2003 Michigan Traffic Crash Facts

MICHIGAN

Office of Highway Safety Planning

This material was developed through a project funded by the Michigan Office of Highway Safety Planning and the U.S. Department of Transportation. OHSP is committed to saving lives and reducing injuries on Michigan roads through leadership, innovation, facilitation, and program support in partnership with other public and private organizations.

2003
Michigan Traffic
Crash Facts

A summary of traffic crashes on Michigan roadways in calendar year 2003

Produced by:

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Michigan Department of Transportation

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In addition, we wish to acknowledge the people working in law enforcement and public safety agencies who are responsible for gathering crash data in the field. We rely on their accurate completion of crash reports--without their attention to detail we would be unable to create, maintain, and distribute meaningful crash information.

FOREWORD

A comprehensive, multi-year project is nearing completion using federal grant funds to improve the quality, timeliness, and accuracy of traffic crash data collection and processing. This includes encouraging and accepting the electronic collection of data. Every effort is being made within the resources available to improve future crash data.

The 2003 data are the first to be processed by this new system. The overall quality of the data has been improved with reduced missing data rates and an increase in the frequency of known values. Analysis of yearly trends may be affected by this improvement.

In order to provide familiar data with the highest level of accuracy, the book retains the format used in the past, and we ask the reader to be attentive to all special notes.

Please visit ***www.michigantrafficcrashfacts.org*** for easy access to all of the 1992 through 2003 information in PDF format.

EXECUTIVE SUMMARY

The 2003 traffic fatality count was 1,283, up 0.3 percent from the 2002 figure of 1,279. Compared with 2002, injuries were down 6.2 percent and total crashes were down 1.0 percent. These figures translated into a death rate of 1.3 per 100 million miles of travel, the same as the 2002 death rate.

Exposure factors in 2003 showed increases in vehicle registrations, the number of drivers on Michigan roads, and travel mileage. Motor vehicle registrations are up 0.2 percent to 8.71 million, the number of licensed drivers is up 0.7 percent to 7.19 million, and vehicle miles traveled are up 2.1 percent to 100.2 billion.

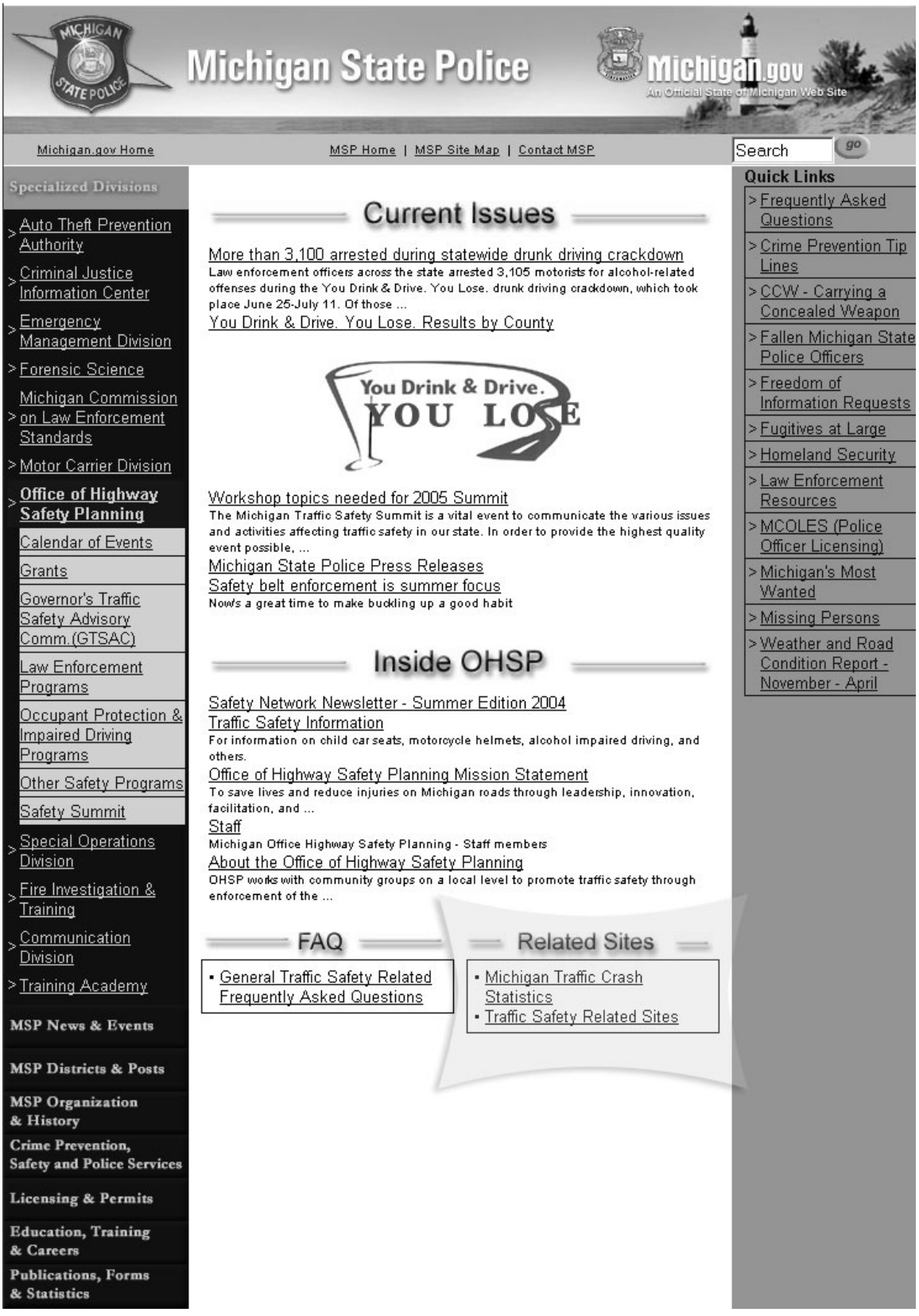
Consumption of alcohol continues to be a major factor in Michigan crashes, particularly the more serious crashes. In 2003, 3.9 percent of all crashes, including property damage only, were reported to involve drinking. While 19.9 percent of all crashes resulted in injury or death, 43.8 percent of alcohol-related crashes involved injury or death. 30.9 percent of fatal crashes involved drinking.

Data on crashes in this book was obtained from 2003 Michigan Traffic Crash Report Forms (UD-10) submitted by local police departments, sheriffs, and the Department of State Police. Other related information was obtained from the Departments of Transportation, State, and Community Health.

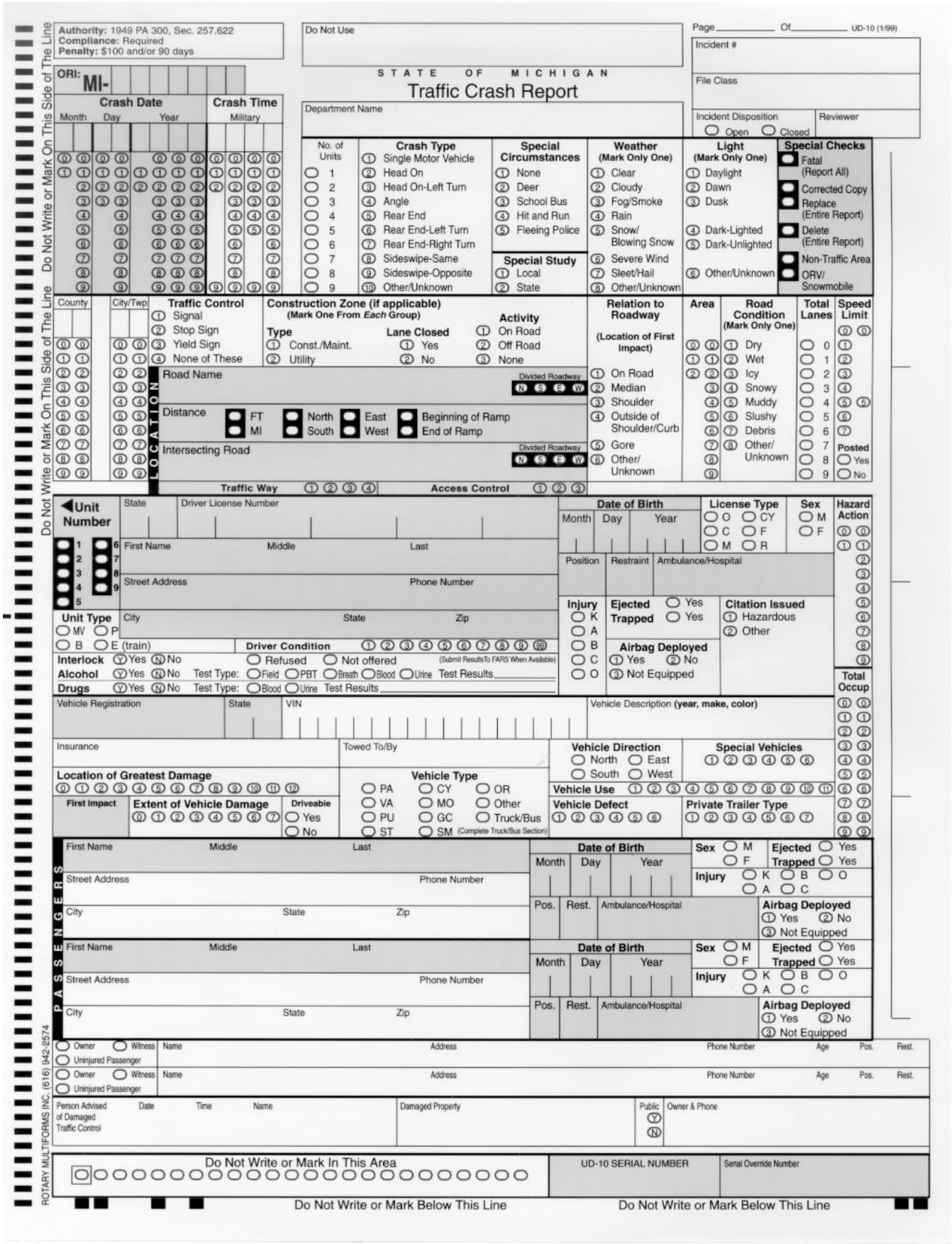
The University of Michigan Transportation Research Institute produced this publication with data on file at the Michigan Department of State Police as of May 12, 2004. We acknowledge, with appreciation, all involved agencies for their assistance.

OHSP Web Site

www.michigan.gov/ohsp



UD-10 (FRONT)


Authority: 1949 PA 300, Sec. 257.622
Compliance: Required
Penalty: $100 and/or 90 days
Do Not Use
Page ____ Of ____ UD-10 (1/99)
Incident #
File Class
Incident Disposition Open Closed
Reviewer
ORI: MI-
STATE OF MICHIGAN
Traffic Crash Report
Department Name
Crash Date Month Day Year
Crash Time Military
No. of Units
Crash Type
Special Circumstances
Weather (Mark Only One)
Light (Mark Only One)
Special Checks
Fatal (Report All)
Corrected Copy
Replace (Entire Report)
Delete (Entire Report)
Non-Traffic Area
ORV/ Snowmobile
Special Study
LOCATION
County
City/Twp
Traffic Control
Construction Zone (if applicable)
Type
Lane Closed
Activity
Road Name
Divided Roadway
Distance
Intersecting Road
Traffic Way
Access Control
Relation to Roadway (Location of First Impact)
Area
Road Condition (Mark Only One)
Total Lanes
Speed Limit
Posted
Unit Number
State
Driver License Number
Date of Birth
License Type
Sex
Hazard Action
First Name Middle Last
Street Address Phone Number
Position Restraint Ambulance/Hospital
Unit Type
City State Zip
Injury
Ejected Trapped
Citation Issued
Driver Condition
Interlock
Alcohol
Drugs
Airbag Deployed
Total Occup
Vehicle Registration State VIN
Vehicle Description (year, make, color)
Insurance
Towed To/By
Vehicle Direction
Special Vehicles
Location of Greatest Damage
Vehicle Type
Vehicle Use
First Impact
Extent of Vehicle Damage
Driveable
Vehicle Defect
Private Trailer Type
PASSENGERS
Owner Witness Uninjured Passenger
Name Address Phone Number Age Pos. Rest.
Person Advised of Damaged Traffic Control
Date Time Name
Damaged Property
Public
Owner & Phone
Do Not Write or Mark In This Area
UD-10 SERIAL NUMBER
Serial Override Number
Do Not Write or Mark Below This Line
Do Not Write or Mark Below This Line
ROTARY MULTIFORMS INC. (616) 942-2574
Do Not Write or Mark On This Side of The Line
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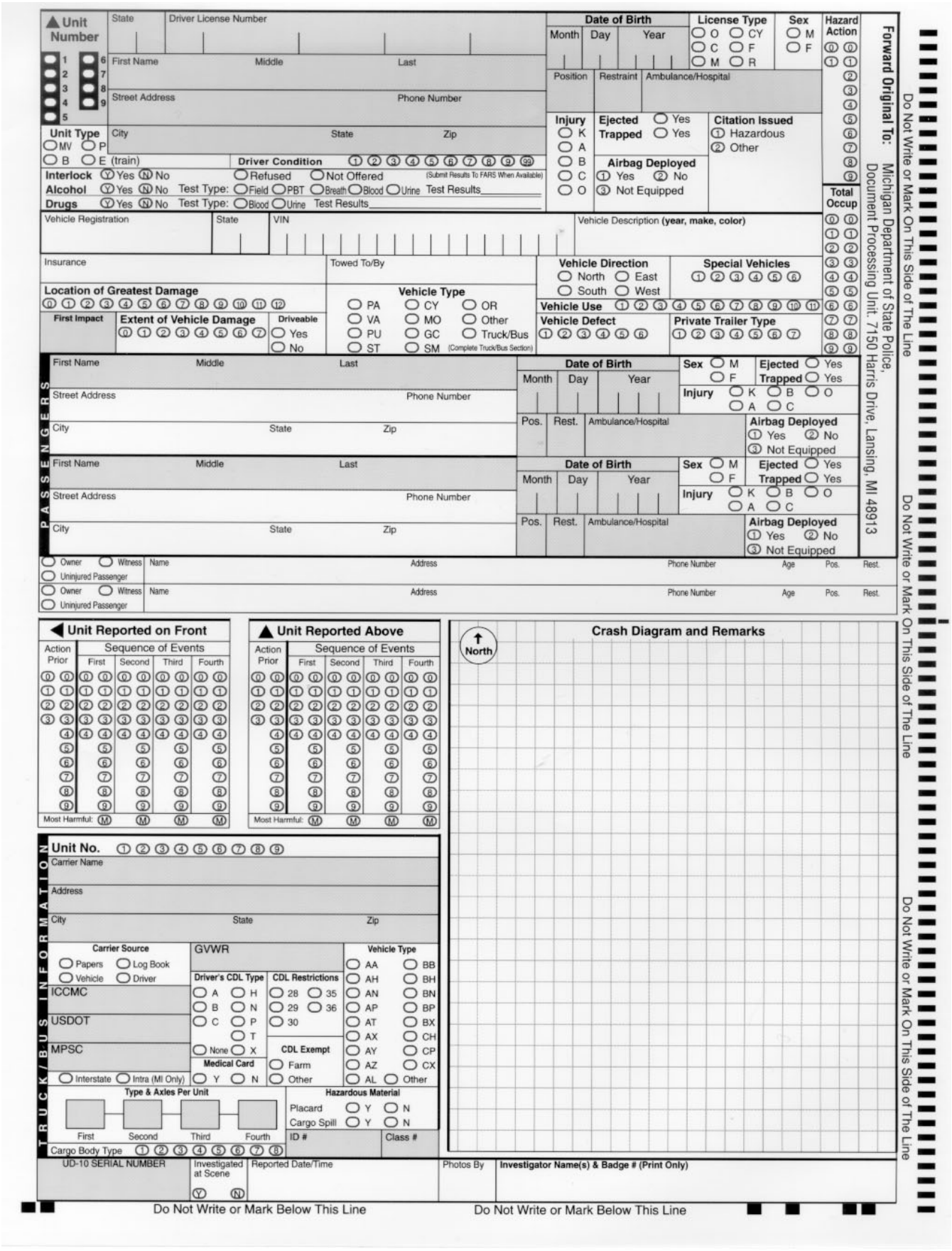
UD-10 (BACK)



MICHIGAN OHSP Office of Highway Safety Planning

MICHIGAN VEHICLE CODE
Public Act 300 of 1949

Edited by the Office of Highway Safety Planning for discussion purposes.
Editorial remarks by OHSP appear in italic print.

MCL 257.622, Amended 1967 - The driver of a motor vehicle involved in an accident that injures or kills any person, or that damages property to an apparent extent totaling $400 or more, shall immediately report that accident at the nearest or most convenient police station, or to the nearest or most convenient police officer. The officer receiving the report, or his or her commanding officer, shall immediately forward each report to the director of State Police on forms prescribed by the director of State Police ***(State of Michigan Traffic Crash Report, also known as the UD-10)***. The forms shall be completed in full by the investigating officer. The director of State Police shall analyze each report relative to the cause of the reported accident and shall prepare information compiled from reports filed under this section for public use. A copy of the report . . . shall be retained for at least three years at the local police department, sheriff's department, or local state police post making the report. ***(As the repository of UD-10s submitted by all Michigan law enforcement agencies, the Department of State Police microfilms all UD-10s received at its Criminal Justice Data Center. The Data Center retains a microfilm copy of UD-10s for a period including the current processing year plus the three previous years. Microfilm copies and electronic databases containing information from individual UD-10s for crashes prior to this time period are purged.)***

MCL 257.624, Amended 1980 - (1) A report required by this chapter shall not be available for use in a court action, but a report shall be for the purpose of furnishing statistical information regarding the number and cause of accidents.

(2) The Office of Highway Safety Planning (OHSP) may authorize scientific studies and research for the reduction of death, injury, and property losses. All information, records of interviews, written reports, statements, notes, memoranda, or other data collected pursuant to the scientific studies and research conducted by the state, or by other persons, agencies, or organizations authorized by OHSP shall be used solely for the purpose of medical or scientific research and shall not disclose the name or identity of a person unless the person authorizes, in writing, the use of his or her name or identity. If a subject of the research study is deceased, the executor or heir of the deceased person may authorize, in writing, the disclosure of the deceased's name or identity. The furnishing of information to OHSP or to a representative of an authorized study or research project shall not subject a person, hospital, sanitarium, rest home, nursing home, or other person or agency furnishing the information to any action for damages or other relief. The information, records, reports, statements, notes, memoranda, or other data shall not be admissible as evidence in a court or before any other tribunal, board, agency, or person. A person participating in an authorized study or research project shall not disclose, directly or indirectly, the information so obtained except in strict conformity with the research project.

ABBREVIATIONS & ACRONYMS

- **BAC** **Bodily Alcohol Content**. (formerly referred to as Blood Alcohol Content or Blood Alcohol Concentration.) Determination of percent by weight of ethyl alcohol in blood. Usually measured in grams per liter or grams per milliliter depending on the test used.
- **CJDC** **Criminal Justice Data Center**. A division of the Michigan Department of State Police that administers data on the mainframe computer.
- **CJIC** **Criminal Justice Information Center**. A division of the Michigan Department of State Police formerly known as the Central Records Division.
- **CRD** **Child Restraint Device**. Also called child safety seats.
- **FHWA** **Federal Highway Administration**. A part of the United States Department of Transportation.
- **GDL** **Graduated Driver Licensing**
- **HBD** **Had Been Drinking**
- **HNBD** **Had Not Been Drinking**
- **KABC** Injury severity scale for traffic crash-related injuries: **K - Fatal**, **A - Incapacitating**, **B - Nonincapacitating**, **C - Possible.** See Glossary for definitions.
- **MALI** **Michigan Accident Location Index**
- **MCLS** **Michigan Crash Location System**
- **MDCH** **Michigan Department of Community Health** (formerly Michigan Department of Public Health.)
- **MDOS** **Michigan Department of State**
- **MDOT** **Michigan Department of Transportation**
- **NHTSA** **National Highway Traffic Safety Administration**. A part of the United States Department of Transportation.
- **OHSP** **Office of Highway Safety Planning**. A division of the Michigan Department of State Police.
- **OWI** **Operating While Intoxicated**. Refers to a person that is driving a vehicle while either under the influence of alcohol, a controlled substance, or both; OR has a BAC of .08 or greater.
- **PDO** **Property Damage Only**. Refers to a traffic crash lacking personal injuries.
- **UD-10** Form number ascribed to **Michigan Traffic Crash Report** form, official document used to report traffic crashes in Michigan.
- **UMTRI** **University of Michigan Transportation Research Institute**
- **USDOT** **United States Department of Transportation**
- **VMT** **Vehicle Miles Traveled**. The estimated total number of miles traveled annually by motor vehicles on Michigan trafficways.

GLOSSARY

- **Bicyclist** – "Bicycle" means a device propelled by human power upon which a person may ride, having either two or three wheels in a tandem or tricycle arrangement, all of which are over 14 inches in diameter.
- **Bus** - Any passenger-carrying vehicle designed to transport 16 or more passengers, including the driver.
- **Crash Rate** - The number of crashes per 100 million vehicle miles traveled.
- **Crash Type** - A crash is typed by the first injury or damage-producing event, which may or may not be the most serious or significant event.
- **Death Rate** - Deaths per 100 million vehicle miles.
- **Driver/Operator** - The person who is in actual physical control of a vehicle in transit.
- **Drug-Involved Crash** – Drug use prior to the crash by a driver, pedestrian, or cyclist as reported by the police, the coroner, or other accepted authorities.
- **Fatal Crash** - A fatality is counted when a person dies due to injuries from a traffic crash. Prior to 1979 deaths were counted if they occurred up to one year after the crash, in 1979 this time period was reduced to 90 days. In 1988 this was further reduced to 30 days.
- **Graduated Driver Licensing** - Michigan Public Act 387 effective April 1, 1997, phasing in teenage driving privileges.
- **Had Been Drinking (HBD) Crash** - Drinking prior to the crash by a driver, pedestrian, or cyclist as reported by the police, the coroner, or other accepted authorities. Beginning with year 2000 data, the information provided for alcohol contains data for alcohol-related crashes only. This figure DOES NOT include the combined number for alcohol and drug related crashes as has been reported in prior years.
- **Harmful Event** - A harmful event is an occurrence of injury or damage.
- **Holiday** - Refers to the length of the Holiday weekend period, including the hours of 6:00 PM to midnight of the day preceding the Holiday. Please refer to the table below for the time period connected to Holidays falling on a given day of the week.

	Time Period			
Holiday Day	From		To	Number of Days
Sunday	6:00 PM FRI	-	23:59 PM MON	3 1/4
Monday	6:00 PM FRI	-	23:59 PM MON	3 1/4
Tuesday	6:00 PM FRI	-	23:59 PM TUE	4 1/4
Wednesday	6:00 PM TUE	-	23:59 PM WED	1 1/4
Thursday	6:00 PM WED	-	23:59 PM SUN	4 1/4
Friday	6:00 PM THU	-	23:59 PM SUN	3 1/4
Saturday	6:00 PM THU	-	23:59 PM SUN	3 1/4

- **Ignition Interlock** - An alcohol concentration measuring device that prevents a motor vehicle from being started at any time without first determining through a deep lung sample the operator's breath alcohol level. Michigan Vehicle Code, Sec. 257.625L(6).
- **Injury Severity**

  K (Fatal) - Any injury that results in death.

  A (Incapacitating Injury) - Any injury, other than a fatal injury, that prevents the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred.

  B (Nonincapacitating Injury) - Any injury not incapacitating but evident to observers at the scene of the crash in which the injury occurred.

  C (Possible Injury) - Any injury reported or claimed that is not a fatal injury, incapacitating injury or nonincapacitating injury.

GLOSSARY (continued)

- **In Transport** - Denotes a motor vehicle in motion or on a roadway.
- **Licensed Drivers** - All valid Michigan drivers on file, including suspended, revoked, and denied drivers (as long as their license has not expired).
- **Most Severe Outcome in Crash** - The most severe injury sustained by any person involved in the crash, or property damage only.
- **Most Severe Outcome in Vehicle** - The most severe injury sustained by any person in the vehicle, or property damage only.
- **Motor Vehicle Crash** - A crash that involves a motor vehicle in transport on a public trafficway (in Michigan) and results in injury, death, or at least $400 in property damage.
- **Noncollision** - A crash that does not involve a collision with another motor vehicle. Types of noncollision crashes include explosion or fire in vehicle, rollover, immersion, etc.
- **Occupant** - Any injured or killed person in or on a motor vehicle, ***including*** the driver.
- **Passenger** - Any injured or killed person in or on a motor vehicle, ***excluding*** the driver.
- **Pedestrian** - Any person on foot; person on skis, skates or roller blades; rider of horse; horse and buggy (each occupant including the driver will be listed as a separate pedestrian unit); nonmotorized wheelchair.
- **Property Damage Only (PDO) Crash** - A crash that results in no fatalities or injuries, with a value of $400 as a reporting threshold.
- **Traffic Unit** - Anything in transit on a public trafficway (i.e., motor vehicle, motorcycle, bicycle, pedestrian, snowmobile, farm equipment).
- **Transition Area** - Increase or decrease in the number or travel lanes.
- **Valid Drivers** - Excludes non-valid categories such as no license, out-of-state drivers with Michigan violations, deceased, and licenses expired three months prior to Department of State run date.
- **"Zero Tolerance" -** Law that began November 1, 1994, making it illegal for any person in Michigan under the age of 21 to consume alcohol in the presence of a law enforcement officer, or to have a BAC of 0.02 percent or more. Sometimes referred to as Michigan's "Point Oh Two" law.

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Quick Facts & Figures

2003 QUICK FACTS

★ Some exposure factor comparisons between 2003 and 2002 show motor vehicle registrations rose **0.2** percent, the number of licensed drivers on Michigan roads increased **0.7** percent, and vehicle mileage increased **2.1** percent.

★ The 2003 death rate remained at **1.3** deaths per 100 million miles of travel below the ten-year average of **1.5** (1994-2003).

★ There were **1,283** persons killed and **105,555** persons injured in **391,485** reported motor vehicle traffic crashes in Michigan during 2003. Compared with the 2002 experience, deaths increased **0.3** percent, persons injured decreased **6.2** percent, and total reported crashes decreased **1.0** percent.

★ This year's death toll of **1,283** was up **0.3** percent from the 2002 figure of **1,279**.

★ The **1,283** persons killed were the result of **1,172** fatal crashes for an average of **1.1** deaths per fatal crash.

★ There were **391,485** reported crashes, of which **1,172** were fatal, **76,598** were personal injury, and **313,715** were property damage only crashes.

★ Of all fatal crashes, **26.1** percent occurred at intersections.

★ Of all fatal crashes, **34.4** percent involved drinking and/or drugs. **25.0** percent involved at least one drinking operator, bicyclist, or pedestrian, **3.5** percent involved at least one drugged operator, bicyclist, or pedestrian, and **5.9** percent involved both drinking and drugs.

★ Excessive speed was indicated as the hazardous action by **13.1** percent of the drivers involved in fatal crashes.

★ In 2003 there were **135,739** single vehicle crashes, an increase of **4.5** percent from last year's count of **129,928**.

★ Of the **391,485** total crashes, **135,739 (34.7%)** involved one vehicle.

★ Of the **1,172** fatal crashes, **557 (47.5%)** involved one vehicle.

★ Of the **362** alcohol-related fatal crashes, **244 (67.4%)** involved one vehicle. This is a **4.3** percent increase from last year's figure of **234** single vehicle, alcohol-related fatal crashes.

★ Of the **1,892** drivers involved in fatal crashes, **13.3** percent were under 21 years of age and **23.4** percent of all drivers involved in fatal crashes were under 25 years of age.

★ In the last five years (1999-2003), **6,658** persons have been killed in Michigan traffic crashes. This is an average of **1,332** per year. During the previous five-year period (1998-2002), **6,742** persons were killed, for an average of **1,348** per year.

★ Of the **10,079,985** persons living in Michigan [1] one out of every **7,857** was killed in a traffic crash; one out of every **95** persons was injured.

★ For each person killed, **82.3** persons were injured.

- ★ There were **105,555** persons injured, crippled, or maimed in crashes.
- ★ According to figures provided by the Michigan Department of Community Health [2], accidental death for children in motor vehicle crashes routinely outpaces the next two most frequent causes: fire and drowning.
- ★ According to the Michigan Department of Community Health, four out of five accidental deaths for teenagers and young adults (ages 15-24) are due to motor vehicle crashes.
- ★ The pedestrian death toll for Michigan stands at **169** persons, a decrease of **4** deaths from the 2002 figure.
- ★ For each pedestrian killed, there were **14.7** pedestrians injured.
- ★ Of the pedestrians killed, **43.8** percent were killed while crossing streets other than at intersections.
- ★ Of all pedestrians killed, **18.3** percent were under the age of 21 and **30.2** percent were 55 and older.
- ★ During the past five years, **846** pedestrians have been killed, an average of **169** per year.
- ★ The number of pedestrians injured in traffic crashes on Michigan roadways has decreased by **20.3** percent in the last five years (1999-2003).
- ★ During the past five years, **132** bicyclists have been killed, an average of **26** per year.
- ★ Children under the age of 16 accounted for **31.3** percent of the bicycle deaths.
- ★ The number of bicyclists injured in traffic crashes on Michigan roadways has decreased by **36.0** percent in the last five years (1999-2003).
- ★ Of the **656,401** drivers and injured passengers involved in crashes, **572,026** or **87.1** percent were ***reported*** to have been using occupant restraints. Restraint usage among fatal victims, where usage was known, was reported to be **56.5** percent in 2003.
- ★ Motor vehicle occupants age 65 to 74 had the highest reported restraint usage **(95.6%)** among age groups. Children age 11 to 15 had the lowest reported restraint usage **(76.6%)**.
- ★ The economic loss in Michigan traffic crashes amounted to **$9,762,388,400**.

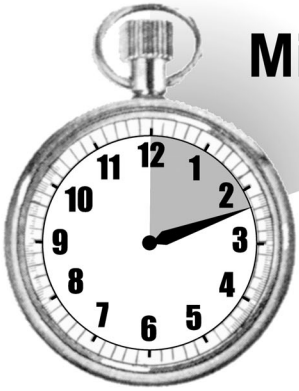
REPORTED STATEWIDE TRAFFIC CRASHES
BY COUNTY IN MICHIGAN

COUNTY	All	Fatal	Injury	Property Damage	Inter-state	US Route	State Route	Local Street	Persons Killed	Persons Injured
Alcona	843	5	73	765	0	94	135	614	5	94
Alger	461	0	80	381	0	15	162	284	0	111
Allegan	3,962	19	751	3,192	125	303	648	2,886	22	1,052
Alpena	1,165	0	186	979	0	222	212	731	0	244
Antrim	1,208	9	213	986	0	206	183	819	10	313
Arenac	1,098	3	174	921	69	194	70	765	3	249
Baraga	561	3	62	496	0	177	61	323	3	98
Barry	2,536	8	392	2,136	0	0	836	1,700	10	550
Bay	3,870	19	856	2,995	198	105	1,007	2,560	22	1,214
Benzie	750	2	114	634	0	125	90	535	2	167
Berrien	5,543	21	1,176	4,346	547	356	817	3,823	25	1,691
Branch	2,284	4	313	1,967	66	376	93	1,749	4	427
Calhoun	6,748	23	1,029	5,696	724	0	1,347	4,677	26	1,401
Cass	2,168	12	331	1,825	0	165	589	1,414	12	459
Charlevoix	1,296	4	197	1,095	0	284	151	861	4	282
Cheboygan	1,235	4	252	979	100	59	226	850	4	357
Chippewa	1,641	8	253	1,380	239	0	373	1,029	9	336
Clare	1,696	6	260	1,430	0	309	224	1,163	7	376
Clinton	2,837	8	454	2,375	215	181	212	2,229	8	670
Crawford	770	4	114	652	60	13	182	515	4	175
Delta	2,397	6	288	2,103	0	385	285	1,727	6	414
Dickinson	1,481	2	197	1,282	0	392	273	816	2	259
Eaton	4,394	13	725	3,656	330	0	1,212	2,852	15	1,027
Emmet	1,795	5	268	1,522	0	524	111	1,160	5	388
Genesee	15,479	50	3,629	11,800	1,088	228	1,888	12,275	52	5,094
Gladwin	1,154	2	168	984	0	0	371	783	3	234
Gogebic	559	1	110	448	0	204	30	325	1	143
Grand Traverse	4,243	9	744	3,490	0	989	362	2,892	10	1,021
Gratiot	1,959	12	250	1,697	0	343	288	1,328	17	355
Hillsdale	2,367	12	351	2,004	0	179	481	1,707	14	493
Houghton	1,393	8	245	1,140	0	322	262	809	8	329
Huron	1,956	5	247	1,704	0	0	734	1,222	5	377
Ingham	11,797	12	2,146	9,639	1,053	508	2,032	8,204	13	2,857
Ionia	3,092	8	408	2,676	177	0	722	2,193	9	540
Iosco	1,118	6	211	901	0	206	224	688	7	292
Iron	911	2	100	809	0	253	108	550	2	122
Isabella	3,153	14	486	2,653	0	335	314	2,504	15	681
Jackson	7,049	17	1,059	5,973	640	171	832	5,406	18	1,461
Kalamazoo	10,721	26	1,955	8,740	738	366	1,334	8,283	28	2,610
Kalkaska	875	2	173	700	0	140	164	571	2	239
Kent	25,319	71	4,764	20,484	1,060	1,407	3,419	19,433	76	6,440
Keweenaw	105	0	19	86	0	11	6	88	0	24
Lake	520	2	69	449	0	75	59	386	4	106
Lapeer	3,818	21	574	3,223	102	0	769	2,947	26	804
Leelanau	767	3	131	633	0	0	292	475	3	185
Lenawee	3,608	18	700	2,890	0	579	805	2,224	22	967

REPORTED STATEWIDE TRAFFIC CRASHES BY COUNTY IN MICHIGAN (Continued)

COUNTY	All	Fatal	Injury	Property Damage	Inter-state	US Route	State Route	Local Street	Persons Killed	Persons Injured
Livingston	6,211	21	1,214	4,976	641	329	534	4,707	24	1,665
Luce	340	2	64	274	0	0	177	163	2	92
Mackinac	849	1	127	721	98	171	158	422	1	182
Macomb	26,305	61	5,848	20,396	951	0	5,744	19,610	64	8,003
Manistee	1,175	2	151	1,022	0	304	169	702	2	207
Marquette	2,550	9	439	2,102	0	608	287	1,655	12	602
Mason	1,731	2	256	1,473	0	425	94	1,212	2	346
Mecosta	2,738	8	379	2,351	0	99	774	1,865	9	528
Menominee	1,695	5	197	1,493	0	494	123	1,078	5	299
Midland	3,131	11	551	2,569	0	330	390	2,411	13	767
Missaukee	729	4	105	620	0	0	224	505	6	146
Monroe	4,929	25	1,067	3,837	361	890	573	3,105	26	1,542
Montcalm	3,365	13	504	2,848	0	45	990	2,330	13	745
Montmorency	452	1	92	359	0	0	154	298	1	123
Muskegon	5,922	19	1,341	4,562	19	610	612	4,681	21	1,907
Newaygo	2,107	6	366	1,735	0	0	612	1,495	7	519
Oakland	44,267	76	9,648	34,543	4,027	2,209	5,357	32,674	79	12,988
Oceana	1,267	9	242	1,016	0	193	107	967	10	367
Ogemaw	1,187	3	207	977	84	0	301	802	3	314
Ontonagon	634	3	65	566	0	138	231	265	3	87
Osceola	1,498	9	213	1,276	0	312	219	967	10	295
Oscoda	393	6	71	316	0	0	121	272	6	98
Otsego	1,142	5	235	902	141	0	205	796	6	318
Ottawa	8,195	28	1,591	6,576	386	1,082	670	6,057	31	2,211
Presque Isle	659	1	92	566	0	101	161	397	1	129
Roscommon	1,224	4	216	1,004	84	72	342	726	5	296
Saginaw	7,676	23	1,702	5,951	220	0	1,881	5,575	26	2,338
St. Clair	5,169	23	1,115	4,031	520	0	754	3,895	26	1,566
St. Joseph	2,325	8	389	1,928	0	420	470	1,435	8	551
Sanilac	2,051	6	298	1,747	0	0	646	1,405	6	432
Schoolcraft	633	3	69	561	0	145	146	342	3	101
Shiawassee	2,920	15	445	2,460	117	0	689	2,114	19	648
Tuscola	2,349	8	400	1,941	0	0	652	1,697	10	573
Van Buren	3,058	14	588	2,456	310	0	588	2,160	15	857
Washtenaw	12,997	33	2,631	10,333	935	1,438	855	9,769	35	3,414
Wayne	71,227	209	16,068	54,950	3,660	2,384	6,542	58,641	222	22,093
Wexford	1,683	7	315	1,361	0	360	404	919	8	478
UNKNOWN	0	0	0	0	0	0	0	0	0	0
Totals	391,485	1,172	76,598	313,715	20,085	23,960	57,951	289,489	1,283	105,555

Michigan's Crash Watch 2003



Every
1 minute
21 seconds
a traffic crash
occurs

One person
is killed in a
crash every
6 hours
50 minutes

One person
is injured in
a crash every
4 minutes
59 seconds

One person
is killed in an
alcohol-related
crash every
21 hours
57 minutes

One driver
under age 21
is in a fatal
crash every
34 hours
46 minutes

One bicyclist
is injured every
4 hours
54 minutes

One
pedestrian
is injured every
3 hours
32 minutes

One
motorcyclist
is injured every
3 hours
19 minutes

2003
2003
2003
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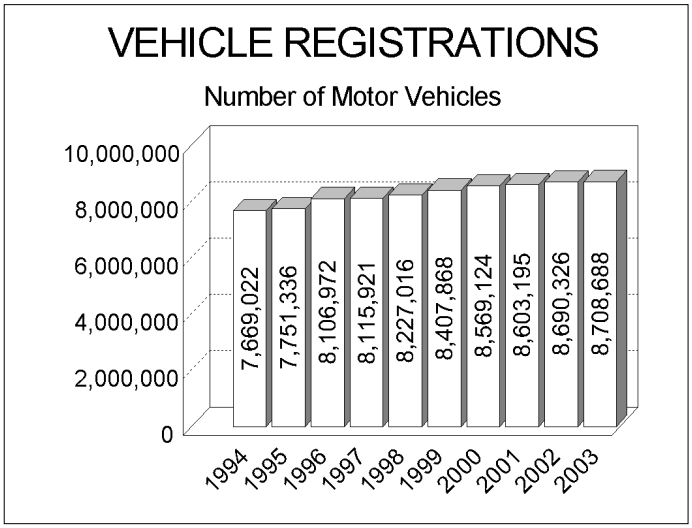
2003

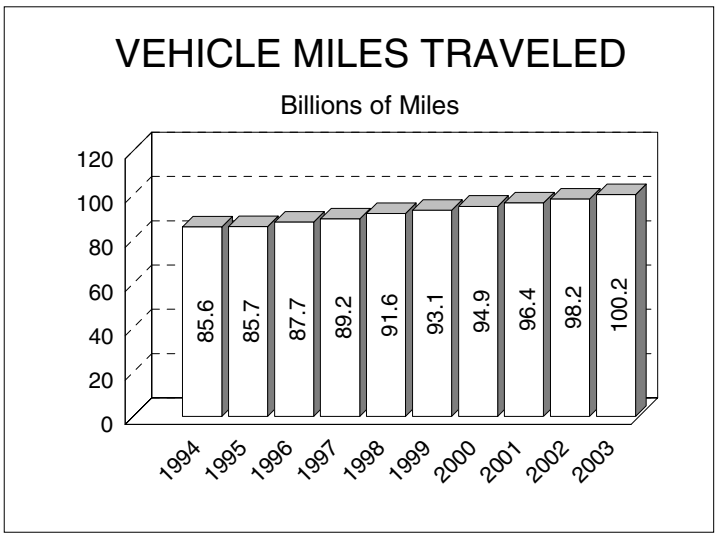
Historical Information

10-, 5-, and 1-year

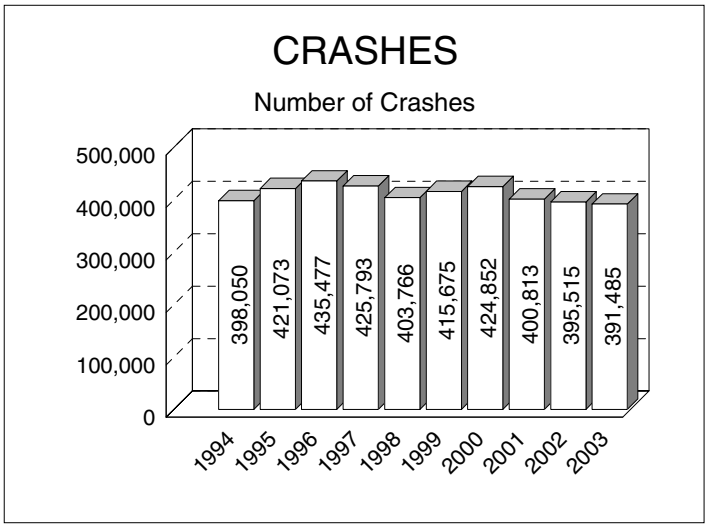
10 YEAR



Vehicle registrations have been increasing steadily since 1994, reaching 8,708,688 in 2003.

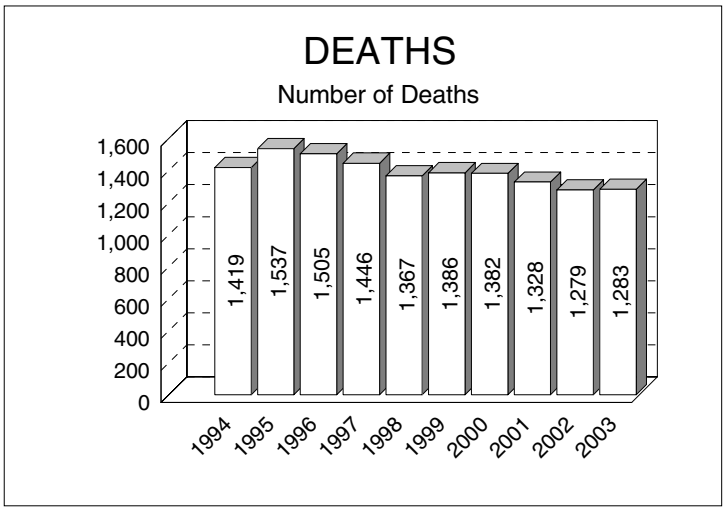


Vehicle miles traveled have increased 17.1 percent since 1994, reaching 100.2 billion miles in 2003.

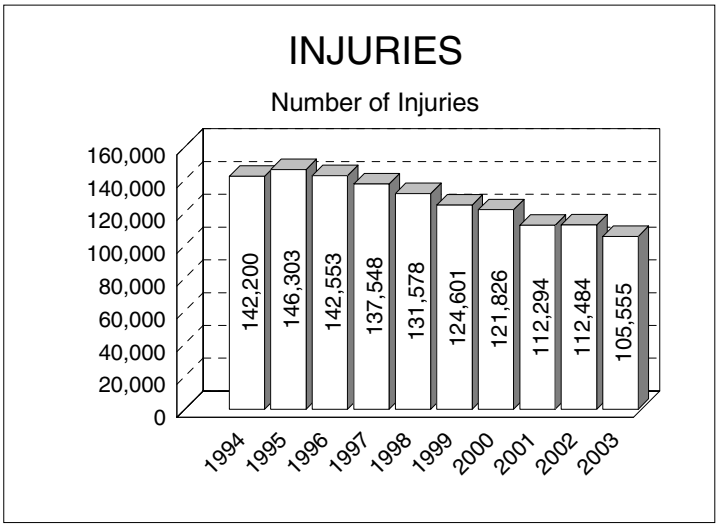


There were 391,485 total crashes statewide in 2003, a 1.6 percent decrease from 1994.

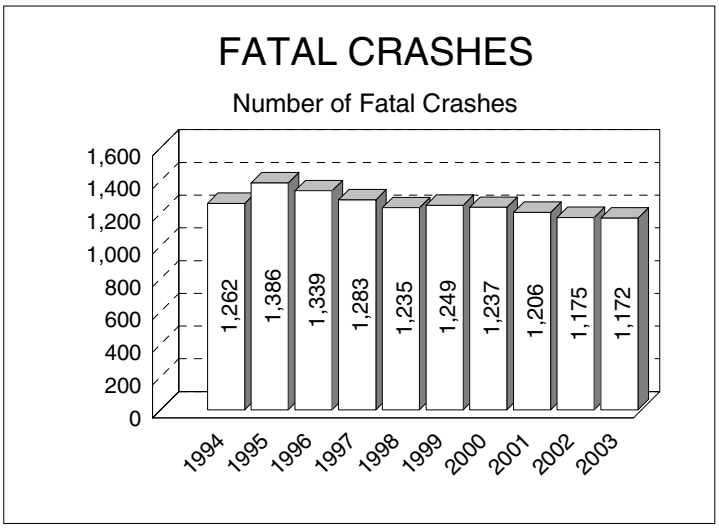
10 YEAR TRENDS (continued)



In 2003, 1,283 people died in motor vehicle crashes, a decrease of 9.6 percent from 1994.

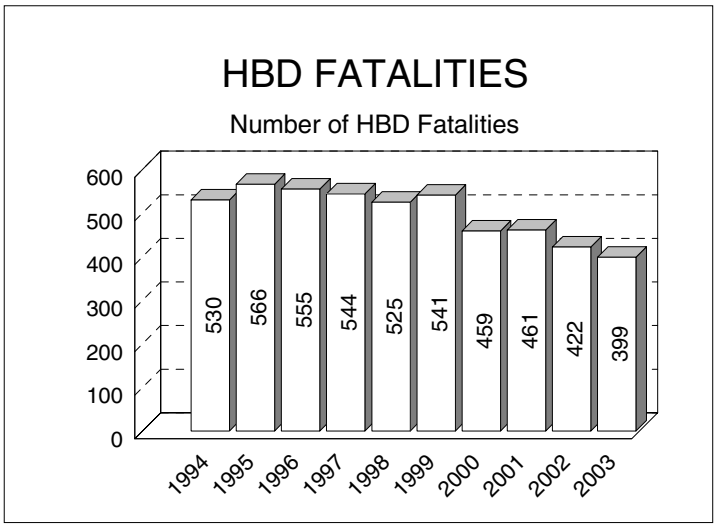


105,555 people received nonfatal injuries in Michigan motor vehicle crashes in 2003, down 25.8 percent from 142,200 in 1994.

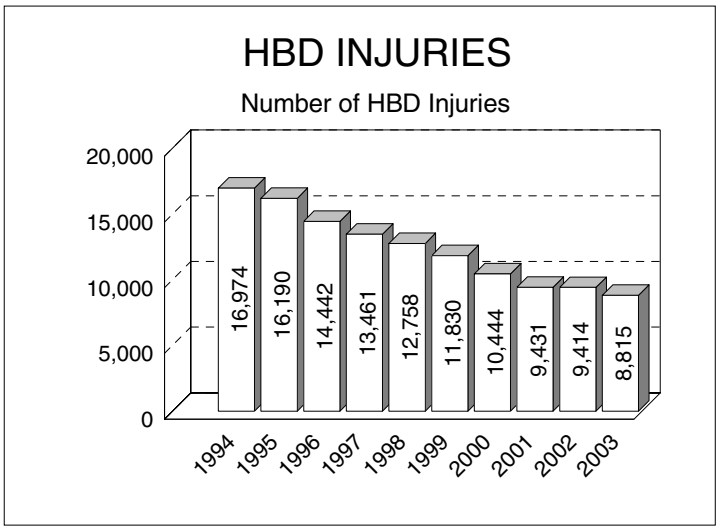


In 2003, there were 1,172 fatal crashes, down 7.1 percent from 1,262 in 1994.

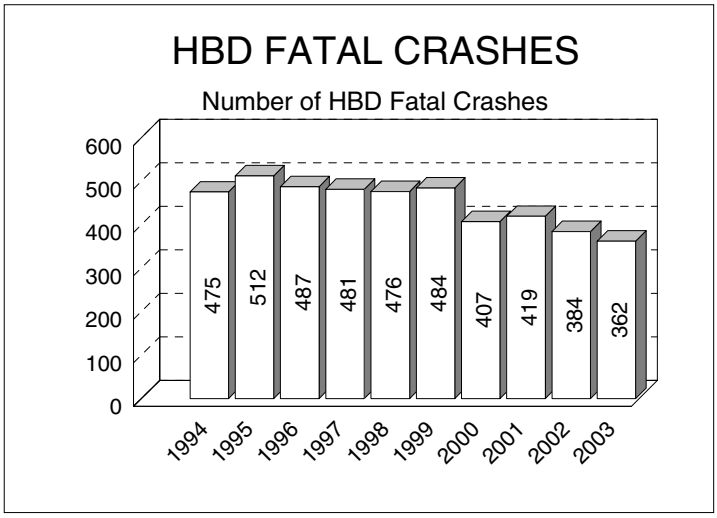
10 YEAR



Deaths in alcohol-related crashes have decreased over the last ten years. There were 399 had been drinking (HBD) fatalities in 2003.



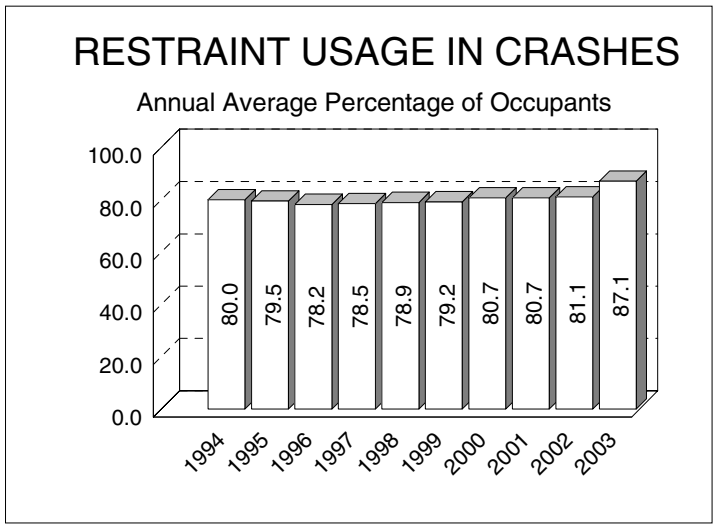
Mirroring the trend in deaths, HBD injuries have decreased over the last ten years. There were 8,815 injuries in 2003.



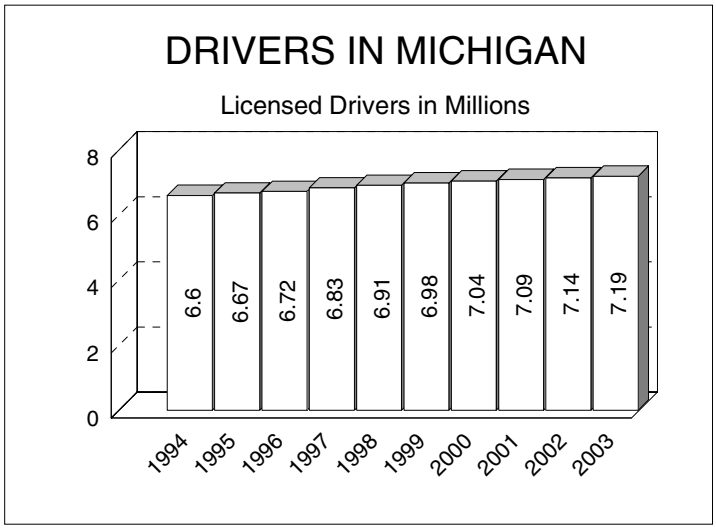
Alcohol involvement in fatal crashes has also decreased over the ten-year period. In 2003, there were 362 HBD fatal crashes.

Note: The 2003 information provided for alcohol contains data for alcohol-related crashes only. This figure DOES NOT include the combined number for alcohol- and drug-related crashes as had been reported prior to 2000.

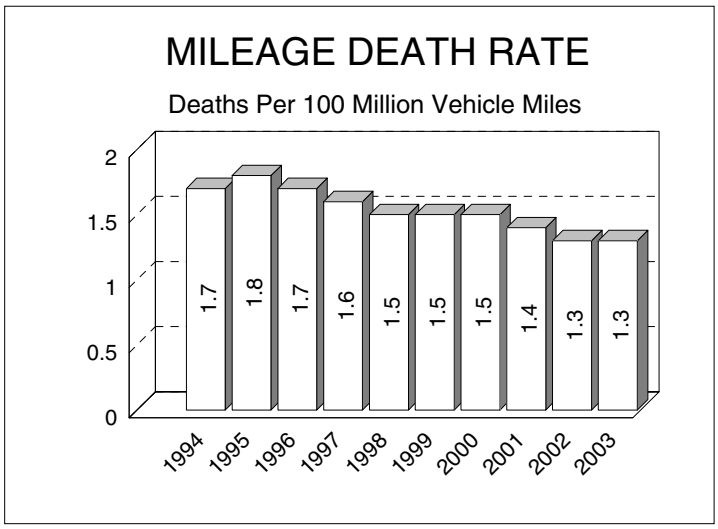
10 YEAR TRENDS (continued)



The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes increased dramatically following implementation of Michigan's safety belt use law in July 1985. The ten-year average percentage is 80.4.



There were 7,187,093 licensed drivers on Michigan roadways in 2003.

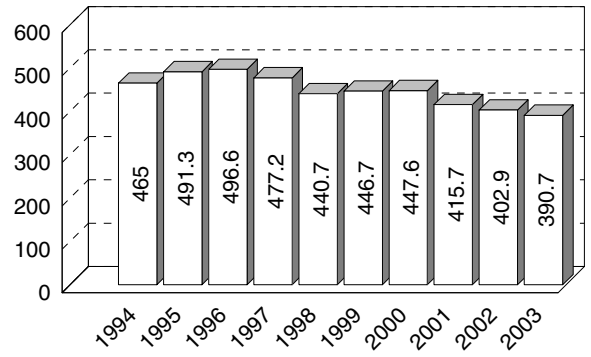


The 1.3 death rate in 2003 is a 23.5 percent decrease from 1994, and a 27.8 percent decrease from the ten-year high of 1.8 in 1995.

10 YEAR

TOTAL CRASH RATE

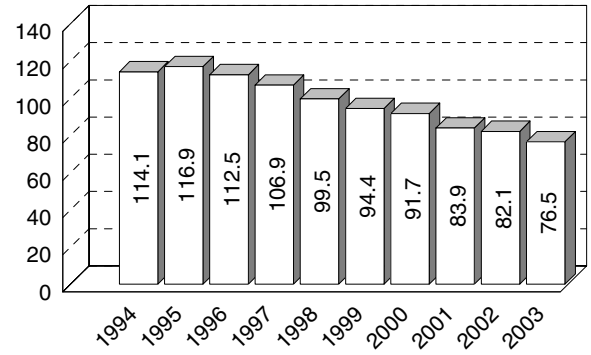
All Crashes Per 100 Million Vehicle Miles



The total crash rate peaked in 1996 at 496.6, then decreased by 21.3 percent to 390.7 in 2003.

PERSONAL INJURY CRASH RATE

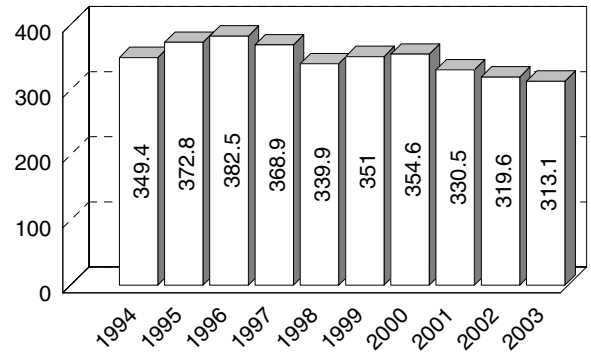
Injury Crashes Per 100 Million Vehicle Miles



The personal injury crash rate has been steadily decreasing since 1995. The 76.5 personal injury crash rate in 2003 is a 33.0 percent decrease from 1994.

PROPERTY DAMAGE CRASH RATE

Property Damage Crashes Per 100 Million Vehicle Miles

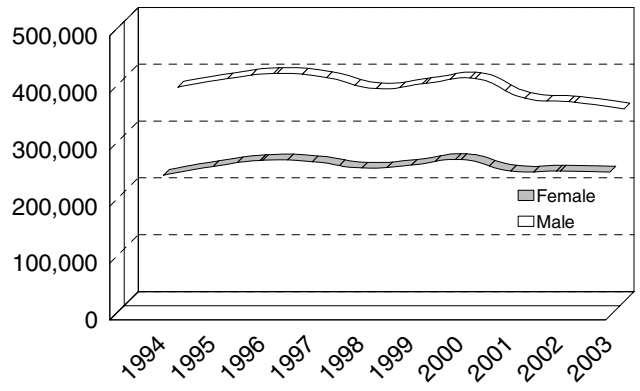


The 313.1 property damage crash rate in 2003 is a 10.4 percent decrease from 1994.

10 YEAR TRENDS (continued)

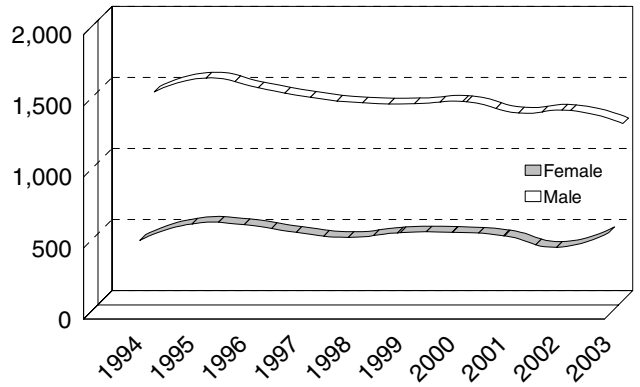
MALE vs. FEMALE DRIVERS

Number in All Crashes



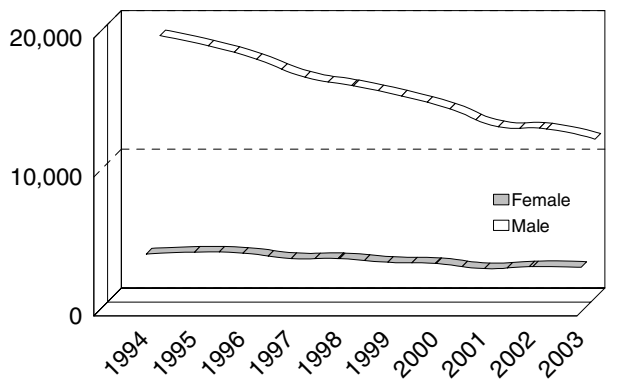
MALE vs. FEMALE DRIVERS

Number in Fatal Crashes



MALE vs. FEMALE DRINKING DRIVERS

Number in All Crashes



MICHIGAN OHSP Office of Highway Safety Planning

10
YEAR

DRIVERS IN ALL CRASHES		
	Male	Female
1994	377,212	247,333
1995	392,103	262,577
1996	401,350	273,361
1997	394,044	271,131
1998	374,505	259,843
1999	383,733	264,985
2000	392,347	274,675
2001	357,684	254,636
2002	350,528	254,561
2003	338,913	252,716

Male drivers account for 53.3 percent of all drivers in crashes in 2003.

Note: 6.8 percent of all drivers (43,467) were coded as unknown gender in 2003.

DRIVERS IN FATAL CRASHES		
	Male	Female
1994	1,468	524
1995	1,566	640
1996	1,497	634
1997	1,430	580
1998	1,391	545
1999	1,385	578
2000	1,399	580
2001	1,320	556
2002	1,337	476
2003	1,245	578

Male drivers make up 65.8 percent of all drivers in fatal crashes in 2003.

Note: 3.6 percent of drivers (68) in fatal crashes were coded as unknown gender in 2003.

DRINKING DRIVERS IN ALL CRASHES		
	Male	Female
1994	18,889	4,163
1995	18,153	4,300
1996	17,186	4,225
1997	15,901	3,842
1998	15,280	3,833
1999	14,541	3,569
2000	13,609	3,474
2001	12,331	3,112
2002	12,173	3,257
2003	11,436	3,203

Note: The 2003 information provided for alcohol contains data for alcohol-related crashes only. This figure DOES NOT include the combined number for alcohol- and drug-related crashes as had been reported prior to 2000.

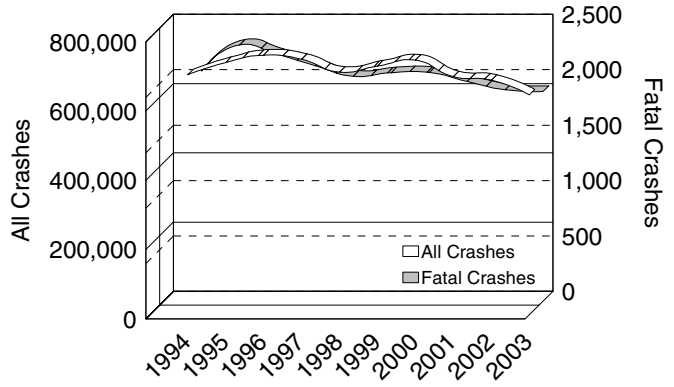
Male drivers have always accounted for the majority of drinking drivers in all crashes.

Note: 1.9 percent of all drinking drivers (283) were coded as unknown gender in 2003.

10 YEAR TRENDS (continued)

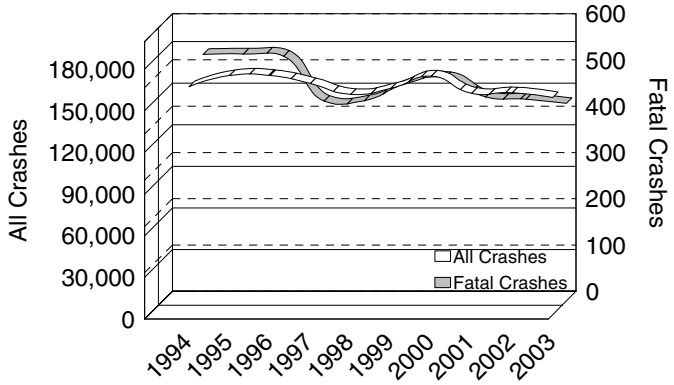
ALL DRIVERS

Number in All and Fatal Crashes



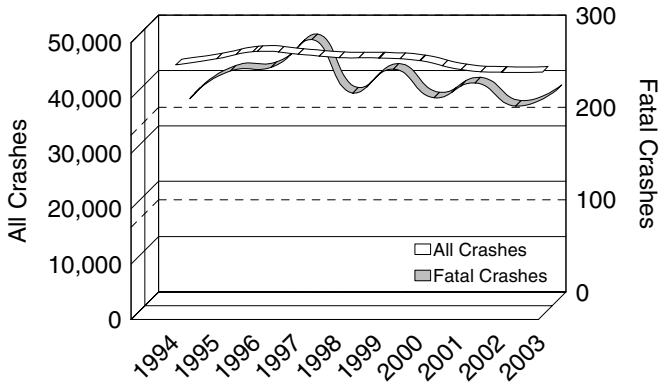
TEEN/YOUNG ADULT DRIVERS

Age 16-24: Number in All and Fatal Crashes



ELDERLY DRIVERS

Age 65-104: Number in All and Fatal Crashes



10 YEAR

ALL DRIVERS		
	All Crashes	Fatal Crashes
1994	693,575	2,078
1995	729,050	2,311
1996	750,103	2,226
1997	737,939	2,124
1998	701,056	2,029
1999	718,639	2,061
2000	735,664	2,062
2001	687,836	1,981
2002	677,527	1,907
2003	635,096	1,891

Driver involvement in all crashes decreased 8.4 percent over the ten-year period.

Driver involvement in fatal crashes decreased 9.0 percent over the ten-year period.

TEEN/YOUNG ADULT DRIVERS		
	All Crashes	Fatal Crashes
1994	164,421	533
1995	172,373	534
1996	172,442	529
1997	166,693	432
1998	158,887	433
1999	163,239	469
2000	172,059	483
2001	159,597	441
2002	160,003	436
2003	156,496	427

Teen/young adult drivers (age 16-24) represent 14.9 percent of the licensed drivers in 2003.

The number of teen/young adult drivers in all crashes has decreased by 4.8 percent since 1994. Their involvement in fatal crashes decreased 19.9 percent during the same time period.

ELDERLY DRIVERS		
	All Crashes	Fatal Crashes
1994	45,280	220
1995	46,371	250
1996	47,695	254
1997	47,190	284
1998	46,582	226
1999	46,519	252
2000	46,023	221
2001	44,393	237
2002	43,923	212
2003	43,967	229

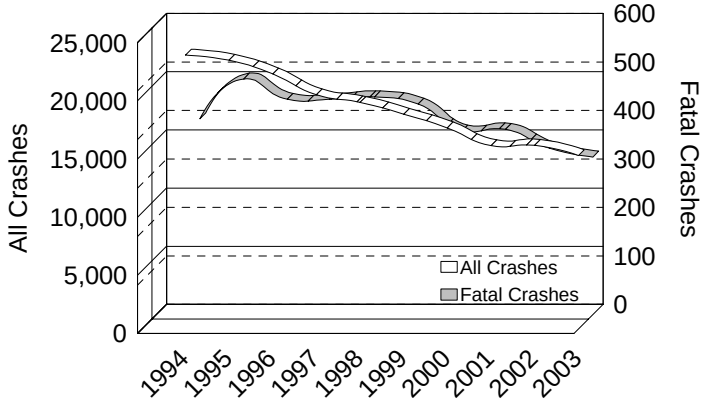
Elderly drivers (age 65-104) represent 14.4 percent of the licensed drivers in 2003.

The number of drivers age 65 and older in all crashes has decreased 2.9 percent since 1994. Their involvement in fatal crashes increased 4.1 percent during the same time period.

10 YEAR TRENDS (continued)

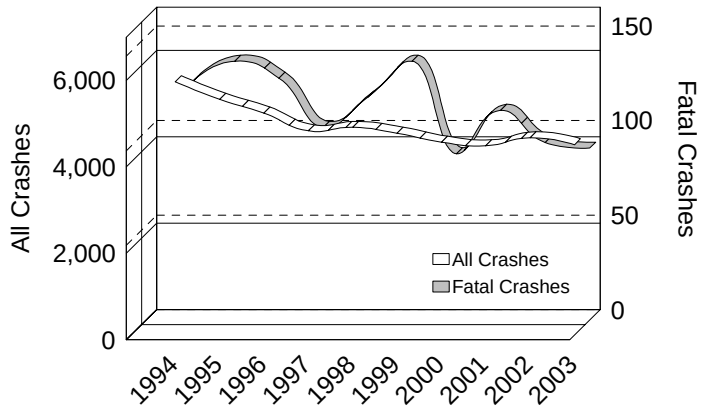
ALL DRINKING DRIVERS

Number in All and Fatal Crashes



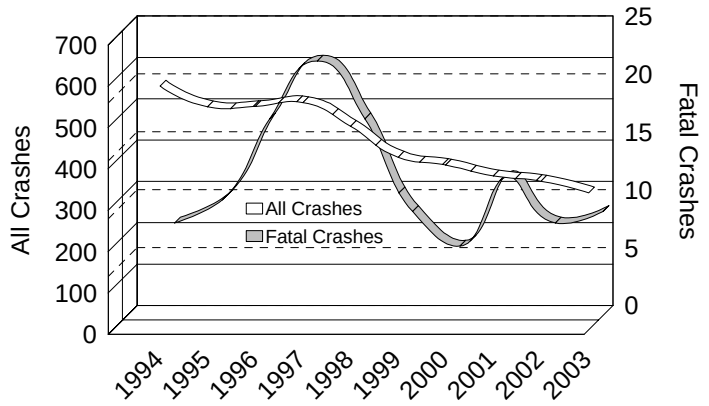
TEEN/YOUNG ADULT DRINKING DRIVERS

Age 16-24: Number in All and Fatal Crashes



ELDERLY DRINKING DRIVERS

Age 65-104: Number in All and Fatal Crashes



10 YEAR

DRINKING DRIVERS		
	All Crashes	Fatal Crashes
1994	23,546	404
1995	23,097	486
1996	21,919	444
1997	20,139	444
1998	19,483	449
1999	18,469	434
2000	17,295	379
2001	15,760	382
2002	15,791	343
2003	14,922	325

Drinking driver involvement in all crashes decreased by 36.6 percent from 1994. Drinking driver involvement in fatal crashes decreased by 19.6 percent from 1994.

TEEN/YOUNG ADULT DRINKING DRIVERS		
	All Crashes	Fatal Crashes
1994	5,868	125
1995	5,461	137
1996	5,142	128
1997	4,731	102
1998	4,812	118
1999	4,676	137
2000	4,470	88
2001	4,386	111
2002	4,571	94
2003	4,411	91

Following the trend for all drinking drivers, the number of teen/young adult drinking drivers in all crashes decreased by 24.8 percent, and their involvement in fatal crashes decreased by 27.2 percent from 1994.

ELDERLY DRINKING DRIVERS		
	All Crashes	Fatal Crashes
1994	590	8
1995	540	10
1996	541	17
1997	550	22
1998	493	17
1999	418	9
2000	399	6
2001	373	12
2002	360	8
2003	332	9

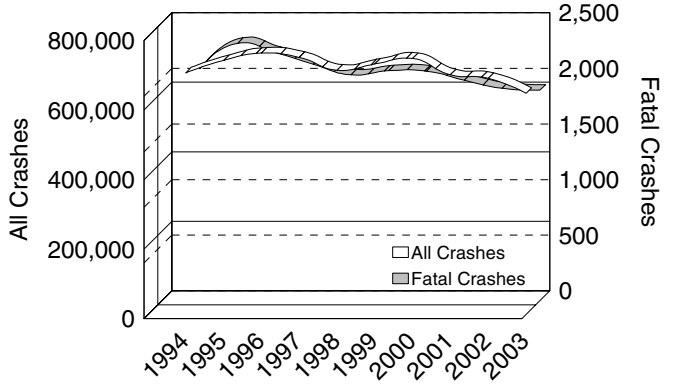
The number of elderly drinking drivers in all crashes continues to decrease, reaching a ten-year low of 332 in 2003. Their involvement in fatal crashes has fluctuated over the ten-year period with a high of 22 in 1997.

Note: The 2003 information provided for alcohol contains data for alcohol-related crashes only. This figure DOES NOT include the combined number for alcohol- and drug-related crashes as had been reported prior to 2000.

10 YEAR TRENDS (continued)

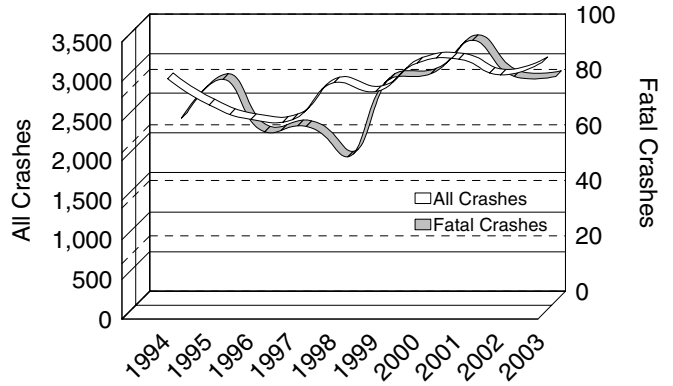
MOTOR VEHICLES

Number in All and Fatal Crashes



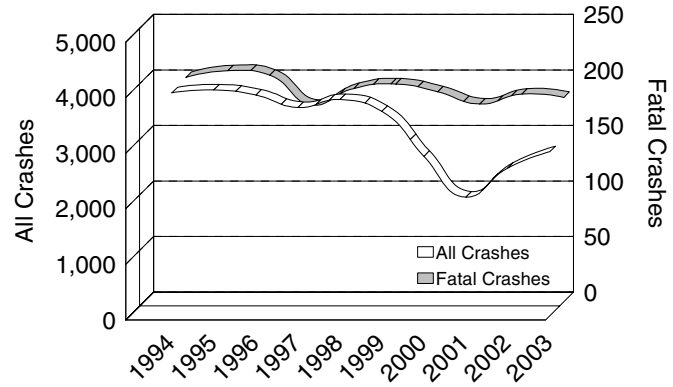
MOTORCYCLES

Number in All and Fatal Crashes



PEDESTRIANS

Number in All and Fatal Crashes



10 YEAR

MOTOR VEHICLES		
	All Crashes	Fatal Crashes
1994	695,423	2,084
1995	730,952	2,313
1996	751,804	2,229
1997	739,538	2,126
1998	702,680	2,029
1999	720,393	2,066
2000	736,219	2,062
2001	689,122	1,981
2002	678,990	1,908
2003	635,767	1,892

There were 1,892 motor vehicles involved in fatal crashes in 2003, down 9.2 percent from 1994.

MOTORCYCLES		
	All Crashes	Fatal Crashes
1994	2,982	66
1995	2,651	80
1996	2,468	61
1997	2,465	63
1998	2,931	52
1999	2,820	80
2000	3,180	82
2001	3,228	94
2002	3,030	81
2003	3,187	81

The number of motorcycles involved in fatal crashes has fluctuated over the ten-year period with a high of 94 in 2001.

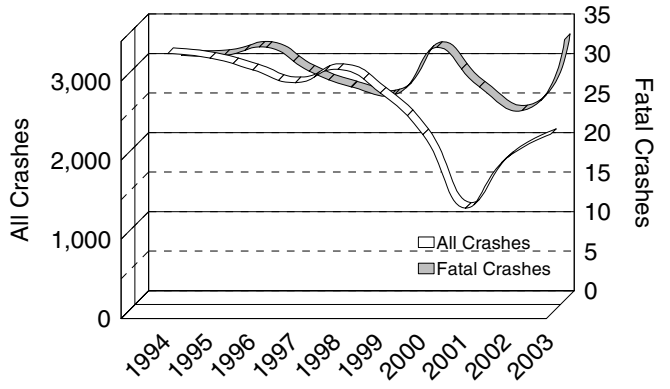
PEDESTRIANS		
	All Crashes	Fatal Crashes
1994	4,014	202
1995	4,064	208
1996	3,971	204
1997	3,749	177
1998	3,891	192
1999	3,677	196
2000	2,868	189
2001	2,135	178
2002	2,660	187
2003	2,953	184

The number of pedestrians involved in fatal crashes has fluctuated over the ten-year period with a high of 208 in 1995.

10 YEAR TRENDS (continued)

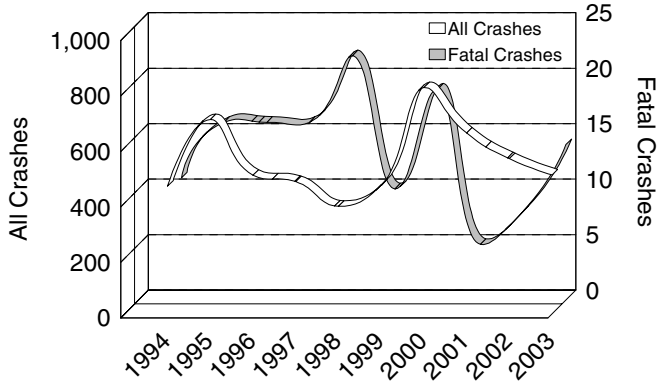
BICYCLES

Number in All and Fatal Crashes



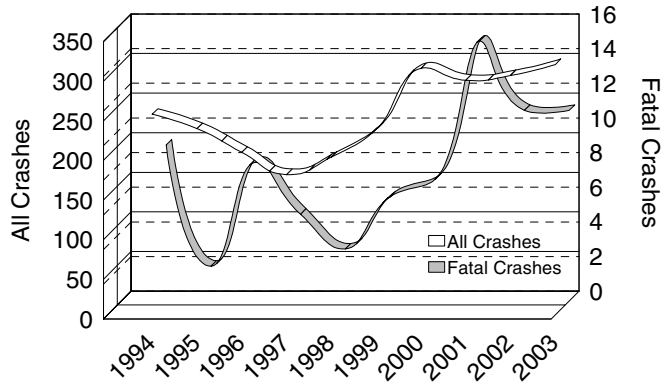
SNOWMOBILES on roadway

Number in All and Fatal Crashes



ORV/ATV's on roadway

Number in All and Fatal Crashes



10
YEAR

BICYCLES		
	All Crashes	Fatal Crashes
1994	3,298	31
1995	3,239	31
1996	3,091	32
1997	2,929	29
1998	3,097	27
1999	2,797	26
2000	2,271	32
2001	1,342	27
2002	1,988	24
2003	2,275	33

There were 33 bicycles involved in fatal crashes in 2003, up 6.5 percent from 1994.

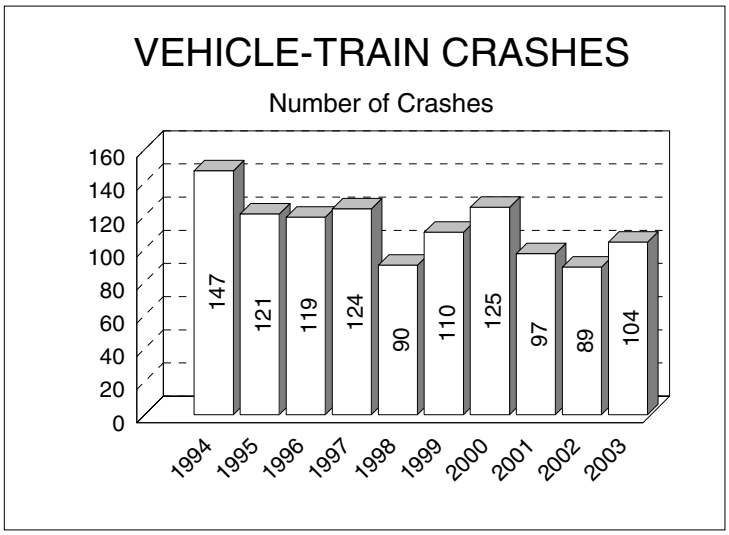
SNOWMOBILES on Michigan roadways		
	All Crashes	Fatal Crashes
1994	460	11
1995	700	16
1996	499	16
1997	476	16
1998	387	22
1999	463	10
2000	815	19
2001	651	5
2002	559	8
2003	500	14

There were 14 snowmobiles involved in fatal crashes on Michigan public roadways in 2003.

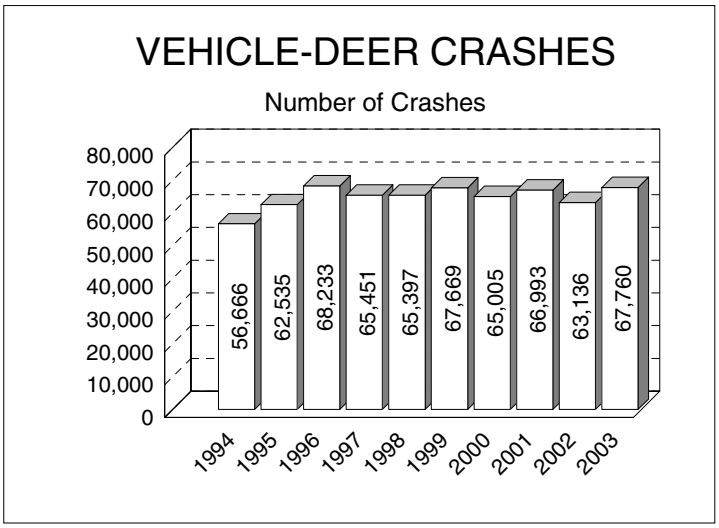
ORV/ATV's on Michigan roadways		
	All Crashes	Fatal Crashes
1994	253	9
1995	235	2
1996	205	8
1997	177	5
1998	199	3
1999	234	6
2000	311	7
2001	296	15
2002	302	11
2003	316	11

There were 11 ORV/ATV's involved in fatal crashes on Michigan public roadways in 2003, the same number that occurred in 2002.

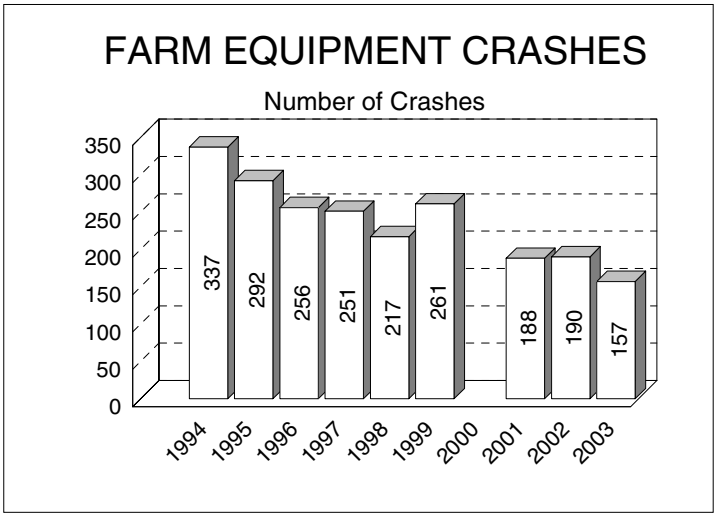
10 YEAR TRENDS (continued)



104 vehicle-train crashes occurred in 2003, a decrease of 29.3 percent in the ten-year period.



There has been a 19.6 percent rise from 56,666 vehicle-deer crashes in 1994 to 67,760 in 2003.

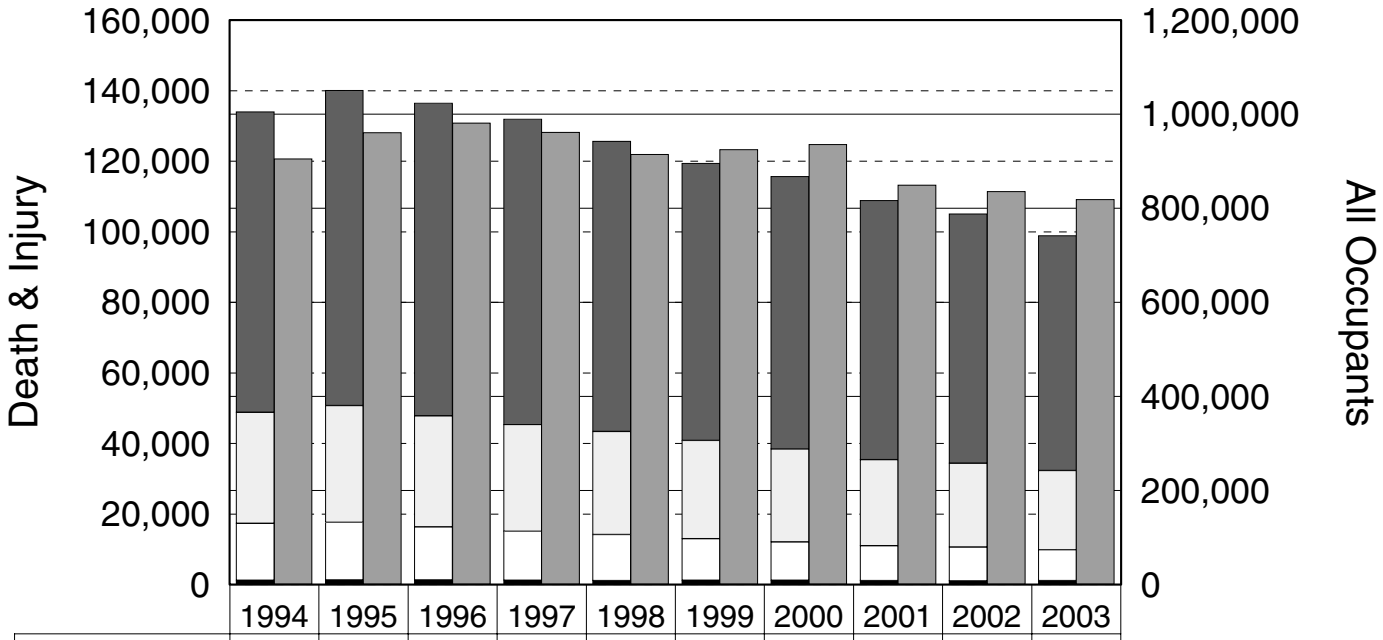


Data not available for calendar year 2000 farm equipment crashes. Please refer to that year's book for details.

The 157 farm equipment crashes in 2003 marks a 53.4 percent decrease from the ten-year high of 337 farm equipment crashes in 1994.

10
YEAR

DEATH AND INJURY PER CRASH-INVOLVED OCCUPANT

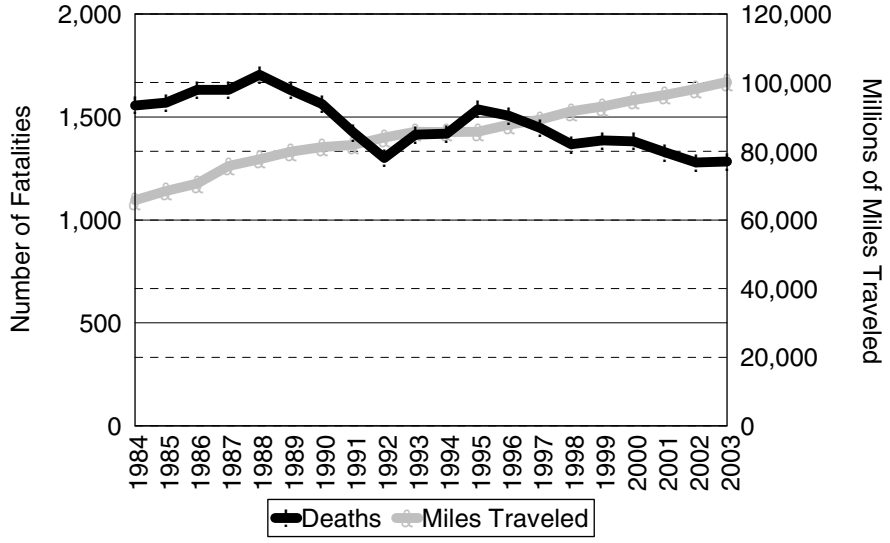


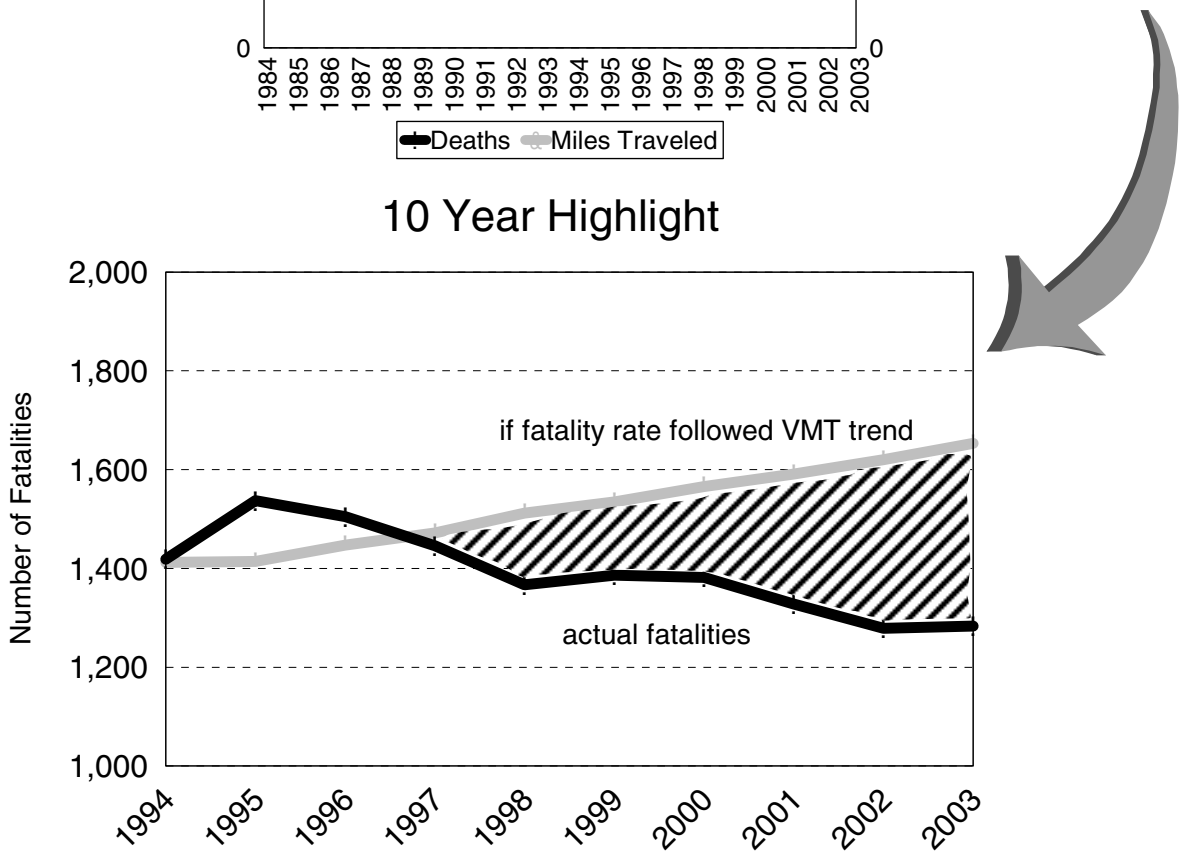
	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
All Occupants	904,876	960,537	981,260	961,595	914,248	924,476	935,411	849,316	835,576	818,272
C - Injured	85,107	89,289	88,570	86,559	82,218	78,565	77,258	73,396	70,687	66,570
B - Injured	31,476	33,070	31,502	30,209	29,236	27,856	26,335	24,442	23,744	22,449
A - Injured	16,184	16,355	15,080	13,890	12,989	11,789	10,918	9,852	9,579	8,798
K - Killed	1,191	1,314	1,273	1,246	1,166	1,183	1,174	1,136	1,073	1,077

The proportion of death and injury to crash-involved occupants has decreased over the last ten years. In 2003, 1,077 occupants of motor vehicles were fatally injured, 8,798 suffered an A (incapacitating) injury, 22,449 sustained a B (nonincapacitating) injury, and 66,570 sustained a C (possible) injury.

10
YEAR

FATALITIES AND VMT TRENDS



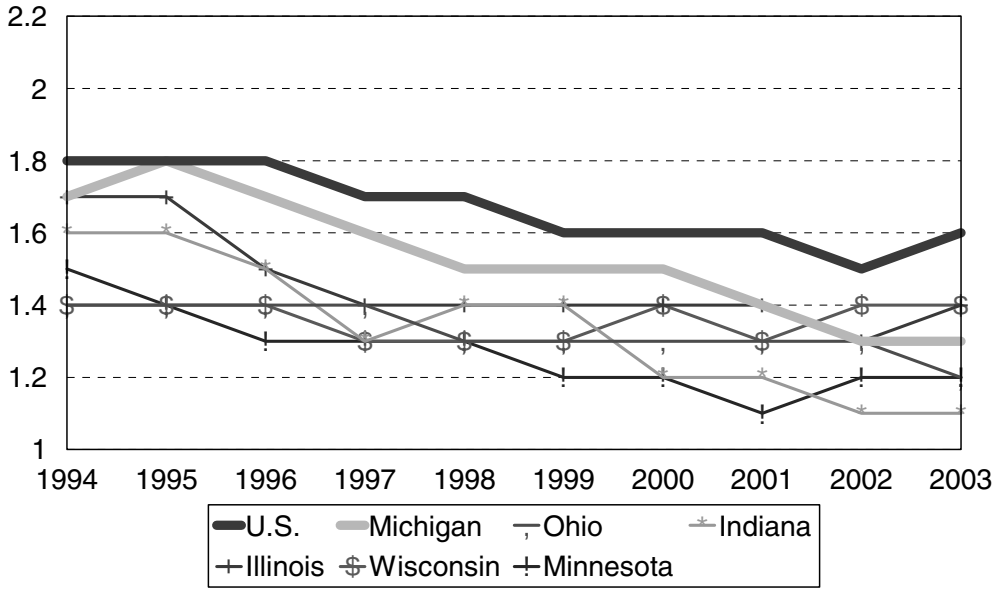


In the 1980s, the number of traffic fatalities had been steadily increasing, following the VMT trend. A reversal in the fatality rate began in 1989, with actual fatalities remaining near or below the VMT trend. A projection of losses that would have been incurred if the fatality rate had continued to follow the VMT trend is provided above.

10 YEAR

MILEAGE DEATH RATES 1994 - 2003

Comparison - Michigan to U.S. and Surrounding States



The chart above shows the reduction in mileage death rates (motor vehicle traffic deaths per 100,000,000 vehicle miles) for Michigan, its neighboring states and the U.S. over the last ten years.

	U.S.	Michigan	Ohio	Indiana	Illinois	Wisconsin	Minnesota
1994	1.8	1.7	1.4	1.6	1.7	1.4	1.5
1995	1.8	1.8	1.4	1.6	1.7	1.4	1.4
1996	1.8	1.7	1.4	1.5	1.5	1.4	1.3
1997	1.7	1.6	1.4	1.3	1.4	1.3	1.3
1998	1.7	1.5	1.3	1.4	1.4	1.3	1.3
1999	1.6	1.5	1.3	1.4	1.4	1.3	1.2
2000	1.6	1.5	1.3	1.2	1.4	1.4	1.2
2001	1.6	1.4	1.3	1.2	1.4	1.3	1.1
2002	1.5	1.3	1.3	1.1	1.3	1.4	1.2
2003	1.6	1.3	1.2	1.1	1.4	1.4	1.2

U.S. data for this table and tables on the following page were provided by the National Safety Council [3]. State data for this table and tables on the following page were provided by Ohio [4], Indiana [5], Illinois [6], Wisconsin [7], and Minnesota [8].

10 YEAR

MICHIGAN AND SURROUNDING STATES COMPARISON OF FATALITIES AND VMT

Year	U.S. Persons Killed	Michigan Persons Killed	Ohio Persons Killed	Indiana Persons Killed	Illinois Persons Killed	Wisconsin Persons Killed	Minnesota Persons Killed
1994	42,524	1,419	1,368	974	1,554	706	644
1995	43,363	1,537	1,357	960	1,586	739	597
1996	43,649	1,505	1,395	982	1,477	759	576
1997	43,458	1,446	1,439	936	1,393	721	600
1998	43,501	1,367	1,423	978	1,393	709	650
1999	42,401	1,386	1,430	1,017	1,456	744	626
2000	43,354	1,382	1,361	875	1,418	801	625
2001	43,788	1,328	1,379	895	1,414	764	568
2002	44,100	1,279	1,417	792	1,420	805	657
2003	44,800	1,283	1,278	833	1,454	836	655

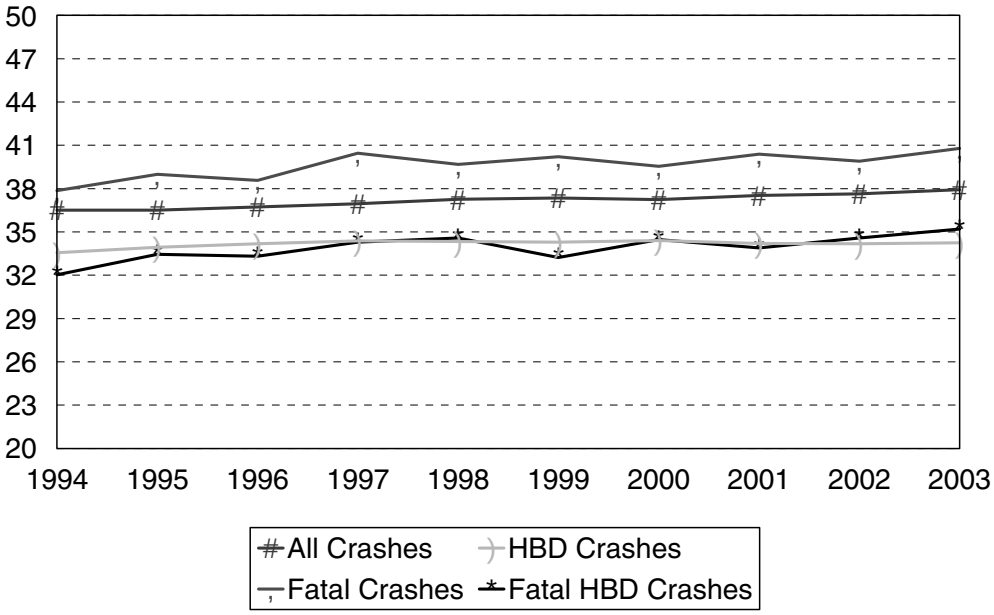
The National Safety Council estimates a national increase in traffic fatalities of 1.6 percent between 2002 (44,100) and 2003 (44,800).

Year	U.S. VMT	Michigan VMT	Ohio VMT	Indiana VMT	Illinois VMT	Wisconsin VMT	Minnesota VMT
1994	2,360	85.6	99.0	62.1	92.1	50.3	43.4
1995	2,423	85.7	99.7	62.0	94.3	51.4	44.1
1996	2,486	87.7	102.8	66.0	96.9	52.6	45.2
1997	2,562	89.2	104.8	70.4	98.7	53.7	46.9
1998	2,632	91.6	106.0	70.7	100.9	56.0	48.5
1999	2,691	93.1	106.4	71.5	101.8	57.0	50.7
2000	2,747	94.9	106.5	72.3	102.9	57.3	52.4
2001	2,797	96.4	107.0	74.1	103.1	57.3	53.2
2002	2,856	98.2	107.9	74.6	106.2	58.7	54.4
2003	2,880	100.2	109.9	74.4	106.5	59.6	55.4

VMT described in billions of miles

10
YEAR

AVERAGE AGE OF DRIVERS IN CRASHES 1994 - 2003

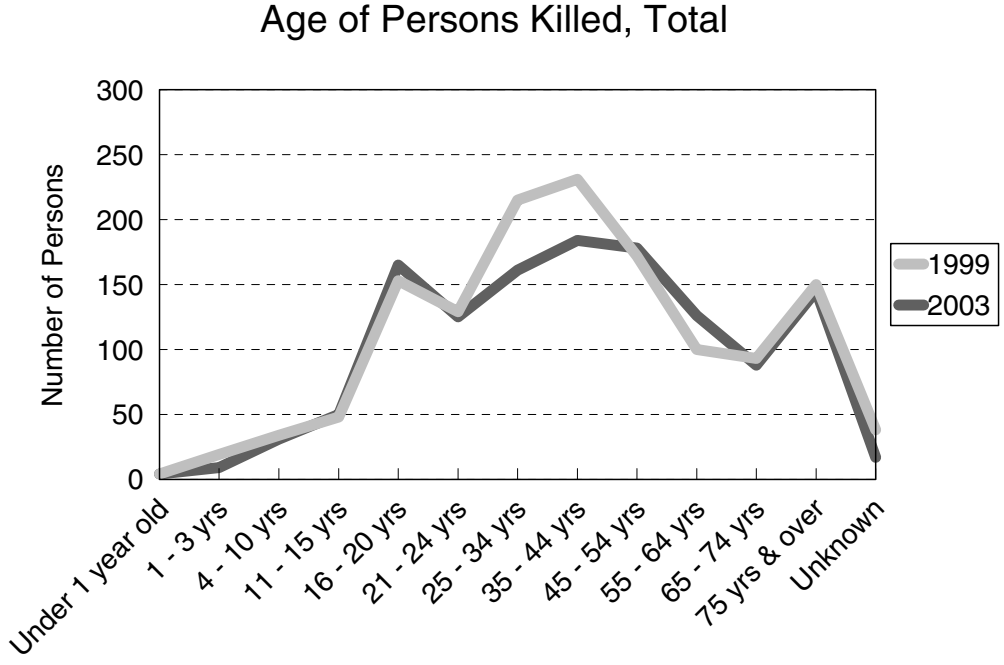


Reflecting the demographic trend of increasing age in the general population, the average age of crash-involved drivers has also increased. An aging driving population has implications for law enforcement prioritizing, highway design, traffic signing considerations, and Emergency Medical System procedures.

5 YEAR

TREND DATA FOR FATALITIES

TREND DATA FOR FATALITIES	1999	2000	2001	2002	2003
Age of Persons Killed, Total					
Under 1 year old	4	3	1	6	4
1 - 3 years	19	12	9	8	9
4 - 10 years	34	33	37	25	31
11 - 15 years	48	57	43	51	50
16 - 20 years	153	199	181	184	165
21 - 24 years	129	107	122	111	125
25 - 34 years	215	217	194	186	161
35 - 44 years	231	196	209	196	184
45 - 54 years	172	155	161	154	178
55 - 64 years	100	129	93	90	126
65 - 74 years	93	101	84	80	88
75 years and over	150	140	153	139	145
Unknown	38	33	41	49	17
Totals	1,386	1,382	1,328	1,279	1,283



The chart above shows the total number of deaths in motor vehicle crashes in Michigan by age, comparing 1999 with 2003.

5
YEAR

TREND DATA FOR FATALITIES	1999	2000	2001	2002	2003
Age of Drivers Involved in Fatal Crashes					
13 years and under	2	0	3	4	5
14 years	2	3	0	7	3
15 years	7	8	9	8	7
16 years	37	49	35	50	40
17 years	55	66	55	44	48
18 years	63	69	50	57	60
19 years	59	63	73	57	46
20 years	51	53	51	51	43
21 - 24 years	204	183	177	177	190
25 - 34 years	378	398	351	336	337
35 - 44 years	376	317	347	328	356
45 - 54 years	264	278	275	255	280
55 - 64 years	145	178	140	147	161
65 - 69 years	56	50	50	48	40
70 - 74 years	65	60	51	38	53
75 - 79 years	57	41	55	53	51
80 - 84 years	42	42	50	38	46
85 - 89 years	22	24	24	20	32
90 years and over	10	4	7	15	7
Unknown	166	176	178	174	87
Totals	2,061	2,062	1,981	1,907	1,892
Age of Drivers Involved in Single Vehicle Fatal Crashes					
13 years and under	2	0	2	2	4
14 years	2	3	0	3	1
15 years	2	3	4	3	3
16 years	12	15	11	17	10
17 years	21	25	13	18	15
18 years	19	26	18	20	28
19 years	18	20	29	25	17
20 years	21	15	24	20	14
21 - 24 years	72	74	74	65	70
25 - 34 years	118	127	106	101	85
35 - 44 years	108	82	98	85	121
45 - 54 years	73	67	71	73	62
55 - 64 years	24	40	36	32	38
65 - 69 years	12	8	12	5	16
70 - 74 years	9	11	13	8	13
75 - 79 years	9	11	11	15	13
80 - 84 years	4	4	11	5	8
85 - 89 years	6	0	3	4	4
90 years and over	1	0	0	1	2
Unknown	39	32	53	39	25
Totals	572	563	589	541	549

5 YEAR

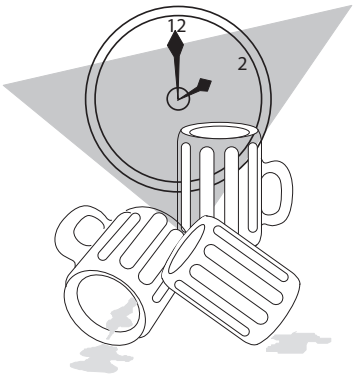
TREND DATA FOR FATALITIES	1999	2000	2001	2002	2003
Age of Bicyclists Killed					
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	1	5	4	0	4
11 - 15 years	11	9	2	5	6
16 - 20 years	2	1	3	1	3
21 - 24 years	1	0	0	2	3
25 - 34 years	0	4	1	3	0
35 - 44 years	4	1	7	3	4
45 - 54 years	3	3	4	1	8
55 - 64 years	2	3	2	0	2
65 - 74 years	0	2	1	3	2
75 years and over	1	1	2	2	0
Unknown	0	0	0	0	0
Totals	25	29	26	20	32
Age of Pedestrians Killed					
Under 1 year old	1	0	0	0	1
1 - 3 years	8	6	2	3	2
4 - 10 years	20	11	11	10	5
11 - 15 years	7	10	8	14	10
16 - 20 years	6	8	9	11	13
21 - 24 years	6	9	5	8	8
25 - 34 years	25	11	22	23	11
35 - 44 years	37	45	32	34	33
45 - 54 years	31	31	28	25	34
55 - 64 years	15	12	10	14	23
65 - 74 years	8	12	9	13	11
75 years and over	12	13	23	16	17
Unknown	0	0	1	2	1
Totals	176	168	160	173	169
Action of Pedestrians Killed					
Crossing at intersection	10	21	22	10	18
Cross not at intersection	66	62	47	67	74
Getting on/off vehicle	4	1	2	1	0
In road with traffic	15	19	23	19	16
In road against traffic	9	6	6	4	5
Standing or lying in road	17	15	16	13	12
Pushing/working on vehicle	2	1	3	3	5
Other working in road	0	4	2	0	3
Playing in road	2	0	1	1	0
In road for other reason	12	10	8	16	8
Not in road	20	13	8	11	9
Other/Unknown	19	16	22	28	19
Totals	176	168	160	173	169

5 YEAR

FATAL CRASHES AND PERSONS KILLED FOR SELECTED HOLIDAY PERIODS IN MICHIGAN

Revised February 19, 2010

HOLIDAY PERIOD	Fatal Crashes	Persons Killed	SUMMARY 2003
Memorial Day			This table shows traffic death tolls in Michigan for the past five years for the major holiday periods. Based on the *total* **2003** experience, deaths averaged **3.52** per day. Alcohol-related deaths averaged **1.09** per day. Based on the **2003** *holiday period* experience, deaths averaged **3.67** per day. Alcohol-related deaths averaged **1.24** per day.
2003 (3) MON	10 [5]	10 [5]	
2002 (3) MON	13 [6]	14 [6]	
2001 (3) MON	15 [6]	18 [8]	
2000 (3) MON	18 [11]	18 [11]	
1999 (3) MON	15 [9]	17 [10]	
Fourth of July			
2003 (3) FRI	15 [2]	15 [2]	
2002 (4) THU	26 [10]	30 [11]	
2001 (1) WED	10 [4]	10 [4]	
2000 (4) TUE	14 [3]	21 [3]	
1999 (3) SUN	15 [8]	15 [8]	
Labor Day			
2003 (3) MON	14 [6]	15 [6]	
2002 (3) MON	13 [7]	13 [7]	
2001 (3) MON	18 [10]	21 [12]	
2000 (3) MON	20 [11]	27 [14]	
1999 (3) MON	18 [12]	21 [14]	
Thanksgiving			
2003 (4) THU	17 [4]	20 [4]	
2002 (4) THU	18 [8]	20 [8]	
2001 (4) THU	11 [7]	12 [8]	
2000 (4) THU	11 [5]	12 [5]	
1999 (4) THU	20 [9]	22 [9]	
Christmas			
2003 (4) THU	8 [6]	9 [6]	
2002 (1) WED	0 [0]	0 [0]	
2001 (4) TUE	10 [2]	10 [2]	
2000 (3) MON	10 [2]	11 [2]	
1999 (3) SAT	12 [6]	16 [6]	
New Years			
2003 (4) THU	6 [4]	6 [4]	
2002 (1) WED	4 [0]	4 [0]	
2001 (4) TUE	10 [5]	11 [5]	
2000 (3) MON	12 [5]	13 [5]	
1999 (3) SAT	19 [10]	22 [12]	

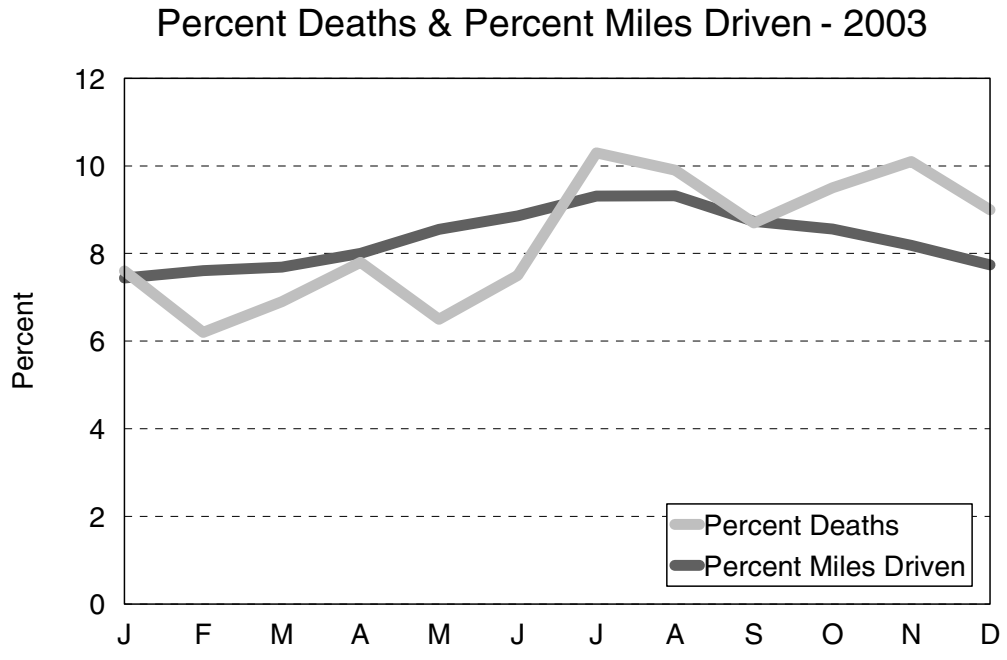


Figures in parentheses in the 1st column show number of full days in each holiday period.
Deaths are for these days plus six hours of the preceding day.
Figures in brackets in the 2nd and 3rd columns show the number of alcohol-related fatal crashes and deaths.

5
YEAR

MOTOR VEHICLE DEATHS AND MILEAGE BY MONTH

Month	TRAFFIC DEATHS					2003 PERCENTAGES	
	1999	2000	2001	2002	2003	Percent Deaths	Percent Miles Driven
January	76	121	79	105	97	7.6	7.44
February	84	83	99	101	80	6.2	7.61
March	92	70	102	81	88	6.9	7.69
April	98	107	83	93	100	7.8	7.99
May	125	114	106	112	84	6.5	8.55
June	116	136	113	115	96	7.5	8.86
July	128	135	143	137	132	10.3	9.31
August	160	133	131	110	127	9.9	9.32
September	128	135	143	96	111	8.7	8.73
October	129	124	120	117	122	9.5	8.56
November	130	118	109	102	130	10.1	8.19
December	120	106	100	110	116	9.0	7.74
Totals	1,386	1,382	1,328	1,279	1,283	100.0	100.00



The above chart shows that the ***percent deaths*** were lower for the months of February, March, April, May, June, and September than for the other months in 2003 when compared to the ***percent miles driven***.

1 YEAR

2002 - 2003 SUMMARY TRENDS

- Michigan experienced a **0.3** percent increase in traffic fatalities, as well as a **6.2** percent decrease in injuries and a **1.0** percent decrease in crashes.
- Deaths among vehicle occupants (drivers and passengers) increased **0.2** percent.
- Persons sustaining "A" level injuries (the most serious) decreased **6.0** percent.

	2002	2003	% CHANGE
NUMBER OF CRASHES			
Fatal Crashes	1,175	1,172	-0.3
Personal Injury Crashes	80,567	76,598	-4.9
Property Damage Crashes	313,773	313,715	0.0
Total	**395,515**	**391,485**	**-1.0**
ALCOHOL-INVOLVED CRASHES			
Fatal Crashes	384	362	-5.7
Personal Injury Crashes	6,575	6,247	-5.0
Property Damage Crashes	8,890	8,484	-4.6
Total	**15,849**	**15,093**	**-4.8**
ALCOHOL-INVOLVED FATAL CRASHES			
Had Been Drinking (HBD)	384 (32.7%)	362 (30.9%)	-5.7
Had Not (HNBD)/Not Known If Drinking	791 (67.3%)	810 (69.1%)	2.4
PERSONS IN CRASHES			
Killed	1,279	1,283	0.3
Injured	112,484	105,555	-6.2
Not Injured	528,529	524,356	-0.8
Unknown Injury	72,365	64,903	-10.3
Total	**714,657**	**696,097**	**-2.6**
PERSONS IN ALCOHOL-INVOLVED CRASHES			
Killed	422	399	-5.5
Injured	9,414	8,815	-6.4
Not Injured	15,151	14,140	-6.7
Unknown Injury	2,061	2,013	-2.3
Total	**27,048**	**25,367**	**-6.2**
PERSONS INJURED BY GENDER			
Male	50,514	47,705	-5.6
Female	57,202	54,950	-3.9
Unknown Gender	4,768	2,900	-39.2
Total	**112,484**	**105,555**	**-6.2**
PERSONS INJURED BY SEVERITY			
"A" Injury	10,556	9,920	-6.0
"B" Injury	27,771	24,952	-10.2
"C" Injury	74,157	70,683	-4.7
Total	**112,484**	**105,555**	**-6.2**

Note: The 2000 thru 2003 information provided for alcohol contains data for alcohol-related crashes only.

1

YEAR
2002 - 2003 SUMMARY TRENDS (continued)

	2002	2003	% CHANGE
PERSONS KILLED BY GENDER			
Male	854	824	-3.5
Female	398	441	10.8
Unknown Gender	27	18	-33.3
Total	**1,279**	**1,283**	**0.3**
PERSONS KILLED			
Driver	709	696	-1.8
Passenger	254	269	5.9
Pedestrian	173	169	-2.3
Bicyclist	20	32	60.0
Motorcyclist	82	76	-7.3
Farm Equipment	1	1	0.0
Train Engineer	0	0	0.0
Snowmobile	9	13	44.4
ORV/ATV	10	11	10.0
Other/Unknown	21	16	-23.8
Total	**1,279**	**1,283**	**0.3**
RESTRAINT USE BY DRIVER			
“Reported Restrained” - Killed	357	349	-2.5
“Reported Not Restrained” - Killed	247	260	5.3
“Reported Restrained” - Injured	64,963	64,065	-1.4
“Reported Not Restrained” - Injured	4,377	3,782	-13.7
RESTRAINT USE BY INJURED PASSENGER			
“Reported Restrained” - Killed	121	128	5.8
“Reported Not Restrained” - Killed	107	107	0.0
“Reported Restrained” - Injured	20,169	18,307	-9.3
“Reported Not Restrained” - Injured	3,698	3,203	-13.4
DRIVER AGE 16-19 INVOLVED			
Fatal Crashes	201	183	-9.0
Personal Injury Crashes	17,804	16,990	-4.6
Property Damage Crashes	55,501	54,080	-2.6
Total All Crashes	**73,506**	**71,253**	**-3.1**
Persons Killed	233	213	-8.6
Persons Injured	26,658	25,115	-5.8
DRIVER AGE 65 & OVER INVOLVED			
Fatal Crashes	196	221	12.8
Personal Injury Crashes	10,055	9,552	-5.0
Property Damage Crashes	31,683	32,169	1.5
Total All Crashes	**41,934**	**41,942**	**0.0**
Persons Killed	212	246	16.0
Persons Injured	14,784	13,880	-6.1

MORE MICHIGAN CRASH FACTS

CRASH FACTS	2002	2003	% Change
Licensed Drivers	7,141,883	7,187,093	0.6
Registered Vehicles in Michigan	8,690,326	8,708,688	0.2
Michigan Population	10,050,446	10,079,985	0.3
Drivers Involved in Crashes	677,527	635,096	-6.3
Vehicles Involved in Crashes	678,990	635,767	-6.4
Occupants Involved in Crashes	835,576	818,272	-2.1
Estimated MV Mileage Traveled (thousands)	98,173,158	100,191,958	2.1
Death Rate Per 100 Million Vehicle Miles	1.3	1.3	0.0
Fatal Crash Rate Per 100 Million Veh Miles	1.2	1.2	0.0

Vehicle mileage increased 2.1 percent and the death rate per 100 million vehicle miles stayed the same at 1.3.

2003 COST OF CRASHES IN MICHIGAN

The cost estimate for Michigan crashes in 2003 is **$9,762,388,400**. This estimate is based on the National Safety Council's cost estimating procedures. Average comprehensive costs are based on the following figures:

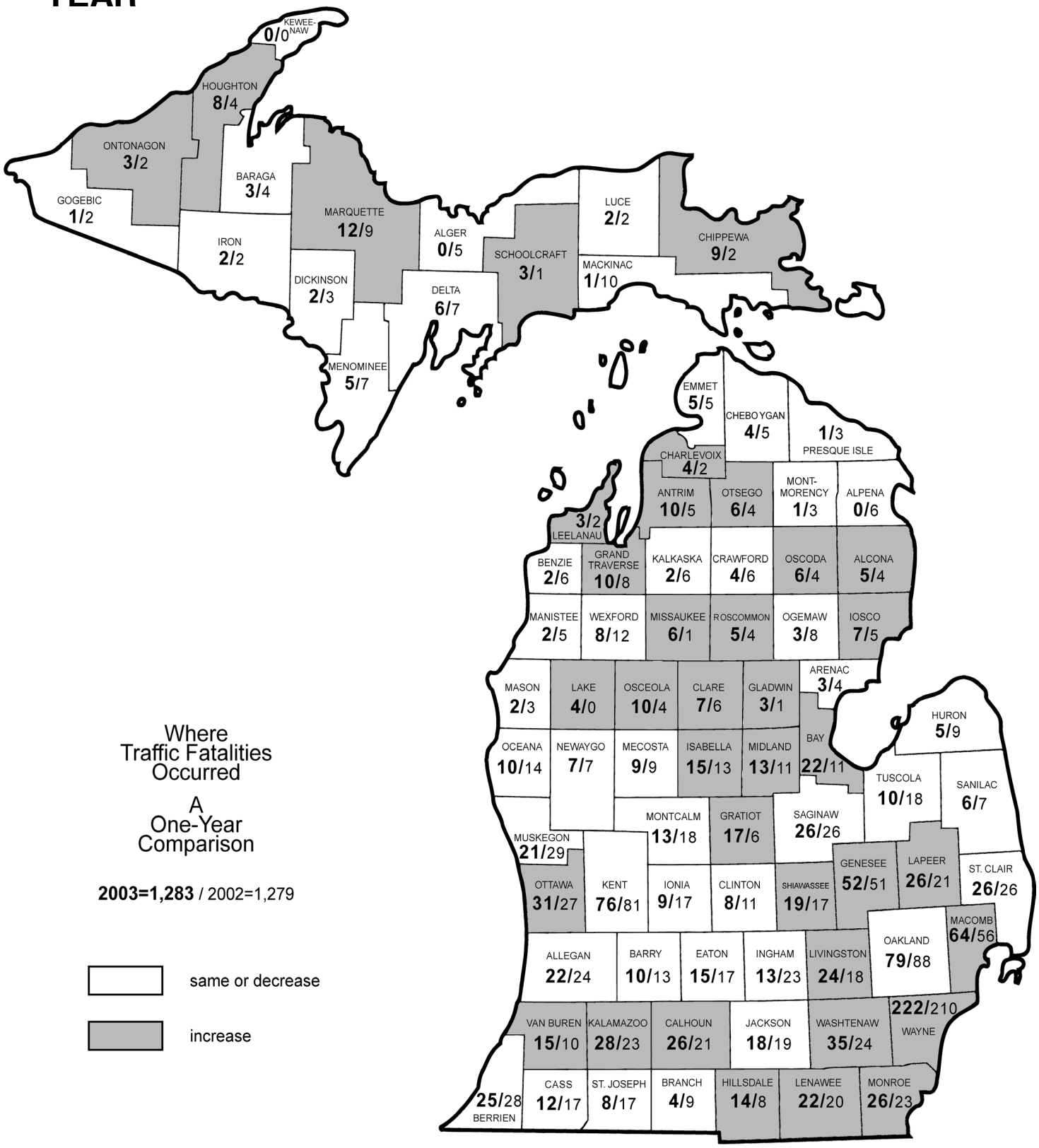
Comprehensive Costs, 2003

Death	$3,610,000
Incapacitating injury	$181,000
Nonincapacitating evident injury	$46,200
Possible injury	$22,000
No injury	$2,000

These cost estimates are not intended for comparisons to previous years. Deaths and injuries are calculated by number of persons. "No injury" is calculated per crash.

1 YEAR

WHERE TRAFFIC FATALITIES OCCURRED



Where Traffic Fatalities Occurred

A One-Year Comparison

2003=1,283 / 2002=1,279

same or decrease

increase

MICHIGAN OHSP Office of Highway Safety Planning

MOTOR VEHICLE TRAFFIC DEATHS IN MICHIGAN BY MONTH

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
1952	81	121	125	94	145	169	140	184	181	152	166	178	1,736
1953	139	116	136	132	134	173	176	183	187	187	167	175	1,905
1954	130	126	100	119	149	132	182	167	168	167	153	200	1,793
1955	134	117	116	160	157	192	169	209	160	204	208	190	2,016
1956	166	136	132	140	133	115	149	159	169	144	145	158	1,746
1957	121	98	118	118	130	122	127	152	123	143	135	161	1,548
1958	94	90	95	89	92	112	120	134	132	113	165	146	1,382
1959	76	69	91	126	126	124	148	128	155	125	144	161	1,473
1960	139	76	102	105	107	133	159	154	137	186	152	154	1,604
1961	105	99	113	138	133	114	141	166	128	139	148	143	1,567
1962	94	70	115	110	123	147	166	175	170	172	118	114	1,574
1963	107	95	124	142	148	173	188	177	163	179	196	195	1,887
1964	170	159	158	144	164	167	217	197	177	199	177	193	2,122
1965	153	113	135	143	156	181	211	220	193	214	172	245	2,136
1966	147	156	179	151	207	204	212	206	203	220	205	208	2,298
1967	130	105	141	162	187	140	210	189	223	230	216	204	2,137
1968	130	147	164	150	240	214	208	233	209	248	283	166	2,392
1969	137	158	173	169	239	236	218	254	230	236	219	218	2,487
1970	167	143	160	141	214	205	197	204	213	217	178	138	2,177
1971	137	124	155	144	187	212	222	227	155	209	202	178	2,152
1972	156	161	155	150	204	209	225	210	225	219	174	170	2,258
1973	187	156	173	140	180	230	225	201	204	209	171	137	2,213
1974	111	112	107	116	144	197	189	178	200	195	201	125	1,875
1975	120	97	112	93	149	169	195	203	190	162	161	160	1,811
1976	118	102	134	150	163	169	196	227	189	171	174	162	1,955
1977	126	87	122	143	184	179	223	194	164	189	181	158	1,950
1978	98	104	128	177	178	203	206	229	214	199	183	157	2,076
1979	102	103	129	152	146	155	190	171	174	187	171	169	1,849
1980	117	131	109	116	153	170	142	183	192	152	133	176	1,774
1981	99	100	108	116	116	155	159	171	149	155	113	148	1,589
1982	98	79	93	91	114	121	154	153	128	144	131	111	1,417
1983	113	94	83	91	91	121	121	117	131	153	115	95	1,331
1984	93	84	104	91	125	143	175	174	135	153	134	142	1,556
1985	108	91	77	133	137	167	146	136	131	135	161	147	1,569
1986	86	77	103	127	131	175	186	176	131	144	159	137	1,632
1987	91	104	99	106	138	165	151	176	149	164	161	128	1,632
1988	129	107	103	104	145	152	175	158	178	159	127	167	1,704
1989	138	102	94	96	123	156	156	177	155	146	123	164	1,630
1990	99	84	122	94	135	151	165	170	141	147	130	125	1,563
1991	103	79	115	106	129	145	130	141	125	129	104	119	1,425
1992	83	81	83	86	100	122	134	119	123	129	120	120	1,300
1993	123	91	89	72	127	103	149	140	131	146	134	109	1,414
1994	106	86	82	116	111	123	126	143	132	133	123	138	1,419
1995	122	90	109	111	118	141	127	159	157	134	136	133	1,537
1996	131	98	103	98	128	135	146	121	138	135	136	136	1,505
1997	102	106	85	80	128	140	166	130	128	134	125	122	1,446
1998	116	71	97	91	113	120	133	116	123	126	117	144	1,367
1999	76	84	92	98	125	116	128	160	128	129	130	120	1,386
2000	121	83	70	107	114	136	135	133	135	124	118	106	1,382
2001	79	99	102	83	106	113	143	131	143	120	109	100	1,328
2002	105	101	81	93	112	115	137	110	96	117	102	110	1,279
2003	97	80	88	100	84	96	132	127	111	122	130	116	1,283

MOTOR VEHICLE TRAFFIC CRASH AND RELATED DATA

Year	Deaths	Injuries	Crashes	Estimated Mileage (Millions)	Motor Vehicle Registrations*	Death Rate Per 100 million miles of travel
1952	1,736	49,119	160,829	23,093.1	2,586,834	7.5
1953	1,905	57,834	184,174	25,346.9	2,808,921	7.5
1954	1,793	56,444	185,534	26,041.2	2,889,740	6.9
1955	2,016	62,234	196,812	28,282.5	3,149,323	7.1
1956	1,746	61,158	197,995	28,429.3	3,173,704	6.1
1957	1,548	60,067	191,915	29,252.2	3,256,150	5.3
1958	1,382	57,767	177,934	29,411.3	3,157,441	4.7
1959	1,473	64,873	198,771	30,679.0	3,252,492	4.8
1960	1,604	91,026	209,724	31,842.4	3,352,234	5.0
1961	1,567	93,350	199,973	32,101.5	3,395,736	4.9
1962	1,574	108,143	233,078	34,498.0	3,498,758	4.6
1963	1,887	126,896	261,794	36,452.2	3,646,080	5.2
1964	2,122	144,623	284,444	38,617.6	3,860,791	5.5
1965	2,136	155,258	310,598	40,857.4	4,066,826	5.2
1966	2,298	156,694	302,880	43,940.1	4,133,199	5.2
1967	2,137	151,297	299,004	45,053.6	4,161,573	4.7
1968	2,392	160,413	305,495	48,047.4	4,327,885	5.0
1969	2,487	175,400	331,223	50,904.9	4,560,097	4.9
1970	2,177	161,719	313,715	53,148.1	4,683,919	4.1
1971	2,152	157,664	314,015	55,539.7	4,835,146	3.9
1972	2,258	178,929	359,745	57,817.1	5,160,985	3.9
1973	2,213	169,485	350,864	58,478.4	5,442,233	3.8
1974	1,875	141,132	324,763	55,748.7	5,652,406	3.4
1975	1,811	147,299	333,560	56,260.5	5,744,441	3.2
1976	1,955	162,894	365,600	61,638.0	5,861,908	3.2
1977	1,950	166,389	374,751	64,853.0	6,138,732	3.0
1978	2,076	169,202	389,193	67,380.0	6,436,365	3.1
1979	1,849	162,571	366,435	64,882.3	6,536,246	2.8
1980	1,774	144,972	314,594	61,190.1	6,570,735	2.9
1981	1,589	136,455	302,831	62,000.0	6,140,286	2.6
1982	1,417	130,061	294,971	61,321.0	6,400,942	2.3
1983	1,331	135,811	300,797	63,560.1	6,443,499	2.1
1984	1,556	150,740	335,193	65,727.0	6,509,192	2.4
1985	1,569	157,417	386,904	68,413.0	6,857,364	2.3
1986	1,632	158,032	400,694	70,622.0	6,952,263	2.3
1987	1,632	156,318	397,224	75,715.0	7,061,339	2.2
1988	1,704	155,713	410,437	77,700.0	7,196,609	2.2
1989	1,630	154,537	417,252	79,900.0	7,233,823	2.0
1990	1,563	145,179	387,180	81,200.0	7,300,853	1.9
1991	1,425	135,830	364,847	81,900.0	7,329,789	1.7
1992	1,300	118,727	344,942	84,000.0	7,411,192	1.5
1993	1,414	134,548	363,636	85,700.0	7,495,904	1.6
1994	1,419	142,200	398,050	85,600.0	7,669,022	1.7
1995	1,537	146,303	421,073	85,699.6	7,751,336	1.8
1996	1,505	142,553	435,477	87,700.0	8,106,972	1.7
1997	1,446	137,548	425,793	89,232.0	8,115,921	1.6
1998	1,367	131,578	403,766	91,616.0	8,227,016	1.5
1999	1,386	124,601	415,675	93,060.3	8,407,868	1.5
2000	1,382	121,826	424,852	94,915.1	8,569,124	1.5
2001	1,328	112,294	400,813	96,428.1	8,603,195	1.4
2002	1,279	112,484	395,515	98,173.2	8,690,326	1.3
2003	1,283	105,555	391,485	100,192.0	8,708,688	1.3

* Excludes trailers and trailer coaches, and includes moped

2003 2003 2003 2003 2003 2003 2003 2003 2003 2003

Special Focus

Red-Light-Running Heavy Truck/Bus

RED-LIGHT-RUNNING CRASHES

INTERSECTION CRASH TYPE	Crashes	MOST SEVERE OUTCOME IN CRASH				
		Fatal	Injury			PDO
			A	B	C	
Related to intersection	119,361	306	2,640	6,930	20,702	88,783
In intersection	60,323	243	1,862	4,622	11,918	41,678
With traffic control signal	27,146	81	808	2,091	5,875	18,291
With hazardous action	**7,843**	37	346	823	2,127	4,510

"Related to intersection" captures crashes that were related to or within 150 feet of an intersection. This corresponds to the crash information on page 139, ***Intersection Crashes by Traffic Control Type***.

"In intersection" captures crashes within all types of intersections.

"With signal" captures crashes within the intersection and with a traffic control signal present.

"With hazardous action" captures crashes within the intersection, with a traffic control signal and with a hazardous action cited as "disregard of traffic control." Information pertaining to red-light-running in the following tables is derived from this subset of **7,843** crashes.

RED-LIGHT-RUNNING - MOST SEVERE OUTCOME IN CRASH

SPEED LIMIT	MOST SEVERE OUTCOME IN CRASH					
	Crashes	Fatal	Injury			PDO
			A	B	C	
5 miles per hour	1	0	0	1	0	0
20 miles per hour	7	0	1	0	3	3
25 miles per hour	936	0	18	78	222	618
30 miles per hour	1,401	6	61	110	388	836
35 miles per hour	2,052	6	60	205	561	1,220
40 miles per hour	1,046	6	56	112	298	574
45 miles per hour	1,596	9	92	214	435	846
50 miles per hour	274	1	19	36	73	145
55 miles per hour	345	9	34	49	94	159
65 miles per hour	1	0	0	0	0	1
70 miles per hour	2	0	0	0	0	2
Unknown	182	0	5	18	53	106
Total	7,843	37	346	823	2,127	4,510

CRASH TYPE	MOST SEVERE OUTCOME IN CRASH					
	Crashes	Fatal	Injury			PDO
			A	B	C	
Single Vehicle	42	3	4	11	14	10
Head on	81	0	3	11	27	40
Head on left	733	7	35	90	184	417
Angle	6,632	25	294	684	1,830	3,799
Rear end	38	0	1	1	7	29
Rear end left	9	0	0	0	2	7
Rear end right	3	0	0	0	0	3
Sideswipe same direction	80	0	3	3	13	61
Sideswipe opposite direction	52	0	0	4	7	41
Other	139	2	5	16	34	82
Unknown	34	0	1	3	9	21
Total	7,843	37	346	823	2,127	4,510

RED-LIGHT-RUNNING - MOST SEVERE OUTCOME IN CRASH (continued)

SPECIAL CIRCUMSTANCES*	MOST SEVERE OUTCOME IN CRASH					
	Crashes	Fatal	Injury			PDO
			A	B	C	
School Bus Involved/Associated	23	0	1	4	5	13
Drinking Involved	267	6	39	54	75	93
Pedestrian Involved	42	3	9	11	15	4
Bicyclist Involved	48	1	6	17	18	6
Snowmobile Involved	1	0	0	0	1	0
Motorcycle Involved	23	1	6	9	5	2
Train Involved	0	0	0	0	0	0
Truck/Bus Involved	285	4	20	36	73	152
Emergency Vehicle Involved	54	2	2	6	13	31
Driver Hazardous Citation	4,618	6	206	547	1,343	2,516

*Crashes may involve more than one special circumstance.

POSSIBLE CONDITIONS OF DRIVER*	MOST SEVERE OUTCOME IN CRASH					
	Conditions Coded by Police	Fatal	Injury			PDO
			A	B	C	
Appeared Normal	6,189	10	243	632	1,715	3,589
Had Been Drinking	231	3	34	50	71	73
Illegal Drug Use	3	0	2	0	0	1
Sick	22	0	1	2	12	7
Fatigue	12	1	1	1	2	7
Asleep	10	0	1	2	5	2
Medication	12	0	1	2	5	4
Driver Distracted	146	0	12	21	40	73
Using Cellular Phone	47	0	3	3	15	26
Unknown	410	16	22	45	84	243

*Drivers may have more than one condition, including “Appeared Normal”.

HEAVY TRUCK/BUS

The crashes highlighted in this section all involve a heavy truck/bus - defined as having a Gross Vehicle Weight Rating (GVWR) over 10,000 lbs. These vehicles require a Commercial Driver's License (CDL).

Heavy truck/bus crashes differ from other vehicle crashes in a number of ways, many reflecting the size and use of these vehicles. When compared to the overall crash picture, heavy truck/bus crashes involve:

- More turning, backing, and changing lanes (see Driver Action Prior)
- More separation of units, fire/explosion, jackknife, cargo loss/shift, and other non-collisions (see Most Harmful Event)
- Fewer single-vehicle crashes but more sideswipes (see Crash Type)
- Fewer drivers indicated to be speeding and failing to yield, but more drivers indicated to be making backing, lane use, and turning errors (see Hazardous Action, Citation)
- More on road crashes (see Relationship to Roadway - Location of First Impact in Crash - On Road)
- More crashes between the hours of 6:00 AM and 2:59 PM, but fewer crashes between 3:00 PM and 5:59 AM (see Time of Day)
- More weekday crashes (see Day of Week)

HEAVY TRUCK/BUS INVOLVED CRASHES

HEAVY TRUCK/BUS DRIVER ACTION PRIOR TO CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Going straight ahead	7,874	45.9	84	71.8	1,711	53.8
Turning left	1,492	8.7	3	2.6	181	5.7
Turning right	1,402	8.2	0	0.0	145	4.6
Stopped on roadway	1,171	6.8	9	7.7	228	7.2
In prior crash	20	0.1	0	0.0	12	0.4
Changing lanes	712	4.1	3	2.6	89	2.8
Backing	1,070	6.2	3	2.6	47	1.5
Slowing/stopping on roadway	1,141	6.6	1	0.9	291	9.1
Slowing/stopping other	23	0.1	0	0.0	4	0.1
Starting up on roadway	390	2.3	2	1.7	99	3.1
Starting up other	12	0.1	0	0.0	0	0.0
Entering parking	33	0.2	0	0.0	1	0.0
Leaving parking	45	0.3	0	0.0	6	0.2
Entering roadway	172	1.0	0	0.0	42	1.3
Leaving roadway	20	0.1	0	0.0	4	0.1
Making U-turn	51	0.3	0	0.0	10	0.3
Overtaking or passing	116	0.7	0	0.0	17	0.5
Avoiding object	17	0.1	0	0.0	5	0.2
Avoiding animal	14	0.1	0	0.0	3	0.1
Avoiding pedestrian	3	0.0	0	0.0	1	0.0
Avoiding vehicle (front/back)	219	1.3	1	0.9	59	1.9
Avoiding vehicle (angle)	87	0.5	5	4.3	20	0.6
Driverless moving	27	0.2	0	0.0	5	0.2
Parked	359	2.1	5	4.3	66	2.1
Crossing at intersection	3	0.0	0	0.0	1	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	1	0.0	0	0.0	1	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	1	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	7	0.0	0	0.0	1	0.0
Unknown	684	4.0	1	0.9	133	4.2
Total	17,166	100.0	117	100.0	3,182	100.0

HEAVY TRUCK/BUS INVOLVED CRASHES (continued)

MOST HARMFUL EVENT IN A NONCOLLISION	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Loss of control	47	0.3	0	0.0	9	0.3
Cross center/median	23	0.1	0	0.0	1	0.0
Ran off road left	22	0.1	0	0.0	0	0.0
Ran off road right	41	0.2	0	0.0	7	0.2
Re-enter road	0	0.0	0	0.0	0	0.0
Overturn	230	1.3	2	1.7	95	3.0
Separation of units	48	0.3	0	0.0	7	0.2
Fire/explosion	45	0.3	3	2.6	4	0.1
Immersion	4	0.0	0	0.0	1	0.0
Jackknife	105	0.6	0	0.0	15	0.5
Downhill runaway	3	0.0	0	0.0	0	0.0
Cargo loss/shift	258	1.5	0	0.0	15	0.5
Individual fell off	6	0.0	1	0.9	2	0.1
Other noncollision	212	1.2	0	0.0	23	0.7
NONCOLLISION Subtotal	1,044	6.1	6	5.1	179	5.6

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Pedestrian	46	0.3	9	7.7	31	1.0
Bicyclist	17	0.1	2	1.7	11	0.3
Motor vehicle in transport	12,089	70.4	88	75.2	2,504	78.7
Parked motor vehicle	644	3.8	1	0.9	27	0.8
Railway train	8	0.0	0	0.0	2	0.1
Animal	455	2.7	1	0.9	3	0.1
Other nonfixed objects	218	1.3	1	0.9	17	0.5
COLLISION NONFIXED Subtotal	13,477	78.5	102	87.2	2,595	81.6

HEAVY TRUCK/BUS INVOLVED CRASHES (continued)

MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Bridge/pier/abutment	113	0.7	1	0.9	11	0.3
Bridge parapet end	4	0.0	0	0.0	0	0.0
Bridge rail	19	0.1	0	0.0	5	0.2
Guardrail face	54	0.3	0	0.0	10	0.3
Guardrail end	14	0.1	1	0.9	1	0.0
Median barrier	48	0.3	1	0.9	13	0.4
Highway traffic sign post	71	0.4	0	0.0	2	0.1
Signal post	19	0.1	0	0.0	1	0.0
Luminaire/light support	47	0.3	1	0.9	4	0.1
Utility pole	119	0.7	0	0.0	10	0.3
Other pole	44	0.3	0	0.0	3	0.1
Culvert	8	0.0	1	0.9	3	0.1
Curb	17	0.1	0	0.0	2	0.1
Ditch	136	0.8	1	0.9	31	1.0
Embankment	28	0.2	0	0.0	9	0.3
Fence	23	0.1	1	0.9	3	0.1
Mailbox	17	0.1	0	0.0	0	0.0
Tree	134	0.8	0	0.0	34	1.1
Rail crossing signal	38	0.2	0	0.0	0	0.0
Building	25	0.1	0	0.0	2	0.1
Traffic island	1	0.0	0	0.0	0	0.0
Fire hydrant	40	0.2	0	0.0	1	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	218	1.3	0	0.0	10	0.3
COLLISION FIXED Subtotal	1,237	7.2	7	6.0	155	4.9

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Unknown Event	1,408	8.2	2	1.7	253	8.0
TOTAL MOST HARMFUL EVENT	17,166	100.0	117	100.0	3,182	100.0

HEAVY TRUCK/BUS INVOLVED CRASHES (continued)

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Single Vehicle	2,321	13.5	14	12.0	314	9.9
Head On	289	1.7	28	23.9	109	3.4
Head On - Left Turn	174	1.0	4	3.4	63	2.0
Angle	2,861	16.7	31	26.5	809	25.4
Rear End	3,899	22.7	22	18.8	1,026	32.2
Rear End - Left Turn	156	0.9	0	0.0	47	1.5
Rear End - Right Turn	162	0.9	0	0.0	29	0.9
Sideswipe - Same Direction	4,305	25.1	4	3.4	418	13.1
Sideswipe - Opposite Direct	974	5.7	3	2.6	123	3.9
Other	1,852	10.8	11	9.4	219	6.9
Unknown	173	1.0	0	0.0	25	0.8
Total	17,166	100.0	117	100.0	3,182	100.0

HAZARDOUS ACTION OF HEAVY TRUCK/BUS	Truck/Bus Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury	Number of Heavy Trucks	% of Issued
None	7,936	46.2	81	69.2	1,623	51.0	11	0.4
Speed too fast	524	3.1	4	3.4	147	4.6	210	7.7
Speed too slow	10	0.1	0	0.0	3	0.1	6	0.2
Failed to yield	840	4.9	1	0.9	209	6.6	370	13.6
Disregard traffic control	201	1.2	3	2.6	87	2.7	112	4.1
Drove wrong way	12	0.1	0	0.0	1	0.0	1	0.0
Drove left of center	83	0.5	1	0.9	5	0.2	22	0.8
Improper passing	119	0.7	0	0.0	9	0.3	24	0.9
Improper lane use	901	5.2	3	2.6	93	2.9	279	10.3
Improper turn	725	4.2	1	0.9	50	1.6	193	7.1
Improper/no signal	26	0.2	0	0.0	0	0.0	4	0.1
Improper backing	862	5.0	2	1.7	24	0.8	225	8.3
Unable to stop in assured clear distance	1,553	9.0	3	2.6	475	14.9	685	25.3
Reckless driving	14	0.1	0	0.0	3	0.1	6	0.2
Careless/Negligent driving	365	2.1	5	4.3	88	2.8	180	6.6
Other	1,663	9.7	7	6.0	167	5.2	337	12.4
Unknown	1,332	7.8	6	5.1	198	6.2	47	1.7
Total	17,166	100.0	117	100.0	3,182	100.0	2,712	100.0

HEAVY TRUCK/BUS INVOLVED CRASHES (continued)

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
On Road	15,551	90.6	108	92.3	2,854	89.7
Median	89	0.5	0	0.0	31	1.0
Shoulder	557	3.2	6	5.1	129	4.1
Outside of Shoulder/Curb	619	3.6	2	1.7	122	3.8
Gore	24	0.1	1	0.9	7	0.2
Other/Unknown	326	1.9	0	0.0	39	1.2
Total	17,166	100.0	117	100.0	3,182	100.0

TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
12:00 mid. - 02:59 a.m.	462	2.7	11	9.4	105	3.3
03:00 a.m. - 05:59 a.m.	593	3.5	8	6.8	136	4.3
06:00 a.m. - 08:59 a.m.	2,993	17.4	24	20.5	559	17.6
09:00 a.m. - 11:59 a.m.	3,516	20.5	16	13.7	636	20.0
12:00 noon - 02:59 p.m.	3,671	21.4	21	17.9	620	19.5
03:00 p.m. - 05:59 p.m.	3,288	19.2	18	15.4	621	19.5
06:00 p.m. - 08:59 p.m.	1,144	6.7	13	11.1	218	6.9
09:00 p.m. - 11:59 p.m.	678	3.9	3	2.6	129	4.1
Unknown	821	4.8	3	2.6	158	5.0
Total	17,166	100.0	117	100.0	3,182	100.0

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Interstate Routes	1,925	11.2	18	15.4	446	14.0
U.S. & Michigan Roads	3,811	22.2	52	44.4	750	23.6
County & City Roads	11,430	66.6	47	40.2	1,986	62.4
Total	17,166	100.0	117	100.0	3,182	100.0

HEAVY TRUCK/BUS INVOLVED CRASHES (continued)

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Sunday	510	3.0	2	1.7	107	3.4
Monday	3,346	19.5	23	19.7	590	18.5
Tuesday	3,178	18.5	16	13.7	605	19.0
Wednesday	3,097	18.0	30	25.6	562	17.7
Thursday	3,026	17.6	20	17.1	541	17.0
Friday	3,096	18.0	18	15.4	589	18.5
Saturday	913	5.3	8	6.8	188	5.9
Total	17,166	100.0	117	100.0	3,182	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Male	14,004	81.6	105	89.7	2,650	83.3
Female	1,764	10.3	5	4.3	300	9.4
Unknown	1,398	8.1	7	6.0	232	7.3
Total	17,166	100.0	117	100.0	3,182	100.0

NUMBER OF OCCUPANTS in Heavy Truck/Bus	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
1 occupant	13,036	75.9	97	82.9	2,374	74.6
2 occupants	1,297	7.6	11	9.4	271	8.5
3 occupants	251	1.5	1	0.9	53	1.7
4 occupants	147	0.9	0	0.0	32	1.0
5 occupants	100	0.6	0	0.0	18	0.6
6 + occupants	878	5.1	1	0.9	197	6.2
0 occupants	344	2.0	6	5.1	70	2.2
Unknown	1,113	6.5	1	0.9	167	5.2
Total	17,166	100.0	117	100.0	3,182	100.0

HEAVY TRUCK/BUS INVOLVED CRASHES (continued)

VEHICLE TYPES Involved in Crash with Heavy Truck/Bus	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Vehicles	% of Subtotal	Number of Vehicles	% of Fatal	Number of Vehicles	% of Injury
Passenger Car and Station Wagon	10,725	71.9	84	63.6	2,377	71.1
Van and Motorhome	1,224	8.2	11	8.3	289	8.7
Pickup	1,973	13.2	16	12.1	427	12.8
Small Truck (under 10,000 lbs.)	376	2.5	2	1.5	76	2.3
Motorcycle	26	0.2	2	1.5	16	0.5
Moped	7	0.0	0	0.0	4	0.1
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	7	0.0	2	1.5	1	0.0
Off Road Vehicle	1	0.0	0	0.0	1	0.0
Other	94	0.6	1	0.8	19	0.6
Unknown	488	3.3	14	10.6	131	3.9
Subtotal	14,921	100.0	132	100.0	3,341	100.0

HEAVY TRUCK/BUS VEHICLE TYPES	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Subtotal	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Commercial Vehicle: Group A	7,724	45.0	75	64.1	1,478	46.4
Commercial Vehicle: Group B	3,482	20.3	25	21.4	686	21.6
Commercial Vehicle: Group C	510	3.0	1	0.9	116	3.6
Other Truck	911	5.3	7	6.0	186	5.8
Unknown Truck	4,539	26.4	9	7.7	716	22.5
Subtotal	17,166	100.0	117	100.0	3,182	100.0
Total Vehicle Types in Heavy Truck/Bus Crashes	32,087		249		6,523	

Group “A” is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group “B” is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group “C” is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group “C” is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

HEAVY TRUCK/BUS INVOLVED CRASHES (continued)

Hazardous Citation Issued	Heavy Truck/Bus				Passenger Vehicles Involved with Heavy Trucks					
	Single Vehicle Crash		Multi-Vehicle Crash		Single Vehicle Crash		Multi-Vehicle All Crashes		Multi-Vehicle Heavy Truck /Bus Involved Crash	
	Number of Vehicles	% of citation	Number of Vehicles	% of citation	Number of Vehicles	% of citation	Number of Vehicles	% of citation	Number of Vehicles	% of citation
None	1	0.2	10	0.5	59	0.3	417	0.4	15	0.6
Speed too fast	148	26.2	62	2.9	8,411	42.2	3,609	3.8	287	11.5
Speed too slow	1	0.2	5	0.2	36	0.2	208	0.2	6	0.2
Failed to yield	3	0.5	367	17.1	85	0.4	28,726	29.9	558	22.4
Disregard traffic control	12	2.1	100	4.7	154	0.8	6,930	7.2	147	5.9
Drove wrong way	0	0.0	1	0.0	28	0.1	114	0.1	5	0.2
Drove left of center	2	0.4	20	0.9	188	0.9	910	0.9	50	2.0
Improper passing	2	0.4	22	1.0	66	0.3	1,135	1.2	86	3.5
Improper lane use	34	6.0	245	11.4	378	1.9	3,965	4.1	213	8.6
Improper turn	38	6.7	155	7.2	97	0.5	2,308	2.4	58	2.3
Improper/no signal	0	0.0	4	0.2	14	0.1	136	0.1	8	0.3
Improper backing	37	6.6	188	8.8	1,169	5.9	1,542	1.6	28	1.1
Unable to stop in assured clear distance	22	3.9	663	30.9	963	4.8	38,852	40.4	642	25.8
Reckless driving	3	0.5	3	0.1	808	4.1	416	0.4	13	0.5
Careless/Negligent driving	114	20.2	66	3.1	4,360	21.9	2,422	2.5	197	7.9
Other	134	23.8	201	9.4	2,684	13.5	3,155	3.3	141	5.7
Unknown	13	2.3	34	1.6	438	2.2	1,346	1.4	36	1.4
Total Cited Vehicles	564	100.0	2,146	100.0	19,938	100.0	96,191	100.0	2,490	100.0
Percent of Total Vehicles		15.7		15.8		11.5		22.1		18.6
Vehicles with No Citation Issued	3,032	84.3	11,402	84.2	153,604	88.5	338,618	77.9	10,863	81.4
Total Vehicles Involved	3,596	100.0	13,548	100.0	173,542	100.0	434,809	100.0	13,353	100.0

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Age

PERSON'S AGE and THEIR INJURY SEVERITY
by PERSON TYPE

Age*	Driver				Passenger			Bicyclist			Pedestrian		
	Total	Killed	Injured	No Injury	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
0	81	0	15	64	180	3	177	1	0	1	5	1	2
1	3	0	0	3	232	4	228	0	0	0	10	0	8
2	5	0	2	3	236	2	234	1	0	1	22	0	20
3	7	0	0	7	279	1	278	2	0	2	28	2	25
4	16	0	3	13	329	3	325	11	0	9	27	0	24
5	24	0	4	20	348	4	344	27	1	20	48	3	40
6	35	0	7	27	321	5	316	34	1	23	49	1	45
7	35	0	8	27	329	3	326	51	0	41	44	0	42
8	29	0	7	22	342	1	341	46	1	37	69	1	59
9	25	0	6	19	391	3	388	67	0	58	64	0	53
10	33	0	6	26	414	3	411	90	1	70	62	0	57
11	40	1	16	21	418	3	415	97	1	88	73	2	61
12	66	2	25	37	402	7	395	149	1	125	99	2	91
13	166	1	51	110	469	3	466	161	0	125	98	1	86
14	347	1	65	270	616	5	609	154	1	132	98	3	87
15	1,160	5	184	954	1,003	6	995	115	3	91	86	2	75
16	16,110	18	2,052	13,906	1,110	7	1,091	74	0	64	53	1	45
17	20,212	22	2,599	17,407	1,082	11	1,053	44	1	35	57	1	52
18	21,646	23	2,876	18,531	997	11	967	68	2	61	57	2	53
19	19,130	18	2,470	16,447	782	14	747	52	0	40	59	4	50
20	17,913	19	2,303	15,377	678	6	658	44	0	34	61	5	51
21	16,846	22	2,219	14,442	640	8	611	43	0	34	55	2	50
22	15,796	21	2,073	13,526	560	6	538	42	1	34	65	2	59
23	14,987	25	2,003	12,757	470	4	445	27	2	22	52	3	42
24	13,856	21	1,714	11,948	430	7	414	19	0	14	30	1	27
25	12,898	8	1,644	11,069	395	7	375	22	0	20	38	0	37
26	12,276	11	1,538	10,586	318	1	303	18	0	16	36	0	31
27	11,373	13	1,427	9,794	300	1	288	16	0	14	22	0	21
28	11,321	17	1,366	9,804	303	2	289	19	0	14	36	1	29
29	11,101	15	1,390	9,541	280	0	269	17	0	15	35	1	34
30	11,378	9	1,408	9,810	285	6	271	12	0	10	36	1	29
31	11,769	12	1,465	10,129	252	2	239	12	0	9	31	3	26
32	12,538	13	1,514	10,844	251	5	237	9	0	7	39	2	34
33	12,206	14	1,507	10,523	256	3	238	25	0	20	32	1	27
34	11,468	8	1,390	9,939	244	3	226	21	0	15	26	2	21
35	11,232	12	1,387	9,676	231	0	211	14	0	10	35	4	28
36	11,355	6	1,327	9,869	229	1	214	18	0	13	29	1	28
37	11,539	15	1,377	9,982	226	2	211	16	0	11	38	2	31
38	11,695	10	1,346	10,187	219	0	206	25	0	23	37	4	30
39	12,043	11	1,436	10,441	247	3	231	32	1	23	34	4	28
40	12,054	16	1,406	10,489	221	4	203	27	0	22	37	3	32
41	12,001	20	1,367	10,453	243	3	228	36	0	32	25	2	19

* Driver age is calculated from birth date. Data entry errors may result in age "0" drivers.

PERSON'S AGE and THEIR INJURY SEVERITY by PERSON TYPE (continued)

Age	Driver				Passenger			Bicyclist			Pedestrian		
	Total	Killed	Injured	No Injury	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
42	12,006	13	1,355	10,485	202	2	190	26	1	22	39	3	33
43	11,522	9	1,395	9,996	236	5	220	35	1	32	51	8	41
44	11,439	13	1,352	9,932	256	1	244	23	1	19	41	2	35
45	11,016	18	1,325	9,533	238	4	226	23	0	20	35	4	28
46	10,920	16	1,391	9,368	239	3	228	19	1	15	47	5	41
47	10,297	4	1,236	8,928	203	2	192	26	2	20	36	1	32
48	10,367	16	1,351	8,873	228	2	217	29	1	19	38	2	34
49	9,767	9	1,222	8,413	196	1	185	23	1	20	38	5	28
50	9,084	5	1,121	7,821	191	3	183	15	2	10	38	4	32
51	8,844	11	1,090	7,645	192	2	183	23	0	20	25	3	20
52	8,485	12	1,003	7,352	188	4	175	11	0	9	31	2	29
53	7,747	8	957	6,712	177	1	168	14	1	10	27	3	19
54	7,567	12	930	6,528	179	3	168	10	0	8	26	5	19
55	7,423	12	971	6,366	159	2	150	5	1	4	27	3	23
56	7,446	10	885	6,454	174	0	167	9	0	9	22	3	18
57	5,616	7	698	4,843	147	1	143	8	1	3	18	4	14
58	5,266	10	641	4,562	133	0	128	2	0	1	23	2	14
59	5,001	5	612	4,315	120	3	113	10	0	10	33	5	26
60	5,399	7	632	4,702	158	5	152	4	0	4	14	2	11
61	4,571	14	568	3,930	125	3	118	6	0	6	5	0	5
62	4,042	6	504	3,486	114	3	104	4	0	3	13	2	11
63	3,649	4	455	3,148	123	2	115	7	0	5	7	1	5
64	3,262	5	405	2,810	88	2	85	4	0	3	7	1	5
65	3,252	7	388	2,825	102	2	97	3	0	2	16	2	12
66	2,911	3	384	2,493	77	1	74	3	0	2	15	0	15
67	2,750	2	295	2,416	98	1	96	3	0	3	13	2	11
68	2,629	4	305	2,282	96	2	91	1	0	1	7	1	4
69	2,353	7	288	2,038	71	4	63	2	0	2	10	2	7
70	2,435	7	284	2,115	82	0	78	2	0	1	9	0	9
71	2,310	5	274	2,011	88	3	82	5	1	4	9	2	7
72	2,352	6	294	2,018	99	4	91	3	1	2	8	2	6
73	2,290	5	275	1,983	78	1	76	3	0	1	3	0	3
74	2,175	9	254	1,875	98	2	95	1	0	0	5	0	4
75	2,073	3	292	1,766	80	4	74	1	0	1	4	1	3
76	2,032	8	261	1,731	102	4	95	2	0	2	10	0	10
77	1,855	8	247	1,577	74	0	73	0	0	0	16	1	13
78	1,917	6	248	1,639	78	1	76	2	0	1	11	2	8
79	1,673	6	220	1,425	51	1	49	0	0	0	7	1	6
80	1,526	7	224	1,282	58	2	55	1	0	1	3	1	2
81	1,267	12	175	1,059	55	1	52	2	0	2	6	1	5
82	1,188	11	196	971	56	3	52	0	0	0	8	2	5
83	1,067	4	149	904	57	4	53	2	0	2	4	1	3

PERSONS AGE and THEIR INJURY SEVERITY by PERSON TYPE (continued)

Age	Driver*				Passenger*			Bicyclist*			Pedestrian*		
	Total	Killed	Injured	No Injury	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
84	898	3	139	752	40	0	39	0	0	0	7	1	5
85	750	7	112	617	39	2	37	0	0	0	8	1	5
86	575	7	78	483	27	2	24	0	0	0	3	0	3
87	479	2	78	393	25	1	24	2	0	2	3	2	1
88	375	5	58	305	28	1	27	0	0	0	3	1	2
89	276	3	36	232	13	1	12	0	0	0	1	0	1
90	184	1	25	157	18	0	18	0	0	0	0	0	0
91	137	2	31	104	14	0	14	0	0	0	2	1	1
92	90	0	23	66	12	0	12	0	0	0	1	1	0
93	48	1	11	36	3	0	3	0	0	0	0	0	0
94	39	0	8	31	7	2	5	0	0	0	1	0	1
95	22	0	4	18	3	1	2	0	0	0	0	0	0
96	15	1	2	11	1	0	1	0	0	0	0	0	0
97	7	0	0	7	2	0	2	0	0	0	0	0	0
98	4	0	1	3	4	1	3	0	0	0	1	0	1
99	1	0	0	1	2	0	2	0	0	0	0	0	0
100	3	0	0	3	3	0	3	0	0	0	0	0	0
101	4	0	0	4	0	0	0	0	0	0	0	0	0
102	2	0	0	2	1	0	1	0	0	0	0	0	0
103	3	0	0	3	0	0	0	0	0	0	0	0	0
104	0	0	0	0	1	0	1	0	0	0	0	0	0
Unknown	51,578	11	1,396	15,845	629	1	619	144	0	53	181	1	113
Totals	635,096	798	74,157	518,785	23,996	279	23,136	2,276	32	1,789	2,953	169	2,478
	* Includes 41,356 drivers with unknown injury severity				* Includes 12 passengers with unknown injury severity and 569 with no injury			* Includes 99 bicyclists with unknown injury severity and 356 with no injury			* Includes 105 pedestrians with unknown injury severity and 201 with no injury		

DRIVER AGE

The following tables describe driver actions and crash characteristics for motor vehicle drivers age 16-24; 25-64; and 65 & Over. These tables are provided to demonstrate the differences in the nature of the crashes for these age groups.

Generally, younger drivers are more involved in single-vehicle and off road crashes. Older drivers are more involved in angle type crashes, are more likely to commit "Failed to Yield" as a hazardous action, and have much more difficulty turning left, while younger drivers are more likely to be speeding.

For more information on age and the crash experience please visit the Michigan Traffic Crash Facts web site **www.michigantrafficcrashfacts.org**.

DRIVER AGE 16-24

Revised January 25, 2005

DRIVER ACTION PRIOR TO CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Going straight ahead	84,947	54.3	340	79.6	20,718	56.9
Turning left	13,331	8.5	21	4.9	3,669	10.1
Turning right	4,333	2.8	1	0.2	662	1.8
Stopped on roadway	12,629	8.1	10	2.3	3,004	8.2
In prior crash	251	0.2	0	0.0	67	0.2
Changing lanes	4,190	2.7	5	1.2	589	1.6
Backing	3,049	1.9	0	0.0	147	0.4
Slowing/stopping on roadway	15,995	10.2	7	1.6	3,343	9.2
Slowing/stopping other	220	0.1	0	0.0	37	0.1
Starting up on roadway	3,316	2.1	2	0.5	811	2.2
Starting up other	99	0.1	0	0.0	21	0.1
Entering parking	141	0.1	0	0.0	13	0.0
Leaving parking	521	0.3	0	0.0	101	0.3
Entering roadway	2,864	1.8	2	0.5	702	1.9
Leaving roadway	363	0.2	5	1.2	111	0.3
Making U-turn	362	0.2	0	0.0	90	0.2
Overtaking or passing	1,532	1.0	14	3.3	349	1.0
Avoiding object	264	0.2	0	0.0	80	0.2
Avoiding animal	744	0.5	1	0.2	223	0.6
Avoiding pedestrian	43	0.0	3	0.7	16	0.0
Avoiding vehicle (front/back)	1,802	1.2	7	1.6	457	1.3
Avoiding vehicle (angle)	678	0.4	5	1.2	182	0.5
Driverless moving	28	0.0	0	0.0	6	0.0
Parked	330	0.2	0	0.0	37	0.1
Crossing at intersection	5	0.0	0	0.0	3	0.0
Crossing not at intersection	2	0.0	0	0.0	2	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	1	0.0	0	0.0	0	0.0
In roadway against traffic	1	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	2	0.0	0	0.0	1	0.0
Not in roadway	2	0.0	0	0.0	0	0.0
Other	33	0.0	0	0.0	10	0.0
Unknown	4,418	2.8	4	0.9	972	2.7
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

DRIVER AGE 16-24 (continued)

Revised January 25, 2005

MOST HARMFUL EVENT IN A NONCOLLISION	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Loss of control	830	0.5	1	0.2	257	0.7
Cross center/median	128	0.1	0	0.0	33	0.1
Ran off road left	283	0.2	0	0.0	60	0.2
Ran off road right	397	0.3	0	0.0	73	0.2
Re-enter road	23	0.0	1	0.2	11	0.0
Overturn	3,162	2.0	28	6.6	1,611	4.4
Separation of units	173	0.1	0	0.0	35	0.1
Fire/explosion	188	0.1	1	0.2	32	0.1
Immersion	12	0.0	0	0.0	1	0.0
Jackknife	38	0.0	0	0.0	4	0.0
Downhill runaway	13	0.0	0	0.0	4	0.0
Cargo loss/shift	74	0.0	0	0.0	5	0.0
Individual fell off	114	0.1	3	0.7	93	0.3
Other noncollision	375	0.2	1	0.2	79	0.2
NONCOLLISION Subtotal	5,810	3.7	35	8.2	2,298	6.3

Teens and young adults have the highest incidence of overturn in fatal crashes when compared to the other two age groups (25-64 and 65 & over).

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Pedestrian	453	0.3	31	7.3	377	1.0
Pedalcycle (Bicyclist)	409	0.3	12	2.8	310	0.9
Motor vehicle in transport	106,382	68.0	246	57.6	25,855	71.0
Parked motor vehicle	2,854	1.8	7	1.6	333	0.9
Railway train	37	0.0	3	0.7	14	0.0
Animal	10,992	7.0	0	0.0	240	0.7
Other nonfixed objects	1,062	0.7	3	0.7	106	0.3
COLLISION NONFIXED Subtotal	122,189	78.1	302	70.7	27,235	74.8

DRIVER AGE 16-24 (continued)

Revised January 25, 2005

MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Bridge/pier/abutment	159	0.1	2	0.5	40	0.1
Bridge parapet end	31	0.0	0	0.0	11	0.0
Bridge rail	169	0.1	0	0.0	39	0.1
Guardrail face	1,239	0.8	2	0.5	247	0.7
Guardrail end	200	0.1	3	0.7	64	0.2
Median barrier	1,127	0.7	1	0.2	304	0.8
Highway traffic sign post	943	0.6	2	0.5	59	0.2
Signal post	70	0.0	0	0.0	8	0.0
Luminaire/light support	164	0.1	0	0.0	39	0.1
Utility pole	1,280	0.8	5	1.2	429	1.2
Other pole	385	0.2	0	0.0	61	0.2
Culvert	274	0.2	3	0.7	92	0.3
Curb	672	0.4	0	0.0	58	0.2
Ditch	3,237	2.1	4	0.9	768	2.1
Embankment	631	0.4	3	0.7	194	0.5
Fence	488	0.3	1	0.2	50	0.1
Mailbox	772	0.5	0	0.0	59	0.2
Tree	4,915	3.1	54	12.6	1,739	4.8
Rail crossing signal	12	0.0	0	0.0	4	0.0
Building	232	0.1	3	0.7	79	0.2
Traffic island	18	0.0	0	0.0	2	0.0
Fire hydrant	200	0.1	0	0.0	31	0.1
Impact attenuator	18	0.0	0	0.0	9	0.0
Other fixed object	1,050	0.7	1	0.2	251	0.7
COLLISION FIXED Subtotal	18,286	11.7	84	19.7	4,637	12.7

Teens and young adults have the highest incidence of collision with ditches and trees in all crashes when compared to the other two age groups.

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	10,211	6.5	6	1.4	2,253	6.2
TOTAL MOST HARMFUL EVENT	156,496	100.0	427	100.0	36,423	100.0

DRIVER AGE 16-24 (continued)

Revised January 25, 2005

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	35,888	22.9	154	36.1	7,310	20.1
Head On	2,790	1.8	79	18.5	1,192	3.3
Head On - Left Turn	6,022	3.8	21	4.9	2,343	6.4
Angle	36,507	23.3	113	26.5	10,387	28.5
Rear End	49,212	31.4	22	5.2	11,373	31.2
Rear End - Left Turn	2,341	1.5	1	0.2	709	1.9
Rear End - Right Turn	1,465	0.9	0	0.0	215	0.6
Sideswipe - Same Direction	12,391	7.9	7	1.6	1,195	3.3
Sideswipe - Opposite Direct	3,493	2.2	9	2.1	532	1.5
Other	5,071	3.2	21	4.9	930	2.6
Unknown	1,316	0.8	0	0.0	237	0.7
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

Teen and young adult drivers are involved in the largest proportion of single vehicle crashes when compared to the other two age groups.

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
On Road	134,004	85.6	311	72.8	30,248	83.0
Median	1,012	0.6	5	1.2	303	0.8
Shoulder	5,690	3.6	24	5.6	1,391	3.8
Outside of Shoulder/Curb	12,577	8.0	81	19.0	3,608	9.9
Gore	374	0.2	1	0.2	115	0.3
Other/Unknown	2,839	1.8	5	1.2	758	2.1
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

When compared to the other two age groups in all crashes, teen and young adult drivers have the highest incidence of crashes where the first impact is on the shoulder of the roadway or outside the shoulder/curb.

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Interstate Routes	7,622	4.9	40	9.4	1,779	4.9
U.S. & Michigan Roads	33,387	21.3	118	27.6	7,676	21.1
County & City Roads	115,487	73.8	269	63.0	26,968	74.0
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

DRIVER AGE 16-24 (continued)

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TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
12:00 mid. - 02:59 a.m.	7,985	5.1	59	13.8	2,002	5.5
03:00 a.m. - 05:59 a.m.	3,940	2.5	27	6.3	1,020	2.8
06:00 a.m. - 08:59 a.m.	15,979	10.2	36	8.4	3,343	9.2
09:00 a.m. - 11:59 a.m.	15,243	9.7	33	7.7	3,554	9.8
12:00 noon – 02:59 p.m.	26,681	17.0	49	11.5	6,466	17.8
03:00 p.m. - 05:59 p.m.	39,468	25.2	83	19.4	9,446	25.9
06:00 p.m. - 08:59 p.m.	23,640	15.1	57	13.3	5,374	14.8
09:00 p.m. - 11:59 p.m.	15,835	10.1	70	16.4	3,528	9.7
Unknown	7,725	4.9	13	3.0	1,690	4.6
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

6:00 PM to 2:59 AM shows the highest involvement for teen and young adult drivers in all crashes compared to the other two age groups.

HAZARDOUS ACTION	All Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury	Number	% of Issued
None	63,056	40.3	131	30.7	12,735	35.0	150	0.3
Speed too fast	15,887	10.2	82	19.2	4,129	11.3	6,090	13.3
Speed too slow	245	0.2	1	0.2	67	0.2	114	0.2
Failed to yield	17,354	11.1	32	7.5	4,911	13.5	10,381	22.7
Disregard traffic control	3,727	2.4	28	6.6	1,515	4.2	2,438	5.3
Drove wrong way	85	0.1	0	0.0	30	0.1	41	0.1
Drove left of center	848	0.5	24	5.6	297	0.8	428	0.9
Improper passing	980	0.6	1	0.2	149	0.4	426	0.9
Improper lane use	2,957	1.9	4	0.9	376	1.0	1,476	3.2
Improper turn	1,651	1.1	2	0.5	316	0.9	828	1.8
Improper/no signal	168	0.1	0	0.0	25	0.1	46	0.1
Improper backing	2,215	1.4	0	0.0	58	0.2	778	1.7
Unable to stop in assured clear distance	28,792	18.4	9	2.1	6,571	18.0	15,839	34.7
Reckless driving	1,125	0.7	15	3.5	484	1.3	587	1.3
Careless\Negligent driving	5,118	3.3	33	7.7	1,878	5.2	3,124	6.8
Other	5,945	3.8	28	6.6	1,518	4.2	2,104	4.6
Unknown	6,343	4.1	37	8.7	1,364	3.7	788	1.7
Total Drivers	156,496	100.0	427	100.0	36,423	100.0	45,638	100.0

Compared to the other two age groups, teen and young adult drivers have the highest incidence of crash involvement when their speed is too fast. In all crashes they are “unable to stop in assured clear distance” more often than older drivers.

DRIVER AGE 16-24 (continued)

Revised January 25, 2005

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Sunday	16,151	10.3	51	11.9	4,079	11.2
Monday	23,599	15.1	55	12.9	5,372	14.7
Tuesday	23,414	15.0	63	14.8	5,336	14.7
Wednesday	22,824	14.6	72	16.9	5,068	13.9
Thursday	23,023	14.7	46	10.8	5,363	14.7
Friday	27,055	17.3	66	15.5	6,191	17.0
Saturday	20,430	13.1	74	17.3	5,014	13.8
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

The weekend shows higher involvement of teen and young adult drivers in all crashes when compared to the other two age groups.

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	85,407	54.6	282	66.0	19,119	52.5
Female	67,976	43.4	140	32.8	16,580	45.5
Unknown	3,113	2.0	5	1.2	724	2.0
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

OCCUPANTS IN MOTOR VEHICLE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
1 occupant	104,931	67.1	247	57.8	22,148	60.8
2 occupants	32,910	21.0	107	25.1	8,954	24.6
3 occupants	9,189	5.9	41	9.6	2,814	7.7
4 occupants	3,410	2.2	18	4.2	1,122	3.1
5 occupants	923	0.6	11	2.6	313	0.9
6 + occupants	318	0.2	2	0.5	119	0.3
0 occupants	397	0.3	0	0.0	60	0.2
Unknown	4,418	2.8	1	0.2	893	2.5
Total Drivers	156,496	100.0	427	100.0	36,423	100.0

DRIVER AGE 16-24 (continued)

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VEHICLE TYPE CRASH INVOLVEMENT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Passenger Car and Station Wagon	124,267	79.4	319	74.7	29,130	80.0
Van and Motorhome	5,110	3.3	12	2.8	1,226	3.4
Pickup	20,347	13.0	59	13.8	4,241	11.6
Small Truck (under 10,000 lbs.)	3,192	2.0	10	2.3	696	1.9
Motorcycle	517	0.3	12	2.8	393	1.1
Moped	63	0.0	1	0.2	46	0.1
Go Cart	6	0.0	0	0.0	5	0.0
Snowmobile	65	0.0	4	0.9	44	0.1
Off Road Vehicle	89	0.1	2	0.5	76	0.2
Other	175	0.1	1	0.2	47	0.1
Unknown	1,890	1.2	1	0.2	376	1.0
CDL Truck/Bus (breakdown below)	775	0.5	6	1.4	143	0.4
Total Number of Drivers	156,496	100.0	427	100.0	36,423	100.0

Special Note: School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.

CDL Truck/Bus Sub-category Types	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Commercial Vehicle: Group A	275	35.5	3	50.0	50	35.0
Commercial Vehicle: Group B	182	23.5	1	16.7	31	21.7
Commercial Vehicle: Group C	25	3.2	0	0.0	6	4.2
Other Truck	108	13.9	2	33.3	24	16.8
Unknown Truck	185	23.9	0	0.0	32	22.4
Total Number of Drivers	775	100.0	6	100.0	143	100.0

Group “A” is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group “B” is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group “C” is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group “C” is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

DRIVER AGE 25-64

Revised January 25, 2005

DRIVER ACTION PRIOR TO CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Going straight ahead	204,839	53.8	897	79.2	43,847	52.8
Turning left	24,675	6.5	38	3.4	6,476	7.8
Turning right	9,868	2.6	2	0.2	1,529	1.8
Stopped on roadway	46,282	12.1	36	3.2	12,181	14.7
In prior crash	447	0.1	2	0.2	134	0.2
Changing lanes	8,004	2.1	22	1.9	1,085	1.3
Backing	9,250	2.4	7	0.6	419	0.5
Slowing/stopping on roadway	38,191	10.0	29	2.6	8,556	10.3
Slowing/stopping other	517	0.1	0	0.0	113	0.1
Starting up on roadway	7,602	2.0	13	1.1	1,752	2.1
Starting up other	188	0.0	0	0.0	36	0.0
Entering parking	481	0.1	0	0.0	60	0.1
Leaving parking	1,104	0.3	2	0.2	199	0.2
Entering roadway	4,978	1.3	10	0.9	1,116	1.3
Leaving roadway	590	0.2	8	0.7	196	0.2
Making U-turn	715	0.2	1	0.1	175	0.2
Overtaking or passing	2,838	0.7	12	1.1	589	0.7
Avoiding object	463	0.1	0	0.0	114	0.1
Avoiding animal	1,010	0.3	1	0.1	238	0.3
Avoiding pedestrian	88	0.0	0	0.0	42	0.1
Avoiding vehicle (front/back)	3,467	0.9	29	2.6	933	1.1
Avoiding vehicle (angle)	1,592	0.4	11	1.0	383	0.5
Driverless moving	63	0.0	0	0.0	16	0.0
Parked	1,491	0.4	2	0.2	161	0.2
Crossing at intersection	16	0.0	0	0.0	8	0.0
Crossing not at intersection	9	0.0	0	0.0	4	0.0
Getting on/off vehicle	3	0.0	0	0.0	1	0.0
In roadway with traffic	6	0.0	0	0.0	2	0.0
In roadway against traffic	3	0.0	0	0.0	0	0.0
Standing/lying in roadway	3	0.0	0	0.0	2	0.0
Pushing/working on vehicle	2	0.0	0	0.0	1	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	4	0.0	0	0.0	1	0.0
Not in roadway	5	0.0	0	0.0	2	0.0
Other	110	0.0	0	0.0	34	0.0
Unknown	12,079	3.2	11	1.0	2,615	3.1
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

DRIVER AGE 25-64 (continued)

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MOST HARMFUL EVENT IN A NONCOLLISION	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Loss of control	1,350	0.4	0	0.0	362	0.4
Cross center/median	256	0.1	1	0.1	68	0.1
Ran off road left	369	0.1	2	0.2	76	0.1
Ran off road right	718	0.2	2	0.2	164	0.2
Re-enter road	41	0.0	1	0.1	14	0.0
Overturn	4,312	1.1	55	4.9	2,185	2.6
Separation of units	493	0.1	2	0.2	117	0.1
Fire/explosion	411	0.1	9	0.8	52	0.1
Immersion	30	0.0	1	0.1	4	0.0
Jackknife	212	0.1	0	0.0	21	0.0
Downhill runaway	37	0.0	0	0.0	6	0.0
Cargo loss/shift	533	0.1	0	0.0	46	0.1
Individual fell off	305	0.1	19	1.7	247	0.3
Other noncollision	1,048	0.3	1	0.1	210	0.3
NONCOLLISION Subtotal	10,115	2.7	93	8.2	3,572	4.3

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Pedestrian	1,193	0.3	96	8.5	969	1.2
Pedalcycle (Bicyclist)	1,160	0.3	16	1.4	914	1.1
Motor vehicle in transport	256,910	67.4	727	64.2	63,235	76.2
Parked motor vehicle	6,417	1.7	12	1.1	640	0.8
Railway train	76	0.0	3	0.3	30	0.0
Animal	47,601	12.5	9	0.8	908	1.1
Other nonfixed objects	4,222	1.1	8	0.7	332	0.4
COLLISION NONFIXED Subtotal	317,579	83.4	871	76.9	67,028	80.7

DRIVER AGE 25-64 (continued)

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MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Bridge/pier/abutment	359	0.1	5	0.4	88	0.1
Bridge parapet end	81	0.0	1	0.1	16	0.0
Bridge rail	306	0.1	0	0.0	74	0.1
Guardrail face	2,112	0.6	6	0.5	437	0.5
Guardrail end	329	0.1	2	0.2	99	0.1
Median barrier	1,966	0.5	4	0.4	635	0.8
Highway traffic sign post	1,438	0.4	2	0.2	103	0.1
Signal post	172	0.0	0	0.0	17	0.0
Luminaire/light support	342	0.1	5	0.4	90	0.1
Utility pole	1,879	0.5	17	1.5	663	0.8
Other pole	615	0.2	1	0.1	108	0.1
Culvert	343	0.1	4	0.4	128	0.2
Curb	1,025	0.3	0	0.0	164	0.2
Ditch	4,253	1.1	12	1.1	1,080	1.3
Embankment	944	0.2	6	0.5	286	0.3
Fence	643	0.2	3	0.3	104	0.1
Mailbox	1,014	0.3	0	0.0	72	0.1
Tree	6,477	1.7	71	6.3	2,119	2.6
Rail crossing signal	59	0.0	0	0.0	6	0.0
Building	415	0.1	5	0.4	164	0.2
Traffic island	24	0.0	0	0.0	4	0.0
Fire hydrant	295	0.1	0	0.0	55	0.1
Impact attenuator	25	0.0	0	0.0	11	0.0
Other fixed object	1,959	0.5	15	1.3	418	0.5
COLLISION FIXED Subtotal	27,075	7.1	159	14.0	6,941	8.4

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	26,214	6.9	10	0.9	5,479	6.6
TOTAL MOST HARMFUL EVENT	380,983	100.0	1,133	100.0	83,020	100.0

DRIVER AGE 25-64 (continued)

Revised January 25, 2005

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	86,947	22.8	305	26.9	11,542	13.9
Head On	6,545	1.7	251	22.2	2,813	3.4
Head On - Left Turn	12,265	3.2	52	4.6	4,892	5.9
Angle	81,189	21.3	298	26.3	23,342	28.1
Rear End	122,180	32.1	93	8.2	30,450	36.7
Rear End - Left Turn	4,613	1.2	3	0.3	1,360	1.6
Rear End - Right Turn	4,036	1.1	0	0.0	671	0.8
Sideswipe - Same Direction	33,991	8.9	19	1.7	3,376	4.1
Sideswipe - Opposite Direct	9,734	2.6	37	3.3	1,458	1.8
Other	16,001	4.2	74	6.5	2,502	3.0
Unknown	3,482	0.9	1	0.1	614	0.7
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
On Road	346,272	90.9	926	81.7	73,754	88.8
Median	1,768	0.5	11	1.0	518	0.6
Shoulder	9,383	2.5	54	4.8	2,240	2.7
Outside of Shoulder/Curb	16,859	4.4	116	10.2	4,904	5.9
Gore	530	0.1	7	0.6	131	0.2
Other/Unknown	6,171	1.6	19	1.7	1,473	1.8
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Interstate Routes	22,018	5.8	139	12.3	5,300	6.4
U.S. & Michigan Roads	86,018	22.6	377	33.3	18,688	22.5
County & City Roads	272,947	71.6	617	54.5	59,032	71.1
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

DRIVER AGE 25-64 (continued)

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TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
12:00 mid. - 02:59 a.m.	12,115	3.2	116	10.2	2,974	3.6
03:00 a.m. - 05:59 a.m.	12,266	3.2	77	6.8	1,929	2.3
06:00 a.m. - 08:59 a.m.	54,025	14.2	138	12.2	10,306	12.4
09:00 a.m. - 11:59 a.m.	46,643	12.2	83	7.3	10,638	12.8
12:00 noon - 02:59 p.m.	64,558	16.9	151	13.3	15,650	18.9
03:00 p.m. - 05:59 p.m.	91,759	24.1	212	18.7	21,556	26.0
06:00 p.m. - 08:59 p.m.	52,968	13.9	199	17.6	10,656	12.8
09:00 p.m. - 11:59 p.m.	27,316	7.2	126	11.1	5,368	6.5
Unknown	19,333	5.1	31	2.7	3,943	4.7
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

HAZARDOUS ACTION	All Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury	Number	% of Issued
None	217,606	57.1	566	50.0	43,594	52.5	324	0.5
Speed too fast	20,490	5.4	132	11.7	5,491	6.6	5,831	9.0
Speed too slow	371	0.1	0	0.0	92	0.1	119	0.2
Failed to yield	28,310	7.4	61	5.4	7,745	9.3	15,119	23.3
Disregard traffic control	6,574	1.7	35	3.1	2,822	3.4	3,919	6.0
Drove wrong way	246	0.1	5	0.4	79	0.1	83	0.1
Drove left of center	1,600	0.4	56	4.9	533	0.6	609	0.9
Improper passing	1,995	0.5	2	0.2	280	0.3	768	1.2
Improper lane use	6,778	1.8	12	1.1	822	1.0	2,773	4.3
Improper turn	3,588	0.9	4	0.4	569	0.7	1,406	2.2
Improper/no signal	389	0.1	0	0.0	52	0.1	101	0.2
Improper backing	6,862	1.8	2	0.2	188	0.2	1,908	2.9
Unable to stop in assured clear distance	47,471	12.5	25	2.2	10,991	13.2	22,923	35.3
Reckless driving	1,283	0.3	26	2.3	555	0.7	612	0.9
Careless\Negligent driving	6,519	1.7	52	4.6	2,329	2.8	3,531	5.4
Other	13,327	3.5	62	5.5	3,138	3.8	3,740	5.8
Unknown	17,574	4.6	93	8.2	3,740	4.5	1,182	1.8
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0	64,948	100.0

DRIVER AGE 25-64 (continued)

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DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Sunday	33,516	8.8	139	12.3	7,788	9.4
Monday	60,261	15.8	165	14.6	12,807	15.4
Tuesday	58,755	15.4	136	12.0	12,862	15.5
Wednesday	59,606	15.6	160	14.1	12,694	15.3
Thursday	58,668	15.4	146	12.9	12,383	14.9
Friday	65,571	17.2	209	18.4	14,248	17.2
Saturday	44,606	11.7	178	15.7	10,238	12.3
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	212,978	55.9	802	70.8	44,195	53.2
Female	159,808	41.9	323	28.5	37,039	44.6
Unknown	8,197	2.2	8	0.7	1,786	2.2
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

OCCUPANTS IN MOTOR VEHICLE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
1 occupant	278,988	73.2	782	69.0	56,454	68.0
2 occupants	58,960	15.5	218	19.2	15,611	18.8
3 occupants	17,449	4.6	65	5.7	4,865	5.9
4 occupants	7,617	2.0	37	3.3	2,156	2.6
5 occupants	2,643	0.7	16	1.4	827	1.0
6 + occupants	2,026	0.5	7	0.6	567	0.7
0 occupants	1,549	0.4	0	0.0	183	0.2
Unknown	11,751	3.1	8	0.7	2,357	2.8
Total Drivers	380,983	100.0	1,133	100.0	83,020	100.0

DRIVER AGE 25-64 (continued)

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VEHICLE TYPE CRASH INVOLVEMENT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Passenger Car and Station Wagon	246,607	64.7	602	53.1	55,004	66.3
Van and Motorhome	34,436	9.0	97	8.6	7,550	9.1
Pickup	65,274	17.1	237	20.9	11,949	14.4
Small Truck (under 10,000 lbs.)	12,449	3.3	20	1.8	2,559	3.1
Motorcycle	2,451	0.6	67	5.9	1,833	2.2
Moped	143	0.0	2	0.2	87	0.1
Go Cart	7	0.0	0	0.0	2	0.0
Snowmobile	260	0.1	5	0.4	174	0.2
Off Road Vehicle	114	0.0	8	0.7	96	0.1
Other	1,163	0.3	6	0.5	216	0.3
Unknown	5,448	1.4	4	0.4	1,184	1.4
CDL Truck/Bus (breakdown below)	12,631	3.3	85	7.5	2,366	2.8
Total Number of Drivers	380,983	100.0	1,133	100.0	83,020	100.0

Special Note: School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.

CDL Truck/Bus Sub-category Types	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Commercial Vehicle: Group A	5,633	44.6	56	65.9	1,069	45.2
Commercial Vehicle: Group B	2,992	23.7	17	20.0	578	24.4
Commercial Vehicle: Group C	438	3.5	1	1.2	100	4.2
Other Truck	697	5.5	4	4.7	143	6.0
Unknown Truck	2,871	22.7	7	8.2	476	20.1
Total Number of Drivers	12,631	100.0	85	100.0	2,366	100.0

Group “A” is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group “B” is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group “C” is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group “C” is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

DRIVER AGE 65 & OVER

Revised January 25, 2005

DRIVER ACTION PRIOR TO CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Going straight ahead	21,784	49.5	151	65.9	5,146	50.9
Turning left	5,033	11.4	37	16.2	1,466	14.5
Turning right	1,604	3.6	2	0.9	226	2.2
Stopped on roadway	4,205	9.6	4	1.7	1,130	11.2
In prior crash	43	0.1	0	0.0	19	0.2
Changing lanes	1,259	2.9	3	1.3	122	1.2
Backing	1,509	3.4	2	0.9	63	0.6
Slowing/stopping on roadway	3,251	7.4	3	1.3	774	7.7
Slowing/stopping other	60	0.1	0	0.0	16	0.2
Starting up on roadway	1,147	2.6	10	4.4	296	2.9
Starting up other	46	0.1	0	0.0	12	0.1
Entering parking	92	0.2	0	0.0	13	0.1
Leaving parking	264	0.6	1	0.4	35	0.3
Entering roadway	1,187	2.7	4	1.7	238	2.4
Leaving roadway	74	0.2	2	0.9	30	0.3
Making U-turn	143	0.3	1	0.4	38	0.4
Overtaking or passing	282	0.6	2	0.9	41	0.4
Avoiding object	29	0.1	1	0.4	7	0.1
Avoiding animal	55	0.1	0	0.0	15	0.1
Avoiding pedestrian	10	0.0	0	0.0	5	0.0
Avoiding vehicle (front/back)	234	0.5	2	0.9	57	0.6
Avoiding vehicle (angle)	118	0.3	0	0.0	25	0.2
Driverless moving	7	0.0	0	0.0	5	0.0
Parked	146	0.3	0	0.0	15	0.1
Crossing at intersection	5	0.0	1	0.4	3	0.0
Crossing not at intersection	1	0.0	0	0.0	1	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	1	0.0	0	0.0	1	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	1	0.0	0	0.0	1	0.0
Other	12	0.0	0	0.0	1	0.0
Unknown	1,362	3.1	3	1.3	302	3.0
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

Compared to the other two age groups, elderly drivers are about four times more likely to be involved in a fatal crash when making a left turn.

DRIVER AGE 65 & OVER (continued)

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MOST HARMFUL EVENT IN A NONCOLLISION	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Loss of control	103	0.2	0	0.0	29	0.3
Cross center/median	44	0.1	0	0.0	15	0.1
Ran off road left	39	0.1	0	0.0	8	0.1
Ran off road right	58	0.1	0	0.0	12	0.1
Re-enter road	8	0.0	0	0.0	4	0.0
Overturn	271	0.6	6	2.6	142	1.4
Separation of units	72	0.2	0	0.0	16	0.2
Fire/explosion	25	0.1	1	0.4	3	0.0
Immersion	6	0.0	0	0.0	1	0.0
Jackknife	17	0.0	0	0.0	1	0.0
Downhill runaway	2	0.0	0	0.0	1	0.0
Cargo loss/shift	22	0.1	0	0.0	2	0.0
Individual fell off	26	0.1	3	1.3	19	0.2
Other noncollision	99	0.2	0	0.0	9	0.1
NONCOLLISION Subtotal	792	1.8	10	4.4	262	2.6

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Pedestrian	193	0.4	16	7.0	157	1.6
Pedalcycle (Bicyclist)	190	0.4	3	1.3	138	1.4
Motor vehicle in transport	32,207	73.3	162	70.7	8,059	79.8
Parked motor vehicle	1,116	2.5	3	1.3	105	1.0
Railway train	13	0.0	1	0.4	5	0.0
Animal	3,870	8.8	0	0.0	59	0.6
Other nonfixed objects	342	0.8	1	0.4	36	0.4
COLLISION NONFIXED Subtotal	37,931	86.3	186	81.2	8,559	84.7

Motor vehicle in transport was by far the most problematic event in collisions with a nonfixed object for all crash types and age groups; however, it was most problematic for drivers age 65 and over.

DRIVER AGE 65 & OVER (continued)

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MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Bridge/pier/abutment	16	0.0	0	0.0	5	0.0
Bridge parapet end	8	0.0	0	0.0	0	0.0
Bridge rail	16	0.0	0	0.0	4	0.0
Guardrail face	132	0.3	0	0.0	39	0.4
Guardrail end	17	0.0	0	0.0	1	0.0
Median barrier	88	0.2	1	0.4	33	0.3
Highway traffic sign post	142	0.3	1	0.4	9	0.1
Signal post	10	0.0	1	0.4	1	0.0
Luminaire/light support	23	0.1	0	0.0	6	0.1
Utility pole	147	0.3	3	1.3	74	0.7
Other pole	51	0.1	0	0.0	17	0.2
Culvert	39	0.1	1	0.4	21	0.2
Curb	81	0.2	0	0.0	8	0.1
Ditch	335	0.8	3	1.3	93	0.9
Embankment	62	0.1	1	0.4	21	0.2
Fence	73	0.2	0	0.0	14	0.1
Mailbox	109	0.2	0	0.0	10	0.1
Tree	560	1.3	12	5.2	224	2.2
Rail crossing signal	11	0.0	0	0.0	0	0.0
Building	81	0.2	2	0.9	41	0.4
Traffic island	2	0.0	0	0.0	0	0.0
Fire hydrant	25	0.1	0	0.0	4	0.0
Impact attenuator	3	0.0	0	0.0	1	0.0
Other fixed object	180	0.4	3	1.3	29	0.3
COLLISION FIXED Subtotal	2,211	5.0	28	12.2	655	6.5

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	3,030	6.9	5	2.2	627	6.2
TOTAL MOST HARMFUL EVENT	43,964	100.0	229	100.0	10,103	100.0

DRIVER AGE 65 & OVER (continued)

Revised January 25, 2005

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	6,977	15.9	56	24.5	998	9.9
Head On	694	1.6	36	15.7	329	3.3
Head On - Left Turn	2,163	4.9	19	8.3	880	8.7
Angle	13,834	31.5	94	41.0	3,727	36.9
Rear End	11,149	25.4	12	5.2	3,058	30.3
Rear End - Left Turn	538	1.2	0	0.0	159	1.6
Rear End - Right Turn	394	0.9	0	0.0	87	0.9
Sideswipe - Same Direction	4,623	10.5	2	0.9	337	3.3
Sideswipe - Opposite Direct	1,226	2.8	2	0.9	162	1.6
Other	1,911	4.3	7	3.1	289	2.9
Unknown	455	1.0	1	0.4	77	0.8
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

Elderly drivers have the highest incidence of angle type crashes when compared to the other two age groups (16-24 and 25-64) in all crashes, fatal crashes, and injury crashes.

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
On Road	40,824	92.9	192	83.8	9,218	91.2
Median	125	0.3	1	0.4	29	0.3
Shoulder	845	1.9	7	3.1	198	2.0
Outside of Shoulder/Curb	1,453	3.3	24	10.5	484	4.8
Gore	34	0.1	1	0.4	14	0.1
Other/Unknown	683	1.6	4	1.7	160	1.6
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Interstate Routes	1,543	3.5	19	8.3	379	3.8
U.S. & Michigan Roads	10,757	24.5	80	34.9	2,393	23.7
County & City Roads	31,664	72.0	130	56.8	7,331	72.6
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

DRIVER AGE 65 & OVER (continued)

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TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
12:00 mid. - 02:59 a.m.	416	0.9	5	2.2	89	0.9
03:00 a.m. - 05:59 a.m.	374	0.9	3	1.3	61	0.6
06:00 a.m. - 08:59 a.m.	3,198	7.3	16	7.0	694	6.9
09:00 a.m. - 11:59 a.m.	8,708	19.8	28	12.2	2,047	20.3
12:00 noon - 02:59 p.m.	11,281	25.7	64	27.9	2,727	27.0
03:00 p.m. - 05:59 p.m.	10,857	24.7	61	26.6	2,671	26.4
06:00 p.m. - 08:59 p.m.	4,996	11.4	34	14.8	1,043	10.3
09:00 p.m. - 11:59 p.m.	1,870	4.3	8	3.5	308	3.0
Unknown	2,264	5.1	10	4.4	463	4.6
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

9:00 AM to 2:59 PM shows the highest involvement for elderly drivers in all crashes when compared to the other two age groups.

HAZARDOUS ACTION	All Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury	Number	% of Issued
None	20,843	47.4	59	25.8	4,304	42.6	22	0.3
Speed too fast	1,245	2.8	17	7.4	339	3.4	239	2.7
Speed too slow	56	0.1	0	0.0	16	0.2	17	0.2
Failed to yield	7,520	17.1	56	24.5	2,032	20.1	3,746	42.6
Disregard traffic control	1,449	3.3	19	8.3	592	5.9	835	9.5
Drove wrong way	43	0.1	3	1.3	18	0.2	18	0.2
Drove left of center	299	0.7	12	5.2	100	1.0	111	1.3
Improper passing	246	0.6	2	0.9	30	0.3	95	1.1
Improper lane use	1,310	3.0	3	1.3	120	1.2	472	5.4
Improper turn	823	1.9	2	0.9	150	1.5	336	3.8
Improper/no signal	43	0.1	0	0.0	4	0.0	7	0.1
Improper backing	1,156	2.6	1	0.4	30	0.3	204	2.3
Unable to stop in assured clear distance	4,516	10.3	8	3.5	1,258	12.5	1,970	22.4
Reckless driving	22	0.1	0	0.0	12	0.1	6	0.1
Careless\Negligent driving	699	1.6	10	4.4	248	2.5	304	3.5
Other	1,581	3.6	13	5.7	397	3.9	291	3.3
Unknown	2,113	4.8	24	10.5	453	4.5	116	1.3
Total Drivers	43,964	100.0	229	100.0	10,103	100.0	8,789	100.0

Compared to the other two age groups, elderly drivers have the highest incidence of failed to yield, disregard of traffic control, improper lane use, improper turn, and improper backing as a hazardous action in all crashes.

DRIVER AGE 65 & OVER (continued)

Revised January 25, 2005

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Sunday	3,866	8.8	22	9.6	946	9.4
Monday	6,711	15.3	29	12.7	1,533	15.2
Tuesday	6,853	15.6	38	16.6	1,579	15.6
Wednesday	7,059	16.1	40	17.5	1,640	16.2
Thursday	6,953	15.8	36	15.7	1,584	15.7
Friday	7,550	17.2	36	15.7	1,688	16.7
Saturday	4,972	11.3	28	12.2	1,133	11.2
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	25,062	57.0	126	55.0	5,569	55.1
Female	17,980	40.9	100	43.7	4,306	42.6
Unknown	922	2.1	3	1.3	228	2.3
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

OCCUPANTS IN MOTOR VEHICLE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
1 occupant	31,942	72.7	158	69.0	6,988	69.2
2 occupants	9,056	20.6	63	27.5	2,357	23.3
3 occupants	947	2.2	3	1.3	286	2.8
4 occupants	359	0.8	1	0.4	103	1.0
5 occupants	89	0.2	1	0.4	26	0.3
6 + occupants	99	0.2	1	0.4	30	0.3
0 occupants	166	0.4	0	0.0	24	0.2
Unknown	1,306	3.0	2	0.9	289	2.9
Total Drivers	43,964	100.0	229	100.0	10,103	100.0

DRIVER AGE 65 & OVER (continued)

Revised January 25, 2005

VEHICLE TYPE CRASH INVOLVEMENT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Passenger Car and Station Wagon	33,418	76.0	174	76.0	7,815	77.4
Van and Motorhome	3,584	8.2	19	8.3	781	7.7
Pickup	5,028	11.4	23	10.0	1,046	10.4
Small Truck (under 10,000 lbs.)	792	1.8	3	1.3	166	1.6
Motorcycle	60	0.1	0	0.0	48	0.5
Moped	15	0.0	0	0.0	11	0.1
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	5	0.0	1	0.4	2	0.0
Off Road Vehicle	4	0.0	0	0.0	4	0.0
Other	62	0.1	3	1.3	18	0.2
Unknown	634	1.4	2	0.9	137	1.4
CDL Truck/Bus (breakdown below)	362	0.8	4	1.7	75	0.7
Total Number of Drivers	43,964	100.0	229	100.0	10,103	100.0

Special Note: School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.

CDL Truck/Bus Sub-category Types	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Commercial Vehicle: Group A	127	35.1	1	25.0	25	33.3
Commercial Vehicle: Group B	102	28.2	3	75.0	28	37.3
Commercial Vehicle: Group C	25	6.9	0	0.0	6	8.0
Other Truck	21	5.8	0	0.0	3	4.0
Unknown Truck	87	24.0	0	0.0	13	17.3
Total Number of Drivers	362	100.0	4	100.0	75	100.0

Group “A” is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group “B” is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group “C” is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group “C” is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

2003
2003
2003
2003
2003
2003
2003
2003
2003
2003

Alcohol

INJURY EXPERIENCE FOR PERSONS WHO HAD BEEN DRINKING AND/OR USING DRUGS

Alcohol and/or drug use affects the judgment and behavior of persons in addition to motor vehicle drivers. Consider the experience of impaired bicyclists, pedestrians, motorcyclists, snowmobilers, and ORV/ATV riders when looking at crash statistics. Alcohol and drugs should not be used by anyone intending to navigate a roadway.

BICYCLIST	Total	In Crash				Bicyclist			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	32	5	2	3	10	2	2	2	6
Injured	1,789	71	2	4	77	33	1	1	35
In Crashes	2,276	89	4	8	101	43	3	4	50

PEDESTRIAN	Total	In Crash				Pedestrian			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	169	47	6	14	67	20	8	10	38
Injured	2,478	198	6	10	214	61	1	5	67
In Crashes	2,953	260	12	25	297	85	9	16	110

MOTORCYCLIST	Total	In Crash				Motorcyclist			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	76	25	2	5	32	17	2	5	24
Injured	2,644	248	11	6	265	173	4	3	180
In Crashes	3,625	315	13	11	339	214	6	8	228

SNOWMOBILER *	Total	In Crash				Snowmobiler			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	13	7	1	1	9	4	0	0	4
Injured	273	44	2	2	48	35	0	2	37
In Crashes	533	66	3	3	72	48	0	2	50

ORV/ATV RIDER *	Total	In Crash				ORV/ATV Rider			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	11	7	0	1	8	6	0	1	7
Injured	283	51	0	0	51	47	0	0	47
In Crashes	371	68	0	1	69	61	0	1	62

DRIVER	Total	In Crash				Driver			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	798	205	30	47	282	149	20	40	209
Injured	74,157	5,907	335	328	6,570	3,875	221	233	4,329
In Crashes	635,096	20,669	1,077	1,020	22,766	12,553	604	651	13,808

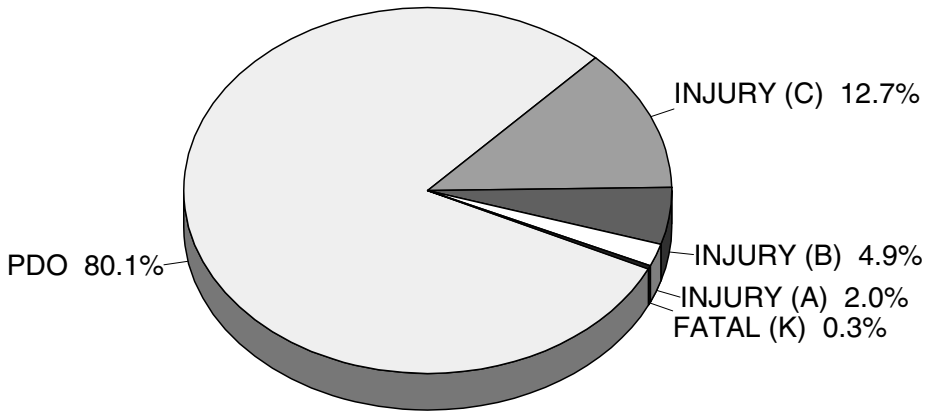
* on Michigan public roadways

DRIVER DRINKING AND/OR USING DRUGS AND INJURY SEVERITY IN CRASH

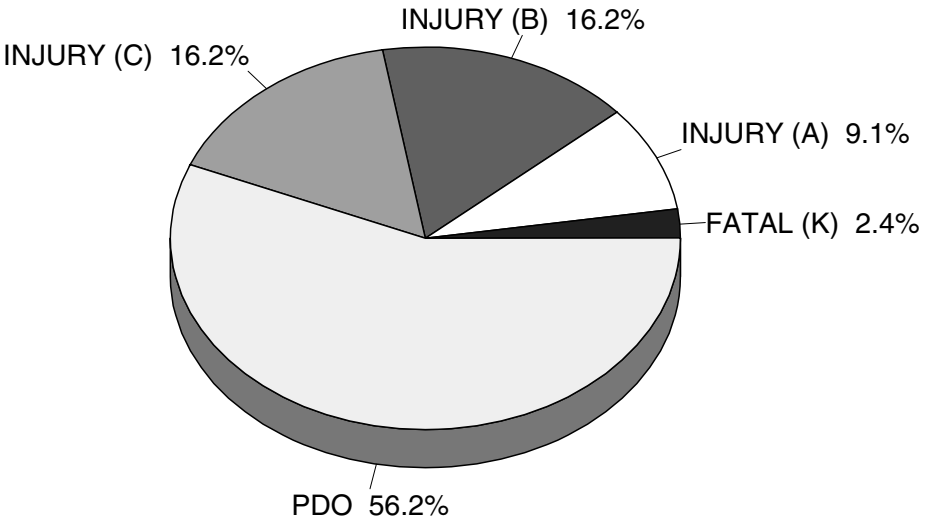
MOST SEVERE OUTCOME IN CRASH

AGE OF DRIVER IN CRASH	Driver				Fatal				Injury			
	HBD	Drug	Both	Total	HBD	Drug	Both	Total	HBD	Drug	Both	Total
13 years & under	6	2	0	8	0	0	0	0	2	1	0	3
14 years	7	1	0	8	0	0	0	0	3	1	0	4
15 years	14	2	1	17	1	0	0	1	5	1	1	7
16 years	83	7	10	100	1	0	0	1	35	6	5	46
17 years	169	9	15	193	3	0	2	5	70	6	5	81
18 years	338	27	16	381	7	1	0	8	151	12	8	171
19 years	417	18	18	453	6	2	1	9	178	9	11	198
20 years	447	15	16	478	6	1	0	7	195	4	7	206
21 - 24 years	2,334	68	93	2,495	41	5	13	59	908	27	34	969
25 - 34 years	3,077	135	162	3,374	48	12	15	75	1,259	58	70	1,387
35 - 44 years	2,769	157	177	3,103	47	2	13	62	1,142	61	70	1,273
45 - 54 years	1,737	124	97	1,958	33	8	9	50	703	50	46	799
55 - 64 years	620	23	19	662	16	2	0	18	247	14	8	269
65 - 69 years	109	4	4	117	2	0	0	2	48	3	2	53
70 - 74 years	92	2	3	97	2	0	0	2	46	1	2	49
75 - 79 years	63	1	2	66	2	0	0	2	22	0	0	22
80 - 84 years	19	1	3	23	1	1	0	2	7	0	0	7
85 - 89 years	5	0	0	5	0	0	0	0	3	0	0	3
90 years & over	2	0	0	2	1	0	0	1	1	0	0	1
Unknown	245	8	15	268	0	0	2	2	101	3	5	109
Total	12,553	604	651	13,808	217	34	55	306	5,126	257	274	5,657

ALL CRASHES BY INJURY SEVERITY



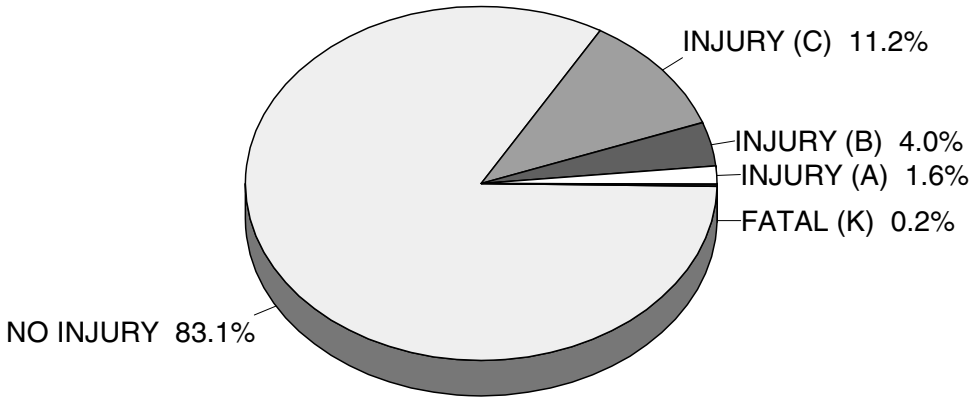
HBD CRASHES BY INJURY SEVERITY



The problem of the drinking driver, pedestrian, and/or cyclist is seen when one compares the two charts on this page. A fatality in the crash is **eight times** more likely when one of the crash-involved operators is reported as had been drinking.

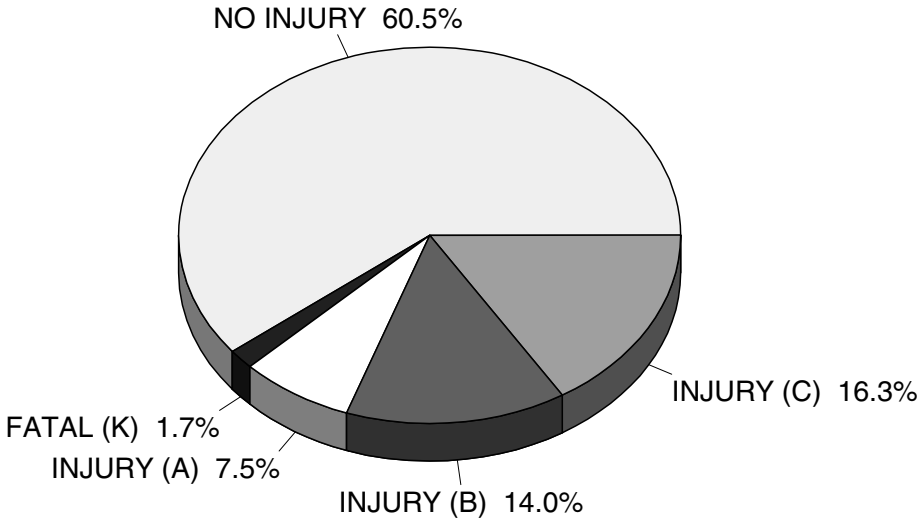
DEATH & INJURY PER CRASH INVOLVED OCCUPANT

Occupants in Crashes



The majority of occupants involved in crashes are not injured (83.1%). Two thirds of those who are injured receive only minor (C) injuries. Increased use of occupant restraints and airbags can reduce the number of killed and injured even further.

Occupants in HBD Crashes

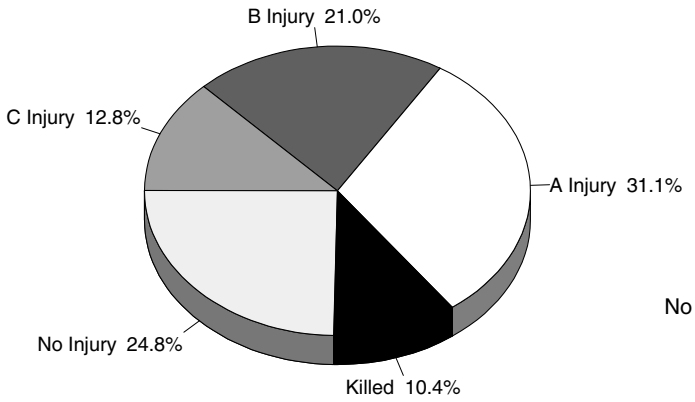


Crashes involving drinking tend to be more serious than nondrinking crashes. The percentage of fatalities is eight and one-half times higher than in all crashes and the most serious injury level (A) is almost five times higher.

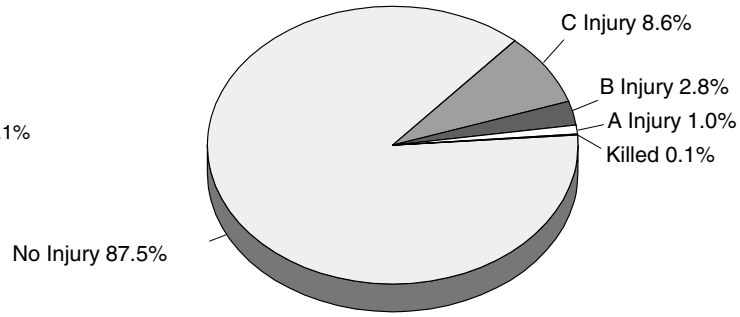
ALL DRIVERS and *HBD DRIVERS*
INJURY SEVERITY - EJECTED vs. NOT EJECTED

As can be seen in the two charts below, death and injury are much more likely when ***drivers*** are ejected from their vehicles.

Ejected

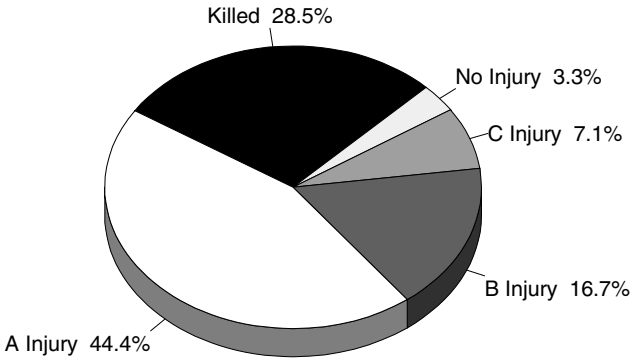


Not Ejected

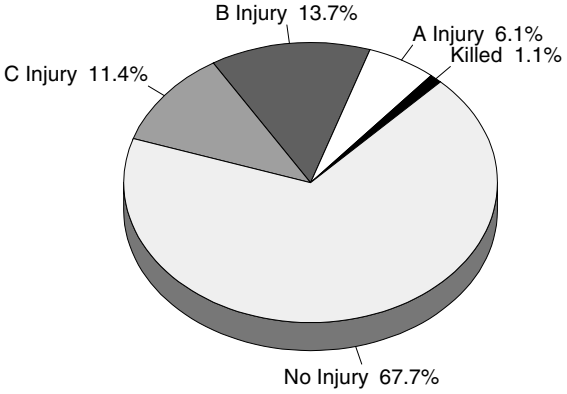


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for drivers who had been drinking in both ejected and nonejected events.

HBD Ejected



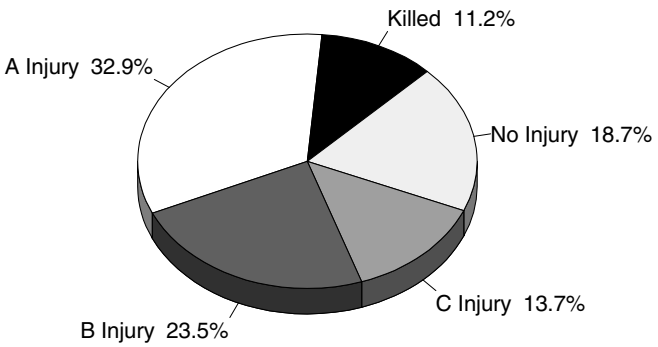
HBD Not Ejected



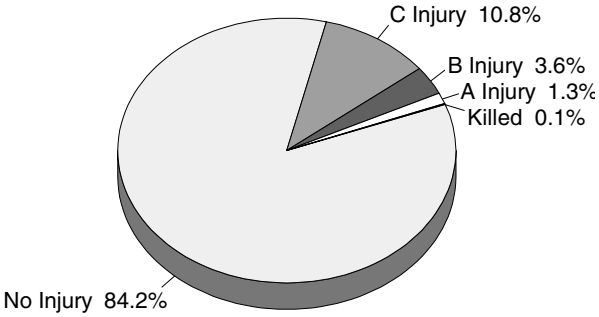
ALL OCCUPANTS and *OCCUPANTS of HBD CRASHES*
INJURY SEVERITY - EJECTED vs. NOT EJECTED

As can be seen in the two charts below, death and injury are much more likely when ***occupants*** are ejected from their vehicles.

Ejected

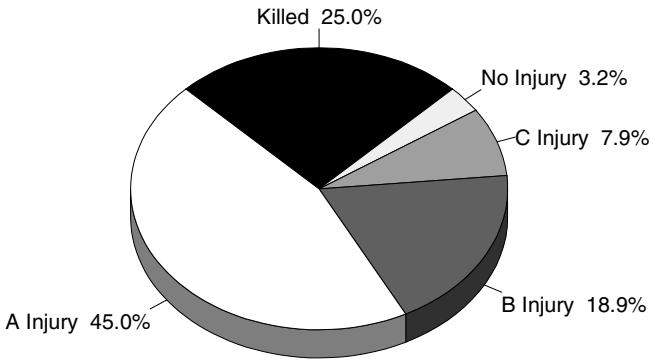


Not Ejected

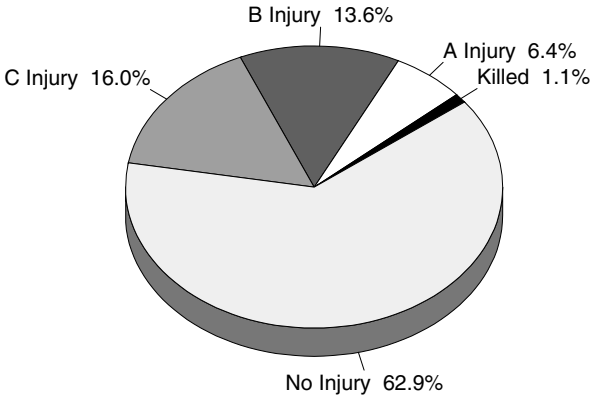


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for occupants in a crash where drinking is reported in both ejected and nonejected events.

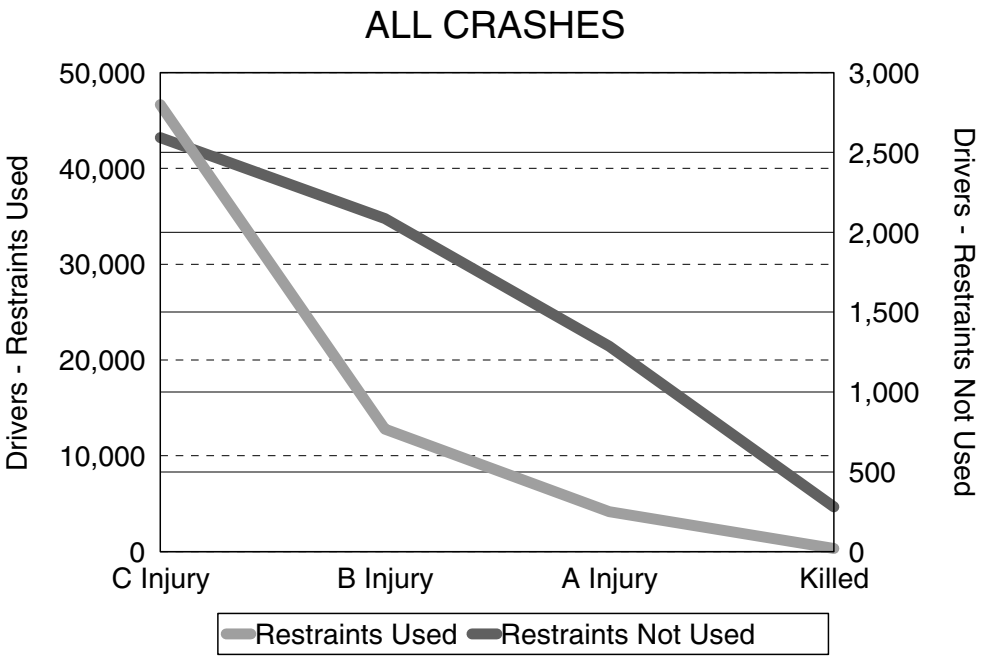
HBD Ejected

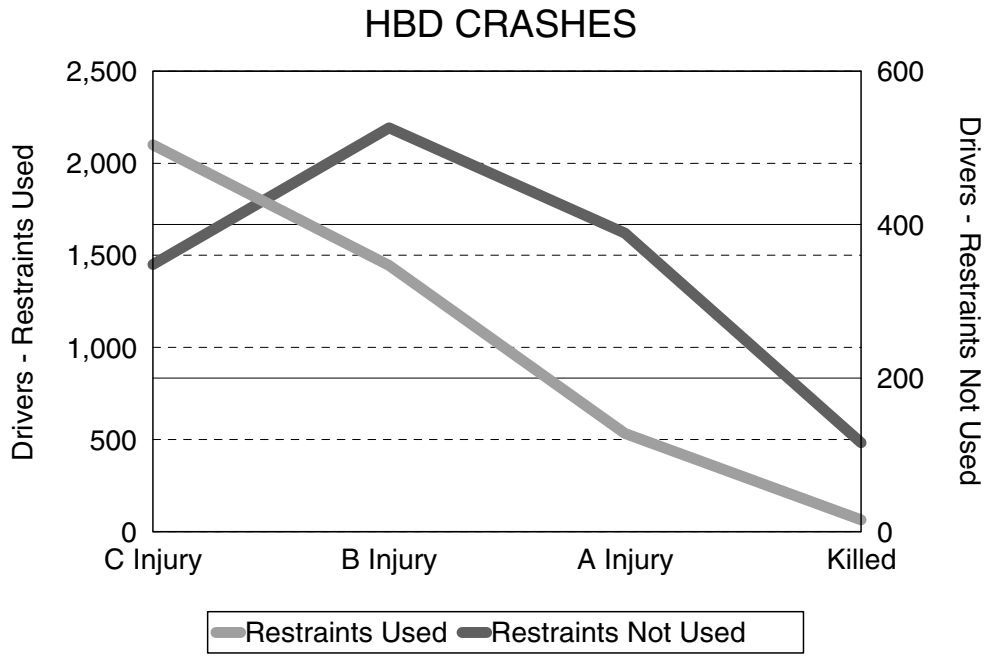


HBD Not Ejected

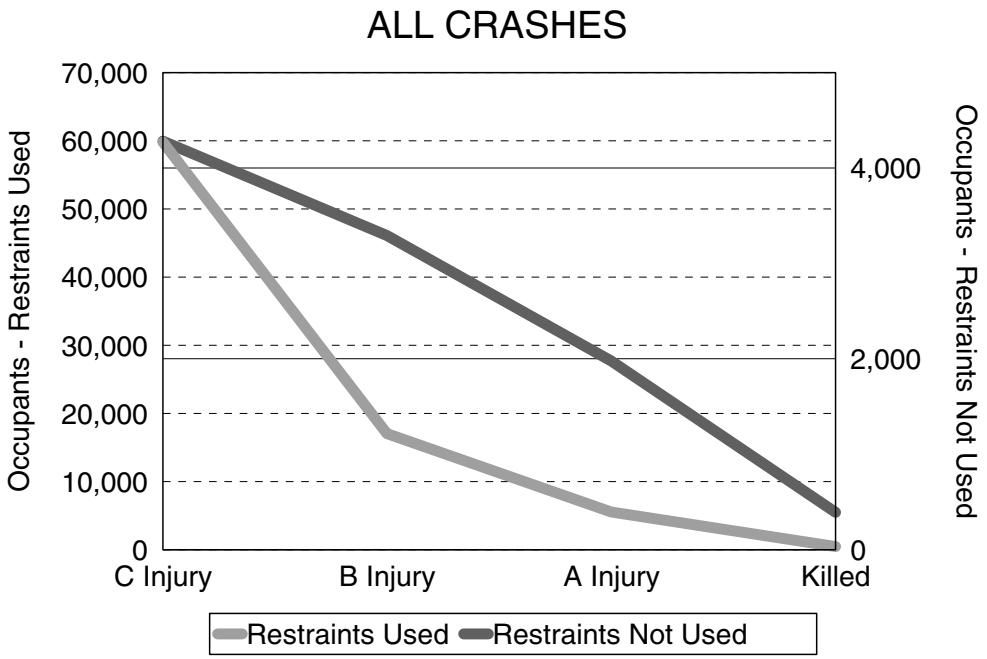


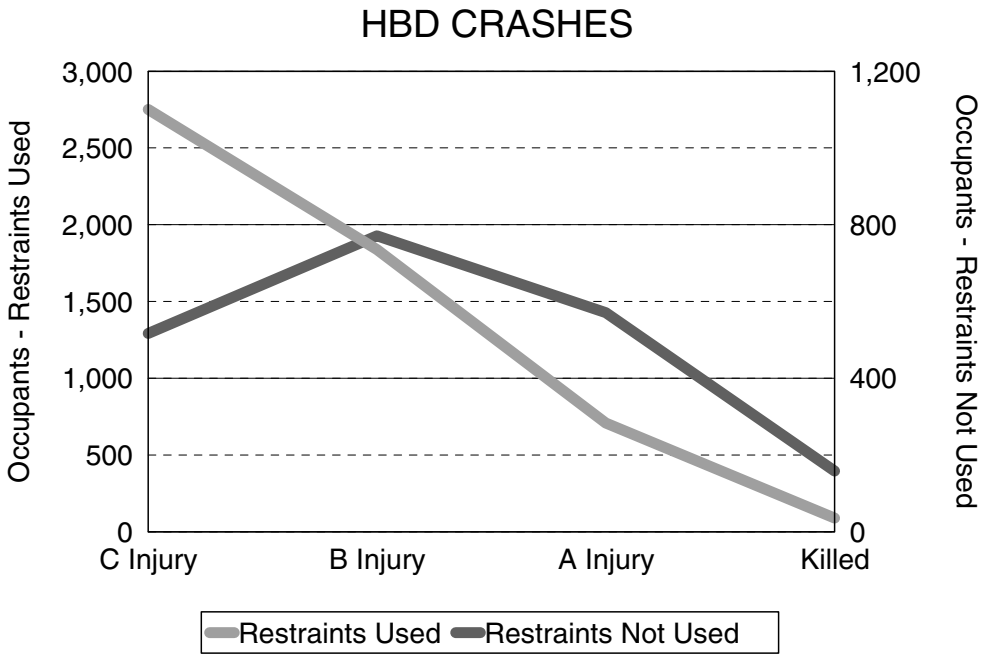
INJURY SEVERITY & RESTRAINT USE FOR CRASH INVOLVED KABC *DRIVERS*





INJURY SEVERITY & RESTRAINT USE FOR CRASH INVOLVED KABC *OCCUPANTS*

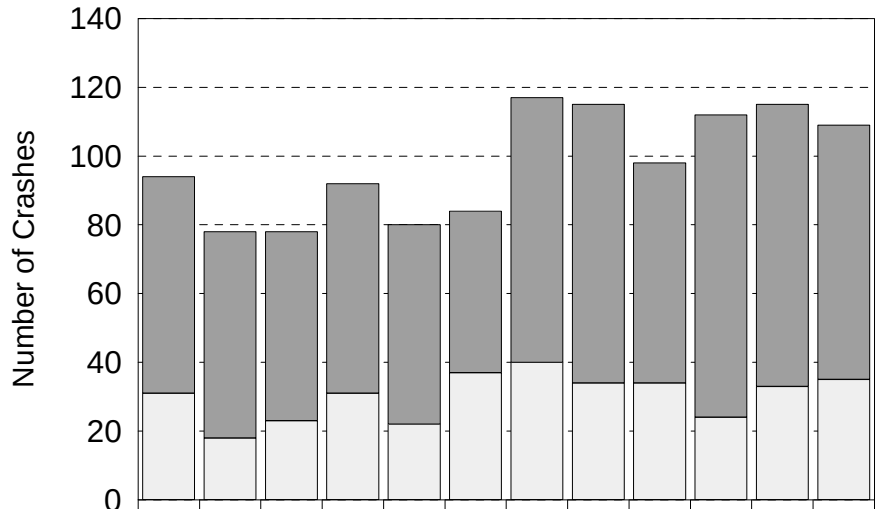




ALCOHOL INVOLVEMENT IN FATAL CRASHES

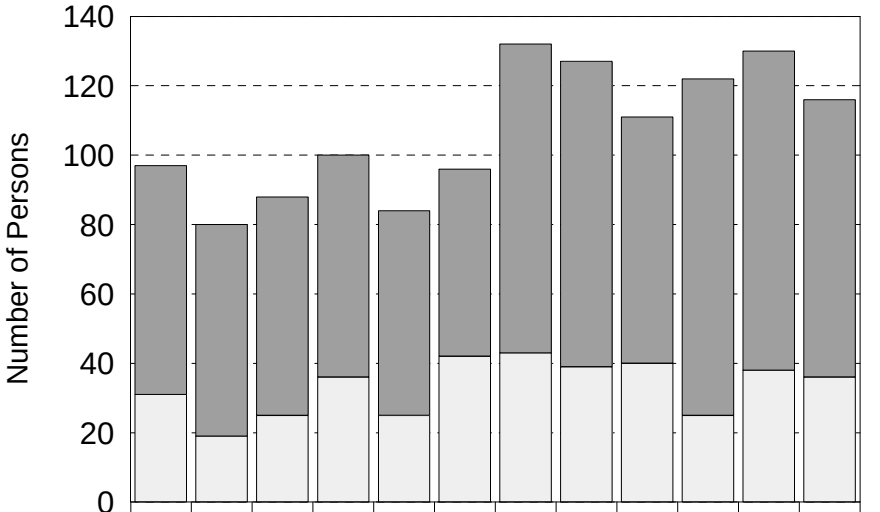
Fatal crashes were lowest during February and March. The number of fatal crashes reached highest levels in July, August, and November. The number of HBD fatal crashes follows the overall trend, with the highest number of HBD fatal crashes in July.

HBD Fatal Crashes by Month



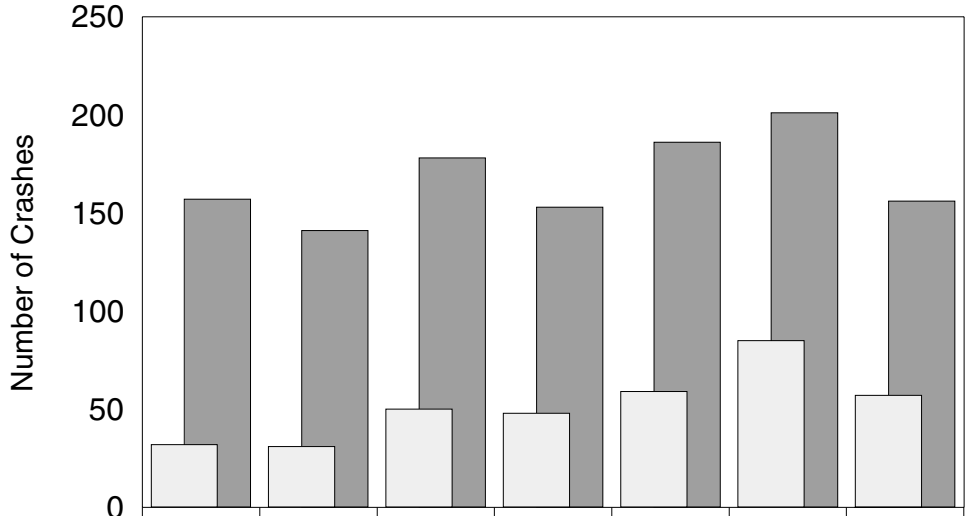
	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Non-HBD Fatal Crashes	63	60	55	61	58	47	77	81	64	88	82	74	810
HBD Fatal Crashes	31	18	23	31	22	37	40	34	34	24	33	35	362

Alcohol-related Fatalities by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Nonalcohol-related Fatalities	66	61	63	64	59	54	89	88	71	97	92	80	884
Alcohol-related Fatalities	31	19	25	36	25	42	43	39	40	25	38	36	399

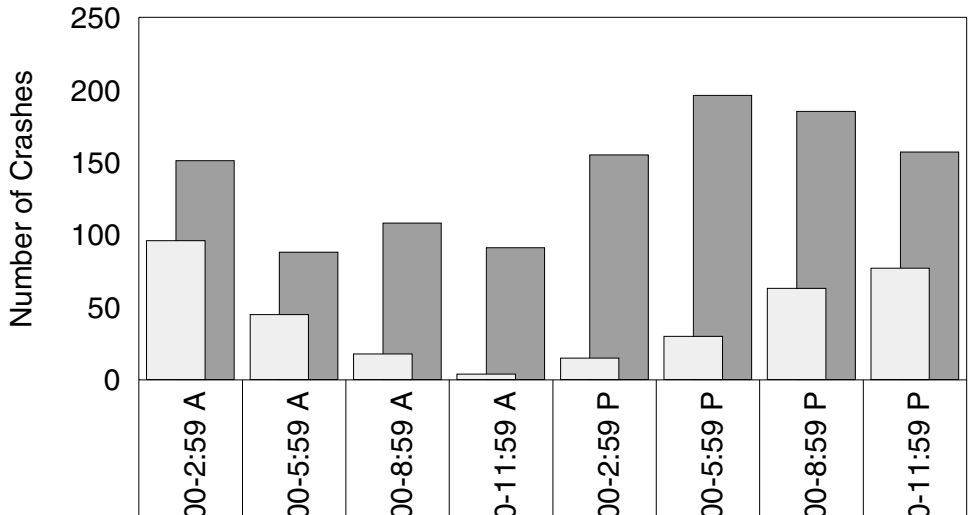
HBD Fatal Crashes by Day of Week



	Mon	Tue	Wed	Thu	Fri	Sat	Sun
HBD Fatal Crashes	32	31	50	48	59	85	57
All Fatal Crashes	157	141	178	153	186	201	156

Friday and Saturday had the most fatal crashes in 2003. Saturday and Sunday had the highest proportions of drinking-related fatal crashes. 42.3 percent of the fatal crashes on Saturday involved drinking, while only 20.4 percent of fatal crashes on Monday involved drinking.

HBD Fatal Crashes by Time of Day



	12:00-2:59 A	3:00-5:59 A	6:00-8:59 A	9:00-11:59 A	12:00-2:59 P	3:00-5:59 P	6:00-8:59 P	9:00-11:59 P
HBD Fatal Crashes	96	45	18	4	15	30	63	77
All Fatal Crashes	151	88	108	91	155	196	185	157

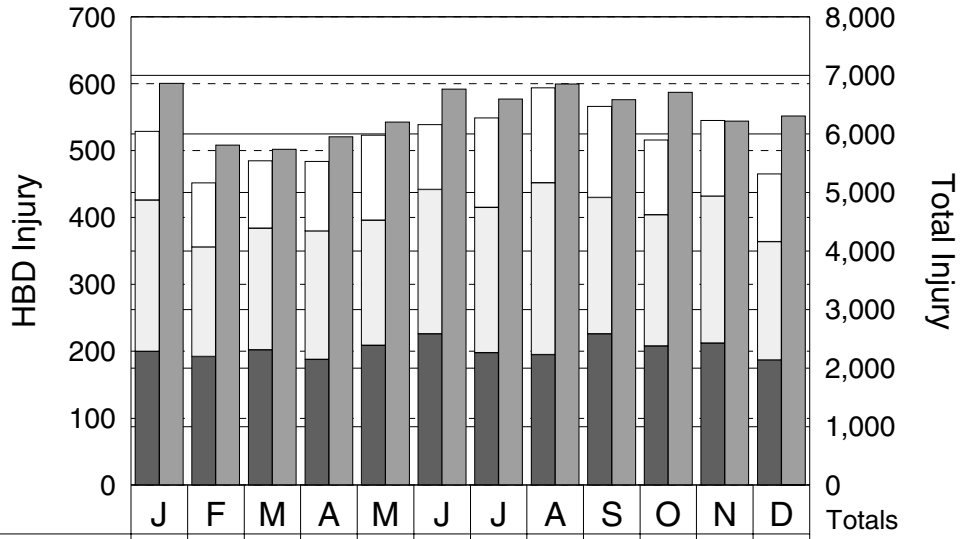
Not surprisingly, the midnight to 2:59 AM and 3:00 to 5:59 AM time periods had the highest rate of drinking involvement (63.6% and 51.1%), while the late morning hours had the lowest (4.4%).

There were 41 fatal crashes where the time of day was unknown. Of these 41 fatal crashes, 14 were HBD.

ALCOHOL INVOLVEMENT IN INJURY CRASHES

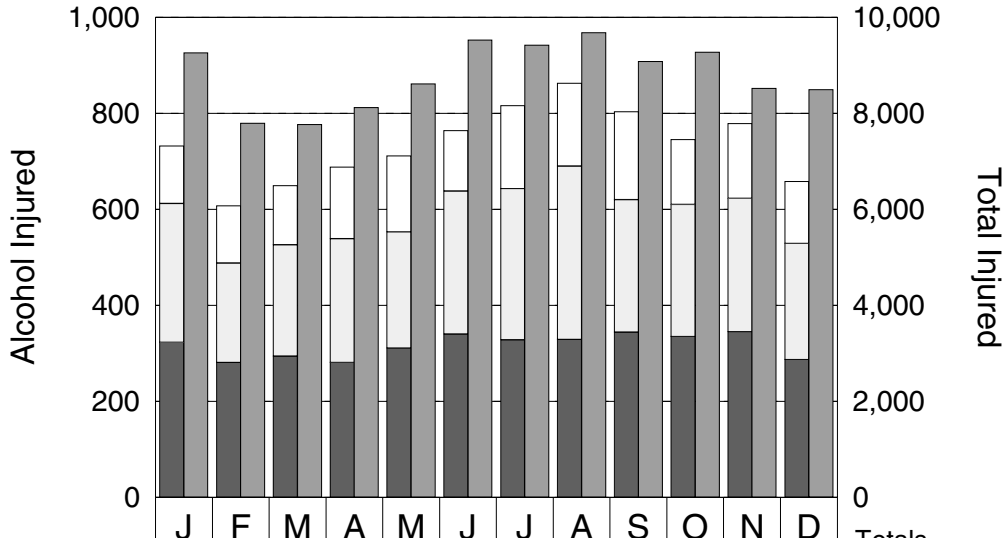
Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2003, the highest number of HBD injury crashes occurred in August with 594. The highest proportion of HBD injury crashes occurred in November with 8.8 percent of the injury crashes in that month involving alcohol.

HBD Injury Crashes by Month



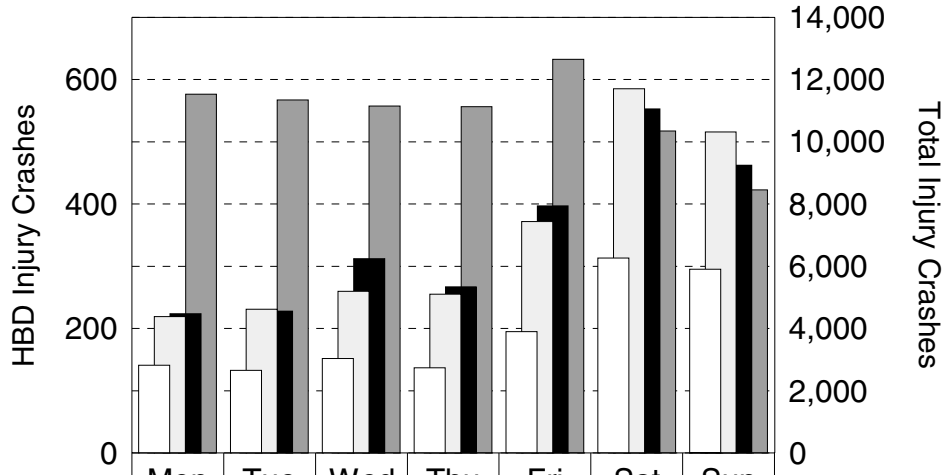
	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Total Injury Crashes	6,863	5,808	5,737	5,951	6,203	6,764	6,598	6,851	6,584	6,710	6,221	6,308	76,598
A Injury - HBD Crashes	103	96	101	104	127	97	134	142	136	112	113	101	1,366
B Injury - HBD Crashes	226	164	182	192	187	216	217	257	204	196	220	177	2,438
C Injury - HBD Crashes	200	192	202	188	209	226	198	195	226	208	212	187	2,443

Alcohol-related Injuries by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Total Persons Injured	9,261	7,794	7,768	8,117	8,615	9,528	9,424	9,680	9,081	9,272	8,523	8,492	105,555
Alcohol-related A Injury	120	119	123	149	158	126	173	173	183	135	156	129	1,744
Alcohol-related B Injury	289	207	232	258	242	298	315	361	276	275	278	242	3,273
Alcohol-related C Injury	323	281	294	281	311	340	328	329	344	335	345	287	3,798

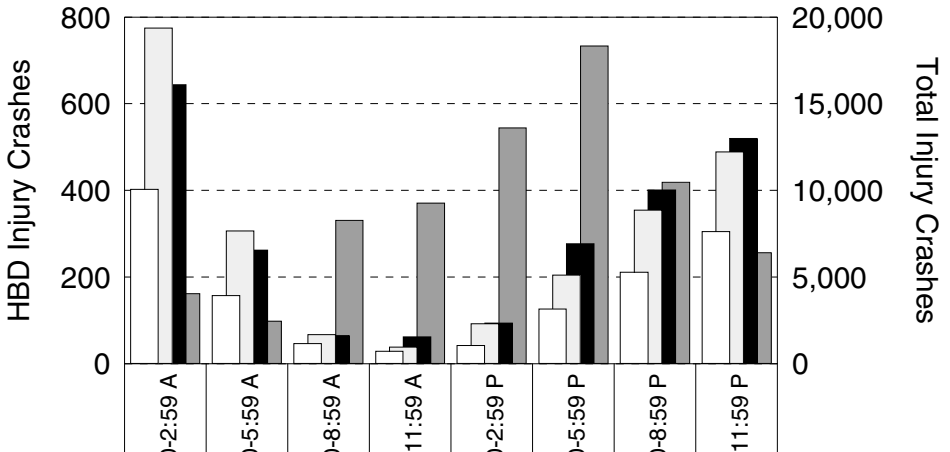
HBD Injury Crashes by Day of Week



	Mon	Tue	Wed	Thu	Fri	Sat	Sun
A Injury - HBD	141	133	152	137	195	313	295
B Injury - HBD	219	231	260	255	372	585	516
C Injury - HBD	224	228	312	267	397	553	462
Total Injury Crashes	11,530	11,340	11,146	11,130	12,646	10,347	8,459

HBD injury crashes follow the same basic trends as total crashes through the work week, but the weekend sees a dramatic increase in the proportion of HBD injury crashes to total injury crashes.

HBD Injury Crashes by Time of Day



	12:00-2:59 A	3:00-5:59 A	6:00-8:59 A	9:00-11:59 A	12:00-2:59 P	3:00-5:59 P	6:00-8:59 P	9:00-11:59 P
A Injury - HBD	402	157	46	29	42	126	211	305
B Injury - HBD	775	306	67	38	92	204	354	489
C Injury - HBD	644	262	65	62	94	277	401	520
Total Injury Crashes	4,048	2,450	8,264	9,268	13,610	18,327	10,474	6,406

Total injury crash frequencies peak in the hours between 3:00 PM and 5:59 PM, while HBD injury crash frequencies peak between 12:00 AM and 2:59 AM (a particularly hazardous travel period).

REPORTED AGE OF DRINKING DRIVERS INVOLVED IN CRASHES

COUNTY	All Ages	0-15 Years	16-20 Years	21-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75 Yrs & Over	DOB Unk
Alcona	39	0	4	5	11	7	7	4	0	0	1
Alger	22	0	1	2	3	6	6	2	0	0	2
Allegan	205	2	32	46	41	42	27	8	2	1	4
Alpena	46	0	9	11	9	5	6	2	2	1	1
Antrim	49	0	9	6	7	15	9	2	0	1	0
Arenac	41	0	5	9	8	6	11	1	0	1	0
Baraga	19	0	2	3	4	3	4	2	0	0	1
Barry	91	0	15	18	14	25	14	3	0	1	1
Bay	254	0	37	41	71	62	29	7	5	1	1
Benzie	37	0	5	6	8	10	5	2	1	0	0
Berrien	202	0	24	29	57	37	29	8	2	3	13
Branch	51	1	6	13	11	8	7	1	0	0	4
Calhoun	241	1	22	44	60	51	36	11	5	3	8
Cass	97	0	8	19	25	18	12	4	2	0	9
Charlevoix	53	0	11	10	17	7	5	2	0	0	1
Cheboygan	59	1	6	9	18	10	7	4	1	0	3
Chippewa	80	0	12	16	22	17	8	4	1	0	0
Clare	53	0	5	7	14	14	6	2	4	0	1
Clinton	110	1	17	29	25	22	9	3	1	1	2
Crawford	38	0	4	5	7	10	8	2	1	0	1
Delta	71	0	13	16	18	14	5	0	1	2	2
Dickinson	33	0	2	5	8	7	7	1	0	0	3
Eaton	157	0	23	25	29	38	25	7	5	0	5
Emmet	82	0	13	16	22	16	9	5	1	0	0
Genesee	781	4	81	119	188	179	118	49	17	6	20
Gladwin	70	0	7	11	19	20	7	3	3	0	0
Gogebic	29	0	1	6	8	2	5	2	0	0	5
Grand Traverse	155	0	19	28	47	32	22	1	2	0	4
Gratiot	59	0	8	16	13	13	5	2	2	0	0
Hillsdale	77	1	12	19	14	19	8	3	0	0	1
Houghton	63	0	4	16	19	12	2	1	2	0	7
Huron	44	0	12	8	7	11	5	1	0	0	0
Ingham	386	1	36	90	105	79	46	19	5	1	4
Ionia	120	1	16	22	30	23	19	3	1	2	3
Iosco	70	0	8	12	17	16	9	5	2	0	1
Iron	36	0	10	5	6	7	2	3	2	0	1
Isabella	128	0	17	43	28	18	15	3	1	0	3
Jackson	268	3	27	52	64	74	27	12	3	1	5
Kalamazoo	418	0	68	101	102	82	40	10	3	3	9
Kalkaska	41	0	6	5	8	11	8	0	1	1	1
Kent	1,028	4	127	232	275	213	120	26	6	6	19
Keweenaw	9	0	0	2	2	3	1	0	1	0	0
Lake	16	0	1	2	5	4	4	0	0	0	0
Lapeer	142	0	22	26	36	39	12	6	1	0	0
Leelanau	52	0	7	10	17	8	6	4	0	0	0

REPORTED AGE OF DRINKING DRIVERS INVOLVED IN CRASHES (continued)

COUNTY	All Ages	0-15 Years	16-20 Years	21-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75 Yrs & Over	DOB Unk
Lenawee	159	0	18	28	36	43	19	10	0	0	5
Livingston	244	0	36	41	57	52	40	9	6	0	3
Luce	11	0	1	0	1	4	4	0	0	0	1
Mackinac	40	0	3	10	8	10	5	2	0	0	2
Macomb	1,036	2	104	169	261	239	155	70	21	8	7
Manistee	45	0	7	5	17	6	7	2	1	0	0
Marquette	113	0	16	27	20	22	10	7	3	2	6
Mason	61	0	13	7	19	11	8	2	0	0	1
Mecosta	84	0	16	19	22	15	6	4	0	1	1
Menominee	60	1	7	6	14	8	12	3	1	1	7
Midland	112	0	11	33	28	19	11	7	1	1	1
Missaukee	35	0	6	8	7	8	4	2	0	0	0
Monroe	271	0	24	40	59	66	53	7	1	1	20
Montcalm	104	0	13	25	24	23	11	5	2	0	1
Montmorency	27	0	3	5	5	6	6	1	0	1	0
Muskegon	214	0	32	42	57	37	26	11	1	6	2
Newaygo	111	0	8	20	26	31	15	5	3	1	2
Oakland	1,537	1	133	230	393	389	234	92	34	10	21
Oceana	76	0	9	15	19	17	12	2	1	0	1
Ogemaw	59	0	6	6	17	14	7	7	2	0	0
Ontonagon	11	0	1	1	4	2	1	1	0	0	1
Osceola	45	0	6	8	13	9	4	3	0	0	2
Oscoda	24	0	3	3	3	4	6	4	1	0	0
Otsego	42	1	6	3	7	12	6	4	3	0	0
Ottawa	301	0	44	80	69	52	36	12	5	1	2
Presque Isle	18	0	3	3	3	2	3	2	1	1	0
Roscommon	52	0	5	3	7	21	11	3	2	0	0
Saginaw	343	1	35	52	97	81	47	20	6	0	4
St. Clair	258	0	34	34	58	64	44	13	3	3	5
St. Joseph	70	2	7	12	16	18	6	3	0	1	5
Sanilac	75	1	17	9	14	19	10	4	1	0	0
Schoolcraft	16	0	1	1	6	2	6	0	0	0	0
Shiawassee	131	1	22	25	38	23	12	8	1	0	1
Tuscola	128	0	17	34	28	23	15	8	2	0	1
Van Buren	167	0	17	29	39	36	26	8	3	2	7
Washtenaw	458	1	55	105	99	95	61	23	8	2	9
Wayne	2,196	6	187	331	560	531	349	130	34	21	47
Wexford	66	0	12	15	15	15	5	1	1	0	2
Unknown	0	0	0	0	0	0	0	0	0	0	0
Total	14,922	37	1,712	2,699	3,685	3,344	2,065	735	234	98	313

MALE DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Male Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	350	0.1	4	0.3	29	52	61	204
14 years	218	0.1	3	0.2	16	22	32	145
15 years	605	0.2	2	0.2	30	70	86	417
16 years	8,404	2.5	25	2.0	160	573	1,243	6,403
17 years	10,817	3.2	28	2.2	239	626	1,547	8,377
18 years	12,000	3.5	36	2.9	270	772	1,724	9,198
19 years	10,662	3.1	35	2.8	222	651	1,501	8,253
20 years	9,787	2.9	28	2.2	249	578	1,343	7,589
21 - 24 years	33,737	10.0	130	10.4	825	1,957	4,639	26,186
25 - 34 years	65,658	19.4	246	19.8	1,456	3,374	8,861	51,721
35 - 44 years	64,628	19.1	245	19.7	1,362	3,125	8,864	51,032
45 - 54 years	52,523	15.5	199	16.0	1,181	2,526	7,255	41,362
55 - 64 years	30,169	8.9	112	9.0	626	1,421	4,144	23,866
65 - 69 years	8,244	2.4	23	1.8	180	400	1,173	6,468
70 - 74 years	6,744	2.0	28	2.2	141	333	954	5,288
75 - 79 years	5,286	1.6	27	2.2	107	298	799	4,055
80 - 84 years	3,139	0.9	22	1.8	78	201	469	2,369
85 - 89 years	1,329	0.4	20	1.6	34	106	205	964
90 years and over	321	0.1	6	0.5	8	31	52	224
Unknown	14,292	4.2	26	2.1	278	632	1,891	11,465
Total	338,913	100.0	1,245	100.0	7,491	17,748	46,843	265,586

NOTE: The tables on this page and page 109 exclude 43,467 drivers of unknown gender.

The crash involvement for male drivers is down 3.3 percent from 2002.

The fatal crash involvement for male drivers is down 6.9 percent from 2002.

MALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	Male Drivers		MOST SEVERE OUTCOME IN CRASH: Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	5	0.0	1	0.4	0	0	1	3
14 years	5	0.0	0	0.0	0	1	0	4
15 years	16	0.1	2	0.7	4	1	1	8
16 years	70	0.6	1	0.4	9	13	12	35
17 years	154	1.3	4	1.4	17	27	24	82
18 years	313	2.7	7	2.5	29	81	35	161
19 years	378	3.3	8	2.9	42	80	46	202
20 years	416	3.6	8	2.9	34	79	58	237
21 - 24 years	2,108	18.4	50	18.0	202	344	295	1,217
25 - 34 years	2,835	24.8	61	21.9	262	435	433	1,644
35 - 44 years	2,410	21.1	66	23.7	203	370	402	1,369
45 - 54 years	1,604	14.0	43	15.5	149	251	281	880
55 - 64 years	603	5.3	16	5.8	47	96	108	336
65 - 69 years	107	0.9	3	1.1	6	18	24	56
70 - 74 years	95	0.8	2	0.7	11	17	21	44
75 - 79 years	58	0.5	1	0.4	2	9	10	36
80 - 84 years	16	0.1	1	0.4	0	4	3	8
85 - 89 years	5	0.0	0	0.0	0	0	3	2
90 years and over	2	0.0	1	0.4	0	0	1	0
Unknown	236	2.1	3	1.1	28	42	29	134
Total	11,436	100.0	278	100.0	1,045	1,868	1,787	6,458

NOTE: The tables on this page and page 110 exclude 283 drinking drivers of unknown gender.

FEMALE DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Female Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	200	0.1	1	0.2	10	20	35	134
14 years	121	0.0	0	0.0	10	5	20	86
15 years	530	0.2	5	0.9	23	47	74	381
16 years	7,413	2.9	15	2.6	143	484	1,311	5,460
17 years	9,023	3.6	18	3.1	168	567	1,579	6,691
18 years	9,167	3.6	24	4.2	197	540	1,538	6,868
19 years	8,099	3.2	9	1.6	151	428	1,412	6,099
20 years	7,771	3.1	15	2.6	139	388	1,294	5,935
21 - 24 years	26,503	10.5	59	10.2	469	1,327	4,445	20,203
25 - 34 years	50,162	19.8	90	15.6	935	2,410	8,680	38,047
35 - 44 years	49,726	19.7	107	18.5	884	2,200	8,285	38,250
45 - 54 years	39,547	15.6	80	13.8	649	1,687	6,593	30,538
55 - 64 years	20,373	8.1	46	8.0	377	891	3,448	15,611
65 - 69 years	5,343	2.1	17	2.9	89	247	890	4,100
70 - 74 years	4,584	1.8	25	4.3	89	238	723	3,509
75 - 79 years	4,066	1.6	23	4.0	97	220	673	3,053
80 - 84 years	2,690	1.1	23	4.0	71	170	466	1,960
85 - 89 years	1,069	0.4	11	1.9	32	71	170	785
90 years and over	230	0.1	1	0.2	7	17	36	169
Unknown	6,099	2.4	9	1.6	75	226	871	4,918
Total	252,716	100.0	578	100.0	4,615	12,183	42,543	192,797

The crash involvement for female drivers is down 0.7 percent from 2002.

The fatal crash involvement for female drivers is up 21.4 percent from 2002.

FEMALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	Female Drivers		MOST SEVERE OUTCOME IN CRASH					
			Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	4	0.1	0	0.0	0	2	0	2
14 years	3	0.1	0	0.0	0	0	2	1
15 years	4	0.1	0	0.0	1	1	1	1
16 years	30	0.9	0	0.0	4	3	6	17
17 years	51	1.6	1	2.2	1	7	13	29
18 years	90	2.8	1	2.2	12	15	12	50
19 years	84	2.6	1	2.2	7	13	11	52
20 years	96	3.0	1	2.2	11	20	17	47
21 - 24 years	548	17.1	9	20.0	39	86	100	314
25 - 34 years	799	24.9	11	24.4	70	124	154	440
35 - 44 years	868	27.1	14	31.1	75	147	163	469
45 - 54 years	423	13.2	3	6.7	30	49	75	266
55 - 64 years	114	3.6	2	4.4	15	15	14	68
65 - 69 years	18	0.6	0	0.0	1	4	3	10
70 - 74 years	11	0.3	0	0.0	2	0	2	7
75 - 79 years	9	0.3	1	2.2	2	1	1	4
80 - 84 years	6	0.2	0	0.0	0	0	1	5
85 - 89 years	0	0.0	0	0.0	0	0	0	0
90 years and over	0	0.0	0	0.0	0	0	0	0
Unknown	45	1.4	1	2.2	2	7	8	27
Total	3,203	100.0	45	100.0	272	494	583	1,809

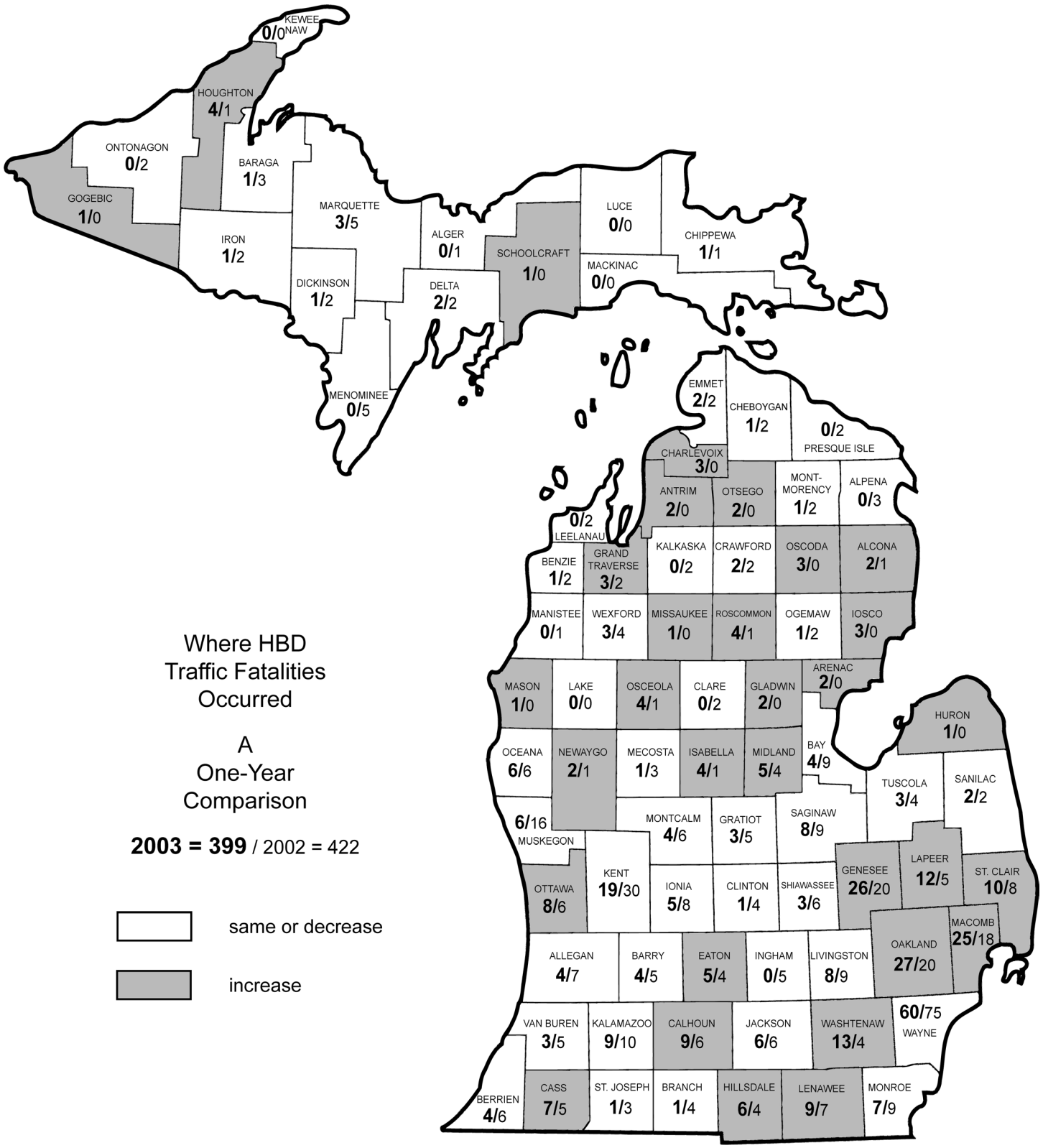
FATAL CRASHES AND FATALITIES
WITH DRINKING INVOLVEMENT BY COUNTY

COUNTY	CRASHES			PERSONS		
	All Fatal Crashes	HBD Fatal Crashes	Percent HBD	Total Fatalities	HBD Fatalities	Percent HBD
Alcona	5	2	40.0	5	2	40.0
Alger	0	0	0.0	0	0	0.0
Allegan	19	4	21.1	22	4	18.2
Alpena	0	0	0.0	0	0	0.0
Antrim	9	2	22.2	10	2	20.0
Arenac	3	2	66.7	3	2	66.7
Baraga	3	1	33.3	3	1	33.3
Barry	8	2	25.0	10	4	40.0
Bay	19	4	21.1	22	4	18.2
Benzie	2	1	50.0	2	1	50.0
Berrien	21	3	14.3	25	4	16.0
Branch	4	1	25.0	4	1	25.0
Calhoun	23	7	30.4	26	9	34.6
Cass	12	7	58.3	12	7	58.3
Charlevoix	4	3	75.0	4	3	75.0
Cheboygan	4	1	25.0	4	1	25.0
Chippewa	8	1	12.5	9	1	11.1
Clare	6	0	0.0	7	0	0.0
Clinton	8	1	12.5	8	1	12.5
Crawford	4	2	50.0	4	2	50.0
Delta	6	2	33.3	6	2	33.3
Dickinson	2	1	50.0	2	1	50.0
Eaton	13	4	30.8	15	5	33.3
Emmet	5	2	40.0	5	2	40.0
Genesee	50	25	50.0	52	26	50.0
Gladwin	2	1	50.0	3	2	66.7
Gogebic	1	1	100.0	1	1	100.0
Grand Traverse	9	2	22.2	10	3	30.0
Gratiot	12	3	25.0	17	3	17.6
Hillsdale	12	4	33.3	14	6	42.9
Houghton	8	4	50.0	8	4	50.0
Huron	5	1	20.0	5	1	20.0
Ingham	12	0	0.0	13	0	0.0
Ionia	8	4	50.0	9	5	55.6
Iosco	6	2	33.3	7	3	42.9
Iron	2	1	50.0	2	1	50.0
Isabella	14	4	28.6	15	4	26.7
Jackson	17	5	29.4	18	6	33.3
Kalamazoo	26	9	34.6	28	9	32.1
Kalkaska	2	0	0.0	2	0	0.0
Kent	71	19	26.8	76	19	25.0
Keweenaw	0	0	0.0	0	0	0.0
Lake	2	0	0.0	4	0	0.0
Lapeer	21	7	33.3	26	12	46.2

FATAL CRASHES AND FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY (continued)

COUNTY	CRASHES			PERSONS		
	All Fatal Crashes	HBD Fatal Crashes	Percent HBD	Total Fatalities	HBD Fatalities	Percent HBD
Leelanau	3	0	0.0	3	0	0.0
Lenawee	18	8	44.4	22	9	40.9
Livingston	21	8	38.1	24	8	33.3
Luce	2	0	0.0	2	0	0.0
Mackinac	1	0	0.0	1	0	0.0
Macomb	61	23	37.7	64	25	39.1
Manistee	2	0	0.0	2	0	0.0
Marquette	9	3	33.3	12	3	25.0
Mason	2	1	50.0	2	1	50.0
Mecosta	8	1	12.5	9	1	11.1
Menominee	5	0	0.0	5	0	0.0
Midland	11	4	36.4	13	5	38.5
Missaukee	4	1	25.0	6	1	16.7
Monroe	25	6	24.0	26	7	26.9
Montcalm	13	4	30.8	13	4	30.8
Montmorency	1	1	100.0	1	1	100.0
Muskegon	19	5	26.3	21	6	28.6
Newaygo	6	2	33.3	7	2	28.6
Oakland	76	27	35.5	79	27	34.2
Oceana	9	6	66.7	10	6	60.0
Ogemaw	3	1	33.3	3	1	33.3
Ontonagon	3	0	0.0	3	0	0.0
Osceola	9	3	33.3	10	4	40.0
Oscoda	6	3	50.0	6	3	50.0
Otsego	5	2	40.0	6	2	33.3
Ottawa	28	6	21.4	31	8	25.8
Presque Isle	1	0	0.0	1	0	0.0
Roscommon	4	3	75.0	5	4	80.0
Saginaw	23	6	26.1	26	8	30.8
St. Clair	23	9	39.1	26	10	38.5
St. Joseph	8	1	12.5	8	1	12.5
Sanilac	6	2	33.3	6	2	33.3
Schoolcraft	3	1	33.3	3	1	33.3
Shiawassee	15	3	20.0	19	3	15.8
Tuscola	8	3	37.5	10	3	30.0
Van Buren	14	3	21.4	15	3	20.0
Washtenaw	33	12	36.4	35	13	37.1
Wayne	209	56	26.8	222	60	27.0
Wexford	7	3	42.9	8	3	37.5
Total	1,172	362	30.9	1,283	399	31.1

TRAFFIC FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY



Where HBD Traffic Fatalities Occurred

A One-Year Comparison

2003 = 399 / 2002 = 422

same or decrease

increase

MOST SEVERE OUTCOME IN HBD CRASHES BY COUNTY

Note: While the Michigan ***Traffic Crash Report*** (UD-10) requests officers to report Bodily Alcohol Content (BAC) of all persons tested for alcohol after a traffic crash, only the BAC testing of deceased motor vehicle drivers and deceased railroad train engineers is required by law. Consequently, alcohol involvement in nonfatal crashes is frequently unreported, and is therefore generally believed to be higher than indicated in this table.

		MOST SEVERE OUTCOME IN HBD CRASH				
	All HBD	Fatal	Injury			PDO
COUNTY	Crashes		A	B	C	
Alcona	39	2	5	8	3	21
Alger	23	0	7	3	2	11
Allegan	201	4	28	29	23	117
Alpena	46	0	7	7	4	28
Antrim	49	2	4	10	4	29
Arenac	42	2	8	7	5	20
Baraga	18	1	0	1	8	8
Barry	93	2	9	21	14	47
Bay	253	4	12	45	42	150
Benzie	35	1	8	12	1	13
Berrien	204	3	23	34	32	112
Branch	51	1	5	11	6	28
Calhoun	245	7	20	48	29	141
Cass	98	7	11	22	9	49
Charlevoix	55	3	7	12	8	25
Cheboygan	60	1	6	11	5	37
Chippewa	76	1	6	10	8	51
Clare	55	0	9	14	8	24
Clinton	110	1	13	18	12	66
Crawford	41	2	2	5	7	25
Delta	71	2	7	9	4	49
Dickinson	34	1	0	7	6	20
Eaton	159	4	12	27	37	79
Emmet	81	2	6	17	11	45
Genesee	798	25	58	159	150	406
Gladwin	69	1	6	13	5	44
Gogebic	28	1	2	6	4	15
Grand Traverse	159	2	16	25	22	94
Gratiot	60	3	9	8	7	33
Hillsdale	78	4	5	24	7	38
Houghton	63	4	7	9	9	34
Huron	44	1	6	8	7	22
Ingham	395	0	38	50	60	247
Ionia	123	4	16	22	20	61
Iosco	69	2	11	16	7	33
Iron	37	1	6	8	5	17
Isabella	130	4	11	24	18	73
Jackson	271	5	20	39	39	168
Kalamazoo	427	9	43	62	68	245
Kalkaska	41	0	10	3	7	21
Kent	1,043	19	61	127	165	671
Keweenaw	9	0	2	2	0	5

MOST SEVERE OUTCOME IN HBD CRASHES BY COUNTY (continued)

COUNTY	All HBD Crashes	MOST SEVERE OUTCOME IN HBD CRASH				
		Fatal	Injury			PDO
			A	B	C	
Lake	17	0	3	3	1	10
Lapeer	140	7	8	24	17	84
Leelanau	53	0	5	13	9	26
Lenawee	161	8	13	22	28	90
Livingston	247	8	22	54	42	121
Luce	11	0	3	2	1	5
Mackinac	40	0	9	10	5	16
Macomb	1,044	23	73	144	205	599
Manistee	46	0	8	8	5	25
Marquette	115	3	14	20	7	71
Mason	59	1	7	7	8	36
Mecosta	86	1	6	19	16	44
Menominee	62	0	6	14	5	37
Midland	114	4	13	19	22	56
Missaukee	36	1	8	8	1	18
Monroe	274	6	25	47	34	162
Montcalm	106	4	23	24	9	46
Montmorency	26	1	3	9	5	8
Muskegon	221	5	42	33	30	111
Newaygo	110	2	16	25	15	52
Oakland	1,555	27	103	222	281	922
Oceana	75	6	11	14	10	34
Ogemaw	58	1	6	20	9	22
Ontonagon	11	0	2	2	1	6
Osceola	45	3	1	6	8	27
Oscoda	25	3	3	5	1	13
Otsego	43	2	5	11	5	20
Ottawa	300	6	29	42	37	186
Presque Isle	18	0	2	1	5	10
Roscommon	52	3	4	12	7	26
Saginaw	346	6	36	64	69	171
St. Clair	262	9	31	33	46	143
St. Joseph	71	1	6	13	12	39
Sanilac	76	2	10	11	17	36
Schoolcraft	16	1	2	1	0	12
Shiawassee	133	3	12	21	26	71
Tuscola	130	3	18	22	16	71
Van Buren	169	3	20	24	30	92
Washtenaw	462	12	27	70	87	266
Wayne	2,229	56	181	334	415	1,243
Wexford	66	3	8	12	8	35
Unknown	0	0	0	0	0	0
Total	15,093	362	1,366	2,438	2,443	8,484

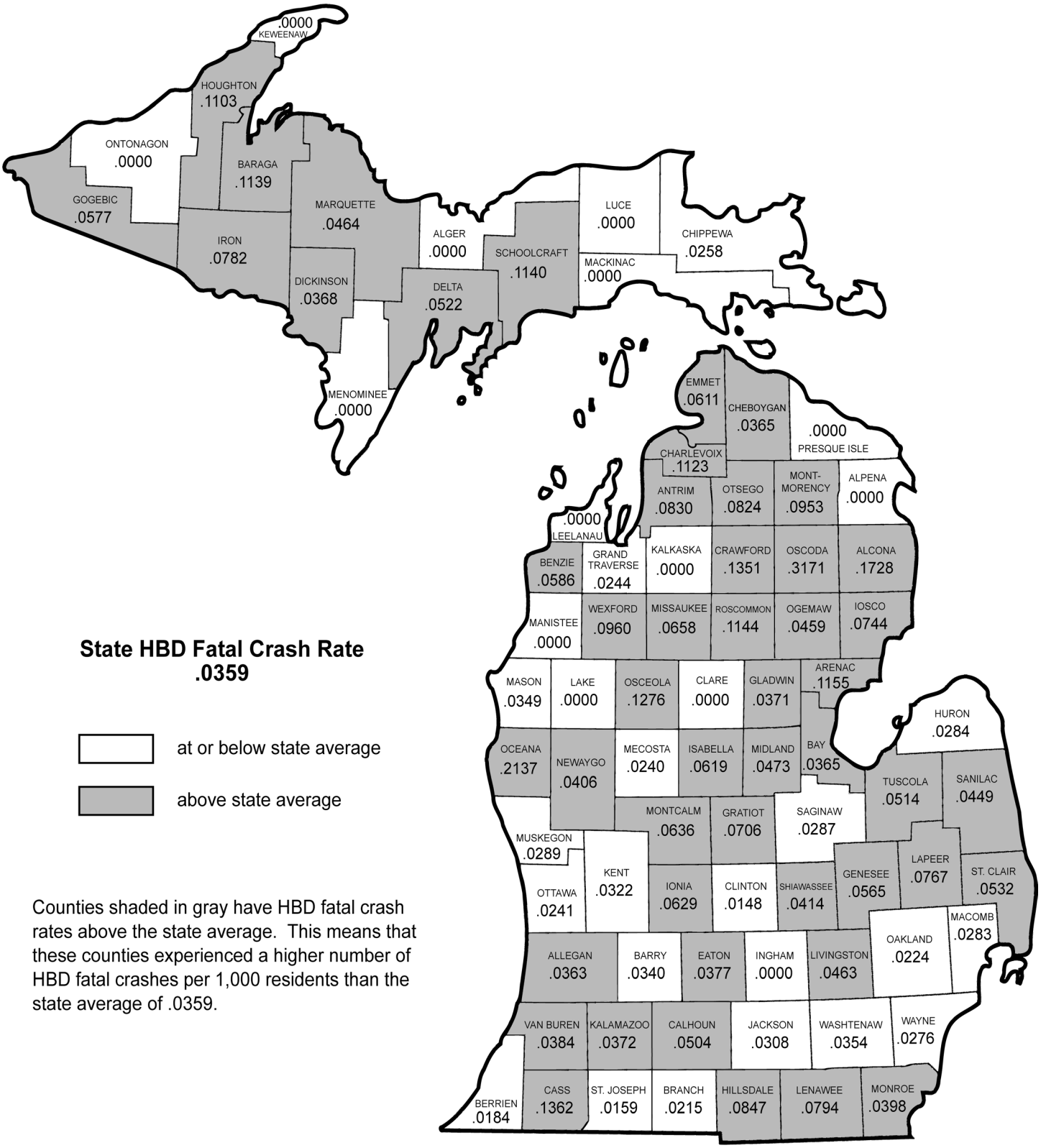
COUNTY RANKING BY HBD FATAL CRASH RATE
per 1,000 Michigan Residents

COUNTY	2003 Population Estimate	All Crashes	Fatal Crashes	HBD Crashes	HBD Fatal Crashes	HBD Fatal Crash Rate per 1,000 people	Rank
Oscoda	9,461	393	6	25	3	0.3171	1
Oceana	28,074	1,267	9	75	6	0.2137	2
Alcona	11,572	843	5	39	2	0.1728	3
Cass	51,385	2,168	12	98	7	0.1362	4
Crawford	14,808	770	4	41	2	0.1351	5
Osceola	23,509	1,498	9	45	3	0.1276	6
Arenac	17,309	1,098	3	42	2	0.1155	7
Roscommon	26,230	1,224	4	52	3	0.1144	8
Schoolcraft	8,772	633	3	16	1	0.1140	9
Baraga	8,782	561	3	18	1	0.1139	10
Charlevoix	26,712	1,296	4	55	3	0.1123	11
Houghton	36,249	1,393	8	63	4	0.1103	12
Wexford	31,251	1,683	7	66	3	0.0960	13
Montmorency	10,492	452	1	26	1	0.0953	14
Hillsdale	47,230	2,367	12	78	4	0.0847	15
Antrim	24,094	1,208	9	49	2	0.0830	16
Otsego	24,268	1,142	5	43	2	0.0824	17
Lenawee	100,786	3,608	18	161	8	0.0794	18
Iron	12,787	911	2	37	1	0.0782	19
Lapeer	91,314	3,818	21	140	7	0.0767	20
Iosco	26,888	1,118	6	69	2	0.0744	21
Gratiot	42,501	1,959	12	60	3	0.0706	22
Missaukee	15,189	729	4	36	1	0.0658	23
Montcalm	62,926	3,365	13	106	4	0.0636	24
Ionia	63,573	3,092	8	123	4	0.0629	25
Isabella	64,663	3,153	14	130	4	0.0619	26
Emmet	32,741	1,795	5	81	2	0.0611	27
Benzie	17,078	750	2	35	1	0.0586	28
Gogebic	17,329	559	1	28	1	0.0577	29
Genesee	442,250	15,479	50	798	25	0.0565	30
St. Clair	169,063	5,169	23	262	9	0.0532	31
Delta	38,317	2,397	6	71	2	0.0522	32
Tuscola	58,382	2,349	8	130	3	0.0514	33
Calhoun	138,854	6,748	23	245	7	0.0504	34
Midland	84,492	3,131	11	114	4	0.0473	35
Marquette	64,616	2,550	9	115	3	0.0464	36
Livingston	172,881	6,211	21	247	8	0.0463	37
Ogemaw	21,792	1,187	3	58	1	0.0459	38
Sanilac	44,583	2,051	6	76	2	0.0449	39
Shiawassee	72,543	2,920	15	133	3	0.0414	40
Newaygo	49,271	2,107	6	110	2	0.0406	41
Monroe	150,673	4,929	25	274	6	0.0398	42
Van Buren	78,210	3,058	14	169	3	0.0384	43
Eaton	106,197	4,394	13	159	4	0.0377	44
Kalamazoo	242,110	10,721	26	427	9	0.0372	45

COUNTY RANKING BY HBD FATAL CRASH RATE
per 1,000 Michigan Residents (continued)

COUNTY	2003 Population Estimate	All Crashes	Fatal Crashes	HBD Crashes	HBD Fatal Crashes	HBD Fatal Crash Rate per 1,000 people	Rank
Gladwin	26,939	1,154	2	69	1	0.0371	46
Dickinson	27,186	1,481	2	34	1	0.0368	47
Bay	109,452	3,870	19	253	4	0.0365	48
Cheboygan	27,405	1,235	4	60	1	0.0365	49
Allegan	110,331	3,962	19	201	4	0.0363	50
Washtenaw	338,562	12,997	33	462	12	0.0354	51
Mason	28,685	1,731	2	59	1	0.0349	52
Barry	58,774	2,536	8	93	2	0.0340	53
Kent	590,417	25,319	71	1,043	19	0.0322	54
Jackson	162,321	7,049	17	271	5	0.0308	55
Muskegon	173,090	5,922	19	221	5	0.0289	56
Saginaw	209,327	7,676	23	346	6	0.0287	57
Huron	35,216	1,956	5	44	1	0.0284	58
Macomb	813,948	26,305	61	1,044	23	0.0283	59
Wayne	2,028,778	71,227	209	2,229	56	0.0276	60
Chippewa	38,822	1,641	8	76	1	0.0258	61
Grand Traverse	82,011	4,243	9	159	2	0.0244	62
Ottawa	249,391	8,195	28	300	6	0.0241	63
Mecosta	41,728	2,738	8	86	1	0.0240	64
Oakland	1,207,869	44,267	76	1,555	27	0.0224	65
Branch	46,414	2,284	4	51	1	0.0215	66
Berrien	162,766	5,543	21	204	3	0.0184	67
St. Joseph	62,864	2,325	8	71	1	0.0159	68
Clinton	67,609	2,837	8	110	1	0.0148	69
Alger	9,767	461	0	23	0	0.0000	70
Alpena	30,781	1,165	0	46	0	0.0000	71
Clare	31,589	1,696	6	55	0	0.0000	72
Ingham	282,030	11,797	12	395	0	0.0000	73
Kalkaska	17,177	875	2	41	0	0.0000	74
Keweenaw	2,227	105	0	9	0	0.0000	75
Lake	11,795	520	2	17	0	0.0000	76
Leelanau	21,860	767	3	53	0	0.0000	77
Luce	6,919	340	2	11	0	0.0000	78
Mackinac	11,470	849	1	40	0	0.0000	79
Manistee	25,317	1,175	2	46	0	0.0000	80
Menominee	25,084	1,695	5	62	0	0.0000	81
Ontonagon	7,571	634	3	11	0	0.0000	82
Presque Isle	14,286	659	1	18	0	0.0000	83
Total	10,079,985	391,485	1,172	15,093	362	0.03591	

COUNTY RANKING
BY HBD FATAL CRASH RATE



State HBD Fatal Crash Rate
.0359

at or below state average

above state average

Counties shaded in gray have HBD fatal crash rates above the state average. This means that these counties experienced a higher number of HBD fatal crashes per 1,000 residents than the state average of .0359.

MICHIGAN OHSP Office of Highway Safety Planning

REPORTED STATEWIDE ALCOHOL INVOLVED TRAFFIC CRASHES BY COUNTY IN MICHIGAN

COUNTY	All	Fatal	Injury	Property Damage	Inter-state	US Route	State Route	Local Street	Persons Killed	Persons Injured
Alcona	39	2	16	21	0	1	5	33	2	19
Alger	23	0	12	11	0	1	9	13	0	18
Allegan	201	4	80	117	3	12	17	169	4	106
Alpena	46	0	18	28	0	8	4	34	0	23
Antrim	49	2	18	29	0	5	10	34	2	27
Arenac	42	2	20	20	1	10	2	29	2	28
Baraga	18	1	9	8	0	5	2	11	1	15
Barry	93	2	44	47	0	0	19	74	4	61
Bay	253	4	99	150	6	6	41	200	4	124
Benzie	35	1	21	13	0	2	3	30	1	33
Berrien	204	3	89	112	15	11	29	149	4	129
Branch	51	1	22	28	0	6	1	44	1	33
Calhoun	245	7	97	141	18	0	43	184	9	136
Cass	98	7	42	49	0	5	18	75	7	57
Charlevoix	55	3	27	25	0	7	4	44	3	48
Cheboygan	60	1	22	37	1	1	8	50	1	27
Chippewa	76	1	24	51	11	0	13	52	1	29
Clare	55	0	31	24	0	4	6	45	0	39
Clinton	110	1	43	66	7	6	12	85	1	60
Crawford	41	2	14	25	1	2	5	33	2	21
Delta	71	2	20	49	0	6	5	60	2	28
Dickinson	34	1	13	20	0	6	3	25	1	15
Eaton	159	4	76	79	5	0	36	118	5	99
Emmet	81	2	34	45	0	13	7	61	2	41
Genesee	798	25	367	406	43	16	113	626	26	534
Gladwin	69	1	24	44	0	0	11	58	2	33
Gogebic	28	1	12	15	0	6	2	20	1	19
Grand Traverse	159	2	63	94	0	29	11	119	3	87
Gratiot	60	3	24	33	0	10	9	41	3	36
Hillsdale	78	4	36	38	0	7	10	61	6	47
Houghton	63	4	25	34	0	10	16	37	4	33
Huron	44	1	21	22	0	0	12	32	1	30
Ingham	395	0	148	247	30	13	65	287	0	193
Ionia	123	4	58	61	7	0	17	99	5	82
Iosco	69	2	34	33	0	11	4	54	3	44
Iron	37	1	19	17	0	4	5	28	1	28
Isabella	130	4	53	73	0	12	6	112	4	75
Jackson	271	5	98	168	19	6	26	220	6	130
Kalamazoo	427	9	173	245	29	11	43	344	9	235
Kalkaska	41	0	20	21	0	5	4	32	0	26
Kent	1,043	19	353	671	45	70	96	832	19	486
Keweenaw	9	0	4	5	0	1	0	8	0	7
Lake	17	0	7	10	0	1	2	14	0	13
Lapeer	140	7	49	84	2	0	19	119	12	71
Leelanau	53	0	27	26	0	0	15	38	0	41
Lenawee	161	8	63	90	0	34	18	109	9	80

REPORTED STATEWIDE ALCOHOL INVOLVED TRAFFIC CRASHES BY COUNTY IN MICHIGAN (continued)

COUNTY	All	Fatal	Injury	Property Damage	Inter-state	US Route	State Route	Local Street	Persons Killed	Persons Injured
Livingston	247	8	118	121	30	11	16	190	8	168
Luce	11	0	6	5	0	0	3	8	0	8
Mackinac	40	0	24	16	4	5	5	26	0	33
Macomb	1,044	23	422	599	43	0	182	819	25	607
Manistee	46	0	21	25	0	5	8	33	0	29
Marquette	115	3	41	71	0	18	8	89	3	61
Mason	59	1	22	36	0	9	1	49	1	35
Mecosta	86	1	41	44	0	5	7	74	1	55
Menominee	62	0	25	37	0	14	4	44	0	38
Midland	114	4	54	56	0	1	15	98	5	98
Missaukee	36	1	17	18	0	0	8	28	1	21
Monroe	274	6	106	162	13	38	15	208	7	149
Montcalm	106	4	56	46	0	1	24	81	4	78
Montmorency	26	1	17	8	0	0	3	23	1	21
Muskegon	221	5	105	111	0	20	27	174	6	151
Newaygo	110	2	56	52	0	0	21	89	2	83
Oakland	1,555	27	606	922	154	51	193	1,157	27	825
Oceana	75	6	35	34	0	8	7	60	6	56
Ogemaw	58	1	35	22	3	0	6	49	1	45
Ontonagon	11	0	5	6	0	2	2	7	0	6
Osceola	45	3	15	27	0	9	5	31	4	18
Oscoda	25	3	9	13	0	0	5	20	3	14
Otsego	43	2	21	20	1	0	5	37	2	32
Ottawa	300	6	108	186	21	22	15	242	8	155
Presque Isle	18	0	8	10	0	2	0	16	0	16
Roscommon	52	3	23	26	1	0	10	41	4	37
Saginaw	346	6	169	171	12	0	69	265	8	221
St. Clair	262	9	110	143	21	0	37	204	10	153
St. Joseph	71	1	31	39	0	11	9	51	1	46
Sanilac	76	2	38	36	0	0	14	62	2	63
Schoolcraft	16	1	3	12	0	1	3	12	1	5
Shiawassee	133	3	59	71	3	0	21	109	3	83
Tuscola	130	3	56	71	0	0	22	108	3	74
Van Buren	169	3	74	92	11	0	21	137	3	119
Washtenaw	462	12	184	266	29	40	21	372	13	243
Wayne	2,229	56	930	1,243	158	64	219	1,788	60	1,387
Wexford	66	3	28	35	0	4	14	48	3	36
Unknown	0	0	0	0	0	0	0	0	0	0
Total	15,093	362	6,247	8,484	747	704	1,851	11,791	399	8,815

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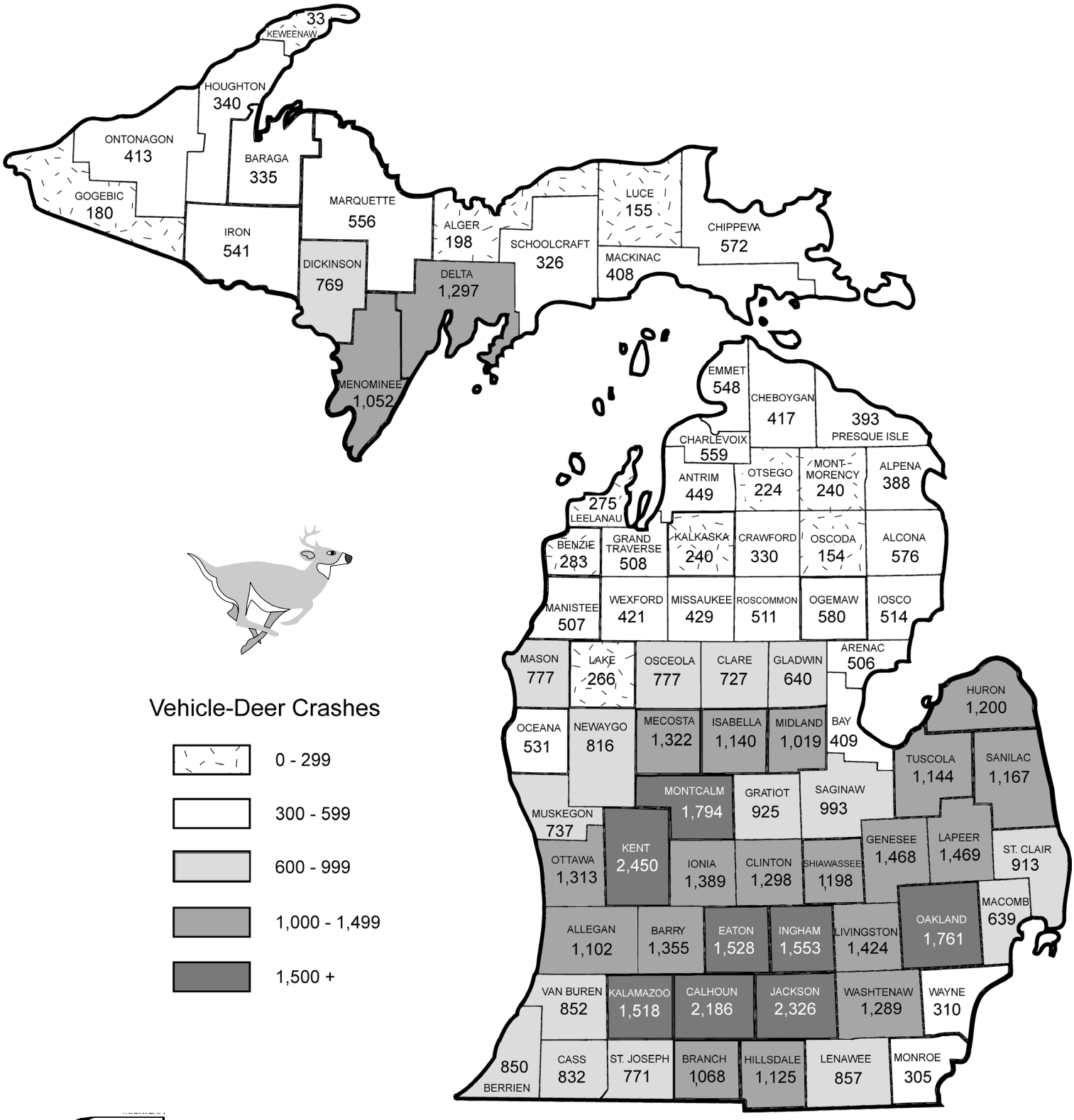
Deer

MICHIGAN MOTOR VEHICLE-DEER INVOLVED/ASSOCIATED CRASHES

Michigan had 67,760 reported motor vehicle-deer crashes during 2003. 1,913 people were injured and 11 people were killed as a result of those collisions. Of the 68,100 vehicles involved, 42,885 (63.0%) were passenger cars, 16,682 (24.5%) were pickups, and 5,274 (7.7%) were minivans, vans, and motorhomes. All other vehicle types (including motorcycle, snowmobile, ORV/ATV, large truck, moped) totaled 3,259 (4.8%).

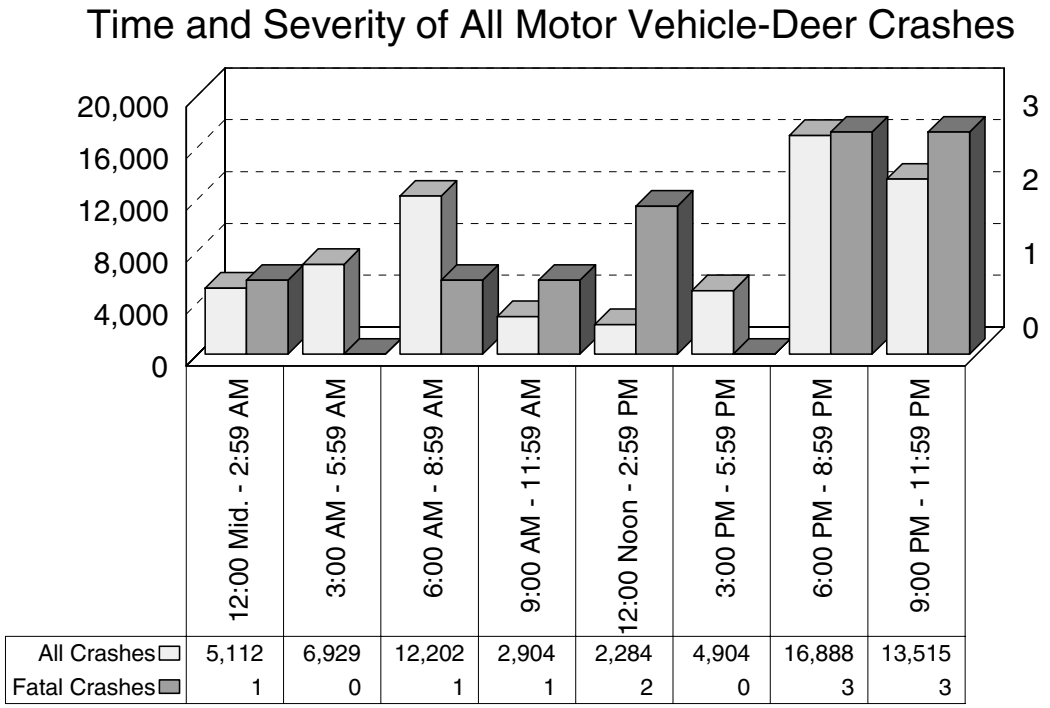
Contrary to common belief, motor vehicle-deer crashes are happening most often in Michigan's southern, heavily populated counties; Kent County had the highest number with 2,450 such crashes in 2003.



LIGHT CONDITION AND TIME OF DAY IN MOTOR VEHICLE-DEER CRASHES

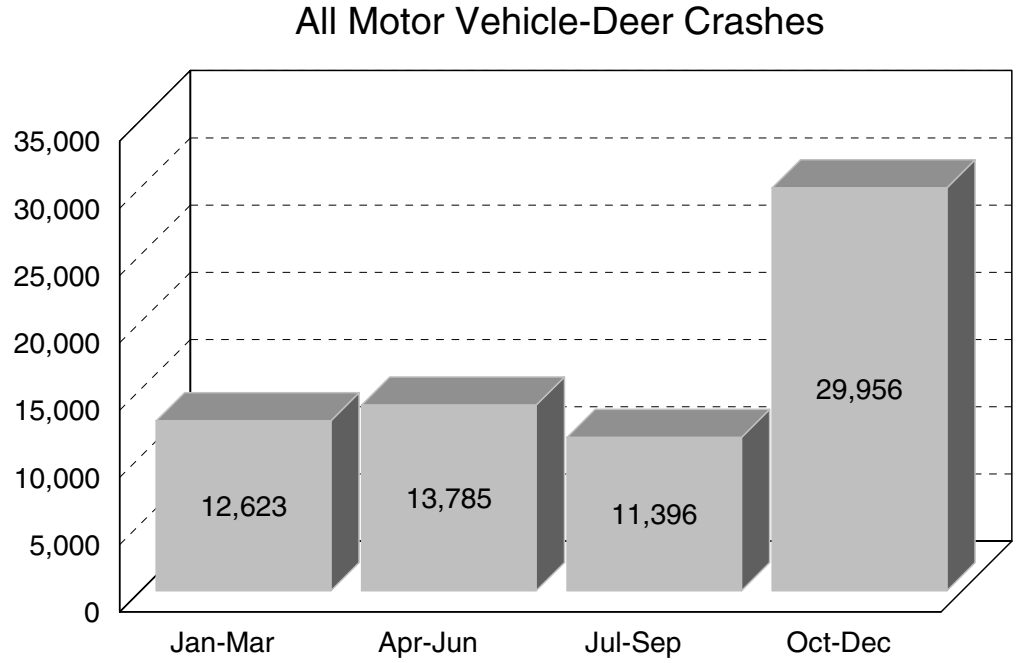
LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	13,286	19.6	5	45.5	40	185	271	12,785
Dawn	5,590	8.2	0	0.0	4	32	73	5,481
Dusk	3,559	5.3	0	0.0	8	38	54	3,459
Dark – Lighted	2,236	3.3	0	0.0	3	16	25	2,192
Dark – Unlighted	42,290	62.4	6	54.5	56	277	606	41,345
Other/Unknown	799	1.2	0	0.0	0	4	7	788
Total	67,760	100.0	11	100.0	111	552	1,036	66,050

The eleven fatal deer crashes in Michigan in 2003 occurred in daylight and dark-unlighted conditions. All motor vehicle-deer involved/associated crashes peaked during the 6:00 PM - 11:59 PM time periods. There were six fatal deer crashes during this time period.



MONTHLY AND SEASONAL RATES FOR MOTOR VEHICLE-DEER CRASHES

MONTH	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
January	5,469	8.1	0	0.0	6	24	67	5,372
February	3,339	4.9	0	0.0	1	12	46	3,280
March	3,815	5.6	0	0.0	2	23	36	3,754
April	3,836	5.7	0	0.0	6	19	74	3,737
May	4,715	7.0	3	27.3	11	55	97	4,549
June	5,234	7.7	0	0.0	15	66	112	5,041
July	3,512	5.2	0	0.0	18	60	63	3,371
August	2,930	4.3	1	9.1	11	59	60	2,799
September	4,954	7.3	4	36.4	12	55	74	4,809
October	10,043	14.8	0	0.0	11	64	141	9,827
November	12,509	18.5	3	27.3	13	79	172	12,242
December	7,404	10.9	0	0.0	5	36	94	7,269
Total	67,760	100.0	11	100.0	111	552	1,036	66,050



29,956 (44.2%) of all reported motor vehicle-deer collisions occurred during the fourth quarter of the year.

REPORTED STATEWIDE MOTOR VEHICLE-DEER CRASHES BY COUNTY IN MICHIGAN

COUNTY	All	Fatal	Injury	Property Damage	Inter-state	US Route	State Route	Local Street	Persons Killed	Persons Injured
Alcona	576	0	7	569	0	78	95	403	0	7
Alger	198	0	4	194	0	13	81	104	0	4
Allegan	1,102	0	18	1,084	33	56	189	824	0	24
Alpena	388	0	5	383	0	29	91	268	0	5
Antrim	449	0	8	441	0	82	68	299	0	9
Arenac	506	0	7	499	15	87	28	376	0	7
Baraga	335	0	4	331	0	90	47	198	0	4
Barry	1,355	0	42	1,313	0	0	437	918	0	47
Bay	409	0	13	396	20	19	76	294	0	17
Benzie	283	0	4	279	0	44	46	193	0	5
Berrien	850	0	34	816	65	88	100	597	0	39
Branch	1,068	0	32	1,036	24	79	58	907	0	32
Calhoun	2,186	1	54	2,131	129	0	371	1,686	1	62
Cass	832	0	23	809	0	60	255	517	0	27
Charlevoix	559	0	10	549	0	117	71	371	0	11
Cheboygan	417	0	10	407	38	19	82	278	0	14
Chippewa	572	1	15	556	21	0	217	334	1	16
Clare	727	0	16	711	0	104	99	524	0	17
Clinton	1,298	0	38	1,260	77	86	77	1,058	0	39
Crawford	330	1	11	318	19	2	96	213	1	13
Delta	1,297	0	31	1,266	0	189	196	912	0	34
Dickinson	769	0	12	757	0	191	153	425	0	14
Eaton	1,528	0	27	1,501	74	0	333	1,121	0	30
Emmet	548	0	2	546	0	127	37	384	0	3
Genesee	1,468	0	48	1,420	59	10	174	1,225	0	54
Gladwin	640	0	14	626	0	0	215	425	0	19
Gogebic	180	0	9	171	0	77	16	87	0	10
Grand Traverse	508	0	15	493	0	40	71	397	0	18
Gratiot	925	0	16	909	0	105	124	696	0	18
Hillsdale	1,125	1	17	1,107	0	72	200	853	1	19
Houghton	340	0	13	327	0	66	93	181	0	13
Huron	1,200	0	17	1,183	0	0	432	768	0	17
Ingham	1,553	1	37	1,515	89	77	197	1,190	1	42
Ionia	1,389	0	17	1,372	52	0	308	1,029	0	18
Iosco	514	0	24	490	0	51	135	328	0	28
Iron	541	0	12	529	0	183	81	277	0	13
Isabella	1,140	0	25	1,115	0	45	130	965	0	26
Jackson	2,326	0	43	2,283	55	69	332	1,870	0	46
Kalamazoo	1,518	0	53	1,465	28	41	116	1,333	0	58
Kalkaska	240	0	6	234	0	25	50	165	0	6
Kent	2,450	0	75	2,375	53	89	286	2,022	0	82
Keweenaw	33	0	2	31	0	3	1	29	0	3
Lake	266	0	6	260	0	42	41	183	0	7
Lapeer	1,469	0	27	1,442	27	0	182	1,260	0	32
Leelanau	275	0	5	270	0	0	111	164	0	7
Lenawee	857	0	25	832	0	139	206	512	0	26

REPORTED STATEWIDE MOTOR VEHICLE-DEER CRASHES BY COUNTY IN MICHIGAN (continued)

COUNTY	All	Fatal	Injury	Property Damage	Inter-state	US Route	State Route	Local Street	Persons Killed	Persons Injured
Livingston	1,424	2	37	1,385	55	48	139	1,182	2	42
Luce	155	0	4	151	0	0	80	75	0	4
Mackinac	408	0	9	399	28	70	110	200	0	10
Macomb	639	0	21	618	7	0	85	547	0	24
Manistee	507	0	15	492	0	103	110	294	0	16
Marquette	556	0	9	547	0	110	107	339	0	9
Mason	777	0	23	754	0	167	36	574	0	26
Mecosta	1,322	0	27	1,295	0	19	318	985	0	32
Menominee	1,052	0	22	1,030	0	292	80	680	0	25
Midland	1,019	1	32	986	0	51	90	878	1	34
Missaukee	429	0	13	416	0	0	116	313	0	15
Monroe	305	0	14	291	17	61	18	209	0	14
Montcalm	1,794	1	43	1,750	0	19	451	1,324	1	51
Montmorency	240	0	6	234	0	0	100	140	0	8
Muskegon	737	0	19	718	4	62	61	610	0	23
Newaygo	816	0	20	796	0	0	208	608	0	23
Oakland	1,761	0	50	1,711	77	26	139	1,519	0	53
Oceana	531	0	25	506	0	92	44	395	0	33
Ogemaw	580	0	14	566	23	0	148	409	0	16
Ontonagon	413	1	13	399	0	105	177	131	1	13
Osceola	777	0	18	759	0	121	116	540	0	20
Oscoda	154	0	7	147	0	0	49	105	0	8
Otsego	224	0	6	218	18	0	28	178	0	6
Ottawa	1,313	0	45	1,268	68	54	102	1,089	0	53
Presque Isle	393	0	7	386	0	42	111	240	0	8
Roscommon	511	0	15	496	38	37	90	346	0	15
Saginaw	993	0	25	968	24	0	203	766	0	31
St. Clair	913	0	31	882	29	0	97	787	0	37
St. Joseph	771	0	14	757	0	97	167	507	0	18
Sanilac	1,167	0	38	1,129	0	0	372	795	0	43
Schoolcraft	326	0	9	317	0	88	80	158	0	11
Shiawassee	1,198	0	24	1,174	28	0	227	943	0	27
Tuscola	1,144	0	16	1,128	0	0	316	828	0	17
Van Buren	852	0	19	833	50	0	203	599	0	20
Washtenaw	1,289	0	46	1,243	36	71	95	1,087	0	52
Wayne	310	1	13	296	19	10	21	260	1	15
Wexford	421	0	17	404	0	34	152	235	0	19
Total	67,760	11	1,699	66,050	1,399	4,473	11,850	50,038	11	1,913

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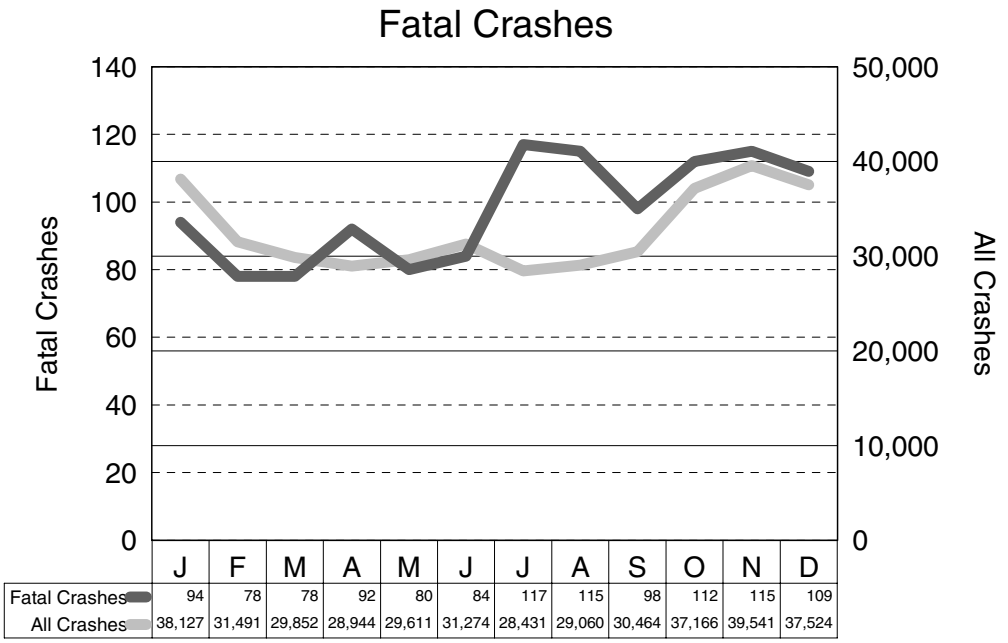
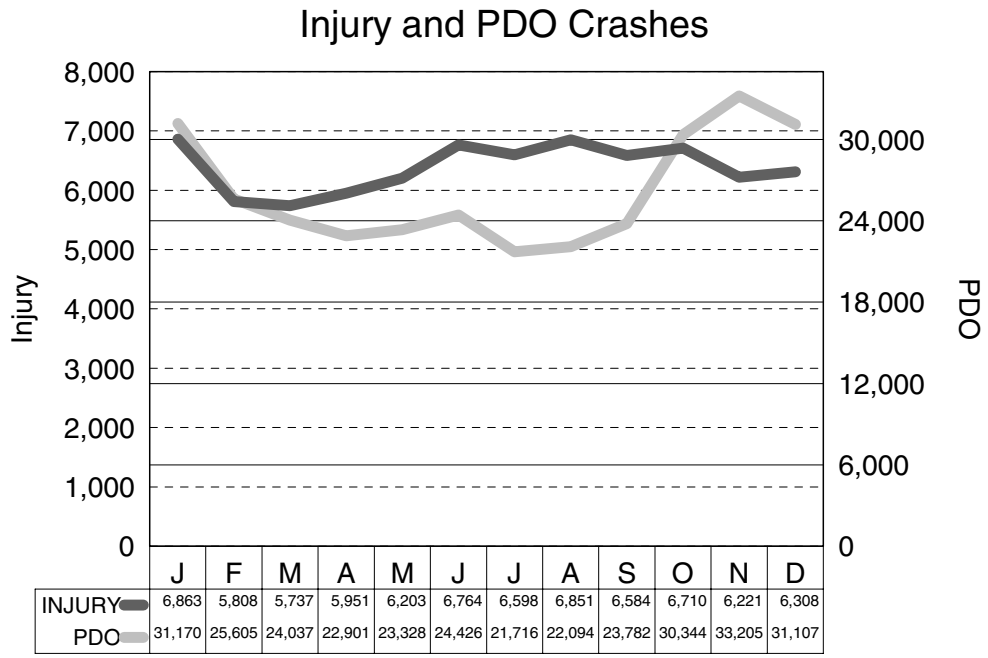
Crash

ALL CRASHES INJURY SEVERITY BY MONTH



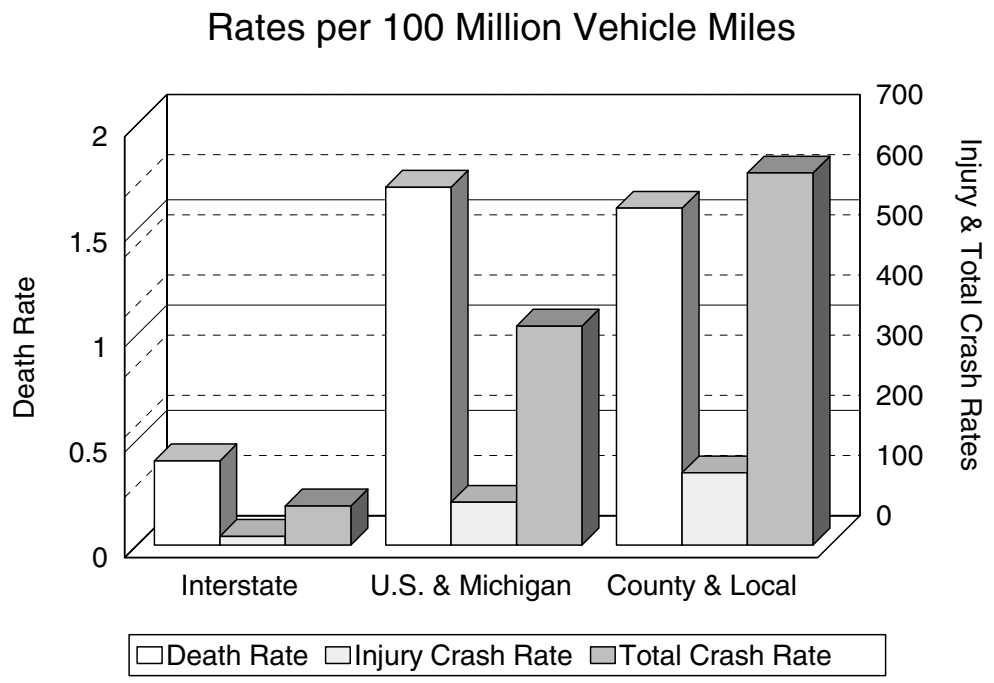


The charts on this page show the months of April through September are peak months (20.9% or above) in terms of the percent of the number of crashes involving death or injury to the number of all crashes. That is, if a person was in a motor vehicle crash during one of these months there was a higher chance of that crash resulting in death or injury to one of the involved persons than if that crash happened during one of the other months.

CRASH EXPERIENCE BY ROADWAY TYPE

The table below provides a detailed breakdown of estimated vehicle mileage, crashes, death rates (deaths per 100 million vehicle miles), and crash rates (crashes per 100 million vehicle miles) for the major roadway types in Michigan. All rates are lowest on interstate routes. 2003 estimated mileage figures were provided by the Michigan Department of Transportation [9].

STATEWIDE	Estimated Mileage (Billions)	All Crashes	Injury Crashes	Deaths	Total Crash Rate	Injury Crash Rate	Death Rate
Interstate Routes	30.9	20,085	4,399	127	65.0	14.2	0.4
U.S. & Michigan Roads	22.5	81,911	15,986	384	364.0	71.0	1.7
County & City Roads	46.8	289,489	56,213	772	618.6	120.1	1.6
Total	100.2	391,485	76,598	1,283	390.7	76.4	1.3



CRASH TYPE

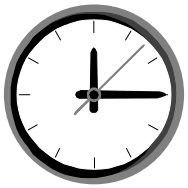
CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Single Vehicle	135,739	34.7	557	47.5	3,113	7,484	10,299	114,286
Head On	6,799	1.7	175	14.9	523	791	1,149	4,161
Head On - Left Turn	10,489	2.7	44	3.8	426	1,204	2,411	6,404
Angle	73,154	18.7	244	20.8	2,036	4,930	12,702	53,242
Rear End	93,294	23.8	62	5.3	912	2,763	17,361	72,196
Rear End - Left Turn	3,859	1.0	1	0.1	60	221	790	2,787
Rear End - Right Turn	3,153	0.8	0	0.0	17	59	428	2,649
Sideswipe - Same Direction	32,552	8.3	14	1.2	195	593	1,939	29,811
Sideswipe - Opposite Direct	9,726	2.5	21	1.8	109	285	768	8,543
Other/Unknown	22,720	5.8	54	4.6	414	876	1,740	19,636
Total	391,485	100.0	1,172	100.0	7,805	19,206	49,587	313,715

Single Vehicle, Head On, and Angle crash types produce the highest number of fatal crashes (83.2%). Single Vehicle crashes include rollovers, which are particularly deadly crash types. Rear End-Turning and Sideswipe crashes produce the lowest number of fatal crashes (3.1%).

RELATIONSHIP TO ROADWAY

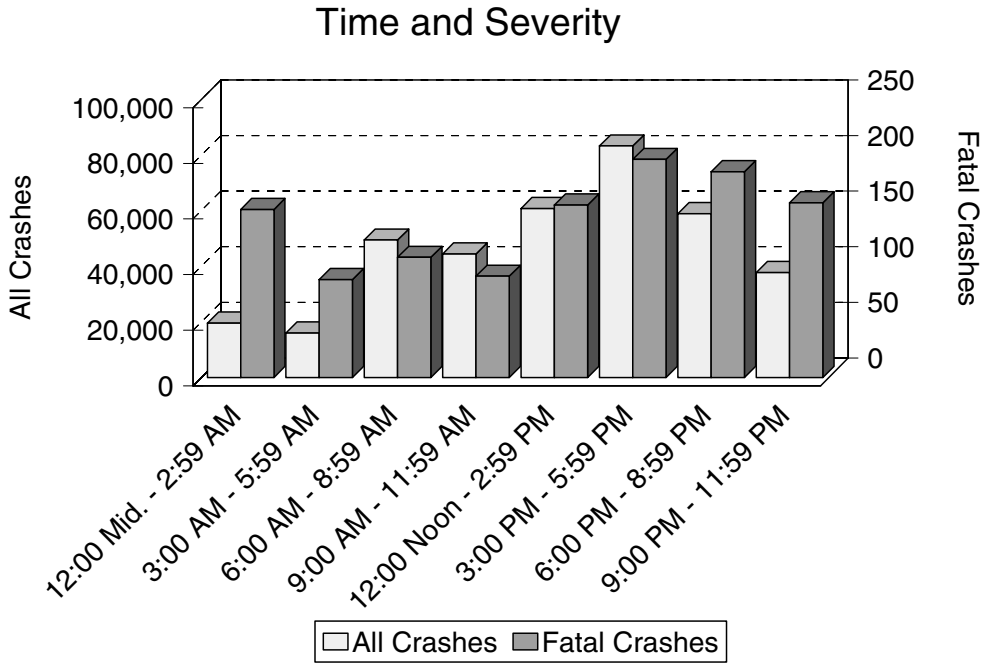
LOCATION OF FIRST IMPACT	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
On Road	328,980	84.0	810	69.1	5,419	13,515	41,528	267,708
Median	2,875	0.7	16	1.4	112	274	440	2,033
Shoulder	16,415	4.2	79	6.7	538	1,319	1,875	12,604
Outside of Shoulder/Curb	33,061	8.4	227	19.4	1,385	3,329	4,509	23,611
Gore	939	0.2	9	0.8	49	101	104	676
Other/Unknown	9,215	2.4	31	2.6	302	668	1,131	7,083
Total	391,485	100.0	1,172	100.0	7,805	19,206	49,587	313,715

Crashes that happen outside of the normal driving lanes are overrepresented in the fatal count. Only 8.4 percent of crashes occur outside the shoulder of the road, but these crashes account for 19.4 percent of the fatal crashes.

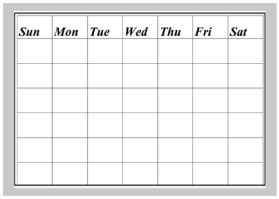


TIME AND SEVERITY

TIME OF DAY	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
12:00 Mid. - 2:59 AM	19,492	5.0	151	12.9	686	1,468	1,894	15,293
3:00 AM - 5:59 AM	15,968	4.1	88	7.5	376	819	1,255	13,430
6:00 AM - 8:59 AM	49,385	12.6	108	9.2	730	1,847	5,687	41,013
9:00 AM - 11:59 AM	44,406	11.3	91	7.8	844	2,144	6,280	35,047
12:00 Noon - 2:59 PM	60,716	15.5	155	13.2	1,185	3,155	9,270	46,951
3:00 PM - 5:59 PM	83,234	21.3	196	16.7	1,580	4,274	12,473	64,711
6:00 PM - 8:59 PM	58,884	15.0	185	15.8	1,167	2,681	6,626	48,225
9:00 PM - 11:59 PM	37,745	9.6	157	13.4	913	1,924	3,569	31,182
Unknown	21,655	5.5	41	3.5	324	894	2,533	17,863
Total	391,485	100.0	1,172	100.0	7,805	19,206	49,587	313,715

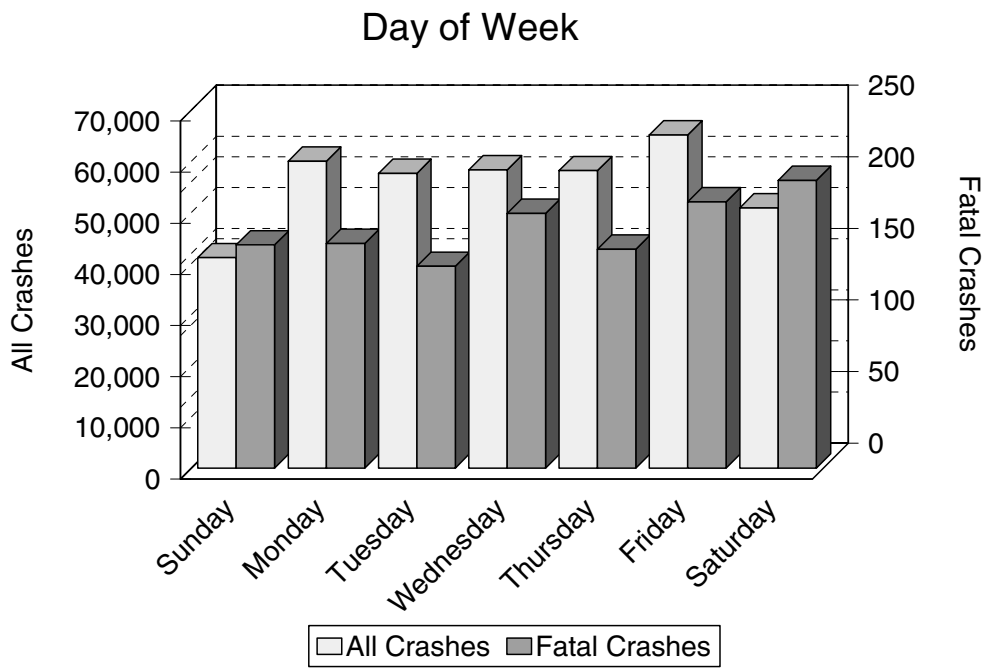


Crash frequencies peak in the late afternoon, then drop off steadily until 6:00 AM (the morning rush hour). Fatal crash frequencies rise with the frequency of other crashes, but continue at a high rate well into the early morning hours. There are proportionally more fatal crashes during the midnight to 2:59 AM time period.

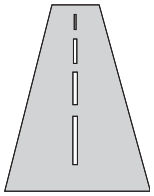


DAY OF WEEK

DAY OF WEEK	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Sunday	41,156	10.5	156	13.3	1,102	2,526	4,831	32,541
Monday	60,041	15.3	157	13.4	1,082	2,686	7,762	48,354
Tuesday	57,661	14.7	141	12.0	1,069	2,583	7,688	46,180
Wednesday	58,342	14.9	178	15.2	1,046	2,650	7,450	47,018
Thursday	58,198	14.9	153	13.1	1,068	2,647	7,415	46,915
Friday	65,176	16.6	186	15.9	1,189	3,126	8,331	52,344
Saturday	50,911	13.0	201	17.2	1,249	2,988	6,110	40,363
Total	391,485	100.0	1,172	100.0	7,805	19,206	49,587	313,715



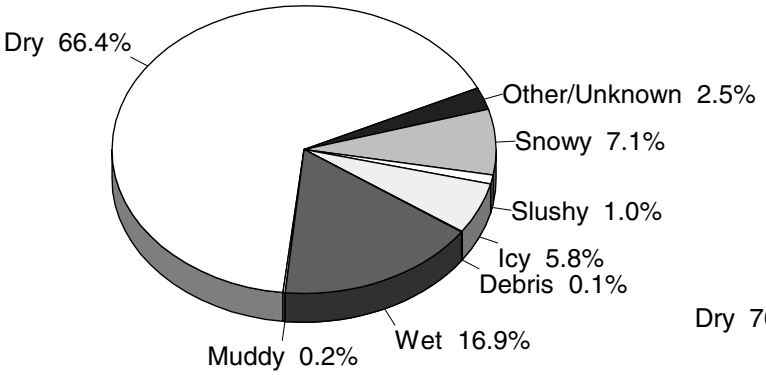
Crash frequencies were higher Monday through Friday than on the weekend, however Saturday and Sunday had a higher proportion of fatal crashes.



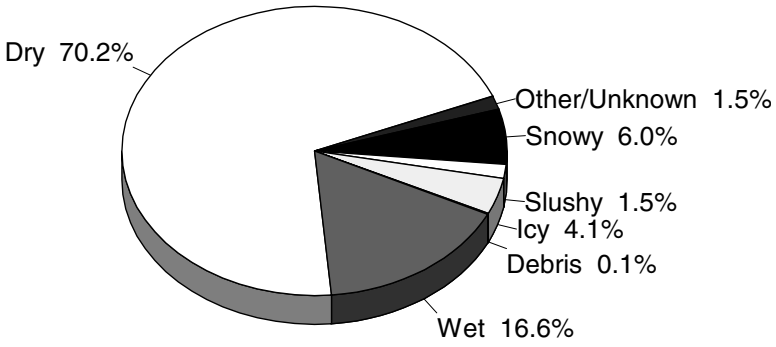
ROAD CONDITION

ROAD SURFACE CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Dry	259,870	66.4	823	70.2	5,538	13,358	32,821	207,330
Wet	66,022	16.9	194	16.6	1,118	3,080	9,560	52,070
Icy	22,843	5.8	48	4.1	416	1,091	2,866	18,422
Snowy	27,971	7.1	70	6.0	458	1,017	2,834	23,592
Muddy	620	0.2	0	0.0	19	73	63	465
Slushy	4,002	1.0	18	1.5	104	234	574	3,072
Debris	214	0.1	1	0.1	7	25	31	150
Other/Unknown	9,943	2.5	18	1.5	145	328	838	8,614
Total	391,485	100.0	1,172	100.0	7,805	19,206	49,587	313,715

ALL CRASHES



FATAL CRASHES

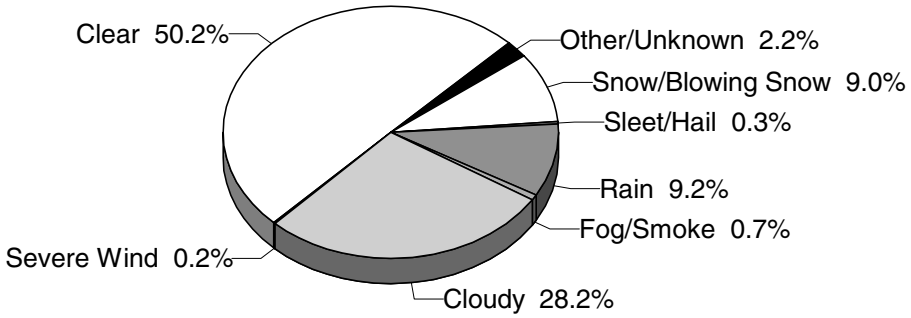


Most crashes (66.4%) and most fatal crashes (70.2%) occur on dry roads. This indicates that Michigan drivers do a good job of adjusting their driving behavior for bad road conditions.

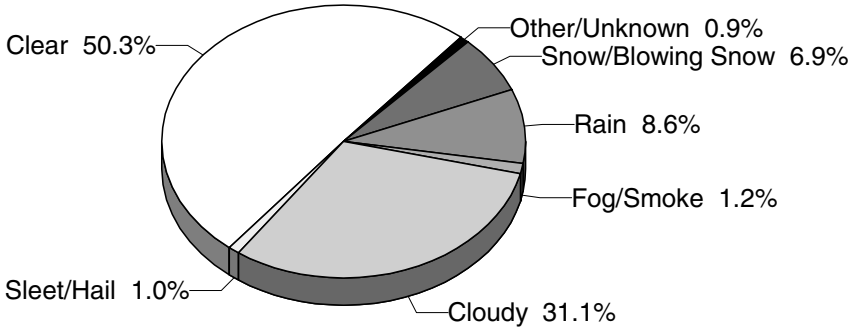
WEATHER CONDITION

WEATHER CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Clear	196,451	50.2	590	50.3	4,300	10,231	24,684	156,646
Cloudy	110,540	28.2	364	31.1	2,126	5,376	14,340	88,334
Fog/Smoke	2,774	0.7	14	1.2	69	155	241	2,295
Rain	35,955	9.2	101	8.6	627	1,747	5,423	28,057
Snow/Blowing Snow	35,226	9.0	81	6.9	565	1,403	4,050	29,127
Severe Wind	602	0.2	0	0.0	14	25	47	516
Sleet/Hail	1,264	0.3	12	1.0	29	75	159	989
Other/Unknown	8,673	2.2	10	0.9	75	194	643	7,751
Total	391,485	100.0	1,172	100.0	7,805	19,206	49,587	313,715

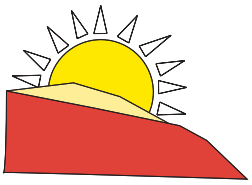
ALL CRASHES



FATAL CRASHES



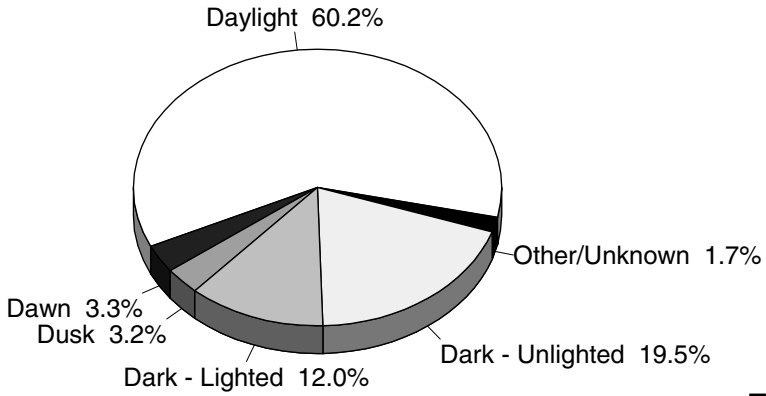
Half of all crashes occur in good weather (50.2%). Fog/smoke and sleet/hail are particularly deadly weather conditions as they are overrepresented in fatal crashes.



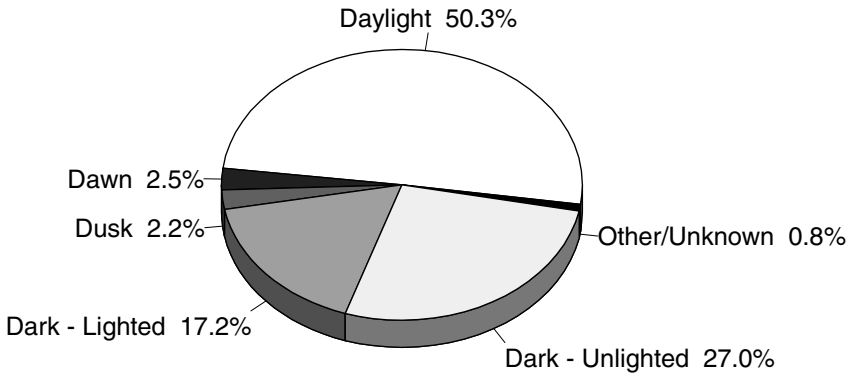
LIGHT CONDITION

LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	235,656	60.2	590	50.3	4,662	12,248	34,896	183,260
Dawn	13,074	3.3	29	2.5	167	436	1,203	11,239
Dusk	12,635	3.2	26	2.2	229	564	1,357	10,459
Dark – Lighted	47,098	12.0	202	17.2	1,194	2,682	6,675	36,345
Dark – Unlighted	76,276	19.5	316	27.0	1,486	3,100	4,889	66,485
Other/Unknown	6,746	1.7	9	0.8	67	176	567	5,927
Totals	391,485	100.0	1,172	100.0	7,805	19,206	49,587	313,715

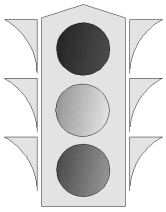
ALL CRASHES



FATAL CRASHES



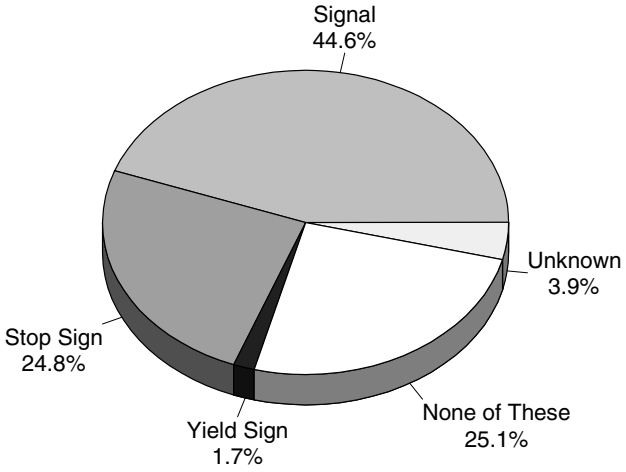
The majority (60.2%) of all crashes happen during daylight hours. Dark conditions create the greatest hazard, as they are overrepresented in fatal crashes. Areas without street lights have the higher fatality rate for dark conditions.



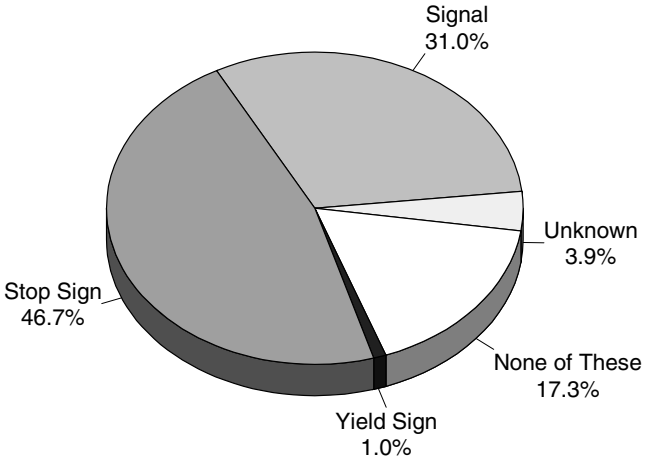
INTERSECTION CRASHES BY TRAFFIC CONTROL TYPE

TRAFFIC CONTROL TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Signal	53,206	44.6	95	31.0	1,050	2,833	10,252	38,976
Stop Sign	29,562	24.8	143	46.7	854	2,083	4,877	21,605
Yield Sign	1,991	1.7	3	1.0	42	138	416	1,392
None of These	29,993	25.1	53	17.3	607	1,652	4,450	23,231
Unknown	4,609	3.9	12	3.9	87	224	707	3,579
Total	119,361	100.0	306	100.0	2,640	6,930	20,702	88,783

ALL CRASHES



FATAL CRASHES



Intersections with stop signs are overrepresented in fatal crashes. Driver perception, awareness, and adherence to traffic control signing are all key factors in crashes at intersections.

CONSTRUCTION ZONE CRASHES

CONSTRUCTION ZONE TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Subtotal	Number	% of Subtotal	A	B	C	
Construction/Maintenance								
Activity - On Road								
Lane Closed	2,888	49.8	4	36.4	46	107	420	2,311
Lane Open	767	13.2	3	27.3	10	42	101	611
Unknown Lane Closure	151	2.6	0	0.0	1	6	16	128
Activity - Off Road								
Lane Closed	277	4.8	0	0.0	5	18	29	225
Lane Open	337	5.8	2	18.2	13	24	44	254
Unknown Lane Closure	44	0.8	0	0.0	1	3	8	32
Activity - None								
Lane Closed	578	10.0	1	9.1	4	30	106	437
Lane Open	378	6.5	1	9.1	18	29	40	290
Unknown Lane Closure	33	0.6	0	0.0	2	2	7	22
Activity - Unknown								
Lane Closed	128	2.2	0	0.0	0	7	21	100
Lane Open	31	0.5	0	0.0	0	2	4	25
Unknown Lane Closure	188	3.2	0	0.0	3	5	22	158
Subtotal	5,800	100.0	11	100.0	103	275	818	4,593
Utility								
Activity - On Road								
Lane Closed	86	38.7	1	100.0	2	3	13	67
Lane Open	34	15.3	0	0.0	0	4	2	28
Unknown Lane Closure	5	2.3	0	0.0	0	0	0	5
Activity - Off Road								
Lane Closed	24	10.8	0	0.0	0	0	6	18
Lane Open	28	12.6	0	0.0	0	1	2	25
Unknown Lane Closure	2	0.9	0	0.0	0	0	1	1
Activity - None								
Lane Closed	9	4.1	0	0.0	0	0	1	8
Lane Open	21	9.5	0	0.0	0	0	2	19
Unknown Lane Closure	1	0.5	0	0.0	1	0	0	0
Activity - Unknown								
Lane Closed	1	0.5	0	0.0	0	0	0	1
Lane Open	3	1.4	0	0.0	0	0	1	2
Unknown Lane Closure	8	3.6	0	0.0	0	0	2	6
Subtotal	222	100.0	1	100.0	3	8	30	180
Unknown Type								
Subtotal	13,517		13		285	650	1,759	10,810
Total	19,539		25		391	933	2,607	15,583

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Vehicle/ Driver

VEHICLE TYPE CRASH INVOLVEMENT

Vehicle Type	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH: Fatal Crash		Injury	PDO	MOST SEVERE OUTCOME IN VEHICLE: Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger Car and Station Wagon	435,656	68.5	1,150	60.8	96,432	338,074	685	69.1	62,690	372,281
Van and Motorhome	46,260	7.3	134	7.1	10,066	36,060	58	5.8	5,721	40,481
Pickup	96,176	15.1	333	17.6	17,994	77,849	113	11.4	9,620	86,443
Small Truck (under 10,000 lbs.)	17,577	2.8	34	1.8	3,619	13,924	13	1.3	2,055	15,509
Motorcycle	3,187	0.5	81	4.3	2,361	745	75	7.6	2,321	791
Moped	291	0.0	3	0.2	190	98	3	0.3	183	105
Go Cart	24	0.0	1	0.1	12	11	1	0.1	12	11
Snowmobile	500	0.1	14	0.7	309	177	13	1.3	261	226
Off Road Vehicle	316	0.0	11	0.6	263	42	11	1.1	249	56
Other	1,686	0.3	11	0.6	365	1,310	4	0.4	166	1,516
Unknown	17,627	2.8	13	0.7	2,451	15,163	3	0.3	1,053	16,571
CDL Truck/Bus (breakdown below)	16,467	2.6	107	5.7	3,068	13,292	13	1.3	817	15,637
Total Number of Vehicles	635,767	100.0	1,892	100.0	137,130	496,745	992	100.0	85,148	549,627

Special Note: School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.

CDL Truck/Bus Sub-category Type	Motor Vehicles		Fatal Crash		Injury	PDO	Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Commercial Vehicle: Group A	7,493	45.5	70	65.4	1,431	5,992	10	76.9	337	7,146
Commercial Vehicle: Group B	3,414	20.7	22	20.6	670	2,722	2	15.4	204	3,208
Commercial Vehicle: Group C	504	3.1	1	0.9	115	388	0	0.0	40	464
Other Truck	886	5.4	7	6.5	183	696	0	0.0	66	820
Unknown Truck	4,170	25.3	7	6.5	669	3,494	1	7.7	170	3,999
Total Number of Vehicles	16,467	100.0	107	100.0	3,068	13,292	13	100.0	817	15,637

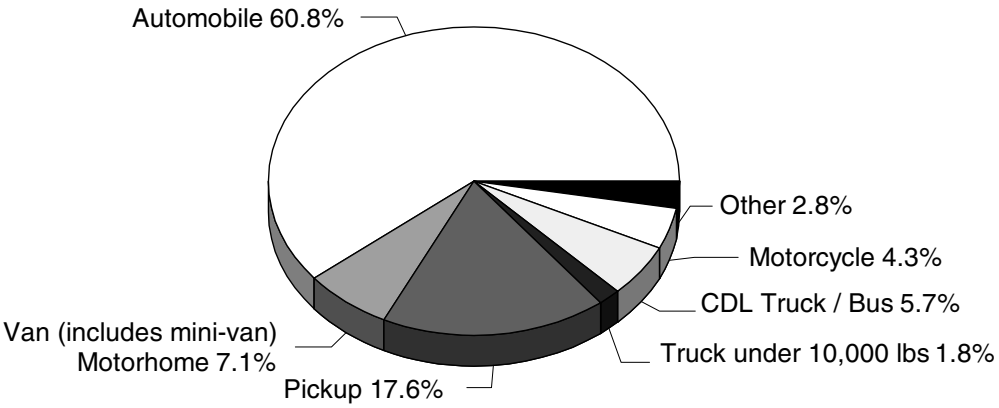
Group “A” is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group “B” is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group “C” is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group “C” is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

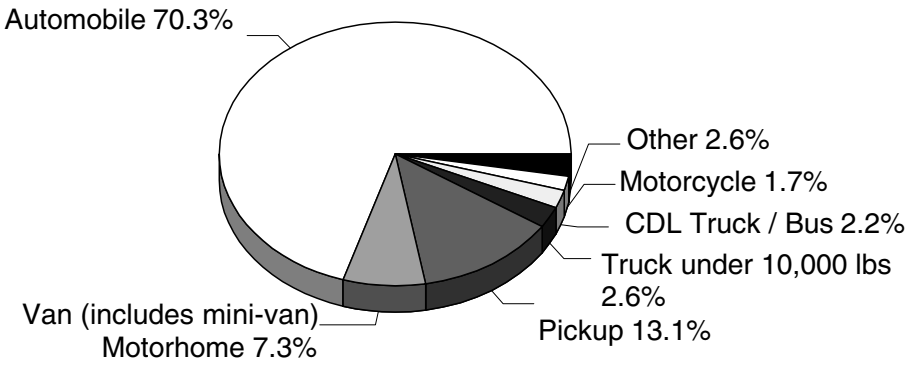
VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

FATAL



The top chart shows that 3 out of 4 vehicles involved in fatal crashes are automobiles or pickups. Van/motorhome, the vehicle type that includes the popular minivan, has a fatal crash involvement of 7.1 percent.

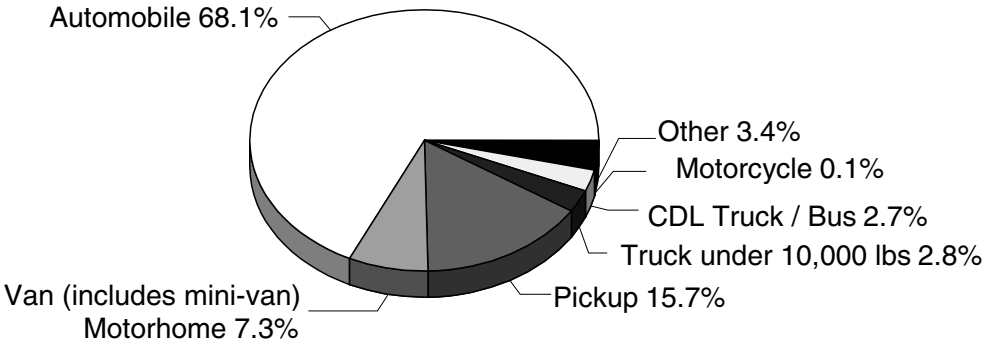
INJURY



Special Note: "Other" consists of moped, go cart, snowmobile, off road vehicle, other, and unknown.

As with fatal crashes, injury and PDO crashes are represented primarily by cars and pickups. One should also note the decline in proportional representation for motorcycles and heavy trucks compared to their levels in fatal crashes.

PROPERTY DAMAGE ONLY



ACTION PRIOR TO CRASH

DRIVER ACTION	Vehicles		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Going straight ahead	331,629	52.2	1,447	8,187	18,515	46,687	256,793
Turning left	45,366	7.1	96	1,145	3,254	7,621	33,250
Turning right	17,215	2.7	5	198	633	1,773	14,606
Stopped on roadway	65,162	10.2	56	737	2,403	13,649	48,317
In prior crash	853	0.1	4	40	70	151	588
Changing lanes	15,035	2.4	31	180	439	1,351	13,034
Backing	15,644	2.5	9	57	149	476	14,953
Slowing/stopping on roadway	59,586	9.4	39	519	1,676	10,936	46,416
Slowing/stopping other	844	0.1	0	16	43	122	663
Starting up on roadway	12,517	2.0	26	237	588	2,134	9,532
Starting up other	366	0.1	0	5	24	49	288
Entering parking	796	0.1	0	5	27	58	706
Leaving parking	2,138	0.3	3	34	93	245	1,763
Entering roadway	9,622	1.5	17	189	515	1,441	7,460
Leaving roadway	1,136	0.2	15	59	125	163	774
Making U-turn	1,412	0.2	2	45	85	203	1,077
Overtaking or passing	5,198	0.8	28	149	330	566	4,125
Avoiding object	891	0.1	1	19	86	116	669
Avoiding animal	1,843	0.3	2	42	196	246	1,357
Avoiding pedestrian	159	0.0	3	14	25	38	79
Avoiding vehicle (front/back)	5,694	0.9	38	176	419	897	4,164
Avoiding vehicle (angle)	2,486	0.4	18	73	167	373	1,855
Driverless moving	282	0.0	1	9	20	24	228
Parked	15,667	2.5	31	134	372	746	14,384
Crossing at intersection	38	0.0	1	2	6	12	17
Crossing not at intersection	24	0.0	0	3	7	5	9
Getting on/off vehicle	4	0.0	0	0	0	1	3
In roadway with traffic	11	0.0	0	1	1	1	8
In roadway against traffic	10	0.0	0	0	1	0	9
Standing or lying in roadway	4	0.0	0	0	1	1	2
Pushing/working on vehicle	2	0.0	0	0	0	1	1
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	3	0.0	0	0	0	2	1
In roadway other reason	10	0.0	0	0	1	2	7
Not in roadway	11	0.0	0	2	2	1	6
Other	207	0.0	0	9	15	31	152
Unknown	23,902	3.8	19	370	946	3,118	19,449
Total	635,767	100.0	1,892	12,656	31,234	93,240	496,745

ACTION PRIOR TO CRASH (continued)

MOTORCYCLIST – INJURY SEVERITY

MOTORCYCLIST ACTION	Motorcycles		Motorcyclists*		Fatal	Injury			No Injury
	Number of Motorcycles	% of Total	Number of Motorcyclist	% of Total		A	B	C	
Going straight ahead	2,091	65.6	2,347	64.7	60	527	800	463	451
Turning left	142	4.5	164	4.5	1	30	47	38	46
Turning right	106	3.3	119	3.3	0	6	46	28	36
Stopped on roadway	139	4.4	150	4.1	0	7	14	48	81
In prior crash	1	0.0	1	0.0	0	0	1	0	0
Changing lanes	47	1.5	51	1.4	3	12	17	8	9
Backing	5	0.2	6	0.2	0	0	4	0	2
Slowing/stopping on roadway	199	6.2	226	6.2	6	35	74	44	64
Slowing/stopping other	9	0.3	10	0.3	0	2	5	3	0
Starting up on roadway	47	1.5	50	1.4	0	7	10	15	18
Starting up other	2	0.1	2	0.1	0	0	1	0	1
Entering parking	1	0.0	1	0.0	0	0	0	1	0
Leaving parking	3	0.1	4	0.1	0	1	3	0	0
Entering roadway	18	0.6	24	0.7	0	1	10	6	7
Leaving roadway	12	0.4	13	0.4	1	3	6	2	1
Making U-turn	5	0.2	6	0.2	0	1	3	1	1
Overtaking or passing	66	2.1	76	2.1	2	13	32	14	13
Avoiding object	14	0.4	15	0.4	0	2	9	2	2
Avoiding animal	37	1.2	41	1.1	0	5	19	9	8
Avoiding pedestrian	3	0.1	3	0.1	0	0	1	0	1
Avoiding vehicle (front/back)	84	2.6	99	2.7	1	22	39	23	13
Avoiding vehicle (angle)	53	1.7	59	1.6	2	8	15	23	10
Driverless moving	0	0.0	1	0.0	0	0	0	0	0
Parked	21	0.7	37	1.0	0	0	1	0	5
Crossing at intersection	1	0.0	12	0.3	0	1	5	1	5
Crossing not at intersection	1	0.0	5	0.1	0	0	2	1	1
Getting on/off vehicle	0	0.0	0	0.0	0	0	0	0	0
In roadway with traffic	0	0.0	4	0.1	0	0	1	1	0
In roadway against traffic	0	0.0	0	0.0	0	0	0	0	0
Standing or lying in roadway	0	0.0	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	2	0.1	0	0	2	0	0
In roadway other reason	1	0.0	2	0.1	0	0	0	1	0
Not in roadway	1	0.0	3	0.1	0	1	2	0	0
Other	1	0.0	2	0.1	0	0	1	0	0
Unknown	77	2.4	90	2.5	0	14	27	17	24
Total	3,187	100.0	3,625	100.0	76	698	1,197	749	799

* Includes 106 motorcyclists (drivers and passengers) with unknown injury severity

ACTION PRIOR TO CRASH (continued)

BICYCLIST - INJURY SEVERITY

BICYCLIST ACTION	Bicycles*		Fatal	Injury			No Injury
	Number of Bicycles	% of Total		A	B	C	
Going straight ahead	1,126	49.5	16	106	373	391	191
Turning left	59	2.6	1	7	22	16	10
Turning right	14	0.6	0	1	8	2	2
Stopped on roadway	21	0.9	0	1	5	7	7
In prior crash	0	0.0	0	0	0	0	0
Changing lanes	20	0.9	0	4	8	4	3
Backing	1	0.0	0	0	1	0	0
Slowing/stopping on roadway	10	0.4	0	1	2	4	2
Slowing/stopping other	3	0.1	0	0	1	2	0
Starting up on roadway	19	0.8	0	2	4	10	3
Starting up other	4	0.2	0	0	0	2	2
Entering parking	3	0.1	0	1	1	1	0
Leaving parking	5	0.2	0	0	3	2	0
Entering roadway	131	5.8	4	18	52	43	11
Leaving roadway	5	0.2	0	0	2	1	2
Making U-turn	5	0.2	0	0	2	0	3
Overtaking or passing	3	0.1	0	0	2	0	1
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	1	0.0	0	0	1	0	0
Avoiding vehicle (front/back)	8	0.4	0	3	2	3	0
Avoiding vehicle (angle)	8	0.4	1	0	2	3	1
Driverless moving	1	0.0	0	0	0	0	1
Parked	5	0.2	0	0	1	0	2
Crossing at intersection	382	16.8	1	35	130	146	56
Crossing not at intersection	163	7.2	2	23	54	51	28
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	50	2.2	2	8	21	14	1
In roadway against traffic	21	0.9	2	3	7	7	2
Standing or lying in roadway	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	22	1.0	0	3	6	11	1
In roadway other reason	18	0.8	1	4	5	4	3
Not in roadway	22	1.0	0	2	5	12	1
Other	41	1.8	0	2	13	21	5
Unknown	105	4.6	2	13	25	37	18
Total	2,276	100.0	32	237	758	794	356

* Includes 99 bicyclists with unknown injury severity

ACTION PRIOR TO CRASH (continued)

PEDESTRIAN - INJURY SEVERITY

PEDESTRIAN ACTION	Pedestrians*		Fatal	Injury			No Injury
	Number of Pedestrians	% of Total		A	B	C	
Going straight ahead	113	3.8	0	20	24	40	23
Turning left	8	0.3	0	1	1	2	4
Turning right	1	0.0	0	0	1	0	0
Stopped on roadway	7	0.2	0	2	0	2	3
In prior crash	6	0.2	0	2	2	0	2
Changing lanes	0	0.0	0	0	0	0	0
Backing	1	0.0	0	0	0	0	1
Slowing/stopping on roadway	6	0.2	0	0	1	2	2
Slowing/stopping other	2	0.1	0	0	1	1	0
Starting up on roadway	0	0.0	0	0	0	0	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	1	0.0	0	0	1	0	0
Leaving parking	4	0.1	0	1	2	1	0
Entering roadway	17	0.6	0	2	2	11	2
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	1	0.0	0	0	1	0	0
Overtaking or passing	2	0.1	0	0	0	0	1
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	1	0.0	0	0	1	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	3	0.1	0	1	1	0	1
Avoiding vehicle (angle)	4	0.1	0	0	0	3	1
Driverless moving	3	0.1	0	0	2	1	0
Parked	14	0.5	0	1	1	3	6
Crossing at intersection	743	25.2	18	127	222	311	51
Crossing not at intersection	849	28.8	74	204	268	249	34
Getting on/off vehicle	60	2.0	0	15	19	22	3
In roadway with traffic	142	4.8	16	26	29	53	13
In roadway against traffic	42	1.4	5	7	11	15	3
Standing or lying in roadway	105	3.6	12	22	24	39	5
Pushing/working on vehicle	41	1.4	5	12	16	3	3
Other working in roadway	38	1.3	3	7	8	13	6
Playing in roadway	69	2.3	0	10	28	27	2
In roadway other reason	167	5.7	8	37	57	54	3
Not in roadway	134	4.5	9	30	37	48	4
Other	135	4.6	5	24	35	51	13
Unknown	234	7.9	14	43	64	74	15
Total	2,953	100.0	169	594	859	1,025	201

* Includes 105 pedestrians with unknown injury severity

MOST HARMFUL EVENT

NONCOLLISION	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Loss of control	2,509	0.4	1	79	231	383	1,815
Cross center/median	495	0.1	1	23	36	69	366
Ran off road left	736	0.1	2	26	46	78	584
Ran off road right	1,243	0.2	2	34	75	146	986
Re-enter road	79	0.0	2	7	8	17	45
Overturn	8,145	1.3	94	654	1,647	1,803	3,947
Separation of units	809	0.1	2	19	39	116	633
Fire/explosion	667	0.1	12	10	23	58	564
Immersion	52	0.0	1	1	2	4	44
Jackknife	298	0.0	0	1	11	15	271
Downhill runaway	58	0.0	0	2	2	7	47
Cargo loss/shift	774	0.1	0	7	13	43	711
Individual fell off	497	0.1	26	151	162	86	72
Other noncollision	1,762	0.3	2	49	89	187	1,435
NONCOLLISION Subtotal	18,124	2.9	145	1,063	2,384	3,012	11,520

MOST SEVERE OUTCOME IN CRASH

HAD A COLLISION WITH NONFIXED OBJECT	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Pedestrian	2,205	0.3	159	448	645	720	233
Pedalcycle	1,953	0.3	34	213	626	665	415
Motor vehicle in transport	431,009	67.8	1,191	8,015	20,294	74,068	327,441
Parked motor vehicle	15,627	2.5	25	132	360	736	14,374
Railway train	141	0.0	7	10	19	20	85
Animal	63,349	10.0	9	74	371	783	62,112
Other nonfixed objects	5,998	0.9	14	64	164	285	5,471
COLLISION NONFIXED Subtotal	520,282	81.8	1,439	8,956	22,479	77,277	410,131

MOST SEVERE OUTCOME IN CRASH

MOST HARMFUL EVENT (continued)

HAD A COLLISION WITH FIXED OBJECT	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Bridge/pier/abutment	578	0.1	7	24	37	77	433
Bridge parapet end	212	0.0	1	1	8	20	182
Bridge rail	516	0.1	0	4	37	82	393
Guardrail face	3,677	0.6	8	72	216	466	2,915
Guardrail end	579	0.1	5	22	60	89	403
Median barrier	3,332	0.5	6	78	239	691	2,318
Highway traffic sign post	2,693	0.4	5	13	51	108	2,516
Signal post	273	0.0	1	3	9	16	244
Luminaire/light support	580	0.1	5	16	48	76	435
Utility pole	3,606	0.6	27	161	415	627	2,376
Other pole	1,126	0.2	1	26	60	106	933
Culvert	678	0.1	8	44	95	108	423
Curb	1,844	0.3	0	28	79	127	1,610
Ditch	8,113	1.3	19	237	753	1,011	6,093
Embankment	1,712	0.3	10	71	188	263	1,180
Fence	1,429	0.2	4	21	54	107	1,243
Mailbox	2,114	0.3	0	17	48	84	1,965
Tree	12,506	2.0	147	792	1,495	1,950	8,122
Rail crossing signal	95	0.0	0	0	7	3	85
Building	855	0.1	11	51	116	132	545
Traffic island	49	0.0	0	2	3	2	42
Fire hydrant	576	0.1	0	8	40	46	482
Impact attenuator	48	0.0	0	5	6	11	26
Other fixed object	3,445	0.5	19	104	281	343	2,698
COLLISION FIXED Subtotal	50,636	8.0	284	1,800	4,345	6,545	37,662

	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	46,725	7.3	24	837	2,026	6,406	37,432
TOTAL MOST HARMFUL EVENT	635,767	100.0	1,892	12,656	31,234	93,240	496,745

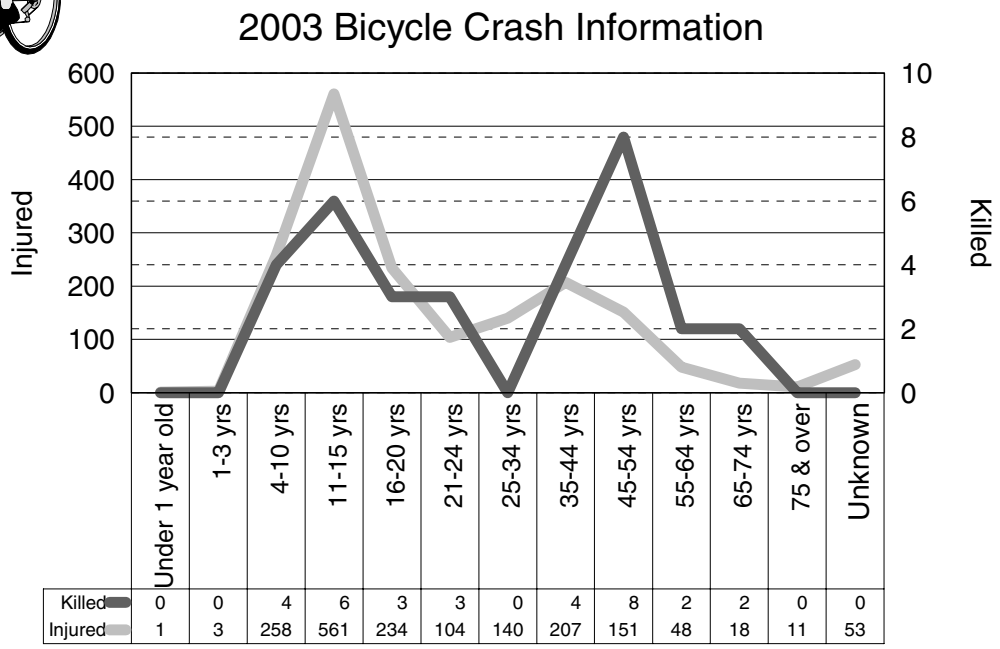
VEHICLE DEFECTS IN CRASH INVOLVEMENT

VEHICLE DEFECTS	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Brakes	1,558	0.2	3	31	89	305	1,130
Lights/reflectors	224	0.0	2	5	16	30	171
Steering	200	0.0	0	6	17	39	138
Tires/wheels	768	0.1	4	31	41	100	592
Windows	96	0.0	0	1	6	18	71
Other	1,222	0.2	2	35	64	160	961
Unknown	631,699	99.4	1,881	12,547	31,001	92,588	493,682
TOTAL	635,767	100.0	1,892	12,656	31,234	93,240	496,745

DRIVER HAZARDOUS ACTION

HAZARDOUS ACTION	All Vehicles		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
None	320,426	50.4	794	5,321	13,395	44,393	256,523
Speed too fast	39,963	6.3	248	1,387	3,234	5,884	29,210
Speed too slow	722	0.1	1	15	44	123	539
Failed to yield	56,037	8.8	153	1,455	3,980	9,887	40,562
Disregard traffic control	13,249	2.1	83	617	1,348	3,402	7,799
Drove wrong way	427	0.1	8	23	43	70	283
Drove left of center	3,131	0.5	93	231	310	440	2,057
Improper passing	3,777	0.6	5	59	137	313	3,263
Improper lane use	12,864	2.0	20	99	299	1,038	11,408
Improper turn	6,894	1.1	9	110	260	757	5,758
Improper/no signal	658	0.1	0	3	25	61	569
Improper backing	11,447	1.8	3	20	54	228	11,142
Unable to stop in assured clear distance	85,755	13.5	47	779	2,668	16,372	65,889
Reckless driving	3,042	0.5	46	309	424	462	1,801
Careless/negligent driving	13,676	2.2	99	782	1,753	2,160	8,882
Other	23,161	3.6	106	725	1,637	3,037	17,656
Unknown	40,538	6.4	177	721	1,623	4,613	33,404
TOTAL	635,767	100.0	1,892	12,656	31,234	93,240	496,745

MICHIGAN BICYCLE CRASHES



In 2003 there were 2,276 bicyclists involved in motor vehicles crashes, with 32 bicyclists killed and 1,789 injured.

Children under 16 years of age accounted for 10 (31.3%) of the bicycle deaths in 2003.

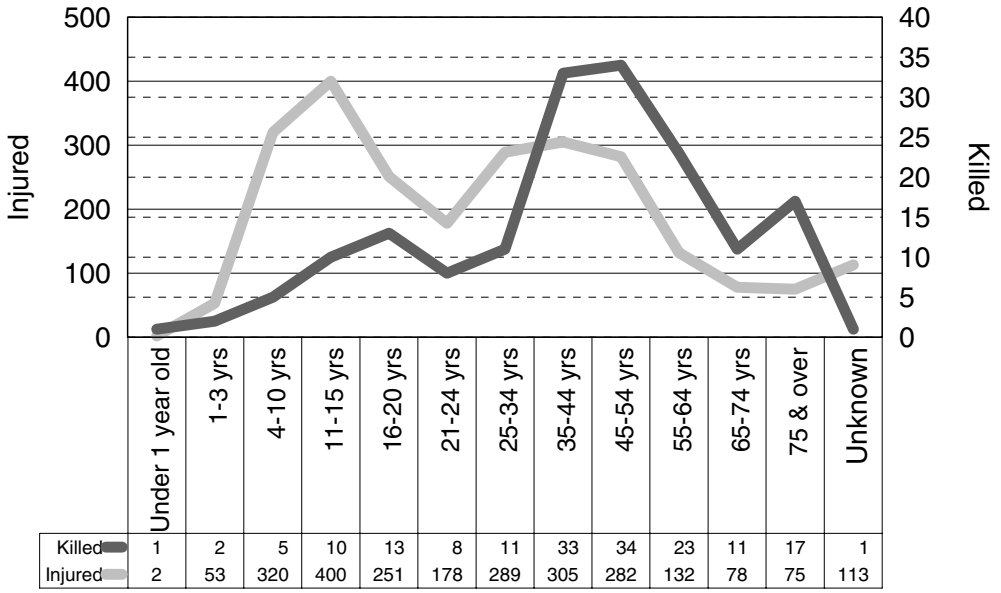
BICYCLE HELMET USE AND INJURY SEVERITY

HELMET USE	Fatality	Injury			No Injury
		A	B	C	
Worn	4	18	51	37	11
Not Worn	16	83	276	266	96
Unknown	5	35	114	120	83
Total	25	136	441	423	190

The National Center for Statistics and Analysis of the National Highway Traffic Safety Administration cites a study by the Centers for Disease Control [10] in giving us the following information: “Bicycle helmets are 85 to 88 percent effective in mitigating head and brain injuries in all types of bicycle accidents, making the use of helmets the **single most effective countermeasure** available to reduce head injuries and fatalities resulting from bicycle crashes.”

MICHIGAN PEDESTRIAN CRASHES

2003 Pedestrian Crash Information

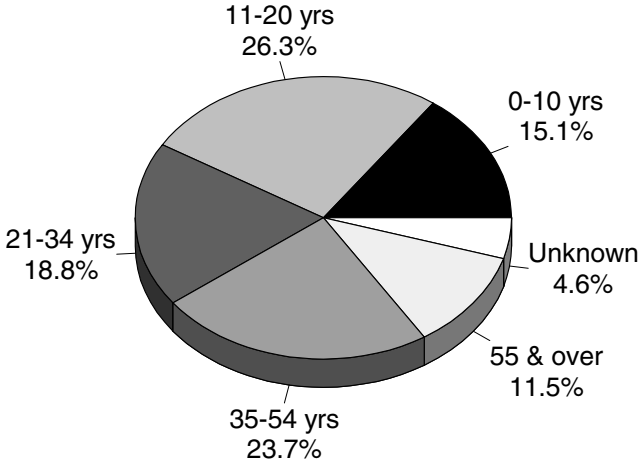


	Under 1 year old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 & over	Unknown
Killed	1	2	5	10	13	8	11	33	34	23	11	17	1
Injured	2	53	320	400	251	178	289	305	282	132	78	75	113

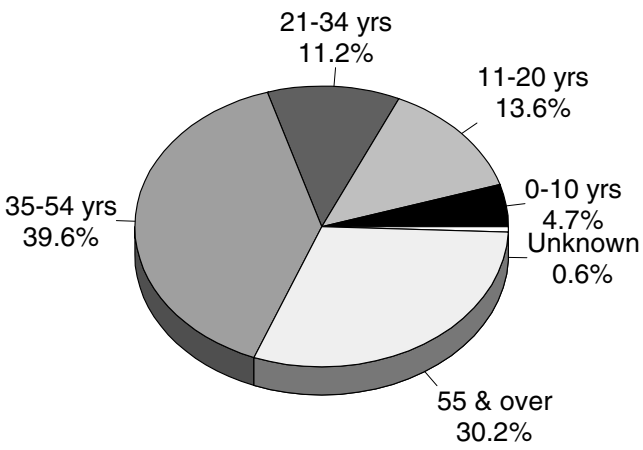
In 2003 there were 2,953 pedestrians involved in motor vehicles crashes, with 169 pedestrians killed and 2,478 injured.

Children under 16 years of age accounted for 18 (10.7%) of the pedestrian deaths in 2003. Adults over the age of 54 accounted for 51 (30.2%) of the pedestrian deaths in 2003.

Pedestrians Injured



Pedestrians Killed



MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

Most Harmful Event

MOST SEVERE OUTCOME IN CRASH

NONCOLLISION	Snowmobiles		Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
Loss of control	1	0.2	0	1	0	0	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	3	0.6	0	1	0	1	1
Ran off road right	0	0.0	0	0	0	0	0
Re-enter road	1	0.2	0	0	0	1	0
Overturn	30	6.0	0	9	9	6	6
Separation of units	2	0.4	0	1	0	0	1
Fire/explosion	1	0.2	0	0	0	0	1
Immersion	2	0.4	0	0	0	0	2
Jackknife	1	0.2	0	0	0	0	1
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell off	36	7.2	0	14	12	9	1
Other noncollision	7	1.4	0	1	1	2	3
NONCOLLISION Subtotal	84	16.8	0	27	22	19	16

MOST SEVERE OUTCOME IN CRASH

HAD A COLLISION WITH NONFIXED OBJECT	Snowmobiles		Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	5	1.0	0	2	1	1	1
Pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	186	37.2	5	45	27	24	85
Parked motor vehicle	13	2.6	0	1	3	0	9
Railway train	0	0.0	0	0	0	0	0
Animal	13	2.6	0	0	1	1	11
Other nonfixed objects	3	0.6	0	2	0	0	1
COLLISION NONFIXED Subtotal	220	44.0	5	50	32	26	107

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS (continued)

Most Harmful Event

HAD A COLLISION WITH FIXED OBJECT	Snowmobiles		Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
			MOST SEVERE OUTCOME IN CRASH				
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge parapet end	1	0.2	0	0	0	0	1
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	1	0.2	0	1	0	0	0
Guardrail end	1	0.2	0	1	0	0	0
Median barrier	1	0.2	0	0	0	1	0
Highway traffic sign post	1	0.2	0	0	0	0	1
Signal post	0	0.0	0	0	0	0	0
Luminaire/light support	2	0.4	0	0	0	1	1
Utility pole	5	1.0	1	0	1	0	3
Other pole	7	1.4	0	1	0	3	3
Culvert	6	1.2	0	2	1	3	0
Curb	4	0.8	0	0	1	1	2
Ditch	12	2.4	0	4	4	1	3
Embankment	6	1.2	1	1	0	2	2
Fence	3	0.6	0	0	1	1	1
Mailbox	5	1.0	0	0	1	0	4
Tree	63	12.6	7	27	10	12	7
Rail crossing signal	0	0.0	0	0	0	0	0
Building	2	0.4	0	2	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	19	3.8	0	10	4	2	3
COLLISION FIXED Subtotal	139	27.8	9	49	23	27	31
Unknown Event	57	11.4	0	20	7	7	23
TOTAL MOST HARMFUL EVENT	500	100.0	14	146	84	79	177

A total of 500 snowmobiles were reported in crashes on Michigan public roadways during 2003. Of these snowmobiles, fourteen were involved in fatal crashes with thirteen of their operators and one driver of a passenger vehicle killed.

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

Most Harmful Event

MOST SEVERE OUTCOME IN CRASH

	ORV/ATV		Fatal	Injury			PDO
NONCOLLISION	Number of ORV/ATVs	% of Total		A	B	C	
Loss of control	6	1.9	0	4	2	0	0
Ran off road left	0	0.0	0	0	0	0	0
Overturn	58	18.4	1	15	27	12	3
Separation of unit	1	0.3	0	1	0	0	0
Individual fell off	46	14.6	2	20	13	11	0
Other noncollision	3	0.9	0	0	2	0	1
NONCOLLISION Subtotal	114	36.1	3	40	44	23	4
HAD A COLLISION WITH NONFIXED OBJECT							
Pedestrian	2	0.6	0	0	2	0	0
Motor vehicle in transport	93	29.4	5	20	24	21	23
Parked motor vehicle	9	2.8	1	1	3	0	4
Railway Train	0	0.0	0	0	0	0	0
Animal	8	2.5	0	4	3	0	1
Other nonfixed objects	8	2.5	0	5	2	0	1
COLLISION NONFIXED Subtotal	120	38.0	6	30	34	21	29
HAD A COLLISION WITH FIXED OBJECT							
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Guardrail face	2	0.6	0	1	0	1	0
Traffic sign post	2	0.6	0	1	0	1	0
Utility pole	1	0.3	0	0	1	0	0
Other pole	0	0.0	0	0	0	0	0
Culvert	0	0.0	0	0	0	0	0
Curb	1	0.3	0	0	1	0	0
Ditch	9	2.8	0	2	7	0	0
Embankment	1	0.3	0	1	0	0	0
Fence	2	0.6	1	0	1	0	0
Mailbox	2	0.6	0	0	1	0	1
Tree	27	8.5	1	14	7	4	1
Building	0	0.0	0	0	0	0	0
Other fixed object	13	4.1	0	8	3	2	0
COLLISION FIXED Subtotal	60	19.0	2	27	21	8	2
Unknown Event	22	7.0	0	4	7	4	7
TOTAL MOST HARMFUL EVENT	316	100.0	11	101	106	56	42

A total of 316 off road vehicles/all terrain vehicles were reported in crashes on Michigan public roadways during 2003. Of these ORV/ATVs, eleven were involved in fatal crashes with ten ORV/ATV operators killed, and one ORV/ATV passenger killed. Eight of the ORV/ATV operators had been drinking prior to their fatal collisions, and one of them had also been using drugs.

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

MOST SEVERE OUTCOME IN CRASH

Driver Hazardous Action	Snowmobiles		Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
None	129	25.8	1	38	20	16	54
Speed too fast	124	24.8	10	47	30	20	17
Speed too slow	2	0.4	0	1	0	0	1
Failed to yield	28	5.6	0	9	3	4	12
Disregard traffic control	2	0.4	1	0	0	1	0
Drove wrong way	6	1.2	0	3	1	1	1
Drove left of center	2	0.4	0	0	1	0	1
Improper passing	1	0.2	0	0	0	0	1
Improper lane use	9	1.8	0	0	1	1	7
Improper turn	8	1.6	0	2	0	1	5
Improper/no signal	2	0.4	0	0	0	0	2
Improper backing	3	0.6	0	0	0	0	3
Unable to stop in assured clear distance	42	8.4	0	12	8	9	13
Reckless driving	7	1.4	0	2	2	2	1
Careless/negligent driving	33	6.6	1	6	5	4	17
Other	55	11.0	1	13	8	11	22
Unknown	47	9.4	0	13	5	9	20
TOTAL	500	100.0	14	146	84	79	177

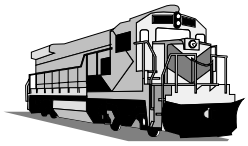
MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

MOST SEVERE OUTCOME IN CRASH

Driver Hazardous Action	ORV/ATV		Fatal	Injury			PDO
	Number of ORV/ATVs	% of Total		A	B	C	
None	64	20.3	1	20	21	15	7
Speed too fast	72	22.8	2	32	26	9	3
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	21	6.6	1	2	7	6	5
Disregard traffic control	1	0.3	0	0	1	0	0
Drove wrong way	0	0.0	0	0	0	0	0
Drove left of center	2	0.6	0	0	1	1	0
Improper passing	1	0.3	0	1	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	2	0.6	1	0	0	0	1
Improper/no signal	2	0.6	0	0	0	0	2
Improper backing	1	0.3	0	0	0	0	1
Unable to stop in assured clear distance	14	4.4	0	4	5	1	4
Reckless driving	18	5.7	2	8	2	2	4
Careless/negligent driving	47	14.9	1	14	18	7	7
Other	41	13.0	0	9	18	9	5
Unknown	30	9.5	3	11	7	6	3
TOTAL	316	100.0	11	101	106	56	42

MICHIGAN FARM EQUIPMENT CRASHES

A total of 157 crashes involving farm equipment were reported on Michigan roadways during 2003. Of these crashes, three were fatal with three operators of the equipment and one passenger killed.



MICHIGAN VEHICLE - TRAIN CRASHES

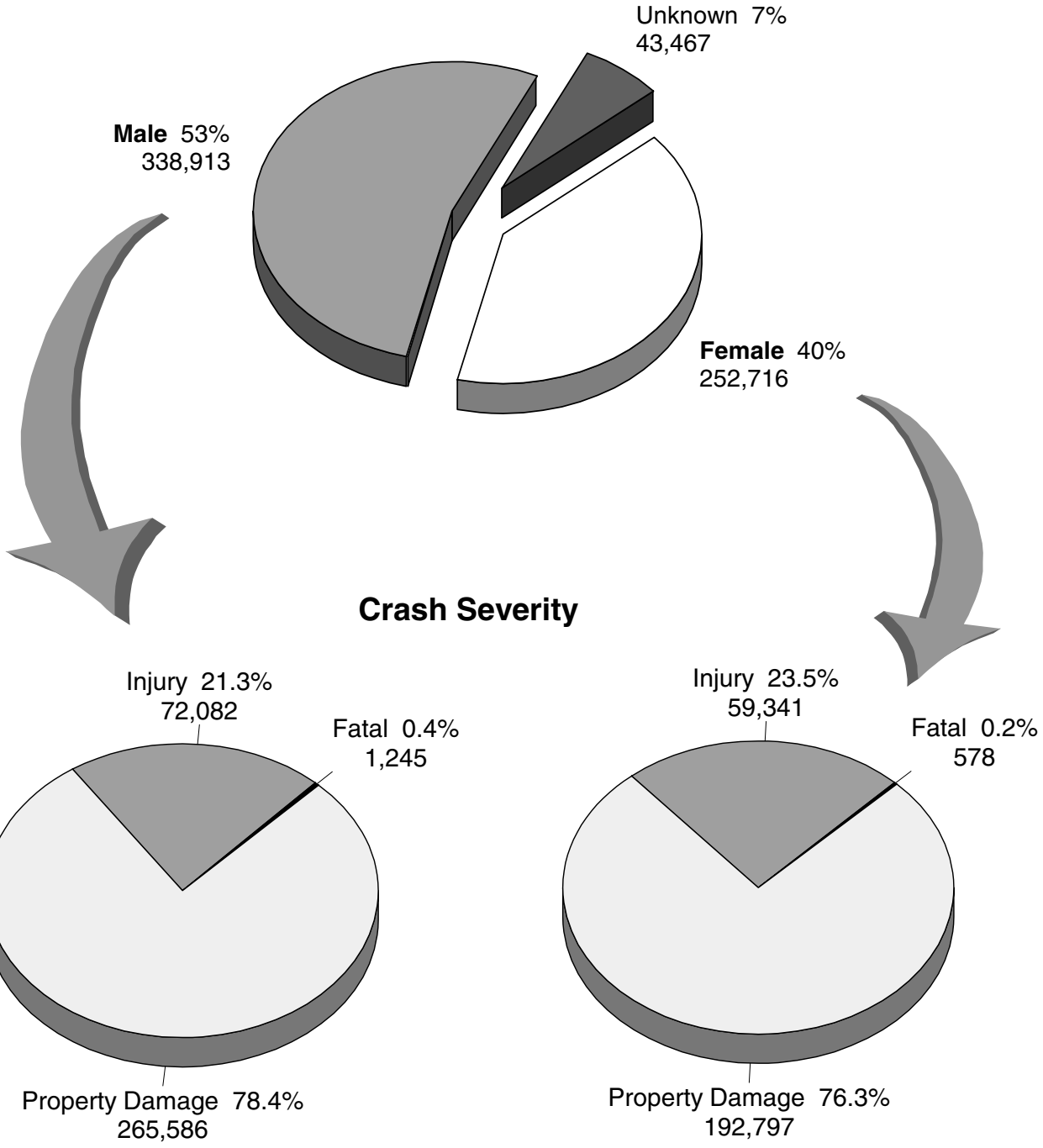
A total of 104 crashes involving trains were reported in Michigan during 2003. The National Highway Traffic Safety Administration's 2003 Fatality Analysis Reporting System [11] reported 7 fatal train crashes in Michigan, and 7 persons killed as a result of those collisions.

MICHIGAN MOTORCYCLE CRASHES

MOTORCYCLE DATA	2002	2003	% Change
Registrations	197,735.0	207,648.0	5.0
Crashes	3,030.0	3,187.0	5.2
Deaths	82.0	76.0	-7.3
Persons Injured	2,470.0	2,644.0	7.0
Death Rate based on 10,000 motorcycle registrations	4.1	3.7	-9.8
Estimated Mileage based on 3,000 miles per motorcycle	593,205,000.0	622,944,000.0	5.0
Death Rate based on deaths per 100 million vehicle miles traveled	13.8	12.2	-11.6

Motorcycles were involved in 0.8 percent of all traffic crashes in Michigan in 2003. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles. The 2003 death rate for motorcyclists was 12.2 per 100 million vehicle miles traveled compared to the overall 1.3 mileage death rate per 100 million vehicle miles traveled.

DRIVER GENDER INFORMATION - ALL CRASHES



A higher proportion of crashes involved male drivers than female drivers. When we examine the severity of crashes involving drivers of each gender, we see that fatal crashes are more prevalent among male drivers than female drivers (0.4% vs. 0.2%).

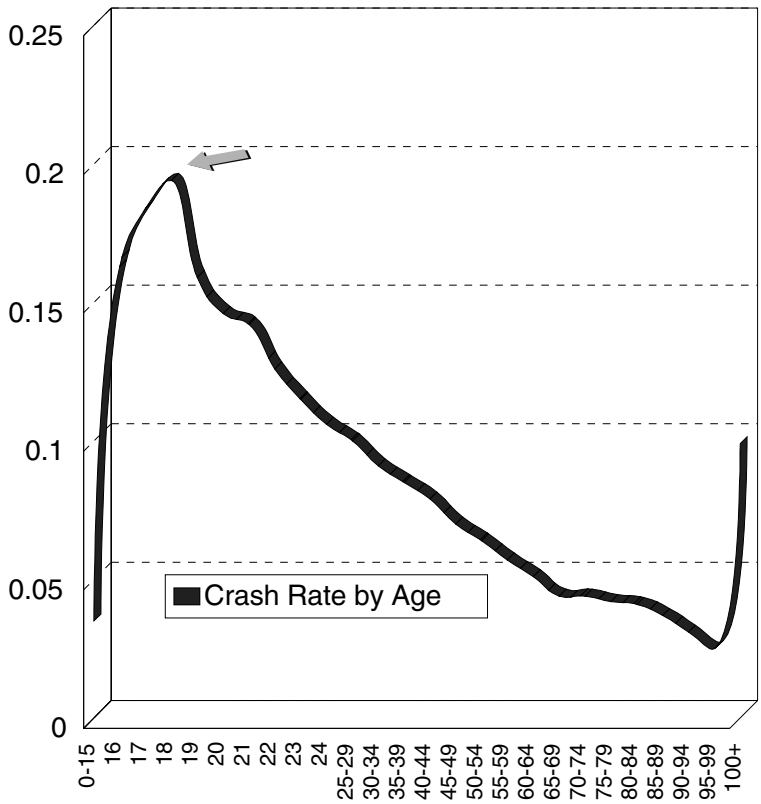
This 2003 chart was processed with numbers for all drivers (vehicle level).

PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

Age	Licensed Drivers	Michigan Population	Drivers in All Crashes	Drivers in Fatal Crashes	Occupants Killed	Occupants Injured	Bicyclist All Crashes	Bicyclist Fatal Crashes	Pedestrian All Crashes	Pedestrian Fatal Crashes
0-15	59,749	2,245,653	2,072	15	66	6,730	1,006	10	882	20
16	98,797	146,071	16,110	40	25	3,164	74	0	53	1
17	109,824	147,196	20,212	48	33	3,683	44	1	57	1
18	111,713	146,176	21,646	60	34	3,865	68	2	57	2
19	120,036	141,880	19,130	46	32	3,239	52	1	59	4
20	123,077	140,916	17,913	43	25	2,966	44	0	61	5
21	118,502	142,078	16,846	47	30	2,843	43	0	55	4
22	125,212	143,357	15,796	39	27	2,621	42	1	65	2
23	130,660	141,604	14,987	50	29	2,464	27	2	52	4
24	130,425	136,100	13,856	54	28	2,141	19	0	30	1
25-29	586,998	618,755	58,969	165	75	8,934	92	0	167	4
30-34	654,153	694,144	59,359	172	75	8,520	79	0	164	12
35-39	682,754	735,575	57,864	173	60	7,974	105	1	173	16
40-44	749,455	801,764	59,022	182	86	7,993	147	3	193	19
45-49	745,976	789,108	52,367	165	75	7,606	120	5	194	18
50-54	655,051	688,934	41,727	115	61	6,008	72	3	147	19
55-59	537,161	557,660	30,752	89	50	4,526	34	2	123	17
60-64	412,751	426,513	20,923	72	51	3,152	25	0	46	6
65-69	312,786	328,284	13,895	40	33	2,095	12	0	61	7
70-74	264,226	294,204	11,562	53	42	1,819	14	2	34	4
75-79	227,281	262,866	9,550	51	41	1,641	5	0	48	5
80-84	146,368	189,146	5,946	46	47	1,143	5	0	28	6
85-100+	84,138	162,001	3,014	39	40	665	2	0	23	6
Unknown	---	---	51,578	87	12	2,025	144	0	181	1
Total	7,187,093	10,079,985	635,096	1,891	1,077	97,817	2,275	33	2,953	184

CRASH RATE PER LICENSED DRIVER BY AGE OF DRIVER IN ALL CRASHES

Age	Rate	Licensed Drivers	Drivers in all crashes
0-15	0.035	59,749	2,072
16	0.163	98,797	16,110
17	0.184	109,824	20,212
18	0.194	111,713	21,646
19	0.159	120,036	19,130
20	0.146	123,077	17,913
21	0.142	118,502	16,846
22	0.126	125,212	15,796
23	0.115	130,660	14,987
24	0.106	130,425	13,856
25-29	0.100	586,998	58,969
30-34	0.091	654,153	59,359
35-39	0.085	682,754	57,864
40-44	0.079	749,455	59,022
45-49	0.070	745,976	52,367
50-54	0.064	655,051	41,727
55-59	0.057	537,161	30,752
60-64	0.051	412,751	20,923
65-69	0.044	312,786	13,895
70-74	0.044	264,226	11,562
75-79	0.042	227,281	9,550
80-84	0.041	146,368	5,946
85-89	0.037	65,829	2,455
90-94	0.031	16,197	498
95-99	0.025	1,991	49
100+	0.099	121	12
Total		7,187,093	635,096



Licensed drivers age 18 have the highest crash rate (total crashes in age group divided by total number of licensed drivers in age group). The low crash rates of the oldest groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash relative to younger drivers.

REPORTED AGE OF DRIVERS INVOLVED IN ALL CRASHES

COUNTY	All Ages	0-15 Years	16-20 Years	21-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75 yrs & Over	DOB Unk
Alcona	904	2	103	73	136	194	176	107	62	41	10
Alger	579	3	60	51	88	103	109	61	34	23	47
Allegan	5,585	25	975	560	1,058	1,049	859	450	197	141	271
Alpena	1,644	3	320	154	237	297	248	151	123	73	38
Antrim	1,523	12	239	108	263	295	255	154	81	62	54
Arenac	1,324	2	190	125	234	250	228	135	73	43	44
Baraga	654	7	78	52	117	125	116	72	43	15	29
Barry	3,143	13	536	275	552	623	577	296	140	87	44
Bay	6,335	28	1,118	576	1,085	1,103	890	550	323	253	409
Benzie	944	3	160	75	140	188	143	95	60	42	38
Berrien	8,612	45	1,268	710	1,392	1,468	1,232	803	456	378	860
Branch	2,960	14	511	261	552	542	422	275	119	78	186
Calhoun	9,714	34	1,430	890	1,749	1,749	1,449	919	464	306	724
Cass	2,799	18	422	249	480	516	417	253	111	87	246
Charlevoix	1,679	4	279	137	266	322	304	190	75	52	50
Cheboygan	1,554	8	264	136	254	261	261	164	76	56	74
Chippewa	2,239	10	313	214	377	400	341	254	140	73	117
Clare	2,109	12	325	184	357	391	341	238	141	65	55
Clinton	3,627	14	608	375	671	716	567	331	145	74	126
Crawford	953	1	135	81	150	179	173	110	60	26	38
Delta	3,030	12	479	240	436	542	512	298	163	149	199
Dickinson	1,958	10	298	129	231	369	316	194	114	86	211
Eaton	6,434	17	1,127	618	1,151	1,194	1,033	593	264	181	256
Emmet	2,583	4	433	237	426	482	445	231	122	93	110
Genesee	26,403	94	3,964	2,520	4,899	4,708	3,918	2,096	1,192	784	2,228
Gladwin	1,352	6	176	118	247	283	201	158	89	56	18
Gogebic	780	0	123	55	89	109	114	75	39	50	126
Grand Traverse	7,195	24	1,183	650	1,206	1,364	1,234	638	322	250	324
Gratiot	2,493	8	393	249	457	491	395	235	135	55	75
Hillsdale	2,962	9	483	297	564	567	421	276	129	85	131
Houghton	2,094	11	405	259	280	283	273	189	110	76	208
Huron	2,299	9	390	199	375	455	373	221	135	88	54
Ingham	20,119	44	3,238	2,912	3,758	3,501	2,844	1,496	660	456	1,210
Ionia	3,909	16	640	392	783	761	607	327	122	89	172
Iosco	1,417	9	219	133	204	245	248	147	109	66	37
Iron	1,013	6	92	65	143	185	188	117	62	49	106
Isabella	4,462	15	924	766	732	670	608	385	162	97	103
Jackson	10,315	42	1,647	931	1,816	2,036	1,646	874	435	300	588
Kalamazoo	17,810	69	3,286	2,516	3,221	2,852	2,466	1,269	637	487	1,007
Kalkaska	1,186	6	169	104	204	247	212	116	64	33	31
Kent	44,412	135	7,163	5,371	9,266	8,065	6,043	3,115	1,287	982	2,985
Keweenaw	125	1	17	4	17	17	22	18	8	10	11
Lake	607	4	70	58	105	123	94	77	38	19	19
Lapeer	5,179	21	986	437	919	1,103	861	399	200	112	141
Leelanau	930	7	165	62	132	176	174	100	53	29	32

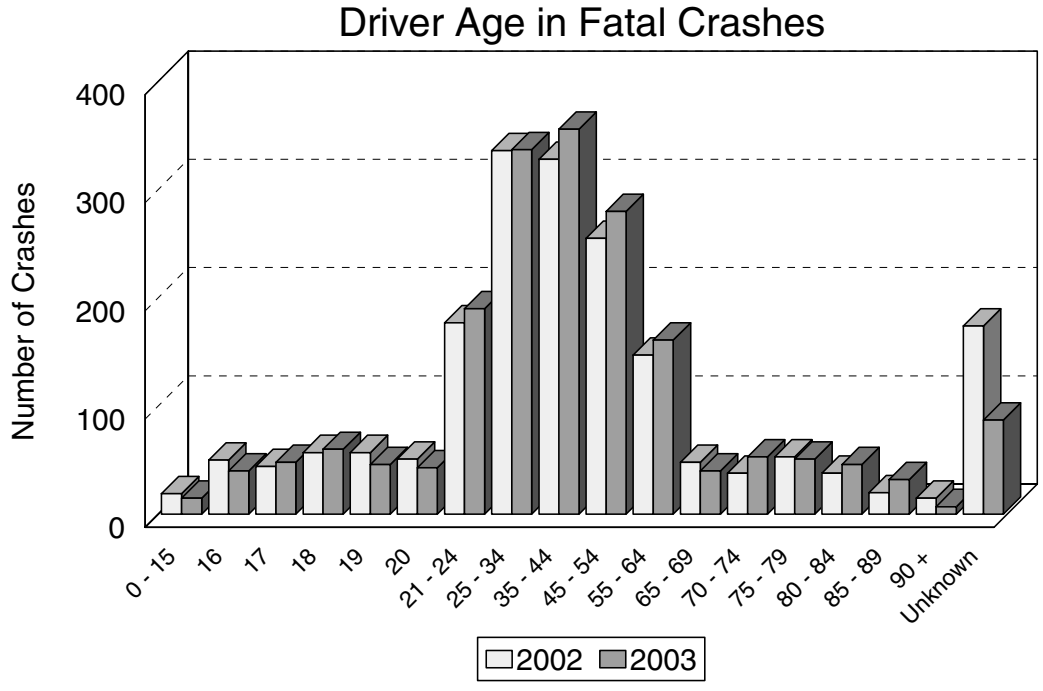
REPORTED AGE OF DRIVERS
INVOLVED IN ALL CRASHES (continued)

COUNTY	All Ages	0-15 Years	16-20 Years	21-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75 yrs & Over	DOB Unk
Lenawee	5,272	26	849	520	907	969	823	499	240	212	227
Livingston	9,479	32	1,835	852	1,669	2,021	1,521	762	285	201	301
Luce	442	2	45	38	77	78	75	46	29	17	35
Mackinac	1,031	2	129	73	150	205	170	125	70	21	86
Macomb	49,333	107	7,761	4,511	9,336	9,653	7,179	3,953	1,928	1,680	3,225
Manistee	1,541	5	205	103	232	279	283	160	116	67	91
Marquette	3,798	14	673	442	539	613	591	321	166	132	307
Mason	2,284	11	363	191	376	435	373	229	119	78	109
Mecosta	3,531	12	650	428	640	576	474	336	169	87	159
Menominee	2,039	7	280	160	294	369	371	189	120	72	177
Midland	4,605	16	854	476	768	891	698	417	217	136	132
Missaukee	845	6	148	87	131	190	125	75	47	32	4
Monroe	7,917	30	1,396	673	1,322	1,309	1,082	540	265	232	1,068
Montcalm	4,232	19	653	449	826	880	654	376	177	94	104
Montmorency	534	3	81	46	69	111	92	64	38	19	11
Muskegon	9,689	43	1,699	910	1,774	1,704	1,495	777	419	401	467
Newaygo	2,794	20	515	254	512	557	427	234	131	84	60
Oakland	82,787	202	11,734	7,450	16,937	16,897	13,406	6,920	3,113	2,287	3,841
Oceana	1,503	7	217	160	274	296	229	147	79	33	61
Ogemaw	1,485	6	230	126	255	271	267	162	78	65	25
Ontonagon	717	1	65	40	116	146	111	90	47	26	75
Osceola	1,751	6	247	152	321	368	306	166	90	49	46
Oscoda	477	5	62	51	78	82	87	58	26	14	14
Otsego	1,644	14	294	138	266	295	287	143	81	61	65
Ottawa	13,479	61	2,667	1,504	2,561	2,360	1,859	1,035	447	354	631
Presque Isle	765	1	112	53	123	145	139	75	61	41	15
Roscommon	1,583	2	230	116	244	301	253	187	127	71	52
Saginaw	12,665	55	2,105	1,255	2,397	2,187	1,899	1,138	632	478	519
St. Clair	8,207	34	1,496	705	1,429	1,577	1,236	662	332	263	473
St. Joseph	3,148	20	538	318	554	539	434	265	152	93	235
Sanilac	2,479	5	434	193	386	513	425	235	124	106	58
Schoolcraft	753	1	83	63	134	114	146	76	55	35	46
Shiawassee	3,881	15	604	404	763	735	614	354	165	101	126
Tuscola	2,910	14	505	266	537	560	482	270	133	94	49
Van Buren	4,169	17	695	395	714	795	650	332	182	114	275
Washtenaw	22,042	61	3,205	2,714	4,359	3,981	3,279	1,609	662	452	1,720
Wayne	126,938	342	13,562	10,327	24,027	21,833	16,823	9,164	4,648	3,480	22,732
Wexford	2,399	11	386	234	412	452	373	232	113	71	115
Total	635,096	2,072	95,011	61,485	118,328	116,886	94,093	51,675	25,457	18,510	51,578

DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2002	2003	% Change	% 2003 Fatal Crash Involvement	Percent Active Driving Population*
15 years and under	19	15	-21.1	0.8	0.8
16 years	50	40	-20.0	2.1	1.4
17 years	44	48	9.1	2.5	1.5
18 years	57	60	5.3	3.2	1.6
19 years	57	46	-19.3	2.4	1.7
20 years	51	43	-15.7	2.3	1.7
21 - 24 years	177	190	7.3	10.0	7.0
25 - 34 years	336	337	0.3	17.8	17.3
35 - 44 years	328	356	8.5	18.8	19.9
45 - 54 years	255	280	9.8	14.8	19.5
55 - 64 years	147	161	9.5	8.5	13.2
65 - 69 years	48	40	-16.7	2.1	4.4
70 - 74 years	38	53	39.5	2.8	3.7
75 - 79 years	53	51	-3.8	2.7	3.2
80 - 84 years	38	46	21.1	2.4	2.0
85 - 89 years	20	32	60.0	1.7	0.9
90 years and over	15	7	-53.3	0.4	0.3
Unknown	174	87	-50.0	4.6	---
Total	1,907	1,892	-0.8	100.0	100.0

* Figures courtesy of the Michigan Department of State [12]



DRIVER CONDITION

POSSIBLE CONDITIONS OF DRIVER*	Conditions Coded by Police	MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
		Number	A	B	C	
Appeared Normal	516,212	970	9,260	25,228	78,979	401,775
Had Been Drinking	13,972	189	1,311	2,330	2,346	7,796
Illegal Drug Use	460	9	49	77	81	244
Sick	1,128	7	100	163	348	510
Fatigue	936	7	42	102	228	557
Asleep	1,284	8	97	205	268	706
Medication	757	0	40	94	188	435
Driver Distracted	3,841	13	130	363	847	2,488
Using Cellular Phone	879	3	34	66	179	597
Unknown	37,482	582	1,057	1,274	3,543	31,026

* Drivers may have more than 1 condition, including “Appeared Normal”.

These are driver conditions that, in the opinion of the investigating officer, were involved in the crash. While some conditions may be evident, others (such as distraction) will only be known if the driver admits to the condition, thus leading to possible under-reporting.

DRIVER INJURY SEVERITY BY RESTRAINT, ALCOHOL, AND DRUG USE

	Drivers		Fatality		Injury			No Injury	Unknown
	Number	% of Total	Number	% of Total	A	B	C		
All Drivers									
Restraint Used	555,766	87.4	422	52.8	4,742	13,652	47,168	484,290	5,492
Restraint Not Used	8,239	1.3	271	33.9	1,025	1,572	1,347	3,909	115
Unknown	71,762	11.3	106	13.3	764	1,392	2,584	31,155	35,761
Total	635,767		799		6,531	16,616	51,099	519,354	41,368
Drinking Drivers									
Restraint Used	9,003	71.7	52	34.7	390	1,041	985	6,490	45
Restraint Not Used	1,382	11.0	75	50.0	271	369	190	463	14
Unknown	2,179	17.3	23	15.3	141	297	194	1,483	41
Total	12,564		150		802	1,707	1,369	8,436	100
Drugged Drivers									
Restraint Used	434	71.9	7	35.0	29	54	70	269	5
Restraint Not Used	66	10.9	11	55.0	9	12	13	21	0
Unknown	104	17.2	2	10.0	5	15	14	67	1
Total	604		20		43	81	97	357	6
Drinking and Drugged Drivers									
Restraint Used	398	61.1	11	27.5	18	51	55	260	3
Restraint Not Used	109	16.7	23	57.5	14	21	13	38	0
Unknown	144	22.1	6	15.0	9	26	26	75	2
Total	651		40		41	98	94	373	5

NOTE: Restraint Used includes shoulder belt only, lap belt only, both lap and shoulder belts used, restraint failed, and helmet worn.

REGISTRATION TRANSACTIONS

(Includes Original, Renewal, Correction, and Replacements)

Registration data courtesy of the Michigan Department of State [13]

	VEHICLE						OTHER		
COUNTY	Passenger	Commercial	Trailer	Motorcycle	Total Plates	Total Revenue	Watercraft	Snowmobile	Moped
Alcona	7,588	4,221	3,617	335	15,761	1,030,854.29	2,644	962	53
Alger	5,000	3,255	1,954	281	10,490	686,009.11	1,806	1,518	18
Allegan	63,342	28,144	19,982	2,544	114,012	8,420,279.77	11,701	3,942	358
Alpena	18,623	10,210	7,662	711	37,206	2,674,374.96	4,508	2,545	66
Antrim	15,229	7,131	5,636	658	28,654	2,051,510.42	5,197	2,363	59
Arenac	9,913	5,772	4,202	492	20,379	1,439,763.09	3,823	1,492	73
Baraga	3,805	2,533	1,482	150	7,970	560,309.02	1,054	704	9
Barry	34,686	16,467	11,895	1,724	64,772	4,347,104.62	9,541	2,055	116
Bay	70,161	25,771	21,024	2,368	119,324	8,913,815.21	9,880	5,798	232
Benzie	11,308	5,087	4,158	477	21,030	1,409,204.08	4,011	1,474	50
Berrien	107,756	34,377	20,752	3,696	166,581	12,109,476.63	12,884	3,070	346
Branch	25,202	12,555	8,228	1,086	47,071	3,354,645.18	6,334	1,155	123
Calhoun	88,679	29,495	18,208	3,161	139,543	9,938,641.40	10,172	1,703	327
Cass	29,619	13,764	9,284	1,281	53,948	3,719,756.42	8,605	1,856	97
Charlevoix	17,488	8,194	6,102	811	32,595	2,391,858.48	5,070	2,866	77
Cheboygan	16,321	8,662	6,446	774	32,203	2,220,496.65	5,619	3,449	78
Chippewa	18,510	10,134	7,205	624	36,473	2,565,619.12	4,719	4,491	84
Clare	18,290	10,148	7,400	816	36,654	2,467,044.84	4,618	2,104	63
Clinton	41,755	18,371	13,744	1,462	75,332	5,914,007.70	6,996	2,964	152
Crawford	8,074	4,192	3,288	328	15,882	1,075,409.39	2,852	1,643	22
Delta	23,854	13,205	9,159	849	47,067	3,351,064.09	4,494	3,076	118
Dickinson	16,730	9,315	6,142	797	32,984	2,436,010.76	3,633	1,622	127
Eaton	65,505	24,494	16,976	2,412	109,387	9,535,344.04	8,808	2,733	188
Emmet	22,025	9,288	6,812	839	38,964	2,952,867.62	5,533	2,951	99
Genesee	280,157	86,159	51,395	9,487	427,198	32,673,273.91	31,593	13,055	577
Gladwin	15,970	8,601	6,662	700	31,933	2,144,378.04	4,888	1,759	75
Gogebic	8,916	5,035	2,721	367	17,039	1,118,137.99	2,359	1,543	70
Grand Traverse	58,412	19,802	16,727	2,088	97,029	7,671,219.44	13,305	5,437	136

REGISTRATION TRANSACTIONS (continued)

	VEHICLE						OTHER		
COUNTY	Passenger	Commercial	Trailer	Motorcycle	Total Plates	Total Revenue	Watercraft	Snowmobile	Moped
Gratiot	23,574	11,677	8,771	846	44,868	3,373,186.95	3,503	1,707	112
Hillsdale	26,686	14,237	8,916	1,220	51,059	3,529,924.63	5,316	1,050	123
Houghton	18,791	8,579	4,672	750	32,792	2,194,926.33	3,899	2,520	99
Huron	22,983	13,035	8,343	896	45,257	3,479,251.44	3,121	2,438	243
Ingham	182,422	44,680	26,122	4,513	257,737	19,859,855.65	15,530	3,925	375
Ionia	34,485	16,024	10,823	1,333	62,665	4,247,738.92	5,323	1,758	164
Iosco	17,154	8,560	6,941	800	33,455	2,296,800.51	5,206	1,606	122
Iron	7,346	4,555	2,882	302	15,085	1,025,508.06	2,460	991	44
Isabella	30,562	14,501	9,809	1,132	56,004	4,511,494.29	4,893	2,060	92
Jackson	99,161	38,871	24,921	3,877	166,830	12,218,905.36	15,765	3,612	406
Kalamazoo	153,778	40,293	26,589	4,729	225,389	17,816,088.07	18,144	3,245	570
Kalkaska	9,967	6,179	4,421	481	21,048	1,792,399.85	2,669	2,006	31
Kent	390,407	108,985	73,506	10,486	583,384	52,601,059.72	45,046	10,385	917
Keweenaw	1,209	671	378	52	2,310	144,660.72	382	193	6
Lake	6,097	3,500	2,453	288	12,338	756,297.40	2,351	938	23
Lapeer	52,759	26,874	17,143	3,039	99,815	7,554,316.87	7,619	4,535	126
Leelanau	14,299	5,401	5,033	435	25,168	1,841,398.11	5,646	1,705	77
Lenawee	61,073	26,822	16,674	2,985	107,554	7,845,137.25	9,276	3,219	325
Livingston	107,545	39,104	27,708	5,254	179,611	14,845,950.23	19,296	6,529	212
Luce	3,344	2,390	1,739	114	7,587	531,698.71	1,317	1,300	16
Mackinac	6,616	3,967	2,719	245	13,547	945,253.79	2,943	2,281	43
Macomb	566,757	139,865	70,312	16,283	793,217	68,856,824.95	48,556	18,058	1,116
Manistee	15,467	7,563	5,569	639	29,238	2,036,516.74	3,802	1,656	89
Marquette	38,503	17,345	10,247	1,605	67,700	4,784,046.94	7,121	4,332	121
Mason	18,239	8,346	5,896	894	33,375	2,304,011.97	4,336	1,571	118
Mecosta	21,245	10,356	7,379	791	39,771	2,838,764.71	5,176	1,648	45
Menominee	13,872	7,432	5,196	559	27,059	1,920,047.52	2,689	1,435	263
Midland	57,416	19,417	16,803	2,175	95,811	6,829,192.96	9,371	3,229	192
Missaukee	7,801	5,392	3,589	375	17,157	1,233,168.66	2,075	1,351	40

REGISTRATION TRANSACTIONS (continued)

	VEHICLE						OTHER		
COUNTY	Passenger	Commercial	Trailer	Motorcycle	Total Plates	Total Revenue	Watercraft	Snowmobile	Moped
Monroe	95,083	39,391	22,485	4,422	161,381	12,642,769.29	11,262	4,812	353
Montcalm	35,780	18,209	12,382	1,372	67,743	4,680,881.01	7,263	2,388	155
Montmorency	6,088	3,850	3,112	286	13,336	900,739.62	2,244	1,469	13
Muskegon	108,697	34,935	25,134	4,097	172,863	11,847,541.12	14,892	4,983	336
Newaygo	28,092	14,160	10,604	1,277	54,133	3,550,708.30	7,068	2,619	95
Oakland	906,009	180,424	101,282	24,660	1,212,375	111,502,015.58	82,694	23,686	1,566
Oceana	16,360	8,588	5,103	683	30,734	2,080,330.18	3,031	1,880	95
Ogemaw	13,025	7,778	5,743	841	27,387	1,984,048.00	3,395	1,794	33
Ontonagon	4,334	3,042	1,938	171	9,485	625,621.14	1,156	1,170	33
Osceola	13,291	7,757	5,066	536	26,650	1,875,394.81	2,707	1,625	38
Oscoda	5,537	3,418	2,355	318	11,628	820,506.31	2,108	930	21
Otsego	14,630	8,077	5,912	756	29,375	2,407,989.21	3,174	3,356	32
Ottawa	156,542	46,700	41,390	5,189	249,821	19,860,301.11	24,567	6,377	622
Presque Isle	8,477	5,602	3,706	312	18,097	1,263,827.42	2,947	1,782	47
Roscommon	16,834	8,103	6,867	728	32,532	2,257,290.32	6,244	3,512	157
Saginaw	133,461	42,072	31,095	3,865	210,493	16,618,494.88	15,791	7,501	354
St. Clair	105,156	42,663	25,440	4,390	177,649	13,448,081.85	15,474	6,783	316
St. Joseph	37,981	16,852	11,739	1,887	68,459	4,680,014.32	8,630	1,083	167
Sanilac	25,700	14,804	8,689	1,188	50,381	3,753,430.69	2,270	2,315	84
Schoolcraft	4,734	3,312	2,357	250	10,653	739,145.11	1,699	1,329	47
Shiawassee	44,822	21,693	13,696	1,875	82,086	6,061,812.64	6,159	3,432	167
Tuscola	35,071	19,212	13,072	1,626	68,981	4,834,814.71	4,754	3,471	217
Van Buren	46,347	19,559	12,079	2,130	80,115	5,519,653.60	8,328	2,384	194
Washtenaw	208,017	46,386	24,861	6,034	285,298	23,886,452.27	15,374	4,197	513
Wayne	1,215,896	256,919	102,217	28,946	1,603,978	137,713,547.86	66,570	16,351	1,992
Wexford	19,521	9,127	6,521	787	35,956	2,606,477.04	4,483	2,555	74
Non-Resident	62,608	31,045	15,374	606	109,633	55,956,190.15	33,938	5,649	166
Unknown County	0	0	0	0	0	0	8,036	0	0
Total	6,480,569	2,002,681	1,234,636	207,648	9,925,534	$847,504,982.12	825,736	291,046	17,790

2003
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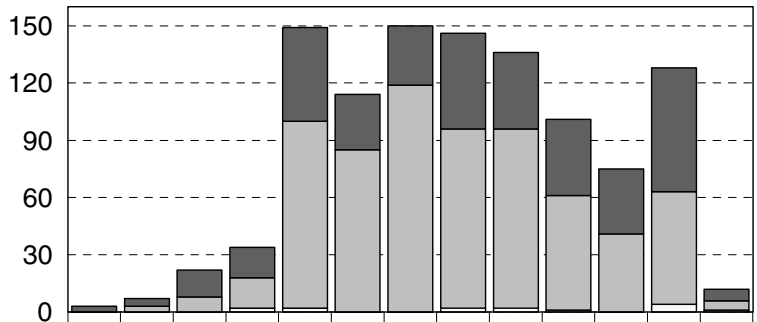
Occupant/ Person

AGE AND GENDER OF OCCUPANTS KILLED & INJURED IN MOTOR VEHICLE CRASHES

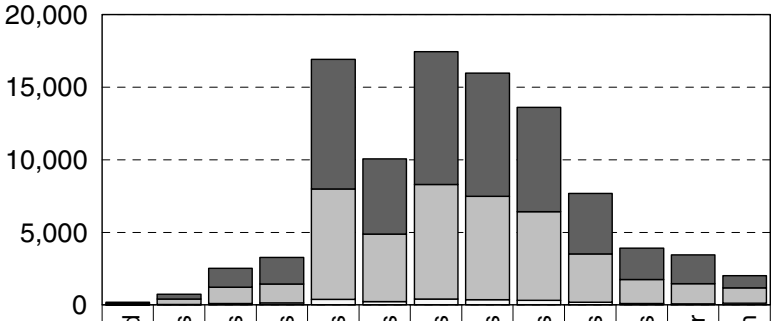
Occupants Killed



	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown
Females killed	3	4	14	16	49	29	31	50	40	40	34	65	6
Males killed	0	3	8	16	98	85	119	94	94	60	41	59	5
Unknown gender killed	0	0	0	2	2	0	0	2	2	1	0	4	1

There were 682 male occupants, 381 female occupants, and 14 occupants of unknown gender killed in motor vehicle crashes in 2003. The majority (63.3%) of occupants killed in traffic crashes in 2003 were male.

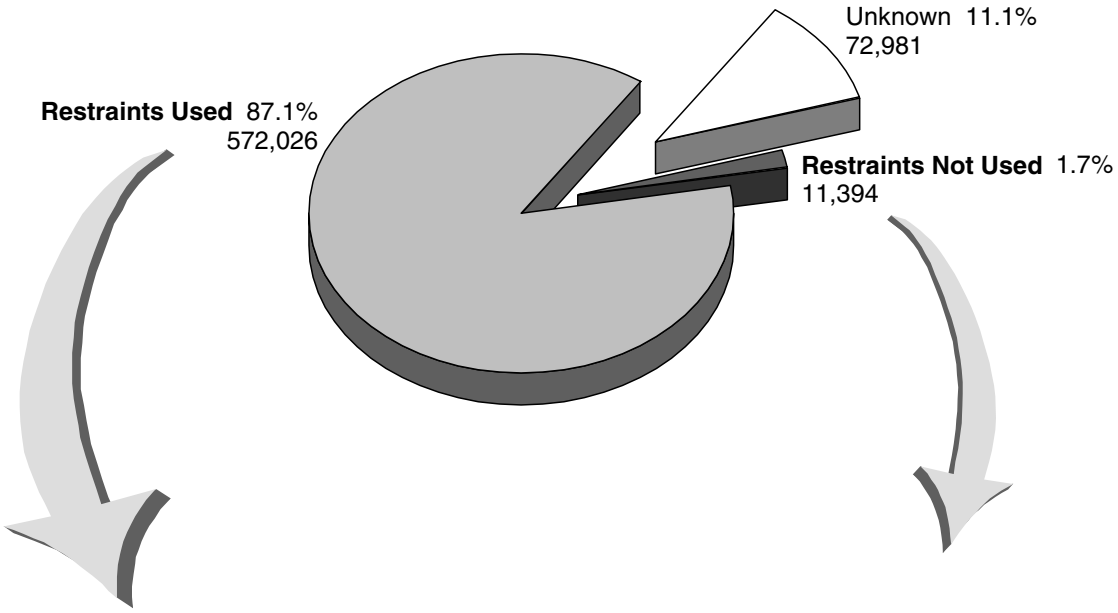
Occupants Injured



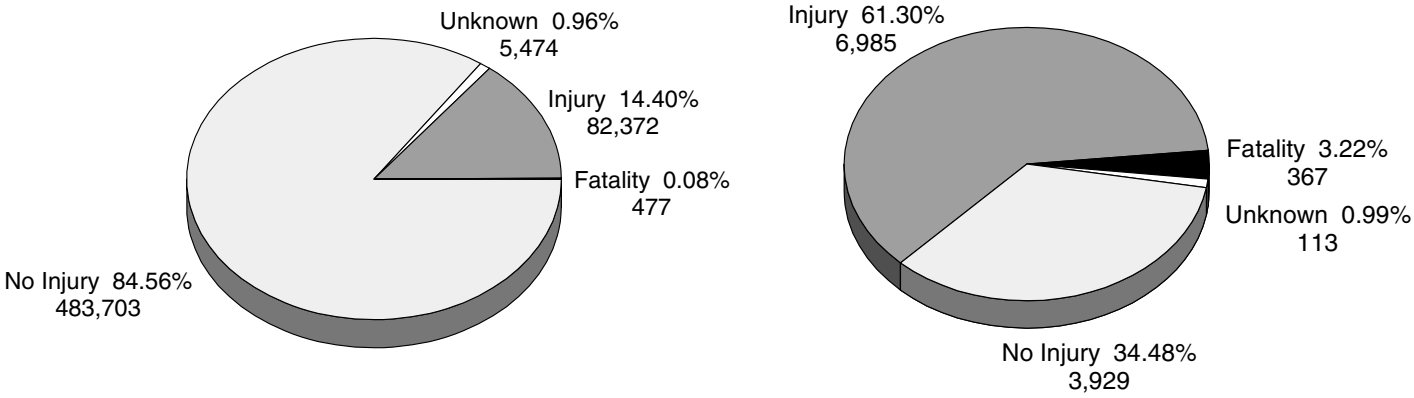
	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown
Females injured	93	345	1,289	1,813	8,921	5,176	9,159	8,478	7,195	4,170	2,165	1,982	849
Males injured	92	362	1,121	1,299	7,615	4,660	7,883	7,125	6,100	3,319	1,654	1,388	1,058
Unknown gender injured	8	41	112	155	381	233	412	364	319	189	95	79	118

There were 43,676 male occupants, 51,635 female occupants, and 2,506 occupants of unknown gender injured in motor vehicle crashes in 2003. The majority (52.8%) of occupants injured in traffic crashes in 2003 were female.

REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

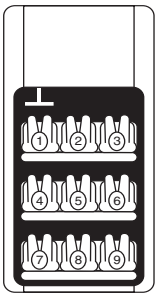


Injury Severity



Of the 656,401 drivers and injured passengers involved in crashes, 572,026 (87.1%) were REPORTED to be using occupant restraints.

Occupants in crashes were forty times more likely to be killed if they were not wearing their restraints.



MOTOR VEHICLE OCCUPANTS & INJURY SEVERITY BY SEATING POSITION AND KNOWN BELT USAGE

Seating Position	Belts Used*		Fatal	Injury			PDO
	Number	% of Total		A	B	C	
Left Front	547,801	96.9	348	4,218	12,881	46,938	483,416
Center Front	410	0.1	1	27	119	248	15
Right Front	13,151	2.3	98	921	2,844	9,193	95
Left Rear	1,499	0.3	9	95	330	1,001	64
Center Rear	417	0.1	4	31	116	261	5
Right Rear	1,598	0.3	6	107	375	1,108	2
Left Rear Third Seat	255	0.0	2	21	55	169	8
Center Rear Third Seat	80	0.0	0	11	21	48	0
Right Rear Third Seat	279	0.0	0	23	61	190	5
Unknown	82	0.0	0	5	10	47	20
Total	565,572**	100.0	468	5,459	16,812	59,203	483,630

* Lap belt, shoulder belt or a combination of lap and shoulder belts used. Children who were coded as using or not using a child restraint device appear in separate tables on pages 174-175.

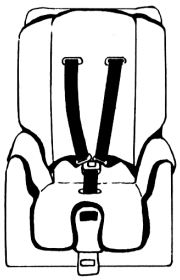
**This total does not include 5,468 occupants with unknown injury severity.

Seating Position	Belts Not Used*		Fatal	Injury			PDO
	Number	% of Total		A	B	C	
Left Front	7,649	68.9	260	962	1,507	1,308	3,612
Center Front	112	1.0	1	19	36	47	9
Right Front	1,356	12.2	67	310	479	471	29
Left Rear	693	6.2	10	85	166	249	183
Center Rear	204	1.8	3	43	69	88	1
Right Rear	497	4.5	13	80	163	241	0
Left Rear Third Seat	92	0.8	0	16	26	50	0
Center Rear Third Seat	55	0.5	0	7	17	30	1
Right Rear Third Seat	94	0.8	1	18	31	43	1
Unknown	346	3.1	7	32	62	205	40
Total	11,098**	100.0	362	1,572	2,556	2,732	3,876

* No belts available or no belts used. Children who were coded as using or not using a child restraint device appear in separate tables on page 174-175.

**This total does not include 111 occupants with unknown injury severity.

Michigan law requires that all persons must wear a safety belt when riding in the front seat of a motor vehicle.



REPORTED RESTRAINT USE - CHILDREN

Michigan law requires:

Any child under four years of age riding in either the front or back seat of a vehicle must be in an approved Child Safety Seat (CSS)/Child Restraint Device (CRD).

Sitting in all seats excluding Left Front Seats:

Restraint Usage	Children Age 0		Fatal	Injury			No* Injury
	Number	% Total		A	B	C	
Belts Used	17	9.4	0	0	4	13	0
No Belts Used	4	2.2	0	1	2	1	0
Child Restraint Used	147	81.7	3	8	27	109	0
Child Restraint Not Used	7	3.9	0	3	1	3	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	5	2.8	0	1	0	4	0
Total	180	100.0	3	13	34	130	0
Children Age 1							
Belts Used	23	9.9	0	0	7	16	0
No Belts Used	3	1.3	0	0	1	2	0
Child Restraint Used	181	78.0	1	6	52	122	0
Child Restraint Not Used	21	9.1	3	5	3	10	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	4	1.7	0	0	1	3	0
Total	232	100.0	4	11	64	153	0
Children Age 2							
Belts Used	53	22.5	0	4	18	31	0
No Belts Used	5	2.1	0	1	3	1	0
Child Restraint Used	138	58.5	1	6	46	85	0
Child Restraint Not Used	27	11.4	1	6	9	11	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	13	5.5	0	1	0	12	0
Total	236	100.0	2	18	76	140	0
Children Age 3							
Belts Used	91	32.9	1	8	25	57	0
No Belts Used	8	2.9	0	3	3	2	0
Child Restraint Used	146	52.7	0	10	35	101	0
Child Restraint Not Used	18	6.5	0	5	8	5	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	14	5.1	0	1	0	13	0
Total	277	100.0	1	27	71	178	0

* Information about uninjured passengers does not have to be reported by the officer on the crash report, thus these tables relate the experience of those children with injuries in crashes.

REPORTED RESTRAINT USE - CHILDREN (continued)

All children ages 4 through 15 must wear a properly adjusted and fastened safety belt when riding in either the front or back seat of a vehicle.

Sitting in all seats excluding Left Front Seats:

Restraint Usage	Children Age 4-15		Fatal	Injury			No Injury
	Number	% Total		A	B	C	
Belts Used	4,123	77.5	26	280	1,056	2,761	0
No Belts Used	677	12.7	10	96	214	356	1
Child Restraint Used	217	4.1	3	14	53	147	0
Child Restraint Not Used	42	0.8	1	5	19	17	0
Restraint Failed	5	0.1	0	2	1	2	0
Unknown	254	4.8	5	37	82	129	1
Total	5,318	100.0	45	434	1,425	3,412	2

Note: Safety equipment usage is often self-reported and may not reflect actual usage.

It is recommended that all children age 12 and under ride in a rear seat with appropriate restraint.

A vehicle can be stopped if an officer observes; the driver or front seat passenger not wearing a safety belt, or, a child not properly restrained.

The driver of the vehicle can be stopped and will receive a citation for any child (under age 16) not restrained.

MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

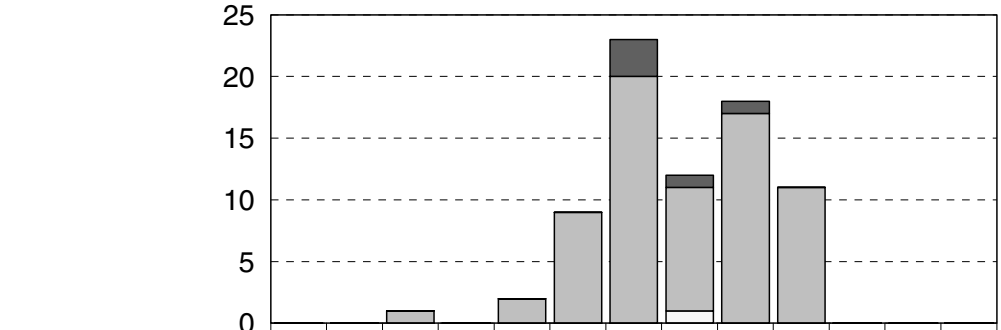
OCCUPANT – INJURY SEVERITY

Motor Vehicle Occupant Airbag Deployment	Occupants*		Fatal	Injury			No Injury
	Number	% Total		A	B	C	
Deployed	46,808	7.1	353	2,708	7,013	13,042	23,002
Not deployed	429,202	65.1	239	2,362	7,485	35,254	377,662
Not equipped	112,125	17.0	447	3,297	6,772	14,080	85,618
Unknown	71,481	10.8	38	431	1,179	4,194	33,072
Total	659,616	100.0	1,077	8,798	22,449	66,570	519,354

* Includes 41,368 occupants (drivers and passengers) with unknown injury severity.

AGE AND GENDER OF MOTORCYCLISTS KILLED & INJURED IN MOTOR VEHICLE CRASHES

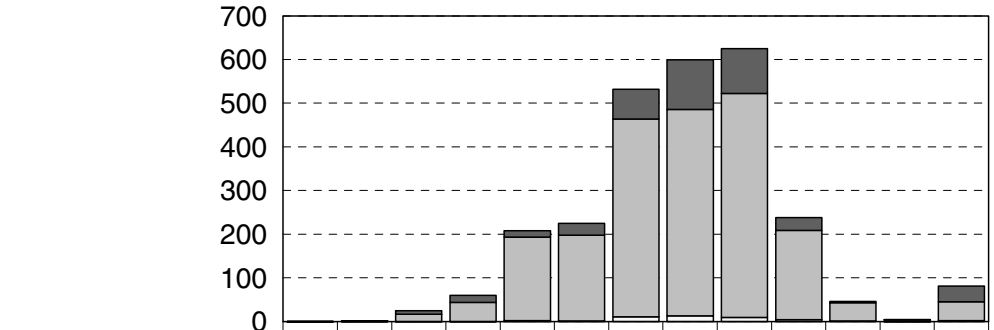
Motorcyclists Killed



	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown
Females killed	0	0	0	0	0	0	3	1	1	0	0	0	0
Males killed	0	0	1	0	2	9	20	10	17	11	0	0	0
Unknown gender killed	0	0	0	0	0	0	0	1	0	0	0	0	0

92.1 percent of the motorcyclists killed in traffic crashes in 2003 were male.
In comparison, 64.2 percent of all persons killed in crashes were male.

Motorcyclists Injured



	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown
Females injured	0	0	8	16	15	27	68	113	103	29	3	0	36
Males injured	0	1	17	44	191	197	453	473	513	205	42	4	43
Unknown gender injured	0	0	0	0	2	1	11	13	9	4	1	0	2

82.6 percent of the motorcyclists injured in traffic crashes in 2003 were male.
In comparison, 45.2 percent of all persons injured in crashes were male.

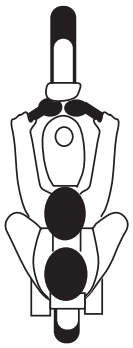
MOTORCYCLE HELMET USE AND INJURY SEVERITY

Helmet Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	1	2	7	6	2
11 - 15 years	0	6	16	6	2
16 - 20 years	2	22	73	31	30
21 - 24 years	8	37	84	41	45
25 - 34 years	19	106	165	89	115
35 - 44 years	7	108	174	130	125
45 - 54 years	14	131	185	137	112
55 - 64 years	9	52	83	40	49
65 - 74 years	0	12	11	10	9
75 years and over	0	1	0	1	1
Unknown	0	1	0	0	0
Subtotal	60	478	798	491	490

Drivers killed 58

Passengers killed 2

Helmet Not Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	0	1	1	1
11 - 15 years	0	2	3	1	4
16 - 20 years	0	8	5	1	1
21 - 24 years	1	2	5	1	0
25 - 34 years	1	8	3	2	4
35 - 44 years	2	3	7	7	1
45 - 54 years	1	3	5	8	0
55 - 64 years	0	0	1	0	0
65 - 74 years	0	0	0	0	0
75 years and over	0	0	0	0	0
Unknown	0	0	1	0	0
Subtotal	5	26	31	21	11



Drivers killed 5

Passengers killed 0

Helmet Use Unknown Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	1	0	0
4 - 10 years	0	2	3	3	3
11 - 15 years	0	7	15	4	5
16 - 20 years	0	13	38	17	18
21 - 24 years	0	10	29	16	26
25 - 34 years	3	42	72	45	60
35 - 44 years	3	39	74	57	63
45 - 54 years	3	42	66	48	69
55 - 64 years	2	11	27	24	20
65 - 74 years	0	4	3	6	6
75 years and over	0	1	1	0	1
Unknown	0	23	39	17	27
Subtotal	11	194	368	237	298
Total	76	698	1,197	749	799

Michigan Vehicle Code Public Act 300 of 1949, Section 257.658 requires that all motorcycle riders wear a helmet. As a result, according to studies by UMTRI [14], approximately 99 percent of the motorcyclists in Michigan wear helmets when riding. The fact that most fatalities (where helmet use is known) are wearing their helmets does not indicate that helmets are not an effective safety device.

OCCUPANT INJURY OUTCOME BY VEHICLE TYPE




VEHICLE TYPE	Killed	A Injured	B Injured	C Injured	Total KABC	% of All Crash Involved KABC Occupants
Passenger Car and Station Wagon	756	5,875	15,679	50,559	72,869	73.7
Van (Minivan) and Motorhome	64	506	1,369	4,973	6,912	7.0
Pickup	118	1,065	2,981	6,768	10,932	11.1
Small Truck (under 10,000 lbs.)	16	220	537	1,669	2,442	2.5
Motorcycle	76	672	1,134	712	2,594	2.6
Moped	3	44	90	64	201	0.2
Go Cart	1	3	8	2	14	0.0
Snowmobile	13	121	75	73	282	0.3
Off Road Vehicle	11	102	108	61	282	0.3
Other	4	29	59	95	187	0.2
Unknown	3	86	214	879	1,182	1.2
CDL Truck/Bus (breakdown below)	13	75	195	715	998	1.0
Total Number of Occupants	1,078	8,798	22,449	66,570	98,895	100.0

Special Note: School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.

CDL Truck/Bus Sub-category Type	Killed	A Injured	B Injured	C Injured	Total KABC	% of All Crash Involved KABC Occupants
Commercial Vehicle: Group A	10	38	101	201	350	35.1
Commercial Vehicle: Group B	2	18	43	256	319	32.0
Commercial Vehicle: Group C	0	1	11	34	46	4.6
Other Truck	0	8	17	53	78	7.8
Unknown Truck	1	10	23	171	205	20.5
Total Number of Occupants	13	75	195	715	998	100.0

Group “A” is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group “B” is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group “C” is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group “C” is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

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References

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[2] Table 31DP Deaths by County Underlying Cause of Death by Age (44 Major Cause Groups) Michigan Residents, 2001. Michigan Department of Community Health, Division for Vital Records and Health Statistics, PO Box 30691, Lansing, MI 48909-8191.

[3] National Safety Council. (2004). INJURY FACTS, 2004 Edition. 1121 Spring Lake Drive, Itasca, IL 60143.

[4] The Ohio Department of Public Safety, Office of the Governor's Highway Safety Representative, 240 Parsons Avenue, Columbus, OH 43215.

[5] Indiana Department of Transportation, Roadway Management Division, 100 N. Senate Avenue, Room N808, Indianapolis, IN 46204-2218.

[6] Illinois Department of Transportation, Division of Traffic Safety, 3215 Executive Park Drive, P.O. Box 19245, Springfield, IL 62794-9245.

[7] Wisconsin Bureau of Transportation Safety, P.O. Box 7913, Madison, WI 53707-7913.

[8] Minnesota Department of Public Safety, Office of Traffic Safety, 444 Cedar Street, Suite 100-B, Town Square, St. Paul, MN 55101-2156.

[9] Michigan Department of Transportation, Bureau of Transportation Planning, Lansing, MI 48909.

[10] Traffic Safety Facts 2002 - Children. National Center for Statistics & Analysis, Research & Development, 400 Seventh Street, S.W., Washington, D.C. 20590. (Source: Robert Thompson, ***A Case Control Study of the Effectiveness of Bicycle Safety Helmets***. Centers for Disease Control.)

[11] 2003 Fatality Analysis Reporting System Version Annual Report File. U.S. Department of Transportation, National Highway Traffic Safety Administration, National Center for Statistics and Analysis, Washington, D.C. 20590.

[12] Michigan Department of State, Office of Policy and Planning, Research Section, Lansing, MI 48918.

[13] Summary of Fees Collected and Number of Transactions October 1, 2002 through September 30, 2003. Michigan Department of State, Bureau of Research and Management Systems, Finance Division, Lansing, MI 48918.

[14] Streff, Fredrick M., Eby, David W., Molnar, Lisa J., Joksch, Hans C., Wallace, Richard R. Direct Observation of Safety Belt Use and Motorcycle Helmet Use in Michigan: Fall 1993. UMTRI-93-44, University of Michigan Transportation Research Institute, Ann Arbor, MI 48109-2150, November 1993.

RESOURCES

Websites:

www.michigantrafficcrashfacts.org Michigan Traffic Crash Facts

Please refer to this site for more county crash information on; Age by Crash Severity for Drivers and Pedestrians & Bicyclists, Age by Crash Severity in Alcohol Involved Crashes, Type of Roadway by County/Community, Driver Hazardous Action by Community, and Motor Vehicle Occupant Restraint Use.

www.michigan.gov/msp Michigan State Police

www.michigan.gov/ohsp Office of Highway Safety Planning

www.michigan.gov/sos Michigan Department of State

www.michigan.gov/mdot Michigan Department of Transportation

www.michigan.gov/mdch Michigan Department of Community Health

www.michigan.gov/dmb Michigan Department of Management and Budget (MDMB)

www.michigan.gov/census Census & Statistical Data for Michigan

www.michiganresourcecenter.org Michigan Resource Center

www.michigan.gov/dnr Michigan Department of Natural Resources

www.dot.state.wi.us Wisconsin Traffic Crash Facts

www.dps.state.mn.us Minnesota Traffic Crash Facts

www.state.oh.us/odps Ohio Traffic Crash Reports/Facts

www.nsc.org National Safety Council Accident Facts

www.nhtsa.dot.gov NHTSA - Fatality Analysis Reporting Systems, Traffic Safety Fact Sheets

www.umtri.umich.edu University of Michigan Transportation Research Institute

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