Forest regions of both the peninsulas including extensive National and State reserves.

These resources, while drawing millions of visitors from other states to Michigan, are, in many instances, still undeveloped or meagerly developed due to the lack of adequate through highways.

The potential value of outdoor recreational development was duly recognized in the recent special session of the Michigan Legislature, when the sum of two million dollars was appropriated for immediate purchase of recreational lands as the first step in an \$8,000,000 program.

One of the projects authorized for purchase is located in the Porcupine Mountains in the western part of Michigan's Upper Peninsula on the shores of Lake Superior. Another is a large recreational area in southeastern Michigan around the City of Detroit. These developments create a need for additional safe and convenient highways. Provision was also made for the purchase of scenic lands involving lakes, shorelines,

mountains and virgin timber for perpetual preservation.

Traffic surveys conducted by the Michigan State Highway Department show the absolute necessity of improving highway facilities in the vicinity of centers of population as well as throughout the state.

Highways for recreational purposes alone are required to permit:

1. Normal development of one of the Nation's greatest recreational regions (Northern Michigan and the Great Lakes areas).
2. The creation of new private property values and jobs in the tourist industry to increase the wealth of these regions.
3. The rehabilitation of our people through sufficient and healthy outdoor recreation—. The demand for this, following the winning of the war, is unquestioned.
4. To make the outdoor recreational facilities of Michigan accessible to the people from other states not so well endowed by nature.

#### HIGHWAY USE

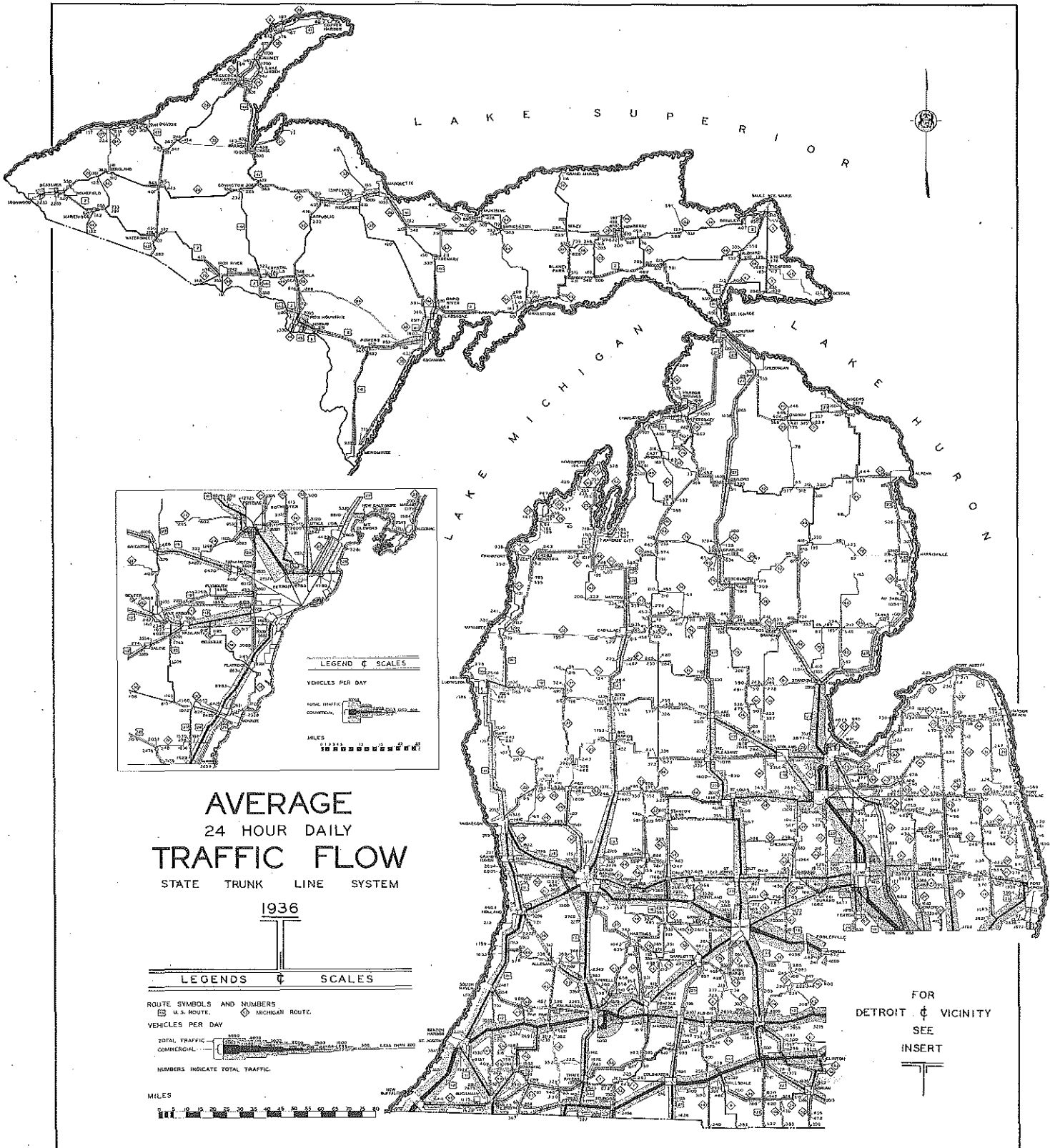
The close relationship of highways and highway transport with Michigan automotive industry, general manufacturing and the outdoor recreation or tourist industry have always been fully recognized. All of them require further development of our highway system.

The magnitude and the extent of highway transport on the state system are shown on the 1936 map, "Average 24 Hour Daily Traffic Flow - State Trunkline System". By 1941 the traffic on these state trunkline highways had increased by more than 40%.

Michigan Highway Planning Survey data estimated that in 1936 all of the highway travel that occurred that year was distributed:

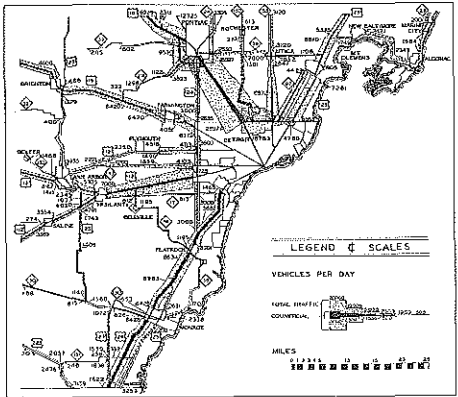
61% on trunkline highways including urban extensions.  
22% on non-trunkline urban streets.  
17% on county roads.  
100%

Another significant fact is that 84% of all the travel was performed



L A K E S U P E R I O R

L A K E M I C H I G A N L A K E H U R O N



**AVERAGE  
24 HOUR DAILY  
TRAFFIC FLOW**  
STATE TRUNK LINE SYSTEM

1936

**LEGENDS & SCALES**

ROUTE SYMBOLS AND NUMBERS  
 U.S. ROUTE.    MICHIGAN ROUTE.

VEHICLES PER DAY

TOTAL TRAFFIC  
 COMMERCIAL

NUMBERS INDICATE TOTAL TRAFFIC.

MILES

FOR  
DETROIT & VICINITY  
SEE  
INSERT

by people who live in cities and villages. These urban owners of motor vehicles contributed the following proportions of all travel by Michigan registered vehicles on each of the 3 classes of rural roads:

<u>Class of Rural Road</u>	<u>Urban</u>	<u>Rural</u>	<u>Total</u>
State Trunklines	84%	16%	100%
County Secondary	54%	46%	100%
County Local	33%	67%	100%

Michigan's state and county highways function as industrial life-lines in addition to the normal business, pleasure and marketing services offered by highway transportation. Adequate through routes linking industries and strategic military points are insurance against future war. Industrial centers must be linked with sources of materials, labor and with agricultural and recreational centers.

#### IMPACT OF THE WAR

When war was declared, Michigan plants swung into war production, It was at once apparent that the highway system was inadequate; to make conditions worse, tremendous new plants were built almost over night, and the Highway Department, hampered by necessary wartime restrictions fell even farther behind.

Military facilities were created and expanded, such as Fort Custer, Selfridge Field and the Hudson Naval Arsenal. New and extensive factories were built: The Chrysler Tank Plant, the Fisher Tank Plant, the U. S. Army Bomber Plant at Willow Run, and many others. These new establishments required access roads. The task - willingly performed - taxed the technical and financial ability of the Michigan State Highway Department.

Recent surveys indicate that almost all motor trucks are now carrying full legal limit loads. This accelerates the failure of pavements 15 to 25 years of age - pavements that are now in extremely critical condition. The

Michigan State Highway Department has resurfaced and, in some cases, rebuilt a small portion of these pavements. An intensive maintenance program is being carried on on all Michigan roads and streets.

MICHIGAN HIGHWAY SYSTEMS

The roads and streets of Michigan are administered by the State Highway Department, the Boards of County Road Commissioners and the cities.

The miles of highways and streets administered by each are:

The State Highway Department	9,400 miles
The Counties	83,372 miles
The Cities	11,745 miles
Total	104,517 miles

The mileage of the state trunkline system is 9,400 miles. It is divided -- 8370 miles in rural areas and 1030 miles in urban areas.

The regular federal aid system comprises 5640 miles, all on the state trunkline system. The federal aid secondary system of 6202 miles is divided -- 2552 miles on state trunklines and 3650 miles on county roads.

The status of improvement of the three road systems is:

TYPE OF SURFACE	STATE TRUNKLINES (Miles)	COUNTY ROADS (Miles)	OTHER URBAN STREETS (Miles)	TOTAL (Miles)
Paved <u>1/</u>	6,403	7,805	5,556	19,764
Surfaced <u>2/</u>	2,768	45,535	3,336	51,639
Graded and Drained	15	16,205	2,853	19,073
Unimproved	214	13,827		14,041
Total	9,400	83,372	11,745	104,517

1/ Paved surfaces include low type bituminous surfaces.

2/ Surfaced roads include gravel, waterbound macadam, stamp sand, mine rock and similar surfaces.

In the years immediately preceding the war Michigan highway revenues

(derived solely from motor vehicle and gasoline taxes) were not sufficient to permit construction needed to relieve the increasingly severe traffic congestion on the main highways and city streets. Highway construction for the most part was devoted to replacement of gravel with pavement, replacement of worn out pavement and resurfacing.

#### INADEQUATE ROADS AND STREETS

The demands for better maintenance and improved surfaces on the 83,000 miles of county roads were too great for the limited financial resources of the county road organization. As serious a situation existed in regard to streets in the cities. Consequently, a large backlog of necessary work has been built up.

A condition survey of the 9400 miles of state trunkline has been made. In 1941 the arterial state trunklines in the larger cities were overloaded with traffic. In many instances during peak hours each day they were congested to the point where their actual delivery of traffic flow was reduced.

In 1941 there were 1270 miles of 2-lane, 3-lane and 4-lane pavement in the rural areas that were congested beyond safe capacity in peak hours. The congestion existed during the 200 highest traffic volume hours when 10 percent of the annual traffic flow occurred. The location of these rural highways is indicated by the map insert "Highways Inadequate for Traffic Service". The provision of adequate highway facilities to meet the demands of transportation during and after the immediate postwar period is a problem that requires immediate courageous action.

In the twenties the State Highway Department carried out extensive annual concrete paving programs. Most of the pavements were built on the heavy traffic routes connecting the industrial cities. Some have been



reconstructed, some have been resurfaced, most are still being used to serve vital war transport. Nearly 90 percent must be replaced as soon as possible. The locations of these critical pavements are indicated on the map insert "Surface Deficiencies on State Trunkline Highways". The pavements more than 15 years old amount to approximately 1850 miles. A relatively small mileage -- estimated at 10 percent -- of these pavements is on lightly traveled highways and will suffice for a number of years.

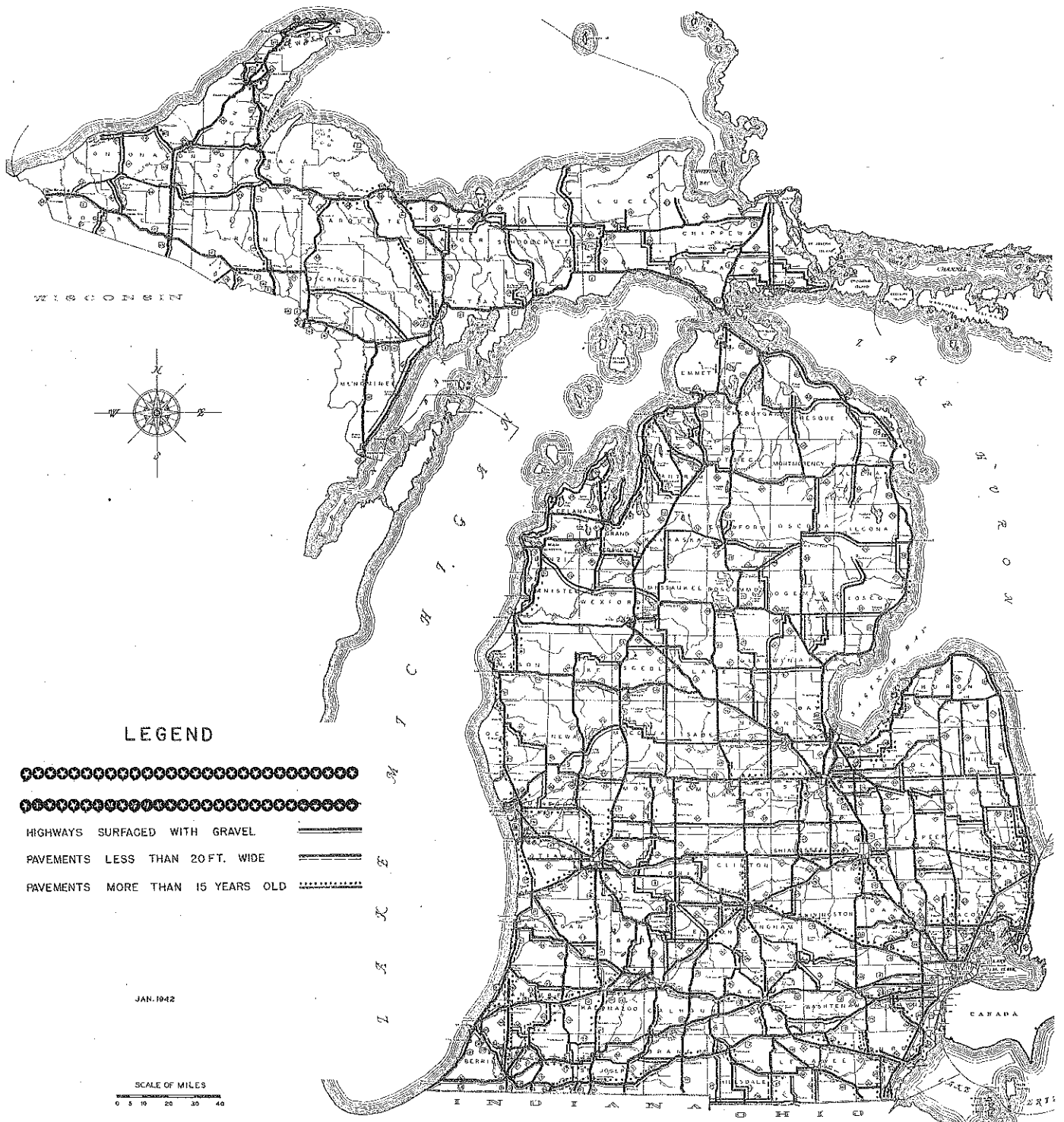
The gravel surfaced roads on the state trunkline system amount to 2768 miles. Their locations are shown on the map insert, "Surface Deficiencies on State Trunkline Highways". In an endeavor to reduce maintenance costs and preserve automotive equipment a considerable mileage of these roads has been surface-treated. This is a temporary measure on roads that serve significant volumes of traffic. On much of this mileage the increasing traffic will soon demand reconstruction with pavement.

Highway accidents are a matter of concern to all the people. There are a large number of contributing factors to the high motor vehicle accident rates on Michigan's rural state trunkline highways. One of the principle factors that contributes to these accidents is the existence of hazardous physical features inherent in the rural highways built many years ago. The map insert "Hazardous Conditions on State Trunkline Highways" indicates the extent of these conditions on the rural state trunklines. It is estimated there are 2733 miles of roads with bad alignment.

A number of the critical conditions mentioned above are overlapping. There are some sections where all exist simultaneously. It is not reasonable to establish an exact standard to measure and segregate highways that are satisfactory or unsatisfactory for continued traffic service. Such a determination depends on many elements and considerations such as ability to finance, to build and to foresee traffic requirements

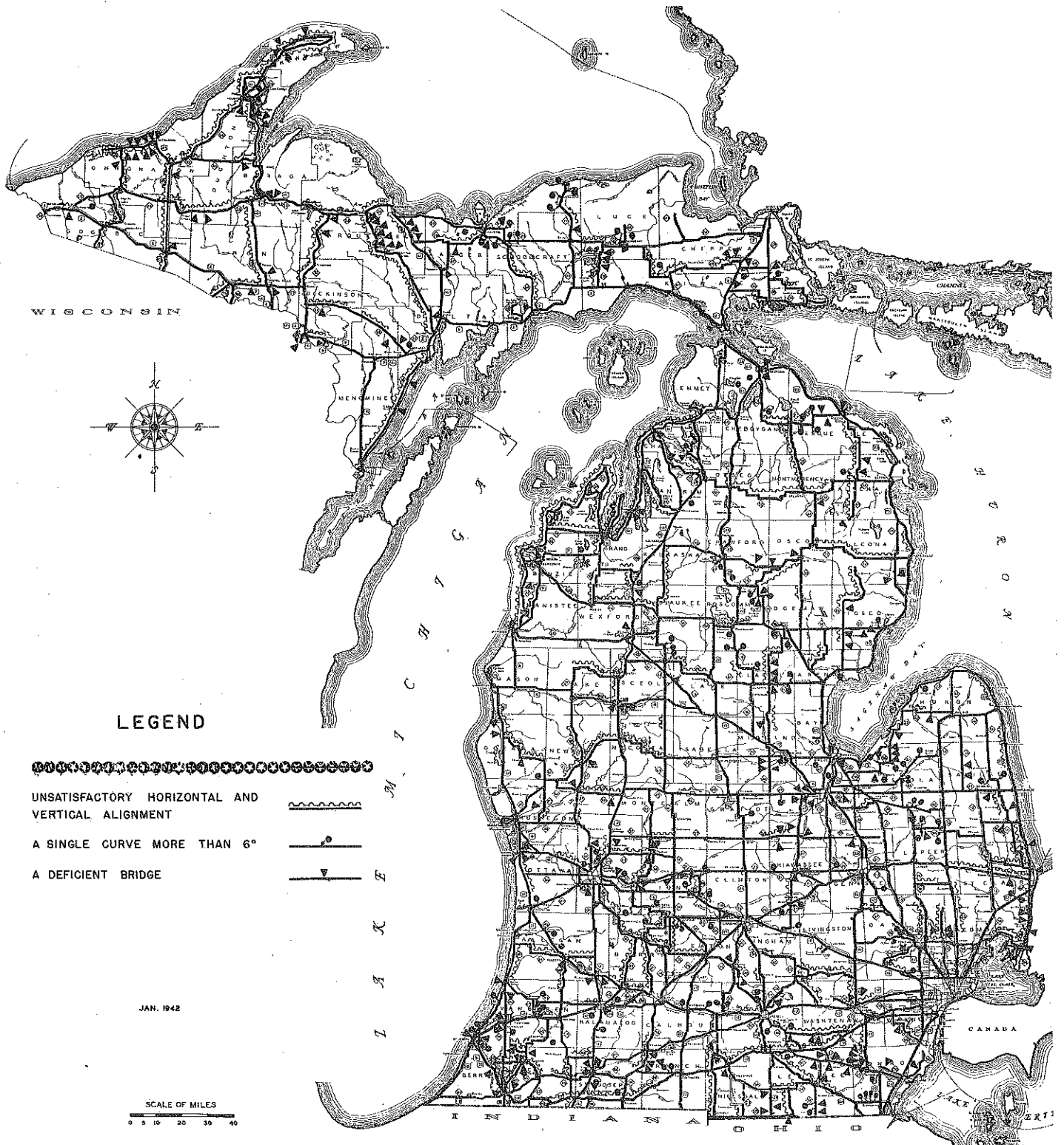


# SURFACE DEFICIENCIES ON STATE TRUNKLINE HIGHWAYS

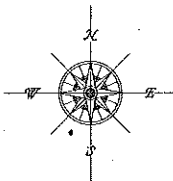


MICHIGAN STATE HIGHWAY DEPARTMENT CHARLES M. ZIEGLER STATE HIGHWAY COMMISSIONER




# HAZARDOUS CONDITIONS ON STATE TRUNKLINE HIGHWAYS



WISCONSIN



## LEGEND

-  UNSATISFACTORY HORIZONTAL AND VERTICAL ALIGNMENT
-  A SINGLE CURVE MORE THAN 6°
-  A DEFICIENT BRIDGE

JAN. 1942

SCALE OF MILES  
0 5 10 20 30 40

of the future. The data presented here point out that the condition of the Michigan state trunkline system from these viewpoints is serious and critical. Similar circumstances exist on the city streets and the county roads.

HIGHWAY FINANCE

The State Highway Department's revenues, which come entirely from a three cent gasoline tax, have dropped 45 percent from 1941 to 1943. In the same period, county and city income for highway purposes (from gasoline and weight taxes) has dropped ten percent.

HIGHWAY REVENUES

	<u>1941</u>	<u>1943</u>	<u>DECREASE</u>	
			\$	%
State Highway Dept. (gas tax)	28,660,890	15,937,441	12,723,349	44.5
Counties (weight tax)	23,879,371	21,553,613	2,325,758	9.7
Counties (gas tax)	6,750,000	6,750,000	00	0

In Michigan all of the motor vehicle weight tax and the sum of \$6,750,000 from the gasoline tax is returned to the counties. The latter amount is fixed by statutory regulation. A share of the funds that are returned to the counties reach the cities for the maintenance and improvement of streets. A considerable share of the state funds is used for street improvements and maintenance on trunklines in cities and villages.

In the years before the war, federal aid monies available through the Public Roads Administration amounted to about 4 1/2 million dollars per year. These funds supplemented state funds for use in the most urgent construction and reconstruction of state trunklines.

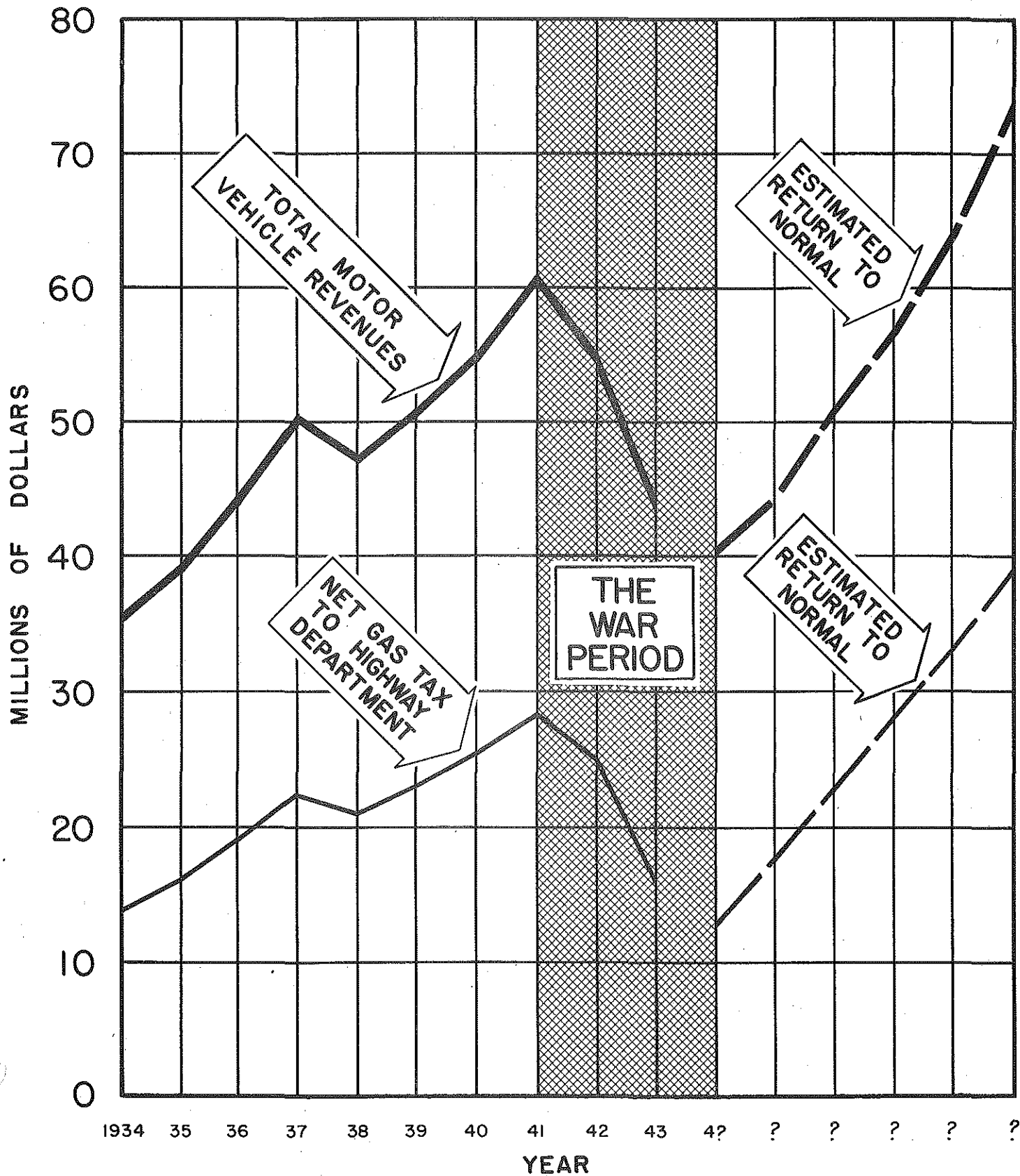
Prior to 1931, the counties were responsible for some 17,000 miles of feeder roads in the state. Between 1931 and 1936 the county road commissions were required by legislative act to take over the remaining rural highways (some 68,000 miles) to bring their total mileage to 85,000. The legislature did not, however, provide sufficient funds to take care of this added burden. Since 1936, further mileage of rural mail routes and consolidated school bus routes has been established which requires snow removal for motor transportation. Consequently, the rural roads of the state have been going backward due to inadequate finances.

The counties' inadequate funds were supplemented by Works Progress Administration monies. In the one year of 1939 the W.P.A. funds expended for feeder roads and streets in Michigan amounted to 62 millions of dollars. Little was accomplished with this large sum of money. Highway administrators agree that this method of work relief is of little or no value. It was inefficient and did not build the types of highways needed in Michigan.

The continuing decrease in state motor vehicle revenues since 1941 has created a situation where the roads and streets can no longer be maintained in a condition suitable for essential civilian and war transport.

The significance of the curtailment of the manufacture and use of the automobile in Michigan is shown in the chart insert "Trend in Michigan Motor Vehicle Revenues". An independent authority predicts that it will require 5 years from the end of the war to re-establish the motor vehicle industry and highway transportation at the trend conditions predicted before the war.

# TREND IN MICHIGAN MOTOR VEHICLE REVENUES



FURTHER CURTAILMENT IN CIVILIAN GASOLINE ALLOTMENTS WOULD UNDOUBTEDLY RESULT IN SUCH A LOWERING OF THE DEPARTMENT'S REVENUES IN 1944 THAT PRESENT FIXED CHARGES COULD NOT BE MET. In that case the department could not carry on all its contemplated program of postwar surveys and plans. Maintenance may even have to be cut below the level at which war traffic can be kept rolling economically. No reserve can be established for postwar construction.

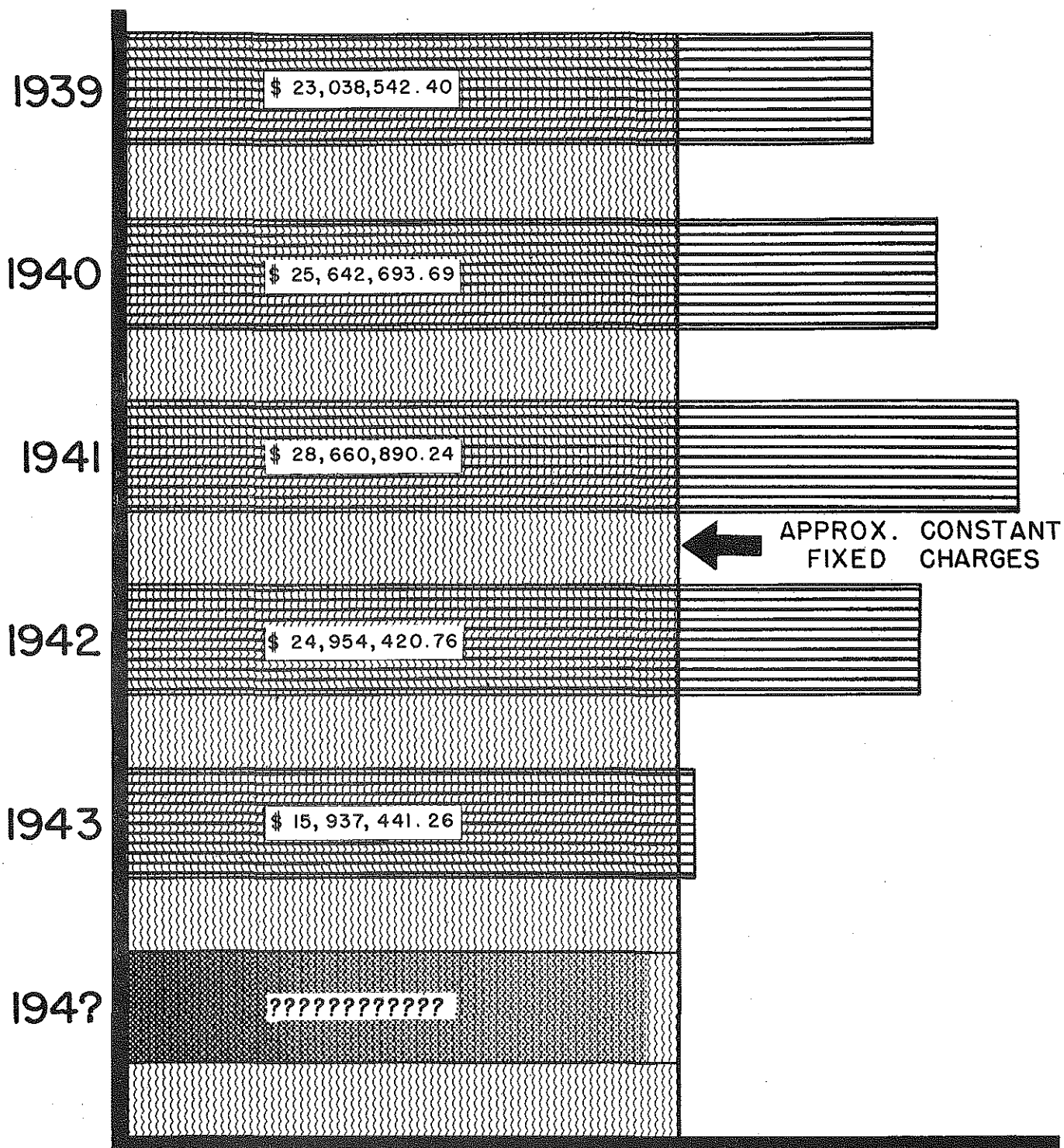
The situation for the counties and cities is no better. The local units of government cannot set aside a reserve for the postwar period. Their share of the dwindling motor vehicle revenues is not enough to keep their roads and streets in good condition. The state, the counties and the cities cannot finance highway construction at the start of the postwar period unless federal aid is made available on an adequate participating basis.

While the present financial picture is dark, the recent special session of the Legislature has already set up a 5 million dollar fund for matching federal postwar monies, and I believe unquestionably that an immediate special session after the war will add to this fund to match -- on a 25-75 basis -- any sums made available, until the departments revenues have returned to normal.

#### ABILITY TO PLAN AND BUILD HIGHWAYS

Michigan's State Highway Department, its county road commissions and city engineering staffs are ready with blueprints and efficient organization to carry out any logical postwar program. The plan and specification requirements, however, must be gauged to the traffic the road is expected to bear.

In the past, the Highway Department has handled as much as



FIXED CHARGES AND MISCELLANEOUS OBLIGATIONS OF THE MICHIGAN STATE HIGHWAY DEPARTMENT - 1943 LEVEL - \$ 15,310,000.00

# NET GASOLINE TAX CREDITED TO HIGHWAY FUND IN MICHIGAN - CALENDAR YEAR BASIS

\$28,000,000 of construction in one year. With the modern equipment and greater experience of Michigan's contractors, there is every reason to believe that a \$40,000,000 program could be successfully carried out on state trunklines alone.

The feeder roads of the state are an integral part of the Highway system. Therefore the county roads and city streets should receive attention in the postwar program as well as trunklines. The chart, showing what "Michigan Contractors Can Build", gives a total of \$79,000,000 a year, or \$39,000,000 for the county and city programs as well as \$40,000,000 for trunklines. Michigan contractors have the equipment to do this amount of work. They have demonstrated their ability to handle this program by their recent construction of airfields and the access expressways for the Willow Run Plant. They have managed to maintain their equipment. It is ready to go to work.

The present resources of the State Highway Department are being concentrated on making surveys and plans for postwar projects. Completed plans for 8½ million dollars in construction work are now available. This reservoir is being rapidly expanded. At the present time the department has 25 survey parties in the field and some 100 draftsmen drawing plans.

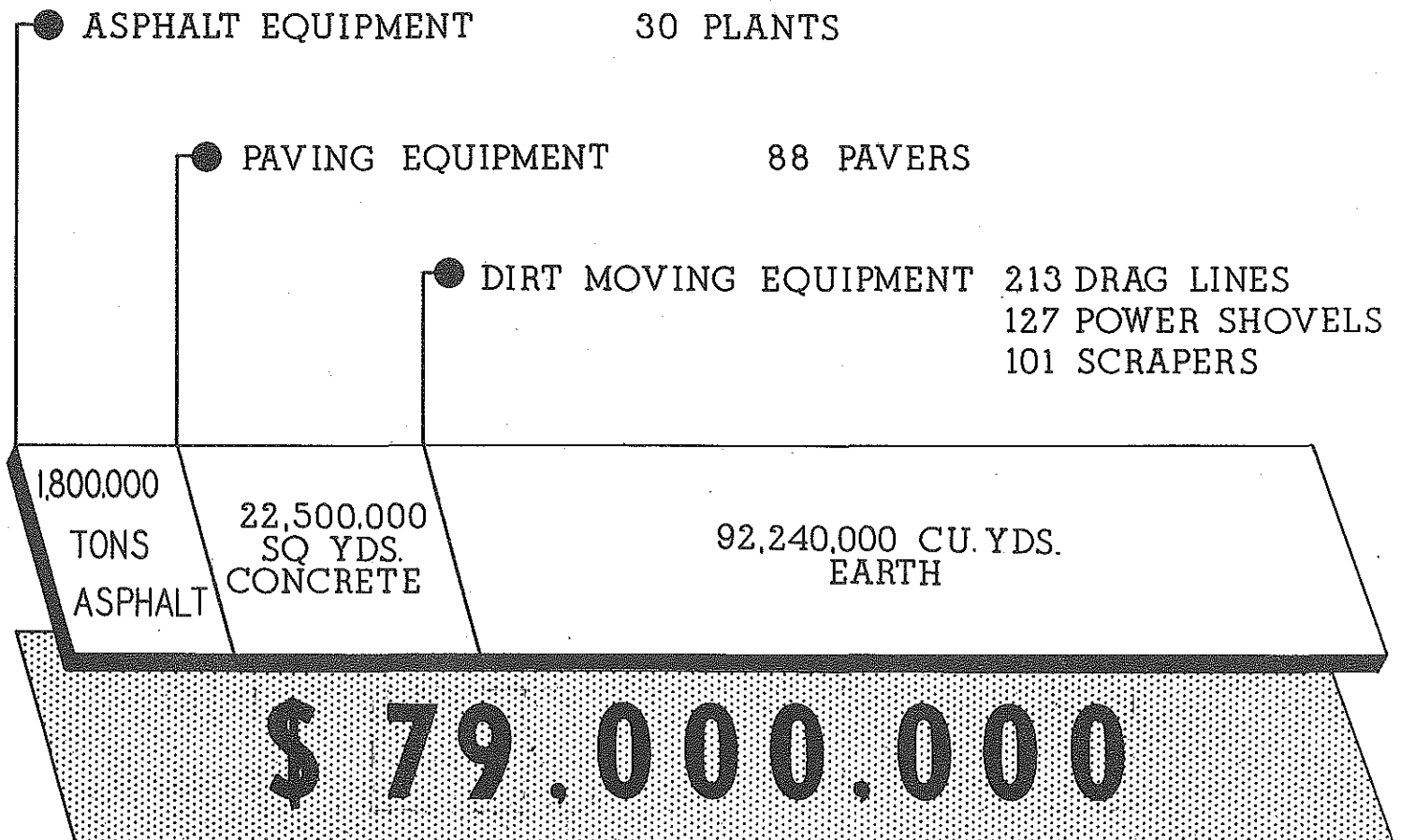
The state has a wealth of road building materials and producing plants. It produces crushed rock, cement and steel, calcium chloride and many other products for road building. Sand and gravel are available nearly everywhere.

### PROGRESS

The present Michigan State Planning Commission is actively at work with all units of state and local government in formulating an extensive program of public works. The commission cooperates with cities and counties



# MICHIGAN CONTRACTORS ARE EQUIPPED TO BUILD



● THE COMBINED OUTPUT OF THE EQUIPMENT AVAILABLE FOR READY USE CAN PRODUCE 79,000,000 DOLLARS WORTH OF HIGHWAY CONSTRUCTION ANNUALLY.

in preparing inventories of needed work and arranging priorities to carry out the most important phases at the first opportunity. A fine program of buildings and other facilities for state institutions is being arranged. The proposed work of the Department of Conservation, the State Highway Department and others is shaping up. It is intended that all public work in Michigan shall be coordinated on the basis of relative need and the probable labor supply.

The State Highway Commissioner is a member of the Commission, and he is the chairman of the Transportation Committee. At the direction of the Commission, the Transportation Committee compiled, in conjunction with the Advisory Committee of the County Road Association and the Michigan Municipal League, a \$383,431,349 program of road and bridge construction. This was presented as of January 1, 1944. The program involves construction of roads and bridges on city streets, county roads and state trunklines. The program as submitted to the Commission involved:

State Trunkline Routes	\$ 96,150,000
County Roads	136,458,218
City Streets	150,823,131
Total	\$383,431,339

PLANS AND SPECIFICATIONS ARE COMPLETE FOR MORE THAN 42 MILLION DOLLARS OF WORK IN THIS PROGRAM.

A majority of the plans and specifications have been prepared by counties and the cities. The counties account for 35 percent and the cities for 45 percent of the completed plans. This is ample evidence of the ability of these outstanding organizations to plan and build roads and streets.

The detail of this program by counties and the extent of completed plans comprises an appendix to this statement. It should be

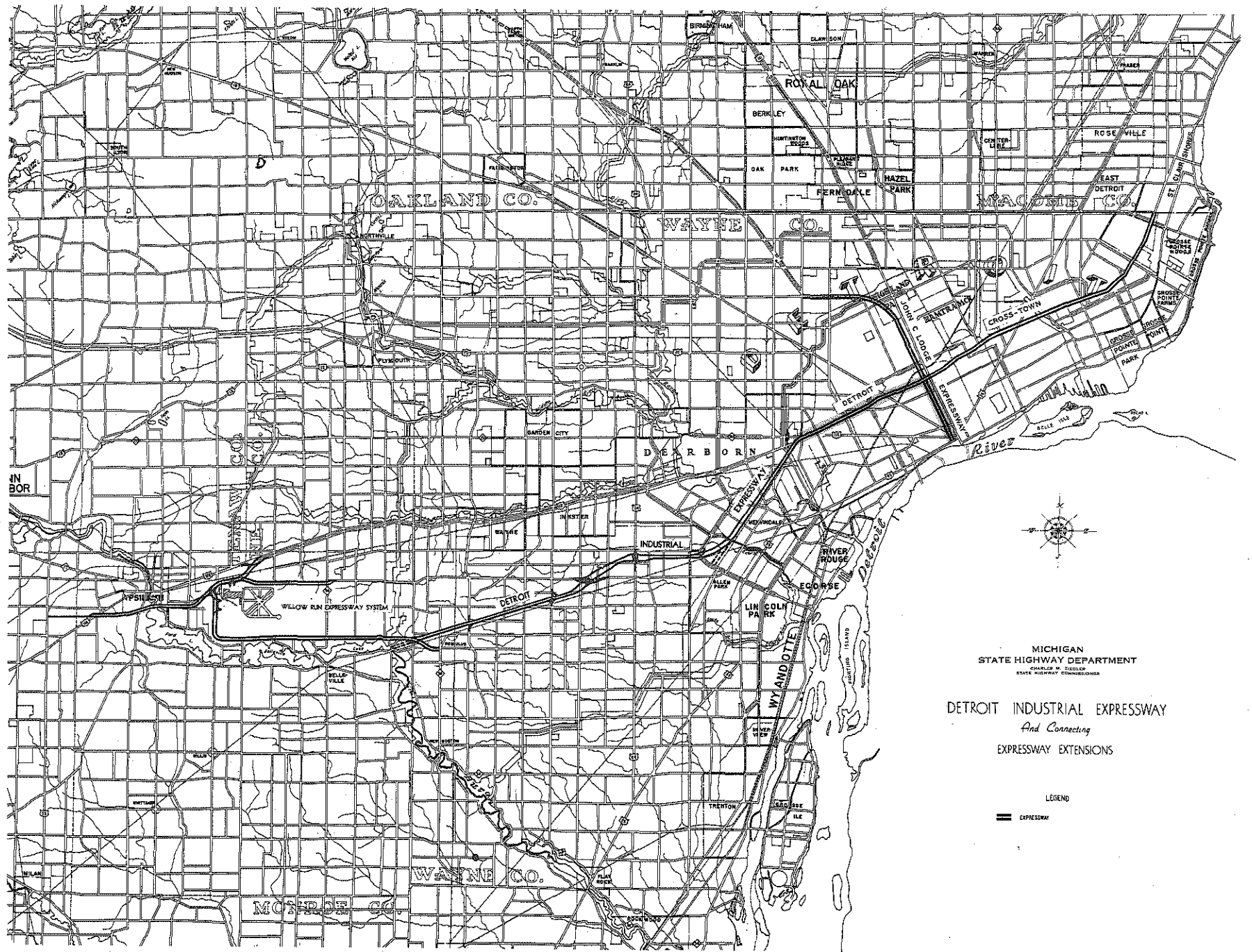
noted that some work is needed and programmed in every one of the 83 counties. This is a noteworthy feature of the program for the construction of state trunkline highways. It permits flexibility to place work where highway improvements are required and unemployment exists.

By March 1, 1944 the state trunkline program had increased to 120 million dollars. The program includes sections of the two expressways that have been projected in Detroit, the Detroit Crosstown Expressway and the John C. Lodge Expressway. The programmed section on the John C. Lodge Expressway extends from the Detroit River north through the center of the business district to the intersection with the proposed Detroit Crosstown Expressway near McGraw. The programmed section of the Detroit Crosstown Expressway will extend from the John C. Lodge Expressway west to connect with the Willow Run Expressway, which is now nearing completion. These two programmed expressway projects will link downtown Detroit with the U. S. Bomber Plant at Willow Run and the state trunklines that radiate south, southwest and west from Detroit.

It is estimated that the total cost of the two expressway projects above will approximate \$45,000,000. Of this amount some \$22,500,000 will be needed for the purchase and clearing of right-of-way.

Savings can be accomplished when right of way is secured in an orderly, rational manner. To expedite plans for this type of facility, an immediate right of way policy on the part of the federal government is required.

The Wayne County Road Commission, the City of Detroit, and the State Highway Department will share in the cost of construction of these expressway type highways in the City of Detroit. The City, the County, and the State await the formulation of a national Highway policy before entering into working agreements.



MICHIGAN  
STATE HIGHWAY DEPARTMENT  
CHARLES W. FISHER  
STATE HIGHWAY COMMISSIONER

DETROIT INDUSTRIAL EXPRESSWAY  
And Connecting  
EXPRESSWAY EXTENSIONS

LEGEND  
== EXPRESSWAY

## CONCLUSIONS

The Highway transportation industry is fundamental in the national economy. In the recovery period after the war a large part of the highway system will have to be rebuilt.

Extensive highway construction is needed on Michigan's state trunklines, county roads, and city streets. With this in mind these units have united in preparing a logical, carefully planned three-year program. However, to carry out this program, Federal financial assistance must be guaranteed at an early date.

The employment situation in Michigan will be particularly serious in the industrial areas. Planned highway improvements can provide productive work for the unemployed. Highway plans and specifications must be ready when the war ends. This will permit the use of private contractors on a competitive basis, which is the proven efficient method for highway construction.

The cities and the counties are willing to cooperate in highway construction work to the limit of their financial ability.

The State Legislature has recently, in special session, set aside \$5,000,000 for the State Highway Department to match Federal funds for immediate postwar construction. More will almost certainly be appropriated when needed.

The State Highway Department is willing to cooperate with the adjoining states in locating and improving inter-state and inter-regional routes.

MICHIGAN HAS THE BLUEPRINTS, TECHNICAL ORGANIZATION, CONTRACTORS, AND EQUIPMENT TO BUILD THE HIGHWAYS NEEDED IN THE STATE, AS SET UP IN DETAIL IN THIS STATEMENT.

## RECOMMENDATIONS

In view of highway needs and anticipated unemployment in Michigan at the end of the war, the proposed authorization of 1 billion dollars per year for 3 years is entirely too low.

The purpose of highway construction in the immediate postwar period is to provide for employment in the transition period and to build needed highway improvements. It is recommended that when considering a formula for the allocation of funds, serious thought be given to highway and employment needs, preparedness and ability to perform.

Time is an element in preparing for the postwar period. There is great need for crystallization of endeavor in the highway field. Action awaits the passage of a federal aid highway bill. A prompt decision and a national highway policy on specifications and requirements are essential.

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## APPENDIX

The following pages contain a tabulation of the state, county and city postwar program as it stood on January 1, 1944: Additional projects have been added since that time so that the estimated construction cost of the highway department program now stands at \$120,000,000 with \$8,500,000 in completed plans. The counties and municipalities have also programmed additional work until the combined construction cost of state, county and city projects now stands at \$410,000,000 of which \$42,000,000 is covered by completed plans.

It is estimated that this program would furnish employment for 160,000 Michigan men for a twelve month period. These figures are based on the computation that 85 cents out of every dollar's worth of road and bridge construction goes directly or indirectly into labor and 73¢ goes

for Michigan labor. This labor includes contractors' payrolls plus labor for the production and distribution of materials and equipment; also for engineering and inspection.

The following factors were used for computing the man years of labor:

394 Man years of direct and indirect Michigan labor per million dollars' worth of road construction.

297 Man years of direct and indirect Michigan labor per million dollars' worth of bridge construction.

TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
ALCONA	State	\$ 880,000	\$ 120,000	\$1,000,000	-	-	-
	County	273,000	27,000	300,000	45,500	4,500	50,000
	Cities	No Report					
	Total	1,153,000	147,000	1,300,000	45,500	4,500	50,000
ALGER	State	1,102,500	105,000	1,207,500	-	-	-
	1 County	238,000	62,000	300,000	41,100	10,400	51,500
	2 & 3 Cities	16,000	-	16,000	9,600	-	9,600
	Total	1,356,500	167,000	1,523,500	50,700	10,400	61,100
ALLEGAN	State	589,000	125,000	714,000	-	-	-
	County	502,000	-	502,000	-	-	-
	Cities	No Report					
	Total	1,091,000	125,000	1,216,000	-	-	-
ALPENA	State	236,000	-	236,000	-	-	-
	1 County	390,000	-	390,000	46,800	-	46,800
	Cities	188,500	-	188,500	-	-	-
	Total	814,500	-	814,500	46,800	-	46,800
ANTRIM	State	810,000	70,000	880,000	-	-	-
	County	320,650	-	320,650	116,590	-	116,590
	Cities	No Report					
	Total	1,130,650	70,000	1,200,650	116,590	-	116,590
ARENAC	State	720,000	250,000	970,000	-	-	-
	1 County	200,000	-	200,000	-	-	-
	Cities	No Report					
	Total	920,000	250,000	1,170,000	-	-	-
BARAGA	State	1,120,000	200,000	1,320,000	350,000	-	350,000
	County	No Report					
	Cities	No Report					
	Total	1,120,000	200,000	1,320,000	350,000	-	350,000
BARRY	State	375,000	200,000	575,000	-	-	-
	County	No Report					
	2 Cities	46,000	85,000	131,000	1,800	7,500	9,300
	Total	421,000	285,000	706,000	1,800	7,500	9,300
BAY	State	184,000	-	184,000	-	-	-
	1 County	250,000	-	250,000	-	-	-
	2 & 3 Cities	625,100	-	625,100	280,300	-	280,300
	Total	1,059,100	-	1,059,100	280,300	-	280,300
BENZIE	State	\$ 644,000	-	\$ 644,000	-	-	-
	1 County	250,000	-	250,000	-	-	-
	Cities	No Report					
	Total	894,000	-	894,000	-	-	-
BERRIEN	State	1,393,500	1,915,000	3,313,500	138,500	1,250,000	1,388,500
	1 County	1,112,000	-	1,112,000	202,400	-	202,400
	2 & 3 Cities	1,239,000	305,000	1,544,000	154,200	25,750	179,950
	Total	3,744,500	2,220,000	5,964,500	495,100	1,275,750	1,770,850



TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
BRANCH	State	27,000	-	27,000	27,000	-	27,000
	County	No Report					
	Cities	No Report					
	Total	27,000	-	27,000	27,000	-	27,000
CALHOUN	State	996,000	60,000	1,056,000	350,000	-	350,000
	1 County	750,000	-	750,000	75,000	-	75,000
	3 Cities	3,715,222	-	3,715,222	806,400	-	806,400
	Total	5,461,222	60,000	5,521,222	1,231,400	-	1,231,400
CASS	State	1,074,000	180,000	1,254,000	270,000	-	270,000
	County	339,250	30,000	369,250	-	-	-
	2 & 3 Cities	10,000	-	10,000	10,000	-	10,000
	Total	1,423,250	210,000	1,633,250	280,000	-	280,000
CHARLEVOIX	State	983,500	825,000	1,808,500	-	600,000	600,000
	County	432,000	21,500	503,500	160,700	7,200	167,900
	Cities	No Report					
	Total	1,415,500	846,500	2,312,000	160,700	607,200	767,900
CHEBOYGAN	State	825,000	30,000	855,000	-	-	-
	County	631,820	26,000	657,820	-	-	-
	Cities	No Report					
	Total	1,456,820	56,000	1,512,820	-	-	-
CHIPPEWA	State	1,132,000	110,000	1,242,000	840,000	-	840,000
	County	1,330,000	60,000	1,390,000	677,000	26,500	703,500
	3 Cities	119,000	-	119,000	-	-	-
	Total	2,581,000	170,000	2,751,000	1,517,000	26,500	1,543,500
CLARE	State	102,000	200,000	302,000	-	-	-
	County	No Report					
	2 Cities	30,500	-	30,500	2,600	-	2,600
	Total	132,500	200,000	332,500	2,600	-	2,600
CLINTON	State	\$ 880,500	-	\$ 880,500	-	-	-
	1 County	815,000	-	815,000	-	-	-
	2 Cities	5,000	-	5,000	-	-	-
	Total	1,700,500	-	1,700,500	-	-	-
CRAWFORD	State	350,000	-	350,000	-	-	-
	County	372,500	22,500	395,000	50,000	-	50,000
	Cities	140,000	-	140,000	20,000	-	20,000
	Total	762,500	22,500	785,000	70,000	-	70,000
DELTA	State	460,000	60,000	520,000	70,000	-	70,000
	County	1,500,000	600,000	2,100,000	22,700	12,500	35,200
	3 Cities	300,000	-	300,000	270,000	-	270,000
	Total	2,260,000	660,000	2,920,000	362,700	12,500	375,200
DICKINSON	State	290,000	-	290,000	290,000	-	290,000
	1 County	275,000	-	275,000	137,500	-	137,500
	Cities	1,031,333	-	1,031,333	112,550	-	112,550
	Total	1,596,333	-	1,596,333	570,050	-	570,050

TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
EATON	State	759,000	10,000	769,000	350,000	-	350,000
	1 County	200,000	-	200,000	-	-	-
	2 & 3 Cities	272,500	-	272,500	109,100	-	109,100
	Total	1,231,500	10,000	1,241,500	459,100	-	459,100
EMMET	State	606,000	-	606,000	-	-	-
	County	1,190,774	-	1,190,774	-	-	-
	Cities	No Report	-	-	-	-	-
Total	1,796,774	-	1,796,774	-	-	-	
GENESEE	State	770,000	50,000	820,000	-	-	-
	1 County	730,000	-	730,000	182,500	-	182,500
	2 & 3 Cities	7,438,000	-	7,438,000	1,859,000	-	1,859,000
	Total	8,938,000	50,000	8,988,000	2,041,500	-	2,041,500
GLADWIN	State	280,000	50,000	330,000	-	-	-
	County	No Report	-	-	-	-	-
	Cities	22,500	1,500	24,000	-	-	-
Total	302,500	51,500	354,000	-	-	-	
GOGEBIC	State	830,000	180,000	1,010,000	220,000	-	220,000
	1 County	1,053,000	-	1,053,000	227,000	-	227,000
	3 Cities	626,500	-	626,500	125,900	-	125,900
	Total	2,509,500	180,000	2,689,500	572,900	-	572,900
GRAND TRAVERSE	State	\$ 822,500	\$ 30,000	\$ 852,500	-	-	-
	County	340,000	40,000	380,000	119,000	14,000	133,000
	3 Cities	137,800	-	137,800	68,900	-	68,900
	Total	1,300,300	70,000	1,370,300	187,900	14,000	201,900
GRATIOT	State	531,000	-	531,000	-	-	-
	County	800,000	1,250,000	2,050,000	-	-	-
	3 Cities	198,919	-	198,919	-	-	-
	Total	1,529,919	1,250,000	2,779,919	-	-	-
HILLSDALE	State	1,029,000	179,000	1,208,000	-	-	-
	County	1,059,000	20,000	1,079,000	21,180	400	21,580
	Cities	No Report	-	-	-	-	-
	Total	2,088,000	199,000	2,287,000	21,180	400	21,580
HOUGHTON	State	469,000	1,450,000	1,919,000	-	60,000	60,000
	County	4,300,000	120,000	4,420,000	-	-	-
	3 Cities	75,000	-	75,000	-	-	-
	Total	4,844,000	1,570,000	6,414,000	-	60,000	60,000
HURON	State	645,000	25,000	670,000	315,000	25,000	340,000
	County	850,000	300,000	1,150,000	119,000	42,000	161,000
	2 Cities	63,000	4,500	67,500	31,500	2,250	33,750
	Total	1,558,000	329,500	1,887,500	465,500	69,250	534,750
INGHAM	State	1,179,000	60,000	1,239,000	-	-	-
	County	321,000	195,000	516,000	32,100	19,500	51,600
	2 Cities	89,000	2,000	91,000	-	-	-
	Total	1,589,000	257,000	1,846,000	32,100	19,500	51,600

TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
IONIA	State	720,000	310,000	1,030,000	-	-	-
	County	576,000	66,000	642,000	163,200	18,700	181,900
	2 & 3 Cities	110,190	-	110,190	-	-	-
	Total	1,406,190	376,000	1,782,190	163,200	18,700	181,900
IOSCO	State	634,500	115,000	779,500	-	-	-
	County	2,295,000	25,000	2,320,000	55,080	600	55,680
	Cities	68,368	-	68,368	3,400	-	3,400
	Total	2,997,868	170,000	3,167,868	58,480	600	59,080
IRON	State	681,000	300,000	981,000	-	-	-
	County	1,683,613	105,733	1,789,346	60,600	3,800	64,400
	Cities	263,313	45,250	308,563	55,960	2,500	58,460
	Total	2,627,926	450,983	3,078,909	116,560	6,300	122,860
ISABELLA	State	\$ 324,500	-	\$ 324,500	-	-	-
	County	801,850	290,000	1,091,850	23,157	9,400	32,557
	Cities	No Report	-	-	-	-	-
	Total	1,126,350	290,000	1,416,350	23,157	9,400	32,557
JACKSON	State	2,225,000	250,000	2,475,000	-	-	-
	County	1,628,023	132,691	1,760,714	86,600	8,000	94,600
	Cities	922,900	500,000	1,422,900	-	-	-
	Total	4,775,923	882,691	5,658,614	86,600	8,000	94,600
KALAMAZOO	State	706,000	125,000	831,000	-	-	-
	County	1,980,000	250,000	2,230,000	990,000	125,000	1,115,000
	2 Cities	1,208,500	60,000	1,268,500	2,000	-	2,000
	Total	3,894,500	435,000	4,329,500	992,000	125,000	1,117,000
KALKASKA	State	420,500	-	420,500	-	-	-
	1 County	400,000	-	400,000	20,000	-	20,000
	Cities	No Report	-	-	-	-	-
	Total	820,500	-	820,500	20,000	-	20,000
KENT	State	1,939,500	1,080,000	3,019,500	-	-	-
	County	5,460,000	1,790,000	7,250,000	91,000	31,500	122,500
	2 Cities	1,003,725	1,059,100	2,062,825	318,900	118,000	436,900
	Total	8,403,225	3,929,100	12,332,325	409,900	149,500	559,400
KEWENAW	State	636,000	-	636,000	-	-	-
	County	668,000	16,000	684,000	314,000	7,500	321,500
	Cities	No Report	-	-	-	-	-
	Total	1,304,000	16,000	1,320,000	314,000	7,500	321,500
LAKE	State	360,000	-	360,000	360,000	-	360,000
	County	260,000	-	260,000	8,600	-	8,600
	Cities	No Report	-	-	-	-	-
	Total	620,000	-	620,000	368,600	-	368,600
LAPEER	State	414,000	140,000	554,000	-	-	-
	County	750,000	165,000	915,000	-	40,000	40,000
	Cities	No Report	-	-	-	-	-
	Total	1,164,000	305,000	1,469,000	-	40,000	40,000

TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
LEELANAU	State	957,200	-	957,200	253,200	-	253,200
	1 County	255,564	-	255,564	55,564	-	55,564
	Cities	No Report					
	Total	1,212,764		1,212,764	308,764		308,764
LENAWEE	State	\$ 707,500	\$ 1,01,000	\$ 1,108,500	-	-	-
	County	153,600	30,000	183,600	30,720	6,000	36,720
	2 Cities	149,000	105,000	254,000	18,100	3,500	21,600
	Total	1,010,100	536,000	1,546,100	48,820	9,500	58,320
LIVINGSTON	State	650,000	170,000	820,000	-	-	-
	County	812,000	60,000	872,000	12,180	900	13,080
	2 Cities	15,000	-	15,000	-	-	-
	Total	1,477,000	230,000	1,707,000	12,180	900	13,080
LUCE	State	522,000	50,000	572,000	-	-	-
	County	159,000	14,000	173,000	54,500	4,500	59,000
	Cities	No Report					
	Total	681,000	64,000	745,000	54,500	4,500	59,000
MACKINAC	State	589,000	10,000	599,000	294,000	10,000	304,000
	County	No Report					
	Cities	No Report					
	Total	589,000	10,000	599,000	294,000	10,000	304,000
MACOMB	State	1,997,500	900,000	2,897,500	-	-	-
	1 County	7,000,000	-	7,000,000	-	-	-
	2 & 3 Cities	1,512,842	-	1,512,842	1,202,274	-	1,202,274
	Total	10,510,342	900,000	11,409,342	1,202,274	-	1,202,274
MANISTEE	State	318,000	-	318,000	318,000	-	318,000
	County	339,000	5,000	344,000	-	-	-
	Cities	295,845	250,000	545,845	-	-	-
	Total	952,845	255,000	1,207,845	318,000		318,000
MARQUETTE	State	1,425,000	-	1,425,000	-	-	-
	1 County	12,210,100	-	12,210,100	1,221,010	-	1,221,010
	2 & 3 Cities	123,000	-	123,000	123,000	-	123,000
	Total	13,758,100		13,758,100	1,344,010		1,344,010
MASON	State	736,000	-	736,000	25,000	-	25,000
	County	244,500	11,500	256,000	-	-	-
	2 & 3 Cities	125,000	-	125,000	25,000	-	25,000
	Total	1,105,500	11,500	1,117,000	50,000	-	50,000
MECOSTA	State	734,000	610,000	1,344,000	284,000	-	284,000
	1 County	250,000	-	250,000	125,000	-	125,000
	2 & 3 Cities	114,440	-	114,440	17,166	-	17,166
	Total	1,098,440	610,000	1,708,440	426,166		426,166
MENOMINEE	State	\$ 491,000	\$ 300,000	\$ 791,000	-	-	-
	County	1,350,000	150,000	1,500,000	90,000	10,000	100,000
	Cities	No Report					
	Total	1,841,000	450,000	2,291,000	90,000	10,000	100,000

TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
MIDLAND	State	545,000	150,000	695,000	-	-	-
	County	No Report	-	-	-	-	-
	Cities	229,200	-	229,200	6,820	-	6,820
Total		774,200	150,000	924,200	6,820	-	6,820
MISSAUKEE	State	685,000	75,000	760,000	230,000	-	230,000
	County	255,000	15,000	270,000	17,500	1,000	18,500
	Cities	No Report	-	-	-	-	-
Total		940,000	90,000	1,030,000	247,500	1,000	248,500
MONROE	State	531,500	305,000	836,500	-	-	-
	County	727,700	27,000	754,700	70,950	900	71,850
	Cities	159,111	-	159,111	63,650	-	63,650
Total		1,418,311	332,000	1,750,311	134,600	900	135,500
MONTCALM	State	376,000	120,000	496,000	-	-	-
	County	207,600	20,000	227,600	-	-	-
	2 Cities	3,000	-	3,000	-	-	-
Total		586,600	140,000	726,600	-	-	-
MONTMORENCY	State	396,000	75,000	471,000	-	-	-
	County	460,000	24,000	484,000	9,800	800	10,600
	Cities	No Report	-	-	-	-	-
Total		856,000	99,000	955,000	9,800	800	10,600
MUSKEGON	State	744,000	-	744,000	-	-	-
	1 County	2,172,500	-	2,172,500	513,125	-	513,125
	Cities	2,146,585	5,000	2,151,585	835,500	2,500	838,000
Total		5,063,085	5,000	5,068,085	1,378,625	2,500	1,381,125
NEWAYGO	State	465,000	450,000	915,000	-	-	-
	County	720,000	60,000	780,000	-	-	-
	Cities	No Report	-	-	-	-	-
Total		1,185,000	510,000	1,695,000	-	-	-
OAKLAND	State	738,500	100,000	838,500	-	-	-
	1 County	250,000	-	250,000	25,000	-	25,000
	Cities	10,355,130	3,475,300	13,830,430	600,850	874,660	1,475,510
Total		11,343,630	3,575,300	14,918,930	625,850	874,660	1,500,510
OCEANA	State	\$ 659,000	\$ 155,000	\$ 814,000	-	-	-
	County	205,000	100,000	305,000	15,000	50,000	65,000
	Cities	104,071	3,500	107,571	-	-	-
Total		968,071	258,500	1,226,571	15,000	50,000	65,000
OGEMAW	State	476,000	-	476,000	-	-	-
	1 County	50,000	-	50,000	-	-	-
	Cities	No Report	-	-	-	-	-
Total		526,000	-	526,000	-	-	-
ONTONAGON	State	1,316,000	100,000	1,416,000	308,000	-	308,000
	County	1,500,000	60,000	1,560,000	-	-	-
	Cities	No Report	-	-	-	-	-
Total		2,816,000	160,000	2,976,000	308,000	-	308,000

TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
OSCEOLA	State	712,000	355,000	1,067,000	50,000	-	50,000
	1 County	75,000	-	75,000	-	-	-
	Cities	No Report					
	Total	787,000	355,000	1,142,000	50,000		50,000
OSCODA	State	390,000	30,000	420,000	-	-	-
	County	No Report					
	Cities	No Report					
	Total	390,000	30,000	420,000			
OTSEGO	State	290,000	-	290,000	-	-	-
	County	306,000	-	306,000	-	-	-
	Cities	No Report					
	Total	596,000		596,000			
OTTAWA	State	1,895,000	465,000	2,360,000	237,000	-	237,000
	1 County	1,482,500	-	1,482,500	-	-	-
	Cities	15,160	800	15,960	-	-	-
	Total	3,392,660	465,800	3,858,460	237,000		237,000
PRESQUE ISLE	State	288,000	-	288,000	144,000	-	144,000
	County	482,000	65,000	557,000	-	-	-
	Cities	No Report					
	Total	770,000	65,000	845,000	144,000		144,000
ROSCOMMON	State	996,000	60,000	1,056,000	-	-	-
	1 County	300,000	-	300,000	15,000	-	15,000
	Cities	No Report					
	Totals	1,296,000	60,000	1,356,000	15,000		15,000
SAGINAW	State	\$ 1,255,500	\$ 63,000	\$ 1,318,500	\$ 355,000	-	\$ 355,000
	County	1,350,000	300,000	1,650,000	1,080,000	240,000	1,320,000
	Cities	1,080,200	-	1,080,200	21,000	-	21,000
	Total	3,685,700	363,000	4,048,700	1,456,000	240,000	1,696,000
SANILAC	State	873,000	190,000	1,063,000	-	-	-
	County	780,000	90,000	870,000	13,000	1,500	14,500
	Cities	No Report					
	Total	1,653,000	280,000	1,933,000	13,000	1,500	14,500
SCHOOLCRAFT	State	769,000	25,000	794,000	-	-	-
	County	107,000	53,000	160,000	-	-	-
	Cities	No Report					
	Total	876,000	78,000	954,000			
SHIAWASSEE	State	274,800	-	274,800	-	-	-
	County	502,000	90,000	592,000	7,300	1,000	8,300
	Cities	123,527	-	123,527	-	-	-
	Total	900,327	90,000	990,327	7,300	1,000	8,300
ST. CLAIR	State	1,311,000	270,000	1,581,000	-	-	-
	County	3,906,000	525,000	4,431,000	285,000	35,000	320,000
	Cities	1,941,000	920,000	2,861,000	58,960	73,600	132,560
	Total	7,158,000	1,715,000	8,873,000	343,960	108,600	452,560

TOTAL COST OF CONSTRUCTION

		TOTAL PROGRAM			COMPLETED PLANS		
		ROADS	BRIDGES	ROADS & BRIDGES	ROADS	BRIDGES	ROADS & BRIDGES
ST. JOSEPH	State	694,000	45,000	739,000	-	-	-
	County	285,000	100,000	385,000	-	-	-
	Cities	No Report			-	-	-
	Total	979,000	145,000	1,124,000			
TUSCOLA	State	1,366,000	-	1,366,000	68,000	-	68,000
	County	3,900,000	566,000	4,466,000	585,000	84,900	669,900
	Cities	No Report					
	Total	5,266,000	566,000	5,832,000	653,000	84,900	737,900
VAN BUREN	State	1,265,000	70,000	1,335,000	60,000	-	60,000
	1 County	1,291,750	-	1,291,750	-	-	-
	2 & 3 Cities	8,000	-	8,000	-	-	-
	Total	2,564,750	70,000	2,634,750	60,000		60,000
WASHTENAW	State	3,060,000	1,535,000	4,595,000	-	-	-
	County	1,940,000	-	1,940,000	291,000	-	291,000
	2 & 3 Cities	529,500	-	529,500	105,900	-	105,900
	Total	5,529,500	1,535,000	7,064,000	396,900		396,900
WAYNE	1/4 State	\$15,175,000	-	\$ 15,175,000	-	-	-
	County	36,500,000	8,200,000	44,700,000	4,260,000	985,000	5,245,000
	2 & 3 Cities	102,385,500	2,630,200	105,015,700	10,418,400	251,000	10,669,400
	Total	154,060,500	10,830,200	164,890,700	14,678,400	1,236,000	15,914,400
WEXFORD	State	1,033,000	370,000	1,403,000	40,000	70,000	110,000
	County	330,000	42,000	372,000	12,000	1,400	13,400
	Cities	90,000	-	90,000	-	-	-
	Total	1,453,000	412,000	1,865,000	52,000	71,400	123,400

STATE	TOTAL	79,867,000	16,283,000	96,150,000	6,146,700	2,015,000	8,161,700
COUNTY	TOTAL	120,236,294	16,221,924	136,458,218	12,906,956	1,804,400	14,711,356
CITY	TOTAL	141,370,981	9,452,150	150,823,131	17,768,730	1,361,260	19,129,990
GRAND	TOTAL	341,474,275	41,957,074	383,431,349	36,822,386	5,180,660	42,003,046