2007 Michigan Traffic Crash Facts

Michigan Department of State Police

MICHIGAN OHSP
Office of Highway Safety Planning

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

2007
Michigan Traffic
Crash Facts

A summary of traffic crashes on Michigan roadways in calendar year 2007

Produced by:

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Acknowledgements

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Criminal Justice Information Center Staff

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Michigan Department of State Police

Michigan Department of State

Michigan Department of Transportation

Office of Highway Safety Planning

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

In 2007, 1,084 fatal traffic crashes occurred on Michigan's roadways, the same as in 2006. This remains the lowest the state has ever recorded.

The Michigan Traffic Crash Facts project began in 2002 as a comprehensive, multi-year project using federal grants to improve the quality, timeliness and accuracy of traffic crash data collection and processing.

The project encourages the acceptance of electronic data collection, additional error checking, quality assurance, and improved crash location with a modern computer infrastructure system.

The 2007 crash data was collected and processed using this new electronic system. Over the past five years of utilizing this system, the overall quality of the data has improved and analysis of the yearly trends may reflect this improvement.

Please visit ***www.michigantrafficcrashfacts.org*** for easy access to crash data from 1992-2007 in PDF format.

EXECUTIVE SUMMARY

The 2007 traffic fatality count was 1,084, identical to the 2006 count. Compared with 2006, injuries were down 1.7 percent, while total crashes increased 2.8 percent. These figures translated into a death rate of 1.04 per 100 million miles of travel.

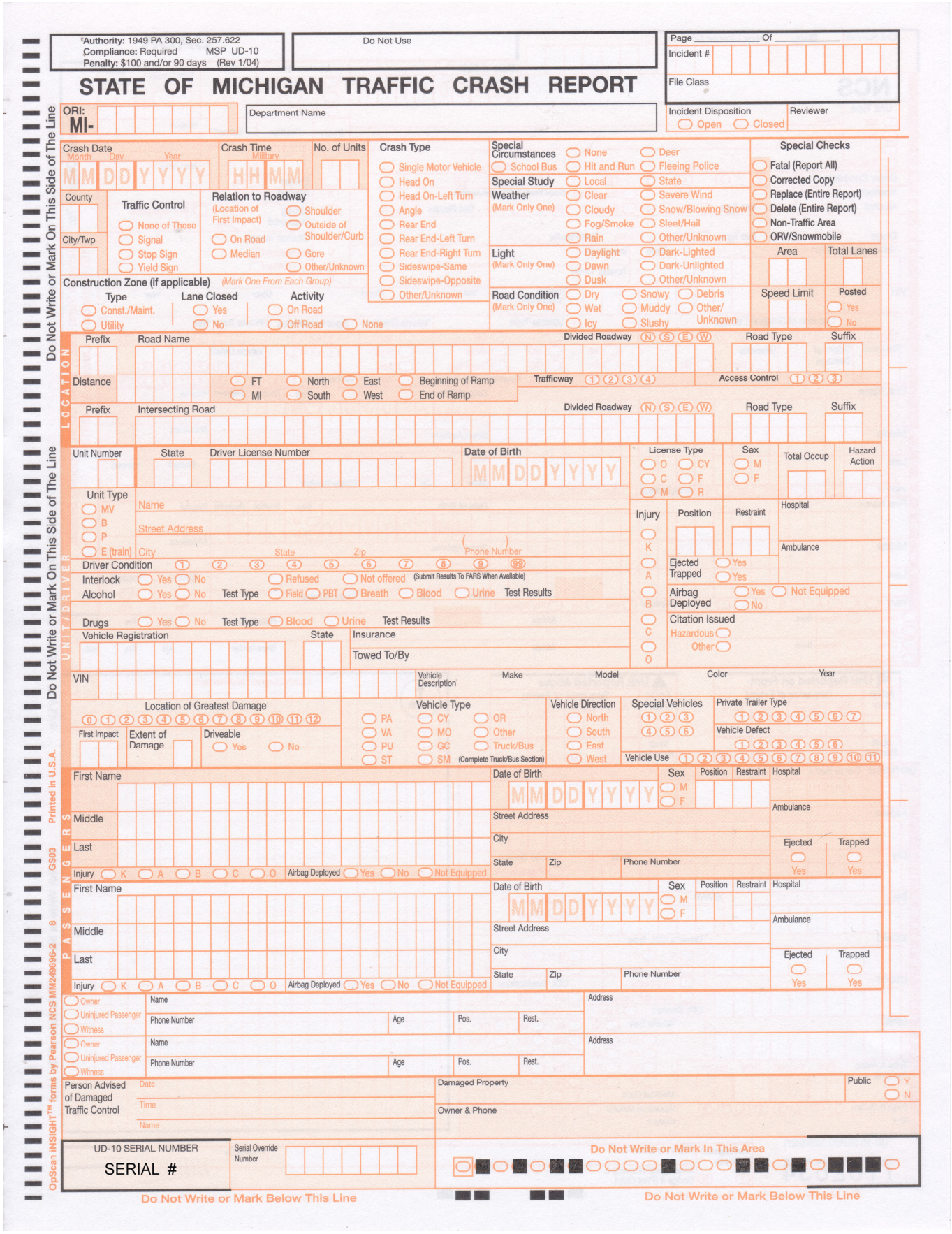
Exposure factors in 2007 showed increases in travel mileage and the number of motor vehicle registrations, and a decrease in the number of drivers on Michigan roads. Vehicle miles traveled were up 0.6 percent to 104.6 billion, motor vehicle registrations were up 0.7 percent to 8.4 million, and the number of licensed drivers decreased 1.4 percent to 7.1 million.

Consumption of alcohol continues to be a major factor in Michigan crashes, particularly the more serious crashes. In 2007, 3.8 percent of all crashes, including property damage only, were reported to involve drinking. While 18.7 percent of all crashes resulted in injury or death, 42.2 percent of alcohol-related crashes involved injury or death. 31.7 percent of fatal crashes involved drinking.

Data on crashes in this publication was obtained from 2007 Michigan Traffic Crash Report Forms (UD-10) submitted by local police departments, sheriff's offices, 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 March 8, 2008. We acknowledge, with appreciation, all involved agencies for their assistance.

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
STATE OF MICHIGAN TRAFFIC CRASH REPORT
ORI: MI-
Department Name
Incident Disposition Open Closed
Reviewer
Crash Date Month Day Year
Crash Time Military
No. of Units
Crash Type
Special Circumstances
Special Study
Weather (Mark Only One)
Light (Mark Only One)
Road Condition (Mark Only One)
Special Checks
Fatal (Report All)
Corrected Copy
Replace (Entire Report)
Delete (Entire Report)
Non-Traffic Area
ORV/Snowmobile
County
City/Twp
Traffic Control
Relation to Roadway (Location of First Impact)
Construction Zone (if applicable) (Mark One From Each Group)
Area
Total Lanes
Speed Limit
Posted
LOCATION
Prefix
Road Name
Divided Roadway
Road Type
Suffix
Distance
Trafficway
Access Control
Intersecting Road
UNIT/DRIVER
Unit Number
State
Driver License Number
Date of Birth
License Type
Sex
Total Occup
Hazard Action
Unit Type
Name
Street Address
City State Zip Phone Number
Driver Condition
Interlock
Alcohol
Drugs
Injury
Position
Restraint
Hospital
Ambulance
Ejected
Trapped
Airbag Deployed
Citation Issued
Vehicle Registration
Insurance
Towed To/By
VIN
Vehicle Description
Make
Model
Color
Year
Location of Greatest Damage
First Impact
Extent of Damage
Driveable
Vehicle Type
Vehicle Direction
Special Vehicles
Private Trailer Type
Vehicle Defect
Vehicle Use
PASSENGERS
First Name
Middle
Last
Date of Birth
Sex
Position
Restraint
Hospital
Ambulance
Street Address
City
State
Zip
Phone Number
Ejected
Trapped
Injury
Airbag Deployed
Owner
Uninjured Passenger
Witness
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Address
Phone Number
Age
Pos.
Rest.
Person Advised of Damaged Traffic Control
Date
Time
Name
Damaged Property
Public
Owner & Phone
UD-10 SERIAL NUMBER
SERIAL #
Serial Override Number
Do Not Write or Mark In This Area
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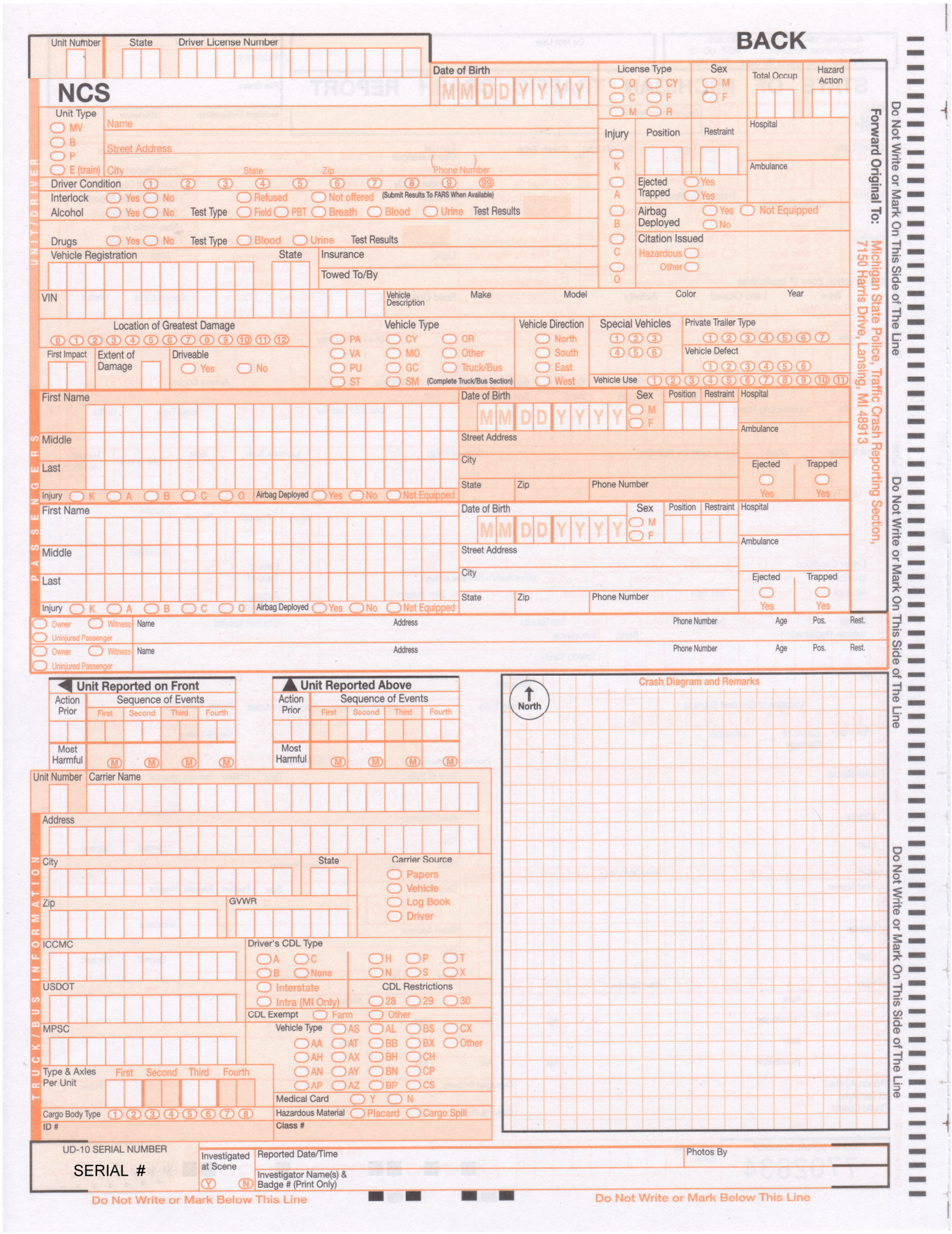
Do Not Write or Mark Below This Line
Do Not Write or Mark On This Side of The Line
Do Not Write or Mark On This Side of The Line
OpScan INSIGHT™ forms by Pearson NCS MM249696-2 8 GS03 Printed in U.S.A.

UD-10 (BACK)



MICHIGAN OHSP Office of Highway Safety Planning

MICHIGAN VEHICLE CODE
Public Act 300 of 1949

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

MCL 257.622, Amended 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

- **ATV** **All-Terrain Vehicle**
- **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.
- **CDL** **Commercial Driver's License.** A CDL is required in the United States to operate any type of vehicle with a gross weight of 26,001 lb or over.
- **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 seat.
- **DOB** **Date of Birth**
- **FHWA** **Federal Highway Administration**. A part of the United States Department of Transportation.
- **GDL** **Graduated Driver Licensing.** A system used to identify different tiers of drivers. See Michigan Public Act 387 effective April 1, 1997, phasing in teenage driving privileges.
- **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.
- **ORV** **Off-Road Vehicle**
- **OWI** **Operating While Intoxicated**. Refers to a person who 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 the **Michigan Traffic Crash Report** form; the 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

- **Access Control** - Indicates the degree that access to an adjoining roadway is controlled by public authority. If there is, No access control (unlimited access); Full access control (ramp entry & exit only); or Other (partial access control). NOTE: Access is controlled by roadway configuration, not traffic control devices such as, No Left Turn signs, etc.

- **Bicycle** - 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.

- **Bicyclist** - An operator or passenger riding a bicycle.

- **Bus (Also see School Bus)** - Any passenger-carrying vehicle designed to transport 18 or more passengers, including the driver.

- **Crash Date** - The date the crash occurred. If the date is unknown, and cannot be reasonably estimated, use the date the crash was discovered by the complainant or the date reported. A valid date is necessary to update records of each involved 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.

- **Driver Condition** - Apparent condition of the driver which may have contributed to the crash. Appeared normal; had been drinking; illegal drug use; sick; fatigue; asleep; medication (prescription and over the counter medication); distracted (Inside or outside of the unit); using cellular phone; unknown.

- **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.

- **Engineer** - Engineer (railroad train)

- **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.

GLOSSARY (continued)

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

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

- **Injury Codes**

  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 (Non-Incapacitating 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 non-incapacitating injury.

  O - No injury

- **Injury Crash** - Any crash involving an injury other than a fatal injury.

- **In Transport** - Denotes the state or condition of a vehicle that is in motion or within the portion of a way ordinarily used by similar vehicles. When applied to motor vehicles, "in transport" means in motion or on a roadway.

  Inclusions: Motor vehicle in traffic on a highway; driverless motor vehicle in motion; motionless motor vehicle abandoned on a roadway; disabled motor vehicle on a roadway; and others.

  A parked motor vehicle in roadway lanes used to travel during rush hours and parking during off-peak periods is in transport during periods when parking is forbidden.

- **Licensed Drivers** - All valid Michigan drivers on file, including suspended, revoked, and denied drivers (as long as their license has not expired).

- **Location (Crash Location)** - Location of a crash is defined by:
  - The road name on which the crash occurred including prefix, road name, type, and suffix
  - The distance and direction of the point of impact from a cross road (located within the county of the crash)
  - The name of the cross road including prefix, road name, type, and suffix

GLOSSARY (continued)

- **Mileage Death Rate** - The number of deaths per 100 million vehicle miles traveled.

- **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.

- **Motorcyclist** - An operator or passenger riding a motored cycle.

- **Motor Vehicle** - "Motor vehicle" means every vehicle which is self-propelled and every vehicle which is propelled by electric power obtained from overhead trolley wires, but not operated upon rails.
  - **Standard motor vehicles** - Cars, pickups, vans, buses, trucks, motorcycles, etc.
  - **Emergency vehicles** - Police, fire, ambulance.
  - **Farm equipment** - Farm tractors, combines, etc.
  - **Off Road Vehicles (ORV)** - Snowmobiles, mopeds, all-terrain vehicles (ATV), dirt bikes, motorbikes, go-carts, garden tractors, motorized wheelchairs, Cushman scooters.
  - **Road maintenance equipment** - dump trucks, snowplows, road graders
  - **Construction equipment** - Rollers, front-end loaders, scrapers, mobile cranes, etc.

- **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* all drivers.

- **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.

- **School Bus** - Every motor vehicle, except station wagons, with a manufacturers' rated seating capacity of 18 or more passengers, including the driver, owned by a public, private, or governmental agency and operated for the transportation of children to or form school, or privately owned and operated for compensation for the transportation of children to or from school. School bus does not include buses operated by a municipally owned transportation system or by a common passenger carrier certificated by the state transportation department.

- **Traffic Unit** - Anything in transit on a public trafficway (i.e., motor vehicle, motorcycle, bicycle, pedestrian, snowmobile, farm equipment).

GLOSSARY (continued)

- **Traffic Way** - Indicates whether or not a trafficway is not physically divided, or is divided with a median strip, with or without a traffic barrier, and whether it serves one-way or two-way traffic.

- **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.

TABLE OF CONTENTS

2007
2007
2007
2007
2007
2007
2007
2007
2007
2007

Quick Facts & Figures

2007 QUICK FACTS

★ Some exposure factor comparisons between 2007 and 2006 show motor vehicle registrations increased **0.7** percent, the number of licensed drivers on Michigan roads decreased **1.4** percent, and vehicle mileage increased **0.6** percent.

★ The death rate of **1.04** deaths per 100 million miles of travel held constant in 2007, remaining below the ten-year average of **1.27** (1998-2007).

★ There were **1,084** persons killed and **80,576** persons injured in **324,174** reported motor vehicle traffic crashes in Michigan during 2007. Compared with the 2006 experience, the number of: deaths remained the same, persons injured decreased **1.7** percent, and total reported crashes increased **2.8** percent.

★ There were **324,174** reported crashes, of which **987** were fatal, **59,550** were personal injury, and **263,637** were property damage only crashes.

★ Of all fatal crashes, **26.8** percent occurred at intersections.

★ Of all fatal crashes, **31.7** percent involved at least one drinking operator, bicyclist, or pedestrian, **26.1** percent involved drinking but no drugs, **3.5** percent involved drugs but no drinking, and **5.6** percent involved both drinking and drugs.

★ Excessive speed was indicated as the hazardous action by **12.6** percent of the drivers involved in fatal crashes.

★ Of the **324,174** total crashes in 2007, **126,198 (38.9%)** involved one vehicle only. This is an increase of **7.3** percent from last year's count of **117,622** single-vehicle crashes.

★ Of the **987** fatal crashes, **490 (49.6%)** involved one vehicle.

★ Of the **313** alcohol-related fatal crashes, **214 (68.4%)** involved one vehicle. This is a **6.1** percent decrease from last year's figure of **228** single vehicle, alcohol-related fatal crashes.

★ Of the **1,558** drivers involved in fatal crashes, **13.4** percent were under 21 years of age and **23.4** percent of all drivers involved in fatal crashes were under 25 years of age.

★ Of the **10,071,822** persons living in Michigan [1] one out of every **9,291** was killed in a traffic crash; one out of every **125** persons was injured.

★ For each person killed, **74.3** persons were injured.

★ 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, three 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 **134** persons, a decrease of **3** deaths from 2006.

★ For each pedestrian killed, there were **15.0** pedestrians injured.

★ Of the pedestrians killed, **32.1** percent were killed while crossing streets other than at intersections.

★ Of all pedestrians killed, **16.4** percent were under the age of 21 and **31.3** percent were 55 and older.

★ Children under the age of 16 accounted for **23.5** percent of the bicycle deaths.

★ Of the **552,451** drivers and injured passengers involved in crashes, **475,167** or **86.0** percent were *reported* to have been using occupant restraints. Restraint usage among fatal victims, where usage was known, was reported to be **61.8** percent in 2007.

★ Motor vehicle occupants age 75 to 110 had the highest reported restraint usage **(95.5%)** among age groups. Children age 11 to 15 had the lowest reported restraint usage **(78.3%)**.

★ The economic loss in Michigan traffic crashes amounted to **$8,977,549,000**. If costs were spread across the state's population this would translate into a loss of $891 per state resident.

Michigan's Crash Watch 2007

Every
1 minute
37 seconds
a traffic crash
occurs

One person
is killed in a
crash every
8 hours
5 minutes

One person
is injured in
a crash every
6 minutes
31 seconds

One person
is killed in an
alcohol-related
crash every
25 hours
24 minutes

One driver
under age 21
is in a fatal
crash every
41 hours
55 minutes

One
motorcyclist
is injured every
2 hours
54 minutes

One
pedestrian
is injured every
4 hours
21 minutes

One bicyclist
is injured every
4 hours
59 minutes

2007
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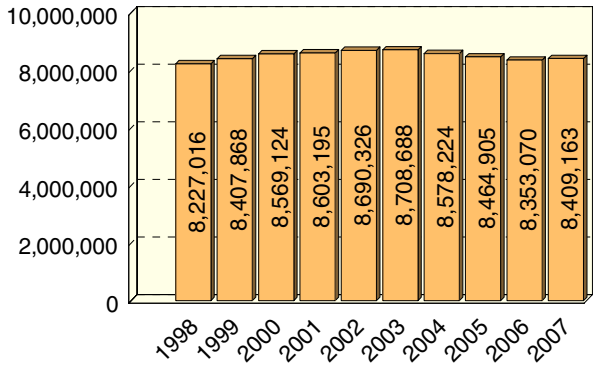
Historical Information

10-, 5-, and 1-year

10 YEAR

VEHICLE REGISTRATIONS

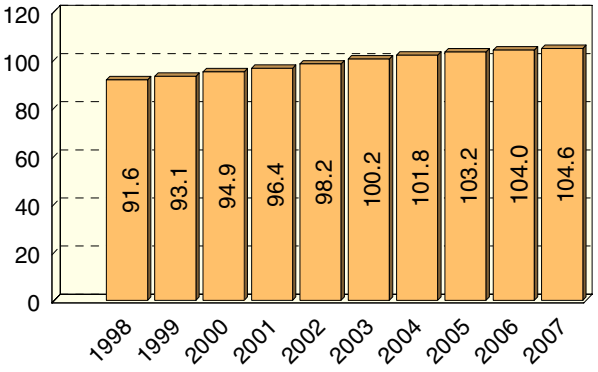
Number of Motor Vehicles



Vehicle registrations remained fairly consistent over the ten-year period, reaching a high in 2003.

VEHICLE MILES TRAVELED

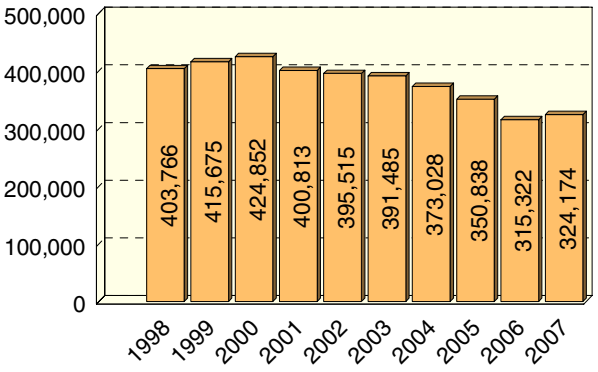
Billions of Miles



Vehicle miles traveled have increased 14.2 percent since 1998, reaching 104.6 billion miles in 2007.

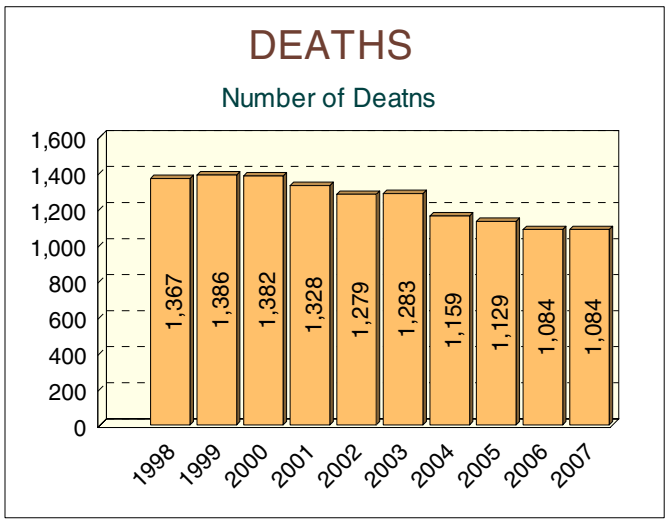
CRASHES

Number of Crashes

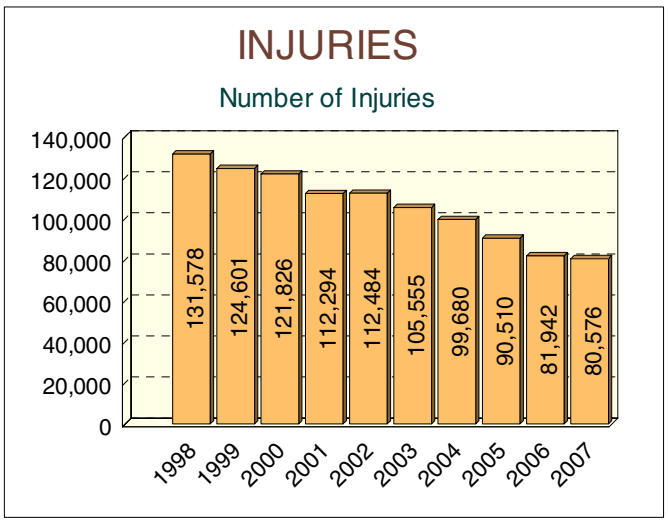


There were 324,174 total crashes statewide in 2007, a 19.7 percent decrease from 1998.

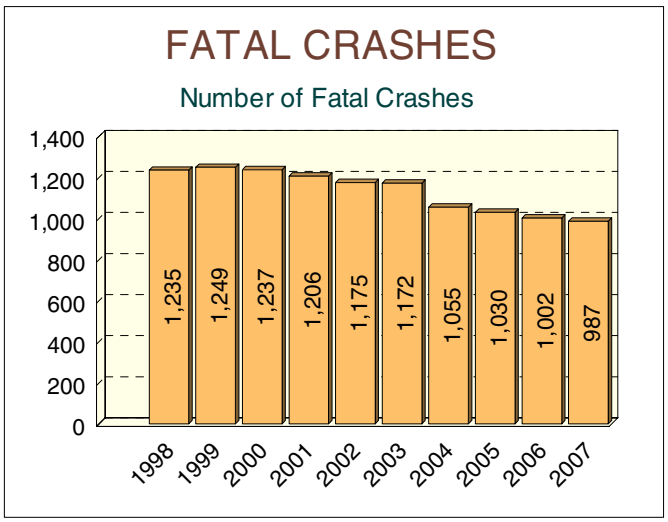
10 YEAR TRENDS (continued)



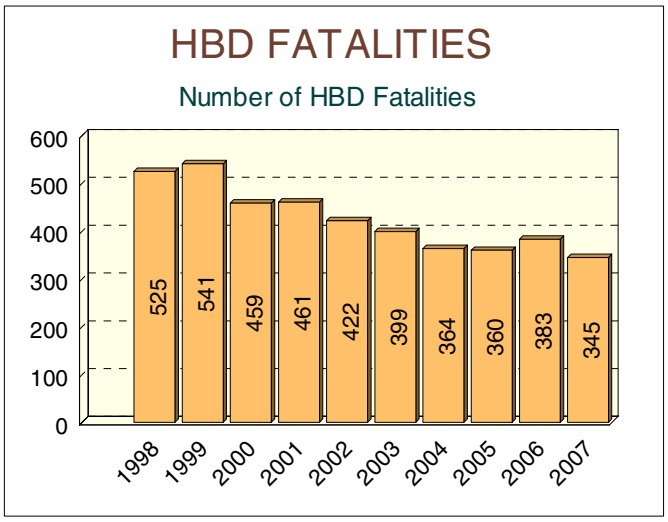
In 2007, 1,084 people died in motor vehicle crashes, a decrease of 20.7 percent from 1998.



80,576 people received nonfatal injuries in motor vehicle crashes in 2007, down 38.8 percent from 131,578 in 1998.

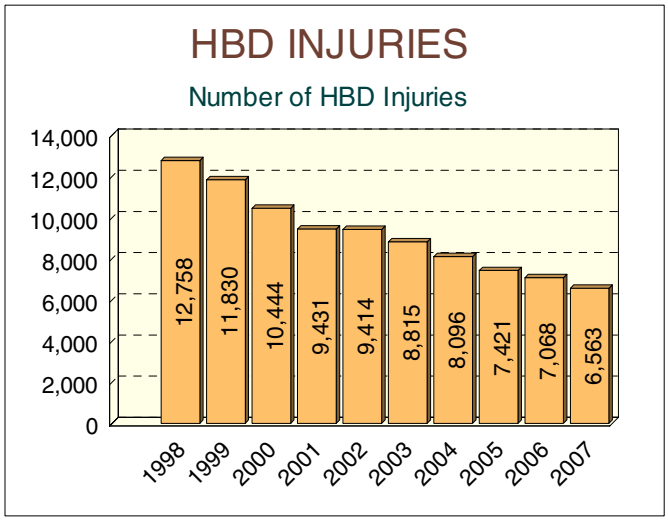


In 2007, there were 987 fatal crashes, down 20.1 percent from 1,235 in 1998.

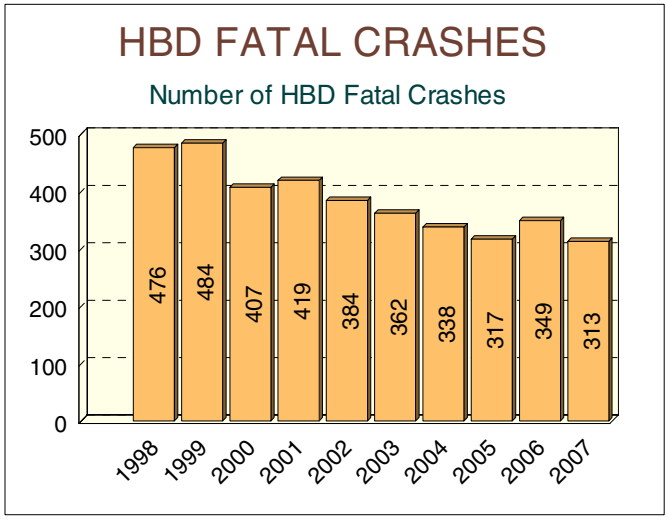


10 YEAR

Deaths in alcohol-related crashes decreased 34.3 percent over the last ten years.

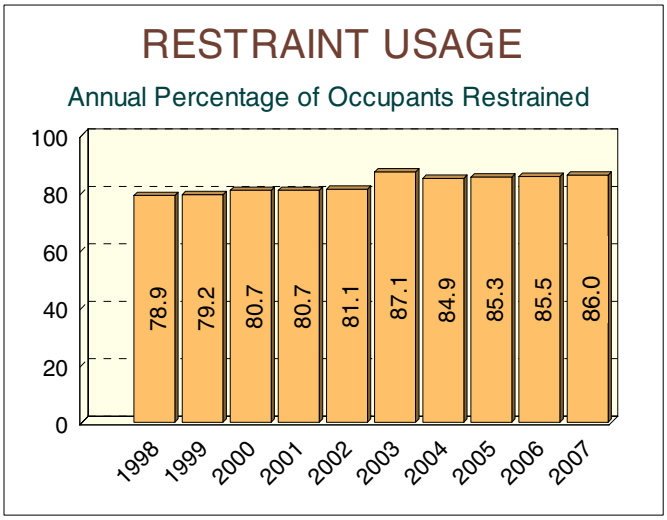


Mirroring the trend in deaths, HBD injuries have decreased over the last ten years. In 2007, there were 6,563 injuries in crashes where the operator had been drinking (HBD), down 48.6 percent from 1998.

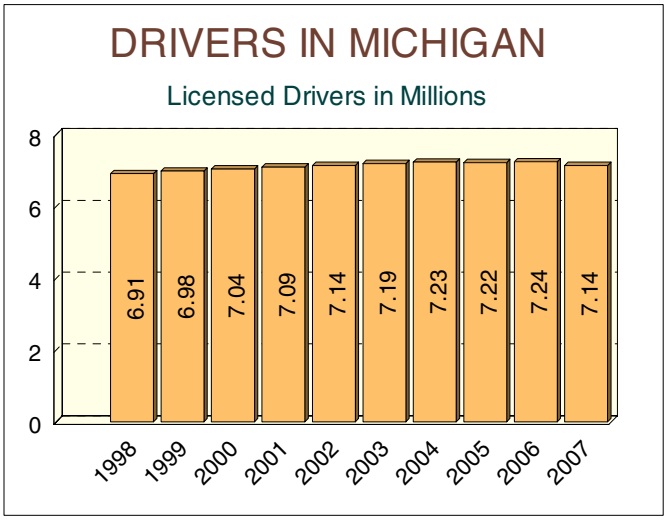


Alcohol involvement in fatal crashes has also decreased over the ten-year period. In 2007, there were 313 HBD fatal crashes where the operator had been drinking (HBD), down 34.2 percent from 1998.

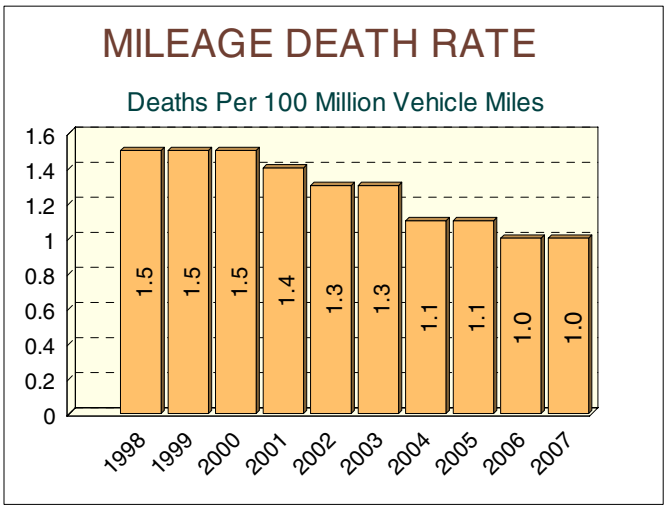
10 YEAR TRENDS (continued)



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. Restraint usage has increased 9.0 percent over the last ten years.

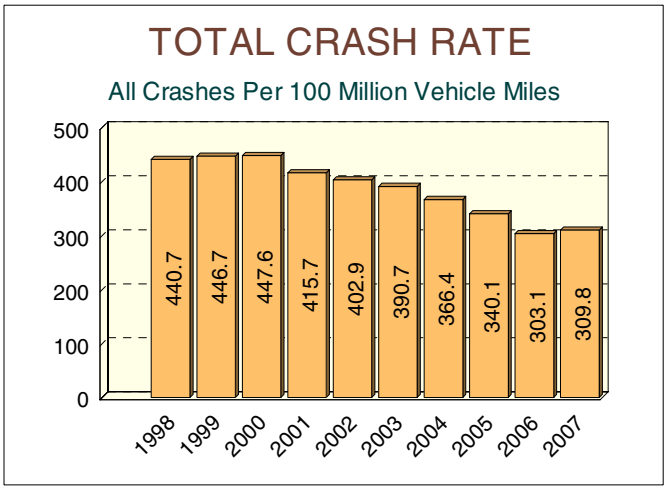


There were 7,135,940 licensed drivers on Michigan roadways in 2007, an increase of 3.3 percent from 1998.

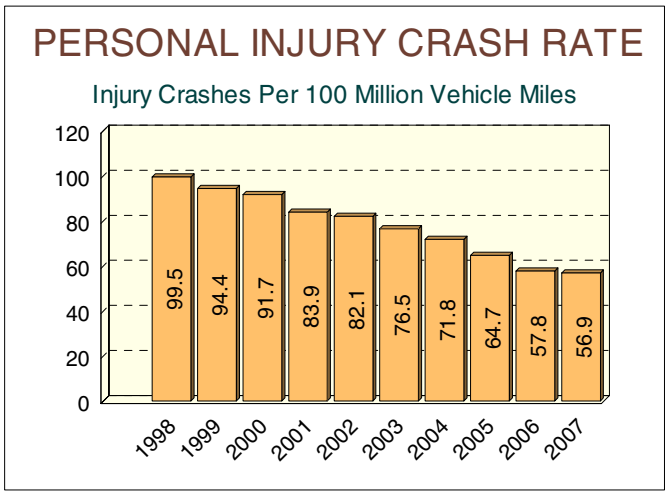


The 1.0 death rate in 2007 is a 33.3 percent decrease from the ten-year high of 1.5 in 1998-2000.

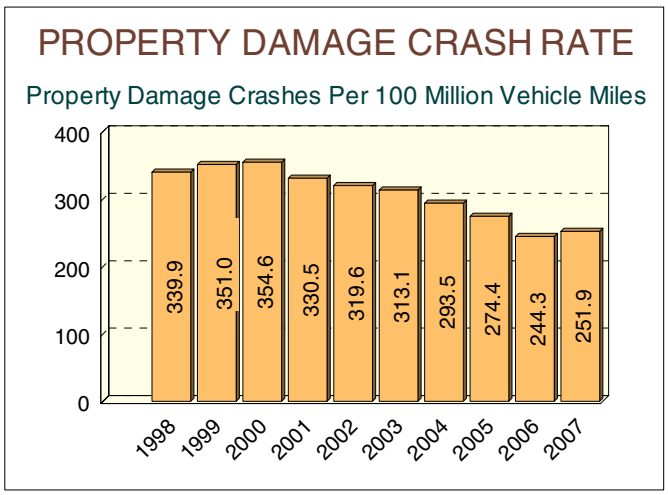
10 YEAR



The ten-year total crash rate peaked in 2000 at 447.6 then decreased by 30.8 percent to 309.8 in 2007.



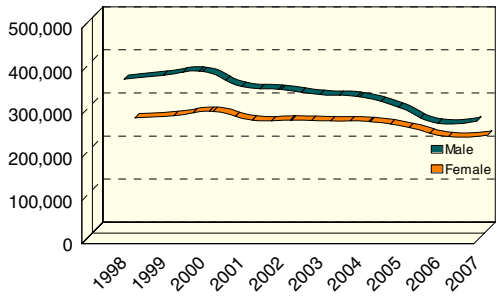
The personal injury crash rate has been steadily decreasing since 1998. The 56.9 personal injury crash rate in 2007 is a 42.8 percent decrease from 1998.



The 251.9 property damage crash rate in 2007 is a 25.9 percent decrease from 1998.

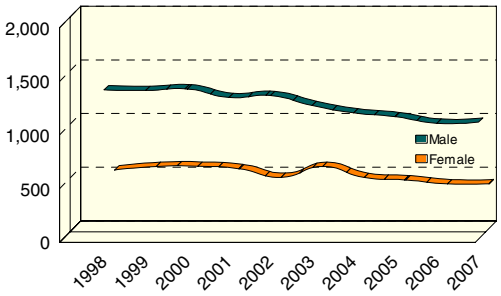
10 YEAR TRENDS (continued)

DRIVERS IN ALL CRASHES		
	Male	Female
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
2005	309,487	237,343
2006	272,328	216,196
2007	277,353	219,781



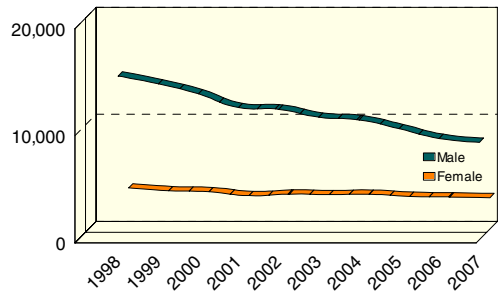
Male drivers accounted for 51.6 percent of all drivers in crashes during 2007, down slightly from 53.4 percent in 1998.

DRIVERS IN FATAL CRASHES		
	Male	Female
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
2005	1,141	452
2006	1,080	416
2007	1,090	417



Male drivers made up 70.0 percent of all drivers in fatal crashes in 2007. The 1,090 male driver count is down 21.6 percent from 1998.

DRINKING DRIVERS IN ALL CRASHES		
	Male	Female
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
2005	10,359	3,045
2006	9,454	2,991
2007	9,095	2,928



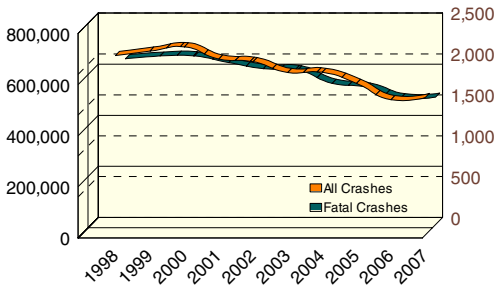
Male drivers have always accounted for the majority of drinking drivers in all crashes. In 2007 males represented 75.4 percent of all drinking drivers. The 9,095 male driver count is down 40.5 percent from 1998.

Note: 7.5 percent of all drivers (40,094), 3.3 percent of drivers (51) in fatal crashes, 0.3 percent of all drinking drivers (36), were coded as unknown gender in 2007.

MICHIGAN OHSP Office of Highway Safety Planning

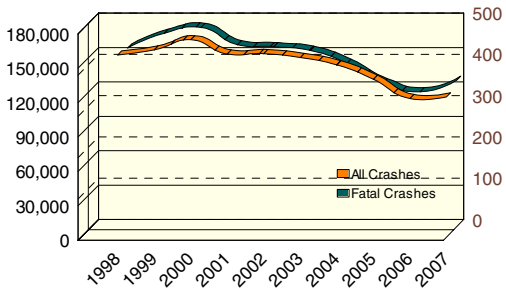
10 YEAR

ALL DRIVERS		
	All Crashes	Fatal Crashes
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
2005	592,671	1,682
2006	528,763	1,551
2007	537,228	1,558



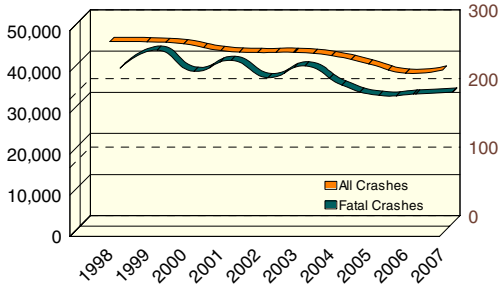
The number of drivers involved in all crashes decreased 23.4 percent over the ten-year period.
The number of drivers involved in fatal crashes decreased 23.2 percent over the ten-year period.

TEEN/YOUNG ADULT DRIVERS		
	All Crashes	Fatal Crashes
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
2005	137,613	349
2006	120,760	327
2007	122,187	355



Teen/young adult drivers (age 16-24) represent 14.3 percent of the licensed drivers in 2007.
The number of teen/young adult drivers in all crashes has decreased by 23.1 percent since 1998. Their involvement in fatal crashes decreased 18.0 percent during the same time period.

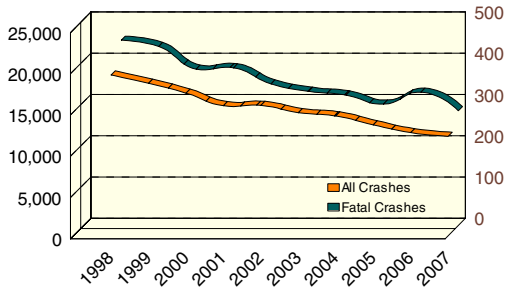
ELDERLY DRIVERS		
	All Crashes	Fatal Crashes
1998	46,582	226
1999	46,519	252
2000	46,023	221
2001	44,393	237
2002	43,923	212
2003	43,967	229
2004	43,146	201
2005	41,140	186
2006	38,899	188
2007	39,656	191



Elderly drivers (age 65-110) represent 15.5 percent of the licensed drivers in 2007.
The number of drivers age 65 and older in all crashes has decreased 14.9 percent since 1998. Their involvement in fatal crashes decreased 15.5 percent during the same time period.

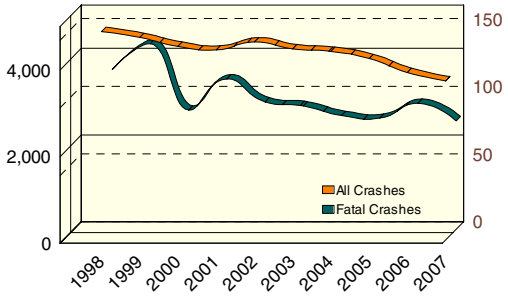
10 YEAR TRENDS (continued)

DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2005	13,452	294
2006	12,489	323
2007	12,059	278



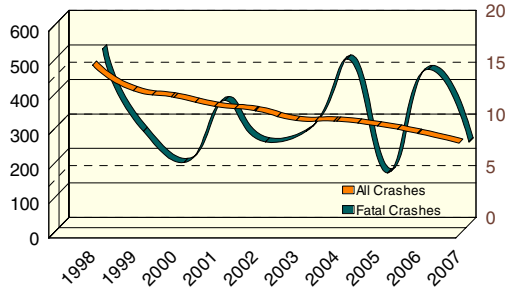
Drinking driver involvement in all crashes decreased by 38.1 percent from 1998. Drinking driver involvement in fatal crashes decreased by 38.1 percent from 1998.

TEEN/YOUNG ADULT DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2005	4,189	82
2006	3,867	93
2007	3,673	80



Following the trend for all drinking drivers, the number of teen/young adult drinking drivers (age 16-24) in all crashes decreased by 23.7 percent, and their involvement in fatal crashes decreased by 32.2 percent from 1998.

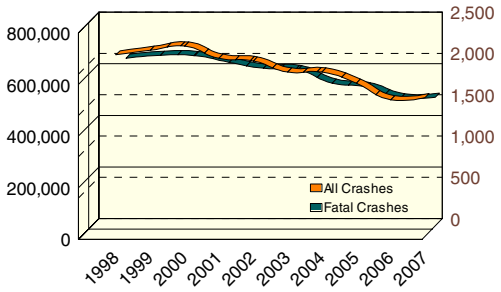
ELDERLY DRINKING DRIVERS		
	All Crashes	Fatal Crashes
1998	493	17
1999	418	9
2000	399	6
2001	373	12
2002	360	8
2003	332	9
2004	330	16
2005	316	5
2006	294	15
2007	266	8



The number of elderly drinking drivers (age 65-110) in all crashes continues to decrease, reaching a ten-year low of 266 in 2007.

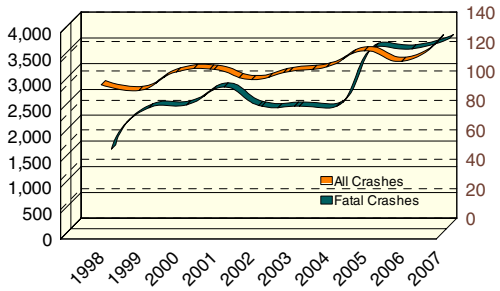
10 YEAR

MOTOR VEHICLES		
	All Crashes	Fatal Crashes
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
2005	592,671	1,682
2006	528,763	1,551
2007	537,228	1,558



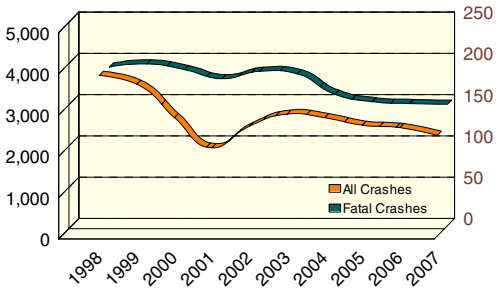
There were 1,558 motor vehicles involved in fatal crashes in 2007, down 23.2 percent from 1998.

MOTORCYCLES		
	All Crashes	Fatal Crashes
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
2005	3,589	121
2006	3,386	120
2007	3,821	127



The number of motorcycles involved in fatal crashes has increased 144.2 percent in the ten-year period.

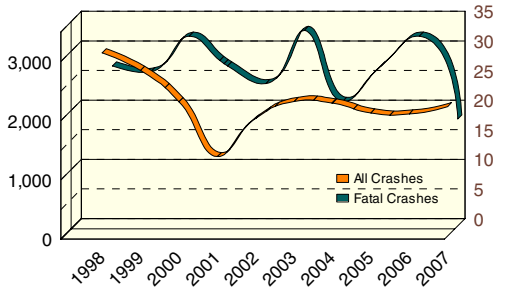
PEDESTRIANS		
	All Crashes	Fatal Crashes
1998	3,891	192
1999	3,677	196
2000	2,868	189
2001	2,135	178
2002	2,660	187
2003	2,953	184
2004	2,864	159
2005	2,683	150
2006	2,622	148
2007	2,437	147



There were 147 pedestrians involved in fatal crashes in 2007, down 23.4 percent from 1998.

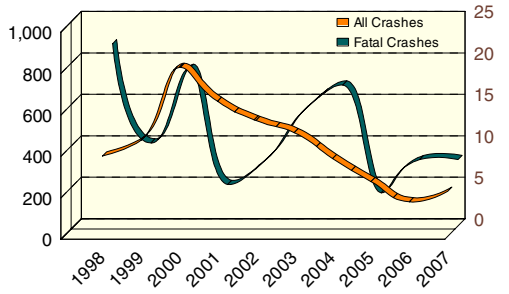
10 YEAR TRENDS (continued)

BICYCLES		
	All Crashes	Fatal Crashes
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
2005	2,080	27
2006	2,061	32
2007	2,188	18



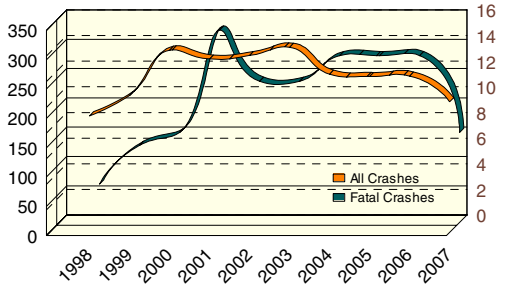
There were 18 bicycles involved in fatal crashes in 2007, down 33.3 percent from 1998.

SNOWMOBILES on Michigan roadways		
	All Crashes	Fatal Crashes
1998	387	22
1999	463	10
2000	815	19
2001	651	5
2002	559	8
2003	500	14
2004	375	17
2005	264	4
2006	166	8
2007	217	8



The 217 snowmobile crash count is down 43.9 percent form 1998. A ten-year low of 4 snowmobiles involved in fatal crashes on Michigan public roadways was reported in 2005.

ORV/ATV's on Michigan roadways		
	All Crashes	Fatal Crashes
1998	199	3
1999	234	6
2000	311	7
2001	296	15
2002	302	11
2003	316	11
2004	270	13
2005	266	13
2006	267	13
2007	223	7

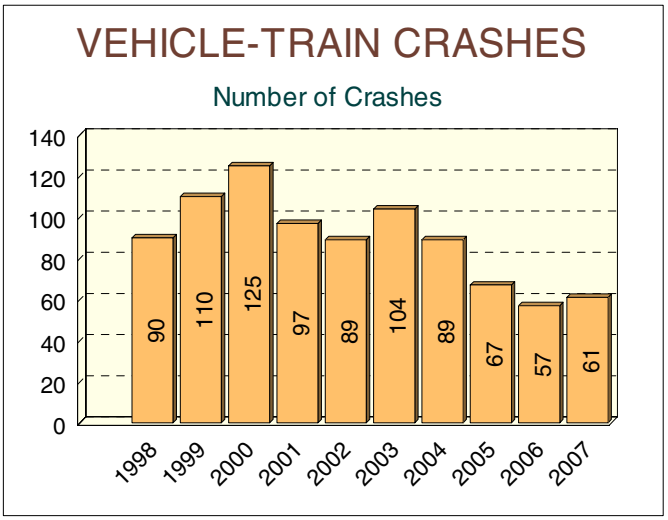


The number of ORV/ATV's involved in fatal crashes on Michigan public roadways has generally increased over the ten-year period.

10 YEAR

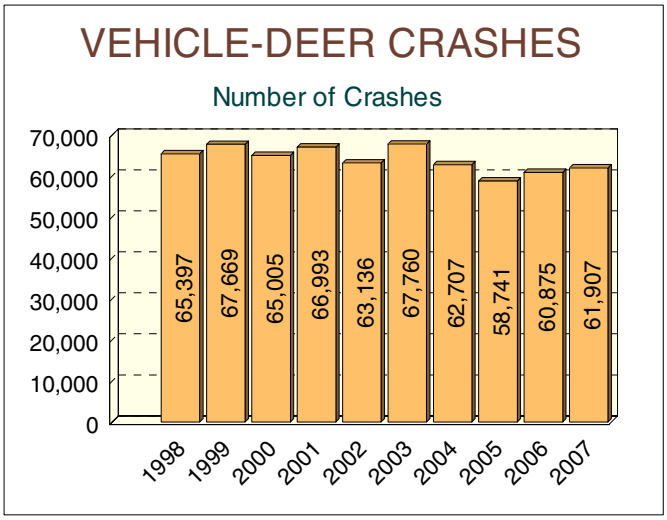
Revised October 8, 2008

VEHICLE-TRAIN CRASHES



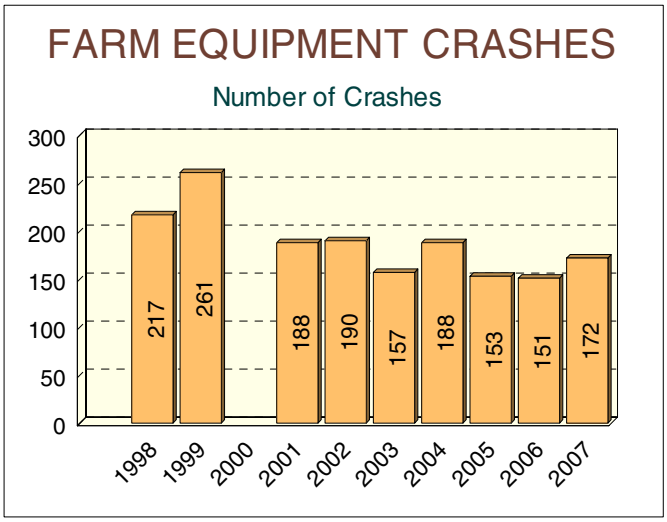
61 vehicle-train crashes occurred in 2007, a decrease of 32.2 percent in the ten-year period.

VEHICLE-DEER CRASHES



The number of vehicle-deer crashes has decreased 5.3 percent in the ten-year period.

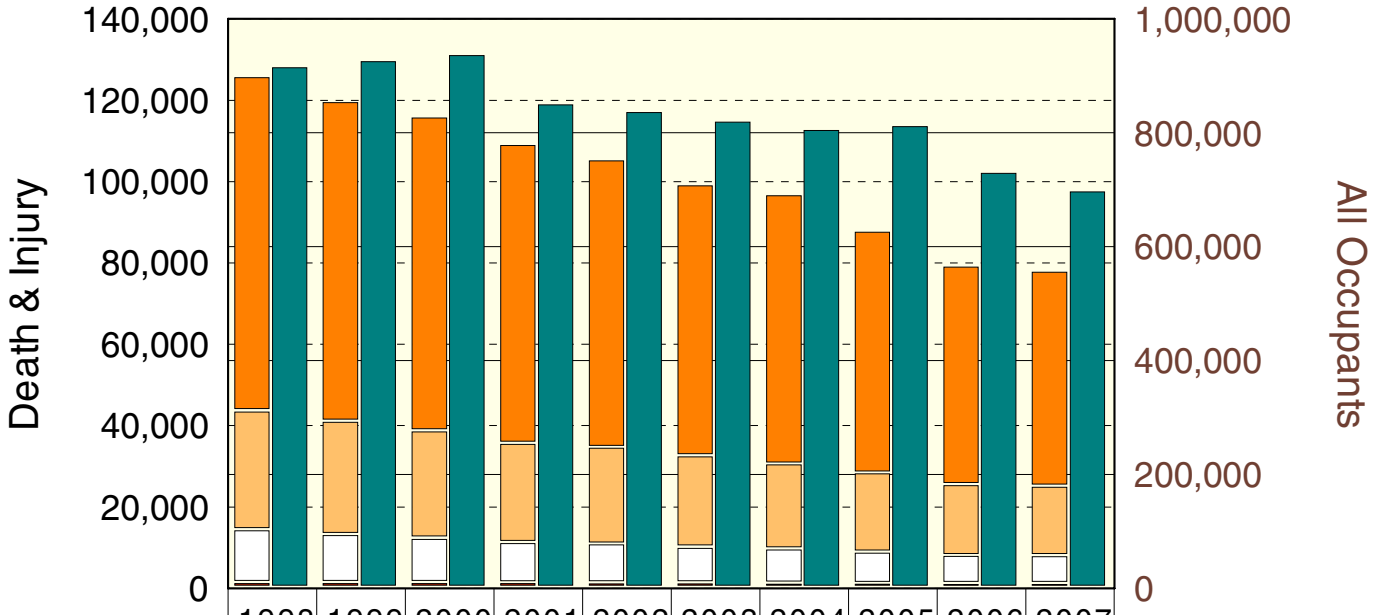
FARM EQUIPMENT CRASHES



The 172 farm equipment crashes in 2007 marks a 20.7 percent decrease in the ten-year period.

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

DEATH AND INJURY FOR CRASH-INVOLVED OCCUPANTS



	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All Occupants	914,248	924,476	935,411	849,316	835,576	818,272	803,839	811,174	728,444	695,926
C - Injured	82,218	78,565	77,258	73,396	70,687	66,570	66,155	59,434	53,752	52,888
B - Injured	29,236	27,856	26,335	24,442	23,744	22,449	20,915	19,414	17,423	17,105
A - Injured	12,989	11,789	10,918	9,852	9,579	8,798	8,411	7,714	6,904	6,821
K - Killed	1,166	1,183	1,174	1,136	1,073	1,077	998	966	919	933

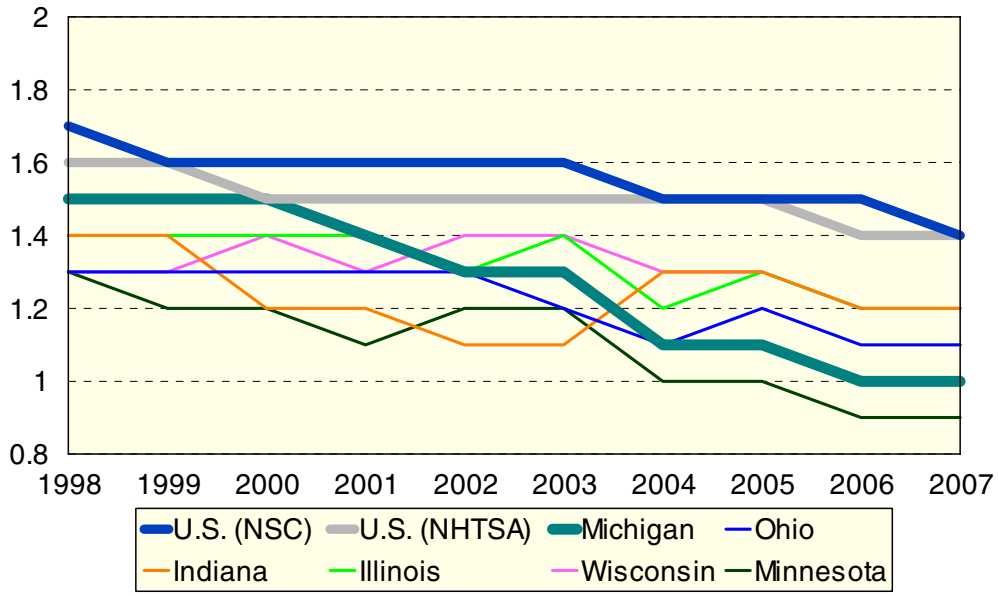
The proportion of death and injury to crash-involved occupants has decreased over the last ten years. The all-occupant figure is the number of occupants recorded by the police officers on the UD-10.

10 YEAR

MILEAGE DEATH RATES 1998 - 2007

Comparison - Michigan to U.S. and Surrounding States

Updated February 6, 2009

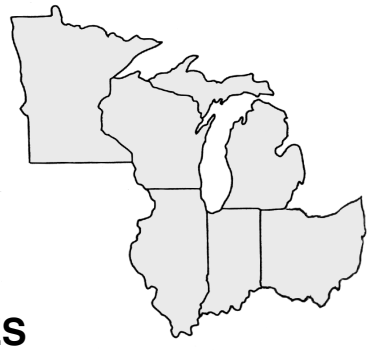


	U.S. (NSC*)	U.S. (NHTSA*)	Michigan	Ohio	Indiana	Illinois	Wisconsin	Minnesota
1998	1.7	1.6	1.5	1.3	1.4	1.4	1.3	1.3
1999	1.6	1.6	1.5	1.3	1.4	1.4	1.3	1.2
2000	1.6	1.5	1.5	1.3	1.2	1.4	1.4	1.2
2001	1.6	1.5	1.4	1.3	1.2	1.4	1.3	1.1
2002	1.6	1.5	1.3	1.3	1.1	1.3	1.4	1.2
2003	1.6	1.5	1.3	1.2	1.1	1.4	1.4	1.2
2004	1.5	1.5	1.1	1.1	1.3	1.2	1.3	1.0
2005	1.5	1.5	1.1	1.2	1.3	1.3	1.3	1.0
2006	1.5	1.4	1.0	1.1	1.2	1.2	1.2	0.9
2007	1.4	1.4	1.0	1.1	1.2	1.2	1.2	0.9

* National Safety Council (NSC) reports traffic and nontraffic deaths within a year of the accident. National Highway Traffic Safety Administration (NHTSA) reports only traffic deaths that occur within 30 days of the accident.

U.S. data for this table and tables on the following page were provided by the National Safety Council [3], the National Highway Traffic Safety Administration [4], and the Federal Highway Administration [5]. State data for this table and tables on the following page were provided by Ohio [6], Indiana [7], Illinois [8], Wisconsin [9], and Minnesota [10].

10
YEAR



MICHIGAN AND SURROUNDING STATES
COMPARISON OF FATALITIES AND VMT

Updated February 6, 2009

Year	U.S. (NSC) Persons Killed	U.S. (NHTSA) Persons Killed	Michigan Persons Killed	Ohio Persons Killed	Indiana Persons Killed	Illinois Persons Killed	Wisconsin Persons Killed	Minnesota Persons Killed
1998	43,501	41,501	1,367	1,423	978	1,393	709	650
1999	42,401	41,717	1,386	1,430	1,017	1,456	744	626
2000	43,354	41,945	1,382	1,361	875	1,418	801	625
2001	43,788	42,196	1,328	1,379	895	1,414	764	568
2002	45,380	43,005	1,279	1,417	792	1,420	805	657
2003	44,757	42,884	1,283	1,278	833	1,454	836	655
2004	44,933	42,836	1,159	1,285	947	1,355	784	567
2005	45,500	43,443	1,129	1,326	938	1,360	801	559
2006	44,700	42,642	1,084	1,239	899	1,254	712	494
2007	43,100	41,059	1,084	1,257	899	1,248	737	510

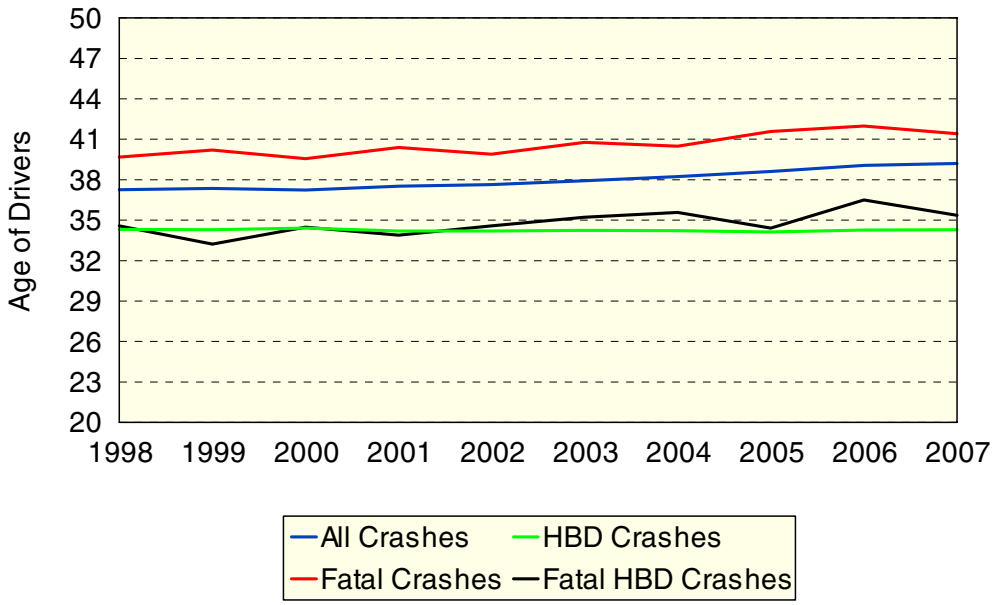
Year	U.S. (FHWA) VMT	Michigan VMT	Ohio VMT	Indiana VMT	Illinois VMT	Wisconsin VMT	Minnesota VMT
1998	2,625	91.6	106.0	70.7	100.9	56.0	48.5
1999	2,679	93.1	106.4	71.5	101.8	57.0	50.7
2000	2,747	94.9	106.5	72.3	102.9	57.3	52.4
2001	2,796	96.4	107.0	74.1	103.1	57.3	53.2
2002	2,856	98.2	107.9	74.6	106.2	58.7	54.4
2003	2,890	100.2	109.9	74.4	106.5	59.6	55.4
2004	2,962	101.8	112.4	74.5	108.9	60.5	56.5
2005	2,990	103.2	111.5	74.3	107.9	60.0	56.5
2006	2,995	104.0	112.1	74.2	106.8	59.4	56.6
2007	2,996	104.6	111.1	74.1	107.4	59.5	57.4

VMT described in billions of miles

MICHIGAN OHSP Office of Highway Safety Planning

10 YEAR

AVERAGE AGE OF DRIVERS IN CRASHES 1998 - 2007

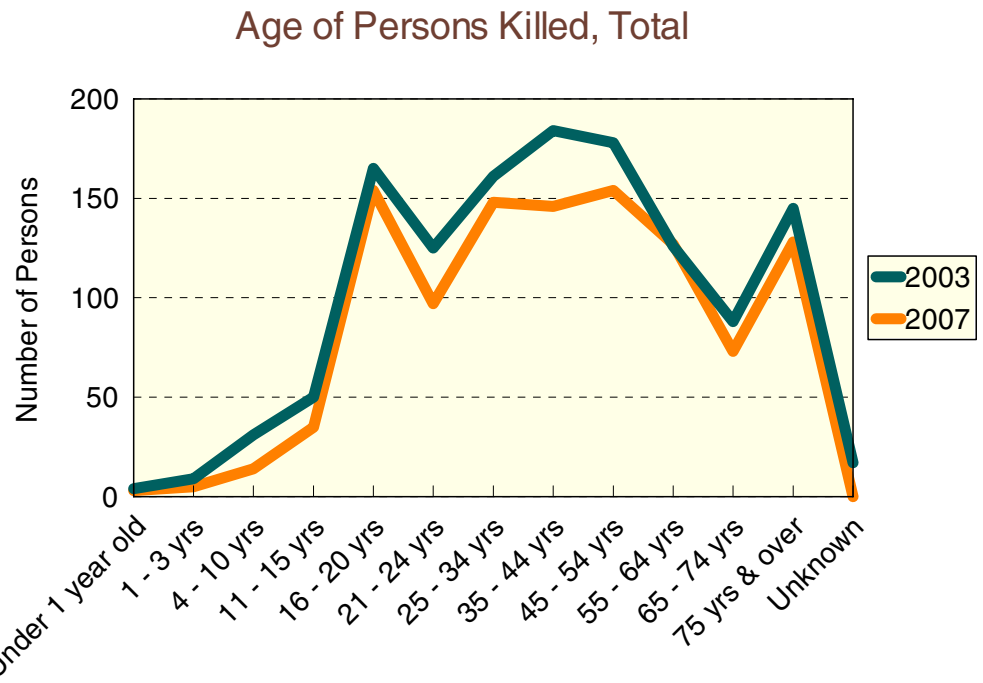


Reflecting the demographic trend of increasing age in the general population, the average age of drivers involved in all crashes and fatal crashes has increased over the ten-year period. The average age of drivers in HBD crashes has remained flat.

5 YEAR

TREND DATA FOR FATALITIES

TREND DATA FOR FATALITIES	2003	2004	2005	2006	2007
Age of Persons Killed, Total					
Under 1 year old	4	4	3	2	3
1 - 3 years	9	12	7	6	5
4 - 10 years	31	26	30	15	14
11 - 15 years	50	41	44	31	35
16 - 20 years	165	172	142	115	154
21 - 24 years	125	111	92	122	97
25 - 34 years	161	171	159	167	148
35 - 44 years	184	165	172	161	146
45 - 54 years	178	153	166	170	154
55 - 64 years	126	107	118	118	127
65 - 74 years	88	67	70	67	73
75 years and over	145	124	123	110	128
Unknown	17	6	3	0	0
Totals	1,283	1,159	1,129	1,084	1,084



5
YEAR

TREND DATA FOR FATALITIES	2003	2004	2005	2006	2007
Age of Drivers Involved in Fatal Crashes					
13 years and under	5	3	5	4	2
14 years	3	2	2	1	1
15 years	7	10	6	7	7
16 years	40	29	25	16	28
17 years	48	50	37	35	34
18 years	60	50	51	39	52
19 years	46	55	45	39	39
20 years	43	44	38	43	46
21 - 24 years	190	168	153	155	156
25 - 34 years	337	297	269	270	273
35 - 44 years	356	335	292	257	263
45 - 54 years	280	259	307	264	220
55 - 64 years	161	149	169	176	192
65 - 69 years	40	50	39	38	38
70 - 74 years	53	43	38	43	42
75 - 79 years	51	38	35	42	50
80 - 84 years	46	37	43	39	37
85 - 89 years	32	25	22	17	17
90 years and over	7	8	9	9	7
Unknown	87	76	97	57	54
Totals	1,892	1,728	1,682	1,551	1,558
Age of Drivers Involved in Single Vehicle Fatal Crashes					
13 years and under	4	0	1	2	2
14 years	1	1	1	1	0
15 years	3	7	2	4	4
16 years	10	14	10	6	11
17 years	15	13	12	13	10
18 years	28	18	13	12	16
19 years	17	22	13	13	14
20 years	14	12	16	17	19
21 - 24 years	70	73	60	67	64
25 - 34 years	85	89	94	102	83
35 - 44 years	121	87	77	69	81
45 - 54 years	62	65	70	83	70
55 - 64 years	38	38	44	62	55
65 - 69 years	16	10	13	12	10
70 - 74 years	13	10	9	16	12
75 - 79 years	13	5	5	11	14
80 - 84 years	8	7	15	8	7
85 - 89 years	4	6	3	3	1
90 years and over	2	1	0	2	1
Unknown	25	23	25	19	16
Totals	549	501	483	522	490

5 YEAR

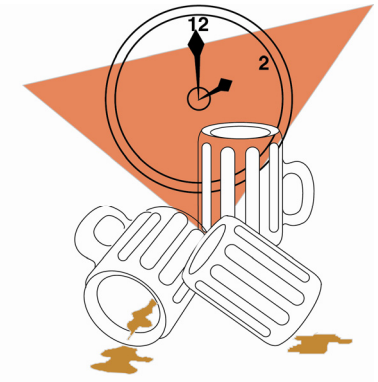
TREND DATA FOR FATALITIES	2003	2004	2005	2006	2007
Age of Bicyclists Killed					
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	4	4	5	2	0
11 - 15 years	6	3	2	2	4
16 - 20 years	3	0	3	2	0
21 - 24 years	3	1	0	1	1
25 - 34 years	0	1	1	0	2
35 - 44 years	4	3	9	4	1
45 - 54 years	8	7	1	8	7
55 - 64 years	2	2	1	4	1
65 - 74 years	2	0	3	4	1
75 years and over	0	0	0	1	0
Unknown	0	0	0	0	0
Totals	32	21	25	28	17
Age of Pedestrians Killed					
Under 1 year old	1	1	1	0	0
1 - 3 years	2	3	2	0	4
4 - 10 years	5	5	8	3	5
11 - 15 years	10	3	6	6	6
16 - 20 years	13	11	9	8	7
21 - 24 years	8	7	6	11	7
25 - 34 years	11	18	18	15	12
35 - 44 years	33	26	26	32	27
45 - 54 years	34	20	24	24	24
55 - 64 years	23	11	16	18	18
65 - 74 years	11	9	12	8	11
75 years and over	17	21	9	12	13
Unknown	1	5	1	0	0
Totals	169	140	138	137	134
Action of Pedestrians Killed					
Crossing at intersection	18	20	18	17	17
Cross not at intersection	74	41	49	42	43
Getting on/off vehicle	0	1	2	4	1
In road with traffic	16	24	11	16	23
In road against traffic	5	1	6	6	2
Standing or lying in road	12	11	18	17	14
Pushing/working on vehicle	5	3	4	1	2
Other working in road	3	1	2	3	1
Playing in road	0	0	0	1	0
In road for other reason	8	11	8	7	13
Not in road	9	8	10	4	8
Other/Unknown	19	19	10	19	10
Totals	169	140	138	137	134

5 YEAR

FATAL CRASHES AND PERSONS KILLED FOR SELECTED HOLIDAY PERIODS IN MICHIGAN

Revised February 19, 2010

HOLIDAY PERIOD	Fatal Crashes	Persons Killed	SUMMARY 2007
Memorial Day			This table shows traffic death tolls in Michigan for the past five years for the major holiday periods as defined by the National Safety Council. Based on the *total* **2007** experience, deaths averaged **2.97** per day. Alcohol-related deaths averaged **0.95** per day. Based on the **2007** *holiday period* experience, deaths averaged **3.37** per day. Alcohol-related deaths averaged **1.21** per day.
2007 (3) MON	11 [4]	13 [4]	
2006 (3) MON	16 [3]	19 [4]	
2005 (3) MON	10 [7]	14 [9]	
2004 (3) MON	12 [4]	12 [4]	
2003 (3) MON	10 [5]	10 [5]	
Fourth of July			
2007 (1) WED	4 [2]	4 [2]	
2006 (4) TUE	14 [7]	15 [7]	
2005 (3) MON	16 [7]	20 [11]	
2004 (3) SUN	16 [6]	19 [7]	
2003 (3) FRI	15 [2]	15 [2]	
Labor Day			
2007 (3) MON	15 [8]	16 [8]	
2006 (3) MON	7 [3]	7 [3]	
2005 (3) MON	15 [7]	15 [7]	
2004 (3) MON	12 [4]	15 [5]	
2003 (3) MON	14 [6]	15 [6]	
Thanksgiving			
2007 (4) THU	11 [1]	11 [1]	
2006 (4) THU	20 [11]	23 [14]	
2005 (4) THU	17 [7]	18 [8]	
2004 (4) THU	11 [4]	11 [4]	
2003 (4) THU	17 [4]	20 [4]	
Christmas			
2007 (4) TUE	11 [4]	11 [4]	
2006 (3) MON	2 [0]	2 [0]	
2005 (3) SUN	7 [3]	7 [3]	
2004 (3) SAT	10 [3]	11 [4]	
2003 (4) THU	8 [6]	9 [6]	
New Years			
2007 (4) TUE	9 [4]	9 [4]	
2006 (3) MON	5 [4]	5 [4]	
2005 (3) SUN	10 [6]	11 [7]	
2004 (3) SAT	8 [6]	8 [6]	
2003 (4) THU	6 [4]	6 [4]	



Figures in parentheses in the 1st column show number of full days in each holiday period.
Fatal crashes and 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.

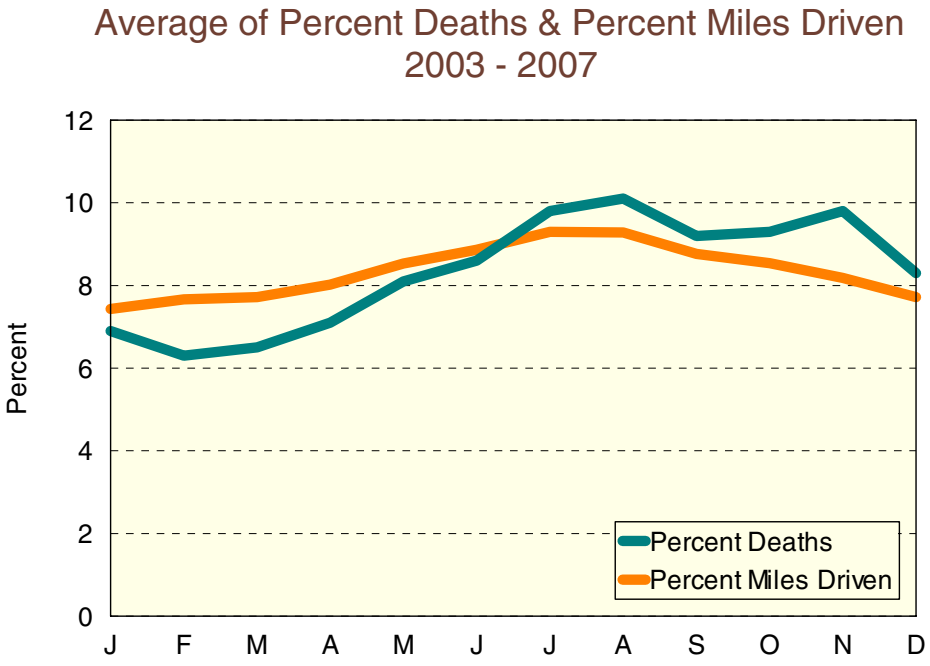
Please view the glossary for an explanation of holiday periods

MICHIGAN OHSP Office of Highway Safety Planning

5 YEAR

MOTOR VEHICLE DEATHS AND MILEAGE BY MONTH

Month	TRAFFIC DEATHS					2007 PERCENTAGES	
	2003	2004	2005	2006	2007	Percent Deaths	Percent Miles Driven
January	97	81	73	79	69	6.4	7.56
February	80	68	77	67	70	6.5	7.75
March	88	63	68	72	81	7.5	7.85
April	100	81	77	82	67	6.2	8.06
May	84	97	105	82	92	8.5	8.53
June	96	106	95	101	96	8.9	8.84
July	132	117	130	82	104	9.6	9.17
August	127	123	96	115	117	10.8	9.19
September	111	116	102	90	111	10.2	8.71
October	122	81	112	128	88	8.1	8.50
November	130	122	110	105	98	9.0	8.16
December	116	104	84	81	91	8.4	7.68
Totals	1,283	1,159	1,129	1,084	1,084	100.0	100.00



The chart above shows that the *percent deaths* were lower for the months of January through June than for the other months when compared to the *percent miles driven*.

1 YEAR

2006 - 2007 SUMMARY TRENDS

* Michigan experienced a **0.0** percent decrease in traffic fatalities, as well as a **1.7** percent decrease in injuries and a **2.8** percent increase in crashes.
* Deaths among vehicle occupants (drivers and passengers only) increased **0.5** percent.
* Persons sustaining "A" level injuries (the most serious) decreased **1.7** percent.

	2006	2007	% CHANGE
NUMBER OF CRASHES			
Fatal Crashes	1,002	987	-1.5
Personal Injury Crashes	60,176	59,550	-1.0
Property Damage Crashes	254,144	263,637	3.7
Total	**315,322**	**324,174**	**2.8**
ALCOHOL-INVOLVED CRASHES			
Fatal Crashes	349	313	-10.3
Personal Injury Crashes	5,076	4,829	-4.9
Property Damage Crashes	7,179	7,043	-1.9
Total	**12,604**	**12,185**	**-3.3**
FATAL CRASHES			
Had Been Drinking (HBD)	349 (34.8%)	313 (31.7)	-10.3
Had Not Been Drinking / Not Known If Drinking	653 (65.2%)	674 (68.3)	3.2
PERSONS IN CRASHES			
Killed	1,084	1,084	0.0
Injured	81,942	80,576	-1.7
Not Injured	460,408	471,378	2.4
Unknown Injury	79,827	78,872	-1.2
Total	**623,261**	**631,910**	**1.4**
PERSONS IN ALCOHOL-INVOLVED CRASHES			
Killed	383	345	-9.9
Injured	7,068	6,563	-7.1
Not Injured	13,679	13,294	-2.8
Unknown Injury	2,769	2,679	-3.3
Total	**23,899**	**22,881**	**-4.3**
PERSONS INJURED BY GENDER			
Male	37,324	36,841	-1.3
Female	43,280	42,561	-1.7
Unknown Gender	1,338	1,174	-12.3
Total	**81,942**	**80,576**	**-1.7**
PERSONS INJURED BY SEVERITY			
"A" Injury	7,618	7,485	-1.7
"B" Injury	18,881	18,529	-1.9
"C" Injury	55,443	54,562	-1.6
Total	**81,942**	**80,576**	**-1.7**

1

YEAR
2006 - 2007 SUMMARY TRENDS (continued)

	2006	2007	% CHANGE
PERSONS KILLED BY GENDER			
Male	763	765	0.3
Female	319	317	-0.6
Unknown Gender	2	2	0.0
Total	**1,084**	**1,084**	**0.0**
PERSONS KILLED			
Driver	565	549	-2.8
Passenger	218	242	11.0
Pedestrian	137	134	-2.2
Bicyclist	28	17	-39.3
Motorcyclist	110	120	9.1
Farm Equipment	1	4	300.0
Train Engineer	0	0	0.0
Snowmobile	8	8	0.0
ORV/ATV	13	8	-38.5
Other/Unknown	4	2	-50.0
Total	**1,084**	**1,084**	**0.0**
BELT RESTRAINT USE BY DRIVER			
"Reported Restrained" - Killed	315	313	-0.6
"Reported Not Restrained" - Killed	184	176	-4.3
"Reported Restrained" - Injured	50,686	49,952	-1.4
"Reported Not Restrained" - Injured	2,506	2,333	-6.9
BELT RESTRAINT USE BY INJURED PASSENGER			
"Reported Restrained" - Killed	115	116	0.9
"Reported Not Restrained" - Killed	74	90	21.6
"Reported Restrained" - Injured	15,346	15,175	-1.1
"Reported Not Restrained" - Injured	2,061	1,837	-10.9
DRIVER AGE 16-19 INVOLVED			
Fatal Crashes	124	150	21.0
Personal Injury Crashes	12,798	12,149	-5.1
Property Damage Crashes	41,753	42,648	2.1
Total All Crashes	**54,675**	**54,947**	**0.5**
Persons Killed	143	178	24.5
Persons Injured	18,519	17,561	-5.2
DRIVER AGE 65 & OVER INVOLVED			
Fatal Crashes	173	178	2.9
Personal Injury Crashes	8,206	8,296	1.1
Property Damage Crashes	28,632	29,343	2.5
Total All Crashes	**37,011**	**37,817**	**2.2**
Persons Killed	183	195	6.6
Persons Injured	11,867	11,987	1.0

1 YEAR

MORE MICHIGAN CRASH FACTS

CRASH FACTS	2006	2007	% Change
Licensed Drivers	7,238,855	7,135,940	-1.4
Registered Vehicles in Michigan	8,353,070	8,409,163	0.7
Michigan Population	10,095,643	10,071,822	-0.2
Drivers Involved in Crashes	528,763	537,228	1.6
Vehicles Involved in Crashes	528,763	537,228	1.6
Occupants Involved in Crashes	548,486	556,519	1.5
Estimated MV Mileage Traveled (thousands)	104,041,668	104,643,810	0.6
Death Rate Per 100 Million Vehicle Miles	1.0	1.0	0.0
Fatal Crash Rate Per 100 Million Veh Miles	1.0	0.9	-10.0

2007 COST OF CRASHES IN MICHIGAN

The cost estimate for Michigan crashes in 2007 is **$8,977,549,000**. This estimate is based on the National Safety Council's cost estimating procedures. Average comprehensive costs are based on the following figures:

Comprehensive Costs, 2007

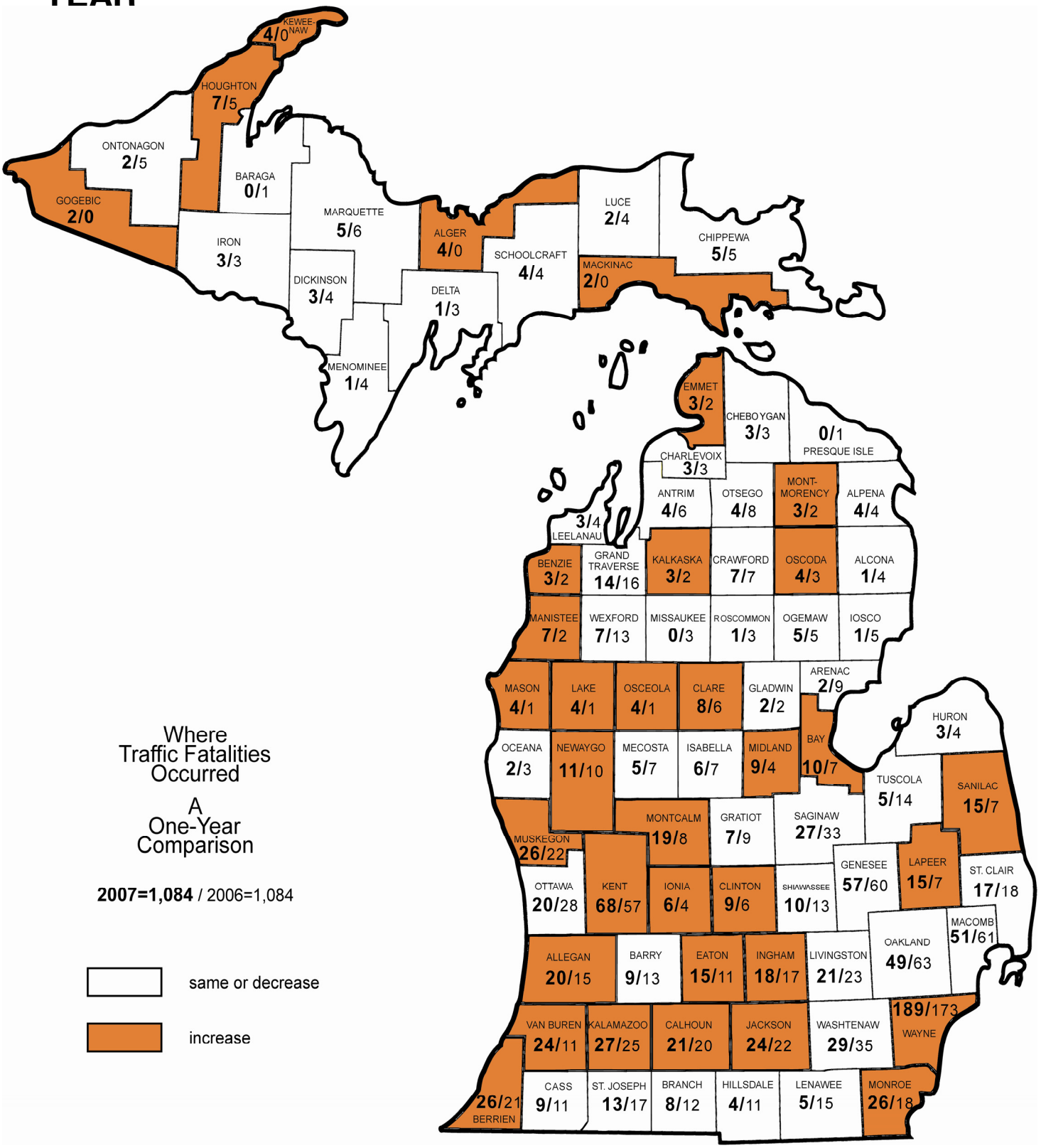
Death	$4,100,000
Incapacitating injury	$208,500
Nonincapacitating evident injury	$53,200
Possible injury	$25,300
No injury	$2,300

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.

Note: Information on the cost of crashes was provided by the National Safety Council on February 2, 2009.

1 YEAR

WHERE TRAFFIC FATALITIES OCCURRED



MICHIGAN OHSP Office of Highway Safety Planning

MOTOR VEHICLE TRAFFIC DEATHS IN MICHIGAN BY MONTH

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
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	127	121	117	131	153	115	95	1,331
1984	93	84	104	94	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
2005	73	77	68	77	105	95	130	96	102	112	110	84	1,129
2006	79	67	72	82	82	101	82	115	90	128	105	81	1,084
2007	69	70	81	67	92	96	104	117	111	88	98	91	1,084

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
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
2005	1,129	90,510	350,838	103,158.6	8,464,905	1.1
2006	1,084	81,942	315,322	104,041.7	8,353,070	1.0
2007	1,084	80,576	324,174	104,643.8	8,409,163	1.0

* Excludes trailers and trailer coaches, and includes mopeds

Age

AGE and INJURY SEVERITY by PERSON TYPE

Age	Driver				Passenger			Motorcyclist			Bicyclist			Pedestrian		
	Total	Killed	Injured	No Injury	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
0	707	0	5	130	137	3	134	2	0	0	9	0	6	14	0	9
1	1	0	0	1	152	0	151	0	0	0	2	0	2	7	1	6
2	1	0	0	1	155	0	155	0	0	0	1	0	1	17	2	12
3	1	0	0	1	204	1	202	0	0	0	3	0	1	21	1	18
4	3	0	1	2	240	2	238	0	0	0	6	0	4	25	0	21
5	3	0	3	0	215	1	214	1	0	1	18	0	14	26	0	25
6	2	0	0	2	260	0	260	1	0	1	18	0	14	35	1	25
7	5	0	4	1	271	1	270	3	0	3	32	0	29	29	0	25
8	9	0	6	3	329	3	325	4	0	4	34	0	32	29	1	23
9	12	0	5	6	284	1	283	6	0	5	33	0	29	31	2	26
10	12	0	4	8	309	1	308	3	0	3	52	0	45	32	1	28
11	11	0	9	2	309	3	306	4	0	4	57	1	47	38	2	29
12	25	1	17	7	333	3	330	7	0	7	80	0	62	48	2	42
13	63	0	27	33	330	5	325	4	0	4	107	1	84	66	1	55
14	187	0	47	136	454	5	446	6	0	6	126	1	98	76	0	69
15	798	5	102	678	644	3	640	7	0	4	100	1	80	72	1	63
16	11,251	12	1,268	9,917	864	11	850	9	0	7	91	0	67	63	4	52
17	15,300	13	1,834	13,333	896	12	879	25	1	21	64	0	56	68	0	61
18	16,739	27	2,068	14,503	753	11	740	58	2	48	59	0	50	55	1	48
19	15,673	19	1,963	13,571	599	12	585	109	3	85	47	0	42	65	1	58
20	14,247	17	1,766	12,332	492	13	477	122	4	85	57	0	46	58	1	56
21	13,494	21	1,644	11,705	482	3	478	84	6	57	55	0	49	53	1	43
22	12,688	12	1,506	11,037	444	4	438	122	2	93	43	0	36	42	1	35
23	11,648	18	1,442	10,057	328	11	317	96	4	73	32	0	25	41	4	33
24	11,147	14	1,361	9,647	329	6	322	88	1	61	27	1	23	52	1	44
25	10,595	13	1,287	9,183	329	7	321	81	2	62	30	0	23	40	1	34
26	10,410	14	1,266	9,003	304	6	298	85	4	66	21	0	20	29	3	25
27	9,982	13	1,133	8,731	248	3	244	78	2	54	22	0	19	38	0	36
28	9,537	9	1,136	8,294	224	1	222	63	1	49	16	0	12	25	2	19
29	9,137	6	1,101	7,932	226	1	223	88	3	68	25	0	19	33	0	29
30	8,742	7	992	7,642	221	3	218	67	3	46	17	0	13	18	1	16
31	8,411	10	972	7,353	160	2	158	62	3	43	12	1	10	34	4	28
32	8,446	11	1,013	7,308	199	4	195	84	3	64	20	0	18	29	0	23

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

AGE and INJURY SEVERITY by PERSON TYPE (continued)

Age	Driver				Passenger			Motorcyclist			Bicyclist			Pedestrian		
	Total	Killed	Injured	No Injury	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
33	8,502	10	942	7,456	196	2	194	54	2	39	22	1	17	25	1	20
34	8,821	11	1,038	7,660	183	1	181	77	3	58	16	0	14	28	0	24
35	9,150	12	1,061	7,986	172	3	169	79	3	57	24	0	23	21	2	13
36	9,678	12	1,061	8,498	151	1	150	78	4	53	16	1	12	17	2	14
37	9,637	10	1,071	8,446	181	1	180	87	1	64	19	0	14	24	1	19
38	9,119	10	1,046	7,958	173	3	170	83	2	61	28	0	22	31	4	24
39	9,033	8	992	7,941	157	0	157	69	1	50	22	0	21	25	2	18
40	8,981	9	1,029	7,860	153	3	150	76	1	67	27	0	20	30	2	23
41	9,208	11	1,061	8,016	148	2	145	97	1	72	17	0	14	27	4	21
42	9,205	13	1,023	8,086	167	1	166	70	5	48	26	0	21	28	3	24
43	9,560	5	1,029	8,425	191	2	189	92	0	66	19	0	15	41	3	36
44	9,592	9	1,113	8,376	206	3	203	109	2	86	32	0	27	37	4	32
45	9,354	12	1,082	8,164	211	2	208	89	3	74	23	0	19	27	0	25
46	9,340	10	1,049	8,180	178	1	177	104	2	76	42	1	34	49	4	41
47	9,030	12	947	7,965	176	1	175	88	1	66	31	2	25	30	2	26
48	8,943	8	1,049	7,795	180	2	178	117	2	89	29	0	26	35	1	29
49	8,836	9	1,031	7,711	212	3	207	118	2	95	33	1	30	31	5	23
50	8,733	10	1,063	7,582	165	2	162	124	4	82	34	0	28	39	4	33
51	8,452	9	988	7,350	179	3	176	100	2	77	30	1	24	27	0	25
52	7,903	8	921	6,882	175	4	171	100	3	74	30	1	25	25	2	22
53	7,713	12	861	6,751	157	1	156	91	5	62	29	1	26	24	3	18
54	7,230	11	832	6,299	168	3	165	88	1	72	17	0	15	28	3	22
55	7,111	17	795	6,240	141	2	139	83	3	66	28	1	21	30	0	26
56	6,722	9	774	5,863	149	1	147	78	2	61	18	0	15	25	3	19
57	6,276	7	742	5,467	144	4	140	65	2	46	20	0	17	20	6	13
58	6,015	12	694	5,246	123	4	119	66	1	47	12	0	10	20	1	16
59	5,833	6	667	5,116	138	1	137	58	1	42	12	0	10	34	2	32
60	5,914	6	732	5,128	138	0	138	62	2	46	9	0	8	22	1	19
61	4,393	10	506	3,828	112	2	110	30	3	18	3	0	3	14	3	10
62	3,929	9	446	3,435	107	1	105	33	0	27	4	0	4	10	0	10
63	3,938	6	486	3,406	101	1	100	40	4	29	11	0	11	10	2	7
64	3,895	9	448	3,405	116	1	114	38	0	31	10	0	9	12	0	9
65	3,457	7	412	3,008	101	0	101	21	2	16	7	0	5	12	1	11

AGE and INJURY SEVERITY by PERSON TYPE (continued)

Age	Driver				Passenger			Motorcyclist			Bicyclist			Pedestrian		
	Total	Killed	Injured	No Injury	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
66	2,877	3	381	2,462	86	1	85	20	1	16	8	0	8	9	1	8
67	2,649	5	341	2,278	100	1	98	22	0	19	8	0	7	17	2	15
68	2,577	2	306	2,243	101	0	101	14	0	10	3	0	2	11	0	11
69	2,388	1	283	2,087	82	2	80	8	0	4	10	0	10	5	0	5
70	2,089	7	220	1,841	74	1	73	10	1	5	6	0	6	7	2	4
71	1,966	7	246	1,701	76	2	74	7	0	5	3	1	2	9	2	7
72	1,989	5	235	1,726	65	3	62	6	0	6	5	0	3	7	1	4
73	1,668	5	209	1,437	86	0	86	2	0	2	4	0	4	8	1	6
74	1,675	7	198	1,459	74	2	71	4	0	2	3	0	2	6	1	5
75	1,646	8	223	1,393	71	1	70	8	1	4	0	0	0	8	1	7
76	1,660	7	206	1,434	53	2	51	1	0	1	2	0	2	9	2	5
77	1,624	9	227	1,382	78	2	75	3	2	1	3	0	3	7	2	5
78	1,509	6	217	1,273	61	3	58	1	0	0	4	0	4	7	1	6
79	1,454	4	203	1,231	64	4	60	1	0	0	0	0	0	12	0	12
80	1,326	7	161	1,144	58	1	57	1	0	1	2	0	2	4	1	3
81	1,200	7	169	1,014	60	3	56	1	0	1	1	0	1	5	1	2
82	1,032	7	145	871	45	2	43	0	0	0	0	0	0	5	2	3
83	941	2	139	790	45	2	43	0	0	0	0	0	0	9	2	6
84	846	5	113	717	38	0	38	0	0	0	1	0	1	3	0	3
85	739	4	103	620	33	1	32	1	1	0	0	0	0	1	0	1
86	668	1	123	537	46	1	45	0	0	0	0	0	0	0	0	0
87	441	4	74	357	29	1	28	0	0	0	0	0	0	2	0	2
88	339	1	57	277	27	3	24	0	0	0	1	0	1	1	1	0
89	250	4	33	212	17	0	17	0	0	0	0	0	0	1	0	1
90	217	1	23	189	13	2	11	0	0	0	0	0	0	0	0	0
91	128	0	19	108	13	2	11	0	0	0	0	0	0	2	0	2
92	118	2	13	102	10	0	10	0	0	0	0	0	0	1	0	1
93	76	2	13	61	9	2	7	0	0	0	1	0	1	1	0	1
94	44	1	12	30	9	1	8	0	0	0	0	0	0	2	0	1
95	24	0	6	18	3	0	3	0	0	0	0	0	0	1	0	0
96	10	0	2	8	1	0	1	0	0	0	0	0	0	1	0	1
97	7	0	1	6	2	0	2	0	0	0	0	0	0	0	0	0
98	5	0	2	2	1	0	1	0	0	0	0	0	0	0	0	0

AGE and INJURY SEVERITY by PERSON TYPE (continued)

Age	Driver				Passenger			Motorcyclist			Bicyclist			Pedestrian		
	Total	Killed	Injured	No Injury	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
99	8	0	0	7	1	0	1	0	0	0	0	0	0	0	0	0
100	1	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0
101	2	0	0	2	0	0	0	0	0	0	0	0	0	1	0	1
102	1	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
106	3	0	0	3	1	0	1	0	0	0	0	0	0	0	0	0
107	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	48,239	0	136	5,244	784	0	784	172	0	8	132	0	39	108	0	65
Totals	537,228*	685	57,813	430,357	19,292*	248	19,001	4,215*	120	3,026	2,214*	17	1,760	2,437*	134	2,013
	* Includes 48,373 drivers with unknown injury severity				* Uninjured passengers not included in total			* Includes 126 motorcyclists with unknown injury severity and 943 with no injury			* Includes 90 bicyclists with unknown injury severity and 347 with no injury			* Includes 140 pedestrians with unknown injury severity and 150 with no injury		

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	68,110	55.7	278	78.3	15,381	58.2
Turning left	9,729	8.0	22	6.2	2,559	9.7
Turning right	3,521	2.9	4	1.1	532	2.0
Stopped on roadway	9,312	7.6	7	2.0	2,026	7.7
In prior crash	215	0.2	0	0.0	50	0.2
Changing lanes	3,330	2.7	6	1.7	443	1.7
Backing	2,307	1.9	1	0.3	133	0.5
Slowing/stopping on roadway	12,823	10.5	5	1.4	2,416	9.1
Slowing/stopping other	170	0.1	0	0.0	31	0.1
Starting up on roadway	2,570	2.1	4	1.1	594	2.2
Starting up other	87	0.1	0	0.0	22	0.1
Entering parking	113	0.1	0	0.0	11	0.0
Leaving parking	366	0.3	0	0.0	64	0.2
Entering roadway	2,231	1.8	4	1.1	489	1.9
Leaving roadway	293	0.2	5	1.4	83	0.3
Making U-turn	264	0.2	0	0.0	60	0.2
Overtaking or passing	1,092	0.9	9	2.5	243	0.9
Avoiding object	184	0.2	0	0.0	47	0.2
Avoiding animal	589	0.5	0	0.0	170	0.6
Avoiding pedestrian	44	0.0	0	0.0	21	0.1
Avoiding vehicle (front/back)	1,327	1.1	6	1.7	286	1.1
Avoiding vehicle (angle)	624	0.5	3	0.8	138	0.5
Driverless moving	25	0.0	0	0.0	4	0.0
Parked	366	0.3	0	0.0	37	0.1
Crossing at intersection	12	0.0	0	0.0	6	0.0
Crossing not at intersection	2	0.0	0	0.0	0	0.0
Getting on/off vehicle	5	0.0	0	0.0	1	0.0
In roadway with traffic	3	0.0	0	0.0	2	0.0
In roadway against traffic	5	0.0	0	0.0	1	0.0
Standing/lying in roadway	1	0.0	0	0.0	0	0.0
Pushing/working on vehicle	2	0.0	0	0.0	0	0.0
Other working in roadway	9	0.0	0	0.0	2	0.0
Playing in roadway	3	0.0	0	0.0	2	0.0
In roadway other reason	2	0.0	0	0.0	1	0.0
Not in roadway	6	0.0	0	0.0	4	0.0
Other	35	0.0	1	0.3	11	0.0
Unknown	2,410	2.0	0	0.0	542	2.1
Total Drivers	122,187	100.0	355	100.0	26,412	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	671	0.5	0	0.0	166	0.6
Cross center/median	131	0.1	0	0.0	40	0.2
Ran off road left	183	0.1	1	0.3	35	0.1
Ran off road right	315	0.3	0	0.0	68	0.3
Re-enter road	18	0.0	0	0.0	3	0.0
Overturn	3,261	2.7	19	5.4	1,489	5.6
Separation of units	105	0.1	0	0.0	26	0.1
Fire/explosion	139	0.1	3	0.8	14	0.1
Immersion	13	0.0	2	0.6	6	0.0
Jackknife	30	0.0	0	0.0	3	0.0
Downhill runaway	75	0.1	1	0.3	16	0.1
Cargo loss/shift	86	0.1	0	0.0	13	0.0
Individual fell off	106	0.1	2	0.6	82	0.3
Other noncollision	289	0.2	0	0.0	63	0.2
NONCOLLISION Subtotal	5,422	4.4	28	7.9	2,024	7.7

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	367	0.3	29	8.2	307	1.2
Bicyclist (Pedalcycle)	328	0.3	7	2.0	265	1.0
Motor vehicle in transport	82,315	67.4	201	56.6	18,347	69.5
Parked motor vehicle	2,503	2.0	6	1.7	256	1.0
Railway train	54	0.0	0	0.0	16	0.1
Animal	9,227	7.6	0	0.0	192	0.7
Other nonfixed objects	812	0.7	1	0.3	87	0.3
COLLISION NONFIXED Subtotal	95,606	78.2	244	68.7	19,470	73.7

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	139	0.1	3	0.8	38	0.1
Bridge parapet end	34	0.0	1	0.3	8	0.0
Bridge rail	174	0.1	0	0.0	37	0.1
Guardrail face	1,285	1.1	0	0.0	238	0.9
Guardrail end	196	0.2	0	0.0	39	0.1
Median barrier	1,341	1.1	2	0.6	395	1.5
Highway traffic sign post	962	0.8	1	0.3	50	0.2
Highway signal post	101	0.1	0	0.0	12	0.0
Luminaire/light support	217	0.2	0	0.0	39	0.1
Utility pole	1,245	1.0	5	1.4	365	1.4
Other pole	351	0.3	1	0.3	57	0.2
Culvert	237	0.2	3	0.8	87	0.3
Curb	669	0.5	1	0.3	93	0.4
Ditch	2,959	2.4	7	2.0	666	2.5
Embankment	596	0.5	2	0.6	149	0.6
Fence	454	0.4	0	0.0	57	0.2
Mailbox	745	0.6	0	0.0	43	0.2
Tree	4,190	3.4	48	13.5	1,377	5.2
Rail crossing signal	18	0.0	0	0.0	8	0.0
Building	236	0.2	5	1.4	86	0.3
Traffic island	10	0.0	0	0.0	2	0.0
Fire hydrant	218	0.2	1	0.3	32	0.1
Impact attenuator	13	0.0	0	0.0	5	0.0
Other fixed object	965	0.8	2	0.6	198	0.7
COLLISION FIXED Subtotal	17,355	14.2	82	23.1	4,081	15.5

Teen and young adult drivers 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	3,804	3.1	1	0.3	837	3.2
TOTAL MOST HARMFUL EVENT	122,187	100.0	355	100.0	26,412	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	31,393	25.7	134	37.7	6,280	23.8
Head On	2,121	1.7	69	19.4	918	3.5
Head On - Left Turn	4,349	3.6	17	4.8	1,667	6.3
Angle	26,878	22.0	84	23.7	7,093	26.9
Rear End	37,565	30.7	25	7.0	7,776	29.4
Rear End - Left Turn	1,705	1.4	3	0.8	458	1.7
Rear End - Right Turn	1,251	1.0	0	0.0	161	0.6
Sideswipe - Same Direction	10,232	8.4	5	1.4	984	3.7
Sideswipe - Opposite Direct	2,613	2.1	2	0.6	350	1.3
Other/Unknown	4,080	3.3	16	4.5	725	2.7
Total Drivers	122,187	100.0	355	100.0	26,412	100.0

Teen and young adult drivers are involved in the largest proportion of single vehicle fatal 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	100,127	81.9	253	71.3	20,954	79.3
Median	911	0.7	3	0.8	263	1.0
Shoulder	5,113	4.2	23	6.5	1,189	4.5
Outside of Shoulder/Curb	11,131	9.1	66	18.6	2,946	11.2
Gore	319	0.3	2	0.6	87	0.3
Other/Unknown	4,586	3.8	8	2.3	973	3.7
Total Drivers	122,187	100.0	355	100.0	26,412	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	13,156	10.8	37	10.4	2,995	11.3
U.S. & Michigan Roads	33,692	27.6	108	30.4	7,287	27.6
County & City Roads	75,339	61.7	210	59.2	16,130	61.1
Total Drivers	122,187	100.0	355	100.0	26,412	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
Midnight - 02:59 AM	6,696	5.5	48	13.5	1,609	6.1
03:00 AM - 05:59 AM	3,568	2.9	37	10.4	870	3.3
06:00 AM - 08:59 AM	13,409	11.0	34	9.6	2,601	9.8
09:00 AM - 11:59 AM	13,096	10.7	20	5.6	2,813	10.7
Noon - 02:59 PM	21,589	17.7	40	11.3	4,760	18.0
03:00 PM - 05:59 PM	30,992	25.4	59	16.6	6,839	25.9
06:00 PM - 08:59 PM	18,877	15.4	60	16.9	4,032	15.3
09:00 PM - 11:59 PM	13,519	11.1	56	15.8	2,805	10.6
Unknown	441	0.4	1	0.3	83	0.3
Total Drivers	122,187	100.0	355	100.0	26,412	100.0

9:00 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	46,074	37.7	96	27.0	8,476	32.1	168	0.4
Speed too fast	14,559	11.9	66	18.6	3,424	13.0	5,465	14.6
Speed too slow	184	0.2	0	0.0	44	0.2	73	0.2
Failed to yield	12,967	10.6	28	7.9	3,552	13.4	8,099	21.6
Disregard traffic control	3,102	2.5	23	6.5	1,204	4.6	2,026	5.4
Drove wrong way	102	0.1	1	0.3	28	0.1	55	0.1
Drove left of center	709	0.6	18	5.1	248	0.9	296	0.8
Improper passing	610	0.5	0	0.0	91	0.3	271	0.7
Improper lane use	2,399	2.0	0	0.0	265	1.0	1,227	3.3
Improper turn	1,191	1.0	1	0.3	198	0.7	600	1.6
Improper/no signal	146	0.1	0	0.0	30	0.1	40	0.1
Improper backing	1,621	1.3	0	0.0	55	0.2	628	1.7
Unable to stop in assured clear distance	22,898	18.7	11	3.1	4,542	17.2	13,092	34.9
Reckless driving	950	0.8	16	4.5	410	1.6	503	1.3
Careless/negligent driving	4,746	3.9	39	11.0	1,598	6.1	2,802	7.5
Other	4,887	4.0	23	6.5	1,181	4.5	1,642	4.4
Unknown	5,042	4.1	33	9.3	1,066	4.0	530	1.4
Total Drivers	122,187	100.0	355	100.0	26,412	100.0	37,517	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	14,000	11.5	50	14.1	3,231	12.2
Monday	17,564	14.4	51	14.4	3,630	13.7
Tuesday	17,360	14.2	32	9.0	3,651	13.8
Wednesday	18,191	14.9	46	13.0	3,809	14.4
Thursday	17,413	14.3	42	11.8	3,885	14.7
Friday	21,638	17.7	54	15.2	4,516	17.1
Saturday	16,021	13.1	80	22.5	3,690	14.0
Total Drivers	122,187	100.0	355	100.0	26,412	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	65,707	53.8	243	68.5	13,689	51.8
Female	56,405	46.2	112	31.5	12,713	48.1
Unknown	75	0.1	0	0.0	10	0.0
Total Drivers	122,187	100.0	355	100.0	26,412	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	85,850	70.3	207	58.3	17,080	64.7
2 occupants	24,599	20.1	82	23.1	5,992	22.7
3 occupants	6,733	5.5	30	8.5	1,938	7.3
4 occupants	2,590	2.1	15	4.2	832	3.2
5 occupants	789	0.6	17	4.8	263	1.0
6 + occupants	288	0.2	4	1.1	99	0.4
0 occupants	261	0.2	0	0.0	24	0.1
Unknown	1,077	0.9	0	0.0	184	0.7
Total Drivers	122,187	100.0	355	100.0	26,412	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	99,343	81.3	261	73.5	21,222	80.3
Van and Motorhome	3,733	3.1	12	3.4	874	3.3
Pickup	14,107	11.5	42	11.8	2,805	10.6
Small Truck (under 10,000 lbs.)	3,206	2.6	3	0.8	631	2.4
Motorcycle	664	0.5	26	7.3	504	1.9
Moped	100	0.1	0	0.0	71	0.3
Go Cart	3	0.0	0	0.0	3	0.0
Snowmobile	54	0.0	0	0.0	40	0.2
Off Road Vehicle	67	0.1	1	0.3	58	0.2
Other	119	0.1	1	0.3	36	0.1
Unknown	227	0.2	0	0.0	59	0.2
CDL Truck/Bus (breakdown below)	564	0.5	9	2.5	109	0.4
Total Number of Drivers	122,187	100.0	355	100.0	26,412	100.0

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	255	45.2	6	66.7	52	47.7
Commercial Vehicle: Group B	121	21.5	0	0.0	25	22.9
Commercial Vehicle: Group C	24	4.3	1	11.1	3	2.8
Other Truck	64	11.3	2	22.2	12	11.0
Unknown Truck	100	17.7	0	0.0	17	15.6
Total Number of Drivers	564	100.0	9	100.0	109	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	179,433	55.2	738	77.8	35,393	53.4
Turning left	19,570	6.0	39	4.1	4,988	7.5
Turning right	8,589	2.6	11	1.2	1,356	2.0
Stopped on roadway	39,569	12.2	33	3.5	9,620	14.5
In prior crash	402	0.1	0	0.0	126	0.2
Changing lanes	7,033	2.2	22	2.3	880	1.3
Backing	7,532	2.3	5	0.5	334	0.5
Slowing/stopping on roadway	32,142	9.9	21	2.2	6,893	10.4
Slowing/stopping other	522	0.2	0	0.0	111	0.2
Starting up on roadway	6,725	2.1	13	1.4	1,455	2.2
Starting up other	184	0.1	0	0.0	42	0.1
Entering parking	336	0.1	0	0.0	32	0.0
Leaving parking	783	0.2	1	0.1	145	0.2
Entering roadway	3,937	1.2	5	0.5	858	1.3
Leaving roadway	571	0.2	7	0.7	170	0.3
Making U-turn	635	0.2	1	0.1	135	0.2
Overtaking or passing	2,303	0.7	14	1.5	437	0.7
Avoiding object	401	0.1	0	0.0	83	0.1
Avoiding animal	769	0.2	2	0.2	196	0.3
Avoiding pedestrian	83	0.0	1	0.1	17	0.0
Avoiding vehicle (front/back)	2,999	0.9	23	2.4	804	1.2
Avoiding vehicle (angle)	1,498	0.5	9	0.9	379	0.6
Driverless moving	54	0.0	0	0.0	11	0.0
Parked	1,678	0.5	2	0.2	190	0.3
Crossing at intersection	25	0.0	0	0.0	6	0.0
Crossing not at intersection	7	0.0	0	0.0	4	0.0
Getting on/off vehicle	9	0.0	0	0.0	2	0.0
In roadway with traffic	16	0.0	0	0.0	3	0.0
In roadway against traffic	16	0.0	0	0.0	7	0.0
Standing/lying in roadway	2	0.0	0	0.0	1	0.0
Pushing/working on vehicle	3	0.0	0	0.0	1	0.0
Other working in roadway	51	0.0	0	0.0	12	0.0
Playing in roadway	6	0.0	0	0.0	4	0.0
In roadway other reason	11	0.0	0	0.0	1	0.0
Not in roadway	29	0.0	0	0.0	7	0.0
Other	66	0.0	1	0.1	21	0.0
Unknown	7,317	2.2	0	0.0	1,496	2.3
Total Drivers	325,306	100.0	948	100.0	66,220	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	1,132	0.3	0	0.0	321	0.5
Cross center/median	248	0.1	0	0.0	46	0.1
Ran off road left	336	0.1	1	0.1	76	0.1
Ran off road right	637	0.2	0	0.0	124	0.2
Re-enter road	40	0.0	0	0.0	13	0.0
Overturn	4,754	1.5	58	6.1	2,209	3.3
Separation of units	275	0.1	0	0.0	39	0.1
Fire/explosion	324	0.1	6	0.6	40	0.1
Immersion	35	0.0	1	0.1	6	0.0
Jackknife	224	0.1	0	0.0	17	0.0
Downhill runaway	204	0.1	0	0.0	38	0.1
Cargo loss/shift	388	0.1	0	0.0	32	0.0
Individual fell off	287	0.1	10	1.1	229	0.3
Other noncollision	839	0.3	2	0.2	163	0.2
NONCOLLISION Subtotal	9,723	3.0	78	8.2	3,353	5.1

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	1,035	0.3	85	9.0	839	1.3
Pedalcycle (Bicyclist)	1,113	0.3	8	0.8	876	1.3
Motor vehicle in transport	216,499	66.6	603	63.6	50,357	76.0
Parked motor vehicle	5,697	1.8	5	0.5	516	0.8
Railway train	169	0.1	2	0.2	44	0.1
Animal	47,448	14.6	12	1.3	869	1.3
Other nonfixed objects	3,556	1.1	2	0.2	296	0.4
COLLISION NONFIXED Subtotal	275,517	84.7	717	75.6	53,797	81.2

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	368	0.1	3	0.3	78	0.1
Bridge parapet end	102	0.0	0	0.0	21	0.0
Bridge rail	341	0.1	0	0.0	64	0.1
Guardrail face	2,308	0.7	6	0.6	421	0.6
Guardrail end	424	0.1	1	0.1	88	0.1
Median barrier	2,423	0.7	6	0.6	701	1.1
Highway traffic sign post	1,498	0.5	1	0.1	123	0.2
Highway signal post	146	0.0	0	0.0	11	0.0
Luminaire/light support	348	0.1	1	0.1	70	0.1
Utility pole	1,906	0.6	13	1.4	608	0.9
Other pole	581	0.2	6	0.6	84	0.1
Culvert	311	0.1	2	0.2	95	0.1
Curb	1,030	0.3	4	0.4	179	0.3
Ditch	4,422	1.4	17	1.8	1,116	1.7
Embankment	907	0.3	4	0.4	262	0.4
Fence	632	0.2	2	0.2	86	0.1
Mailbox	1,044	0.3	0	0.0	53	0.1
Tree	5,989	1.8	73	7.7	1,856	2.8
Rail crossing signal	50	0.0	1	0.1	4	0.0
Building	368	0.1	5	0.5	145	0.2
Traffic island	18	0.0	0	0.0	1	0.0
Fire hydrant	277	0.1	1	0.1	47	0.1
Impact attenuator	26	0.0	0	0.0	8	0.0
Other fixed object	1,867	0.6	6	0.6	420	0.6
COLLISION FIXED Subtotal	27,386	8.4	152	16.0	6,541	9.9

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	12,680	3.9	1	0.1	2,529	3.8
TOTAL MOST HARMFUL EVENT	325,306	100.0	948	100.0	66,220	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	84,524	26.0	289	30.5	11,123	16.8
Head On	5,103	1.6	195	20.6	2,211	3.3
Head On - Left Turn	9,473	2.9	49	5.2	3,767	5.7
Angle	64,466	19.8	234	24.7	17,387	26.3
Rear End	101,137	31.1	79	8.3	23,846	36.0
Rear End - Left Turn	3,858	1.2	10	1.1	1,057	1.6
Rear End - Right Turn	3,886	1.2	4	0.4	630	1.0
Sideswipe - Same Direction	31,621	9.7	25	2.6	3,021	4.6
Sideswipe - Opposite Direct	7,674	2.4	19	2.0	1,081	1.6
Other/Unknown	13,564	4.2	44	4.6	2,097	3.2
Total Drivers	325,306	100.0	948	100.0	66,220	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	285,973	87.9	744	78.5	56,803	85.8
Median	1,781	0.5	12	1.3	461	0.7
Shoulder	8,867	2.7	44	4.6	2,115	3.2
Outside of Shoulder/Curb	16,006	4.9	127	13.4	4,386	6.6
Gore	510	0.2	3	0.3	139	0.2
Other/Unknown	12,169	3.7	18	1.9	2,316	3.5
Total Drivers	325,306	100.0	948	100.0	66,220	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	41,298	12.7	141	14.9	8,914	13.5
U.S. & Michigan Roads	97,473	30.0	314	33.1	20,414	30.8
County & City Roads	186,535	57.3	493	52.0	36,892	55.7
Total Drivers	325,306	100.0	948	100.0	66,220	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
Midnight - 02:59 AM	11,482	3.5	101	10.7	2,514	3.8
03:00 AM - 05:59 AM	11,900	3.7	60	6.3	1,791	2.7
06:00 AM - 08:59 AM	50,604	15.6	109	11.5	8,710	13.2
09:00 AM - 11:59 AM	41,582	12.8	105	11.1	8,763	13.2
Noon - 02:59 PM	56,777	17.5	125	13.2	13,081	19.8
03:00 PM - 05:59 PM	78,988	24.3	168	17.7	17,700	26.7
06:00 PM - 08:59 PM	47,173	14.5	145	15.3	8,849	13.4
09:00 PM - 11:59 PM	25,721	7.9	134	14.1	4,620	7.0
Unknown	1,079	0.3	1	0.1	192	0.3
Total Drivers	325,306	100.0	948	100.0	66,220	100.0

6:00 AM to 8:59 AM shows the highest involvement for drivers age 25-64 in all crashes compared to the other 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	184,091	56.6	461	48.6	33,930	51.2	371	0.6
Speed too fast	20,008	6.2	111	11.7	4,800	7.2	5,928	10.4
Speed too slow	370	0.1	0	0.0	78	0.1	95	0.2
Failed to yield	22,583	6.9	47	5.0	5,951	9.0	12,783	22.4
Disregard traffic control	5,931	1.8	29	3.1	2,236	3.4	3,391	5.9
Drove wrong way	248	0.1	8	0.8	73	0.1	90	0.2
Drove left of center	1,541	0.5	36	3.8	466	0.7	488	0.9
Improper passing	1,468	0.5	5	0.5	215	0.3	545	1.0
Improper lane use	5,848	1.8	8	0.8	626	0.9	2,493	4.4
Improper turn	2,815	0.9	0	0.0	429	0.6	1,188	2.1
Improper/no signal	322	0.1	1	0.1	53	0.1	87	0.2
Improper backing	5,451	1.7	2	0.2	151	0.2	1,586	2.8
Unable to stop in assured clear distance	39,283	12.1	23	2.4	8,616	13.0	20,169	35.3
Reckless driving	1,239	0.4	23	2.4	535	0.8	571	1.0
Careless/negligent driving	6,600	2.0	57	6.0	2,259	3.4	3,419	6.0
Other	11,580	3.6	61	6.4	2,624	4.0	3,065	5.4
Unknown	15,928	4.9	76	8.0	3,178	4.8	917	1.6
Total Drivers	325,306	100.0	948	100.0	66,220	100.0	57,186	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	30,112	9.3	130	13.7	6,530	9.9
Monday	49,186	15.1	131	13.8	9,712	14.7
Tuesday	49,169	15.1	131	13.8	9,824	14.8
Wednesday	51,992	16.0	114	12.0	10,475	15.8
Thursday	49,451	15.2	107	11.3	10,138	15.3
Friday	56,796	17.5	144	15.2	11,402	17.2
Saturday	38,600	11.9	191	20.1	8,139	12.3
Total Drivers	325,306	100.0	948	100.0	66,220	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	181,521	55.8	700	73.8	35,500	53.6
Female	143,536	44.1	247	26.1	30,686	46.3
Unknown	249	0.1	1	0.1	34	0.1
Total Drivers	325,306	100.0	948	100.0	66,220	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	246,383	75.7	664	70.0	46,910	70.8
2 occupants	49,668	15.3	172	18.1	12,139	18.3
3 occupants	14,447	4.4	47	5.0	3,714	5.6
4 occupants	6,398	2.0	43	4.5	1,716	2.6
5 occupants	2,184	0.7	9	0.9	607	0.9
6 + occupants	1,895	0.6	12	1.3	460	0.7
0 occupants	1,124	0.3	0	0.0	77	0.1
Unknown	3,207	1.0	1	0.1	597	0.9
Total Drivers	325,306	100.0	948	100.0	66,220	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	219,410	67.4	472	49.8	44,776	67.6
Van and Motorhome	25,603	7.9	73	7.7	5,215	7.9
Pickup	50,289	15.5	166	17.5	8,709	13.2
Small Truck (under 10,000 lbs.)	12,757	3.9	20	2.1	2,476	3.7
Motorcycle	2,920	0.9	93	9.8	2,203	3.3
Moped	189	0.1	1	0.1	156	0.2
Go Cart	3	0.0	0	0.0	1	0.0
Snowmobile	127	0.0	7	0.7	85	0.1
Off Road Vehicle	94	0.0	6	0.6	77	0.1
Other	975	0.3	3	0.3	167	0.3
Unknown	787	0.2	0	0.0	168	0.3
CDL Truck/Bus (breakdown below)	12,152	3.7	107	11.3	2,187	3.3
Total Number of Drivers	325,306	100.0	948	100.0	66,220	100.0

Compared to the other two age groups, a higher percentage of drivers age 25-64 were driving pickups and small trucks at the time of the crash.

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	6,580	54.1	80	74.8	1,234	56.4
Commercial Vehicle: Group B	2,716	22.4	16	15.0	478	21.9
Commercial Vehicle: Group C	421	3.5	1	0.9	65	3.0
Other Truck	550	4.5	9	8.4	136	6.2
Unknown Truck	1,885	15.5	1	0.9	274	12.5
Total Number of Drivers	12,152	100.0	107	100.0	2,187	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	20,364	51.4	126	66.0	4,550	51.7
Turning left	4,171	10.5	26	13.6	1,226	13.9
Turning right	1,349	3.4	1	0.5	202	2.3
Stopped on roadway	3,878	9.8	3	1.6	1,022	11.6
In prior crash	42	0.1	0	0.0	10	0.1
Changing lanes	1,170	3.0	3	1.6	95	1.1
Backing	1,350	3.4	1	0.5	37	0.4
Slowing/stopping on roadway	2,974	7.5	4	2.1	715	8.1
Slowing/stopping other	61	0.2	0	0.0	14	0.2
Starting up on roadway	1,040	2.6	7	3.7	251	2.9
Starting up other	27	0.1	0	0.0	9	0.1
Entering parking	60	0.2	0	0.0	7	0.1
Leaving parking	208	0.5	0	0.0	36	0.4
Entering roadway	1,005	2.5	7	3.7	209	2.4
Leaving roadway	64	0.2	3	1.6	21	0.2
Making U-turn	135	0.3	4	2.1	28	0.3
Overtaking or passing	242	0.6	2	1.0	37	0.4
Avoiding object	33	0.1	1	0.5	10	0.1
Avoiding animal	36	0.1	0	0.0	9	0.1
Avoiding pedestrian	12	0.0	0	0.0	6	0.1
Avoiding vehicle (front/back)	239	0.6	1	0.5	63	0.7
Avoiding vehicle (angle)	108	0.3	1	0.5	25	0.3
Driverless moving	6	0.0	0	0.0	0	0.0
Parked	168	0.4	0	0.0	16	0.2
Crossing at intersection	5	0.0	0	0.0	2	0.0
Crossing not at intersection	2	0.0	0	0.0	0	0.0
Getting on/off vehicle	1	0.0	0	0.0	0	0.0
In roadway with traffic	2	0.0	0	0.0	0	0.0
In roadway against traffic	1	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	3	0.0	0	0.0	2	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	1	0.0	0	0.0	1	0.0
Not in roadway	4	0.0	0	0.0	1	0.0
Other	13	0.0	1	0.5	1	0.0
Unknown	882	2.2	0	0.0	198	2.2
Total Drivers	39,656	100.0	191	100.0	8,803	100.0

Compared to the other two age groups, elderly drivers are 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	103	0.3	0	0.0	29	0.3
Cross center/median	47	0.1	0	0.0	13	0.1
Ran off road left	52	0.1	0	0.0	16	0.2
Ran off road right	65	0.2	0	0.0	18	0.2
Re-enter road	7	0.0	0	0.0	1	0.0
Overturn	349	0.9	9	4.7	179	2.0
Separation of units	31	0.1	0	0.0	2	0.0
Fire/explosion	32	0.1	1	0.5	4	0.0
Immersion	6	0.0	0	0.0	2	0.0
Jackknife	20	0.1	0	0.0	1	0.0
Downhill runaway	29	0.1	0	0.0	11	0.1
Cargo loss/shift	30	0.1	0	0.0	5	0.1
Individual fell off	22	0.1	1	0.5	13	0.1
Other noncollision	98	0.2	0	0.0	21	0.2
NONCOLLISION Subtotal	891	2.2	11	5.8	315	3.6

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Pedestrian	146	0.4	5	2.6	124	1.4
Pedalcycle (Bicyclist)	217	0.5	3	1.6	177	2.0
Motor vehicle in transport	28,594	72.1	138	72.3	6,992	79.4
Parked motor vehicle	1,025	2.6	2	1.0	84	1.0
Railway train	29	0.1	0	0.0	7	0.1
Animal	4,491	11.3	1	0.5	85	1.0
Other nonfixed objects	351	0.9	1	0.5	24	0.3
COLLISION NONFIXED Subtotal	34,853	87.9	150	78.5	7,493	85.1

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	31	0.1	1	0.5	9	0.1
Bridge parapet end	10	0.0	0	0.0	2	0.0
Bridge rail	23	0.1	0	0.0	5	0.1
Guardrail face	133	0.3	0	0.0	41	0.5
Guardrail end	34	0.1	1	0.5	9	0.1
Median barrier	117	0.3	2	1.0	43	0.5
Highway traffic sign post	147	0.4	0	0.0	14	0.2
Highway signal post	13	0.0	0	0.0	0	0.0
Luminaire/light support	35	0.1	0	0.0	9	0.1
Utility pole	151	0.4	3	1.6	63	0.7
Other pole	68	0.2	0	0.0	14	0.2
Culvert	38	0.1	1	0.5	13	0.1
Curb	89	0.2	0	0.0	16	0.2
Ditch	377	1.0	1	0.5	105	1.2
Embankment	76	0.2	2	1.0	30	0.3
Fence	63	0.2	0	0.0	12	0.1
Mailbox	112	0.3	0	0.0	8	0.1
Tree	604	1.5	17	8.9	223	2.5
Rail crossing signal	8	0.0	0	0.0	0	0.0
Building	81	0.2	2	1.0	38	0.4
Traffic island	5	0.0	0	0.0	1	0.0
Fire hydrant	34	0.1	0	0.0	4	0.0
Impact attenuator	3	0.0	0	0.0	1	0.0
Other fixed object	180	0.5	0	0.0	45	0.5
COLLISION FIXED Subtotal	2,432	6.1	30	15.7	705	8.0

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	1,480	3.7	0	0.0	290	3.3
TOTAL MOST HARMFUL EVENT	39,656	100.0	191	100.0	8,803	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	7,852	19.8	45	23.6	1,199	13.6
Head On	587	1.5	30	15.7	265	3.0
Head On - Left Turn	1,666	4.2	14	7.3	708	8.0
Angle	11,342	28.6	78	40.8	3,061	34.8
Rear End	10,100	25.5	8	4.2	2,684	30.5
Rear End - Left Turn	479	1.2	3	1.6	127	1.4
Rear End - Right Turn	393	1.0	2	1.0	61	0.7
Sideswipe - Same Direction	4,438	11.2	3	1.6	321	3.6
Sideswipe - Opposite Direct	1,073	2.7	5	2.6	154	1.7
Other/Unknown	1,726	4.4	3	1.6	223	2.5
Total Drivers	39,656	100.0	191	100.0	8,803	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	35,552	89.7	149	78.0	7,741	87.9
Median	143	0.4	0	0.0	44	0.5
Shoulder	853	2.2	12	6.3	227	2.6
Outside of Shoulder/Curb	1,491	3.8	25	13.1	470	5.3
Gore	50	0.1	0	0.0	11	0.1
Other/Unknown	1,567	4.0	5	2.6	310	3.5
Total Drivers	39,656	100.0	191	100.0	8,803	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	3,066	7.7	9	4.7	715	8.1
U.S. & Michigan Roads	12,878	32.5	69	36.1	2,932	33.3
County & City Roads	23,712	59.8	113	59.2	5,156	58.6
Total Drivers	39,656	100.0	191	100.0	8,803	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
Midnight - 02:59 AM	434	1.1	3	1.6	79	0.9
03:00 AM - 05:59 AM	423	1.1	2	1.0	64	0.7
06:00 AM - 08:59 AM	3,325	8.4	13	6.8	648	7.4
09:00 AM - 11:59 AM	8,175	20.6	41	21.5	1,848	21.0
Noon - 02:59 PM	10,503	26.5	46	24.1	2,536	28.8
03:00 PM - 05:59 PM	9,877	24.9	42	22.0	2,362	26.8
06:00 PM - 08:59 PM	4,831	12.2	35	18.3	942	10.7
09:00 PM - 11:59 PM	1,956	4.9	9	4.7	296	3.4
Unknown	132	0.3	0	0.0	28	0.3
Total Drivers	39,656	100.0	191	100.0	8,803	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	19,136	48.3	50	26.2	3,759	42.7	34	0.4
Speed too fast	1,367	3.4	16	8.4	357	4.1	282	3.6
Speed too slow	46	0.1	0	0.0	11	0.1	11	0.1
Failed to yield	6,285	15.8	46	24.1	1,731	19.7	3,146	39.9
Disregard traffic control	1,157	2.9	17	8.9	442	5.0	657	8.3
Drove wrong way	57	0.1	1	0.5	19	0.2	24	0.3
Drove left of center	300	0.8	11	5.8	105	1.2	94	1.2
Improper passing	190	0.5	1	0.5	18	0.2	51	0.6
Improper lane use	1,118	2.8	1	0.5	97	1.1	477	6.1
Improper turn	630	1.6	5	2.6	106	1.2	275	3.5
Improper/no signal	61	0.2	0	0.0	13	0.1	14	0.2
Improper backing	1,014	2.6	0	0.0	13	0.1	218	2.8
Unable to stop in assured clear distance	4,100	10.3	5	2.6	1,076	12.2	1,874	23.8
Reckless driving	30	0.1	0	0.0	14	0.2	18	0.2
Careless/negligent driving	700	1.8	5	2.6	247	2.8	293	3.7
Other	1,500	3.8	13	6.8	335	3.8	306	3.9
Unknown	1,965	5.0	20	10.5	460	5.2	110	1.4
Total Drivers	39,656	100.0	191	100.0	8,803	100.0	7,884	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. In fatal crashes, elderly drivers have a significantly higher incidence of failed to yield as a hazardous action.

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	3,488	8.8	20	10.5	795	9.0
Monday	5,856	14.8	32	16.8	1,254	14.2
Tuesday	6,115	15.4	34	17.8	1,336	15.2
Wednesday	6,435	16.2	30	15.7	1,429	16.2
Thursday	6,224	15.7	22	11.5	1,388	15.8
Friday	6,926	17.5	29	15.2	1,528	17.4
Saturday	4,612	11.6	24	12.6	1,073	12.2
Total Drivers	39,656	100.0	191	100.0	8,803	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	23,123	58.3	137	71.7	4,964	56.4
Female	16,510	41.6	54	28.3	3,839	43.6
Unknown	23	0.1	0	0.0	0	0.0
Total Drivers	39,656	100.0	191	100.0	8,803	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	29,429	74.2	133	69.6	6,157	69.9
2 occupants	8,299	20.9	49	25.7	2,155	24.5
3 occupants	916	2.3	7	3.7	276	3.1
4 occupants	323	0.8	2	1.0	74	0.8
5 occupants	87	0.2	0	0.0	25	0.3
6 + occupants	96	0.2	0	0.0	30	0.3
0 occupants	121	0.3	0	0.0	10	0.1
Unknown	385	1.0	0	0.0	76	0.9
Total Drivers	39,656	100.0	191	100.0	8,803	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	30,130	76.0	132	69.1	6,724	76.4
Van and Motorhome	3,128	7.9	16	8.4	733	8.3
Pickup	4,623	11.7	23	12.0	911	10.3
Small Truck (under 10,000 lbs.)	1,043	2.6	3	1.6	220	2.5
Motorcycle	125	0.3	8	4.2	91	1.0
Moped	14	0.0	1	0.5	9	0.1
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	6	0.0	1	0.5	5	0.1
Off Road Vehicle	5	0.0	0	0.0	3	0.0
Other	67	0.2	4	2.1	14	0.2
Unknown	82	0.2	0	0.0	20	0.2
CDL Truck/Bus (breakdown below)	433	1.1	3	1.6	73	0.8
Total Number of Drivers	39,656	100.0	191	100.0	8,803	100.0

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	214	49.4	2	66.7	44	60.3
Commercial Vehicle: Group B	110	25.4	1	33.3	18	24.7
Commercial Vehicle: Group C	31	7.2	0	0.0	4	5.5
Other Truck	18	4.2	0	0.0	1	1.4
Unknown Truck	60	13.9	0	0.0	6	8.2
Total Number of Drivers	433	100.0	3	100.0	73	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/Drug

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

Alcohol and/or drug use affects the judgment and behavior of persons in addition to motor vehicle drivers. Consider the experience of impaired bicyclists, pedestrians, motorcyclists, snowmobilers, and ORV/ATV riders when looking at crash statistics.

BICYCLIST

	Total	Crashes Involving Drinking, not drugs		Crashes Involving Drugs, not drinking		Crashes Involving Drinking & Drugs		Total Crashes Involving Drinking and/or Drugs	
		Bicyclist in crash	Bicyclist drinking	Bicyclist in crash	Bicyclist drugged	Bicyclist in crash	Bicyclist drink & drug	Bicyclist in crash	Bicyclist drink &/or drug
Bicyclists In Crashes	2,214	102	75	5	3	7	4	114	82
Bicyclists Killed	17	7	3	0	0	2	2	9	5
Bicyclists Injured	1,760	77	57	4	2	5	2	86	61

DRIVER

	Total	Crashes Involving Drinking, not drugs		Crashes Involving Drugs, not drinking		Crashes Involving Drinking & Drugs		Total Crashes Involving Drinking and/or Drugs	
		Driver in crash	Driver drinking	Driver in crash	Driver drugged	Driver in crash	Driver drink & drug	Driver in crash	Driver drink &/or drug
Drivers In Crashes	537,228	16,885	11,382	1,460	856	1,059	677	19,404	12,915
Drivers Killed	685	167	145	27	30	40	31	234	206
Drivers Injured	57,813	4,444	3,380	445	302	331	255	5,220	3,937

MOTORCYCLIST

	Total	Crashes Involving Drinking, not drugs		Crashes Involving Drugs, not drinking		Crashes Involving Drinking & Drugs		Total Crashes Involving Drinking and/or Drugs	
		Motorcyclist in crash	Motorcyclist drinking	Motorcyclist in crash	Motorcyclist drugged	Motorcyclist in crash	Motorcyclist drink & drug	Motorcyclist in crash	Motorcyclist drink &/or drug
Motorcyclists In Crashes	4,215	345	297	21	19	21	18	387	334
Motorcyclists Killed	120	22	20	7	8	7	6	36	34
Motorcyclists Injured	3,026	282	249	13	10	13	11	308	270

ROADWAY INJURY EXPERIENCE FOR PERSONS WHO HAD BEEN DRINKING AND/OR USING DRUGS (continued)

ORV/ATV RIDER

	Total	Crashes Involving Drinking, not drugs		Crashes Involving Drugs, not drinking		Crashes Involving Drinking & Drugs		Total Crashes Involving Drinking and/or Drugs	
		ORV/ATV Rider in crash	ORV/ATV Rider drinking	ORV/ATV Rider in crash	ORV/ATV Rider drugged	ORV/ATV Rider in crash	ORV/ATV Rider drink & drug	ORV/ATV Rider in crash	ORV/ATV Rider drink &/or drug
ORV/ATV Riders In Crashes	282	54	52	0	0	5	5	59	57
ORV/ATV Riders Killed	8	6	6	0	0	1	1	7	7
ORV/ATV Riders Injured	209	43	41	0	0	4	4	47	45

PEDESTRIAN

	Total	Crashes Involving Drinking, not drugs		Crashes Involving Drugs, not drinking		Crashes Involving Drinking & Drugs		Total Crashes Involving Drinking and/or Drugs	
		Pedestrian in crash	Pedestrian drinking	Pedestrian in crash	Pedestrian drugged	Pedestrian in crash	Pedestrian drink & drug	Pedestrian in crash	Pedestrian drink &/or drug
Pedestrians In Crashes	2,437	236	165	12	5	16	11	264	181
Pedestrians Killed	134	45	36	2	2	8	6	55	44
Pedestrians Injured	2,013	176	118	10	3	8	5	194	126

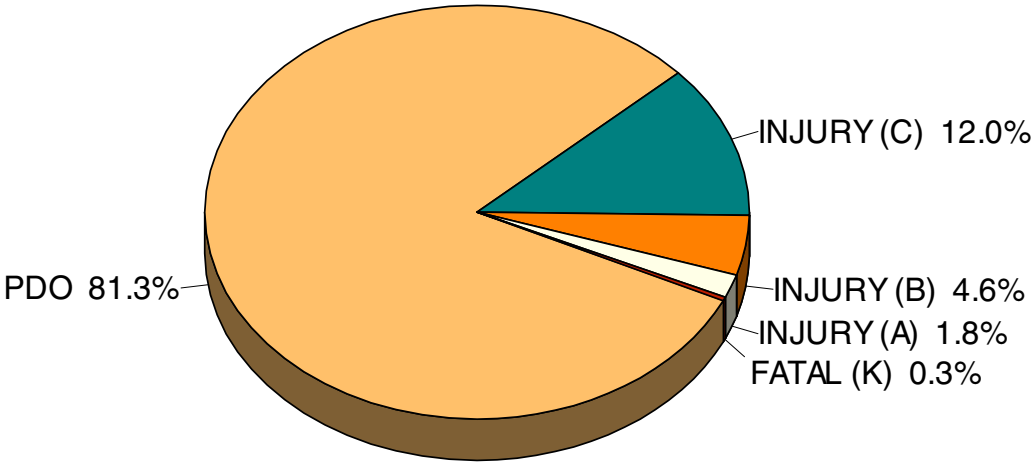
SNOWMOBILER

	Total	Crashes Involving Drinking, not drugs		Crashes Involving Drugs, not drinking		Crashes Involving Drinking & Drugs		Total Crashes Involving Drinking and/or Drugs	
		Snowmobiler in crash	Snowmobiler drinking	Snowmobiler in crash	Snowmobiler drugged	Snowmobiler in crash	Snowmobiler drink & drug	Snowmobiler in crash	Snowmobiler drink &/or drug
Snowmobilers In Crashes	243	46	38	1	1	0	0	47	39
Snowmobilers Killed	8	6	6	0	0	0	0	6	6
Snowmobilers Injured	145	25	23	0	0	0	0	25	23

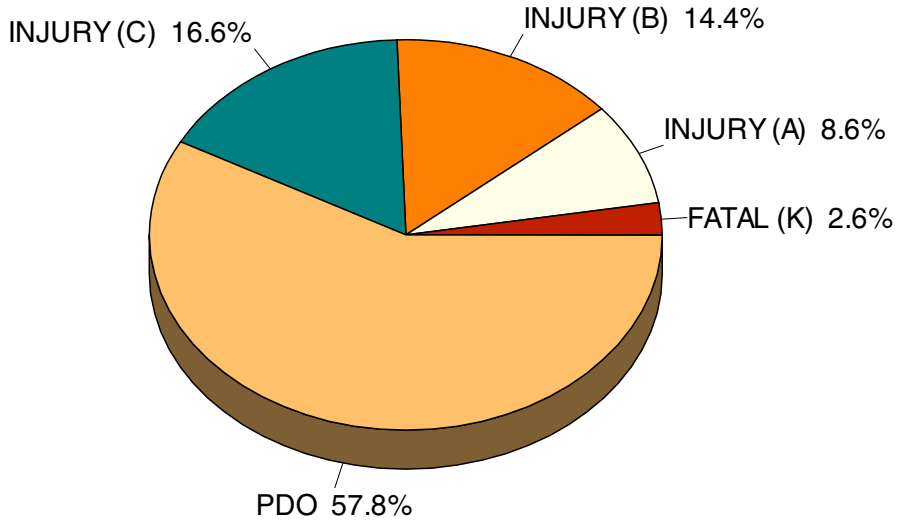
DRIVER DRINKING AND/OR USING DRUGS AND INJURY SEVERITY IN CRASH BY AGE

AGE OF DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH											
	All Crashes				Fatal				Injury			
	Drinking Only	Drug Only	Both	Total	Drinking Only	Drug Only	Both	Total	Drinking Only	Drug Only	Both	Total
13 years & under	3	2	1	6	1	0	0	1	0	2	0	2
14 years	1	1	0	2	0	0	0	0	0	0	0	0
15 years	11	3	1	15	0	0	0	0	5	1	0	6
16 years	59	3	1	63	0	0	0	0	22	2	0	24
17 years	155	14	14	183	1	1	0	2	66	9	7	82
18 years	303	33	23	359	4	3	3	10	121	22	8	151
19 years	389	31	20	440	7	1	3	11	160	12	11	183
20 years	377	33	27	437	9	3	1	13	153	13	21	187
21 - 24 years	2,205	100	100	2,405	43	4	9	56	835	46	49	930
25 - 34 years	2,876	196	143	3,215	53	6	8	67	1,113	82	63	1,258
35 - 44 years	2,274	190	155	2,619	55	7	11	73	872	88	63	1,023
45 - 54 years	1,758	153	131	2,042	36	8	7	51	702	54	55	811
55 - 64 years	642	77	41	760	18	6	0	24	250	41	12	303
65 - 69 years	137	6	3	146	3	1	0	4	60	2	1	63
70 - 74 years	65	0	6	71	5	0	0	5	25	0	1	26
75 - 79 years	38	5	4	47	0	1	0	1	16	2	1	19
80 - 84 years	10	0	1	11	0	0	0	0	5	0	1	6
85 - 89 years	1	0	0	1	0	0	0	0	0	0	0	0
90 years & over	0	0	1	1	0	0	0	0	0	0	0	0
Unknown	78	9	5	92	1	0	0	1	21	1	2	24
Total	11,382	856	677	12,915	236	41	42	319	4,426	377	295	5,098

ALL CRASHES BY INJURY SEVERITY



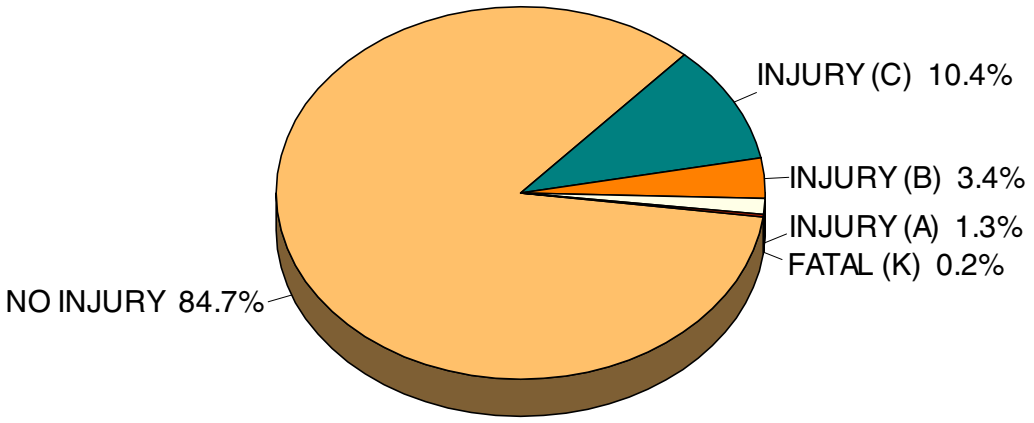
HBD CRASHES BY INJURY SEVERITY



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

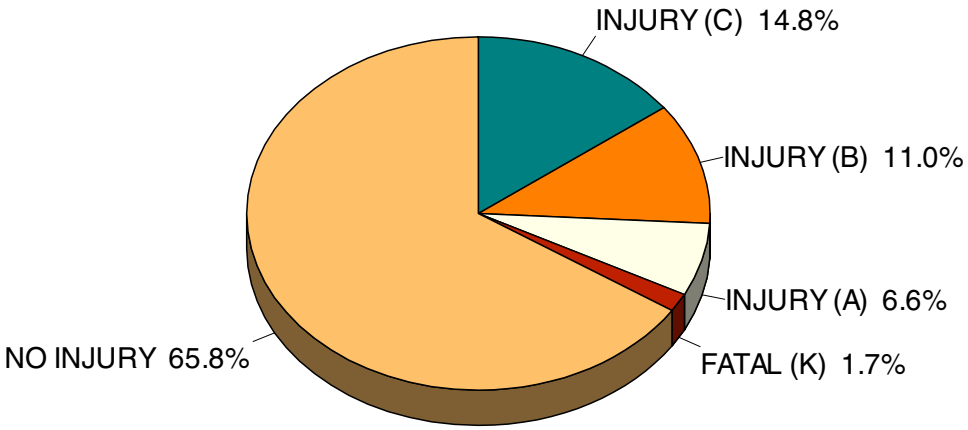
DEATH & INJURY FOR CRASH INVOLVED OCCUPANTS

Occupants in Crashes



The majority of occupants involved in crashes are not injured (84.7%). Two thirds of those who are injured receive only minor (C) injuries.

Occupants in HBD Crashes

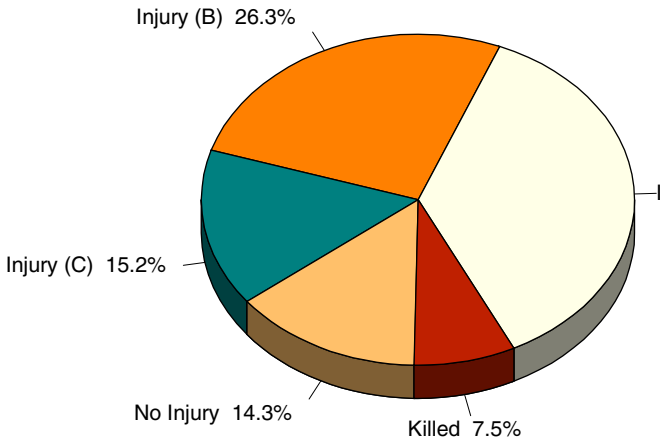


Crashes involving drinking tend to be more serious than nondrinking crashes. The percentage of occupant fatalities is eight and a half times higher than in all crashes and the most serious injury level (A) is five times higher.

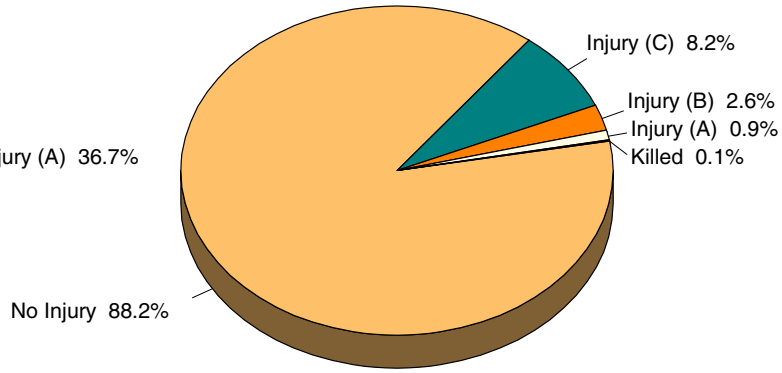
ALL DRIVERS and *HBD DRIVERS*
INJURY SEVERITY - EJECTED vs. NOT EJECTED

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

Ejected

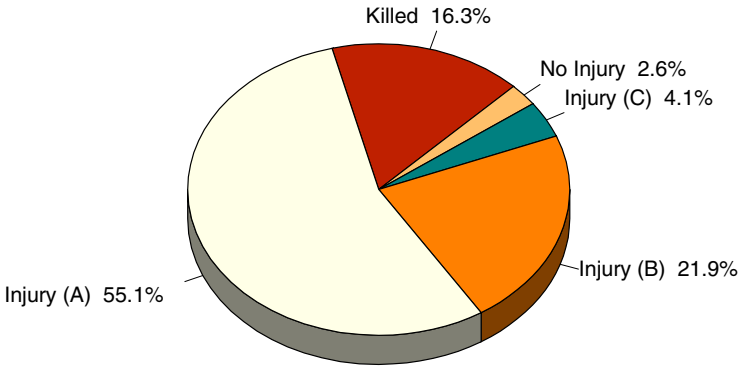


Not Ejected

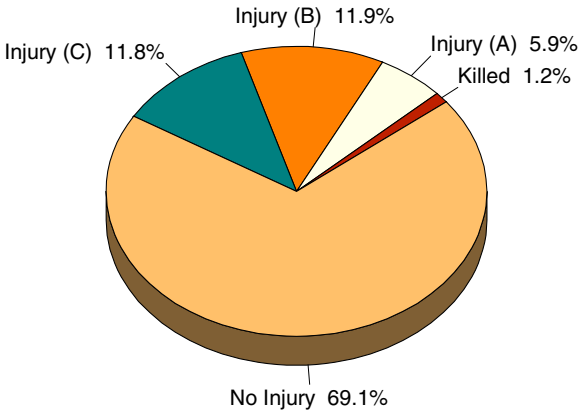


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for drivers who had been drinking in both ejected and non-ejected events.

HBD Ejected



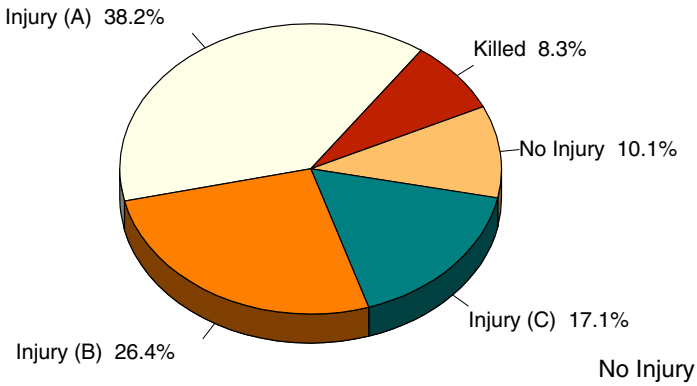
HBD Not Ejected



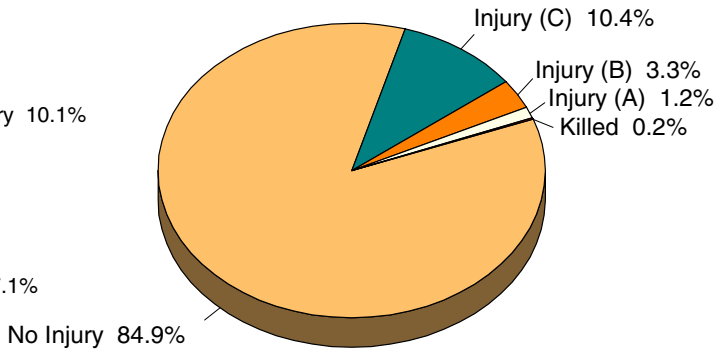
ALL OCCUPANTS and *OCCUPANTS of HBD CRASHES*
INJURY SEVERITY - EJECTED vs. NOT EJECTED

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

Ejected

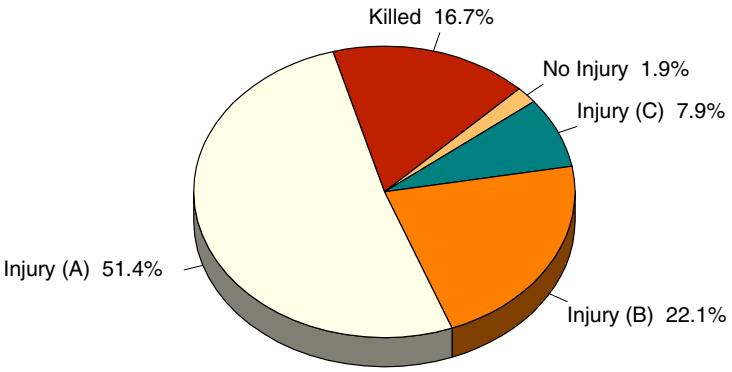


Not Ejected

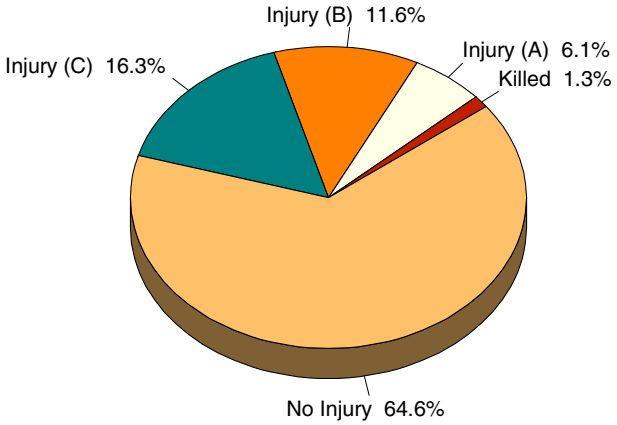


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for occupants in a crash where drinking is reported in both ejected and non-ejected events.

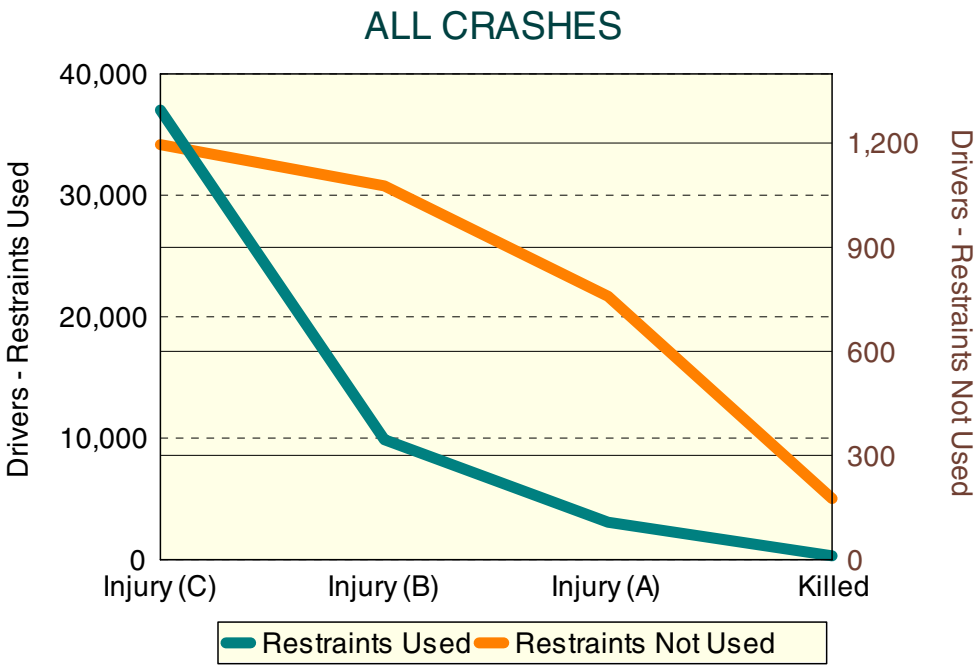
HBD Ejected

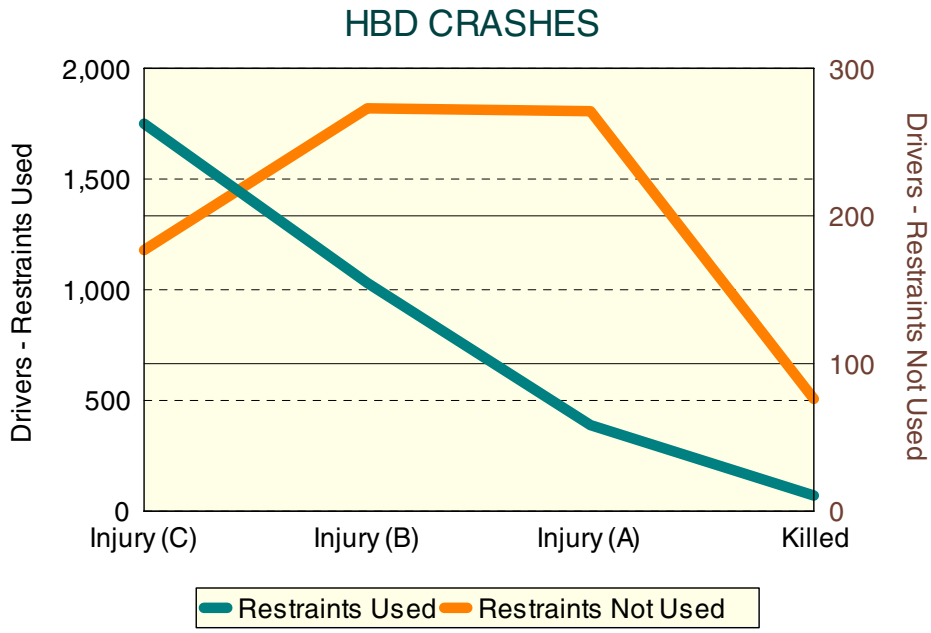


HBD Not Ejected

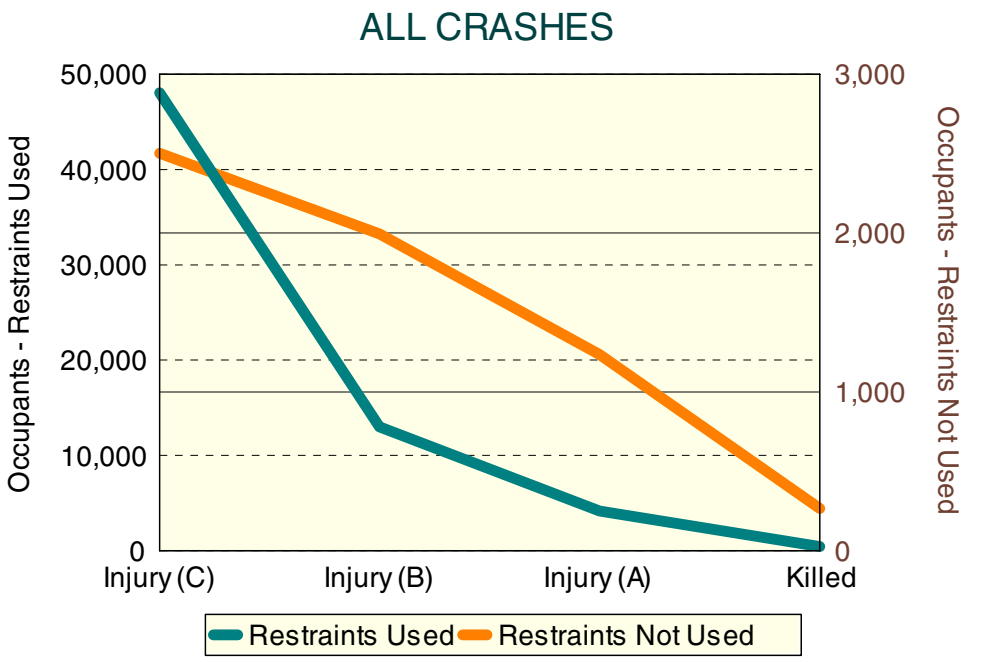


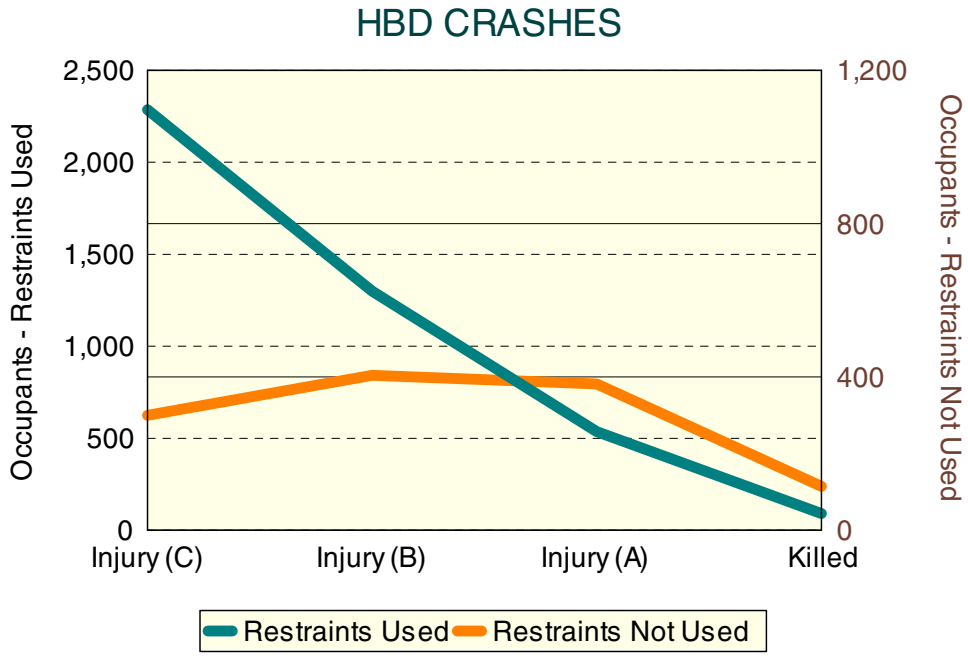
INJURY SEVERITY & RESTRAINT USE FOR CRASH INVOLVED KABC *DRIVERS*





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

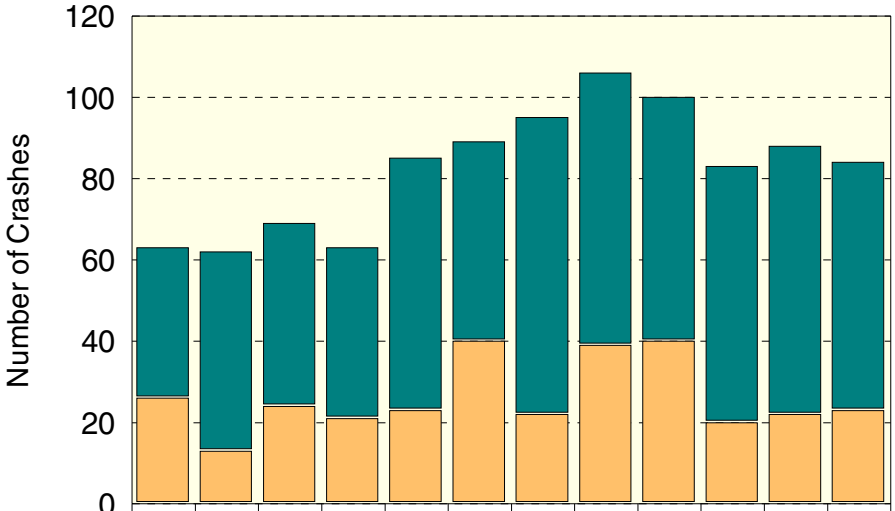




ALCOHOL INVOLVEMENT IN FATAL CRASHES

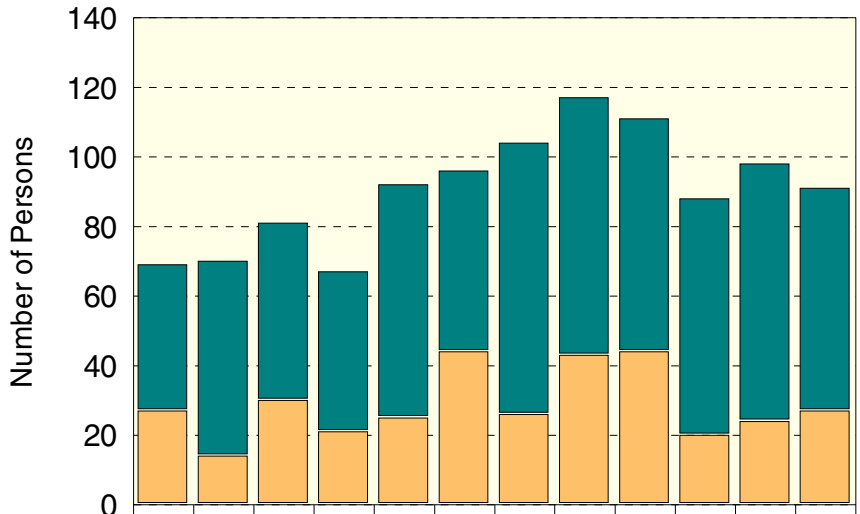
Fatal crashes (total of non-HBD and HBD fatal crashes) were lowest during January, February and April. The number of fatal crashes reached highest levels in August and September. The number of HBD fatal crashes follows the overall trend, with the highest number of HBD fatal crashes in June and September.

HBD Fatal Crashes by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Non-HBD Fatal Crashes	37	49	45	42	62	49	73	67	60	63	66	61	674
HBD Fatal Crashes	26	13	24	21	23	40	22	39	40	20	22	23	313

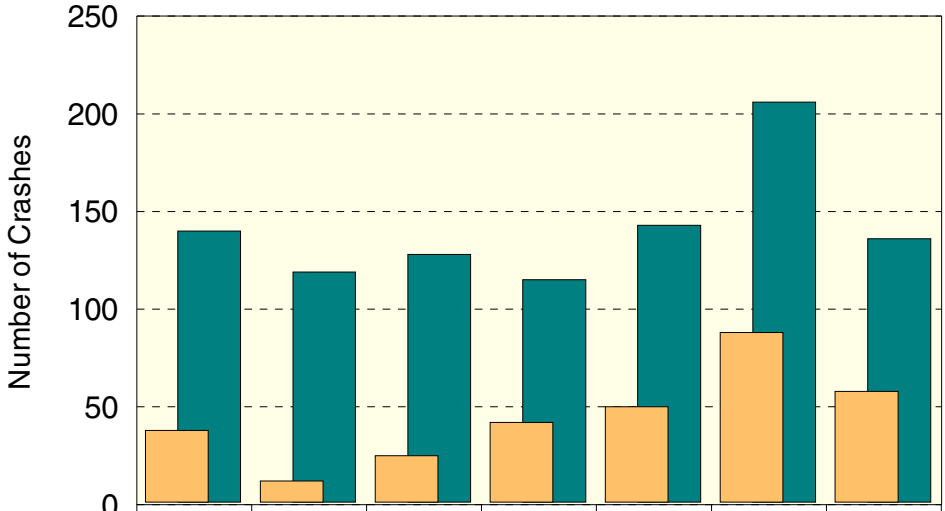
Alcohol-related Fatalities by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Nonalcohol-related Fatalities	42	56	51	46	67	52	78	74	67	68	74	64	739
Alcohol-related Fatalities	27	14	30	21	25	44	26	43	44	20	24	27	345

NOTE: An alcohol-related fatality is any person killed in an HBD crash.

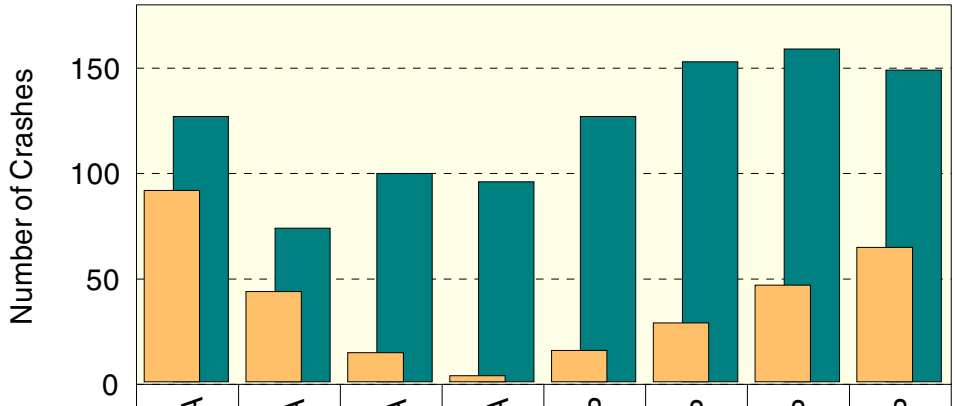
HBD Fatal Crashes by Day of Week



	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
HBD Fatal Crashes	38	12	25	42	50	88	58	313
All Fatal Crashes	140	119	128	115	143	206	136	987

Friday and Saturday had the most fatal crashes and Saturday and Sunday had the highest proportions of drinking-related fatal crashes in 2007. 42.7 percent of the fatal crashes on Saturday involved drinking, while only 10.1 percent of fatal crashes on Tuesday involved drinking.

HBD Fatal Crashes by Time of Day



	12:00-2:59 A	3:00-5:59 A	6:00-8:59 A	9:00-11:59 A	12:00-2:59 P	3:00-5:59 P	6:00-8:59 P	9:00-11:59 P	Totals
HBD Fatal Crashes	92	44	15	4	16	29	47	65	313
All Fatal Crashes	127	74	100	96	127	153	159	149	987

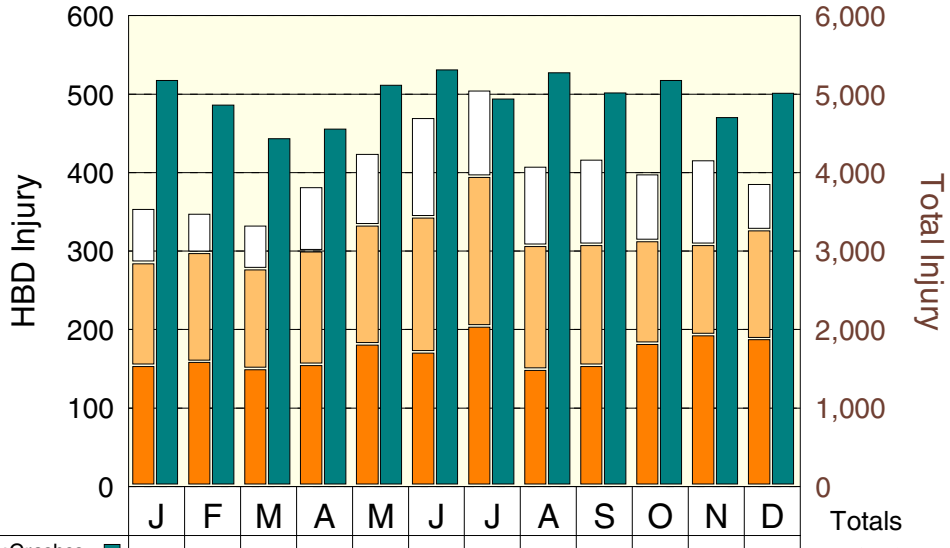
Not surprisingly, the 9:00 PM to 11:59 PM, midnight to 2:59 AM, and 3:00 AM to 5:59 AM time periods had the highest rate of drinking involvement (43.6%, 72.4% and 59.5%), while the late morning hours had the lowest (4.2%).

There were 2 fatal crashes (including 1 HBD crash) where the time of day was unknown.

ALCOHOL INVOLVEMENT IN INJURY CRASHES

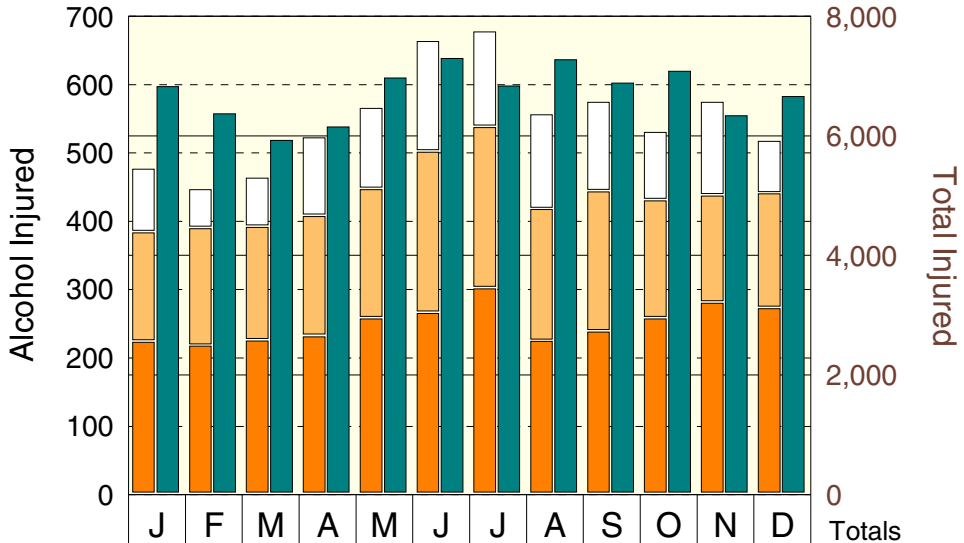
Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2007, the highest number of HBD injury crashes occurred in July with 504. The highest proportion of HBD injury crashes also occurred in July with 10.2 percent of the injury crashes in that month involving alcohol.

HBD Injury Crashes by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Total Injury Crashes	5,173	4,860	4,433	4,554	5,110	5,310	4,936	5,273	5,014	5,174	4,701	5,012	59,550
A Injury - HBD Crashes	69	50	56	82	91	127	110	101	109	85	108	59	1,047
B Injury - HBD Crashes	131	139	127	145	152	172	191	158	154	131	115	139	1,754
C Injury - HBD Crashes	153	158	149	154	180	170	203	148	153	181	192	187	2,028

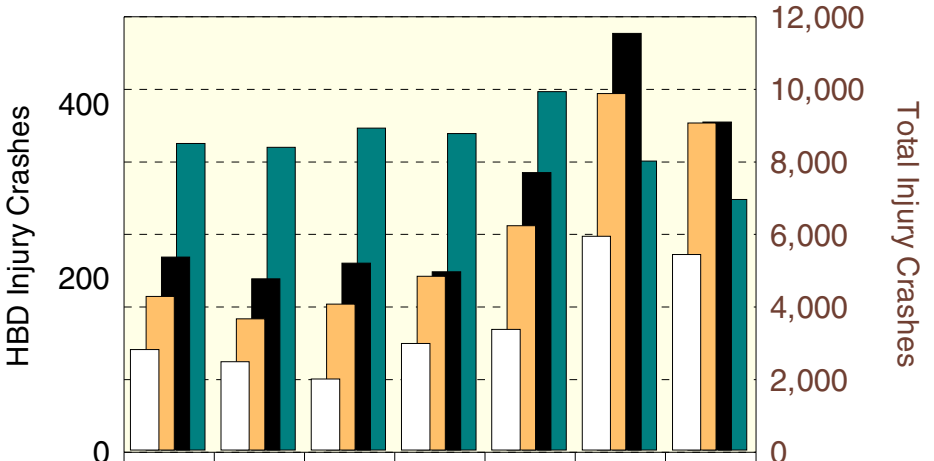
Alcohol-related Injuries by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Total Persons Injured	6,822	6,365	5,927	6,146	6,970	7,292	6,835	7,269	6,879	7,076	6,335	6,660	80,576
Alcohol-related A Injury	93	57	72	115	119	162	140	139	131	100	137	77	1,342
Alcohol-related B Injury	160	172	166	176	189	236	236	193	205	173	157	168	2,231
Alcohol-related C Injury	223	217	225	231	257	265	301	224	238	257	280	272	2,990

NOTE: An alcohol-related injury is any person injured in an HBD crash.

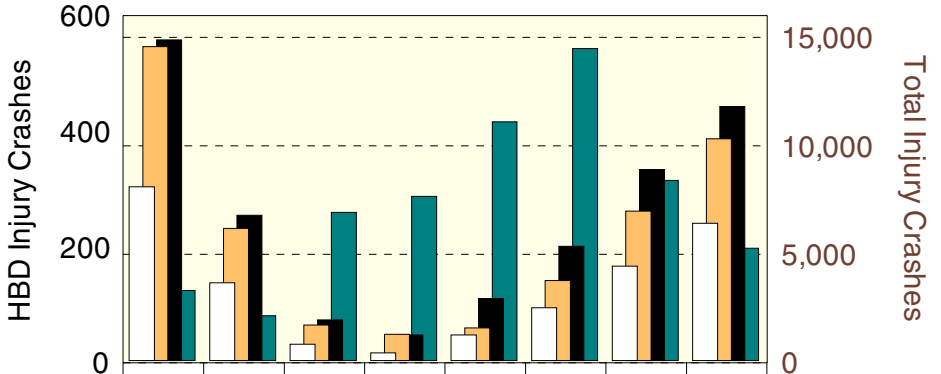
HBD Injury Crashes by Day of Week



	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
A Injury - HBD	118	104	84	125	141	248	227	1,047
B Injury - HBD	179	153	170	202	260	412	378	1,754
C Injury - HBD	224	199	217	207	321	481	379	2,028
Total Injury Crashes	8,510	8,403	8,934	8,782	9,934	8,024	6,963	59,550

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

HBD Injury Crashes by Time of Day



	12:00-2:59 A	3:00-5:59 A	6:00-8:59 A	9:00-11:59 A	12:00-2:59 P	3:00-5:59 P	6:00-8:59 P	9:00-11:59 P	Totals
A Injury - HBD	304	138	32	17	48	95	167	241	1,047
B Injury - HBD	546	232	65	49	60	142	262	387	1,754
C Injury - HBD	558	255	74	48	111	201	334	443	2,028
Total Injury Crashes	3,329	2,158	6,935	7,655	11,103	14,484	8,408	5,272	59,550

Total injury crash frequencies peak in the hours between 3:00 PM and 5:59 PM, while HBD injury crash frequencies peak between midnight and 2:59 AM (a particularly hazardous travel period). These frequencies exclude 206 injury crashes (including 20 HBD injury crashes) where time of day was unknown.

MALE DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Male Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	213	0.1	1	0.1	20	30	35	127
14 years	102	0.0	1	0.1	12	12	15	62
15 years	431	0.2	6	0.6	16	42	58	309
16 years	6,015	2.2	17	1.6	127	355	792	4,724
17 years	8,108	2.9	23	2.1	151	417	1,088	6,429
18 years	9,206	3.3	37	3.4	195	546	1,238	7,190
19 years	8,524	3.1	29	2.7	193	470	1,151	6,681
20 years	7,532	2.7	28	2.6	143	443	982	5,936
21 - 24 years	26,322	9.5	109	10.0	559	1,454	3,385	20,815
25 - 34 years	50,328	18.1	207	19.0	1,054	2,549	6,471	40,047
35 - 44 years	51,497	18.6	185	17.0	1,041	2,350	6,569	41,352
45 - 54 years	48,250	17.4	166	15.2	985	2,146	6,251	38,702
55 - 64 years	31,446	11.3	142	13.0	627	1,413	4,044	25,220
65 - 69 years	8,271	3.0	29	2.7	176	400	1,133	6,533
70 - 74 years	5,626	2.0	28	2.6	111	289	757	4,441
75 - 79 years	4,506	1.6	36	3.3	96	268	626	3,480
80 - 84 years	3,010	1.1	24	2.2	67	180	463	2,276
85 - 89 years	1,321	0.5	14	1.3	27	90	180	1,010
90 years and over	389	0.1	6	0.6	11	26	64	282
Unknown	6,256	2.3	2	0.2	55	181	722	5,296
Total	277,353	100.0	1,090	100.0	5,666	13,661	36,024	220,912

NOTE: Gender tables exclude 40,094 drivers of unknown gender.

MALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Male Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	2	0.0	1	0.4	0	0	0	1
14 years	1	0.0	0	0.0	0	0	0	1
15 years	6	0.1	0	0.0	0	2	1	3
16 years	36	0.4	0	0.0	4	6	2	24
17 years	123	1.4	1	0.4	14	23	16	69
18 years	237	2.6	7	3.0	19	40	33	138
19 years	310	3.4	9	3.9	26	45	50	180
20 years	306	3.4	9	3.9	36	55	49	157
21 - 24 years	1,770	19.5	41	17.6	128	274	278	1,049
25 - 34 years	2,299	25.3	49	21.0	219	347	355	1,329
35 - 44 years	1,771	19.5	56	24.0	159	236	294	1,026
45 - 54 years	1,411	15.5	34	14.6	128	204	241	804
55 - 64 years	558	6.1	17	7.3	53	75	98	315
65 - 69 years	118	1.3	3	1.3	9	12	29	65
70 - 74 years	58	0.6	5	2.1	10	6	5	32
75 - 79 years	35	0.4	0	0.0	6	7	3	19
80 - 84 years	8	0.1	0	0.0	0	1	4	3
85 - 89 years	0	0.0	0	0.0	0	0	0	0
90 years and over	0	0.0	0	0.0	0	0	0	0
Unknown	46	0.5	1	0.4	2	3	9	31
Total	9,095	100.0	233	100.0	813	1,336	1,467	5,246

NOTE: Gender/alcohol tables exclude 36 unknown gender drinking drivers.

FEMALE DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Female Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	96	0.0	0	0.0	5	13	9	69
14 years	82	0.0	0	0.0	7	8	12	55
15 years	365	0.2	1	0.2	14	16	51	283
16 years	5,235	2.4	11	2.6	93	297	808	4,026
17 years	7,186	3.3	11	2.6	125	409	1,185	5,456
18 years	7,529	3.4	15	3.6	134	435	1,192	5,753
19 years	7,136	3.2	10	2.4	109	370	1,130	5,517
20 years	6,706	3.1	18	4.3	115	320	1,064	5,189
21 - 24 years	22,613	10.3	47	11.3	380	1,030	3,517	17,639
25 - 34 years	42,160	19.2	66	15.8	653	1,778	6,761	32,902
35 - 44 years	41,598	18.9	78	18.7	664	1,639	6,537	32,680
45 - 54 years	37,230	16.9	54	12.9	593	1,477	5,755	29,351
55 - 64 years	22,548	10.3	49	11.8	333	893	3,603	17,670
65 - 69 years	5,663	2.6	9	2.2	103	243	935	4,373
70 - 74 years	3,755	1.7	14	3.4	62	180	613	2,886
75 - 79 years	3,384	1.5	14	3.4	75	170	534	2,591
80 - 84 years	2,335	1.1	13	3.1	56	162	331	1,773
85 - 89 years	1,116	0.5	3	0.7	30	72	205	806
90 years and over	257	0.1	1	0.2	3	19	46	188
Unknown	2,787	1.3	3	0.7	24	74	306	2,380
Total	219,781	100.0	417	100.0	3,578	9,605	34,594	171,587

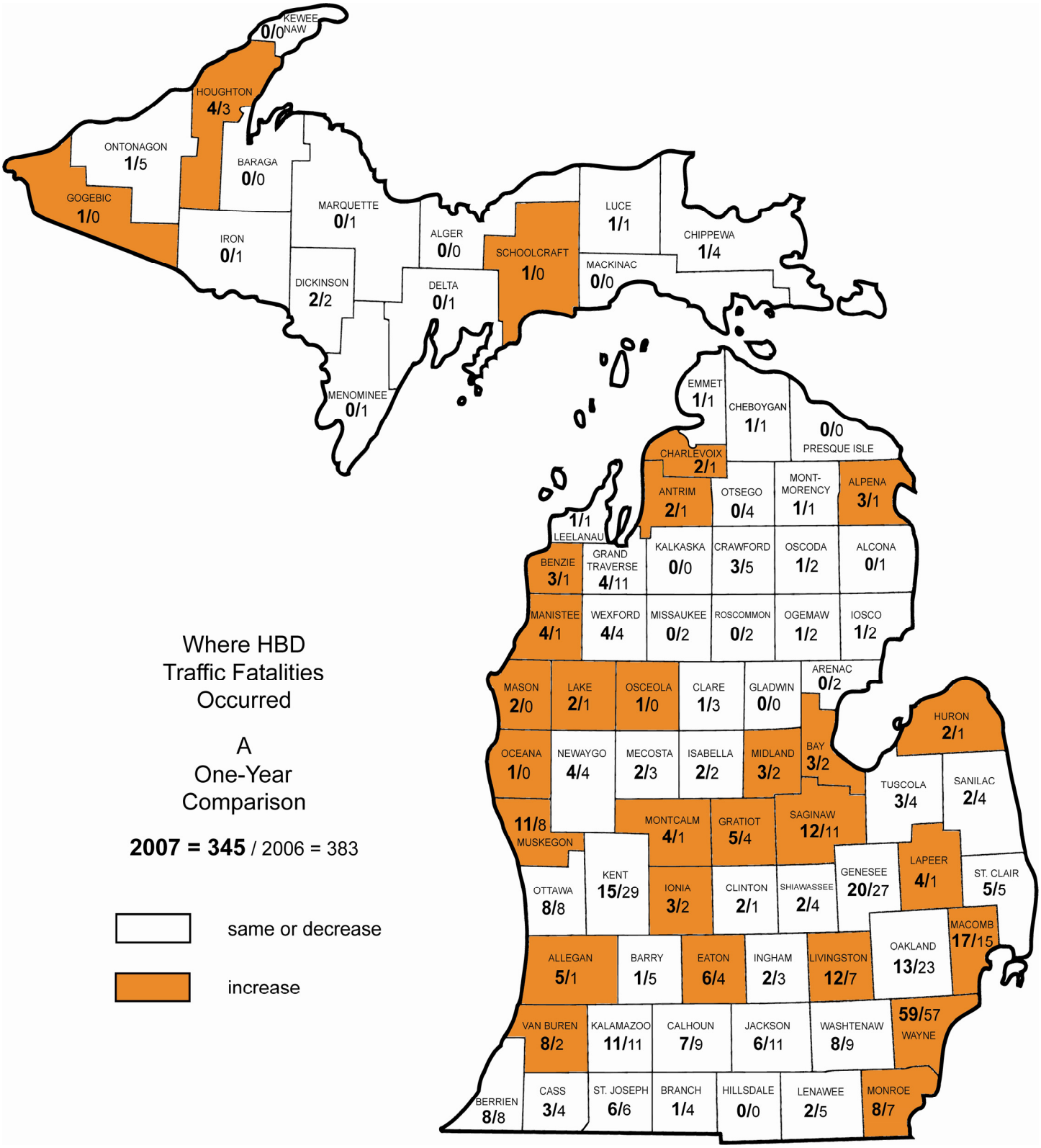
NOTE: Gender tables exclude 40,094 drivers of unknown gender.

FEMALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Female Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	1	0.0	0	0.0	0	0	0	1
14 years	0	0.0	0	0.0	0	0	0	0
15 years	6	0.2	0	0.0	1	0	1	4
16 years	24	0.8	0	0.0	4	1	5	14
17 years	46	1.6	0	0.0	4	7	9	26
18 years	89	3.0	0	0.0	11	11	15	52
19 years	99	3.4	1	2.2	9	20	21	48
20 years	98	3.3	1	2.2	4	13	17	63
21 - 24 years	535	18.3	11	24.4	43	67	94	320
25 - 34 years	719	24.6	12	26.7	43	91	121	452
35 - 44 years	658	22.5	10	22.2	47	76	123	402
45 - 54 years	477	16.3	9	20.0	32	62	90	284
55 - 64 years	125	4.3	1	2.2	5	8	23	88
65 - 69 years	22	0.8	0	0.0	0	3	8	11
70 - 74 years	13	0.4	0	0.0	1	0	4	8
75 - 79 years	7	0.2	0	0.0	0	0	1	6
80 - 84 years	3	0.1	0	0.0	0	0	1	2
85 - 89 years	1	0.0	0	0.0	0	0	0	1
90 years and over	1	0.0	0	0.0	0	0	0	1
Unknown	4	0.1	0	0.0	0	0	0	4
Total	2,928	100.0	45	100.0	204	359	533	1,787

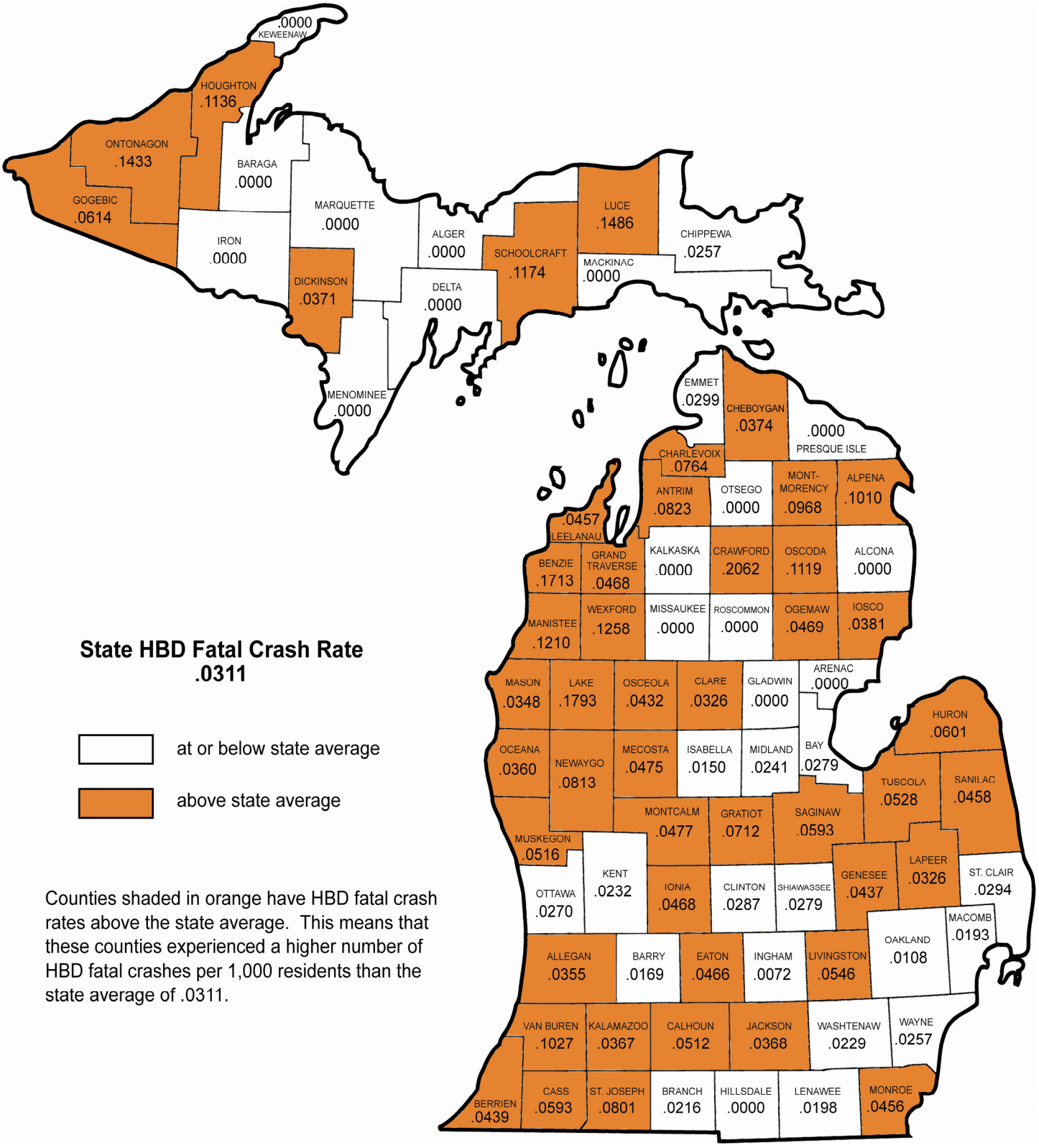
NOTE: Gender/alcohol tables exclude 36 unknown gender drinking drivers.

TRAFFIC FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY



MICHIGAN OHSP Office of Highway Safety Planning

COUNTY RANKING
BY HBD FATAL CRASH RATE



State HBD Fatal Crash Rate
.0311

at or below state average

above state average

Counties shaded in orange have HBD fatal crash rates above the state average. This means that these counties experienced a higher number of HBD fatal crashes per 1,000 residents than the state average of .0311.

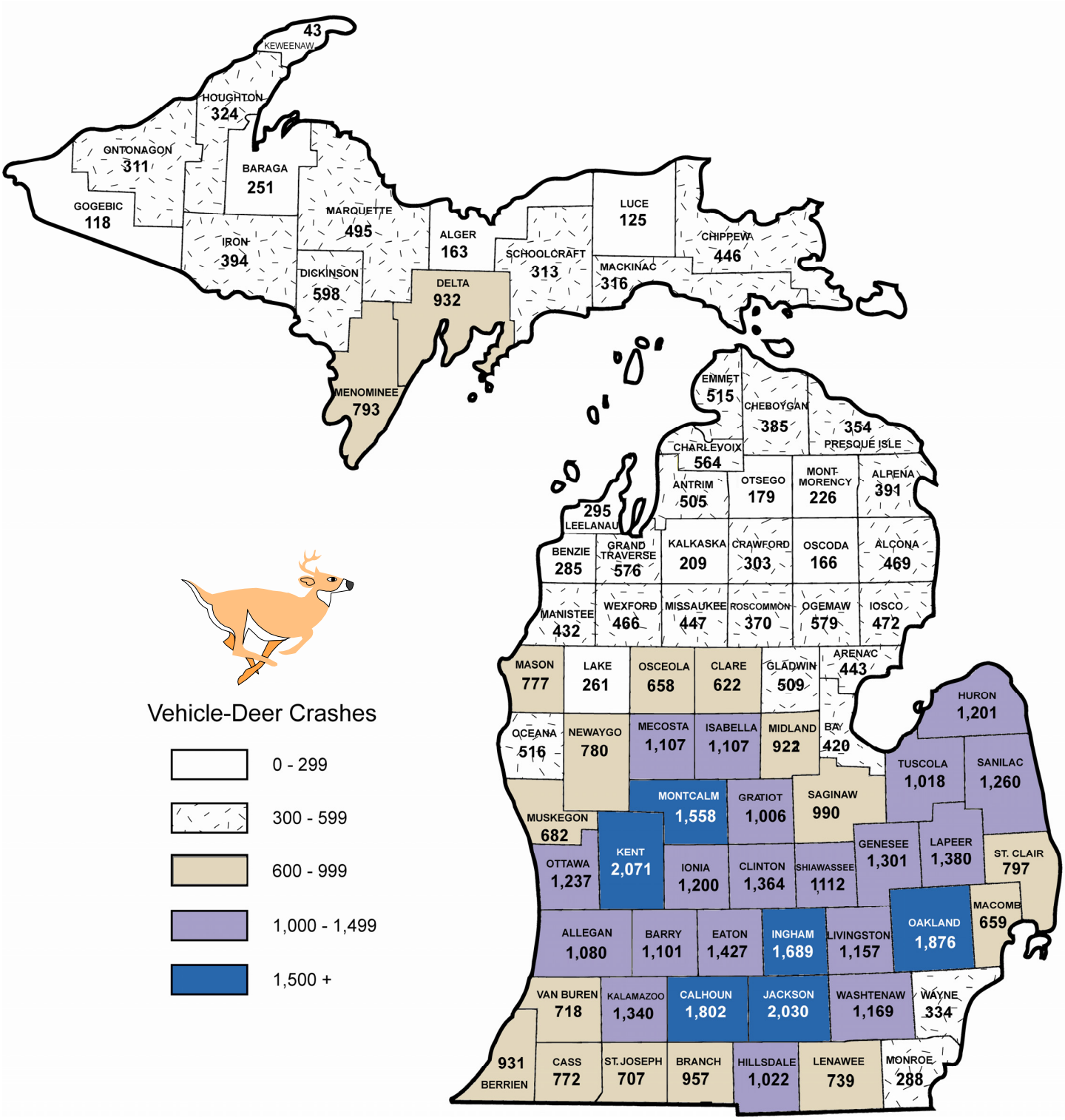
2007
2007
2007
2007
2007
2007
2007
2007
2007
2007

Deer

MICHIGAN MOTOR VEHICLE-DEER INVOLVED CRASHES

Michigan had 61,907 reported motor vehicle-deer crashes during 2007. 1,614 people were injured and 11 people were killed as a result of those collisions. Of the 62,134 vehicles involved, 41,327 (66.5%) were passenger cars, 13,135 (21.1%) were pickups, and 4,347 (7.0%) were minivans, vans, and motorhomes. All other vehicle types (including motorcycle, snowmobile, ORV/ATV, large truck, moped) totaled 3,325 (5.4%).

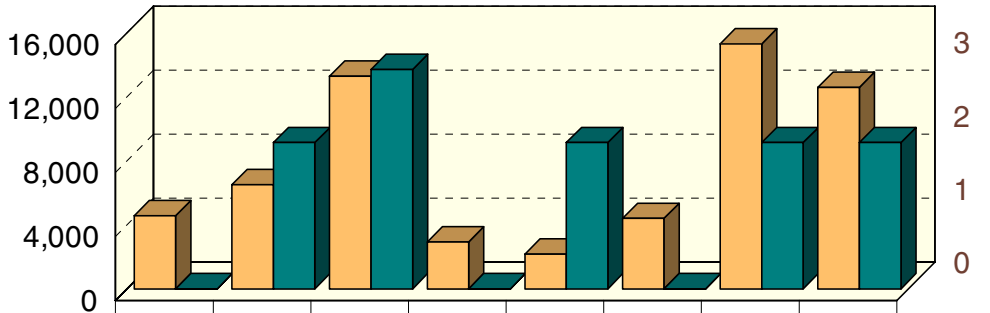
Motor vehicle-deer crashes occurred most often in Michigan's southern, heavily populated counties; Kent County had the highest number with 2,071 such crashes in 2007.



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	12,833	20.7	4	36.4	38	198	239	12,354
Dawn	5,501	8.9	1	9.1	6	36	63	5,395
Dusk	3,114	5.0	2	18.2	9	24	34	3,045
Dark – Lighted	1,951	3.2	0	0.0	3	11	22	1,915
Dark – Unlighted	37,838	61.1	4	36.4	80	202	457	37,095
Other/Unknown	670	1.1	0	0.0	2	3	6	659
Total	61,907	100.0	11	100.0	138	474	821	60,463

Time and Severity of Motor Vehicle-Deer Crashes

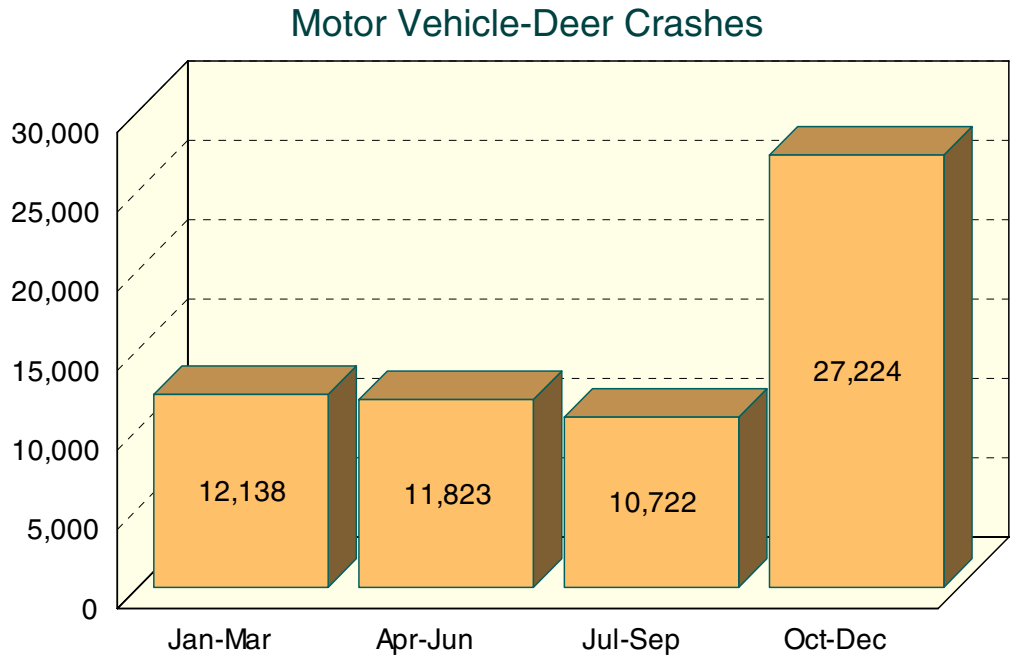


	Midnight - 2:59 AM	3:00 AM - 5:59 AM	6:00 AM - 8:59 AM	9:00 AM - 11:59 AM	Noon - 2:59 PM	3:00 PM - 5:59 PM	6:00 PM - 8:59 PM	9:00 PM - 11:59 PM	Totals
All Crashes	4,567	6,516	13,298	2,934	2,169	4,401	15,310	12,596	61,907
Fatal Crashes	0	2	3	0	2	0	2	2	11

NOTE: Time and Severity chart excludes 116 crashes where time of day is unknown.

MONTHLY AND SEASONAL RATES FOR MOTOR VEHICLE-DEER CRASHES

MONTH	All Crashes		Fatal Crashes		Injury Crashes			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	Crashes
January	5,218	8.4	0	0.0	2	14	44	5,158
February	3,429	5.5	0	0.0	2	13	29	3,385
March	3,491	5.6	0	0.0	2	18	35	3,436
April	2,917	4.7	1	9.1	4	24	31	2,857
May	4,228	6.8	1	9.1	20	41	71	4,095
June	4,678	7.6	3	27.3	28	82	76	4,489
July	3,309	5.3	2	18.2	20	50	66	3,171
August	2,895	4.7	1	9.1	13	58	54	2,769
September	4,518	7.3	1	9.1	18	48	70	4,381
October	9,375	15.1	1	9.1	12	62	142	9,158
November	11,343	18.3	1	9.1	16	51	149	11,126
December	6,506	10.5	0	0.0	1	13	54	6,438
Total	61,907	100.0	11	100.0	138	474	821	60,463

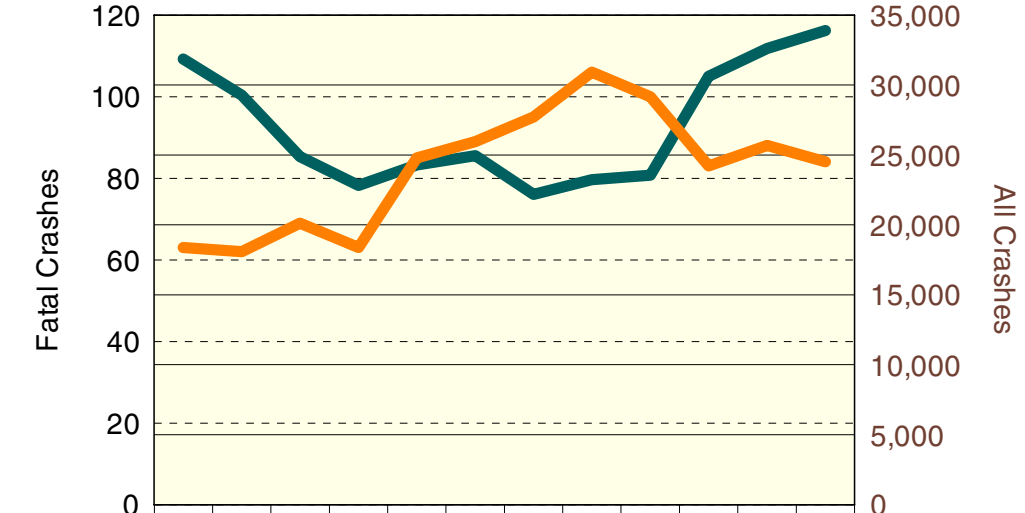


27,224 (44%) of reported motor vehicle-deer collisions occurred during the fourth quarter of the year.

Crash

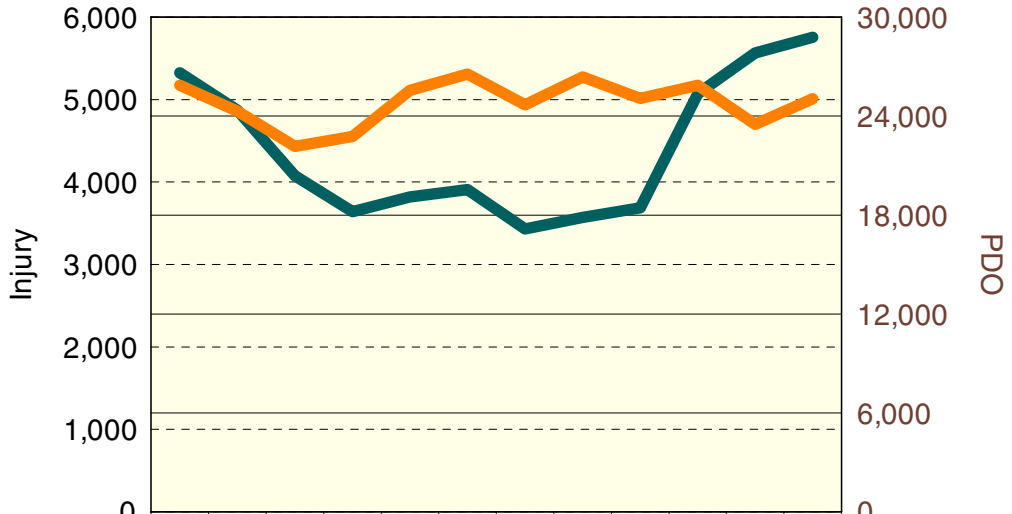
ALL CRASHES INJURY SEVERITY BY MONTH

All and Fatal Crashes



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Fatal Crashes	63	62	69	63	85	89	95	106	100	83	88	84	987
All Crashes	31,866	29,272	24,882	22,827	24,286	24,951	22,188	23,240	23,550	30,621	32,608	33,883	324,174

Injury and PDO Crashes

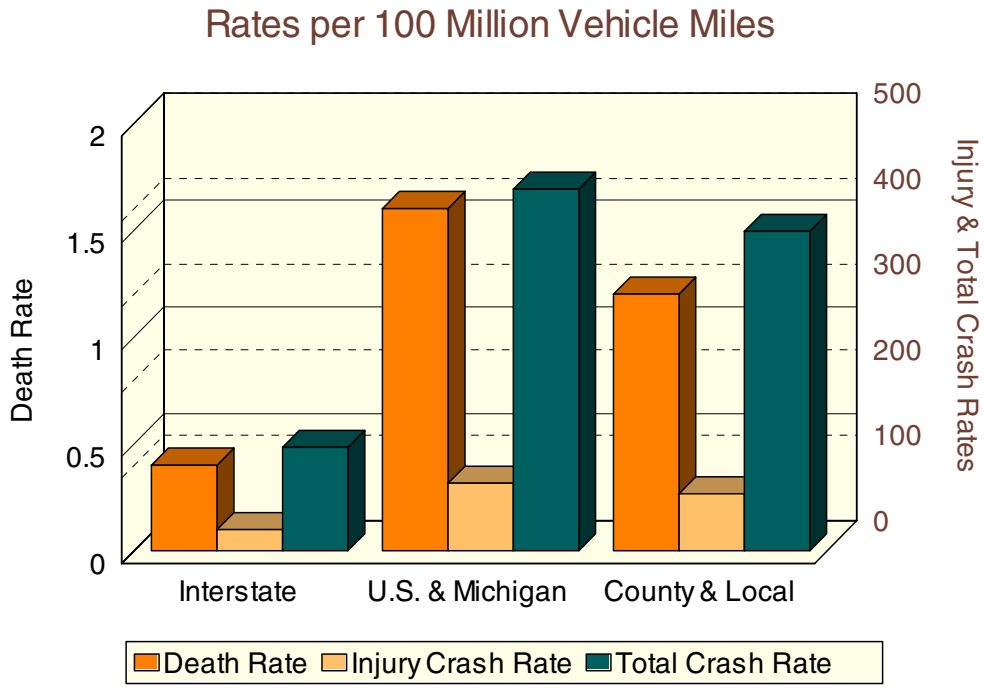


	J	F	M	A	M	J	J	A	S	O	N	D	Totals
INJURY	5,173	4,860	4,433	4,554	5,110	5,310	4,936	5,273	5,014	5,174	4,701	5,012	59,550
PDO	26,630	24,350	20,380	18,210	19,091	19,552	17,157	17,861	18,436	25,364	27,819	28,787	263,637

CRASH EXPERIENCE BY ROADWAY TYPE

The table below provides a 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. 2007 estimated mileage figures were provided by the Michigan Department of Transportation [11].

STATEWIDE	Estimated Mileage (Billions)	All Crashes	Injury Crashes	Deaths	Total Crash Rate	Injury Crash Rate	Death Rate
Interstate Routes	30.4	36,700	7,515	124	120.7	24.7	0.4
U.S. & Michigan Roads	21.1	89,214	16,674	332	422.8	79.0	1.6
County & City Roads	53.1	198,260	35,361	628	373.4	66.6	1.2
Total	104.6	324,174	59,550	1,084	309.9	56.9	1.04



CRASH TYPE

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Single Vehicle	126,198	38.9	490	49.6	2,685	6,717	9,772	106,534
Head On	4,889	1.5	139	14.1	368	534	864	2,984
Head On - Left Turn	7,771	2.4	37	3.7	333	826	1,836	4,739
Angle	55,218	17.0	188	19.0	1,326	3,209	9,171	41,324
Rear End	74,170	22.9	53	5.4	614	2,052	12,932	58,519
Rear End - Left Turn	3,035	0.9	7	0.7	51	149	578	2,250
Rear End - Right Turn	2,851	0.9	3	0.3	14	63	349	2,422
Sideswipe - Same Direction	27,983	8.6	14	1.4	168	487	1,670	25,644
Sideswipe - Opposite Direct	7,205	2.2	12	1.2	83	214	526	6,370
Other/Unknown	14,854	4.6	44	4.5	295	570	1,094	12,851
Total	324,174	100.0	987	100.0	5,937	14,821	38,792	263,637

Single Vehicle, Head On, and Angle crash types produce the highest number of fatal crashes (82.7%). Single Vehicle crashes include rollovers, which are particularly deadly crash types. Rear End-Turning and Sideswipe crashes produce the lowest number of fatal crashes (3.6%).

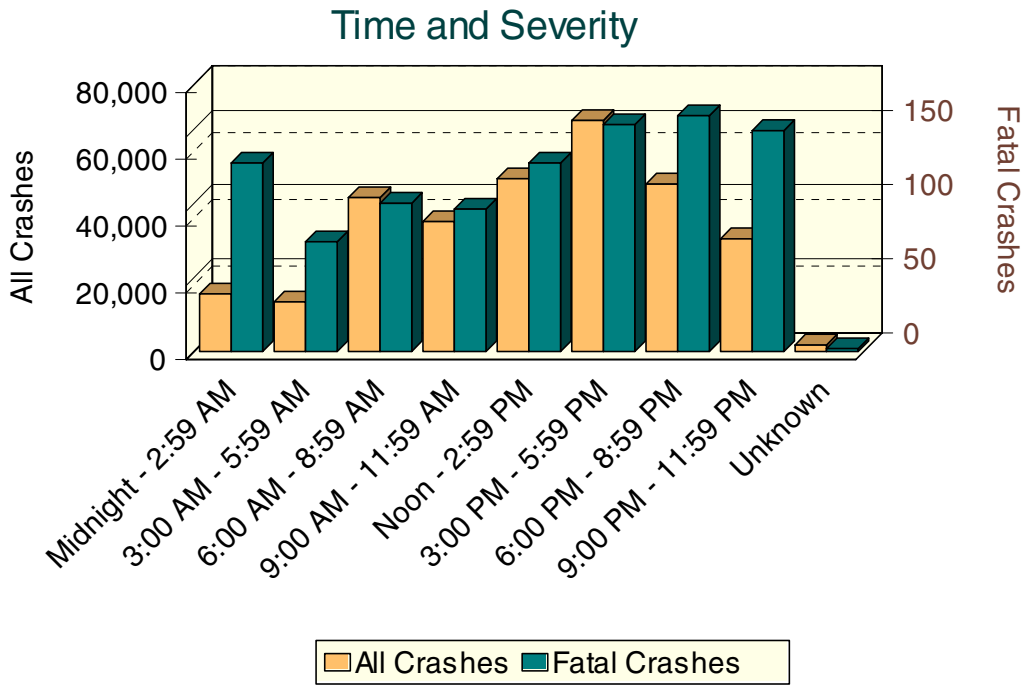
RELATIONSHIP TO ROADWAY

LOCATION OF FIRST IMPACT	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
On Road	262,290	80.9	647	65.6	3,957	10,093	30,878	216,715
Median	2,669	0.8	15	1.5	84	220	419	1,931
Shoulder	14,760	4.6	72	7.3	457	1,044	1,817	11,370
Outside of Shoulder/Curb	29,704	9.2	219	22.2	1,114	2,692	4,007	21,672
Gore	872	0.3	5	0.5	35	79	119	634
Other/Unknown	13,879	4.3	29	2.9	290	693	1,552	11,315
Total	324,174	100.0	987	100.0	5,937	14,821	38,792	263,637

Crashes that happen outside of the normal driving lanes are overrepresented in the fatal count. Only 9.2 percent of crashes occur outside the shoulder of the road, but these crashes account for 22.2 percent of the fatal crashes.

TIME AND SEVERITY

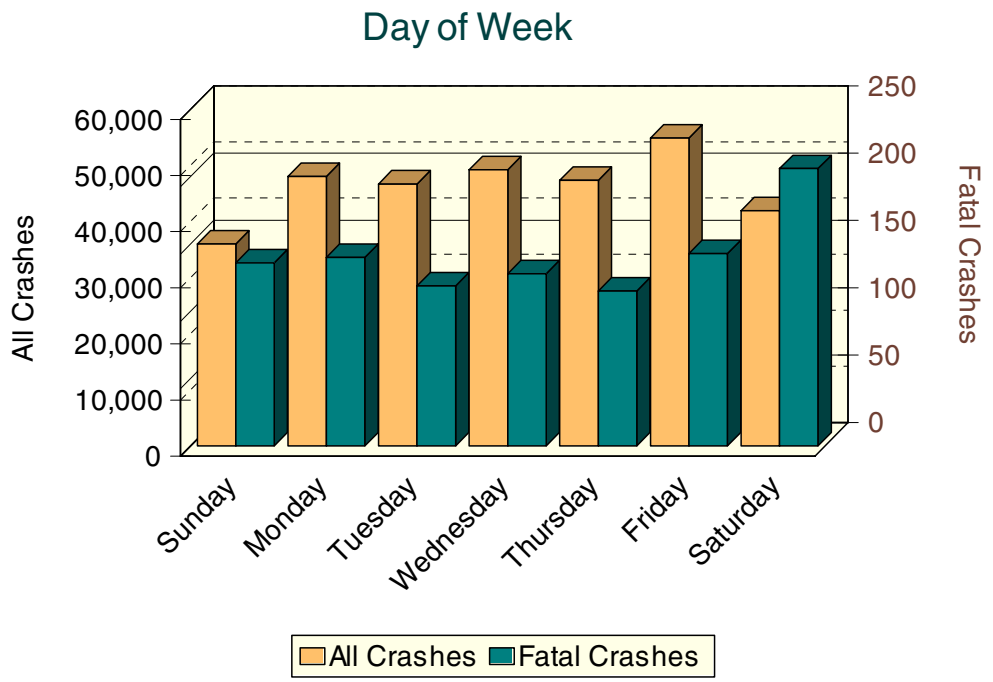
TIME OF DAY	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Midnight - 2:59 AM	17,250	5.3	127	12.9	548	1,149	1,632	13,794
3:00 AM - 5:59 AM	14,853	4.6	74	7.5	300	686	1,172	12,621
6:00 AM - 8:59 AM	46,133	14.2	100	10.1	578	1,559	4,798	39,098
9:00 AM - 11:59 AM	38,908	12.0	96	9.7	640	1,763	5,252	31,157
Noon - 2:59 PM	51,794	16.0	127	12.9	965	2,560	7,578	40,564
3:00 PM - 5:59 PM	69,219	21.4	153	15.5	1,226	3,327	9,931	54,582
6:00 PM - 8:59 PM	50,201	15.5	159	16.1	936	2,225	5,247	41,634
9:00 PM - 11:59 PM	33,816	10.4	149	15.1	718	1,491	3,063	28,395
Unknown	2,000	0.6	2	0.2	26	61	119	1,792
Total	324,174	100.0	987	100.0	5,937	14,821	38,792	263,637



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

DAY OF WEEK

DAY OF WEEK	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Sunday	36,004	11.1	136	13.8	879	2,060	4,024	28,905
Monday	48,053	14.8	140	14.2	769	1,971	5,770	39,403
Tuesday	46,703	14.4	119	12.1	757	1,988	5,658	38,181
Wednesday	49,240	15.2	128	13.0	778	2,108	6,048	40,178
Thursday	47,346	14.6	115	11.7	849	2,096	5,837	38,449
Friday	54,903	16.9	143	14.5	966	2,344	6,624	44,826
Saturday	41,925	12.9	206	20.9	939	2,254	4,831	33,695
Total	324,174	100.0	987	100.0	5,937	14,821	38,792	263,637

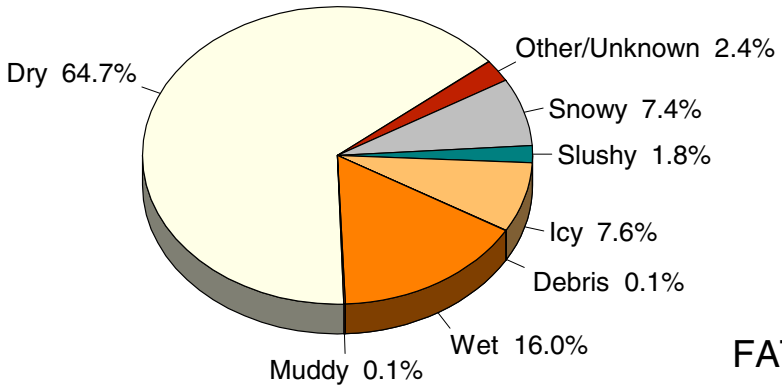


Crash frequencies were higher Monday through Friday than on the weekend. Friday (14.5%) and Saturday (20.9%) had the highest number of fatal crashes.

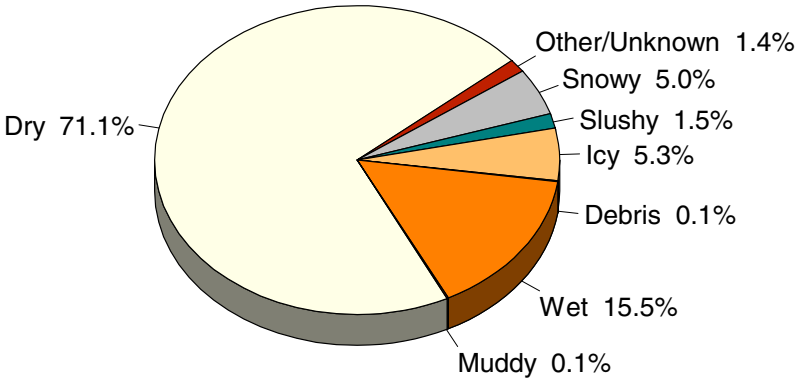
ROAD CONDITION

ROAD SURFACE CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Dry	209,663	64.7	702	71.1	4,336	10,418	25,370	168,837
Wet	51,988	16.0	153	15.5	778	2,104	7,048	41,905
Icy	24,512	7.6	52	5.3	345	1,011	2,834	20,270
Snowy	23,864	7.4	49	5.0	269	762	2,163	20,621
Muddy	370	0.1	1	0.1	11	44	28	286
Slushy	5,691	1.8	15	1.5	88	237	748	4,603
Debris	200	0.1	1	0.1	8	22	20	149
Other/Unknown	7,886	2.4	14	1.4	102	223	581	6,966
Total	324,174	100.0	987	100.0	5,937	14,821	38,792	263,637

ALL CRASHES



FATAL CRASHES

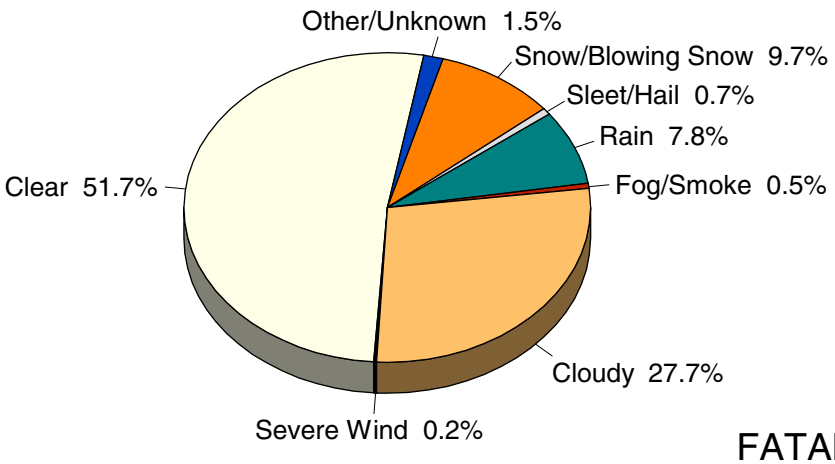


Most crashes (64.7%) and most fatal crashes (71.1%) occur on dry roads.

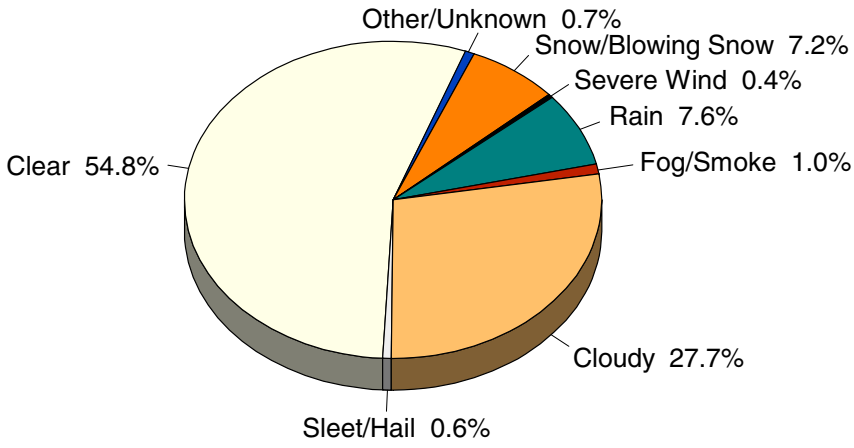
WEATHER CONDITION

WEATHER CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Clear	167,747	51.7	541	54.8	3,561	8,447	19,918	135,280
Cloudy	89,750	27.7	273	27.7	1,451	3,796	10,958	73,272
Fog/Smoke	1,700	0.5	10	1.0	34	55	149	1,452
Rain	25,359	7.8	75	7.6	389	1,150	3,694	20,051
Snow/Blowing Snow	31,545	9.7	71	7.2	412	1,161	3,450	26,451
Severe Wind	762	0.2	4	0.4	17	33	72	636
Sleet/Hail	2,357	0.7	6	0.6	33	84	267	1,967
Other/Unknown	4,954	1.5	7	0.7	40	95	284	4,528
Total	324,174	100.0	987	100.0	5,937	14,821	38,792	263,637

ALL CRASHES



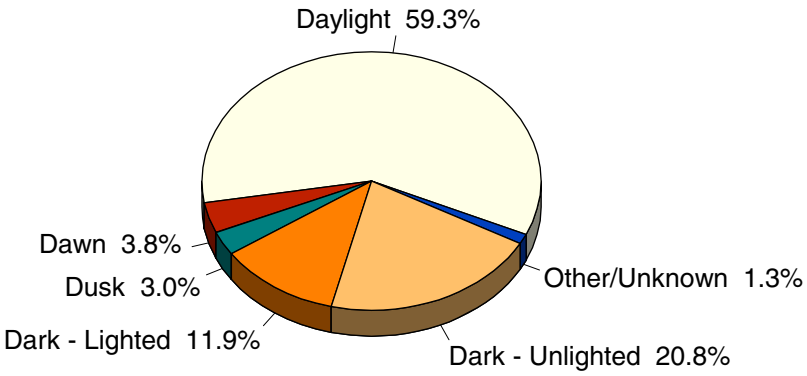
FATAL CRASHES



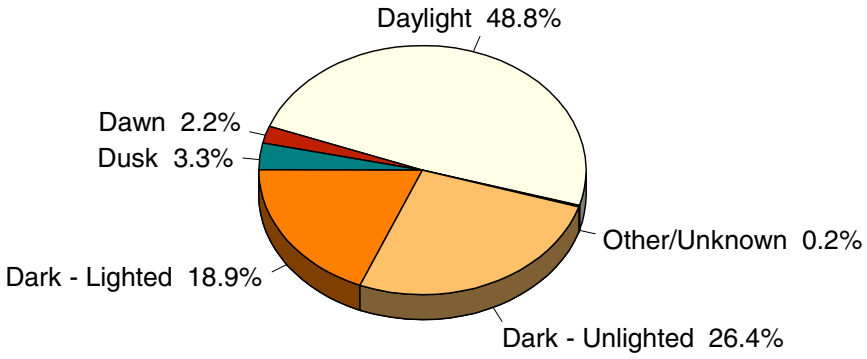
LIGHT CONDITION

LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	192,147	59.3	482	48.8	3,564	9,612	27,068	151,421
Dawn	12,225	3.8	22	2.2	144	391	1,010	10,658
Dusk	9,852	3.0	33	3.3	165	382	1,059	8,213
Dark – Lighted	38,474	11.9	187	18.9	867	1,984	5,192	30,244
Dark – Unlighted	67,422	20.8	261	26.4	1,157	2,373	4,179	59,452
Other/Unknown	4,054	1.3	2	0.2	40	79	284	3,649
Totals	324,174	100.0	987	100.0	5,937	14,821	38,792	263,637

ALL CRASHES



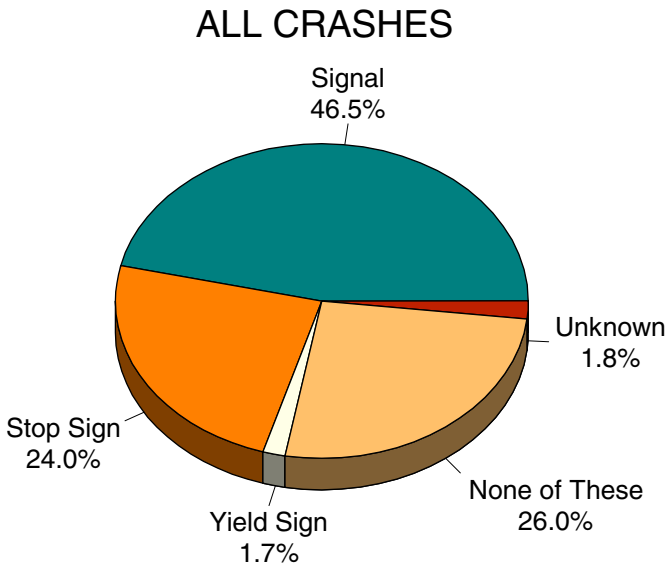
FATAL CRASHES

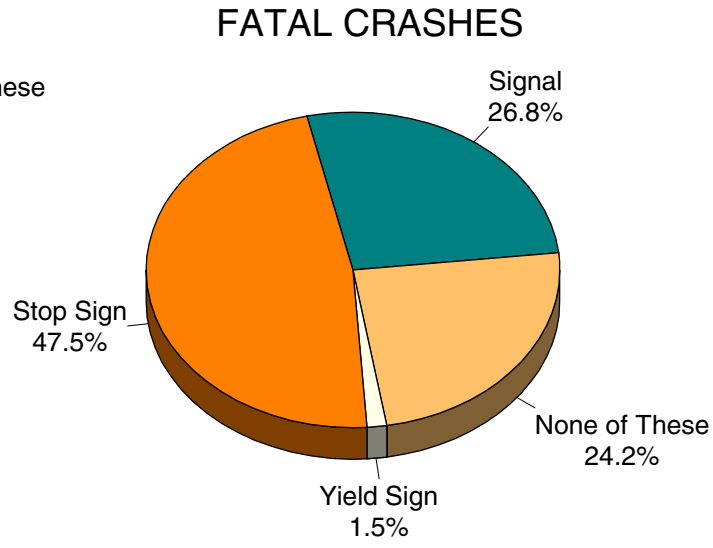


The majority (59.3%) of all crashes happen during daylight hours. Darkened conditions create the greatest hazard, as they are overrepresented in fatal crashes. Almost twice as many fatal crashes occur in areas without street lights, as in dark, but lighted areas.

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	43,262	46.5	71	26.8	756	2,140	8,089	32,206
Stop Sign	22,369	24.0	126	47.5	599	1,533	3,734	16,377
Yield Sign	1,623	1.7	4	1.5	23	93	269	1,234
None of These	24,219	26.0	64	24.2	458	1,262	3,390	19,045
Unknown	1,644	1.8	0	0.0	37	67	232	1,308
Total	93,117	100.0	265	100.0	1,873	5,095	15,714	70,170





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	Indicates roadway construction, maintenance or repair. The building, maintenance or repair of the road itself and roadway-related features (e.g., overhead signs, signals).							
Activity - On Road								
Lane Closed	2,648	49.6	8	42.1	32	104	380	2,124
Lane Open	684	12.8	1	5.3	15	21	73	574
Unknown Lane Closure	73	1.4	0	0.0	2	5	9	57
Activity - Off Road								
Lane Closed	283	5.3	0	0.0	4	20	39	220
Lane Open	293	5.5	4	21.1	4	12	39	234
Unknown Lane Closure	24	0.4	0	0.0	0	0	4	20
Activity - None								
Lane Closed	749	14.0	4	21.1	9	35	106	595
Lane Open	355	6.6	2	10.5	11	20	41	281
Unknown Lane Closure	24	0.4	0	0.0	1	4	3	16
Activity - Unknown								
Lane Closed	81	1.5	0	0.0	0	2	12	67
Lane Open	17	0.3	0	0.0	1	1	4	11
Unknown Lane Closure	110	2.1	0	0.0	0	3	10	97
Subtotal	5,341	100.0	19	100.0	79	227	720	4,296
Utility	Indicates work on facilities other than the roadway such as telephone, electrical, cable television, water, or sewer.							
Activity - On Road								
Lane Closed	59	33.3	0	0.0	1	2	8	48
Lane Open	20	11.3	0	0.0	0	3	3	14
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - Off Road								
Lane Closed	33	18.6	0	0.0	0	0	6	27
Lane Open	36	20.3	0	0.0	2	3	6	25
Unknown Lane Closure	2	1.1	0	0.0	0	0	1	1
Activity - None								
Lane Closed	16	9.0	0	0.0	1	1	1	13
Lane Open	7	4.0	0	0.0	0	1	0	6
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - Unknown								
Lane Closed	0	0.0	0	0.0	0	0	0	0
Lane Open	2	1.1	0	0.0	0	0	0	2
Unknown Lane Closure	2	1.1	0	0.0	0	0	1	1
Subtotal	177	100.0	0	0.0	4	10	26	137
Unknown Type / Unknown Lane Closure / Activity None								
Subtotal	37,517		2		789	1,750	4,366	30,610
Total	43,035		21		872	1,987	5,112	35,043

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Vehicle/
Driver

VEHICLE TYPE CRASH INVOLVEMENT

Vehicle Type	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH				MOST SEVERE OUTCOME IN VEHICLE			
			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	376,740	70.1	903	58.0	75,610	300,227	523	61.4	48,401	327,816
Van and Motorhome	35,124	6.5	108	6.9	7,153	27,863	57	6.7	4,167	30,900
Pickup	74,139	13.8	234	15.0	12,932	60,973	107	12.6	6,704	67,328
Small Truck (under 10,000 lbs.)	18,240	3.4	26	1.7	3,472	14,742	13	1.5	2,077	16,150
Motorcycle	3,821	0.7	127	8.2	2,829	865	119	14.0	2,772	930
Moped	351	0.1	2	0.1	267	82	2	0.2	266	83
Go Cart	15	0.0	0	0.0	11	4	0	0.0	11	4
Snowmobile	217	0.0	8	0.5	147	62	8	0.9	133	76
Off-Road Vehicle	223	0.0	7	0.4	188	28	7	0.8	179	37
Other	1,406	0.3	9	0.6	259	1,138	8	0.9	121	1,277
Unknown	12,678	2.4	8	0.5	1,090	11,580	0	0.0	161	12,517
CDL Truck/Bus (breakdown below)	14,274	2.7	126	8.1	2,510	11,638	8	0.9	663	13,603
Total Number of Vehicles	537,228	100.0	1,558	100.0	106,468	429,202	852	100.0	65,655	470,721

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

CDL Truck/Bus Sub-category Type	Motor Vehicles		Fatal Crash		Injury	PDO	Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Commercial Vehicle: Group A	7,216	50.6	89	70.6	1,353	5,774	3	37.5	309	6,904
Commercial Vehicle: Group B	3,038	21.3	20	15.9	542	2,476	0	0.0	184	2,854
Commercial Vehicle: Group C	485	3.4	2	1.6	74	409	2	25.0	32	451
Other Truck	701	4.9	12	9.5	170	519	2	25.0	46	653
Unknown Truck	2,834	19.9	3	2.4	371	2,460	1	12.5	92	2,741
Total Number of Vehicles	14,274	100.0	126	100.0	2,510	11,638	8	100.0	663	13,603

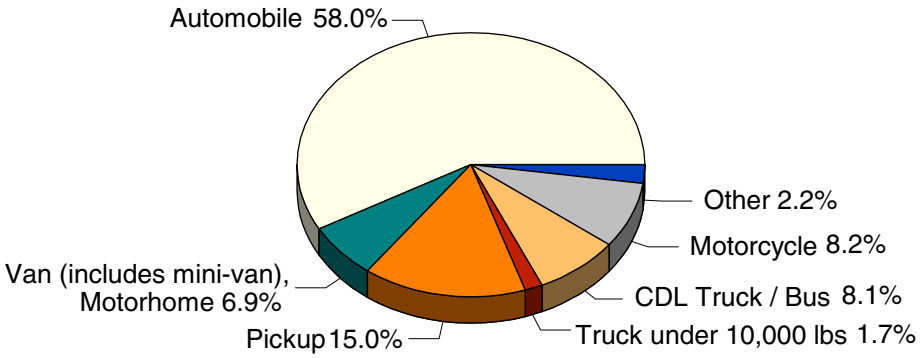
Group “A” is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

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.

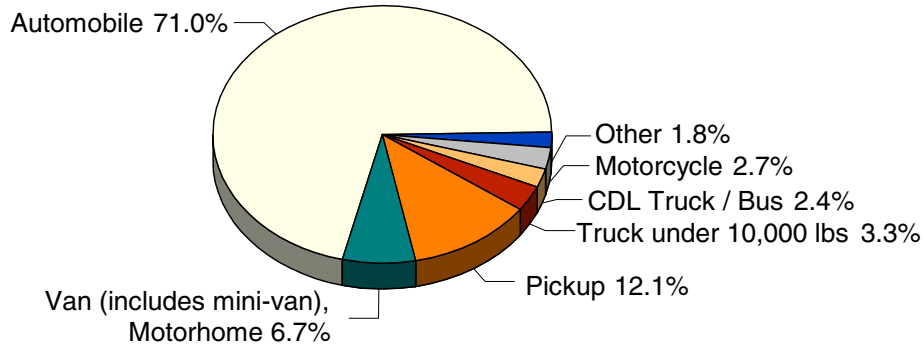
VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

FATAL



The top chart shows that almost 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 6.9 percent.

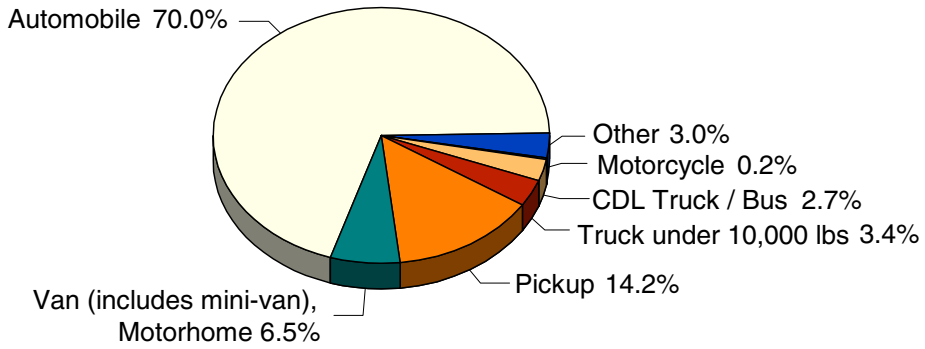
INJURY



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.

PROPERTY DAMAGE ONLY



ACTION PRIOR TO CRASH

DRIVER ACTION	Vehicles		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Going straight ahead	282,435	52.6	1,175	6,116	14,535	36,660	223,949
Turning left	34,979	6.5	87	888	2,275	5,845	25,884
Turning right	14,447	2.7	16	162	572	1,510	12,187
Stopped on roadway	53,753	10.0	46	537	1,775	10,548	40,847
In prior crash	769	0.1	0	30	43	143	553
Changing lanes	12,848	2.4	32	120	352	1,081	11,263
Backing	12,793	2.4	7	43	101	403	12,239
Slowing/stopping on roadway	49,202	9.2	30	387	1,351	8,492	38,942
Slowing/stopping other	789	0.1	0	12	37	109	631
Starting up on roadway	10,570	2.0	26	150	479	1,708	8,207
Starting up other	320	0.1	0	7	22	49	242
Entering parking	566	0.1	1	6	9	40	510
Leaving parking	1,515	0.3	1	21	70	169	1,254
Entering roadway	7,631	1.4	16	138	346	1,114	6,017
Leaving roadway	1,054	0.2	16	68	99	118	753
Making U-turn	1,153	0.2	5	29	56	158	905
Overtaking or passing	4,169	0.8	25	117	231	407	3,389
Avoiding object	833	0.2	1	14	44	98	676
Avoiding animal	1,400	0.3	2	41	133	202	1,022
Avoiding pedestrian	142	0.0	1	7	17	20	97
Avoiding vehicle (front/back)	4,614	0.9	30	119	304	740	3,421
Avoiding vehicle (angle)	2,279	0.4	14	55	157	337	1,716
Driverless moving	250	0.0	3	9	10	20	208
Parked	20,808	3.9	19	190	471	854	19,274
Crossing at intersection	51	0.0	0	2	5	10	34
Crossing not at intersection	71	0.0	0	3	2	6	60
Getting on/off vehicle	20	0.0	0	1	1	1	17
In roadway with traffic	65	0.0	0	0	0	7	58
In roadway against traffic	48	0.0	0	1	2	6	39
Standing or lying in roadway	9	0.0	0	1	1	0	7
Pushing/working on vehicle	13	0.0	0	0	3	1	9
Other working in roadway	65	0.0	0	2	6	8	49
Playing in roadway	13	0.0	0	0	2	4	7
In roadway other reason	24	0.0	0	0	2	1	21
Not in roadway	48	0.0	0	1	0	13	34
Other	155	0.0	3	5	16	22	109
Unknown	17,327	3.2	2	303	592	1,858	14,572
Total	537,228	100.0	1,558	9,585	24,121	72,762	429,202

ACTION PRIOR TO CRASH (continued)

MOTORCYCLIST – INJURY SEVERITY

MOTORCYCLIST ACTION	Motorcycles		Motorcyclists*		Fatal	Injury			No Injury
	Number of Motorcycles	% of Total	Number of Motorcyclists	% of Total		A	B	C	
Going straight ahead	2,536	66.4	2,798	66.4	99	644	924	541	533
Turning left	167	4.4	182	4.3	1	23	65	43	46
Turning right	122	3.2	133	3.2	3	16	45	29	35
Stopped on roadway	186	4.9	210	5.0	0	10	20	58	116
In prior crash	4	0.1	5	0.1	0	2	1	1	0
Changing lanes	61	1.6	67	1.6	1	8	27	8	18
Backing	0	0.0	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	223	5.8	243	5.8	7	32	71	54	76
Slowing/stopping other	4	0.1	5	0.1	0	1	2	1	1
Starting up on roadway	50	1.3	58	1.4	2	7	14	16	19
Starting up other	3	0.1	4	0.1	0	1	2	0	1
Entering parking	0	0.0	0	0.0	0	0	0	0	0
Leaving parking	6	0.2	6	0.1	0	1	1	3	0
Entering roadway	26	0.7	28	0.7	1	6	4	8	9
Leaving roadway	16	0.4	18	0.4	0	8	6	0	4
Making U-turn	9	0.2	9	0.2	0	0	2	2	4
Overtaking or passing	73	1.9	81	1.9	2	28	19	16	13
Avoiding object	13	0.3	15	0.4	1	3	4	4	3
Avoiding animal	36	0.9	39	0.9	0	6	14	14	4
Avoiding pedestrian	2	0.1	3	0.1	0	0	1	1	1
Avoiding vehicle (front/back)	101	2.6	116	2.8	2	18	42	25	27
Avoiding vehicle (angle)	58	1.5	67	1.6	1	9	28	22	7
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	38	1.0	39	0.9	0	1	1	2	7
Crossing at intersection	0	0.0	0	0.0	0	0	0	0	0
Crossing not at intersection	0	0.0	0	0.0	0	0	0	0	0
Getting on/off vehicle	0	0.0	0	0.0	0	0	0	0	0
In roadway with traffic	0	0.0	0	0.0	0	0	0	0	0
In roadway against traffic	0	0.0	0	0.0	0	0	0	0	0
Standing or lying in roadway	0	0.0	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0.0	0	0	0	0	0
Other working in roadway	1	0.0	1	0.0	0	0	1	0	0
Playing in roadway	0	0.0	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0.0	0	0	0	0	0
Not in roadway	1	0.0	2	0.0	0	1	1	0	0
Other	3	0.1	3	0.1	0	0	2	1	0
Unknown	82	2.1	83	2.0	0	23	15	17	19
Total	3,821	100.0	4,215	100.0	120	848	1,312	866	943

* This table includes 126 motorcyclists (drivers and passengers) with unknown injury severity, and persons miscoded as motorcyclists.

ACTION PRIOR TO CRASH (continued)

BICYCLIST - INJURY SEVERITY

BICYCLIST ACTION	Bicycles		Bicyclists*		Fatal	Injury			No Injury
	Number of Bicycles	% of Total	Number of Bicyclists	% of Total		A	B	C	
Going straight ahead	1,162	53.1	1,171	52.9	8	104	414	427	169
Turning left	58	2.7	60	2.7	0	6	24	17	12
Turning right	18	0.8	18	0.8	0	1	2	10	5
Stopped on roadway	14	0.6	14	0.6	0	0	2	6	4
In prior crash	0	0.0	0	0.0	0	0	0	0	0
Changing lanes	12	0.5	12	0.5	1	0	5	3	2
Backing	1	0.0	1	0.0	0	0	0	1	0
Slowing/stopping on roadway	9	0.4	10	0.5	0	1	3	5	0
Slowing/stopping other	3	0.1	3	0.1	0	0	1	0	2
Starting up on roadway	7	0.3	7	0.3	0	1	2	3	1
Starting up other	0	0.0	0	0.0	0	0	0	0	0
Entering parking	2	0.1	2	0.1	0	0	0	2	0
Leaving parking	5	0.2	5	0.2	0	0	1	1	3
Entering roadway	116	5.3	117	5.3	0	10	48	37	17
Leaving roadway	5	0.2	5	0.2	0	1	1	3	0
Making U-turn	4	0.2	6	0.3	0	0	2	1	0
Overtaking or passing	3	0.1	3	0.1	0	0	0	1	0
Avoiding object	0	0.0	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	4	0.2	4	0.2	0	0	3	0	1
Avoiding vehicle (angle)	9	0.4	11	0.5	0	0	4	4	3
Driverless moving	1	0.0	1	0.0	0	0	0	0	0
Parked	0	0.0	0	0.0	0	0	0	0	0
Crossing at intersection	394	18.0	399	18.0	2	35	114	172	65
Crossing not at intersection	106	4.8	107	4.8	2	15	40	31	18
Getting on/off vehicle	2	0.1	2	0.1	1	0	0	0	1
In roadway with traffic	40	1.8	41	1.9	2	5	13	13	8
In roadway against traffic	34	1.6	35	1.6	0	5	10	14	4
Standing or lying in roadway	1	0.0	1	0.0	0	0	0	1	0
Pushing/working on vehicle	0	0.0	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0.0	0	0	0	0	0
Playing in roadway	8	0.4	8	0.4	0	0	6	2	0
In roadway other reason	10	0.5	10	0.5	0	2	7	0	0
Not in roadway	33	1.5	34	1.5	0	3	10	12	7
Other	36	1.6	36	1.6	0	2	17	13	4
Unknown	91	4.2	91	4.1	1	7	30	24	21
Total	2,188	100.0	2,214	100.0	17	198	759	803	347

* Includes 90 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	114	4.7	0	14	30	41	20
Turning left	3	0.1	1	0	0	2	0
Turning right	2	0.1	0	0	1	1	0
Stopped on roadway	3	0.1	0	0	1	2	0
In prior crash	4	0.2	0	0	0	3	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	1	0.0	0	0	0	1	0
Slowing/stopping on roadway	0	0.0	0	0	0	0	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	1	0.0	0	0	1	0	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	10	0.4	0	2	4	4	0
Leaving roadway	4	0.2	0	0	1	3	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	1	0.0	0	1	0	0	0
Avoiding object	1	0.0	0	0	0	1	0
Avoiding animal	1	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	3	0.1	0	0	2	1	0
Avoiding vehicle (angle)	5	0.2	0	0	0	2	1
Driverless moving	2	0.1	0	0	0	1	0
Parked	2	0.1	0	0	0	0	1
Crossing at intersection	647	26.5	17	100	185	270	35
Crossing not at intersection	634	26.0	43	139	169	216	36
Getting on/off vehicle	49	2.0	1	9	16	20	1
In roadway with traffic	186	7.6	23	46	43	48	21
In roadway against traffic	30	1.2	2	4	9	11	2
Standing or lying in roadway	92	3.8	14	24	19	27	4
Pushing/working on vehicle	19	0.8	2	5	5	5	1
Other working in roadway	25	1.0	1	3	4	12	4
Playing in roadway	40	1.6	0	4	14	15	4
In roadway other reason	132	5.4	13	28	38	43	4
Not in roadway	143	5.9	8	32	44	49	6
Other	73	3.0	3	9	22	29	3
Unknown	210	8.6	6	47	62	69	7
Total	2,437	100.0	134	467	670	876	150

* Includes 140 pedestrians with unknown injury severity

MOST HARMFUL EVENT

NONCOLLISION	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Loss of control	2,060	0.4	0	60	175	296	1,529
Cross center/median	478	0.1	0	19	31	54	374
Ran off road left	602	0.1	2	11	44	74	471
Ran off road right	1,061	0.2	0	27	62	124	848
Re-enter road	75	0.0	0	4	5	11	55
Overturn	8,518	1.6	89	574	1,492	1,851	4,512
Separation of units	458	0.1	0	3	13	56	386
Fire/explosion	513	0.1	10	4	18	37	444
Immersion	59	0.0	3	2	3	10	41
Jackknife	301	0.1	0	1	8	12	280
Downhill runaway	352	0.1	1	7	16	44	284
Cargo loss/shift	630	0.1	0	5	16	35	574
Individual fell off	438	0.1	13	103	154	77	91
Other noncollision	1,401	0.3	2	31	99	149	1,120
NONCOLLISION Subtotal	16,946	3.2	120	851	2,136	2,830	11,009

MOST SEVERE OUTCOME IN CRASH

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	1,980	0.4	145	377	555	686	217
Bicycle / Pedalcycle	1,940	0.4	20	179	667	689	385
Motor vehicle in transport	360,885	67.2	970	5,965	15,332	57,756	280,862
Parked motor vehicle	15,095	2.8	14	95	277	618	14,091
Railway train	288	0.1	2	9	18	43	216
Animal	61,236	11.4	13	105	377	665	60,076
Other nonfixed objects	4,918	0.9	4	53	160	220	4,481
COLLISION NONFIXED Subtotal	446,342	83.1	1,168	6,783	17,386	60,677	360,328

MOST HARMFUL EVENT (continued)

HAD A COLLISION WITH FIXED OBJECT	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Bridge/pier/abutment	552	0.1	7	15	31	80	419
Bridge parapet end	264	0.0	1	6	12	20	225
Bridge rail	544	0.1	0	8	26	73	437
Guardrail face	3,765	0.7	6	57	172	472	3,058
Guardrail end	667	0.1	2	17	38	81	529
Median barrier	3,923	0.7	10	58	288	797	2,770
Highway traffic sign post	2,723	0.5	2	24	52	112	2,533
Highway signal post	277	0.1	0	4	9	11	253
Luminaire/light support	672	0.1	1	13	46	65	547
Utility pole	3,593	0.7	22	130	355	574	2,512
Other pole	1,064	0.2	7	25	47	88	897
Culvert	600	0.1	6	22	80	95	397
Curb	1,840	0.3	5	32	95	168	1,540
Ditch	7,867	1.5	25	234	631	1,040	5,937
Embankment	1,617	0.3	8	58	136	251	1,164
Fence	1,355	0.3	2	11	46	103	1,193
Mailbox	2,158	0.4	0	14	29	63	2,052
Tree	11,153	2.1	140	640	1,245	1,623	7,505
Rail crossing signal	90	0.0	1	3	5	4	77
Building	821	0.2	12	54	94	130	531
Traffic island	34	0.0	0	1	0	3	30
Fire hydrant	586	0.1	2	5	20	59	500
Impact attenuator	46	0.0	0	2	3	9	32
Other fixed object	3,202	0.6	8	101	244	334	2,515
COLLISION FIXED Subtotal	49,413	9.2	267	1,534	3,704	6,255	37,653

	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	24,527	4.6	3	417	895	3,000	20,212
TOTAL MOST HARMFUL EVENT	537,228	100.0	1,558	9,585	24,121	72,762	429,202

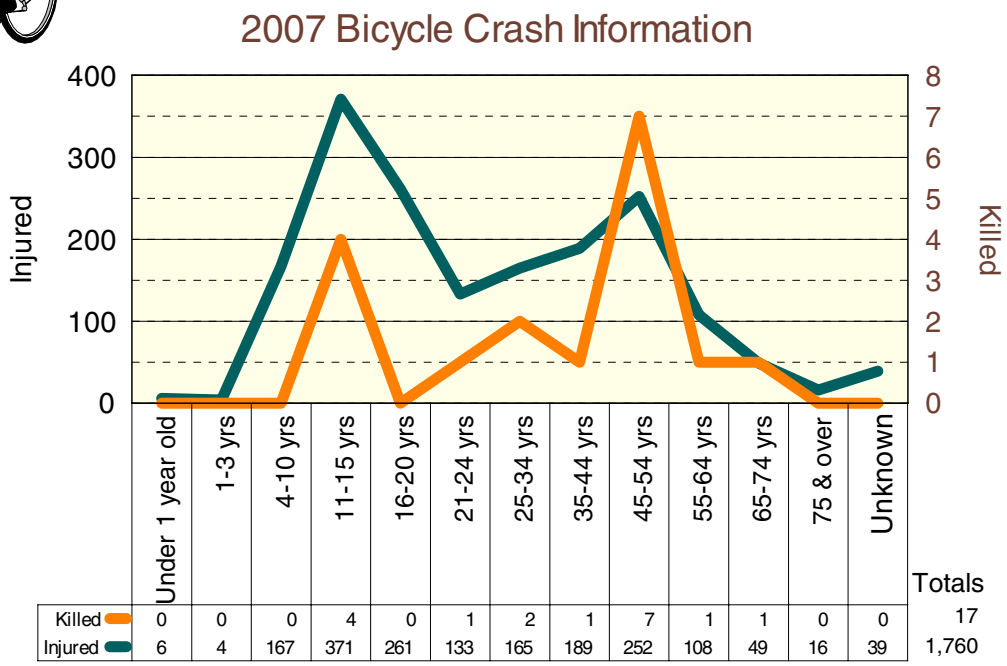
VEHICLE DEFECTS IN CRASH INVOLVEMENT

VEHICLE DEFECTS	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Brakes	1,289	0.2	3	22	78	195	991
Lights/reflectors	217	0.0	2	6	11	31	167
Steering	140	0.0	0	3	13	19	105
Tires/wheels	643	0.1	4	17	45	74	503
Windows	25	0.0	0	2	1	2	20
Other	462	0.1	2	10	32	59	359
None or Unknown	534,452	99.5	1,547	9,525	23,941	72,382	427,057
TOTAL	537,228	100.0	1,558	9,585	24,121	72,762	429,202

DRIVER HAZARDOUS ACTION

HAZARDOUS ACTION	All Drivers		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Drivers	% of Total		A	B	C	
None	264,169	49.2	622	3,882	10,028	33,454	216,183
Speed too fast	36,887	6.9	197	1,003	2,598	5,145	27,944
Speed too slow	620	0.1	0	20	22	93	485
Failed to yield	43,555	8.1	122	1,055	2,877	7,664	31,837
Disregard traffic control	11,162	2.1	72	448	1,003	2,641	6,998
Drove wrong way	460	0.1	10	16	45	63	326
Drove left of center	2,872	0.5	65	185	255	419	1,948
Improper passing	2,619	0.5	6	40	89	223	2,261
Improper lane use	10,593	2.0	9	82	265	707	9,530
Improper turn	4,995	0.9	6	73	158	539	4,219
Improper/no signal	558	0.1	1	6	29	64	458
Improper backing	8,877	1.7	2	9	44	182	8,640
Unable to stop in assured clear distance	69,403	12.9	39	540	1,912	12,338	54,574
Reckless driving	2,862	0.5	43	255	362	443	1,759
Careless/negligent driving	13,377	2.5	103	697	1,543	2,040	8,994
Other	19,506	3.6	101	536	1,295	2,478	15,096
Unknown	44,713	8.3	160	738	1,596	4,269	37,950
TOTAL	537,228	100.0	1,558	9,585	24,121	72,762	429,202

MICHIGAN BICYCLE CRASHES



In 2007 there were 2,188 bicycles involved in motor vehicles crashes, with 17 bicyclists killed and 1,760 injured.

Children under 16 years of age accounted for 4 (23.5%) of the bicycle deaths in 2007. Persons aged 45 through 54 represented 7 (41.2%) of the deaths.

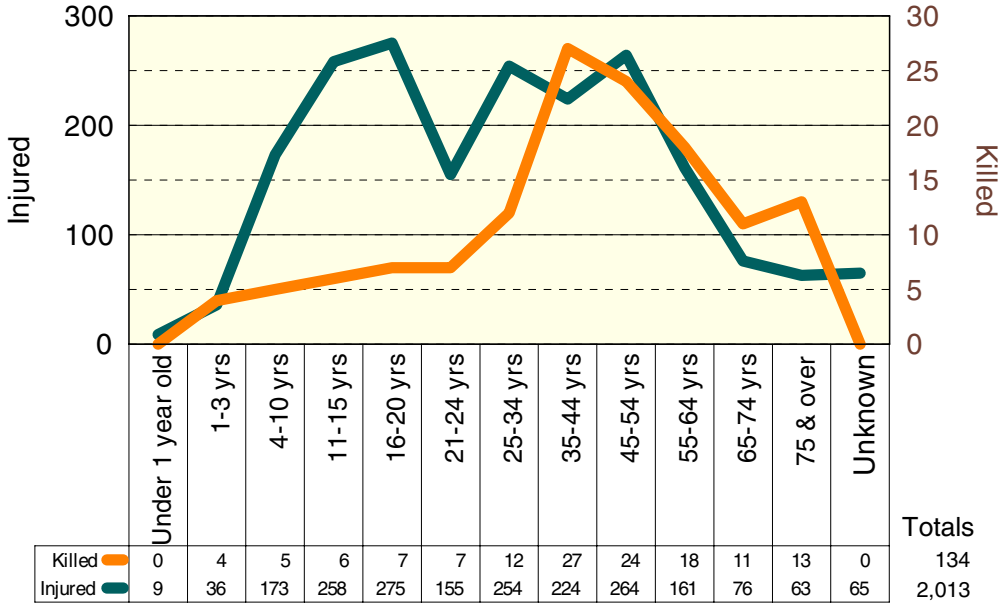
BICYCLE HELMET USE AND INJURY SEVERITY

HELMET USE	Fatality	Injury			No Injury
		A	B	C	
Worn	1	30	64	63	19
Not Worn	8	75	308	303	101
Unknown	8	93	387	437	227
Total	17	198	759	803	347

The National Center for Statistics and Analysis of the National Highway Traffic Safety Administration cites a study by the Centers for Disease Control [12]: “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

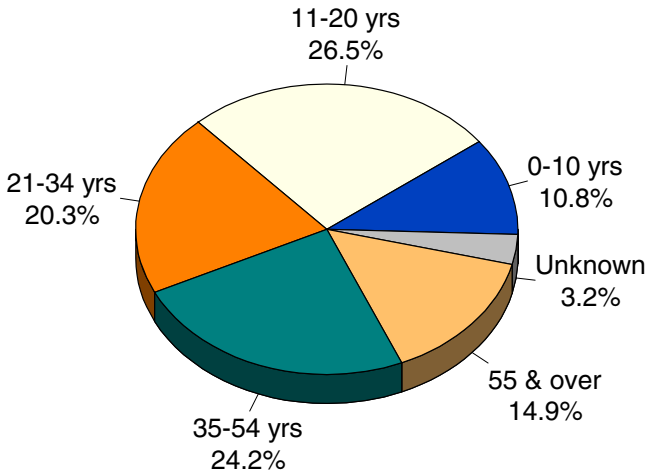
2007 Pedestrian Crash Information



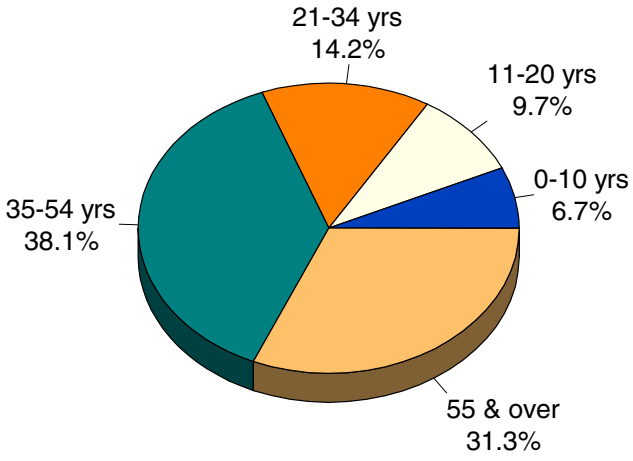
In 2007 there were 2,437 pedestrians involved in motor vehicles crashes, with 134 pedestrians killed and 2,013 injured.

Children under 16 years of age accounted for 15 (11.2%) of the pedestrian deaths in 2007. Adults over the age of 54 accounted for 42 (31.3%) of the pedestrian deaths.

Pedestrians Injured



Pedestrians Killed



MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

Most Harmful Event

NONCOLLISION	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
Loss of control	3	1.4	0	2	1	0	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	0	0.0	0	0	0	0	0
Ran off road right	1	0.5	0	0	0	1	0
Re-enter road	0	0.0	0	0	0	0	0
Overturn	22	10.1	0	4	6	8	4
Separation of units	0	0.0	0	0	0	0	0
Fire/explosion	0	0.0	0	0	0	0	0
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	8	3.7	0	2	4	2	0
Other noncollision	4	1.8	0	0	1	2	1
NONCOLLISION Subtotal	38	17.5	0	8	12	13	5

HAD A COLLISION WITH NONFIXED OBJECT	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	1	0.5	0	0	1	0	0
Bicycle / pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	85	39.2	3	25	7	15	35
Parked motor vehicle	7	3.2	0	2	0	0	5
Railway train	0	0.0	0	0	0	0	0
Animal	4	1.8	0	2	0	1	1
Other nonfixed objects	5	2.3	0	1	1	0	3
COLLISION NONFIXED Subtotal	102	47.0	3	30	9	16	44

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS (continued)

Most Harmful Event

HAD A COLLISION WITH FIXED OBJECT	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
			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	2	0.9	0	1	1	0	0
Guardrail end	0	0.0	0	0	0	0	0
Median barrier	0	0.0	0	0	0	0	0
Highway traffic sign post	2	0.9	0	0	1	0	1
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support	2	0.9	0	1	0	0	1
Utility pole	4	1.8	0	1	3	0	0
Other pole	0	0.0	0	0	0	0	0
Culvert	1	0.5	0	0	1	0	0
Curb	1	0.5	0	1	0	0	0
Ditch	9	4.1	0	2	4	2	1
Embankment	2	0.9	0	0	0	2	0
Fence	3	1.4	0	0	1	1	1
Mailbox	0	0.0	0	0	0	0	0
Tree	36	16.6	5	13	10	2	6
Rail crossing signal	0	0.0	0	0	0	0	0
Building	1	0.5	0	0	1	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	5	2.3	0	2	1	2	0
COLLISION FIXED Subtotal	68	31.3	5	21	23	9	10
Unknown Event	9	4.1	0	5	0	1	3
TOTAL MOST HARMFUL EVENT	217	100.0	8	64	44	39	62

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

A total of 217 snowmobiles were reported in crashes on Michigan public roadways during 2007. Eight of these snowmobiles were involved in 8 fatal crashes with 7 of their operators and 1 passenger killed. Alcohol was involved in 6 of the fatal crashes.

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

Most Harmful Event	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
NONCOLLISION	Number of ORV/ATVs	% of Total		A	B	C	
Loss of control	0	0.0	0	0	0	0	0
Ran off road left	1	0.4	0	0	1	0	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	46	20.6	2	21	14	8	1
Individual fell off	36	16.1	1	14	13	8	0
Other noncollision	0	0.0	0	0	0	0	0
NONCOLLISION Subtotal	83	37.2	3	35	28	16	1
HAD A COLLISION WITH NONFIXED OBJECT							
Pedestrian	1	0.4	0	1	0	0	0
Motor vehicle in transport	74	33.2	1	27	20	9	17
Parked motor vehicle	4	1.8	0	1	1	0	2
Railway train	1	0.4	0	0	0	0	1
Animal	6	2.7	0	2	1	0	3
Other nonfixed objects	4	1.8	0	1	1	2	0
COLLISION NONFIXED Subtotal	90	40.4	1	32	23	11	23
HAD A COLLISION WITH FIXED OBJECT							
Traffic sign post	1	0.4	0	0	1	0	0
Luminaire/light support	0	0.0	0	0	0	0	0
Utility pole	2	0.9	0	1	0	1	0
Culvert	1	0.4	0	0	1	0	0
Curb	1	0.4	1	0	0	0	0
Ditch	5	2.2	0	2	2	1	0
Embankment	2	0.9	0	1	0	0	1
Fence	6	2.7	0	1	3	0	2
Mailbox	1	0.4	0	0	0	1	0
Tree	21	9.4	2	7	6	5	1
Building	0	0.0	0	0	0	0	0
Other fixed object	5	2.2	0	4	1	0	0
COLLISION FIXED Subtotal	45	20.2	3	16	14	8	4
Unknown Event	5	2.2	0	2	1	2	0
TOTAL MOST HARMFUL EVENT	223	100.0	7	85	66	37	28

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

A total of 223 off-road/all-terrain vehicles were reported in crashes on Michigan public roadways during 2007. Seven of these ORV/ATVs were involved in 7 fatal crashes with 7 ORV/ATV operators and 2 ORV/ATV passengers killed. Alcohol was involved in 6 of the fatal crashes, and 1 of these fatal crashes also involved drugs.

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
Driver Hazardous Action	Number of Snowmobiles	% of Total		A	B	C	
None	46	21.2	0	10	7	16	13
Speed too fast	62	28.6	4	20	19	8	11
Speed too slow	1	0.5	0	0	0	0	1
Failed to yield	15	6.9	2	4	2	2	5
Disregard traffic control	0	0.0	0	0	0	0	0
Drove wrong way	2	0.9	0	0	0	0	2
Drove left of center	0	0.0	0	0	0	0	0
Improper passing	1	0.5	0	0	0	0	1
Improper lane use	2	0.9	0	0	0	0	2
Improper turn	0	0.0	0	0	0	0	0
Improper/no signal	0	0.0	0	0	0	0	0
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	17	7.8	0	2	5	4	6
Reckless driving	5	2.3	0	2	0	0	3
Careless/negligent driving	22	10.1	1	14	4	1	2
Other	23	10.6	0	6	4	2	11
Unknown	21	9.7	1	6	3	6	5
TOTAL	217	100.0	8	64	44	39	62

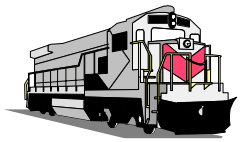
MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
Driver Hazardous Action	Number of ORV/ATVs	% of Total		A	B	C	
None	31	13.9	0	11	11	4	5
Speed too fast	48	21.5	3	18	13	11	3
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	12	5.4	0	5	2	1	4
Disregard traffic control	4	1.8	0	2	1	1	0
Drove wrong way	1	0.4	0	1	0	0	0
Drove left of center	1	0.4	0	0	1	0	0
Improper passing	1	0.4	0	0	1	0	0
Improper lane use	1	0.4	0	0	0	1	0
Improper turn	3	1.3	0	0	0	1	2
Improper/no signal	1	0.4	0	0	0	1	0
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	12	5.4	0	6	4	0	2
Reckless driving	13	5.8	1	2	5	4	1
Careless/negligent driving	45	20.2	1	21	14	4	5
Other	31	13.9	1	11	10	5	4
Unknown	19	8.5	1	8	4	4	2
TOTAL	223	100.0	7	85	66	37	28

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

MICHIGAN FARM EQUIPMENT CRASHES

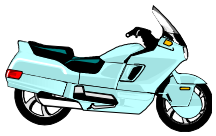
A total of 172 crashes involving farm equipment were reported on Michigan roadways during 2007. Of these crashes, 5 were fatal with 4 operators of the equipment killed.



MICHIGAN VEHICLE-TRAIN CRASHES

Updated October 8, 2008

A total of 61 crashes involving trains were reported in Michigan during 2007. The National Highway Traffic Safety Administration's 2007 Fatality Analysis Reporting System [13] reported 2 fatal train crashes in Michigan, and 3 persons killed as a result of those collisions.



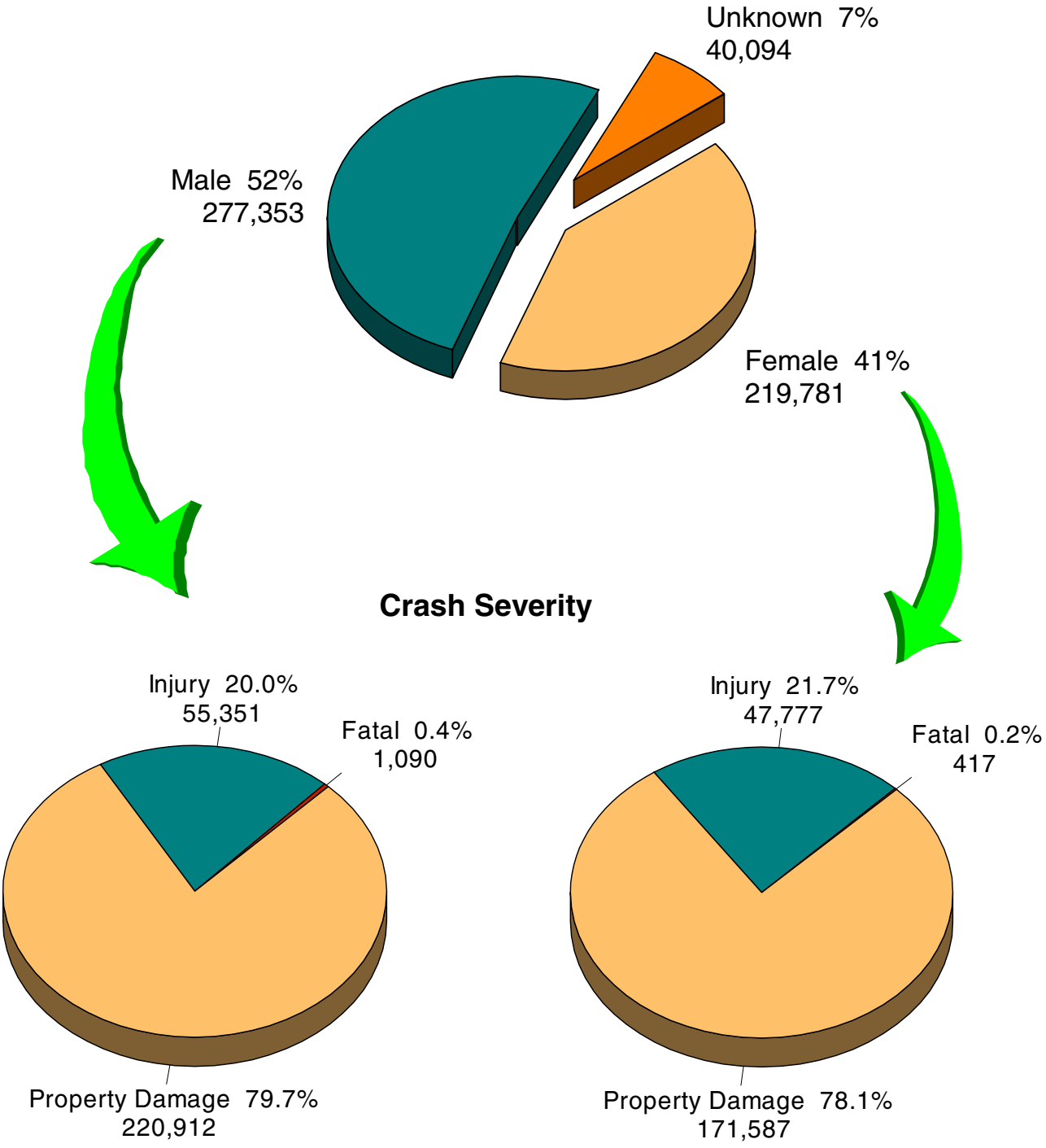
MICHIGAN MOTORCYCLE CRASHES

Updated February 4, 2009

MOTORCYCLE DATA	2006	2007	% Change
Motorcycle Registrations	236,856	255,148	7.7
Motorcycles in Crashes	3,386	3,821	12.8
Motorcyclist Deaths	110	120	9.1
Motorcyclists Injured	2,706	3,026	11.8
Death Rate based on 10,000 motorcycle registrations	4.64	4.70	1.3
Estimated Mileage based on 3,000 miles per motorcycle	710,568,000	765,444,000	7.7
Death Rate based on deaths per 100 million vehicle miles traveled	15.48	15.68	1.3

Motorcycles were involved in 1.2 percent of all traffic crashes in Michigan in 2007. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles. The 2007 death rate for motorcyclists was 15.7 per 100 million vehicle miles traveled compared to the overall 1.0 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 examining the severity of crashes involving drivers of each gender, fatal crashes are more prevalent among male drivers than female drivers (0.4% vs. 0.2%).

PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

Revised July 28, 2008

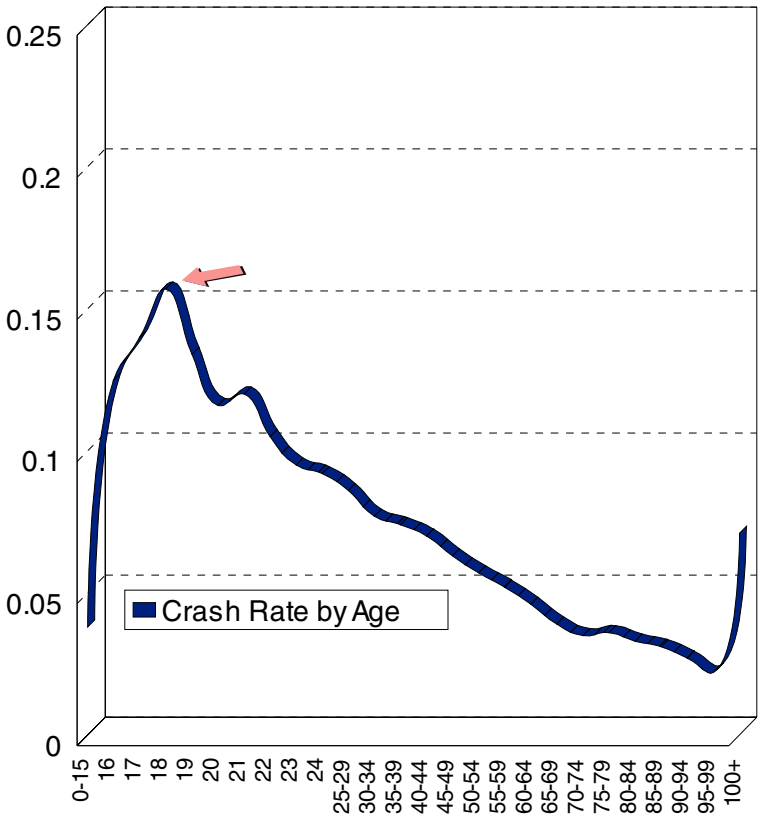
Age	Licensed Drivers	Michigan Population	Drivers in All Crashes	Drivers in Fatal Crashes	Occupants Killed	Occupants Injured	Bicyclist All Crashes	Bicyclist Fatal Crashes	Pedestrian All Crashes	Pedestrian Fatal Crashes
0-15	48,504	2,136,990	1,840	10	38	4,817	678	4	566	17
16	89,863	153,352	11,251	28	23	2,118	91	0	63	4
17	108,988	156,514	15,300	34	25	2,713	64	0	68	0
18	106,849	143,911	16,739	52	38	2,808	59	0	55	1
19	116,680	143,983	15,673	39	31	2,548	47	0	65	1
20	122,900	140,480	14,247	46	30	2,243	57	0	58	2
21	112,918	141,127	13,494	44	24	2,122	55	0	53	2
22	120,364	139,226	12,688	34	16	1,944	43	0	42	1
23	122,871	133,143	11,648	44	29	1,759	32	0	41	4
24	121,743	131,796	11,147	34	20	1,683	27	1	52	1
25-29	580,491	657,774	49,661	143	73	7,231	114	0	165	7
30-34	559,754	603,983	42,922	130	61	5,903	87	2	134	6
35-39	634,222	692,690	46,617	143	60	6,057	109	1	118	11
40-44	662,251	737,715	46,546	120	58	6,108	121	0	163	17
45-49	720,390	793,359	45,503	115	60	6,103	158	4	172	12
50-54	704,162	743,608	40,031	105	63	5,495	140	3	143	12
55-59	610,200	641,100	31,957	108	63	4,354	90	2	129	14
60-64	483,832	500,919	22,069	84	45	3,185	37	0	68	8
65-69	360,941	366,520	13,948	38	22	2,188	36	0	54	4
70-74	266,568	288,547	9,387	42	39	1,474	21	1	37	8
75-79	218,404	249,343	7,893	50	46	1,390	9	0	43	7
80-84	160,465	193,996	5,345	37	36	964	4	0	26	7
85-100+	102,580	181,746	3,083	24	33	687	3	0	14	1
Unknown	---	---	48,239	54	0	920	132	0	108	0
Total	7,135,940	10,071,822	537,228	1,558	933	76,814	2,214	18	2,437	147

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

Revised April 10, 2009

Age	Licensed Drivers	Drivers in all crashes*	Rate
0-15	48,504	1,840	0.038
16	89,863	11,251	0.125
17	108,988	15,300	0.140
18	106,849	16,739	0.157
19	116,680	15,673	0.134
20	122,900	14,247	0.116
21	112,918	13,494	0.120
22	120,364	12,688	0.105
23	122,871	11,648	0.095
24	121,743	11,147	0.092
25-29	580,491	49,661	0.086
30-34	559,754	42,922	0.077
35-39	634,222	46,617	0.074
40-44	662,251	46,546	0.070
45-49	720,390	45,503	0.063
50-54	704,162	40,031	0.057
55-59	610,200	31,957	0.052
60-64	483,832	22,069	0.046
65-69	360,941	13,948	0.039
70-74	266,568	9,387	0.035
75-79	218,404	7,893	0.036
80-84	160,465	5,345	0.033
85-89	78,557	2,437	0.031
90-94	21,399	583	0.027
95-99	2,497	54	0.022
100+	127	9	0.071
Total	7,135,940	488,989	

* Excludes 48,239 drivers with unknown age

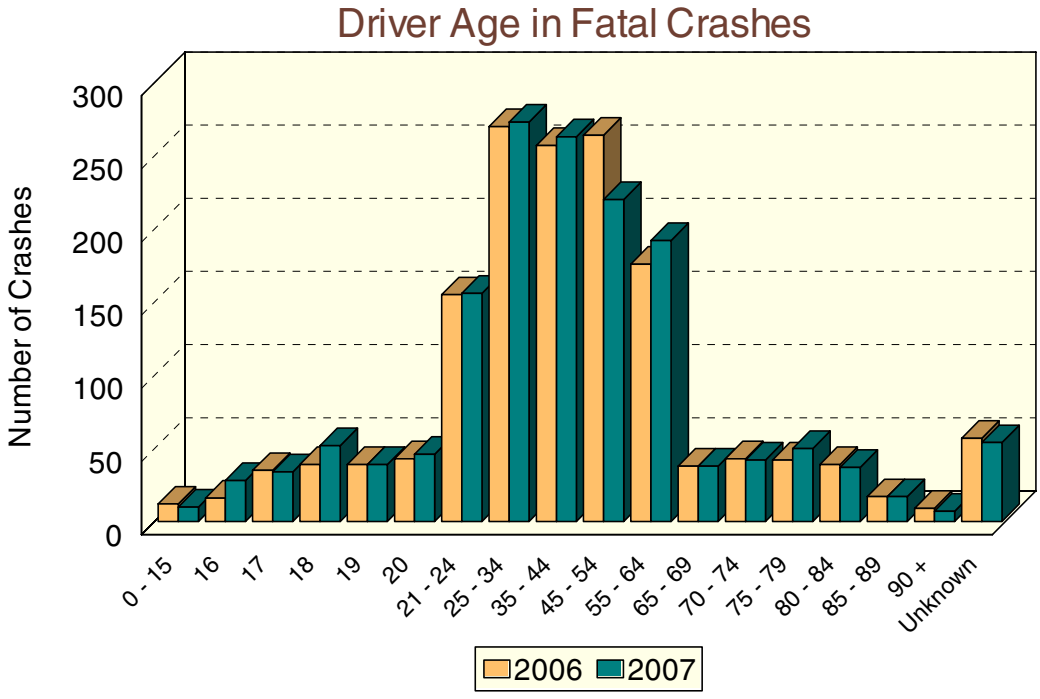


Licensed drivers age 18 have the highest crash rate (total crashes in age group divided by total number of licensed drivers in age group). The low crash rates of the older groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash relative to younger drivers.

DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2006	2007	% Change	% 2007 Fatal Crash Involvement	Percent Active Driving Population*
15 years and under	12	10	-16.7	0.6	0.7
16 years	16	28	75.0	1.8	1.3
17 years	35	34	-2.9	2.2	1.5
18 years	39	52	33.3	3.3	1.5
19 years	39	39	0.0	2.5	1.6
20 years	43	46	7.0	3.0	1.7
21 - 24 years	155	156	0.6	10.0	6.7
25 - 34 years	270	273	1.1	17.5	16.0
35 - 44 years	257	263	2.3	16.9	18.2
45 - 54 years	264	220	-16.7	14.1	20.0
55 - 64 years	176	192	9.1	12.3	15.3
65 - 69 years	38	38	0.0	2.4	5.1
70 - 74 years	43	42	-2.3	2.7	3.7
75 - 79 years	42	50	19.0	3.2	3.1
80 - 84 years	39	37	-5.1	2.4	2.2
85 - 89 years	17	17	0.0	1.1	1.1
90 years and over	9	7	-22.2	0.4	0.3
Unknown	57	54	-5.3	3.5	---
Total	1,551	1,558	0.5	100.0	100.0

* Figures courtesy of the Michigan Department of State [14]



DRIVER CONDITION

POSSIBLE CONDITIONS OF DRIVER*	Conditions Coded by Police	MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
		Number	A	B	C	
Appeared Normal	435,782	766	6,820	19,219	62,347	346,630
Had Been Drinking	11,856	172	951	1,692	1,969	7,072
Illegal Drug Use	843	8	74	90	135	536
Sick	1,013	7	86	142	317	461
Fatigue	850	5	42	103	170	530
Asleep	1,061	4	80	165	204	608
Medication	772	2	49	99	190	432
Driver Distracted	3,327	8	105	292	711	2,211
Using Cellular Phone	872	3	26	66	192	585
Unknown	27,569	491	792	977	2,396	22,913

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

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

DRIVER INJURY SEVERITY BY RESTRAINT, ALCOHOL, AND DRUG USE

	Drivers		Fatality		Injury			No Injury	Unknown
	Number	% of Total	Number	% of Total	A	B	C		
All Drivers									
Restraint Used	463,004	86.2	419	61.2	3,780	10,947	37,714	407,269	2,875
Restraint Not Used	6,020	1.1	187	27.3	714	967	848	3,184	120
Unknown	68,204	12.7	79	11.5	506	813	1,524	19,904	45,378
Total	537,228	100.0	685	100.0	5,000	12,727	40,086	430,357	48,373
Drinking Only Drivers									
Restraint Used	8,283	72.8	60	41.4	355	859	975	5,984	50
Restraint Not Used	1,001	8.8	65	44.8	242	234	126	325	9
Unknown	2,098	18.4	20	13.8	126	256	207	1,420	69
Total	11,382	100.0	145	100.0	723	1,349	1,308	7,729	128
Drugged Only Drivers									
Restraint Used	634	74.1	19	63.3	47	71	94	401	2
Restraint Not Used	88	10.3	8	26.7	18	14	15	31	2
Unknown	134	15.7	3	10.0	11	14	18	79	9
Total	856	100.0	30	100.0	76	99	127	511	13
Drinking and Drugged Drivers									
Restraint Used	418	61.7	12	38.7	31	45	55	272	3
Restraint Not Used	112	16.5	15	48.4	27	24	11	32	3
Unknown	147	21.7	4	12.9	15	26	21	77	4
Total	677	100.0	31	100.0	73	95	87	381	10

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

RED-LIGHT-RUNNING CRASHES

INTERSECTION CRASH TYPE	Crashes	MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
			A	B	C	
Related to intersection	93,117	265	1,873	5,095	15,714	70,170
In intersection	45,335	206	1,288	3,314	8,748	31,779
With traffic control signal	21,200	57	586	1,541	4,458	14,558
With hazardous action	**5,906**	23	223	592	1,573	3,495

"Related to intersection" captures crashes that were related to or within 150 feet of an intersection.

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

"With traffic control 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 **5,906** crashes.

RED-LIGHT-RUNNING
MOST SEVERE OUTCOME IN CRASH

SPEED LIMIT*	MOST SEVERE OUTCOME IN CRASH					
	Crashes	Fatal	Injury			PDO
			A	B	C	
5 miles per hour	1	0	0	0	1	0
10 miles per hour	0	0	0	0	0	0
15 miles per hour	0	0	0	0	0	0
20 miles per hour	1	0	0	0	0	1
25 miles per hour	628	0	11	42	145	430
30 miles per hour	880	3	30	78	230	539
35 miles per hour	1,565	4	46	123	399	993
40 miles per hour	866	3	35	100	245	483
45 miles per hour	1,278	8	59	152	349	710
50 miles per hour	268	0	13	40	81	134
55 miles per hour	308	5	24	49	95	135
60 miles per hour	0	0	0	0	0	0
65 miles per hour	0	0	0	0	0	0
70 miles per hour	2	0	0	0	0	2
75 miles per hour	2	0	0	0	0	2
Unknown	107	0	5	8	28	66
Total	5,906	23	223	592	1,573	3,495

*Posted speed limit as entered by officer on the UD-10 form.

CRASH TYPE	MOST SEVERE OUTCOME IN CRASH					
	Crashes	Fatal	Injury			PDO
			A	B	C	
Single Vehicle	90	0	8	33	29	20
Head on	66	0	2	5	24	35
Head on left turn	549	2	33	60	162	292
Angle	4,938	21	176	484	1,315	2,942
Rear end	41	0	0	1	8	32
Rear end left turn	14	0	0	0	3	11
Rear end right turn	1	0	0	0	0	1
Sideswipe same direction	66	0	0	1	3	62
Sideswipe opposite direction	41	0	1	1	4	35
Other/ Unknown	100	0	3	7	25	65
Total	5,906	23	223	592	1,573	3,495

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	22	0	1	3	6	12
Drinking Involved	191	5	13	34	52	87
Drug Use Involved	25	3	4	4	6	8
Pedestrian Involved	33	1	5	11	13	3
Bicyclist Involved	58	0	6	23	19	10
Snowmobile Involved	0	0	0	0	0	0
Motorcycle Involved	33	2	17	8	4	2
Train Involved	0	0	0	0	0	0
Truck/Bus Involved	207	2	13	26	51	115
Emergency Vehicle Involved	47	0	2	6	12	27
Driver Hazardous Citation	3,707	4	146	412	1,067	2,078

*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	4,767	12	162	475	1,319	2,799
Had Been Drinking	175	2	12	34	49	78
Illegal Drug Use	12	1	2	2	1	6
Sick	21	0	0	3	6	12
Fatigue	16	0	0	0	8	8
Asleep	4	0	0	0	1	3
Medication	9	0	0	4	2	3
Driver Distracted	132	0	9	16	33	74
Using Cellular Phone	58	0	2	6	18	32
Unknown	295	6	25	26	47	191

*Drivers, pedestrians, bicyclists, and train engineers may have more than one condition, including "Appeared Normal."

HEAVY TRUCK/BUS INVOLVED CRASHES

These crashes 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 as the Truck/Bus Driver Action Prior
- More collisions with bridge/pier/abutments, parked motor vehicles, jackknife, cargo loss/shift, and other non-collisions as the Most Harmful Event
- Fewer collisions with ditches, trees, and animals
- Fewer single-vehicle crashes but more sideswipes
- Fewer drivers indicated to be speeding, failing to yield, reckless driving, disregarding traffic control, and unable to stop in assured clear distance, but more drivers indicated to be making backing, lane use, and turning errors
- Fewer crashes outside of the shoulder/curb
- More crashes between the hours of 6:00 AM and 2:59 PM, but fewer crashes between 3:00 PM and 5:59 AM
- More weekday crashes, and a significant drop in weekend crashes

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	6,661	46.7	85	67.5	1,295	51.6
Turning left	1,189	8.3	5	4.0	195	7.8
Turning right	1,109	7.8	1	0.8	113	4.5
Stopped on roadway	1,072	7.5	14	11.1	199	7.9
In prior crash	10	0.1	0	0.0	4	0.2
Changing lanes	649	4.5	2	1.6	78	3.1
Backing	802	5.6	1	0.8	37	1.5
Slowing/stopping on roadway	909	6.4	4	3.2	219	8.7
Slowing/stopping other	18	0.1	0	0.0	7	0.3
Starting up on roadway	311	2.2	2	1.6	61	2.4
Starting up other	10	0.1	0	0.0	1	0.0
Entering parking	28	0.2	0	0.0	1	0.0
Leaving parking	27	0.2	0	0.0	3	0.1
Entering roadway	122	0.9	0	0.0	38	1.5
Leaving roadway	23	0.2	0	0.0	4	0.2
Making U-turn	45	0.3	1	0.8	5	0.2
Overtaking or passing	88	0.6	0	0.0	11	0.4
Avoiding object	8	0.1	0	0.0	0	0.0
Avoiding animal	10	0.1	0	0.0	3	0.1
Avoiding pedestrian	2	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	194	1.4	4	3.2	61	2.4
Avoiding vehicle (angle)	68	0.5	3	2.4	15	0.6
Driverless moving	8	0.1	0	0.0	2	0.1
Parked	300	2.1	4	3.2	57	2.3
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	1	0.0	0	0.0	0	0.0
Getting on/off vehicle	1	0.0	0	0.0	0	0.0
In roadway with traffic	1	0.0	0	0.0	0	0.0
In roadway against traffic	1	0.0	0	0.0	1	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	1	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	1	0.0	0	0.0	0	0.0
Other	2	0.0	0	0.0	0	0.0
Unknown	603	4.2	0	0.0	100	4.0
Total	14,274	100.0	126	100.0	2,510	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	24	0.2	0	0.0	8	0.3
Cross center/median	9	0.1	0	0.0	1	0.0
Ran off road left	24	0.2	0	0.0	1	0.0
Ran off road right	31	0.2	0	0.0	1	0.0
Re-enter road	3	0.0	0	0.0	1	0.0
Overturn	191	1.3	2	1.6	79	3.1
Separation of units	29	0.2	0	0.0	5	0.2
Fire/explosion	40	0.3	1	0.8	3	0.1
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	105	0.7	0	0.0	7	0.3
Downhill runaway	14	0.1	0	0.0	1	0.0
Cargo loss/shift	154	1.1	0	0.0	13	0.5
Individual fell off	7	0.0	1	0.8	3	0.1
Other noncollision	148	1.0	0	0.0	15	0.6
NONCOLLISION Subtotal	779	5.5	4	3.2	138	5.5

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	39	0.3	8	6.3	28	1.1
Bicyclist	21	0.1	0	0.0	16	0.6
Motor vehicle in transport	10,091	70.7	110	87.3	1,970	78.5
Parked motor vehicle	545	3.8	0	0.0	23	0.9
Railway train	12	0.1	0	0.0	3	0.1
Animal	514	3.6	0	0.0	5	0.2
Other nonfixed objects	175	1.2	0	0.0	17	0.7
COLLISION NONFIXED Subtotal	11,397	79.8	118	93.7	2,062	82.2

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	74	0.5	0	0.0	9	0.4
Bridge parapet end	6	0.0	0	0.0	1	0.0
Bridge rail	20	0.1	0	0.0	3	0.1
Guardrail face	55	0.4	0	0.0	13	0.5
Guardrail end	15	0.1	0	0.0	3	0.1
Median barrier	48	0.3	1	0.8	14	0.6
Highway traffic sign post	67	0.5	0	0.0	1	0.0
Highway signal post	17	0.1	0	0.0	0	0.0
Luminaire/light support	42	0.3	0	0.0	0	0.0
Utility pole	122	0.9	0	0.0	8	0.3
Other pole	44	0.3	0	0.0	1	0.0
Culvert	7	0.0	0	0.0	3	0.1
Curb	10	0.1	0	0.0	2	0.1
Ditch	129	0.9	0	0.0	35	1.4
Embankment	22	0.2	0	0.0	10	0.4
Fence	10	0.1	0	0.0	0	0.0
Mailbox	17	0.1	0	0.0	0	0.0
Tree	117	0.8	3	2.4	26	1.0
Rail crossing signal	22	0.2	0	0.0	0	0.0
Building	16	0.1	0	0.0	4	0.2
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	34	0.2	0	0.0	0	0.0
Impact attenuator	4	0.0	0	0.0	0	0.0
Other fixed object	215	1.5	0	0.0	8	0.3
COLLISION FIXED Subtotal	1,113	7.8	4	3.2	141	5.6

	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	985	6.9	0	0.0	169	6.7
TOTAL MOST HARMFUL EVENT	14,274	100.0	126	100.0	2,510	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	2,118	14.8	7	5.6	255	10.2
Head On	212	1.5	31	24.6	84	3.3
Head On - Left Turn	169	1.2	8	6.3	70	2.8
Angle	2,294	16.1	25	19.8	622	24.8
Rear End	3,115	21.8	27	21.4	779	31.0
Rear End - Left Turn	108	0.8	2	1.6	30	1.2
Rear End - Right Turn	137	1.0	2	1.6	26	1.0
Sideswipe - Same Direction	3,875	27.1	6	4.8	354	14.1
Sideswipe - Opposite Direct	801	5.6	8	6.3	103	4.1
Other/Unknown	1,445	10.1	10	7.9	187	7.5
Total	14,274	100.0	126	100.0	2,510	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	6,805	47.7	101	80.2	1,342	53.5	10	0.5
Speed too fast	424	3.0	0	0.0	106	4.2	173	8.0
Speed too slow	14	0.1	0	0.0	5	0.2	3	0.1
Failed to yield	749	5.2	4	3.2	190	7.6	351	16.2
Disregard traffic control	146	1.0	1	0.8	65	2.6	83	3.8
Drove wrong way	6	0.0	0	0.0	1	0.0	1	0.0
Drove left of center	79	0.6	0	0.0	14	0.6	20	0.9
Improper passing	80	0.6	0	0.0	7	0.3	12	0.6
Improper lane use	725	5.1	1	0.8	58	2.3	227	10.5
Improper turn	478	3.3	1	0.8	33	1.3	150	6.9
Improper/no signal	23	0.2	0	0.0	3	0.1	3	0.1
Improper backing	607	4.3	0	0.0	18	0.7	180	8.3
Unable to stop in assured clear distance	1,159	8.1	5	4.0	301	12.0	480	22.2
Reckless driving	15	0.1	0	0.0	4	0.2	6	0.3
Careless/negligent driving	324	2.3	1	0.8	79	3.1	172	8.0
Other	1,269	8.9	5	4.0	99	3.9	256	11.8
Unknown	1,371	9.6	7	5.6	185	7.4	36	1.7
Total	14,274	100.0	126	100.0	2,510	100.0	2,163	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	12,579	88.1	118	93.7	2,221	88.5
Median	87	0.6	0	0.0	18	0.7
Shoulder	430	3.0	4	3.2	98	3.9
Outside of Shoulder/Curb	528	3.7	2	1.6	84	3.3
Gore	26	0.2	0	0.0	7	0.3
Other/Unknown	624	4.4	2	1.6	82	3.3
Total	14,274	100.0	126	100.0	2,510	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
Midnight - 02:59 AM	431	3.0	7	5.6	77	3.1
03:00 AM - 05:59 AM	563	3.9	11	8.7	121	4.8
06:00 AM - 08:59 AM	2,614	18.3	19	15.1	460	18.3
09:00 AM - 11:59 AM	3,015	21.1	21	16.7	507	20.2
Noon - 02:59 PM	3,123	21.9	20	15.9	553	22.0
03:00 PM - 05:59 PM	2,812	19.7	14	11.1	492	19.6
06:00 PM - 08:59 PM	1,005	7.0	17	13.5	157	6.3
09:00 PM - 11:59 PM	651	4.6	17	13.5	136	5.4
Unknown	60	0.4	0	0.0	7	0.3
Total	14,274	100.0	126	100.0	2,510	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	3,683	25.8	35	27.8	732	29.2
U.S. & Michigan Roads	4,234	29.7	63	50.0	810	32.3
County & City Roads	6,357	44.5	28	22.2	968	38.6
Total	14,274	100.0	126	100.0	2,510	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	545	3.8	4	3.2	108	4.3
Monday	2,510	17.6	20	15.9	424	16.9
Tuesday	2,618	18.3	20	15.9	462	18.4
Wednesday	2,687	18.8	23	18.3	477	19.0
Thursday	2,543	17.8	16	12.7	452	18.0
Friday	2,558	17.9	26	20.6	458	18.2
Saturday	813	5.7	17	13.5	129	5.1
Total	14,274	100.0	126	100.0	2,510	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	11,814	82.8	110	87.3	2,124	84.6
Female	1,504	10.5	8	6.3	255	10.2
Unknown	956	6.7	8	6.3	131	5.2
Total	14,274	100.0	126	100.0	2,510	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	11,116	77.9	105	83.3	1,937	77.2
2 occupants	1,013	7.1	12	9.5	199	7.9
3 occupants	183	1.3	1	0.8	36	1.4
4 occupants	125	0.9	1	0.8	27	1.1
5 occupants	82	0.6	0	0.0	14	0.6
6 + occupants	742	5.2	4	3.2	152	6.1
0 occupants	213	1.5	3	2.4	45	1.8
Unknown	800	5.6	0	0.0	100	4.0
Total	14,274	100.0	126	100.0	2,510	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	8,915	73.5	84	62.7	1,882	73.1
Van and Motorhome	923	7.6	17	12.7	198	7.7
Pickup	1,523	12.6	13	9.7	309	12.0
Small Truck (under 10,000 lbs.)	405	3.3	2	1.5	71	2.8
Motorcycle	34	0.3	10	7.5	18	0.7
Moped	1	0.0	0	0.0	1	0.0
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	3	0.0	0	0.0	1	0.0
Off Road Vehicle	0	0.0	0	0.0	0	0.0
Other	59	0.5	1	0.7	12	0.5
Unknown	262	2.2	7	5.2	84	3.3
Subtotal	12,125	100.0	134	100.0	2,576	100.0

HEAVY TRUCK/BUS VEHICLE TYPES	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Subtotal	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Commercial Vehicle: Group A	7,216	50.6	89	70.6	1,353	53.9
Commercial Vehicle: Group B	3,038	21.3	20	15.9	542	21.6
Commercial Vehicle: Group C	485	3.4	2	1.6	74	2.9
Other Truck	701	4.9	12	9.5	170	6.8
Unknown Truck	2,834	19.9	3	2.4	371	14.8
Subtotal	14,274	100.0	126	100.0	2,510	100.0
Total Vehicle Types in Heavy Truck/Bus Crashes	26,399		260		5,086	

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 Involved Crash						Passenger Vehicle Only Involved Crash			
	Single Vehicle Crash		Multi-Vehicle Crash				Single Vehicle Crash		Multi-Vehicle Crash	
	Number of Trucks/Buses	% of citation	Number of Trucks/Buses	% of citation	Number of Passenger Vehicles	% of citation	Number of Passenger Vehicles	% of citation	Number of Passenger Vehicles	% of citation
None	5	1.3	5	0.3	6	0.3	69	0.5	490	0.6
Speed too fast	122	31.5	51	2.9	313	13.8	7,450	49.4	3,794	4.5
Speed too slow	2	0.5	1	0.1	6	0.3	52	0.3	118	0.1
Failed to yield	7	1.8	344	19.4	481	21.2	433	2.9	22,838	27.4
Disregard traffic control	9	2.3	74	4.2	130	5.7	158	1.0	5,716	6.9
Drove wrong way	0	0.0	1	0.1	7	0.3	8	0.1	154	0.2
Drove left of center	1	0.3	19	1.1	33	1.5	81	0.5	744	0.9
Improper passing	0	0.0	12	0.7	73	3.2	24	0.2	758	0.9
Improper lane use	8	2.1	219	12.3	209	9.2	118	0.8	3,658	4.4
Improper turn	29	7.5	121	6.8	50	2.2	39	0.3	1,826	2.2
Improper/no signal	0	0.0	3	0.2	1	0.0	10	0.1	127	0.2
Improper backing	8	2.1	172	9.7	21	0.9	37	0.2	2,208	2.6
Unable to stop in assured clear distance	14	3.6	466	26.2	565	24.9	602	4.0	33,511	40.2
Reckless driving	2	0.5	4	0.2	17	0.8	656	4.4	433	0.5
Careless/Negligent driving	91	23.5	81	4.6	192	8.5	3,363	22.3	2,838	3.4
Other	81	20.9	175	9.9	116	5.1	1,614	10.7	3,057	3.7
Unknown	8	2.1	28	1.6	46	2.0	354	2.3	1,140	1.4
Total Cited Vehicles	387	100.0	1,776	100.0	2,266	100.0	15,068	100.0	83,410	100.0
Percent of Total Vehicles		17.7		14.7		19.1		11.9		22.4
Vehicles with No Citation Issued	1,798	82.3	10,313	85.3	9,594	80.9	111,137	88.1	288,822	77.6
Total Vehicles Involved	2,185	100.0	12,089	100.0	11,860	100.0	126,205	100.0	372,232	100.0

2007
2007
2007
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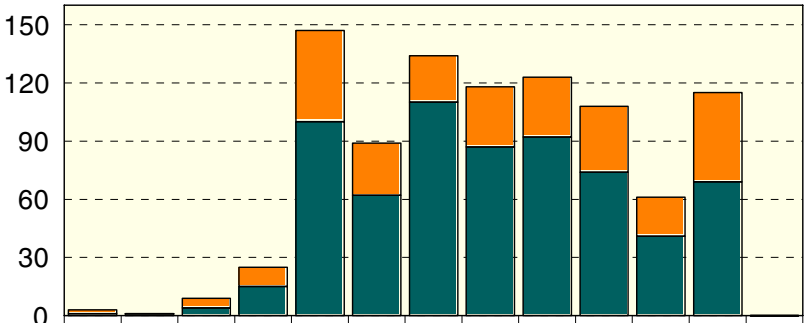
Occupant/
Person

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

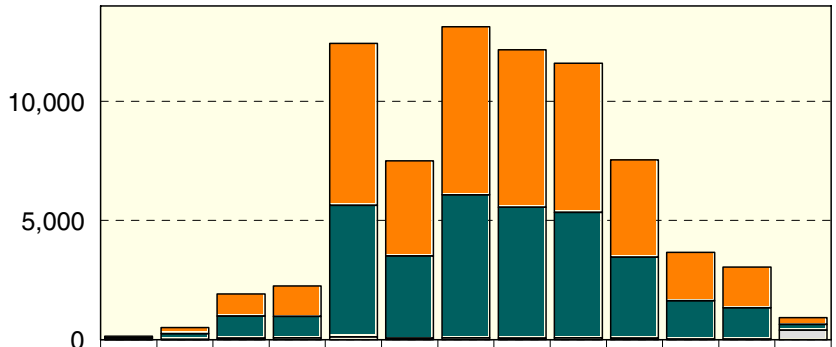
Occupants Killed



	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown	Totals
Females killed	2	0	5	10	47	27	24	31	31	34	20	46	0	277
Males killed	1	1	4	15	100	62	110	87	92	74	41	69	0	656
Total	3	1	9	25	147	89	134	118	123	108	61	115	0	933

There were 277 female occupants, and 656 male occupants killed in motor vehicle crashes in 2007. The majority (70.3%) of occupants killed in traffic crashes in 2007 were male.

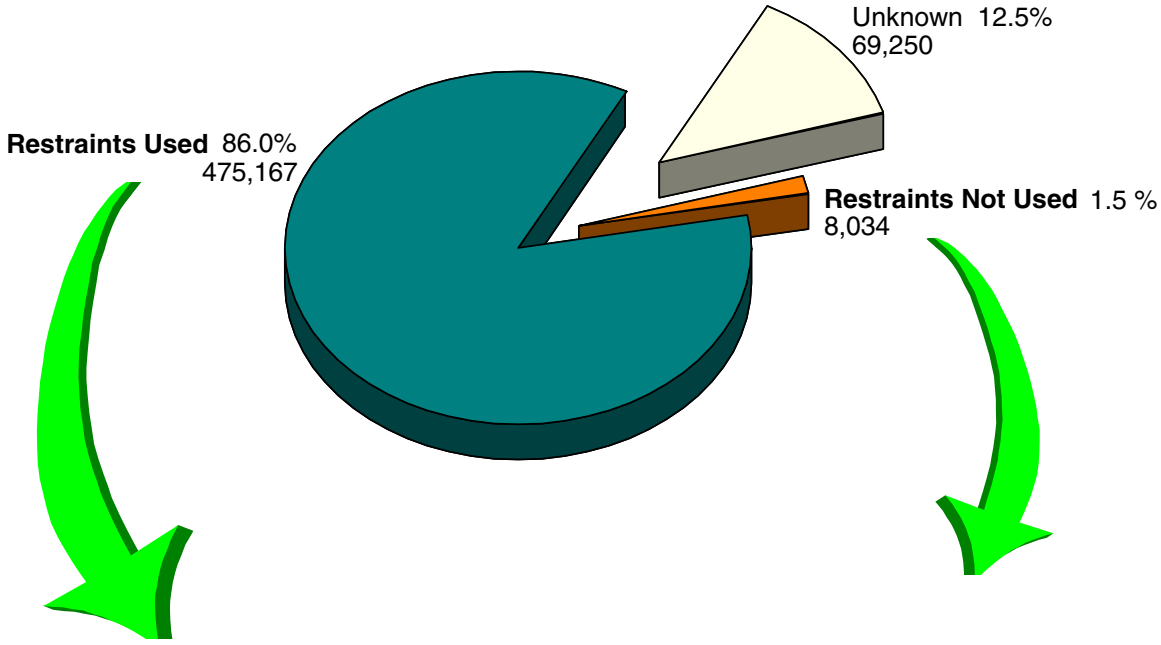
Occupants Injured



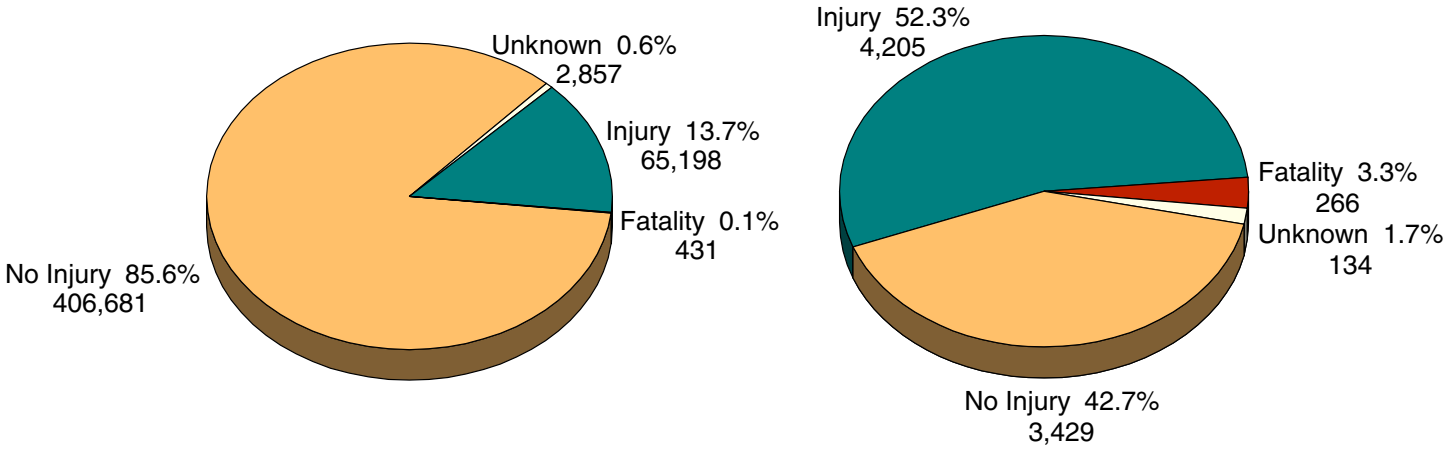
	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown	Totals
Females injured	68	262	930	1,274	6,794	3,991	7,057	6,612	6,253	4,077	2,025	1,702	288	41,333
Males injured	61	235	925	904	5,515	3,463	6,003	5,490	5,272	3,404	1,615	1,312	239	34,438
Unknown gender injured	10	11	66	71	121	54	74	63	73	58	22	27	393	1,043
Total	139	508	1,921	2,249	12,430	7,508	13,134	12,165	11,598	7,539	3,662	3,041	920	76,814

There were 41,333 female occupants, 34,438 male occupants, and 1,043 occupants of unknown gender injured in motor vehicle crashes in 2007. The majority (53.8%) of occupants injured in traffic crashes in 2007 were female.

REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

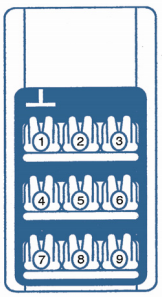


Injury Severity



Of the 552,451 drivers and injured passengers involved in crashes, 475,167 (86.0%) were REPORTED to be using occupant restraints.

Occupants in crashes were thirty-three 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	452,059	95.9	312	3,071	9,797	36,757	402,122
Center Front	455	0.1	2	15	73	235	130
Right Front	10,739	2.3	93	770	2,064	7,574	238
Left Rear	1,217	0.3	4	78	278	853	4
Center Rear	324	0.1	2	18	77	227	0
Right Rear	1,345	0.3	8	102	266	965	4
Left Rear Third Seat	206	0.0	1	17	52	136	0
Center Rear Third Seat	88	0.0	2	3	26	57	0
Right Rear Third Seat	230	0.0	1	13	56	160	0
Unknown	4,544	1.0	2	37	130	422	3,953
Total	471,207†	100.0	427	4,124	12,819	47,386	406,451

* A 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 the next 2 pages.

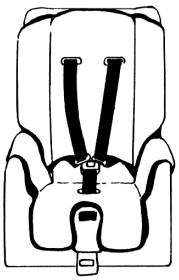
† This total does not include 2,850 occupants with unknown injury severity.

Seating Position	Belts Not Used*		Fatal	Injury			No Injury
	Number	% of Total		A	B	C	
Left Front	5,328	71.2	176	626	877	798	2,851
Center Front	63	0.8	0	8	22	20	13
Right Front	678	9.1	42	162	244	200	30
Left Rear	322	4.3	9	67	105	141	0
Center Rear	130	1.7	6	23	45	55	1
Right Rear	314	4.2	13	58	94	148	1
Left Rear Third Seat	36	0.5	3	6	11	16	0
Center Rear Third Seat	45	0.6	1	8	13	23	0
Right Rear Third Seat	65	0.9	1	10	17	37	0
Unknown	504	6.7	12	43	69	134	246
Total	7,485†	100.0	263	1,011	1,497	1,572	3,142

* 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 the next 2 pages.

† This total does not include 118 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

In 2007, Michigan law required:

*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).*

Excludes Drivers:

Restraint Usage	Children Age 0		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	13	9.5	0	0	1	12
No Belts Used	2	1.5	0	0	1	1
Child Restraint Used	111	81.0	0	5	17	89
Child Restraint Not Used	4	2.9	3	0	0	1
Restraint Failed	0	0.0	0	0	0	0
Unknown	7	5.1	0	0	0	7
Total	137	100.0	3	5	19	110

Children Age 1

Belts Used	24	15.9	0	1	5	18
No Belts Used	2	1.3	0	0	1	1
Child Restraint Used	100	66.2	0	5	25	70
Child Restraint Not Used	10	6.6	0	1	4	5
Restraint Failed	0	0.0	0	0	0	0
Unknown	15	9.9	0	1	4	10
Total	151	100.0	0	8	39	104

Children Age 2

Belts Used	28	18.2	0	1	5	22
No Belts Used	3	1.9	0	0	1	2
Child Restraint Used	103	66.9	0	7	18	78
Child Restraint Not Used	12	7.8	0	1	7	4
Restraint Failed	0	0.0	0	0	0	0
Unknown	8	5.2	0	0	3	5
Total	154	100.0	0	9	34	111

Children Age 3

Belts Used	43	21.2	0	5	13	25
No Belts Used	3	1.5	0	2	1	0
Child Restraint Used	138	68.0	1	3	34	100
Child Restraint Not Used	9	4.4	0	2	3	4
Restraint Failed	0	0.0	0	0	0	0
Unknown	10	4.9	0	0	1	9
Total	203	100.0	1	12	52	138

Information about uninjured passengers does not have to be reported by the officer on the crash report, thus these tables relate the experience of only 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.*

Excludes Drivers:

Restraint Usage	Children Age 4-15		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	2,965	75.4	14	189	713	2,049
No Belts Used	358	9.1	10	68	115	165
Child Restraint Used	312	7.9	1	17	65	229
Child Restraint Not Used	40	1.0	0	3	23	14
Restraint Failed	10	0.3	0	2	3	5
Unknown	245	6.2	3	35	49	158
Total	3,930	100.0	28	314	968	2,620

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

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

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

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

MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

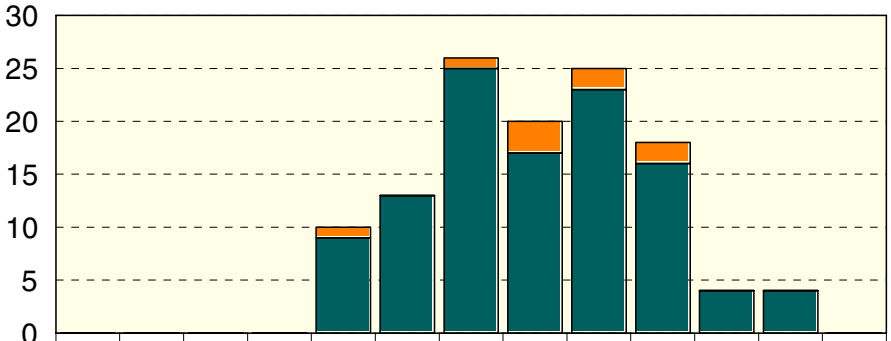
OCCUPANT – INJURY SEVERITY

Motor Vehicle Occupant Airbag Deployment	Occupants*		Fatal	Injury			No Injury
	Number	% Total		A	B	C	
Deployed	44,133	7.9	344	2,364	6,039	12,380	22,225
Not deployed	402,464	72.3	220	1,952	5,926	30,013	355,002
Not equipped	43,567	7.8	330	1,939	3,725	6,098	30,002
Unknown	66,355	11.9	39	566	1,415	4,397	23,170
Total	556,519	100.0	933	6,821	17,105	52,888	430,399

* Includes 48,373 occupants (drivers and passengers) with unknown injury severity.

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

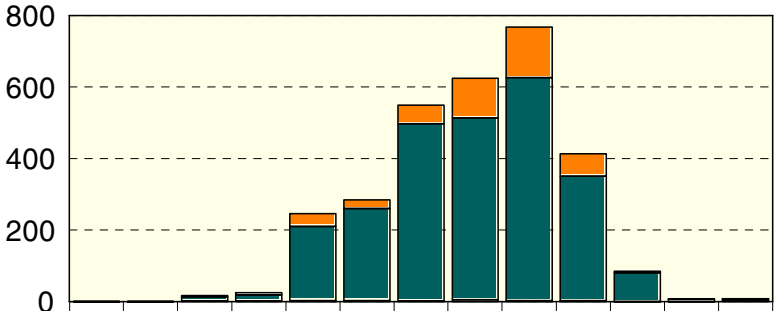
Motorcyclists Killed



	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown	Totals
Females killed	0	0	0	0	1	0	1	3	2	2	0	0	0	9
Males killed	0	0	0	0	9	13	25	17	23	16	4	4	0	111
Total	0	0	0	0	10	13	26	20	25	18	4	4	0	120

92.5 percent of the motorcyclists killed in traffic crashes in 2007 were male.
In comparison, 70.6 percent of all persons killed in crashes were male.

Motorcyclists Injured

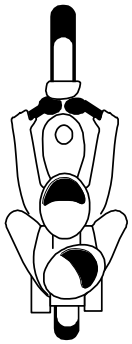


	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown	Totals
Females injured	0	0	4	7	36	24	52	111	141	63	5	1	0	444
Males injured	0	0	12	17	208	258	496	508	624	348	80	7	5	2,563
Unknown gender injured	0	0	1	1	2	2	1	5	2	2	0	0	3	19
Total	0	0	17	25	246	284	549	624	767	413	85	8	8	3,026

84.7 percent of the motorcyclists injured in traffic crashes in 2007 were male.
In comparison, 45.7 percent of all persons injured in crashes were male.

MOTORCYCLE HELMET USE AND INJURY SEVERITY

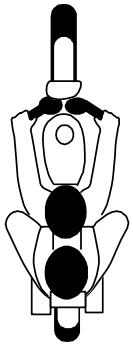
Helmet Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	4	2	5	0
11 - 15 years	0	2	6	6	0
16 - 20 years	10	53	75	55	42
21 - 24 years	7	55	105	67	67
25 - 34 years	22	96	204	121	112
35 - 44 years	15	142	204	136	134
45 - 54 years	19	183	257	172	174
55 - 64 years	18	110	147	86	95
65 - 74 years	4	19	34	23	18
75 years and over	4	0	6	2	2
Unknown	0	0	2	1	4
Subtotal	99	664	1,042	674	648



Drivers killed 96

Passengers killed 3

Helmet Not Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	2	0	0	0
11 - 15 years	0	0	1	3	1
16 - 20 years	0	6	5	0	1
21 - 24 years	1	2	2	1	2
25 - 34 years	1	7	3	3	0
35 - 44 years	0	5	5	2	1
45 - 54 years	1	7	3	2	1
55 - 64 years	0	1	0	0	0
65 - 74 years	0	0	0	0	0
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	3	30	19	11	6



Drivers killed 3

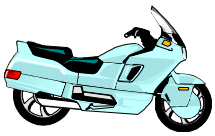
Passengers killed 0

Helmet Use Unknown Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	2	1	1	0
11 - 15 years	0	0	4	3	2
16 - 20 years	0	8	31	13	23
21 - 24 years	5	14	28	10	21
25 - 34 years	3	26	50	39	50
35 - 44 years	5	37	43	50	56
45 - 54 years	5	41	65	37	45
55 - 64 years	0	20	24	25	27
65 - 74 years	0	4	3	2	7
75 years and over	0	0	0	0	2
Unknown	0	2	2	1	56
Subtotal	18	154	251	181	289
Total	120	848	1,312	866	943

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 [16], 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	589	4,308	11,736	40,635	57,268	73.7
Van (Minivan) and Motorhome	62	412	1,042	3,714	5,230	6.7
Pickup	113	748	2,025	4,923	7,809	10.0
Small Truck (under 10,000 lbs.)	15	175	462	1,822	2,474	3.2
Motorcycle	120	848	1,312	866	3,146	4.0
Moped	2	68	124	82	276	0.4
Go Cart	0	8	4	3	15	0.0
Snowmobile	8	60	44	41	153	0.2
Off Road Vehicle	8	84	76	49	217	0.3
Other	8	21	58	64	151	0.2
Unknown	0	23	47	134	204	0.3
CDL Truck/Bus (breakdown below)	8	66	175	555	804	1.0
Total Number of Occupants	933	6,821	17,105	52,888	77,747	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	3	28	86	207	324	40.3
Commercial Vehicle: Group B	0	19	46	200	265	33.0
Commercial Vehicle: Group C	2	7	13	28	50	6.2
Other Truck	2	7	11	37	57	7.1
Unknown Truck	1	5	19	83	108	13.4
Total Number of Occupants	8	66	175	555	804	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.

References

REFERENCES AND REPORTING AGENCIES

[1] Annual Estimates of the Population for Counties of Michigan: April 1, 2000 to July 1, 2007. Population Division, U.S. Census Bureau. Release Date: March 20, 2008.

[2] Table 31DP Number of Deaths by Underlying Cause of Death Michigan Residents, 2006. Michigan Department of Community Health, Division for Vital Records and Health Statistics, PO Box 30691, Lansing, MI 48909-8191.

[3] Injury Facts. National Safety Council. 1121 Spring Lake Drive, Itasca, IL 60143.

[4] Traffic Safety Facts. National Highway Traffic Safety Administration, National Center for Statistics and Analysis, U.S. Department of Transportation, Washington, DC 20590.

[5] Annual Highway Statistics. Federal Highway Administration.

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

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

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

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

[10] 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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2007
2007
2007
2007
2007
2007
2007
2007
2007
2007

Index

A

B

C

D

E

F

G

H

I

L

M

N

O

P

R

S

T

V

W