2008 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.

2008
Michigan Traffic
Crash Facts

A summary of traffic crashes on Michigan roadways in calendar year 2008

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Acknowledgements

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

FOREWORD

The number of total, injury and fatal crashes in Michigan has steadily declined since 2000 and in 2008 the state recorded 915 fatal traffic crashes, the fewest ever.

This is, in part, due to the many traffic records improvement projects that have been ongoing since 2002 that strive to streamline the process of data collection and processing and thus improve the quality, timeliness and accuracy of data outputs.

New technologies, including electronic data collection, additional error checking, quality assurance, and improved crash location data, are continually emerging and improving. By utilizing these technologies as they become available, traffic records quality will continue to improve.

Please visit ***www.michigantrafficcrashfacts.org*** for easy access to crash data from 1992-2008.

EXECUTIVE SUMMARY

In keeping with recent trends, traffic fatalities in 2008 were down to 980, a 9.6 percent decrease from last year. The total number of persons injured also declined 7.5 percent to 74,568 and total crashes dropped 2.5 percent to 316,057. Most notably, the death rate per 100 million miles traveled was the lowest ever recorded, at 0.97.

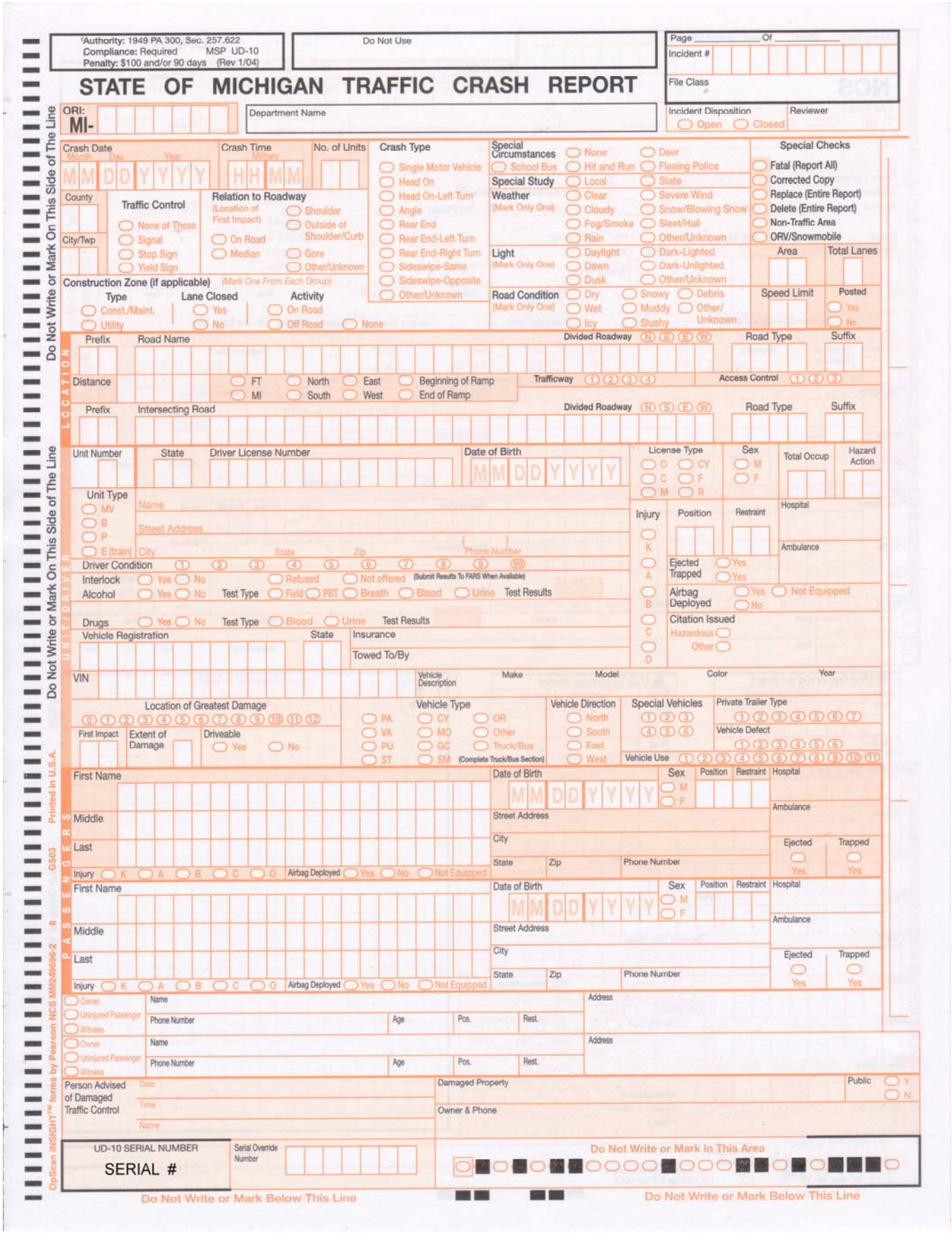
The lower death rate may have been caused by a decline in total miles traveled, down 3.6 percent; number of vehicle registrations, down 2.6 percent; and number of licensed drivers, down 0.7 percent.

While Michigan saw another year of record seat belt use, alcohol-involved crashes continued to present a problem and contributed to 32.5 percent of all fatal crashes. Crashes involving alcohol made up 3.5 percent of all crashes, and while 17.9 percent of all crashes resulted in injury or death, 40.4 percent of alcohol-related crashes resulted in injury or death.

The information compiled in this report was gathered from the 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 Criminal Justice Information Center as of March 18, 2009. 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
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Incident #
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STATE OF MICHIGAN TRAFFIC CRASH REPORT
ORI: MI-
Department Name
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Crash Date Month Day Year
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No. of Units
Crash Type
Special Circumstances
Special Study
Weather
Light
Road Condition
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
Area
Total Lanes
Speed Limit
Posted
Construction Zone (if applicable)
LOCATION
Prefix
Road Name
Divided Roadway
Road Type
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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
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Hospital
Ambulance
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Insurance
Towed To/By
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Color
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First Impact
Extent of Damage
Driveable
Vehicle Type
Vehicle Direction
Special Vehicles
Private Trailer Type
Vehicle Defect
Vehicle Use
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Middle
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Date of Birth
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Position
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Ambulance
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Injury
Airbag Deployed
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Time
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Damaged Property
Public
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UD-10 SERIAL NUMBER
SERIAL #
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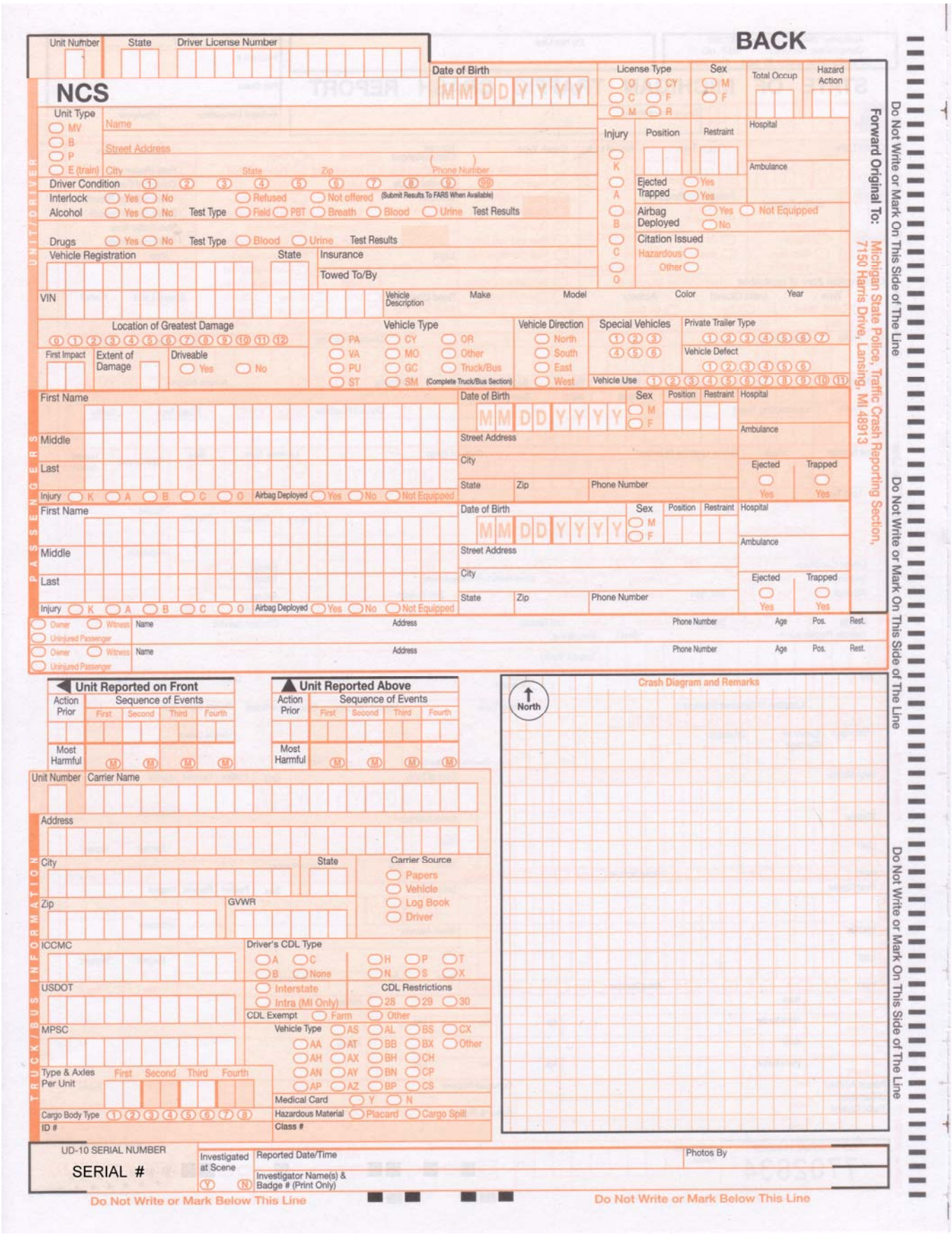
UD-10 (BACK)



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) - Person reported as not receiving bodily harm from the motor vehicle crash.

  Note: Uninjured passengers are not required to be recorded by the police with the exception of a fatality occurring within the crash at which point all involved parties must be listed.

- **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).

GLOSSARY (continued)

- **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

- **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 person in or on a motor vehicle, *excluding* the driver.
  Note: Uninjured passengers are not required to be recorded by the police with the exception of a fatality occurring within the crash at which point all involved parties must be listed.

- **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.

GLOSSARY (continued)

- **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 from 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).

- **Trafficway** - 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

2008

Quick Facts & Figures

2008
2008
2008
2008
2008
2008
2008
2008
2008

2008 QUICK FACTS

★ Some exposure factor comparisons between 2008 and 2007 show motor vehicle registrations decreased **2.6** percent, the number of licensed drivers on Michigan roads decreased **0.7** percent, and vehicle mileage decreased **3.6** percent.

★ The 2008 death rate of **0.97** deaths per 100 million miles of travel decreased **6.7** percent from 2007, remaining below the ten-year average of **1.22** (1999-2008).

★ There were **980** persons killed and **74,568** persons injured in **316,057** reported motor vehicle traffic crashes in Michigan during 2008. Compared with the 2007 experience, the number of: deaths decreased **9.6** percent, persons injured decreased **7.5** percent, and total reported crashes decreased **2.5** percent.

★ There were **316,057** reported crashes, of which **915** were fatal, **55,568** were personal injury, and **259,574** were property damage only crashes.

★ Of all fatal crashes, **25.2** percent occurred at intersections.

★ Of all fatal crashes, **32.5** percent involved at least one drinking operator, bicyclist, or pedestrian, **24.8** percent involved drinking but no drugs, **6.6** percent involved drugs but no drinking, and **7.7** percent involved both drinking and drugs.

★ Excessive speed was indicated as the hazardous action by **13.3** percent of the drivers involved in fatal crashes.

★ Of the **316,057** total crashes in 2008, **127,449 (40.3%)** involved one vehicle only. This is an increase of **1.0** percent from last year's count of **126,198** single-vehicle crashes.

★ Of the **915** fatal crashes, **471 (51.5%)** involved one vehicle.

★ Of the **297** alcohol-related fatal crashes, **205 (69.0%)** involved one vehicle. This is a **4.2** percent decrease from last year's figure of **214** single vehicle, alcohol-related fatal crashes.

★ Of the **1,447** drivers involved in fatal crashes, **166 (11.5%)** were under 21 years of age and **292 (20.2%)** of all drivers involved in fatal crashes were under 25 years of age.

★ Of the **10,003,422** persons living in Michigan [1] one out of every **10,208** was killed in a traffic crash; one out of every **134** persons was injured.

★ For each person killed, **76.1** 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 **114** persons, a decrease of **20** deaths from 2007.

★ For each pedestrian killed, there were **16.9** pedestrians injured.

★ Of the pedestrians killed, **36.0** percent were killed while crossing streets other than at intersections.

★ Of all pedestrians killed, **15.8** percent were under the age of 21 and **30.7** percent were 55 and older.

★ Children under the age of 16 accounted for **8.0** percent of the bicycle deaths.

★ Of the **531,384** drivers and injured passengers involved in crashes, **460,378** or **86.6** percent were *reported* to have been using occupant restraints. Restraint usage among fatal victims, where usage was known, was reported to be **57.8** percent in 2008.

★ Motor vehicle occupants age 75 to 110 had the highest reported restraint usage **(95.6%)** among age groups. Children age 11 to 15 had the lowest reported restraint usage **(80.0%)**.

★ The economic loss in Michigan traffic crashes amounted to **$8,426,612,500**. If costs were spread across the state's population this would translate into a loss of $842 per state resident.

Michigan's Crash Watch 2008

Every
1 minute
40 seconds
a traffic crash
occurs

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

One person
is injured in
a crash every
7 minutes
3 seconds

One person
is killed in an
alcohol-related
crash every
27 hours
38 minutes

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

One bicyclist
is injured every
5 hours
21 minutes

One
pedestrian
is injured every
4 hours
33 minutes

One
motorcyclist
is injured every
2 hours
39 minutes

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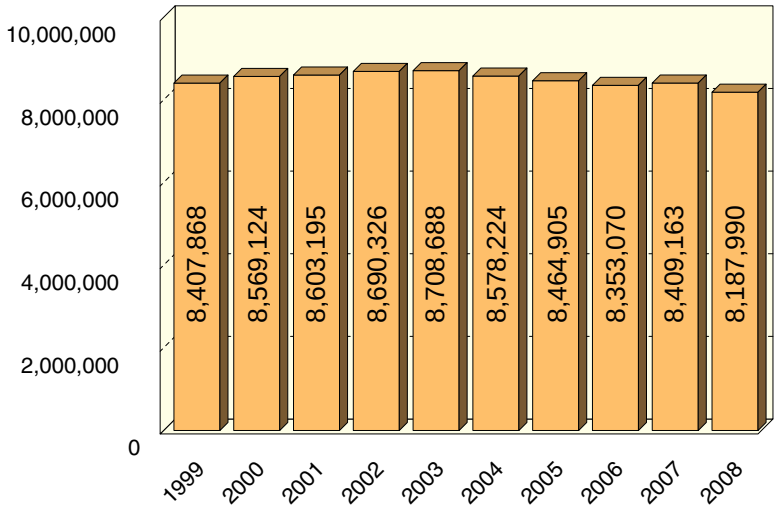
Historical Information

10-, 5-, and 1-year

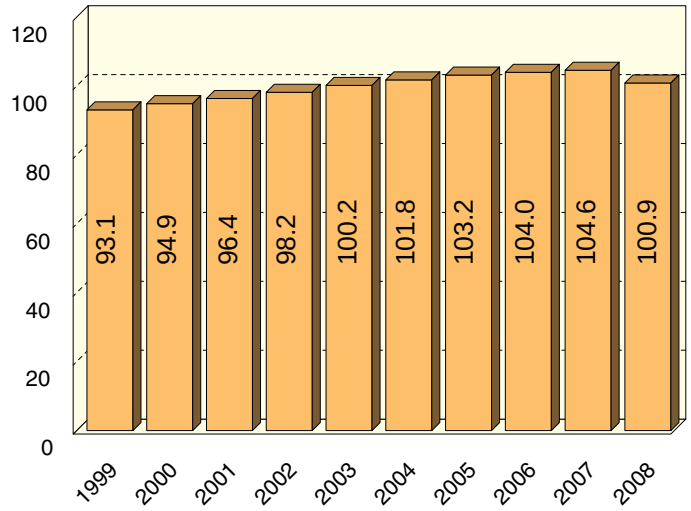
10 YEAR

VEHICLE REGISTRATIONS



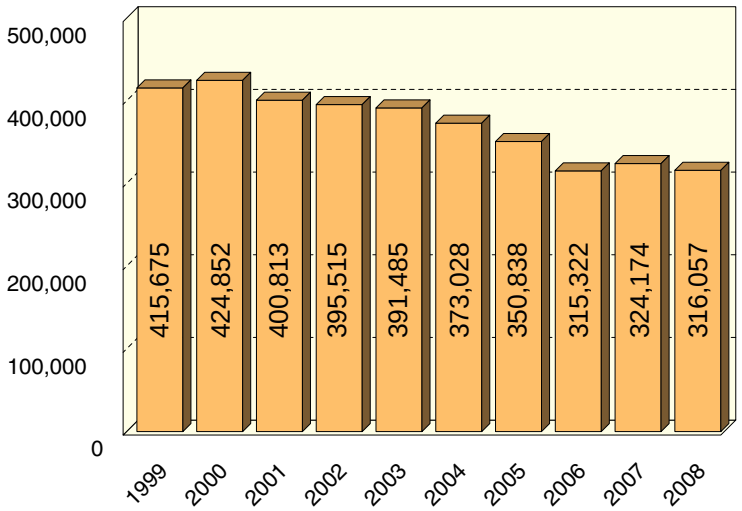
Vehicle registrations remained fairly consistent over the ten-year period, reaching a high in 2003.

VEHICLE MILES TRAVELED



Vehicle miles traveled have increased 8.4 percent since 1999, reaching 100.9 billion miles in 2008.

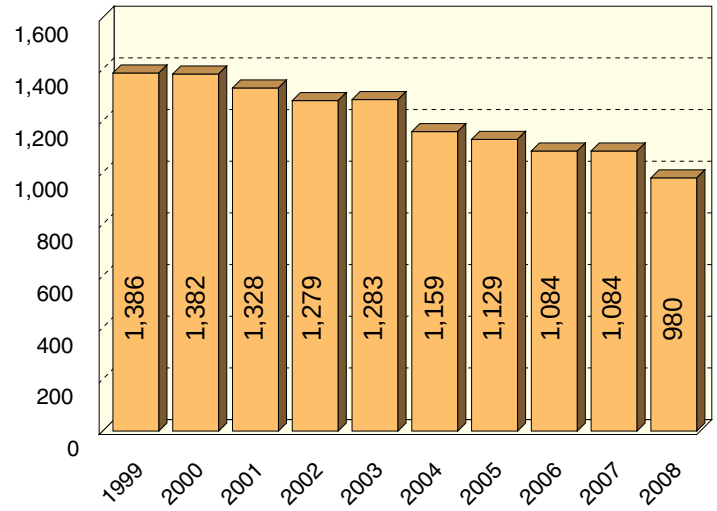
CRASHES



There were 316,057 total crashes statewide in 2008, a 24.0 percent decrease from 1999.

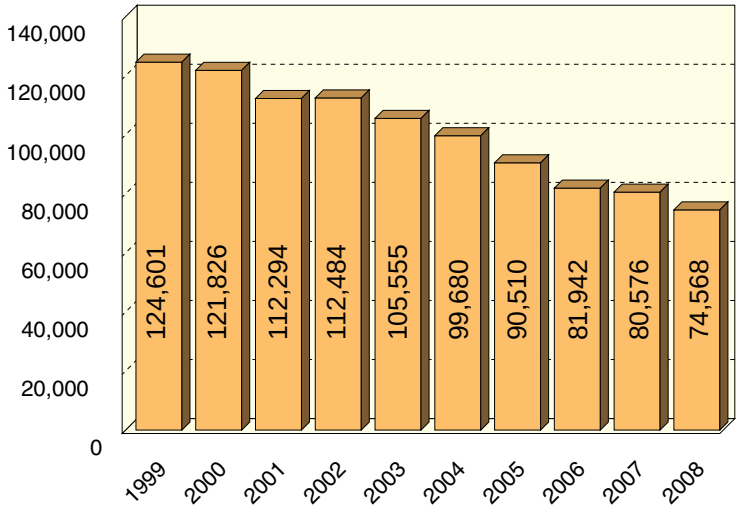
10 YEAR TRENDS (continued)

DEATHS



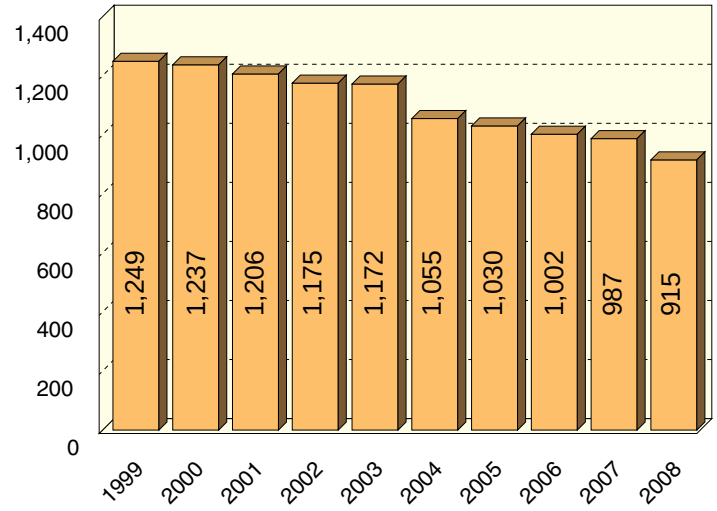
In 2008, 980 people died in motor vehicle crashes, a decrease of 29.3 percent from 1999.

INJURIES



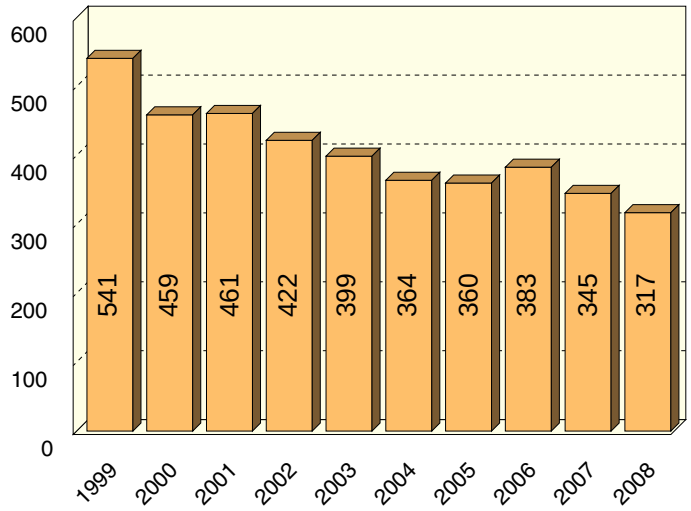
74,568 people received nonfatal injuries in motor vehicle crashes in 2008, down 40.2 percent from 124,601 in 1999.

FATAL CRASHES



In 2008, there were 915 fatal crashes, down 26.7 percent from 1,249 in 1999.

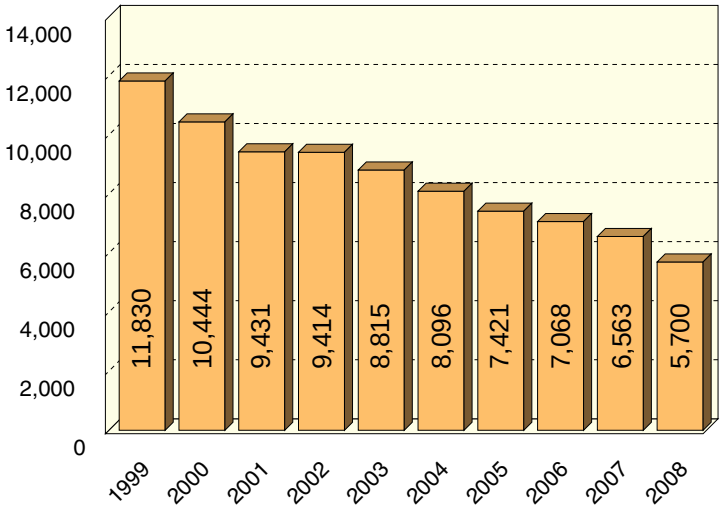
HAD-BEEN-DRINKING FATALITIES



10 YEAR

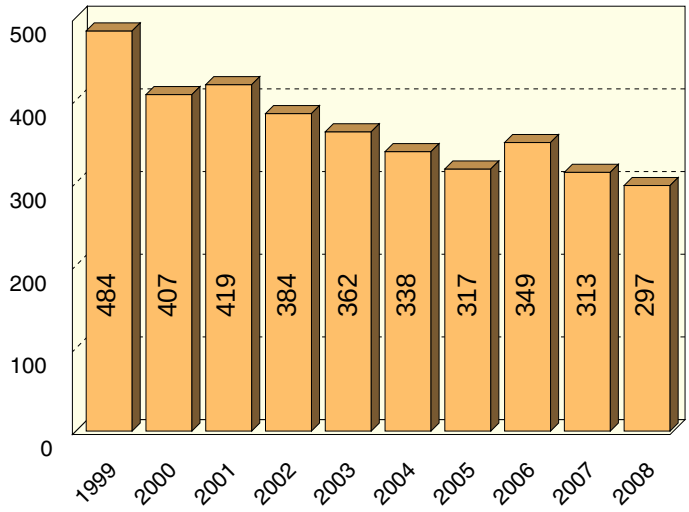
Deaths in alcohol-related crashes decreased 41.4 percent over the ten-year period.

HAD-BEEN-DRINKING INJURIES



Mirroring the trend in deaths, had-been-drinking injuries have decreased over the last ten years. In 2008, there were 5,700 injuries in crashes where the operator had been drinking, down 51.8 percent from 1999.

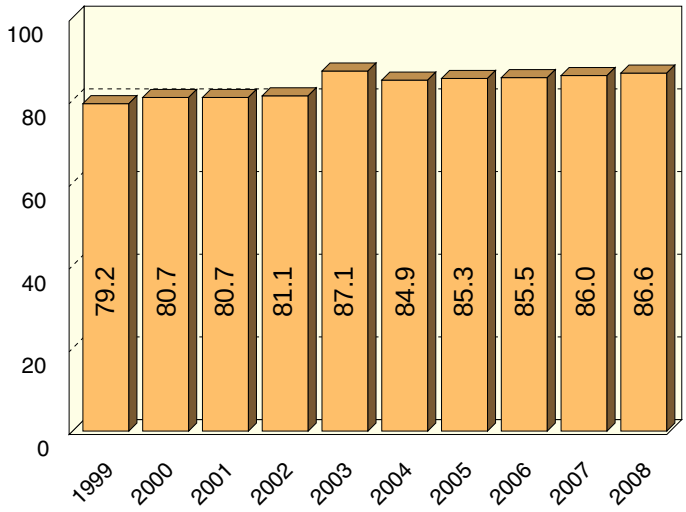
HAD-BEEN-DRINKING FATAL CRASHES



Alcohol involvement in fatal crashes has also decreased over the ten-year period. In 2008, there were 297 fatal crashes where the operator had been drinking, down 38.6 percent from 1999.

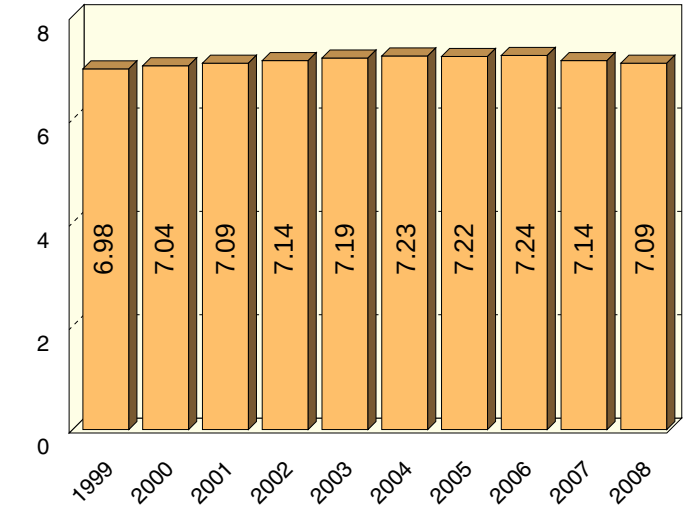
10 YEAR TRENDS (continued)

RESTRAINT USAGE



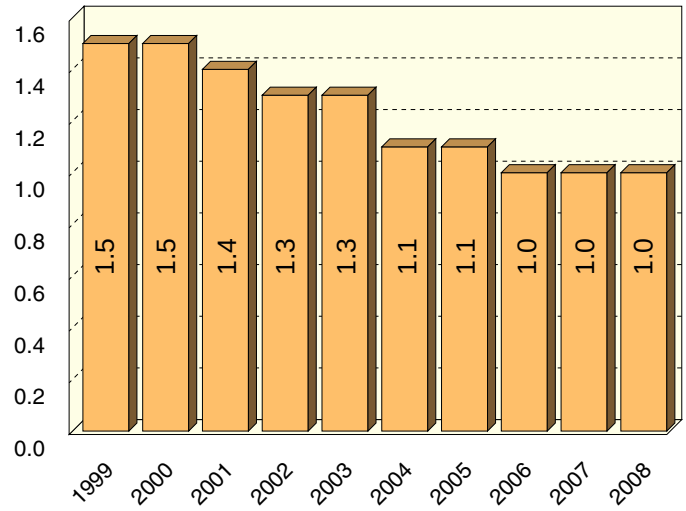
The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes increased dramatically following implementation of Michigan's seat belt law in July 1985. Restraint usage has increased 9.3 percent over the last ten years.

DRIVERS IN MICHIGAN



There were 7,088,425 licensed drivers on Michigan roadways in 2008, an increase of 1.6 percent from 1999.

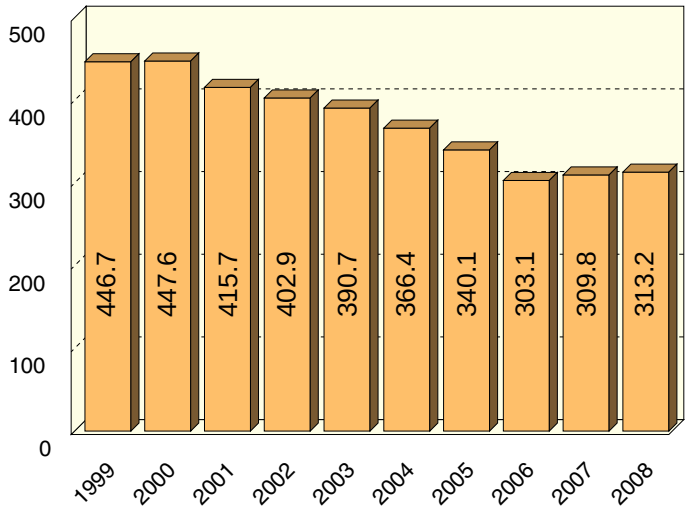
MILEAGE DEATH RATE



The 1.0 (0.97) death rate in 2008 is a 33.3 percent decrease from the ten-year high of 1.5 in 1999-2000.

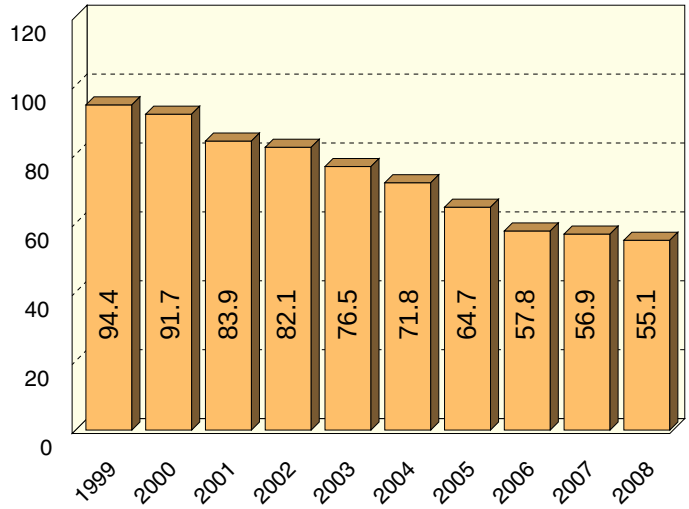
10 YEAR

TOTAL CRASH RATE



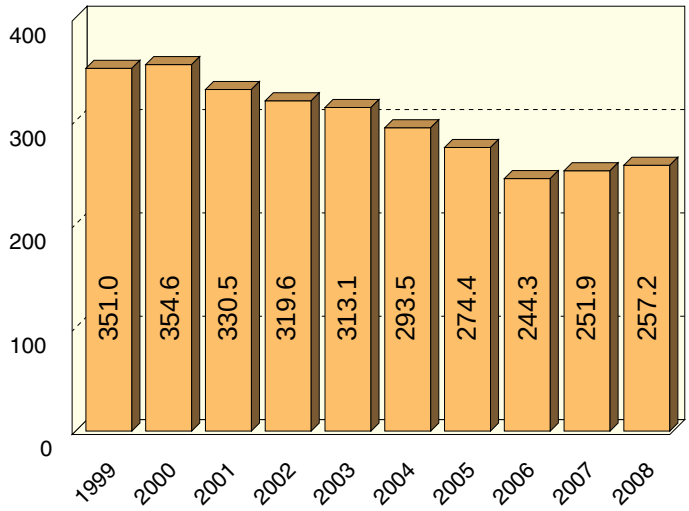
The ten-year total crash rate peaked in 2000 at 447.6 then decreased by 30.0 percent to 313.2 in 2008.

PERSONAL INJURY CRASH RATE



The personal injury crash rate has been steadily decreasing since 1999. The 55.1 personal injury crash rate in 2008 is a 41.6 percent decrease from 1999.

PROPERTY DAMAGE CRASH RATE

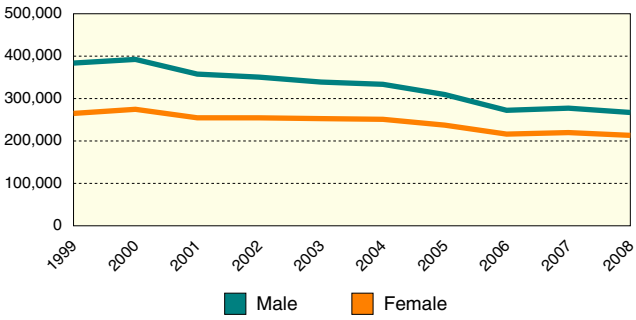


The 257.2 property damage crash rate in 2008 is a 26.7 percent decrease from 1999.

10 YEAR TRENDS (continued)

DRIVERS IN ALL CRASHES		
	Male	Female
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
2008	267,186	213,223

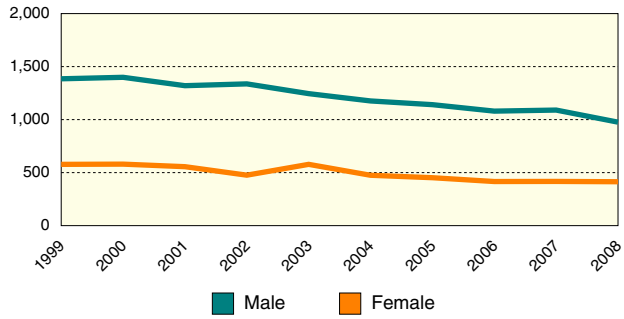
DRIVERS IN ALL CRASHES



Male drivers accounted for 51.6 percent of all drivers in crashes during 2008, down slightly from 53.4 percent in 1999.

DRIVERS IN FATAL CRASHES		
	Male	Female
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
2008	976	414

DRIVERS IN FATAL CRASHES

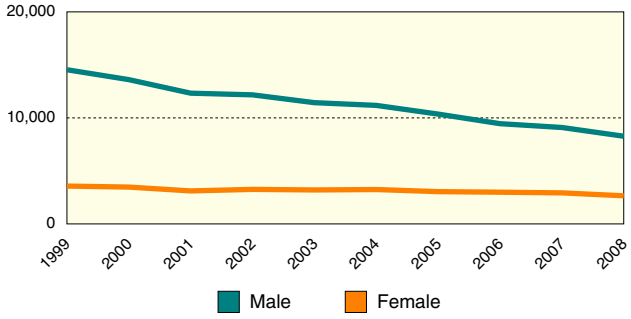


Male drivers made up 67.5 percent of all drivers in fatal crashes in 2008. The 976 male driver count is down 29.5 percent from 1999.

DRINKING DRIVERS IN ALL CRASHES		
	Male	Female
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
2008	8,270	2,650

Note: 7.3 percent of all drivers (37,831), 3.9 percent of drivers (57) in fatal crashes, and 0.3 percent of all drinking drivers (28), were coded as unknown gender in 2008.

DRINKING DRIVERS IN ALL CRASHES

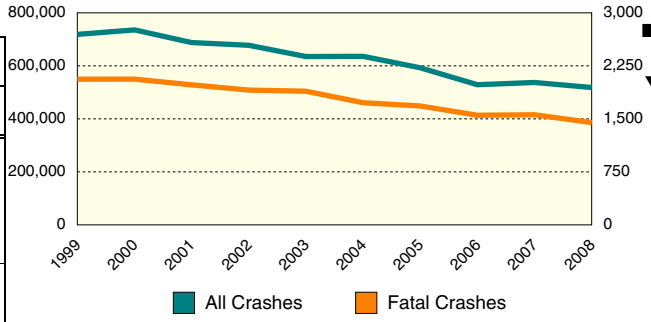


Male drivers have always accounted for the majority of drinking drivers in all crashes. In 2008, males represented 75.5 percent of all drinking drivers. The 8,270 male driver count is down 43.1 percent from 1999.

10 YEAR

ALL DRIVERS		
	All Crashes	Fatal Crashes
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
2008	518,240	1,447

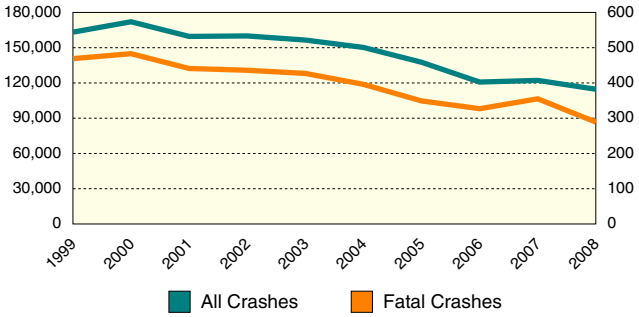
ALL DRIVERS



The number of drivers involved in all crashes decreased 27.9 percent over the ten-year period.
The number of drivers involved in fatal crashes decreased 29.8 percent over the ten-year period.

TEEN/YOUNG ADULT DRIVERS		
	All Crashes	Fatal Crashes
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
2008	114,659	289

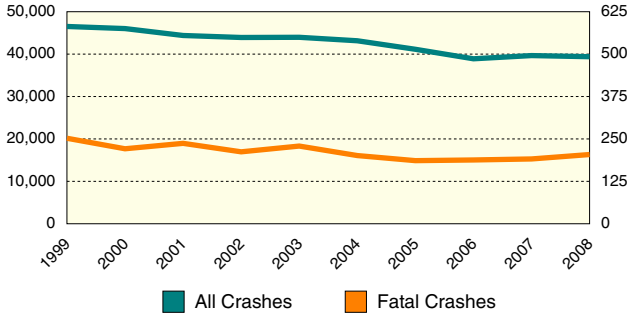
TEEN/YOUNG ADULT DRIVERS



Teen/young adult drivers (age 16-24) represented 14.3 percent of the licensed drivers in 2008.
The number of teen/young adult drivers in all crashes has decreased by 29.8 percent since 1999. Their involvement in fatal crashes decreased 38.4 percent during the same time period.

ELDERLY DRIVERS		
	All Crashes	Fatal Crashes
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
2008	39,388	204

ELDERLY DRIVERS

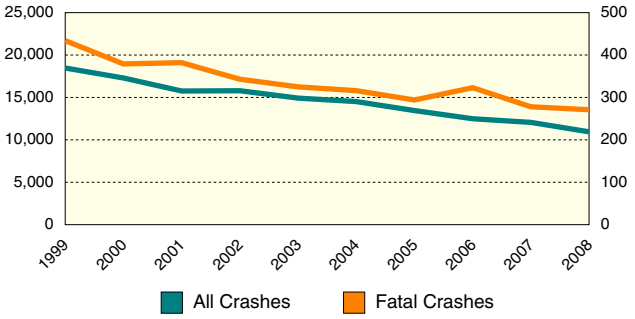


Elderly drivers (age 65-110) represent 15.9 percent of the licensed drivers in 2008.
The number of drivers age 65 and older in all crashes has decreased 15.3 percent since 1999. Their involvement in fatal crashes decreased 19.0 percent during the same time period.

10 YEAR TRENDS (continued)

DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2008	10,948	271

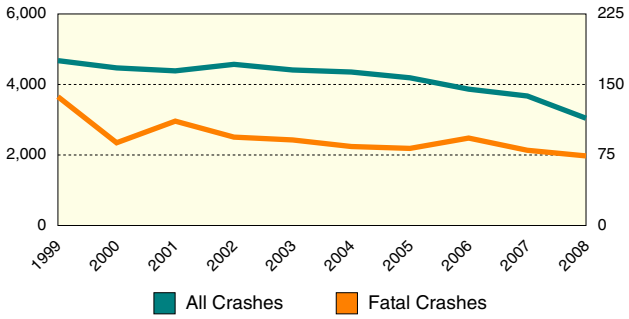
DRINKING DRIVERS



Drinking driver involvement in all crashes decreased by 40.7 percent from 1999. Drinking driver involvement in fatal crashes decreased by 37.6 percent from 1999.

TEEN/YOUNG ADULT DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2008	3,042	74

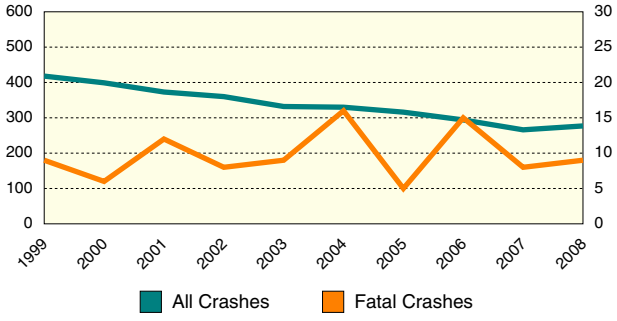
TEEN/YOUNG ADULT DRINKING DRIVERS



Following the trend for all drinking drivers, the number of teen/young adult drinking drivers (age 16-24) in all crashes decreased by 34.9 percent, and their involvement in fatal crashes decreased by 46.0 percent from 1999.

ELDERLY DRINKING DRIVERS		
	All Crashes	Fatal Crashes
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
2008	277	9

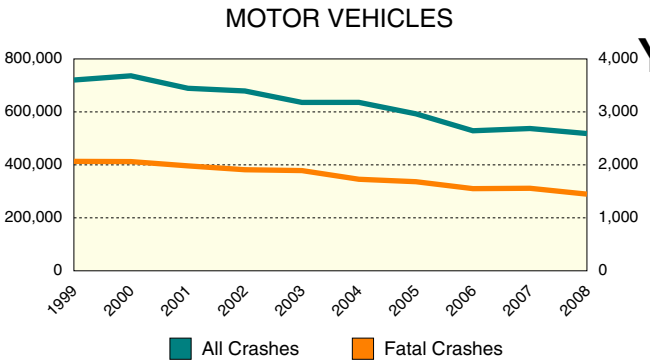
ELDERLY DRINKING DRIVERS



The number of elderly drinking drivers (age 65-110) in all crashes has decreased by 33.7 percent from 1999.

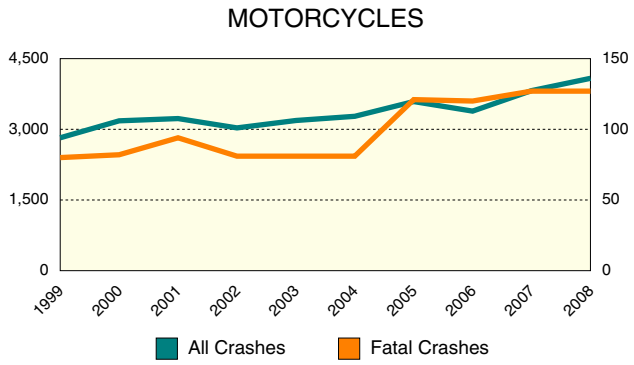
10 YEAR

MOTOR VEHICLES		
	All Crashes	Fatal Crashes
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
2008	518,240	1,447



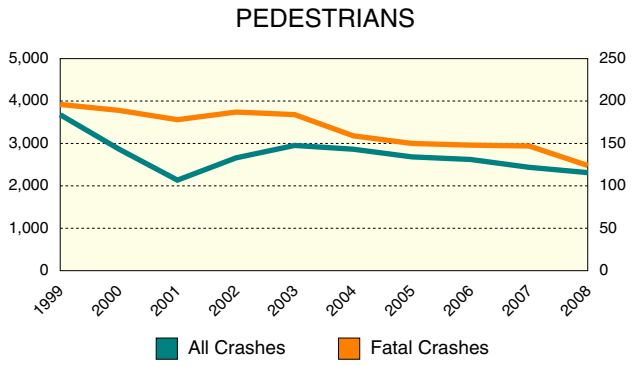
There were 1,447 motor vehicles involved in fatal crashes in 2008, down 30.0 percent from 1999.

MOTORCYCLES		
	All Crashes	Fatal Crashes
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
2008	4,082	127



The number of motorcycles involved in fatal crashes has increased 58.8 percent in the ten-year period.

PEDESTRIANS		
	All Crashes	Fatal Crashes
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
2008	2,312	124

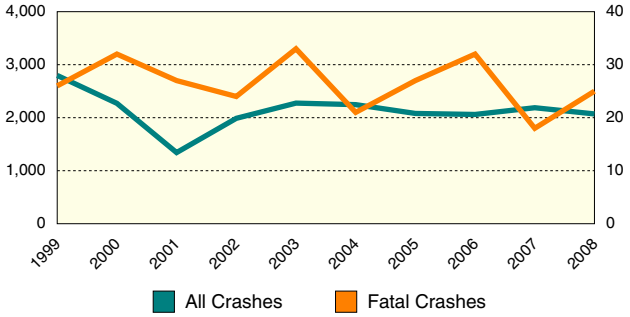


There were 124 pedestrians involved in fatal crashes in 2008, down 36.7 percent from 1999.

10 YEAR TRENDS (continued)

BICYCLES		
	All Crashes	Fatal Crashes
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
2008	2,071	25

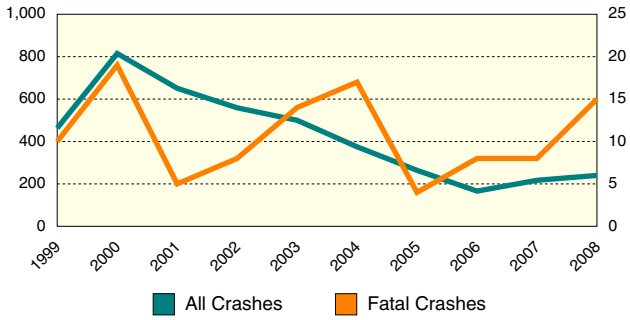
BICYCLES



There were 25 bicycles involved in fatal crashes in 2008, down 3.8 percent from 1999.

SNOWMOBILES on Michigan roadways		
	All Crashes	Fatal Crashes
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
2008	240	15

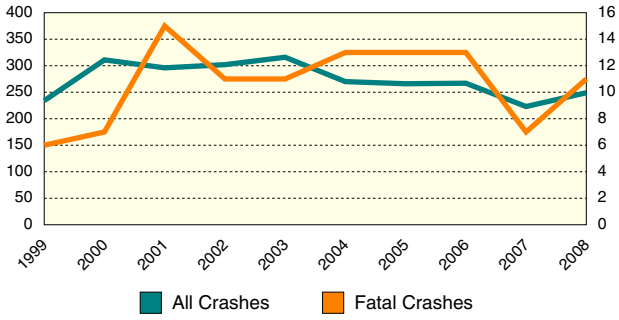
SNOWMOBILES on Michigan roadways



The 240 snowmobile crash count is down 48.2 percent form 1999. 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
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
2008	249	11

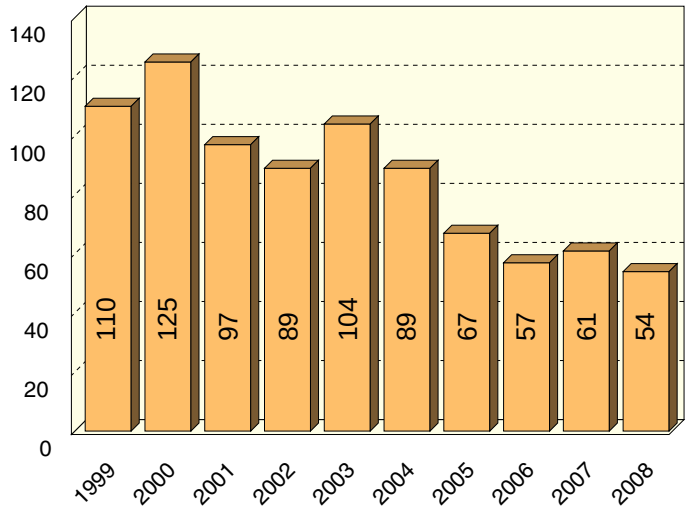
ORV/ATV's on Michigan roadways



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

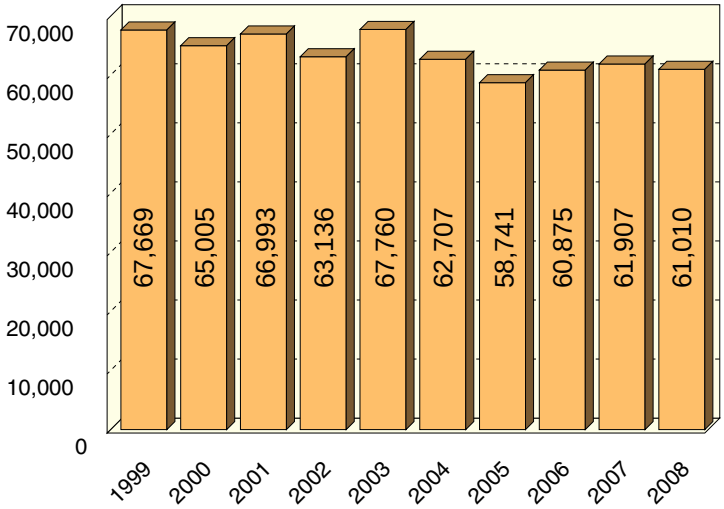
10 YEAR

VEHICLE-TRAIN CRASHES



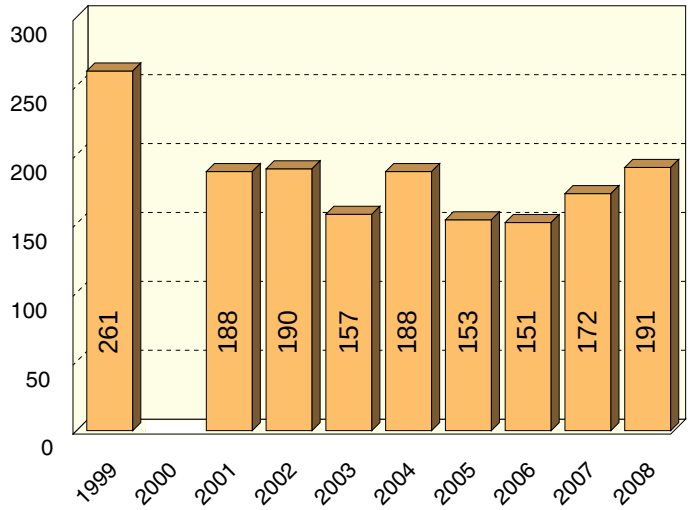
54 vehicle-train crashes occurred in 2008, a decrease of 50.9 percent in the ten-year period.

VEHICLE-DEER CRASHES



The number of vehicle-deer crashes has decreased 9.8 percent in the ten-year period.

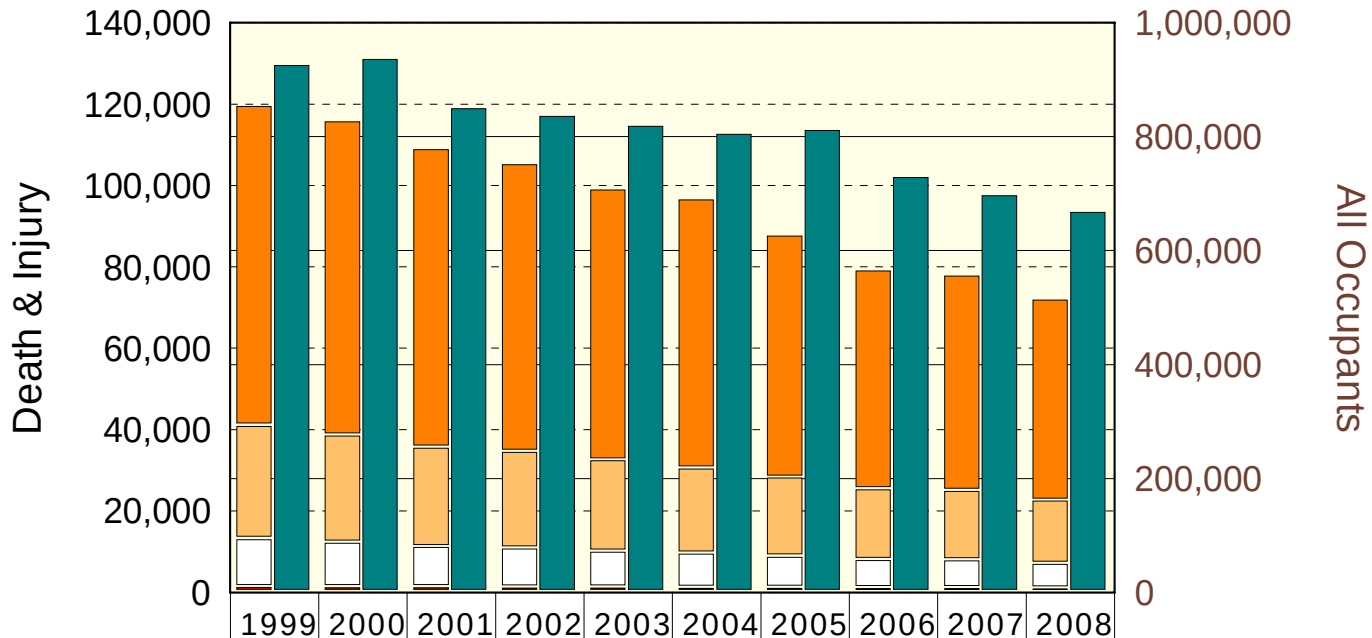
FARM EQUIPMENT CRASHES



The 191 farm equipment crashes in 2008 marks a 26.8 percent decrease in the ten-year period.

Data not available for calendar year 2000 farm equipment crashes.

DEATH AND INJURY FOR CRASH-INVOLVED OCCUPANTS

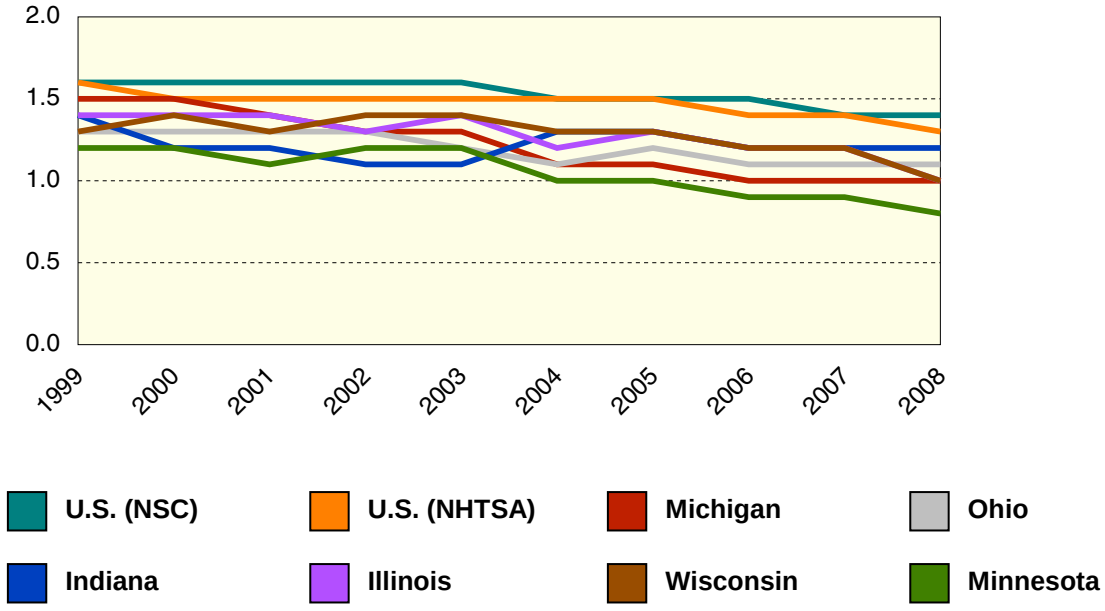


	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
All Occupants	924,476	935,411	849,316	835,576	818,272	803,839	811,174	728,444	695,926	666,897
C - Injured	78,565	77,258	73,396	70,687	66,570	66,155	59,434	53,752	52,888	49,427
B - Injured	27,856	26,335	24,442	23,744	22,449	20,915	19,414	17,423	17,105	15,495
A - Injured	11,789	10,918	9,852	9,579	8,798	8,411	7,714	6,904	6,821	6,091
K - Killed	1,183	1,174	1,136	1,073	1,077	998	966	919	933	841

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 1999 - 2008



	U.S. (NSC*)	U.S. (NHTSA*)	Michigan	Ohio	Indiana	Illinois	Wisconsin	Minnesota
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
2008	1.4	1.3	1.0	1.1	1.2	1.0	1.0	0.8

* 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.

† Data not yet available

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

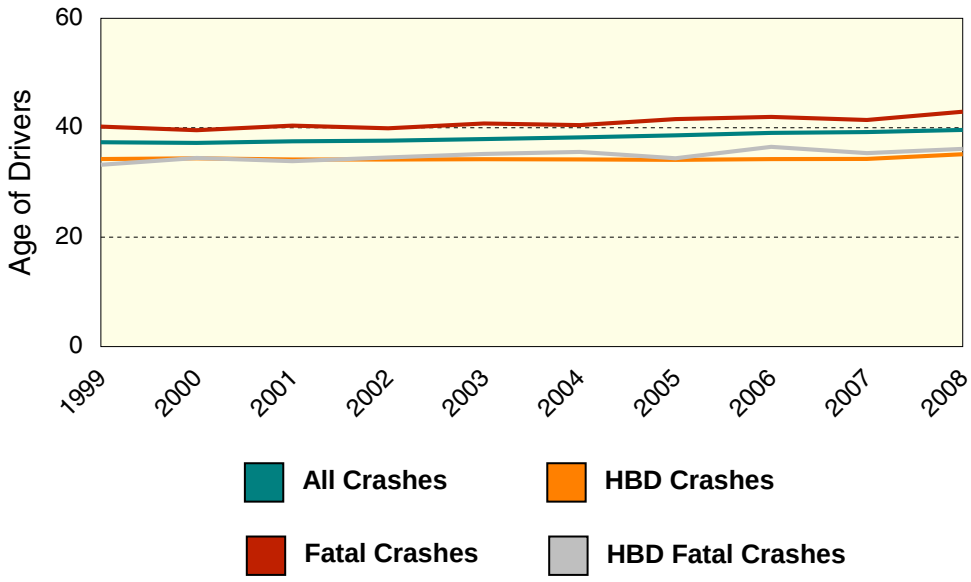
Year	U.S. (NSC) Persons Killed	U.S. (NHTSA) Persons Killed	Michigan Persons Killed	Ohio Persons Killed	Indiana Persons Killed	Illinois Persons Killed	Wisconsin Persons Killed	Minnesota Persons Killed
1999	42,401	41,717	1,386	1,430	1,017	1,456	744	626
2000	43,354	41,945	1,382	1,361	875	1,418	801	625
2001	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
2008	39,800	37,261	980	1,191	815	1,043	587	455

Year	U.S. (FHWA) VMT	Michigan VMT	Ohio VMT	Indiana VMT	Illinois VMT	Wisconsin VMT	Minnesota VMT
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
2008	2,929	100.9	108.3	68.0	105.6	57.5	57.3

VMT described in billions of miles

10 YEAR

AVERAGE AGE OF DRIVERS IN CRASHES 1999 - 2008

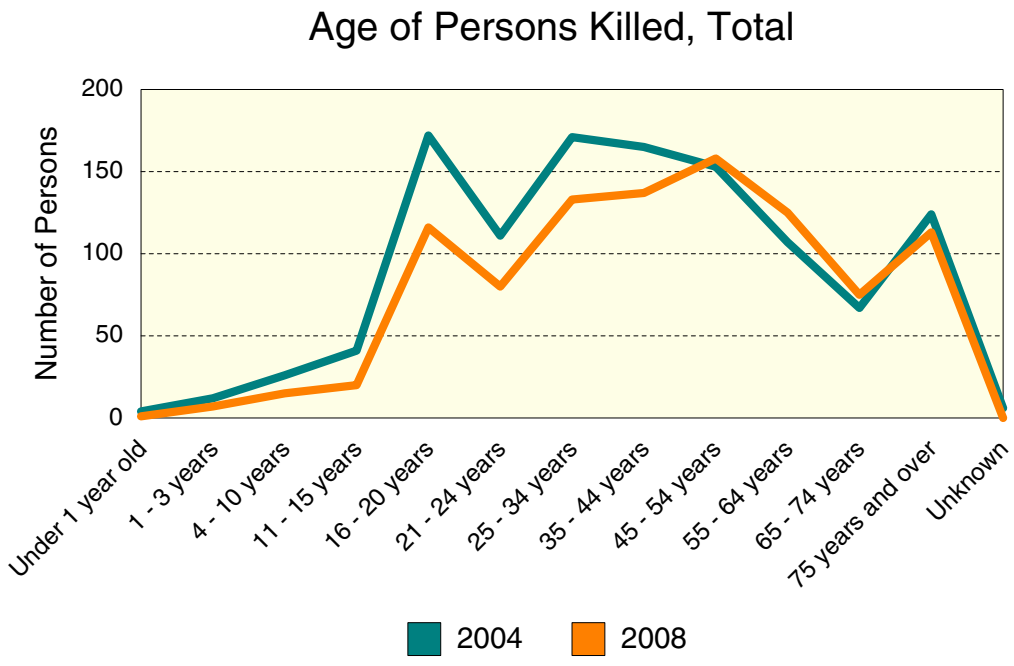


Reflecting the demographic trend of increasing age in the general population, the average age of drivers involved in all crashes and fatal crashes has increased over the ten-year period. The average age of drivers in HBD crashes has remained flat.

5 YEAR

TREND DATA FOR FATALITIES

TREND DATA FOR FATALITIES	2004	2005	2006	2007	2008
Age of Persons Killed, Total					
Under 1 year old	4	3	2	3	1
1 - 3 years	12	7	6	5	7
4 - 10 years	26	30	15	14	15
11 - 15 years	41	44	31	35	20
16 - 20 years	172	142	115	154	116
21 - 24 years	111	92	122	97	80
25 - 34 years	171	159	167	148	133
35 - 44 years	165	172	161	146	137
45 - 54 years	153	166	170	154	158
55 - 64 years	107	118	118	127	125
65 - 74 years	67	70	67	73	75
75 years and over	124	123	110	128	113
Unknown	6	3	0	0	0
Totals	1,159	1,129	1,084	1,084	980



5
YEAR

TREND DATA FOR FATALITIES	2004	2005	2006	2007	2008
Age of Drivers Involved in Fatal Crashes					
13 years and under	3	5	4	2	1
14 years	2	2	1	1	0
15 years	10	6	7	7	3
16 years	29	25	16	28	19
17 years	50	37	35	34	28
18 years	50	51	39	52	45
19 years	55	45	39	39	38
20 years	44	38	43	46	33
21 - 24 years	168	153	155	156	126
25 - 34 years	297	269	270	273	236
35 - 44 years	335	292	257	263	246
45 - 54 years	259	307	264	220	245
55 - 64 years	149	169	176	192	162
65 - 69 years	50	39	38	38	45
70 - 74 years	43	38	43	42	48
75 - 79 years	38	35	42	50	46
80 - 84 years	37	43	39	37	36
85 - 89 years	25	22	17	17	19
90 years and over	8	9	9	7	10
Unknown	76	97	57	54	61
Totals	1,728	1,682	1,551	1,558	1,447
Age of Drivers Involved in Single Vehicle Fatal Crashes					
13 years and under	0	1	2	2	0
14 years	1	1	1	0	0
15 years	7	2	4	4	1
16 years	14	10	6	11	5
17 years	13	12	13	10	8
18 years	18	13	12	16	17
19 years	22	13	13	14	14
20 years	12	16	17	19	11
21 - 24 years	73	60	67	64	52
25 - 34 years	89	94	102	83	76
35 - 44 years	87	77	69	81	75
45 - 54 years	65	70	83	70	73
55 - 64 years	38	44	62	55	66
65 - 69 years	10	13	12	10	14
70 - 74 years	10	9	16	12	13
75 - 79 years	5	5	11	14	9
80 - 84 years	7	15	8	7	12
85 - 89 years	6	3	3	1	4
90 years and over	1	0	2	1	1
Unknown	23	25	19	16	20
Totals	501	483	522	490	471

5 YEAR

TREND DATA FOR FATALITIES	2004	2005	2006	2007	2008
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	5	2	0	0
11 - 15 years	3	2	2	4	2
16 - 20 years	0	3	2	0	2
21 - 24 years	1	0	1	1	2
25 - 34 years	1	1	0	2	5
35 - 44 years	3	9	4	1	1
45 - 54 years	7	1	8	7	7
55 - 64 years	2	1	4	1	5
65 - 74 years	0	3	4	1	1
75 years and over	0	0	1	0	0
Unknown	0	0	0	0	0
Totals	21	25	28	17	25
Age of Pedestrians Killed					
Under 1 year old	1	1	0	0	0
1 - 3 years	3	2	0	4	3
4 - 10 years	5	8	3	5	2
11 - 15 years	3	6	6	6	5
16 - 20 years	11	9	8	7	8
21 - 24 years	7	6	11	7	6
25 - 34 years	18	18	15	12	14
35 - 44 years	26	26	32	27	16
45 - 54 years	20	24	24	24	25
55 - 64 years	11	16	18	18	13
65 - 74 years	9	12	8	11	11
75 years and over	21	9	12	13	11
Unknown	5	1	0	0	0
Totals	140	138	137	134	114
Action of Pedestrians Killed					
Crossing at intersection	20	18	17	17	13
Cross not at intersection	41	49	42	43	41
Getting on/off vehicle	1	2	4	1	0
In road with traffic	24	11	16	23	14
In road against traffic	1	6	6	2	3
Standing or lying in road	11	18	17	14	15
Pushing/working on vehicle	3	4	1	2	1
Other working in road	1	2	3	1	0
Playing in road	0	0	1	0	0
In road for other reason	11	8	7	13	7
Not in road	8	10	4	8	7
Other/Unknown	19	10	19	10	13
Totals	140	138	137	134	114

5 YEAR

FATAL CRASHES AND PERSONS KILLED FOR SELECTED HOLIDAY PERIODS IN MICHIGAN

Revised February 19, 2010

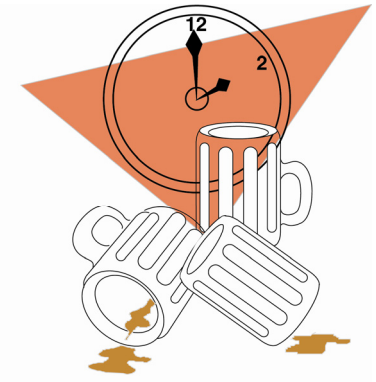
HOLIDAY PERIOD	Fatal Crashes	Persons Killed
Memorial Day		
2008 (3) MON	11 [2]	11 [2]
2007 (3) MON	11 [4]	13 [4]
2006 (3) MON	16 [3]	19 [4]
2005 (3) MON	10 [7]	14 [9]
2004 (3) MON	12 [4]	12 [4]
Fourth of July		
2008 (3) FRI	14 [5]	14 [5]
2007 (1) WED	4 [2]	4 [2]
2006 (4) TUE	14 [7]	15 [7]
2005 (3) MON	16 [7]	20 [11]
2004 (3) SUN	16 [6]	19 [7]
Labor Day		
2008 (3) MON	12 [4]	12 [4]
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]
Thanksgiving		
2008 (4) THU	9 [7]	13 [10]
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]
Christmas		
2008 (4) THU	11 [2]	14 [2]
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]
New Years		
2008 (4) THU	15 [6]	15 [6]
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]

SUMMARY 2008

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* **2008** experience, deaths averaged **2.68** per day. Alcohol-related deaths averaged **0.87** per day.

Based on the **2008** *holiday period* experience, deaths averaged **3.76** per day. Alcohol-related deaths averaged **1.38** per day.



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.

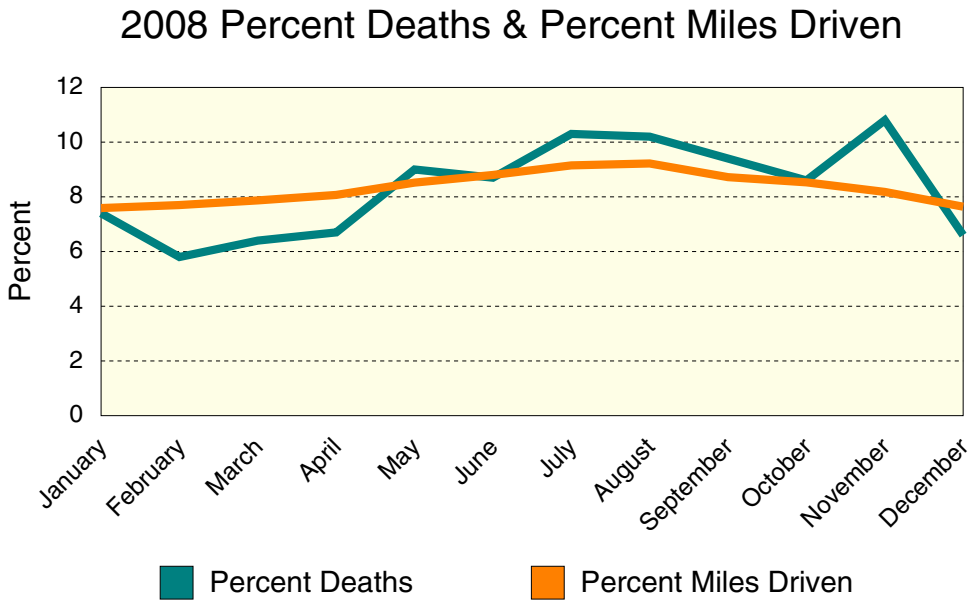
Please view the glossary for an explanation of holiday periods

MICHIGAN OHSP Office of Highway Safety Planning

5 YEAR

MOTOR VEHICLE DEATHS AND MILEAGE BY MONTH

Month	TRAFFIC DEATHS					2008 PERCENTAGES	
	2004	2005	2006	2007	2008	Percent Deaths	Percent Miles Driven
January	81	73	79	69	73	7.4	7.59
February	68	77	67	70	57	5.8	7.70
March	63	68	72	81	63	6.4	7.87
April	81	77	82	67	66	6.7	8.07
May	97	105	82	92	88	9.0	8.52
June	106	95	101	96	85	8.7	8.80
July	117	130	82	104	101	10.3	9.15
August	123	96	115	117	100	10.2	9.22
September	116	102	90	111	92	9.4	8.72
October	81	112	128	88	84	8.6	8.53
November	122	110	105	98	106	10.8	8.18
December	104	84	81	91	65	6.6	7.64
Totals	1,159	1,129	1,084	1,084	980	100.0	100.00



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

1 YEAR

2007 - 2008 SUMMARY TRENDS

- Michigan experienced a **9.6** percent decrease in traffic fatalities, as well as a **7.5** percent decrease in injuries and a **2.5** percent decrease in crashes.
- Deaths among vehicle occupants (drivers and passengers only) decreased **13.1** percent.
- Persons sustaining "A" level injuries (the most serious) decreased **10.2** percent.

	2007	2008	% CHANGE
NUMBER OF CRASHES			
Fatal Crashes	987	915	-7.3
Personal Injury Crashes	59,550	55,568	-6.7
Property Damage Crashes	263,637	259,574	-1.5
Total	324,174	316,057	-2.5
ALCOHOL-INVOLVED CRASHES			
Fatal Crashes	313	297	-5.1
Personal Injury Crashes	4,829	4,172	-13.6
Property Damage Crashes	7,043	6,599	-6.3
Total	12,185	11,068	-9.2
FATAL CRASHES			
Had Been Drinking (HBD)	313 (31.7)	297 (32.5)	-5.1
Had Not Been Drinking / Not Known If Drinking	674 (68.3)	618 (67.5)	-8.3
PERSONS IN CRASHES			
Killed	1,084	980	-9.6
Injured	80,576	74,568	-7.5
Not Injured	471,378	458,504	-2.7
Unknown Injury	78,872	71,795	-9.0
Total	631,910	605,847	-4.1
PERSONS IN ALCOHOL-INVOLVED CRASHES			
Killed	345	317	-8.1
Injured	6,563	5,700	-13.1
Not Injured	13,294	12,315	-7.4
Unknown Injury	2,679	2,320	-13.4
Total	22,881	20,652	-9.7
PERSONS INJURED BY GENDER			
Male	36,841	34,120	-7.4
Female	42,561	39,420	-7.4
Unknown Gender	1,174	1,028	-12.4
Total	80,576	74,568	-7.5
PERSONS INJURED BY SEVERITY			
"A" Injury	7,485	6,725	-10.2
"B" Injury	18,529	16,837	-9.1
"C" Injury	54,562	51,006	-6.5
Total	80,576	74,568	-7.5

1

YEAR
2007 - 2008 SUMMARY TRENDS (continued)

	2007	2008	% CHANGE
PERSONS KILLED BY GENDER			
Male	765	666	-12.9
Female	317	314	-0.9
Unknown Gender	2	0	-100.0
Total	1,084	980	-9.6
PERSONS KILLED			
Driver	549	488	-11.1
Passenger	242	199	-17.8
Pedestrian	134	114	-14.9
Bicyclist	17	25	47.1
Motorcyclist	120	125	4.2
Farm Equipment	4	3	-25.0
Train Engineer	0	0	
Snowmobile	8	12	50.0
ORV/ATV	8	11	37.5
Other/Unknown	2	3	50.0
Total	1,084	980	-9.6
BELT RESTRAINT USE BY DRIVER			
"Reported Restrained" - Killed	313	254	-18.8
"Reported Not Restrained" - Killed	176	182	3.4
"Reported Restrained" - Injured	49,952	46,190	-7.5
"Reported Not Restrained" - Injured	2,333	2,136	-8.4
BELT RESTRAINT USE BY INJURED PASSENGER			
"Reported Restrained" - Killed	116	95	-18.1
"Reported Not Restrained" - Killed	90	74	-17.8
"Reported Restrained" - Injured	15,175	13,862	-8.7
"Reported Not Restrained" - Injured	1,837	1,722	-6.3
DRIVER AGE 16-19 INVOLVED			
Fatal Crashes	150	123	-18.0
Personal Injury Crashes	12,149	10,768	-11.4
Property Damage Crashes	42,648	39,810	-6.7
Total All Crashes	54,947	50,701	-7.7
Persons Killed	178	142	-20.2
Persons Injured	17,561	15,601	-11.2
DRIVER AGE 65 & OVER INVOLVED			
Fatal Crashes	178	196	10.1
Personal Injury Crashes	8,296	7,887	-4.9
Property Damage Crashes	29,343	29,428	0.3
Total All Crashes	37,817	37,511	-0.8
Persons Killed	195	203	4.1
Persons Injured	11,987	11,356	-5.3

1 YEAR

MORE MICHIGAN CRASH FACTS

CRASH FACTS	2007	2008	% Change
Licensed Drivers	7,135,940	7,088,425	-0.7
Registered Vehicles in Michigan	8,409,163	8,187,990	-2.6
Michigan Population	10,071,822	10,003,422	-0.7
Drivers Involved in Crashes	537,228	518,240	-3.5
Vehicles Involved in Crashes	537,228	518,240	-3.5
Occupants Involved in Crashes	695,926	666,897	-4.2
Estimated MV Mileage Traveled (thousands)	104,643,810	100,916,732	-3.6
Death Rate Per 100 Million Vehicle Miles	1.0	1.0	0.0
Fatal Crash Rate Per 100 Million Veh Miles	0.9	0.9	0.0

2008 COST OF CRASHES IN MICHIGAN

The cost estimate for Michigan crashes in 2008 is **$8,426,612,500**. This estimate is based on the National Safety Council's cost estimating procedures. Average comprehensive costs are based on the following figures:

Comprehensive Costs, 2008

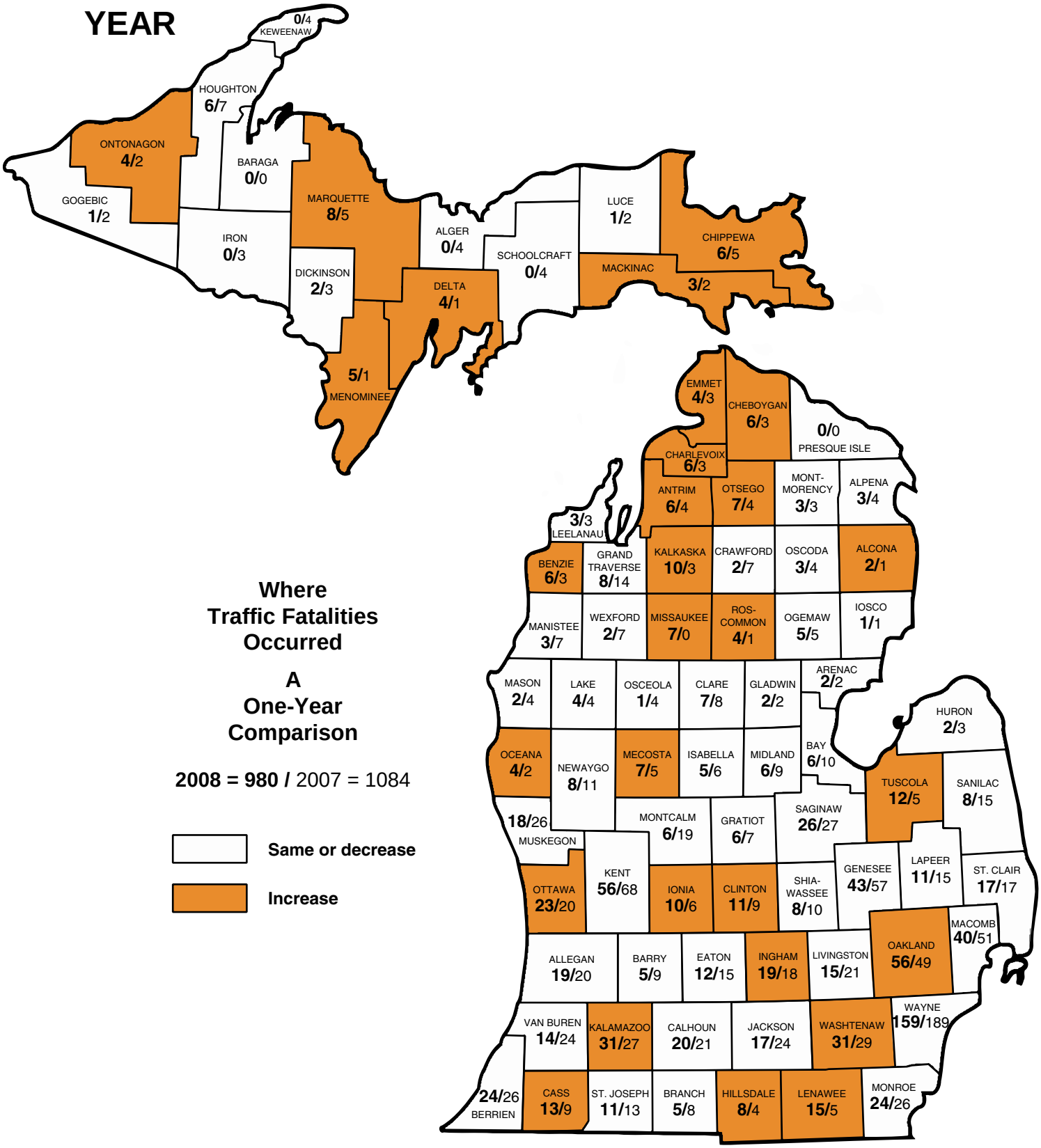
Death	$4,200,000
Incapacitating injury	$214,200
Nonincapacitating evident injury	$54,700
Possible injury	$26,000
No injury	$2,400

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 17, 2010.

1 YEAR

WHERE TRAFFIC FATALITIES OCCURRED



Where Traffic Fatalities Occurred

A One-Year Comparison

2008 = 980 / 2007 = 1084

Same or decrease

Increase

MICHIGAN OHSP Office of Highway Safety Planning

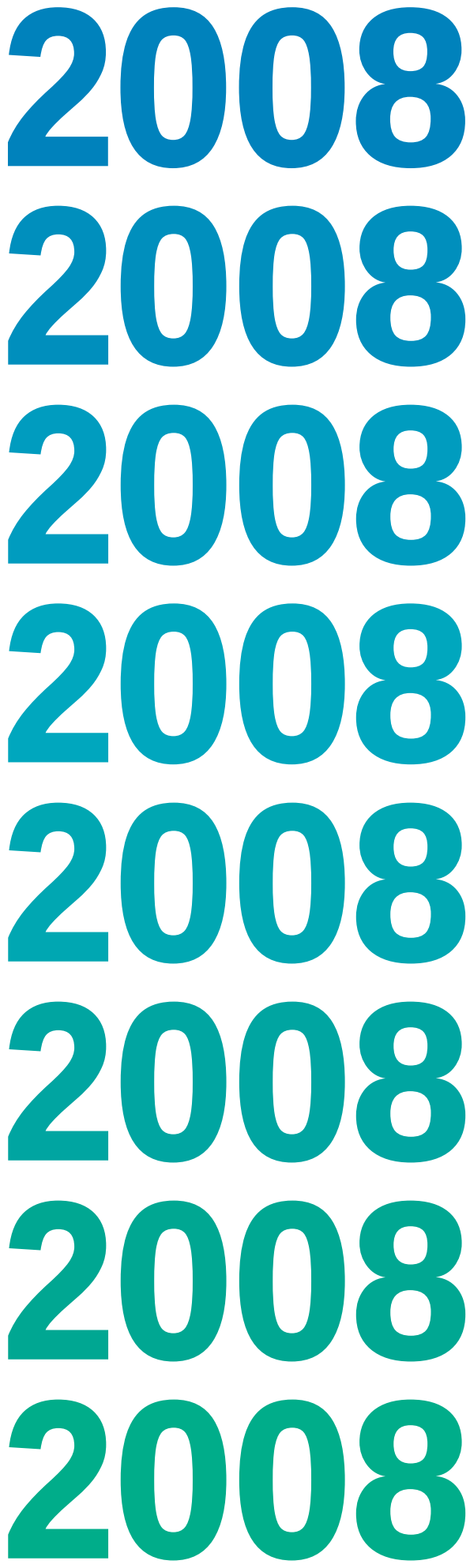
MOTOR VEHICLE TRAFFIC DEATHS IN MICHIGAN BY MONTH

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
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
2008	73	57	63	66	88	85	101	100	92	84	106	65	980

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
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
2008	980	74,568	316,057	100,916.7	8,187,990	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	811	0	3	125	176	1	174	1	0	0	36	0	30	24	0	17
1	3	0	0	2	126	2	124	0	0	0	3	0	3	6	0	5
2	0	0	0	0	134	1	132	0	0	0	1	0	1	8	1	6
3	1	0	0	1	152	1	150	0	0	0	2	0	2	14	2	11
4	2	0	0	1	198	2	196	2	0	2	5	0	3	13	0	10
5	2	0	1	1	176	2	173	1	0	1	6	0	4	23	0	21
6	4	0	3	1	235	1	234	2	0	2	14	0	12	20	2	17
7	1	0	0	1	218	1	216	2	0	2	17	0	14	26	0	22
8	4	0	3	1	239	3	236	1	0	1	20	0	18	17	0	15
9	15	0	2	13	270	1	268	2	0	1	34	0	28	22	0	21
10	14	0	4	10	280	3	277	1	0	1	27	0	22	28	0	22
11	10	0	5	5	281	2	279	3	0	2	56	1	45	35	0	32
12	22	0	12	10	278	3	274	3	0	3	67	0	54	75	2	69
13	38	0	16	20	321	1	319	9	0	8	79	0	63	67	1	61
14	146	0	36	106	359	4	355	4	0	3	108	1	87	56	1	45
15	670	2	113	552	580	1	576	14	0	12	109	0	87	79	1	68
16	9,670	6	1,024	8,587	721	7	713	11	1	9	74	0	66	66	3	55
17	13,758	9	1,455	12,221	750	12	736	25	0	20	62	1	46	72	1	64
18	16,078	17	1,841	14,090	749	8	737	62	2	51	70	1	59	61	1	54
19	14,741	19	1,743	12,865	534	6	527	80	3	59	56	0	50	68	2	57
20	13,735	16	1,566	12,040	476	6	470	111	2	88	62	0	48	48	1	42
21	12,971	17	1,532	11,311	464	3	460	123	3	91	51	0	37	52	0	47
22	12,091	14	1,395	10,577	366	3	363	130	2	101	45	0	39	49	2	42
23	11,315	14	1,330	9,857	355	5	350	123	5	101	37	1	33	48	3	39
24	10,300	11	1,205	8,991	341	5	335	106	3	79	33	1	25	35	1	33
25	10,119	15	1,189	8,825	271	0	271	96	2	73	35	0	28	35	0	32
26	9,931	14	1,113	8,702	259	1	258	81	3	64	29	2	21	39	3	30
27	9,545	11	1,120	8,315	254	0	254	93	3	75	32	2	26	38	3	33
28	9,257	12	1,024	8,142	245	1	242	95	4	71	15	0	15	24	0	21
29	8,780	7	989	7,700	193	2	190	77	1	62	16	0	12	30	2	24
30	8,658	11	950	7,618	202	5	196	77	5	57	14	0	12	39	0	37
31	8,518	8	921	7,518	175	3	172	69	1	48	17	1	15	23	2	19
32	8,033	7	875	7,078	170	3	166	63	1	48	10	0	6	21	0	21

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	8,205	6	921	7,194	146	1	145	65	3	42	17	0	15	23	3	17
34	8,059	7	857	7,115	150	0	150	72	0	51	20	0	15	18	1	13
35	8,295	10	884	7,320	162	3	159	66	2	53	17	0	14	20	1	17
36	8,673	8	921	7,664	142	2	140	88	2	69	12	0	9	22	0	20
37	9,313	12	1,018	8,180	195	3	192	101	2	81	20	0	17	21	3	16
38	9,013	12	1,029	7,874	182	1	181	97	3	74	19	0	16	24	0	21
39	8,763	8	910	7,772	179	1	178	79	3	64	23	0	18	21	1	17
40	8,527	15	880	7,566	163	3	160	64	2	43	19	1	15	29	3	24
41	8,784	8	935	7,773	160	1	158	98	2	68	23	0	18	29	1	26
42	8,705	10	995	7,621	164	3	161	107	3	85	23	0	22	24	3	21
43	9,089	8	986	8,007	146	2	144	83	3	60	21	0	17	26	1	20
44	9,250	7	968	8,183	170	3	166	109	3	79	26	0	24	27	3	22
45	9,127	14	1,029	7,994	165	5	160	98	4	79	23	0	22	28	1	23
46	9,227	10	984	8,148	203	3	200	130	3	100	26	1	16	40	5	28
47	9,166	13	1,030	8,051	187	0	187	127	5	93	39	2	33	25	2	19
48	8,729	15	938	7,700	175	2	173	109	3	85	35	0	30	32	3	28
49	8,586	9	989	7,495	172	2	170	114	2	93	26	0	20	26	3	21
50	8,645	6	972	7,587	173	2	171	116	3	82	22	2	18	36	0	35
51	8,620	10	1,003	7,532	184	3	181	94	6	60	32	1	27	31	3	21
52	8,169	4	909	7,180	177	1	176	95	2	79	30	0	25	28	2	23
53	7,811	11	874	6,863	165	3	162	88	2	58	20	1	16	36	2	29
54	7,445	11	874	6,496	172	2	170	81	2	65	13	0	10	41	4	35
55	6,967	13	846	6,045	147	3	144	97	3	78	24	1	20	25	3	22
56	6,815	8	792	5,959	135	3	132	91	3	73	24	1	19	27	2	23
57	6,313	10	721	5,541	113	2	111	63	1	45	22	1	18	25	3	19
58	6,148	12	733	5,340	114	1	113	76	3	61	15	0	13	26	1	22
59	5,763	8	674	5,033	132	0	132	72	1	56	13	0	11	20	2	16
60	5,490	11	618	4,805	109	1	106	59	1	45	13	0	12	13	2	11
61	5,496	6	645	4,795	130	3	127	62	0	49	12	0	10	17	0	17
62	4,012	7	473	3,500	115	4	111	44	4	36	5	1	4	7	0	7
63	3,686	4	427	3,207	92	3	89	40	0	34	7	1	4	16	0	13
64	3,566	6	387	3,147	107	2	105	35	2	26	10	0	10	14	0	12
65	3,690	4	415	3,242	107	2	105	20	0	12	8	0	7	12	0	12

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	3,217	4	374	2,815	98	1	97	27	1	21	5	0	4	17	5	11
67	2,762	7	316	2,416	97	1	96	17	1	11	4	0	4	14	1	12
68	2,529	3	304	2,197	67	1	65	14	0	12	4	1	3	7	1	6
69	2,237	5	244	1,962	63	1	62	10	2	6	4	0	3	5	2	3
70	2,224	7	258	1,949	62	4	58	6	0	5	2	0	1	7	1	4
71	1,978	5	262	1,682	70	0	70	11	0	7	5	0	5	4	0	4
72	1,843	8	243	1,579	79	0	79	16	1	14	3	0	2	6	1	5
73	1,833	4	222	1,592	49	0	49	5	0	3	3	0	2	3	0	3
74	1,621	5	184	1,422	65	1	64	3	0	3	1	0	1	4	0	4
75	1,647	7	178	1,444	54	0	54	3	0	2	1	0	0	5	1	4
76	1,485	10	183	1,270	50	1	49	2	0	0	1	0	0	3	1	2
77	1,519	11	170	1,324	69	2	67	3	1	1	0	0	0	6	0	5
78	1,418	2	175	1,234	58	2	56	1	0	1	4	0	4	5	0	4
79	1,349	4	163	1,166	42	3	38	0	0	0	4	0	2	1	0	0
80	1,226	2	162	1,051	51	2	49	0	0	0	1	0	1	6	2	4
81	1,162	9	147	991	55	4	51	1	0	0	1	0	1	3	2	1
82	1,016	6	167	827	42	2	40	1	0	0	2	0	2	7	2	5
83	866	4	105	752	42	1	41	1	0	1	2	0	2	4	0	4
84	804	1	123	675	46	1	45	1	0	1	1	0	1	2	0	2
85	655	3	80	566	34	2	32	0	0	0	0	0	0	6	1	4
86	599	3	88	502	24	0	24	0	0	0	1	0	0	3	0	3
87	473	1	69	399	24	0	24	0	0	0	0	0	0	2	1	1
88	366	4	57	304	24	4	20	0	0	0	0	0	0	2	0	2
89	254	1	42	210	15	1	14	0	0	0	0	0	0	2	1	1
90	195	1	27	167	14	1	13	0	0	0	1	0	1	0	0	0
91	172	2	36	133	11	2	9	0	0	0	0	0	0	1	0	1
92	87	1	11	75	7	1	6	0	0	0	0	0	0	1	0	1
93	61	1	6	54	6	0	6	0	0	0	0	0	0	0	0	0
94	35	0	4	31	5	0	5	0	0	0	0	0	0	1	0	1
95	30	0	6	24	2	0	2	0	0	0	0	0	0	1	0	1
96	18	0	3	15	4	0	4	0	0	0	1	0	1	0	0	0
97	7	0	2	5	1	0	1	0	0	0	0	0	0	0	0	0
98	2	0	1	1	1	0	1	0	0	0	0	0	0	1	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	4	0	2	2	1	0	1	0	0	0	0	0	0	1	0	0
100	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	2	0	2	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	0	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	2	0	2	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
108	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	45,152	0	108	4,876	705	0	705	164	0	13	132	0	42	122	0	62
Totals	518,240*	634	53,629	418,930	17,623*	207	17,384	4,493*	125	3,314	2,084*	25	1,638	2,322*	114	1,922
	* Includes 45,047 drivers with unknown injury severity				* Uninjured passengers not included in total			* Includes 109 motorcyclists with unknown injury severity and 945 with no injury			* Includes 91 bicyclists with unknown injury severity and 330 with no injury			* Includes 114 pedestrians with unknown injury severity and 172 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	64,797	56.5	227	78.5	13,937	58.9
Turning left	8,544	7.5	11	3.8	2,129	9.0
Turning right	3,274	2.9	1	0.3	469	2.0
Stopped on roadway	8,568	7.5	4	1.4	1,802	7.6
In prior crash	196	0.2	0	0.0	41	0.2
Changing lanes	3,017	2.6	8	2.8	409	1.7
Backing	2,228	1.9	1	0.3	108	0.5
Slowing/stopping on roadway	12,538	10.9	1	0.3	2,219	9.4
Slowing/stopping other	205	0.2	0	0.0	36	0.2
Starting up on roadway	2,383	2.1	7	2.4	521	2.2
Starting up other	73	0.1	0	0.0	14	0.1
Entering parking	75	0.1	0	0.0	8	0.0
Leaving parking	357	0.3	0	0.0	77	0.3
Entering roadway	2,022	1.8	4	1.4	444	1.9
Leaving roadway	247	0.2	1	0.3	77	0.3
Making U-turn	249	0.2	1	0.3	61	0.3
Overtaking or passing	1,038	0.9	8	2.8	255	1.1
Avoiding object	191	0.2	1	0.3	46	0.2
Avoiding animal	527	0.5	0	0.0	155	0.7
Avoiding pedestrian	39	0.0	0	0.0	11	0.0
Avoiding vehicle (front/back)	1,362	1.2	7	2.4	306	1.3
Avoiding vehicle (angle)	556	0.5	4	1.4	127	0.5
Driverless moving	24	0.0	0	0.0	4	0.0
Parked	301	0.3	1	0.3	34	0.1
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	4	0.0	0	0.0	1	0.0
In roadway with traffic	4	0.0	0	0.0	0	0.0
In roadway against traffic	4	0.0	0	0.0	0	0.0
Standing/lying in roadway	2	0.0	0	0.0	0	0.0
Pushing/working on vehicle	7	0.0	0	0.0	2	0.0
Other working in roadway	14	0.0	0	0.0	4	0.0
Playing in roadway	1	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	2	0.0	0	0.0	0	0.0
Other	43	0.0	1	0.3	12	0.1
Unknown	1,760	1.5	1	0.3	343	1.5
Total Drivers	114,659	100.0	289	100.0	23,654	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	667	0.6	0	0.0	173	0.7
Cross center/median	94	0.1	1	0.3	22	0.1
Ran off road left	165	0.1	0	0.0	26	0.1
Ran off road right	276	0.2	0	0.0	43	0.2
Re-enter road	11	0.0	0	0.0	5	0.0
Overturn	3,047	2.7	23	8.0	1,288	5.4
Separation of units	87	0.1	0	0.0	17	0.1
Fire/explosion	121	0.1	2	0.7	15	0.1
Immersion	16	0.0	0	0.0	4	0.0
Jackknife	43	0.0	0	0.0	7	0.0
Downhill runaway	43	0.0	0	0.0	14	0.1
Cargo loss/shift	76	0.1	0	0.0	7	0.0
Individual fell off	102	0.1	4	1.4	77	0.3
Other noncollision	267	0.2	0	0.0	65	0.3
NONCOLLISION Subtotal	5,015	4.4	30	10.4	1,763	7.5

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	373	0.3	22	7.6	302	1.3
Bicyclist (Pedalcycle)	289	0.3	6	2.1	240	1.0
Motor vehicle in transport	77,387	67.5	166	57.4	16,666	70.5
Parked motor vehicle	2,464	2.1	3	1.0	251	1.1
Railway train	56	0.0	0	0.0	17	0.1
Animal	8,588	7.5	0	0.0	182	0.8
Other nonfixed objects	819	0.7	0	0.0	103	0.4
COLLISION NONFIXED Subtotal	89,976	78.5	197	68.2	17,761	75.1

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	149	0.1	0	0.0	32	0.1
Bridge parapet end	24	0.0	0	0.0	6	0.0
Bridge rail	191	0.2	0	0.0	30	0.1
Guardrail face	1,438	1.3	1	0.3	199	0.8
Guardrail end	237	0.2	0	0.0	40	0.2
Median barrier	1,476	1.3	0	0.0	360	1.5
Highway traffic sign post	967	0.8	2	0.7	51	0.2
Highway signal post	86	0.1	0	0.0	10	0.0
Luminaire/light support	224	0.2	0	0.0	41	0.2
Utility pole	1,126	1.0	5	1.7	324	1.4
Other pole	301	0.3	1	0.3	42	0.2
Culvert	197	0.2	1	0.3	64	0.3
Curb	694	0.6	1	0.3	73	0.3
Ditch	2,779	2.4	2	0.7	558	2.4
Embankment	605	0.5	4	1.4	144	0.6
Fence	405	0.4	0	0.0	50	0.2
Mailbox	777	0.7	0	0.0	37	0.2
Tree	3,685	3.2	41	14.2	1,192	5.0
Rail crossing signal	15	0.0	0	0.0	3	0.0
Building	184	0.2	3	1.0	64	0.3
Traffic island	13	0.0	0	0.0	0	0.0
Fire hydrant	193	0.2	0	0.0	23	0.1
Impact attenuator	17	0.0	0	0.0	8	0.0
Other fixed object	959	0.8	1	0.3	205	0.9
COLLISION FIXED Subtotal	16,742	14.6	62	21.5	3,556	15.0

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 (25-64 and 65 & over).

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	2,926	2.6	0	0.0	574	2.4
TOTAL MOST HARMFUL EVENT	114,659	100.0	289	100.0	23,654	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	29,990	26.2	107	37.0	5,544	23.4
Head On	2,139	1.9	64	22.1	833	3.5
Head On - Left Turn	3,690	3.2	12	4.2	1,394	5.9
Angle	24,489	21.4	63	21.8	6,158	26.0
Rear End	34,852	30.4	17	5.9	7,053	29.8
Rear End - Left Turn	1,624	1.4	1	0.3	438	1.9
Rear End - Right Turn	1,279	1.1	0	0.0	183	0.8
Sideswipe - Same Direction	10,000	8.7	6	2.1	935	4.0
Sideswipe - Opposite Direct	2,677	2.3	8	2.8	404	1.7
Other/Unknown	3,919	3.4	11	3.8	712	3.0
Total Drivers	114,659	100.0	289	100.0	23,654	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 (25-64 and 65 & over).

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	94,069	82.0	206	71.3	18,925	80.0
Median	1,029	0.9	0	0.0	247	1.0
Shoulder	5,331	4.6	20	6.9	1,070	4.5
Outside of Shoulder/Curb	10,334	9.0	61	21.1	2,587	10.9
Gore	297	0.3	1	0.3	81	0.3
Other/Unknown	3,599	3.1	1	0.3	744	3.1
Total Drivers	114,659	100.0	289	100.0	23,654	100.0

When compared to the other two age groups (25-64 and 65 & over) 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	13,067	11.4	21	7.3	2,758	11.7
U.S. & Michigan Roads	31,880	27.8	89	30.8	6,522	27.6
County & City Roads	69,712	60.8	179	61.9	14,374	60.8
Total Drivers	114,659	100.0	289	100.0	23,654	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	6,506	5.7	42	14.5	1,475	6.2
03:00 AM - 05:59 AM	3,379	2.9	34	11.8	734	3.1
06:00 AM - 08:59 AM	12,430	10.8	33	11.4	2,351	9.9
09:00 AM - 11:59 AM	12,642	11.0	35	12.1	2,487	10.5
Noon - 02:59 PM	19,800	17.3	35	12.1	4,272	18.1
03:00 PM - 05:59 PM	28,764	25.1	26	9.0	6,156	26.0
06:00 PM - 08:59 PM	17,952	15.7	30	10.4	3,587	15.2
09:00 PM - 11:59 PM	12,913	11.3	54	18.7	2,538	10.7
Unknown	273	0.2	0	0.0	54	0.2
Total Drivers	114,659	100.0	289	100.0	23,654	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 (25-64 and 65 & over).

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	42,573	37.1	91	31.5	7,508	31.7	154	0.4
Speed too fast	15,646	13.6	53	18.3	3,296	13.9	5,743	16.5
Speed too slow	165	0.1	2	0.7	35	0.1	63	0.2
Failed to yield	11,583	10.1	20	6.9	3,034	12.8	7,217	20.7
Disregard traffic control	2,679	2.3	8	2.8	1,001	4.2	1,761	5.1
Drove wrong way	100	0.1	1	0.3	18	0.1	47	0.1
Drove left of center	685	0.6	21	7.3	213	0.9	262	0.8
Improper passing	547	0.5	2	0.7	94	0.4	253	0.7
Improper lane use	2,118	1.8	0	0.0	255	1.1	1,109	3.2
Improper turn	1,129	1.0	0	0.0	174	0.7	579	1.7
Improper/no signal	136	0.1	0	0.0	16	0.1	42	0.1
Improper backing	1,569	1.4	0	0.0	41	0.2	563	1.6
Unable to stop in assured clear distance	21,581	18.8	9	3.1	4,261	18.0	12,162	34.9
Reckless driving	837	0.7	21	7.3	332	1.4	394	1.1
Careless/negligent driving	4,225	3.7	22	7.6	1,424	6.0	2,433	7.0
Other	4,611	4.0	17	5.9	1,026	4.3	1,561	4.5
Unknown	4,475	3.9	22	7.6	926	3.9	500	1.4
Total Drivers	114,659	100.0	289	100.0	23,654	100.0	34,843	100.0

Compared to the other two age groups (25-64 and 65 & over), 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
Monday	16,541	14.4	31	10.7	3,445	14.6
Tuesday	17,653	15.4	35	12.1	3,534	14.9
Wednesday	17,484	15.2	44	15.2	3,446	14.6
Thursday	15,586	13.6	22	7.6	3,171	13.4
Friday	19,950	17.4	45	15.6	4,128	17.5
Saturday	15,124	13.2	64	22.1	3,291	13.9
Sunday	12,321	10.7	48	16.6	2,639	11.2
Total Drivers	114,659	100.0	289	100.0	23,654	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	61,435	53.6	202	69.9	12,254	51.8
Female	53,165	46.4	87	30.1	11,393	48.2
Unknown	59	0.1	0	0.0	7	0.0
Total Drivers	114,659	100.0	289	100.0	23,654	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	81,295	70.9	165	57.1	15,526	65.6
2 occupants	22,564	19.7	70	24.2	5,156	21.8
3 occupants	6,223	5.4	32	11.1	1,727	7.3
4 occupants	2,346	2.0	15	5.2	706	3.0
5 occupants	664	0.6	5	1.7	244	1.0
6 + occupants	261	0.2	2	0.7	86	0.4
0 occupants	199	0.2	0	0.0	15	0.1
Unknown	1,107	1.0	0	0.0	194	0.8
Total Drivers	114,659	100.0	289	100.0	23,654	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	94,339	82.3	211	73.0	19,171	81.0
Van and Motorhome	3,314	2.9	7	2.4	699	3.0
Pickup	12,485	10.9	39	13.5	2,369	10.0
Small Truck (under 10,000 lbs.)	2,781	2.4	0	0.0	531	2.2
Motorcycle	707	0.6	19	6.6	547	2.3
Moped	94	0.1	1	0.3	70	0.3
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	44	0.0	2	0.7	29	0.1
Off Road Vehicle	76	0.1	3	1.0	66	0.3
Other	144	0.1	0	0.0	37	0.2
Unknown	164	0.1	0	0.0	33	0.1
CDL Truck/Bus (breakdown below)	511	0.4	7	2.4	102	0.4
Total Number of Drivers	114,659	100.0	289	100.0	23,654	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	216	42.3	2	28.6	41	40.2
Commercial Vehicle: Group B	116	22.7	1	14.3	23	22.5
Commercial Vehicle: Group C	33	6.5	0	0.0	7	6.9
Other Truck	65	12.7	4	57.1	16	15.7
Unknown Truck	81	15.9	0	0.0	15	14.7
Total Number of Drivers	511	100.0	7	100.0	102	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	178,724	56.3	707	79.5	33,704	54.6
Turning left	17,983	5.7	30	3.4	4,291	7.0
Turning right	8,437	2.7	3	0.3	1,266	2.1
Stopped on roadway	37,821	11.9	29	3.3	8,785	14.2
In prior crash	458	0.1	1	0.1	140	0.2
Changing lanes	6,432	2.0	14	1.6	815	1.3
Backing	7,431	2.3	3	0.3	318	0.5
Slowing/stopping on roadway	31,546	9.9	20	2.2	6,532	10.6
Slowing/stopping other	554	0.2	1	0.1	92	0.1
Starting up on roadway	6,264	2.0	10	1.1	1,445	2.3
Starting up other	176	0.1	0	0.0	38	0.1
Entering parking	339	0.1	0	0.0	31	0.1
Leaving parking	753	0.2	2	0.2	136	0.2
Entering roadway	3,798	1.2	10	1.1	767	1.2
Leaving roadway	450	0.1	5	0.6	134	0.2
Making U-turn	541	0.2	2	0.2	126	0.2
Overtaking or passing	2,276	0.7	11	1.2	403	0.7
Avoiding object	399	0.1	3	0.3	84	0.1
Avoiding animal	855	0.3	1	0.1	192	0.3
Avoiding pedestrian	83	0.0	1	0.1	34	0.1
Avoiding vehicle (front/back)	3,182	1.0	23	2.6	792	1.3
Avoiding vehicle (angle)	1,437	0.5	8	0.9	358	0.6
Driverless moving	57	0.0	0	0.0	12	0.0
Parked	1,572	0.5	3	0.3	147	0.2
Crossing at intersection	16	0.0	0	0.0	7	0.0
Crossing not at intersection	14	0.0	0	0.0	7	0.0
Getting on/off vehicle	11	0.0	0	0.0	2	0.0
In roadway with traffic	12	0.0	0	0.0	4	0.0
In roadway against traffic	10	0.0	0	0.0	3	0.0
Standing/lying in roadway	6	0.0	0	0.0	2	0.0
Pushing/working on vehicle	7	0.0	0	0.0	5	0.0
Other working in roadway	36	0.0	0	0.0	7	0.0
Playing in roadway	8	0.0	0	0.0	0	0.0
In roadway other reason	7	0.0	0	0.0	3	0.0
Not in roadway	16	0.0	0	0.0	2	0.0
Other	94	0.0	1	0.1	20	0.0
Unknown	5,493	1.7	1	0.1	1,033	1.7
Total Drivers	317,298	100.0	889	100.0	61,737	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	1,286	0.4	2	0.2	364	0.6
Cross center/median	237	0.1	1	0.1	52	0.1
Ran off road left	326	0.1	0	0.0	74	0.1
Ran off road right	591	0.2	0	0.0	128	0.2
Re-enter road	39	0.0	0	0.0	7	0.0
Overturn	5,144	1.6	71	8.0	2,203	3.6
Separation of units	218	0.1	0	0.0	41	0.1
Fire/explosion	343	0.1	7	0.8	37	0.1
Immersion	47	0.0	1	0.1	3	0.0
Jackknife	233	0.1	0	0.0	18	0.0
Downhill runaway	127	0.0	0	0.0	30	0.0
Cargo loss/shift	372	0.1	1	0.1	39	0.1
Individual fell off	331	0.1	8	0.9	274	0.4
Other noncollision	769	0.2	1	0.1	155	0.3
NONCOLLISION Subtotal	10,063	3.2	92	10.3	3,425	5.5

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	966	0.3	65	7.3	763	1.2
Pedalcycle (Bicyclist)	1,067	0.3	18	2.0	832	1.3
Motor vehicle in transport	209,390	66.0	553	62.2	46,654	75.6
Parked motor vehicle	5,686	1.8	5	0.6	499	0.8
Railway train	145	0.0	3	0.3	37	0.1
Animal	46,917	14.8	6	0.7	880	1.4
Other nonfixed objects	3,312	1.0	3	0.3	292	0.5
COLLISION NONFIXED Subtotal	267,483	84.3	653	73.5	49,957	80.9

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	396	0.1	2	0.2	87	0.1
Bridge parapet end	96	0.0	0	0.0	14	0.0
Bridge rail	387	0.1	0	0.0	55	0.1
Guardrail face	2,813	0.9	8	0.9	456	0.7
Guardrail end	422	0.1	0	0.0	101	0.2
Median barrier	2,959	0.9	2	0.2	748	1.2
Highway traffic sign post	1,684	0.5	7	0.8	114	0.2
Highway signal post	190	0.1	0	0.0	25	0.0
Luminaire/light support	395	0.1	0	0.0	76	0.1
Utility pole	1,948	0.6	7	0.8	562	0.9
Other pole	645	0.2	1	0.1	94	0.2
Culvert	320	0.1	1	0.1	100	0.2
Curb	1,046	0.3	4	0.4	216	0.3
Ditch	4,613	1.5	20	2.2	1,037	1.7
Embankment	1,050	0.3	8	0.9	265	0.4
Fence	690	0.2	0	0.0	90	0.1
Mailbox	1,228	0.4	1	0.1	69	0.1
Tree	5,958	1.9	72	8.1	1,688	2.7
Rail crossing signal	50	0.0	0	0.0	5	0.0
Building	336	0.1	4	0.4	128	0.2
Traffic island	33	0.0	0	0.0	2	0.0
Fire hydrant	272	0.1	0	0.0	47	0.1
Impact attenuator	32	0.0	0	0.0	9	0.0
Other fixed object	2,111	0.7	7	0.8	430	0.7
COLLISION FIXED Subtotal	29,674	9.4	144	16.2	6,418	10.4

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	10,078	3.2	0	0.0	1,937	3.1
TOTAL MOST HARMFUL EVENT	317,298	100.0	889	100.0	61,737	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	86,757	27.3	290	32.6	11,045	17.9
Head On	5,292	1.7	192	21.6	2,202	3.6
Head On - Left Turn	8,156	2.6	37	4.2	3,055	4.9
Angle	61,016	19.2	206	23.2	15,736	25.5
Rear End	94,904	29.9	77	8.7	21,781	35.3
Rear End - Left Turn	3,764	1.2	2	0.2	1,037	1.7
Rear End - Right Turn	3,974	1.3	0	0.0	630	1.0
Sideswipe - Same Direction	31,790	10.0	29	3.3	3,038	4.9
Sideswipe - Opposite Direct	8,124	2.6	18	2.0	1,194	1.9
Other/Unknown	13,521	4.3	38	4.3	2,019	3.3
Total Drivers	317,298	100.0	889	100.0	61,737	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	277,692	87.5	689	77.5	52,874	85.6
Median	2,204	0.7	11	1.2	565	0.9
Shoulder	9,807	3.1	45	5.1	2,067	3.3
Outside of Shoulder/Curb	17,409	5.5	121	13.6	4,251	6.9
Gore	528	0.2	4	0.4	127	0.2
Other/Unknown	9,658	3.0	19	2.1	1,853	3.0
Total Drivers	317,298	100.0	889	100.0	61,737	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	40,991	12.9	110	12.4	8,663	14.0
U.S. & Michigan Roads	95,725	30.2	330	37.1	19,011	30.8
County & City Roads	180,582	56.9	449	50.5	34,063	55.2
Total Drivers	317,298	100.0	889	100.0	61,737	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	11,814	3.7	99	11.1	2,403	3.9
03:00 AM - 05:59 AM	12,243	3.9	59	6.6	1,663	2.7
06:00 AM - 08:59 AM	49,583	15.6	100	11.2	8,285	13.4
09:00 AM - 11:59 AM	42,277	13.3	113	12.7	8,663	14.0
Noon - 02:59 PM	54,369	17.1	139	15.6	11,970	19.4
03:00 PM - 05:59 PM	75,248	23.7	154	17.3	16,210	26.3
06:00 PM - 08:59 PM	45,809	14.4	127	14.3	8,137	13.2
09:00 PM - 11:59 PM	25,116	7.9	96	10.8	4,236	6.9
Unknown	839	0.3	2	0.2	170	0.3
Total Drivers	317,298	100.0	889	100.0	61,737	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 (16-24 and 65 & over).

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	178,382	56.2	407	45.8	31,591	51.2	381	0.7
Speed too fast	25,113	7.9	120	13.5	5,475	8.9	7,233	13.1
Speed too slow	383	0.1	2	0.2	78	0.1	103	0.2
Failed to yield	20,893	6.6	50	5.6	5,275	8.5	11,722	21.2
Disregard traffic control	5,423	1.7	31	3.5	1,929	3.1	3,147	5.7
Drove wrong way	223	0.1	6	0.7	68	0.1	69	0.1
Drove left of center	1,481	0.5	40	4.5	443	0.7	500	0.9
Improper passing	1,361	0.4	1	0.1	166	0.3	506	0.9
Improper lane use	5,325	1.7	6	0.7	551	0.9	2,291	4.1
Improper turn	2,660	0.8	3	0.3	354	0.6	1,140	2.1
Improper/no signal	330	0.1	1	0.1	55	0.1	96	0.2
Improper backing	5,382	1.7	0	0.0	157	0.3	1,607	2.9
Unable to stop in assured clear distance	37,528	11.8	20	2.2	7,951	12.9	18,766	34.0
Reckless driving	1,159	0.4	21	2.4	468	0.8	536	1.0
Careless/negligent driving	6,310	2.0	61	6.9	2,072	3.4	3,286	6.0
Other	11,204	3.5	44	4.9	2,420	3.9	3,044	5.5
Unknown	14,141	4.5	76	8.5	2,684	4.3	792	1.4
Total Drivers	317,298	100.0	889	100.0	61,737	100.0	55,219	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
Monday	48,183	15.2	127	14.3	9,212	14.9
Tuesday	51,028	16.1	108	12.1	9,530	15.4
Wednesday	50,761	16.0	118	13.3	9,651	15.6
Thursday	45,452	14.3	141	15.9	8,797	14.2
Friday	54,736	17.3	145	16.3	10,574	17.1
Saturday	38,229	12.0	141	15.9	7,925	12.8
Sunday	28,909	9.1	109	12.3	6,048	9.8
Total Drivers	317,298	100.0	889	100.0	61,737	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	176,443	55.6	631	71.0	33,058	53.5
Female	140,635	44.3	258	29.0	28,652	46.4
Unknown	220	0.1	0	0.0	27	0.0
Total Drivers	317,298	100.0	889	100.0	61,737	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	241,442	76.1	610	68.6	43,961	71.2
2 occupants	48,157	15.2	183	20.6	11,310	18.3
3 occupants	13,746	4.3	48	5.4	3,427	5.6
4 occupants	6,209	2.0	24	2.7	1,493	2.4
5 occupants	2,017	0.6	14	1.6	553	0.9
6 + occupants	1,673	0.5	9	1.0	435	0.7
0 occupants	1,040	0.3	0	0.0	67	0.1
Unknown	3,014	0.9	1	0.1	491	0.8
Total Drivers	317,298	100.0	889	100.0	61,737	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	217,923	68.7	460	51.7	42,099	68.2
Van and Motorhome	23,225	7.3	59	6.6	4,587	7.4
Pickup	47,210	14.9	141	15.9	7,722	12.5
Small Truck (under 10,000 lbs.)	11,861	3.7	14	1.6	2,200	3.6
Motorcycle	3,131	1.0	102	11.5	2,395	3.9
Moped	223	0.1	1	0.1	183	0.3
Go Cart	6	0.0	0	0.0	3	0.0
Snowmobile	156	0.0	12	1.3	109	0.2
Off Road Vehicle	113	0.0	8	0.9	88	0.1
Other	1,009	0.3	5	0.6	179	0.3
Unknown	610	0.2	0	0.0	96	0.2
CDL Truck/Bus (breakdown below)	11,831	3.7	87	9.8	2,076	3.4
Total Number of Drivers	317,298	100.0	889	100.0	61,737	100.0

Compared to the other two age groups (16-24 and 65 & over), 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	6,422	54.3	55	63.2	1,194	57.5
Commercial Vehicle: Group B	2,788	23.6	25	28.7	469	22.6
Commercial Vehicle: Group C	420	3.5	2	2.3	71	3.4
Other Truck	571	4.8	5	5.7	110	5.3
Unknown Truck	1,630	13.8	0	0.0	232	11.2
Total Number of Drivers	11,831	100.0	87	100.0	2,076	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	20,493	52.0	136	66.7	4,449	53.0
Turning left	3,966	10.1	35	17.2	1,064	12.7
Turning right	1,421	3.6	4	2.0	197	2.3
Stopped on roadway	3,883	9.9	4	2.0	914	10.9
In prior crash	43	0.1	0	0.0	7	0.1
Changing lanes	1,212	3.1	4	2.0	94	1.1
Backing	1,280	3.2	0	0.0	57	0.7
Slowing/stopping on roadway	2,986	7.6	6	2.9	697	8.3
Slowing/stopping other	54	0.1	0	0.0	12	0.1
Starting up on roadway	991	2.5	2	1.0	286	3.4
Starting up other	28	0.1	0	0.0	5	0.1
Entering parking	72	0.2	0	0.0	7	0.1
Leaving parking	200	0.5	0	0.0	35	0.4
Entering roadway	974	2.5	6	2.9	198	2.4
Leaving roadway	54	0.1	2	1.0	24	0.3
Making U-turn	126	0.3	1	0.5	31	0.4
Overtaking or passing	241	0.6	1	0.5	36	0.4
Avoiding object	47	0.1	0	0.0	11	0.1
Avoiding animal	55	0.1	0	0.0	12	0.1
Avoiding pedestrian	7	0.0	1	0.5	2	0.0
Avoiding vehicle (front/back)	228	0.6	0	0.0	60	0.7
Avoiding vehicle (angle)	101	0.3	2	1.0	20	0.2
Driverless moving	11	0.0	0	0.0	4	0.0
Parked	178	0.5	0	0.0	14	0.2
Crossing at intersection	4	0.0	0	0.0	1	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	1	0.0	0	0.0	0	0.0
In roadway with traffic	1	0.0	0	0.0	1	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	1	0.0	0	0.0	0	0.0
Other working in roadway	4	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	1	0.0	0	0.0	0	0.0
Not in roadway	4	0.0	0	0.0	1	0.0
Other	13	0.0	0	0.0	5	0.1
Unknown	707	1.8	0	0.0	147	1.8
Total Drivers	39,388	100.0	204	100.0	8,392	100.0

Compared to the other two age groups (16-24 and 25-64), 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	110	0.3	0	0.0	25	0.3
Cross center/median	36	0.1	1	0.5	7	0.1
Ran off road left	43	0.1	0	0.0	8	0.1
Ran off road right	71	0.2	0	0.0	14	0.2
Re-enter road	8	0.0	0	0.0	2	0.0
Overturn	386	1.0	11	5.4	184	2.2
Separation of units	28	0.1	0	0.0	4	0.0
Fire/explosion	22	0.1	0	0.0	3	0.0
Immersion	6	0.0	0	0.0	0	0.0
Jackknife	24	0.1	0	0.0	3	0.0
Downhill runaway	22	0.1	0	0.0	6	0.1
Cargo loss/shift	35	0.1	0	0.0	1	0.0
Individual fell off	32	0.1	0	0.0	27	0.3
Other noncollision	58	0.1	0	0.0	18	0.2
NONCOLLISION Subtotal	881	2.2	12	5.9	302	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	166	0.4	6	2.9	145	1.7
Pedalcycle (Bicyclist)	240	0.6	1	0.5	187	2.2
Motor vehicle in transport	28,016	71.1	143	70.1	6,567	78.3
Parked motor vehicle	919	2.3	2	1.0	82	1.0
Railway train	17	0.0	1	0.5	7	0.1
Animal	4,625	11.7	0	0.0	82	1.0
Other nonfixed objects	346	0.9	1	0.5	27	0.3
COLLISION NONFIXED Subtotal	34,329	87.2	154	75.5	7,097	84.6

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	30	0.1	0	0.0	9	0.1
Bridge parapet end	5	0.0	0	0.0	1	0.0
Bridge rail	30	0.1	0	0.0	6	0.1
Guardrail face	213	0.5	0	0.0	59	0.7
Guardrail end	37	0.1	0	0.0	9	0.1
Median barrier	160	0.4	3	1.5	46	0.5
Highway traffic sign post	181	0.5	0	0.0	17	0.2
Highway signal post	22	0.1	0	0.0	3	0.0
Luminaire/light support	33	0.1	0	0.0	8	0.1
Utility pole	198	0.5	2	1.0	70	0.8
Other pole	76	0.2	1	0.5	12	0.1
Culvert	41	0.1	1	0.5	17	0.2
Curb	65	0.2	1	0.5	19	0.2
Ditch	456	1.2	5	2.5	110	1.3
Embankment	111	0.3	0	0.0	34	0.4
Fence	67	0.2	0	0.0	11	0.1
Mailbox	168	0.4	0	0.0	11	0.1
Tree	632	1.6	24	11.8	224	2.7
Rail crossing signal	7	0.0	0	0.0	0	0.0
Building	53	0.1	0	0.0	24	0.3
Traffic island	6	0.0	0	0.0	0	0.0
Fire hydrant	35	0.1	0	0.0	6	0.1
Impact attenuator	3	0.0	1	0.5	0	0.0
Other fixed object	200	0.5	0	0.0	40	0.5
COLLISION FIXED Subtotal	2,829	7.2	38	18.6	736	8.8

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Unknown Event	1,349	3.4	0	0.0	257	3.1
TOTAL MOST HARMFUL EVENT	39,388	100.0	204	100.0	8,392	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	8,537	21.7	53	26.0	1,289	15.4
Head On	610	1.5	36	17.6	268	3.2
Head On - Left Turn	1,569	4.0	20	9.8	615	7.3
Angle	10,864	27.6	73	35.8	2,809	33.5
Rear End	9,586	24.3	11	5.4	2,445	29.1
Rear End - Left Turn	519	1.3	1	0.5	145	1.7
Rear End - Right Turn	404	1.0	0	0.0	56	0.7
Sideswipe - Same Direction	4,521	11.5	7	3.4	353	4.2
Sideswipe - Opposite Direct	1,048	2.7	1	0.5	147	1.8
Other/Unknown	1,730	4.4	2	1.0	265	3.2
Total Drivers	39,388	100.0	204	100.0	8,392	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	35,160	89.3	156	76.5	7,366	87.8
Median	151	0.4	5	2.5	37	0.4
Shoulder	980	2.5	11	5.4	212	2.5
Outside of Shoulder/Curb	1,751	4.4	26	12.7	504	6.0
Gore	44	0.1	1	0.5	16	0.2
Other/Unknown	1,302	3.3	5	2.5	257	3.1
Total Drivers	39,388	100.0	204	100.0	8,392	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	3,070	7.8	22	10.8	679	8.1
U.S. & Michigan Roads	12,803	32.5	75	36.8	2,802	33.4
County & City Roads	23,515	59.7	107	52.5	4,911	58.5
Total Drivers	39,388	100.0	204	100.0	8,392	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	464	1.2	4	2.0	81	1.0
03:00 AM - 05:59 AM	496	1.3	2	1.0	63	0.8
06:00 AM - 08:59 AM	3,220	8.2	13	6.4	596	7.1
09:00 AM - 11:59 AM	8,351	21.2	42	20.6	1,883	22.4
Noon - 02:59 PM	10,171	25.8	71	34.8	2,391	28.5
03:00 PM - 05:59 PM	9,517	24.2	41	20.1	2,201	26.2
06:00 PM - 08:59 PM	5,032	12.8	14	6.9	869	10.4
09:00 PM - 11:59 PM	2,045	5.2	17	8.3	285	3.4
Unknown	92	0.2	0	0.0	23	0.3
Total Drivers	39,388	100.0	204	100.0	8,392	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 (16-24 and 25-64).

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	19,085	48.5	55	27.0	3,583	42.7	37	0.5
Speed too fast	1,894	4.8	19	9.3	457	5.4	395	5.1
Speed too slow	46	0.1	0	0.0	10	0.1	10	0.1
Failed to yield	5,843	14.8	45	22.1	1,579	18.8	3,003	38.7
Disregard traffic control	1,170	3.0	14	6.9	442	5.3	642	8.3
Drove wrong way	47	0.1	0	0.0	7	0.1	20	0.3
Drove left of center	246	0.6	11	5.4	70	0.8	71	0.9
Improper passing	174	0.4	1	0.5	16	0.2	65	0.8
Improper lane use	1,149	2.9	3	1.5	107	1.3	469	6.1
Improper turn	582	1.5	3	1.5	80	1.0	251	3.2
Improper/no signal	48	0.1	0	0.0	6	0.1	11	0.1
Improper backing	941	2.4	0	0.0	22	0.3	191	2.5
Unable to stop in assured clear distance	3,996	10.1	7	3.4	1,012	12.1	1,823	23.5
Reckless driving	33	0.1	0	0.0	16	0.2	17	0.2
Careless/negligent driving	771	2.0	12	5.9	250	3.0	325	4.2
Other	1,471	3.7	15	7.4	342	4.1	304	3.9
Unknown	1,892	4.8	19	9.3	393	4.7	116	1.5
Total Drivers	39,388	100.0	204	100.0	8,392	100.0	7,750	100.0

Compared to the other two age groups (16-24 and 25-64), 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
Monday	5,957	15.1	41	20.1	1,265	15.1
Tuesday	6,160	15.6	33	16.2	1,295	15.4
Wednesday	6,332	16.1	29	14.2	1,304	15.5
Thursday	6,144	15.6	26	12.7	1,289	15.4
Friday	6,628	16.8	25	12.3	1,434	17.1
Saturday	4,706	11.9	27	13.2	1,048	12.5
Sunday	3,461	8.8	23	11.3	757	9.0
Total Drivers	39,388	100.0	204	100.0	8,392	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	22,895	58.1	137	67.2	4,755	56.7
Female	16,467	41.8	67	32.8	3,633	43.3
Unknown	26	0.1	0	0.0	4	0.0
Total Drivers	39,388	100.0	204	100.0	8,392	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	29,343	74.5	142	69.6	5,975	71.2
2 occupants	8,126	20.6	52	25.5	1,975	23.5
3 occupants	933	2.4	5	2.5	219	2.6
4 occupants	334	0.8	3	1.5	100	1.2
5 occupants	92	0.2	2	1.0	24	0.3
6 + occupants	105	0.3	0	0.0	32	0.4
0 occupants	105	0.3	0	0.0	6	0.1
Unknown	350	0.9	0	0.0	61	0.7
Total Drivers	39,388	100.0	204	100.0	8,392	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	30,068	76.3	145	71.1	6,412	76.4
Van and Motorhome	2,906	7.4	18	8.8	603	7.2
Pickup	4,628	11.7	18	8.8	914	10.9
Small Truck (under 10,000 lbs.)	1,006	2.6	5	2.5	196	2.3
Motorcycle	136	0.3	6	2.9	97	1.2
Moped	32	0.1	1	0.5	28	0.3
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	9	0.0	0	0.0	8	0.1
Off Road Vehicle	9	0.0	0	0.0	7	0.1
Other	83	0.2	6	2.9	27	0.3
Unknown	63	0.2	0	0.0	14	0.2
CDL Truck/Bus (breakdown below)	448	1.1	5	2.5	86	1.0
Total Number of Drivers	39,388	100.0	204	100.0	8,392	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	47.8	3	60.0	30	34.9
Commercial Vehicle: Group B	111	24.8	2	40.0	28	32.6
Commercial Vehicle: Group C	29	6.5	0	0.0	4	4.7
Other Truck	14	3.1	0	0.0	2	2.3
Unknown Truck	80	17.9	0	0.0	22	25.6
Total Number of Drivers	448	100.0	5	100.0	86	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, motorcyclists, ORV/ATV riders, pedestrians, and snowmobilers 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	2,084	91	71	2	1	4	3	97	75
Bicyclists Killed	25	5	3	0	0	3	3	8	6
Bicyclists Injured	1,638	71	54	2	1	1	0	74	55

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	518,240	15,291	10,324	1,347	811	979	624	17,617	11,759
Drivers Killed	634	167	153	50	41	42	39	259	233
Drivers Injured	53,629	3,746	2,891	403	271	296	218	4,445	3,380

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
Motorcylists In Crashes	4,493	392	344	19	14	29	21	440	379
Motorcylists Killed	125	35	32	11	11	7	5	53	48
Motorcylists Injured	3,314	311	282	6	3	18	13	335	298

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	302	58	54	0	0	5	5	63	59
ORV/ATV Riders Killed	11	5	5	0	0	3	3	8	8
ORV/ATV Riders Injured	206	44	40	0	0	2	2	46	42

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	2,322	205	151	19	9	25	19	249	179
Pedestrians Killed	114	30	27	5	4	14	12	49	43
Pedestrians Injured	1,922	164	116	13	5	11	7	188	128

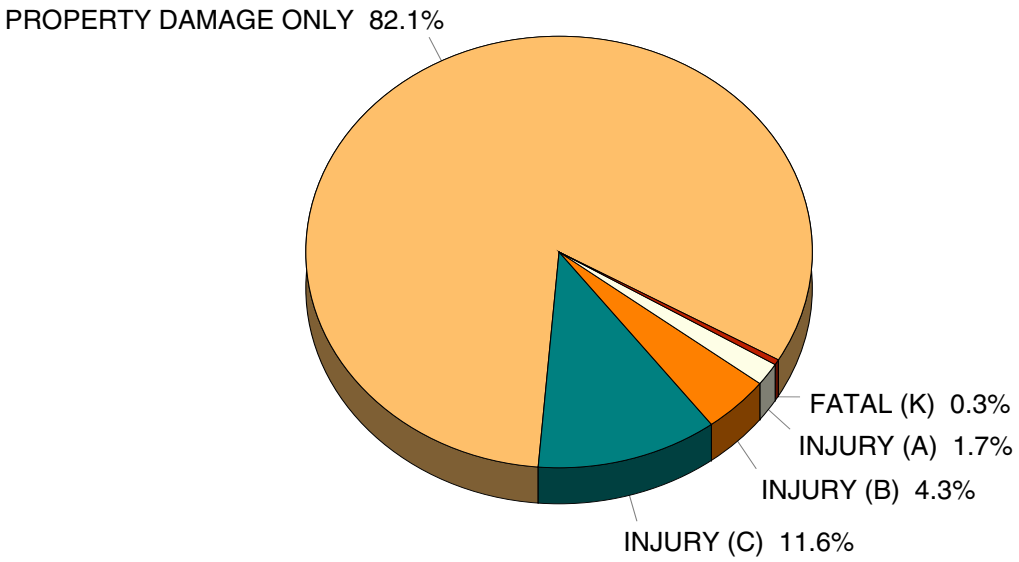
SNOWMOBILER

	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	257	40	40	0	0	2	2	42	42
Snowmobilers Killed	12	5	5	0	0	1	1	6	6
Snowmobilers Injured	155	26	26	0	0	1	1	27	27

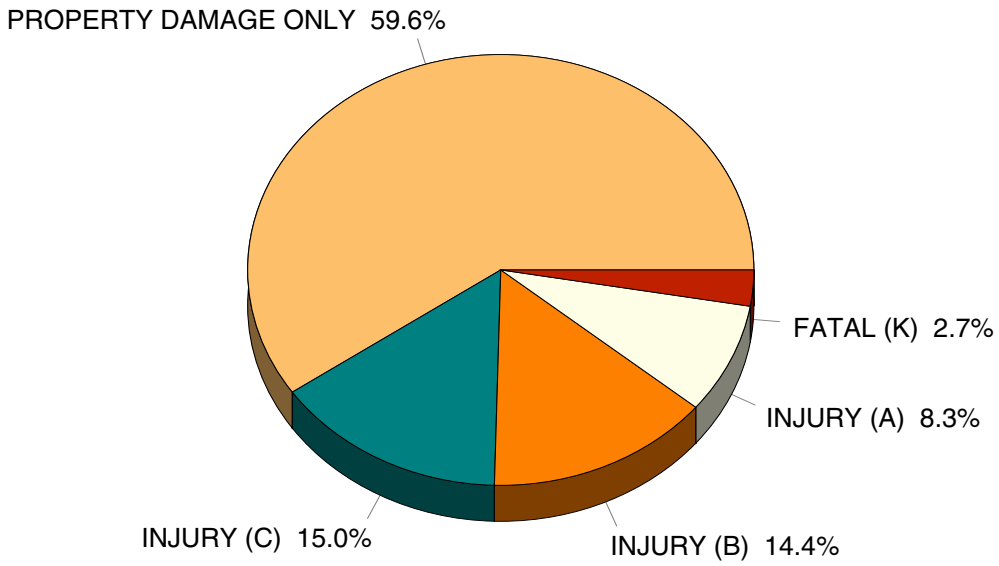
DRIVER DRINKING AND/OR USING DRUGS AND INJURY SEVERITY IN CRASH BY AGE

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	0	0	3	0	0	0	0	0	0	0	0
14 years	1	0	0	1	0	0	0	0	0	0	0	0
15 years	6	2	0	8	1	1	0	2	1	1	0	2
16 years	50	6	3	59	1	0	1	2	16	4	2	22
17 years	118	16	12	146	2	0	2	4	46	5	6	57
18 years	223	31	16	270	7	1	2	10	95	16	4	115
19 years	302	24	23	349	10	2	2	14	106	7	10	123
20 years	342	27	29	398	7	2	0	9	126	8	14	148
21 - 24 years	1,843	103	81	2,027	32	9	8	49	702	42	34	778
25 - 34 years	2,689	207	152	3,048	52	10	13	75	985	75	70	1,130
35 - 44 years	2,114	146	119	2,379	45	12	9	66	784	51	41	876
45 - 54 years	1,622	162	126	1,910	28	10	12	50	622	70	52	744
55 - 64 years	676	69	47	792	25	7	3	35	226	34	14	274
65 - 69 years	132	10	5	147	2	3	1	6	46	1	0	47
70 - 74 years	59	6	4	69	2	2	0	4	16	1	2	19
75 - 79 years	44	1	6	51	1	0	2	3	15	0	3	18
80 - 84 years	19	0	1	20	1	0	0	1	8	0	0	8
85 - 89 years	6	0	0	6	0	0	0	0	2	0	0	2
90 years & over	1	0	0	1	0	0	0	0	1	0	0	1
Unknown	74	1	0	75	0	0	0	0	15	0	0	15
Total	10,324	811	624	11,759	216	59	55	330	3,812	315	252	4,379

ALL CRASHES BY INJURY SEVERITY



HBD CRASHES BY INJURY SEVERITY

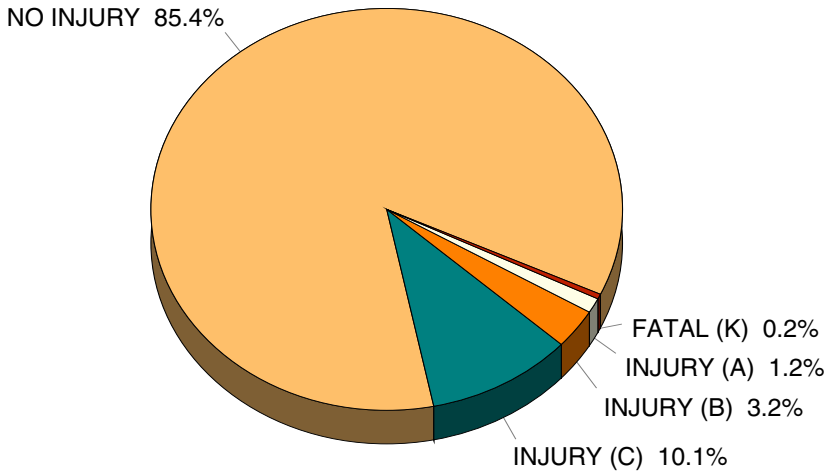


The problem of the drinking driver, pedestrian, and/or cyclist is seen by comparing the two charts on this page. All injury levels are greater, and a fatality in the crash is nine times more likely when one of the crash-involved operators is reported as had been drinking.

DEATH & INJURY FOR CRASH INVOLVED OCCUPANTS

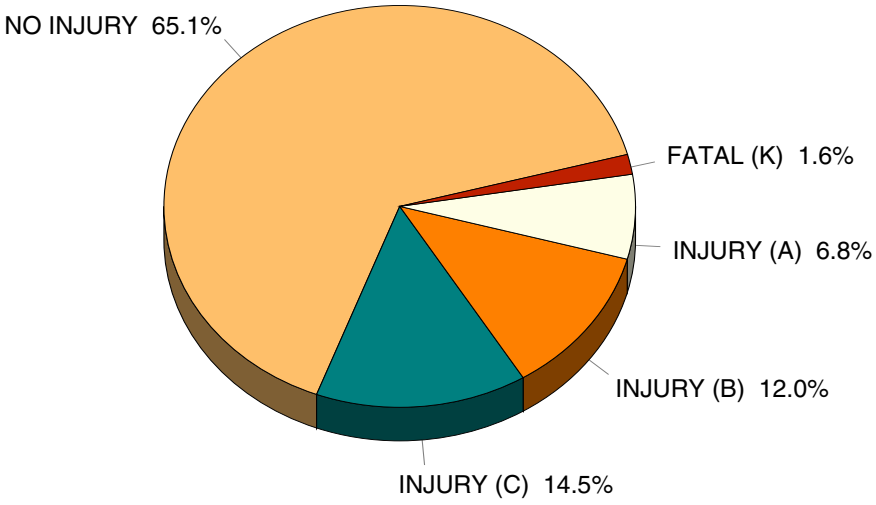
Revised August 12, 2009

Occupants in Crashes



The majority of occupants involved in crashes are not injured (85.4%). Two thirds of those who are injured receive only minor (C) injuries.

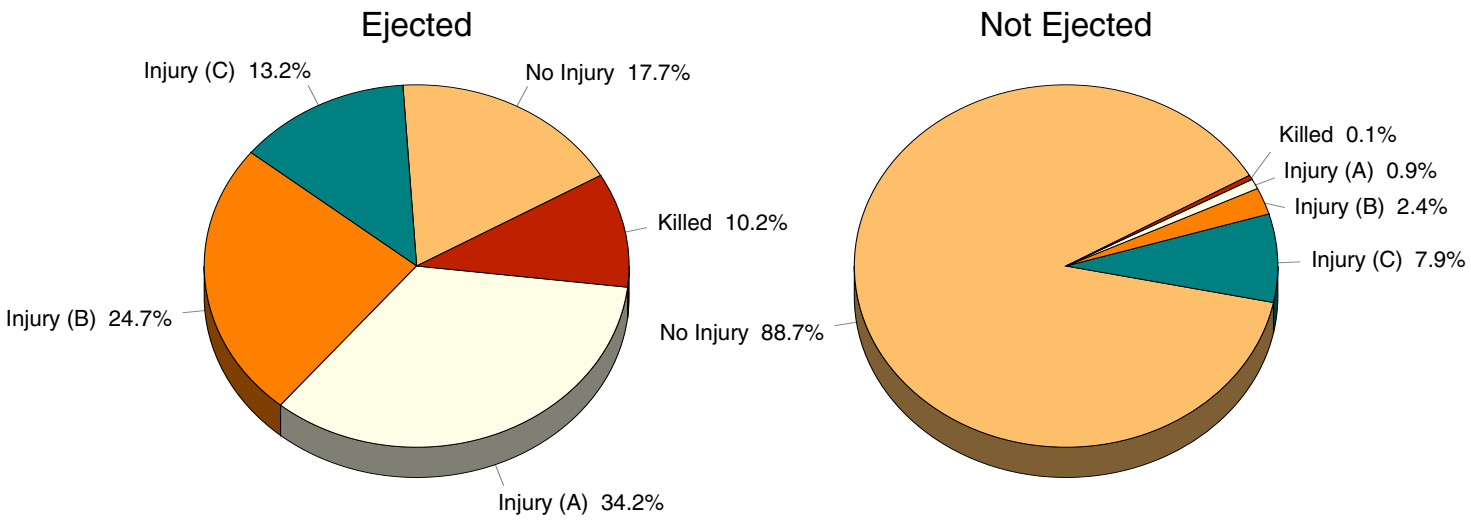
Occupants in HBD Crashes



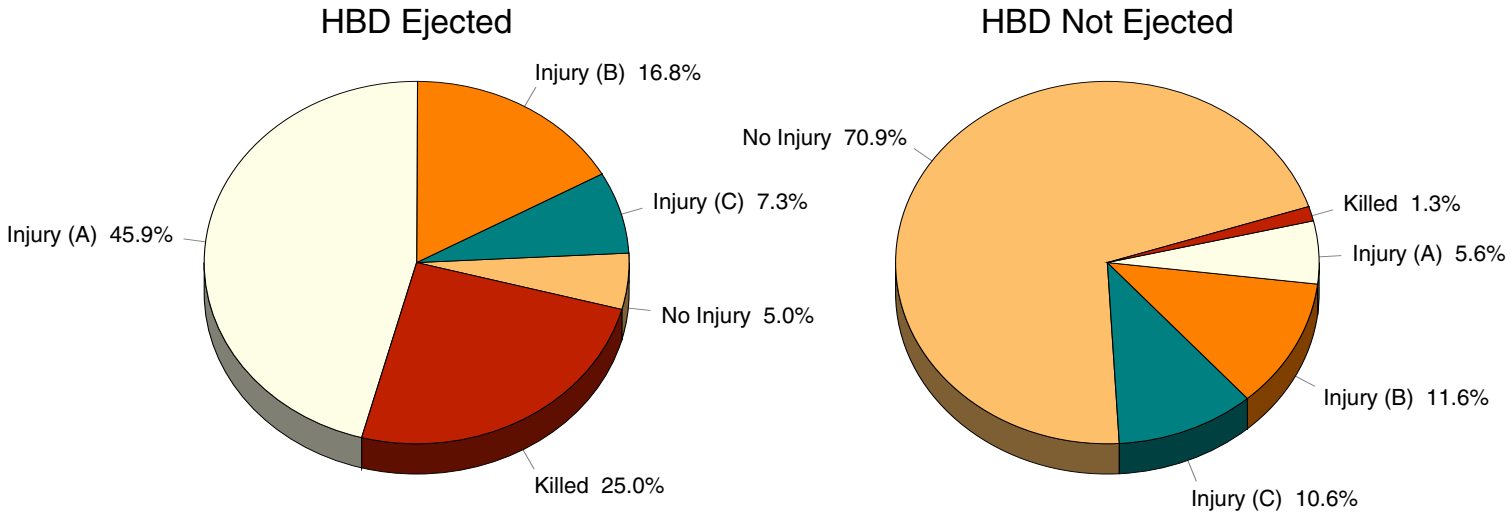
Crashes involving drinking tend to be more serious than nondrinking crashes. The percentage of occupant fatalities is eight times higher than in all crashes and the most serious injury level (A) is over five times higher.

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 vehicles.

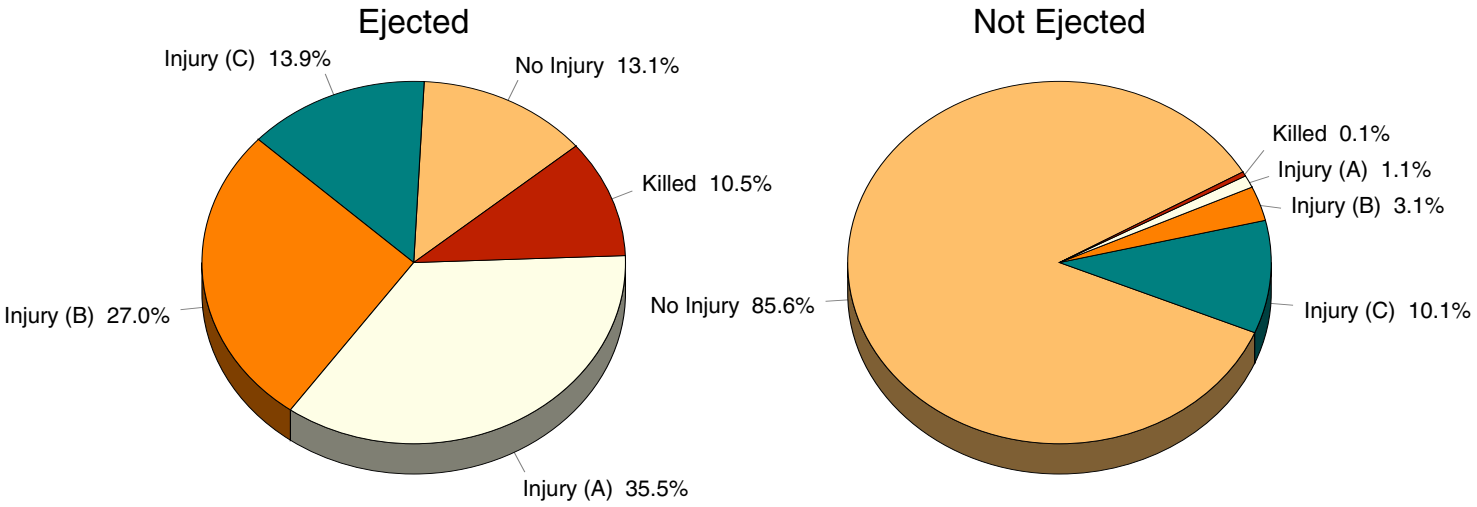


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for drivers who had been drinking in both ejected and non-ejected events.

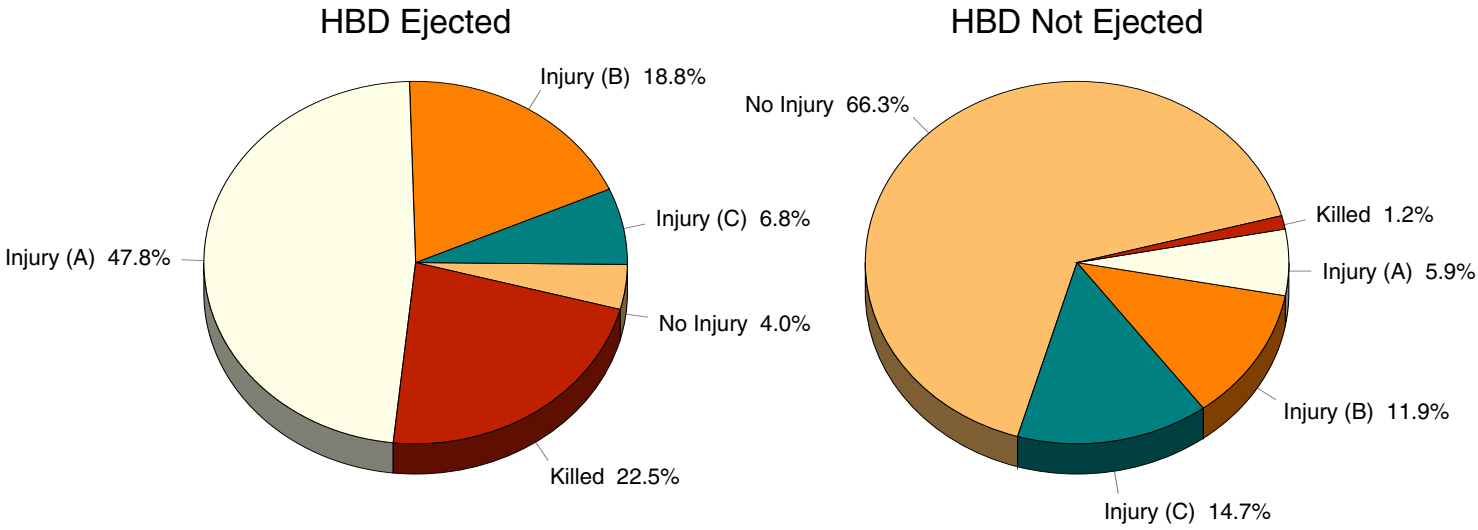


ALL OCCUPANTS and *OCCUPANTS of HBD CRASHES*
INJURY SEVERITY - EJECTED vs. NOT EJECTED

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

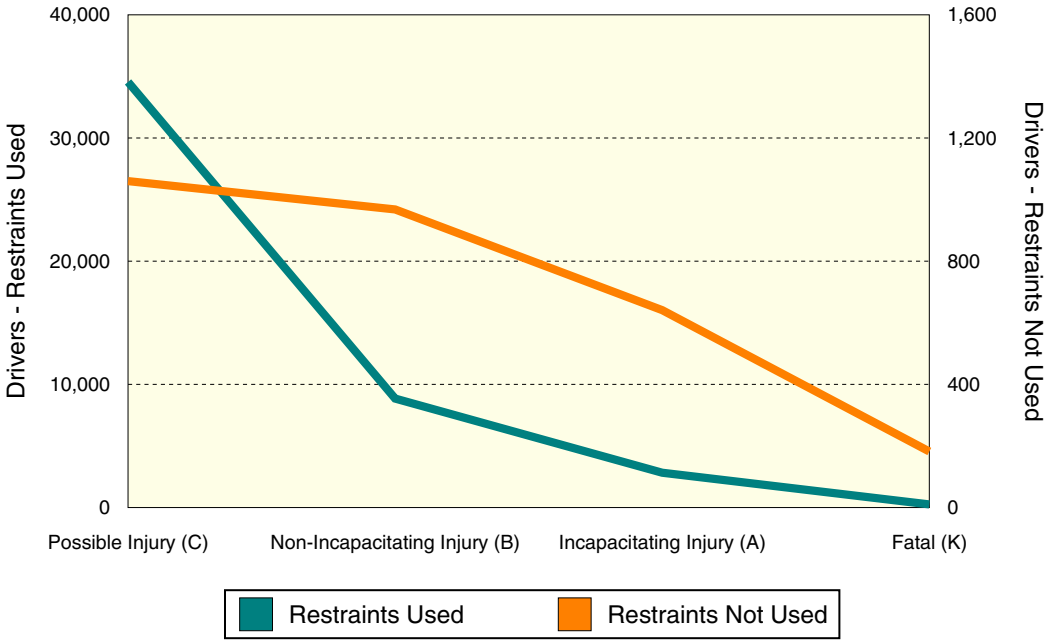


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for occupants in a crash where drinking is reported in both ejected and non-ejected events.

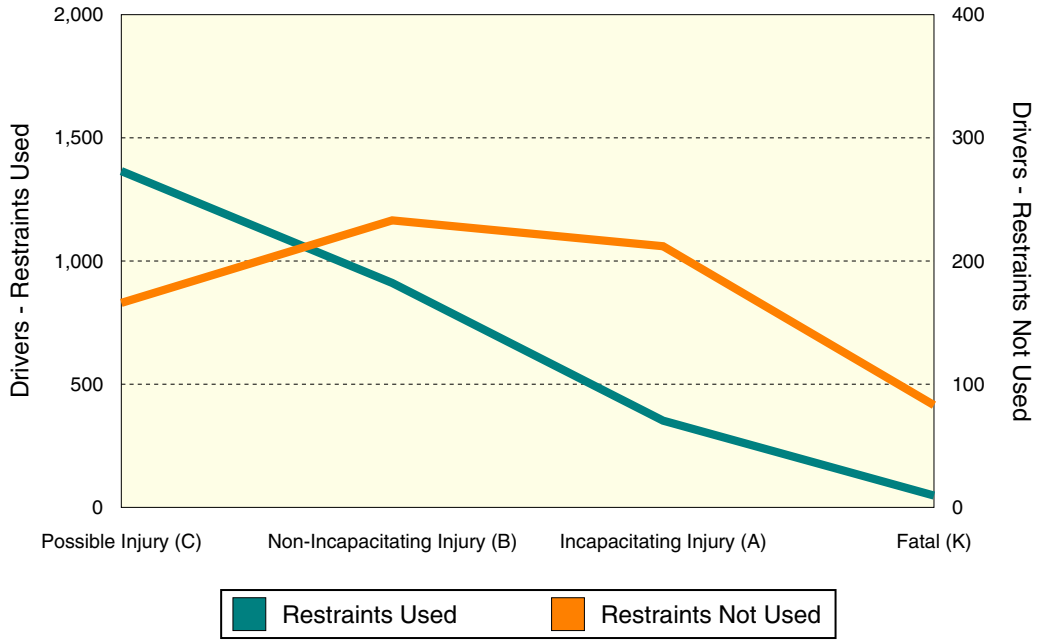


INJURY SEVERITY & RESTRAINT USE FOR CRASH INVOLVED KABC *DRIVERS*

ALL CRASHES

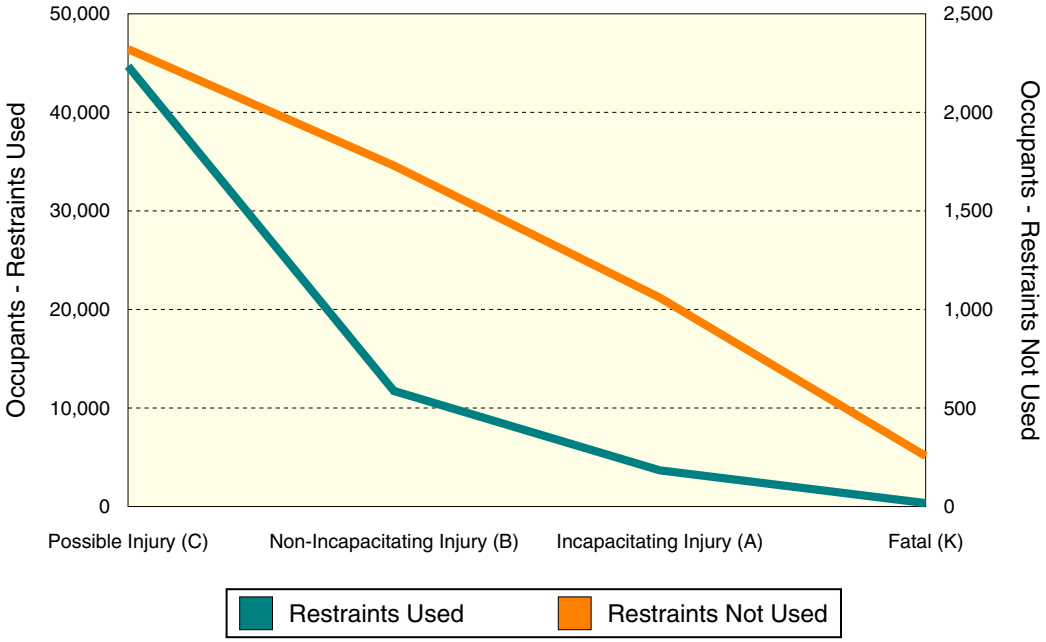


HBD CRASHES

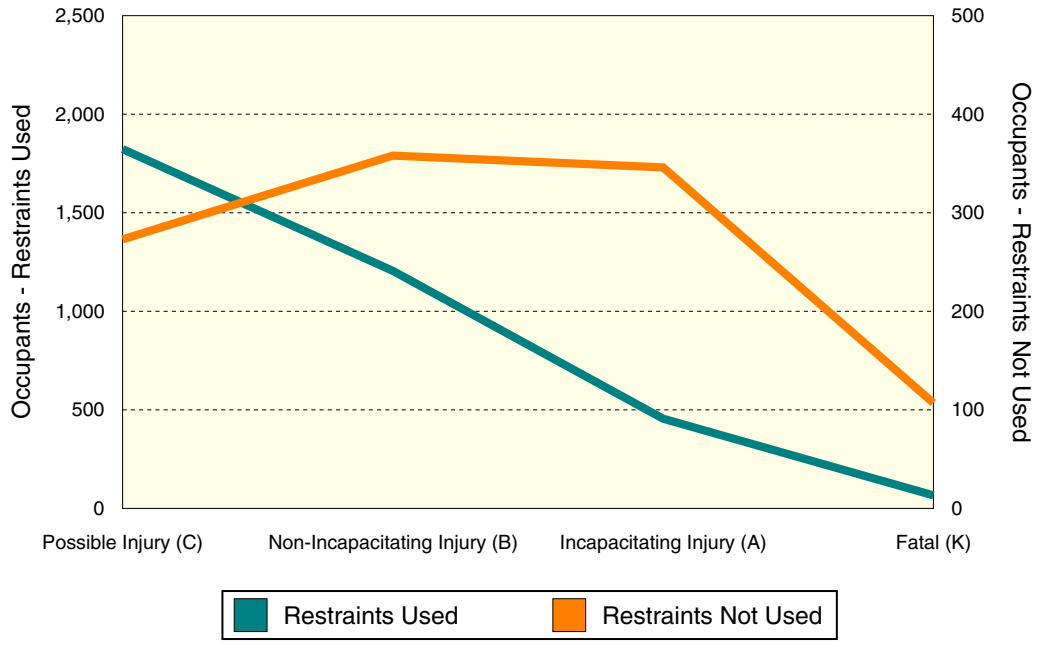


INJURY SEVERITY & RESTRAINT USE FOR CRASH INVOLVED KABC *OCCUPANTS*

ALL CRASHES



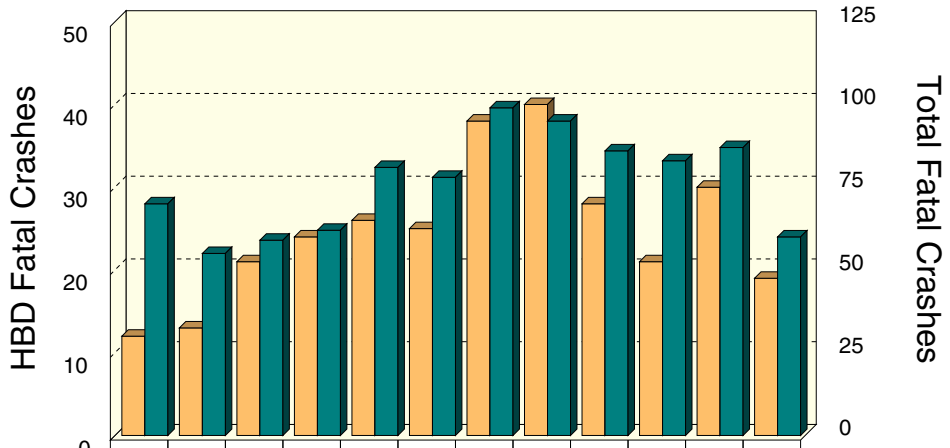
HBD CRASHES



ALCOHOL INVOLVEMENT IN FATAL CRASHES

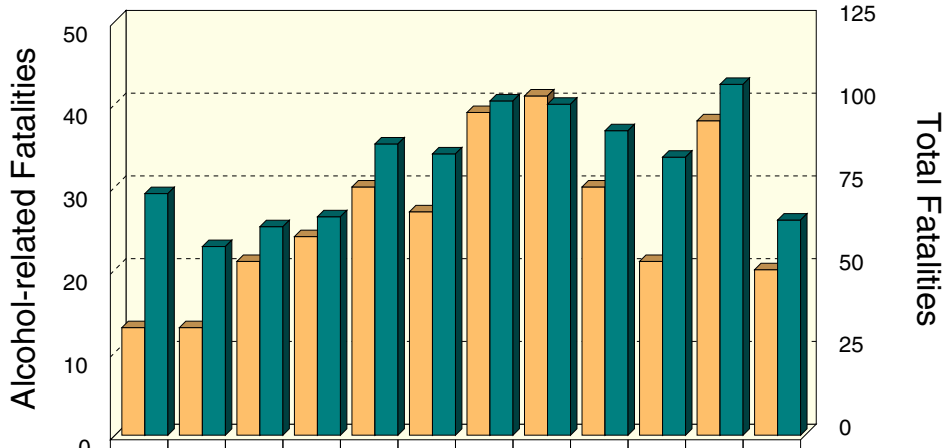
Fatal crashes (total of non-HBD and HBD fatal crashes) were lowest in number during February. The number of fatal crashes and HBD fatal crashes reached highest levels in July and August.

HBD Fatal Crashes by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
HBD Fatal Crashes	12	13	21	24	26	25	38	40	28	21	30	19	297
Total Fatal Crashes	70	55	59	62	81	78	99	95	86	83	87	60	915

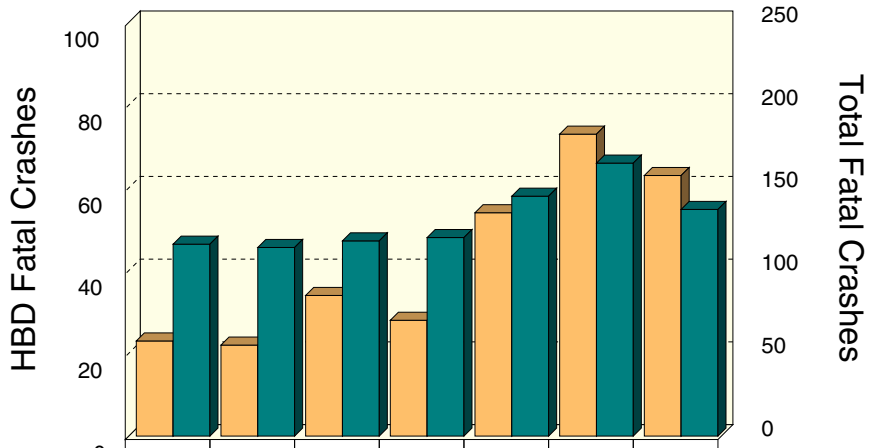
Alcohol-related Fatalities by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Alc-rel. Fatalities	13	13	21	24	30	27	39	41	30	21	38	20	317
Total Fatalities	73	57	63	66	88	85	101	100	92	84	106	65	980

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

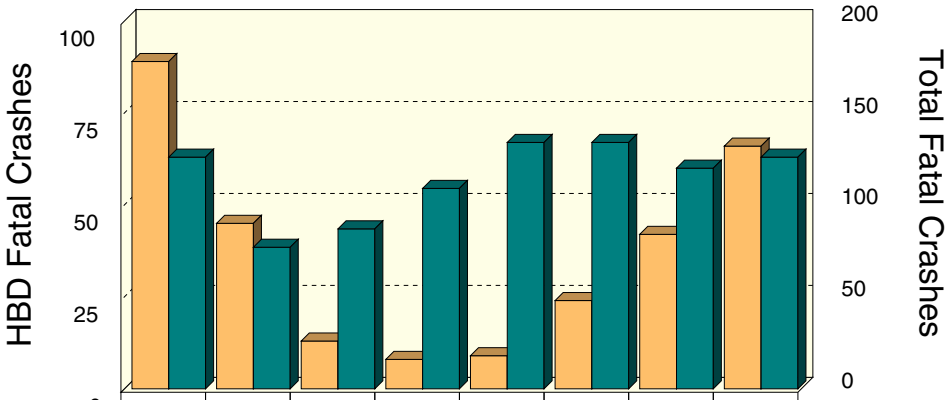
HBD Fatal Crashes by Day of Week



	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
HBD Fatal Crashes	23	22	34	28	54	73	63	297
Total Fatal Crashes	116	114	118	120	145	165	137	915

Saturday and Sunday had the most fatal crashes and the highest proportions of drinking-related fatal crashes in 2008. 46.0 percent of the fatal crashes on Sunday involved drinking, while only 19.3 percent of the fatal crashes on Tuesday involved drinking.

HBD Fatal Crashes by Time of Day



	12:00-2:59A	3:00-5:59A	6:00-8:59A	9:00-11:59A	12:00-2:59P	3:00-5:59P	6:00-8:59P	9:00-11:59P	Totals
HBD Fatal Crashes	89	45	13	8	9	24	42	66	296
Total Fatal Crashes	126	77	87	109	134	134	120	126	913

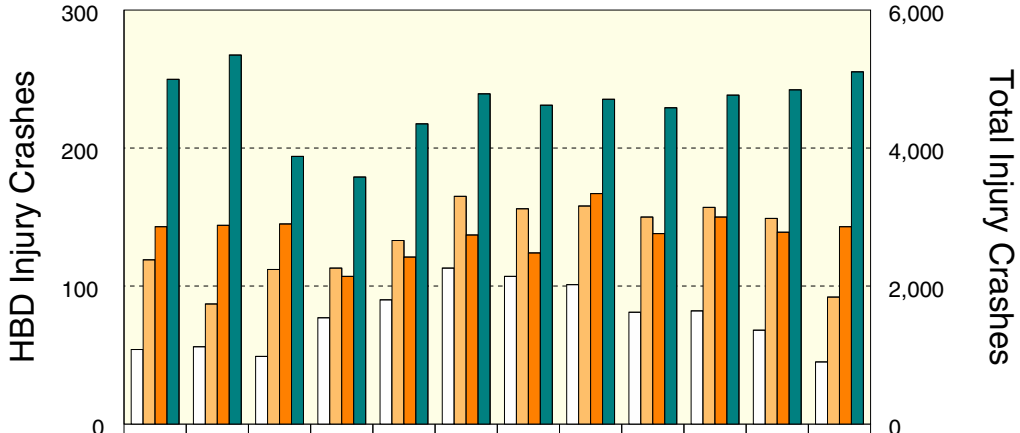
Not surprisingly, the midnight to 2:59 AM time period had the highest rate of drinking involvement (70.6%), while the early afternoon hours had the lowest (6.7%).

There were 2 fatal crashes (including 1 HBD crash) where the time of day was unknown, and those 2 fatal crashes do not appear in this table.

ALCOHOL INVOLVEMENT IN INJURY CRASHES

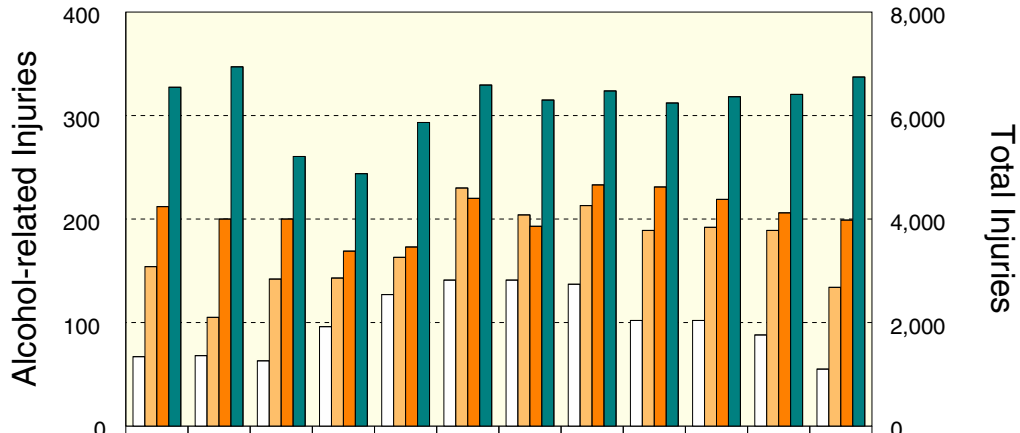
Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2008, the highest number of HBD injury crashes occurred in August with 426. The highest proportion of HBD injury crashes also occurred in August with 9.1 percent of the injury crashes in that month involving alcohol.

HBD Injury Crashes by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
A Injury - HBD	54	56	49	77	90	113	107	101	81	82	68	45	923
B Injury - HBD	119	87	112	113	133	165	156	158	150	157	149	92	1,591
C Injury - HBD	143	144	145	107	121	137	124	167	138	150	139	143	1,658
Total Injury Crashes	4,996	5,348	3,879	3,580	4,351	4,786	4,621	4,707	4,584	4,767	4,844	5,105	55,568

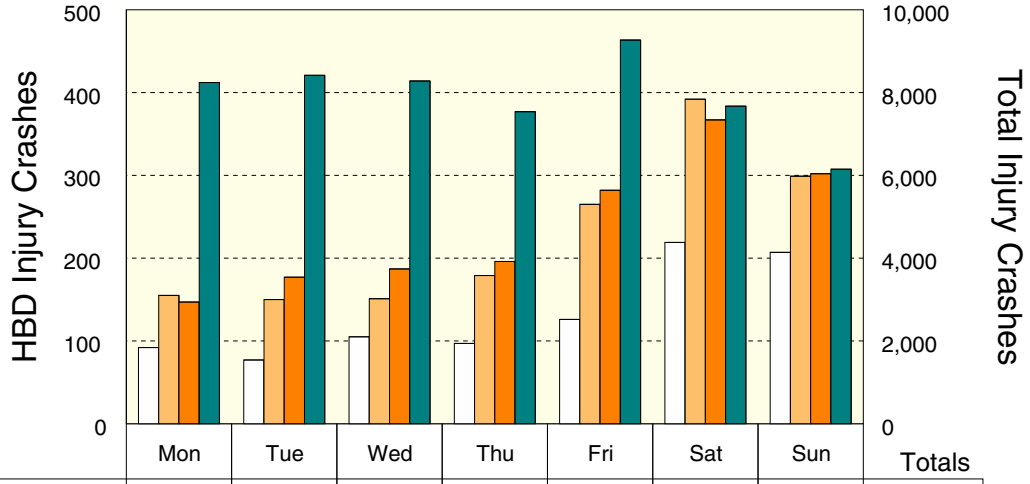
Alcohol-related Injuries by Month



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
A Injury - Alc-rel.	67	68	63	96	127	141	141	137	102	102	88	55	1,187
B Injury - Alc-rel.	154	105	142	143	163	230	204	213	189	192	189	134	2,058
C Injury - Alc-rel.	212	200	200	169	173	220	193	233	231	219	206	199	2,455
Total Injuries	6,547	6,942	5,209	4,877	5,866	6,590	6,300	6,476	6,243	6,364	6,409	6,745	74,568

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

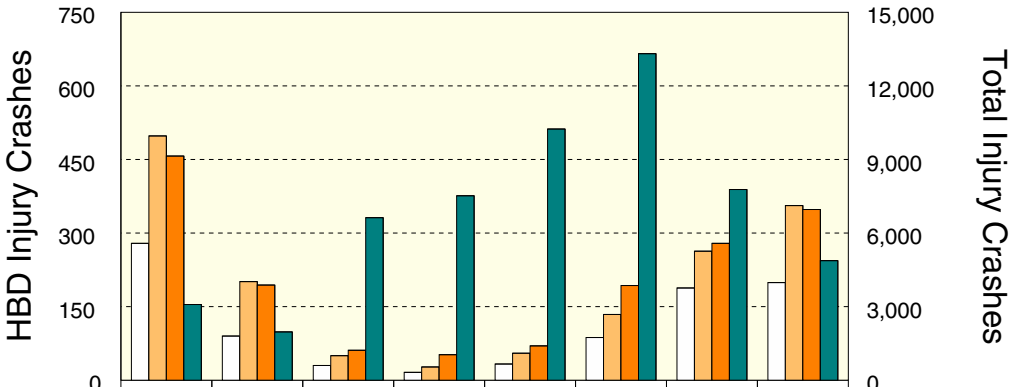
HBD Injury Crashes by Day of Week



	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Totals
A Injury - HBD	92	77	105	97	126	219	207	923
B Injury - HBD	155	150	151	179	265	392	299	1,591
C Injury - HBD	147	177	187	196	282	367	302	1,658
Total Injury Crashes	8,243	8,417	8,280	7,538	9,269	7,672	6,149	55,568

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



	12:00-2:59A	3:00-5:59A	6:00-8:59A	9:00-11:59A	12:00-2:59P	3:00-5:59P	6:00-8:59P	9:00-11:59P	Totals
A Injury - HBD	279	90	30	16	33	87	188	199	922
B Injury - HBD	498	201	50	27	55	134	263	356	1,584
C Injury - HBD	457	194	61	52	70	193	279	348	1,654
Total Injury Crashes	3,086	1,970	6,627	7,521	10,242	13,314	7,775	4,875	55,410

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 158 injury crashes (including 12 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	170	0.1	0	0.0	12	17	24	117
14 years	87	0.0	0	0.0	6	14	13	54
15 years	372	0.1	2	0.2	22	39	61	248
16 years	5,208	1.9	16	1.6	96	281	696	4,119
17 years	7,291	2.7	16	1.6	128	370	954	5,823
18 years	8,764	3.3	33	3.4	186	470	1,138	6,937
19 years	7,955	3.0	28	2.9	151	419	998	6,359
20 years	7,318	2.7	19	1.9	149	381	934	5,835
21 - 24 years	24,899	9.3	90	9.2	533	1,305	3,065	19,906
25 - 34 years	48,246	18.1	174	17.8	940	2,207	5,781	39,144
35 - 44 years	48,618	18.2	170	17.4	908	2,116	5,954	39,470
45 - 54 years	47,952	17.9	174	17.8	947	2,119	6,052	38,660
55 - 64 years	31,627	11.8	113	11.6	611	1,353	4,070	25,480
65 - 69 years	8,576	3.2	31	3.2	188	423	1,058	6,876
70 - 74 years	5,595	2.1	31	3.2	117	276	754	4,417
75 - 79 years	4,270	1.6	32	3.3	92	197	584	3,365
80 - 84 years	2,807	1.1	26	2.7	80	152	426	2,123
85 - 89 years	1,286	0.5	12	1.2	38	90	184	962
90 years and over	361	0.1	5	0.5	3	41	52	260
Unknown	5,784	2.2	4	0.4	39	168	669	4,904
Total	267,186	100.0	976	100.0	5,246	12,438	33,467	215,059

NOTE: Gender tables exclude 37,831 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	3	0.0	0	0.0	0	0	0	3
14 years	1	0.0	0	0.0	0	0	0	1
15 years	5	0.1	1	0.4	0	1	0	3
16 years	36	0.4	1	0.4	3	4	5	23
17 years	98	1.2	4	1.8	8	16	12	58
18 years	178	2.2	8	3.5	11	30	30	99
19 years	258	3.1	10	4.4	23	36	27	162
20 years	267	3.2	5	2.2	27	42	34	159
21 - 24 years	1,478	17.9	31	13.7	132	229	221	865
25 - 34 years	2,167	26.2	55	24.2	169	323	310	1,310
35 - 44 years	1,600	19.3	46	20.3	145	245	212	952
45 - 54 years	1,300	15.7	35	15.4	144	166	207	748
55 - 64 years	596	7.2	23	10.1	43	82	90	358
65 - 69 years	117	1.4	3	1.3	8	13	17	76
70 - 74 years	58	0.7	2	0.9	3	6	9	38
75 - 79 years	44	0.5	2	0.9	3	7	5	27
80 - 84 years	19	0.2	1	0.4	1	1	6	10
85 - 89 years	6	0.1	0	0.0	0	1	1	4
90 years and over	1	0.0	0	0.0	0	0	1	0
Unknown	38	0.5	0	0.0	1	2	7	28
Total	8,270	100.0	227	100.0	721	1,204	1,194	4,924

NOTE: Gender/alcohol tables exclude 28 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	64	0.0	0	0.0	6	5	8	45
14 years	59	0.0	0	0.0	3	6	7	43
15 years	298	0.1	1	0.2	8	22	48	219
16 years	4,461	2.1	3	0.7	71	218	705	3,464
17 years	6,461	3.0	12	2.9	110	326	968	5,045
18 years	7,306	3.4	12	2.9	137	393	1,128	5,636
19 years	6,783	3.2	10	2.4	97	310	1,092	5,274
20 years	6,411	3.0	14	3.4	100	262	993	5,042
21 - 24 years	21,743	10.2	36	8.7	305	908	3,270	17,224
25 - 34 years	40,793	19.1	62	15.0	551	1,598	6,361	32,221
35 - 44 years	39,733	18.6	76	18.4	535	1,474	5,945	31,703
45 - 54 years	37,518	17.6	71	17.1	523	1,391	5,597	29,936
55 - 64 years	22,591	10.6	49	11.8	334	853	3,490	17,865
65 - 69 years	5,850	2.7	14	3.4	87	251	878	4,620
70 - 74 years	3,900	1.8	17	4.1	87	166	606	3,024
75 - 79 years	3,141	1.5	14	3.4	53	166	473	2,435
80 - 84 years	2,264	1.1	10	2.4	45	146	335	1,728
85 - 89 years	1,059	0.5	7	1.7	24	58	179	791
90 years and over	253	0.1	5	1.2	11	21	47	169
Unknown	2,535	1.2	1	0.2	13	57	293	2,171
Total	213,223	100.0	414	100.0	3,100	8,631	32,423	168,655

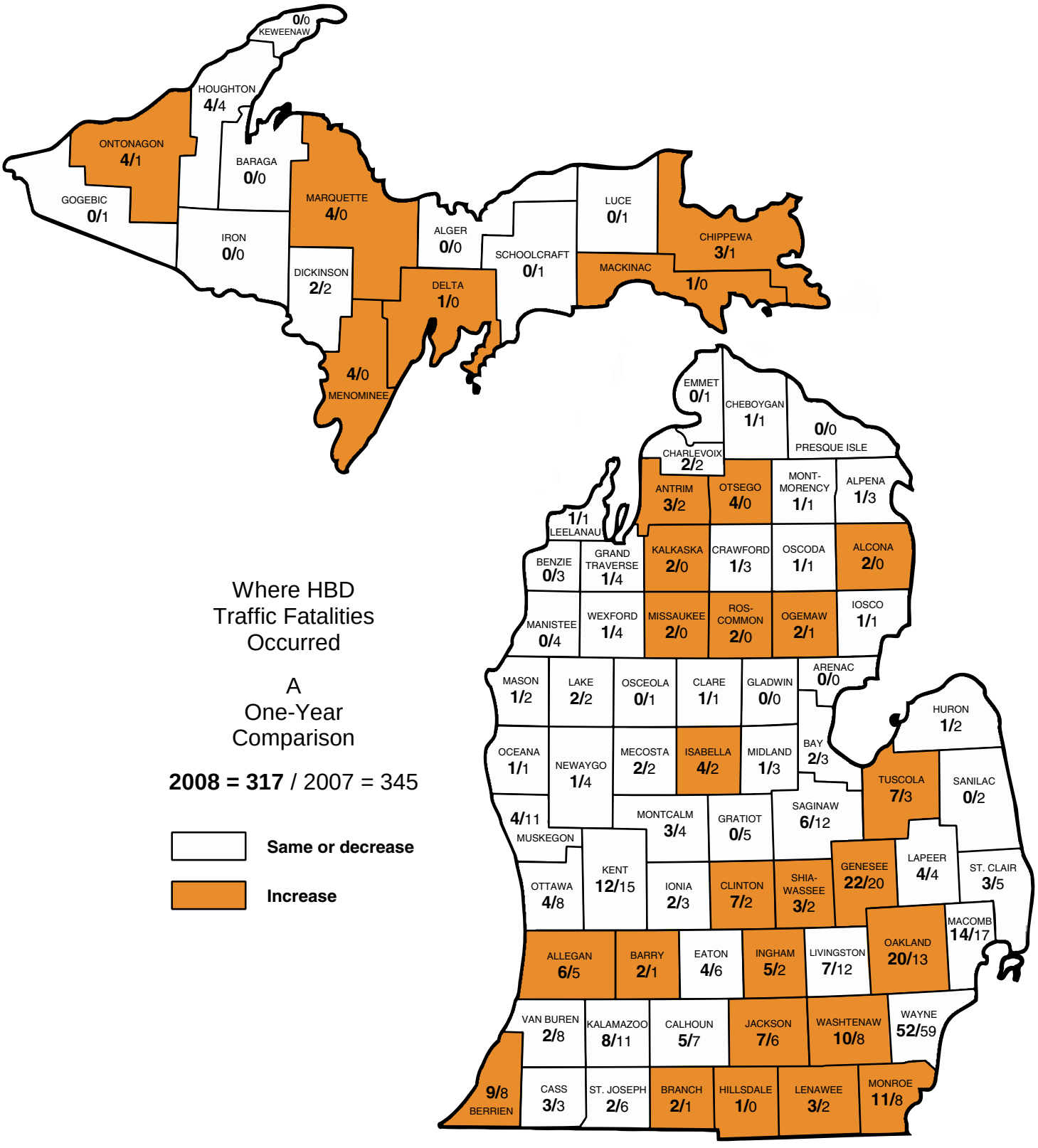
NOTE: Gender tables exclude 37,831 drivers of unknown gender.

FEMALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	Female Drivers		MOST SEVERE OUTCOME IN CRASH: Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	0	0.0	0	0.0	0	0	0	0
14 years	0	0.0	0	0.0	0	0	0	0
15 years	1	0.0	0	0.0	0	0	0	1
16 years	17	0.6	1	2.3	1	1	4	10
17 years	32	1.2	0	0.0	3	8	5	16
18 years	61	2.3	1	2.3	9	12	7	32
19 years	67	2.5	2	4.5	7	14	9	35
20 years	104	3.9	2	4.5	4	12	21	65
21 - 24 years	446	16.8	9	20.5	29	58	67	283
25 - 34 years	674	25.4	10	22.7	42	98	113	411
35 - 44 years	633	23.9	8	18.2	40	75	108	402
45 - 54 years	448	16.9	5	11.4	32	50	75	286
55 - 64 years	127	4.8	5	11.4	5	8	12	97
65 - 69 years	20	0.8	0	0.0	2	2	4	12
70 - 74 years	5	0.2	0	0.0	0	0	0	5
75 - 79 years	6	0.2	1	2.3	1	1	1	2
80 - 84 years	1	0.0	0	0.0	0	0	0	1
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	8	0.3	0	0.0	0	0	2	6
Total	2,650	100.0	44	100.0	175	339	428	1,664

NOTE: Gender/alcohol tables exclude 28 unknown gender drinking drivers.

TRAFFIC FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY



Where HBD Traffic Fatalities Occurred

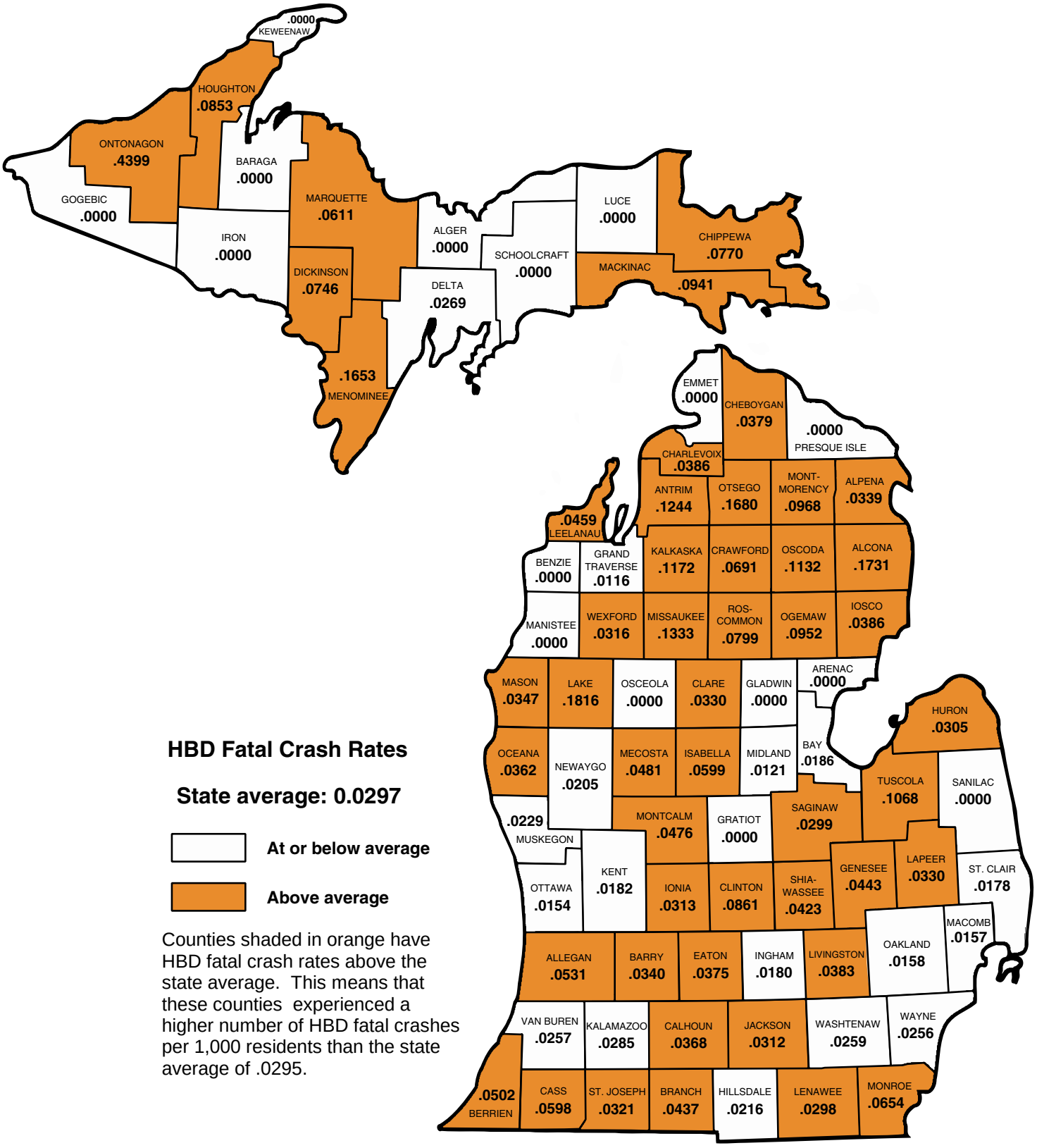
A One-Year Comparison

2008 = 317 / 2007 = 345

Same or decrease

Increase

COUNTY RANKING
BY HBD FATAL CRASH RATE



HBD Fatal Crash Rates

State average: 0.0297

At or below average

Above 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 .0295.

2008

2008

2008

2008

2008

2008

2008

2008

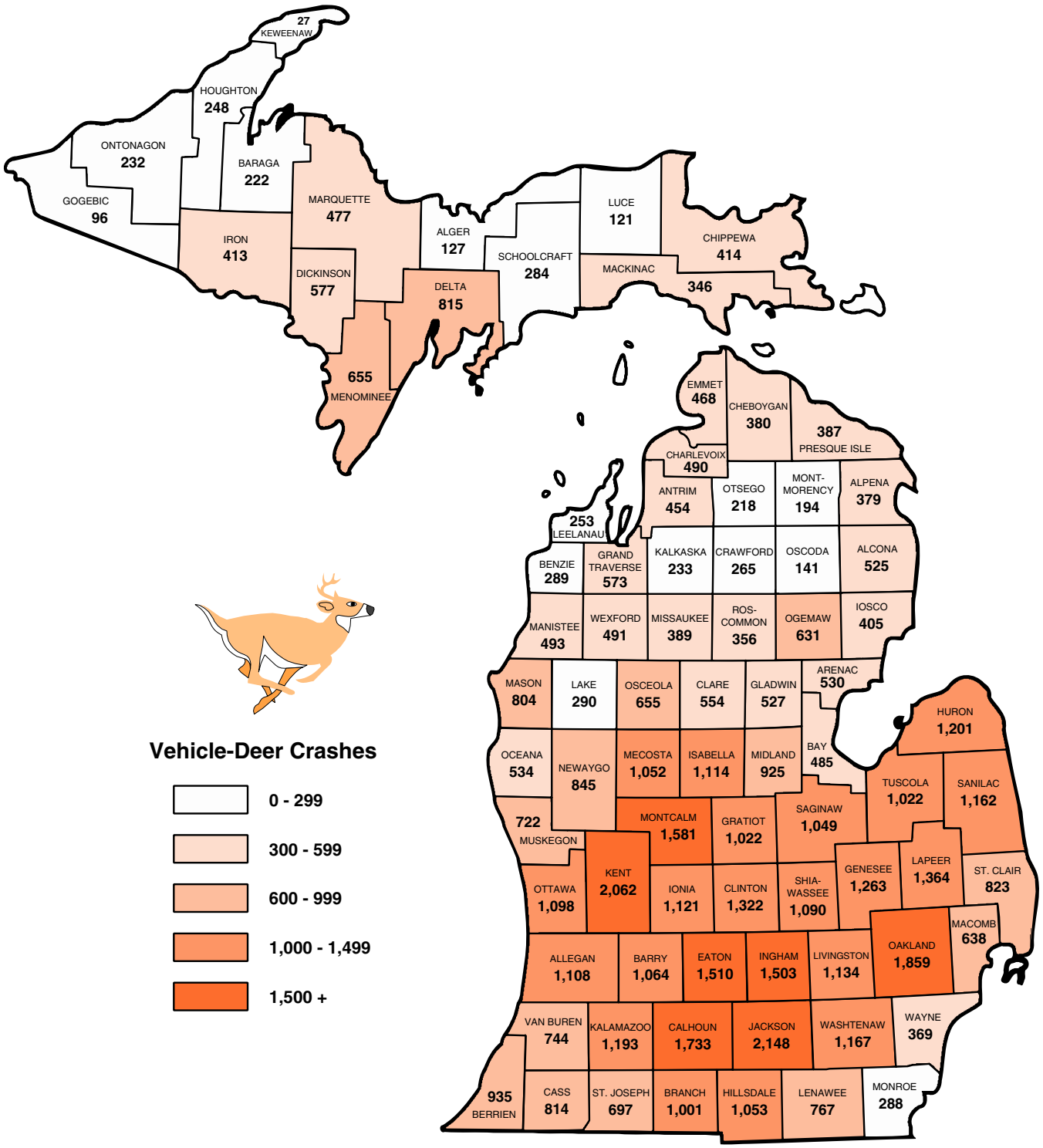
2008

Deer

MICHIGAN MOTOR VEHICLE-DEER INVOLVED CRASHES

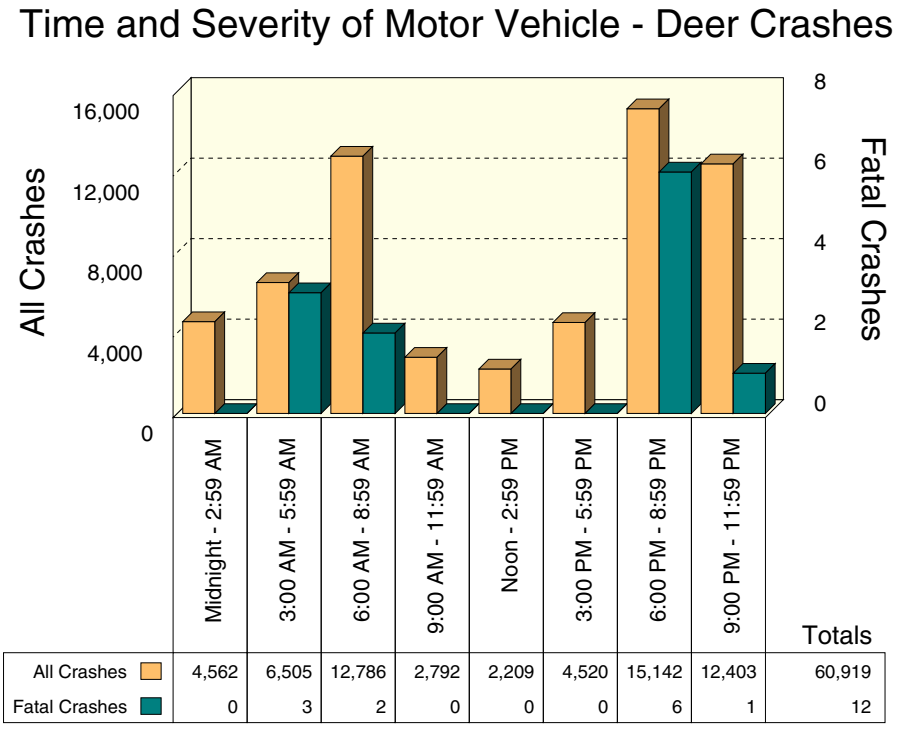
Michigan had 61,010 reported motor vehicle-deer crashes during 2008. 1,648 people were injured and 12 people were killed as a result of those collisions. 8 of the 12 people killed were motorcycle drivers. Of the 61,220 vehicles involved, 42,254 (69.0%) were passenger cars, 11,976 (19.6%) were pickups, and 3,866 (6.3%) were minivans, vans, and motorhomes. All other vehicle types (including motorcycle, snowmobile, ORV/ATV, large truck, moped) totaled 3,124 (5.1%).

Motor vehicle-deer crashes occurred most often in Michigan's heavily populated southern counties; Jackson County had the highest number with 2,148 such crashes in 2008, replacing Kent County (the county with the highest number since 1984.)



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

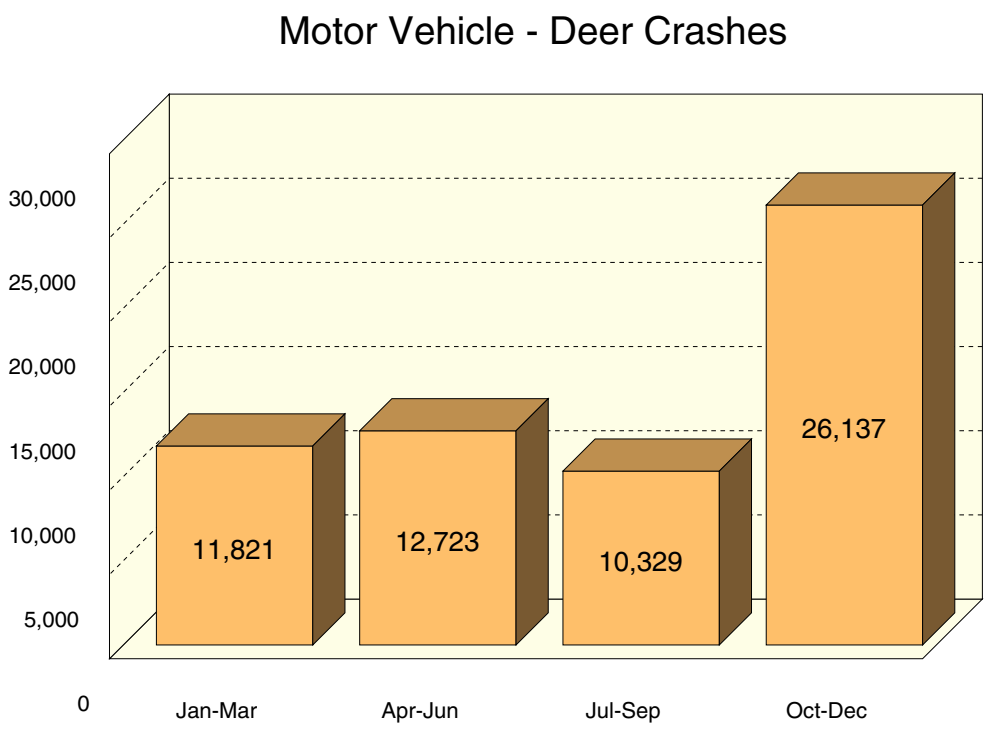
LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	12,827	21.0	2	16.7	60	170	252	12,343
Dawn	5,302	8.7	3	25.0	10	34	66	5,189
Dusk	2,913	4.8	1	8.3	10	31	37	2,834
Dark – Lighted	1,990	3.3	0	0.0	6	11	20	1,953
Dark – Unlighted	37,280	61.1	6	50.0	84	221	466	36,503
Other/Unknown	698	1.1	0	0.0	0	0	6	692
Total	61,010	100.0	12	100.0	170	467	847	59,514



NOTE: Time and Severity chart excludes 91 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	4,587	7.5	0	0.0	1	10	48	4,528
February	3,009	4.9	0	0.0	3	10	24	2,972
March	4,225	6.9	0	0.0	3	8	42	4,172
April	3,422	5.6	1	8.3	16	20	48	3,337
May	4,708	7.7	0	0.0	10	52	79	4,567
June	4,593	7.5	1	8.3	36	69	74	4,413
July	3,374	5.5	2	16.7	35	56	66	3,215
August	2,750	4.5	0	0.0	19	47	75	2,609
September	4,205	6.9	4	33.3	18	42	61	4,080
October	9,261	15.2	2	16.7	16	73	136	9,034
November	11,272	18.5	2	16.7	10	69	159	11,032
December	5,604	9.2	0	0.0	3	11	35	5,555
Total	61,010	100.0	12	100.0	170	467	847	59,514



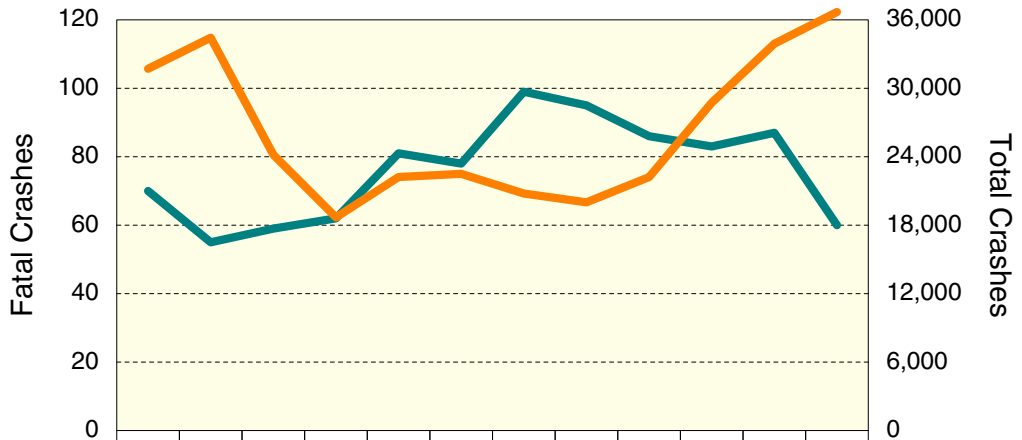
26,137 (43%) of reported motor vehicle-deer collisions occurred during the fourth quarter of the year.

2008
2008
2008
2008
2008
2008
2008
2008
2008

Crash

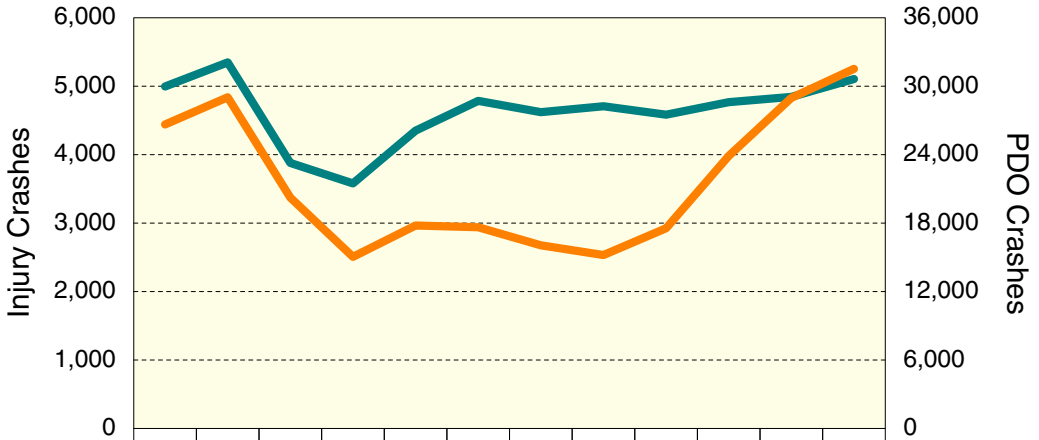
ALL CRASHES INJURY SEVERITY BY MONTH

Fatal and Total Crashes



	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Fatal Crashes	70	55	59	62	81	78	99	95	86	83	87	60	915
Total Crashes	31,712	34,435	24,176	18,685	22,222	22,501	20,775	20,004	22,218	28,735	33,908	36,686	316,057

Injury and PDO Crashes

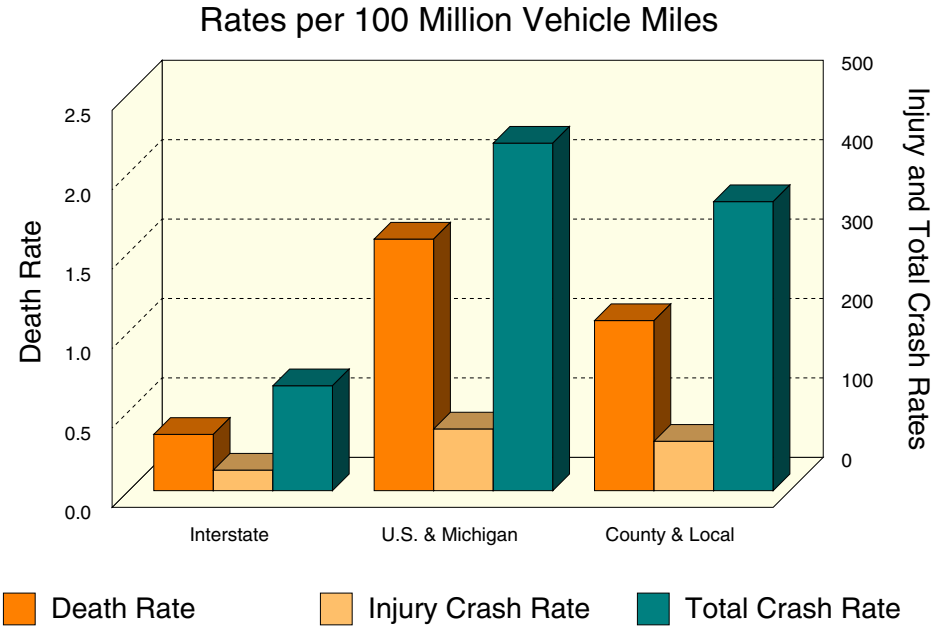


	J	F	M	A	M	J	J	A	S	O	N	D	Totals
Injury Crashes	4,996	5,348	3,879	3,580	4,351	4,786	4,621	4,707	4,584	4,767	4,844	5,105	55,568
PDO Crashes	26,646	29,032	20,238	15,043	17,790	17,637	16,055	15,202	17,548	23,885	28,977	31,521	259,574

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. 2008 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	28.5	37,657	7,381	101	132.1	25.9	0.4
U.S. & Michigan Roads	20.2	88,406	15,702	320	437.7	77.7	1.6
County & City Roads	52.2	189,994	32,485	559	364.0	62.2	1.1
Total	100.9	316,057	55,568	980	313.2	55.1	0.97



CRASH TYPE

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Single Vehicle	127,449	40.3	471	51.5	2,551	6,167	9,710	108,550
Head On	4,846	1.5	132	14.4	322	512	858	3,022
Head On - Left Turn	6,772	2.1	33	3.6	249	701	1,543	4,246
Angle	51,735	16.4	170	18.6	1,164	2,816	8,310	39,275
Rear End	69,860	22.1	47	5.1	562	1,849	11,960	55,442
Rear End - Left Turn	2,971	0.9	2	0.2	53	128	586	2,202
Rear End - Right Turn	2,914	0.9	0	0.0	18	39	376	2,481
Sideswipe - Same Direction	27,670	8.8	19	2.1	153	512	1,642	25,344
Sideswipe - Opposite Direct	7,381	2.3	11	1.2	81	224	600	6,465
Other/Unknown	14,459	4.6	30	3.3	258	525	1,099	12,547
Total	316,057	100.0	915	100.0	5,411	13,473	36,684	259,574

Single Vehicle, Head On, and Angle crash types produce the highest number of fatal crashes (84.5%). Single Vehicle crashes include rollovers, which are particularly deadly crash types. Rear End-Turning and Sideswipe crashes produce the lowest number of fatal crashes (3.5%).

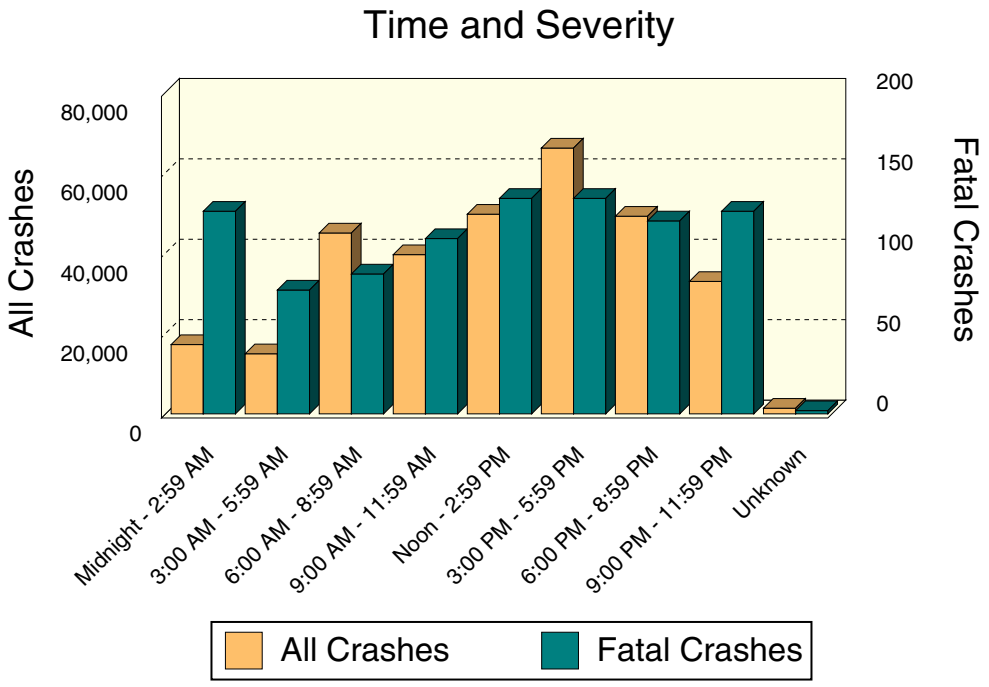
RELATIONSHIP TO ROADWAY

LOCATION OF FIRST IMPACT	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
On Road	254,622	80.6	601	65.7	3,661	9,235	29,122	212,003
Median	3,217	1.0	16	1.7	80	257	477	2,387
Shoulder	15,930	5.0	69	7.5	376	971	1,803	12,711
Outside of Shoulder/Curb	30,316	9.6	204	22.3	1,054	2,409	3,882	22,767
Gore	862	0.3	5	0.5	31	74	115	637
Other/Unknown	11,110	3.5	20	2.2	209	527	1,285	9,069
Total	316,057	100.0	915	100.0	5,411	13,473	36,684	259,574

Crashes that happen outside of the normal driving lanes are overrepresented in the fatal count. Only 9.6 percent of crashes occur outside the shoulder of the road, but these crashes account for 22.3 percent of the fatal crashes.

TIME AND SEVERITY

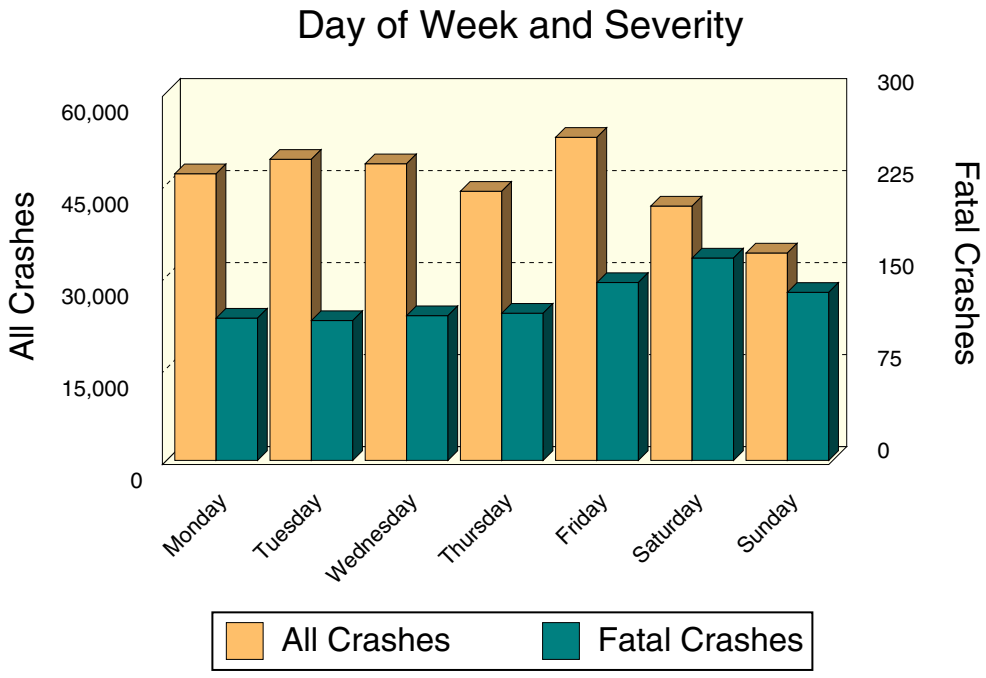
TIME OF DAY	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Midnight - 2:59 AM	17,232	5.5	126	13.8	489	1,020	1,577	14,020
3:00 AM - 5:59 AM	14,944	4.7	77	8.4	270	560	1,140	12,897
6:00 AM - 8:59 AM	44,994	14.2	87	9.5	544	1,427	4,656	38,280
9:00 AM - 11:59 AM	39,603	12.5	109	11.9	620	1,703	5,198	31,973
Noon - 2:59 PM	49,664	15.7	134	14.6	832	2,300	7,110	39,288
3:00 PM - 5:59 PM	66,117	20.9	134	14.6	1,141	3,039	9,134	52,669
6:00 PM - 8:59 PM	49,163	15.6	120	13.1	881	2,005	4,889	41,268
9:00 PM - 11:59 PM	32,938	10.4	126	13.8	622	1,378	2,875	27,937
Unknown	1,402	0.4	2	0.2	12	41	105	1,242
Total	316,057	100.0	915	100.0	5,411	13,473	36,684	259,574



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

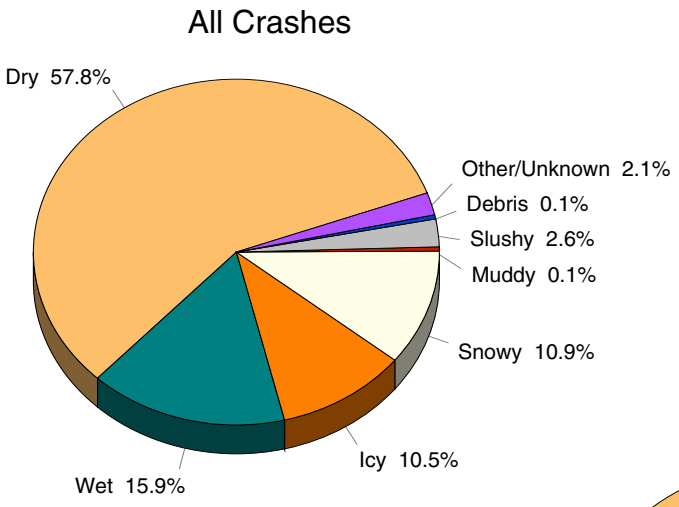
DAY OF WEEK	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Monday	46,739	14.8	116	12.7	759	1,935	5,549	38,380
Tuesday	49,094	15.5	114	12.5	696	1,919	5,802	40,563
Wednesday	48,369	15.3	118	12.9	715	1,899	5,666	39,971
Thursday	43,883	13.9	120	13.1	680	1,751	5,107	36,225
Friday	52,681	16.7	145	15.8	847	2,180	6,242	43,267
Saturday	41,471	13.1	165	18.0	918	2,081	4,673	33,634
Sunday	33,820	10.7	137	15.0	796	1,708	3,645	27,534
Total	316,057	100.0	915	100.0	5,411	13,473	36,684	259,574

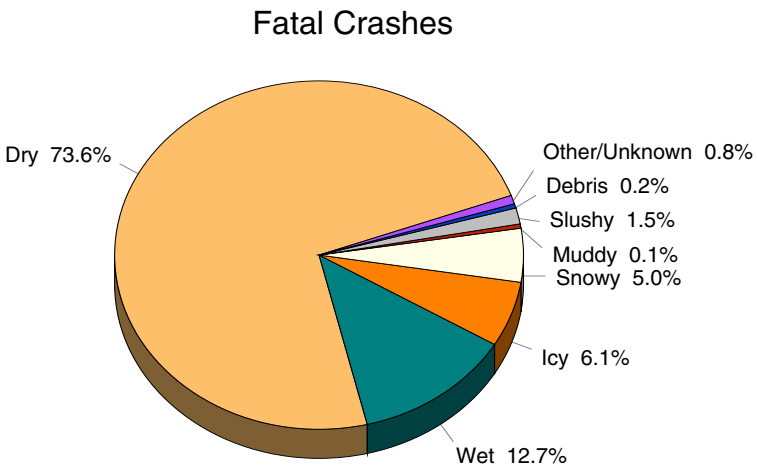


Crash frequencies were higher Monday through Friday than on the weekend. Friday (15.8%) and Saturday (18.0%) had the highest number of fatal crashes.

ROAD CONDITION

ROAD SURFACE CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Dry	182,832	57.8	673	73.6	3,691	8,966	21,850	147,652
Wet	50,185	15.9	116	12.7	713	1,987	6,442	40,927
Icy	33,062	10.5	56	6.1	435	1,098	3,802	27,671
Snowy	34,446	10.9	46	5.0	342	886	3,107	30,065
Muddy	412	0.1	1	0.1	12	25	45	329
Slushy	8,213	2.6	14	1.5	124	315	979	6,781
Debris	204	0.1	2	0.2	15	24	31	132
Other/Unknown	6,703	2.1	7	0.8	79	172	428	6,017
Total	316,057	100.0	915	100.0	5,411	13,473	36,684	259,574

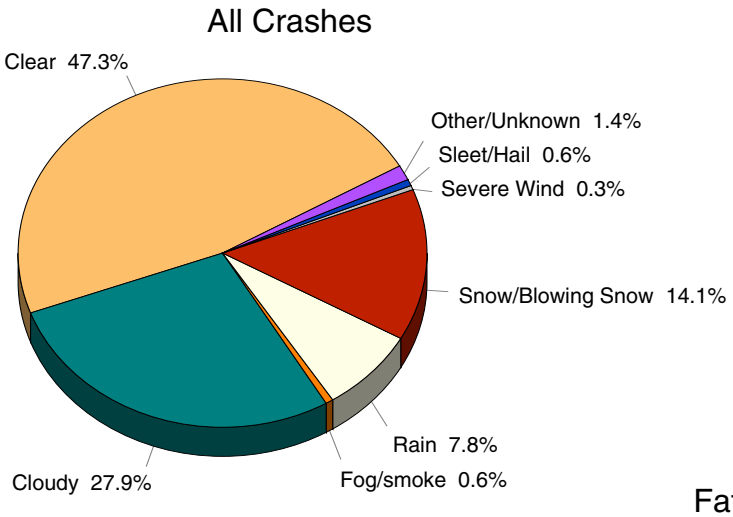


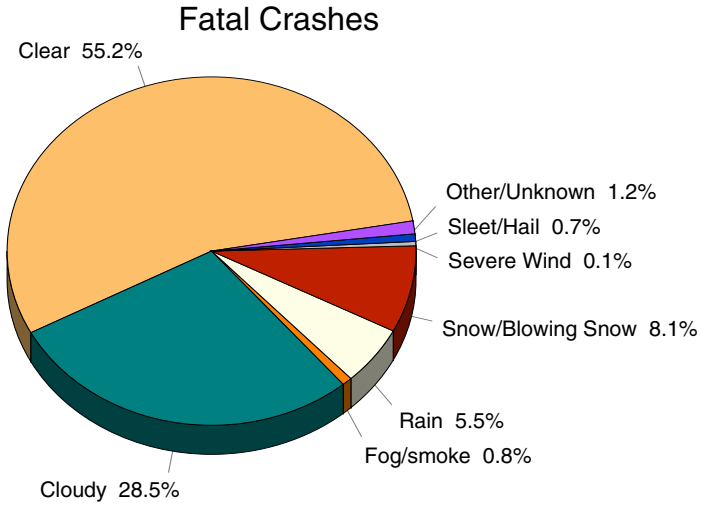


Most crashes (57.8%) and most fatal crashes (73.6%) occur on dry roads.

WEATHER CONDITION

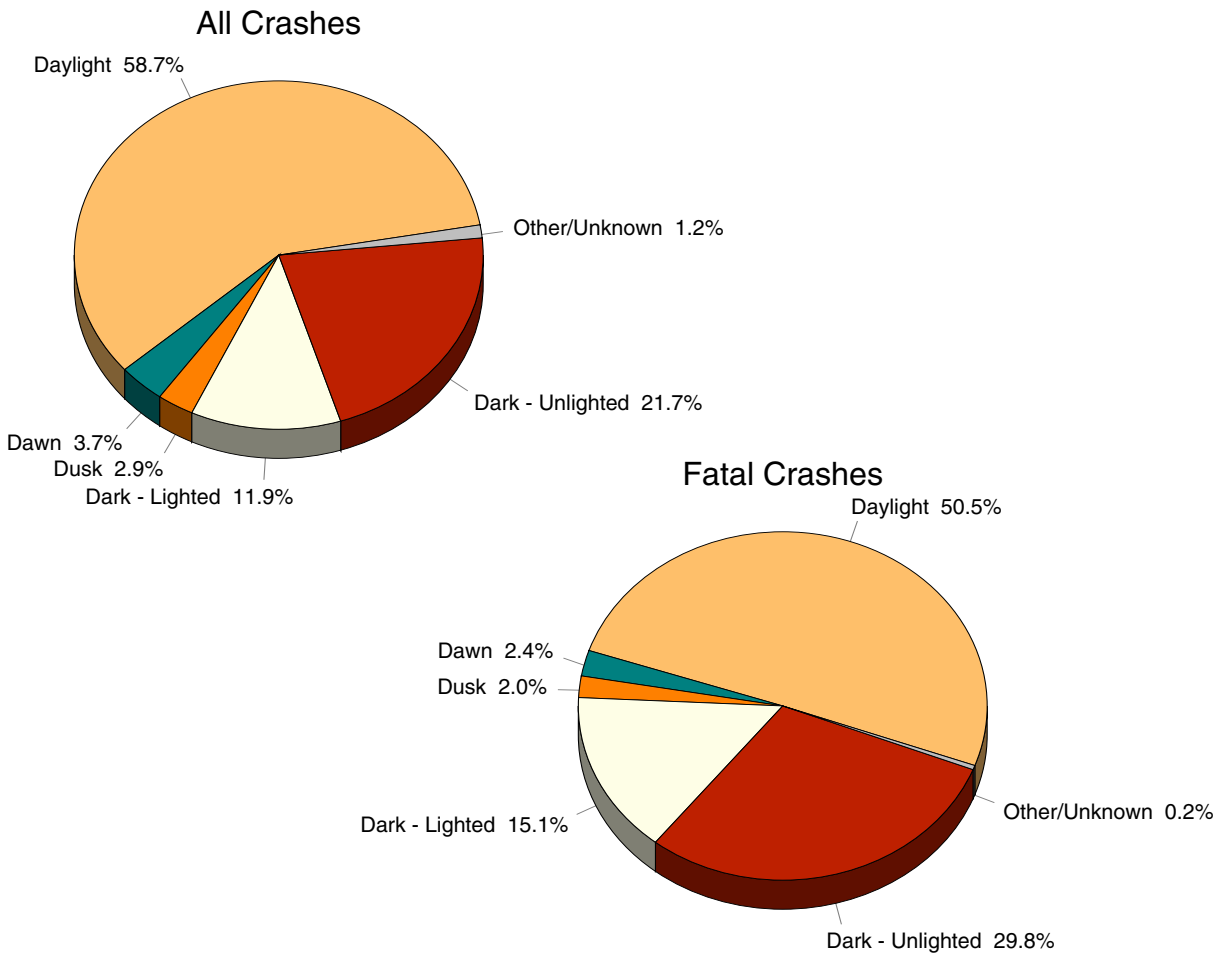
WEATHER CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Clear	149,429	47.3	505	55.2	2,990	7,151	17,437	121,346
Cloudy	88,253	27.9	261	28.5	1,413	3,664	10,569	72,346
Fog/Smoke	1,832	0.6	7	0.8	39	76	186	1,524
Rain	24,724	7.8	50	5.5	381	1,058	3,313	19,922
Snow/Blowing Snow	44,516	14.1	74	8.1	492	1,320	4,671	37,959
Severe Wind	883	0.3	1	0.1	19	35	86	742
Sleet/Hail	1,993	0.6	6	0.7	39	72	215	1,661
Other/Unknown	4,427	1.4	11	1.2	38	97	207	4,074
Total	316,057	100.0	915	100.0	5,411	13,473	36,684	259,574





LIGHT CONDITION

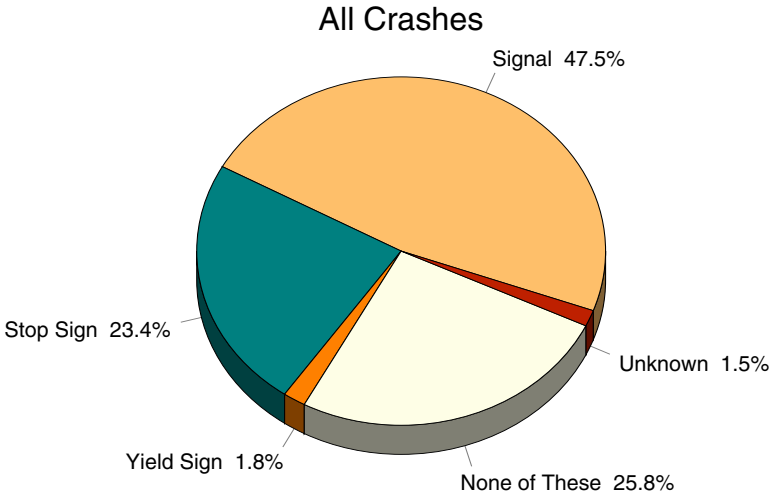
LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	185,512	58.7	462	50.5	3,307	8,771	25,438	147,534
Dawn	11,541	3.7	22	2.4	125	315	972	10,107
Dusk	9,246	2.9	18	2.0	161	339	903	7,825
Dark – Lighted	37,508	11.9	138	15.1	764	1,733	5,010	29,863
Dark – Unlighted	68,573	21.7	273	29.8	1,022	2,260	4,162	60,856
Other/Unknown	3,677	1.2	2	0.2	32	55	199	3,389
Totals	316,057	100.0	915	100.0	5,411	13,473	36,684	259,574

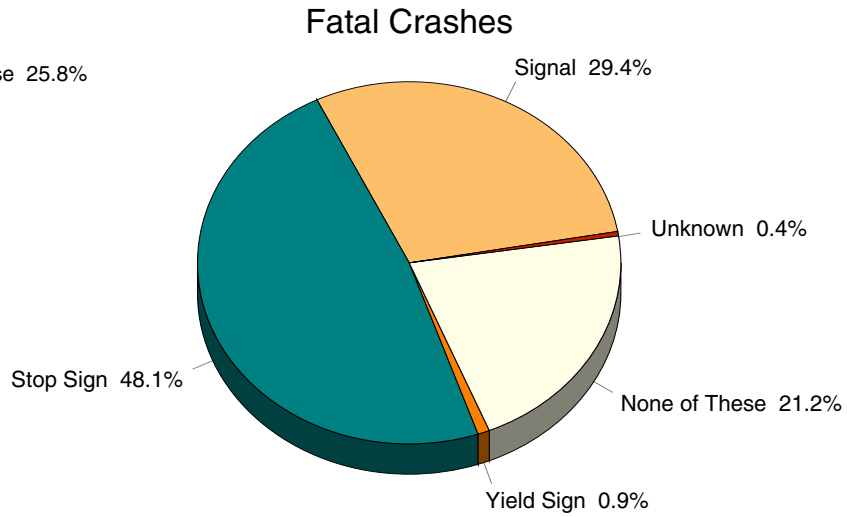


The majority (58.7%) of all crashes happen during daylight hours. Darkened conditions create the greatest hazard, as they are overrepresented in fatal crashes. Almost twice as many fatal crashes occur in areas without street lights, as in dark, but lighted areas.

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	42,223	47.5	68	29.4	672	2,032	7,644	31,807
Stop Sign	20,811	23.4	111	48.1	548	1,327	3,359	15,466
Yield Sign	1,561	1.8	2	0.9	31	83	226	1,219
None of These	22,905	25.8	49	21.2	421	1,093	3,199	18,143
Unknown	1,309	1.5	1	0.4	16	64	179	1,049
Total	88,809	100.0	231	100.0	1,688	4,599	14,607	67,684





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	2,043	45.7	2	18.2	31	84	327	1,599
Lane Open	608	13.6	2	18.2	9	30	71	496
Unknown Lane Closure	55	1.2	0	0.0	1	2	3	49
Activity - Off Road								
Lane Closed	211	4.7	1	9.1	4	11	23	172
Lane Open	247	5.5	0	0.0	5	14	43	185
Unknown Lane Closure	15	0.3	0	0.0	0	0	4	11
Activity - None								
Lane Closed	700	15.7	1	9.1	11	38	106	544
Lane Open	425	9.5	5	45.5	11	22	58	329
Unknown Lane Closure	26	0.6	0	0.0	0	0	1	25
Activity - Unknown								
Lane Closed	49	1.1	0	0.0	1	1	7	40
Lane Open	11	0.2	0	0.0	1	0	1	9
Unknown Lane Closure	82	1.8	0	0.0	1	0	7	74
Subtotal	4,472	100.0	11	100.0	75	202	651	3,533
Utility	Indicates work on facilities other than the roadway such as telephone, electrical, cable television, water, or sewer.							
Activity - On Road								
Lane Closed	62	12.0	0	0.0	0	2	11	49
Lane Open	164	31.7	0	0.0	1	7	15	141
Unknown Lane Closure	2	0.4	0	0.0	0	0	0	2
Activity - Off Road								
Lane Closed	24	4.6	0	0.0	0	1	3	20
Lane Open	65	12.5	1	50.0	2	8	6	48
Unknown Lane Closure	4	0.8	0	0.0	0	0	0	4
Activity - None								
Lane Closed	10	1.9	0	0.0	0	1	2	7
Lane Open	186	35.9	1	50.0	4	21	24	136
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	0	0.0	0	0.0	0	0	0	0
Unknown Lane Closure	1	0.2	0	0.0	0	0	0	1
Subtotal	518	100.0	2	100.0	7	40	61	408
Unknown Type / Unknown Lane Closure / Activity None								
Subtotal	27,316		5		512	1,156	3,060	22,583
Total	32,306		18		594	1,398	3,772	26,524

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Vehicle/ Driver

VEHICLE TYPE CRASH INVOLVEMENT

Vehicle Type	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH: Fatal Crash		Injury	PDO	MOST SEVERE OUTCOME IN VEHICLE: Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger Car and Station Wagon	368,599	71.1	851	58.8	70,428	297,320	476	60.4	45,056	323,067
Van and Motorhome	31,732	6.1	88	6.1	6,185	25,459	40	5.1	3,548	28,144
Pickup	69,034	13.3	209	14.4	11,447	57,378	98	12.4	5,994	62,942
Small Truck (under 10,000 lbs.)	16,809	3.2	21	1.5	3,062	13,726	7	0.9	1,838	14,964
Motorcycle	4,082	0.8	127	8.8	3,074	881	122	15.5	3,025	935
Moped	396	0.1	3	0.2	315	78	3	0.4	308	85
Go Cart	9	0.0	0	0.0	5	4	0	0.0	4	5
Snowmobile	240	0.0	15	1.0	162	63	12	1.5	152	76
Off-Road Vehicle	249	0.0	11	0.8	197	41	11	1.4	184	54
Other	1,475	0.3	11	0.8	293	1,171	8	1.0	153	1,314
Unknown	11,653	2.2	7	0.5	928	10,718	0	0.0	93	11,560
CDL Truck/Bus (breakdown below)	13,962	2.7	104	7.2	2,405	11,453	11	1.4	609	13,342
Total Number of Vehicles	518,240	100.0	1,447	100.0	98,501	418,292	788	100.0	60,964	456,488

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

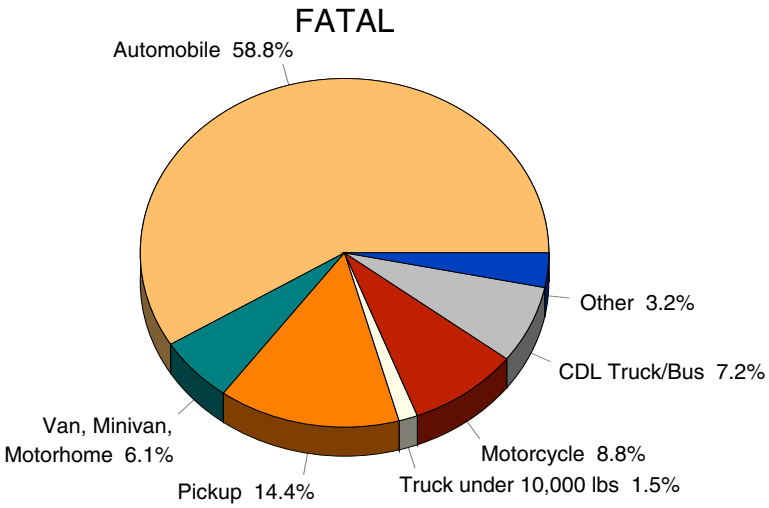
CDL Truck/Bus Sub-category Type	Motor Vehicles		Fatal Crash		Injury	PDO	Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Commercial Vehicle: Group A	7,130	51.1	61	58.7	1,318	5,751	6	54.5	274	6,850
Commercial Vehicle: Group B	3,141	22.5	30	28.8	551	2,560	2	18.2	180	2,959
Commercial Vehicle: Group C	484	3.5	2	1.9	82	400	0	0.0	36	448
Other Truck	699	5.0	11	10.6	134	554	3	27.3	40	656
Unknown Truck	2,508	18.0	0	0.0	320	2,188	0	0.0	79	2,429
Total Number of Vehicles	13,962	100.0	104	100.0	2,405	11,453	11	100.0	609	13,342

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

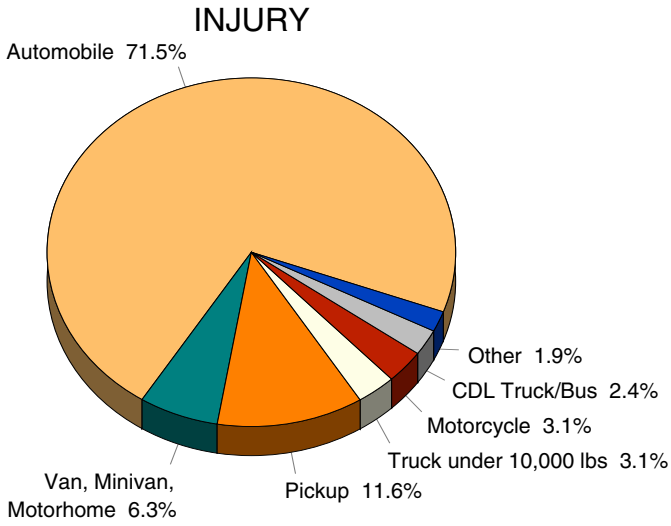
Group “B” is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

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

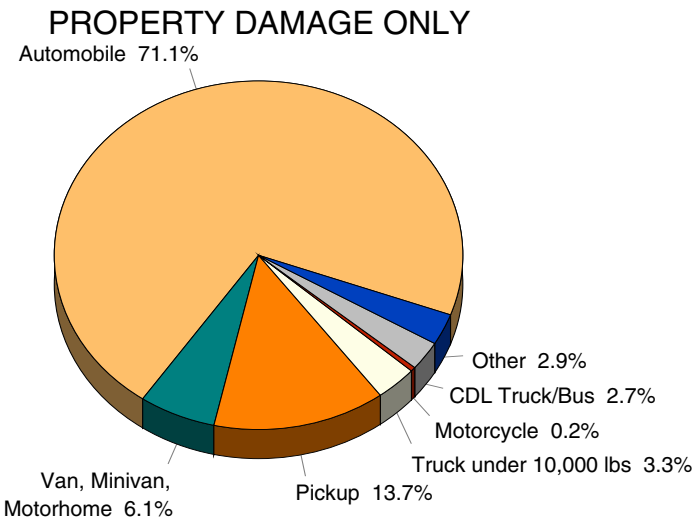


The top chart shows that almost 3 out of 4 vehicles involved in fatal crashes are automobiles or pickups. Van/motorhome, the vehicle type that includes the minivan, has a fatal crash involvement of 6.1 percent.



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

As with fatal crashes, injury and property damage only (PDO) crashes are represented primarily by cars and pickups.



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	277,761	53.6	1,096	5,607	13,209	35,114	222,735
Turning left	31,932	6.2	76	684	1,975	5,044	24,153
Turning right	14,027	2.7	8	162	518	1,392	11,947
Stopped on roadway	51,258	9.9	43	460	1,592	9,645	39,518
In prior crash	815	0.2	2	33	51	133	596
Changing lanes	11,904	2.3	26	113	317	1,012	10,436
Backing	12,403	2.4	4	53	115	354	11,877
Slowing/stopping on roadway	48,305	9.3	27	393	1,271	7,995	38,619
Slowing/stopping other	839	0.2	1	8	30	105	695
Starting up on roadway	9,855	1.9	20	161	438	1,691	7,545
Starting up other	310	0.1	0	6	17	38	249
Entering parking	550	0.1	0	5	9	34	502
Leaving parking	1,453	0.3	2	19	59	180	1,193
Entering roadway	7,202	1.4	21	131	365	965	5,720
Leaving roadway	847	0.2	9	43	81	123	591
Making U-turn	1,032	0.2	4	23	55	155	795
Overtaking or passing	4,109	0.8	20	121	203	421	3,344
Avoiding object	866	0.2	4	20	44	87	711
Avoiding animal	1,444	0.3	1	39	123	198	1,083
Avoiding pedestrian	132	0.0	2	12	21	16	81
Avoiding vehicle (front/back)	4,848	0.9	30	133	325	720	3,640
Avoiding vehicle (angle)	2,142	0.4	14	60	156	295	1,617
Driverless moving	250	0.0	0	5	9	23	213
Parked	19,459	3.8	30	191	406	843	17,989
Crossing at intersection	30	0.0	0	0	1	9	20
Crossing not at intersection	60	0.0	0	1	3	4	52
Getting on/off vehicle	22	0.0	0	0	1	3	18
In roadway with traffic	65	0.0	0	2	2	5	56
In roadway against traffic	38	0.0	0	0	1	3	34
Standing or lying in roadway	19	0.0	0	0	0	2	17
Pushing/working on vehicle	21	0.0	0	0	5	4	12
Other working in roadway	61	0.0	0	1	3	8	49
Playing in roadway	12	0.0	0	0	0	1	11
In roadway other reason	23	0.0	0	0	2	1	20
Not in roadway	25	0.0	0	1	1	2	21
Other	179	0.0	2	5	9	26	137
Unknown	13,942	2.7	5	177	462	1,302	11,996
Total	518,240	100.0	1,447	8,669	21,879	67,953	418,292

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	2,691	65.9	2,969	66.1	112	660	949	683	533
Turning left	182	4.5	204	4.5	1	29	61	56	50
Turning right	150	3.7	166	3.7	0	28	48	44	43
Stopped on roadway	160	3.9	178	4.0	0	11	23	47	93
In prior crash	3	0.1	3	0.1	0	1	2	0	0
Changing lanes	55	1.3	55	1.2	1	11	20	12	10
Backing	5	0.1	5	0.1	0	0	1	2	2
Slowing/stopping on roadway	240	5.9	267	5.9	1	36	75	68	80
Slowing/stopping other	2	0.0	2	0.0	0	0	0	0	2
Starting up on roadway	45	1.1	51	1.1	0	7	12	13	19
Starting up other	2	0.0	2	0.0	0	0	1	0	1
Entering parking	1	0.0	1	0.0	0	1	0	0	0
Leaving parking	6	0.1	6	0.1	0	0	1	1	4
Entering roadway	41	1.0	42	0.9	2	8	15	9	8
Leaving roadway	12	0.3	15	0.3	1	7	2	3	1
Making U-turn	6	0.1	7	0.2	0	1	2	3	0
Overtaking or passing	97	2.4	102	2.3	3	33	27	22	10
Avoiding object	16	0.4	17	0.4	0	2	7	4	4
Avoiding animal	42	1.0	46	1.0	0	9	16	10	10
Avoiding pedestrian	2	0.0	2	0.0	0	1	1	0	0
Avoiding vehicle (front/back)	122	3.0	139	3.1	3	18	55	37	26
Avoiding vehicle (angle)	76	1.9	84	1.9	0	10	33	19	20
Driverless moving	1	0.0	1	0.0	0	0	0	0	1
Parked	52	1.3	52	1.2	1	1	0	1	9
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	0	0.0	0	0.0	0	0	0	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	0	0.0	0	0.0	0	0	0	0	0
Other	2	0.0	2	0.0	0	0	0	2	0
Unknown	71	1.7	75	1.7	0	16	20	17	19
Total	4,082	100.0	4,493	100.0	125	890	1,371	1,053	945

* This table includes 109 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	1,084	52.3	1,086	52.1	17	83	370	407	172
Turning left	50	2.4	51	2.4	0	2	17	18	11
Turning right	16	0.8	17	0.8	0	2	4	8	3
Stopped on roadway	12	0.6	12	0.6	0	0	3	5	4
In prior crash	0	0.0	0	0.0	0	0	0	0	0
Changing lanes	11	0.5	11	0.5	0	2	4	3	2
Backing	3	0.1	3	0.1	0	0	2	1	0
Slowing/stopping on roadway	6	0.3	6	0.3	0	0	3	2	1
Slowing/stopping other	1	0.0	1	0.0	0	0	0	1	0
Starting up on roadway	12	0.6	12	0.6	0	2	3	6	1
Starting up other	1	0.0	1	0.0	0	0	0	1	0
Entering parking	2	0.1	2	0.1	0	0	0	1	1
Leaving parking	4	0.2	4	0.2	0	1	2	1	0
Entering roadway	106	5.1	107	5.1	2	14	36	34	20
Leaving roadway	2	0.1	2	0.1	0	0	1	1	0
Making U-turn	3	0.1	3	0.1	0	0	1	1	1
Overtaking or passing	5	0.2	6	0.3	0	0	2	2	1
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)	12	0.6	12	0.6	0	0	4	7	1
Avoiding vehicle (angle)	5	0.2	5	0.2	0	0	2	3	0
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	0	0.0	0	0.0	0	0	0	0	0
Crossing at intersection	404	19.5	407	19.5	3	33	140	144	65
Crossing not at intersection	99	4.8	101	4.8	1	16	31	35	15
Getting on/off vehicle	1	0.0	1	0.0	0	0	0	0	1
In roadway with traffic	50	2.4	50	2.4	1	2	21	18	5
In roadway against traffic	30	1.4	30	1.4	0	2	10	15	2
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	2	0.1	2	0.1	0	0	0	0	2
In roadway other reason	8	0.4	8	0.4	0	3	3	1	0
Not in roadway	24	1.2	24	1.2	1	1	11	9	2
Other	31	1.5	31	1.5	0	0	12	13	4
Unknown	86	4.2	88	4.2	0	8	22	25	16
Total	2,071	100.0	2,084	100.0	25	171	705	762	330

* Includes 91 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	93	4.0	2	14	24	29	18
Turning left	4	0.2	0	0	0	1	1
Turning right	2	0.1	0	0	1	1	0
Stopped on roadway	5	0.2	0	0	2	3	0
In prior crash	2	0.1	0	1	1	0	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	2	0.1	0	1	0	1	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	3	0.1	0	2	0	1	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	28	1.2	1	9	9	5	3
Leaving roadway	5	0.2	0	0	2	2	1
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	1	0.0	0	0	0	0	1
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	2	0.1	0	1	0	1	0
Avoiding pedestrian	1	0.0	0	0	1	0	0
Avoiding vehicle (front/back)	2	0.1	0	0	1	1	0
Avoiding vehicle (angle)	3	0.1	0	1	0	2	0
Driverless moving	0	0.0	0	0	0	0	0
Parked	2	0.1	0	0	1	1	0
Crossing at intersection	648	27.9	13	92	181	271	57
Crossing not at intersection	571	24.6	41	137	175	168	28
Getting on/off vehicle	21	0.9	0	6	7	7	0
In roadway with traffic	175	7.5	14	33	47	58	16
In roadway against traffic	45	1.9	3	9	10	20	3
Standing or lying in roadway	101	4.3	15	29	22	29	3
Pushing/working on vehicle	38	1.6	1	11	9	14	0
Other working in roadway	34	1.5	0	7	9	16	1
Playing in roadway	31	1.3	0	6	9	12	1
In roadway other reason	124	5.3	7	25	35	41	13
Not in roadway	145	6.2	7	38	35	51	8
Other	71	3.1	2	11	18	25	10
Unknown	163	7.0	8	31	39	60	8
Total	2,322	100.0	114	464	638	820	172

* Includes 114 pedestrians with unknown injury severity

MOST HARMFUL EVENT

MOST SEVERE OUTCOME IN CRASH

NONCOLLISION	Motor Vehicles		Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Loss of control	2,190	0.4	2	66	196	315	1,611
Cross center/median	415	0.1	3	12	22	50	328
Ran off road left	563	0.1	0	20	28	62	453
Ran off road right	965	0.2	0	13	61	113	778
Re-enter road	69	0.0	0	4	3	8	54
Overturn	8,707	1.7	105	518	1,367	1,823	4,894
Separation of units	373	0.1	0	8	17	41	307
Fire/explosion	503	0.1	9	8	14	34	438
Immersion	73	0.0	1	1	2	4	65
Jackknife	329	0.1	0	4	4	23	298
Downhill runaway	220	0.0	0	4	12	36	168
Cargo loss/shift	606	0.1	1	5	13	38	549
Individual fell off	495	0.1	12	118	176	98	91
Other noncollision	1,253	0.2	1	26	100	134	992
NONCOLLISION Subtotal	16,761	3.2	134	807	2,015	2,779	11,026

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	1,945	0.4	114	393	526	646	266
Bicycle / Pedalcycle	1,873	0.4	28	165	627	692	361
Motor vehicle in transport	347,222	67.0	900	5,390	13,903	53,805	273,224
Parked motor vehicle	14,748	2.8	12	94	268	611	13,763
Railway train	248	0.0	4	4	18	40	182
Animal	60,208	11.6	6	120	356	671	59,055
Other nonfixed objects	4,657	0.9	4	33	132	269	4,219
COLLISION NONFIXED Subtotal	430,901	83.1	1,068	6,199	15,830	56,734	351,070

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	581	0.1	2	9	26	94	450
Bridge parapet end	232	0.0	0	3	7	15	207
Bridge rail	615	0.1	0	4	25	63	523
Guardrail face	4,504	0.9	9	62	150	504	3,779
Guardrail end	712	0.1	0	10	43	98	561
Median barrier	4,644	0.9	6	60	290	814	3,474
Highway traffic sign post	2,947	0.6	9	14	40	131	2,753
Highway signal post	321	0.1	0	6	10	25	280
Luminaire/light support	705	0.1	0	18	37	73	577
Utility pole	3,498	0.7	14	121	308	542	2,513
Other pole	1,069	0.2	3	16	38	97	915
Culvert	570	0.1	3	20	66	96	385
Curb	1,853	0.4	6	44	97	171	1,535
Ditch	7,968	1.5	27	201	547	972	6,221
Embankment	1,806	0.3	12	69	137	240	1,348
Fence	1,324	0.3	0	18	41	96	1,169
Mailbox	2,418	0.5	1	11	32	77	2,297
Tree	10,561	2.0	137	564	1,044	1,534	7,282
Rail crossing signal	79	0.0	0	1	5	2	71
Building	677	0.1	7	27	89	107	447
Traffic island	53	0.0	0	0	2	0	51
Fire hydrant	556	0.1	0	9	19	52	476
Impact attenuator	54	0.0	1	1	4	12	36
Other fixed object	3,428	0.7	8	108	261	320	2,731
COLLISION FIXED Subtotal	51,175	9.9	245	1,396	3,318	6,135	40,081

	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	19,403	3.7	0	267	716	2,305	16,115
TOTAL MOST HARMFUL EVENT	518,240	100.0	1,447	8,669	21,879	67,953	418,292

VEHICLE DEFECTS IN CRASH INVOLVEMENT

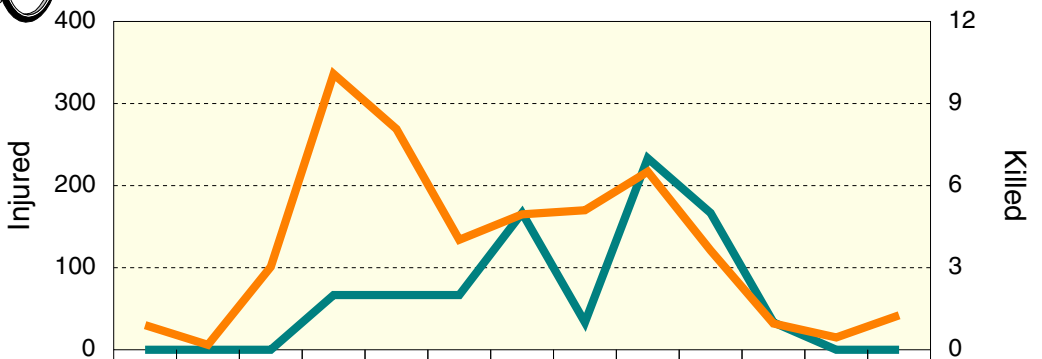
VEHICLE DEFECTS	Motor Vehicles		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Vehicles	% of Total		A	B	C	
Brakes	1,134	0.2	3	19	52	182	878
Lights/reflectors	179	0.0	1	5	14	13	146
Steering	162	0.0	0	4	18	26	114
Tires/wheels	473	0.1	3	14	35	46	375
Windows	25	0.0	0	1	1	4	19
Other	560	0.1	4	19	32	82	423
None or Unknown	515,707	99.5	1,436	8,607	21,727	67,600	416,337
TOTAL	518,240	100.0	1,447	8,669	21,879	67,953	418,292

DRIVER HAZARDOUS ACTION

HAZARDOUS ACTION	All Drivers		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of Drivers	% of Total		A	B	C	
None	255,320	49.3	576	3,515	9,202	31,191	210,836
Speed too fast	43,689	8.4	193	1,036	2,544	5,803	34,113
Speed too slow	628	0.1	4	15	20	90	499
Failed to yield	40,123	7.7	117	876	2,594	6,793	29,743
Disregard traffic control	10,265	2.0	53	354	880	2,357	6,621
Drove wrong way	425	0.1	7	14	22	67	315
Drove left of center	2,721	0.5	72	136	247	375	1,891
Improper passing	2,418	0.5	4	49	79	172	2,114
Improper lane use	10,066	1.9	9	84	207	715	9,051
Improper turn	4,756	0.9	6	52	143	446	4,109
Improper/no signal	535	0.1	1	11	16	52	455
Improper backing	8,737	1.7	0	18	50	175	8,494
Unable to stop in assured clear distance	66,746	12.9	36	550	1,766	11,472	52,922
Reckless driving	2,615	0.5	45	210	326	388	1,646
Careless/negligent driving	12,677	2.4	101	641	1,322	1,963	8,650
Other	18,898	3.6	79	510	1,181	2,275	14,853
Unknown	37,621	7.3	144	598	1,280	3,619	31,980
TOTAL	518,240	100.0	1,447	8,669	21,879	67,953	418,292

MICHIGAN BICYCLE CRASHES

2008 Bicycle Crash Information



	Under 1 year old	1-3 years	4-10 years	11-15 years	16-20 years	21-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75 and over	Unknown	Totals
Killed	0	0	0	2	2	2	5	1	7	5	1	0	0	25
Injured	30	6	101	336	269	134	165	170	217	121	32	15	42	1,638
Total	30	6	101	338	271	136	170	171	224	126	33	15	42	1,663

In 2008 there were 1,663 bicycles involved in motor vehicles crashes, with 25 bicyclists killed and 1,638 injured.

Children under 16 years of age accounted for 4 (16.0%) of the bicycle deaths in 2008. Persons aged 45 through 54 represented 7 (28.0%) of the deaths.

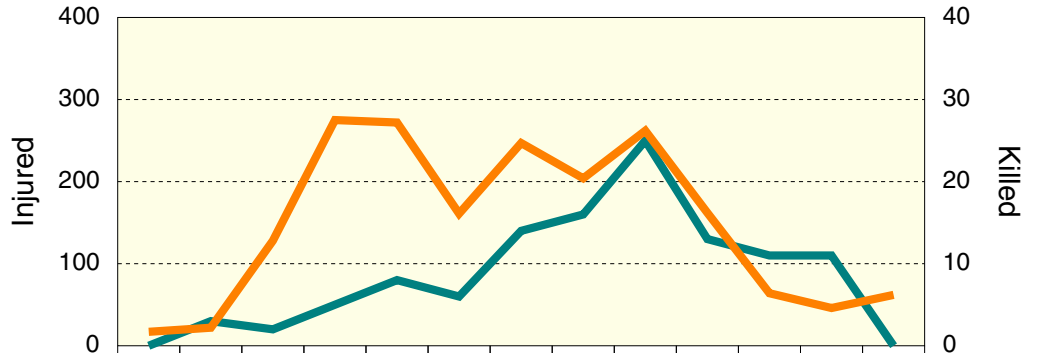
BICYCLE HELMET USE AND INJURY SEVERITY

HELMET USE	Fatality	Injury			No Injury
		A	B	C	
Worn	2	12	63	45	17
Not Worn	10	57	196	233	89
Unknown	13	102	446	484	224
Total	25	171	705	762	330

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

2008 Pedestrian Crash Information

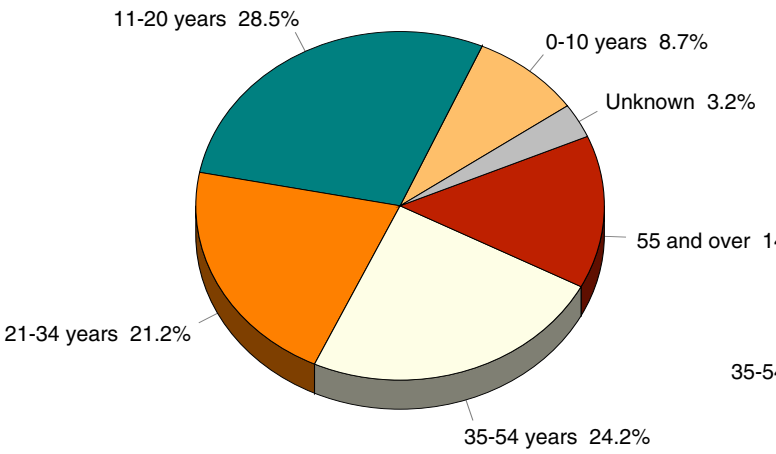


	Under 1 year old	1-3 years	4-10 years	11-15 years	16-20 years	21-24 years	25-34 years	35-44 years	45-54 years	55-64 years	65-74 years	75 and over	Unknown	Totals
Killed	0	3	2	5	8	6	14	16	25	13	11	11	0	114
Injured	17	22	128	275	272	161	247	204	262	162	64	46	62	1,922
Total	17	25	130	280	280	167	261	220	287	175	75	57	62	2,036

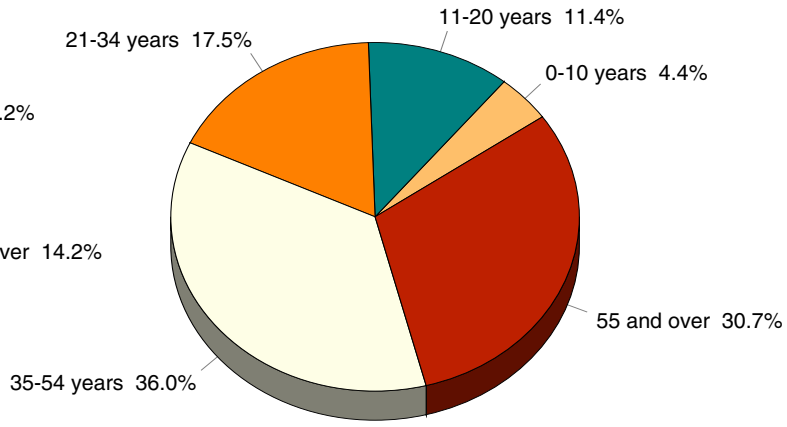
In 2008 there were 2,036 pedestrians involved in motor vehicles crashes, with 114 pedestrians killed and 1,922 injured.

Children under 16 years of age accounted for 10 (8.8%) of the pedestrian deaths in 2008. Adults over the age of 54 accounted for 35 (30.7%) 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	4	1.7	0	2	0	1	1
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	0.4	0	0	0	0	1
Re-enter road	0	0.0	0	0	0	0	0
Overturn	32	13.3	1	10	6	14	1
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	23	9.6	0	6	5	10	2
Other noncollision	1	0.4	0	1	0	0	0
NONCOLLISION Subtotal	61	25.4	1	19	11	25	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	6	2.5	0	3	0	1	2
Bicycle / pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	96	40.0	8	21	14	19	34
Parked motor vehicle	4	1.7	0	1	0	0	3
Railway train	0	0.0	0	0	0	0	0
Animal	7	2.9	0	3	0	1	3
Other nonfixed objects	5	2.1	0	0	2	2	1
COLLISION NONFIXED Subtotal	118	49.2	8	28	16	23	43

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	0.8	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	0	0.0	0	0	0	0	0
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support	0	0.0	0	0	0	0	0
Utility pole	1	0.4	0	1	0	0	0
Other pole	0	0.0	0	0	0	0	0
Culvert	1	0.4	0	0	1	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	6	2.5	0	2	0	3	1
Embankment	2	0.8	0	0	0	2	0
Fence	2	0.8	0	0	1	0	1
Mailbox	2	0.8	0	1	1	0	0
Tree	36	15.0	6	12	6	3	9
Rail crossing signal	0	0.0	0	0	0	0	0
Building	0	0.0	0	0	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	4	1.7	0	1	2	1	0
COLLISION FIXED Subtotal	56	23.3	6	18	12	9	11
Unknown Event	5	2.1	0	1	0	0	4
TOTAL MOST HARMFUL EVENT	240	100.0	15	66	39	57	63

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 240 snowmobiles were reported in crashes on Michigan public roadways during 2008. Fifteen of those snowmobiles were involved in 12 fatal crashes with 12 of their operators killed. Alcohol was involved in 6 of the fatal crashes, and 1 of those fatal crashes also involved drugs.

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

Most Harmful Event

NONCOLLISION	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of ORV/ATVs	% of Total		A	B	C	
Loss of control	7	2.8	0	4	1	1	1
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	0.4	0	0	1	0	0
Re-enter road	0	0.0	0	0	0	0	0
Overturn	51	20.5	3	27	13	7	1
Separation of units	0	0.0	0	0	0	0	0
Fire/explosion	1	0.4	0	0	0	0	1
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell off	37	14.9	1	13	14	8	1
Other noncollision	2	0.8	0	0	0	1	1
NONCOLLISION Subtotal	99	39.8	4	44	29	17	5

HAD A COLLISION WITH NONFIXED OBJECT	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of ORV/ATVs	% of Total		A	B	C	
Pedestrian	1	0.4	0	0	1	0	0
Bicycle / pedalcycle	1	0.4	0	0	1	0	0
Motor vehicle in transport	81	32.5	4	19	19	13	26
Parked motor vehicle	3	1.2	0	1	0	0	2
Railway train	0	0.0	0	0	0	0	0
Animal	6	2.4	0	3	1	0	2
Other nonfixed objects	2	0.8	0	2	0	0	0
COLLISION NONFIXED Subtotal	94	37.8	4	25	22	13	30

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS (continued)

Most Harmful Event

HAD A COLLISION WITH FIXED OBJECT	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
	Number of ORV/ATVs	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge parapet end	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	1	0.4	0	1	0	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	1	0.4	0	0	0	0	1
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support	1	0.4	0	1	0	0	0
Utility pole	1	0.4	0	1	0	0	0
Other pole	0	0.0	0	0	0	0	0
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	6	2.4	0	3	2	0	1
Embankment	2	0.8	0	1	1	0	0
Fence	1	0.4	0	1	0	0	0
Mailbox	2	0.8	0	1	0	0	1
Tree	26	10.4	3	11	8	3	1
Rail crossing signal	0	0.0	0	0	0	0	0
Building	0	0.0	0	0	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	11	4.4	0	4	5	1	1
COLLISION FIXED Subtotal	52	20.9	3	24	16	4	5
Unknown Event	4	1.6	0	2	1	0	1
TOTAL MOST HARMFUL EVENT	249	100.0	11	95	68	34	41

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 249 off-road/all-terrain vehicles were reported in crashes on Michigan public roadways during 2008. Eleven of those ORV/ATVs were involved in 11 fatal crashes with 10 ORV/ATV operators and 1 ORV/ATV passenger killed. Alcohol was involved in 8 of the fatal crashes, and 3 of those 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	36	15.0	0	8	6	15	7
Speed too fast	72	30.0	5	26	18	14	9
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	18	7.5	3	3	1	1	10
Disregard traffic control	3	1.3	0	0	0	1	2
Drove wrong way	3	1.3	1	0	1	0	1
Drove left of center	8	3.3	1	3	0	1	3
Improper passing	0	0.0	0	0	0	0	0
Improper lane use	3	1.3	1	0	0	1	1
Improper turn	3	1.3	0	0	0	0	3
Improper/no signal	1	0.4	0	0	1	0	0
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	9	3.8	0	3	2	2	2
Reckless driving	12	5.0	3	2	0	4	3
Careless/negligent driving	20	8.3	1	6	4	5	4
Other	30	12.5	0	9	3	9	9
Unknown	22	9.2	0	6	3	4	9
TOTAL	240	100.0	15	66	39	57	63

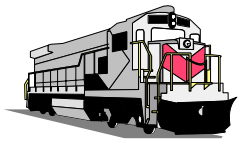
MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
			Fatal	Injury			PDO
Driver Hazardous Action	Number of ORV/ATVs	% of Total		A	B	C	
None	35	14.1	0	9	14	7	5
Speed too fast	51	20.5	2	27	14	8	0
Speed too slow	1	0.4	0	1	0	0	0
Failed to yield	22	8.8	0	3	4	4	11
Disregard traffic control	4	1.6	1	0	2	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	0	0.0	0	0	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	0	0.0	0	0	0	0	0
Improper/no signal	0	0.0	0	0	0	0	0
Improper backing	3	1.2	0	0	0	0	3
Unable to stop in assured clear distance	6	2.4	0	4	0	2	0
Reckless driving	15	6.0	1	9	3	0	2
Careless/negligent driving	55	22.1	5	20	15	6	9
Other	35	14.1	0	14	7	5	9
Unknown	20	8.0	2	7	8	1	2
TOTAL	249	100.0	11	95	68	34	41

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.

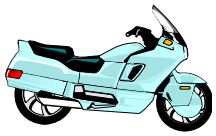
MICHIGAN FARM EQUIPMENT CRASHES

A total of 191 crashes involving farm equipment were reported on Michigan roadways during 2008. Of those crashes, 7 were fatal with 3 operators of the equipment killed.



MICHIGAN VEHICLE-TRAIN CRASHES

A total of 54 crashes involving trains were reported in Michigan during 2008. Of those crashes, 4 were fatal with 1 person killed in each crash.

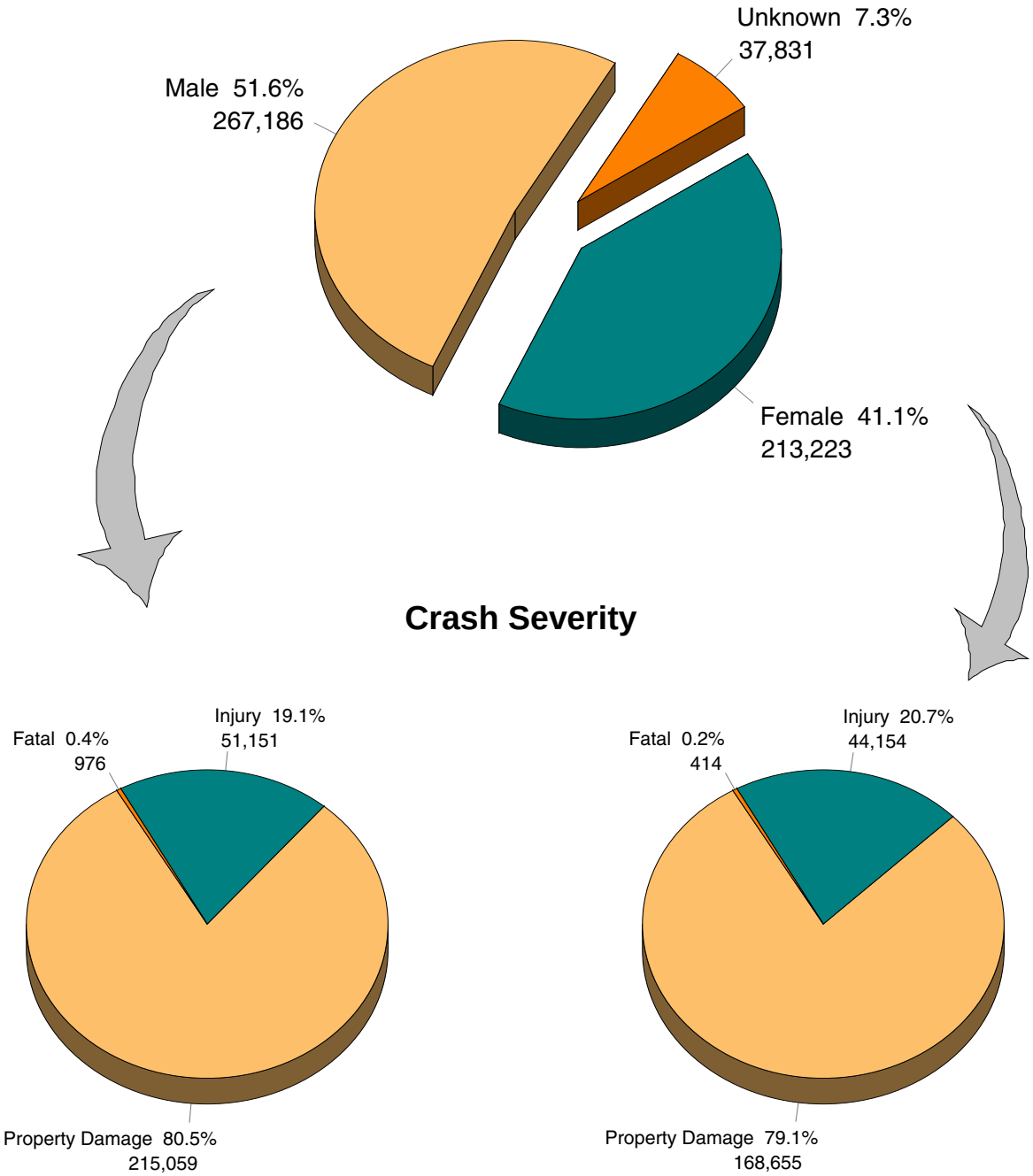


MICHIGAN MOTORCYCLE CRASHES

MOTORCYCLE DATA	2007	2008	% Change
Motorcycle Registrations	255,148	270,569	6.0
Motorcycles in Crashes	3,821	4,082	6.8
Motorcyclist Deaths	120	125	4.2
Motorcyclists Injured	3,026	3,314	9.5
Death Rate based on 10,000 motorcycle registrations	4.70	4.61	-1.9
Estimated Mileage based on 3,000 miles per motorcycle	765,444,000	811,707,000	6.0
Death Rate based on deaths per 100 million vehicle miles traveled	15.68	15.40	-1.8

Motorcycles were involved in 1.3 percent of all traffic crashes in Michigan in 2008. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles. The 2008 death rate for motorcyclists was 15.40 per 100 million vehicle miles traveled. compared to the overall 0.97 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

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	53,002	2,090,322	1,743	4	31	4,181	584	2	513	13
16	87,497	148,755	9,670	19	13	1,737	74	0	66	4
17	105,320	151,121	13,758	28	21	2,191	62	1	72	1
18	107,051	151,805	16,078	45	25	2,578	70	1	61	1
19	118,525	143,512	14,741	38	25	2,270	56	0	68	3
20	120,557	140,966	13,735	33	22	2,036	62	0	48	1
21	112,398	138,809	12,971	32	20	1,992	51	0	52	0
22	116,871	136,061	12,091	32	17	1,758	45	0	49	2
23	122,811	136,210	11,315	34	19	1,680	37	1	48	3
24	121,350	127,117	10,300	28	16	1,540	33	1	35	1
25-29	565,863	649,670	47,632	131	63	6,650	127	4	166	8
30-34	548,807	595,364	41,473	105	51	5,353	78	1	124	6
35-39	613,075	671,449	44,057	135	60	5,612	91	0	108	6
40-44	640,446	711,839	44,355	111	60	5,553	112	1	135	11
45-49	708,926	779,987	44,835	138	73	5,860	149	3	151	15
50-54	705,887	756,950	40,690	107	53	5,492	117	4	172	12
55-59	616,744	651,461	32,006	93	60	4,398	98	3	123	12
60-64	497,329	517,702	22,250	69	47	3,088	47	2	67	2
65-69	373,204	388,083	14,435	45	29	2,078	25	1	55	9
70-74	272,544	292,016	9,499	48	34	1,489	14	0	24	2
75-79	214,425	242,889	7,418	46	42	1,133	10	0	20	3
80-84	160,600	194,590	5,074	36	32	930	7	0	22	6
85-100+	105,193	186,744	2,962	29	28	601	3	0	21	3
Unknown	---	---	45,152	61	0	813	132	0	122	0
Total	7,088,425	10,003,422	518,240	1,447	841	71,013	2,084	25	2,322	124

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

Age	Licensed Drivers	Drivers in all crashes*	Rate
0-15	53,002	1,743	0.033
16	87,497	9,670	0.111
17	105,320	13,758	0.131
18	107,051	16,078	0.150
19	118,525	14,741	0.124
20	120,557	13,735	0.114
21	112,398	12,971	0.115
22	116,871	12,091	0.103
23	122,811	11,315	0.092
24	121,350	10,300	0.085
25-29	565,863	47,632	0.084
30-34	548,807	41,473	0.076
35-39	613,075	44,057	0.072
40-44	640,446	44,355	0.069
45-49	708,926	44,835	0.063
50-54	705,887	40,690	0.058
55-59	616,744	32,006	0.052
60-64	497,329	22,250	0.045
65-69	373,204	14,435	0.039
70-74	272,544	9,499	0.035
75-79	214,425	7,418	0.035
80-84	160,600	5,074	0.032
85-89	79,971	2,347	0.029
90-94	22,403	550	0.025
95-99	2,680	61	0.023
100+	139	4	0.029
Total	7,088,425	473,088	

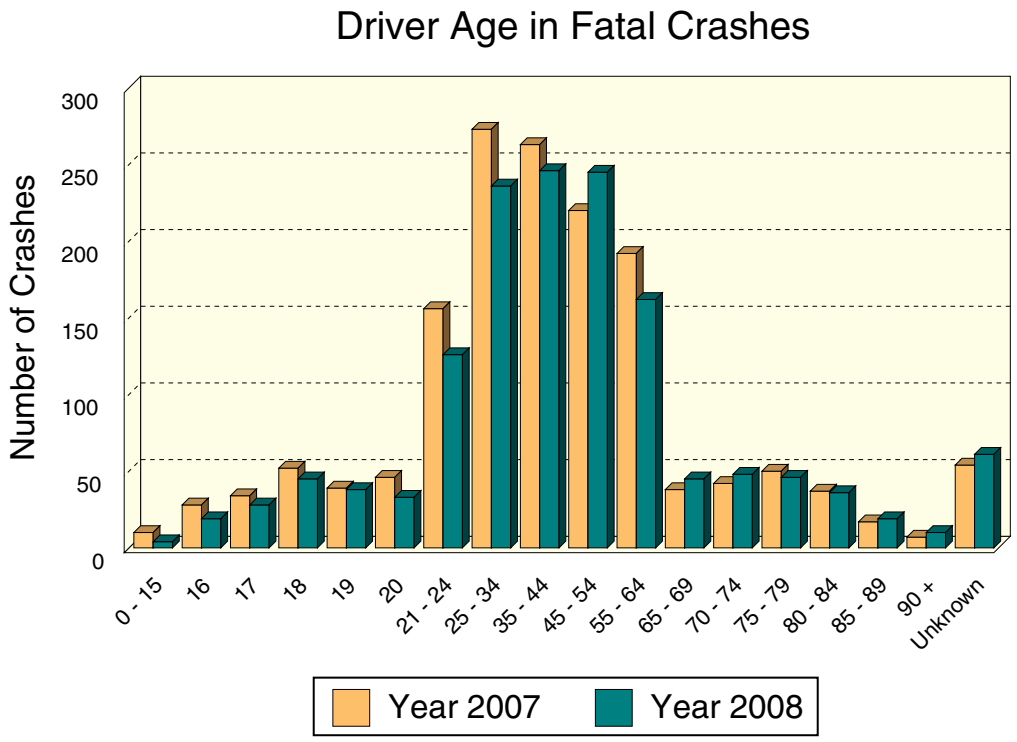
* Excludes 45,152 drivers with unknown age

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 lower crash rates of the older groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash.

DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2007	2008	% Change	% 2008 Fatal Crash Involvement	Percent Active Driving Population*
15 years and under	10	4	-60.0	0.3	0.7
16 years	28	19	-32.1	1.3	1.2
17 years	34	28	-17.6	1.9	1.5
18 years	52	45	-13.5	3.1	1.5
19 years	39	38	-2.6	2.6	1.7
20 years	46	33	-28.3	2.3	1.7
21 - 24 years	156	126	-19.2	8.7	6.7
25 - 34 years	273	236	-13.6	16.3	15.7
35 - 44 years	263	246	-6.5	17.0	17.7
45 - 54 years	220	245	11.4	16.9	20.0
55 - 64 years	192	162	-15.6	11.2	15.7
65 - 69 years	38	45	18.4	3.1	5.3
70 - 74 years	42	48	14.3	3.3	3.8
75 - 79 years	50	46	-8.0	3.2	3.0
80 - 84 years	37	36	-2.7	2.5	2.3
85 - 89 years	17	19	11.8	1.3	1.1
90 years and over	7	10	42.9	0.7	0.4
Unknown	54	61	13.0	4.2	---
Total	1,558	1,447	-7.1	100.0	100.0

* Figures courtesy of the Michigan Department of State [13]



DRIVER CONDITION

POSSIBLE CONDITIONS OF DRIVER*	Conditions Coded by Police	MOST SEVERE OUTCOME IN CRASH: Fatal	Injury			PDO
		Number	A	B	C	
Appeared Normal	425,370	724	6,242	17,569	58,497	342,338
Had Been Drinking	10,899	164	857	1,498	1,634	6,746
Illegal Drug Use	787	9	52	81	103	542
Sick	973	6	90	137	325	415
Fatigue	740	5	29	78	168	460
Asleep	986	5	71	133	195	582
Medication	826	4	45	82	202	493
Driver Distracted	3,121	14	110	248	680	2,069
Using Cellular Phone	908	8	26	72	174	628
Unknown	26,182	398	670	869	2,305	21,940

* 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 underreporting.

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	449,968	86.8	363	57.3	3,583	9,981	35,417	398,076	2,548
Restraint Not Used	5,752	1.1	200	31.5	647	928	783	3,086	108
Unknown	62,520	12.1	71	11.2	366	603	1,321	17,768	42,391
Total	518,240	100.0	634	100.0	4,596	11,512	37,521	418,930	45,047
Drinking Only Drivers									
Restraint Used	7,555	73.2	61	39.9	343	790	778	5,542	41
Restraint Not Used	879	8.5	69	45.1	199	207	114	283	7
Unknown	1,890	18.3	23	15.0	96	190	174	1,339	68
Total	10,324	100.0	153	100.0	638	1,187	1,066	7,164	116
Drugged Only Drivers									
Restraint Used	617	76.1	26	63.4	38	53	101	392	7
Restraint Not Used	77	9.5	14	34.1	11	12	15	24	1
Unknown	117	14.4	1	2.4	16	11	14	71	4
Total	811	100.0	41	100.0	65	76	130	487	12
Drinking and Drugged Drivers									
Restraint Used	398	63.8	15	38.5	23	41	49	269	1
Restraint Not Used	104	16.7	19	48.7	27	18	17	23	0
Unknown	122	19.6	5	12.8	12	19	12	72	2
Total	624	100.0	39	100.0	62	78	78	364	3

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	88,809	231	1,688	4,599	14,607	67,684
In intersection	41,240	174	1,110	2,919	7,815	29,222
With traffic control signal	19,678	60	493	1,415	3,996	13,714
With hazardous action	**5,437**	22	195	531	1,408	3,281

"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 **5,437** 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	5	0	0	0	2	3
10 miles per hour	1	0	0	0	1	0
15 miles per hour	4	0	0	0	0	4
20 miles per hour	3	0	0	0	0	3
25 miles per hour	595	1	14	40	126	414
30 miles per hour	741	0	19	68	189	465
35 miles per hour	1,385	4	41	127	364	849
40 miles per hour	826	4	30	81	202	509
45 miles per hour	1,226	6	48	133	336	703
50 miles per hour	276	2	16	30	81	147
55 miles per hour	292	5	25	43	85	134
60 miles per hour	1	0	0	0	0	1
65 miles per hour	0	0	0	0	0	0
70 miles per hour	2	0	0	0	0	2
75 miles per hour	1	0	0	0	0	1
Unknown	79	0	2	9	22	46
Total	5,437	22	195	531	1,408	3,281

*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	57	1	1	17	17	21
Head on	50	0	2	8	15	25
Head on left turn	462	2	25	69	117	249
Angle	4,622	19	163	418	1,217	2,805
Rear end	41	0	0	2	7	32
Rear end left turn	5	0	0	0	0	5
Rear end right turn	4	0	0	1	0	3
Sideswipe same direction	60	0	0	3	6	51
Sideswipe opposite direction	34	0	2	2	6	24
Other/ Unknown	102	0	2	11	23	66
Total	5,437	22	195	531	1,408	3,281

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	18	0	1	2	6	9
Drinking Involved	150	1	10	40	35	64
Drug Use Involved	14	1	2	3	3	5
Pedestrian Involved	21	1	2	7	8	3
Bicyclist Involved	44	0	1	13	16	14
Snowmobile Involved	0	0	0	0	0	0
Motorcycle Involved	23	2	5	4	6	6
Train Involved	1	0	0	0	0	1
Truck/Bus Involved	188	3	13	17	47	108
Emergency Vehicle Involved	43	0	1	9	12	21
Driver Hazardous Citation	3,451	1	131	382	938	1,999

*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	4,537	13	143	437	1,219	2,725
Had Been Drinking	142	0	11	30	37	64
Illegal Drug Use	6	0	1	1	1	3
Sick	9	0	0	1	4	4
Fatigue	9	0	0	1	5	3
Asleep	1	0	0	0	0	1
Medication	11	1	1	1	2	6
Driver Distracted	111	2	3	13	27	66
Using Cellular Phone	39	0	3	7	12	17
Unknown	291	6	25	26	52	182

*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	6,619	47.4	68	65.4	1,301	54.1
Turning left	1,105	7.9	6	5.8	137	5.7
Turning right	1,024	7.3	0	0.0	96	4.0
Stopped on roadway	1,102	7.9	10	9.6	203	8.4
In prior crash	13	0.1	0	0.0	1	0.0
Changing lanes	510	3.7	3	2.9	60	2.5
Backing	736	5.3	2	1.9	39	1.6
Slowing/stopping on roadway	994	7.1	3	2.9	239	9.9
Slowing/stopping other	25	0.2	0	0.0	4	0.2
Starting up on roadway	275	2.0	1	1.0	52	2.2
Starting up other	11	0.1	0	0.0	0	0.0
Entering parking	23	0.2	0	0.0	0	0.0
Leaving parking	10	0.1	0	0.0	0	0.0
Entering roadway	130	0.9	1	1.0	30	1.2
Leaving roadway	17	0.1	0	0.0	1	0.0
Making U-turn	47	0.3	0	0.0	7	0.3
Overtaking or passing	113	0.8	0	0.0	17	0.7
Avoiding object	23	0.2	1	1.0	2	0.1
Avoiding animal	10	0.1	0	0.0	3	0.1
Avoiding pedestrian	4	0.0	0	0.0	2	0.1
Avoiding vehicle (front/back)	203	1.5	3	2.9	57	2.4
Avoiding vehicle (angle)	66	0.5	3	2.9	19	0.8
Driverless moving	18	0.1	0	0.0	2	0.1
Parked	316	2.3	3	2.9	55	2.3
Crossing at intersection	1	0.0	0	0.0	0	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	1	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	1	0.0	0	0.0	0	0.0
Playing in roadway	1	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	2	0.0	0	0.0	1	0.0
Other	6	0.0	0	0.0	1	0.0
Unknown	553	4.0	0	0.0	76	3.2
Total	13,962	100.0	104	100.0	2,405	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	35	0.3	0	0.0	3	0.1
Cross center/median	11	0.1	0	0.0	1	0.0
Ran off road left	22	0.2	0	0.0	2	0.1
Ran off road right	23	0.2	0	0.0	5	0.2
Re-enter road	2	0.0	0	0.0	1	0.0
Overturn	187	1.3	3	2.9	74	3.1
Separation of units	18	0.1	0	0.0	0	0.0
Fire/explosion	41	0.3	1	1.0	5	0.2
Immersion	1	0.0	0	0.0	0	0.0
Jackknife	134	1.0	0	0.0	8	0.3
Downhill runaway	4	0.0	0	0.0	1	0.0
Cargo loss/shift	128	0.9	1	1.0	13	0.5
Individual fell off	2	0.0	1	1.0	1	0.0
Other noncollision	121	0.9	1	1.0	10	0.4
NONCOLLISION Subtotal	729	5.2	7	6.7	124	5.2

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	37	0.3	7	6.7	26	1.1
Bicyclist	18	0.1	2	1.9	13	0.5
Motor vehicle in transport	10,175	72.9	83	79.8	1,960	81.5
Parked motor vehicle	526	3.8	1	1.0	23	1.0
Railway train	12	0.1	1	1.0	3	0.1
Animal	471	3.4	0	0.0	6	0.2
Other nonfixed objects	150	1.1	0	0.0	9	0.4
COLLISION NONFIXED Subtotal	11,389	81.6	94	90.4	2,040	84.8

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	89	0.6	1	1.0	4	0.2
Bridge parapet end	7	0.1	0	0.0	2	0.1
Bridge rail	11	0.1	0	0.0	1	0.0
Guardrail face	56	0.4	0	0.0	17	0.7
Guardrail end	18	0.1	0	0.0	2	0.1
Median barrier	39	0.3	0	0.0	11	0.5
Highway traffic sign post	64	0.5	0	0.0	2	0.1
Highway signal post	8	0.1	0	0.0	0	0.0
Luminaire/light support	27	0.2	0	0.0	1	0.0
Utility pole	120	0.9	0	0.0	5	0.2
Other pole	30	0.2	0	0.0	0	0.0
Culvert	11	0.1	0	0.0	2	0.1
Curb	5	0.0	0	0.0	3	0.1
Ditch	134	1.0	1	1.0	30	1.2
Embankment	27	0.2	0	0.0	5	0.2
Fence	9	0.1	0	0.0	3	0.1
Mailbox	22	0.2	0	0.0	0	0.0
Tree	100	0.7	1	1.0	23	1.0
Rail crossing signal	20	0.1	0	0.0	0	0.0
Building	15	0.1	0	0.0	3	0.1
Traffic island	1	0.0	0	0.0	0	0.0
Fire hydrant	21	0.2	0	0.0	1	0.0
Impact attenuator	3	0.0	0	0.0	0	0.0
Other fixed object	166	1.2	0	0.0	5	0.2
COLLISION FIXED Subtotal	1,003	7.2	3	2.9	120	5.0

	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	841	6.0	0	0.0	121	5.0
TOTAL MOST HARMFUL EVENT	13,962	100.0	104	100.0	2,405	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	2,003	14.3	13	12.5	221	9.2
Head On	244	1.7	22	21.2	88	3.7
Head On - Left Turn	122	0.9	3	2.9	47	2.0
Angle	2,307	16.5	29	27.9	607	25.2
Rear End	3,121	22.4	24	23.1	766	31.9
Rear End - Left Turn	132	0.9	0	0.0	37	1.5
Rear End - Right Turn	128	0.9	0	0.0	20	0.8
Sideswipe - Same Direction	3,806	27.3	3	2.9	360	15.0
Sideswipe - Opposite Direct	757	5.4	6	5.8	91	3.8
Other/Unknown	1,342	9.6	4	3.8	168	7.0
Total	13,962	100.0	104	100.0	2,405	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	6,866	49.2	80	76.9	1,299	54.0	15	0.7
Speed too fast	589	4.2	1	1.0	127	5.3	203	10.0
Speed too slow	10	0.1	0	0.0	2	0.1	6	0.3
Failed to yield	692	5.0	4	3.8	158	6.6	305	15.0
Disregard traffic control	135	1.0	1	1.0	51	2.1	66	3.2
Drove wrong way	10	0.1	0	0.0	3	0.1	2	0.1
Drove left of center	58	0.4	0	0.0	8	0.3	16	0.8
Improper passing	94	0.7	0	0.0	9	0.4	19	0.9
Improper lane use	678	4.9	0	0.0	52	2.2	192	9.4
Improper turn	508	3.6	0	0.0	42	1.7	163	8.0
Improper/no signal	25	0.2	0	0.0	3	0.1	0	0.0
Improper backing	515	3.7	0	0.0	17	0.7	143	7.0
Unable to stop in assured clear distance	1,174	8.4	3	2.9	329	13.7	525	25.8
Reckless driving	16	0.1	1	1.0	3	0.1	5	0.2
Careless/negligent driving	272	1.9	4	3.8	63	2.6	130	6.4
Other	1,088	7.8	6	5.8	87	3.6	214	10.5
Unknown	1,232	8.8	4	3.8	152	6.3	28	1.4
Total	13,962	100.0	104	100.0	2,405	100.0	2,032	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	12,355	88.5	96	92.3	2,148	89.3
Median	116	0.8	0	0.0	16	0.7
Shoulder	459	3.3	7	6.7	73	3.0
Outside of Shoulder/Curb	534	3.8	0	0.0	94	3.9
Gore	21	0.2	0	0.0	6	0.2
Other/Unknown	477	3.4	1	1.0	68	2.8
Total	13,962	100.0	104	100.0	2,405	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	492	3.5	5	4.8	91	3.8
03:00 AM - 05:59 AM	519	3.7	9	8.7	90	3.7
06:00 AM - 08:59 AM	2,551	18.3	14	13.5	465	19.3
09:00 AM - 11:59 AM	3,051	21.9	22	21.2	465	19.3
Noon - 02:59 PM	2,983	21.4	25	24.0	536	22.3
03:00 PM - 05:59 PM	2,698	19.3	16	15.4	463	19.3
06:00 PM - 08:59 PM	985	7.1	4	3.8	149	6.2
09:00 PM - 11:59 PM	644	4.6	9	8.7	136	5.7
Unknown	39	0.3	0	0.0	10	0.4
Total	13,962	100.0	104	100.0	2,405	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	3,634	26.0	27	26.0	716	29.8
U.S. & Michigan Roads	4,153	29.7	49	47.1	775	32.2
County & City Roads	6,175	44.2	28	26.9	914	38.0
Total	13,962	100.0	104	100.0	2,405	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
Monday	2,458	17.6	20	19.2	434	18.0
Tuesday	2,643	18.9	20	19.2	439	18.3
Wednesday	2,686	19.2	19	18.3	437	18.2
Thursday	2,239	16.0	21	20.2	356	14.8
Friday	2,676	19.2	18	17.3	472	19.6
Saturday	765	5.5	2	1.9	168	7.0
Sunday	495	3.5	4	3.8	99	4.1
Total	13,962	100.0	104	100.0	2,405	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	11,508	82.4	93	89.4	2,028	84.3
Female	1,451	10.4	7	6.7	245	10.2
Unknown	1,003	7.2	4	3.8	132	5.5
Total	13,962	100.0	104	100.0	2,405	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	10,872	77.9	86	82.7	1,831	76.1
2 occupants	938	6.7	8	7.7	185	7.7
3 occupants	166	1.2	0	0.0	37	1.5
4 occupants	124	0.9	1	1.0	31	1.3
5 occupants	65	0.5	1	1.0	12	0.5
6 + occupants	730	5.2	4	3.8	163	6.8
0 occupants	217	1.6	4	3.8	37	1.5
Unknown	850	6.1	0	0.0	109	4.5
Total	13,962	100.0	104	100.0	2,405	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	8,827	74.0	66	58.9	1,859	72.5
Van and Motorhome	888	7.4	11	9.8	208	8.1
Pickup	1,543	12.9	18	16.1	313	12.2
Small Truck (under 10,000 lbs.)	342	2.9	0	0.0	74	2.9
Motorcycle	45	0.4	3	2.7	31	1.2
Moped	5	0.0	0	0.0	4	0.2
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	2	0.0	0	0.0	1	0.0
Off Road Vehicle	3	0.0	0	0.0	2	0.1
Other	65	0.5	1	0.9	9	0.4
Unknown	215	1.8	13	11.6	62	2.4
Subtotal	11,935	100.0	112	100.0	2,563	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	7,130	51.1	61	58.7	1,318	54.8
Commercial Vehicle: Group B	3,141	22.5	30	28.8	551	22.9
Commercial Vehicle: Group C	484	3.5	2	1.9	82	3.4
Other Truck	699	5.0	11	10.6	134	5.6
Unknown Truck	2,508	18.0	0	0.0	320	13.3
Subtotal	13,962	100.0	104	100.0	2,405	100.0
Total Vehicle Types in Heavy Truck/Bus Crashes	25,897		216		4,968	

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)

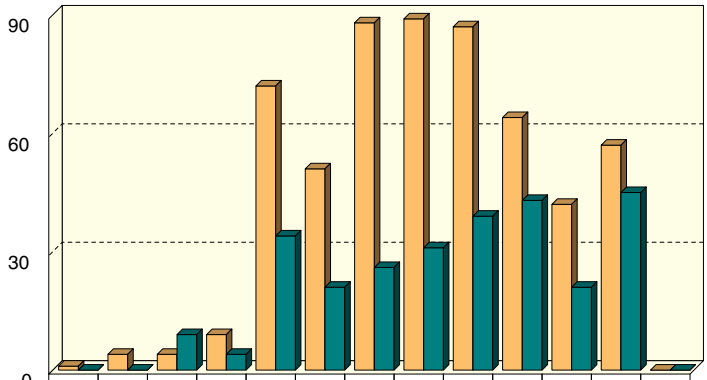
Hazardous Citation Issued	Heavy Truck/Bus Involved Crash						Passenger Vehicle Only Involved Crash			
	Single Vehicle Crash		Multi-Vehicle Crash				Single Vehicle Crash		Multi-Vehicle Crash	
	Number of Trucks/Buses	% of citation	Number of Trucks/Buses	% of citation	Number of Passenger Vehicles	% of citation	Number of Passenger Vehicles	% of citation	Number of Passenger Vehicles	% of citation
None	4	1.1	11	0.7	17	0.7	77	0.5	472	0.6
Speed too fast	142	38.9	61	3.7	430	18.8	8,041	52.6	4,734	6.0
Speed too slow	3	0.8	3	0.2	6	0.3	39	0.3	125	0.2
Failed to yield	5	1.4	300	18.0	440	19.2	420	2.7	20,833	26.6
Disregard traffic control	9	2.5	57	3.4	124	5.4	136	0.9	5,242	6.7
Drove wrong way	0	0.0	2	0.1	2	0.1	10	0.1	123	0.2
Drove left of center	0	0.0	16	1.0	34	1.5	86	0.6	702	0.9
Improper passing	0	0.0	19	1.1	49	2.1	28	0.2	730	0.9
Improper lane use	3	0.8	189	11.3	178	7.8	116	0.8	3,387	4.3
Improper turn	26	7.1	137	8.2	49	2.1	58	0.4	1,704	2.2
Improper/no signal	0	0.0	0	0.0	3	0.1	8	0.1	139	0.2
Improper backing	4	1.1	139	8.3	24	1.0	50	0.3	2,153	2.7
Unable to stop in assured clear distance	18	4.9	507	30.4	591	25.8	569	3.7	31,086	39.6
Reckless driving	0	0.0	5	0.3	13	0.6	559	3.7	389	0.5
Careless/Negligent driving	70	19.2	60	3.6	173	7.5	3,100	20.3	2,671	3.4
Other	75	20.5	139	8.3	121	5.3	1,663	10.9	2,953	3.8
Unknown	6	1.6	22	1.3	39	1.7	339	2.2	1,017	1.3
Total Cited Vehicles	365	100.0	1,667	100.0	2,293	100.0	15,299	100.0	78,460	100.0
Percent of Total Vehicles		17.8		14.0		19.7		12.0		22.2
Vehicles with No Citation Issued	1,685	82.2	10,239	86.0	9,376	80.3	112,064	88.0	275,102	77.8
Total Vehicles Involved	2,050	100.0	11,906	100.0	11,669	100.0	127,363	100.0	353,562	100.0

2008
2008
2008
2008
2008
2008
2008
2008
2008

Occupant/
Person

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

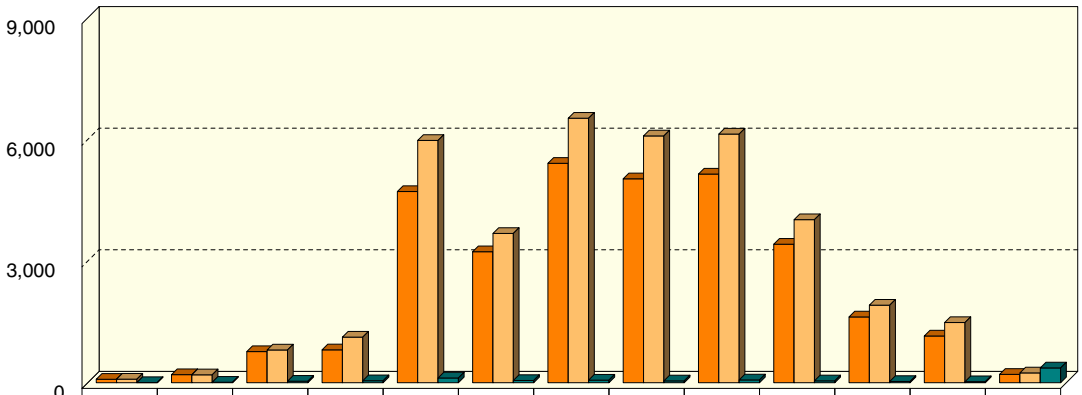
Occupants Killed



	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
Males Killed	1	4	4	9	72	51	88	89	87	64	42	57	0	568
Females Killed	0	0	9	4	34	21	26	31	39	43	21	45	0	273
Total	1	4	13	13	106	72	114	120	126	107	63	102	0	841

There were 273 female occupants, and 568 male occupants killed in motor vehicle crashes in 2008. The majority (67.5%) of occupants killed in traffic crashes in 2008 were male.

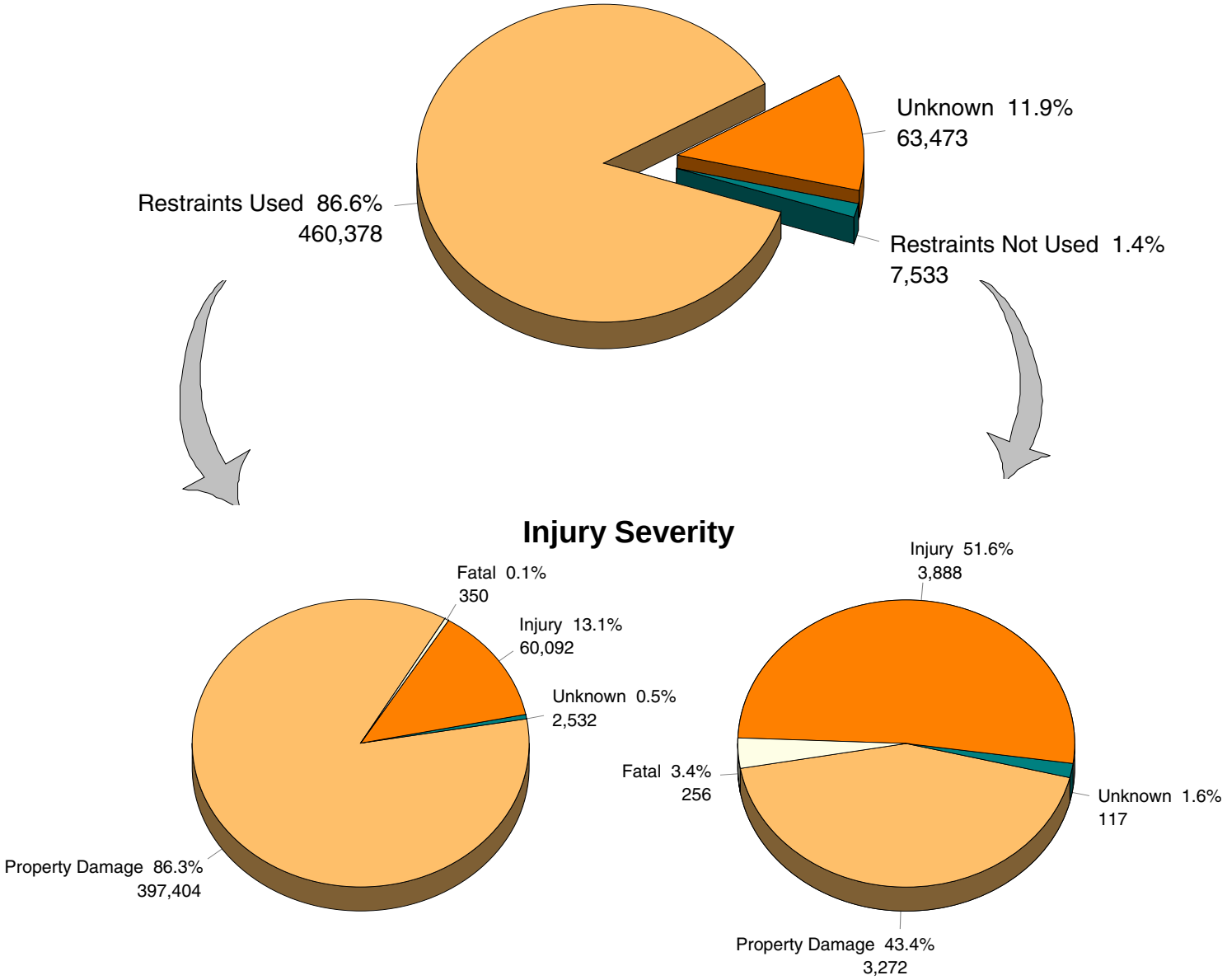
Occupants Injured



	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
Males Injured	85	199	768	811	4,717	3,232	5,413	5,031	5,148	3,417	1,623	1,153	206	31,803
Females Injured	88	195	808	1,125	5,978	3,683	6,526	6,089	6,135	4,023	1,913	1,485	242	38,290
Unknown Gender Injured	4	12	37	49	117	55	64	45	69	46	31	26	365	920
Total	177	406	1,613	1,985	10,812	6,970	12,003	11,165	11,352	7,486	3,567	2,664	813	71,013

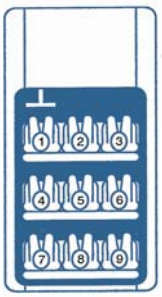
There were 38,290 female occupants, 31,803 male occupants, and 920 occupants of unknown gender injured in motor vehicle crashes in 2008. The majority (53.9%) of occupants injured in traffic crashes in 2008 were female.

REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS



Of the 531,384 drivers and injured passengers involved in crashes, 460,378 (86.6%) were REPORTED to be using occupant restraints.

Occupants in crashes were thirty-four 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	438,669	96.0	255	2,803	8,790	34,281	392,540
Center Front	419	0.1	0	21	68	203	127
Right Front	9,860	2.2	77	599	1,943	6,995	246
Left Rear	1,104	0.2	4	77	229	787	7
Center Rear	270	0.1	2	16	47	205	0
Right Rear	1,221	0.3	2	59	260	897	3
Left Rear Third Seat	170	0.0	2	12	36	119	1
Center Rear Third Seat	55	0.0	0	2	16	37	0
Right Rear Third Seat	196	0.0	2	10	48	136	0
Unknown	4,859	1.1	0	29	94	428	4,308
Total	456,823†	100.0	344	3,628	11,531	44,088	397,232

* 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 2,521 occupants with unknown injury severity.

Seating Position	Belts Not Used*		Fatal	Injury			No Injury
	Number	% of Total		A	B	C	
Left Front	5,003	70.8	181	556	821	723	2,722
Center Front	64	0.9	0	7	21	23	13
Right Front	589	8.3	37	126	193	200	33
Left Rear	315	4.5	9	58	111	136	1
Center Rear	141	2.0	7	35	46	53	0
Right Rear	316	4.5	9	59	90	157	1
Left Rear Third Seat	48	0.7	0	9	11	28	0
Center Rear Third Seat	39	0.6	1	3	10	25	0
Right Rear Third Seat	42	0.6	1	4	10	27	0
Unknown	508	7.2	9	38	44	156	261
Total	7,065†	100.0	254	895	1,357	1,528	3,031

* 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 105 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

On July 1, 2008, Michigan law was amended http://legislature.mi.gov/doc.aspx?mcl-257-710e

From:

*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).*
and
*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.*

To:

*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).*
and
*All children who are at least **4 years of age but less than 8 years of age AND who are less than 4'9" in height,** must be properly restrained in a child restraint system.*
and
*All children **ages 8 through 15** must wear a properly adjusted and fastened safety belt when riding in either the front or back seat of a vehicle.*

Note 1: The tables on pages 148 and 149 are run with full-year 2008 data. To view query results prior to and post the amended Michigan Vehicle Code MCL 257.710e; click on the date ranges that accompany each table.
Note 2: These tables exclude drivers.

01/01/08 through 06/30/08 07/01/08 through 12/31/08	**Children Age 0**		Fatal	Injury		
Restraint Usage	Number	% Total		A	B	C
Belts Used	24	13.7	0	0	3	21
No Belts Used	2	1.1	0	0	0	2
Child Restraint Used	132	75.4	0	8	20	104
Child Restraint Not Used	9	5.1	1	1	1	6
Restraint Failed	1	0.6	0	0	0	1
Unknown	7	4.0	0	1	0	6
Total	175	100.0	1	10	24	140

01/01/08 through 06/30/08 07/01/08 through 12/31/08	**Children Age 1**		Fatal	Injury		
Restraint Usage	Number	% Total		A	B	C
Belts Used	10	7.9	0	0	4	6
No Belts Used	3	2.4	0	1	1	1
Child Restraint Used	103	81.7	1	2	36	64
Child Restraint Not Used	3	2.4	1	0	1	1
Restraint Failed	0	0.0	0	0	0	0
Unknown	7	5.6	0	0	3	4
Total	126	100.0	2	3	45	76

REPORTED RESTRAINT USE – CHILDREN (continued)

01/01/08 through 06/30/08 07/01/08 through 12/31/08 Restraint Usage	Children Age 2		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	21	15.8	0	2	3	16
No Belts Used	5	3.8	0	0	2	3
Child Restraint Used	90	67.7	1	3	19	67
Child Restraint Not Used	10	7.5	0	2	6	2
Restraint Failed	0	0.0	0	0	0	0
Unknown	7	5.3	0	0	0	7
Total	133	100.0	1	7	30	95

01/01/08 through 06/30/08 07/01/08 through 12/31/08 Restraint Usage	Children Age 3		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	38	25.2	0	2	13	23
No Belts Used	1	0.7	0	0	0	1
Child Restraint Used	89	58.9	1	6	26	56
Child Restraint Not Used	10	6.6	0	4	3	3
Restraint Failed	0	0.0	0	0	0	0
Unknown	13	8.6	0	1	3	9
Total	151	100.0	1	13	45	92

01/01/08 through 06/30/08 07/01/08 through 12/31/08 Restraint Usage	Children Age 4-7		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	384	47.1	3	22	109	250
No Belts Used	51	6.3	1	7	15	28
Child Restraint Used	306	37.5	2	18	70	216
Child Restraint Not Used	25	3.1	0	4	10	11
Restraint Failed	0	0.0	0	0	0	0
Unknown	50	6.1	0	4	11	35
Total	816	100.0	6	55	215	540

01/01/08 through 06/30/08 07/01/08 through 12/31/08 Restraint Usage	Children Age 8-15		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	2,106	81.9	6	95	475	1,530
No Belts Used	254	9.9	10	43	81	120
Child Restraint Used	40	1.6	0	2	3	35
Child Restraint Not Used	11	0.4	0	0	2	9
Restraint Failed	2	0.1	0	1	0	1
Unknown	158	6.1	2	23	36	97
Total	2,571	100.0	18	164	597	1,792

Note 3: Safety equipment usage is often self-reported and may not reflect actual usage.

Note 4: 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

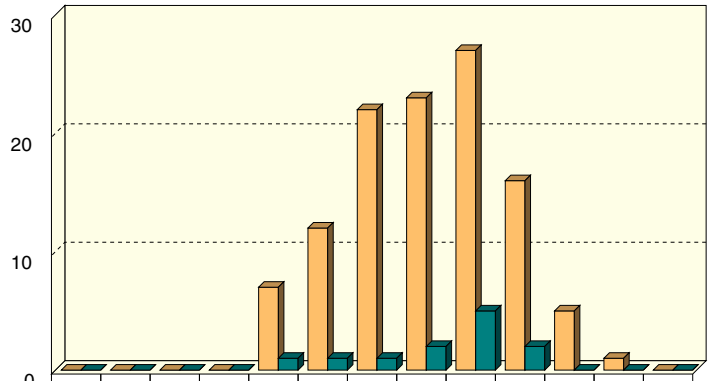
MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

Motor Vehicle Occupant Airbag Deployment	OCCUPANT – INJURY SEVERITY						
	Occupants*		Fatal	Injury			No Injury
	Number	% Total		A	B	C	
Deployed	41,345	7.7	318	2,083	5,492	11,584	21,216
Not deployed	400,621	74.8	204	1,792	5,615	28,979	354,387
Not equipped	37,829	7.1	290	1,763	3,234	5,354	25,079
Unknown	56,068	10.5	29	453	1,154	3,510	18,280
Total	535,863	100.0	841	6,091	15,495	49,427	418,962

* Includes 45,047 occupants (drivers and passengers) with unknown injury severity.

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

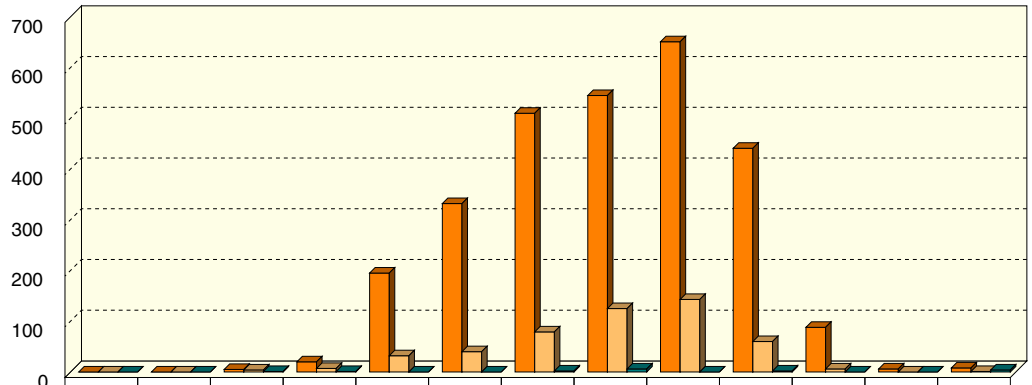
Motorcyclists Killed



	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
Males Killed	0	0	0	0	7	12	22	23	27	16	5	1	0	113
Females Killed	0	0	0	0	1	1	1	2	5	2	0	0	0	12
Total	0	0	0	0	8	13	23	25	32	18	5	1	0	125

90.4 percent of the motorcyclists killed in traffic crashes in 2008 were male.
In comparison, 68.0 percent of all persons killed in crashes were male.

Motorcyclists Injured

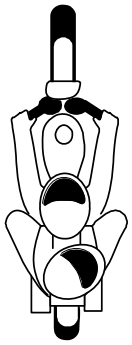


	Under 1 yr old	1-3 yrs	4-10 yrs	11-15 yrs	16-20 yrs	21-24 yrs	25-34 yrs	35-44 yrs	45-54 yrs	55-64 yrs	65-74 yrs	75 yrs & over	Unknown	Totals
Males Injured	0	0	5	20	195	332	510	545	651	441	88	6	8	2,801
Females Injured	0	0	4	7	32	40	79	125	143	60	6	0	1	497
Unknown Gender Injured	0	0	1	1	0	0	2	6	0	2	0	0	4	16
Total	0	0	10	28	227	372	591	676	794	503	94	6	13	3,314

84.5 percent of the motorcyclists injured in traffic crashes in 2008 were male.
In comparison, 45.8 percent of all persons injured in crashes were male.

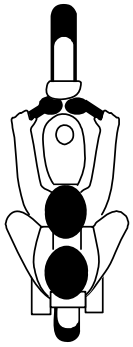
MOTORCYCLE HELMET USE AND INJURY SEVERITY

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	3	1	4	0
11 - 15 years	0	4	10	8	1
16 - 20 years	5	42	98	43	34
21 - 24 years	11	65	147	75	63
25 - 34 years	20	127	191	165	114
35 - 44 years	23	163	206	159	139
45 - 54 years	26	187	262	218	172
55 - 64 years	11	109	160	140	89
65 - 74 years	5	26	35	20	22
75 years and over	0	2	4	0	5
Unknown	0	1	1	3	4
Subtotal	101	729	1,115	835	643



Drivers killed 96
Passengers killed 5

Helmet Not Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	0	0	1	0
11 - 15 years	0	2	2	0	2
16 - 20 years	2	2	3	3	2
21 - 24 years	1	3	6	2	0
25 - 34 years	0	6	5	4	2
35 - 44 years	1	5	5	2	0
45 - 54 years	4	7	4	3	2
55 - 64 years	2	0	1	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	10	25	26	15	8



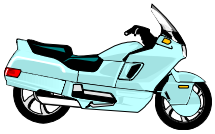
Drivers killed 9
Passengers killed 1

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	0	0	1	1
11 - 15 years	0	1	1	0	1
16 - 20 years	1	5	17	14	17
21 - 24 years	1	20	25	29	33
25 - 34 years	3	22	48	23	52
35 - 44 years	1	36	41	59	49
45 - 54 years	2	25	55	33	49
55 - 64 years	5	24	36	33	25
65 - 74 years	0	2	4	7	8
75 years and over	1	0	0	0	0
Unknown	0	1	3	4	59
Subtotal	14	136	230	203	294
Total	125	890	1,371	1,053	945

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

OCCUPANT INJURY OUTCOME BY VEHICLE TYPE



VEHICLE TYPE	Killed	A Injured	B Injured	C Injured	Total KABC	% of All Crash Involved KABC Occupants
Passenger Car and Station Wagon	514	3,744	10,614	38,113	52,985	73.7
Van (Minivan) and Motorhome	43	349	835	3,164	4,391	6.1
Pickup	107	643	1,740	4,533	7,023	9.8
Small Truck (under 10,000 lbs.)	7	155	423	1,618	2,203	3.1
Motorcycle	125	890	1,371	1,053	3,439	4.8
Moped	3	73	171	76	323	0.4
Go Cart	0	0	3	3	6	0.0
Snowmobile	12	62	34	59	167	0.2
Off Road Vehicle	11	92	74	40	217	0.3
Other	8	27	70	82	187	0.3
Unknown	0	6	19	101	126	0.2
CDL Truck/Bus (breakdown below)	11	50	141	585	787	1.1
Total Number of Occupants	841	6,091	15,495	49,427	71,854	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	6	24	66	203	299	38.0
Commercial Vehicle: Group B	2	15	43	221	281	35.7
Commercial Vehicle: Group C	0	1	9	38	48	6.1
Other Truck	3	5	7	49	64	8.1
Unknown Truck	0	5	16	74	95	12.1
Total Number of Occupants	11	50	141	585	787	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.

2008
2008
2008
2008
2008
2008
2008
2008
2008

References

REFERENCES AND REPORTING AGENCIES

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[2] Table 31DP Number of Deaths by Underlying Cause of Death Michigan Residents, 2007. 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, Program Development Division, 100 N. Senate Avenue, 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.

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

[12] Traffic Safety Facts Laws - Bicycle Helmet Laws - January 2008. National Center for Statistics & Analysis, Research & Development, 400 Seventh Street, S.W., Washington, D.C. 20590. (Source: Robert Thompson, *A Case Control Study of the Effectiveness of Bicycle Safety Helmets*. Centers for Disease Control.)

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2008
2008
2008
2008
2008
2008
2008
2008
2008
2008

Index

A

B

C

D

E

F

G

H

I

L

M

N

O

P

R

S

T

V

W