# TABLE OF CONTENTS

Р٨	CF
гА	GL

HIGHWAYS
HIGHWAY FACTS
TRAVEL INFORMATION CENTERS
ROADSIDE MOTORIST FACILITIES 10
POPULATION ESTIMATES BY COUNTY FOR 2025 12
POPULATION CHANGE BY NUMBER (1990-2000) 12
POPULATION CHANGE BY PERCENTAGE (1990-2000)
HIGHWAY, ROAD AND STREET MILEAGE 14
ROADWAY TRAVEL VOLUMES
VEHICLE REGISTRATIONS
FUEL USAGE (MICHIGAN)
FUEL USAGE (U.S.)
MICHIGAN'S INTERNATIONAL BORDER CROSSINGS
MICHIGAN'S STATE HIGHWAY SYSTEM 20
2000 TRUNKLINE MILEAGE AND AVMT BY MDOT REGION
TRUNKLINE COMMERCIAL ANNUAL VEHICLE MILES TRAVELED (AVMT) BY REGION 22
2000 FREEWAY/NON-FREEWAY ROUTE MILEAGE AND AVMT BY MDOT REGION
2000 FREEWAY/NON-FREEWAY ROUTE MILEAGE AND CONDITION BY MDOT REGION 24
TRUNKLINE SURFACE CONDITION
TRUNKLINE SURFACE CONDITION BY FUNDING CATEGORY
BRIDGE CONDITION
TRAFFIC CRASH TRENDS
TRAFFIC FATALITY RATE
TRUCK-RELATED CRASHES AND FATALITIES
TORT LIABILITY: OPEN CASE LOAD
STATE PAYMENTS FOR TORT LITIGATION
TRUCK WEIGHT LIMITS
ALL SEASON ROUTE MILEAGE VS. SEASONAL ROUTE MILEAGE
REHABILITATION OF STATE HIGHWAYS

# HIGHWAY FACTS

### Highway Numbering

"I" highways, such as I-94, are part of the Interstate Freeway System, which extend through all 50 states and Puerto Rico, and as of 1999, total over 46,567 miles. Michigan's share is 1,241 miles. "U.S." highways extend through two or more states and "M" highways begin and end in Michigan.

#### The Longest Highway

Michigan's 395-mile portion of the I-75 freeway, running from the Ohio border north across the Straits of Mackinac to Sault Ste. Marie, is the longest highway.

#### The Shortest Highway

The shortest highway is M-212 in Cheboygan County, which runs 0.7 miles from M-33 to Aloha State Park on Mullett Lake.

#### The Busiest Highway

MDOT traffic summary statistics indicate that I-696, just east of Woodward Avenue (M-1) in the greater Detroit area was the busiest section of highway in 2000, carrying an average of 199,000 vehicles a day.

#### The First Painted Centerline

Marquette - Negaunee Road in Marquette County was the nation's first painted centerline on a rural state highway. It was painted in 1917.

#### Aerial Surveys

In 1925, the Michigan Highway Department became the first in the country to utilize aerial surveys for route location and engineering. The late Talbert "Ted" Abrams began this service and the concept is still in operation today.

### The First "Super - Highway"

The nation's first "super-highway" was Woodward Avenue, an eight-lane divided highway between Pontiac and Detroit.

### The First Concrete Highway

A one-mile section of Woodward Avenue between Six Mile and Seven Mile roads was the nation's first concrete highway. This highway was completed in 1909 at a cost of \$13,354.

# **TRAVEL INFORMATION CENTERS**

#### Welcome Centers

There are 13 Welcome Centers at border points or popular visitor locations around the state. Each year millions of travelers take advantage of the staffs' travel expertise. Centers are an information oasis where travelers can obtain construction and weather-related road condition reports, maps, directions and details on Michigan destinations. The staff also make free lodging reservations for travelers and conduct Michigan product promotions.

#### First Travel Information Center

The nation's first permanent travel information lodge was built on US-12 in Berrien County in 1935.

## **ROADSIDE MOTORIST FACILITIES**

#### Freeway Rest Areas

Michigan travelers who use the freeway system have access to 83 rest areas, including the 13 Welcome Centers, which are spaced about 45 miles apart. Each year about 42 million users stop at Michigan rest areas and welcome centers.

#### Landscaping Program

MDOT carries out a yearly landscape planting program, working with communities along our right-of-way, to enhance the natural beauty of our transportation systems.

#### **Roadside Parks**

On two-lane roadways, there are 82 roadside parks providing roadside service similar to freeway rest areas. The roadside park system has been in operation since 1935.

#### Scenic Turnouts

There are 24 scenic turnouts, located mostly in northern Michigan and the Upper Peninsula. The turnouts provide the motoring public an opportunity to park and view some of Michigan's beautiful scenery along our highways.

# **POPULATION ESTIMATES BY COUNTY FOR 2025**

Statewide population over the period 2000-2025 is forecast to increase 10.6 percent, representing an average annual growth rate of 0.42 percent. Most counties in Michigan are expected to see continued population growth with Keweenaw, Lake, Livingston, Otsego and Ottawa, expecting increases of 30 percent or greater.

County	2000	2025	County	2000	2025
Alcona	11,719	13,787	Lake	11,333	15,609
Alger	9,862	11,362	Lapeer	87,904	103,563
Allegan	105,665	134,009	Leelanau	21,119	27,058
Alpena	31,314	32,129	Lenawee	98,890	109,489
Antrim	23,110	26,419	Livingston	156,951	227,721
Arenac	17,269	20,321	Luce	7,024	8,671
Baraga	8,746	9,777	Mackinac	11,943	13,289
Barry	56,755	65,017	Macomb	788,149	892,088
Bay	110,157	110,361	Manistee	24,527	28,800
Benzie	15,998	20,652	Marquette	64,634	69,324
Berrien	162,453	166,209	Mason	28,274	31,921
Branch	45,787	49,995	Mecosta	40,553	46,591
Calhoun	137,985	145,914	Menominee	25,326	26,097
Cass	51,104	52,942	Midland	82,874	91,243
Charlevoix	26,090	32,405	Missaukee	14,478	17,652
Cheboygan	26,448	33,221	Monroe	145,945	177,314
Chippewa	38,543	43,860	Montcalm	61,266	72,084
Clare	31,252	39,973	Montmorency	10,315	12,003
Clinton	64,753	83,565	Muskegon	170,200	184,360
Crawford	14,273	16,749	Newaygo	47,874	60,038
Delta	38,520	39,793	Oakland	1,194,156	1,378,128
Dickinson	27,472	28,448	Oceana	26,873	32,674
Eaton	103,655	126,058	Ogemaw	21,645	25,344
Emmet	31,437	40,453	Ontonagon	7,818	7,322
Genesee	436,141	455,190	Osceola	23,197	26,996
Gladwin	26,023	31,294	Oscoda	9,418	11,359
Gogebic	17,370	17,280	Otsego	23,301	30,699
Grand Traverse	77,654	94,921	Ottawa	238,314	313,122
Gratiot	42,285	46,939	Presque Isle	14,411	15,628
Hillsdale	46,527	50,068	Roscommon	25,469	32,933
Houghton	36,016	37,277	Saginaw	210,039	216,051
Huron	36,079	37,745	Sanilac	44,547	50,168
Ingham	279,320	301,072	Schoolcraft	8,903	9,674
Ionia	61,518	66,698	Shiawassee	71,687	74,927
Iosco	27,339	28,239	St. Clair	164,235	212,735
Iron	13,138	13,098	St. Joseph	62,422	66,531
Isabella	63,351	74,354	Tuscola	58,266	62,208
Jackson	158,422	165,071	Van Buren	76,263	83,000
Kalamazoo	238,603	258,997	Washtenaw	322,895	405,674
Kalkaska	16,571	20,522	Wayne	2,061,162	1,978,078
Kent	574,335	667,383	Wexford	30,484	35,970
Keweenaw	2,301	3,111	State Totals	9,938,444	10,996,594

Sources: Census 2000, MDOT, Travel Demand & Intermodal Services Section, Regional Econometric Model, Inc. (REMI) Model with Local Enhancement



Source: U.S. Census Bureau, Census 2000 Redistricting Data

### **POPULATION CHANGE BY PERCENTAGE (1990-2000)**



Source: U.S. Census Bureau, Census 2000 Redistricting Data

# HIGHWAY, ROAD AND STREET MILEAGE

Michigan's system of state highways, county roads and municipal streets totals 119,929 miles. As of 2000, MDOT had jurisdiction over the 9,704 route mile state highway system, which includes all "I", "U.S." and "M" numbered highways. Michigan's 89,488 miles of county roads are under the jurisdiction of 83 county road commissions and its 20,737 miles of

municipal streets are owned by 533 incorporated cities and villages. New residential streets account for most of the growth of county, city and village systems. The increase in state highway miles in 1998 can be attributed to freeway construction, jurisdictional transfers and a revision of reporting methods to match federal Highway Performance Monitoring System mileage.

	Total Mileage						
Year	State Hwys.	County Rds.	City & Village Sts.	Total			
1960	9,308	86,145	15,203	110,656			
1970	9,221	87,723	17,847	114,791			
1980	9,502	88,799	19,070	117,371			
1985	9,498	88,514	19,540	117,552			
1988	9,538	88,617	19,745	117,900			
1989	9,527	88,634	19,820	117,981			
1990	9,538	88,705	19,877	118,120			
1991	9,615	88,770	19,945	118,330			
1992	9,629	88,755	20,007	118,391			
1993	9,607	88,742	20,118	118,467			
1994	9,591	88,836	20,155	118,582			
1995	9,602	88,890	20,239	118,731			
1996	9,583	89,129	20,401	119,113			
1997	9,590	89,281	20,483	119,354			
1998	9,725	89,173	20,501	119,399			
1999	9,725	89,499	20,667	119,891			
2000	9,704	89,488	20,737	119,929			

Source: MDOT, Bureau of Transportation Planning, Monitoring Section, System Condition Unit

Highway travel in Michigan is increasing at a far greater rate than the state population. From 1984 to 2000, travel on Michigan roads has increased more than 44 percent. This increase in travel is attributed to longer distances traveled to work and

other purposes, and increases in tourism and recreation travel. Although the state highway system comprises only eight percent of the Michigan roadway network length, it carries more than 54 percent of the total statewide traffic.

Voor	Travel (Billions of Miles)
1040	
1940	14.0
1950	22.0
1960	33.1
1970	53.1
1975	58.2
1980	61.5
1983	63.6
1984	65.7
1985	68.4
1986	70.6
1987	75.7
1988	77.7
1989	79.9
1990	81.2
1991	81.9
1992	84.0
1993	85.7
1994	85.6
1995	85.7
1996	87.6
1997	89.2
1998	91.2
1999	93.1
2000	94.9

Source: MDOT, Bureau of Transportation Planning, Monitoring Section, System Monitoring Unit

# VEHICLE REGISTRATIONS

Vehicle registrations are tallied by using license plate transactions and include original, renewal, correction and replacement transactions. In Fiscal Year 2000, these totals rose to 9,703,991, an increase of 197,985 over the previous year. Passenger (more

than 6.3 million), commercial (more than 1.9 million), trailer (more than 1.1 million), and motorcycle (176,334) transactions all increased. Motorcycle transactions increased for the sixth consecutive year, after decreasing for 19 straight years.



Source: Michigan Secretary of State Website: Vehicle Registration Statistics, Number of Transactions as compiled by MDOT, Bureau of Transportation Planning, Monitoring Section

# FUEL USAGE (MICHIGAN)

F uel usage tax is the chief revenue source for Michigan's highway and other transportation programs. According to the latest Federal Highway Statistics Manual, Fiscal Year 1999 usage totaled 6.08 billion

gallons. There appears to be a cyclical pattern of a few years of level usage (1989-91 and 1994-96) followed by periods of increase.





# FUEL USAGE (U.S.)

Consumption of motor fuel for highway use in the United States has more than quadrupled since 1950; increasing from nearly 35 billion gallons in 1950 to more than 164 billion gallons in 1999.





# MICHIGAN'S INTERNATIONAL BORDER CROSSINGS

Michigan's international border crossings are vital links in regional, national and international commerce. Michigan's peninsular geography and highly productive industrial base give its international gateways unique significance. Unlike land border crossings in other states, every Michigan border crossing relies on bridge, tunnel or marine infrastructure to traverse a major body of water.

Three Michigan gateways support key international trade flows: Detroit (Ambassador Bridge, Detroit-Windsor Tunnel), Port Huron (Blue Water Bridge), and Sault Ste. Marie (International Bridge). The Ambassador and Blue Water bridges are two of the three busiest truck crossings in North America. The privately-owned Ambassador Bridge and the Detroit-Windsor Tunnel, jointly-owned by the cities of Detroit, Michigan and Windsor, Ontario are the two busiest automobile crossings on the U.S.-Canada border.

In 2000, these three gateways handled 27 percent (\$155 billion) of all land-based trade between the United States, Canada and Mexico. Between 1990 and 2000, commercial truck traffic has more than doubled to 5.3 million trucks per year at Michigan's four border crossings.

Ambassador Bridge					
Year	Cars*	Trucks	Total		
1900	5,667,486	1,554,263	7,221,749		
2000	8,814,891	3,486,110	12,301,001		

Detroit Windsor Tunnel							
Year	Cars*	Trucks	Total				
1900	6,722,975	269,980	6,992,955				
2000	8,437,344	182,392	8,619,736				

Blue Water Bridge						
Year	Cars*	Trucks	Total			
1900	4,840,157	670,063	5,510,220			
2000	4,399,992	1,576,839	5,976,831			

International Bridge						
Year	Cars*	Trucks	Total			
1900	3,225,553	62,586	3,288,139			
2000	2,550,832	137,804	2,688,636			

\* Cars includes motorcycles, RV's, and any other non-truck vehicle

Source: MDOT, Bridge and Tunnel Operators Association and the U.S. DOT Bureau of Transportation Statistics

# MICHIGAN'S STATE HIGHWAY SYSTEM

MDOT is responsible for 9,704 miles of state highways. These highways, referred to as the state trunkline system, are comprised of state ("M" routes), U.S. national highways (U.S. routes) and interstate highways ("I" routes). While the state trunkline system represents only 8% of the state's 119,929 miles of road, it carries approximately 55% of total travel and 70% of commercial travel in Michigan.



Source: MDOT, Bureau of Transportation Planning, System Condition Unit

# 2000 TRUNKLINE MILEAGE AND AVMT BY MDOT REGION

2000 Trunkline Mileage by MDOT Region						
Region	Interstate Route	Freeway Route	Route <sup>1</sup>	Pavement <sup>2</sup>	Lane <sup>3</sup>	
Superior	67.3	56.7	1,832.6	1,907.8	3,974.1	
North	144.8	210.1	1,970.7	2,184.4	4,524.5	
Grand	125.0	243.8	939.2	1,258.7	2,700.8	
Bay	173.7	323.9	1,515.7	1,874.0	4,236.8	
Southwest	272.3	290.8	1,220.8	1,553.4	3,397.7	
University	298.1	402.3	1,338.8	1,801.7	4,033.8	
Metro	313.5	366.9	886.0	1,422.4	4,455.3	
Statewide	1394.7	1,894.5	9,703.8	12,002.4	27,323.0	

2000 Trunkline AVMT <sup>4</sup> by MDOT Region (In Billions)						
<u>Region</u>	<u>Total</u>	<u>%</u>				
Superior	2.166	4.2				
North	3.943	7.7				
Grand	5.473	10.7				
Bay	6.716	13.1				
Southwest	5.644	11.0				
University	9.271	18.1				
Metro	17.980	35.1				
Statewide	51.193	100.0				

<sup>1</sup> Route miles are the total miles of two-way roads and one side of the divided highways.

<sup>2</sup> Pavement or directional miles are the total miles of pavement for undivided, two-way roads, and directional mileage for divided and one-way highways (i.e. one mile of divided interstate represents two pavement miles).

<sup>3</sup> Lane miles are the number of lanes multiplied by the number of pavement miles.

<sup>4</sup> AVMT (Annual Vehicle Miles Traveled) is the mileage driven by all vehicles in one year.

Source: MDOT, Bureau of Transportation Planning, System Condition Unit, 2000 Sufficiency File

### TRUNKLINE COMMERCIAL ANNUAL VEHICLE MILES TRAVELED (AVMT) BY REGION

Historic Commercial Trunkline AVMT <sup>1</sup> by MDOT Region								
			(In N	Aillions)				
Region	1999	1998	1997	1996	1995	1994	1993	1992
Superior	196.5	192.0	193.0	181.7	172.1	168.0	157.6	141.1
North	321.7	320.3	317.3	290.5	288.6	271.7	244.9	206.4
Grand	502.9	473.8	446.3	430.1	409.4	379.5	355.2	296.0
Bay	546.7	546.6	525.3	507.9	488.5	455.3	435.7	400.7
Southwest	914.1	886.5	845.5	808.0	807.9	707.6	678.6	624.7
University	1,108.6	1,076.1	1,019.2	978.6	961.5	905.7	833.3	816.6
Metro	1,103.2	1,094.9	974.6	956.5	949.7	946.4	938.8	891.0
Statewide	4,693.7	4,590.2	4,321.2	4,153.3	4,077.7	3,834.2	3,644.1	3,376.5

1999 Urban/Rural Commercial Trunkline AVMT <sup>1</sup> by MDOT Region (In Millions)					
Region	Urban	Rural	Total		
Superior	16.3	180.2	196.5		
North	13.2	308.5	321.7		
Grand	233.5	269.4	502.9		
Bay	201.3	345.4	546.7		
Southwest	210.0	704.1	914.1		
University	392.1	716.5	1,108.6		
Metro	970.5	132.8	1,103.3		
Statewide	2,036.9	2,656.9	4,693.8		

1 AVMT (Annual Vehicle Miles Traveled) is the mileage driven by all vehicles in one year.

Source: MDOT, Bureau of Transportation Planning, Transportation Management System (TMS)

### **2000** FREEWAY/NON-FREEWAY ROUTE MILEAGE AND AVMT BY MDOT REGION

Michigan's freeway system contains 1,895 miles or 19.5 percent of the state's 9,704 mile trunkline system. That same freeway system carries over 29 billion or 57 percent of the 51.2 billion annual vehicle miles (AVMT) traveled on the entire trunkline system.

2000 Freeway/Non-Freeway Route <sup>1</sup> Mileage by MDOT Region						
Region	Freeway Miles	% of Total	Non-Freeway Miles	% of Total	Total Miles	
Superior	56.7	3.1	1,776.0	96.9	1,832.7	
North	210.1	10.7	1,760.5	89.3	1,970.6	
Grand	243.8	26.0	695.5	74.0	939.3	
Bay	323.9	21.4	1,191.8	78.6	1,515.7	
Southwest	290.8	23.8	930.0	76.2	1,220.8	
University	402.3	30.1	936.4	69.9	1,338.7	
Metro	366.9	41.4	519.1	58.6	886.0	
Statewide	1894.5	19.5	7,809.3	80.5	9,703.8	

2000 Freeway/Non-Freeway AVMT <sup>2</sup> by MDOT Region (In Billions)						
Region	Freeway AVMT	% of Total	Non-Freeway AVMT	% of Total	Total AVMT	
Superior	.137	6.3	2.026	93.7	2.163	
North	.791	20.1	3.152	79.9	3.943	
Grand	2.893	52.9	2.580	47.1	5.473	
Bay	3.590	53.5	3.126	46.5	6.716	
Southwest	3.121	55.3	2.525	44.7	5.646	
University	6.215	67.0	3.056	33.0	9.271	
Metro	12.557	69.8	5.423	30.2	17.980	
Statewide	29.304	57.2	21.888	42.8	51.192	

<sup>1</sup> Route miles are the total miles of two-way roads and one side of the divided highways.

<sup>2</sup> AVMT (Annual Vehicle Miles Traveled) is the mileage driven by all vehicles in one year.

Source: MDOT, Bureau of Transportation Planning, System Condition Unit, 2000 Sufficiency File

# **2000** FREEWAY/NON-FREEWAY ROUTE MILEAGE AND CONDITION BY MDOT REGION

Freeways are roads which allow vehicles limited access, normally at interchanges, to control the flow of traffic and improve safety. They make up 1,895 miles or 19.5 percent of the 9,704 mile state trunkline system and include the majority of the 1,395 mile Interstate system. Over 80 percent of freeway and 77 percent of non-freeway miles are in "good" condition.

2000 Freeway/Non-Freeway Route <sup>1</sup> Mileage by MDOT Region				
Region	Freeway	Non Freeway	Total	
Superior	56.7	1,776.0	1,832.7	
North	210.1	1,760.5	1,970.6	
Grand	243.8	695.5	939.3	
Bay	323.9	1,191.8	1,515.7	
Southwest	290.8	930.0	1,220.8	
University	402.3	936.4	1,338.7	
Metro	366.9	519.1	886.0	
Statewide	1,894.5	7,809.3	9,703.8	

2000 Freeway/Non-Freeway Route <sup>1</sup> Mileage by Condition and by MDOT Region									
	Freev	vay	Non-Fr	eeway	State		То	tal	
Region	Good	Poor	Good	Poor	Total	Good	%	Poor	%
Superior	6.3	50.4	1,407.8	368.2	1,832.7	1,414.1	77.2	418.6	22.8
North	160.7	49.4	1,541.0	219.5	1,970.6	1,701.7	86.4	268.9	13.6
Grand	213.9	29.9	514.6	180.9	939.3	728.5	77.6	210.8	22.4
Bay	259.8	64.1	884.4	307.4	1,515.7	1,144.2	75.5	371.5	24.5
Southwest	216.1	74.7	725.3	204.7	1,220.8	941.4	77.1	279.4	22.9
University	383.5	18.8	626.4	310.0	1,338.7	1,009.9	75.4	328.8	24.6
Metro	289.4	77.5	356.2	162.9	886.0	645.6	72.9	240.4	27.1
Statewide	1,529.7	364.8	6,055.7	1,753.6	9,703.8	7,585.4	78.2	2,118.4	21.8

1 Route miles are the total miles of two-way roads and one side of the divided highways.

Source: MDOT, Bureau of Transportation Planning, System Condition Unit, 2000 Sufficiency File

### **TRUNKLINE SURFACE CONDITION**

The highest priority for the Michigan Department of Transportation (MDOT) is the preservation and maintenance of our current transportation system. We continue to pursue a balanced program of long-term fixes (reconstruction), intermediate fixes (resurfacing) and Capital Preventive Maintenance projects. Our aggressive road repair program can be attributed to increased revenue and MDOT's ongoing streamlining efforts. Programs such as *Build Michigan II*  and *Build Michigan III*, combined with the federal funding program known as TEA-21, have allowed MDOT to invest more than \$1 billion in state roads and bridges each year since 1998. Increases in "good" roads and decreases in "poor" roads can be seen in recent years, moving towards the department goal of 90% (approximately 10,800 miles) of "good" roads by the year 2007.



Source: MDOT, Bureau of Transportation Planning, Office of Communications

<sup>\*</sup> Pavement or directional miles are the total miles of pavement for undivided, two-way roads, and directional mileage for divided and one-way highways (i.e. one mile of divided interstate represents two pavement miles).

# **TRUNKLINE SURFACE CONDITION BY FUNDING CATEGORY**

Michigan's trunkline can be divided into three funding categories. Those categories as defined by the Transportation Equity Act for the 21st Century (TEA 21) of 1998 are the National Highway System (NHS), the Surface Transportation Program (STP), and a small non-federal aid category.

The NHS is composed of all interstate highways and other freeways, many principal arterials, and a few minor arterial and collector routes which are intermodal connectors. federal aid in addition to the NHS roads. All roads functionally classified above urban local or rural minor collector are part of this program. This includes rural major collectors and minor arterials, urban collectors and minor arterials, as well as any principal arterials not included in the NHS.

The NHS is actually a subset of the STP program, but those miles are separated out for this summary.

The Non FA category is for those roads which are not federal-aid eligible.\*

0	Category	Good	Poor	Total
	Bituminous	1,141.665	143.384	1,285.049
NHC	Composite	2,415.357	539.010	2,954.367
NUD	Concrete	1,675.052	722.099	2,397.151
	Total	5,232.074	1,404.493	6,636.567
	Bituminous	2,779.457	410.822	3,190.279
стр	Composite	1,239.889	583.163	1,823.052
511	Concrete	153.038	186.133	339.171
	Total	4,172.384	1,180.118	5,352.502
	Bituminous	9.956	3.403	13.359
Non	Composite	0.000	0.000	0.000
FA	Concrete	0.000	0.000	0.000
	Total	9.956	3.403	13.359
	Bituminous	3,931.078	557.609	4,488.687
Tatal	Composite	3,655.246	1,122.173	4,777.419
Total	Concrete	1,828.090	908.232	2,736.322
	Total	9,414.414	2,588.014	12,002.428

The STP includes all roads eligible for

Surface condition was measured by directional/pavement miles. This means both directions of a divided highway have separate condition ratings and are both included in this table.

\* Rural minor collectors have limited eligibility for federal aid (STP). There are no trunkline rural minor collectors.

Source: MDOT, Bureau of Transportation Planning, System Condition Unit, 2000 Sufficiency File

### **BRIDGE CONDITION**

There are 10,697 roadway bridges in Michigan. Of these, 4,361 are on the state highway system and 6,336 are on county roads or city streets.

The Michigan Department of Transportation (MDOT) inspects all its bridges at least every two years. Those that are deficient are inspected annually and those that are seriously deficient are inspected every six months. Local bridges are inspected by the agencies responsible for them at least every two years.

A *structurally deficient* bridge is one in which at least one of the major structural

elements (deck, superstructure, or substructure) has a condition rating of poor or worse. Structurally deficient bridges that are open to traffic are still safe for vehicles within the allowable weight limits.

By using the strategies developed in MDOT's *Five-Year Road & Bridge Program*, the percentage of bridges rated structurally deficient is expected to be reduced to 10 percent by 2007.

Bridge Condition	State Highway Systems		Lo Syst	cal cems
Structurally Deficient	910	20.9%	1,350	21.3%
All Other Roadway Bridges	3,451	79.1%	4,986	78.7%
Total Roadway Bridges	4,361	100.0%	6,336	100.0%

# TRAFFIC CRASH TRENDS

The number of Michigan traffic fatalities in 2000 dropped slightly even though the number of crashes increased. While minor fluctuations in the trend are common, the long-term trend remains favorable.

Crashes continue to be increasingly more survivable. In 2000, there were 3.2 fatalities and 287 injured persons per 1,000 crashes. Seventeen years earlier, in 1983, the rates were 4.4 fatalities and 452 injured persons for every 1,000 crashes.

The continuing improvement in the fatality and injury statistics reflect improvements in vehicles, highways, strengthened safety laws and stronger law enforcement.

Year	Fatalities	Injuries	Crashes	Fatality Rate*
1950	1,605	45,734	161,750	7.5
1955	2,016	62,234	196,812	7.1
1960	1,604	91,026	209,724	5.0
1965	2,136	155,258	310,598	5.2
1970	2,177	161,719	313,715	4.0
1975	1,811	147,299	333,560	3.1
1980	1,774	144,972	314,594	2.9
1983	1,331	135,811	300,797	2.1
1984	1,556	150,740	335,193	2.4
1985	1,569	157,417	386,904	2.3
1986	1,632	158,032	400,694	2.3
1987	1,632	156,318	397,224	2.2
1988	1,704	155,713	410,437	2.2
1989	1,630	154,537	417,252	2.0
1990	1,563	145,179	387,180	1.9
1991	1,425	135,830	364,847	1.7
1992	1,300	118,727	344,942	1.5
1993	1,414	134,548	363,636	1.6
1994	1,419	142,200	398,050	1.7
1995	1,537	146,303	421,073	1.8
1996	1,505	142,553	435,477	1.7
1997	1,446	137,546	425,793	1.6
1998	1,367	131,575	403,766	1.5
1999	1,386	124,601	415,675	1.5
2000	1,382	121,995	425,469	1.5

\*Fatalities per 100 million miles of travel

Source: Michigan Department of State Police, as reported by the Office of Highway Safety Planning

### TRAFFIC FATALITY RATE

The traffic fatality rate has declined approximately 49 percent from 2.9 fatalities per 100 million vehicle miles of travel in 1980 to approximately 1.5 fatalities per 100 million vehicle miles in 2000.





### **TRUCK-RELATED CRASHES AND FATALITIES**

Crash statistics for the years 1980 through 1991 were compiled by the Michigan Department of Transportation under a crash data system that reported crashes involving at least one vehicle rated more than 10,000 pounds. Statistics for the years 1992 through 2000 were compiled using a revised crash data system which includes some vehicles rated under 10,000 pounds.

Year	Truck Crashes	Fatal Truck Crashes	Truck Fatalities
1980	13,521	130	149
1981	13,394	129	141
1982	12,928	104	121
1983	13,696	123	154
1984	16,497	132	150
1985	21,307	155	182
1986	23,411	152	175
1987	21,427	148	170
1988	21,233	173	190
1989	20,932	161	185
1990	17,662	136	155
1991	14,990	129	142
1992	17,864	125	141
1993	22,082	132	152
1994	26,441	205	235
1995	27,467	195	220
1996	27,701	164	190
1997	28,579	156	192
1998	28,576	177	200
1999	31,915	157	178
2000	34,361	180	200

Source: MDOT, Bureau of Highways, Traffic and Safety Division

Open liability lawsuit cases against the Michigan Department of Transportation are at an all-time low, having significantly

declined from the peak in 1987. The increase in 1996 was related to a new tort liability law effective in March of that year.





### **STATE PAYMENTS FOR TORT LITIGATION**

Payments for tort litigation totaled \$195 million for the fiscal period 1987 through 2000. Tort payments have ranged annually from a high of \$28.5 million in Fiscal Year 1987 to a low of \$4.7 million in Fiscal Year 1999.





Michigan has allowed commercial vehicles totaling 164,000 pounds gross vehicle weight on roads since the 1950s. Bulk commodities such as steel, gravel, fuel, grain and forest products are carried by these

commercial vehicles. They are a significant part of the truck population moving into, and around, the state and are an essential part of Michigan commerce.

	Federal	Michigan		
	National Network Standards	Special Designated Routes	Seasonal and All Season Routes	
Trailer Width	102 in.	102 in.	96 in.	
Trailer Length	48.0 ft.	53.0 ft.	50.0 ft.	
Twin Trailer Length/Unit	28.0 ft.	28.5 ft.	28.5 ft.	
Combination Length	None	None	65.0 ft.	
Weight Limits	80,000 lb.*	164,000 lb.**	164,000 lb.**	

\* States may exceed the Federal standards, if the limit was higher than the 80,000 lb limit prior to 1982.

\*\* This weight is based on proper axle spacings.

Source: Michigan Department of State compiled by MDOT, Bureau of Transportation Planning, Travel Demand & Intermodal Services Section

### ALL SEASON AND SEASONAL ROUTE MILEAGE

Michigan's highway system is classified for truck transport purposes into two categories, all season routes and seasonal routes. These are identified on the Michigan Department of Transportation's (MDOT) Truck Operators' Map. Each category of truck routes is further divided into several

other categories based on Michigan highway laws governing vehicle size, weight and load. Seasonal routes are subject to load limitations during spring months. Exact dates vary year-to-year and are determined by MDOT.

	-
Route Type	<b>Route Miles</b>
All Season Routes	
National Truck Network	5,651
Special Designated Routes	3,107
Other All Season*	264
Seasonal Routes	481
Other**	201
Total	9,704

\* This total represents all season routes that are not special designated truck routes and are also not part of the National Truck Network.

\*\* This total includes 195 miles of unsigned trunkline which are not classified on the Truck Operator's Map yet are under MDOT's jurisdiction. It also contains several small segments such as M-185 on Mackinac Island that have no truck designation.

Source: MDOT, Bureau of Transportation Planning, 2000 Sufficiency File and the Truck Operators' Map

### **REHABILITATION OF STATE HIGHWAYS**

Rehabilitation of state highways has occurred at an average of 1152 miles per year since 1992. The increased miles improved between 1993 and 1996 is attributed to bond revenues which allowed

rehabilitation of more state highways. An increased emphasis on preserving the state highway system and a four-cent fuel tax increase in 1996 led to the increased number of miles improved after 1996.



