

2004

Michigan Traffic Crash Facts



Michigan Department of State Police



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.

2004 Michigan Traffic Crash Facts

A summary of traffic crashes on Michigan roadways in calendar year 2004

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University of Michigan Transportation Research Institute

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

Started in 2002, a comprehensive, multi-year project using federal grant funds to improve the quality, timeliness, and accuracy of traffic crash data collection and processing continues into 2006. This includes encouraging and accepting the electronic collection of data, additional error checking and quality assurance, improved crash location and a modern computer infrastructure system.

The 2004 crash data collected and processed is in the second year of production using 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.

The property damage reporting threshold for crashes in Michigan increased from \$400.00 to \$1000.00 on January 1, 2004. In the analysis of the data we do not have conclusive evidence that this caused a decrease in crash reporting.

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 2004 information in PDF format.

EXECUTIVE SUMMARY

The 2004 traffic fatality count was 1,159, down 9.7 percent from the 2003 figure of 1,283. Compared with 2003, injuries were down 5.6 percent and total crashes were down 4.7 percent. These figures translated into a death rate of 1.1 per 100 million miles of travel, down 15.4 percent from the 2003 death rate.

Exposure factors in 2004 showed increases in the number of drivers on Michigan roads and travel mileage, and a decrease in motor vehicle registrations. The number of licensed drivers was up 0.5 percent to 7.2 million, and vehicle miles traveled was up 1.6 percent to 101.8 billion. Motor vehicle registrations were down 1.5 percent to 8.6 million. The last time Michigan experienced a drop in motor vehicle registrations was in 1981.

Consumption of alcohol continues to be a major factor in Michigan crashes, particularly the more serious crashes. In 2004, 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, 42.0 percent of alcohol-related crashes involved injury or death. 32.0 percent of fatal crashes involved drinking.

Data on crashes in this book was obtained from 2004 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 April 11, 2005. We acknowledge, with appreciation, all involved agencies for their assistance.



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www.michigan.gov/ohsp

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UD-10 (FRONT)

Authority: 1949 PA 300, Sec. 257.622 Compliance: Required MSP UD-10 Penalty: \$100 and/or 90 days (Rev 1/04)	Do Not Use	Page _____ Of _____ Incident # _____ File Class _____
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STATE OF MICHIGAN TRAFFIC CRASH REPORT

ORI: MI-	Department Name _____
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Crash Date Month: <input type="text"/> <input type="text"/> Day: <input type="text"/> <input type="text"/> Year: <input type="text"/> <input type="text"/>	Crash Time Hour: <input type="text"/> <input type="text"/> Minute: <input type="text"/> <input type="text"/>	No. of Units <input type="text"/>	Crash Type <input type="radio"/> Single Motor Vehicle <input type="radio"/> Head On <input type="radio"/> Head On-Left Turn <input type="radio"/> Angle <input type="radio"/> Rear End <input type="radio"/> Rear End-Left Turn <input type="radio"/> Rear End-Right Turn <input type="radio"/> Sideswipe-Same <input type="radio"/> Sideswipe-Opposite <input type="radio"/> Other/Unknown	Special Circumstances <input type="radio"/> None <input type="radio"/> School Bus <input type="radio"/> Local <input type="radio"/> Clear <input type="radio"/> Cloudy <input type="radio"/> Fog/Smoke <input type="radio"/> Rain <input type="radio"/> Daylight <input type="radio"/> Dawn <input type="radio"/> Dusk <input type="radio"/> Dry <input type="radio"/> Wet <input type="radio"/> Icy	Special Checks <input type="radio"/> Fatal (Report All) <input type="radio"/> Corrected Copy <input type="radio"/> Replace (Entire Report) <input type="radio"/> Delete (Entire Report) <input type="radio"/> Non-Traffic Area <input type="radio"/> ORV/Snowmobile
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County: _____ City/Twp: _____	Traffic Control <input type="radio"/> None of These <input type="radio"/> Signal <input type="radio"/> Stop Sign <input type="radio"/> Yield Sign	Relation to Roadway (Location of First Impact) <input type="radio"/> Shoulder <input type="radio"/> Outside of Shoulder/Curb <input type="radio"/> On Road <input type="radio"/> Median <input type="radio"/> Gore <input type="radio"/> Other/Unknown	Construction Zone (if applicable) (Mark One From Each Group) Type: <input type="radio"/> Const./Maint. <input type="radio"/> Utility Lane Closed: <input type="radio"/> Yes <input type="radio"/> No Activity: <input type="radio"/> On Road <input type="radio"/> Off Road <input type="radio"/> None	Divided Roadway: <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W	Road Type: _____ Suffix: _____
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Prefix: _____	Road Name: _____	Distance: _____	FT <input type="radio"/> MI <input type="radio"/>	North <input type="radio"/> South <input type="radio"/> East <input type="radio"/> West <input type="radio"/>	Beginning of Ramp <input type="radio"/> End of Ramp <input type="radio"/>	Trafficway: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4	Access Control: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3
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Unit Number: _____	State: _____	Driver License Number: _____	Date of Birth: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	License Type: <input type="radio"/> O <input type="radio"/> CY <input type="radio"/> C <input type="radio"/> F <input type="radio"/> M <input type="radio"/> R	Sex: <input type="radio"/> M <input type="radio"/> F	Total Occup: _____	Hazard Action: _____
--------------------	--------------	------------------------------	--	---	---	--------------------	----------------------

Unit Type: <input type="radio"/> MV <input type="radio"/> B <input type="radio"/> P <input type="radio"/> E (train)	Name: _____ Street Address: _____ City: _____ State: _____ Zip: _____ Phone Number: _____	Driver Condition: <input type="radio"/> Interlock <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Refused <input type="radio"/> Not offered	Alcohol: <input type="radio"/> Yes <input type="radio"/> No Test Type: <input type="radio"/> Field <input type="radio"/> PBT <input type="radio"/> Breath <input type="radio"/> Blood <input type="radio"/> Urine	Drugs: <input type="radio"/> Yes <input type="radio"/> No Test Type: <input type="radio"/> Blood <input type="radio"/> Urine	Vehicle Registration: _____ State: _____ Insurance: _____ Towed To/By: _____	Injury: <input type="radio"/> K <input type="radio"/> A <input type="radio"/> B <input type="radio"/> C <input type="radio"/> O Ejected/Trapped: <input type="radio"/> Yes <input type="radio"/> No Airbag Deployed: <input type="radio"/> Yes <input type="radio"/> No Citation Issued: <input type="radio"/> Hazardous <input type="radio"/> Other
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VIN: _____	Location of Greatest Damage: First Impact: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Vehicle Type: <input type="radio"/> PA <input type="radio"/> VA <input type="radio"/> PU <input type="radio"/> ST <input type="radio"/> CY <input type="radio"/> MO <input type="radio"/> GC <input type="radio"/> SM <input type="radio"/> OR <input type="radio"/> Other <input type="radio"/> Truck/Bus <input type="radio"/> (Complete Truck/Bus Section)	Vehicle Direction: <input type="radio"/> North <input type="radio"/> South <input type="radio"/> East <input type="radio"/> West	Special Vehicles: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6	Private Trailer Type: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7	Vehicle Defect: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6	Vehicle Use: <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 <input type="checkbox"/> 5 <input type="checkbox"/> 6 <input type="checkbox"/> 7 <input type="checkbox"/> 8 <input type="checkbox"/> 9 <input type="checkbox"/> 10 <input type="checkbox"/> 11
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First Name: _____ Middle: _____ Last: _____	Date of Birth: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Sex: <input type="radio"/> M <input type="radio"/> F	Position: _____ Restraint: _____ Hospital: _____ Ambulance: _____ Ejected/Trapped: <input type="radio"/> Yes <input type="radio"/> No
---	--	--	---

First Name: _____ Middle: _____ Last: _____	Date of Birth: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>	Sex: <input type="radio"/> M <input type="radio"/> F	Position: _____ Restraint: _____ Hospital: _____ Ambulance: _____ Ejected/Trapped: <input type="radio"/> Yes <input type="radio"/> No
---	--	--	---

Person Advised of Damaged Traffic Control: _____ Date: _____ Time: _____ Name: _____	Damaged Property: _____ Owner & Phone: _____	Public: <input type="radio"/> Y <input type="radio"/> N
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UD-10 SERIAL NUMBER SERIAL # _____	Serial Override Number: _____	Do Not Write or Mark In This Area _____
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Do Not Write or Mark On This Side of The Line

Do Not Write or Mark On This Side of The Line

Do Not Write or Mark On This Side of The Line

Do Not Write or Mark Below This Line

Do Not Write or Mark Below This Line



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 2003 - 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 \$1,000.00 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 the Department of State Police on forms prescribed by the director of the Department 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 the Department 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 under this section . . . 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 the UD-10's submitted by all Michigan law enforcement agencies, the Department of State Police processes all UD-10's received at the Criminal Justice Information Center (CJIC). The CJIC retains an electronic copy of UD-10's for ten years plus the current processing year. Electronic databases containing information from UD-10's 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.

Holiday Day	Time Period		Number of Days
	From	To	
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. The system shall be calibrated so that the motor vehicle may not be started if the breath alcohol level of the operator, as measured by the test, reaches a level of 0.025 grams per 210 liters of breath.
Michigan Vehicle Code, Sec. 257.6251 (6)

GLOSSARY (continued)

- **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.
- **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 \$1,000 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 \$1,000 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 of 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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2004

2004

2004

2004

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2004

**Quick Facts
& Figures**

2004 QUICK FACTS

- ★ Some exposure factor comparisons between 2004 and 2003 show motor vehicle registrations decreased **1.5** percent, the number of licensed drivers on Michigan roads increased **0.5** percent, and vehicle mileage increased **1.6** percent.
- ★ The 2004 death rate decreased to **1.1** deaths per 100 million miles of travel below the ten-year average of **1.5** (1995-2004).
- ★ There were **1,159** persons killed and **99,680** persons injured in **373,028** reported motor vehicle traffic crashes in Michigan during 2004. Compared with the 2003 experience, deaths decreased **9.7** percent, persons injured decreased **5.6** percent, and total reported crashes decreased **4.7** percent.
- ★ This year's death toll of **1,159** was down **9.7** percent from the 2003 figure of **1,283**.
- ★ The **1,159** persons killed were the result of **1,055** fatal crashes for an average of **1.1** deaths per fatal crash.
- ★ There were **373,028** reported crashes, of which **1,055** were fatal, **73,118** were personal injury, and **298,855** were property damage only crashes.
- ★ Of all fatal crashes, **26.0** percent occurred at intersections.
- ★ Of all fatal crashes, **36.5** percent involved at least one drinking or drugged operator, bicyclist, or pedestrian. **26.6** percent involved drinking but no drugs, **4.5** percent involved drugs but no drinking, and **5.4** percent involved both drinking and drugs.
- ★ Excessive speed was indicated as the hazardous action by **12.4** percent of the drivers involved in fatal crashes.
- ★ In 2004 there were **128,360** single vehicle crashes, a decrease of **5.4** percent from last year's count of **135,739**.
- ★ Of the **373,028** total crashes, **128,360 (34.4%)** involved one vehicle.
- ★ Of the **1,055** fatal crashes, **501 (47.5%)** involved one vehicle.
- ★ Of the **338** alcohol-related fatal crashes, **216 (63.9%)** involved one vehicle. This is an **11.5** percent decrease from last year's figure of **244** single vehicle, alcohol-related fatal crashes.
- ★ Of the **1,728** drivers involved in fatal crashes, **14.1** percent were under 21 years of age and **23.8** percent of all drivers involved in fatal crashes were under 25 years of age.
- ★ In the last five years (2000-2004), **6,431** persons have been killed in Michigan traffic crashes. This is an average of **1,286** per year. During the previous five-year period (1999-2003), **6,658** persons were killed, for an average of **1,332** per year.
- ★ Of the **10,112,620** persons living in Michigan [1] one out of every **8,725** was killed in a traffic crash; one out of every **101** persons was injured.
- ★ For each person killed, **86.0** persons were injured.

- ★ There were **99,680** 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 **140** persons, a decrease of **29** deaths from the 2003 figure.
- ★ For each pedestrian killed, there were **17.2** pedestrians injured.
- ★ Of the pedestrians killed, **29.3** percent were killed while crossing streets other than at intersections.
- ★ Of all pedestrians killed, **16.4** percent were under the age of 21 and **29.3** percent were 55 and older.
- ★ During the past five years, **810** pedestrians have been killed, an average of **162** per year.
- ★ The number of pedestrians injured in traffic crashes on Michigan roadways has decreased by **0.9** percent in the last five years.
- ★ During the past five years, **128** bicyclists have been killed, an average of **26** per year.
- ★ Children under the age of 16 accounted for **33.3** percent of the bicycle deaths.
- ★ The number of bicyclists injured in traffic crashes on Michigan roadways has decreased by **3.4** percent in the last five years.
- ★ Of the **657,198** drivers and injured passengers involved in crashes, **558,069** or **84.9** percent were *reported* to have been using occupant restraints. Restraint usage among fatal victims, where usage was known, was reported to be **58.6** percent in 2004.
- ★ Motor vehicle occupants age 75 to 104 had the highest reported restraint usage (**95.1%**) among age groups. Children age 11 to 15 had the lowest reported restraint usage (**78.8%**).
- ★ The economic loss in Michigan traffic crashes amounted to **\$9,366,721,300** *.

* Information on the cost of crashes was provided by the National Safety Council on December 22, 2005.

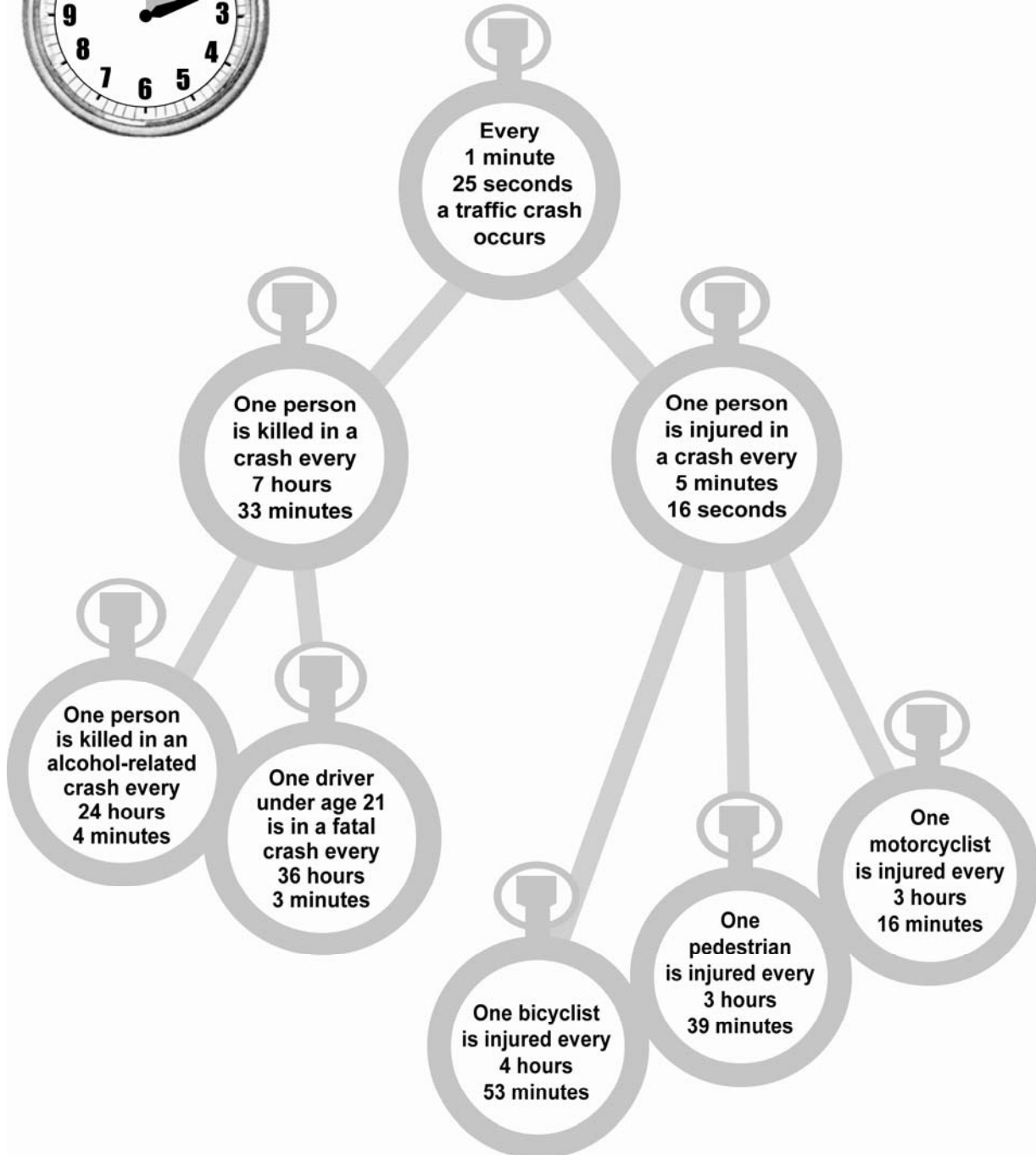
REPORTED STATEWIDE TRAFFIC CRASHES BY COUNTY IN MICHIGAN

COUNTY	All	Fatal	Injury	Property Damage	Inter- state	US Route	State Route	Local Street	Persons Killed	Persons Injured
Alcona	671	3	78	590	0	108	123	440	3	104
Alger	446	1	68	377	0	46	237	163	1	96
Allegan	3,826	19	743	3,064	303	475	772	2,276	22	1,038
Alpena	1,023	2	165	856	0	181	233	609	3	221
Antrim	1,029	3	170	856	0	203	160	666	3	227
Arenac	974	9	139	826	158	209	94	513	9	207
Baraga	418	1	45	372	0	165	70	183	2	68
Barry	2,448	11	383	2,054	0	0	971	1,477	15	561
Bay	3,481	10	736	2,735	355	168	1,066	1,892	11	999
Benzie	589	3	114	472	0	153	91	345	3	153
Berrien	5,568	17	1,178	4,373	975	502	1,078	3,013	19	1,631
Branch	2,153	8	302	1,843	224	430	93	1,406	9	412
Calhoun	6,517	12	941	5,564	1,361	0	1,541	3,615	13	1,273
Cass	1,990	15	355	1,620	0	210	645	1,135	15	524
Charlevoix	1,228	0	183	1,045	0	344	204	680	0	258
Cheboygan	1,225	6	206	1,013	237	84	278	626	6	292
Chippewa	1,449	3	240	1,206	354	0	382	713	3	306
Clare	1,427	7	210	1,210	0	379	243	805	10	305
Clinton	2,846	12	399	2,435	383	402	356	1,705	12	577
Crawford	729	1	124	604	180	27	220	302	1	152
Delta	2,190	4	266	1,920	0	582	317	1,291	4	390
Dickinson	1,253	2	174	1,077	0	442	334	477	2	225
Eaton	4,612	13	755	3,844	790	0	1,578	2,244	14	1,050
Emmet	1,743	2	283	1,458	15	641	129	958	2	393
Genesee	14,492	47	3,508	10,937	2,113	437	1,965	9,977	50	5,010
Gladwin	968	3	123	842	0	0	357	611	4	173
Gogebic	438	6	67	365	0	226	34	178	7	88
Grand Traverse	3,830	9	642	3,179	0	1,044	378	2,408	13	896
Gratiot	1,912	4	267	1,641	0	478	293	1,141	4	379
Hillsdale	2,128	8	330	1,790	0	236	508	1,384	8	468
Houghton	1,249	3	183	1,063	0	399	306	544	5	242
Huron	1,970	3	227	1,740	0	0	868	1,102	5	317
Ingham	11,192	23	2,038	9,131	1,876	560	2,307	6,449	24	2,708
Ionia	2,889	10	401	2,478	329	0	875	1,685	10	552
Iosco	1,048	4	178	866	0	247	238	563	4	249
Iron	792	0	81	711	0	306	125	361	0	106
Isabella	3,215	11	456	2,748	0	683	386	2,146	11	636
Jackson	6,653	21	1,052	5,580	1,058	390	1,003	4,202	22	1,393
Kalamazoo	10,061	24	1,787	8,250	1,268	698	1,619	6,476	25	2,406
Kalkaska	746	8	154	584	0	169	183	394	11	228
Kent	24,397	58	4,750	19,589	2,509	1,843	4,686	15,359	60	6,413
Keweenaw	96	1	18	77	0	42	16	38	1	24
Lake	471	5	67	399	0	101	75	295	5	100
Lapeer	3,676	12	581	3,083	248	0	988	2,440	16	845
Leelanau	672	3	91	578	0	0	331	341	3	116
Lenawee	3,211	10	619	2,582	0	639	824	1,748	11	864

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	6,178	27	1,216	4,935	1,244	627	704	3,603	30	1,624
Luce	254	1	49	204	0	0	149	105	1	69
Mackinac	826	6	127	693	190	198	165	273	7	200
Macomb	25,193	52	5,506	19,635	2,487	0	6,915	15,791	53	7,443
Manistee	982	1	122	859	0	276	159	547	1	165
Marquette	2,510	6	466	2,038	0	815	341	1,354	7	633
Mason	1,594	6	265	1,323	0	566	134	894	6	383
Mecosta	2,416	5	289	2,122	0	233	877	1,306	5	392
Menominee	1,557	3	190	1,364	0	594	156	807	3	270
Midland	2,766	11	487	2,268	0	374	402	1,990	11	700
Missaukee	631	4	73	554	0	0	216	415	6	111
Monroe	4,662	26	1,069	3,567	554	911	634	2,563	28	1,411
Montcalm	3,202	12	443	2,747	0	104	1,038	2,060	13	653
Montmorency	382	3	63	316	0	0	168	214	4	96
Muskegon	5,748	16	1,302	4,430	84	1,166	733	3,765	18	1,800
Newaygo	1,976	10	335	1,631	0	0	692	1,284	13	492
Oakland	43,759	71	9,368	34,320	6,649	2,315	6,730	28,065	75	12,396
Oceana	1,200	5	197	998	0	271	150	779	6	280
Ogemaw	1,070	3	170	897	157	0	321	592	4	232
Ontonagon	457	2	54	401	0	114	215	128	3	70
Osceola	1,304	3	182	1,119	0	409	203	692	3	259
Oscoda	358	2	52	304	0	0	147	211	2	78
Otsego	1,113	7	220	886	317	0	245	551	8	307
Ottawa	8,300	19	1,624	6,657	747	1,198	658	5,697	22	2,268
Presque Isle	640	1	79	560	0	119	170	351	1	100
Roscommon	1,115	2	184	929	163	112	309	531	2	257
Saginaw	7,320	25	1,491	5,804	680	0	2,338	4,302	29	2,091
St. Clair	5,221	19	1,181	4,021	994	0	1,048	3,179	21	1,649
St. Joseph	2,423	13	386	2,024	0	558	562	1,303	16	532
Sanilac	1,902	4	231	1,667	0	0	784	1,118	4	315
Schoolcraft	579	5	64	510	0	176	165	238	7	97
Shiawassee	2,892	13	477	2,402	289	0	858	1,745	16	629
Tuscola	2,129	9	321	1,799	0	0	752	1,377	10	441
Van Buren	2,818	14	502	2,302	538	0	580	1,700	16	724
Washtenaw	12,125	26	2,421	9,678	1,800	1,725	1,082	7,518	29	3,228
Wayne	67,762	175	15,722	51,865	8,311	3,549	10,734	45,168	186	21,169
Wexford	1,723	11	313	1,399	0	465	509	749	12	441
UNKNOWN	0	0	0	0	0	0	0	0	0	0
Totals	373,028	1,055	73,118	298,855	39,940	31,124	71,623	230,341	1,159	99,680

Michigan's Crash Watch 2004

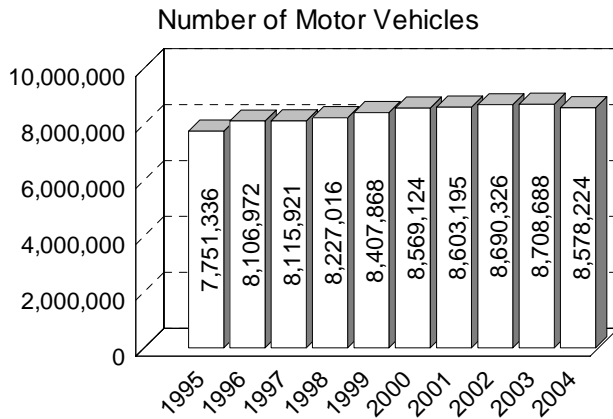


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**Historical
Information**
10-, 5-, and 1-year

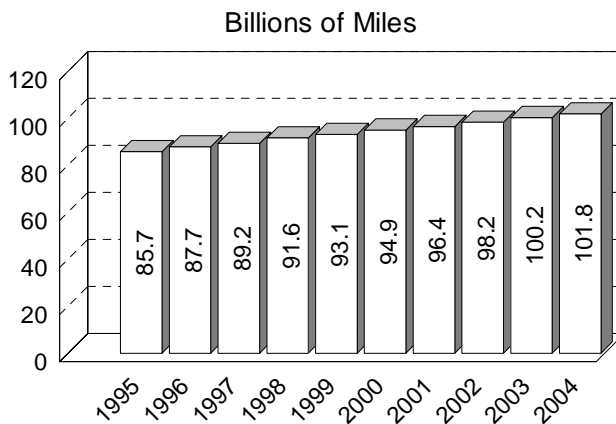
10 YEAR

VEHICLE REGISTRATIONS



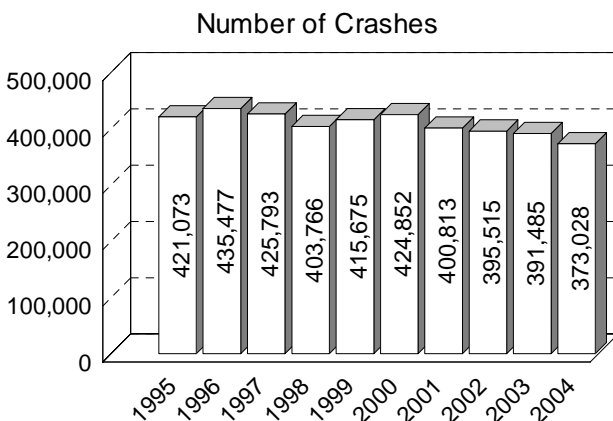
Vehicle registrations dropped for the first time in the ten year period in 2004.

VEHICLE MILES TRAVELED



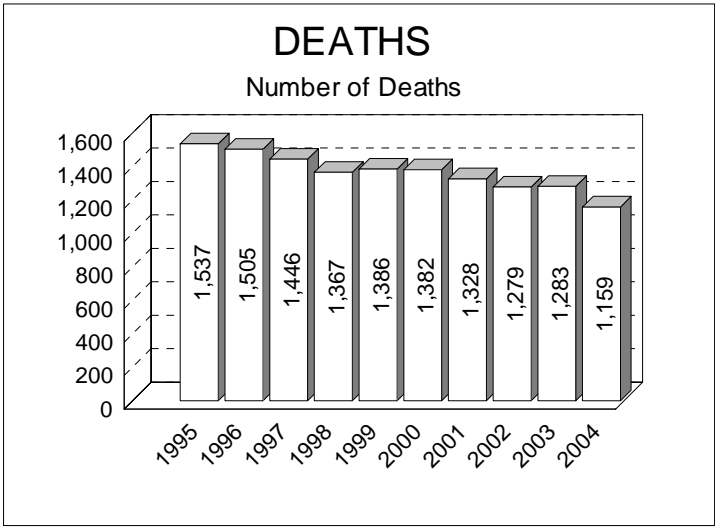
Vehicle miles traveled have increased 18.8 percent since 1995, reaching 101.82 billion miles in 2004.

CRASHES

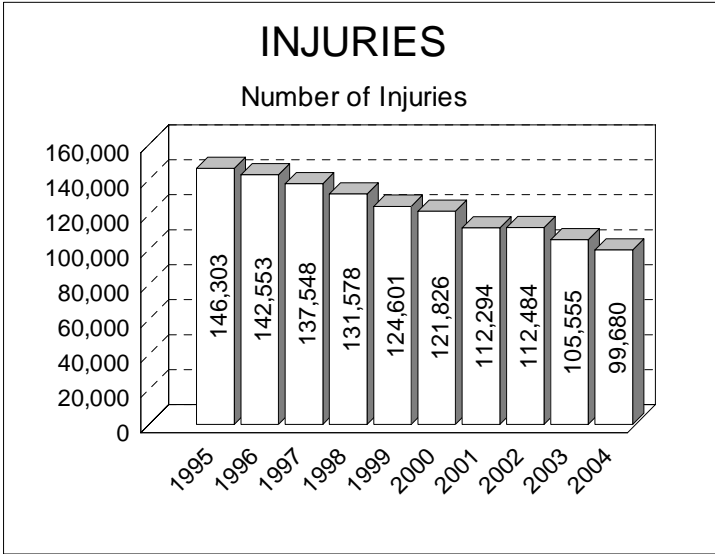


There were 373,028 total crashes statewide in 2004, a 11.4 percent decrease from 1995.

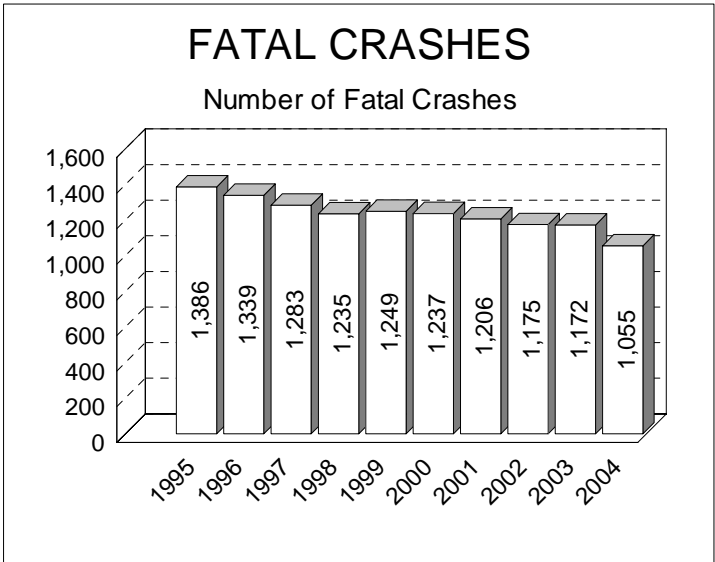
10 YEAR TRENDS (continued)



In 2004, 1,159 people died in motor vehicle crashes, a decrease of 24.6 percent from 1995.



99,680 people received nonfatal injuries in Michigan motor vehicle crashes in 2004, down 31.9 percent from 146,303 in 1995.

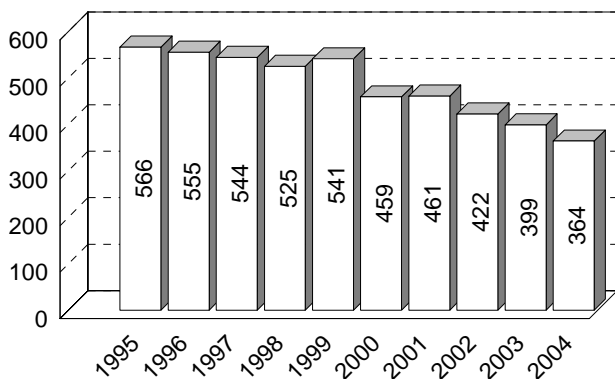


In 2004, there were 1,055 fatal crashes, down 23.9 percent from 1,386 in 1995.

10 YEAR

HBD FATALITIES

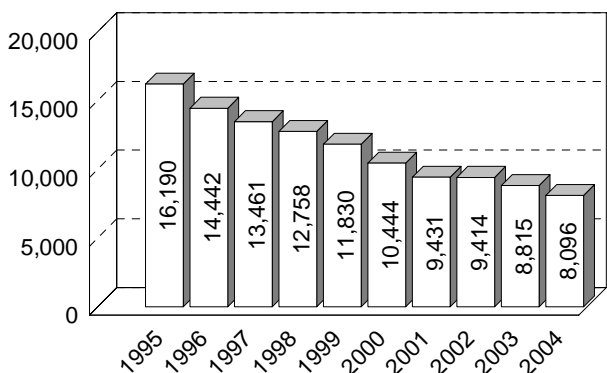
Number of HBD Fatalities



Deaths in alcohol-related crashes have generally decreased over the last ten years. There were 364 had been drinking (HBD) fatalities in 2004.

HBD INJURIES

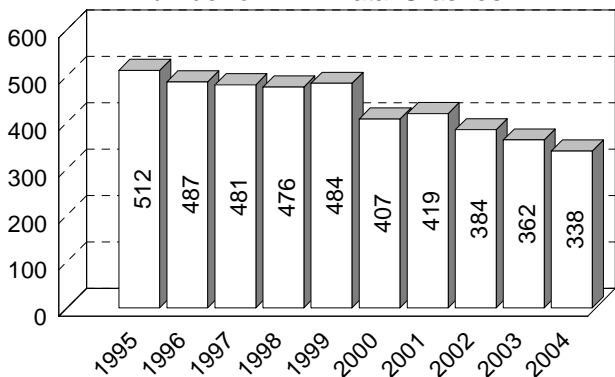
Number of HBD Injuries



Mirroring the trend in deaths, HBD injuries have decreased over the last ten years. There were 8,096 injuries in 2004, down 50 percent from 1995.

HBD FATAL CRASHES

Number of HBD Fatal Crashes

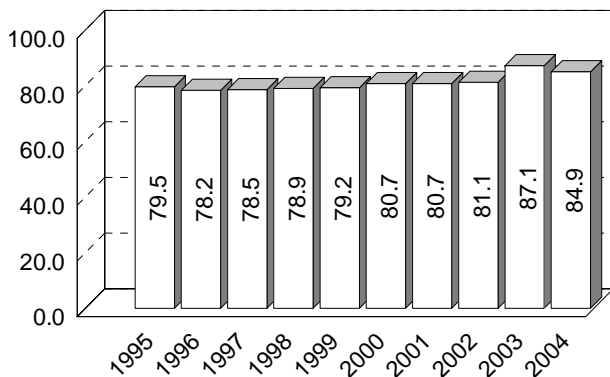


Alcohol involvement in fatal crashes has also decreased over the ten-year period. In 2004, there were 338 HBD fatal crashes.

Note: The 2004 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.

RESTRAINT USAGE

Annual Average Percentage of Occupants

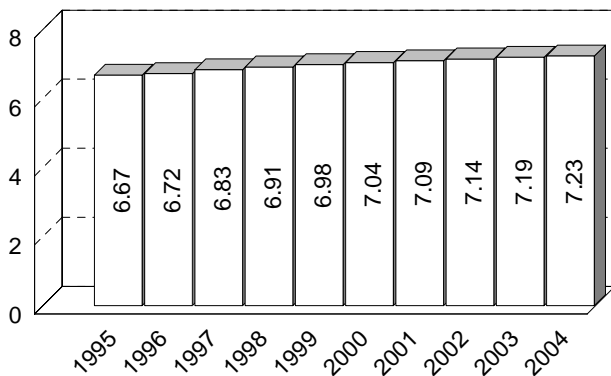


10 YEAR TRENDS (continued)

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 80.9.

DRIVERS IN MICHIGAN

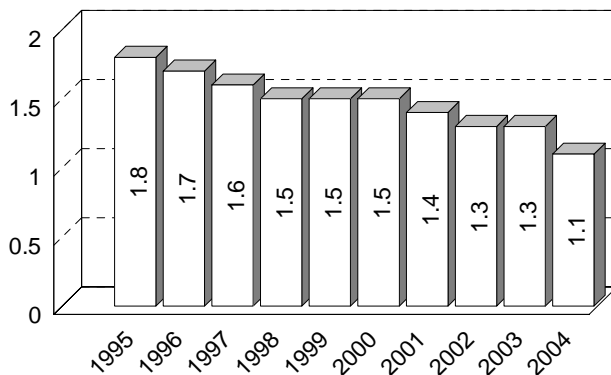
Licensed Drivers in Millions



There were 7,225,851 licensed drivers on Michigan roadways in 2004.

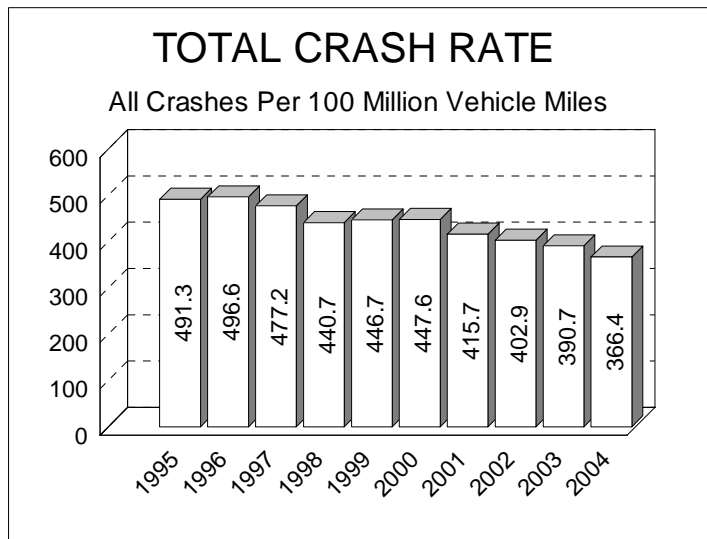
MILEAGE DEATH RATE

Deaths Per 100 Million Vehicle Miles

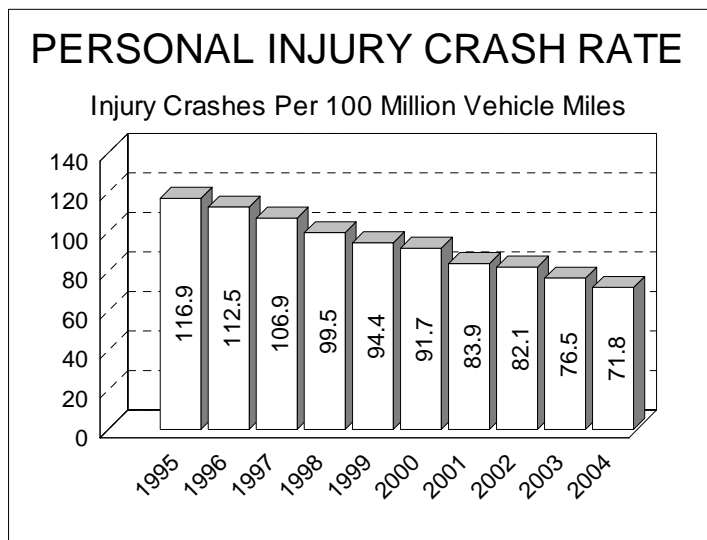


The 1.1 death rate in 2004 is a 38.9 percent decrease from the ten-year high of 1.8 in 1995, and a new all-time low.

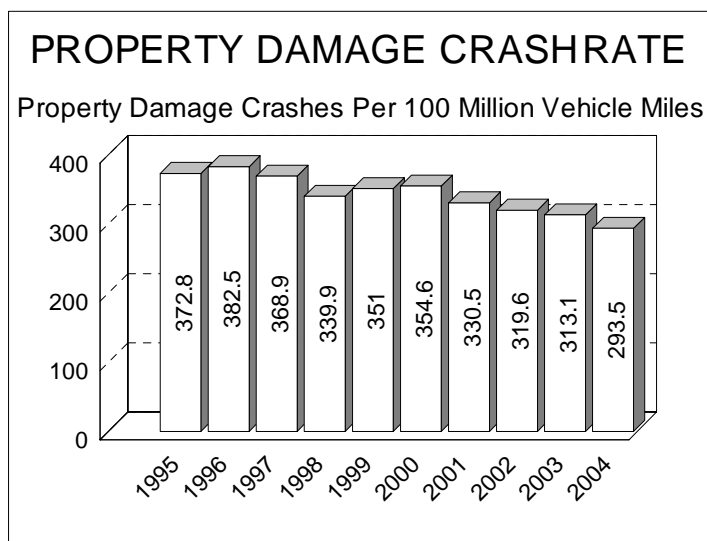
10 YEAR



The ten-year total crash rate peaked in 1996 at 496.6, then decreased by 26.2 percent to 366.4 in 2004.



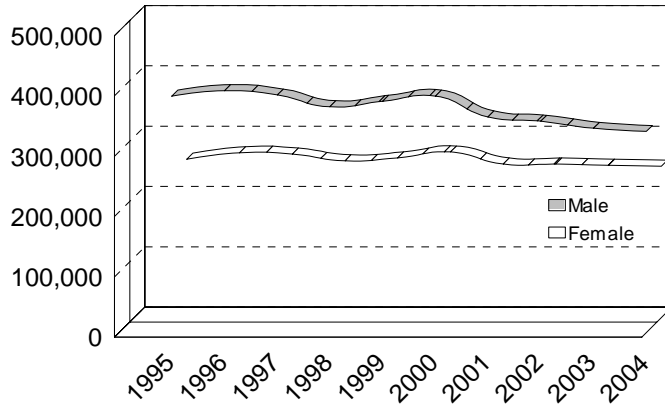
The personal injury crash rate has been steadily decreasing since 1995. The 71.8 personal injury crash rate in 2004 is a 38.6 percent decrease from 1995.



The 293.5 property damage crash rate in 2004 is a 21.3 percent decrease from 1995.

MALE vs. FEMALE DRIVERS

Number in All Crashes

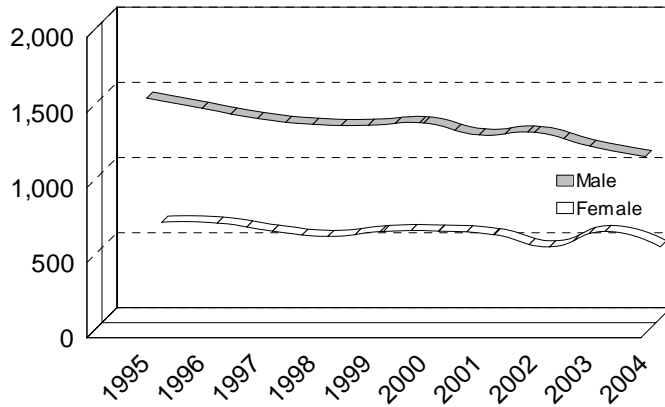


10 YEAR TRENDS (continued)



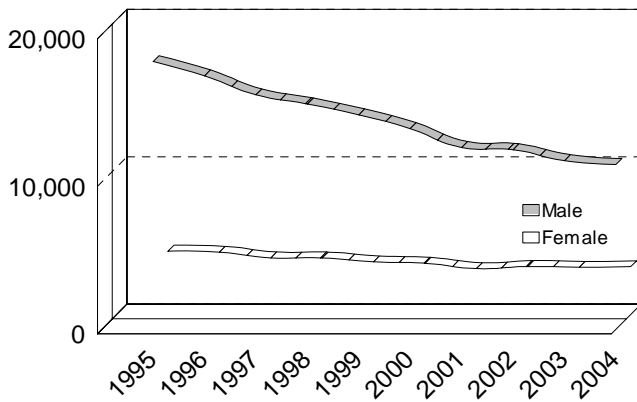
MALE vs. FEMALE DRIVERS

Number in Fatal Crashes



MALE vs. FEMALE DRINKING DRIVERS

Number in All Crashes



DRIVERS IN ALL CRASHES		
	Male	Female
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
2004	333,606	251,077

Male drivers accounted for 52.5 percent of all drivers in crashes in 2004.

Note: 8.1 percent of all drivers (51,230) were coded as unknown gender in 2004.

DRIVERS IN FATAL CRASHES		
	Male	Female
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
2004	1,176	475

Male drivers made up 68.1 percent of all drivers in fatal crashes in 2004.

Note: 4.5 percent of drivers (77) in fatal crashes were coded as unknown gender in 2004.

DRINKING DRIVERS IN ALL CRASHES		
	Male	Female
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
2004	11,179	3,242

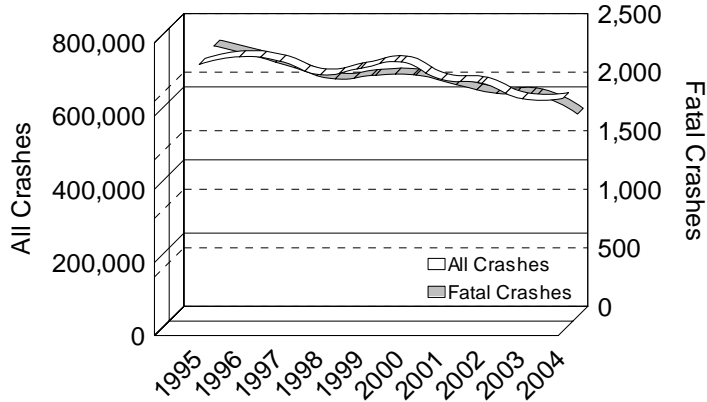
Note: The 2004 information provided for alcohol contains data for alcohol-related crashes only. This figure DOES NOT include the combined number for alcohol- and drug-related crashes as had been reported prior to 2000.

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

Note: 0.6 percent of all drinking drivers (92) were coded as unknown gender in 2004.

ALL DRIVERS

Number in All and Fatal Crashes

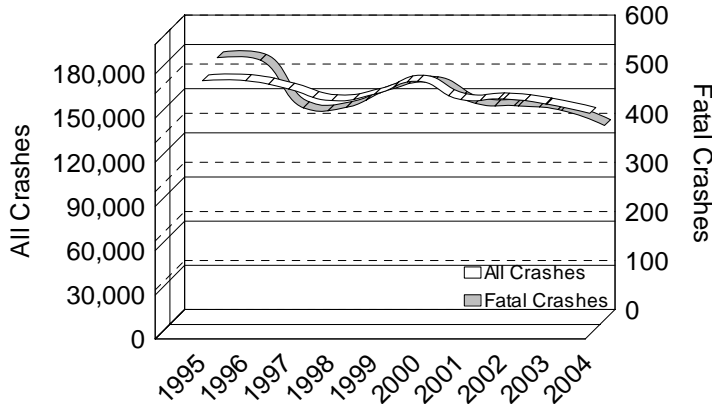


10 YEAR TRENDS (continued)



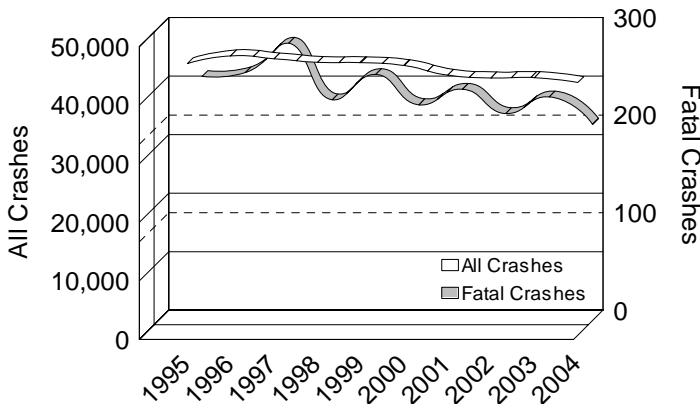
TEEN/YOUNG ADULT DRIVERS

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
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
2004	635,913	1,728

Driver involvement in all crashes decreased 12.8 percent over the ten-year period.

Driver involvement in fatal crashes decreased 25.2 percent over the ten-year period.

TEEN/YOUNG ADULT DRIVERS		
	All Crashes	Fatal Crashes
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
2004	150,220	396

Teen/young adult drivers (age 16-24) represent 14.8 percent of the licensed drivers in 2004.

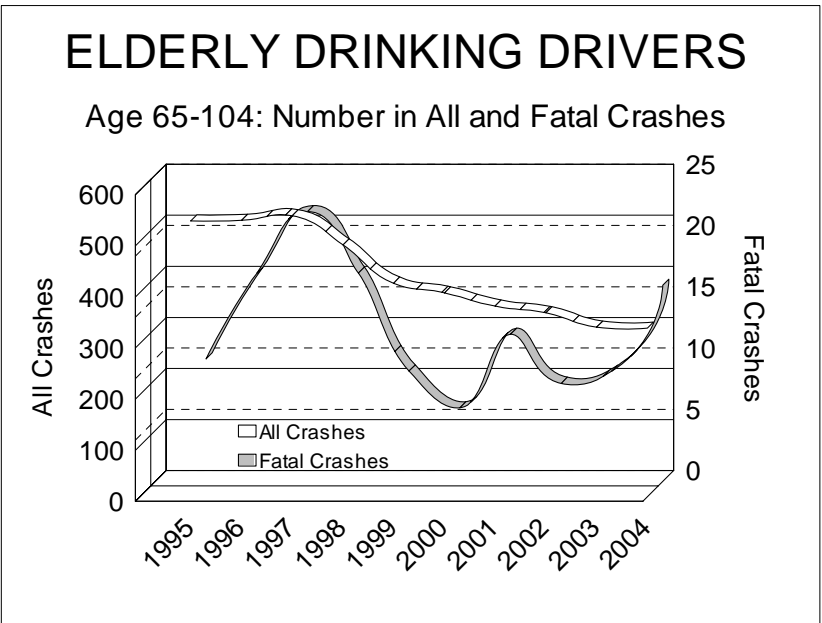
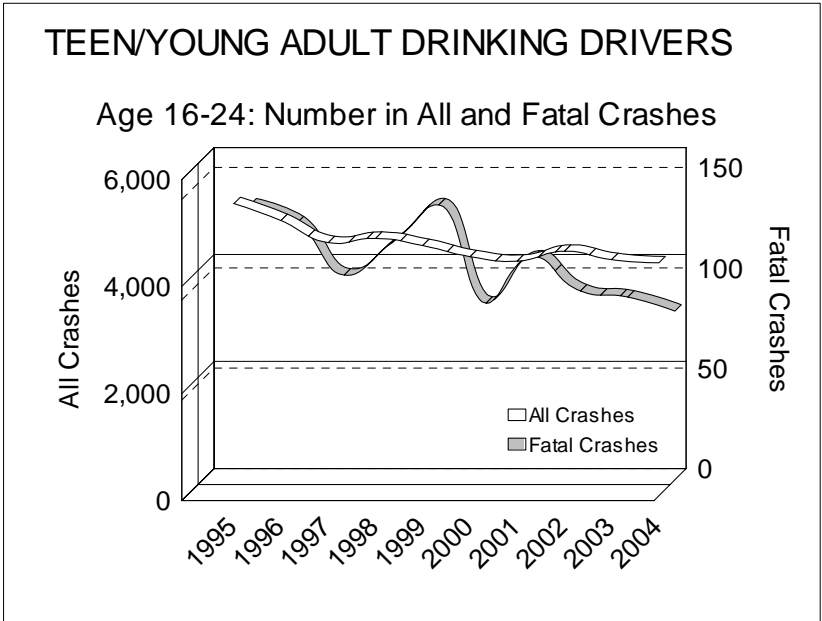
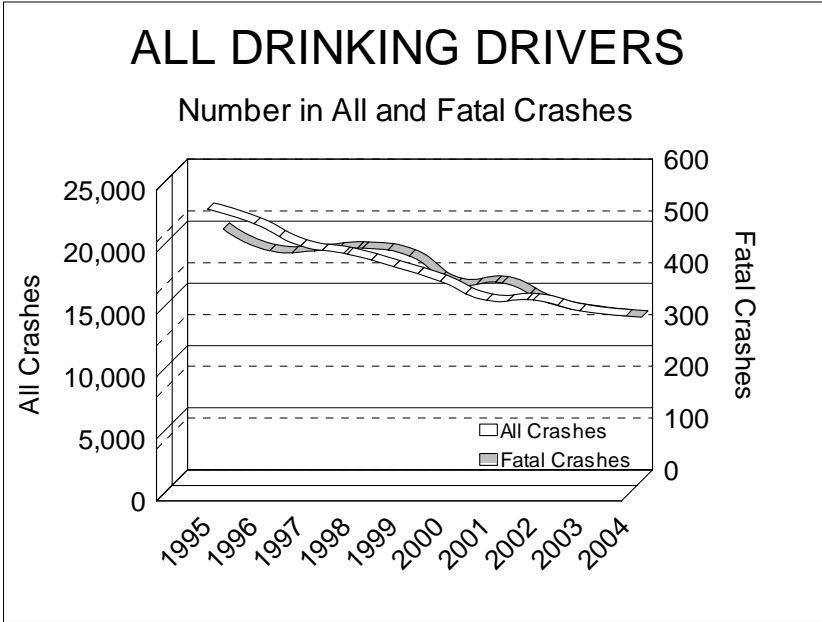
The number of teen/young adult drivers in all crashes has decreased by 12.9 percent since 1995. Their involvement in fatal crashes decreased 25.8 percent during the same time period.

ELDERLY DRIVERS		
	All Crashes	Fatal Crashes
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
2004	43,146	201

Elderly drivers (age 65-104) represent 14.5 percent of the licensed drivers in 2004.

The number of drivers age 65 and older in all crashes has decreased 7.0 percent since 1995. Their involvement in fatal crashes decreased 19.6 percent during the same time period.

10 YEAR TRENDS (continued)



10 YEAR

DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2004	14,513	316

Drinking driver involvement in all crashes decreased by 37.2 percent from 1995. Drinking driver involvement in fatal crashes decreased by 35.0 percent from 1995.

TEEN/YOUNG ADULT DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2004	4,353	84

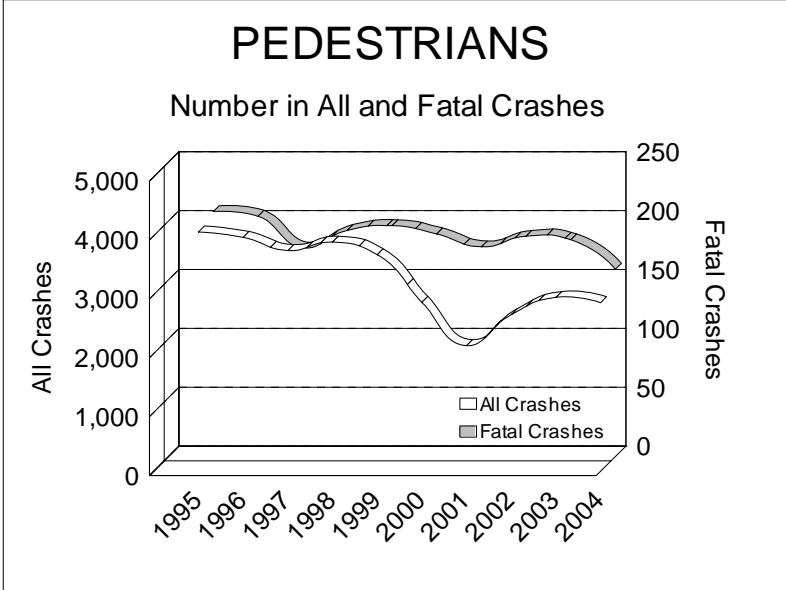
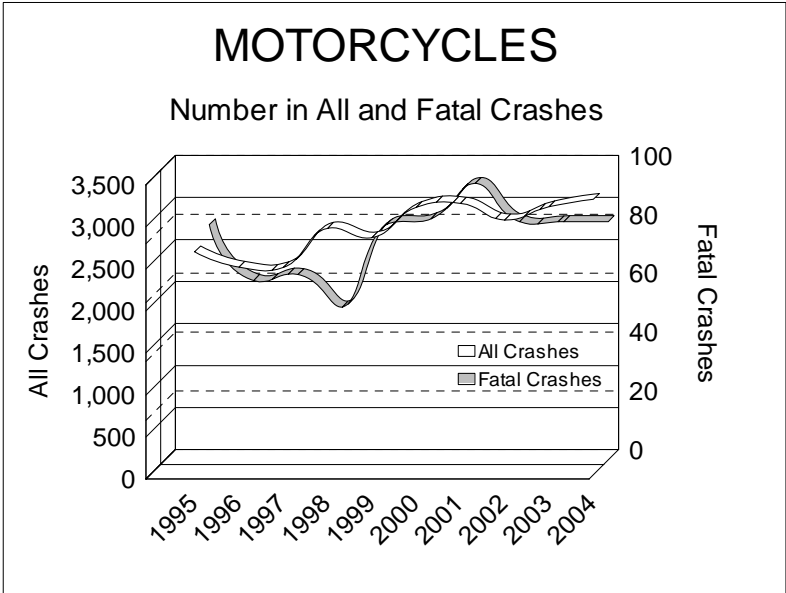
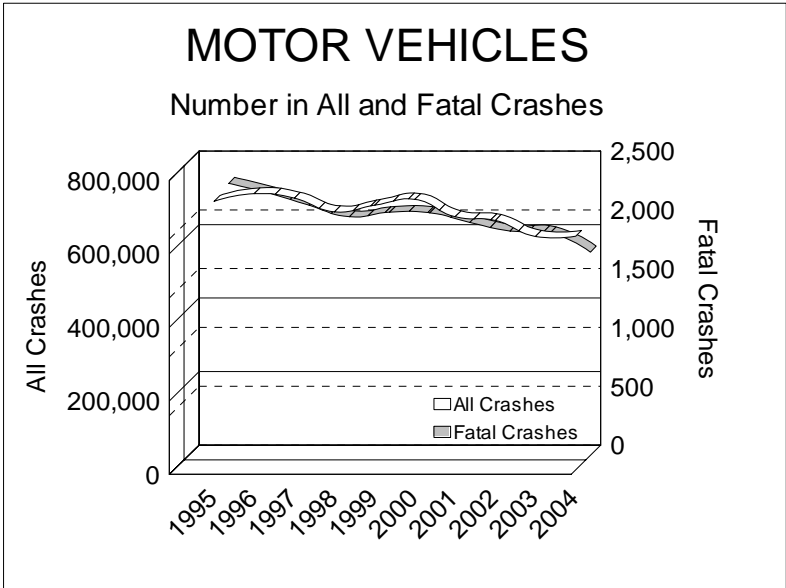
Following the trend for all drinking drivers, the number of teen/young adult drinking drivers (age 16-24) in all crashes decreased by 20.3 percent, and their involvement in fatal crashes decreased by 38.7 percent from 1995.

ELDERLY DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2004	330	16

The number of elderly drinking drivers (age 65-104) in all crashes continues to decrease, reaching a ten-year low of 330 in 2004. Their involvement in fatal crashes has fluctuated over the ten-year period with a high of 22 in 1997.

Note: The 2004 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)



10 YEAR

MOTOR VEHICLES		
	All Crashes	Fatal Crashes
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
2004	635,913	1,728

There were 1,728 motor vehicles involved in fatal crashes in 2004, down 25.3 percent from 1995.

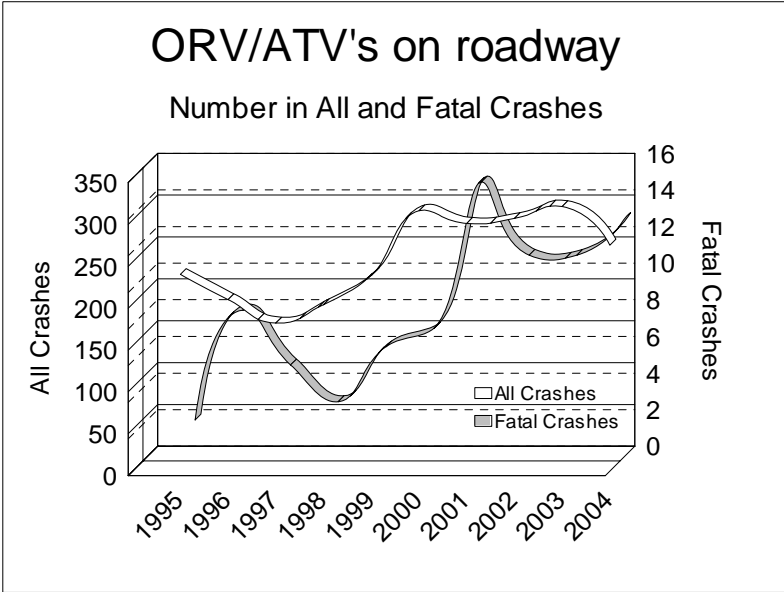
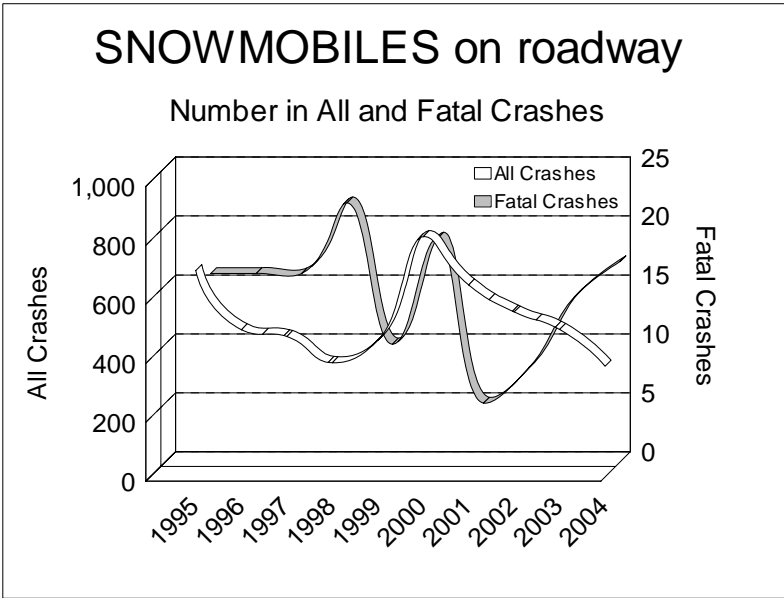
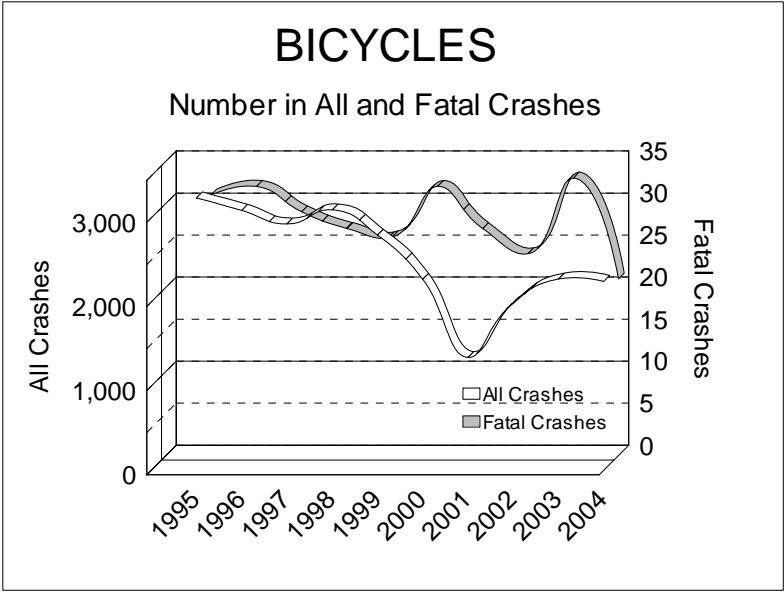
MOTORCYCLES		
	All Crashes	Fatal Crashes
1995	2,651	80
1996	2,468	61
1997	2,465	63
1998	2,931	52
1999	2,820	80
2000	3,180	82
2001	3,228	94
2002	3,030	81
2003	3,187	81
2004	3,276	81

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
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
2004	2,864	159

There were 159 pedestrians involved in fatal crashes in 2004, down 23.6 percent from 1995.

10 YEAR TRENDS (continued)



10 YEAR

BICYCLES		
	All Crashes	Fatal Crashes
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
2004	2,246	21

There were 21 bicycles involved in fatal crashes in 2004, down 32.3 percent from 1995.

SNOWMOBILES on Michigan roadways		
	All Crashes	Fatal Crashes
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
2004	375	17

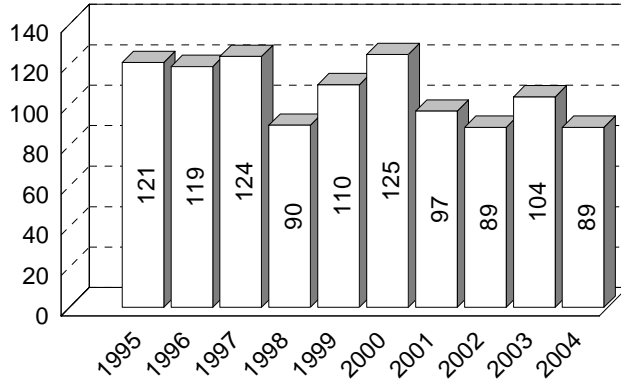
There were 17 snowmobiles involved in fatal crashes on Michigan public roadways in 2004.

ORV/ATV's on Michigan roadways		
	All Crashes	Fatal Crashes
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
2004	270	13

The number of ORV/ATV's involved in all crashes and fatal crashes on Michigan public roadways has increased over the ten-year period.

VEHICLE-TRAIN CRASHES

Number of Crashes

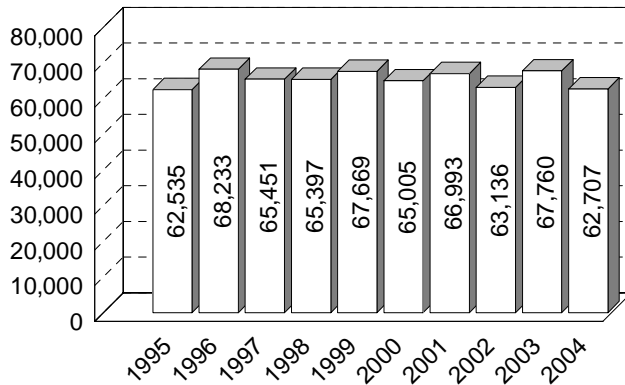


10 YEAR TRENDS (continued)

89 vehicle-train crashes occurred in 2004, a decrease of 26.4 percent in the ten-year period.

VEHICLE-DEER CRASHES

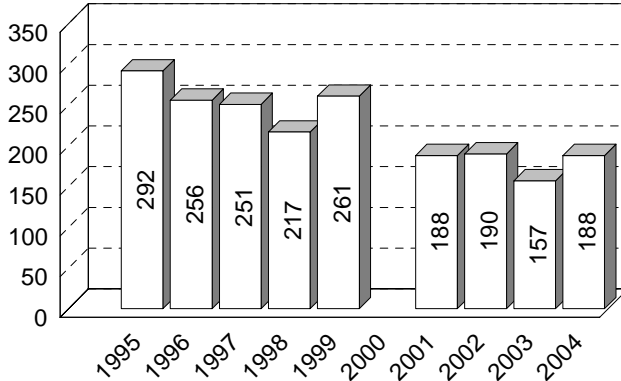
Number of Crashes



The number of vehicle-deer crashes has remained consistent over the ten-year period.

FARM EQUIPMENT CRASHES

Number of Crashes

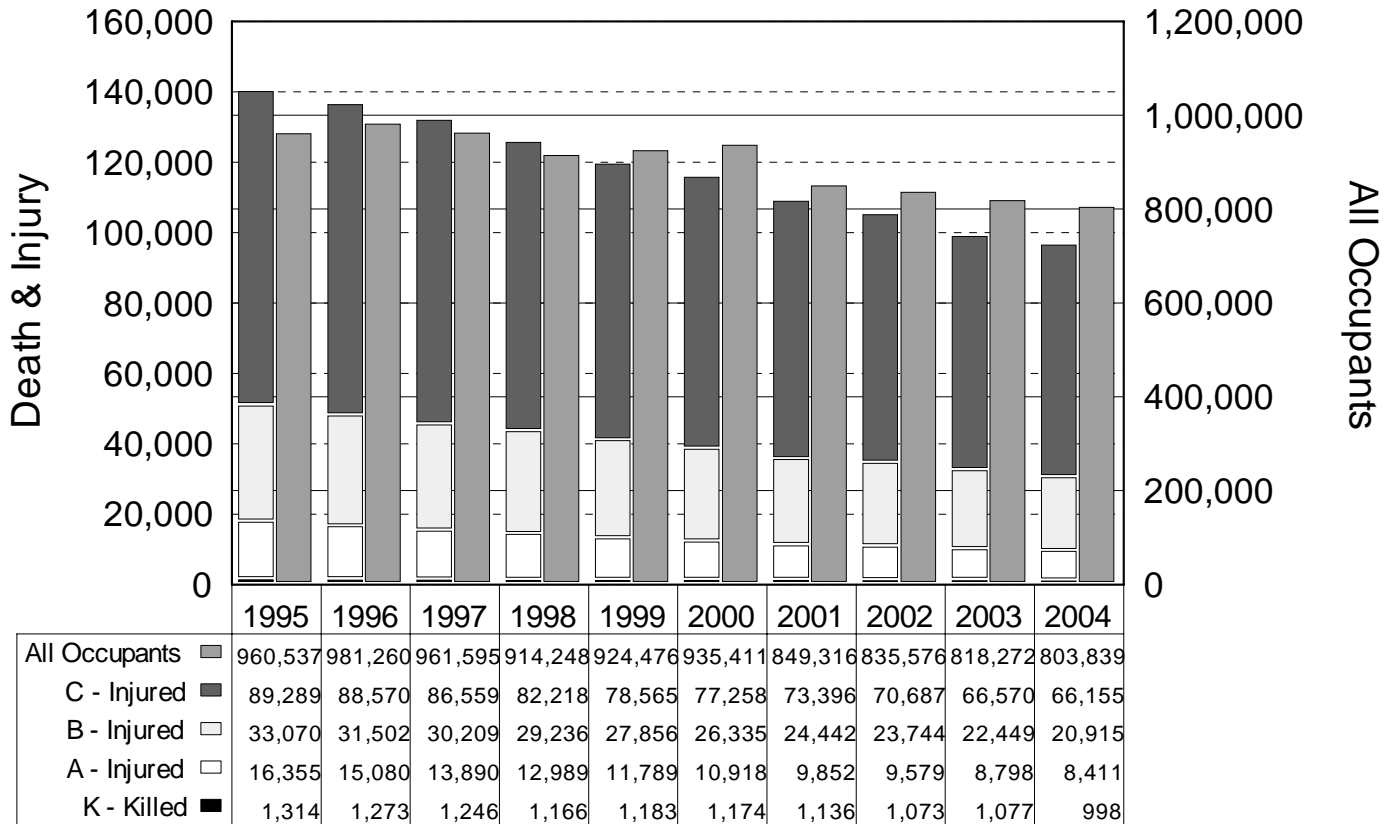


Data not available for calendar year 2000 farm equipment crashes. Please refer to that year's book for details.

The 188 farm equipment crashes in 2004 marks a 35.6 percent decrease from the ten-year high of 292 farm equipment crashes in 1995.

10 YEAR

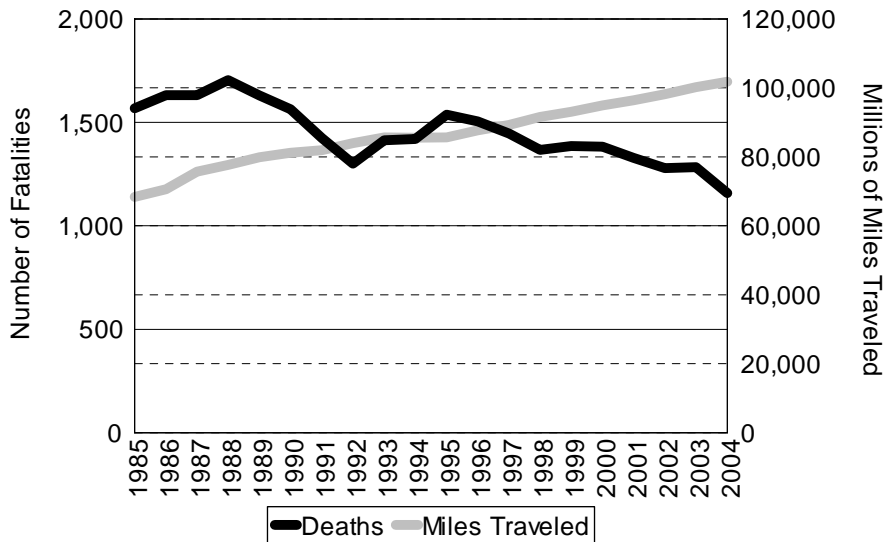
DEATH AND INJURY PER CRASH-INVOLVED OCCUPANT



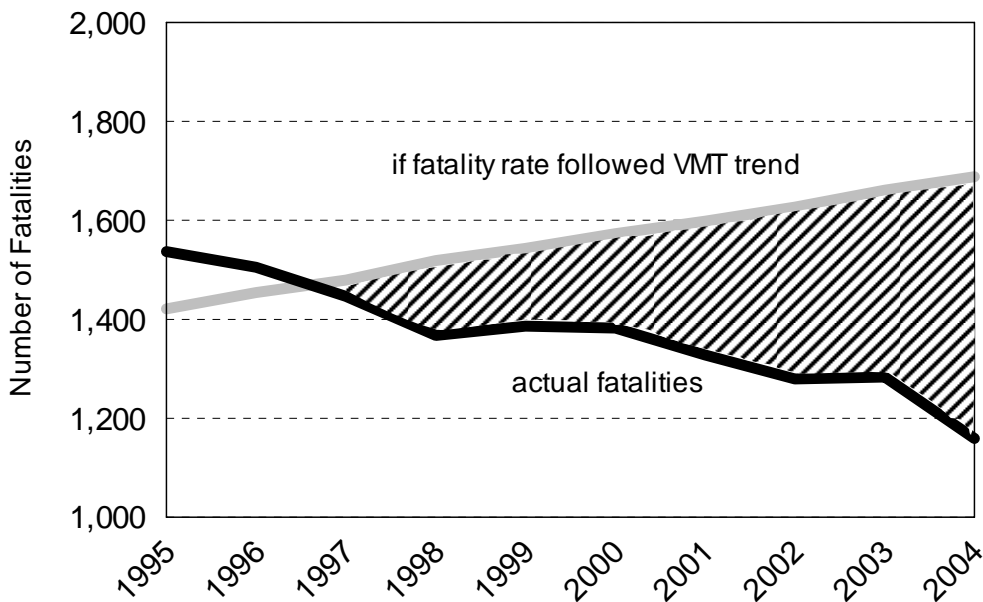
The proportion of death and injury to crash-involved occupants has decreased over the last ten years. In 2004, 998 occupants of motor vehicles were fatally injured, 8,411 suffered an A (incapacitating) injury, 20,915 sustained a B (nonincapacitating) injury, and 66,155 sustained a C (possible) injury.

10 YEAR

FATALITIES AND VMT TRENDS



10 Year Highlight



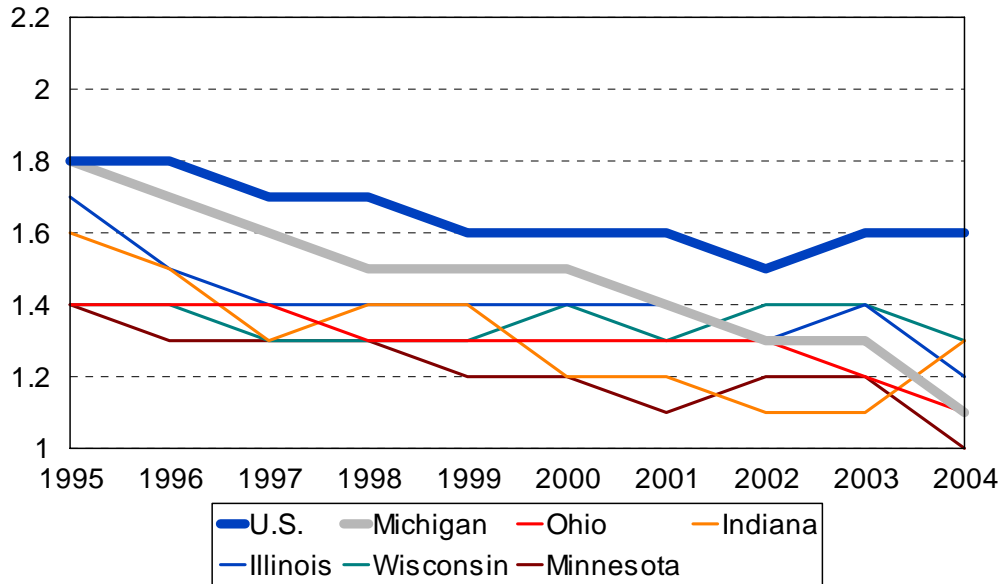
In the 1980s, the number of traffic fatalities had been steadily increasing, following the VMT trend. A reversal in the fatality rate began in 1989, with actual fatalities remaining near or below the VMT trend, diverging at its widest point with a decrease to, 1,159 fatalities in 2004. A projection of 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 1995 - 2004

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
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
2004	1.6	1.1	1.1	1.3	1.2	1.3	1.0

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

Revised September 15, 2006

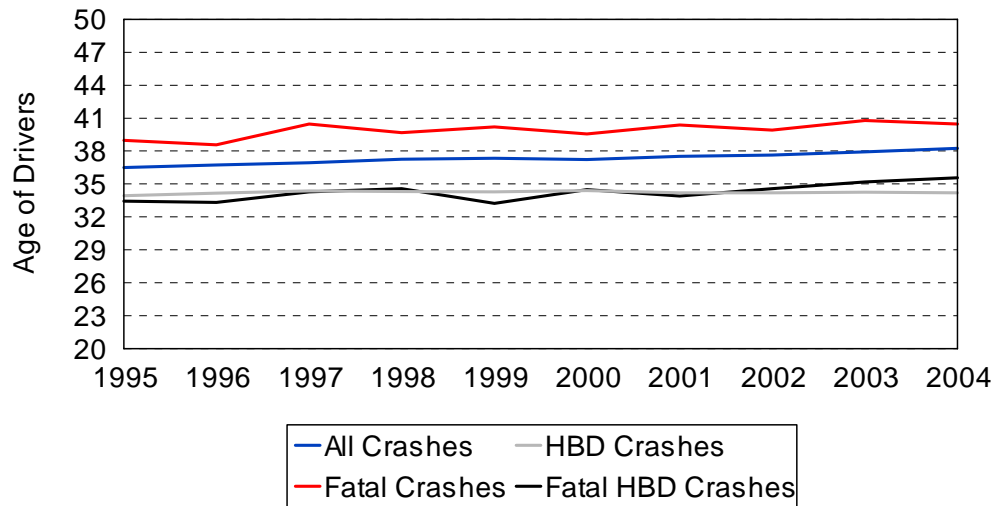
Year	U.S. Persons Killed	Michigan Persons Killed	Ohio Persons Killed	Indiana Persons Killed	Illinois Persons Killed	Wisconsin Persons Killed	Minnesota Persons Killed
1995	43,363	1,537	1,357	960	1,586	739	597
1996	43,649	1,505	1,395	982	1,477	759	576
1997	43,458	1,446	1,439	936	1,393	721	600
1998	43,501	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
2004	45,300	1,159	1,285	947	1,355	784	567

The National Safety Council estimates a national increase in traffic fatalities of 1.1 percent between 2003 (44,800) and 2004 (45,300).

Year	U.S. VMT	Michigan VMT	Ohio VMT	Indiana VMT	Illinois VMT	Wisconsin VMT	Minnesota VMT
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
2004	2,920	101.8	112.4	74.5	108.9	60.5	56.5

VMT described in billions of miles

AVERAGE AGE OF DRIVERS IN CRASHES 1995 - 2004

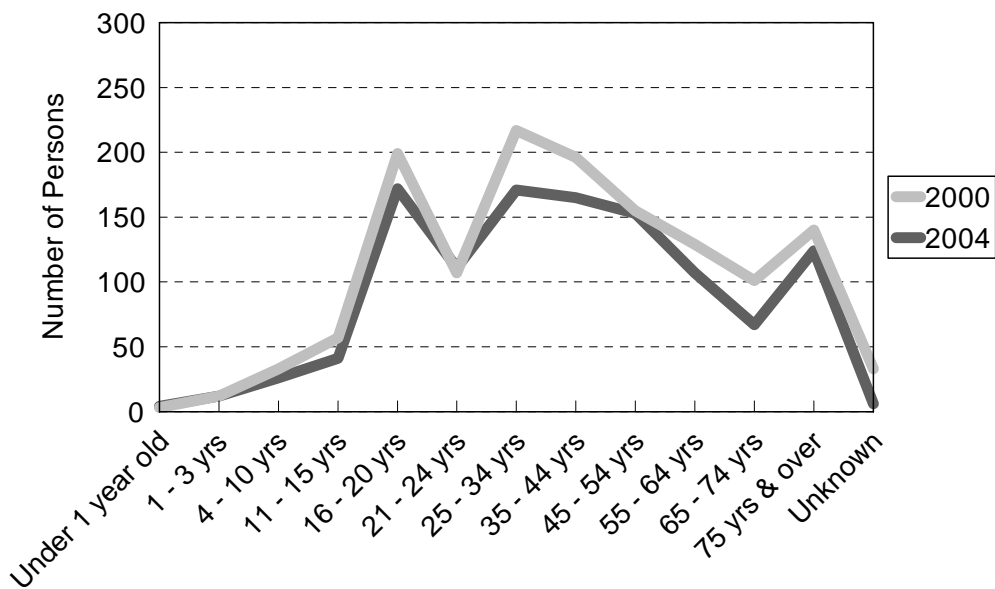


Reflecting the demographic trend of increasing age in the general population, the average age of drivers involved in all crashes, fatal crashes, and fatal HBD crashes has increased over the ten-year period. The average age of drivers in HBD crashes has remained flat. An aging driving population has implications for law enforcement prioritizing, highway design, traffic signing considerations, and Emergency Medical System procedures.

TREND DATA FOR FATALITIES

TREND DATA FOR FATALITIES	2000	2001	2002	2003	2004
Age of Persons Killed, Total					
Under 1 year old	3	1	6	4	4
1 - 3 years	12	9	8	9	12
4 - 10 years	33	37	25	31	26
11 - 15 years	57	43	51	50	41
16 - 20 years	199	181	184	165	172
21 - 24 years	107	122	111	125	111
25 - 34 years	217	194	186	161	171
35 - 44 years	196	209	196	184	165
45 - 54 years	155	161	154	178	153
55 - 64 years	129	93	90	126	107
65 - 74 years	101	84	80	88	67
75 years and over	140	153	139	145	124
Unknown	33	41	49	17	6
Totals	1,382	1,328	1,279	1,283	1,159

Age of Persons Killed, Total



The chart above shows the total number of deaths in motor vehicle crashes in Michigan by age, comparing 2000 with 2004.

5 YEAR

TREND DATA FOR FATALITIES	2000	2001	2002	2003	2004
Age of Drivers Involved in Fatal Crashes					
13 years and under	0	3	4	5	3
14 years	3	0	7	3	2
15 years	8	9	8	7	10
16 years	49	35	50	40	29
17 years	66	55	44	48	50
18 years	69	50	57	60	50
19 years	63	73	57	46	55
20 years	53	51	51	43	44
21 - 24 years	183	177	177	190	168
25 - 34 years	398	351	336	337	297
35 - 44 years	317	347	328	356	335
45 - 54 years	278	275	255	280	259
55 - 64 years	178	140	147	161	149
65 - 69 years	50	50	48	40	50
70 - 74 years	60	51	38	53	43
75 - 79 years	41	55	53	51	38
80 - 84 years	42	50	38	46	37
85 - 89 years	24	24	20	32	25
90 years and over	4	7	15	7	8
Unknown	176	178	174	87	76
Totals	2,062	1,981	1,907	1,892	1,728

Age of Drivers Involved in Single Vehicle Fatal Crashes					
13 years and under	0	2	2	4	0
14 years	3	0	3	1	1
15 years	3	4	3	3	7
16 years	15	11	17	10	14
17 years	25	13	18	15	13
18 years	26	18	20	28	18
19 years	20	29	25	17	22
20 years	15	24	20	14	12
21 - 24 years	74	74	65	70	73
25 - 34 years	127	106	101	85	89
35 - 44 years	82	98	85	121	87
45 - 54 years	67	71	73	62	65
55 - 64 years	40	36	32	38	38
65 - 69 years	8	12	5	16	10
70 - 74 years	11	13	8	13	10
75 - 79 years	11	11	15	13	5
80 - 84 years	4	11	5	8	7
85 - 89 years	0	3	4	4	6
90 years and over	0	0	1	2	1
Unknown	32	53	39	25	23
Totals	563	589	541	549	501

5 YEAR

TREND DATA FOR FATALITIES	2000	2001	2002	2003	2004
---------------------------	------	------	------	------	------

Age of Bicyclists Killed

Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	5	4	0	4	4
11 - 15 years	9	2	5	6	3
16 - 20 years	1	3	1	3	0
21 - 24 years	0	0	2	3	1
25 - 34 years	4	1	3	0	1
35 - 44 years	1	7	3	4	3
45 - 54 years	3	4	1	8	7
55 - 64 years	3	2	0	2	2
65 - 74 years	2	1	3	2	0
75 years and over	1	2	2	0	0
Unknown	0	0	0	0	0
Totals	29	26	20	32	21

Age of Pedestrians Killed

Under 1 year old	0	0	0	1	1
1 - 3 years	6	2	3	2	3
4 - 10 years	11	11	10	5	5
11 - 15 years	10	8	14	10	3
16 - 20 years	8	9	11	13	11
21 - 24 years	9	5	8	8	7
25 - 34 years	11	22	23	11	18
35 - 44 years	45	32	34	33	26
45 - 54 years	31	28	25	34	20
55 - 64 years	12	10	14	23	11
65 - 74 years	12	9	13	11	9
75 years and over	13	23	16	17	21
Unknown	0	1	2	1	5
Totals	168	160	173	169	140

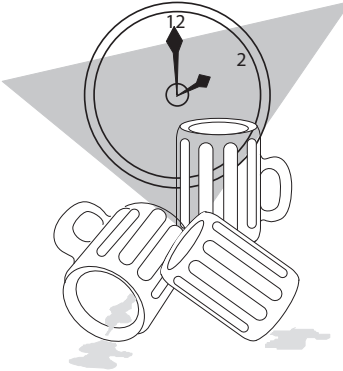
Action of Pedestrians Killed

Crossing at intersection	21	22	10	18	20
Cross not at intersection	62	47	67	74	41
Getting on/off vehicle	1	2	1	0	1
In road with traffic	19	23	19	16	24
In road against traffic	6	6	4	5	1
Standing or lying in road	15	16	13	12	11
Pushing/working on vehicle	1	3	3	5	3
Other working in road	4	2	0	3	1
Playing in road	0	1	1	0	0
In road for other reason	10	8	16	8	11
Not in road	13	8	11	9	8
Other/Unknown	16	22	28	19	18
Totals	168	160	173	169	139

5 YEAR

FATAL CRASHES AND PERSONS KILLED FOR SELECTED HOLIDAY PERIODS IN MICHIGAN

Revised February 19, 2010

HOLIDAY PERIOD	Fatal Crashes	Persons Killed	SUMMARY 2004
Memorial Day 2004 (3) MON 2003 (3) MON 2002 (3) MON 2001 (3) MON 2000 (3) MON	12 [4] 10 [5] 13 [6] 15 [6] 18 [11]	12 [4] 10 [5] 14 [6] 18 [8] 18 [11]	<p>This table shows traffic death tolls in Michigan for the past five years for the major holiday periods.</p> <p>Based on the <i>total 2004</i> experience, deaths averaged 3.18 per day. Alcohol-related deaths averaged 1.00 per day.</p> <p>Based on the <i>2004 holiday period</i> experience, deaths averaged 4.00 per day. Alcohol-related deaths averaged 1.58 per day.</p> 
Fourth of July 2004 (3) SUN 2003 (3) FRI 2002 (4) THU 2001 (1) WED 2000 (4) TUE	16 [6] 15 [2] 26 [10] 10 [4] 14 [3]	19 [7] 15 [2] 30 [11] 10 [4] 21 [3]	
Labor Day 2004 (3) MON 2003 (3) MON 2002 (3) MON 2001 (3) MON 2000 (3) MON	12 [4] 14 [6] 13 [7] 18 [10] 20 [11]	15 [5] 15 [6] 13 [7] 21 [12] 27 [14]	
Thanksgiving 2004 (4) THU 2003 (4) THU 2002 (4) THU 2001 (4) THU 2000 (4) THU	11 [4] 17 [4] 18 [8] 11 [7] 11 [5]	11 [4] 20 [4] 20 [8] 12 [8] 12 [5]	
Christmas 2004 (3) SAT 2003 (4) THU 2002 (1) WED 2001 (4) TUE 2000 (3) MON	10 [3] 8 [6] 0 [0] 10 [2] 10 [2]	11 [4] 9 [6] 0 [0] 10 [2] 11 [2]	
New Years 2004 (3) SAT 2003 (4) THU 2002 (1) WED 2001 (4) TUE 2000 (3) MON	8 [6] 6 [4] 4 [0] 10 [5] 12 [5]	8 [6] 6 [4] 4 [0] 11 [5] 13 [5]	

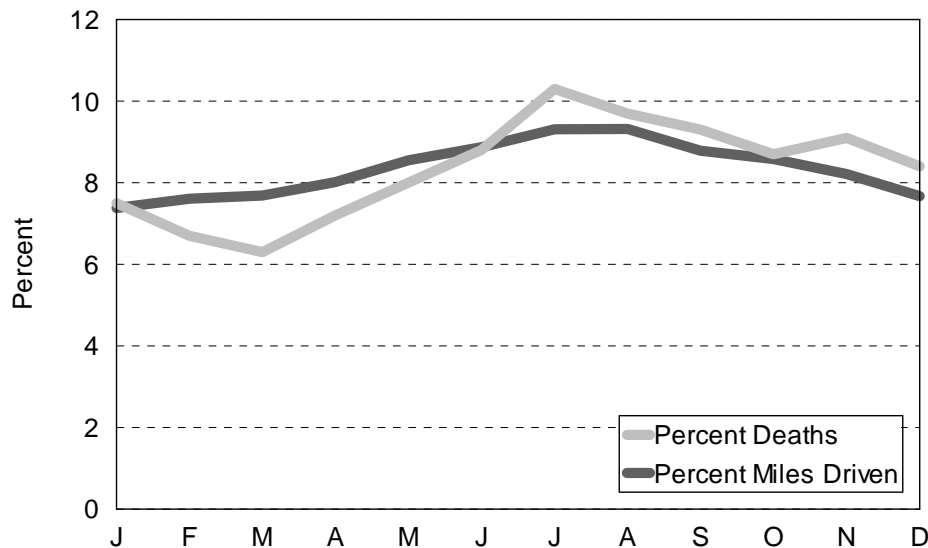
Figures in parentheses in the 1st column show number of full days in each holiday period. Deaths are for these days plus six hours of the preceding day.
 Figures in brackets in the 2nd and 3rd columns show the number of alcohol-related fatal crashes and deaths.

5 YEAR

MOTOR VEHICLE DEATHS AND MILEAGE BY MONTH

Month	TRAFFIC DEATHS					2004 PERCENTAGES	
	2000	2001	2002	2003	2004	Percent Deaths	Percent Miles Driven
January	121	79	105	97	81	7.0	7.39
February	83	99	101	80	68	5.9	7.63
March	70	102	81	88	63	5.4	7.65
April	107	83	93	100	81	7.0	7.98
May	114	106	112	84	97	8.4	8.52
June	136	113	115	96	106	9.1	8.88
July	135	143	137	132	117	10.1	9.35
August	133	131	110	127	123	10.6	9.34
September	135	143	96	111	116	10.0	8.83
October	124	120	117	122	81	7.0	8.58
November	118	109	102	130	122	10.5	8.16
December	106	100	110	116	104	9.0	7.71
Totals	1,382	1,328	1,279	1,283	1,159	100.0	100.00

Average of Percent Deaths & Percent Miles Driven
2000 - 2004



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

1 YEAR

2003 - 2004 SUMMARY TRENDS

- ★ Michigan experienced a **9.7** percent decrease in traffic fatalities, as well as a **5.6** percent decrease in injuries and a **4.7** percent decrease in crashes.
- ★ Deaths among vehicle occupants (drivers and passengers) decreased **7.6** percent.
- ★ Persons sustaining "A" level injuries (the most serious) decreased **6.6** percent.

	2003	2004	% CHANGE
NUMBER OF CRASHES			
Fatal Crashes	1,172	1,055	-10.0
Personal Injury Crashes	76,598	73,118	-4.5
Property Damage Crashes	313,715	298,855	-4.7
Total	391,485	373,028	-4.7
ALCOHOL-INVOLVED CRASHES			
Fatal Crashes	362	338	-6.6
Personal Injury Crashes	6,247	5,777	-7.5
Property Damage Crashes	8,484	8,432	-0.6
Total	15,093	14,547	-3.6
ALCOHOL-INVOLVED FATAL CRASHES			
Had Been Drinking (HBD)	362 (30.9%)	338 (32.0%)	-6.6
Had Not (HNBD)/Not Known If Drinking	810 (69.1%)	717 (68.0%)	-11.5
PERSONS IN CRASHES			
Killed	1,283	1,159	-9.7
Injured	105,555	99,680	-5.6
Not Injured	524,356	554,547	5.8
Unknown Injury	64,903	90,088	38.8
Total	696,097	745,474	7.1
PERSONS IN ALCOHOL-INVOLVED CRASHES			
Killed	399	364	-8.8
Injured	8,815	8,096	-8.2
Not Injured	14,140	16,375	15.8
Unknown Injury	2,013	3,024	50.2
Total	25,367	27,859	9.8
PERSONS INJURED BY GENDER			
Male	47,705	45,329	-5.0
Female	54,950	52,777	-4.0
Unknown Gender	2,900	1,574	-45.7
Total	105,555	99,680	-5.6
PERSONS INJURED BY SEVERITY			
"A" Injury	9,920	9,270	-6.6
"B" Injury	24,952	22,456	-10.0
"C" Injury	70,683	67,954	-3.9
Total	105,555	99,680	-5.6

Note: The 2000 thru 2004 information provided for alcohol contains data for alcohol-related crashes only.

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YEAR 2003 - 2004 SUMMARY TRENDS (continued)

	2003	2004	% CHANGE
PERSONS KILLED BY GENDER			
Male	824	767	-6.9
Female	441	384	-12.9
Unknown Gender	18	8	-55.6
Total	1,283	1,159	-9.7
PERSONS KILLED			
Driver	696	613	-11.9
Passenger	269	277	3.0
Pedestrian	169	140	-17.2
Bicyclist	32	21	-34.4
Motorcyclist	76	79	3.9
Farm Equipment	1	2	100.0
Train Engineer	0	0	0.0
Snowmobile	13	14	7.7
ORV/ATV	11	12	9.1
Other/Unknown	16	1	-93.8
Total	1,283	1,159	-9.7
RESTRAINT USE BY DRIVER			
"Reported Restrained" - Killed	349	312	-10.6
"Reported Not Restrained" - Killed	260	226	-13.1
"Reported Restrained" - Injured	64,065	61,587	-3.9
"Reported Not Restrained" - Injured	3,782	3,325	-12.1
RESTRAINT USE BY INJURED PASSENGER			
"Reported Restrained" - Killed	128	138	7.8
"Reported Not Restrained" - Killed.....	107	93	-13.1
"Reported Restrained" - Injured	18,307	19,416	6.1
"Reported Not Restrained" - Injured	3,203	2,715	-15.2
DRIVER AGE 16-19 INVOLVED			
Fatal Crashes	183	175	-4.4
Personal Injury Crashes	16,990	16,034	-5.6
Property Damage Crashes	54,080	51,361	-5.0
Total All Crashes	71,253	67,570	-5.2
Persons Killed	213	206	-3.3
Persons Injured	25,115	23,278	-7.3
DRIVER AGE 65 & OVER INVOLVED			
Fatal Crashes	221	192	-13.1
Personal Injury Crashes	9,552	9,290	-2.7
Property Damage Crashes	32,169	31,687	-1.5
Total All Crashes	41,942	41,169	-1.8
Persons Killed	246	209	-15.0
Persons Injured	13,880	13,565	-2.3

MORE MICHIGAN CRASH FACTS

CRASH FACTS	2003	2004	% Change
Licensed Drivers	7,187,093	7,225,851	0.5
Registered Vehicles in Michigan	8,708,688	8,578,224	-1.5
Michigan Population	10,079,985	10,112,620	0.3
Drivers Involved in Crashes	635,096	635,913	0.1
Vehicles Involved in Crashes	635,767	635,913	0.0
Occupants Involved in Crashes	818,272	803,839	-1.8
Estimated MV Mileage Traveled (thousands)	100,191,958	101,820,238	1.6
Death Rate Per 100 Million Vehicle Miles	1.3	1.1	-15.4
Fatal Crash Rate Per 100 Million Veh Miles	1.2	1.0	-16.7

Vehicle mileage increased 1.6 percent and the death rate per 100 million vehicle miles decreased 15.4 percent to 1.1.



2004 COST OF CRASHES IN MICHIGAN

The cost estimate for Michigan crashes in 2004 is **\$9,366,721,300**. This estimate is based on the National Safety Council's cost estimating procedures. Average comprehensive costs are based on the following figures:

Comprehensive Costs, 2004 *	
Death	\$3,760,000
Incapacitating injury	\$188,000
Nonincapacitating evident injury	\$48,200
Possible injury	\$22,900
No injury	\$2,100

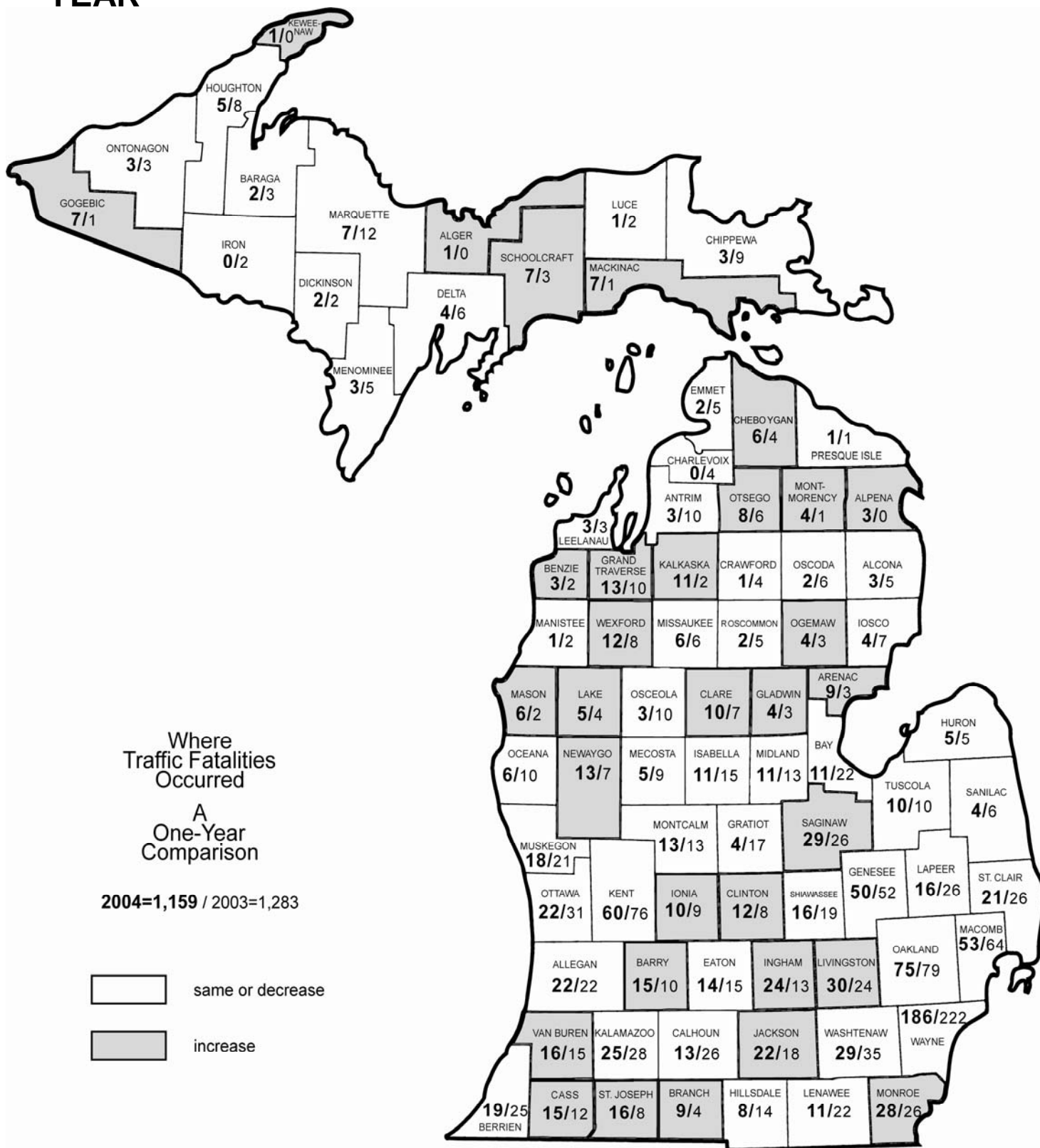
These cost estimates are not intended for comparisons to previous years. Deaths and injuries are calculated by number of persons. "No injury" is calculated per crash.

* Information on the cost of crashes was provided by the National Safety Council on December 22, 2005.

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YEAR

WHERE TRAFFIC FATALITIES OCCURRED



MOTOR VEHICLE TRAFFIC DEATHS IN MICHIGAN BY MONTH

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
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
2004	81	68	63	81	97	106	117	123	116	81	122	104	1,159

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
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
2004	1,159	99,680	373,028	101,820.2	8,578,224	1.1

* Excludes trailers and trailer coaches, and includes moped

2004

2004

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2004

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2004

2004

2004

**Special
Focus**

**Red-Light-Running
Heavy Truck/Bus**

RED-LIGHT-RUNNING CRASHES

INTERSECTION CRASH TYPE	Crashes	Fatal	MOST SEVERE OUTCOME IN CRASH			PDO
			Injury			
			A	B	C	
Related to intersection	113,168	274	2,517	6,345	20,134	83,898
In intersection	56,464	202	1,756	4,211	11,281	39,014
With traffic control signal	25,828	63	748	1,967	5,571	17,479
With hazardous action	7,316	25	306	788	1,964	4,233

“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 **7,316** crashes.



RED-LIGHT-RUNNING - MOST SEVERE OUTCOME IN CRASH

MOST SEVERE OUTCOME IN CRASH

SPEED LIMIT	Crashes	Fatal	Injury			PDO
			A	B	C	
10 miles per hour	1	0	0	0	0	1
15 miles per hour	5	0	0	0	1	4
20 miles per hour	1	0	0	0	0	1
25 miles per hour	853	1	16	88	187	561
30 miles per hour	1,209	3	36	123	336	711
35 miles per hour	1,955	3	66	179	524	1,183
40 miles per hour	972	5	54	102	279	532
45 miles per hour	1,528	9	74	167	425	853
50 miles per hour	319	3	21	52	91	152
55 miles per hour	323	0	35	62	81	145
60 miles per hour	2	0	1	0	0	1
65 miles per hour	2	0	1	0	0	1
70 miles per hour	1	0	0	0	0	1
Unknown	145	1	2	15	40	87
Total	7,316	25	306	788	1,964	4,233

MOST SEVERE OUTCOME IN CRASH

CRASH TYPE	Crashes	Fatal	Injury			PDO
			A	B	C	
Single Vehicle	47	4	5	10	13	15
Head on	67	0	5	5	23	34
Head on left turn	687	1	32	87	198	369
Angle	6,142	20	255	658	1,654	3,555
Rear end	48	0	0	2	9	37
Rear end left turn	13	0	0	0	1	12
Rear end right turn	1	0	0	0	0	1
Sideswipe same direction	100	0	0	3	18	79
Sideswipe opposite direction	59	0	0	2	11	46
Other	136	0	8	20	33	75
Unknown	16	0	1	1	4	10
Total	7,316	25	306	788	1,964	4,233

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	16	0	1	5	4	6
Drinking Involved	229	7	27	49	68	78
Drug Use Involved	30	0	6	10	5	9
Pedestrian Involved	27	4	5	5	11	2
Bicyclist Involved	51	0	5	11	21	14
Snowmobile Involved	0	0	0	0	0	0
Motorcycle Involved	21	2	8	4	3	4
Train Involved	8	0	0	0	1	7
Truck/Bus Involved	266	3	26	42	67	128
Emergency Vehicle Involved	64	1	3	12	22	26
Driver Hazardous Citation	4,318	1	191	524	1,254	2,348

*Crashes may involve more than one special circumstance.

POSSIBLE CONDITIONS OF PERSONS IN CRASH*	MOST SEVERE OUTCOME IN CRASH					
	Conditions Coded by Police	Fatal	Injury			PDO
			A	B	C	
Appeared Normal	5,847	11	215	630	1,618	3,373
Had Been Drinking	195	5	21	41	58	70
Illegal Drug Use	16	1	0	3	5	7
Sick	12	0	1	5	3	3
Fatigue	17	1	0	1	4	11
Asleep	6	0	1	0	0	5
Medication	10	0	1	2	1	6
Driver Distracted	148	0	8	24	41	75
Using Cellular Phone	44	1	0	4	15	24
Unknown	438	4	34	41	98	261

*Drivers, pedestrians, bicyclists, and train engineers 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.

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, and a significant drop in weekend 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	8,048	46.3	89	67.4	1,689	52.6
Turning left	1,382	8.0	4	3.0	210	6.5
Turning right	1,304	7.5	0	0.0	107	3.3
Stopped on roadway	1,241	7.1	11	8.3	267	8.3
In prior crash	23	0.1	0	0.0	5	0.2
Changing lanes	721	4.1	1	0.8	96	3.0
Backing	1,039	6.0	2	1.5	53	1.7
Slowing/stopping on roadway	1,177	6.8	8	6.1	306	9.5
Slowing/stopping other	23	0.1	0	0.0	3	0.1
Starting up on roadway	400	2.3	3	2.3	78	2.4
Starting up other	18	0.1	0	0.0	3	0.1
Entering parking	34	0.2	0	0.0	4	0.1
Leaving parking	31	0.2	0	0.0	8	0.2
Entering roadway	180	1.0	0	0.0	44	1.4
Leaving roadway	25	0.1	1	0.8	6	0.2
Making U-turn	45	0.3	0	0.0	6	0.2
Overtaking or passing	104	0.6	0	0.0	13	0.4
Avoiding object	22	0.1	0	0.0	3	0.1
Avoiding animal	17	0.1	0	0.0	1	0.0
Avoiding pedestrian	7	0.0	1	0.8	0	0.0
Avoiding vehicle (front/back)	209	1.2	2	1.5	63	2.0
Avoiding vehicle (angle)	91	0.5	6	4.5	23	0.7
Driverless moving	16	0.1	0	0.0	2	0.1
Parked	381	2.2	4	3.0	70	2.2
Crossing at intersection	1	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	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	2	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	10	0.1	0	0.0	1	0.0
Playing in roadway	2	0.0	0	0.0	0	0.0
In roadway other reason	3	0.0	0	0.0	1	0.0
Not in roadway	4	0.0	0	0.0	0	0.0
Other	7	0.0	0	0.0	1	0.0
Unknown	809	4.7	0	0.0	146	4.5
Total	17,376	100.0	132	100.0	3,209	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	5	0.2
Cross center/median	19	0.1	0	0.0	5	0.2
Ran off road left	36	0.2	0	0.0	7	0.2
Ran off road right	46	0.3	0	0.0	7	0.2
Re-enter road	2	0.0	0	0.0	0	0.0
Overturn	232	1.3	2	1.5	102	3.2
Separation of units	118	0.7	0	0.0	17	0.5
Fire/explosion	46	0.3	2	1.5	2	0.1
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	110	0.6	0	0.0	6	0.2
Downhill runaway	48	0.3	0	0.0	5	0.2
Cargo loss/shift	222	1.3	1	0.8	17	0.5
Individual fell off	7	0.0	0	0.0	3	0.1
Other noncollision	176	1.0	0	0.0	12	0.4
NONCOLLISION Subtotal	1,109	6.4	5	3.8	188	5.9

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	48	0.3	11	8.3	32	1.0
Bicyclist	24	0.1	2	1.5	11	0.3
Motor vehicle in transport	12,244	70.5	105	79.5	2,553	79.6
Parked motor vehicle	631	3.6	1	0.8	31	1.0
Railway train	16	0.1	0	0.0	10	0.3
Animal	516	3.0	0	0.0	9	0.3
Other nonfixed objects	205	1.2	0	0.0	15	0.5
COLLISION NONFIXED Subtotal	13,684	78.8	119	90.2	2,661	82.9

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	112	0.6	0	0.0	6	0.2
Bridge parapet end	11	0.1	0	0.0	2	0.1
Bridge rail	21	0.1	0	0.0	2	0.1
Guardrail face	61	0.4	0	0.0	10	0.3
Guardrail end	5	0.0	0	0.0	0	0.0
Median barrier	46	0.3	0	0.0	12	0.4
Highway traffic sign post	52	0.3	0	0.0	2	0.1
Signal post	14	0.1	0	0.0	1	0.0
Luminaire/light support	32	0.2	1	0.8	2	0.1
Utility pole	142	0.8	0	0.0	7	0.2
Other pole	41	0.2	0	0.0	0	0.0
Culvert	7	0.0	0	0.0	1	0.0
Curb	21	0.1	0	0.0	3	0.1
Ditch	171	1.0	3	2.3	34	1.1
Embankment	38	0.2	0	0.0	16	0.5
Fence	13	0.1	0	0.0	2	0.1
Mailbox	30	0.2	0	0.0	1	0.0
Tree	128	0.7	1	0.8	35	1.1
Rail crossing signal	26	0.1	0	0.0	0	0.0
Building	27	0.2	3	2.3	2	0.1
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	43	0.2	0	0.0	0	0.0
Impact attenuator	1	0.0	0	0.0	0	0.0
Other fixed object	228	1.3	0	0.0	12	0.4
COLLISION FIXED Subtotal	1,270	7.3	8	6.1	150	4.7

	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	1,313	7.6	0	0.0	210	6.5
TOTAL MOST HARMFUL EVENT	17,376	100.0	132	100.0	3,209	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	2,405	13.8	15	11.4	299	9.3
Head On	294	1.7	25	18.9	136	4.2
Head On - Left Turn	186	1.1	6	4.5	75	2.3
Angle	2,959	17.0	37	28.0	825	25.7
Rear End	4,022	23.1	28	21.2	1,087	33.9
Rear End - Left Turn	154	0.9	5	3.8	42	1.3
Rear End - Right Turn	156	0.9	0	0.0	30	0.9
Sideswipe - Same Direction	4,412	25.4	1	0.8	421	13.1
Sideswipe - Opposite Direct	947	5.5	9	6.8	88	2.7
Other	1,783	10.3	6	4.5	196	6.1
Unknown	58	0.3	0	0.0	10	0.3
Total	17,376	100.0	132	100.0	3,209	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	7,993	46.0	99	75.0	1,668	52.0	20	0.7
Speed too fast	572	3.3	5	3.8	156	4.9	238	8.8
Speed too slow	64	0.4	0	0.0	15	0.5	23	0.9
Failed to yield	925	5.3	0	0.0	203	6.3	414	15.3
Disregard traffic control	217	1.2	1	0.8	82	2.6	104	3.8
Drove wrong way	19	0.1	0	0.0	3	0.1	5	0.2
Drove left of center	114	0.7	2	1.5	14	0.4	31	1.1
Improper passing	92	0.5	0	0.0	12	0.4	19	0.7
Improper lane use	880	5.1	0	0.0	83	2.6	262	9.7
Improper turn	645	3.7	0	0.0	57	1.8	172	6.4
Improper/no signal	32	0.2	0	0.0	1	0.0	10	0.4
Improper backing	771	4.4	0	0.0	27	0.8	203	7.5
Unable to stop in assured clear distance	1,513	8.7	5	3.8	428	13.3	661	24.4
Reckless driving	23	0.1	1	0.8	6	0.2	10	0.4
Careless/Negligent driving	338	1.9	2	1.5	74	2.3	190	7.0
Other	1,521	8.8	5	3.8	141	4.4	286	10.6
Unknown	1,657	9.5	12	9.1	239	7.4	56	2.1
Total	17,376	100.0	132	100.0	3,209	100.0	2,704	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	15,302	88.1	121	91.7	2,863	89.2
Median	110	0.6	1	0.8	28	0.9
Shoulder	619	3.6	7	5.3	118	3.7
Outside of Shoulder/Curb	586	3.4	1	0.8	102	3.2
Gore	28	0.2	0	0.0	5	0.2
Other/Unknown	731	4.2	2	1.5	93	2.9
Total	17,376	100.0	132	100.0	3,209	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.	552	3.2	9	6.8	116	3.6
03:00 a.m. - 05:59 a.m.	608	3.5	7	5.3	126	3.9
06:00 a.m. - 08:59 a.m.	2,999	17.3	23	17.4	551	17.2
09:00 a.m. - 11:59 a.m.	3,705	21.3	26	19.7	673	21.0
12:00 noon - 02:59 p.m.	3,930	22.6	24	18.2	705	22.0
03:00 p.m. - 05:59 p.m.	3,552	20.4	24	18.2	657	20.5
06:00 p.m. - 08:59 p.m.	1,198	6.9	14	10.6	223	6.9
09:00 p.m. - 11:59 p.m.	672	3.9	5	3.8	134	4.2
Unknown	160	0.9	0	0.0	24	0.7
Total	17,376	100.0	132	100.0	3,209	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	4,103	23.6	34	25.8	876	27.3
U.S. & Michigan Roads	5,088	29.3	60	45.5	1,008	31.4
County & City Roads	8,185	47.1	38	28.8	1,325	41.3
Total	17,376	100.0	132	100.0	3,209	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	491	2.8	3	2.3	102	3.2
Monday	3,108	17.9	23	17.4	618	19.3
Tuesday	3,361	19.3	25	18.9	575	17.9
Wednesday	3,357	19.3	33	25.0	617	19.2
Thursday	3,013	17.3	17	12.9	525	16.4
Friday	3,088	17.8	22	16.7	574	17.9
Saturday	958	5.5	9	6.8	198	6.2
Total	17,376	100.0	132	100.0	3,209	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	14,486	83.4	121	91.7	2,761	86.0
Female	1,771	10.2	6	4.5	299	9.3
Unknown	1,119	6.4	5	3.8	149	4.6
Total	17,376	100.0	132	100.0	3,209	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	13,178	75.8	111	84.1	2,434	75.8
2 occupants	1,251	7.2	11	8.3	257	8.0
3 occupants	247	1.4	2	1.5	45	1.4
4 occupants	146	0.8	0	0.0	26	0.8
5 occupants	105	0.6	0	0.0	24	0.7
6 + occupants	822	4.7	3	2.3	176	5.5
0 occupants	632	3.6	5	3.8	117	3.6
Unknown	995	5.7	0	0.0	130	4.1
Total	17,376	100.0	132	100.0	3,209	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	10739	71.7	89	60.5	2,383	71.2
Van and Motorhome	1247	8.3	10	6.8	272	8.1
Pickup	2078	13.9	24	16.3	456	13.6
Small Truck (under 10,000 lbs.)	452	3.0	3	2.0	103	3.1
Motorcycle	28	0.2	4	2.7	13	0.4
Moped	4	0.0	0	0.0	2	0.1
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	4	0.0	0	0.0	1	0.0
Off Road Vehicle	4	0.0	1	0.7	1	0.0
Other	98	0.7	2	1.4	25	0.7
Unknown	319	2.1	14	9.5	93	2.8
Subtotal	14,973	100.0	147	100.0	3,349	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	8,428	48.5	74	56.1	1,613	50.3
Commercial Vehicle: Group B	3,639	20.9	35	26.5	695	21.7
Commercial Vehicle: Group C	521	3.0	1	0.8	88	2.7
Other Truck	750	4.3	6	4.5	131	4.1
Unknown Truck	4,038	23.2	16	12.1	682	21.3
Subtotal	17,376	100.0	132	100.0	3,209	100.0

Total Vehicle Types in Heavy Truck/Bus Crashes	32,349		279		6,558	
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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	12	2.5	8	0.4	175	1.1	583	0.6	17	0.6
Speed too fast	159	33.5	79	3.5	7,181	45.3	3,999	4.1	329	12.4
Speed too slow	1	0.2	22	1.0	67	0.4	735	0.7	27	1.0
Failed to yield	17	3.6	397	17.8	435	2.7	27,697	28.2	592	22.3
Disregard traffic control	5	1.1	99	4.4	172	1.1	6,738	6.9	164	6.2
Drove wrong way	1	0.2	4	0.2	29	0.2	262	0.3	10	0.4
Drove left of center	2	0.4	29	1.3	177	1.1	985	1.0	53	2.0
Improper passing	2	0.4	17	0.8	32	0.2	1,071	1.1	99	3.7
Improper lane use	7	1.5	255	11.4	166	1.0	4,362	4.4	223	8.4
Improper turn	25	5.3	147	6.6	53	0.3	2,225	2.3	61	2.3
Improper/no signal	0	0.0	10	0.4	11	0.1	177	0.2	8	0.3
Improper backing	15	3.2	188	8.4	105	0.7	2,535	2.6	39	1.5
Unable to stop in assured clear distance	12	2.5	649	29.1	622	3.9	38,553	39.2	629	23.7
Reckless driving	5	1.1	5	0.2	701	4.4	515	0.5	20	0.8
Careless/Negligent driving	103	21.7	87	3.9	3,635	22.9	2,896	2.9	212	8.0
Other	91	19.2	195	8.7	1,853	11.7	3,576	3.6	132	5.0
Unknown	17	3.6	39	1.7	444	2.8	1,392	1.4	44	1.7
Total Cited Vehicles	474	100.0	2,230	100.0	15,858	100.0	98,301	100.0	2,659	100.0
Percent of Total Vehicles		19.0		15.0		12.1		21.5		18.2
Vehicles with No Citation Issued	2,019	81.0	12,652	85.0	114,813	87.9	359,444	78.5	11,972	81.8
Total Vehicles Involved	2,493	100.0	14,882	100.0	130,671	100.0	457,745	100.0	14,631	100.0



2004

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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	158	0	18	135	200	3	197	0	0	0	7	1	4
1	4	0	2	2	227	0	227	0	0	0	8	1	5
2	5	0	1	4	230	5	225	0	0	0	23	1	22
3	7	0	3	4	269	4	265	2	0	1	23	1	20
4	5	0	1	4	321	0	321	16	0	12	30	1	26
5	18	0	1	17	339	3	336	20	0	17	35	1	28
6	27	0	6	21	336	1	335	33	0	29	43	0	39
7	31	1	8	22	350	2	348	31	0	23	42	1	36
8	24	0	6	18	330	2	328	47	2	37	53	1	46
9	34	2	11	21	400	1	399	64	1	55	39	0	33
10	35	0	12	23	368	5	363	76	1	62	59	1	50
11	30	0	10	20	434	3	431	102	0	84	67	0	59
12	55	0	24	29	447	4	443	108	0	89	67	1	56
13	99	0	45	51	530	3	527	147	1	123	78	1	72
14	296	1	84	205	690	5	685	108	2	88	88	0	75
15	1,065	4	155	894	911	15	896	118	0	97	81	1	72
16	15,016	14	1,885	13,053	1,165	15	1,150	77	0	64	72	2	65
17	18,558	19	2,284	16,182	1,104	17	1,087	49	0	44	53	0	49
18	20,301	28	2,628	17,524	940	9	931	57	0	51	91	2	79
19	19,091	23	2,501	16,449	831	12	819	55	0	47	54	1	47
20	17,281	15	2,250	14,894	711	9	702	51	0	34	48	6	37
21	16,394	26	2,101	14,149	620	11	609	34	0	30	64	3	53
22	15,517	16	2,008	13,378	607	10	597	38	0	31	47	2	39
23	14,400	18	1,841	12,442	492	6	486	32	1	25	57	1	49
24	13,662	12	1,742	11,810	395	4	391	25	0	24	44	1	39
25	12,792	13	1,573	11,104	374	7	367	14	0	13	41	3	34
26	12,031	21	1,515	10,400	334	5	329	18	0	14	42	4	36
27	11,508	14	1,388	10,041	276	5	271	12	0	8	36	3	27
28	10,820	8	1,303	9,429	285	4	281	15	0	11	35	0	30
29	10,828	8	1,334	9,412	272	1	271	13	1	10	24	0	24
30	10,628	10	1,300	9,237	275	5	270	13	0	11	35	2	30
31	10,847	10	1,375	9,386	249	4	245	16	0	15	25	1	20
32	11,462	9	1,386	9,972	257	2	255	21	0	17	27	1	26
33	11,918	9	1,447	10,364	250	2	248	15	0	11	30	2	26
34	11,725	12	1,336	10,293	262	3	259	25	0	19	42	2	37
35	11,018	11	1,324	9,604	235	3	232	16	0	14	25	3	21
36	10,800	13	1,297	9,401	232	1	231	18	0	15	31	3	28
37	11,165	13	1,261	9,807	212	1	211	17	0	13	34	1	29
38	11,030	10	1,297	9,637	228	0	228	22	0	21	29	3	23
39	11,416	11	1,350	9,978	232	1	231	28	1	22	49	3	42
40	11,669	18	1,367	10,197	241	1	240	33	0	31	42	5	35
41	11,664	11	1,400	10,178	241	1	240	24	1	19	33	2	25

* 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	11,417	10	1,379	9,951	221	2	219	22	0	20	30	3	26
43	11,368	12	1,301	9,992	219	3	216	25	1	19	52	1	44
44	11,230	12	1,368	9,777	243	2	241	24	0	20	33	2	30
45	10,963	16	1,369	9,498	228	3	225	27	1	23	30	2	26
46	10,836	10	1,337	9,388	225	1	224	26	3	19	28	2	25
47	10,764	6	1,258	9,423	250	2	248	33	1	25	50	3	40
48	10,049	9	1,216	8,763	225	1	224	38	1	31	34	4	28
49	9,818	10	1,181	8,563	233	1	232	18	0	17	43	1	38
50	9,211	16	1,111	8,019	185	3	182	17	0	16	42	2	33
51	8,931	14	1,086	7,764	198	1	197	29	0	27	36	2	30
52	8,531	9	1,053	7,412	196	1	195	24	0	19	27	3	22
53	8,057	6	1,015	6,990	171	1	170	20	0	17	33	1	27
54	7,716	13	935	6,706	188	3	185	12	1	10	34	0	31
55	7,114	7	837	6,225	166	1	165	14	1	10	28	0	24
56	7,114	8	976	6,089	178	0	178	16	1	14	26	3	20
57	6,995	12	856	6,076	205	3	202	10	0	8	25	0	23
58	5,513	1	675	4,787	127	2	125	11	0	9	7	2	5
59	5,087	7	646	4,404	122	1	121	17	0	17	21	1	18
60	4,903	7	617	4,240	152	3	149	12	0	9	12	2	10
61	5,137	10	605	4,485	138	5	133	8	0	8	14	1	12
62	4,477	7	573	3,872	93	2	91	4	0	2	12	0	10
63	3,767	6	467	3,266	130	2	128	9	0	7	16	1	14
64	3,352	4	431	2,897	122	6	116	5	0	3	16	1	15
65	3,250	2	388	2,835	110	2	108	1	0	1	11	0	10
66	3,012	4	374	2,612	88	1	87	4	0	2	4	0	4
67	2,781	7	324	2,428	103	2	101	1	0	1	8	1	6
68	2,555	5	286	2,249	93	3	90	4	0	4	7	2	5
69	2,518	4	291	2,203	105	1	104	3	0	3	11	1	10
70	2,277	10	266	1,989	78	1	77	3	0	2	12	0	10
71	2,154	4	288	1,842	98	0	98	2	0	2	13	1	11
72	2,211	4	241	1,950	92	0	92	3	0	3	9	1	8
73	2,120	1	272	1,837	69	0	69	5	0	4	9	2	7
74	2,111	6	278	1,816	90	1	89	3	0	3	8	1	7
75	2,024	2	249	1,754	77	0	77	4	0	4	10	0	10
76	1,924	2	247	1,661	98	1	97	5	0	5	6	0	6
77	1,860	6	231	1,616	81	2	79	2	0	1	9	4	5
78	1,720	4	229	1,475	73	2	71	1	0	1	9	2	6
79	1,704	6	228	1,463	80	4	76	1	0	0	5	2	3
80	1,502	7	200	1,285	71	2	69	0	0	0	5	1	4
81	1,240	5	199	1,029	78	1	77	1	0	1	6	2	4
82	1,212	2	182	1,023	61	1	60	3	0	2	9	2	7
83	1,027	7	153	863	64	0	64	0	0	0	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	851	7	121	717	65	1	64	1	0	1	6	1	5
85	729	9	106	610	35	5	30	1	0	1	4	1	3
86	619	5	93	518	37	1	36	1	0	1	3	2	1
87	481	3	73	405	25	1	24	0	0	0	4	0	4
88	363	2	59	300	20	2	18	0	0	0	3	0	3
89	281	0	39	242	17	2	15	2	0	2	1	0	1
90	210	5	40	164	17	1	16	0	0	0	4	0	3
91	137	1	29	106	6	0	6	0	0	0	3	1	2
92	74	1	13	60	6	0	6	0	0	0	2	1	1
93	62	1	7	54	2	2	0	0	0	0	1	1	0
94	45	0	12	33	2	0	2	0	0	0	0	0	0
95	20	0	2	18	3	0	3	0	0	0	1	0	1
96	20	0	3	17	5	0	5	0	0	0	0	0	0
97	11	0	1	10	1	0	1	0	0	0	1	0	1
98	17	0	2	15	0	0	0	0	0	0	0	0	0
99	5	0	1	4	1	0	1	1	0	1	0	0	0
100	11	0	1	10	3	0	3	0	0	0	0	0	0
101	1	0	0	1	0	0	0	0	0	0	0	0	0
102	2	0	1	1	1	0	1	0	0	0	0	0	0
103	4	0	0	4	1	0	1	0	0	0	0	0	0
104	1	0	0	1	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	1	0	1
Unknown	64,983	0	407	10,691	884	1	883	163	0	70	173	5	107
Totals	635,913	714	71,108	506,289	24,657	284	24,373	2,246	21	1,796	2,864	140	2,403
	* Includes 57,802 drivers with unknown injury severity							* Includes 91 bicyclists with unknown injury severity and 338 with no injury			* Includes 110 pedestrians with unknown injury severity and 211 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

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	80,052	53.3	299	75.5	19,397	55.7
Turning left	12,509	8.3	21	5.3	3,418	9.8
Turning right	4,059	2.7	2	0.5	617	1.8
Stopped on roadway	12,180	8.1	0	0.0	2,931	8.4
In prior crash	264	0.2	0	0.0	66	0.2
Changing lanes	4,042	2.7	9	2.3	634	1.8
Backing	2,909	1.9	3	0.8	162	0.5
Slowing/stopping on roadway	15,924	10.6	9	2.3	3,190	9.2
Slowing/stopping other	245	0.2	1	0.3	52	0.1
Starting up on roadway	3,030	2.0	4	1.0	742	2.1
Starting up other	113	0.1	2	0.5	31	0.1
Entering parking	118	0.1	0	0.0	19	0.1
Leaving parking	531	0.4	0	0.0	96	0.3
Entering roadway	2,759	1.8	5	1.3	699	2.0
Leaving roadway	360	0.2	6	1.5	105	0.3
Making U-turn	309	0.2	0	0.0	79	0.2
Overtaking or passing	1,488	1.0	14	3.5	346	1.0
Avoiding object	241	0.2	1	0.3	72	0.2
Avoiding animal	675	0.4	0	0.0	191	0.5
Avoiding pedestrian	50	0.0	2	0.5	23	0.1
Avoiding vehicle (front/back)	1,742	1.2	11	2.8	432	1.2
Avoiding vehicle (angle)	699	0.5	2	0.5	186	0.5
Driverless moving	28	0.0	0	0.0	3	0.0
Parked	497	0.3	1	0.3	56	0.2
Crossing at intersection	14	0.0	0	0.0	5	0.0
Crossing not at intersection	4	0.0	0	0.0	3	0.0
Getting on/off vehicle	3	0.0	0	0.0	0	0.0
In roadway with traffic	4	0.0	0	0.0	2	0.0
In roadway against traffic	8	0.0	0	0.0	1	0.0
Standing/lying in roadway	1	0.0	0	0.0	1	0.0
Pushing/working on vehicle	8	0.0	0	0.0	3	0.0
Other working in roadway	117	0.1	0	0.0	26	0.1
Playing in roadway	16	0.0	0	0.0	1	0.0
In roadway other reason	7	0.0	0	0.0	3	0.0
Not in roadway	15	0.0	0	0.0	5	0.0
Other	49	0.0	0	0.0	13	0.0
Unknown	5,150	3.4	4	1.0	1,243	3.6
Total Drivers	150,220	100.0	396	100.0	34,853	100.0

DRIVER AGE 16-24 (continued)

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	797	0.5	0	0.0	250	0.7
Cross center/median	138	0.1	0	0.0	39	0.1
Ran off road left	282	0.2	0	0.0	62	0.2
Ran off road right	440	0.3	0	0.0	97	0.3
Re-enter road	41	0.0	0	0.0	18	0.1
Overturn	3,540	2.4	24	6.1	1,673	4.8
Separation of units	714	0.5	0	0.0	166	0.5
Fire/explosion	190	0.1	2	0.5	30	0.1
Immersion	21	0.0	0	0.0	4	0.0
Jackknife	62	0.0	0	0.0	5	0.0
Downhill runaway	352	0.2	0	0.0	82	0.2
Cargo loss/shift	137	0.1	0	0.0	20	0.1
Individual fell off	115	0.1	2	0.5	90	0.3
Other noncollision	387	0.3	0	0.0	60	0.2
NONCOLLISION Subtotal	7,216	4.8	28	7.1	2,596	7.4

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	473	0.3	32	8.1	394	1.1
Pedalcycle (Bicyclist)	360	0.2	4	1.0	291	0.8
Motor vehicle in transport	102,654	68.3	223	56.3	24,594	70.6
Parked motor vehicle	2,861	1.9	4	1.0	370	1.1
Railway train	72	0.0	0	0.0	18	0.1
Animal	10,171	6.8	0	0.0	255	0.7
Other nonfixed objects	1,083	0.7	0	0.0	115	0.3
COLLISION NONFIXED Subtotal	117,674	78.3	263	66.4	26,037	74.7

DRIVER AGE 16-24 (continued)

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	150	0.1	2	0.5	33	0.1
Bridge parapet end	38	0.0	0	0.0	10	0.0
Bridge rail	140	0.1	1	0.3	34	0.1
Guardrail face	1,228	0.8	3	0.8	240	0.7
Guardrail end	199	0.1	1	0.3	58	0.2
Median barrier	1,261	0.8	1	0.3	368	1.1
Highway traffic sign post	1,003	0.7	1	0.3	55	0.2
Signal post	81	0.1	1	0.3	5	0.0
Luminaire/light support	202	0.1	0	0.0	28	0.1
Utility pole	1,260	0.8	12	3.0	436	1.3
Other pole	343	0.2	0	0.0	53	0.2
Culvert	235	0.2	1	0.3	90	0.3
Curb	685	0.5	0	0.0	75	0.2
Ditch	3,159	2.1	5	1.3	750	2.2
Embankment	674	0.4	4	1.0	185	0.5
Fence	485	0.3	1	0.3	56	0.2
Mailbox	780	0.5	0	0.0	53	0.2
Tree	4,344	2.9	63	15.9	1,577	4.5
Rail crossing signal	23	0.0	0	0.0	5	0.0
Building	234	0.2	4	1.0	72	0.2
Traffic island	11	0.0	1	0.3	1	0.0
Fire hydrant	209	0.1	1	0.3	32	0.1
Impact attenuator	16	0.0	0	0.0	7	0.0
Other fixed object	1,043	0.7	2	0.5	218	0.6
COLLISION FIXED Subtotal	17,803	11.9	104	26.3	4,441	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	7,527	5.0	1	0.3	1,779	5.1
TOTAL MOST HARMFUL EVENT	150,220	100.0	396	100.0	34,853	100.0

DRIVER AGE 16-24 (continued)

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	33,926	22.6	152	38.4	6,900	19.8
Head On	2,648	1.8	80	20.2	1,177	3.4
Head On - Left Turn	5,472	3.6	19	4.8	2,177	6.2
Angle	35,236	23.5	95	24.0	9,966	28.6
Rear End	47,846	31.9	24	6.1	10,992	31.5
Rear End - Left Turn	2,311	1.5	1	0.3	664	1.9
Rear End - Right Turn	1,540	1.0	0	0.0	234	0.7
Sideswipe - Same Direction	12,459	8.3	3	0.8	1,261	3.6
Sideswipe - Opposite Direct	3,567	2.4	11	2.8	519	1.5
Other	4,948	3.3	11	2.8	893	2.6
Unknown	267	0.2	0	0.0	70	0.2
Total Drivers	150,220	100.0	396	100.0	34,853	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	125,535	83.6	273	68.9	28,365	81.4
Median	1,047	0.7	6	1.5	288	0.8
Shoulder	5,588	3.7	30	7.6	1,398	4.0
Outside of Shoulder/Curb	11,577	7.7	71	17.9	3,330	9.6
Gore	289	0.2	0	0.0	75	0.2
Other/Unknown	6,184	4.1	16	4.0	1,397	4.0
Total Drivers	150,220	100.0	396	100.0	34,853	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	15,105	10.1	30	7.6	3,537	10.1
U.S. & Michigan Roads	42,075	28.0	122	30.8	9,757	28.0
County & City Roads	93,040	61.9	244	61.6	21,559	61.9
Total Drivers	150,220	100.0	396	100.0	34,853	100.0

DRIVER AGE 16-24 (continued)

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.	8,137	5.4	64	16.2	1,955	5.6
03:00 a.m. - 05:59 a.m.	3,880	2.6	21	5.3	998	2.9
06:00 a.m. - 08:59 a.m.	15,262	10.2	31	7.8	3,309	9.5
09:00 a.m. - 11:59 a.m.	15,766	10.5	39	9.8	3,672	10.5
12:00 noon – 02:59 p.m.	27,041	18.0	54	13.6	6,528	18.7
03:00 p.m. - 05:59 p.m.	39,984	26.6	67	16.9	9,350	26.8
06:00 p.m. - 08:59 p.m.	23,340	15.5	51	12.9	5,315	15.2
09:00 p.m. - 11:59 p.m.	15,640	10.4	66	16.7	3,492	10.0
Unknown	1,170	0.8	3	0.8	234	0.7
Total Drivers	150,220	100.0	396	100.0	34,853	100.0

3:00 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	57,748	38.4	94	23.7	11,772	33.8	266	0.6
Speed too fast	14,877	9.9	74	18.7	3,767	10.8	5,564	12.4
Speed too slow	682	0.5	0	0.0	164	0.5	346	0.8
Failed to yield	16,858	11.2	36	9.1	4,762	13.7	10,131	22.6
Disregard traffic control	3,817	2.5	17	4.3	1,508	4.3	2,538	5.7
Drove wrong way	238	0.2	0	0.0	75	0.2	112	0.3
Drove left of center	994	0.7	24	6.1	346	1.0	448	1.0
Improper passing	963	0.6	2	0.5	148	0.4	454	1.0
Improper lane use	3,030	2.0	2	0.5	391	1.1	1,519	3.4
Improper turn	1,518	1.0	1	0.3	261	0.7	757	1.7
Improper/no signal	230	0.2	0	0.0	34	0.1	72	0.2
Improper backing	2,089	1.4	1	0.3	83	0.2	783	1.7
Unable to stop in assured clear distance	27,703	18.4	9	2.3	6,186	17.7	15,505	34.6
Reckless driving	1,094	0.7	27	6.8	478	1.4	580	1.3
Careless/Negligent driving	5,086	3.4	40	10.1	1,806	5.2	3,092	6.9
Other	5,654	3.8	30	7.6	1,404	4.0	1,915	4.3
Unknown	7,639	5.1	39	9.8	1,668	4.8	686	1.5
Total Drivers	150,220	100.0	396	100.0	34,853	100.0	44,768	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)

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Sunday	15,737	10.5	51	12.9	3,819	11.0
Monday	20,798	13.8	52	13.1	4,750	13.6
Tuesday	21,585	14.4	56	14.1	4,876	14.0
Wednesday	22,717	15.1	53	13.4	5,061	14.5
Thursday	22,087	14.7	39	9.8	5,028	14.4
Friday	27,643	18.4	63	15.9	6,450	18.5
Saturday	19,653	13.1	82	20.7	4,869	14.0
Total Drivers	150,220	100.0	396	100.0	34,853	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	82,797	55.1	278	70.2	18,425	52.9
Female	67,016	44.6	117	29.5	16,327	46.8
Unknown	407	0.3	1	0.3	101	0.3
Total Drivers	150,220	100.0	396	100.0	34,853	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	100,557	66.9	212	53.5	21,377	61.3
2 occupants	31,171	20.8	115	29.0	8,223	23.6
3 occupants	8,743	5.8	39	9.8	2,640	7.6
4 occupants	3,210	2.1	16	4.0	1,020	2.9
5 occupants	925	0.6	9	2.3	352	1.0
6 + occupants	616	0.4	2	0.5	180	0.5
0 occupants	2,440	1.6	0	0.0	530	1.5
Unknown	2,558	1.7	3	0.8	531	1.5
Total Drivers	150,220	100.0	396	100.0	34,853	100.0

DRIVER AGE 16-24 (continued)

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	120,273	80.1	286	72.2	28,006	80.4
Van and Motorhome	5,060	3.4	14	3.5	1,172	3.4
Pickup	19,360	12.9	63	15.9	4,026	11.6
Small Truck (under 10,000 lbs.)	3,365	2.2	9	2.3	747	2.1
Motorcycle	577	0.4	13	3.3	459	1.3
Moped	62	0.0	0	0.0	52	0.1
Go Cart	2	0.0	0	0.0	2	0.0
Snowmobile	81	0.1	2	0.5	50	0.1
Off Road Vehicle	93	0.1	6	1.5	71	0.2
Other	176	0.1	1	0.3	42	0.1
Unknown	325	0.2	1	0.3	62	0.2
CDL Truck/Bus (breakdown below)	846	0.6	1	0.3	164	0.5
Total Number of Drivers	150,220	100.0	396	100.0	34,853	100.0

NOTES:

- 1) School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.
- 2) These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.

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	349	41.3	0	0.0	65	39.6
Commercial Vehicle: Group B	181	21.4	0	0.0	41	25.0
Commercial Vehicle: Group C	37	4.4	0	0.0	4	2.4
Other Truck	92	10.9	0	0.0	16	9.8
Unknown Truck	187	22.1	1	100.0	38	23.2
Total Number of Drivers	846	100.0	1	100.0	164	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

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	197,965	52.7	790	76.0	42,249	51.5
Turning left	23,823	6.3	53	5.1	6,198	7.6
Turning right	9,661	2.6	9	0.9	1,475	1.8
Stopped on roadway	46,497	12.4	37	3.6	12,313	15.0
In prior crash	607	0.2	0	0.0	174	0.2
Changing lanes	7,819	2.1	13	1.3	1,102	1.3
Backing	8,763	2.3	7	0.7	404	0.5
Slowing/stopping on roadway	38,173	10.2	31	3.0	8,657	10.6
Slowing/stopping other	568	0.2	1	0.1	131	0.2
Starting up on roadway	7,394	2.0	13	1.3	1,688	2.1
Starting up other	280	0.1	2	0.2	72	0.1
Entering parking	420	0.1	1	0.1	46	0.1
Leaving parking	1,071	0.3	0	0.0	206	0.3
Entering roadway	5,014	1.3	5	0.5	1,139	1.4
Leaving roadway	650	0.2	6	0.6	214	0.3
Making U-turn	715	0.2	0	0.0	175	0.2
Overtaking or passing	2,766	0.7	22	2.1	519	0.6
Avoiding object	477	0.1	2	0.2	117	0.1
Avoiding animal	909	0.2	1	0.1	217	0.3
Avoiding pedestrian	94	0.0	1	0.1	41	0.0
Avoiding vehicle (front/back)	3,550	0.9	24	2.3	900	1.1
Avoiding vehicle (angle)	1,720	0.5	14	1.3	434	0.5
Driverless moving	61	0.0	0	0.0	14	0.0
Parked	2,156	0.6	2	0.2	206	0.3
Crossing at intersection	21	0.0	0	0.0	6	0.0
Crossing not at intersection	16	0.0	0	0.0	3	0.0
Getting on/off vehicle	3	0.0	0	0.0	0	0.0
In roadway with traffic	2	0.0	0	0.0	1	0.0
In roadway against traffic	27	0.0	0	0.0	6	0.0
Standing/lying in roadway	3	0.0	0	0.0	1	0.0
Pushing/working on vehicle	4	0.0	0	0.0	0	0.0
Other working in roadway	206	0.1	0	0.0	50	0.1
Playing in roadway	27	0.0	0	0.0	9	0.0
In roadway other reason	15	0.0	0	0.0	5	0.0
Not in roadway	82	0.0	0	0.0	12	0.0
Other	95	0.0	1	0.1	32	0.0
Unknown	14,017	3.7	5	0.5	3,216	3.9
Total Drivers	375,671	100.0	1,040	100.0	82,032	100.0

DRIVER AGE 25-64 (continued)

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	1,319	0.4	0	0.0	350	0.4
Cross center/median	283	0.1	0	0.0	79	0.1
Ran off road left	425	0.1	1	0.1	89	0.1
Ran off road right	748	0.2	0	0.0	156	0.2
Re-enter road	63	0.0	0	0.0	19	0.0
Overturn	5,150	1.4	72	6.9	2,480	3.0
Separation of units	1,576	0.4	2	0.2	348	0.4
Fire/explosion	437	0.1	6	0.6	44	0.1
Immersion	34	0.0	1	0.1	5	0.0
Jackknife	255	0.1	0	0.0	30	0.0
Downhill runaway	906	0.2	0	0.0	225	0.3
Cargo loss/shift	584	0.2	1	0.1	67	0.1
Individual fell off	297	0.1	9	0.9	221	0.3
Other noncollision	1,025	0.3	3	0.3	200	0.2
NONCOLLISION Subtotal	13,102	3.5	95	9.1	4,313	5.3

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	1,201	0.3	82	7.9	963	1.2
Pedalcycle (Bicyclist)	1,090	0.3	11	1.1	833	1.0
Motor vehicle in transport	254,348	67.7	678	65.2	62,463	76.1
Parked motor vehicle	6,242	1.7	16	1.5	689	0.8
Railway train	178	0.0	6	0.6	60	0.1
Animal	46,374	12.3	1	0.1	827	1.0
Other nonfixed objects	4,054	1.1	4	0.4	342	0.4
COLLISION NONFIXED Subtotal	313,487	83.4	798	76.7	66,177	80.7

DRIVER AGE 25-64 (continued)

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	432	0.1	3	0.3	83	0.1
Bridge parapet end	117	0.0	0	0.0	23	0.0
Bridge rail	307	0.1	0	0.0	61	0.1
Guardrail face	2,143	0.6	2	0.2	435	0.5
Guardrail end	320	0.1	0	0.0	88	0.1
Median barrier	2,256	0.6	4	0.4	696	0.8
Highway traffic sign post	1,444	0.4	1	0.1	117	0.1
Signal post	168	0.0	0	0.0	24	0.0
Luminaire/light support	360	0.1	3	0.3	85	0.1
Utility pole	1,897	0.5	4	0.4	640	0.8
Other pole	610	0.2	4	0.4	113	0.1
Culvert	297	0.1	3	0.3	110	0.1
Curb	939	0.2	2	0.2	157	0.2
Ditch	4,347	1.2	8	0.8	1,073	1.3
Embankment	1,035	0.3	7	0.7	287	0.3
Fence	658	0.2	0	0.0	85	0.1
Mailbox	1,081	0.3	1	0.1	59	0.1
Tree	5,754	1.5	87	8.4	1,903	2.3
Rail crossing signal	61	0.0	0	0.0	3	0.0
Building	400	0.1	9	0.9	138	0.2
Traffic island	23	0.0	0	0.0	2	0.0
Fire hydrant	311	0.1	0	0.0	61	0.1
Impact attenuator	30	0.0	0	0.0	14	0.0
Other fixed object	1,980	0.5	8	0.8	441	0.5
COLLISION FIXED Subtotal	26,970	7.2	146	14.0	6,698	8.2

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	22,112	5.9	1	0.1	4,844	5.9
TOTAL MOST HARMFUL EVENT	375,671	100.0	1,040	100.0	82,032	100.0

DRIVER AGE 25-64 (continued)

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	84,570	22.5	279	26.8	11,071	13.5
Head On	6,274	1.7	220	21.2	2,749	3.4
Head On - Left Turn	11,889	3.2	46	4.4	4,699	5.7
Angle	80,599	21.5	259	24.9	23,090	28.1
Rear End	121,973	32.5	105	10.1	30,813	37.6
Rear End - Left Turn	4,817	1.3	12	1.2	1,416	1.7
Rear End - Right Turn	4,211	1.1	0	0.0	742	0.9
Sideswipe - Same Direction	35,329	9.4	20	1.9	3,458	4.2
Sideswipe - Opposite Direct	9,627	2.6	35	3.4	1,396	1.7
Other	15,560	4.1	64	6.2	2,443	3.0
Unknown	822	0.2	0	0.0	155	0.2
Total Drivers	375,671	100.0	1,040	100.0	82,032	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	332,082	88.4	823	79.1	71,355	87.0
Median	1,915	0.5	8	0.8	566	0.7
Shoulder	9,480	2.5	56	5.4	2,197	2.7
Outside of Shoulder/Curb	16,141	4.3	124	11.9	4,575	5.6
Gore	482	0.1	1	0.1	129	0.2
Other/Unknown	15,571	4.1	28	2.7	3,210	3.9
Total Drivers	375,671	100.0	1,040	100.0	82,032	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	45,425	12.1	140	13.5	10,253	12.5
U.S. & Michigan Roads	112,653	30.0	382	36.7	25,193	30.7
County & City Roads	217,593	57.9	518	49.8	46,586	56.8
Total Drivers	375,671	100.0	1,040	100.0	82,032	100.0

DRIVER AGE 25-64 (continued)

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.	12,711	3.4	103	9.9	2,987	3.6
03:00 a.m. - 05:59 a.m.	12,523	3.3	46	4.4	1,989	2.4
06:00 a.m. - 08:59 a.m.	52,978	14.1	116	11.2	10,215	12.5
09:00 a.m. - 11:59 a.m.	48,593	12.9	122	11.7	10,986	13.4
12:00 noon - 02:59 p.m.	68,724	18.3	184	17.7	16,815	20.5
03:00 p.m. - 05:59 p.m.	95,930	25.5	193	18.6	22,240	27.1
06:00 p.m. - 08:59 p.m.	53,881	14.3	144	13.8	10,837	13.2
09:00 p.m. - 11:59 p.m.	27,478	7.3	124	11.9	5,429	6.6
Unknown	2,853	0.8	8	0.8	534	0.7
Total Drivers	375,671	100.0	1,040	100.0	82,032	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	207,759	55.3	483	46.4	42,015	51.2	485	0.7
Speed too fast	19,868	5.3	124	11.9	5,085	6.2	5,823	8.9
Speed too slow	1,179	0.3	4	0.4	270	0.3	458	0.7
Failed to yield	28,286	7.5	50	4.8	7,569	9.2	15,289	23.4
Disregard traffic control	6,929	1.8	35	3.4	2,812	3.4	3,897	6.0
Drove wrong way	464	0.1	6	0.6	127	0.2	157	0.2
Drove left of center	1,927	0.5	44	4.2	614	0.7	700	1.1
Improper passing	1,790	0.5	6	0.6	241	0.3	694	1.1
Improper lane use	7,059	1.9	13	1.3	872	1.1	2,958	4.5
Improper turn	3,488	0.9	5	0.5	569	0.7	1,417	2.2
Improper/no signal	470	0.1	1	0.1	75	0.1	113	0.2
Improper backing	6,406	1.7	1	0.1	208	0.3	1,847	2.8
Unable to stop in assured clear distance	46,669	12.4	25	2.4	10,980	13.4	22,811	34.8
Reckless driving	1,282	0.3	32	3.1	533	0.6	623	1.0
Careless\Negligent driving	6,499	1.7	47	4.5	2,251	2.7	3,485	5.3
Other	12,978	3.5	49	4.7	3,025	3.7	3,586	5.5
Unknown	22,618	6.0	115	11.1	4,786	5.8	1,112	1.7
Total Drivers	375,671	100.0	1,040	100.0	82,032	100.0	65,455	100.0

DRIVER AGE 25-64 (continued)

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Sunday	32,531	8.7	128	12.3	7,536	9.2
Monday	54,553	14.5	130	12.5	11,864	14.5
Tuesday	57,462	15.3	135	13.0	12,116	14.8
Wednesday	60,230	16.0	144	13.8	12,770	15.6
Thursday	58,583	15.6	154	14.8	12,394	15.1
Friday	68,164	18.1	161	15.5	15,001	18.3
Saturday	44,148	11.8	188	18.1	10,351	12.6
Total Drivers	375,671	100.0	1,040	100.0	82,032	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	213,978	57.0	753	72.4	44,501	54.2
Female	160,490	42.7	286	27.5	37,276	45.4
Unknown	1,203	0.3	1	0.1	255	0.3
Total Drivers	375,671	100.0	1,040	100.0	82,032	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	273,522	72.8	708	68.1	55,834	68.1
2 occupants	58,438	15.6	211	20.3	15,172	18.5
3 occupants	17,264	4.6	62	6.0	4,809	5.9
4 occupants	7,751	2.1	30	2.9	2,204	2.7
5 occupants	2,678	0.7	8	0.8	831	1.0
6 + occupants	2,878	0.8	8	0.8	713	0.9
0 occupants	6,516	1.7	4	0.4	1,157	1.4
Unknown	6,624	1.8	9	0.9	1,312	1.6
Total Drivers	375,671	100.0	1,040	100.0	82,032	100.0

DRIVER AGE 25-64 (continued)

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	244,991	65.2	545	52.4	54,569	66.5
Van and Motorhome	33,385	8.9	66	6.3	7,409	9.0
Pickup	63,823	17.0	176	16.9	11,773	14.4
Small Truck (under 10,000 lbs.)	13,557	3.6	37	3.6	2,843	3.5
Motorcycle	2,480	0.7	67	6.4	1,828	2.2
Moped	155	0.0	1	0.1	98	0.1
Go Cart	7	0.0	0	0.0	4	0.0
Snowmobile	240	0.1	14	1.3	157	0.2
Off Road Vehicle	93	0.0	4	0.4	81	0.1
Other	1,147	0.3	8	0.8	241	0.3
Unknown	1,154	0.3	0	0.0	246	0.3
CDL Truck/Bus (breakdown below)	14,639	3.9	122	11.7	2,783	3.4
Total Number of Drivers	375,671	100.0	1,040	100.0	82,032	100.0

NOTES:

- 1) School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.
- 2) These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.

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	7,608	52.0	71	58.2	1,467	52.7
Commercial Vehicle: Group B	3,226	22.0	30	24.6	610	21.9
Commercial Vehicle: Group C	433	3.0	1	0.8	76	2.7
Other Truck	606	4.1	6	4.9	109	3.9
Unknown Truck	2,766	18.9	14	11.5	521	18.7
Total Number of Drivers	14,639	100.0	122	100.0	2,783	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

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	20,849	48.3	136	67.7	4,784	48.6
Turning left	4,771	11.1	30	14.9	1,383	14.1
Turning right	1,528	3.5	2	1.0	215	2.2
Stopped on roadway	4,272	9.9	6	3.0	1,127	11.5
In prior crash	54	0.1	0	0.0	14	0.1
Changing lanes	1,293	3.0	3	1.5	137	1.4
Backing	1,368	3.2	0	0.0	62	0.6
Slowing/stopping on roadway	3,417	7.9	2	1.0	854	8.7
Slowing/stopping other	57	0.1	0	0.0	7	0.1
Starting up on roadway	1,158	2.7	6	3.0	313	3.2
Starting up other	42	0.1	0	0.0	7	0.1
Entering parking	111	0.3	0	0.0	12	0.1
Leaving parking	217	0.5	0	0.0	36	0.4
Entering roadway	1,127	2.6	8	4.0	214	2.2
Leaving roadway	79	0.2	1	0.5	26	0.3
Making U-turn	139	0.3	1	0.5	26	0.3
Overtaking or passing	265	0.6	3	1.5	40	0.4
Avoiding object	33	0.1	0	0.0	8	0.1
Avoiding animal	38	0.1	0	0.0	2	0.0
Avoiding pedestrian	14	0.0	0	0.0	5	0.1
Avoiding vehicle (front/back)	245	0.6	1	0.5	72	0.7
Avoiding vehicle (angle)	115	0.3	1	0.5	32	0.3
Driverless moving	4	0.0	0	0.0	1	0.0
Parked	191	0.4	1	0.5	16	0.2
Crossing at intersection	4	0.0	0	0.0	2	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	1	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	27	0.1	0	0.0	10	0.1
Playing in roadway	6	0.0	0	0.0	1	0.0
In roadway other reason	1	0.0	0	0.0	0	0.0
Not in roadway	12	0.0	0	0.0	7	0.1
Other	9	0.0	0	0.0	4	0.0
Unknown	1,692	3.9	0	0.0	420	4.3
Total Drivers	43,141	100.0	201	100.0	9,838	100.0

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

DRIVER AGE 65 & OVER (continued)

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	101	0.2	0	0.0	25	0.3
Cross center/median	51	0.1	0	0.0	14	0.1
Ran off road left	41	0.1	0	0.0	7	0.1
Ran off road right	66	0.2	0	0.0	16	0.2
Re-enter road	7	0.0	0	0.0	1	0.0
Overturn	310	0.7	4	2.0	160	1.6
Separation of units	213	0.5	2	1.0	30	0.3
Fire/explosion	42	0.1	1	0.5	3	0.0
Immersion	2	0.0	1	0.5	0	0.0
Jackknife	24	0.1	0	0.0	1	0.0
Downhill runaway	131	0.3	0	0.0	30	0.3
Cargo loss/shift	37	0.1	0	0.0	4	0.0
Individual fell off	13	0.0	0	0.0	9	0.1
Other noncollision	96	0.2	1	0.5	20	0.2
NONCOLLISION Subtotal	1,134	2.6	9	4.5	320	3.3

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	187	0.4	12	6.0	149	1.5
Pedalcycle (Bicyclist)	171	0.4	2	1.0	137	1.4
Motor vehicle in transport	31,397	71.4	150	74.6	7,815	79.4
Parked motor vehicle	1,073	2.4	0	0.0	104	1.1
Railway train	20	0.0	3	1.5	8	0.1
Animal	3,935	9.0	0	0.0	54	0.5
Other nonfixed objects	346	0.8	0	0.0	25	0.3
COLLISION NONFIXED Subtotal	37,129	86.1	167	83.1	8,292	84.3

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)

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	23	0.1	1	0.5	5	0.1
Bridge parapet end	9	0.0	0	0.0	0	0.0
Bridge rail	16	0.0	0	0.0	4	0.0
Guardrail face	125	0.3	0	0.0	21	0.2
Guardrail end	24	0.1	0	0.0	12	0.1
Median barrier	87	0.2	2	1.0	30	0.3
Highway traffic sign post	129	0.3	0	0.0	5	0.1
Signal post	17	0.0	0	0.0	1	0.0
Luminaire/light support	35	0.1	0	0.0	11	0.1
Utility pole	155	0.4	2	1.0	58	0.6
Other pole	63	0.1	0	0.0	14	0.1
Culvert	32	0.1	0	0.0	22	0.2
Curb	68	0.2	0	0.0	10	0.1
Ditch	339	0.8	2	1.0	86	0.9
Embankment	73	0.2	0	0.0	26	0.3
Fence	57	0.1	0	0.0	12	0.1
Mailbox	118	0.3	0	0.0	12	0.1
Tree	538	1.2	11	5.5	231	2.3
Rail crossing signal	7	0.0	0	0.0	0	0.0
Building	53	0.1	2	1.0	21	0.2
Traffic island	5	0.0	0	0.0	2	0.0
Fire hydrant	26	0.1	0	0.0	5	0.1
Impact attenuator	7	0.0	0	0.0	3	0.0
Other fixed object	200	0.5	4	2.0	30	0.3
COLLISION FIXED Subtotal	2,206	5.1	24	11.9	621	6.3

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	2,672	6.2	1	0.5	605	6.1
TOTAL MOST HARMFUL EVENT	43,141	100.0	201	100.0	9,838	100.0

DRIVER AGE 65 & OVER (continued)

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	7,026	16.3	39	19.4	953	9.7
Head On	634	1.5	32	15.9	301	3.1
Head On - Left Turn	2,008	4.7	18	9.0	814	8.3
Angle	13,433	31.1	75	37.3	3,637	37.0
Rear End	11,227	26.0	18	9.0	3,026	30.8
Rear End - Left Turn	551	1.3	1	0.5	175	1.8
Rear End - Right Turn	412	1.0	0	0.0	75	0.8
Sideswipe - Same Direction	4,697	10.9	2	1.0	348	3.5
Sideswipe - Opposite Direct	1,178	2.7	5	2.5	168	1.7
Other	1,872	4.3	11	5.5	322	3.3
Unknown	103	0.2	0	0.0	19	0.2
Total Drivers	43,141	100.0	201	100.0	9,838	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	38,912	90.2	169	84.1	8,753	89.0
Median	149	0.3	3	1.5	35	0.4
Shoulder	787	1.8	7	3.5	173	1.8
Outside of Shoulder/Curb	1,415	3.3	19	9.5	462	4.7
Gore	39	0.1	0	0.0	8	0.1
Other/Unknown	1,839	4.3	3	1.5	407	4.1
Total Drivers	43,141	100.0	201	100.0	9,838	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	3,153	7.3	12	6.0	719	7.3
U.S. & Michigan Roads	13,990	32.4	97	48.3	3,238	32.9
County & City Roads	25,998	60.3	92	45.8	5,881	59.8
Total Drivers	43,141	100.0	201	100.0	9,838	100.0

DRIVER AGE 65 & OVER (continued)

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.	422	1.0	4	2.0	69	0.7
03:00 a.m. - 05:59 a.m.	397	0.9	0	0.0	63	0.6
06:00 a.m. - 08:59 a.m.	3,278	7.6	13	6.5	660	6.7
09:00 a.m. - 11:59 a.m.	8,934	20.7	41	20.4	2,122	21.6
12:00 noon - 02:59 p.m.	11,593	26.9	56	27.9	2,829	28.8
03:00 p.m. - 05:59 p.m.	11,152	25.9	45	22.4	2,695	27.4
06:00 p.m. - 08:59 p.m.	5,084	11.8	30	14.9	1,007	10.2
09:00 p.m. - 11:59 p.m.	1,978	4.6	12	6.0	326	3.3
Unknown	303	0.7	0	0.0	67	0.7
Total Drivers	43,141	100.0	201	100.0	9,838	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	20,102	46.6	61	30.3	4,191	42.6	35	0.4
Speed too fast	1,263	2.9	9	4.5	311	3.2	281	3.2
Speed too slow	121	0.3	0	0.0	27	0.3	45	0.5
Failed to yield	7,236	16.8	55	27.4	1,995	20.3	3,583	41.1
Disregard traffic control	1,348	3.1	20	10.0	512	5.2	716	8.2
Drove wrong way	84	0.2	1	0.5	23	0.2	35	0.4
Drove left of center	302	0.7	9	4.5	102	1.0	88	1.0
Improper passing	214	0.5	2	1.0	17	0.2	72	0.8
Improper lane use	1,366	3.2	2	1.0	137	1.4	511	5.9
Improper turn	743	1.7	0	0.0	125	1.3	323	3.7
Improper/no signal	65	0.2	0	0.0	6	0.1	20	0.2
Improper backing	1,032	2.4	1	0.5	37	0.4	232	2.7
Unable to stop in assured clear distance	4,499	10.4	8	4.0	1,237	12.6	2,061	23.7
Reckless driving	33	0.1	1	0.5	9	0.1	9	0.1
Careless/Negligent driving	681	1.6	5	2.5	232	2.4	301	3.5
Other	1,487	3.4	9	4.5	331	3.4	282	3.2
Unknown	2,565	5.9	18	9.0	546	5.5	115	1.3
Total Drivers	43,141	100.0	201	100.0	9,838	100.0	8,709	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)

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Sunday	3,738	8.7	25	12.4	848	8.6
Monday	6,303	14.6	26	12.9	1,453	14.8
Tuesday	6,631	15.4	39	19.4	1,473	15.0
Wednesday	6,910	16.0	31	15.4	1,501	15.3
Thursday	6,626	15.4	25	12.4	1,535	15.6
Friday	7,831	18.2	35	17.4	1,831	18.6
Saturday	5,102	11.8	20	10.0	1,197	12.2
Total Drivers	43,141	100.0	201	100.0	9,838	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	25,353	58.8	134	66.7	5,618	57.1
Female	17,669	41.0	67	33.3	4,194	42.6
Unknown	119	0.3	0	0.0	26	0.3
Total Drivers	43,141	100.0	201	100.0	9,838	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	30,765	71.3	136	67.7	6,742	68.5
2 occupants	9,233	21.4	53	26.4	2,371	24.1
3 occupants	992	2.3	6	3.0	254	2.6
4 occupants	377	0.9	2	1.0	99	1.0
5 occupants	98	0.2	0	0.0	38	0.4
6 + occupants	218	0.5	2	1.0	55	0.6
0 occupants	737	1.7	1	0.5	139	1.4
Unknown	721	1.7	1	0.5	140	1.4
Total Drivers	43,141	100.0	201	100.0	9,838	100.0

DRIVER AGE 65 & OVER (continued)

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	32,766	76.0	148	73.6	7,576	77.0
Van and Motorhome	3,699	8.6	15	7.5	856	8.7
Pickup	5,040	11.7	27	13.4	1,001	10.2
Small Truck (under 10,000 lbs.)	859	2.0	2	1.0	210	2.1
Motorcycle	64	0.1	1	0.5	54	0.5
Moped	11	0.0	0	0.0	10	0.1
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	4	0.0	0	0.0	3	0.0
Off Road Vehicle	9	0.0	2	1.0	5	0.1
Other	90	0.2	1	0.5	24	0.2
Unknown	117	0.3	0	0.0	24	0.2
CDL Truck/Bus (breakdown below)	482	1.1	5	2.5	75	0.8
Total Number of Drivers	43,141	100.0	201	100.0	9,838	100.0

NOTES:

- 1) School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.
- 2) These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.

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	222	46.1	2	40.0	34	45.3
Commercial Vehicle: Group B	117	24.3	2	40.0	23	30.7
Commercial Vehicle: Group C	34	7.1	0	0.0	4	5.3
Other Truck	23	4.8	0	0.0	2	2.7
Unknown Truck	86	17.8	1	20.0	12	16.0
Total Number of Drivers	482	100.0	5	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.

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Alcohol

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

Revised October 25, 2005

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	21	6	1	2	9	3	0	2	5
Injured	1,796	85	8	2	95	68	3	2	73
In Crashes	2,246	99	9	4	112	76	3	4	83

PEDESTRIAN	Total	In Crash				Pedestrian			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	140	38	10	11	59	32	8	8	48
Injured	2,403	206	12	8	226	113	5	2	120
In Crashes	2,864	261	22	20	303	150	13	10	173

MOTORCYCLIST	Total	In Crash				Motorcyclist			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	79	25	5	3	33	22	4	3	29
Injured	2,679	238	8	10	256	194	4	8	206
In Crashes	3,725	317	15	13	345	258	10	11	279

SNOWMOBILER	Total	In Crash				Snowmobiler			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	14	4	0	0	4	4	0	0	4
Injured	224	37	0	2	39	35	0	1	36
In Crashes	415	60	0	3	63	51	0	2	53

ORV/ATV RIDER	Total	In Crash				ORV/ATV Rider			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	12	5	0	1	6	5	0	1	6
Injured	238	36	0	1	37	35	0	1	36
In Crashes	320	44	0	2	46	43	0	2	45

DRIVER	Total	In Crash				Driver			
		Drinking	Drug	Both	Total	Drinking	Drug	Both	Total
Killed	714	182	37	41	260	171	34	37	242
Injured	71,108	5,462	383	322	6,167	4,078	262	242	4,582
In Crashes	635,913	20,947	1,278	1,027	23,252	13,864	743	649	15,256



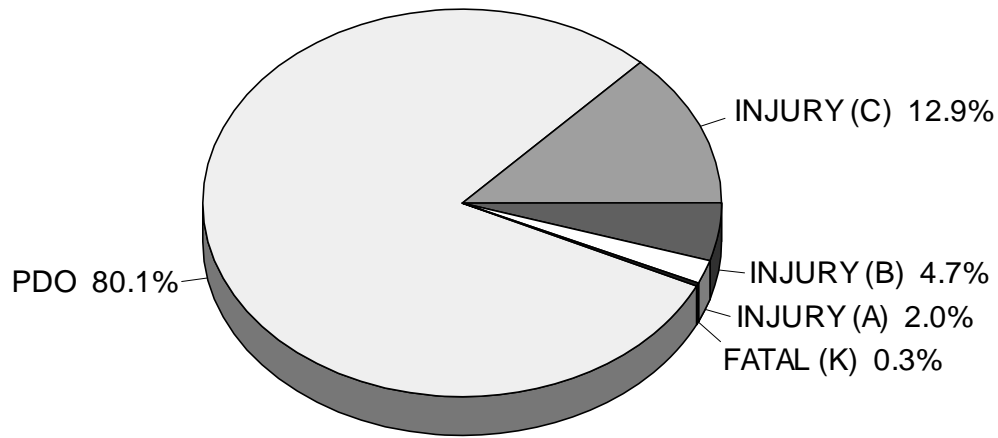
NOTE: These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.

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

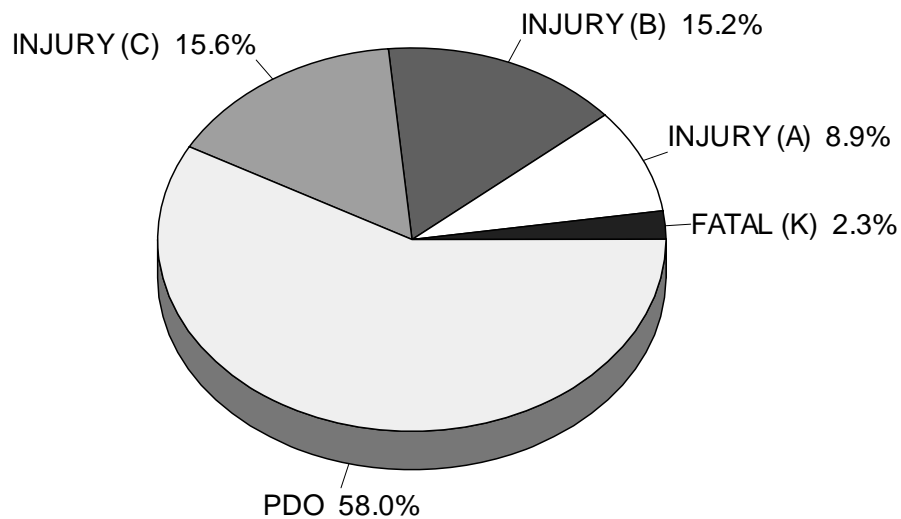
MOST SEVERE OUTCOME IN CRASH

AGE OF DRIVER IN CRASH	Driver				Fatal				Injury			
	HBD	Drug	Both	Total	HBD	Drug	Both	Total	HBD	Drug	Both	Total
13 years & under	13	0	0	13	0	0	0	0	7	0	0	7
14 years	5	0	0	5	0	0	0	0	3	0	0	3
15 years	14	0	4	18	0	0	1	1	8	0	2	10
16 years	92	10	8	110	1	0	0	1	42	4	2	48
17 years	192	30	13	235	2	0	2	4	79	15	4	98
18 years	394	37	20	451	6	4	1	11	153	22	7	182
19 years	461	24	23	508	5	0	2	7	172	8	13	193
20 years	468	25	18	511	8	0	0	8	198	12	5	215
21 - 24 years	2,578	77	86	2,741	47	6	10	63	953	27	38	1,018
25 - 34 years	3,477	160	168	3,805	73	10	11	94	1,364	67	84	1,515
35 - 44 years	3,009	187	156	3,352	69	13	6	88	1,207	88	64	1,359
45 - 54 years	2,007	144	97	2,248	34	9	11	54	817	76	49	942
55 - 64 years	683	32	30	745	11	3	0	14	276	14	11	301
65 - 69 years	150	7	6	163	5	0	0	5	54	5	1	60
70 - 74 years	87	4	4	95	6	0	0	6	27	2	0	29
75 - 79 years	47	1	6	54	1	0	1	2	19	1	1	21
80 - 84 years	20	0	1	21	3	0	0	3	11	0	1	12
85 - 89 years	8	0	0	8	0	0	0	0	2	0	0	2
90 years & over	1	0	0	1	0	0	0	0	1	0	0	1
Unknown	158	5	9	172	0	0	0	0	39	0	3	42
Total	13,864	743	649	15,256	271	45	45	361	5,432	341	285	6,058

ALL CRASHES BY INJURY SEVERITY



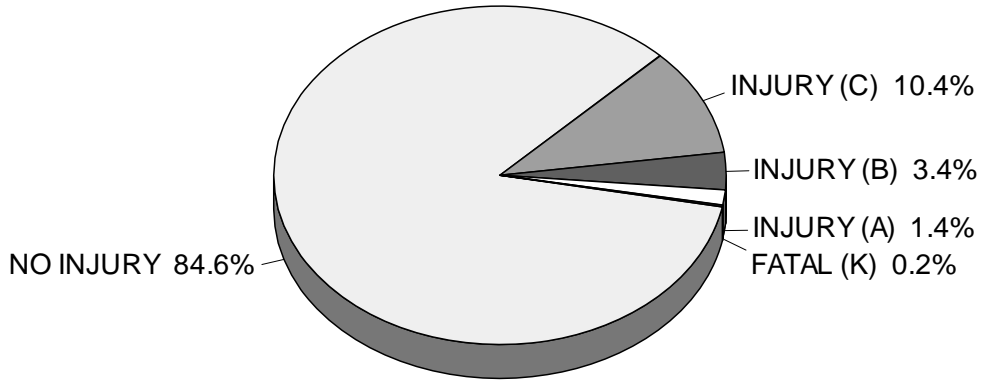
HBD CRASHES BY INJURY SEVERITY



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

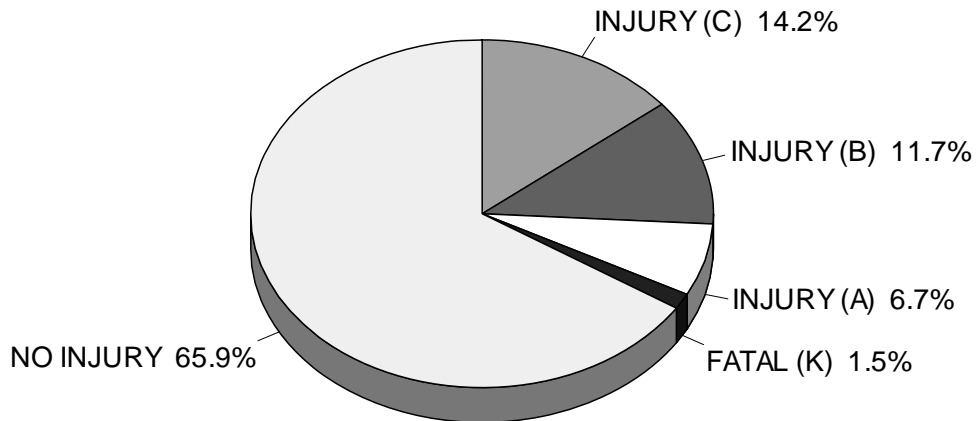
DEATH & INJURY PER CRASH INVOLVED OCCUPANT

Occupants in Crashes



The majority of occupants involved in crashes are not injured (84.6%). 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

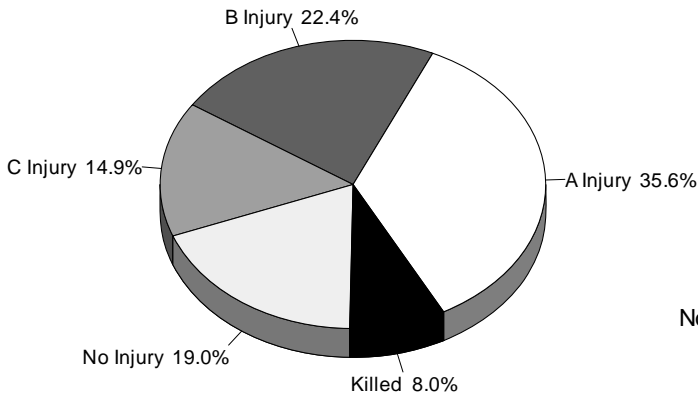


Crashes involving drinking tend to be more serious than nondrinking crashes. The percentage of fatalities is seven and one-half times higher than in all crashes and the most serious injury level (A) is almost five times higher.

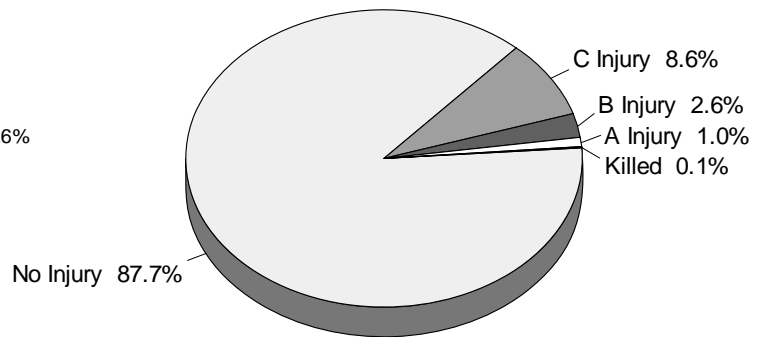
ALL DRIVERS and HBD DRIVERS INJURY SEVERITY - EJECTED vs. NOT EJECTED

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

Ejected

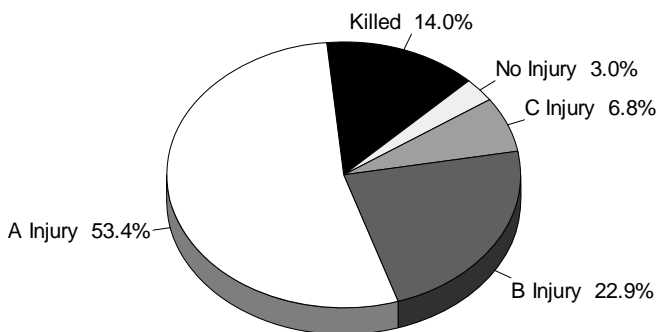


Not Ejected

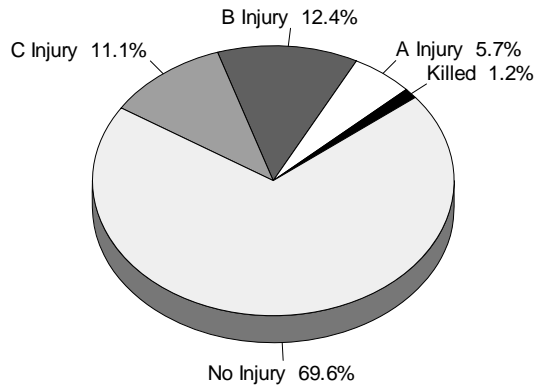


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for drivers who had been drinking in both ejected and nonejected events.

HBD Ejected

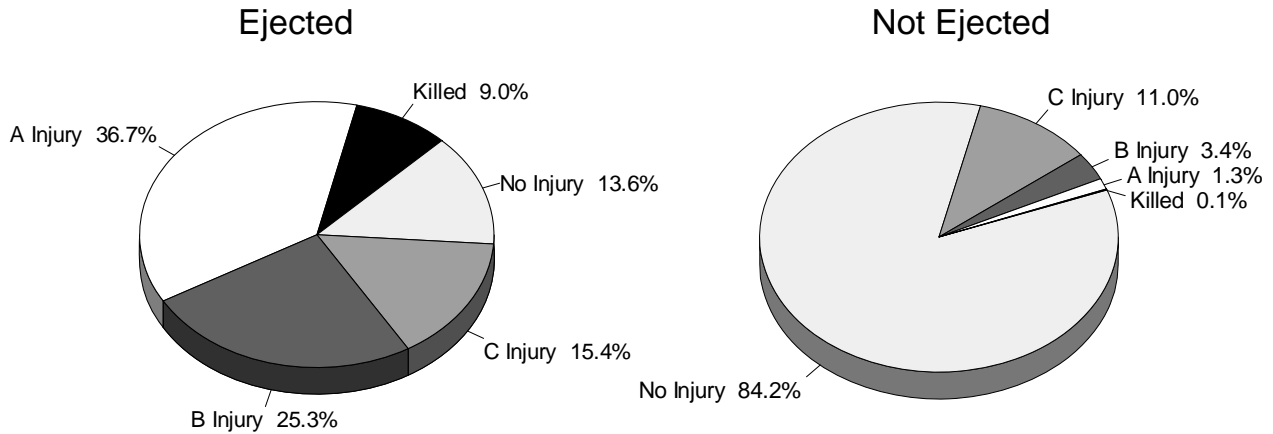


HBD Not Ejected

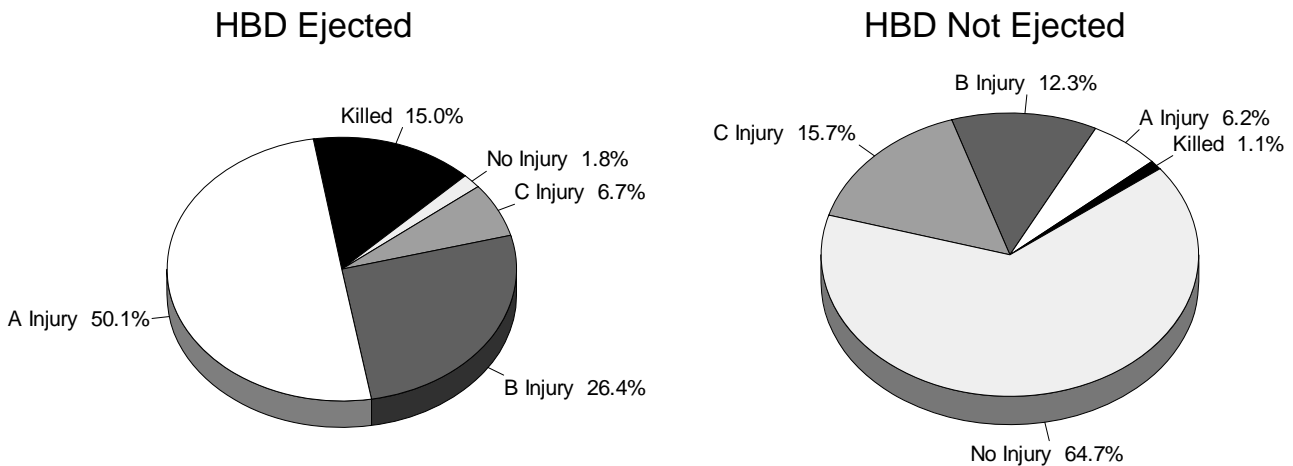


ALL OCCUPANTS and OCCUPANTS of HBD CRASHES INJURY SEVERITY - EJECTED vs. NOT EJECTED

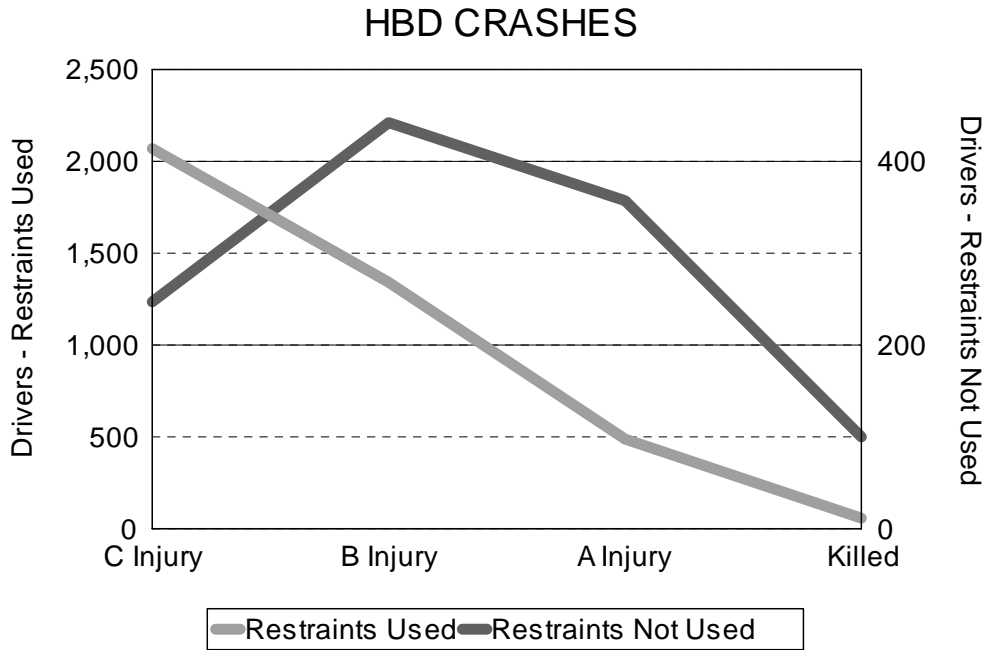
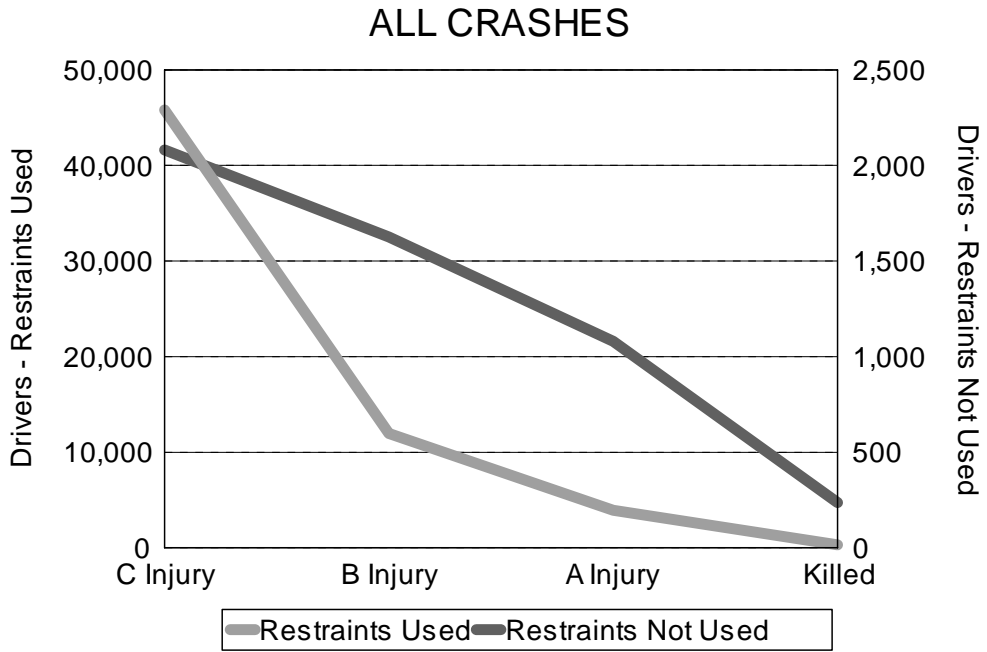
As can be seen in the two charts below, death and injury are much more likely when *occupants* are ejected from their vehicles.



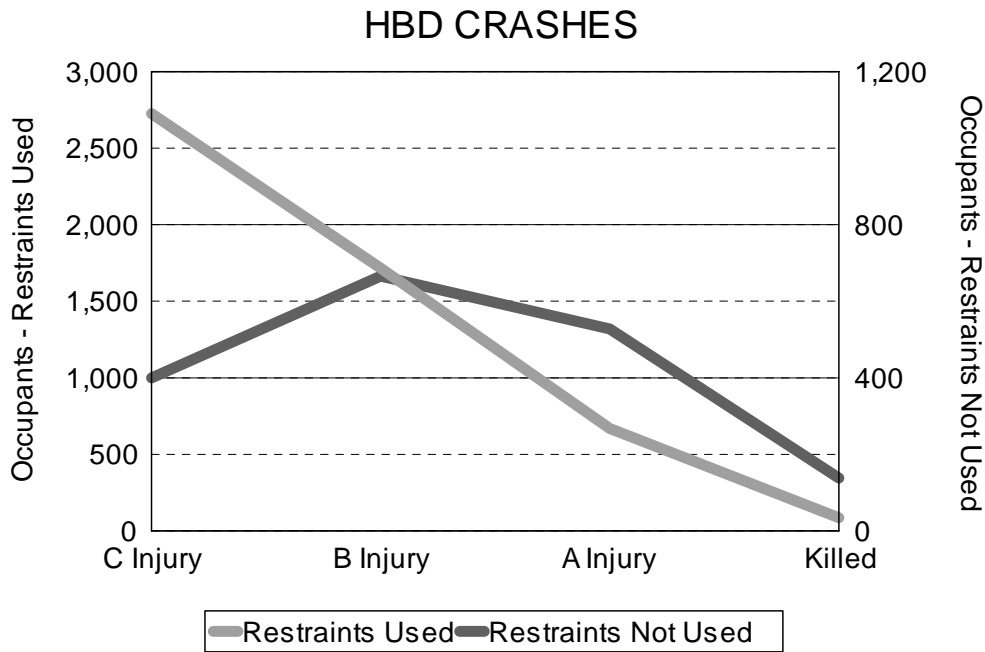
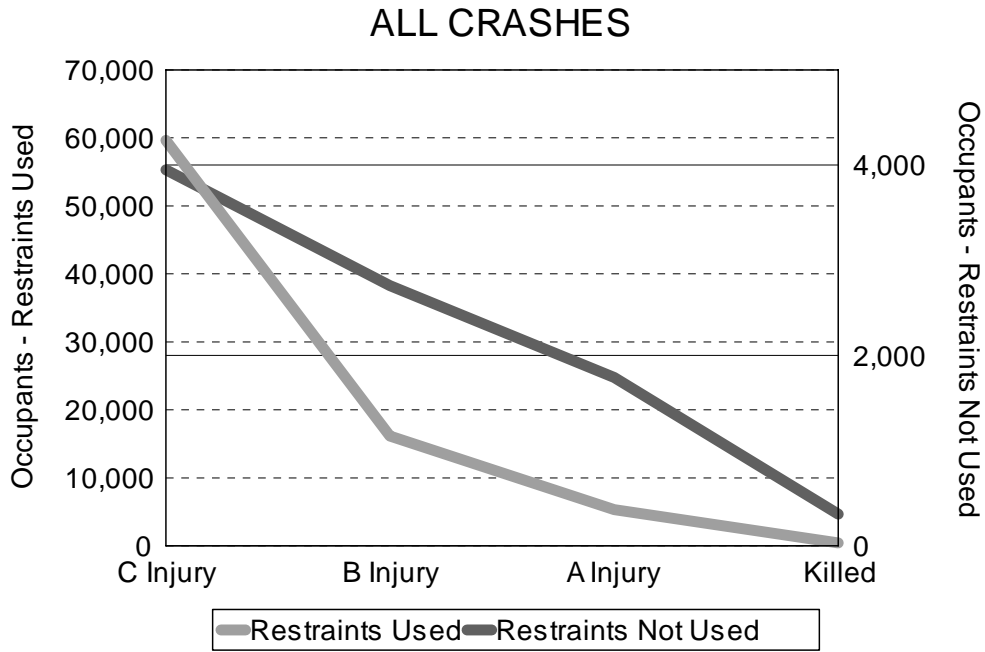
When compared to the charts above, the charts below demonstrate that the injury severity is much worse for occupants in a crash where drinking is reported in both ejected and nonejected events.



INJURY SEVERITY & RESTRAINT USE FOR CRASH INVOLVED KABC DRIVERS



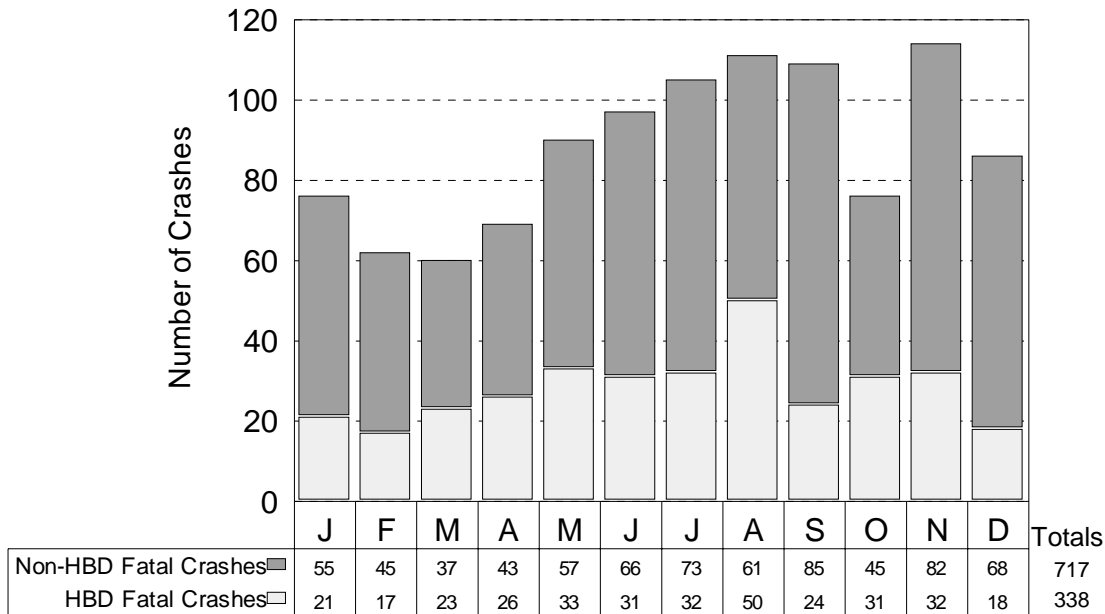
INJURY SEVERITY & RESTRAINT USE FOR CRASH INVOLVED KABC OCCUPANTS



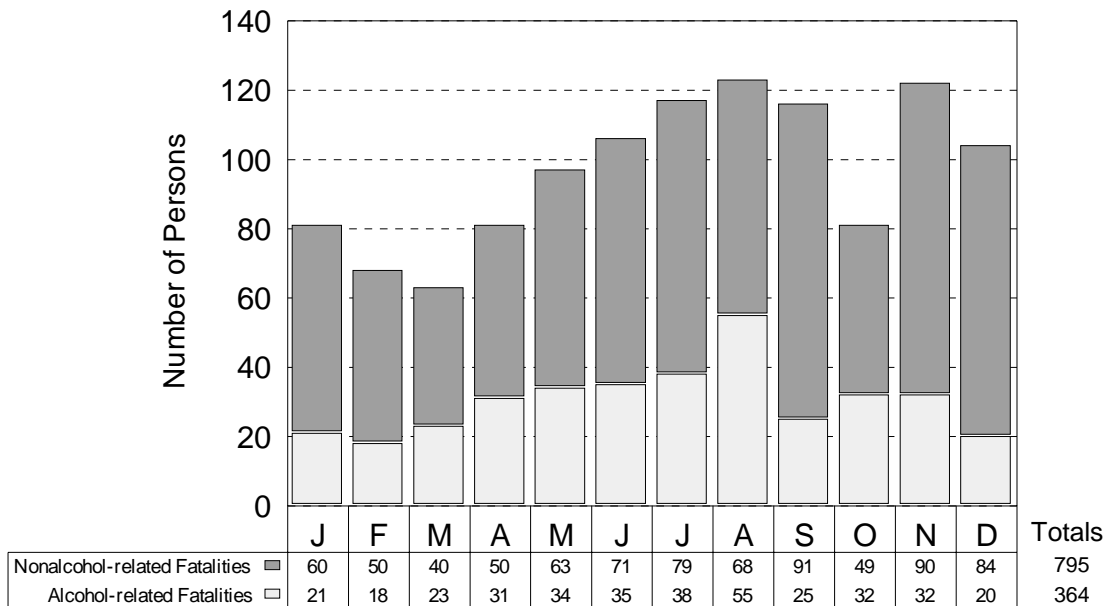
ALCOHOL INVOLVEMENT IN FATAL CRASHES

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

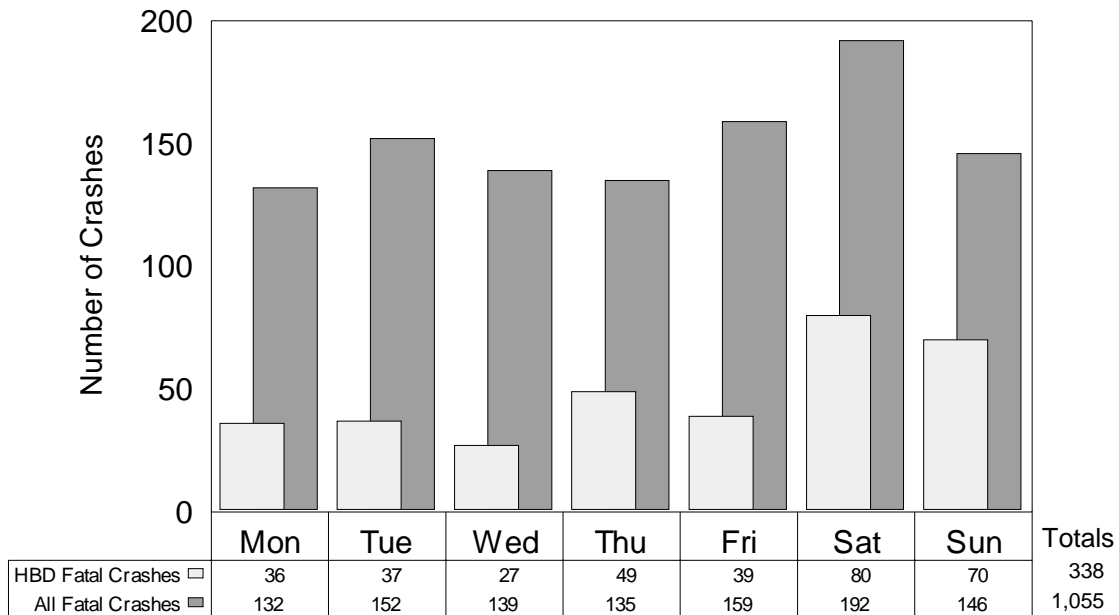
HBD Fatal Crashes by Month



Alcohol-related Fatalities by Month

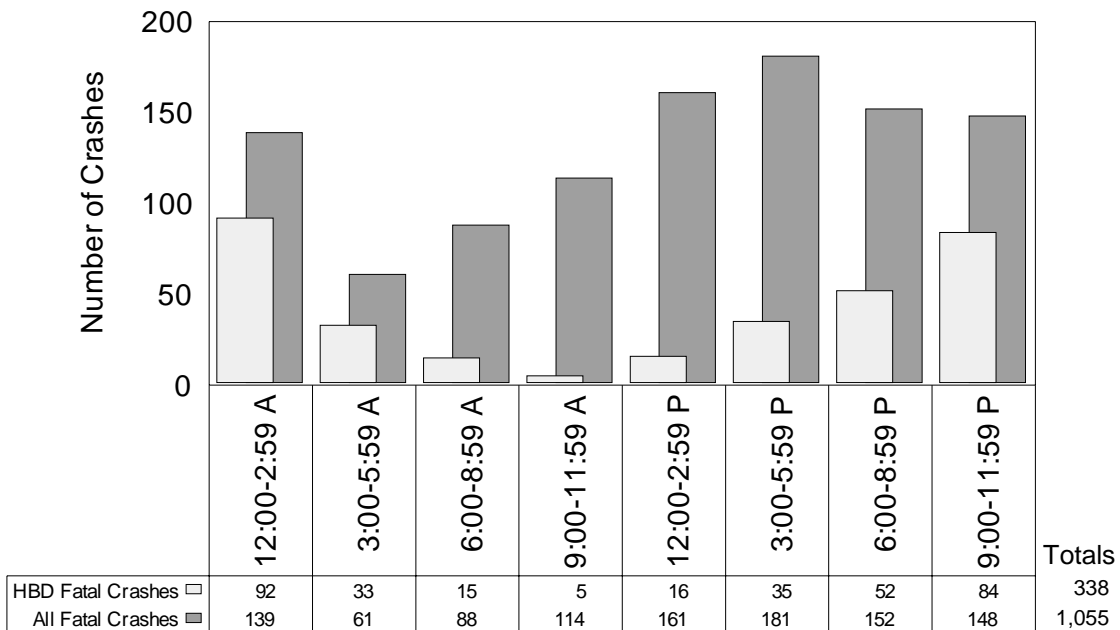


HBD Fatal Crashes by Day of Week



Friday and Saturday had the most fatal crashes in 2004. Saturday and Sunday had the highest proportions of drinking-related fatal crashes. 47.9 percent of the fatal crashes on Sunday involved drinking, while only 19.4 percent of fatal crashes on Wednesday involved drinking.

HBD Fatal Crashes by Time of Day



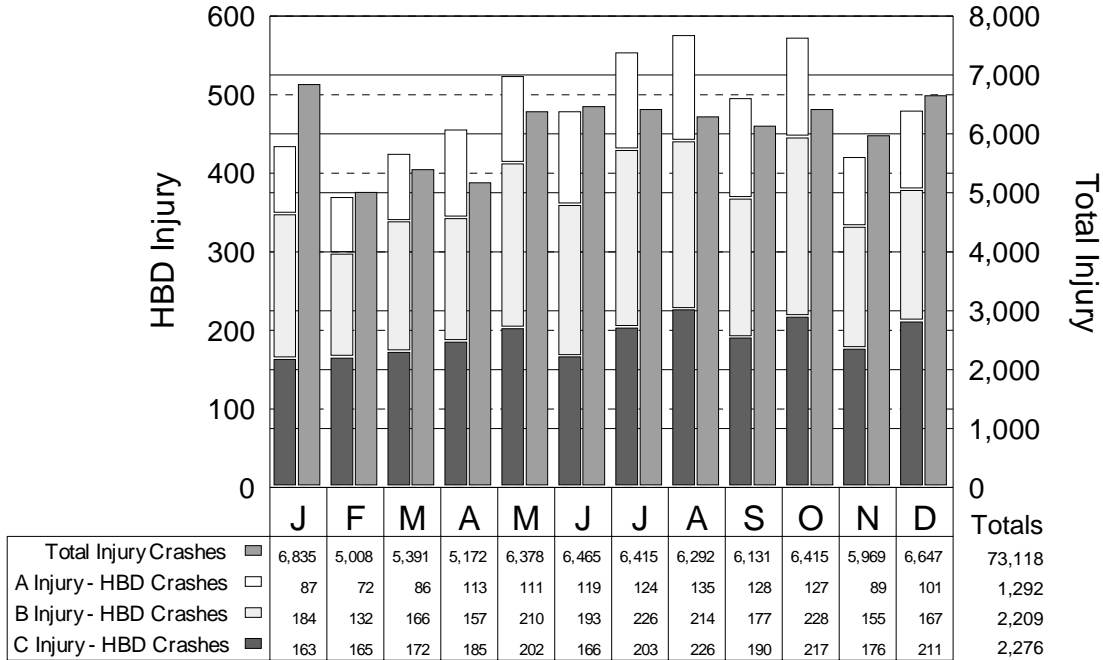
Not surprisingly, the 9:00 to 11:59 PM and midnight to 2:59 AM time periods had the highest rate of drinking involvement (56.8% and 66.2%), while the late morning hours had the lowest (4.4%).

There were 11 fatal crashes where the time of day was unknown. Of these 11 fatal crashes, 6 were HBD.

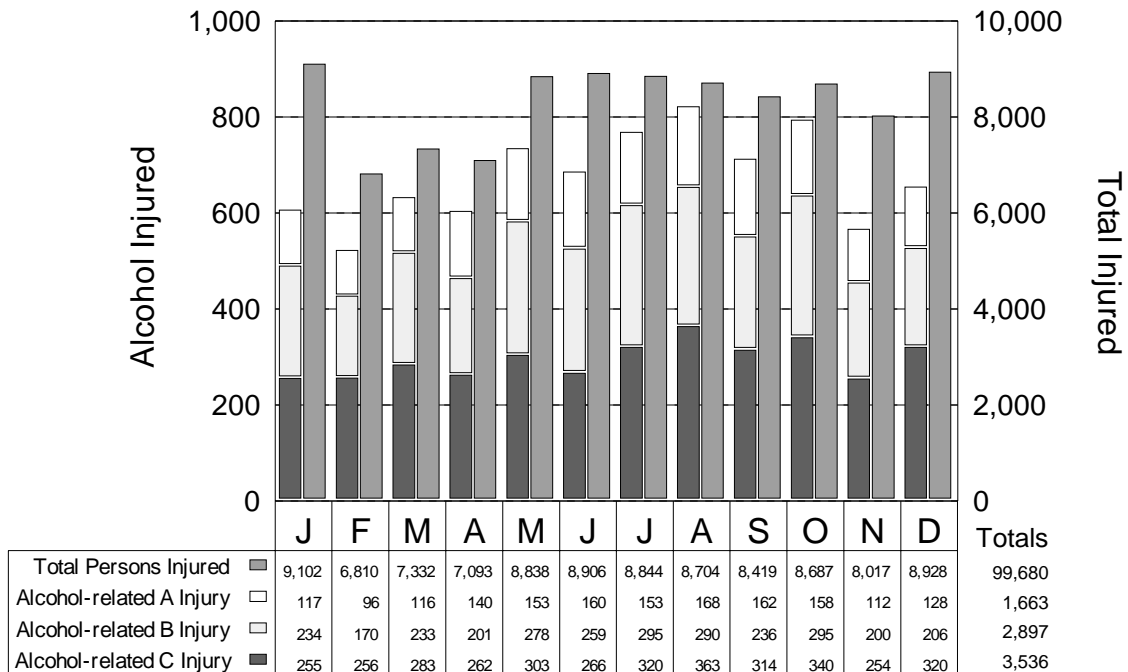
ALCOHOL INVOLVEMENT IN INJURY CRASHES

Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2004, the highest number of HBD injury crashes occurred in August with 575. The highest proportion of HBD injury crashes occurred in August with 9.1 percent of the injury crashes in that month involving alcohol.

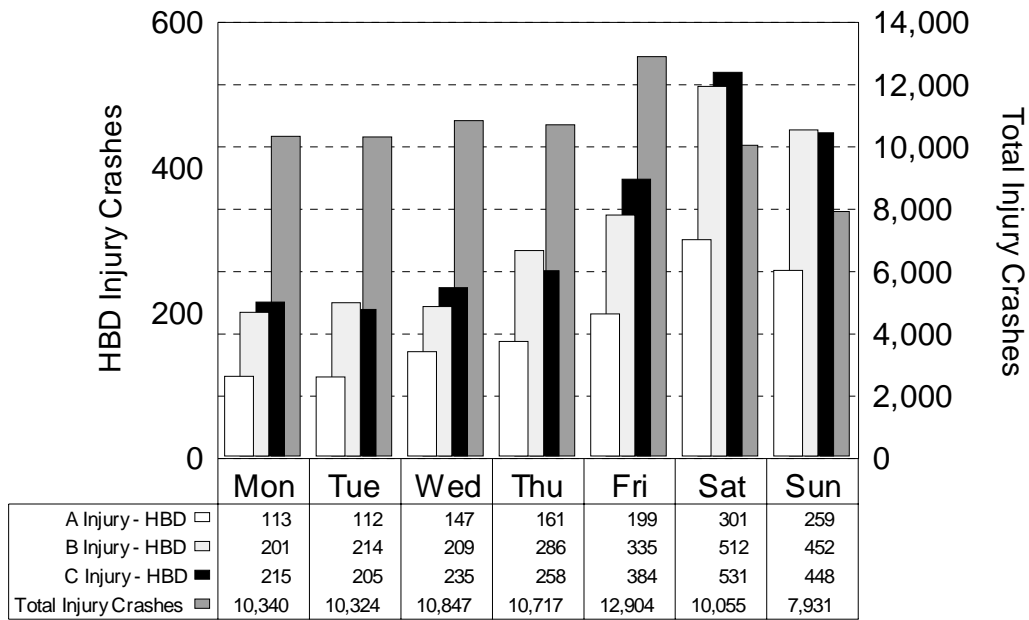
HBD Injury Crashes by Month



Alcohol-related Injuries by Month

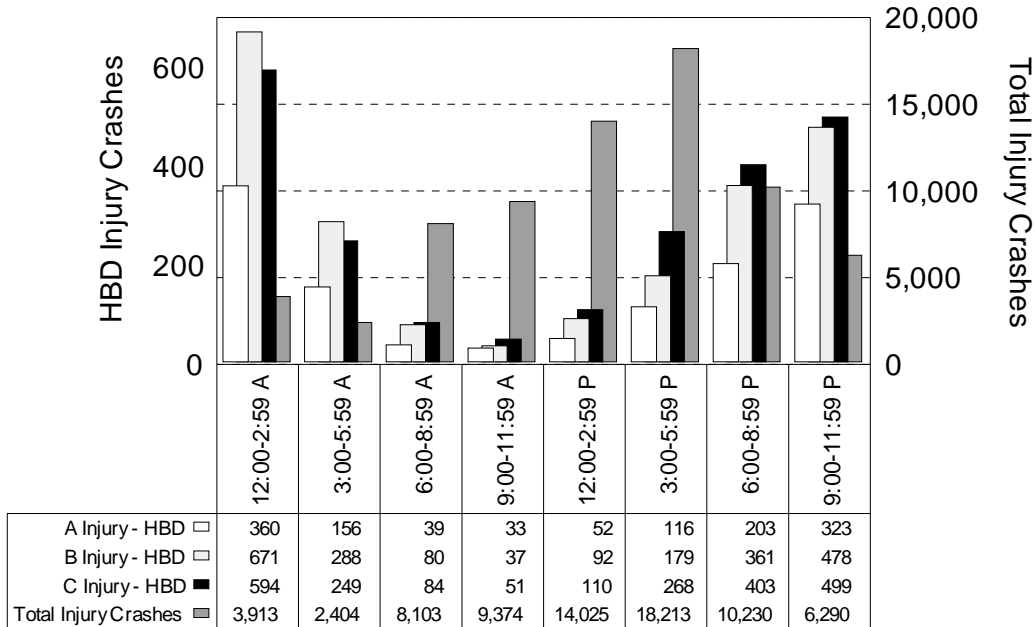


HBD Injury Crashes by Day of Week



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



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	42	0	3	4	9	9	10	7	0	0	0
Alger	16	0	1	2	4	0	6	1	1	1	0
Allegan	198	0	20	41	45	52	25	10	3	0	2
Alpena	46	0	8	8	10	11	6	3	0	0	0
Antrim	36	0	3	4	7	17	4	0	1	0	0
Arenac	38	0	4	7	6	11	7	2	1	0	0
Baraga	16	0	1	4	7	1	2	0	1	0	0
Barry	114	0	20	11	30	30	17	4	0	0	2
Bay	217	1	30	41	52	44	31	14	1	1	2
Benzie	28	0	4	7	3	6	4	1	1	1	1
Berrien	216	2	22	40	45	55	32	12	4	3	1
Branch	59	0	8	15	12	13	5	3	3	0	0
Calhoun	214	2	31	44	53	48	25	4	1	2	4
Cass	104	1	8	22	31	21	15	4	2	0	0
Charlevoix	31	0	4	8	8	7	2	2	0	0	0
Cheboygan	56	0	7	9	12	12	10	4	1	1	0
Chippewa	75	0	8	13	19	17	10	6	2	0	0
Clare	45	0	5	8	9	12	6	2	2	1	0
Clinton	82	1	17	20	19	8	14	3	0	0	0
Crawford	37	1	4	6	8	10	8	0	0	0	0
Delta	57	1	6	9	17	14	8	2	0	0	0
Dickinson	34	0	10	5	3	6	6	3	0	1	0
Eaton	132	0	9	28	33	36	13	6	3	1	3
Emmet	66	0	9	13	10	13	15	2	3	1	0
Genesee	702	0	50	116	187	172	98	44	11	7	17
Gladwin	43	2	3	6	7	13	6	3	2	1	0
Gogebic	23	0	4	6	3	6	2	0	2	0	0
Grand Traverse	132	0	21	23	30	31	21	3	2	0	1
Gratiot	55	0	6	7	16	13	7	4	1	0	1
Hillsdale	76	1	7	17	17	22	8	4	0	0	0
Houghton	65	0	12	19	14	9	7	1	3	0	0
Huron	41	1	7	9	10	9	5	0	0	0	0
Ingham	385	0	55	87	117	49	48	20	4	0	5
Ionia	105	1	19	24	26	18	9	5	0	1	2
Iosco	51	0	4	13	14	8	10	1	1	0	0
Iron	27	0	3	3	6	7	4	4	0	0	0
Isabella	104	0	22	24	27	14	10	5	0	0	2
Jackson	253	1	27	48	69	46	40	16	2	1	3
Kalamazoo	408	0	43	109	98	92	39	18	4	2	3
Kalkaska	40	1	4	6	10	9	7	2	1	0	0
Kent	1,051	2	116	243	307	199	116	32	10	4	22
Keweenaw	8	0	2	1	2	0	1	1	1	0	0
Lake	27	0	3	2	8	5	3	3	3	0	0
Lapeer	137	1	19	32	26	27	21	5	4	1	1
Leelanau	46	0	7	6	15	4	12	2	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	120	0	13	25	34	25	19	2	0	1	1
Livingston	294	1	40	58	58	67	54	7	4	0	5
Luce	10	0	2	1	0	3	2	2	0	0	0
Mackinac	22	0	2	6	7	0	6	1	0	0	0
Macomb	1,069	0	125	176	236	271	171	50	25	6	9
Manistee	32	0	2	5	10	3	2	4	6	0	0
Marquette	103	0	21	25	20	15	10	9	2	0	1
Mason	43	0	9	8	14	6	4	2	0	0	0
Mecosta	76	0	14	19	13	13	9	6	1	0	1
Menominee	60	0	7	10	13	13	12	4	1	0	0
Midland	72	0	10	14	18	18	4	7	1	0	0
Missaukee	29	0	4	8	7	7	1	1	0	0	1
Monroe	264	1	34	32	57	75	39	17	4	1	4
Montcalm	99	1	21	20	19	15	16	4	1	1	1
Montmorency	17	0	4	1	8	1	1	1	0	1	0
Muskegon	240	1	28	34	60	62	44	4	3	1	3
Newaygo	109	2	8	16	29	26	15	7	2	2	2
Oakland	1,493	2	158	240	395	321	243	76	34	15	9
Oceana	57	0	7	8	18	10	8	3	2	1	0
Ogemaw	52	0	8	9	8	16	9	0	2	0	0
Ontonagon	21	0	2	4	5	5	3	1	1	0	0
Osceola	41	0	3	5	11	11	8	3	0	0	0
Oscoda	21	0	1	4	9	1	4	1	1	0	0
Otsego	45	0	6	8	11	8	9	2	1	0	0
Ottawa	337	0	49	80	82	65	44	11	1	1	4
Presque Isle	24	1	1	4	8	3	4	3	0	0	0
Roscommon	79	0	4	18	22	15	13	3	3	1	0
Saginaw	293	0	37	55	72	65	36	21	5	2	0
St. Clair	270	0	37	55	51	68	44	13	1	0	1
St. Joseph	106	0	14	24	20	21	20	4	2	0	1
Sanilac	55	0	6	10	13	11	8	2	4	0	1
Schoolcraft	11	0	2	3	4	2	0	0	0	0	0
Shiawassee	110	0	15	26	27	26	10	3	1	1	1
Tuscola	99	0	5	24	20	23	15	6	5	0	1
Van Buren	144	0	21	27	34	30	20	4	2	0	6
Washtenaw	449	1	65	87	112	86	68	17	8	2	3
Wayne	2,353	7	221	334	651	530	370	140	43	17	40
Wexford	56	0	7	11	8	22	4	4	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0
Total	14,513	36	1,689	2,664	3,645	3,165	2,104	713	247	83	167



MALE DRIVERS BY AGE & INJURY SEVERITY IN CRASH

MOST SEVERE OUTCOME IN CRASH

AGE OF DRIVER IN CRASH	Male Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	317	0.1	1	0.1	28	40	55	193
14 years	174	0.1	1	0.1	17	22	28	106
15 years	571	0.2	8	0.7	29	68	72	394
16 years	8,045	2.4	18	1.5	175	480	1,199	6,173
17 years	9,969	3.0	29	2.5	193	584	1,450	7,713
18 years	11,425	3.4	38	3.2	237	694	1,681	8,775
19 years	10,673	3.2	43	3.7	259	614	1,537	8,220
20 years	9,573	2.9	25	2.1	228	595	1,318	7,407
21 - 24 years	33,112	9.9	125	10.6	801	1,865	4,515	25,806
25 - 34 years	64,585	19.4	223	19.0	1,433	3,222	8,883	50,824
35 - 44 years	63,342	19.0	239	20.3	1,315	3,080	8,698	50,010
45 - 54 years	54,447	16.3	191	16.2	1,220	2,472	7,456	43,108
55 - 64 years	31,604	9.5	100	8.5	654	1,438	4,630	24,782
65 - 69 years	8,594	2.6	38	3.2	171	420	1,200	6,765
70 - 74 years	6,407	1.9	27	2.3	141	300	886	5,053
75 - 79 years	5,308	1.6	24	2.0	127	298	825	4,034
80 - 84 years	3,295	1.0	26	2.2	93	219	504	2,453
85 - 89 years	1,381	0.4	15	1.3	41	75	226	1,024
90 years and over	370	0.1	4	0.3	5	36	51	274
Unknown	10,414	3.1	1	0.1	131	288	1,355	8,639
Total	333,606	100.0	1,176	100.0	7,298	16,810	46,569	261,753

NOTE: The tables on this page and page 109 exclude 51,230 drivers of unknown gender.

The crash involvement for male drivers is down 1.6 percent from 2003.

The fatal crash involvement for male drivers is down 5.5 percent from 2003.



MALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

MOST SEVERE OUTCOME IN CRASH

AGE OF DRINKING DRIVER IN CRASH	Male Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	10	0.1	0	0.0	2	1	1	6
14 years	4	0.0	0	0.0	0	0	3	1
15 years	13	0.1	0	0.0	2	4	1	6
16 years	67	0.6	1	0.4	5	12	10	39
17 years	142	1.3	3	1.1	15	23	13	88
18 years	320	2.9	7	2.6	20	57	45	191
19 years	377	3.4	6	2.2	32	63	43	233
20 years	389	3.5	7	2.6	26	69	56	231
21 - 24 years	2,124	19.0	50	18.4	177	324	277	1,296
25 - 34 years	2,851	25.5	72	26.5	264	432	422	1,661
35 - 44 years	2,302	20.6	62	22.8	207	348	387	1,298
45 - 54 years	1,632	14.6	41	15.1	164	230	265	932
55 - 64 years	589	5.3	10	3.7	52	80	117	330
65 - 69 years	131	1.2	5	1.8	14	10	21	81
70 - 74 years	79	0.7	5	1.8	6	6	11	51
75 - 79 years	36	0.3	1	0.4	4	9	6	16
80 - 84 years	19	0.2	2	0.7	3	4	4	6
85 - 89 years	6	0.1	0	0.0	0	1	0	5
90 years and over	1	0.0	0	0.0	0	0	1	0
Unknown	87	0.8	0	0.0	2	6	14	65
Total	11,179	100.0	272	100.0	995	1,679	1,697	6,536

NOTE: The tables on this page and page 110 exclude 92 drinking drivers of unknown gender.



FEMALE DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							PDO
	Female Drivers		Fatal		Injury			
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	204	0.1	2	0.4	9	22	35	136
14 years	121	0.0	1	0.2	7	12	20	81
15 years	489	0.2	2	0.4	15	33	77	362
16 years	6,946	2.8	11	2.3	141	480	1,181	5,133
17 years	8,546	3.4	21	4.4	161	544	1,461	6,359
18 years	8,823	3.5	11	2.3	172	490	1,540	6,610
19 years	8,364	3.3	12	2.5	134	468	1,423	6,327
20 years	7,664	3.1	19	4.0	136	404	1,254	5,851
21 - 24 years	26,673	10.6	43	9.1	447	1,335	4,556	20,292
25 - 34 years	49,584	19.7	74	15.6	802	2,247	8,594	37,867
35 - 44 years	49,074	19.5	95	20.0	901	2,056	8,454	37,568
45 - 54 years	40,149	16.0	68	14.3	666	1,569	6,922	30,924
55 - 64 years	21,683	8.6	49	10.3	400	887	3,778	16,569
65 - 69 years	5,487	2.2	12	2.5	94	237	894	4,250
70 - 74 years	4,437	1.8	16	3.4	104	223	791	3,303
75 - 79 years	3,893	1.6	14	2.9	95	167	607	3,010
80 - 84 years	2,517	1.0	11	2.3	75	141	406	1,884
85 - 89 years	1,089	0.4	10	2.1	34	58	198	789
90 years and over	249	0.1	4	0.8	4	17	50	174
Unknown	5,085	2.0	0	0.0	30	104	653	4,298
Total	251,077	100.0	475	100.0	4,427	11,494	42,894	191,787

The crash involvement for female drivers is down 0.6 percent from 2003.

The fatal crash involvement for female drivers is up 17.8 percent from 2003.



FEMALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

MOST SEVERE OUTCOME IN CRASH

AGE OF DRINKING DRIVER IN CRASH	Female Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	3	0.1	0	0.0	0	2	1	0
14 years	1	0.0	0	0.0	0	0	0	1
15 years	5	0.2	1	2.3	1	2	0	1
16 years	33	1.0	0	0.0	5	8	4	16
17 years	63	1.9	1	2.3	7	13	12	30
18 years	93	2.9	0	0.0	9	14	15	55
19 years	106	3.3	1	2.3	12	18	16	59
20 years	97	3.0	1	2.3	12	16	24	44
21 - 24 years	537	16.6	7	15.9	40	80	92	318
25 - 34 years	785	24.2	12	27.3	73	124	129	447
35 - 44 years	854	26.3	13	29.5	63	108	153	517
45 - 54 years	468	14.4	4	9.1	40	69	98	257
55 - 64 years	122	3.8	1	2.3	7	17	14	83
65 - 69 years	25	0.8	0	0.0	2	3	5	15
70 - 74 years	12	0.4	1	2.3	2	1	1	7
75 - 79 years	16	0.5	1	2.3	0	1	0	14
80 - 84 years	2	0.1	1	2.3	0	0	1	0
85 - 89 years	2	0.1	0	0.0	0	1	0	1
90 years and over	0	0.0	0	0.0	0	0	0	0
Unknown	18	0.6	0	0.0	1	3	4	10
Total	3,242	100.0	44	100.0	274	480	569	1,875

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	3	2	66.7	3	2	66.7
Alger	1	0	0.0	1	0	0.0
Allegan	19	2	10.5	22	4	18.2
Alpena	2	1	50.0	3	2	66.7
Antrim	3	0	0.0	3	0	0.0
Arenac	9	5	55.6	9	5	55.6
Baraga	1	1	100.0	2	2	100.0
Barry	11	3	27.3	15	3	20.0
Bay	10	5	50.0	11	5	45.5
Benzie	3	0	0.0	3	0	0.0
Berrien	17	7	41.2	19	7	36.8
Branch	8	4	50.0	9	4	44.4
Calhoun	12	4	33.3	13	4	30.8
Cass	15	3	20.0	15	3	20.0
Charlevoix	0	0	0.0	0	0	0.0
Cheboygan	6	3	50.0	6	3	50.0
Chippewa	3	1	33.3	3	1	33.3
Clare	7	3	42.9	10	3	30.0
Clinton	12	3	25.0	12	3	25.0
Crawford	1	0	0.0	1	0	0.0
Delta	4	1	25.0	4	1	25.0
Dickinson	2	1	50.0	2	1	50.0
Eaton	13	1	7.7	14	1	7.1
Emmet	2	0	0.0	2	0	0.0
Genesee	47	17	36.2	50	18	36.0
Gladwin	3	0	0.0	4	0	0.0
Gogebic	6	3	50.0	7	4	57.1
Grand Traverse	9	2	22.2	13	2	15.4
Gratiot	4	1	25.0	4	1	25.0
Hillsdale	8	3	37.5	8	3	37.5
Houghton	3	1	33.3	5	1	20.0
Huron	3	1	33.3	5	3	60.0
Ingham	23	8	34.8	24	9	37.5
Ionia	10	1	10.0	10	1	10.0
Iosco	4	2	50.0	4	2	50.0
Iron	0	0	0.0	0	0	0.0
Isabella	11	4	36.4	11	4	36.4
Jackson	21	5	23.8	22	6	27.3
Kalamazoo	24	9	37.5	25	10	40.0
Kalkaska	8	2	25.0	11	2	18.2
Kent	58	15	25.9	60	15	25.0
Keweenaw	1	0	0.0	1	0	0.0
Lake	5	1	20.0	5	1	20.0
Lapeer	12	5	41.7	16	8	50.0

**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	1	33.3	3	1	33.3
Lenawee	10	1	10.0	11	1	9.1
Livingston	27	13	48.1	30	14	46.7
Luce	1	0	0.0	1	0	0.0
Mackinac	6	1	16.7	7	1	14.3
Macomb	52	22	42.3	53	22	41.5
Manistee	1	1	100.0	1	1	100.0
Marquette	6	3	50.0	7	4	57.1
Mason	6	3	50.0	6	3	50.0
Mecosta	5	2	40.0	5	2	40.0
Menominee	3	1	33.3	3	1	33.3
Midland	11	3	27.3	11	3	27.3
Missaukee	4	1	25.0	6	1	16.7
Monroe	26	10	38.5	28	11	39.3
Montcalm	12	2	16.7	13	2	15.4
Montmorency	3	2	66.7	4	2	50.0
Muskegon	16	5	31.3	18	5	27.8
Newaygo	10	4	40.0	13	4	30.8
Oakland	71	20	28.2	75	21	28.0
Oceana	5	3	60.0	6	3	50.0
Ogemaw	3	1	33.3	4	1	25.0
Ontonagon	2	1	50.0	3	2	66.7
Osceola	3	0	0.0	3	0	0.0
Oscoda	2	1	50.0	2	1	50.0
Otsego	7	1	14.3	8	1	12.5
Ottawa	19	4	21.1	22	4	18.2
Presque Isle	1	0	0.0	1	0	0.0
Roscommon	2	0	0.0	2	0	0.0
Saginaw	25	9	36.0	29	11	37.9
St. Clair	19	7	36.8	21	7	33.3
St. Joseph	13	5	38.5	16	7	43.8
Sanilac	4	2	50.0	4	2	50.0
Schoolcraft	5	0	0.0	7	0	0.0
Shiawassee	13	2	15.4	16	2	12.5
Tuscola	9	3	33.3	10	3	30.0
Van Buren	14	5	35.7	16	6	37.5
Washtenaw	26	9	34.6	29	10	34.5
Wayne	175	57	32.6	186	58	31.2
Wexford	11	3	27.3	12	3	25.0
Total	1,055	338	32.0	1,159	364	31.4

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

COUNTY	All HBD Crashes	Fatal	Injury			PDO
			A	B	C	
Alcona	42	2	8	10	7	15
Alger	16	0	3	2	2	9
Allegan	200	2	28	36	29	105
Alpena	45	1	3	8	5	28
Antrim	37	0	4	13	4	16
Arenac	38	5	6	6	1	20
Baraga	16	1	3	3	2	7
Barry	115	3	16	21	14	61
Bay	214	5	15	32	29	133
Benzie	28	0	7	3	4	14
Berrien	216	7	24	25	33	127
Branch	59	4	4	16	5	30
Calhoun	216	4	18	29	27	138
Cass	103	3	20	21	11	48
Charlevoix	31	0	5	6	3	17
Cheboygan	55	3	7	11	8	26
Chippewa	75	1	9	15	7	43
Clare	45	3	4	9	5	24
Clinton	82	3	9	13	15	42
Crawford	37	0	6	13	5	13
Delta	56	1	9	11	9	26
Dickinson	34	1	4	10	3	16
Eaton	130	1	12	24	26	67
Emmet	66	0	6	8	18	34
Genesee	708	17	40	126	143	382
Gladwin	42	0	1	6	4	31
Gogebic	23	3	3	2	1	14
Grand Traverse	138	2	8	24	18	86
Gratiot	56	1	5	17	8	25
Hillsdale	76	3	9	12	15	37
Houghton	65	1	4	8	10	42
Huron	42	1	10	7	5	19
Ingham	387	8	26	48	57	248
Ionia	106	1	21	17	8	59
Iosco	51	2	4	12	8	25
Iron	27	0	5	4	4	14
Isabella	103	4	13	17	10	59
Jackson	255	5	26	40	34	150
Kalamazoo	410	9	38	54	63	246
Kalkaska	38	2	6	11	5	14
Kent	1,055	15	59	134	168	679
Keweenaw	8	0	1	2	2	3

MOST SEVERE OUTCOME IN HBD CRASHES BY COUNTY (continued)

MOST SEVERE OUTCOME IN HBD CRASH

COUNTY	All HBD Crashes	Fatal	Injury			PDO
			A	B	C	
Lake	27	1	0	5	4	17
Lapeer	135	5	16	21	16	77
Leelanau	45	1	5	6	8	25
Lenawee	121	1	9	21	24	66
Livingston	293	13	33	43	50	154
Luce	10	0	2	4	0	4
Mackinac	22	1	4	7	0	10
Macomb	1,081	22	75	137	181	666
Manistee	33	1	5	5	4	18
Marquette	104	3	9	17	14	61
Mason	44	3	8	11	4	18
Mecosta	77	2	8	13	10	44
Menominee	60	1	6	12	10	31
Midland	73	3	9	12	13	36
Missaukee	28	1	2	5	2	18
Monroe	261	10	17	50	33	151
Montcalm	99	2	12	18	15	52
Montmorency	17	2	0	4	2	9
Muskegon	242	5	44	40	29	124
Newaygo	107	4	8	12	13	70
Oakland	1,493	20	103	204	265	901
Oceana	56	3	10	6	6	31
Ogemaw	51	1	10	13	3	24
Ontonagon	21	1	6	1	2	11
Osceola	40	0	5	9	3	23
Oscoda	20	1	3	2	1	13
Otsego	43	1	8	5	5	24
Ottawa	339	4	30	45	58	202
Presque Isle	24	0	5	5	4	10
Roscommon	79	0	4	14	5	56
Saginaw	294	9	31	49	45	160
St. Clair	271	7	23	50	37	154
St. Joseph	106	5	12	12	17	60
Sanilac	55	2	3	7	8	35
Schoolcraft	11	0	0	1	1	9
Shiawassee	113	2	9	14	6	82
Tuscola	99	3	12	17	12	55
Van Buren	144	5	17	23	21	78
Washtenaw	448	9	30	78	71	260
Wayne	2,360	57	186	307	438	1,372
Wexford	55	3	4	18	1	29
Unknown	0	0	0	0	0	0
Total	14,547	338	1,292	2,209	2,276	8,432

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

COUNTY	2004 Population Estimate	All Crashes	Fatal Crashes	HBD Crashes	HBD Fatal Crashes	HBD Fatal Crash Rate per 1,000 people	Rank
Arenac	17,321	974	9	38	5	0.2887	1
Montmorency	10,498	382	3	17	2	0.1905	2
Gogebic	17,029	438	6	23	3	0.1762	3
Alcona	11,646	671	3	42	2	0.1717	4
Ontonagon	7,538	457	2	21	1	0.1327	5
Kalkaska	17,204	746	8	38	2	0.1163	6
Baraga	8,728	418	1	16	1	0.1146	7
Cheboygan	27,289	1,225	6	55	3	0.1099	8
Oscoda	9,348	358	2	20	1	0.1070	9
Oceana	28,415	1,200	5	56	3	0.1056	10
Mason	29,074	1,594	6	44	3	0.1032	11
Wexford	31,494	1,723	11	55	3	0.0953	12
Clare	31,838	1,427	7	45	3	0.0942	13
Mackinac Branch	11,383 46,444	826 2,153	6 8	22 59	1 4	0.0879 0.0861	14 15
Lake	11,881	471	5	27	1	0.0842	16
Newaygo	49,892	1,976	10	107	4	0.0802	17
St. Joseph	62,964	2,423	13	106	5	0.0794	18
Iosco	26,873	1,048	4	51	2	0.0744	19
Livingston	177,538	6,178	27	293	13	0.0732	20
Monroe	152,552	4,662	26	261	10	0.0656	21
Missaukee	15,286	631	4	28	1	0.0654	22
Van Buren	78,541	2,818	14	144	5	0.0637	23
Hillsdale	47,470	2,128	8	76	3	0.0632	24
Isabella	64,481	3,215	11	103	4	0.0620	25
Cass	51,761	1,990	15	103	3	0.0580	26
Lapeer	92,510	3,676	12	135	5	0.0540	27
Tuscola	58,646	2,129	9	99	3	0.0512	28
Barry	59,371	2,448	11	115	3	0.0505	29
Mecosta	42,394	2,416	5	77	2	0.0472	30
Marquette	64,874	2,510	6	104	3	0.0462	31
Bay	109,480	3,481	10	214	5	0.0457	32
Ogemaw	21,919	1,070	3	51	1	0.0456	33
Leelanau	22,163	672	3	45	1	0.0451	34
Sanilac	44,828	1,902	4	55	2	0.0446	35
Clinton	68,800	2,846	12	82	3	0.0436	36
Saginaw	209,062	7,320	25	294	9	0.0430	37
Berrien	163,125	5,568	17	216	7	0.0429	38
St. Clair	170,916	5,221	19	271	7	0.0410	39
Otsego	24,513	1,113	7	43	1	0.0408	40
Manistee	25,090	982	1	33	1	0.0399	41
Menominee	25,174	1,557	3	60	1	0.0397	42
Genesee	443,947	14,492	47	708	17	0.0383	43
Kalamazoo	240,724	10,061	24	410	9	0.0374	44
Dickinson	27,345	1,253	2	34	1	0.0366	45

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

COUNTY	2004 Population Estimate	All Crashes	Fatal Crashes	HBD Crashes	HBD Fatal Crashes	HBD Fatal Crash Rate per 1,000 people	Rank
Midland	84,615	2,766	11	73	3	0.0355	46
Alpena	30,739	1,023	2	45	1	0.0325	47
Montcalm	63,627	3,202	12	99	2	0.0314	48
Jackson	162,973	6,653	21	255	5	0.0307	49
Calhoun	139,067	6,517	12	216	4	0.0288	50
Muskegon	174,401	5,748	16	242	5	0.0287	51
Huron	34,948	1,970	3	42	1	0.0286	52
Ingham	280,073	11,192	23	387	8	0.0286	52
Wayne	2,016,202	67,762	175	2,360	57	0.0283	54
Houghton	35,568	1,249	3	65	1	0.0281	55
Shiawassee	73,125	2,892	13	113	2	0.0274	56
Macomb	822,660	25,193	52	1,081	22	0.0267	57
Washtenaw	339,191	12,125	26	448	9	0.0265	58
Delta	38,380	2,190	4	56	1	0.0261	59
Chippewa	38,791	1,449	3	75	1	0.0258	60
Kent	593,898	24,397	58	1,055	15	0.0253	61
Grand Traverse	82,752	3,830	9	138	2	0.0242	62
Gratiot	42,396	1,912	4	56	1	0.0236	63
Allegan	112,477	3,826	19	200	2	0.0178	64
Oakland	1,213,339	43,759	71	1,493	20	0.0165	65
Ottawa	252,351	8,300	19	339	4	0.0159	66
Ionia	64,378	2,889	10	106	1	0.0155	67
Lenawee	101,768	3,211	10	121	1	0.0098	68
Eaton	107,056	4,612	13	130	1	0.0093	69
Alger	9,760	446	1	16	0	0.0000	70
Antrim	24,500	1,029	3	37	0	0.0000	70
Benzie	17,466	589	3	28	0	0.0000	70
Charlevoix	26,665	1,228	0	31	0	0.0000	70
Crawford	14,870	729	1	37	0	0.0000	70
Emmet	33,277	1,743	2	66	0	0.0000	70
Gladwin	27,172	968	3	42	0	0.0000	70
Iron	12,587	792	0	27	0	0.0000	70
Keweenaw	2,204	96	1	8	0	0.0000	70
Luce	6,850	254	1	10	0	0.0000	70
Osceola	23,842	1,304	3	40	0	0.0000	70
Presque Isle	14,306	640	1	24	0	0.0000	70
Roscommon	26,103	1,115	2	79	0	0.0000	70
Schoolcraft	8,874	579	5	11	0	0.0000	70
Total	10,112,620	373,028	1,055	14,547	338	0.03342	

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	42	2	25	15	0	3	6	33	2	30
Alger	16	0	7	9	0	2	6	8	0	10
Allegan	200	2	93	105	10	17	20	153	4	126
Alpena	45	1	16	28	0	5	9	31	2	22
Antrim	37	0	21	16	0	5	4	28	0	25
Arenac	38	5	13	20	3	8	2	25	5	25
Baraga	16	1	8	7	0	5	1	10	2	18
Barry	115	3	51	61	0	0	26	89	3	70
Bay	214	5	76	133	14	5	40	155	5	108
Benzie	28	0	14	14	0	6	5	17	0	17
Berrien	216	7	82	127	29	22	22	143	7	123
Branch	59	4	25	30	2	7	7	43	4	39
Calhoun	216	4	74	138	38	0	45	133	4	95
Cass	103	3	52	48	0	7	23	73	3	67
Charlevoix	31	0	14	17	0	2	5	24	0	20
Cheboygan	55	3	26	26	3	4	8	40	3	37
Chippewa	75	1	31	43	10	0	18	47	1	33
Clare	45	3	18	24	0	8	4	33	3	31
Clinton	82	3	37	42	5	9	8	60	3	55
Crawford	37	0	24	13	3	1	11	22	0	29
Delta	56	1	29	26	0	13	6	37	1	50
Dickinson	34	1	17	16	0	6	7	21	1	22
Eaton	130	1	62	67	20	0	36	74	1	81
Emmet	66	0	32	34	1	18	3	44	0	44
Genesee	708	17	309	382	76	20	87	525	18	454
Gladwin	42	0	11	31	0	0	10	32	0	14
Gogebic	23	3	6	14	0	7	1	15	4	8
Grand Traverse	138	2	50	86	0	23	16	99	2	67
Gratiot	56	1	30	25	0	10	9	37	1	43
Hillsdale	76	3	36	37	0	11	7	58	3	49
Houghton	65	1	22	42	0	12	12	41	1	31
Huron	42	1	22	19	0	0	17	25	3	38
Ingham	387	8	131	248	55	12	79	241	9	190
Ionia	106	1	46	59	10	0	13	83	1	65
Iosco	51	2	24	25	0	12	4	35	2	35
Iron	27	0	13	14	0	3	3	21	0	16
Isabella	103	4	40	59	0	15	8	80	4	65
Jackson	255	5	100	150	29	11	19	196	6	133
Kalamazoo	410	9	155	246	51	21	60	278	10	215
Kalkaska	38	2	22	14	0	3	6	29	2	34
Kent	1,055	15	361	679	110	80	156	709	15	463
Keweenaw	8	0	5	3	0	4	1	3	0	6
Lake	27	1	9	17	0	2	5	20	1	11
Lapeer	135	5	53	77	4	0	28	103	8	78
Leelanau	45	1	19	25	0	0	15	30	1	33
Lenawee	121	1	54	66	0	18	21	82	1	65

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	293	13	126	154	47	19	18	209	14	171
Luce	10	0	6	4	0	0	2	8	0	7
Mackinac	22	1	11	10	8	1	3	10	1	14
Macomb	1,081	22	393	666	115	0	241	725	22	542
Manistee	33	1	14	18	0	6	3	24	1	20
Marquette	104	3	40	61	0	17	12	75	4	51
Mason	44	3	23	18	0	12	3	29	3	39
Mecosta	77	2	31	44	0	5	25	47	2	40
Menominee	60	1	28	31	0	18	5	37	1	44
Midland	73	3	34	36	0	4	6	63	3	59
Missaukee	28	1	9	18	0	0	9	19	1	13
Monroe	261	10	100	151	27	44	17	173	11	128
Montcalm	99	2	45	52	0	2	25	72	2	76
Montmorency	17	2	6	9	0	0	2	15	2	10
Muskegon	242	5	113	124	1	36	30	175	5	178
Newaygo	107	4	33	70	0	0	24	83	4	39
Oakland	1,493	20	572	901	256	57	228	952	21	781
Oceana	56	3	22	31	0	6	7	43	3	34
Ogemaw	51	1	26	24	3	0	7	41	1	36
Ontonagon	21	1	9	11	0	1	13	7	2	13
Osceola	40	0	17	23	0	13	5	22	0	24
Oscoda	20	1	6	13	0	0	8	12	1	8
Otsego	43	1	18	24	5	0	6	32	1	23
Ottawa	339	4	133	202	30	38	23	248	4	174
Presque Isle	24	0	14	10	0	4	2	18	0	20
Roscommon	79	0	23	56	8	4	21	46	0	28
Saginaw	294	9	125	160	23	0	66	205	11	180
St. Clair	271	7	110	154	35	0	35	201	7	162
St. Joseph	106	5	41	60	0	18	19	69	7	55
Sanilac	55	2	18	35	0	0	13	42	2	30
Schoolcraft	11	0	2	9	0	1	1	9	0	3
Shiawassee	113	2	29	82	11	0	18	84	2	35
Tuscola	99	3	41	55	0	0	19	80	3	55
Van Buren	144	5	61	78	16	0	20	108	6	91
Washtenaw	448	9	179	260	60	62	25	301	10	240
Wayne	2,360	57	931	1,372	392	119	329	1,520	58	1,349
Wexford	55	3	23	29	0	8	15	32	3	34
Unknown	0	0	0	0	0	0	0	0	0	0
Total	14,547	338	5,777	8,432	1,510	912	2,204	9,921	364	8,096

2004

2004

2004

2004

2004

2004

2004

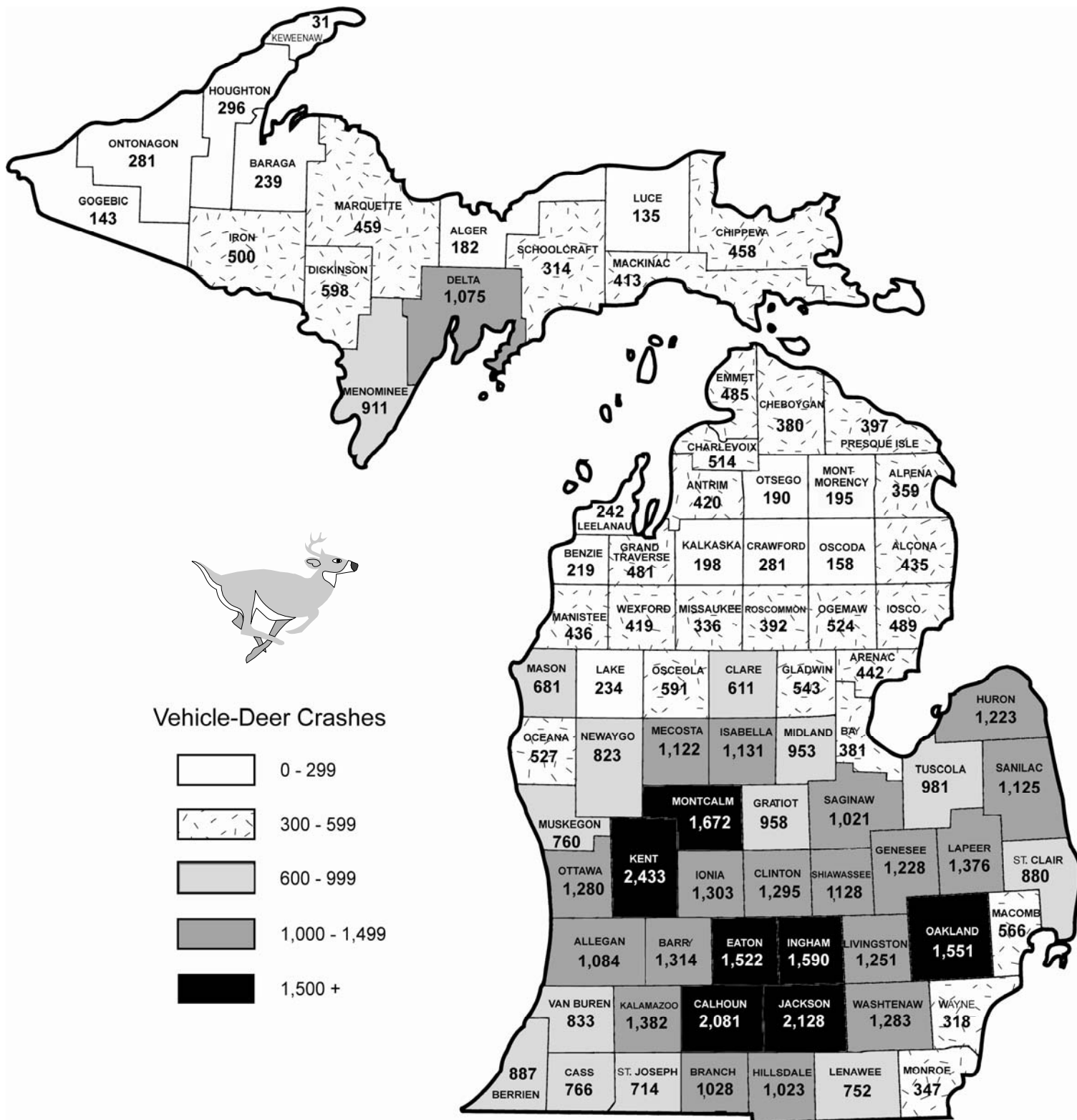
2004

Deer

MICHIGAN MOTOR VEHICLE-DEER INVOLVED/ASSOCIATED CRASHES

Michigan had 62,707 reported motor vehicle-deer crashes during 2004. 1,647 people were injured and 3 people were killed as a result of those collisions. Of the 62,983 vehicles involved, 40,254 (63.9%) were passenger cars, 15,098 (24.0%) were pickups, and 4,747 (7.5%) were minivans, vans, and motorhomes. All other vehicle types (including motorcycle, snowmobile, ORV/ATV, large truck, moped) totaled 2,884 (4.6%).

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 2,433 such crashes in 2004.

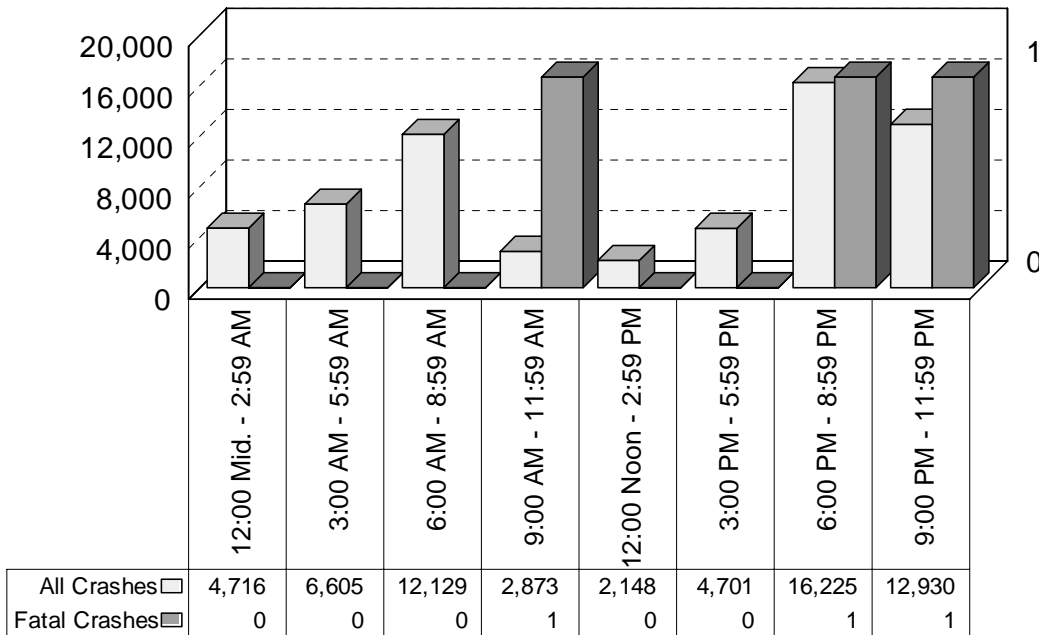


LIGHT CONDITION AND TIME OF DAY IN MOTOR VEHICLE-DEER CRASHES

LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	12,490	19.9	1	33.3	28	179	244	12,038
Dawn	5,314	8.5	0	0.0	3	40	76	5,195
Dusk	3,326	5.3	0	0.0	7	31	50	3,238
Dark – Lighted	2,010	3.2	0	0.0	3	8	29	1,970
Dark – Unlighted	38,751	61.8	2	66.7	56	208	497	37,988
Other/Unknown	816	1.3	0	0.0	0	2	5	809
Total	62,707	100.0	3	100.0	97	468	901	61,238

The three fatal deer crashes in Michigan in 2004 occurred in daylight and dark-unlighted conditions. All motor vehicle-deer involved/associated crashes peaked during the 6:00 PM - 8:59 PM time period. There was one fatal deer crash during this time period.

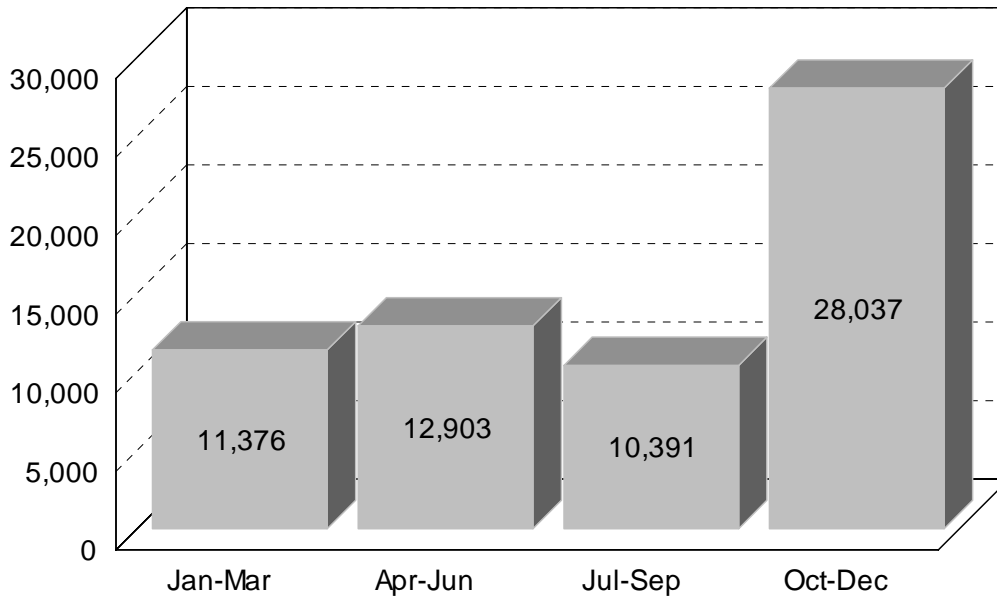
Time and Severity of All Motor Vehicle-Deer Crashes



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	4,999	8.0	0	0.0	2	15	59	4,923
February	2,866	4.6	0	0.0	0	8	32	2,826
March	3,511	5.6	0	0.0	5	19	47	3,440
April	3,499	5.6	0	0.0	5	36	47	3,411
May	4,246	6.8	0	0.0	5	43	83	4,115
June	5,158	8.2	0	0.0	11	73	79	4,995
July	3,354	5.3	0	0.0	17	50	74	3,213
August	2,876	4.6	0	0.0	15	39	63	2,759
September	4,161	6.6	0	0.0	7	44	53	4,057
October	9,138	14.6	3	100.0	14	54	135	8,932
November	11,600	18.5	0	0.0	10	53	157	11,380
December	7,299	11.6	0	0.0	6	34	72	7,187
Total	62,707	100.0	3	100.0	97	468	901	61,238

All Motor Vehicle-Deer Crashes



28,037 (44.7%) of all reported motor vehicle-deer collisions occurred during the fourth quarter of the year. All three fatal deer crashes occurred during October.

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	435	0	11	424	0	65	90	280	0	13
Alger	182	0	3	179	0	33	108	41	0	4
Allegan	1,084	1	30	1,053	79	96	204	705	1	37
Alpena	359	0	3	356	0	31	84	244	0	4
Antrim	420	0	8	412	0	81	67	272	0	11
Arenac	442	0	13	429	35	88	38	281	0	17
Baraga	239	0	5	234	0	82	58	99	0	5
Barry	1,314	0	31	1,283	0	0	508	806	0	35
Bay	381	1	11	369	40	24	98	219	1	12
Benzie	219	0	5	214	0	58	46	115	0	5
Berrien	887	0	28	859	142	146	127	472	0	31
Branch	1,028	0	18	1,010	87	85	59	797	0	20
Calhoun	2,081	0	46	2,035	292	0	431	1,358	0	49
Cass	766	0	23	743	0	71	259	436	0	25
Charlevoix	514	0	15	499	0	141	78	295	0	17
Cheboygan	380	0	7	373	60	26	100	194	0	7
Chippewa	458	0	14	444	53	0	200	205	0	16
Clare	611	0	7	604	0	137	100	374	0	8
Clinton	1,295	0	28	1,267	133	158	125	879	0	31
Crawford	281	0	7	274	49	9	96	127	0	8
Delta	1,075	0	11	1,064	0	246	217	612	0	13
Dickinson	598	0	8	590	0	186	188	224	0	8
Eaton	1,522	0	32	1,490	196	0	416	910	0	33
Emmet	485	0	8	477	2	132	40	311	0	9
Genesee	1,228	0	27	1,201	115	26	155	932	0	30
Gladwin	543	0	12	531	0	0	198	345	0	12
Gogebic	143	0	1	142	0	93	15	35	0	1
Grand Traverse	481	0	11	470	0	40	72	369	0	13
Gratiot	958	0	25	933	0	148	143	667	0	28
Hillsdale	1,023	0	24	999	0	94	173	756	0	26
Houghton	296	0	8	288	0	75	97	124	0	10
Huron	1,223	0	18	1,205	0	0	511	712	0	21
Ingham	1,590	0	35	1,555	175	125	209	1,081	0	41
Ionia	1,303	0	32	1,271	110	0	322	871	0	36
Iosco	489	0	17	472	0	70	139	280	0	20
Iron	500	0	16	484	0	210	98	192	0	16
Isabella	1,131	0	21	1,110	0	122	136	873	0	26
Jackson	2,128	0	37	2,091	134	137	357	1,500	0	46
Kalamazoo	1,382	0	46	1,336	69	89	127	1,097	0	50
Kalkaska	198	0	4	194	0	19	60	119	0	5
Kent	2,433	0	82	2,351	219	114	393	1,707	0	89
Keweenaw	31	0	3	28	0	11	6	14	0	4
Lake	234	0	6	228	0	52	35	147	0	9
Lapeer	1,376	0	32	1,344	89	0	223	1,064	0	33
Leelanau	242	0	2	240	0	0	116	126	0	2
Lenawee	752	0	18	734	0	143	195	414	0	20

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	1,251	0	23	1,228	116	74	134	927	0	24
Luce	135	0	3	132	0	0	84	51	0	3
Mackinac	413	0	9	404	58	92	129	134	0	10
Macomb	566	0	30	536	19	0	107	440	0	32
Manistee	436	0	10	426	0	88	101	247	0	11
Marquette	459	0	18	441	0	136	113	210	0	20
Mason	681	0	22	659	0	186	45	450	0	26
Mecosta	1,122	0	24	1,098	0	68	339	715	0	27
Menominee	911	0	13	898	0	326	111	474	0	13
Midland	953	0	16	937	0	69	101	783	0	18
Missaukee	336	0	3	333	0	0	87	249	0	5
Monroe	347	0	12	335	24	76	25	222	0	12
Montcalm	1,672	0	44	1,628	0	34	422	1,216	0	50
Montmorency	195	0	10	185	0	0	101	94	0	13
Muskegon	760	0	18	742	8	103	68	581	0	21
Newaygo	823	0	19	804	0	0	240	583	0	28
Oakland	1,551	0	38	1,513	137	15	148	1,251	0	41
Oceana	527	0	19	508	0	133	65	329	0	19
Ogemaw	524	0	11	513	49	0	153	322	0	12
Ontonagon	281	0	3	278	0	78	145	58	0	5
Osceola	591	0	9	582	0	143	103	345	0	13
Oscoda	158	0	3	155	0	0	62	96	0	3
Otsego	190	0	5	185	45	0	33	112	0	5
Ottawa	1,280	0	38	1,242	121	69	89	1,001	0	40
Presque Isle	397	0	7	390	0	57	117	223	0	8
Roscommon	392	0	10	382	56	46	64	226	0	10
Saginaw	1,021	0	17	1,004	53	0	272	696	0	17
St. Clair	880	0	27	853	95	0	136	649	0	29
St. Joseph	714	0	17	697	0	106	171	437	0	18
Sanilac	1,125	0	22	1,103	0	0	417	708	0	26
Schoolcraft	314	0	4	310	0	96	102	116	0	4
Shiawassee	1,128	0	20	1,108	101	0	264	763	0	21
Tuscola	981	0	20	961	0	0	331	650	0	22
Van Buren	833	1	15	817	80	0	202	551	1	17
Washtenaw	1,283	0	37	1,246	66	81	131	1,005	0	44
Wayne	318	0	12	306	53	9	23	233	0	14
Wexford	419	0	9	410	0	53	173	193	0	10
Total	62,707	3	1,466	61,238	3,160	5,601	12,925	41,021	3	1,647

2004

2004

2004

2004

2004

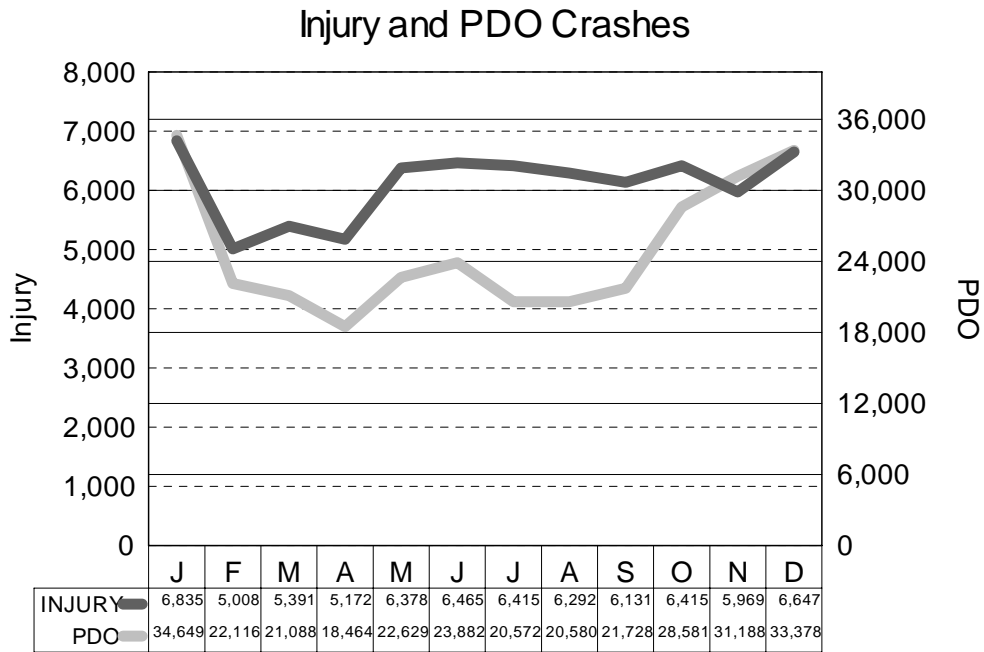
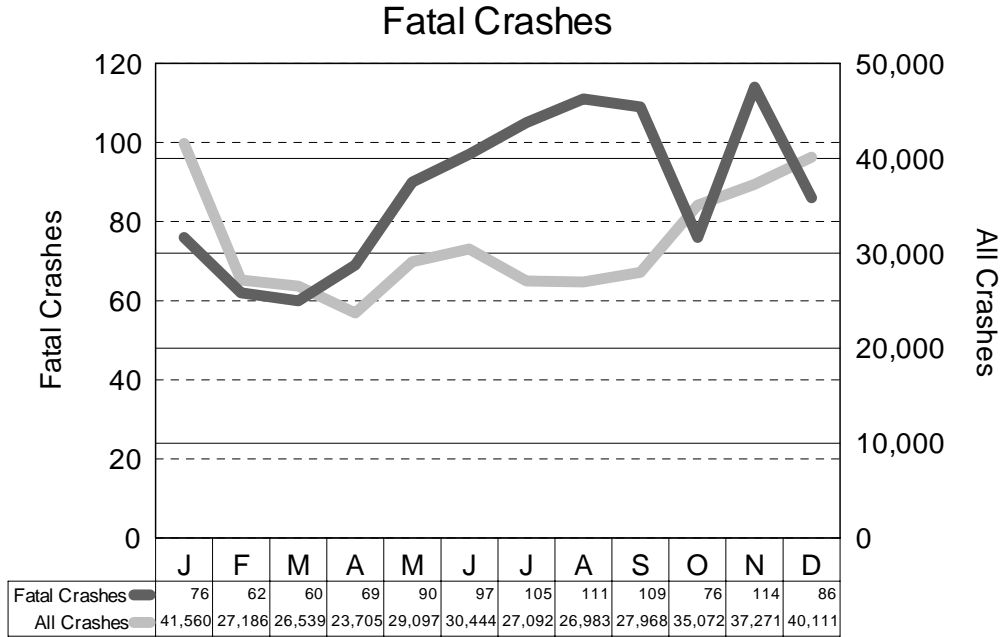
2004

2004

2004

Crash

ALL CRASHES INJURY SEVERITY BY MONTH



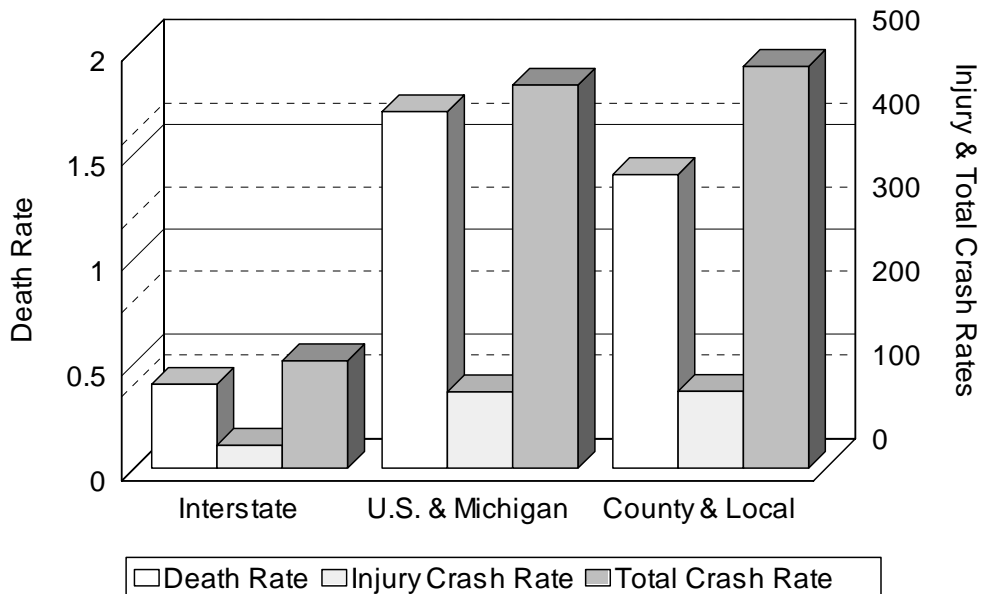
The charts on this page show the months of March through September are peak months (20.5% or above) in terms of the percent of the number of crashes involving death or injury to the number of all crashes. That is, if a person was in a motor vehicle crash during one of these months there was a higher 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. 2004 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	31.2	39,940	8,518	119	128.0	27.3	0.4
U.S. & Michigan Roads	22.5	102,747	20,478	381	456.7	91.0	1.7
County & City Roads	48.1	230,341	44,122	659	478.9	91.7	1.4
Total	101.8	373,028	73,118	1,159	366.4	71.8	1.1

Rates per 100 Million Vehicle Miles



CRASH TYPE

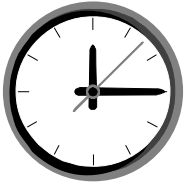
CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Single Vehicle	128,360	34.4	501	47.5	2,911	6,842	9,750	108,356
Head On	6,129	1.6	156	14.8	521	726	1,072	3,654
Head On - Left Turn	9,800	2.6	40	3.8	445	1,053	2,295	5,967
Angle	70,555	18.9	204	19.3	1,907	4,663	12,358	51,423
Rear End	91,017	24.4	65	6.2	846	2,536	17,273	70,297
Rear End - Left Turn	3,875	1.0	6	0.6	76	206	777	2,810
Rear End - Right Turn	3,202	0.9	0	0.0	18	49	466	2,669
Sideswipe - Same Direction	32,335	8.7	11	1.0	177	575	1,989	29,583
Sideswipe - Opposite Direct	9,284	2.5	23	2.2	123	278	700	8,160
Other/Unknown	18,471	5.0	49	4.6	366	668	1,452	15,936
Total	373,028	100.0	1,055	100.0	7,390	17,596	48,132	298,855

Single Vehicle, Head On, and Angle crash types produce the highest number of fatal crashes (81.6%). Single Vehicle crashes include rollovers, which are particularly deadly crash types. Rear End-Turning and Sideswipe crashes produce the lowest number of fatal crashes (3.8%).

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	305,250	81.8	698	66.2	5,050	12,213	39,418	247,871
Median	2,923	0.8	12	1.1	108	266	457	2,080
Shoulder	15,741	4.2	82	7.8	523	1,175	1,847	12,114
Outside of Shoulder/Curb	30,396	8.1	218	20.7	1,277	2,953	4,146	21,802
Gore	796	0.2	1	0.1	36	74	98	587
Other/Unknown	17,922	4.8	44	4.2	396	915	2,166	14,401
Total	373,028	100.0	1,055	100.0	7,390	17,596	48,132	298,855

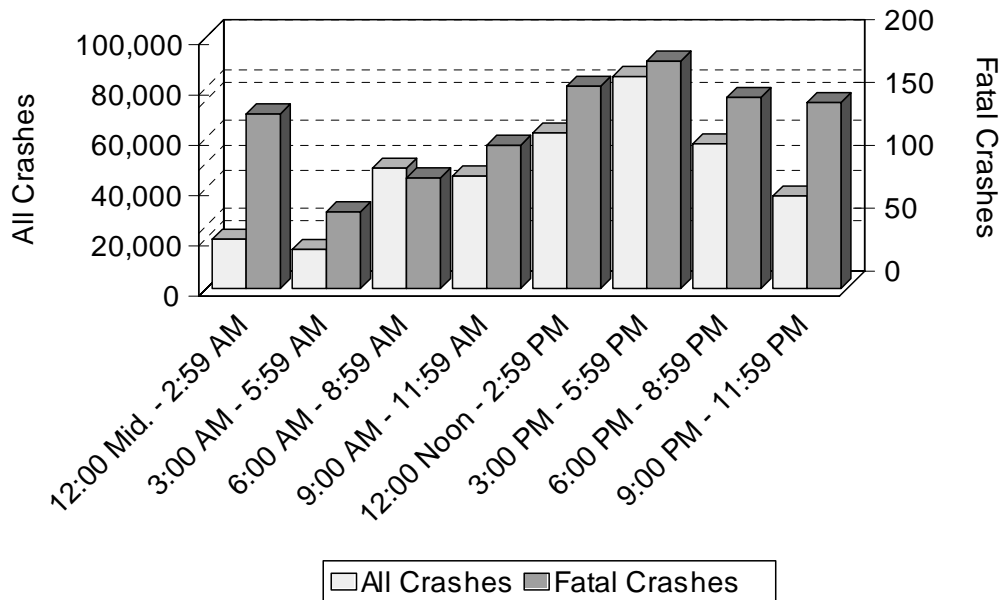
Crashes that happen outside of the normal driving lanes are overrepresented in the fatal count. Only 8.1 percent of crashes occur outside the shoulder of the road, but these crashes account for 20.7 percent of the fatal crashes.



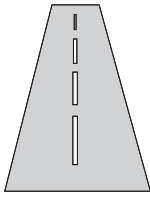
TIME AND SEVERITY

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	19,615	5.3	139	13.2	639	1,353	1,921	15,563
3:00 AM - 5:59 AM	15,579	4.2	61	5.8	369	773	1,262	13,114
6:00 AM - 8:59 AM	47,886	12.8	88	8.3	698	1,801	5,604	39,695
9:00 AM - 11:59 AM	44,792	12.0	114	10.8	859	2,044	6,471	35,304
12:00 Noon - 2:59 PM	61,888	16.6	161	15.3	1,220	3,095	9,710	47,702
3:00 PM - 5:59 PM	84,367	22.6	181	17.2	1,563	4,037	12,613	65,973
6:00 PM - 8:59 PM	57,607	15.4	152	14.4	1,122	2,598	6,510	47,225
9:00 PM - 11:59 PM	36,834	9.9	148	14.0	878	1,754	3,658	30,396
Unknown	4,460	1.2	11	1.0	42	141	383	3,883
Total	373,028	100.0	1,055	100.0	7,390	17,596	48,132	298,855

Time and Severity



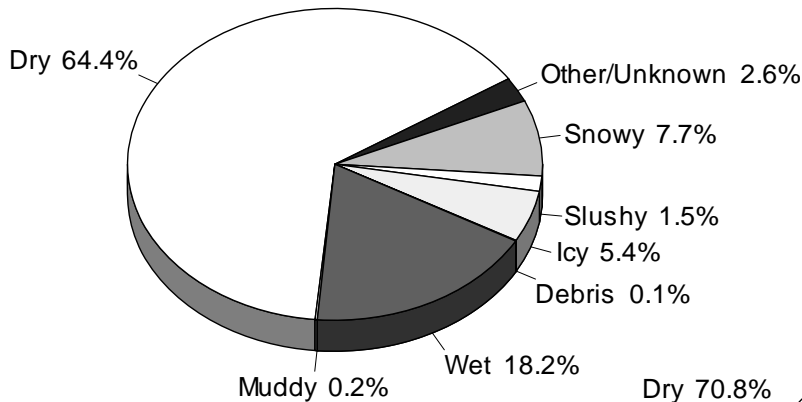
Crash frequencies peak in the late afternoon, then drop off steadily until 6:00 AM (the morning rush hour). Fatal crash frequencies rise with the frequency of other crashes, but continue at a high rate well into the early morning hours. There are proportionally more fatal crashes during the midnight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



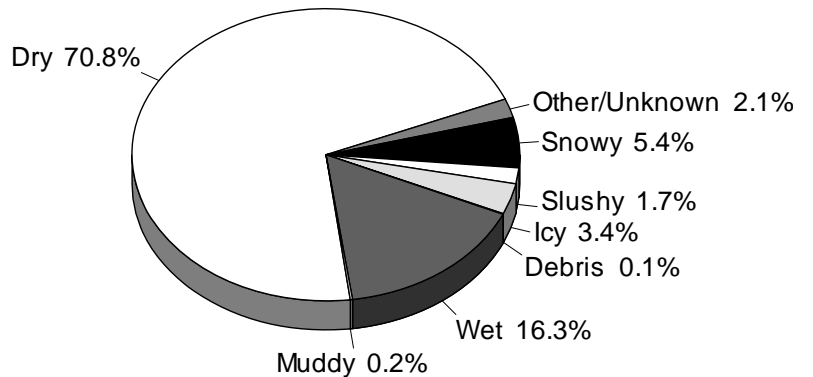
ROAD CONDITION

ROAD SURFACE CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Dry	240,056	64.4	747	70.8	5,183	12,093	31,334	190,699
Wet	67,862	18.2	172	16.3	1,219	3,028	10,009	53,434
Icy	20,046	5.4	36	3.4	330	862	2,432	16,386
Snowy	28,686	7.7	57	5.4	393	922	2,713	24,601
Muddy	588	0.2	2	0.2	14	52	63	457
Slushy	5,690	1.5	18	1.7	118	278	751	4,525
Debris	263	0.1	1	0.1	12	41	29	180
Other/Unknown	9,837	2.6	22	2.1	121	320	801	8,573
Total	373,028	100.0	1,055	100.0	7,390	17,596	48,132	298,855

ALL CRASHES



FATAL CRASHES



Most crashes (64.4%) and most fatal crashes (70.8%) occur on dry roads. This indicates that Michigan drivers do a good job of adjusting their driving behavior for bad road conditions.

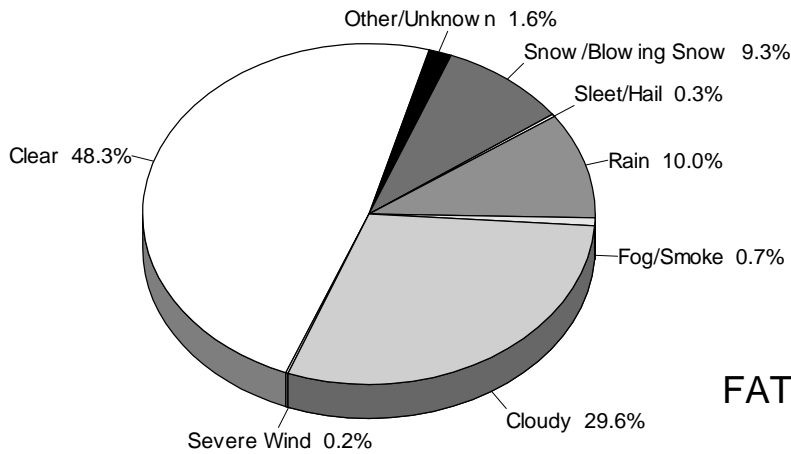


WEATHER CONDITION

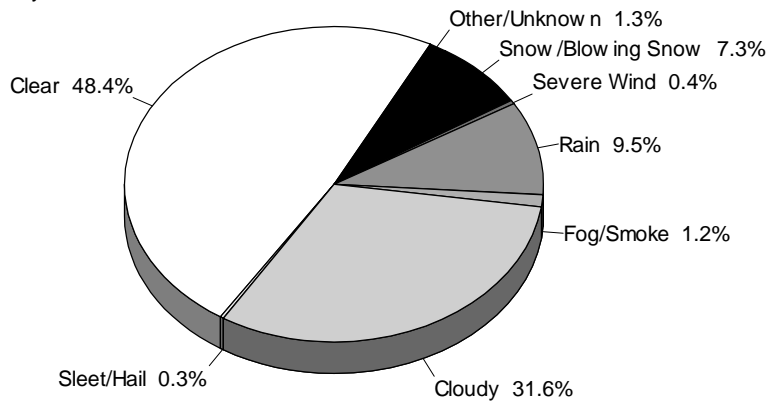
Revised August 23, 2006

WEATHER CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Clear	180,236	48.3	511	48.4	3,858	8,932	23,267	143,668
Cloudy	110,550	29.6	333	31.6	2,150	5,313	14,585	88,169
Fog/Smoke	2,692	0.7	13	1.2	71	125	242	2,241
Rain	37,163	10.0	100	9.5	712	1,720	5,569	29,062
Snow/Blowing Snow	34,749	9.3	77	7.3	518	1,318	3,901	28,935
Severe Wind	649	0.2	4	0.4	15	43	72	515
Sleet/Hail	962	0.3	3	0.3	20	56	146	737
Other/Unknown	6,027	1.6	14	1.3	46	89	350	5,528
Total	373,028	100.0	1,055	100.0	7,390	17,596	48,132	298,855

ALL CRASHES



FATAL CRASHES



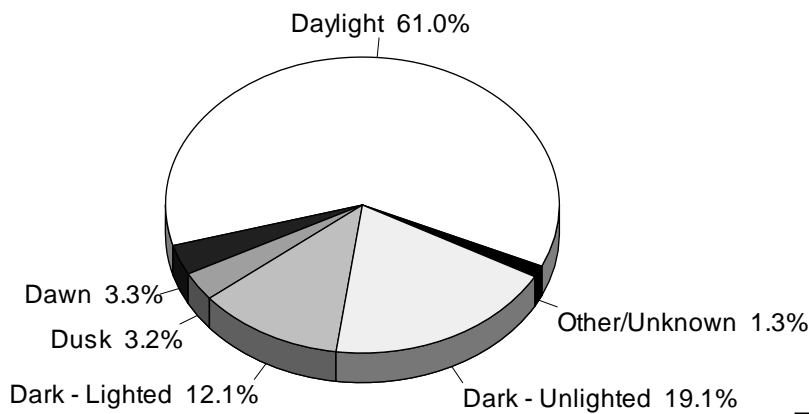
Almost half of all crashes occur in good weather (48.3%). Fog/smoke is a particularly deadly weather condition as it is overrepresented in fatal crashes.



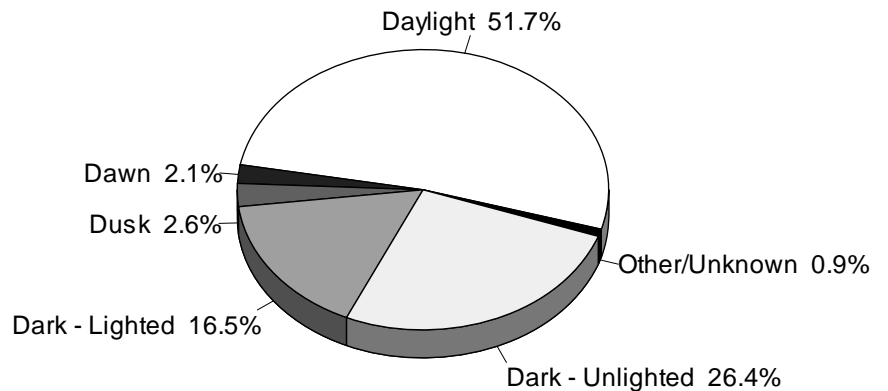
LIGHT CONDITION

LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	227,444	61.0	545	51.7	4,484	11,412	34,306	176,697
Dawn	12,302	3.3	22	2.1	138	419	1,078	10,645
Dusk	11,902	3.2	27	2.6	232	502	1,304	9,837
Dark – Lighted	45,257	12.1	174	16.5	1,125	2,488	6,471	34,999
Dark – Unlighted	71,330	19.1	278	26.4	1,377	2,690	4,652	62,333
Other/Unknown	4,793	1.3	9	0.9	34	85	321	4,344
Totals	373,028	100.0	1,055	100.0	7,390	17,596	48,132	298,855

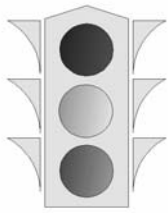
ALL CRASHES



FATAL CRASHES



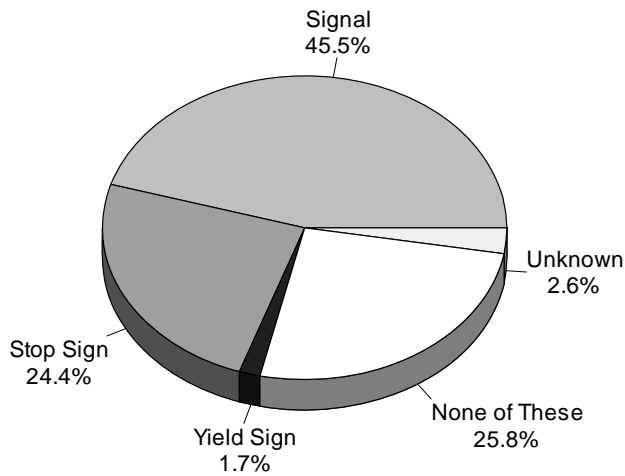
The majority (61.0%) of all crashes happen during daylight hours. Dark conditions create the greatest hazard, as they are overrepresented in fatal crashes. Areas without street lights have the higher fatality rate for dark conditions.



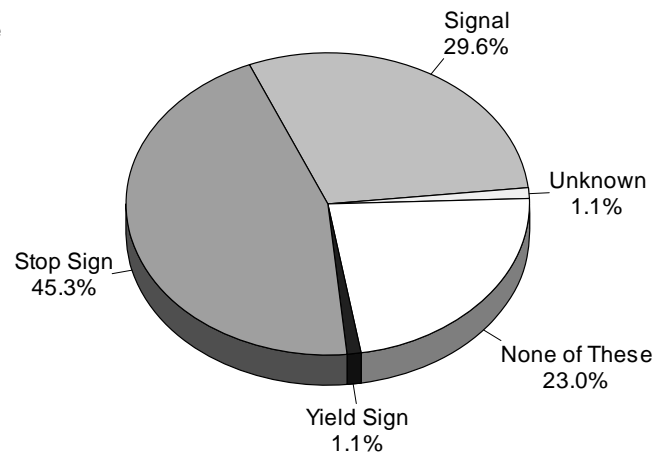
INTERSECTION CRASHES BY TRAFFIC CONTROL TYPE

TRAFFIC CONTROL TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Signal	51,491	45.5	81	29.6	963	2,714	10,121	37,612
Stop Sign	27,604	24.4	124	45.3	812	1,919	4,780	19,969
Yield Sign	1,872	1.7	3	1.1	56	120	333	1,360
None of These	29,210	25.8	63	23.0	616	1,484	4,447	22,600
Unknown	2,991	2.6	3	1.1	70	108	453	2,357
Total	113,168	100.0	274	100.0	2,517	6,345	20,134	83,898

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	3,047	48.2	8	42.1	53	116	438	2,432
Lane Open	909	14.4	3	15.8	14	31	111	750
Unknown Lane Closure	114	1.8	0	0.0	1	3	15	95
Activity - Off Road								
Lane Closed	347	5.5	0	0.0	4	21	53	269
Lane Open	421	6.7	1	5.3	9	23	66	322
Unknown Lane Closure	33	0.5	0	0.0	2	3	4	24
Activity - None								
Lane Closed	670	10.6	3	15.8	12	31	114	510
Lane Open	448	7.1	3	15.8	8	35	70	332
Unknown Lane Closure	23	0.4	0	0.0	2	0	0	21
Activity - Unknown								
Lane Closed	84	1.3	0	0.0	1	4	14	65
Lane Open	39	0.6	0	0.0	1	0	5	33
Unknown Lane Closure	188	3.0	1	5.3	2	11	28	146
Subtotal	6,323	100.0	19	100.0	109	278	918	4,999
Utility								
Activity - On Road								
Lane Closed	83	31.9	0	0.0	0	3	17	63
Lane Open	42	16.2	0	0.0	0	2	6	34
Unknown Lane Closure	3	1.2	0	0.0	0	0	1	2
Activity - Off Road								
Lane Closed	25	9.6	0	0.0	0	1	5	19
Lane Open	52	20.0	1	33.3	1	3	8	39
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - None								
Lane Closed	9	3.5	0	0.0	0	1	3	5
Lane Open	20	7.7	1	33.3	0	0	2	17
Unknown Lane Closure	2	0.8	0	0.0	0	0	0	2
Activity - Unknown								
Lane Closed	2	0.8	0	0.0	0	0	1	1
Lane Open	1	0.4	0	0.0	0	0	0	1
Unknown Lane Closure	21	8.1	1	33.3	0	1	1	18
Subtotal	260	100.0	3	100.0	1	11	44	201
Unknown Type								
Subtotal	31,029		39		664	1,484	3,804	25,038
Total	37,612		61		774	1,773	4,766	30,238

2004

2004

2004

2004

2004

2004

2004

2004

**Vehicle/
Driver**



VEHICLE TYPE CRASH INVOLVEMENT



MOST SEVERE OUTCOME IN CRASH

MOST SEVERE OUTCOME IN VEHICLE

Vehicle Type	Motor Vehicles		Fatal Crash		Injury	PDO	Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger Car and Station Wagon	435,854	68.5	1,035	59.9	94,657	340,162	623	68.2	60,282	374,949
Van and Motorhome	45,921	7.2	106	6.1	9,973	35,842	41	4.5	5,548	40,332
Pickup	95,000	14.9	273	15.8	17,665	77,062	106	11.6	8,854	86,040
Small Truck (under 10,000 lbs.)	19,361	3.0	51	3.0	4,043	15,267	24	2.6	2,273	17,064
Motorcycle	3,276	0.5	81	4.7	2,401	794	79	8.6	2,366	831
Moped	286	0.0	1	0.1	202	83	1	0.1	188	97
Go Cart	26	0.0	0	0.0	18	8	0	0.0	17	9
Snowmobile	375	0.1	17	1.0	235	123	13	1.4	209	153
Off Road Vehicle	270	0.0	13	0.8	217	40	12	1.3	209	49
Other	1,767	0.3	12	0.7	376	1,379	6	0.7	157	1,604
Unknown	16,406	2.6	7	0.4	1,494	14,905	1	0.1	225	16,180
CDL Truck/Bus (breakdown below)	17,371	2.7	132	7.6	3,205	14,034	8	0.9	815	16,548
Total Number of Vehicles	635,913	100.0	1,728	100.0	134,486	499,699	914	100.0	81,143	553,856

NOTES:

- 1) School bus is not recorded on the UD-10 and cannot be broken out of CDL Truck/Bus.
- 2) These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.

CDL Truck/Bus

Sub-category Type

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	8,428	48.5	74	56.1	1,613	6,741	5	62.5	367	8,056
Commercial Vehicle: Group B	3,638	20.9	35	26.5	694	2,909	2	25.0	214	3,422
Commercial Vehicle: Group C	521	3.0	1	0.8	88	432	0	0.0	33	488
Other Truck	750	4.3	6	4.5	131	613	0	0.0	41	709
Unknown Truck	4,034	23.2	16	12.1	679	3,339	1	12.5	160	3,873
Total Number of Vehicles	17,371	100.0	132	100.0	3,205	14,034	8	100.0	815	16,548

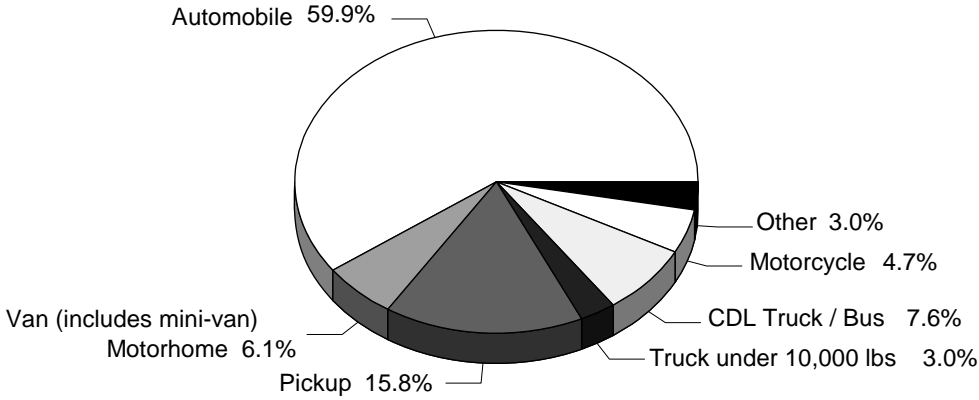
Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

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.

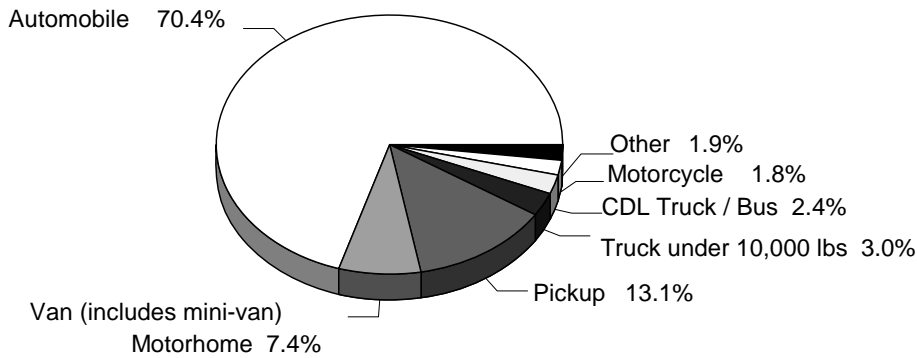
VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

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 6.1 percent.

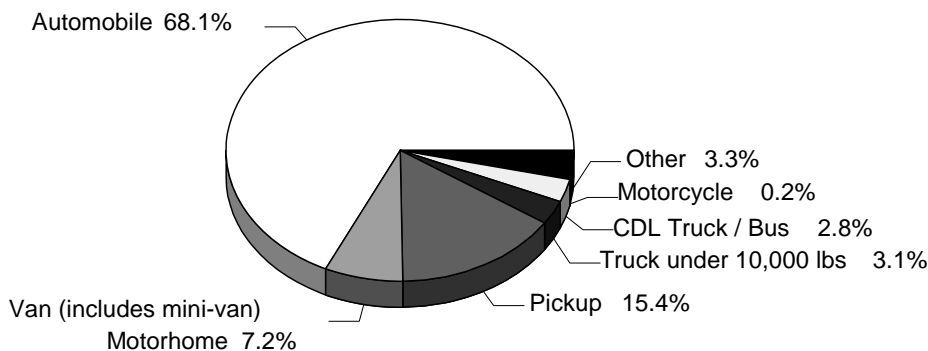
INJURY



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

MOST SEVERE OUTCOME IN CRASH

DRIVER ACTION	Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Going straight ahead	319,182	50.2	1,258	7,616	17,205	44,774	248,329
Turning left	43,310	6.8	106	1,109	2,864	7,373	31,858
Turning right	16,620	2.6	13	171	576	1,751	14,109
Stopped on roadway	64,469	10.1	48	675	2,267	13,756	47,723
In prior crash	1,092	0.2	2	42	54	206	788
Changing lanes	14,813	2.3	26	169	418	1,459	12,741
Backing	15,270	2.4	10	71	137	498	14,554
Slowing/stopping on roadway	59,279	9.3	42	485	1,576	10,968	46,208
Slowing/stopping other	908	0.1	2	15	29	150	712
Starting up on roadway	11,950	1.9	23	211	519	2,087	9,110
Starting up other	485	0.1	4	15	38	64	364
Entering parking	752	0.1	1	9	18	56	668
Leaving parking	2,086	0.3	0	24	86	251	1,725
Entering roadway	9,486	1.5	19	204	505	1,430	7,328
Leaving roadway	1,243	0.2	13	70	129	160	871
Making U-turn	1,342	0.2	2	44	88	187	1,021
Overtaking or passing	5,123	0.8	39	142	246	579	4,117
Avoiding object	959	0.2	3	19	74	128	735
Avoiding animal	1,635	0.3	1	43	155	213	1,223
Avoiding pedestrian	166	0.0	4	20	24	30	88
Avoiding vehicle (front/back)	5,673	0.9	36	171	381	870	4,215
Avoiding vehicle (angle)	2,585	0.4	17	71	165	421	1,911
Driverless moving	335	0.1	0	7	12	26	290
Parked	25,291	4.0	49	297	648	1,078	23,219
Crossing at intersection	60	0.0	0	0	6	14	40
Crossing not at intersection	109	0.0	0	5	3	10	91
Getting on/off vehicle	12	0.0	0	0	0	0	12
In roadway with traffic	17	0.0	0	0	1	4	12
In roadway against traffic	87	0.0	0	0	1	6	80
Standing or lying in roadway	10	0.0	0	0	1	2	7
Pushing/working on vehicle	18	0.0	0	1	0	3	14
Other working in roadway	376	0.1	0	11	13	67	285
Playing in roadway	57	0.0	0	5	2	7	43
In roadway other reason	49	0.0	0	2	4	6	37
Not in roadway	118	0.0	0	4	4	20	90
Other	210	0.0	1	8	20	28	153
Unknown	30,736	3.8	9	572	1,268	3,959	24,928
Total	635,913	100.0	1,728	12,308	29,537	92,641	499,699

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	2,054	62.7	2,341	62.8	63	499	756	508	463
Turning left	145	4.4	168	4.5	0	31	54	41	41
Turning right	111	3.4	121	3.2	3	15	28	42	33
Stopped on roadway	160	4.9	174	4.7	0	9	23	40	99
In prior crash	4	0.1	4	0.1	0	0	1	1	0
Changing lanes	42	1.3	45	1.2	2	6	14	10	11
Backing	4	0.1	5	0.1	0	1	0	3	1
Slowing/stopping on roadway	188	5.7	208	5.6	1	29	65	45	62
Slowing/stopping other	5	0.2	6	0.2	0	0	2	1	2
Starting up on roadway	38	1.2	44	1.2	1	2	13	10	16
Starting up other	7	0.2	7	0.2	0	1	3	1	1
Entering parking	2	0.1	3	0.1	0	1	0	0	2
Leaving parking	2	0.1	2	0.1	0	0	1	1	0
Entering roadway	25	0.8	36	1.0	2	9	10	10	5
Leaving roadway	19	0.6	19	0.5	0	1	7	8	1
Making U-turn	8	0.2	13	0.3	0	3	3	5	2
Overtaking or passing	65	2.0	69	1.9	2	21	15	12	17
Avoiding object	19	0.6	22	0.6	0	2	7	6	7
Avoiding animal	33	1.0	36	1.0	0	6	18	4	7
Avoiding pedestrian	3	0.1	3	0.1	0	0	1	1	1
Avoiding vehicle (front/back)	86	2.6	97	2.6	2	9	30	30	24
Avoiding vehicle (angle)	60	1.8	69	1.9	2	14	28	14	11
Driverless moving	1	0.0	1	0.0	0	0	0	0	1
Parked	37	1.1	40	1.1	0	2	2	3	6
Crossing at intersection	1	0.0	12	0.3	0	2	4	4	2
Crossing not at intersection	1	0.0	4	0.1	0	2	0	2	0
Getting on/off vehicle	0	0.0	0	0.0	0	0	0	0	0
In roadway with traffic	0	0.0	1	0.0	0	1	0	0	0
In roadway against traffic	0	0.0	0	0.0	0	0	0	0	0
Standing or lying in roadway	1	0.0	1	0.0	0	0	1	0	0
Pushing/working on vehicle	0	0.0	0	0.0	0	0	0	0	0
Other working in roadway	5	0.2	7	0.2	0	1	3	2	1
Playing in roadway	0	0.0	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	1	0.0	0	0	0	1	0
Not in roadway	0	0.0	1	0.0	0	0	1	0	0
Other	3	0.1	3	0.1	0	2	0	1	0
Unknown	147	4.5	162	4.3	1	30	53	31	36
Total	3,276	100.0	3,725	100.0	79	699	1,143	837	852

* This table includes 115 motorcyclists (drivers and passengers) with unknown injury severity, and persons miscoded as motorcyclists.

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	1,153	50.6	12	102	381	438	178
Turning left	68	3.0	1	11	28	19	5
Turning right	18	0.8	0	3	7	3	5
Stopped on roadway	13	0.6	0	0	4	5	3
In prior crash	2	0.1	0	1	0	1	0
Changing lanes	21	0.9	0	5	7	7	2
Backing	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	10	0.4	0	0	4	4	1
Slowing/stopping other	9	0.4	0	0	5	4	0
Starting up on roadway	9	0.4	0	0	3	4	2
Starting up other	3	0.1	0	0	2	1	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	2	0.1	0	0	1	0	1
Entering roadway	102	4.5	1	12	31	35	15
Leaving roadway	2	0.1	0	0	0	0	1
Making U-turn	8	0.4	0	0	4	4	0
Overtaking or passing	6	0.3	0	1	2	2	1
Avoiding object	1	0.0	0	0	0	1	0
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	1	0.0	0	0	0	0	1
Avoiding vehicle (front/back)	4	0.2	0	0	0	4	0
Avoiding vehicle (angle)	8	0.4	0	0	7	1	0
Driverless moving	1	0.0	0	0	1	0	0
Parked	5	0.2	0	1	0	2	1
Crossing at intersection	359	15.7	0	27	119	145	57
Crossing not at intersection	149	6.5	2	18	60	49	15
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	27	1.2	2	7	9	5	3
In roadway against traffic	25	1.1	1	4	7	8	3
Standing or lying in roadway	3	0.1	1	1	1	0	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	4	0.2	0	1	1	0	2
Playing in roadway	8	0.4	0	1	5	2	0
In roadway other reason	15	0.7	0	2	1	9	3
Not in roadway	33	1.4	0	2	15	9	6
Other	38	1.7	0	4	11	13	7
Unknown	173	7.6	1	19	46	63	30
Total	2,280	100.0	21	222	762	838	342

* Includes 95 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	130	4.5	0	20	39	42	25
Turning left	5	0.2	0	1	0	1	3
Turning right	4	0.1	0	2	0	1	1
Stopped on roadway	7	0.2	1	1	2	3	0
In prior crash	2	0.1	0	1	0	1	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	1	0.0	0	0	0	0	1
Slowing/stopping on roadway	1	0.0	0	0	0	0	1
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	2	0.1	0	0	1	0	1
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	2	0.1	0	0	0	2	0
Entering roadway	20	0.7	0	3	6	8	2
Leaving roadway	2	0.1	0	1	1	0	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	1	0.0	0	0	0	0	1
Avoiding object	1	0.0	0	0	0	0	1
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	4	0.1	0	0	1	3	0
Avoiding vehicle (angle)	1	0.0	0	0	0	1	0
Driverless moving	1	0.0	0	0	0	1	0
Parked	10	0.3	0	2	4	3	0
Crossing at intersection	738	25.5	20	123	185	313	60
Crossing not at intersection	772	26.7	41	199	237	220	39
Getting on/off vehicle	40	1.4	1	15	11	10	1
In roadway with traffic	164	5.7	24	34	44	45	13
In roadway against traffic	57	2.0	1	19	15	17	1
Standing or lying in roadway	101	3.5	11	26	27	24	13
Pushing/working on vehicle	38	1.3	3	15	10	9	1
Other working in roadway	38	1.3	1	6	15	13	2
Playing in roadway	47	1.6	0	7	17	17	2
In roadway other reason	148	5.1	11	35	37	50	11
Not in roadway	162	5.6	8	46	43	55	5
Other	125	4.3	7	27	33	51	4
Unknown	271	9.4	11	61	65	87	30
Total	2,895	100.0	140	644	793	977	218

* Includes 123 pedestrians with unknown injury severity

MOST HARMFUL EVENT

MOST SEVERE OUTCOME IN CRASH

NONCOLLISION	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Loss of control	2,470	0.4	0	88	197	376	1,809
Cross center/median	551	0.1	0	24	35	82	410
Ran off road left	803	0.1	1	30	44	91	637
Ran off road right	1,309	0.2	0	29	87	160	1,033
Re-enter road	128	0.0	0	16	7	19	86
Overturn	9,205	1.4	102	658	1,722	2,002	4,721
Separation of units	2,720	0.4	4	55	133	384	2,144
Fire/explosion	747	0.1	9	12	24	44	658
Immersion	59	0.0	2	3	4	3	47
Jackknife	360	0.1	0	1	12	25	322
Downhill runaway	1,560	0.2	0	22	61	277	1,200
Cargo loss/shift	918	0.1	1	8	24	65	820
Individual fell off	477	0.1	11	110	148	86	122
Other noncollision	1,739	0.3	4	28	77	207	1,423
NONCOLLISION Subtotal	23,046	3.6	134	1,084	2,575	3,821	15,432

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	2,330	0.4	147	519	638	747	279
Pedalcycle	1,892	0.3	19	193	631	655	394
Motor vehicle in transport	431,799	67.9	1,105	7,718	19,080	73,289	330,607
Parked motor vehicle	17,636	2.8	22	182	389	783	16,260
Railway train	301	0.0	9	18	18	51	205
Animal	60,715	9.5	1	68	366	710	59,570
Other nonfixed objects	5,726	0.9	5	74	171	264	5,212
COLLISION NONFIXED Subtotal	520,399	81.8	1,308	8,772	21,293	76,499	412,527

MOST HARMFUL EVENT (continued)

MOST SEVERE OUTCOME IN CRASH

HAD A COLLISION WITH FIXED OBJECT	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Bridge/pier/abutment	619	0.1	7	23	36	65	488
Bridge parapet end	362	0.1	0	8	8	26	320
Bridge rail	471	0.1	1	10	25	64	371
Guardrail face	3,548	0.6	5	63	179	456	2,845
Guardrail end	553	0.1	1	20	38	102	392
Median barrier	3,654	0.6	7	61	269	770	2,547
Highway traffic sign post	2,711	0.4	2	16	42	123	2,528
Signal post	277	0.0	1	5	9	16	246
Luminaire/light support	652	0.1	3	21	47	60	521
Utility pole	3,645	0.6	18	145	418	603	2,461
Other pole	1,094	0.2	4	21	58	109	902
Culvert	584	0.1	4	32	78	117	353
Curb	1,767	0.3	2	33	86	130	1,516
Ditch	8,011	1.3	15	251	635	1,051	6,059
Embankment	1,838	0.3	11	80	159	269	1,319
Fence	1,434	0.2	1	23	45	87	1,278
Mailbox	2,238	0.4	1	12	50	65	2,110
Tree	11,067	1.7	169	712	1,357	1,715	7,114
Rail crossing signal	105	0.0	0	1	3	4	97
Building	833	0.1	15	34	95	113	576
Traffic island	40	0.0	1	2	0	3	34
Fire hydrant	615	0.1	1	5	40	60	509
Impact attenuator	55	0.0	0	4	8	12	31
Other fixed object	3,457	0.5	14	94	269	345	2,735
COLLISION FIXED Subtotal	49,630	7.8	283	1,676	3,954	6,365	37,352

MOST SEVERE OUTCOME IN CRASH

	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	42,838	6.7	3	776	1,715	5,956	34,388
TOTAL MOST HARMFUL EVENT	635,913	100.0	1,728	12,308	29,537	92,641	499,699

VEHICLE DEFECTS IN CRASH INVOLVEMENT

MOST SEVERE OUTCOME IN CRASH

VEHICLE DEFECTS	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Brakes	2,447	0.4	7	50	122	411	1,857
Lights/reflectors	337	0.1	1	13	12	40	271
Steering	224	0.0	0	7	20	36	161
Tires/wheels	743	0.1	3	27	36	83	594
Windows	130	0.0	0	2	6	22	100
Other	999	0.2	5	33	74	128	759
Unknown	631,033	99.2	1,712	12,176	29,267	91,921	495,957
TOTAL	635,913	100.0	1,728	12,308	29,537	92,641	499,699

DRIVER HAZARDOUS ACTION

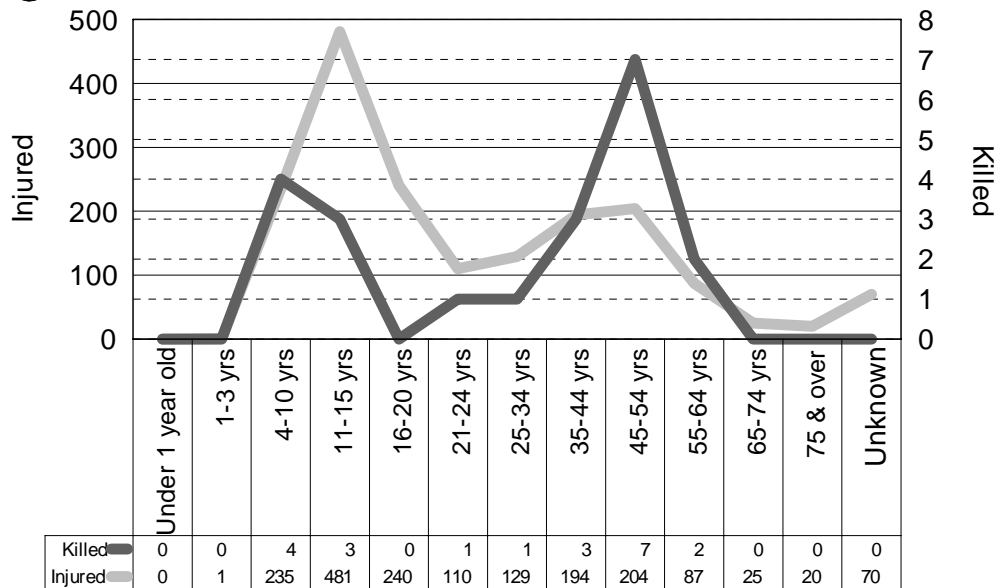
MOST SEVERE OUTCOME IN CRASH

HAZARDOUS ACTION	All Drivers		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
None	306,255	48.2	674	4,983	12,322	42,586	245,690
Speed too fast	37,443	5.9	215	1,198	2,866	5,370	27,794
Speed too slow	2,076	0.3	4	39	92	343	1,598
Failed to yield	55,030	8.7	143	1,428	3,730	9,688	40,041
Disregard traffic control	13,755	2.2	73	590	1,334	3,314	8,444
Drove wrong way	886	0.1	7	39	66	139	635
Drove left of center	3,747	0.6	78	235	364	544	2,526
Improper passing	3,592	0.6	10	61	87	309	3,125
Improper lane use	13,393	2.1	17	96	319	1,103	11,858
Improper turn	6,470	1.0	7	104	223	703	5,433
Improper/no signal	806	0.1	2	12	29	80	683
Improper backing	10,812	1.7	3	29	59	280	10,441
Unable to stop in assured clear distance	83,967	13.2	43	733	2,412	16,250	64,529
Reckless driving	3,183	0.5	65	289	415	450	1,964
Careless/negligent driving	13,795	2.2	96	761	1,603	2,121	9,214
Other	22,435	3.5	91	683	1,526	2,854	17,281
Unknown	58,268	9.2	200	1,028	2,090	6,507	48,443
TOTAL	635,913	100.0	1,728	12,308	29,537	92,641	499,699



MICHIGAN BICYCLE CRASHES

2004 Bicycle Crash Information



In 2004 there were 2,246 bicyclists involved in motor vehicles crashes, with 21 bicyclists killed and 1,796 injured.

Children under 16 years of age accounted for 7 (33.3%) of the bicycle deaths in 2004.

BICYCLE HELMET USE AND INJURY SEVERITY

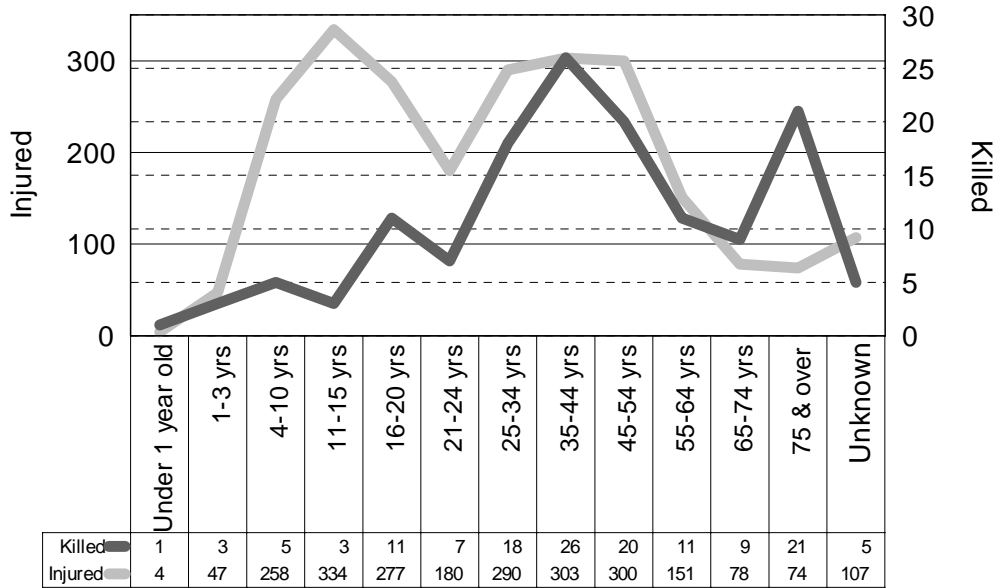
HELMET USE	Fatality	Injury			No Injury
		A	B	C	
Worn	1	14	47	52	16
Not Worn	10	72	273	237	90
Unknown	10	132	433	536	232
Total	21	218	753	825	338

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

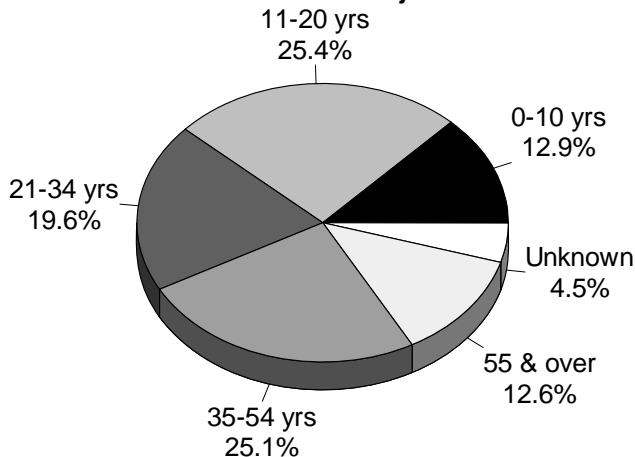
2004 Pedestrian Crash Information



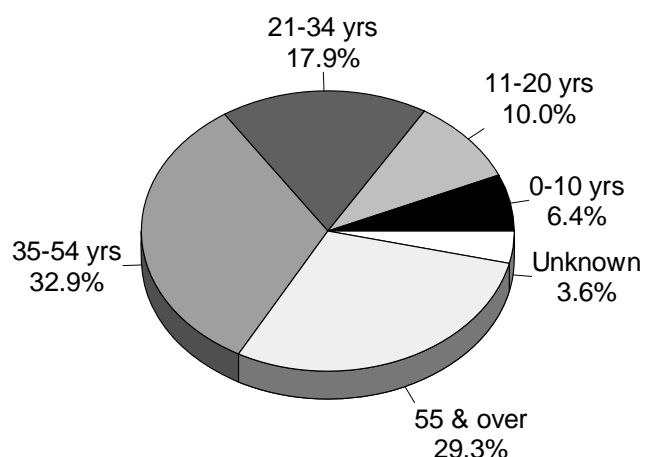
In 2004 there were 2,864 pedestrians involved in motor vehicles crashes, with 140 pedestrians killed and 2,403 injured.

Children under 16 years of age accounted for 12 (8.6%) of the pedestrian deaths in 2004. Adults over the age of 54 accounted for 41 (29.3%) of the pedestrian deaths in 2004.

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	5	1.3	0	0	3	1	1
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	1	0.3	0	0	0	1	0
Ran off road right	0	0.0	0	0	0	0	0
Re-enter road	0	0.0	0	0	0	0	0
Overturn	38	10.1	0	14	8	7	9
Separation of units	0	0.0	0	0	0	0	0
Fire/explosion	1	0.3	0	0	0	0	1
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell off	26	6.9	0	8	10	8	0
Other noncollision	2	0.5	0	1	1	0	0
NONCOLLISION Subtotal	73	19.5	0	23	22	17	11

MOST SEVERE OUTCOME IN CRASH

HAD A COLLISION WITH NONFIXED OBJECT	Snowmobiles		Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	8	2.1	0	7	1	0	0
Pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	162	43.2	9	38	24	18	73
Parked motor vehicle	12	3.2	0	3	1	2	6
Railway train	1	0.3	0	0	0	0	1
Animal	11	2.9	0	2	0	2	7
Other nonfixed objects	8	2.1	1	4	2	1	0
COLLISION NONFIXED Subtotal	202	53.9	10	54	28	23	87



MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS (continued)

Most Harmful Event

MOST SEVERE OUTCOME IN CRASH

HAD A COLLISION WITH FIXED OBJECT	Snowmobiles		Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge parapet end	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	1	0.3	0	0	0	0	1
Guardrail end	1	0.3	0	0	0	0	1
Median barrier	0	0.0	0	0	0	0	0
Highway traffic sign post	2	0.5	0	0	0	1	1
Signal post	0	0.0	0	0	0	0	0
Luminaire/light support	0	0.0	0	0	0	0	0
Utility pole	3	0.8	0	0	2	1	0
Other pole	1	0.3	0	0	0	0	1
Culvert	4	1.1	0	1	1	0	2
Curb	0	0.0	0	0	0	0	0
Ditch	7	1.9	0	3	4	0	0
Embankment	6	1.6	0	0	4	2	0
Fence	3	0.8	0	0	2	0	1
Mailbox	2	0.5	0	0	0	1	1
Tree	42	11.2	6	16	7	6	7
Rail crossing signal	0	0.0	0	0	0	0	0
Building	1	0.3	1	0	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	8	2.1	0	2	3	2	1
COLLISION FIXED Subtotal	81	21.6	7	22	23	13	16
Unknown Event	19	5.1	0	3	5	2	9
TOTAL MOST HARMFUL EVENT	375	100.0	17	102	78	55	123

A total of 375 snowmobiles were reported in crashes on Michigan public roadways during 2004. Seventeen of these snowmobiles were involved in 13 fatal crashes with 12 of their operators and 2 snowmobile passengers killed. One of the fatal crashes involved 4 snowmobiles.

NOTE: These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.



MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

Most Harmful Event

MOST SEVERE OUTCOME IN CRASH

	ORV/ATV		Fatal	Injury			PDO
	Number of ORV/ATVs	% of Total		A	B	C	
NONCOLLISION							
Loss of control	3	1.1	0	1	0	2	0
Ran off road left	1	0.4	0	1	0	0	0
Ran off road right	1	0.4	0	1	0	0	0
Re-enter road	2	0.7	0	0	1	1	0
Overturn	45	16.7	2	12	20	9	2
Separation of unit	1	0.4	0	0	0	1	0
Individual fell off	36	13.3	2	13	12	9	0
Other noncollision	1	0.4	0	1	0	0	0
NONCOLLISION Subtotal	90	33.3	4	29	33	22	2

HAD A COLLISION WITH NONFIXED OBJECT

Motor vehicle in transport	92	34.1	4	17	23	22	26
Parked motor vehicle	6	2.2	0	1	1	1	3
Animal	4	1.5	0	3	0	0	1
Other nonfixed objects	3	1.1	0	1	2	0	0
COLLISION NONFIXED Subtotal	105	38.9	4	22	26	23	30

HAD A COLLISION WITH FIXED OBJECT

Guardrail face	1	0.4	0	0	1	0	0
Traffic sign post	1	0.4	0	1	0	0	0
Utility pole	3	1.1	0	0	2	0	1
Other pole	1	0.4	0	0	0	1	0
Curb	1	0.4	0	0	0	1	0
Ditch	12	4.4	0	2	7	2	1
Embankment	4	1.5	0	1	1	1	1
Fence	1	0.4	0	0	0	1	0
Mailbox	5	1.9	0	1	1	1	2
Tree	28	10.4	5	12	8	3	0
Building	1	0.4	0	0	1	0	0
Other fixed object	7	2.6	0	3	4	0	0
COLLISION FIXED Subtotal	65	24.1	5	20	25	10	5

Unknown Event	10	3.7	0	4	2	1	3
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TOTAL MOST HARMFUL EVENT	270	100.0	13	75	86	56	40
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A total of 270 off-road vehicles/all-terrain vehicles were reported in crashes on Michigan public roadways during 2004. Thirteen of these ORV/ATVs were involved in 12 fatal crashes with 11 ORV/ATV operators and 1 ORV/ATV passenger killed.

NOTE: These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.

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	85	22.7	2	24	18	11	30
Speed too fast	98	26.1	7	36	20	16	19
Speed too slow	2	0.5	0	1	0	0	1
Failed to yield	47	12.5	1	9	4	5	28
Disregard traffic control	4	1.1	1	0	2	0	1
Drove wrong way	1	0.3	0	1	0	0	0
Drove left of center	3	0.8	1	1	1	0	0
Improper passing	1	0.3	0	0	0	0	1
Improper lane use	1	0.3	0	0	0	1	0
Improper turn	1	0.3	0	0	0	0	1
Improper/no signal	1	0.3	0	1	0	0	0
Improper backing	1	0.3	0	0	0	1	0
Unable to stop in assured clear distance	20	5.3	0	6	7	3	4
Reckless driving	4	1.1	1	1	0	0	2
Careless/negligent driving	24	6.4	0	8	8	4	4
Other	38	10.1	0	8	8	5	17
Unknown	44	11.7	4	6	10	9	15
TOTAL	375	100.0	17	102	78	55	123

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	30	11.1	1	8	16	4	1
Speed too fast	77	28.5	6	31	26	8	6
Speed too slow	1	0.4	0	0	1	0	0
Failed to yield	25	9.3	2	5	3	7	8
Disregard traffic control	4	1.5	0	2	1	1	0
Drove wrong way	2	0.7	0	0	0	1	1
Drove left of center	3	1.1	0	1	0	2	0
Improper passing	0	0.0	0	0	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	3	1.1	0	0	1	0	2
Improper/no signal	1	0.4	0	0	0	0	1
Improper backing	2	0.7	0	0	0	1	1
Unable to stop in assured clear distance	7	2.6	0	1	5	1	0
Reckless driving	11	4.1	0	4	2	3	2
Careless/negligent driving	35	13.0	1	10	11	11	2
Other	47	17.4	1	11	15	7	13
Unknown	22	8.1	2	2	5	10	3
TOTAL	270	100.0	13	75	86	56	40

NOTE: These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.



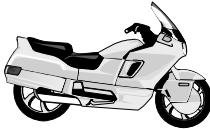
MICHIGAN FARM EQUIPMENT CRASHES

A total of 188 crashes involving farm equipment were reported on Michigan roadways during 2004. Of these crashes, 2 were fatal with 2 operators of the equipment killed.



MICHIGAN VEHICLE - TRAIN CRASHES

A total of 89 crashes involving trains were reported in Michigan during 2004. The National Highway Traffic Safety Administration's 2004 Fatality Analysis Reporting System [11] reported 8 fatal train crashes in Michigan, and 9 persons killed as a result of those collisions.



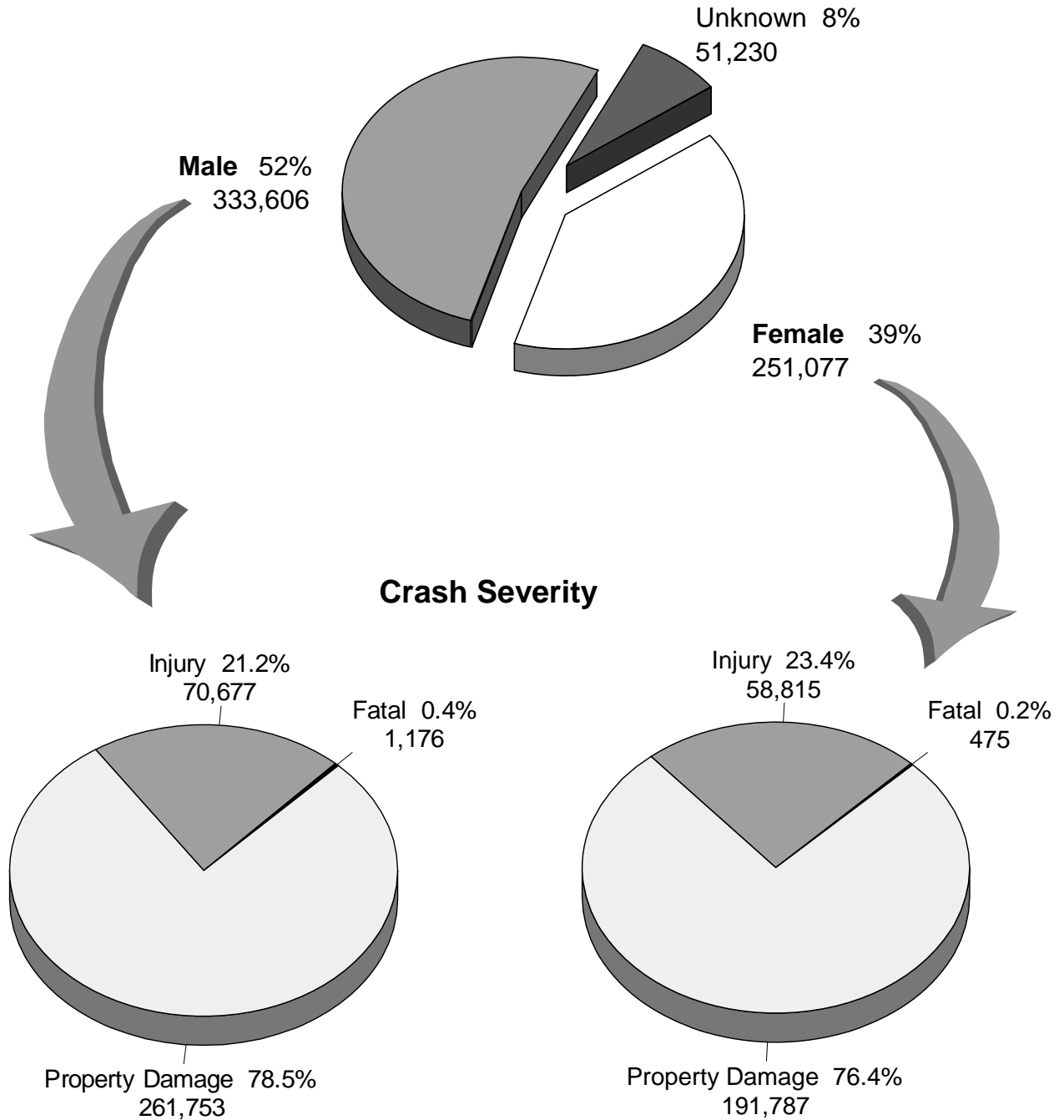
MICHIGAN MOTORCYCLE CRASHES

Revised October 25, 2005

MOTORCYCLE DATA	2003	2004	% Change
Registrations	207,648	219,478	5.7
Crashes	3,187	3,276	2.8
Deaths	76	79	3.9
Persons Injured	2,644	2,679	1.3
Death Rate based on 10,000 motorcycle registrations	3.7	3.6	-2.7
Estimated Mileage based on 3,000 miles per motorcycle	622,944,000	658,434,000	5.7
Death Rate based on deaths per 100 million vehicle miles traveled	12.2	12.0	-1.6

Motorcycles were involved in 0.9 percent of all traffic crashes in Michigan in 2004. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles. The 2004 death rate for motorcyclists was 12.0 per 100 million vehicle miles traveled compared to the overall 1.1 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 2004 chart was processed with numbers for all drivers (vehicle level).

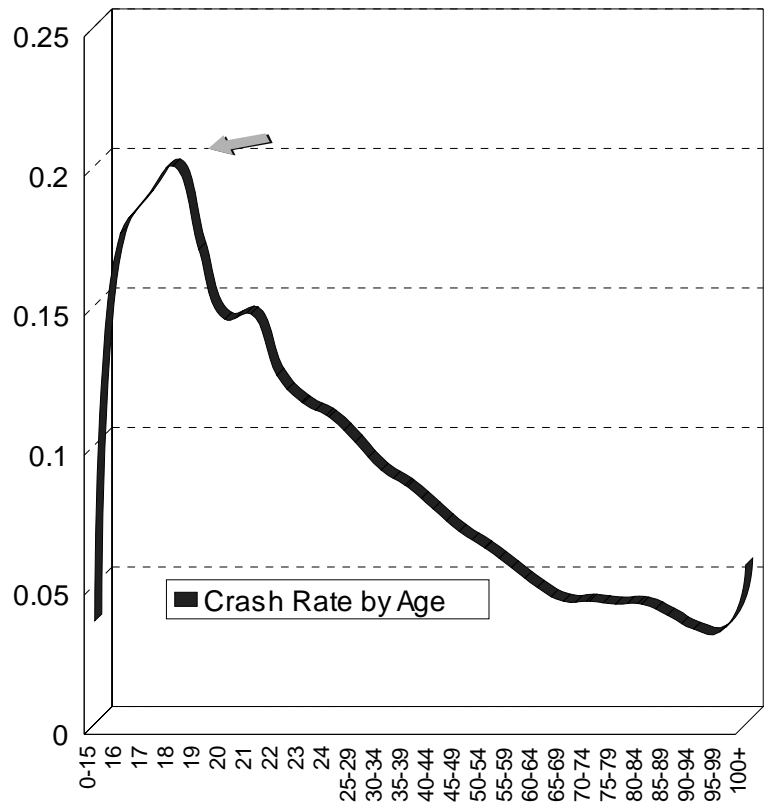
PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

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	61,243	2,239,003	1,893	15	64	6,701	872	7	743	18
16	96,829	148,093	15,016	29	29	3,034	77	0	72	2
17	110,592	146,343	18,558	50	36	3,369	49	0	53	1
18	108,349	145,882	20,301	50	37	3,559	57	0	91	3
19	122,523	145,191	19,091	55	35	3,319	55	0	54	2
20	125,627	139,566	17,281	44	24	2,952	51	0	48	7
21	115,187	140,308	16,394	51	37	2,709	34	0	64	4
22	126,164	141,424	15,517	42	26	2,605	38	0	47	2
23	129,476	142,896	14,400	40	24	2,326	32	1	57	2
24	132,953	141,304	13,662	35	16	2,133	25	0	44	1
25-29	595,448	629,259	57,979	164	86	8,630	72	1	178	11
30-34	637,385	676,389	56,580	133	66	8,120	90	0	159	10
35-39	670,118	718,214	55,429	162	64	7,659	101	1	168	14
40-44	739,913	796,036	57,348	173	72	7,969	128	2	190	13
45-49	748,442	794,860	52,430	143	59	7,511	142	6	185	12
50-54	670,222	701,254	42,446	116	67	6,128	102	1	172	9
55-59	564,459	579,078	31,823	77	42	4,781	68	2	107	6
60-64	426,567	440,925	21,636	72	52	3,309	38	0	70	6
65-69	317,856	334,559	14,116	50	31	2,153	13	0	41	4
70-74	262,116	277,301	10,873	43	27	1,770	16	0	51	5
75-79	225,792	265,459	9,232	38	29	1,584	13	0	39	8
80-84	151,726	194,209	5,832	37	33	1,189	5	0	30	7
85-100+	86,864	175,067	3,093	33	41	650	5	0	27	6
Unknown	---	---	64,983	76	1	1,283	163	0	174	6
Total	7,225,851	10,112,620	635,913	1,728	998	95,443	2,246	21	2,864	159



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

Age	Rate	Licensed Drivers	Drivers in all crashes
0-15	0.031	61,243	1,893
16	0.155	96,829	15,016
17	0.168	110,592	18,558
18	0.187	108,349	20,301
19	0.156	122,523	19,091
20	0.138	125,627	17,281
21	0.142	115,187	16,394
22	0.123	126,164	15,517
23	0.111	129,476	14,400
24	0.103	132,953	13,662
25-29	0.097	595,448	57,979
30-34	0.089	637,385	56,580
35-39	0.083	670,118	55,429
40-44	0.078	739,913	57,348
45-49	0.070	748,442	52,430
50-54	0.063	670,222	42,446
55-59	0.056	564,459	31,823
60-64	0.051	426,567	21,636
65-69	0.044	317,856	14,116
70-74	0.041	262,116	10,873
75-79	0.041	225,792	9,232
80-84	0.038	151,726	5,832
85-89	0.037	67,226	2,473
90-94	0.030	17,374	528
95-99	0.034	2,157	73
100+	0.178	107	19
Total		7,225,851	570,930



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 older groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash relative to younger drivers. However, the oldest group (age 100+) has the second highest crash rate with 19 drivers in all crashes and only 107 drivers licensed by the State of Michigan.

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	740	2	73	44	113	172	148	97	43	35	13
Alger	581	6	59	52	94	120	113	55	29	21	32
Allegan	5,441	20	972	561	1,019	1,020	817	486	195	132	219
Alpena	1,426	1	264	119	208	233	238	145	90	64	64
Antrim	1,307	8	192	103	200	269	239	126	75	42	53
Arenac	1,200	8	160	116	190	239	216	136	70	35	30
Baraga	501	3	61	53	76	84	107	55	25	24	13
Barry	3,070	14	496	258	550	590	545	319	128	81	89
Bay	5,883	23	977	546	945	993	868	564	313	223	431
Benzie	774	6	110	50	125	170	125	88	46	28	26
Berrien	8,959	17	1,391	777	1,588	1,562	1,396	875	437	354	562
Branch	2,828	11	425	267	536	528	449	281	153	78	100
Calhoun	9,801	28	1,417	880	1,768	1,699	1,598	884	448	275	804
Cass	2,620	14	415	261	462	464	443	278	108	70	105
Charlevoix	1,655	7	226	157	249	316	308	181	102	62	47
Cheboygan	1,584	9	221	131	270	295	273	153	109	74	49
Chippewa	2,004	12	280	178	332	362	331	223	126	67	93
Clare	1,821	6	252	158	327	358	295	200	118	61	46
Clinton	3,710	5	597	341	644	693	681	359	158	83	149
Crawford	917	4	121	76	141	181	183	105	58	20	28
Delta	3,002	13	454	198	440	531	530	329	171	125	211
Dickinson	1,723	8	253	118	241	326	336	181	90	101	69
Eaton	6,956	16	1,083	686	1,254	1,309	1,121	679	262	192	354
Emmet	2,615	8	412	224	448	447	449	262	154	98	113
Genesee	25,580	81	3,626	2,318	4,661	4,505	3,788	2,090	1,187	740	2,584
Gladwin	1,161	4	148	93	221	238	206	128	63	46	14
Gogebic	630	4	93	57	77	103	107	69	36	49	35
Grand Traverse	6,703	26	1,114	619	1,130	1,192	1,086	650	309	248	329
Gratiot	2,461	5	359	232	475	456	413	228	120	80	93
Hillsdale	2,777	18	408	250	523	530	436	277	146	91	98
Houghton	1,991	7	393	271	273	280	250	180	93	90	154
Huron	2,341	5	330	196	423	403	401	265	143	102	73
Ingham	19,790	48	3,178	2,803	3,639	3,176	2,851	1,599	616	476	1,404
Ionia	3,866	14	591	377	735	723	619	331	159	98	219
Iosco	1,353	2	176	113	211	259	247	158	97	57	33
Iron	938	3	106	45	138	145	176	129	68	70	58
Isabella	4,780	16	944	767	833	727	594	380	172	117	230
Jackson	9,940	31	1,518	917	1,746	1,837	1,550	893	424	339	685
Kalamazoo	17,652	46	3,024	2,429	3,116	2,810	2,448	1,371	602	426	1,380
Kalkaska	1,063	3	139	91	202	211	201	97	67	26	26
Kent	44,627	142	6,703	5,255	8,744	7,653	6,191	3,125	1,446	1,030	4,338
Keweenaw	113	1	14	10	13	16	12	20	12	1	14
Lake	565	5	51	56	97	109	113	65	36	21	12
Lapeer	5,136	14	869	443	894	1,097	893	481	213	89	143
Leelanau	888	3	140	54	136	135	175	102	74	36	33

REPORTED AGE OF DRIVERS INVOLVED IN ALL CRASHES (continued)

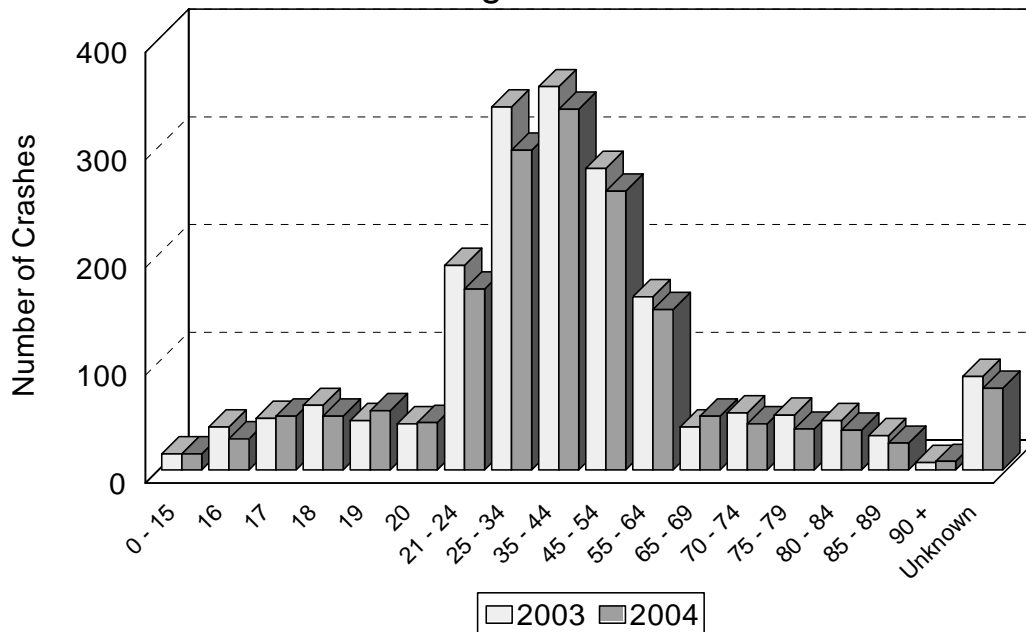
COUNTY	All Ages	0-15 Years	16-20 Years	21-24 Years	25-34 Years	35-44 Years	45-54 Years	55-64 Years	65-74 Years	75 yrs & Over	DOB Unk
Lenawee	5,031	17	884	433	866	828	821	461	222	195	304
Livingston	9,900	27	1,886	980	1,732	2,003	1,539	806	326	172	429
Luce	308	0	29	21	64	53	55	41	20	18	7
Mackinac	992	8	106	80	150	182	215	120	69	36	26
Macomb	49,133	119	7,387	4,254	8,884	9,021	7,183	3,959	1,950	1,549	4,827
Manistee	1,355	4	177	91	235	225	204	159	83	62	115
Marquette	4,062	11	641	498	609	557	616	351	195	177	407
Mason	2,186	4	348	158	351	400	369	228	123	82	123
Mecosta	3,201	9	543	390	520	543	496	291	142	104	163
Menominee	1,971	9	284	160	269	368	407	209	107	77	81
Midland	4,140	13	702	393	709	782	641	376	221	165	138
Missaukee	764	3	118	70	151	129	125	77	38	25	28
Monroe	7,802	38	1,412	685	1,301	1,403	1,154	652	294	206	657
Montcalm	4,090	13	572	411	765	796	674	410	179	111	159
Montmorency	462	2	69	37	65	89	80	56	32	22	10
Muskegon	9,691	41	1,608	948	1,815	1,688	1,400	807	396	385	603
Newaygo	2,579	12	482	210	454	500	437	238	112	64	70
Oakland	85,075	204	11,549	7,533	16,499	16,948	13,840	7,477	3,057	2,324	5,644
Oceana	1,488	6	220	151	254	257	266	164	74	37	59
Ogemaw	1,337	5	210	111	229	250	251	137	89	34	21
Ontonagon	542	6	61	32	70	114	119	72	29	13	26
Osceola	1,609	5	212	150	297	337	277	165	91	36	39
Oscoda	432	3	45	21	75	88	82	64	29	18	7
Otsego	1,652	9	250	137	270	333	313	157	81	46	56
Ottawa	13,991	46	2,765	1,608	2,527	2,532	1,949	1,038	452	378	696
Presque Isle	727	3	74	57	118	145	138	94	45	33	20
Roscommon	1,470	9	195	135	242	244	252	186	96	69	42
Saginaw	12,501	32	1,941	1,254	2,186	2,207	1,885	1,193	556	446	801
St. Clair	8,552	29	1,438	782	1,446	1,642	1,239	738	347	305	586
St. Joseph	3,474	19	574	342	615	615	516	312	170	105	206
Sanilac	2,303	11	308	207	381	494	386	227	139	64	86
Schoolcraft	718	3	76	56	114	138	126	81	56	27	41
Shiawassee	4,024	20	612	368	745	754	620	397	162	142	204
Tuscola	2,721	6	401	266	501	523	470	265	134	76	79
Van Buren	3,934	15	626	364	737	717	611	359	197	102	206
Washtenaw	21,329	44	3,057	2,671	4,201	3,803	3,233	1,696	623	465	1536
Wayne	132,317	353	13,164	9,908	23,198	21,009	16,917	9,453	4,325	3,322	30,668
Wexford	2,577	8	386	251	407	494	404	244	137	88	158
Total	635,913	1,893	90,247	59,973	114,559	112,777	94,876	53,459	24,989	18,157	64,983

DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2003	2004	% Change	% 2004 Fatal Crash Involvement	Percent Active Driving Population*
15 years and under	15	15	0.0	0.9	0.9
16 years	40	29	-27.5	1.7	1.3
17 years	48	50	4.2	2.9	1.5
18 years	60	50	-16.7	2.9	1.5
19 years	46	55	19.6	3.2	1.7
20 years	43	44	2.3	2.5	1.7
21 - 24 years	190	168	-11.6	9.7	7.0
25 - 34 years	337	297	-11.9	17.2	17.1
35 - 44 years	356	335	-5.9	19.4	19.5
45 - 54 years	280	259	-7.5	15.0	19.6
55 - 64 years	161	149	-7.5	8.6	13.7
65 - 69 years	40	50	25.0	2.9	4.4
70 - 74 years	53	43	-18.9	2.5	3.6
75 - 79 years	51	38	-25.5	2.2	3.1
80 - 84 years	46	37	-19.6	2.1	2.1
85 - 89 years	32	25	-21.9	1.4	0.9
90 years and over	7	8	14.3	0.5	0.3
Unknown	87	76	-12.6	4.4	---
Total	1,892	1,728	-8.7	100.0	100.0

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

Driver Age in Fatal Crashes



DRIVER CONDITION

MOST SEVERE OUTCOME IN CRASH

POSSIBLE CONDITIONS OF DRIVER*	Conditions Coded by Police	Fatal	Injury			PDO
		Number	A	B	C	
Appeared Normal	507,916	847	8,689	23,126	78,295	396,959
Had Been Drinking	14,155	189	1,213	2,115	2,283	8,355
Illegal Drug Use	917	9	66	84	189	569
Sick	1,122	5	100	163	331	523
Fatigue	988	4	51	125	195	613
Asleep	1,340	6	99	207	280	748
Medication	754	2	39	93	182	438
Driver Distracted	3,855	8	152	392	850	2,453
Using Cellular Phone	1,021	5	29	74	226	687
Unknown	36,066	497	1,011	1,231	3,499	29,828

* 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

Revised January 12, 2006 

	Drivers		Fatality		Injury			No Injury	Unknown
	Number	% of Total	Number	% of Total	A	B	C		
All Drivers									
Restraint Used	540,727	85.0	389	54.5	4,464	12,770	46,335	474,023	2,746
Restraint Not Used	8,202	1.3	235	32.9	954	1,305	1,208	4,333	167
Unknown	86,984	13.7	90	12.6	644	1,145	2,283	27,933	54,889
Total	635,913	100.0	714	100.0	6,062	15,220	49,826	506,289	57,802

Drinking Drivers									
	Number	% of Total	Number	% of Total	A	B	C	No Injury	Unknown
Restraint Used	9,900	71.4	67	39.2	406	1,080	1,123	7,184	40
Restraint Not Used	1,408	10.2	83	48.5	306	353	165	486	15
Unknown	2,556	18.4	21	12.3	150	270	225	1,796	94
Total	13,864	100.0	171	100.0	862	1,703	1,513	9,466	149

Drugged Drivers									
	Number	% of Total	Number	% of Total	A	B	C	No Injury	Unknown
Restraint Used	521	70.1	17	50.0	31	50	91	326	6
Restraint Not Used	73	9.8	13	38.2	11	13	14	22	0
Unknown	149	20.1	4	11.8	14	16	22	90	3
Total	743	100.0	34	100.0	56	79	127	438	9

Drinking and Drugged Drivers									
	Number	% of Total	Number	% of Total	A	B	C	No Injury	Unknown
Restraint Used	391	60.3	10	27.0	25	47	54	253	2
Restraint Not Used	117	18.0	18	48.7	29	33	8	29	0
Unknown	141	21.7	9	24.3	14	18	14	79	7
Total	649	100.0	37	100.0	68	98	76	361	9

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]

COUNTY	VEHICLE							OTHER			
	Passenger	Commercial	Trailer	Motorcycle	Total Plates	Total Revenue	Watercraft	Snowmobile	Moped		
Alcona	7,970	3,550	3,369	382	15,271	1,285,887.01	2,614	952	62		
Alger	5,278	2,626	1,850	284	10,038	806,546.35	1,776	1,472	16		
Allegan	67,037	24,095	18,795	2,780	112,707	10,036,133.48	11,858	3,880	412		
Alpena	19,575	8,544	7,081	786	35,986	3,283,998.40	4,416	2,471	83		
Antrim	16,333	6,056	5,244	681	28,314	2,454,501.90	5,257	2,316	76		
Arenac	10,399	4,746	3,991	499	19,635	1,774,678.28	3,845	1,516	85		
Baraga	4,102	2,145	1,363	151	7,761	682,667.62	1,027	703	8		
Barry	36,631	13,954	11,207	1,858	63,650	5,245,959.90	9,614	2,165	144		
Bay	72,402	21,455	19,345	2,550	115,752	10,389,532.51	9,751	5,918	238		
Benzie	11,831	4,329	3,881	514	20,555	1,710,715.23	4,050	1,512	74		
Berrien	110,705	28,878	18,910	4,067	162,560	13,400,285.82	12,819	3,147	381		
Branch	26,571	10,428	7,536	1,169	45,704	3,973,435.67	6,305	1,154	135		
Calhoun	91,192	24,274	15,988	3,426	134,880	11,033,592.22	10,014	1,743	416		
Cass	31,245	11,568	8,588	1,410	52,811	4,329,099.37	8,701	1,965	99		
Charlevoix	18,472	6,879	5,839	823	32,013	2,902,765.99	5,119	2,859	94		
Cheboygan	17,091	7,285	5,925	797	31,098	2,652,147.92	5,562	3,310	75		
Chippewa	19,533	8,449	6,592	677	35,251	3,155,170.58	4,712	4,450	90		
Clare	19,695	8,111	6,665	826	35,297	3,046,506.12	4,570	2,071	64		
Clinton	43,994	15,896	13,223	1,562	74,675	7,030,916.28	7,125	3,035	158		
Crawford	8,636	3,392	3,025	365	15,418	1,292,649.09	2,806	1,662	21		
Delta	25,085	11,182	8,405	928	45,600	4,025,920.98	4,436	2,995	136		
Dickinson	17,419	8,079	5,869	865	32,232	2,936,550.16	3,590	1,546	143		
Eaton	68,491	20,078	16,039	2,581	107,189	9,588,214.47	8,817	2,745	205		
Emmet	23,341	7,931	6,428	902	38,602	3,462,176.11	5,645	2,911	112		
Genesee	285,298	70,622	46,431	9,959	412,310	36,188,691.79	31,031	13,128	686		
Gladwin	17,095	7,163	6,097	781	31,136	2,650,227.89	4,931	1,823	88		
Gogebic	9,417	4,106	2,431	374	16,328	1,295,884.20	2,353	1,563	83		
Grand Traverse	60,781	17,207	15,985	2,225	96,198	8,976,135.09	13,396	5,350	149		



REGISTRATION TRANSACTIONS (continued)

COUNTY	VEHICLE										OTHER			
	Passenger	Commercial	Trailer	Motorcycle	Total Plates	Total Revenue	Watercraft	Snowmobile	Moped					
Gratiot	24,971	9,885	8,003	881	43,740	4,094,346.77	3,483	1,706	138					
Hillsdale	28,222	11,994	8,356	1,355	49,927	4,226,829.00	5,289	1,048	163					
Houghton	19,642	7,207	4,265	787	31,901	2,569,802.78	3,884	2,452	107					
Huron	23,935	11,154	7,781	951	43,821	4,211,045.93	3,060	2,616	280					
Ingham	185,654	38,151	24,485	4,797	253,087	21,820,885.53	15,501	3,986	431					
Ionia	36,325	13,579	10,052	1,450	61,406	5,063,652.31	5,276	1,777	141					
Iosco	18,100	7,171	6,370	860	32,501	2,804,135.50	5,183	1,656	149					
Iron	7,696	3,777	2,623	304	14,400	1,191,305.30	2,412	968	43					
Isabella	31,898	12,405	9,229	1,157	54,689	5,326,697.81	4,930	2,101	94					
Jackson	103,290	32,696	22,797	4,226	163,009	14,919,868.61	15,776	3,727	505					
Kalamazoo	157,238	34,067	24,876	4,953	221,134	19,690,561.86	18,093	3,387	623					
Kalkaska	10,891	5,291	4,117	559	20,858	2,173,332.91	2,680	2,024	38					
Kent	400,178	92,377	67,142	11,123	570,820	56,544,169.59	45,027	10,297	1,065					
Keweenaw	1,288	552	351	47	2,238	168,376.54	383	195	4					
Lake	6,422	2,915	2,212	293	11,842	914,895.39	2,281	939	26					
Lapeer	55,703	22,896	15,895	3,250	97,744	8,860,087.75	7,664	4,543	158					
Leelanau	14,965	4,778	4,884	443	25,070	2,197,413.29	5,765	1,677	92					
Lenawee	64,609	22,834	15,416	3,292	106,151	9,140,597.05	9,206	3,294	362					
Livingston	114,168	33,846	25,992	5,538	179,544	17,200,304.03	19,588	6,750	247					
Luce	3,445	1,958	1,606	112	7,121	670,129.45	1,336	1,428	18					
Mackinac	7,009	3,345	2,453	245	13,052	1,142,574.92	2,968	2,233	59					
Macomb	578,794	120,916	63,982	17,164	780,856	73,897,806.30	48,492	18,031	1,335					
Manistee	16,301	6,329	5,259	700	28,589	2,435,714.29	3,762	1,715	87					
Marquette	40,499	14,394	9,741	1,664	66,298	5,480,758.61	7,102	4,473	126					
Mason	19,209	7,061	5,536	954	32,760	2,762,942.21	4,384	1,600	132					
Mecosta	22,392	8,627	6,808	836	38,663	3,362,164.21	5,204	1,703	65					
Menominee	14,523	6,351	4,771	621	26,266	2,279,903.07	2,630	1,336	283					
Midland	59,165	16,161	15,529	2,266	93,121	7,959,254.87	9,293	3,204	200					
Missaukee	8,335	4,592	3,429	417	16,773	1,564,892.34	2,110	1,337	39					



REGISTRATION TRANSACTIONS (continued)

COUNTY	VEHICLE										OTHER			
	Passenger	Commercial	Trailer	Motorcycle	Total Plates	Total Revenue	Watercraft	Snowmobile	Moped					
Monroe	100,443	33,552	20,553	4,751	159,299	14,356,122.10	11,311	4,819	372					
Montcalm	37,640	15,268	11,320	1,490	65,718	5,663,787.79	7,184	2,393	173					
Montmorency	6,661	3,182	2,858	319	13,020	1,136,883.18	2,230	1,430	9					
Muskegon	111,940	28,798	22,915	4,391	168,044	13,503,909.12	14,820	5,150	376					
Newaygo	29,941	11,788	9,827	1,393	52,949	4,394,423.45	7,050	2,660	108					
Oakland	920,332	155,445	92,497	25,231	1,193,505	118,507,054.63	82,686	23,676	1,754					
Oceana	17,497	7,279	4,668	723	30,167	4,197,369.63	3,069	1,996	106					
Ogemaw	14,090	6,604	5,290	923	26,907	2,448,967.22	3,314	1,757	39					
Ontonagon	4,649	2,547	1,798	182	9,176	775,139.73	1,192	1,153	54					
Osceola	14,340	6,540	4,788	590	26,258	2,343,214.72	2,691	1,644	44					
Oscoda	5,862	2,710	2,217	339	11,128	989,735.49	2,074	917	22					
Otsego	15,277	6,830	5,388	790	28,285	2,857,961.23	3,130	3,197	35					
Ottawa	161,920	40,670	38,548	5,541	246,679	23,282,818.13	24,767	6,474	684					
Presque Isle	9,092	4,638	3,408	338	17,476	1,506,304.84	2,939	1,740	51					
Roscommon	17,817	6,747	6,297	797	31,658	2,709,224.89	6,199	3,505	171					
Saginaw	135,531	35,177	28,048	4,102	202,858	18,777,927.97	15,692	7,554	390					
St. Clair	109,562	35,932	23,337	4,677	173,508	15,333,934.77	15,548	6,987	352					
St. Joseph	40,143	14,214	10,518	2,008	66,883	5,491,779.40	8,529	1,130	199					
Sanilac	27,072	12,627	8,166	1,318	49,183	4,499,807.19	2,238	2,426	101					
Schoolcraft	5,130	2,708	2,150	282	10,270	903,869.27	1,713	1,218	52					
Shiawassee	47,349	17,773	12,794	2,038	79,954	7,063,867.68	6,127	3,484	187					
Tuscola	36,935	16,064	12,062	1,805	66,866	5,786,265.75	4,714	3,418	237					
Van Buren	48,708	16,432	11,452	2,326	78,918	6,455,802.96	8,388	2,529	238					
Washtenaw	212,881	39,399	23,005	6,211	281,496	25,369,189.11	15,324	4,149	603					
Wayne	1,211,262	213,011	90,786	29,856	1,544,915	142,512,181.70	65,624	16,376	2,249					
Wexford	20,655	7,616	6,082	837	35,190	3,141,245.87	4,527	2,523	81					
Non-Resident	62,823	28,576	13,172	753	105,324	56,005,211.03	35,507	5,774	214					
Unknown County	0	0	0	0	0	0	5,207	0	0					
Total	6,646,038	1,692,464	1,134,006	219,478	9,691,986	\$934,299,437.50	822,696	292,644	20,244					



2004

2004

2004

2004

2004

2004

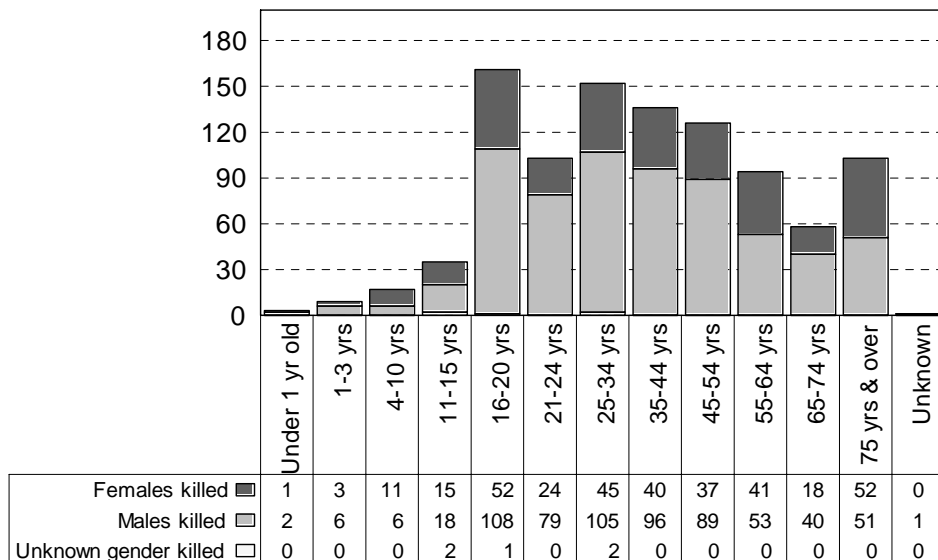
2004

2004

**Occupant/
Person**

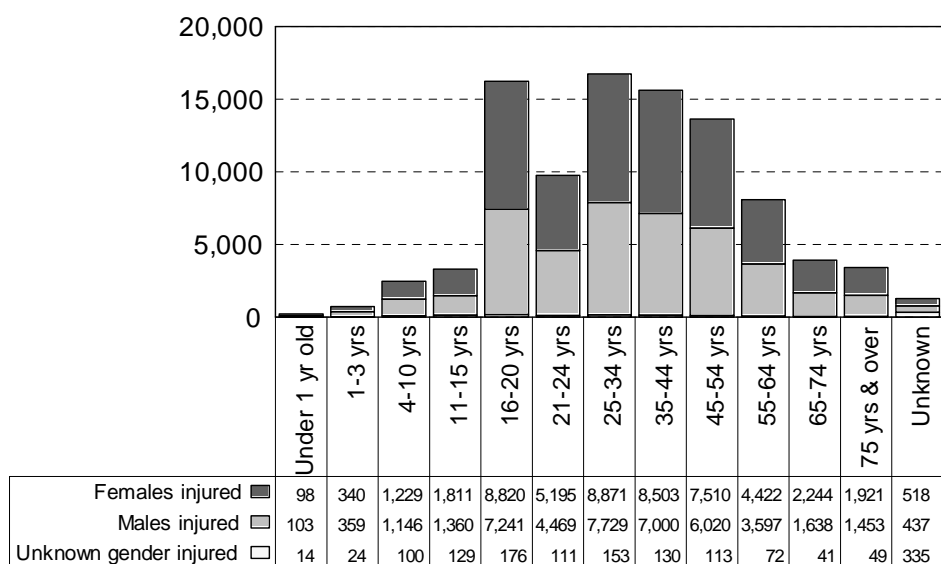
AGE AND GENDER OF OCCUPANTS KILLED & INJURED IN MOTOR VEHICLE CRASHES

Occupants Killed



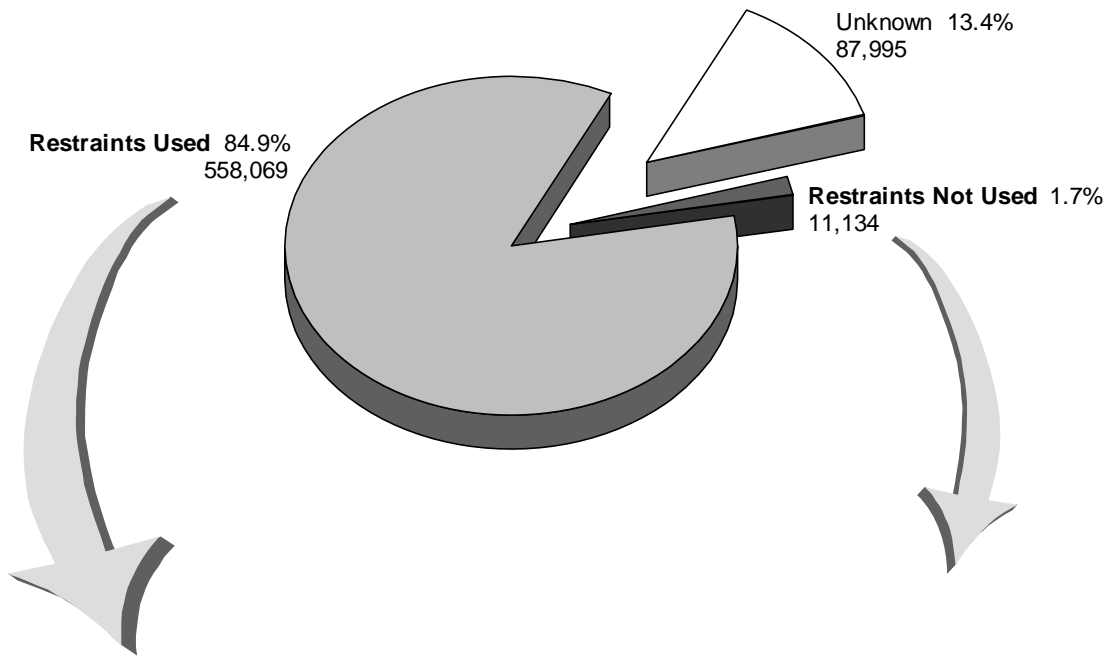
There were 654 male occupants, 339 female occupants, and 5 occupants of unknown gender killed in motor vehicle crashes in 2004. The majority (65.5%) of occupants killed in traffic crashes in 2004 were male.

Occupants Injured

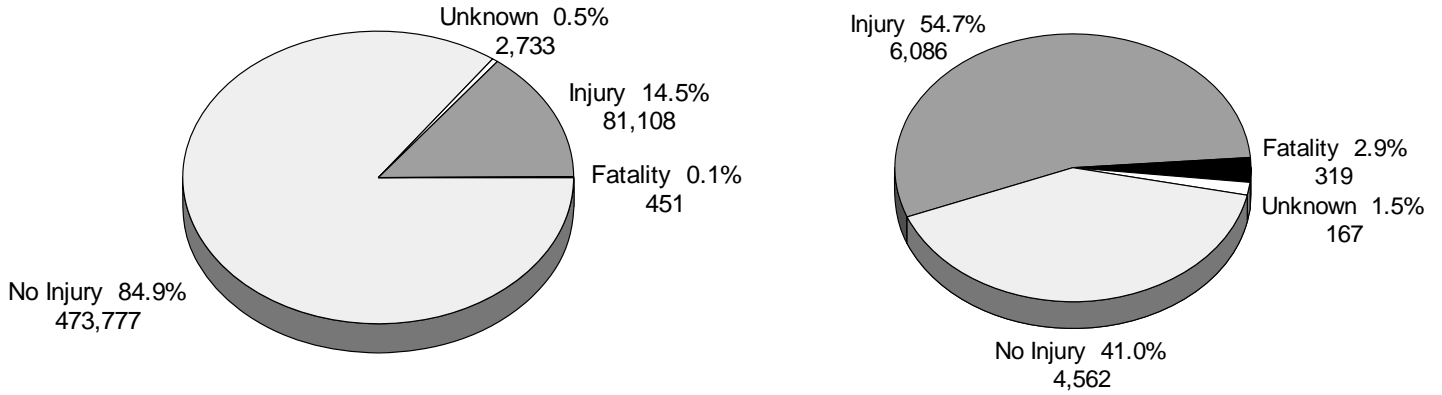


There were 42,552 male occupants, 51,482 female occupants, and 1,447 occupants of unknown gender injured in motor vehicle crashes in 2004. The majority (53.9%) of occupants injured in traffic crashes in 2004 were female.

REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

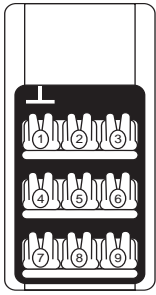


Injury Severity



Of the 657,198 drivers and injured passengers involved in crashes, 558,069 (84.9%) were REPORTED to be using occupant restraints.

Occupants in crashes were **twenty-nine 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			No Injury
	Number	% of Total		A	B	C	
Left Front	527,081	95.2	309	3,864	11,763	45,083	466,062
Center Front	453	0.1	1	27	104	281	40
Right Front	13,572	2.5	108	1,005	2,821	9,535	103
Left Rear	1,516	0.3	5	114	319	1,078	0
Center Rear	403	0.1	4	22	110	267	0
Right Rear	1,762	0.3	8	125	383	1,246	0
Left Rear Third Seat	248	0.0	2	18	53	175	0
Center Rear Third Seat	118	0.0	0	8	26	84	0
Right Rear Third Seat	294	0.1	2	30	60	202	0
Unknown	8,229	1.5	3	76	259	926	6,965
Total	553,676**	100.0	442	5,289	15,898	58,877	473,170

* 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.

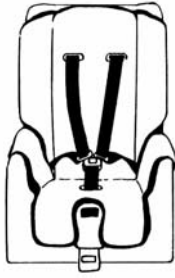
**This total does not include 2,723 occupants with unknown injury severity.

Seating Position	Belts Not Used*		Fatal	Injury			No Injury
	Number	% of Total		A	B	C	
Left Front	7,387	70.1	225	887	1,236	1,144	3,895
Center Front	109	1.0	4	29	31	38	7
Right Front	1,065	10.1	51	237	373	383	21
Left Rear	436	4.1	11	85	125	215	0
Center Rear	200	1.9	8	39	68	85	0
Right Rear	443	4.2	12	84	116	231	0
Left Rear Third Seat	66	0.6	0	18	16	32	0
Center Rear Third Seat	54	0.5	1	13	11	29	0
Right Rear Third Seat	83	0.8	0	15	26	42	0
Unknown	700	6.6	4	64	80	196	356
Total	10,543**	100.0	316	1,471	2,082	2,395	4,279

* 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 154 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	19	9.5	0	2	1	16	0
No Belts Used	2	1.0	0	0	0	2	0
Child Restraint Used	163	81.5	2	6	31	124	0
Child Restraint Not Used	7	3.5	1	2	0	4	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	9	4.5	0	0	0	9	0
Total	200	100.0	3	10	32	155	0

Children Age 1

Belts Used	29	12.5	0	1	6	22	0
No Belts Used	2	0.9	0	0	2	0	0
Child Restraint Used	169	72.8	0	5	45	119	0
Child Restraint Not Used	13	5.6	0	4	7	2	0
Restraint Failed	0	0.0	0	0	0	0	0
Unknown	14	6.0	0	2	5	7	0
Total	227	100.0	0	12	65	150	0

Children Age 2

Belts Used	42	18.3	0	1	11	30	0
No Belts Used	5	2.2	1	2	2	0	0
Child Restraint Used	151	65.7	2	7	44	98	0
Child Restraint Not Used	17	7.4	2	1	5	9	0
Restraint Failed	1	0.4	0	0	0	1	0
Unknown	14	6.1	0	2	2	10	0
Total	230	100.0	5	13	64	148	0

Children Age 3

Belts Used	87	31.4	3	2	24	58	0
No Belts Used	9	3.2	0	2	2	5	0
Child Restraint Used	145	52.3	1	9	31	104	0
Child Restraint Not Used	17	6.1	0	4	5	8	0
Restraint Failed	1	0.4	0	0	0	1	0
Unknown	9	3.2	0	0	3	6	0
Total	268	100.0	4	17	65	182	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	4,239	78.5	24	269	985	2,961	0
No Belts Used	533	9.9	9	90	179	255	0
Child Restraint Used	258	4.8	1	12	50	195	0
Child Restraint Not Used	29	0.5	0	8	8	13	0
Restraint Failed	2	0.0	0	0	0	2	0
Unknown	337	6.2	9	34	84	210	0
Total	5,398	100.0	43	413	1,306	3,636	0

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.

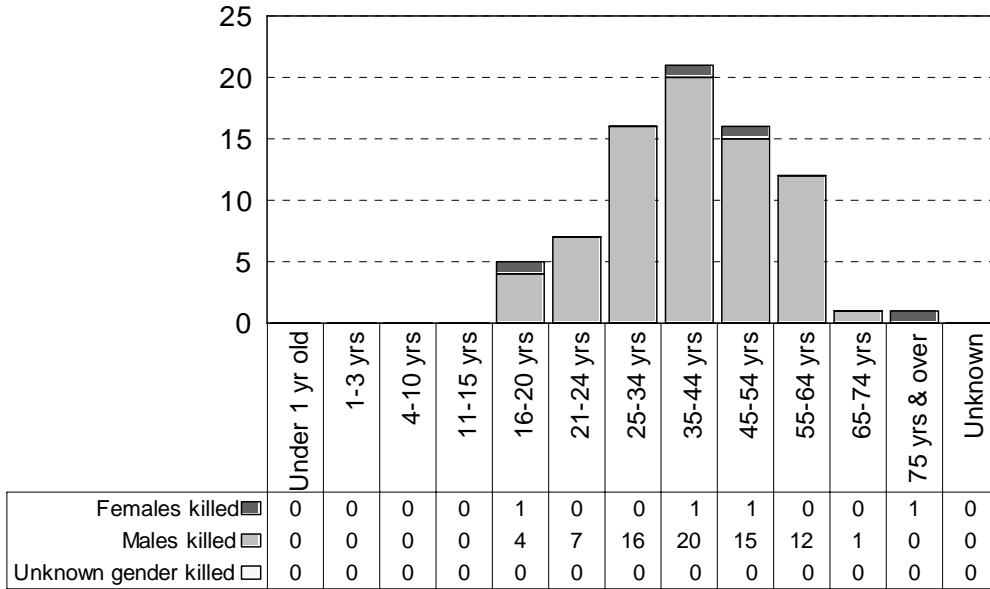
MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

Motor Vehicle Occupant Airbag Deployment	OCCUPANT – INJURY SEVERITY						
	Occupants*		Fatal	Injury			No Injury
	Number	% Total		A	B	C	
Deployed	46,680	7.1	328	2,599	6,768	13,045	23,238
Not deployed	433,892	65.7	214	2,348	6,875	36,096	379,619
Not equipped	95,387	14.4	399	2,847	5,800	12,073	72,180
Unknown	84,611	12.8	57	617	1,472	4,941	31,252
Total	660,570	100.0	998	8,411	20,915	66,155	506,289

* Includes 57,802 occupants (drivers and passengers) with unknown injury severity.

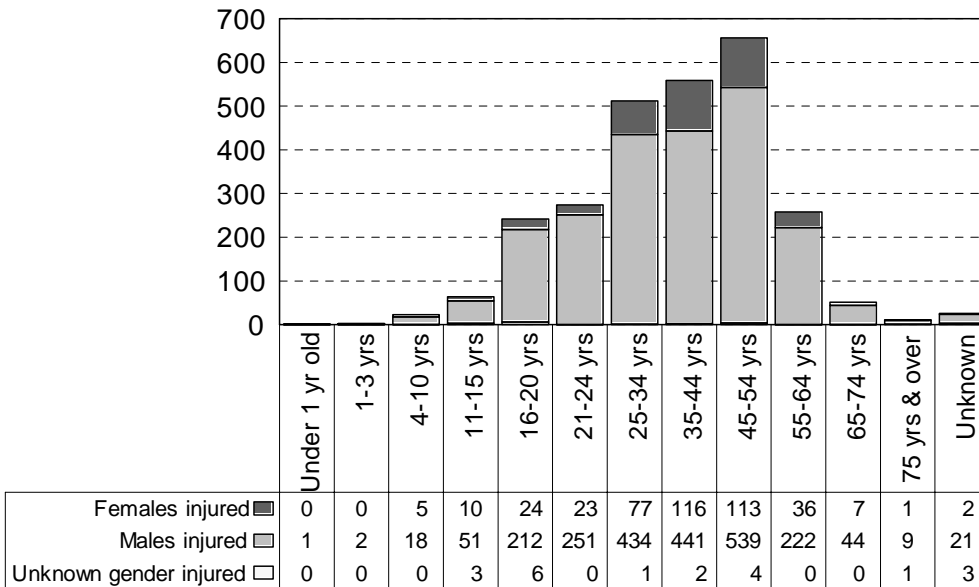
AGE AND GENDER OF MOTORCYCLISTS KILLED & INJURED IN MOTOR VEHICLE CRASHES

Motorcyclists Killed



94.9 percent of the motorcyclists killed in traffic crashes in 2004 were male. In comparison, 66.2 percent of all persons killed in crashes were male.

Motorcyclists Injured



83.8 percent of the motorcyclists injured in traffic crashes in 2004 were male. In comparison, 45.5 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	1	0	0	0
4 - 10 years	0	3	5	5	0
11 - 15 years	0	7	7	11	1
16 - 20 years	5	34	74	41	35
21 - 24 years	6	49	96	47	43
25 - 34 years	12	81	155	109	116
35 - 44 years	18	119	156	120	116
45 - 54 years	14	141	188	137	136
55 - 64 years	11	46	77	67	62
65 - 74 years	1	9	18	10	6
75 years and over	1	1	4	1	3
Unknown	0	0	5	5	6
Subtotal	68	491	785	553	524



Drivers killed 64
Passengers killed 4

Helmet Not Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	1	0
4 - 10 years	0	2	2	0	0
11 - 15 years	0	3	7	1	2
16 - 20 years	0	4	6	6	1
21 - 24 years	1	6	0	1	0
25 - 34 years	1	5	4	2	2
35 - 44 years	0	5	4	2	2
45 - 54 years	0	2	5	3	2
55 - 64 years	1	1	1	1	0
65 - 74 years	0	1	1	0	0
75 years and over	0	0	0	1	0
Unknown	0	0	2	0	3
Subtotal	3	29	32	18	12



Drivers killed 3
Passengers killed 0

Helmet Use Unknown Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	1	0	0	0
4 - 10 years	0	1	2	3	0
11 - 15 years	0	4	13	11	3
16 - 20 years	0	24	26	27	12
21 - 24 years	0	16	38	21	25
25 - 34 years	3	27	70	59	64
35 - 44 years	3	27	64	62	52
45 - 54 years	2	55	70	55	71
55 - 64 years	0	16	31	18	26
65 - 74 years	0	4	6	2	0
75 years and over	0	1	1	2	0
Unknown	0	3	5	6	63
Subtotal	8	179	326	266	316
Total	79	699	1,143	837	852

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	693	5,696	14,721	50,577	71,687	74.3
Van (Minivan) and Motorhome	46	486	1,344	5,017	6,893	7.1
Pickup	112	962	2,674	6,578	10,326	10.7
Small Truck (under 10,000 lbs.)	24	210	535	1,957	2,726	2.8
Motorcycle	79	682	1,098	797	2,656	2.8
Moped	1	54	84	63	202	0.2
Go Cart	0	10	4	4	18	0.0
Snowmobile	14	86	73	65	238	0.2
Off Road Vehicle	12	76	94	68	250	0.3
Other	7	29	59	101	196	0.2
Unknown	2	34	54	204	294	0.3
CDL Truck/Bus (breakdown below)	8	86	175	724	993	1.0
Total Number of Occupants	998	8,411	20,915	66,155	96,479	100.0

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	5	40	93	253	391	39.4
Commercial Vehicle: Group B	2	17	48	226	293	29.5
Commercial Vehicle: Group C	0	6	3	30	39	3.9
Other Truck	0	10	10	26	46	4.6
Unknown Truck	1	13	21	189	224	22.6
Total Number of Occupants	8	86	175	724	993	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.

NOTES:

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

2) These crashes involve a motor vehicle in transport on a public trafficway (in Michigan) and result in injury, death, or at least \$1,000 in property damage.

2004

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- [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.
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Websites:

www.michigantrafficcrashfacts.org Michigan Traffic Crash Facts

Please refer to our 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

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www.dot.wisconsin.gov/safety/motorist/crashfacts/ Wisconsin Traffic Crash Facts

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www.dot.state.il.us/trafficsafety/crashdata.asp Illinois Traffic Crash Data

www.in.gov/cji/research/traffic_data.html Indiana Traffic Safety Data

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

www.semco.org/TranPlan/TransportationDataTool.htm SEMCOG's Transportation Data Tool

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