MTCF

Michigan Traffic Crash Facts

UPPER PENINSULA

2016

MISSION STATEMENT

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.

A SUMMARY OF TRAFFIC CRASHES ON MICHIGAN UPPER PENINSULA ROADWAYS IN CALENDAR YEAR 2016

MichiganTrafficCrashFacts.org

PRODUCED BY:

Michigan Department of State Police
Criminal Justice Information Center-Traffic Crash Statistics
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Fatality Analysis Reporting System

Michigan Department of State Police

Michigan Department of State

Michigan Department of Transportation

Michigan Office of Highway Safety Planning

University of Michigan Transportation Research Institute

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

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FOREWORD

Traffic records improvement projects have been ongoing to streamline the process of data collection and processing. Current projects such as the Traffic Crash Reporting System (TCRS) Modernization and the Traffic Records Data Linkage strive to improve the quality, timeliness, and accuracy of data outputs, as well as integration of traffic records data systems.

New technologies, including electronic data collection, increased error checking, quality assurance, and crash locating, are continually emerging and improving. By utilizing these technologies as they become available, the quality of Michigan's traffic records data will continue to improve.

Please visit MichiganTrafficCrashFacts.org for easy access to crash data from 1992-2016.

DATA ELEMENTS WITH CHANGES FOR 2016 DATA

CDL Restriction 28 (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors." "CDL Restriction" and "Non-truck, no data" will display counts of 0 when selected.

CDL Restriction 29 (2004-2015) – See **CDL Restriction 28 (2004-2015)**.

CDL Restriction 30 (2004-2015) – See **CDL Restriction 28 (2004-2015)**.

CDL Restriction 35 (2004-2015) – See **CDL Restriction 28 (2004-2015)**.

CDL Restriction 36 (2004-2015) – See **CDL Restriction 28 (2004-2015)**.

Commercial Motor Vehicle Configuration (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Complaint Status (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors." "Open" and "Closed" will display counts of 0 when selected.

Construction Activity (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Construction Crash Location (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Construction Lane Closed (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors." "Lane open" and "Lane closed" will display counts of 0 when selected.

Construction Workers Present (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Contributing Circumstances Road 1 (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Contributing Circumstances Road 2 (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

DATA ELEMENTS WITH CHANGES FOR 2016 DATA (CONTINUED)

Crash: Animal Type Involved/Associated (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Crash: Driver Distracted (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Drivable After Crash (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors." "Not drivable after crash" and "Drivable after crash" will display counts of 0 when selected.

Driver Airbag Deployed (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors." See **Driver Airbag Deployed** for driver airbag data for all years with less airbag deployment detail.

Driver Condition Emotional (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Driver Condition Fatigue (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors." "No, driver was not fatigued" and "Yes, driver was fatigued" will display counts of 0 when selected. See **Driver Condition Fatigued or Asleep (2016+)** for driver fatigue data starting in 2016.

Driver Condition Fatigued or Asleep (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors." See **Driver Condition Fatigue (2004-2015)** or **Driver Condition Asleep (2004-2014)** for driver fatigue or driver asleep data prior to 2016.

Driver Condition Other (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Driver Condition Physically Disabled (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Driver Contributing Factor – Alcohol Use (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Driver Contributing Factor – Drug Use (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

DATA ELEMENTS WITH CHANGES FOR 2016 DATA (CONTINUED)

Driver Distraction (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors." See **Driver Condition Distracted (2004-2014)** for driver distraction data prior to 2016.

Driver Restraint (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors." See Driver Restraint for driver restraint data for all years with less child restraint detail.

Field Sobriety Test – Drug (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Gross Vehicle Weight Rating Code – This variable is new starting with 2016 data. All counts for years prior to 2016 have also been added.

Inter/Intra State (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors." "Interstate only," "Intrastate," and "Non-truck, no data" will display counts of 0 when selected.

Person Airbag Deployed (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors." See **Person Airbag Deployed** for driver airbag data for all years with less airbag deployment detail.

Person Restraint (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors." See **Person Restraint** for driver restraint data for all years with less child restraint detail.

Refusal Information - Drug (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Source of Carrier Information (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors."

Test Offered – Drug (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Test Result Pending – Alcohol (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

DATA ELEMENTS WITH CHANGES FOR 2016 DATA (CONTINUED)

Test Result Pending – Drug (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Total Non-Motor Vehicles (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Weather Conditions (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors." See **Weather Conditions (2016+)** for weather condition data starting with 2016 data.

Weather Conditions (2016+) – This variable is new for 2016 data. All counts for years prior to 2016 have been coded to "Uncoded & errors." See **Weather Conditions (2004-2015)** for weather condition data prior to 2016 data.

For questions regarding specific changes to the crash codes, please contact Criminal Justice Information Center, Traffic Crash Reporting Unit (CrashTCRS@michigan.gov, 517-241-1699).

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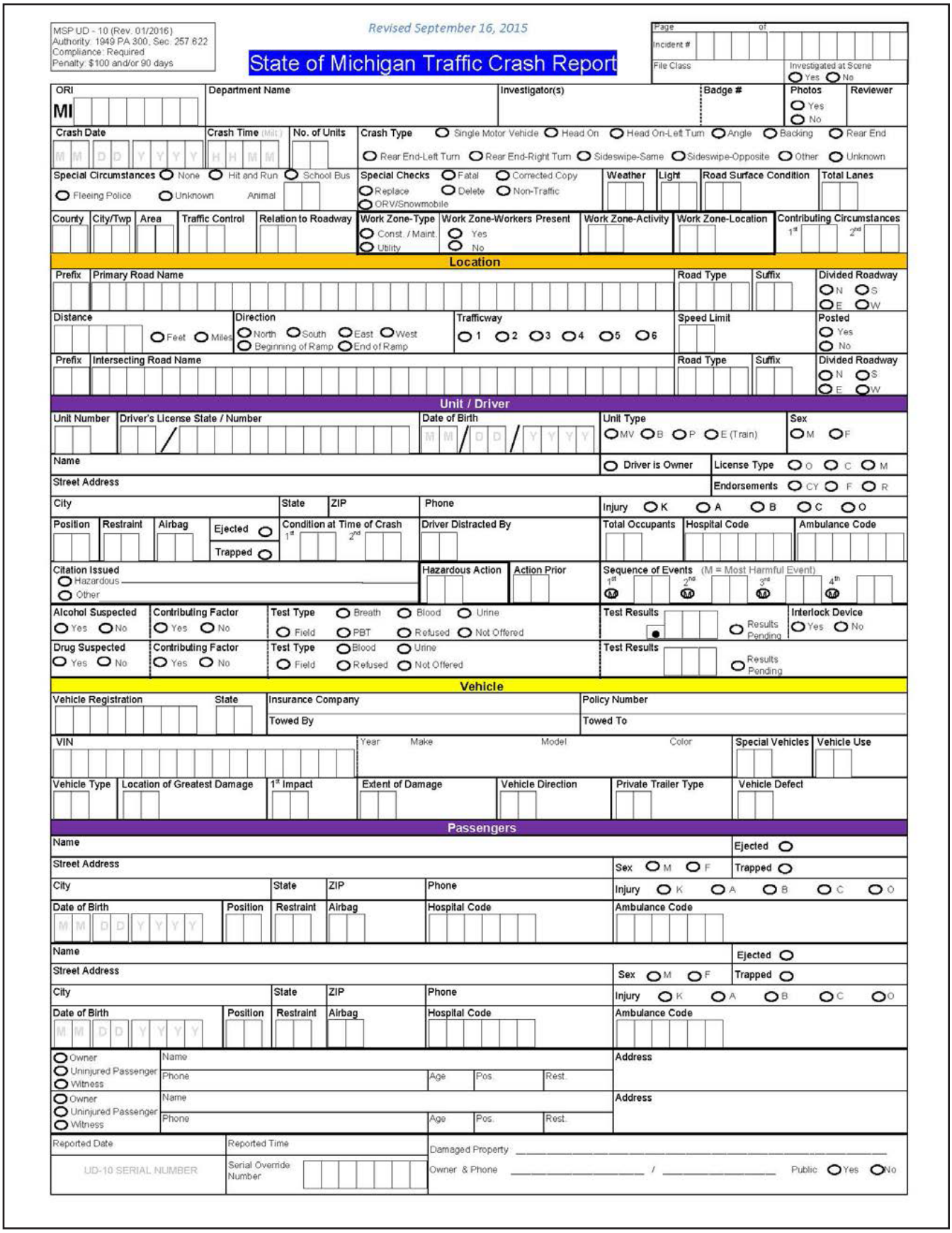
UD-10 (FRONT)



MSP UD - 10 (Rev. 01/2016)
Authority: 1949 PA 300, Sec. 257.622
Compliance: Required
Penalty: $100 and/or 90 days

Revised September 16, 2015

State of Michigan Traffic Crash Report

Page ___ of ___
Incident #
File Class
Investigated at Scene: Yes / No

ORI: MI
Department Name
Investigator(s)
Badge #
Photos: Yes / No
Reviewer

Crash Date (M M D D Y Y Y Y)
Crash Time (Mil.) (H H M M)
No. of Units
Crash Type: Single Motor Vehicle / Head On / Head On-Left Turn / Angle / Backing / Rear End / Rear End-Left Turn / Rear End-Right Turn / Sideswipe-Same / Sideswipe-Opposite / Other / Unknown

Special Circumstances: None / Hit and Run / School Bus / Fleeing Police / Unknown / Animal
Special Checks: Fatal / Corrected Copy / Replace / Delete / Non-Traffic / ORV/Snowmobile
Weather
Light
Road Surface Condition
Total Lanes

County
City/Twp
Area
Traffic Control
Relation to Roadway
Work Zone-Type: Const. / Maint. / Utility
Work Zone-Workers Present: Yes / No
Work Zone-Activity
Work Zone-Location
Contributing Circumstances 1st / 2nd

Location

Prefix
Primary Road Name
Road Type
Suffix
Divided Roadway: N / S / E / W

Distance: Feet / Miles
Direction: North / South / East / West / Beginning of Ramp / End of Ramp
Trafficway: 1 / 2 / 3 / 4 / 5 / 6
Speed Limit
Posted: Yes / No

Prefix
Intersecting Road Name
Road Type
Suffix
Divided Roadway: N / S / E / W

Unit / Driver

Unit Number
Driver's License State / Number
Date of Birth (M M / D D / Y Y Y Y)
Unit Type: MV / B / P / E (Train)
Sex: M / F

Name
Driver is Owner
License Type: O / C / M
Street Address
Endorsements: CY / F / R

City
State
ZIP
Phone
Injury: K / A / B / C / O

Position
Restraint
Airbag
Ejected
Trapped
Condition at Time of Crash 1st / 2nd
Driver Distracted By
Total Occupants
Hospital Code
Ambulance Code

Citation Issued: Hazardous / Other
Hazardous Action
Action Prior
Sequence of Events (M = Most Harmful Event) 1st (M) / 2nd (M) / 3rd (M) / 4th (M)

Alcohol Suspected: Yes / No
Contributing Factor: Yes / No
Test Type: Breath / Blood / Urine / Field / PBT / Refused / Not Offered
Test Results
Results Pending
Interlock Device: Yes / No

Drug Suspected: Yes / No
Contributing Factor: Yes / No
Test Type: Blood / Urine / Field / Refused / Not Offered
Test Results
Results Pending

Vehicle

Vehicle Registration
State
Insurance Company
Policy Number
Towed By
Towed To

VIN
Year
Make
Model
Color
Special Vehicles
Vehicle Use

Vehicle Type
Location of Greatest Damage
1st Impact
Extent of Damage
Vehicle Direction
Private Trailer Type
Vehicle Defect

Passengers

Name
Ejected
Street Address
Sex: M / F
Trapped
City
State
ZIP
Phone
Injury: K / A / B / C / O
Date of Birth (M M D D Y Y Y Y)
Position
Restraint
Airbag
Hospital Code
Ambulance Code

Name
Ejected
Street Address
Sex: M / F
Trapped
City
State
ZIP
Phone
Injury: K / A / B / C / O
Date of Birth (M M D D Y Y Y Y)
Position
Restraint
Airbag
Hospital Code
Ambulance Code

Owner / Uninjured Passenger / Witness
Name
Phone
Age
Pos.
Rest.
Address

Owner / Uninjured Passenger / Witness
Name
Phone
Age
Pos.
Rest.
Address

Reported Date
Reported Time
UD-10 SERIAL NUMBER
Serial Override Number
Damaged Property
Owner & Phone ___ / ___ Public: Yes / No

UD-10 (BACK)

Unit / Driver

Unit Number | Driver's License State / Number | Date of Birth (M M / D D / Y Y Y Y) | Unit Type (MV, B, P, E (Train)) | Sex (M, F)

Name | Driver is Owner | License Type (O, C, M)

Street Address | Endorsements (CY, F, R)

City | State | Zip | Phone Number | Injury (K, A, B, C, O)

Position | Restraint | Airbag | Ejected | Trapped | Condition at Time of Crash (1st, 2nd) | Driver Distracted By | Total Occupants | Hospital Code | Ambulance Code

Citation Issued (Hazardous, Other) | Hazardous Action | Action Prior | Sequence of Events (M = Most Harmful Event) (1st, 2nd, 3rd, 4th)

Alcohol Suspected (Yes, No) | Contributing Factor (Yes, No) | Test Type (Breath, Blood, Urine; Field, PBT, Refused, Not Offered) | Test Results | Results Pending | Interlock Device (Yes, No)

Drug Suspected (Yes, No) | Contributing Factor (Yes, No) | Test Type (Blood, Urine; Field, Refused, Not Offered) | Test Results | Results Pending

Vehicle

Vehicle Registration | State | Insurance Company | Policy Number

Towed By | Towed To

VIN | Year | Make | Model | Color | Special Vehicles | Vehicle Use

Vehicle Type | Location of Greatest Damage | 1st Impact | Extent of Damage | Vehicle Direction | Private Trailer Type | Vehicle Defect

Passengers

Name | Ejected

Street Address | Sex (M, F) | Trapped

City | State | ZIP | Phone | Injury (K, A, B, C, O)

Date of Birth (M M D D Y Y Y Y) | Position | Restraint | Airbag | Hospital Code | Ambulance Code

Name | Ejected

Street Address | Sex (M, F) | Trapped

City | State | ZIP | Phone | Injury (K, A, B, C, O)

Date of Birth (M M D D Y Y Y Y) | Position | Restraint | Airbag | Hospital Code | Ambulance Code

(Owner, Uninjured Passenger, Witness) | Name | Phone | Age | Pos. | Rest. | Address

(Owner, Uninjured Passenger, Witness) | Name | Phone | Age | Pos. | Rest. | Address

Truck / Bus

Unit # | Carrier Name

Address

City | State | ZIP

GVWR / GCWR (10,000 LBS or Less; 10,001 - 26,000 LBS; 26,001 LBS or More)

Vehicle Configuration | Cargo Body Type | HAZMAT (Placard, Cargo Spill) | HAZMAT ID | HAZMAT Class

USDOT | MC | MPSC

CDL Type (A, B, C, None) | Endorsements (H, P, T, N, S, X)

Medical Card (Yes, No) | Exempt (Farm, Other) | Remarks / Narrative

UD-10 Serial Number

North

Crash Diagram

MICHIGAN VEHICLE CODE

Public Act 300 of 1949

Edited by the Michigan Office of Highway Safety Planning (OHSP) 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 10s submitted by all Michigan law enforcement agencies, the Department of State Police processes all UD-10s received at the Criminal Justice Information Center (CJIC). CJIC retains an electronic copy of UD-10s for 10 years plus the current processing year. Electronic databases containing information from UD-10s 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.

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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.
- **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 or child car 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 - Suspected Serious
  - B - Suspected Minor
  - C - Possible

See Glossary for definitions.

- **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**

ABBREVIATIONS & ACRONYMS (CONTINUED)

- **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 access to an adjoining roadway is controlled by public authority.
    - No access control (unlimited access)
    - Full access control (ramp entry & exit only)
    - 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 traveled.
- **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-involved crashes only. This figure DOES NOT include the combined number for alcohol and drug involved crashes as has been reported in prior years.
- **Harmful Event -** A harmful event is an occurrence of injury or damage.

- **Holiday -** Refers to the length of the Holiday weekend period, including the hours of 6:00 PM to midnight of the day preceding the Holiday. Please refer to the table below for the time period connected to Holidays falling on a given day of the week.

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

- **Ignition Interlock -** An alcohol concentration measuring device preventing 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 resulting in death.
    - **A (Suspected Serious Injury) -** Any injury, other than a fatal injury, preventing the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred.
    - **B (Suspected Minor 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 fatal 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 (does not include expired licenses).
- **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
- **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, scooters.
    - **Road maintenance equipment -** dump trucks, snowplows, road graders
    - **Construction equipment -** Rollers, front-end loaders, scrapers, mobile cranes, etc.
- **Motor Vehicle Crash -** A crash involving a motor vehicle in transport on a public trafficway (in Michigan) resulting in injury, death, or at least $1,000 in property damage.
- **Non-collision -** A crash not involving a collision with another motor vehicle. Types of non-collision 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.
- **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); non-motorized wheelchair.
- **Property Damage Only (PDO) Crash -** A crash resulting in no fatalities or injuries, with a value of $1,000 as a reporting threshold.

- **School Bus -** Every motor vehicle, except station wagons, with a manufacturers' rated seating capacity of 18 or more passengers, including the driver, owned by a public, private, or governmental agency and operated for the transportation of children to or 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.

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UPPER PENINSULA 2016 QUICK FACTS

- Some exposure factor comparisons between 2016 and 2015 show motor vehicle registrations decreased by a count of 64 (0.0%), the number of licensed drivers on Upper Peninsula roads decreased 0.6 percent, and vehicle mileage decreased 2.6 percent.
- The 2016 fatality rate increased to 0.97 deaths per 100 million miles of travel. It remains below the 10-year average of 1.11 (2007-2016).
- There were 32 people killed and 1,541 people injured in 8,264 reported motor vehicle traffic crashes in the Upper Peninsula during 2016. Compared with the 2015 experience, the number of deaths increased 28.0 percent, people injured decreased 3.9 percent, and total reported crashes increased 2.0 percent.
- There were 8,264 reported crashes, of which 29 were fatal, 1,163 were personal injury, and 7,072 were property damage only crashes.
- Of all fatal crashes, 20.7 percent occurred at intersections.
- Of all fatal crashes, 34.5 percent involved at least one drinking operator, bicyclist, or pedestrian, 10.3 percent involved drinking but no drugs, 13.8 percent involved drugs but no drinking, and 24.1 percent involved both drinking and drugs.
- Speed too fast was indicated as the hazardous action by 19.0 percent of the drivers involved in fatal crashes.
- In 2016, there were 4,918 single-vehicle crashes, an increase of 6.4 percent from last year's count of 4,622.
- Of the 8,264 total crashes, 4,918 (59.5%) involved one vehicle.
- Of the 29 fatal crashes, 17 (58.6%) involved one vehicle.
- Of the 10 alcohol-involved fatal crashes, 8 (80.0%) involved one vehicle.
- Of the 42 drivers involved in fatal crashes, four (9.5%) were under 21 years of age.
- Of the 303,181 people living in the Upper Peninsula [1. References and Reporting Agencies] one out of every 9,474 was killed in a traffic crash and one out of every 197 was injured.
- For each person killed, 48 people were injured.
- The pedestrian death toll for the Upper Peninsula stands at two people (ages 44 and 68). Thirty-five pedestrians were injured.
- For each pedestrian killed, there were 17.5 pedestrians injured.
- Of the two pedestrian fatalities, one pedestrian was standing or laying in the roadway, and the other was in the roadway with traffic.
- There was one bicyclist fatality (age 41) and 15 bicyclists were injured.
- Of the 10,995 drivers and injured passengers involved in crashes where restraint use was known, 10,743 or 97.7 percent were reported to have been using occupant restraints. Restraint usage among fatal crash victims, where usage was known, was reported to be 60.7 percent in 2016.
- The comprehensive costs in traffic crashes in the Upper Peninsula amounted to $1,154,262,200 in 2016.

Note: Information on the cost of crashes is provided by the National Safety Council.

UPPER PENINSULA MICHIGAN CRASH WATCH 2016

HISTORICAL INFORMATION

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UPPER PENINSULA 2015-2016 SUMMARY TRENDS: 1 YEAR TRENDS

	2015	2016	PERCENT OF CHANGE
NUMBER OF CRASHES			
Fatal Crashes	25	29	16.0
Personal Injury Crashes	1,187	1,163	-2.0
Property Damage Crashes	6,887	7,072	2.7
TOTAL	8,099	8,264	2.0
ALCOHOL-INVOLVED CRASHES			
Fatal Crashes	10	10	0.0
Personal Injury Crashes	119	130	9.2
Property Damage Crashes	175	179	2.3
TOTAL	304	319	4.9
FATAL CRASHES			
Had Been Drinking	10 (40.0%)	10 (34.5%)	0.0
Had Not Been Drinking / Not Known If Drinking	15 (60.0%)	19 (65.5%)	26.7
PERSONS IN CRASHES			
Killed	25	32	28.0
Injured	1,603	1,541	-3.9
Not Injured	11,606	11,514	-0.8
Unknown Injury	762	727	-4.6
TOTAL	13,996	13,814	-1.3
PERSONS IN ALCOHOL-INVOLVED CRASHES			
Killed	10	12	20.0
Injured	157	161	2.5
Not Injured	315	307	-2.5
Unknown Injury	31	52	67.7
TOTAL	513	532	3.7
PERSONS INJURED BY GENDER			
Male	772	764	-1.0
Female	830	773	-6.9
Unknown Gender	1	4	300.0
TOTAL	1,603	1,541	-3.9
PERSONS INJURED BY SEVERITY			
"A" Injury	199	195	-2.0
"B" Injury	366	440	20.2
"C" Injury	1,038	906	-12.7
TOTAL	1,603	1,541	-3.9

The Upper Peninsula experienced a 2.0 percent increase in crashes, a 28.0 percent increase in traffic fatalities, and a 3.9 percent decrease in injuries. Persons sustaining “A” level injuries (the most serious) decreased 2.0 percent.

UPPER PENINSULA 2015-2016 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

	2015	2016	PERCENT OF CHANGE
PERSONS KILLED BY GENDER			
Male	19	25	31.6
Female	6	7	16.7
TOTAL	25	32	28.0
PERSONS KILLED			
Motor Vehicle Driver	20	22	10.0
Passenger	4	7	75.0
Bicyclist	0	1	100.0
Pedestrian	1	2	100.0
Train Engineer	0	0	0.0
TOTAL	25	32	28.0
BELT RESTRAINT USE BY DRIVER			
Reported Restrained - Killed	6	4	-33.3
Reported Not Restrained - Killed	8	5	-37.5
Reported Restrained - Injured	885	885	0.0
Reported Not Restrained - Injured	56	43	-23.2
BELT AND CHILD RESTRAINT USE BY INJURED PASSENGER			
Reported Restrained - Killed	2	4	100.0
Reported Not Restrained - Killed	2	3	50.0
Reported Restrained - Injured	321	304	-5.3
Reported Not Restrained - Injured	50	37	-26.0
DRIVER AGE 16-20 INVOLVED			
Fatal Crashes	6	4	-33.3
Personal Injury Crashes	224	245	9.4
Property Damage Crashes	1,021	1,055	3.3
TOTAL ALL CRASHES	1,251	1,304	4.2
Persons Killed	6	4	-33.3
Persons Injured	348	338	-2.9
DRIVER AGE 65 & OVER INVOLVED			
Fatal Crashes	7	4	-42.9
Personal Injury Crashes	270	235	-13.0
Property Damage Crashes	1,279	1,399	9.4
TOTAL ALL CRASHES	1,556	1,638	5.3
Persons Killed	7	5	-28.6
Persons Injured	382	332	-13.1

Deaths among vehicle occupants (drivers and passengers only) increased 20.8 percent.

UPPER PENINSULA 2015-2016 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

	2015	2016	PERCENT OF CHANGE
CRASH FACTS			
Licensed Drivers	223,640	222,220	-0.6
Registered Vehicles	258,797	258,733	-0.0
Michigan Population	305,731	303,181	-0.8
Drivers Involved in Crashes	11,662	11,707	0.4
Occupants Involved in Crashes	13,918	13,748	-1.2
Estimated Vehicle Miles Traveled (thousands)	3,380,731	3,291,504	-2.6
Death Rate Per 100 Million Vehicle Miles	0.7	1.0	31.5
Fatal Crash Rate Per 100 Million Vehicle Miles	0.7	0.9	19.1

UPPER PENINSULA 2016 COST OF CRASHES IN MICHIGAN

The cost estimate for Upper Peninsula crashes in 2016 was **$1,154,262,200**. This estimate is based on the National Safety Council's [3] cost estimating procedures. Average comprehensive costs are based on the following national figures:

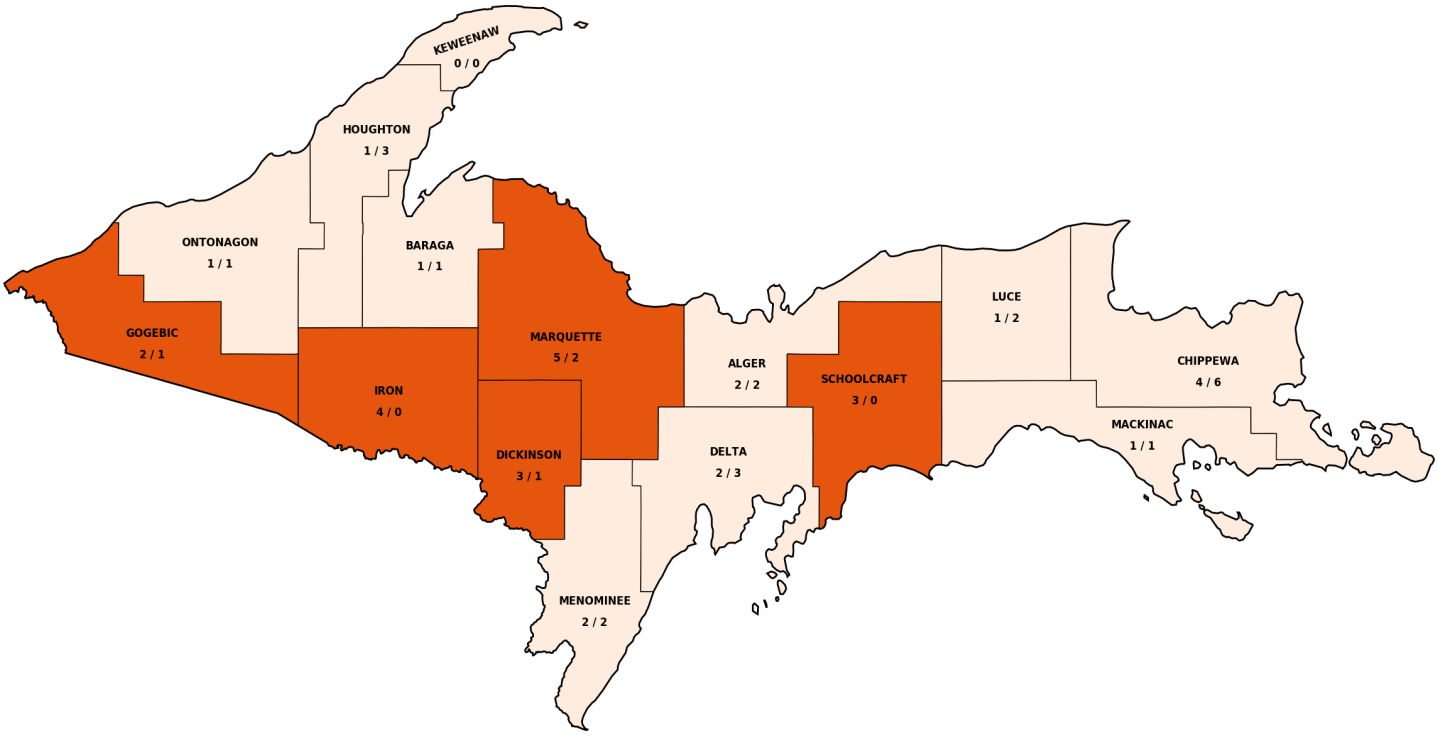
COMPREHENSIVE COSTS, 2016

Death	$10,318,000
Suspected Serious Injury	$1,129,000
Suspected Minor Injury	$311,000
Possible Injury	$144,000
No Injury	$47,600

These cost estimates are not intended for comparisons to previous years. The National Safety Council made revisions to the cost model starting in 2014 that take advantage of data sources not previously available. Deaths and injuries are calculated by number of persons. "No injury" is calculated per crash.

Note: Information on the cost of crashes is provided by the National Safety Council.

UPPER PENINSULA WHERE TRAFFIC FATALITIES OCCURRED



Where Traffic Fatalities Occurred A One-Year Comparison
2016 = 32 / 2015 = 25

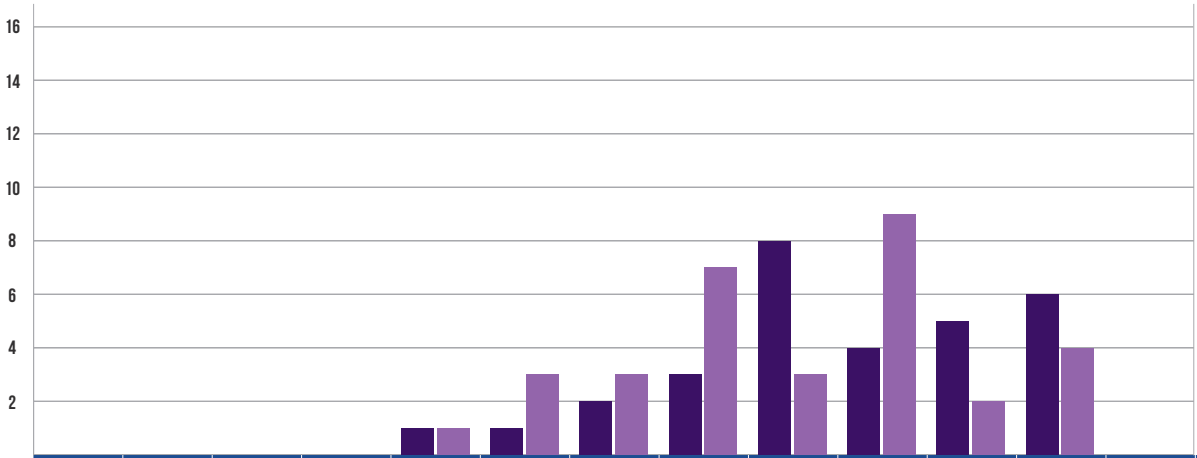
Same or decrease
Increase

5 YEAR TRENDS-UPPER PENINSULA TREND DATA FOR FATALITIES

FATALITIES BY AGE	2012	2013	2014	2015	2016
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	4	0	0
16 - 20 years	1	5	2	4	1
21 - 24 years	1	4	1	0	3
25 - 34 years	2	3	1	5	3
35 - 44 years	3	5	1	1	7
45 - 54 years	8	9	4	5	3*
55 - 64 years	4	2	7	3	9
65 - 74 years	5	7	1	4	2
75 years and over	6	4	2	3	4
Unknown	0	0	0	0	0
TOTAL	30	39	23	25	32

**Indicates the lowest total in the five year period*

FATALITIES BY AGE



	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 YEARS AND OVER	UNKNOWN	TOTAL
2012	0	0	0	0	1	1	2	3	8	4	5	6	0	30
2016	0	0	0	0	1	3	3	7	3	9	2	4	0	32

5 YEAR TRENDS-UPPER PENINSULA TREND DATA FOR FATALITIES (CONTINUED)

FATALITIES BY AGE	2012	2013	2014	2015	2016
AGE OF DRIVERS INVOLVED IN FATAL CRASHES					
13 years and under	0	0	0	0	0
14 years	0	0	0	0	0
15 years	0	0	1	0	0
16 years	0	0	0	0	1
17 years	0	1	0	2	1
18 years	0	1	1	1	1
19 years	1	3	3	2	0*
20 years	0	1	0	1	1
21 - 24 years	0	5	2	5	3
25 - 34 years	5	6	1	6	4
35 - 44 years	5	7	7	4	8
45 - 54 years	12	10	4	5	5
55 - 64 years	3	6	8	5	13
65 - 69 years	3	4	2	3	0*
70 - 74 years	3	4	0	4	1
75 - 79 years	0	0	0	1	0
80 - 84 years	1	1	1	1	4
85 - 89 years	3	1	1	0	0
90 years and over	1	0	0	0	0
Unknown	0	1	0	0	0
Totals	37	51	31	40	42
AGE OF DRIVERS INVOLVED IN SINGLE VEHICLE FATAL CRASHES					
13 years and under	0	0	0	0	0
14 years	0	0	0	0	0
15 years	0	0	0	0	0
16 years	0	0	0	0	0
17 years	0	1	0	1	0
18 years	0	1	0	0	0
19 years	1	1	0	1	0
20 years	0	0	0	1	1
21 - 24 years	0	3	1	1	1
25 - 34 years	3	2	0	3	3
35 - 44 years	3	3	3	0	4
45 - 54 years	7	6	0	2	3
55 - 64 years	1	2	4	3	4
65 - 69 years	3	1	1	1	0*
70 - 74 years	2	1	0	0	0
75 - 79 years	0	0	0	1	0
80 - 84 years	0	0	0	1	1
85 - 89 years	2	0	0	0	0
90 years and over	1	0	0	0	0
Unknown	0	0	0	0	0
Totals	23	21	9	15	17

5 YEAR TRENDS-UPPER PENINSULA TREND DATA FOR FATALITIES (CONTINUED)

FATALITIES BY AGE	2012	2013	2014	2015	2016
AGE OF BICYCLISTS KILLED					
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	0	0	0	0
21 - 24 years	0	0	0	0	0
25 - 34 years	0	0	0	0	0
35 - 44 years	0	0	0	0	1
45 - 54 years	0	0	0	0	0
55 - 64 years	0	0	0	0	0
65 - 74 years	0	0	0	0	0
75 years and over	1	0	0	0	0
Unknown	0	0	0	0	0
Totals	1	0	0	0	1
AGE OF PEDESTRIANS KILLED					
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	0	0	0	0
21 - 24 years	0	0	0	0	0
25 - 34 years	1	0	0	0	0
35 - 44 years	1	0	0	0	1
45 - 54 years	1	2	0	0	0
55 - 64 years	1	0	1	0	0
65 - 74 years	1	0	0	1	1
75 years and over	1	1	0	0	0
Unknown	0	0	0	0	0
Totals	6	3	1	1	2

**Indicates the lowest total in the five year period*

5 YEAR TRENDS-UPPER PENINSULA FATAL CRASHES AND PERSONS KILLED FOR SELECT HOLIDAY PERIODS

HOLIDAY PERIOD	FATAL CRASHES	PERSONS KILLED	SUMMARY 2016
MEMORIAL DAY			
2016 (3) MON	0 [0]	0 [0]	
2015 (3) MON	0 [0]	0 [0]	
2014 (3) MON	0 [0]	0 [0]	
2013 (3) MON	1 [0]	1 [0]	
2012 (3) MON	0 [0]	0 [0]	
FOURTH OF JULY			
2016 (3) MON	0 [0]	0 [0]	
2015 (3) SAT	0 [0]	0 [0]	
2014 (3) FRI	0 [0]	0 [0]	
2013 (4) THU	1 [1]	1 [1]	
2012 (1) WED	2 [1]	2 [1]	
LABOR DAY			
2016 (3) MON	0 [0]	0 [0]	
2015 (3) MON	1 [1]	1 [1]	
2014 (3) MON	0 [0]	0 [0]	
2013 (3) MON	0 [0]	0 [0]	
2012 (3) MON	0 [0]	0 [0]	
THANKSGIVING			
2016 (4) THU	0 [0]	0 [0]	
2015 (4) THU	0 [0]	0 [0]	
2014 (4) THU	0 [0]	0 [0]	
2013 (4) THU	0 [0]	0 [0]	
2012 (4) THU	0 [0]	0 [0]	
CHRISTMAS			
2016 (3) SUN	0 [0]	0 [0]	
2015 (3) FRI	0 [0]	0 [0]	
2014 (4) THU	1 [0]	1 [0]	
2013 (1) WED	0 [0]	0 [0]	
2012 (4) TUE	1 [1]	1 [1]	
NEW YEARS			
2016 (3) SUN	0 [0]	0 [0]	
2015 (3) FRI	0 [0]	0 [0]	
2014 (4) THU	1 [0]	1 [0]	
2013 (1) WED	0 [0]	0 [0]	
2012 (4) TUE	1 [1]	1 [1]	

This table shows traffic death tolls in the Upper Peninsula for the past five years for the major holiday periods as defined by the National Safety Council.

Based on the total 2016 Upper Peninsula experience, deaths averaged 2.67 per month. Alcohol-related deaths averaged 1.00 per month.

Based on the 2016 Upper Peninsula holiday period experience, deaths averaged 0.00 per month. Alcohol-related deaths averaged 0.00 per month.

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

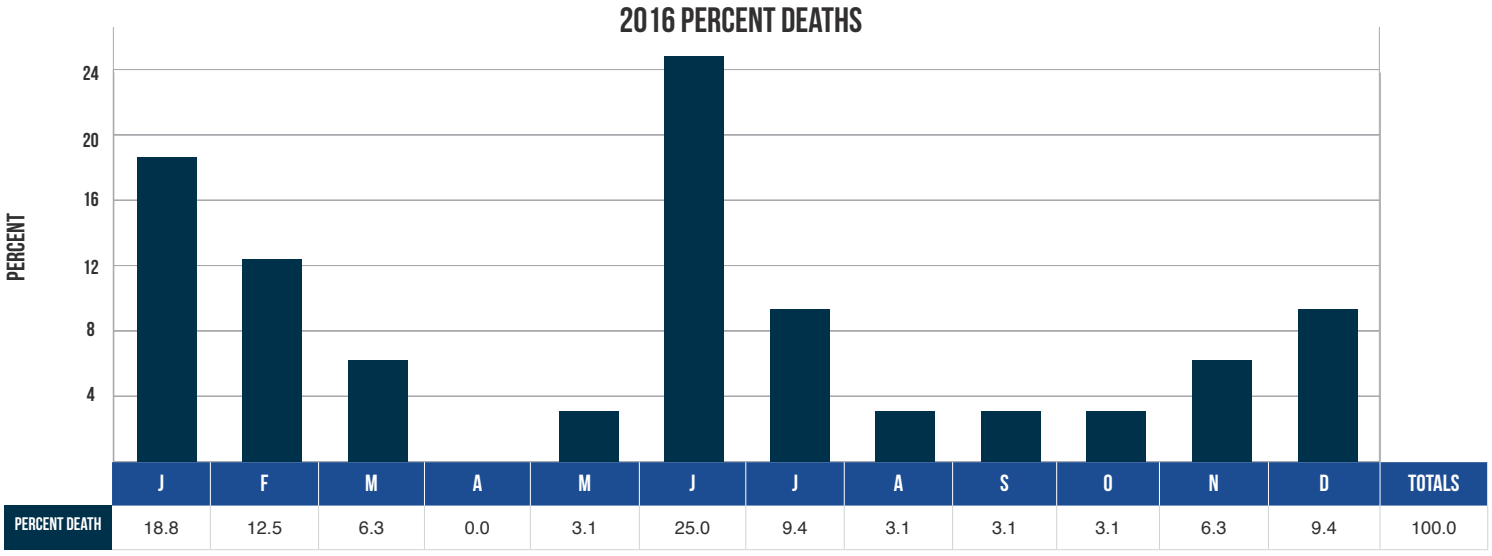
Fatal crashes and deaths are for these days plus six hours of the preceding day.

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.

5 YEAR TRENDS- UPPER PENINSULA MOTOR VEHICLE CRASH DEATHS BY MONTH

MONTH	TRAFFIC DEATHS					2016 PERCENTAGES
	2012	2013	2014	2015	2016	Percent Deaths
January	3	5	2	2	6	18.8
February	2	0	2	0	4	12.5
March	1	4	0	0	2	6.3
April	0	3	0	2	0	0.0
May	1	4	1	1	1	3.1
June	4	2	4	1	8	25.0
July	5	3	1	6	3	9.4
August	2	5	3	4	1	3.1
September	1	4	0	1	1	3.1
October	2	2	3	4	1	3.1
November	4	3	5	2	2	6.3
December	5	4	2	2	3	9.4
TOTAL	30	39	23	25	32	100.0



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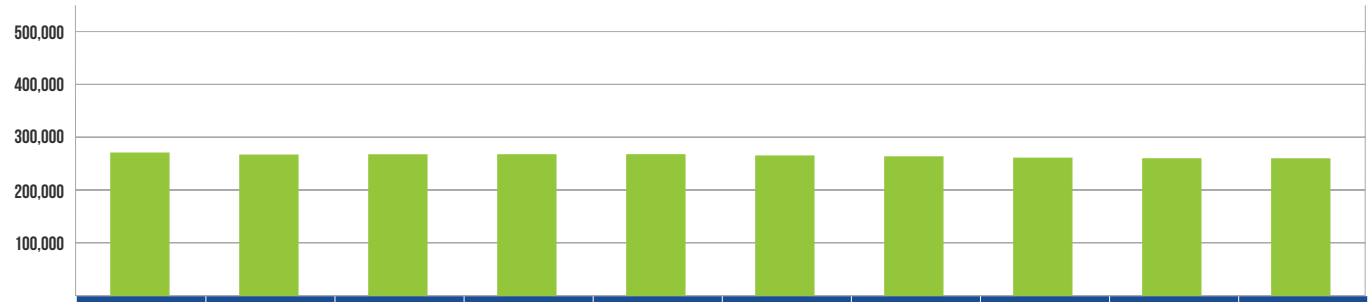
10 YEAR TRENDS-UPPER PENINSULA

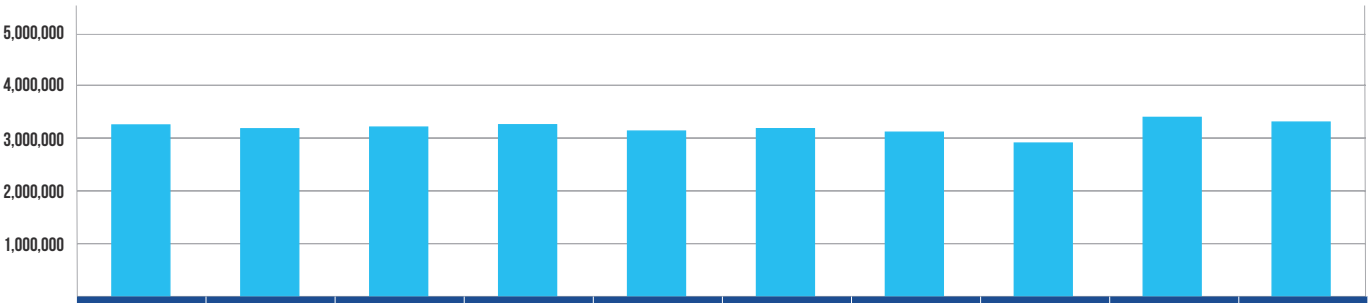
UPPER PENINSULA VEHICLE REGISTRATIONS



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
269,682	265,868	266,334	266,413	266,501	264,199	262,485	260,036	258,797	258,733

Vehicle registrations in the Upper Peninsula decreased 4.1 percent over the 10-year period.

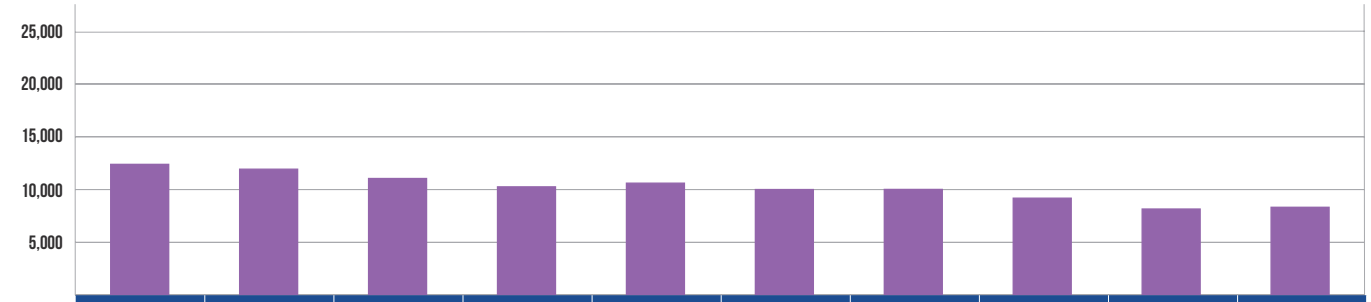
UPPER PENINSULA VEHICLE MILES TRAVELED (THOUSANDS)



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
3,236,942	3,164,898	3,196,456	3,241,287	3,121,069	3,166,430	3,100,105	2,894,265	3,380,731	3,291,504

Vehicle miles traveled in the Upper Peninsula increased 1.7 percent over the 10-year period.

UPPER PENINSULA CRASHES

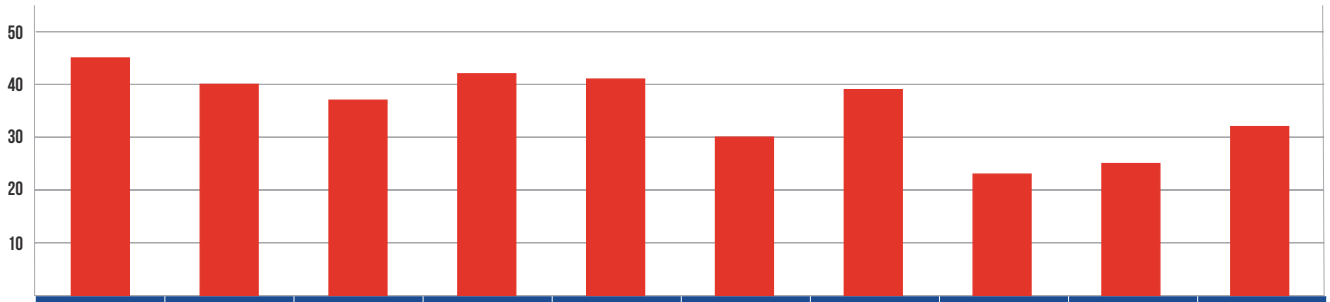


2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
12,329	11,871	10,990	10,199	10,548	9,945	9,956	9,126	8,099	8,264

There were 8,264 Upper Peninsula crashes in 2016 – a 33.0 percent decrease from 2007.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

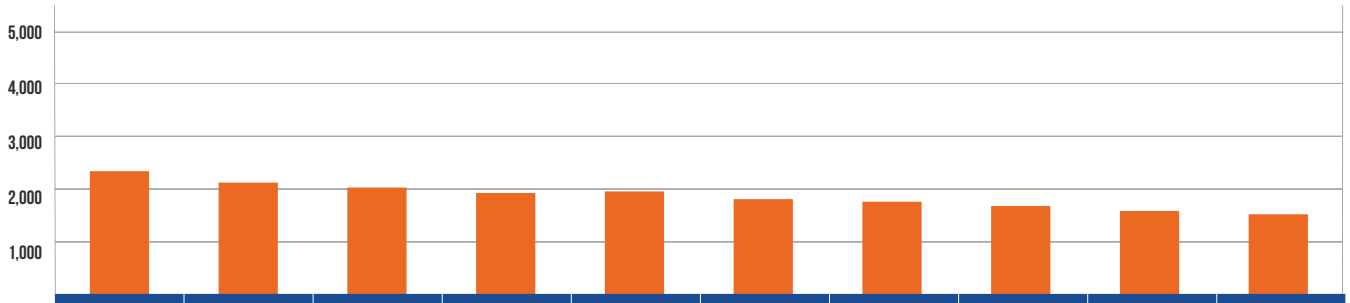
UPPER PENINSULA DEATHS



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
45	40	37	42	41	30	39	23	25	32

In 2016, 32 people died in motor vehicle crashes in the Upper Peninsula – a decrease of 28.9 percent from 2007.

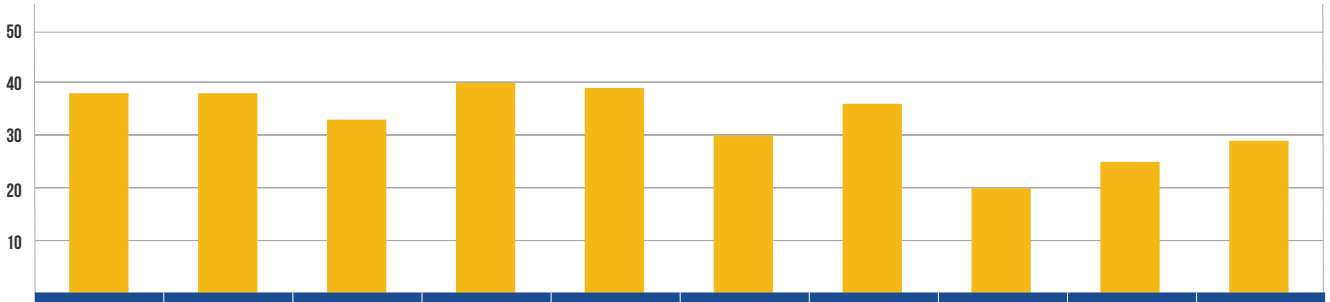
UPPER PENINSULA INJURIES



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
2,356	2,141	2,047	1,944	1,974	1,827	1,778	1,696	1,603	1,541

In 2016, 1,541 people received injuries in motor vehicle crashes in the Upper Peninsula – down 34.6 percent from 2,356 in 2007.

UPPER PENINSULA FATAL CRASHES

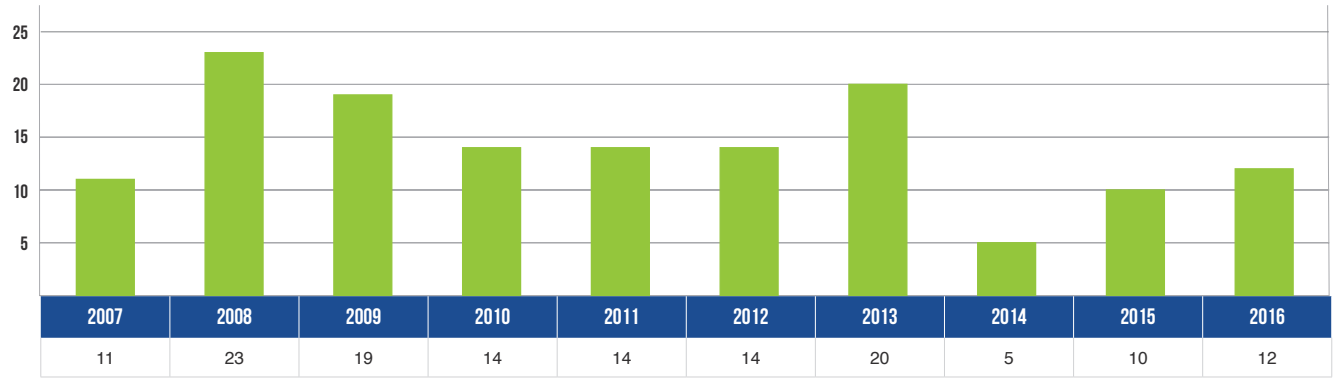


2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
38	38	33	40	39	30	36	20	25	29

In 2016, there were 29 fatal crashes in the Upper Peninsula – down 23.7 percent from 38 in 2007.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

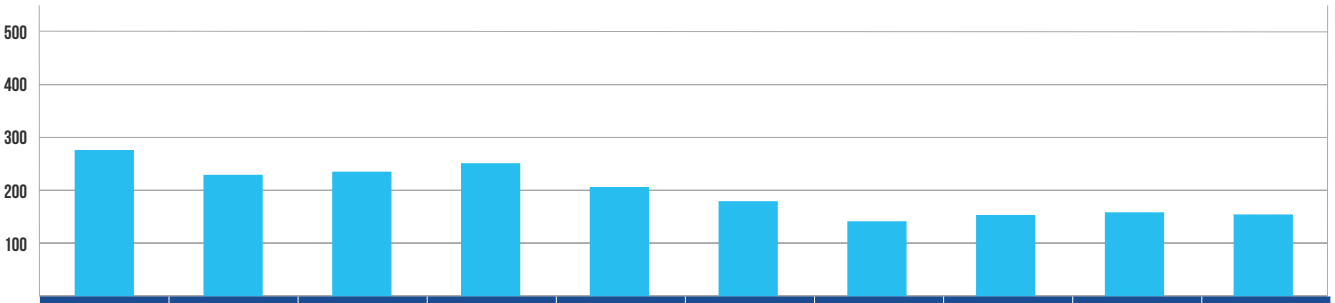
UPPER PENINSULA ALCOHOL-INVOLVED DEATHS



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
11	23	19	14	14	14	20	5	10	12

There were 12 deaths in alcohol-involved crashes in the Upper Peninsula in 2016 – up 9.1 percent from 2007.

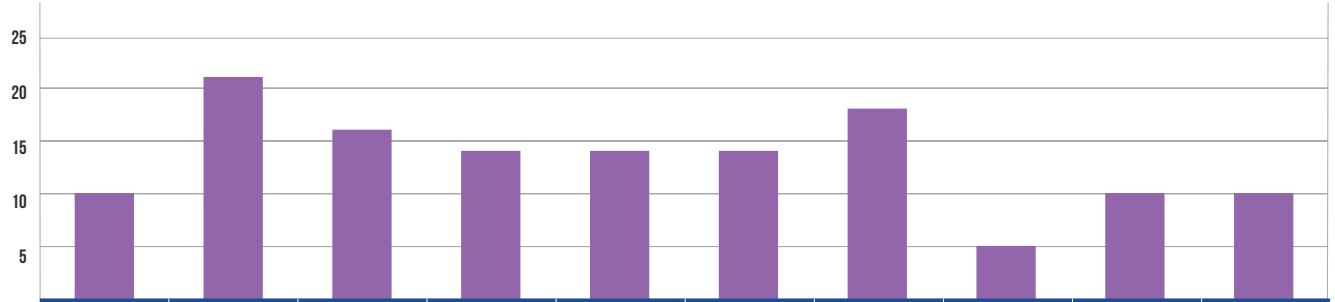
UPPER PENINSULA ALCOHOL-INVOLVED INJURIES



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
275	228	234	250	205	178	140	152	157	161

There were 161 alcohol-involved injuries in the Upper Peninsula in 2016 – down 41.5 percent from 2007.

UPPER PENINSULA ALCOHOL-INVOLVED FATAL CRASHES

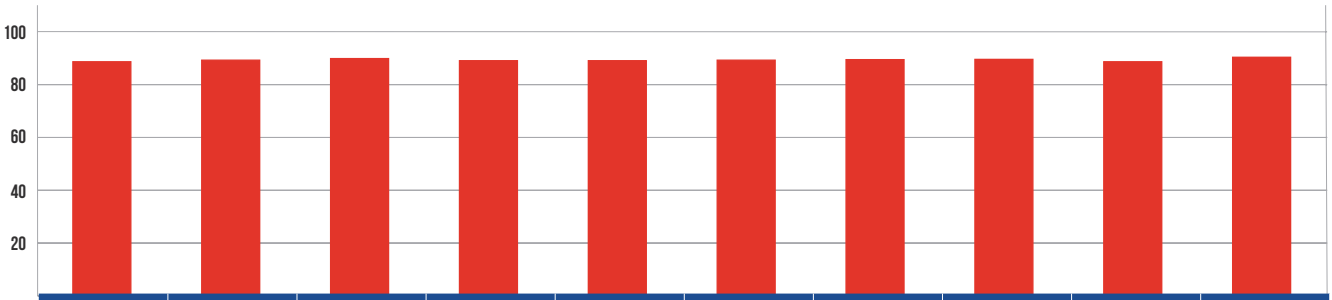


2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
10	21	16	14	14	14	18	5	10	10

There were ten alcohol-involved fatal crashes in the Upper Peninsula in 2016, the same number as in 2007.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

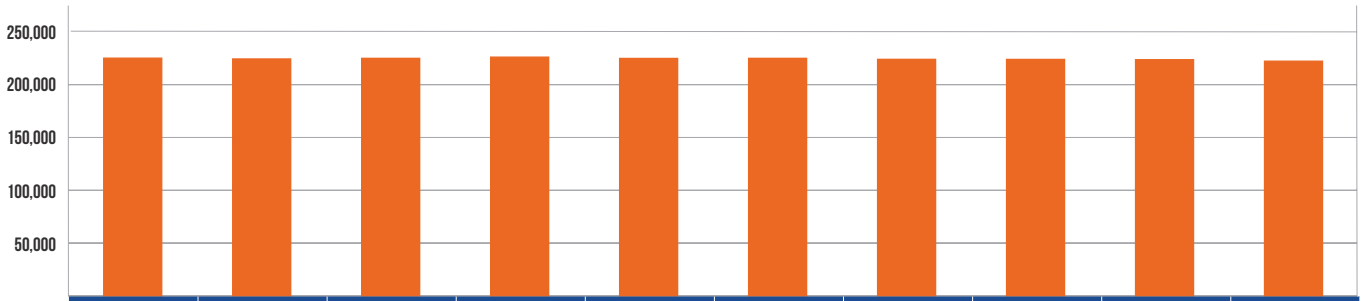
UPPER PENINSULA RESTRAINT USAGE IN CRASHES



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
88.2	88.8	89.4	88.6	88.6	88.8	89.0	89.1	88.2	89.9

The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes increased 1.9 percent over the last ten years in the Upper Peninsula.

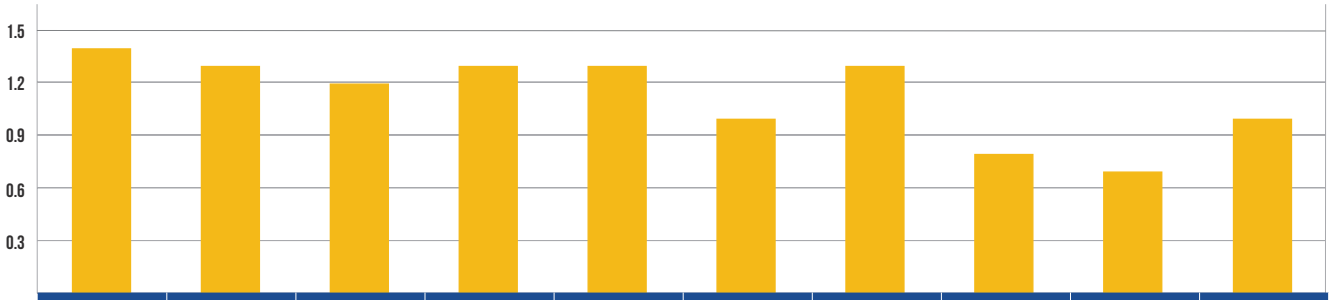
UPPER PENINSULA DRIVERS



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
225,084	224,348	224,930	226,064	224,845	224,933	223,975	223,910	223,640	222,220

There were 222,220 licensed drivers on Upper Peninsula roadways in 2016 – a decrease of 1.3 percent from 2007.

UPPER PENINSULA FATALITIES PER 100 MILLION VMT

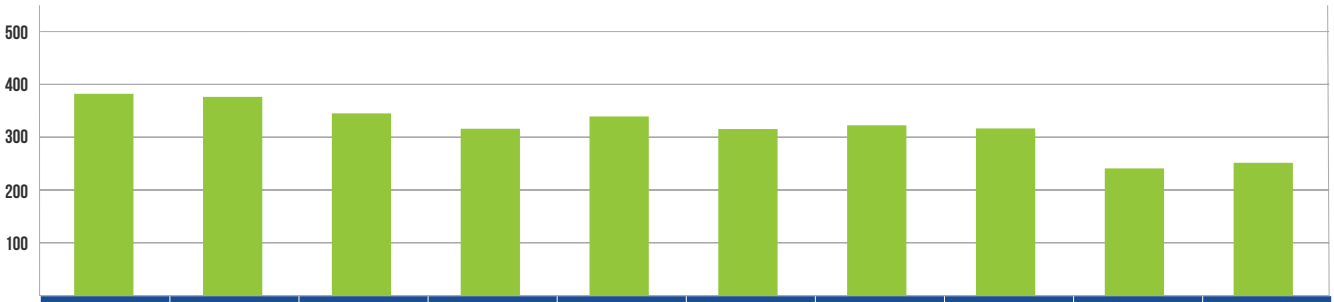


2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
1.4	1.3	1.2	1.3	1.3	1.0	1.3	0.8	0.7	1.0

The death rate of 1.0 fatality per 100 million VMT for the Upper Peninsula in 2016 was a 30.1 percent decrease from the death rate of 1.4 in 2007.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

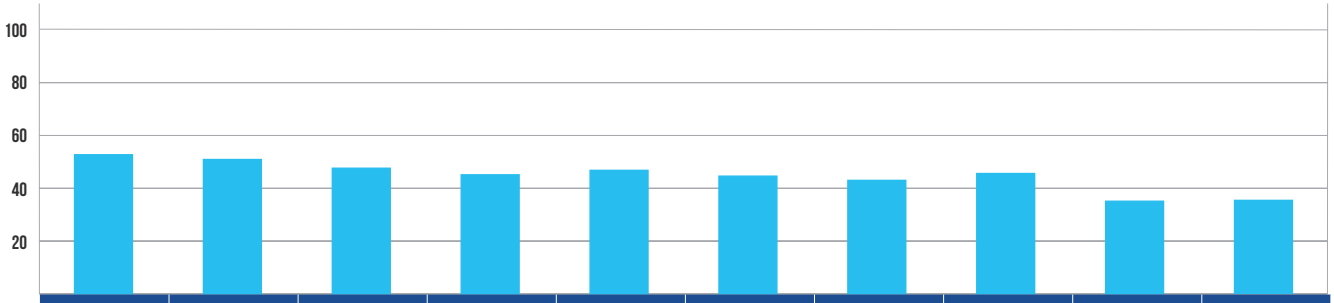
UPPER PENINSULA TOTAL CRASHES PER 100 MILLION VMT



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
380.9	375.1	343.8	314.7	338.0	314.1	321.2	315.3	239.6	251.1

The total crash rate of 251.1 crashes per 100 million VMT in the Upper Peninsula in 2016 was a 34.1 percent decrease from the rate of 380.9 in 2007.

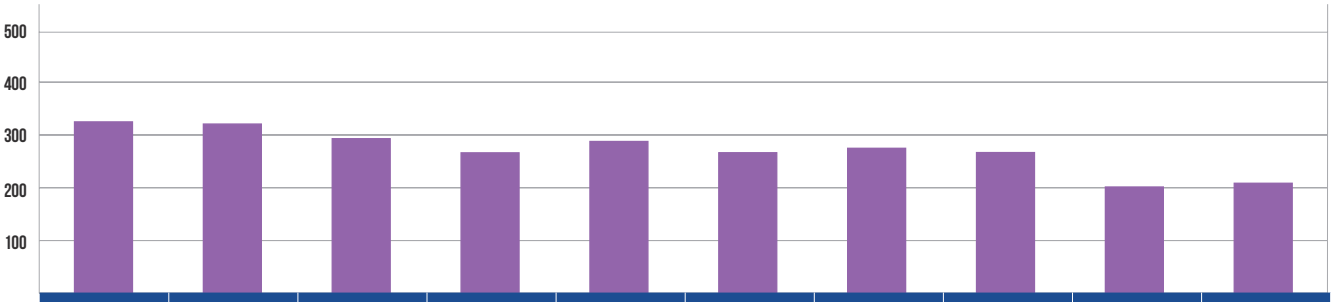
UPPER PENINSULA INJURY CRASHES PER 100 MILLION VMT



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
52.7	50.9	47.6	45.1	46.8	44.6	43.0	45.6	35.1	35.3

The injury crash rate of 35.3 crashes per 100 million VMT in the Upper Peninsula in 2016 was a 33.0 percent decrease from the rate of 52.7 in 2007.

UPPER PENINSULA PROPERTY DAMAGE CRASHES PER 100 MILLION VMT

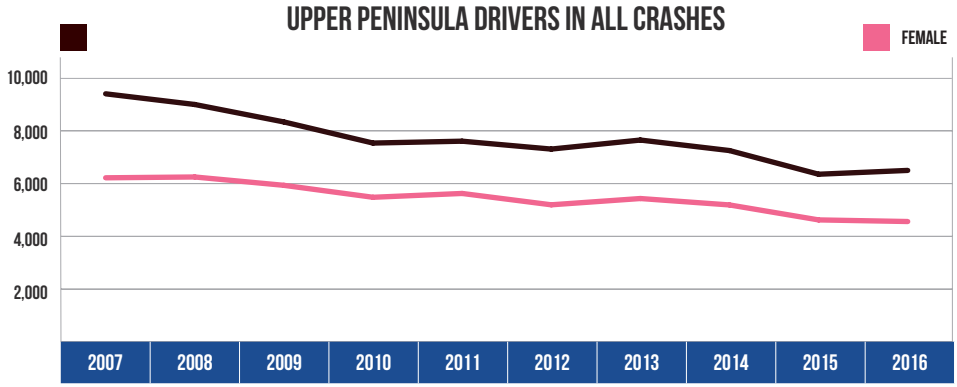


2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
327.0	322.9	295.2	268.4	289.9	268.6	277.0	268.9	203.7	214.9

The property damage crash rate of 214.9 crashes per 100 million VMT in the Upper Peninsula in 2016 was a 34.3 percent decrease from the rate of 327.0 in 2007.

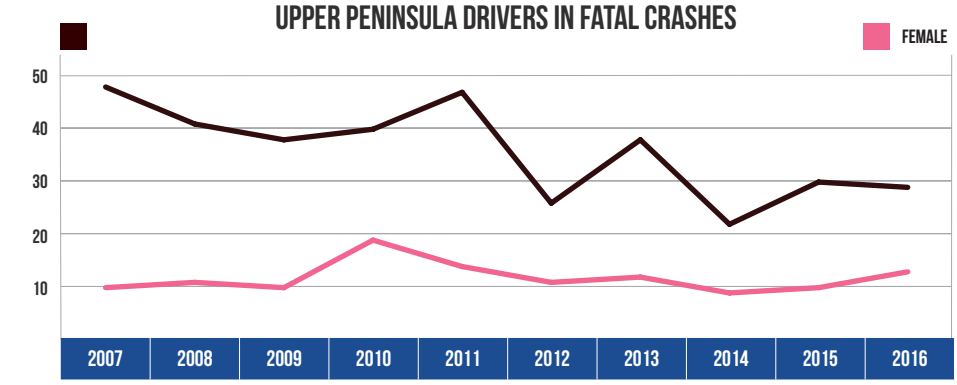
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA DRIVERS IN ALL CRASHES		
Year	Male	Female
2007	9,384	6,203
2008	8,980	6,234
2009	8,319	5,918
2010	7,519	5,465
2011	7,590	5,610
2012	7,291	5,180
2013	7,633	5,418
2014	7,235	5,175
2015	6,338	4,608
2016	6,483	4,547



Male drivers accounted for 58.8 percent of all drivers in crashes in the Upper Peninsula during 2016, which was down from 60.2 percent in 2007. Female drivers accounted for 41.2 percent of all drivers in crashes during 2016, which was up from 39.8 percent in 2007.

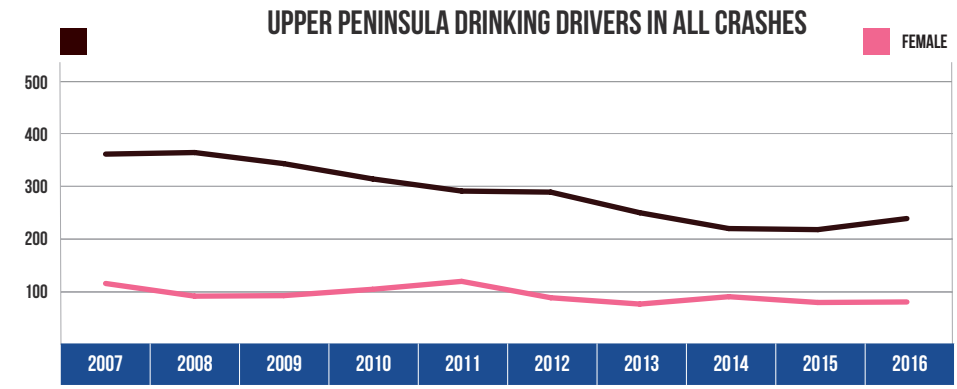
UPPER PENINSULA DRIVERS IN FATAL CRASHES		
Year	Male	Female
2007	48	10
2008	41	11
2009	38	10
2010	40	19
2011	47	14
2012	26	11
2013	38	12
2014	22	9
2015	30	10
2016	29	13



Male drivers made up 69.0 percent of all drivers in fatal crashes in the Upper Peninsula in 2016, which was down from 82.8 percent in 2007. Female drivers made up 31.0 percent of all drivers in fatal crashes in 2016, which was up from 17.2 percent in 2007.

UPPER PENINSULA DRINKING DRIVERS IN ALL CRASHES		
Year	Male	Female
2007	361	116
2008	364	92
2009	343	93
2010	314	105
2011	291	120
2012	289	89
2013	250	77
2014	220	91
2015	218	80
2016	234	80

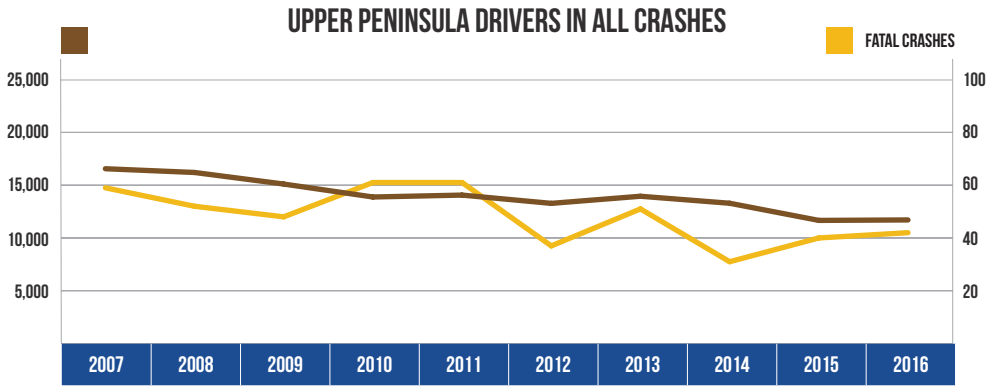
Note: 677 drivers in all crashes were coded as unknown gender in the Upper Peninsula in 2016 and are not included in the tables.



In 2016, males represented 74.5 percent of all drinking drivers in the Upper Peninsula, which was down from 75.7 percent in 2007. Females represented 25.5 percent of all drinking drivers, which was up from 24.3 percent in 2007.

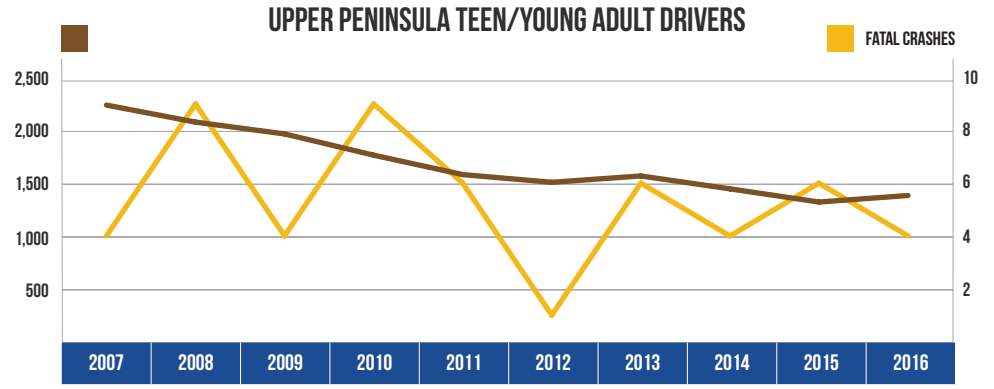
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA ALL CRASHES		
Year	All Crashes	Fatal Crashes
2007	16,555	59
2008	16,201	52
2009	15,105	48
2010	13,879	61
2011	14,059	61
2012	13,276	37
2013	13,950	51
2014	13,287	31
2015	11,662	40
2016	11,707	42



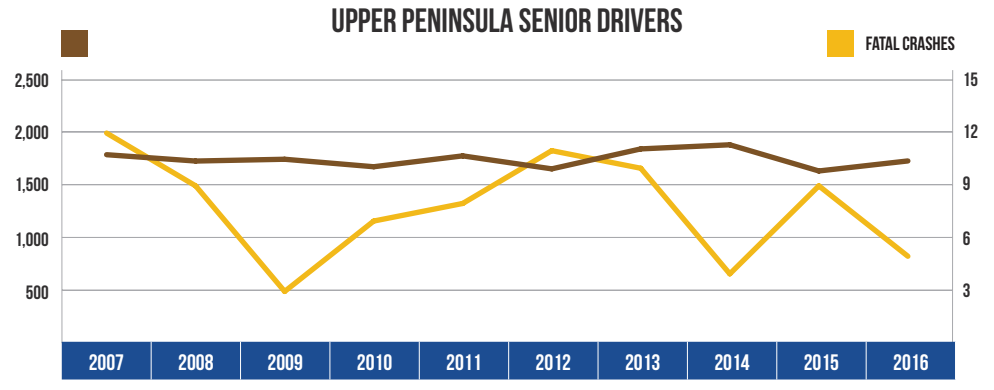
The number of drivers involved in all crashes in the Upper Peninsula decreased 29.3 percent over the 10-year period. The number of drivers involved in fatal crashes in the Upper Peninsula decreased 28.8 percent over the 10-year period.

UPPER PENINSULA TEEN/YOUNG ADULT DRIVERS (AGE 16-20)		
Year	All Crashes	Fatal Crashes
2007	2,239	4
2008	2,078	9
2009	1,966	4
2010	1,765	9
2011	1,581	6
2012	1,508	1
2013	1,568	6
2014	1,446	4
2015	1,321	6
2016	1,383	4



Teen/young adult drivers (age 16-20) in all crashes in the Upper Peninsula has decreased by 38.2 percent since 2007. The number of teen/young adult drivers in fatal crashes in the Upper Peninsula has stayed the same since 2007.

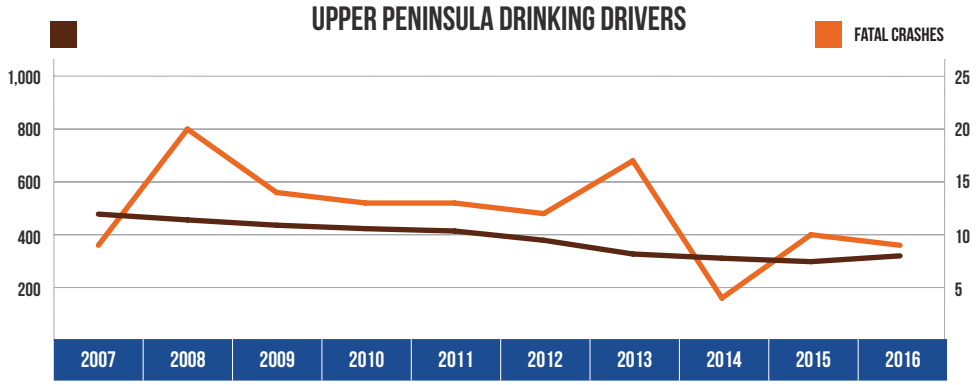
UPPER PENINSULA SENIOR DRIVERS (AGE 65 & OVER)		
Year	All Crashes	Fatal Crashes
2007	1,795	12
2008	1,735	9
2009	1,752	3
2010	1,681	7
2011	1,784	8
2012	1,661	11
2013	1,850	10
2014	1,889	4
2015	1,641	9
2016	1,736	5



The number of drivers age 65 and over in all crashes in the Upper Peninsula has decreased 3.3 percent since 2007. Their involvement in fatal crashes decreased 58.3 percent from 2007.

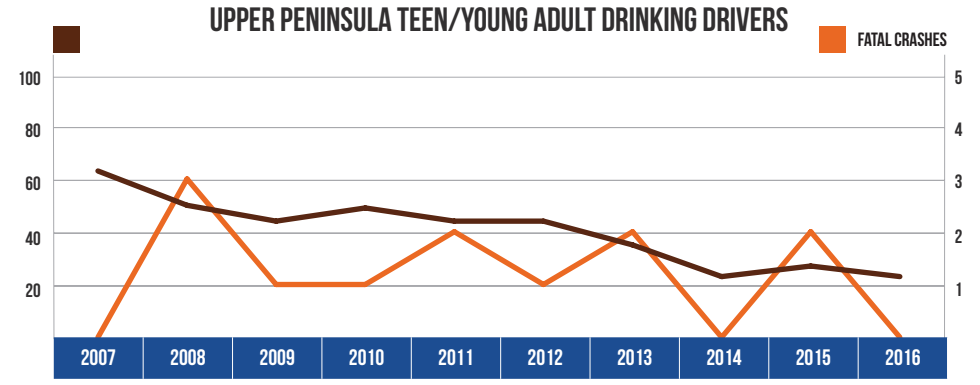
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA DRINKING DRIVERS		
Year	All Crashes	Fatal Crashes
2007	478	9
2008	456	20
2009	436	14
2010	423	13
2011	414	13
2012	379	12
2013	327	17
2014	311	4
2015	298	10
2016	314	9



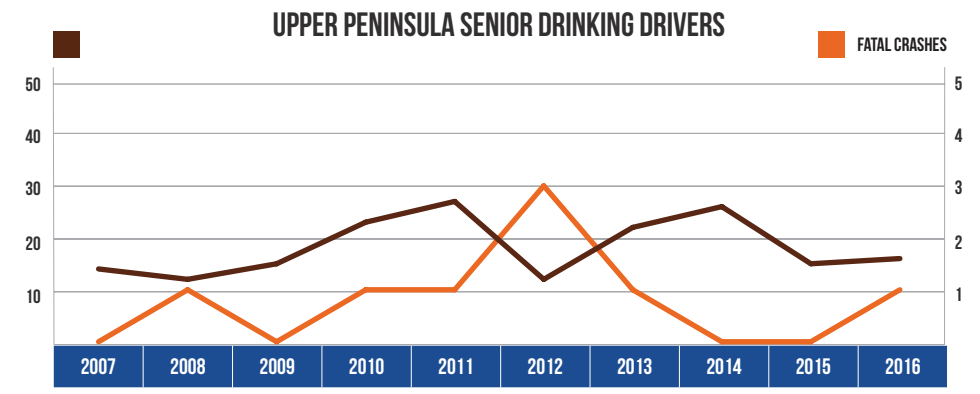
Drinking driver involvement in all crashes in the Upper Peninsula decreased by 34.3 percent since 2007. Drinking driver involvement in fatal crashes was the same in 2007 and 2016.

UPPER PENINSULA TEEN/YOUNG ADULT DRINKING DRIVERS (AGE 16-20)		
Year	All Crashes	Fatal Crashes
2007	63	0
2008	50	3
2009	44	1
2010	49	1
2011	44	2
2012	44	1
2013	35	2
2014	23	0
2015	27	2
2016	24	0



The number of teen/young adult drinking drivers (age 16-20) in all crashes in the Upper Peninsula decreased by 61.9 percent. There were no teen/young adult drinking drivers involved in a fatal crash in 2016.

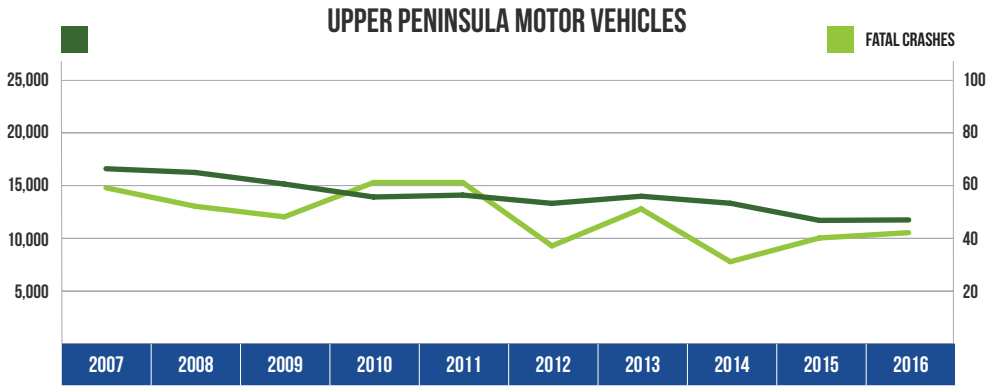
UPPER PENINSULA SENIOR DRINKING DRIVERS (AGE 65 & OVER)		
Year	All Crashes	Fatal Crashes
2007	14	0
2008	12	1
2009	15	0
2010	23	1
2011	27	1
2012	12	3
2013	22	1
2014	26	0
2015	15	0
2016	16	1



The number of senior drinking drivers (age 65 and over) in all crashes in the Upper Peninsula has increased 14.3 percent over the 10-year period. There was one senior drinking driver involved in a fatal crash in 2016.

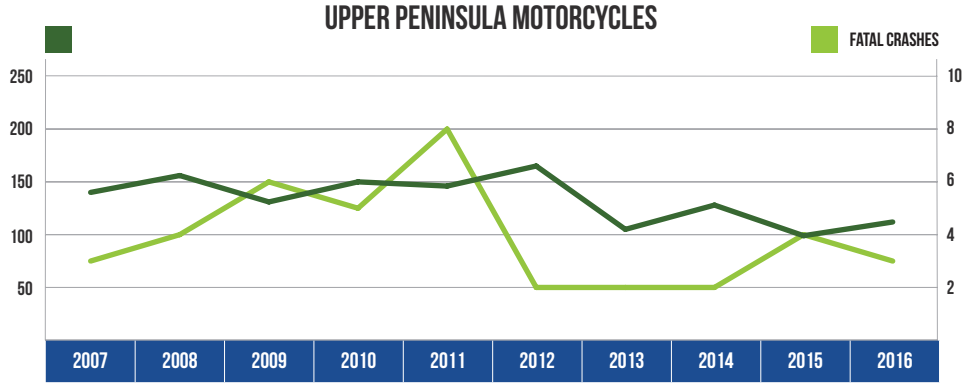
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA MOTOR VEHICLES		
Year	All Crashes	Fatal Crashes
2007	16,555	59
2008	16,201	52
2009	15,105	48
2010	13,879	61
2011	14,059	61
2012	13,276	37
2013	13,950	51
2014	13,287	31
2015	11,662	40
2016	11,707	42



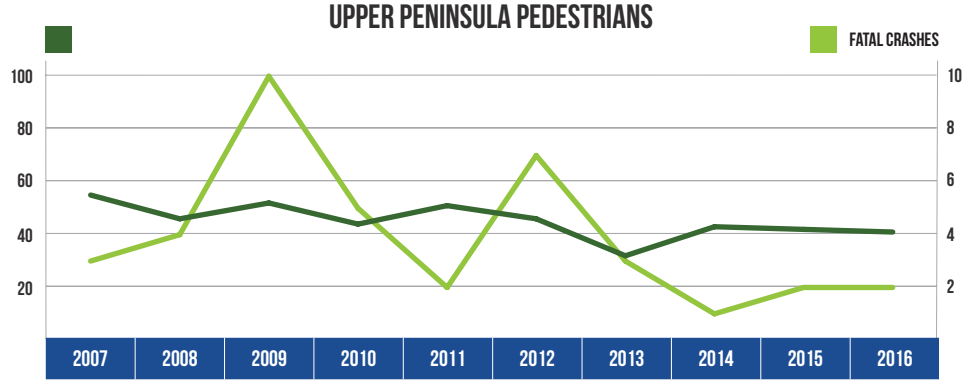
There were 11,707 motor vehicles involved in all Upper Peninsula crashes in 2016, down 29.3 percent from 2007. There were 42 motor vehicles involved in fatal crashes in 2016, down 28.8 percent from 2007.

UPPER PENINSULA MOTORCYCLES		
Year	All Crashes	Fatal Crashes
2007	140	3
2008	156	4
2009	131	6
2010	150	5
2011	146	8
2012	165	2
2013	105	2
2014	128	2
2015	99	4
2016	112	3



There were 112 motorcycles involved in crashes in the Upper Peninsula in 2016, a 20.0 percent decrease from 2007. There were three motorcycles involved in fatal crashes in 2016, the same as in 2007.

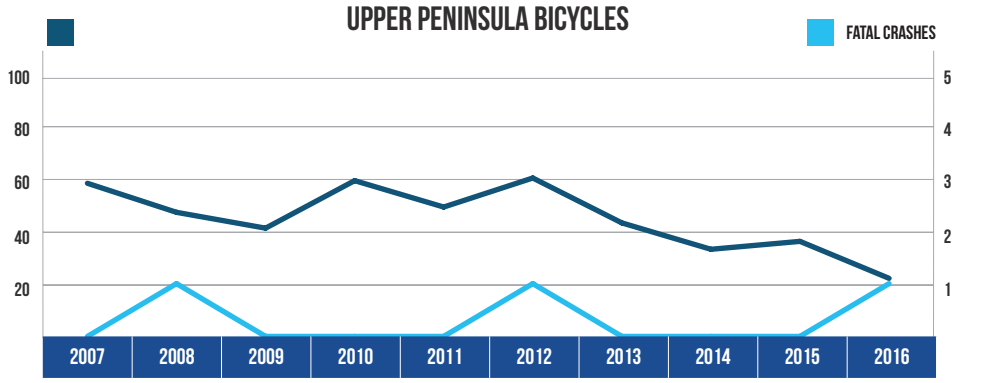
UPPER PENINSULA PEDESTRIANS		
Year	All Crashes	Fatal Crashes
2007	55	3
2008	46	4
2009	52	10
2010	44	5
2011	51	2
2012	46	7
2013	32	3
2014	43	1
2015	42	2
2016	41	2



There were 41 pedestrians involved in crashes in the Upper Peninsula in 2016, down 25.5 percent from 2007. There were two pedestrians involved in fatal crashes in 2016, down 33.3 percent from 2007.

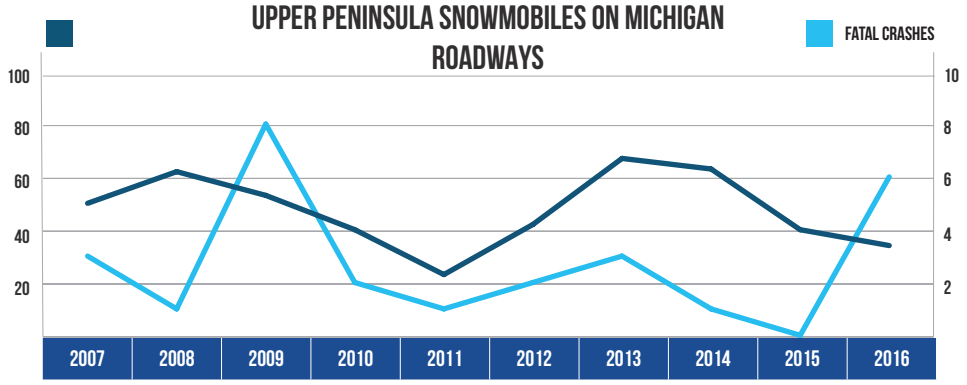
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA BICYCLES		
Year	All Crashes	Fatal Crashes
2007	58	0
2008	47	1
2009	41	0
2010	59	0
2011	49	0
2012	60	1
2013	43	0
2014	33	0
2015	36	0
2016	22	1



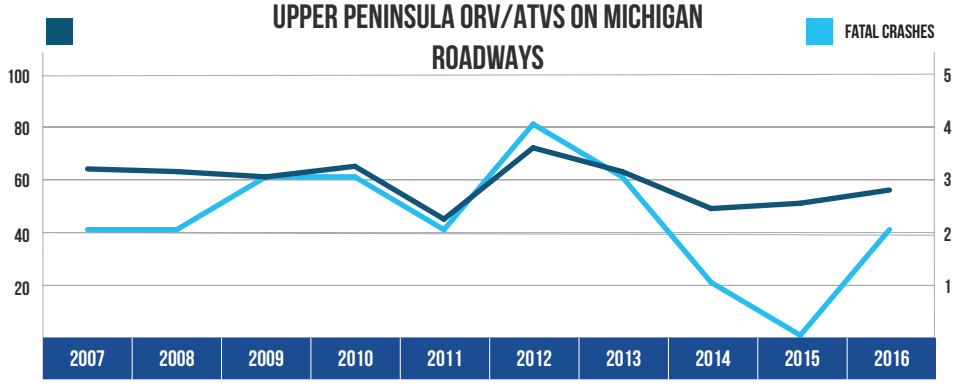
There were 22 bicycles involved in Upper Peninsula crashes in 2016, down 62.1 percent from 2007. There was one bicycle involved in a fatal crash in 2016.

UPPER PENINSULA SNOWMOBILES ON MICHIGAN ROADWAYS		
Year	All Crashes	Fatal Crashes
2007	50	3
2008	62	1
2009	53	8
2010	40	2
2011	23	1
2012	42	2
2013	67	3
2014	63	1
2015	40	0
2016	34	6



There were 34 snowmobiles in crashes on roadways in the Upper Peninsula in 2016, down 32.0 percent from 2007. There were six snowmobiles in fatal crashes in 2016, a 100.0 percent increase from 2007.

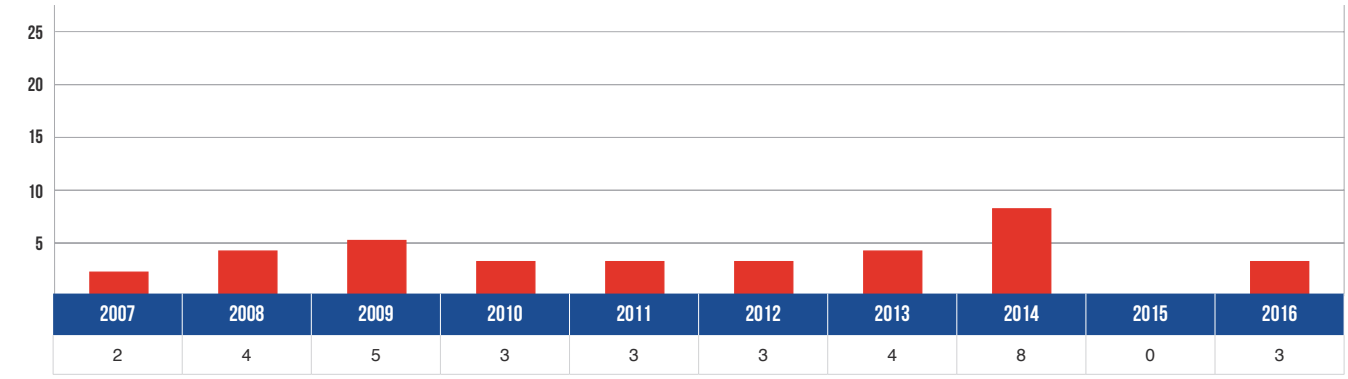
UPPER PENINSULA ORV/ATVS ON MICHIGAN ROADWAYS		
Year	All Crashes	Fatal Crashes
2007	63	2
2008	62	2
2009	60	3
2010	64	3
2011	44	2
2012	71	4
2013	62	3
2014	48	1
2015	50	0
2016	55	2



There were 55 ORV/ATVs in crashes on roadways in the Upper Peninsula in 2016, down 12.7 percent from 2007. There were two ORV/ATVs in fatal crashes in 2016, the same as in 2007.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

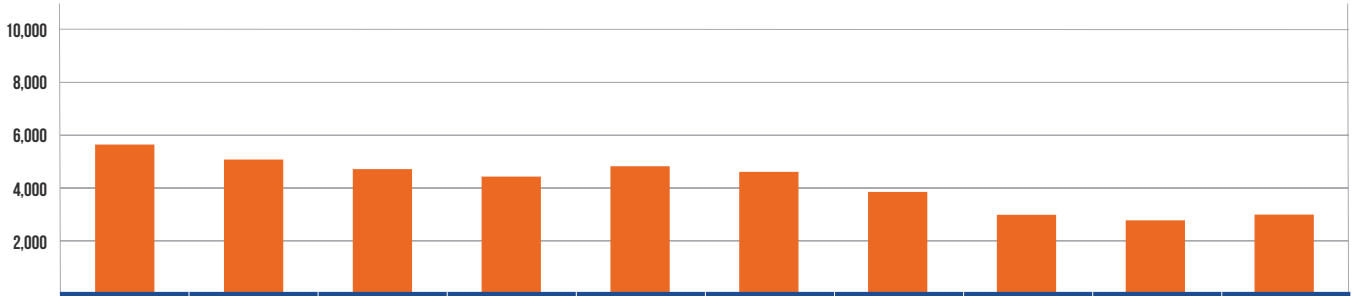
UPPER PENINSULA VEHICLE-TRAIN CRASHES



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
2	4	5	3	3	3	4	8	0	3

There were three vehicle-train crashes in the Upper Peninsula in 2016, compared to two vehicle-train crashes in 2007.

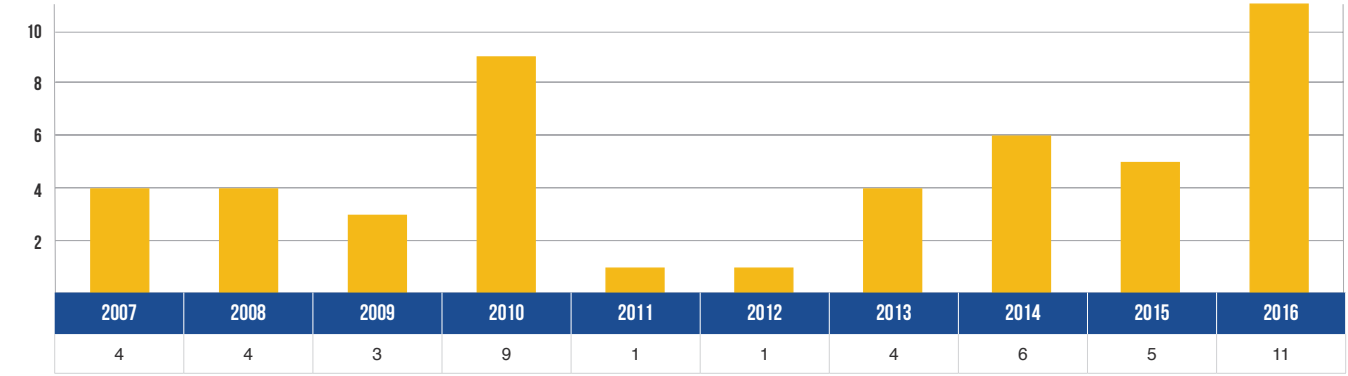
UPPER PENINSULA VEHICLE-DEER CRASHES



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
5,622	5,054	4,690	4,408	4,799	4,588	3,828	2,961	2,751	2,969

The number of vehicle-deer crashes in the Upper Peninsula decreased 47.2 percent in the 10-year period to 2,969 in 2016.

UPPER PENINSULA FARM EQUIPMENT CRASHES

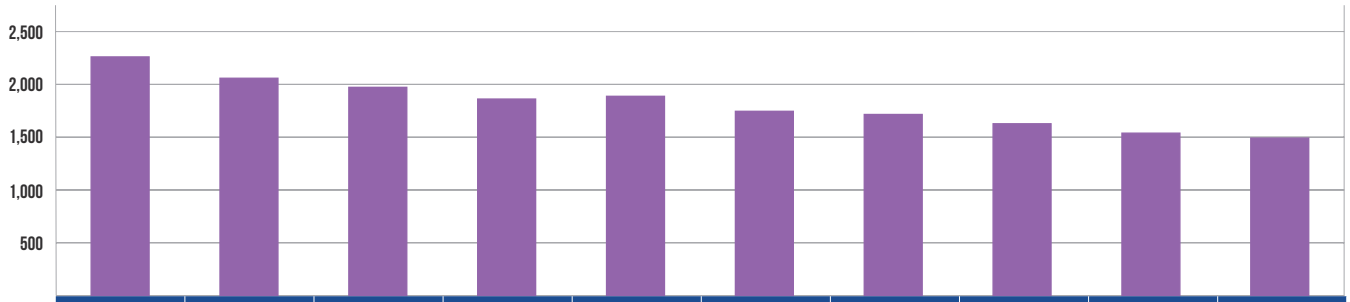


2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
4	4	3	9	1	1	4	6	5	11

There were eleven farm equipment crashes in the Upper Peninsula in 2016, the highest number over the ten-year period.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

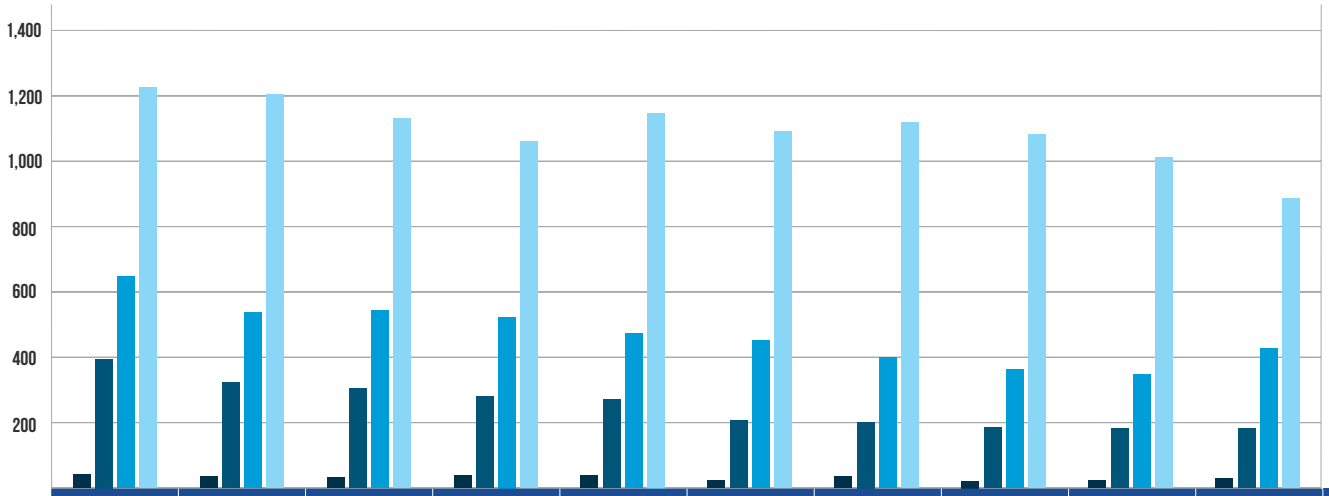
UPPER PENINSULA INJURED OCCUPANTS IN CRASHES



2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
2,260	2,058	1,972	1,861	1,887	1,745	1,715	1,627	1,538	1,491

There were 1,491 occupants injured in the Upper Peninsula in 2016 – a decrease of 34.0 percent from 2007.

UPPER PENINSULA DEATH AND INJURY FOR CRASH-INVOLVED OCCUPANTS



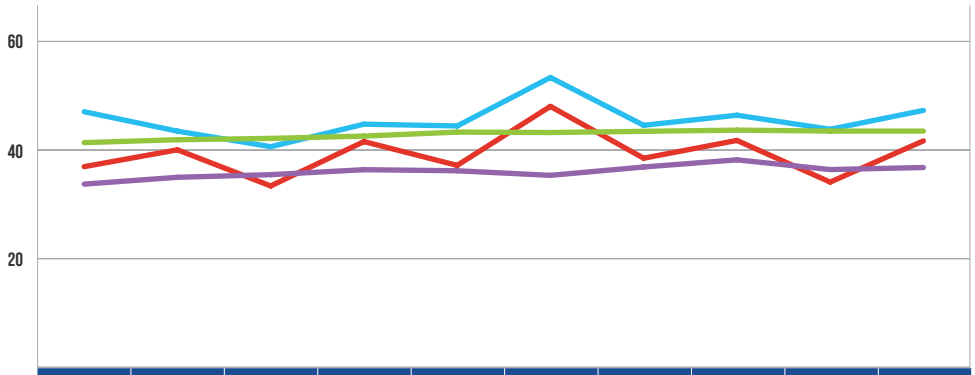
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	TOTALS
KILLED	42	35	32	38	39	23	36	22	24	29	320
A INJURY	394	322	304	281	271	206	202	186	183	181	2,530
B INJURY	645	535	541	522	472	451	399	362	348	426	4,701
C INJURY	1,221	1,201	1,127	1,058	1,144	1,088	1,114	1,079	1,007	884	10,923

Over the period from 2007 to 2016 in the Upper Peninsula, occupant deaths decreased 31.0 percent, A injuries decreased 54.1 percent, B injuries decreased 34.0 percent, and C injuries decreased 27.6 percent.

Note: These figures contain the number of occupants recorded as injured by the police officer on the UD-10.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

AVERAGE AGE OF DRIVERS IN CRASHES 2007 - 2016



	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
DRIVERS IN ALL CRASHES	41.48	41.96	42.18	42.56	43.22	43.15	43.35	43.55	43.39	43.39
DRIVERS IN FATAL CRASHES	47.05	43.54	40.73	44.80	44.48	53.24	44.60	46.42	43.88	47.29
DRINKING DRIVERS	33.84	35.03	35.49	36.36	36.17	35.37	36.83	38.08	36.38	36.85
DRINKING DRIVERS IN FATAL CRASHES	37.00	40.05	33.50	41.54	37.23	47.92	38.53	41.75	34.20	41.67

Over the 10-year period in the Upper Peninsula, reflecting the demographic trend of increasing age in the general population, the average age of drivers involved in all crashes has increased 4.6%. A greater increase in average driver age is seen in among drinking drivers, with an 8.9% increase in average driver age for drinking drivers in all crashes and a 12.6% increase in average driver age for drinking drivers in fatal crashes.

UPPER PENINSULA MOTOR VEHICLE TRAFFIC DEATHS IN MICHIGAN BY MONTH

YEAR	January	February	March	April	May	June	July	August	September	October	November	December	TOTAL
1982	3	2	1	1	2	8	12	5	7	6	9	2	58
1983	2	1	5	5	3	7	5	6	6	5	5	11	61
1984	3	1	1	0	4	6	10	7	4	9	3	7	55
1985	0	1	2	7	3	3	9	2	7	4	7	8	53
1986	2	1	1	6	9	4	9	5	7	3	10	4	61
1987	1	3	7	5	5	2	9	4	5	6	9	8	64
1988	5	4	3	7	4	7	5	8	5	4	8	7	67
1989	4	1	2	7	3	2	5	5	8	8	4	13	62
1990	0	0	2	7	3	7	5	10	1	7	9	7	58
1991	7	1	6	8	4	7	3	5	6	3	2	2	54
1992	6	5	6	5	2	4	4	1	2	3	8	8	54
1993	6	6	3	8	5	6	16	1	12	9	9	3	84
1994	6	3	3	5	1	7	6	6	4	10	3	10	64
1995	8	3	3	8	2	6	7	7	5	6	8	2	65
1996	4	6	3	0	3	7	10	5	2	5	3	8	56
1997	4	7	4	0	3	6	9	2	4	4	2	9	54
1998	5	5	1	9	4	5	9	4	7	3	1	9	62
1999	1	2	3	1	5	12	10	7	6	3	4	8	62
2000	8	3	2	3	3	3	6	6	5	5	1	6	51
2001	1	1	3	4	0	3	5	4	3	8	4	4	40
2002	8	5	1	2	4	10	8	2	2	5	4	9	60
2003	4	1	1	5	2	8	9	6	6	2	6	7	57
2004	2	4	4	0	2	6	10	9	3	2	3	8	53
2005	1	3	2	2	3	2	3	4	5	3	5	5	38
2006	2	0	1	0	2	6	6	5	3	7	7	5	44
2007	5	5	3	1	4	2	7	4	3	2	5	4	45
2008	4	2	2	3	4	4	3	3	4	3	7	1	40
2009	5	2	1	3	1	4	6	3	5	5	0	2	37
2010	5	5	2	2	3	4	3	3	2	8	2	3	42
2011	5	2	3	0	2	6	4	7	2	3	3	4	41
2012	3	2	1	0	1	4	5	2	1	2	4	5	30
2013	5	0	4	3	4	2	3	5	4	2	3	4	39
2014	2	2	0	0	1	4	1	3	0	3	5	2	23
2015	2	0	0	2	1	1	6	4	1	4	2	2	25
2016	6	4	2	0	1	8	3	1	1	1	2	3	32

Note: Data for the Upper Peninsula is not available by month prior to 1982.

UPPER PENINSULA MOTOR VEHICLE TRAFFIC CRASH AND RELATED DATA

YEAR	DEATHS	NUMBER OF PERSONS INJURED	CRASHES	ESTIMATED MILEAGE (THOUSANDS)	MOTOR VEHICLE REGISTRATIONS*	DEATH RATE PER 100 MILLION MILES OF TRAVEL
1982	58	3,546	11,137	Uppper Peninsula exposure data not available prior to 1996		
1983	61	3,320	10,840			
1984	55	3,498	11,665			
1985	53	3,605	13,033			
1986	61	3,788	12,773			
1987	64	3,659	12,816			
1988	67	3,918	14,634			
1989	62	4,124	16,538			
1990	58	3,856	14,360			
1991	54	3,724	15,929			
1992	54	3,487	15,052			
1993	84	3,779	14,866			
1994	64	3,672	16,622			
1995	65	4,037	18,656			
1996	56	4,020	18,621	3,093,620	260,906	1.8
1997	54	3,619	16,569	3,139,864	261,670	1.7
1998	62	3,419	15,473	3,136,510	263,079	2.0
1999	62	3,442	17,422	3,183,447	268,507	1.9
2000	51	3,379	17,757	3,195,509	274,010	1.6
2001	40	3,096	16,674	3,191,826	275,400	1.3
2002	60	3,354	16,677	3,259,597	277,332	1.8
2003	57	3,199	16,210	3,282,744	278,548	1.7
2004	53	2,884	14,514	3,316,529	272,886	1.6
2005	38	2,582	12,700	3,272,146	269,813	1.2
2006	44	2,355	12,063	3,249,921	266,390	1.4
2007	45	2,356	12,329	3,236,942	269,682	1.4
2008	40	2,141	11,871	3,164,898	265,868	1.3
2009	37	2,047	10,990	3,196,456	266,334	1.2
2010	42	1,944	10,199	3,241,287	266,413	1.3
2011	41	1,974	10,548	3,121,069	266,501	1.3
2012	30	1,827	9,945	3,960,576	264,199	1.0
2013	39	1,778	9,956	3,100,105	262,485	1.3
2014	23	1,696	9,126	2,894,265	260,036	0.8
2015	25	1,603	8,099	3,380,731	258,797	0.7
2016	32	1,541	8,264	3,291,504	258,733	1.0

*Excludes trailers and trailer coaches, and includes mopeds

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AGE

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UPPER PENINSULA AGE AND INJURY SEVERITY BY PERSON TYPE

AGE	DRIVER			INJURED PASSENGER			MOTORCYCLIST			BICYCLIST			PEDESTRIAN		
	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
0	1	0	0	2	0	2	0	0	0	0	0	0	0	0	0
1	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
2	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
3	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
4	0	0	0	7	0	7	0	0	0	0	0	0	0	0	0
5	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
6	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
7	0	0	0	3	0	3	0	0	0	0	0	0	1	0	1
8	0	0	0	4	0	4	0	0	0	1	0	1	0	0	0
9	1	0	1	6	0	6	0	0	0	0	0	0	1	0	1
10	0	0	0	3	0	3	0	0	0	2	0	2	0	0	0
11	0	0	0	8	0	8	0	0	0	0	0	0	1	0	1
12	2	0	2	4	0	4	0	0	0	0	0	0	1	0	1
13	4	0	2	6	0	6	0	0	0	0	0	0	0	0	0
14	5	0	3	5	0	5	0	0	0	0	0	0	1	0	1
15	20	0	8	7	0	7	0	0	0	0	0	0	0	0	0
16	186	0	25	17	0	17	0	0	0	2	0	1	1	0	1
17	262	0	22	8	0	8	1	0	1	0	0	0	0	0	0
18	303	1	34	15	0	15	3	0	2	1	0	0	1	0	1
19	301	0	34	12	0	12	1	0	1	0	0	0	1	0	1
20	331	0	43	9	0	9	1	0	1	1	0	0	2	0	1
21	268	0	22	7	0	7	0	0	0	1	0	1	1	0	1
22	297	1	28	17	1	16	3	1	2	1	0	1	1	0	1
23	238	0	26	6	0	6	3	0	2	2	0	1	1	0	1
24	210	1	30	6	0	6	2	0	2	0	0	0	1	0	1
25	207	0	14	5	0	5	2	0	2	2	0	1	1	0	1
26	216	1	20	14	0	14	2	0	1	0	0	0	0	0	0
27	200	0	24	1	0	1	1	0	1	1	0	1	1	0	1
28	210	0	24	2	1	1	1	0	1	0	0	0	0	0	0
29	183	1	16	3	0	3	1	0	1	0	0	0	0	0	0
30	164	0	21	3	0	3	2	0	1	0	0	0	1	0	1
31	170	0	18	1	0	1	1	0	1	0	0	0	2	0	1
32	155	0	25	1	0	1	3	0	3	0	0	0	0	0	0
33	181	0	20	5	0	5	2	0	2	0	0	0	1	0	1
34	186	0	7	3	0	3	1	0	0	0	0	0	1	0	1
35	166	1	14	2	1	1	1	0	1	0	0	0	1	0	1
36	167	0	19	6	0	6	3	0	3	0	0	0	0	0	0
37	151	1	11	5	0	5	1	0	1	0	0	0	0	0	0

*Driver age is calculated from birth date, and invalid date of birth entry errors result in age “0” drivers.

UPPER PENINSULA AGE AND INJURY SEVERITY BY PERSON TYPE (CONTINUED)

AGE	DRIVER			INJURED PASSENGER			MOTORCYCLIST			BICYCLIST			PEDESTRIAN		
	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
38	153	0	16	3	0	3	2	0	2	0	0	0	0	0	0
39	158	1	8	4	1	3	1	0	1	0	0	0	0	0	0
40	154	0	14	5	0	5	3	0	2	1	0	1	0	0	0
41	164	0	13	5	0	5	4	0	3	1	1	0	0	0	0
42	165	0	16	4	0	4	0	0	0	0	0	0	0	0	0
43	151	0	21	1	0	1	4	0	4	0	0	0	0	0	0
44	173	0	17	2	0	2	3	0	3	0	0	0	2	1	1
45	138	0	15	3	0	3	2	0	2	0	0	0	1	0	1
46	145	0	18	1	0	1	2	0	2	0	0	0	0	0	0
47	167	1	22	1	0	1	1	0	0	0	0	0	0	0	0
48	172	0	14	2	0	2	3	0	2	0	0	0	1	0	1
49	163	2	20	2	0	2	5	1	3	0	0	0	0	0	0
50	162	0	19	5	0	5	4	0	4	0	0	0	0	0	0
51	166	0	21	5	0	5	4	0	3	0	0	0	0	0	0
52	192	0	17	6	0	6	3	0	1	0	0	0	0	0	0
53	194	0	22	3	0	3	5	0	4	0	0	0	0	0	0
54	163	0	16	4	0	4	2	0	2	1	0	1	0	0	0
55	176	0	17	3	0	3	3	0	2	0	0	0	1	0	0
56	176	0	17	6	0	6	4	0	3	0	0	0	0	0	0
57	156	0	13	6	0	6	1	0	1	1	0	1	0	0	0
58	193	2	14	1	1	0	0	0	0	1	0	1	0	0	0
59	194	1	20	3	0	3	3	0	1	0	0	0	1	0	1
60	171	0	11	4	0	4	3	0	2	0	0	0	1	0	0
61	161	1	16	5	0	5	5	0	4	0	0	0	0	0	0
62	163	1	15	7	0	7	2	0	2	0	0	0	0	0	0
63	158	3	21	5	0	5	4	1	3	0	0	0	1	0	1
64	144	0	15	2	0	2	3	0	2	0	0	0	0	0	0
65	140	0	8	8	0	8	3	0	1	0	0	0	0	0	0
66	128	0	11	5	0	5	1	0	1	0	0	0	0	0	0
67	134	0	9	4	0	4	1	0	0	0	0	0	0	0	0
68	120	0	11	5	0	5	4	0	2	0	0	0	4	1	3
69	132	0	10	5	0	5	3	0	3	0	0	0	0	0	0
70	80	0	8	2	0	2	1	0	1	0	0	0	1	0	1
71	91	0	7	3	0	3	0	0	0	1	0	1	2	0	2
72	84	0	6	4	1	3	0	0	0	0	0	0	0	0	0
73	87	0	11	1	0	1	0	0	0	0	0	0	0	0	0
74	74	0	9	0	0	0	0	0	0	0	0	0	1	0	1
75	76	0	6	3	0	3	0	0	0	0	0	0	0	0	0
76	68	0	6	3	0	3	1	0	1	0	0	0	0	0	0

UPPER PENINSULA AGE AND INJURY SEVERITY BY PERSON TYPE (CONTINUED)

AGE	DRIVER			INJURED PASSENGER			MOTORCYCLIST			BICYCLIST			PEDESTRIAN		
	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
77	75	0	5	2	0	2	0	0	0	0	0	0	0	0	0
78	40	0	3	5	1	4	0	0	0	0	0	0	1	0	1
79	52	0	1	1	0	1	0	0	0	0	0	0	0	0	0
80	47	0	3	3	0	3	1	0	1	0	0	0	0	0	0
81	48	2	3	2	0	2	0	0	0	0	0	0	0	0	0
82	38	0	8	1	0	1	0	0	0	0	0	0	0	0	0
83	45	0	5	2	0	2	0	0	0	0	0	0	0	0	0
84	39	1	4	2	0	2	0	0	0	0	0	0	0	0	0
85	27	0	2	1	0	1	0	0	0	0	0	0	0	0	0
86	25	0	2	1	0	1	0	0	0	0	0	0	0	0	0
87	21	0	4	0	0	0	0	0	0	0	0	0	0	0	0
88	19	0	4	1	0	1	0	0	0	0	0	0	0	0	0
89	9	0	2	0	0	0	0	0	0	0	0	0	0	0	0
90	14	0	1	0	0	0	0	0	0	0	0	0	0	0	0
91	11	0	0	1	0	1	0	0	0	0	0	0	0	0	0
92	4	0	0	0	0	0	0	0	0	0	0	0	1	0	1
93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
97	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	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
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	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
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
111	714	0	0	3	0	3	2	0	0	2	0	1	1	0	1
TOTAL	11,707	22	1,112	386	7	379	128	3	97	22	1	15	41	2	35
	* Includes 713 drivers with unknown injury severity and 9,860 with no injury						*Includes 2 motorcyclists with unknown injury severity and 26 with no injury			*Includes 1 bicyclist with unknown injury severity and 5 with no injury			*Includes 4 pedestrians with no injury		

UPPER PENINSULA DRIVER AGE 16-20

DRIVER ACTION PRIOR TO CRASH	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Going straight ahead	916	66.2	1	25.0	178	67.7
Turning left	92	6.7	0	0.0	26	9.9
Turning right	44	3.2	0	0.0	4	1.5
Stopped on roadway	56	4.0	1	25.0	13	4.9
In prior crash	4	0.3	0	0.0	1	0.4
Changing lanes	16	1.2	0	0.0	4	1.5
Backing	30	2.2	0	0.0	0	0.0
Slowing/stopping on roadway	109	7.9	0	0.0	14	5.3
Slowing/stopping other	2	0.1	0	0.0	1	0.4
Starting up on roadway	25	1.8	0	0.0	5	1.9
Starting up other	1	0.1	0	0.0	0	0.0
Entering parking	2	0.1	0	0.0	0	0.0
Leaving parking	5	0.4	0	0.0	0	0.0
Entering roadway	15	1.1	0	0.0	0	0.0
Leaving roadway	3	0.2	0	0.0	3	1.1
Making U-turn	3	0.2	0	0.0	1	0.4
Overtaking or passing	16	1.2	1	25.0	2	0.8
Avoiding object	0	0.0	0	0.0	0	0.0
Avoiding pedestrian	0	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	9	0.7	0	0.0	0	0.0
Avoiding vehicle (angle)	3	0.2	0	0.0	1	0.4
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	7	0.5	0	0.0	2	0.8
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	2	0.1	0	0.0	1	0.4
Unknown	0	0.0	0	0.0	0	0.0
Avoiding animal	9	0.7	0	0.0	3	1.1
Negotiating a curve	13	0.9	1	25.0	4	1.5
Uncoded & Errors	1	0.1	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0

UPPER PENINSULA DRIVER AGE 16-20 (CONTINUED)

MOST HARMFUL EVENT IN A NONCOLLISION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Loss of control	9	0.7	0	0.0	3	1.1
Cross center/median	1	0.1	0	0.0	0	0.0
Ran off road left	5	0.4	0	0.0	0	0.0
Ran off road right	10	0.7	0	0.0	2	0.8
Re-enter road	1	0.1	0	0.0	0	0.0
Overturn	68	4.9	0	0.0	23	8.7
Separation of units	1	0.1	0	0.0	0	0.0
Fire/explosion	1	0.1	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	0	0.0	0	0.0	0	0.0
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	1	0.1	0	0.0	0	0.0
Individual fell off	6	0.4	0	0.0	5	1.9
Other noncollision	2	0.1	0	0.0	1	0.4
SUBTOTAL	105	7.6	0	0.0	34	12.9

For drivers age 16-20 in the Upper Peninsula, an overturn is the most harmful event in a noncollision with the highest proportion of all crashes (4.9%) and injury crashes (8.7%)

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Pedestrian	2	0.1	1	25.0	1	0.4
Bicyclist	2	0.1	0	0.0	0	0.0
Motor vehicle in transport	758	54.8	3	75.0	155	58.9
Parked motor vehicle	49	3.5	0	0.0	6	2.3
Railway train	1	0.1	0	0.0	1	0.4
Animal	191	13.8	0	0.0	0	0.0
Other nonfixed objects	13	0.9	0	0.0	2	0.8
SUBTOTAL	1,016	73.5	4	100.0	165	62.7

UPPER PENINSULA DRIVER AGE 16-20 (CONTINUED)

MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Bridge/pier/abutment	1	0.1	0	0.0	0	0.0
Bridge rail	2	0.1	0	0.0	1	0.4
Guardrail face	13	0.9	0	0.0	0	0.0
Guardrail end	0	0.0	0	0.0	0	0.0
Median barrier	3	0.2	0	0.0	1	0.4
Highway traffic sign post	19	1.4	0	0.0	2	0.8
Highway signal post	2	0.1	0	0.0	0	0.0
Luminaire/light support	32	2.3	0	0.0	9	3.4
Other pole	4	0.3	0	0.0	0	0.0
Culvert	0	0.0	0	0.0	0	0.0
Curb	4	0.3	0	0.0	1	0.4
Ditch	53	3.8	0	0.0	18	6.8
Embankment	19	1.4	0	0.0	8	3.0
Fence	3	0.2	0	0.0	0	0.0
Mailbox	10	0.7	0	0.0	0	0.0
Tree	74	5.4	0	0.0	19	7.2
Rail crossing signal	0	0.0	0	0.0	0	0.0
Building	3	0.2	0	0.0	2	0.8
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	3	0.2	0	0.0	0	0.0
Impact attenuator	1	0.1	0	0.0	1	0.4
Other fixed object	14	1.0	0	0.0	2	0.8
SUBTOTAL	260	18.8	0	0.0	64	24.3

For drivers age 16-20 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (5.4%) and injury crashes (7.2%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	2	0.1	0	0.0	0	0.0
No event coded as most harmful	0	0.0	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0

UPPER PENINSULA DRIVER AGE 16-20 (CONTINUED)

CRASH TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Single Vehicle	553	40.0	1	25.0	97	36.9
Head On	25	1.8	1	25.0	13	4.9
Head On - Left Turn	36	2.6	0	0.0	14	5.3
Angle	248	17.9	1	25.0	46	17.5
Rear End	294	21.3	1	25.0	62	23.6
Rear End - Left Turn	37	2.7	0	0.0	5	1.9
Rear End - Right Turn	14	1.0	0	0.0	2	0.8
Sideswipe - Same Direction	88	6.4	0	0.0	9	3.4
Sideswipe - Opposite Direction	30	2.2	0	0.0	7	2.7
Backing	13	0.9	0	0.0	0	0.0
Other	44	3.2	0	0.0	8	3.0
Unknown	0	0.0	0	0.0	0	0.0
Uncoded & Errors	1	0.1	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0

Based on crash type, drivers age 16-20 in the Upper Peninsula are involved in the largest proportion of single vehicle crashes for all crashes (40.0%) and injury crashes (36.9%).

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT)	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
On Road	1,045	75.6	4	100.0	180	68.4
Median	13	0.9	0	0.0	0	0.0
Shoulder	106	7.7	0	0.0	34	12.9
Outside of Shoulder/Curb	181	13.1	0	0.0	42	16.0
Gore	12	0.9	0	0.0	2	0.8
On-Street Parking	9	0.7	0	0.0	0	0.0
Off the Roadway	4	0.3	0	0.0	2	0.8
On the Sidewalk	0	0.0	0	0.0	0	0.0
In the Bicycle Lane	2	0.1	0	0.0	0	0.0
Other/Unknown	8	0.6	0	0.0	3	1.1
Uncoded & Errors	3	0.2	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0

Other than on the road crashes, drivers age 16-20 in the Upper Peninsula have the highest proportion where the first impact is outside the shoulder/curb for all crashes (13.1%) and injury crashes (16.0%). All fatal crashes occurred on the

ROADWAY TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Interstate Routes	53	3.8	0	0.0	8	3.0
U.S. & Michigan Roads	658	47.6	2	50.0	128	48.7
County & City Roads	659	47.7	2	50.0	124	47.1
Uncoded & Errors	13	0.9	0	0.0	3	1.1
TOTAL	1,383	100.0	4	100.0	263	100.0

UPPER PENINSULA DRIVER AGE 16-20 (CONTINUED)

TIME OF DAY	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
12:00 AM - 02:59 AM	57	4.1	0	0.0	9	3.4
03:00 AM - 05:59 AM	40	2.9	1	25.0	11	4.2
06:00 AM - 08:59 AM	129	9.3	0	0.0	31	11.8
09:00 AM - 11:59 AM	148	10.7	0	0.0	28	10.6
12:00 PM - 02:59 PM	252	18.2	1	25.0	46	17.5
03:00 PM - 05:59 PM	345	24.9	1	25.0	66	25.1
06:00 PM - 08:59 PM	236	17.1	1	25.0	43	16.3
09:00 PM - 11:59 PM	176	12.7	0	0.0	29	11.0
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0

For drivers age 16-20 in the Upper Peninsula, the 3:00 - 5:59 PM time period has the highest proportion of all crashes (24.9%) and injury crashes (25.1%).

HAZARDOUS ACTION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES		HAZARDOUS CITATION ISSUED	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
None	537	38.8	2	50.0	74	28.1	4	1.5
Speed too fast	283	20.5	2	50.0	61	23.2	84	32.4
Speed too slow	1	0.1	0	0.0	0	0.0	0	0.0
Failed to yield	133	9.6	0	0.0	27	10.3	50	19.3
Disregard traffic control	16	1.2	0	0.0	4	1.5	12	4.6
Drove wrong way	1	0.1	0	0.0	1	0.4	0	0.0
Drove left of center	5	0.4	0	0.0	1	0.4	2	0.8
Improper passing	5	0.4	0	0.0	1	0.4	1	0.4
Improper lane use	12	0.9	0	0.0	0	0.0	2	0.8
Improper turn	12	0.9	0	0.0	3	1.1	2	0.8
Improper/no signal	1	0.1	0	0.0	0	0.0	1	0.4
Improper backing	29	2.1	0	0.0	0	0.0	0	0.0
Unable to stop in assured clear distance	208	15.0	0	0.0	39	14.8	59	22.8
Other	36	2.6	0	0.0	12	4.6	4	1.5
Unknown	17	1.2	0	0.0	8	3.0	0	0.0
Reckless driving	10	0.7	0	0.0	4	1.5	4	1.5
Careless/negligent driving	76	5.5	0	0.0	28	10.6	34	13.1
Uncoded & Errors	1	0.1	0	0.0	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0	259	100.0

Other than no hazardous action, the second highest hazardous action category for drivers age 16-20 in the Upper Peninsula is speed too fast for all crashes (20.5%), fatal crashes (50.0%), and injury crashes (23.2%).

UPPER PENINSULA DRIVER AGE 16-20 (CONTINUED)

DAY OF WEEK	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Monday	172	12.4	0	0.0	29	11.0
Tuesday	165	11.9	0	0.0	26	9.9
Wednesday	195	14.1	2	50.0	40	15.2
Thursday	234	16.9	1	25.0	48	18.3
Friday	240	17.4	0	0.0	51	19.4
Saturday	205	14.8	1	25.0	36	13.7
Sunday	172	12.4	0	0.0	33	12.5
TOTAL	1,383	100.0	4	100.0	263	100.0

DRIVER GENDER	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Male	780	56.4	2	50.0	160	60.8
Female	603	43.6	2	50.0	103	39.2
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0

For drivers age 16-20 in the Upper Peninsula, there is a greater proportion of female drivers in all crashes, fatal crashes, and injury crashes than in both the 21-64 and 65 and over age groups. In this group, male drivers and female drivers both account for 50.0% in fatal crashes.

NUMBER OF OCCUPANTS	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
1 occupant	989	71.5	2	50.0	172	65.4
2 occupants	281	20.3	1	25.0	56	21.3
3 occupants	66	4.8	1	25.0	18	6.8
4 occupants	30	2.2	0	0.0	10	3.8
5 occupants	10	0.7	0	0.0	5	1.9
6+ occupants	3	0.2	0	0.0	2	0.8
0 occupants	2	0.1	0	0.0	0	0.0
Uncoded & Errors	2	0.1	0	0.0	0	0.0
TOTAL	1,383	100.0	4	100.0	263	100.0

UPPER PENINSULA DRIVER AGE 16-20 (CONTINUED)

VEHICLE TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Passenger car, SUV, van	1,085	78.5	3	75.0	177	67.3
Motor home	10	0.7	0	0.0	3	1.1
Pickup truck	246	17.8	1	25.0	62	23.6
Small Truck under 10,000 lbs. GVWR	17	1.2	0	0.0	3	1.1
Motorcycle	6	0.4	0	0.0	5	1.9
Moped / goped	1	0.1	0	0.0	1	0.4
Go-cart / golf cart	1	0.1	0	0.0	0	0.0
Snowmobile	1	0.1	0	0.0	1	0.4
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	9	0.7	0	0.0	8	3.0
Other	4	0.3	0	0.0	2	0.8
Unknown	0	0.0	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	3	0.2	0	0.0	1	0.4
TOTAL	1,383	100.0	4	100.0	263	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
10,000 lbs. or less	0	0.0	0	0.0	0	0.0
10,001 - 26,000 lbs.	2	66.7	0	0.0	1	100.0
Greater than 26,000 lbs.	1	33.3	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	3	100.0	0	0.0	1	100.0

UPPER PENINSULA DRIVER AGE 21-64

DRIVER ACTION PRIOR TO CRASH	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Going straight ahead	5,310	67.7	26	78.8	821	64.6
Turning left	426	5.4	0	0.0	98	7.7
Turning right	213	2.7	0	0.0	33	2.6
Stopped on roadway	462	5.9	1	3.0	87	6.9
In prior crash	6	0.1	0	0.0	3	0.2
Changing lanes	57	0.7	0	0.0	7	0.6
Backing	304	3.9	0	0.0	13	1.0
Slowing/stopping on roadway	424	5.4	0	0.0	72	5.7
Slowing/stopping other	15	0.2	0	0.0	2	0.2
Starting up on roadway	127	1.6	1	3.0	34	2.7
Starting up other	3	0.0	0	0.0	0	0.0
Entering parking	14	0.2	0	0.0	0	0.0
Leaving parking	21	0.3	0	0.0	1	0.1
Entering roadway	84	1.1	1	3.0	22	1.7
Leaving roadway	17	0.2	1	3.0	6	0.5
Making U-turn	10	0.1	0	0.0	3	0.2
Overtaking or passing	57	0.7	1	3.0	12	0.9
Avoiding object	8	0.1	0	0.0	0	0.0
Avoiding pedestrian	2	0.0	0	0.0	1	0.1
Avoiding vehicle (front/back)	71	0.9	0	0.0	16	1.3
Avoiding vehicle (angle)	24	0.3	0	0.0	8	0.6
Driverless moving	2	0.0	0	0.0	1	0.1
Parked	68	0.9	0	0.0	3	0.2
Crossing at intersection	2	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	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	2	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	17	0.2	0	0.0	5	0.4
Unknown	3	0.0	0	0.0	2	0.2
Avoiding animal	44	0.6	0	0.0	5	0.4
Negotiating a curve	39	0.5	2	6.1	13	1.0
Uncoded & Errors	9	0.1	0	0.0	2	0.2
TOTAL	7,841	100.0	33	100.0	1,270	100.0

UPPER PENINSULA DRIVER AGE 21-64 (CONTINUED)

MOST HARMFUL EVENT IN A NONCOLLISION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Loss of control	41	0.5	0	0.0	13	1.0
Cross center/median	4	0.1	0	0.0	1	0.1
Ran off road left	27	0.3	0	0.0	4	0.3
Ran off road right	37	0.5	0	0.0	6	0.5
Re-enter road	4	0.1	0	0.0	1	0.1
Overturn	213	2.7	5	15.2	93	7.3
Separation of units	3	0.0	0	0.0	0	0.0
Fire/explosion	10	0.1	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	9	0.1	0	0.0	1	0.1
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	10	0.1	0	0.0	1	0.1
Individual fell off	23	0.3	1	3.0	22	1.7
Other noncollision	19	0.2	1	3.0	4	0.3
SUBTOTAL	400	5.1	7	21.2	146	11.5

For drivers age 21-64 in the Upper Peninsula, an overturn is the most harmful event in a noncollision with the highest proportion of all crashes (2.7%), fatal crashes (15.2%), and injury crashes (7.3%).

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Pedestrian	28	0.4	1	3.0	24	1.9
Bicyclist	17	0.2	1	3.0	12	0.9
Motor vehicle in transport	3,729	47.6	16	48.5	840	66.1
Parked motor vehicle	304	3.9	0	0.0	17	1.3
Railway train	1	0.0	0	0.0	0	0.0
Animal	2,380	30.4	0	0.0	45	3.5
Other nonfixed objects	73	0.9	0	0.0	5	0.4
SUBTOTAL	6,532	83.3	18	54.5	943	74.3

UPPER PENINSULA DRIVER AGE 21-64 (CONTINUED)

MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Bridge/pier/abutment	5	0.1	0	0.0	0	0.0
Bridge rail	8	0.1	0	0.0	0	0.0
Guardrail face	62	0.8	0	0.0	8	0.6
Guardrail end	14	0.2	0	0.0	1	0.1
Median barrier	7	0.1	0	0.0	1	0.1
Highway traffic sign post	57	0.7	0	0.0	3	0.2
Highway signal post	3	0.0	0	0.0	0	0.0
Luminaire/light support	84	1.1	0	0.0	28	2.2
Other pole	21	0.3	0	0.0	2	0.2
Culvert	6	0.1	0	0.0	1	0.1
Curb	12	0.2	0	0.0	1	0.1
Ditch	142	1.8	1	3.0	30	2.4
Embankment	55	0.7	0	0.0	7	0.6
Fence	8	0.1	0	0.0	2	0.2
Mailbox	34	0.4	0	0.0	3	0.2
Tree	262	3.3	7	21.2	74	5.8
Rail crossing signal	3	0.0	0	0.0	1	0.1
Building	15	0.2	0	0.0	7	0.6
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	9	0.1	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	57	0.7	0	0.0	6	0.5
SUBTOTAL	864	11.0	8	24.2	175	13.8

For drivers age 21-64 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (3.3%), fatal crashes (21.2%), and injury crashes (5.8%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	43	0.5	0	0.0	5	0.4
No event coded as most harmful	2	0.0	0	0.0	1	0.1
TOTAL	7,841	100.0	33	100.0	1,270	100.0

UPPER PENINSULA DRIVER AGE 21-64 (CONTINUED)

CRASH TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Single Vehicle	3,616	46.1	15	45.5	376	29.6
Head On	124	1.6	3	9.1	62	4.9
Head On - Left Turn	142	1.8	0	0.0	53	4.2
Angle	1,300	16.6	8	24.2	328	25.8
Rear End	1,245	15.9	5	15.2	252	19.8
Rear End - Left Turn	132	1.7	0	0.0	27	2.1
Rear End - Right Turn	85	1.1	0	0.0	17	1.3
Sideswipe - Same Direction	469	6.0	0	0.0	55	4.3
Sideswipe - Opposite Direction	199	2.5	0	0.0	28	2.2
Backing	91	1.2	0	0.0	3	0.2
Other	415	5.3	2	6.1	67	5.3
Unknown	17	0.2	0	0.0	1	0.1
Uncoded & Errors	6	0.1	0	0.0	1	0.1
TOTAL	7,841	100.0	33	100.0	1,270	100.0

Based on crash type, drivers age 21-64 in the Upper Peninsula are involved in the largest proportion of single vehicle crashes for all crashes (46.1%), fatal crashes (45.5%), and injury crashes (29.6%).

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT)	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
On Road	6,577	83.9	22	66.7	1,008	79.4
Median	39	0.5	0	0.0	8	0.6
Shoulder	452	5.8	4	12.1	74	5.8
Outside of Shoulder/Curb	602	7.7	5	15.2	162	12.8
Gore	29	0.4	1	3.0	5	0.4
On-Street Parking	78	1.0	0	0.0	3	0.2
Off the Roadway	7	0.1	0	0.0	3	0.2
On the Sidewalk	4	0.1	0	0.0	2	0.2
In the Bicycle Lane	0	0.0	0	0.0	0	0.0
Other/Unknown	40	0.5	1	3.0	4	0.3
Uncoded & Errors	13	0.2	0	0.0	1	0.1
TOTAL	7,841	100.0	33	100.0	1,270	100.0

Other than on the road crashes, drivers age 21-64 in the Upper Peninsula have the highest proportion where the first impact is outside the shoulder/curb for all crashes (7.7%), fatal crashes (15.2%), and injury crashes (12.8%).

ROADWAY TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Interstate Routes	309	3.9	0	0.0	58	4.6
U.S. & Michigan Roads	4,203	53.6	17	51.5	676	53.2
County & City Roads	3,266	41.7	16	48.5	516	40.6
Uncoded & Errors	63	0.8	0	0.0	20	1.6
TOTAL	7,841	100.0	33	100.0	1,270	100.0

UPPER PENINSULA DRIVER AGE 21-64 (CONTINUED)

TIME OF DAY	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
12:00 AM - 02:59 AM	321	4.1	2	6.1	57	4.5
03:00 AM - 05:59 AM	303	3.9	0	0.0	44	3.5
06:00 AM - 08:59 AM	1,020	13.0	0	0.0	143	11.3
09:00 AM - 11:59 AM	1,054	13.4	6	18.2	161	12.7
12:00 PM - 02:59 PM	1,444	18.4	8	24.2	284	22.4
03:00 PM - 05:59 PM	1,629	20.8	7	21.2	317	25.0
06:00 PM - 08:59 PM	1,271	16.2	7	21.2	184	14.5
09:00 PM - 11:59 PM	792	10.1	3	9.1	78	6.1
Unknown	7	0.1	0	0.0	2	0.2
TOTAL	7,841	100.0	33	100.0	1,270	100.0

For drivers age 21-64 in the Upper Peninsula, the 3:00 - 5:59 PM time period has the highest proportion of all crashes (20.8%) and injury crashes (25.0%). The 12:00 - 2:59 PM time period has the highest proportion of fatal crashes

HAZARDOUS ACTION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES		HAZARDOUS CITATION ISSUED	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
None	4,723	60.2	12	36.4	585	46.1	13	1.4
Speed too fast	726	9.3	6	18.2	138	10.9	193	20.9
Speed too slow	11	0.1	0	0.0	1	0.1	2	0.2
Failed to yield	542	6.9	3	9.1	148	11.7	212	22.9
Disregard traffic control	89	1.1	1	3.0	35	2.8	50	5.4
Drove wrong way	7	0.1	1	3.0	3	0.2	4	0.4
Drove left of center	43	0.5	1	3.0	18	1.4	14	1.5
Improper passing	34	0.4	0	0.0	7	0.6	10	1.1
Improper lane use	75	1.0	0	0.0	9	0.7	16	1.7
Improper turn	59	0.8	0	0.0	7	0.6	8	0.9
Improper/no signal	11	0.1	0	0.0	3	0.2	0	0.0
Improper backing	218	2.8	0	0.0	8	0.6	8	0.9
Unable to stop in assured clear distance	569	7.3	1	3.0	94	7.4	139	15.0
Other	243	3.1	3	9.1	57	4.5	59	6.4
Unknown	126	1.6	1	3.0	35	2.8	9	1.0
Reckless driving	31	0.4	1	3.0	14	1.1	19	2.1
Careless/negligent driving	312	4.0	3	9.1	104	8.2	166	18.0
Uncoded & Errors	22	0.3	0	0.0	4	0.3	2	0.2
TOTAL	7,841	100.0	33	100.0	1,270	100.0	924	100.0

After no hazardous action, the second highest hazardous action category for drivers age 21-64 in the Upper Peninsula for all crashes (9.3%) and fatal crashes (18.2%) occurs when the driver's speed is too fast. Failure to yield is the seond highest hazardous action category for injury crashes (11.7%).

UPPER PENINSULA DRIVER AGE 21-64 (CONTINUED)

DAY OF WEEK	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Monday	1,210	15.4	6	18.2	206	16.2
Tuesday	1,109	14.1	5	15.2	177	13.9
Wednesday	1,128	14.4	4	12.1	188	14.8
Thursday	1,218	15.5	4	12.1	151	11.9
Friday	1,266	16.1	6	18.2	219	17.2
Saturday	1,007	12.8	1	3.0	179	14.1
Sunday	903	11.5	7	21.2	150	11.8
TOTAL	7,841	100.0	33	100.0	1,270	100.0

DRIVER GENDER	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Male	4,553	58.1	22	66.7	725	57.1
Female	3,285	41.9	11	33.3	544	42.8
Uncoded & Errors	3	0.0	0	0.0	1	0.1
TOTAL	7,841	100.0	33	100.0	1,270	100.0

For drivers age 21-64 in the Upper Peninsula, male drivers (66.7%) account for two times that of female drivers (33.3%) in fatal crashes.

NUMBER OF OCCUPANTS	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
1 occupant	6,009	76.6	23	69.7	894	70.4
2 occupants	1,279	16.3	9	27.3	264	20.8
3 occupants	319	4.1	1	3.0	65	5.1
4 occupants	122	1.6	0	0.0	26	2.0
5 occupants	45	0.6	0	0.0	9	0.7
6+ occupants	29	0.4	0	0.0	8	0.6
0 occupants	33	0.4	0	0.0	2	0.2
Uncoded & Errors	5	0.1	0	0.0	2	0.2
TOTAL	7,841	100.0	33	100.0	1,270	100.0

UPPER PENINSULA DRIVER AGE 21-64 (CONTINUED)

VEHICLE TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Passenger car, SUV, van	5,477	69.9	13	39.4	843	66.4
Motor home	88	1.1	0	0.0	9	0.7
Pickup truck	1,768	22.5	5	15.2	255	20.1
Small Truck under 10,000 lbs. GVWR	91	1.2	0	0.0	9	0.7
Motorcycle	91	1.2	3	9.1	73	5.7
Moped / goped	7	0.1	1	3.0	5	0.4
Go-cart / golf cart	0	0.0	0	0.0	0	0.0
Snowmobile	27	0.3	6	18.2	12	0.9
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	27	0.3	2	6.1	23	1.8
Other	44	0.6	0	0.0	4	0.3
Unknown	3	0.0	0	0.0	1	0.1
CDL Truck/Bus (breakdown below)	218	2.8	3	9.1	36	2.8
TOTAL	7,841	100.0	33	100.0	1,270	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
10,000 lbs. or less	5	2.3	0	0.0	1	2.8
10,001 - 26,000 lbs.	41	18.8	0	0.0	4	11.1
Greater than 26,000 lbs.	170	78.0	3	100.0	30	83.3
Uncoded & Errors	2	0.9	0	0.0	1	2.8
TOTAL	218	100.0	3	100.0	36	100.0

UPPER PENINSULA DRIVER AGE 65 AND OVER

DRIVER ACTION PRIOR TO CRASH	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Going straight ahead	1,060	61.1	3	60.0	135	53.1
Turning left	146	8.4	2	40.0	32	12.6
Turning right	52	3.0	0	0.0	11	4.3
Stopped on roadway	83	4.8	0	0.0	18	7.1
In prior crash	2	0.1	0	0.0	1	0.4
Changing lanes	31	1.8	0	0.0	1	0.4
Backing	97	5.6	0	0.0	2	0.8
Slowing/stopping on roadway	97	5.6	0	0.0	20	7.9
Slowing/stopping other	5	0.3	0	0.0	1	0.4
Starting up on roadway	36	2.1	0	0.0	10	3.9
Starting up other	1	0.1	0	0.0	0	0.0
Entering parking	7	0.4	0	0.0	0	0.0
Leaving parking	4	0.2	0	0.0	0	0.0
Entering roadway	36	2.1	0	0.0	8	3.1
Leaving roadway	6	0.3	0	0.0	1	0.4
Making U-turn	5	0.3	0	0.0	1	0.4
Overtaking or passing	12	0.7	0	0.0	3	1.2
Avoiding object	1	0.1	0	0.0	0	0.0
Avoiding pedestrian	2	0.1	0	0.0	1	0.4
Avoiding vehicle (front/back)	9	0.5	0	0.0	2	0.8
Avoiding vehicle (angle)	5	0.3	0	0.0	1	0.4
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	17	1.0	0	0.0	2	0.8
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	2	0.1	0	0.0	0	0.0
Unknown	3	0.2	0	0.0	0	0.0
Avoiding animal	6	0.3	0	0.0	1	0.4
Negotiating a curve	7	0.4	0	0.0	3	1.2
Uncoded & Errors	4	0.2	0	0.0	0	0.0
TOTAL	1,736	100.0	5	100.0	254	100.0

UPPER PENINSULA DRIVER AGE 65 AND OVER (CONTINUED)

MOST HARMFUL EVENT IN A NONCOLLISION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Loss of control	6	0.3	0	0.0	2	0.8
Cross center/median	2	0.1	0	0.0	1	0.4
Ran off road left	1	0.1	0	0.0	0	0.0
Ran off road right	8	0.5	0	0.0	0	0.0
Re-enter road	1	0.1	0	0.0	0	0.0
Overturn	18	1.0	0	0.0	8	3.1
Separation of units	0	0.0	0	0.0	0	0.0
Fire/explosion	1	0.1	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	1	0.1	0	0.0	0	0.0
Downhill runaway	1	0.1	0	0.0	0	0.0
Cargo loss/shift	2	0.1	0	0.0	0	0.0
Individual fell off	5	0.3	0	0.0	5	2.0
Other noncollision	8	0.5	0	0.0	2	0.8
SUBTOTAL	54	3.1	0	0.0	18	7.1

For drivers age 65 and over in the Upper Peninsula, an overturn is the most harmful event in a noncollision with the highest proportion of all crashes (1.0%) and injury crashes (3.1%).

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Pedestrian	6	0.3	0	0.0	6	2.4
Bicyclist	2	0.1	0	0.0	2	0.8
Motor vehicle in transport	925	53.3	4	80.0	190	74.8
Parked motor vehicle	71	4.1	0	0.0	3	1.2
Railway train	1	0.1	0	0.0	1	0.4
Animal	513	29.6	0	0.0	4	1.6
Other nonfixed objects	23	1.3	0	0.0	1	0.4
SUBTOTAL	1,541	88.8	4	80.0	207	81.5

UPPER PENINSULA DRIVER AGE 65 AND 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 Drivers	% of Total	Number of Drivers	% of Total
Bridge/pier/abutment	1	0.1	0	0.0	1	0.4
Bridge rail	1	0.1	0	0.0	0	0.0
Guardrail face	3	0.2	0	0.0	0	0.0
Guardrail end	2	0.1	0	0.0	0	0.0
Median barrier	3	0.2	0	0.0	0	0.0
Highway traffic sign post	15	0.9	0	0.0	1	0.4
Highway signal post	0	0.0	0	0.0	0	0.0
Luminaire/light support	14	0.8	0	0.0	3	1.2
Other pole	5	0.3	0	0.0	2	0.8
Culvert	1	0.1	0	0.0	0	0.0
Curb	0	0.0	0	0.0	0	0.0
Ditch	24	1.4	0	0.0	6	2.4
Embankment	9	0.5	0	0.0	4	1.6
Fence	0	0.0	0	0.0	0	0.0
Mailbox	7	0.4	0	0.0	0	0.0
Tree	41	2.4	1	20.0	12	4.7
Rail crossing signal	0	0.0	0	0.0	0	0.0
Building	0	0.0	0	0.0	0	0.0
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	2	0.1	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	5	0.3	0	0.0	0	0.0
SUBTOTAL	133	7.7	1	20.0	29	11.4

For drivers age 65 and over in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (2.4%), fatal crashes (20.0%), and injury crashes (4.7%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	7	0.4	0	0.0	0	0.0
No event coded as most harmful	1	0.1	0	0.0	0	0.0
TOTAL	1,736	100.0	5	100.0	254	100.0

UPPER PENINSULA DRIVER AGE 65 AND OVER (CONTINUED)

CRASH TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Single Vehicle	699	40.3	1	20.0	47	18.5
Head On	20	1.2	0	0.0	14	5.5
Head On - Left Turn	47	2.7	2	40.0	20	7.9
Angle	359	20.7	1	20.0	82	32.3
Rear End	220	12.7	1	20.0	46	18.1
Rear End - Left Turn	31	1.8	0	0.0	7	2.8
Rear End - Right Turn	11	0.6	0	0.0	4	1.6
Sideswipe - Same Direction	150	8.6	0	0.0	10	3.9
Sideswipe - Opposite Direction	47	2.7	0	0.0	5	2.0
Backing	45	2.6	0	0.0	0	0.0
Other	99	5.7	0	0.0	16	6.3
Unknown	6	0.3	0	0.0	2	0.8
Uncoded & Errors	2	0.1	0	0.0	1	0.4
TOTAL	1,736	100.0	5	100.0	254	100.0

Based on crash type, drivers age 65 and over in the Upper Peninsula are involved in the largest proportion of single vehicle crashes for all crashes (40.3%), head on - left turn crashes for fatal crashes (40.0%), and angle crashes for injury crashes (32.3%).

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT)	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
On Road	1,526	87.9	4	80.0	218	85.8
Median	3	0.2	0	0.0	1	0.4
Shoulder	80	4.6	0	0.0	10	3.9
Outside of Shoulder/Curb	85	4.9	1	20.0	21	8.3
Gore	4	0.2	0	0.0	1	0.4
On-Street Parking	23	1.3	0	0.0	1	0.4
Off the Roadway	2	0.1	0	0.0	1	0.4
On the Sidewalk	4	0.2	0	0.0	1	0.4
In the Bicycle Lane	0	0.0	0	0.0	0	0.0
Other/Unknown	7	0.4	0	0.0	0	0.0
Uncoded & Errors	2	0.1	0	0.0	0	0.0
TOTAL	1,736	100.0	5	100.0	254	100.0

Other than on the road crashes, drivers age 65 and over in the Upper Peninsula have the highest proportion where the first impact is on the outside the shoulder/curb for all crashes (4.9%), fatal crashes (20.0%), and injury crashes (8.3%).

ROADWAY TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Interstate Routes	73	4.2	0	0.0	9	3.5
U.S. & Michigan Roads	949	54.7	4	80.0	140	55.1
County & City Roads	699	40.3	1	20.0	102	40.2
Uncoded & Errors	15	0.9	0	0.0	3	1.2
TOTAL	1,736	100.0	5	100.0	254	100.0

UPPER PENINSULA DRIVER AGE 65 AND OVER (CONTINUED)

TIME OF DAY	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
12:00 AM - 02:59 AM	21	1.2	0	0.0	3	1.2
03:00 AM - 05:59 AM	16	0.9	0	0.0	5	2.0
06:00 AM - 08:59 AM	141	8.1	0	0.0	19	7.5
09:00 AM - 11:59 AM	336	19.4	0	0.0	57	22.4
12:00 PM - 02:59 PM	439	25.3	2	40.0	69	27.2
03:00 PM - 05:59 PM	384	22.1	0	0.0	65	25.6
06:00 PM - 08:59 PM	271	15.6	3	60.0	24	9.4
09:00 PM - 11:59 PM	128	7.4	0	0.0	12	4.7
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	1,736	100.0	5	100.0	254	100.0

For drivers age 65 and over in the Upper Peninsula, the 12:00 - 2:59 PM time period has the highest proportion of all crashes (25.3%) and injury crashes (27.2%). The highest porportion of fatal crashes occurs in the 6:00 - 8:59 PM time period (60.0%).

HAZARDOUS ACTION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES		HAZARDOUS CITATION ISSUED	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
None	1,019	58.7	1	20.0	104	40.9	2	1.4
Speed too fast	72	4.1	0	0.0	15	5.9	12	8.2
Speed too slow	2	0.1	0	0.0	0	0.0	0	0.0
Failed to yield	228	13.1	2	40.0	60	23.6	62	42.2
Disregard traffic control	30	1.7	0	0.0	13	5.1	14	9.5
Drove wrong way	1	0.1	0	0.0	1	0.4	1	0.7
Drove left of center	7	0.4	0	0.0	1	0.4	0	0.0
Improper passing	10	0.6	0	0.0	0	0.0	3	2.0
Improper lane use	34	2.0	0	0.0	1	0.4	5	3.4
Improper turn	23	1.3	0	0.0	4	1.6	6	4.1
Improper/no signal	2	0.1	0	0.0	1	0.4	0	0.0
Improper backing	76	4.4	0	0.0	1	0.4	2	1.4
Unable to stop in assured clear distance	91	5.2	1	20.0	19	7.5	15	10.2
Other	53	3.1	0	0.0	12	4.7	10	6.8
Unknown	30	1.7	1	20.0	3	1.2	0	0.0
Reckless driving	1	0.1	0	0.0	1	0.4	1	0.7
Careless/negligent driving	49	2.8	0	0.0	16	6.3	14	9.5
Uncoded & Errors	8	0.5	0	0.0	2	0.8	0	0.0
TOTAL	1,736	100.0	5	100.0	254	100.0	147	100.0

After no hazardous action, the second highest hazardous action category for drivers age 65 and over in the Upper Peninsula for all crashes (13.1%), fatal crashes (40.0%), and injury crashes (23.6%) occurs when the driver fails to yield.

UPPER PENINSULA DRIVER AGE 65 AND OVER (CONTINUED)

DAY OF WEEK	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Monday	259	14.9	0	0.0	43	16.9
Tuesday	265	15.3	1	20.0	46	18.1
Wednesday	267	15.4	2	40.0	37	14.6
Thursday	285	16.4	2	40.0	36	14.2
Friday	263	15.1	0	0.0	36	14.2
Saturday	238	13.7	0	0.0	31	12.2
Sunday	159	9.2	0	0.0	25	9.8
TOTAL	1,736	100.0	5	100.0	254	100.0

DRIVER GENDER	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Male	1,108	63.8	5	100.0	159	62.6
Female	628	36.2	0	0.0	95	37.4
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,736	100.0	5	100.0	254	100.0

For drivers age 65 and over in the Upper Peninsula, there were 5 male drivers (100.0%) and no female drivers in fatal crashes.

NUMBER OF OCCUPANTS	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
1 occupant	1,317	75.9	3	60.0	174	68.5
2 occupants	358	20.6	2	40.0	70	27.6
3 occupants	35	2.0	0	0.0	6	2.4
4 occupants	11	0.6	0	0.0	4	1.6
5 occupants	5	0.3	0	0.0	0	0.0
6+ occupants	3	0.2	0	0.0	0	0.0
0 occupants	5	0.3	0	0.0	0	0.0
Uncoded & Errors	2	0.1	0	0.0	0	0.0
TOTAL	1,736	100.0	5	100.0	254	100.0

UPPER PENINSULA DRIVER AGE 65 AND OVER (CONTINUED)

VEHICLE TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Passenger car, SUV, van	1,290	74.3	4	80.0	185	72.8
Motor home	22	1.3	0	0.0	7	2.8
Pickup truck	375	21.6	0	0.0	43	16.9
Small Truck under 10,000 lbs. GVWR	15	0.9	1	20.0	1	0.4
Motorcycle	13	0.7	0	0.0	9	3.5
Moped / goped	1	0.1	0	0.0	1	0.4
Go-cart / golf cart	0	0.0	0	0.0	0	0.0
Snowmobile	2	0.1	0	0.0	2	0.8
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	4	0.2	0	0.0	4	1.6
Other	1	0.1	0	0.0	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	13	0.7	0	0.0	2	0.8
TOTAL	1,736	100.0	5	100.0	254	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
10,000 lbs. or less	1	7.7	0	0.0	0	0.0
10,001 - 26,000 lbs.	2	15.4	0	0.0	1	50.0
Greater than 26,000 lbs.	9	69.2	0	0.0	1	50.0
Uncoded & Errors	1	7.7	0	0.0	0	0.0
TOTAL	13	100.0	0	0.0	2	100.0

ALCOHOL

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

VEHICLE	SEVERITY	TOTAL	CRASHES INVOLVING DRINKING, NOT DRUGS		CRASHES INVOLVING DRUGS, NOT DRINKING		CRASHES INVOLVING DRINKING AND DRUGS		TOTAL CRASHES INVOLVING DRINKING AND OR DRUGS	
			Operator in Crash	Operator Drinking	Operator in Crash	Operator Drugs	Operator in Crash	Operator Drinking and Drugs	Operator in Crash	Operator Drinking and/or Drugs
BICYCLISTS	Total	22	1	1	0	0	0	0	1	1
	Killed	1	0	0	0	0	0	0	0	0**
	Injured	15	1	1	0	0	0	0	1	1
DRIVERS	Total	11,707	370	266	65	47	65	48	500	361
	Killed	22	2	2	4	4	5	5	11	11**
	Injured	1,112	102	83	21	16	21	19	144	118
MOTORCYCLISTS	Total	128	8	7	0	0	1	1	9	8
	Killed	3	1	1	0	0	0	0	1	1**
	Injured	97	7	6	0	0	1	1	8	7
ORV/ATV RIDERS	Total	62	10	10	1	1	2	1	13	12
	Killed	2	0	0	1	1	1	1	2	2**
	Injured	45	8	8	0	0	0	0	8	8
PEDESTRIANS	Total	41	5	5	1	0	1	1	7	6
	Killed	2	0	0	0	0	1	1	1	1**
	Injured	35	5	5	1	0	0	0	6	5
SNOWMOBILERS	Total	35	2	1	2	2	0	0	4	3
	Killed	6	0	0	2	2	0	0	2	2**
	Injured	14	2	1	0	0	0	0	2	1

**Total does include property damage only crashes*

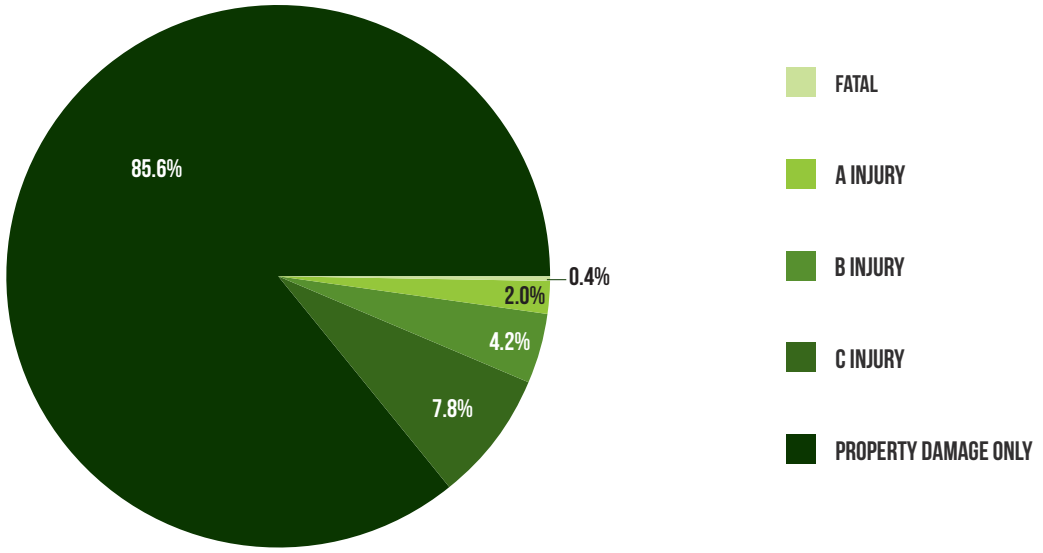
**In the Upper Peninsula, there were no bicyclists, 11 drivers, one motorcyclist, two ORV/ATV riders, one pedestrian, and two snowmobilers who were killed and coded as drinking and/or using drugs by the police officer.

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

AGE OF DRIVER 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 and under	0	0	0	0	0	0	0	0	0	0	0	0
14 years	0	0	0	0	0	0	0	0	0	0	0	0
15 years	1	0	0	1	0	0	0	0	1	0	0	1
16 years	0	0	1	1	0	0	0	0	0	0	0	0
17 years	1	0	0	1	0	0	0	0	1	0	0	1
18 years	3	1	0	4	0	0	0	0	1	0	0	1
19 years	3	1	1	5	0	0	0	0	2	1	1	4
20 years	11	1	4	16	0	0	0	0	7	1	1	9
21 - 24 years	39	4	9	52	0	0	1	1	16	2	4	22
25 - 34 years	89	19	16	124	0	0	3	3	32	10	9	51
35 - 44 years	34	7	5	46	1	1	1	3	10	1	0	11
45 - 54 years	48	6	6	60	1	2	0	3	24	1	3	28
55 - 64 years	23	7	4	34	0	1	1	2	7	4	1	12
65 - 69 years	4	1	2	7	0	0	0	0	1	0	1	2
70 - 74 years	4	0	0	4	0	0	0	0	1	0	0	1
75 - 79 years	2	0	0	2	0	0	0	0	0	0	0	0
80 - 84 years	3	0	0	3	1	0	0	1	1	0	0	1
85 - 89 years	0	0	0	0	0	0	0	0	0	0	0	0
90 years and over	1	0	0	1	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Total	266	47	48	361	3	4	6	13	104	20	20	144

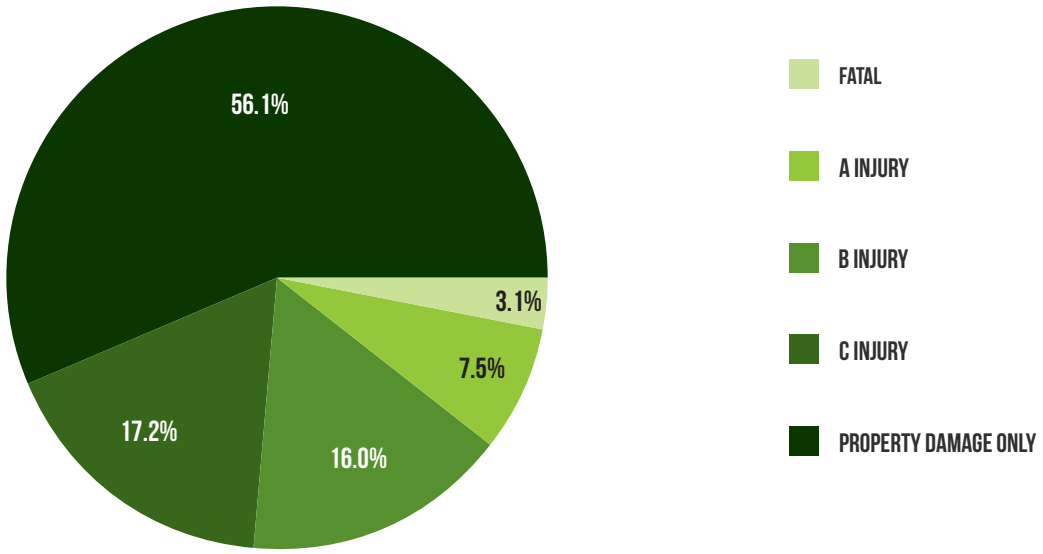
The driver age group 25 to 34 years represents the highest number of drinking and/or drug use in total crashes and injury crashes.

UPPER PENINSULA ALL CRASHES BY INJURY SEVERITY



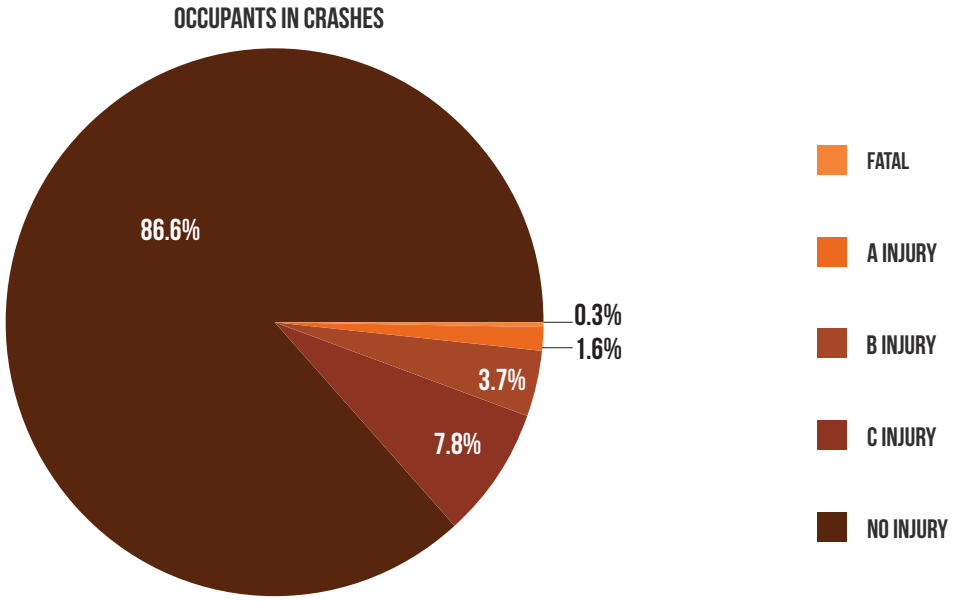
The majority of crashes do not involve injury (85.6%). Possible (C) injury crashes represent about 54% of all injury crashes.

UPPER PENINSULA HAD-BEEN-DRINKING CRASHES BY INJURY SEVERITY

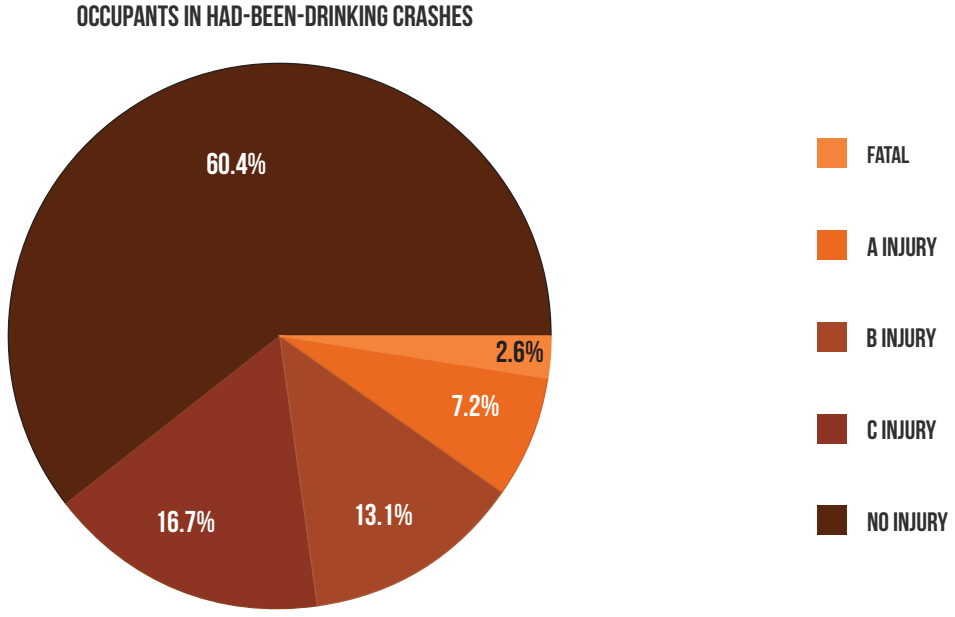


The problem of the drinking driver, pedestrian, and/or bicyclist is seen by comparing the two charts on this page. All injury levels are greater, and a fatality in the crash is nine times more likely, when one of the crash-involved operators is reported as had-been-drinking (HBD).

UPPER PENINSULA DEATH & INJURY FOR CRASH INVOLVED OCCUPANTS



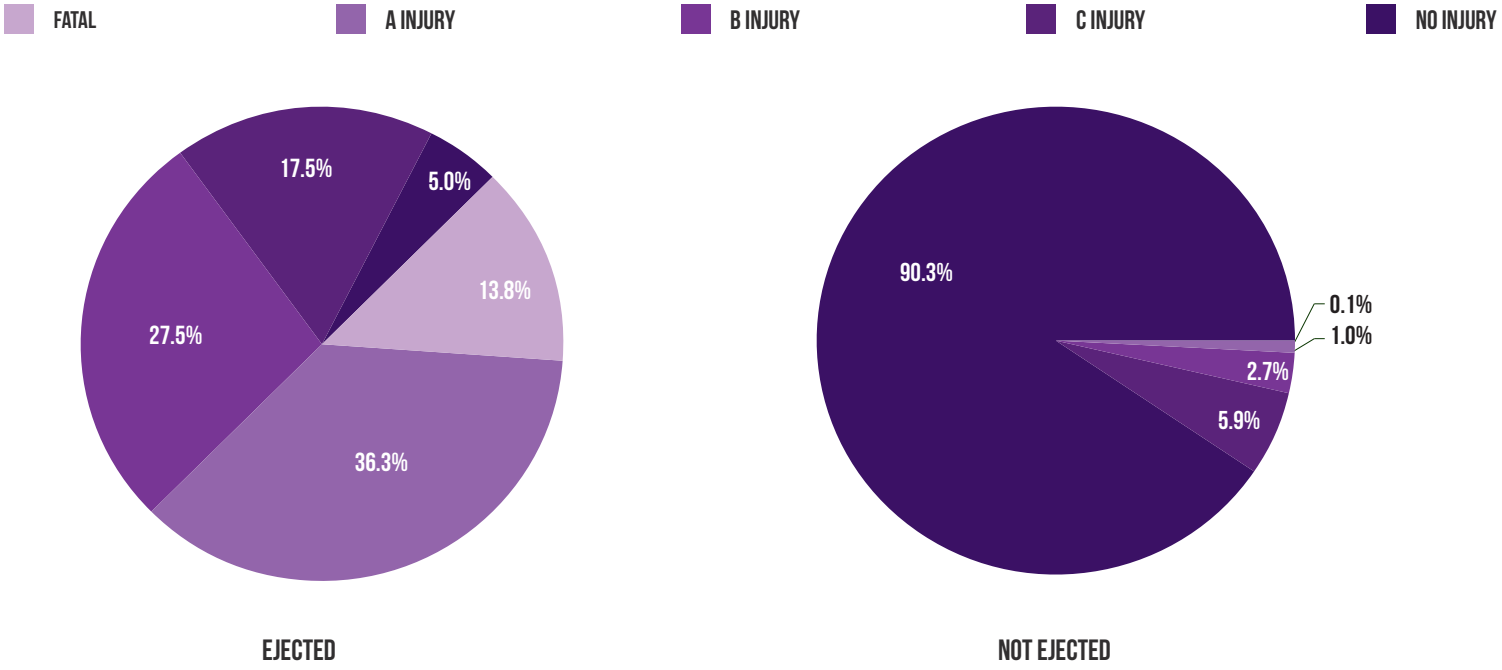
The majority of occupants involved in crashes are not injured (86.6%). About 58% of those who are injured receive only possible (C) injuries.



Crashes involving drinking tend to be more serious than non-drinking crashes. The percentage of fatalities is ten times higher, and the most serious injury level (A) in had-been-drinking crashes is about four and a half times higher than in all crashes.

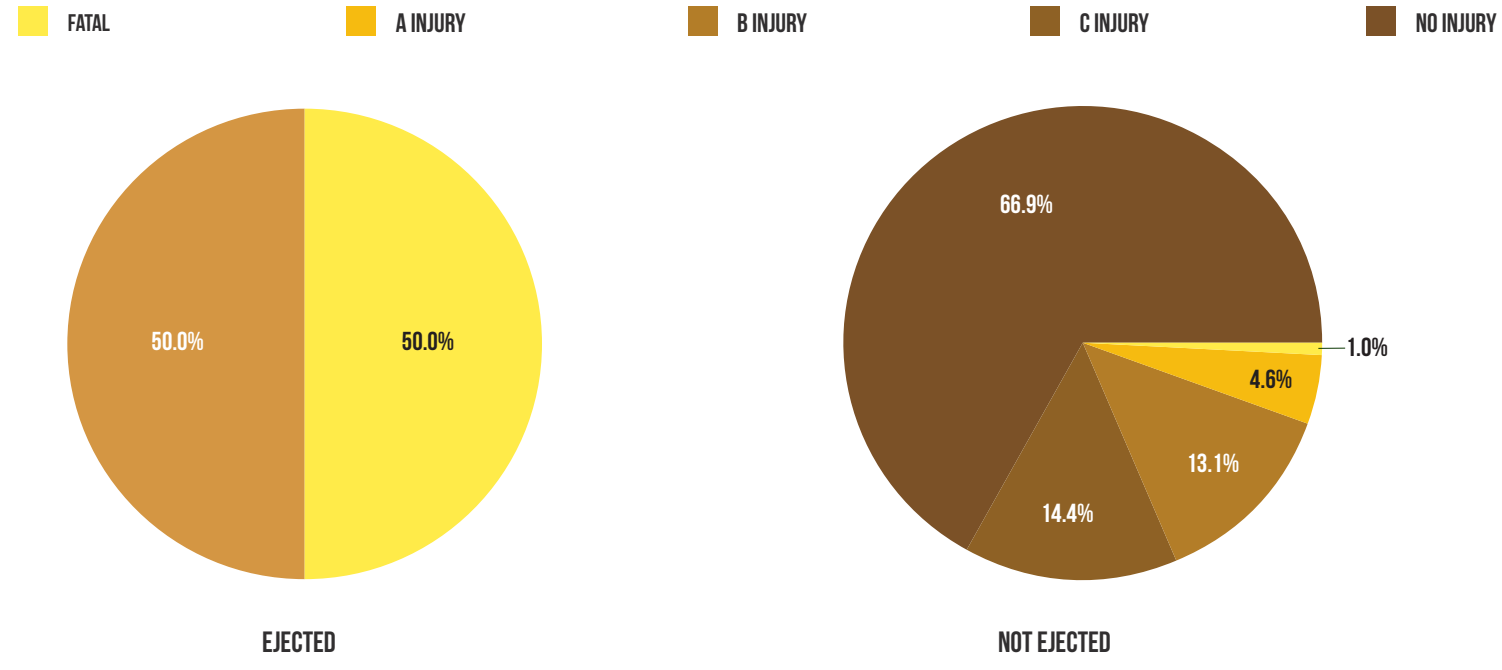
Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.

UPPER PENINSULA ALL DRIVERS INJURY SEVERITY - EJECTED VS. NOT EJECTED



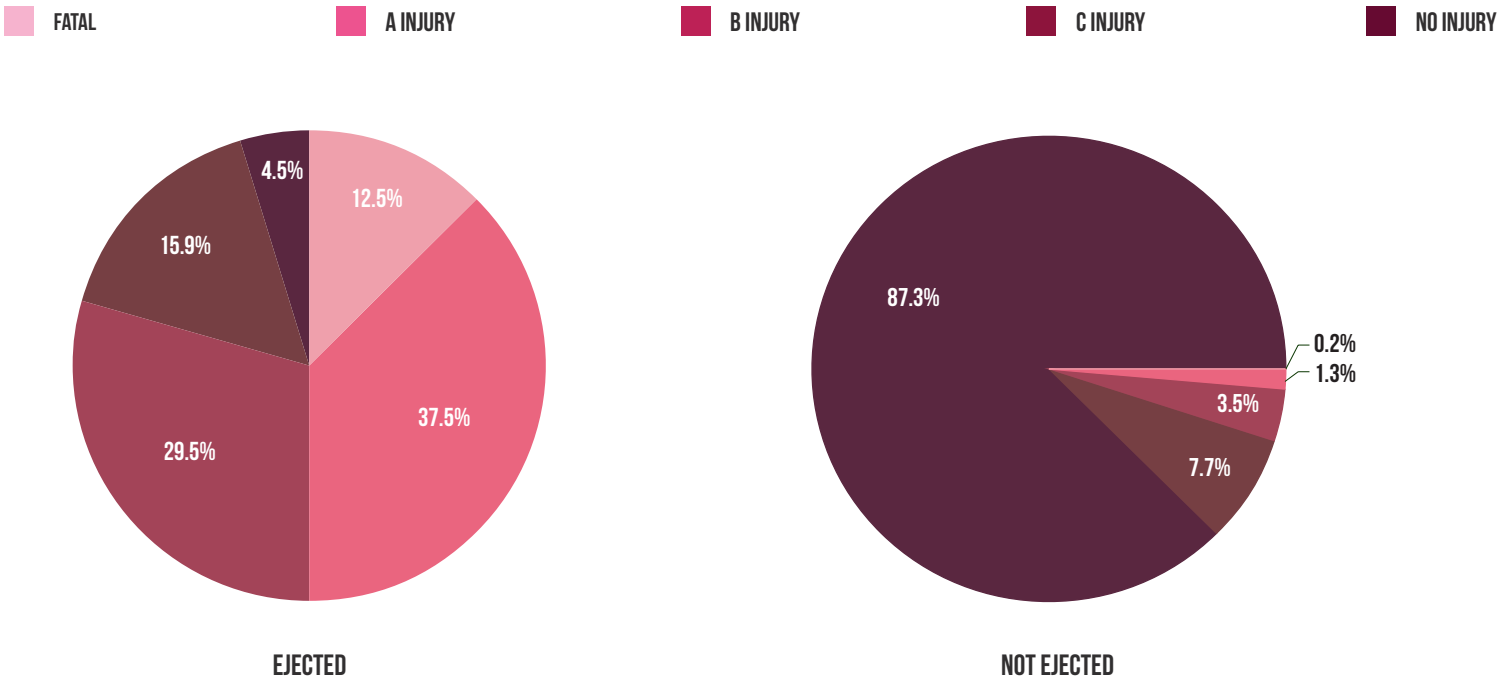
As can be seen in the two charts above, death and injury are much more likely when drivers are ejected from vehicles.

UPPER PENINSULA HAD-BEEN-DRINKING DRIVERS INJURY SEVERITY - EJECTED VS. NOT EJECTED



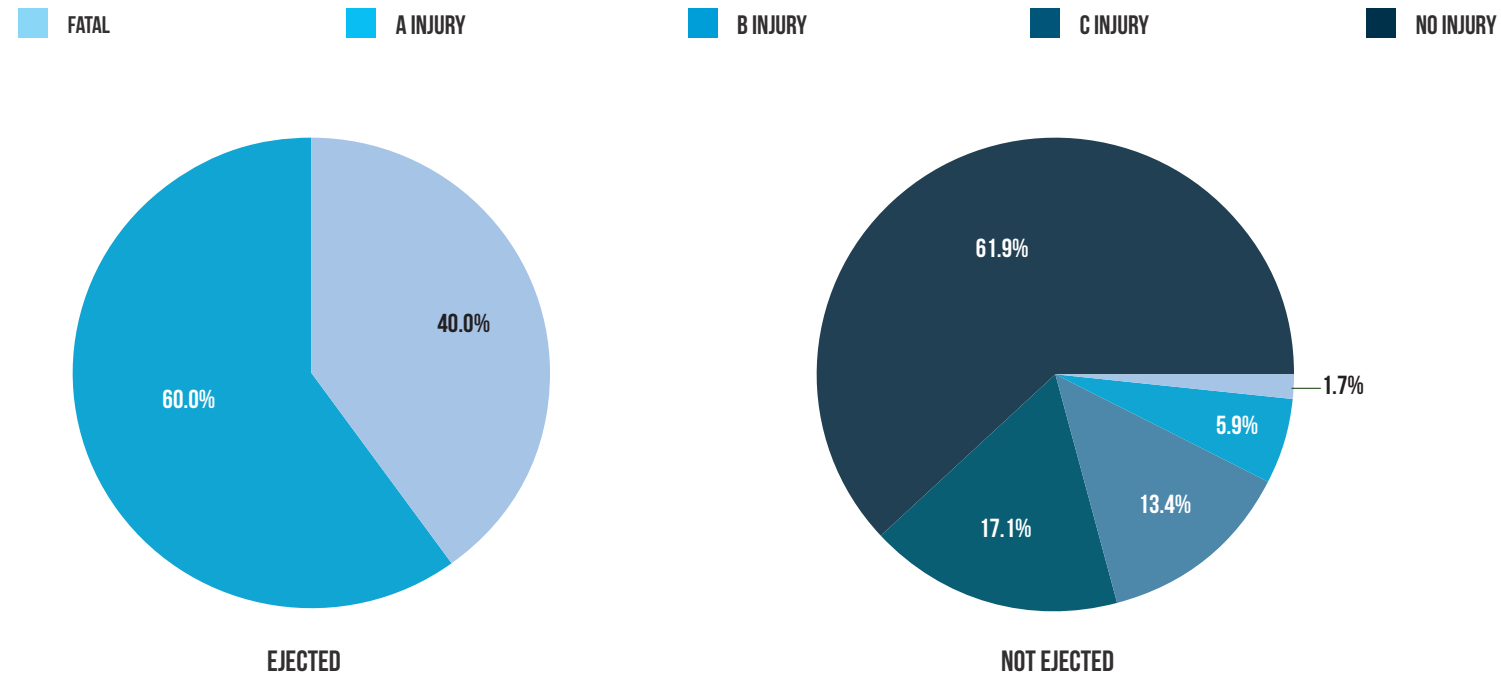
When compared to the charts above, the had-been-drinking charts demonstrate that injury severity is much worse for drivers who had been drinking in both ejected and non-ejected events.

UPPER PENINSULA ALL OCCUPANTS OF CRASHES INJURY SEVERITY - EJECTED VS. NOT EJECTED



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

UPPER PENINSULA OCCUPANTS OF HAD-BEEN-DRINKING CRASHES INJURY SEVERITY - EJECTED VS. NOT EJECTED

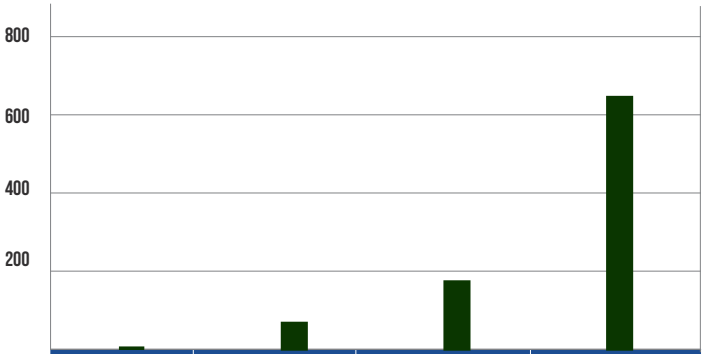


When compared to the charts above, the charts of occupants of had-been-drinking crashes demonstrate that injury severity is much worse for occupants in a crash where drinking is reported in both ejected and non-ejected events.

Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.

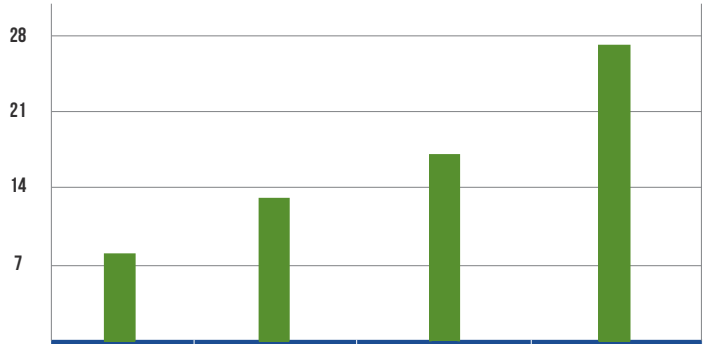
UPPER PENINSULA INJURY SEVERITY & BELT USE BY DRIVER INJURY

ALL CRASHES-BELTS USED



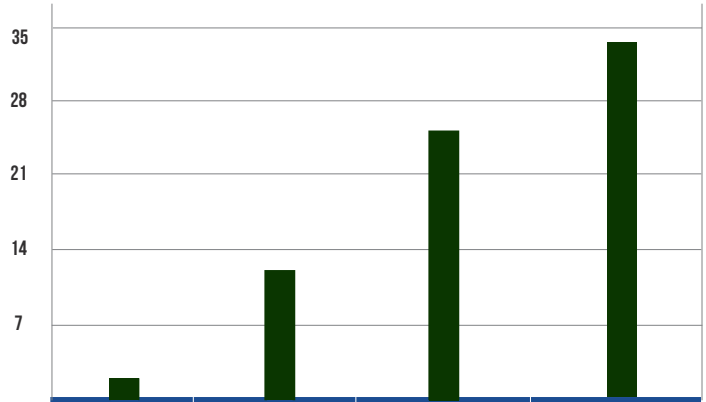
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
4	73	226	588

ALL CRASHES-BELTS NOT USED



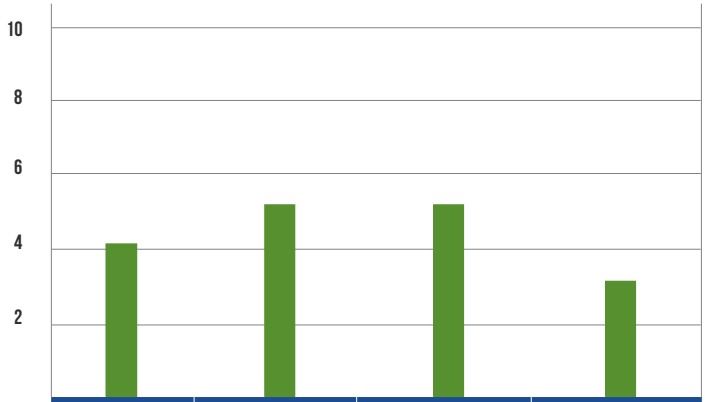
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
5	12	16	15

HAD-BEEN DRINKING CRASHES-BELTS USED



FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
1	11	28	37

HAD-BEEN DRINKING CRASHES-BELTS NOT USED

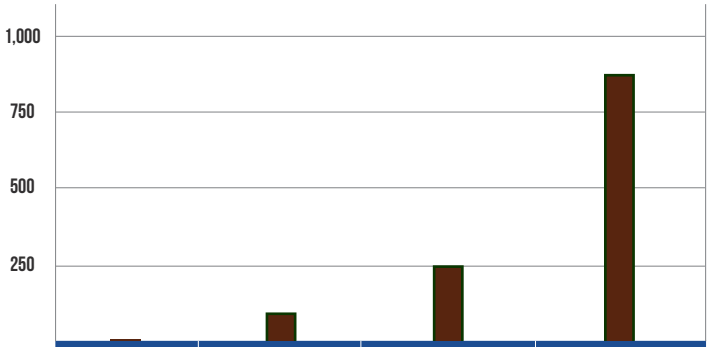


FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
4	5	3	5

Note: "Belts Used" represents shoulder belts only used, lap belts only used, both lap and shoulder belts used, and restraint failure. "Belts Not Used" represents no belts available and no belts used.

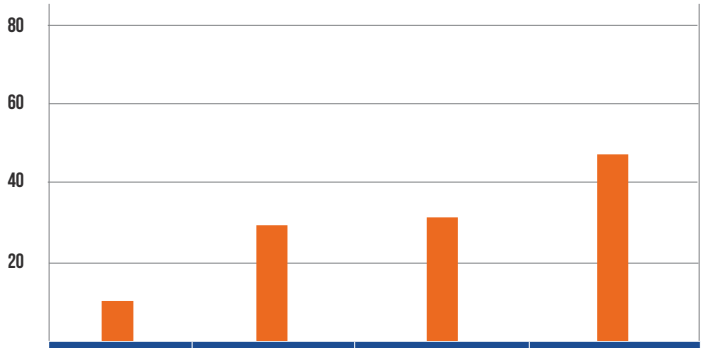
UPPER PENINSULA INJURY SEVERITY & RESTRAINT USE BY OCCUPANT INJURY

ALL CRASHES-RESTRAINTS USED



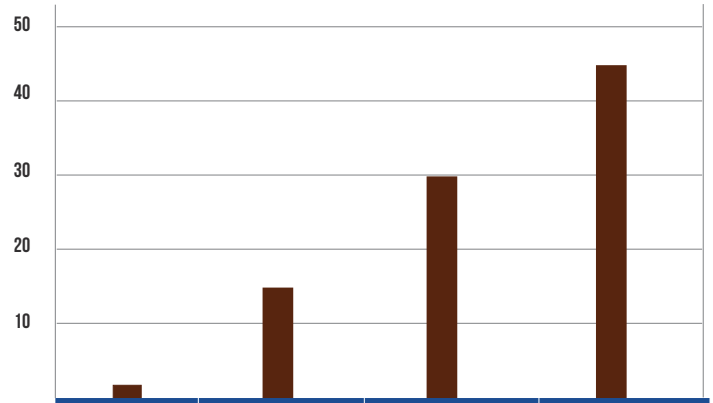
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
8	96	307	788

ALL CRASHES-RESTRAINTS NOT USED



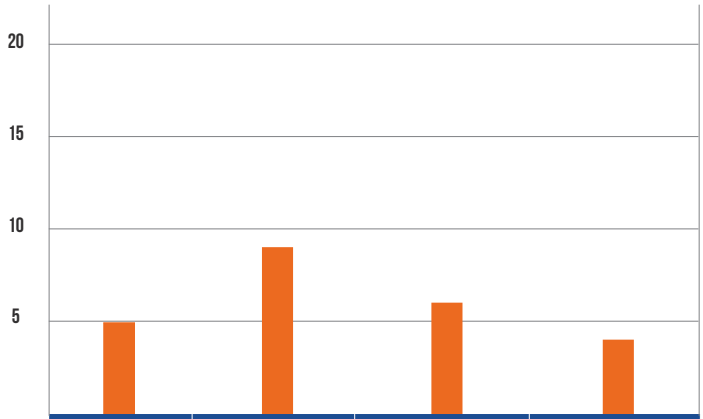
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
8	26	26	28

HAD-BEEN DRINKING CRASHES-RESTRAINTS USED



FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
3	15	32	46

HAD-BEEN DRINKING CRASHES-RESTRAINTS NOT USED



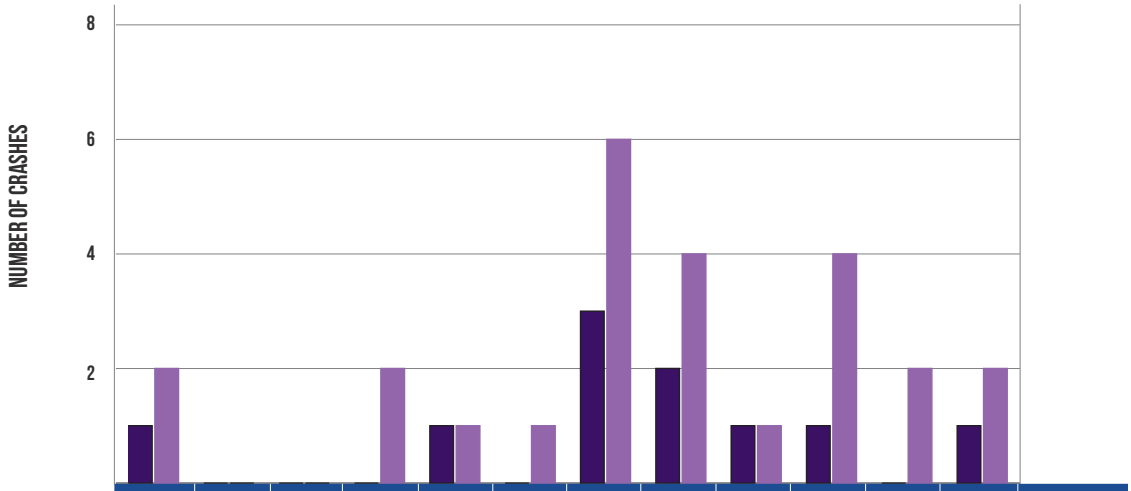
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
6	7	6	10

Note: "Restraints Used" represents shoulder belts only used, lap belts only used, both lap and shoulder belts used, child restraints used, and restraint failure. "Restraints Not Used" represents no belts available; no belts used; and child restraint not used, unavailable, or improper use.

Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.

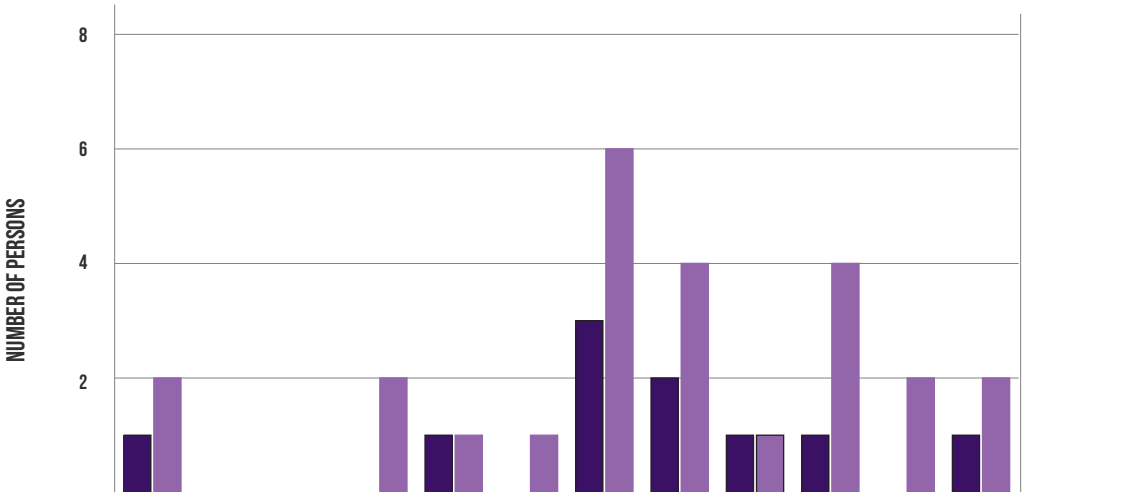
UPPER PENINSULA ALCOHOL INVOLVEMENT IN FATAL CRASHES

HAD-BEEN-DRINKING FATAL CRASHES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
HBD FATAL CRASHES	2	1	0	0	0	4	0	0	1	0	0	2	10
TOTAL FATAL CRASHES	5	4	2	0	1	6	3	1	1	1	2	3	29

ALCOHOL-INVOLVED FATALITIES BY MONTH



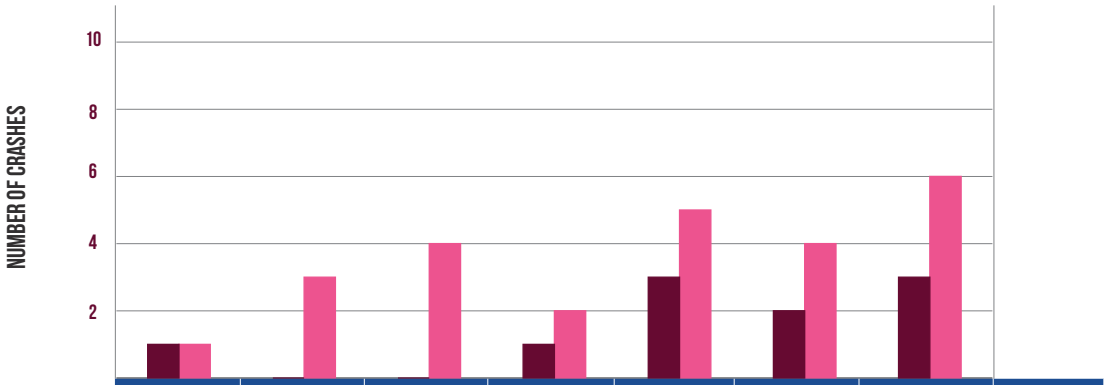
	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
ALCOHOL-IN-VOLVED FATALITIES	3	1	0	0	0	5	0	0	1	0	0	2	12
TOTAL FATALITIES	6	4	2	0	1	8	3	1	1	1	2	3	32

Had-been-drinking fatal crashes were highest in number during the month of June. The number of total fatal crashes (total of non-had-been-drinking and had-been-drinking fatal crashes) also reached highest levels in June.

Note: An alcohol-involved fatality is any person killed in a had-been-drinking crash.

UPPER PENINSULA ALCOHOL INVOLVEMENT IN FATAL CRASHES (CONTINUED)

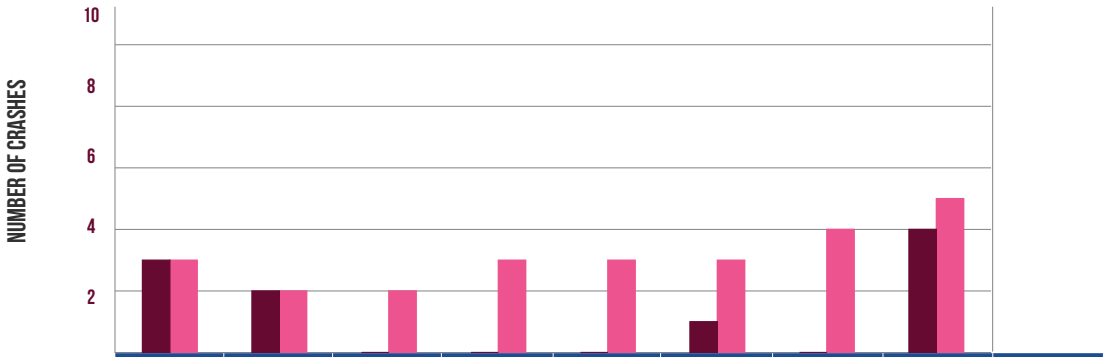
HAD-BEEN-DRINKING FATAL CRASHES BY DAY OF THE WEEK



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
HBD FATAL CRASHES	1	1	1	1	1	2	3	10
TOTAL FATAL CRASHES	4	4	5	5	4	2	5	29

Wednesday, Thursday, and Sunday had the highest number of fatal crashes, and Sunday had the highest number of drinking-related fatal crashes in 2016.

HAD-BEEN-DRINKING FATAL CRASHES BY TIME OF DAY

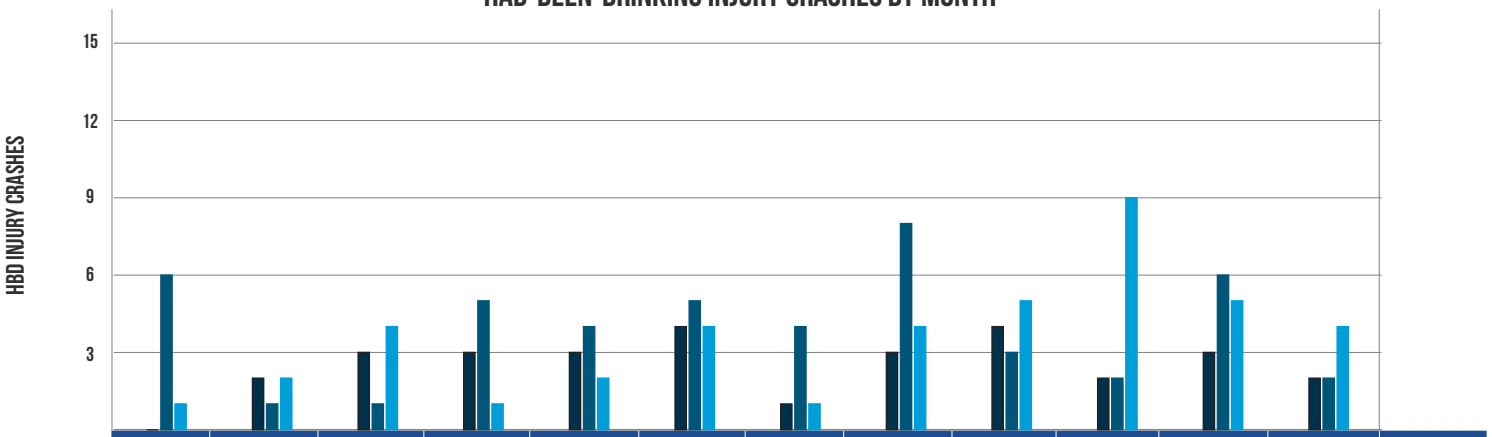


	12:00-2:59AM	3:00-5:59AM	6:00-8:59AM	9:00-11:59AM	12:00-2:59PM	3:00-5:59PM	6:00-8:59PM	9:00-11:59PM	TOTALS
HBD FATAL CRASHES	2	1	0	2	0	0	2	3	10
TOTAL FATAL CRASHES	2	1	0	4	8	4	7	3	29

The 9:00 PM to 11:59 PM time period had the highest number of HBD fatal crashes (3), while the 12:00 PM to 2:59 PM time period had the highest number of total fatal crashes (8).

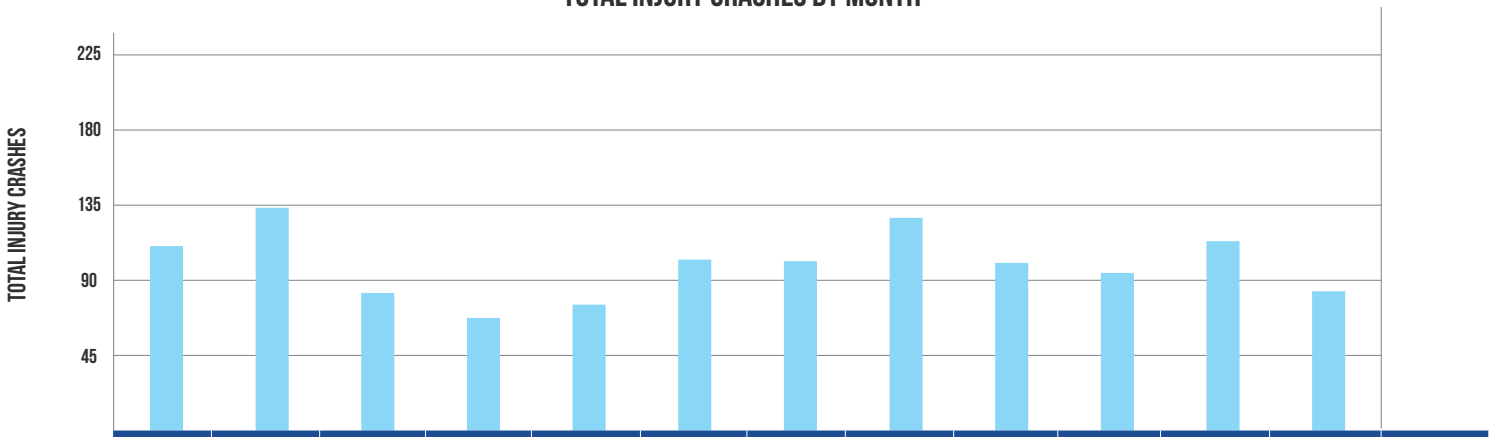
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES

HAD-BEEN-DRINKING INJURY CRASHES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
HBD A INJURY CRASHES	0	2	2	2	5	4	1	1	2	3	2	0	24
HBD B INJURY CRASHES	2	4	0	4	4	3	8	7	6	6	3	4	51
HBD C INJURY CRASHES	7	4	1	6	2	1	6	9	4	4	7	4	55

TOTAL INJURY CRASHES BY MONTH

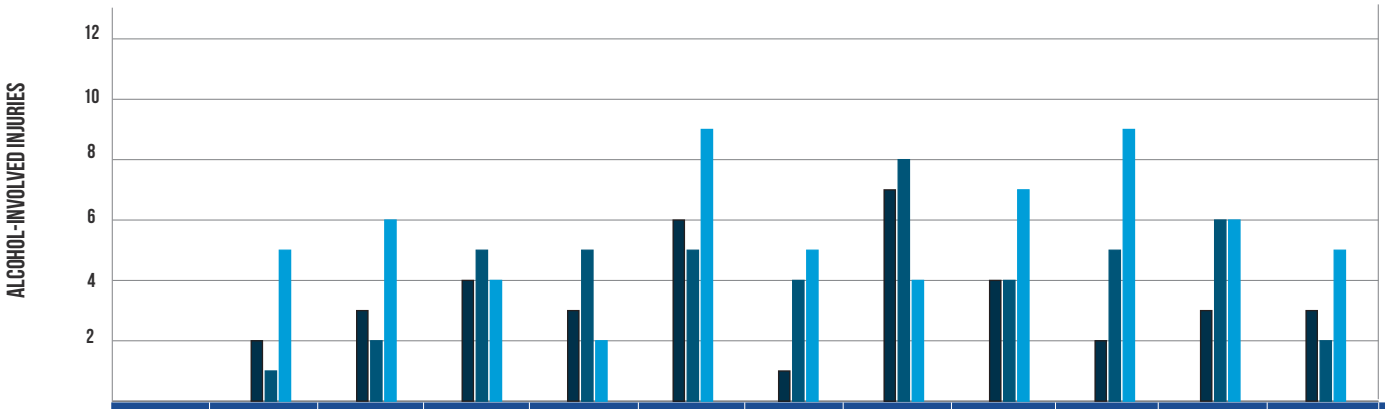


	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
TOTAL INJURY CRASHES	94	101	51	93	78	113	119	120	99	82	93	120	1,163

Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2016, the highest number of had-been-drinking injury crashes occurred in August (17).

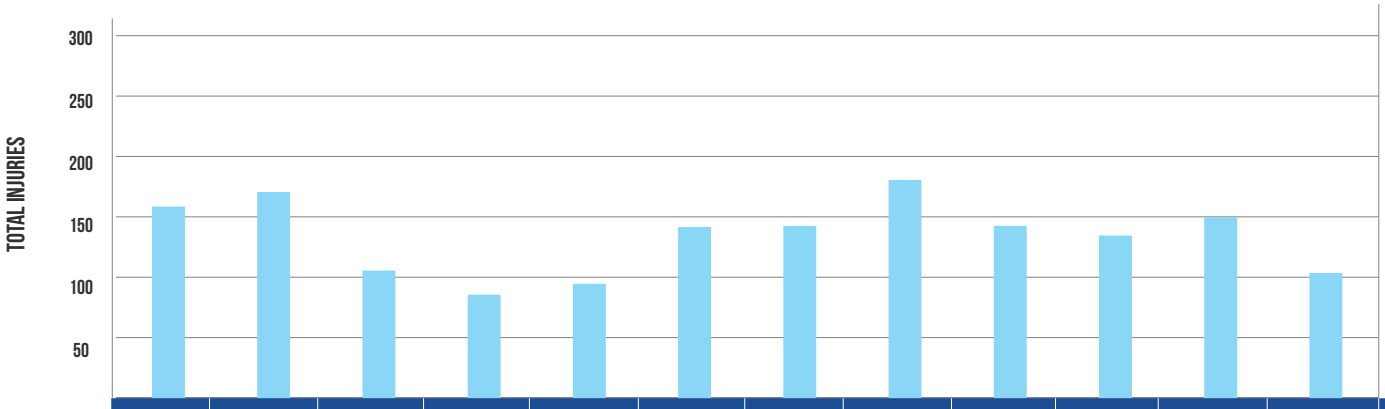
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)

ALCOHOL-INVOLVED INJURIES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
ALCOHOL-INVOLVED A INJURIES	3	2	2	2	6	5	1	1	4	3	2	0	31
ALCOHOL-INVOLVED B INJURIES	2	5	0	5	5	3	9	7	6	6	3	5	56
ALCOHOL-INVOLVED C INJURIES	7	4	1	6	6	5	8	13	6	4	10	4	74

TOTAL INJURIES BY MONTH

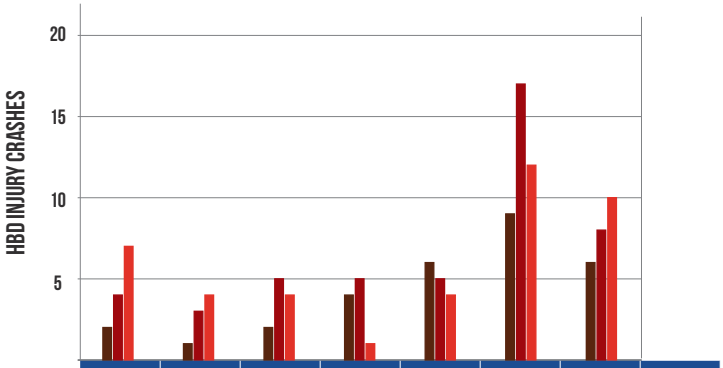


	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
TOTAL INJURIES	112	140	68	111	111	163	161	163	130	110	127	145	1,541

Note: An alcohol-involved injury is any person injured in a had-been-drinking crash.

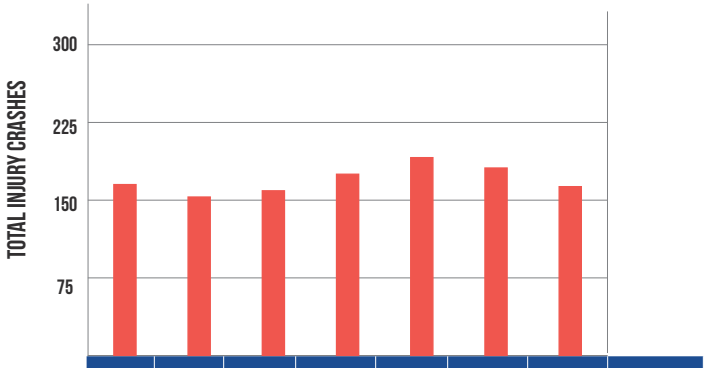
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)

HAD-BEEN-DRINKING INJURY CRASHES BY DAY OF THE WEEK



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
HBD A INJURIES	3	3	2	5	3	4	4	24
HBD B INJURIES	3	7	2	3	11	14	11	51
HBD C INJURIES	5	7	11	3	13	11	5	55

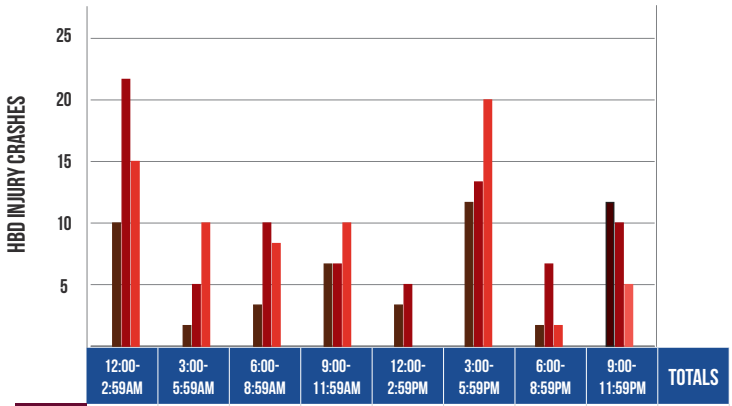
TOTAL INJURY CRASHES BY DAY OF THE WEEK



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
TOTAL INJURY CRASHES	170	156	164	148	201	172	152	1,163

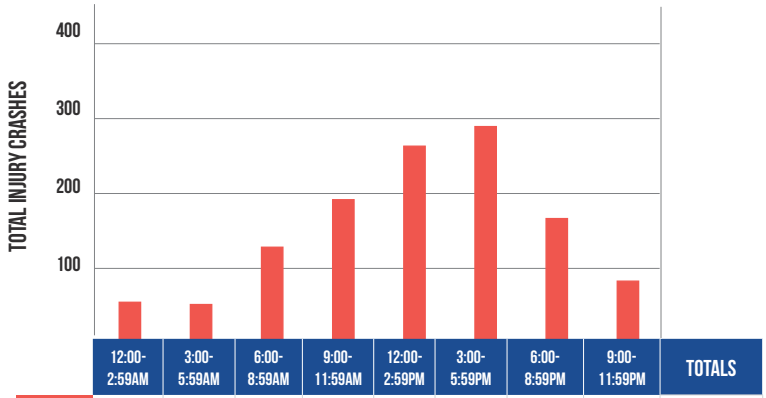
The peak day for all injury crashes is Friday. The highest proportion of had-been-drinking injury crashes to total injury crashes occurred on Saturday (16.9%).

HAD-BEEN-DRINKING INJURY CRASHES BY TIME OF DAY



	12:00-2:59AM	3:00-5:59AM	6:00-8:59AM	9:00-11:59AM	12:00-2:59PM	3:00-5:59PM	6:00-8:59PM	9:00-11:59PM	TOTALS
HBD A INJURIES	7	2	0	0	1	2	7	5	24
HBD B INJURIES	13	12	0	2	0	3	13	7	50
HBD C INJURIES	12	4	6	2	2	5	16	8	55

TOTAL INJURY CRASHES BY TIME OF DAY



	12:00-2:59AM	3:00-5:59AM	6:00-8:59AM	9:00-11:59AM	12:00-2:59PM	3:00-5:59PM	6:00-8:59PM	9:00-11:59PM	TOTALS
TOTAL INJURY CRASHES	66	52	131	150	232	266	171	93	1,161

Total injury crash frequencies peak in the hours between 3:00 PM and 5:59 PM, while had-been-drinking injury crash frequencies peak between 6:00 PM and 8:59 PM. There was one had-been-drinking injury crash and two injury crashes where the time of day was unknown.

UPPER PENINSULA MALE DRIVERS BY AGE AND INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	MALE DRIVERS		FATAL		INJURY			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
13 years and under	6	0.1	0	0.0	0	1	3	2
14 years	3	0.0	0	0.0	0	1	0	2
15 years	11	0.2	0	0.0	2	2	2	5
16 years	104	1.6	1	3.4	5	4	9	85
17 years	132	2.0	0	0.0	2	9	14	107
18 years	173	2.7	0	0.0	6	10	21	136
19 years	178	2.7	0	0.0	3	16	17	142
20 years	193	3.0	1	3.4	5	12	27	148
21 - 24 years	597	9.2	1	3.4	13	35	50	498
25 - 34 years	1,073	16.6	2	6.9	34	56	111	870
35 - 44 years	909	14.0	4	13.8	18	39	67	781
45 - 54 years	959	14.8	4	13.8	25	42	91	797
55 - 64 years	1,015	15.7	11	37.9	19	49	76	860
65 - 69 years	425	6.6	0	0.0	8	22	32	363
70 - 74 years	256	3.9	1	3.4	8	7	17	223
75 - 79 years	195	3.0	0	0.0	4	6	18	167
80 - 84 years	140	2.2	4	13.8	2	8	12	114
85 - 89 years	69	1.1	0	0.0	2	4	5	58
90 years and over	23	0.4	0	0.0	0	3	1	19
Unknown	22	0.3	0	0.0	0	0	1	21
Total	6,483	100.0	29	100.0	156	326	574	5,398

The male driver age group 55 to 64 experienced the highest number of fatal crashes. The male driver age group 25 to 34 years experienced the highest number of injury crashes and property damage only crashes.

***Note: This table excludes 677 drivers of unknown gender.*

UPPER PENINSULA MALE DRINKING DRIVERS BY AGE AND INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	MALE DRIVERS		FATAL		INJURY			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	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	0	0.0	0	0.0	0	0	0	0
16 years	1	0.4	0	0.0	0	0	0	1
17 years	1	0.4	0	0.0	0	1	0	0
18 years	1	0.4	0	0.0	1	0	0	0
19 years	4	1.7	0	0.0	1	2	0	1
20 years	8	3.4	0	0.0	0	2	2	4
21 - 24 years	37	15.8	1	16.7	3	7	6	20
25 - 34 years	76	32.5	1	16.7	4	8	20	43
35 - 44 years	29	12.4	1	16.7	1	5	1	21
45 - 54 years	43	18.4	1	16.7	7	8	8	19
55 - 64 years	23	9.8	1	16.7	0	3	4	15
65 - 69 years	4	1.7	0	0.0	0	1	0	3
70 - 74 years	2	0.9	0	0.0	0	0	0	2
75 - 79 years	2	0.9	0	0.0	0	0	0	2
80 - 84 years	3	1.3	1	16.7	0	0	1	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	0	0.0	0	0.0	0	0	0	0
Total	234	100.0	6	100.0	17	37	42	132

The male drinking driver age group 25 to 34 years experienced the highest number of injury crashes and property damage only crashes.

***Note: This table excludes no drivers of unknown gender.*

UPPER PENINSULA FEMALE DRIVERS BY AGE AND INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	FEMALE DRIVERS		FATAL		INJURY			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
13 years and under	2	0.0	0	0.0	1	0	1	0
14 years	2	0.0	0	0.0	2	0	0	0
15 years	9	0.2	0	0.0	1	1	1	6
16 years	82	1.8	0	0.0	2	5	14	61
17 years	130	2.9	1	7.7	2	4	19	104
18 years	130	2.9	1	7.7	4	4	10	111
19 years	123	2.7	0	0.0	1	5	14	103
20 years	138	3.0	0	0.0	0	4	15	119
21 - 24 years	416	9.1	2	15.4	5	18	47	344
25 - 34 years	799	17.6	2	15.4	17	40	82	658
35 - 44 years	690	15.2	4	30.8	9	22	72	583
45 - 54 years	703	15.5	1	7.7	15	16	92	579
55 - 64 years	677	14.9	2	15.4	11	24	74	566
65 - 69 years	229	5.0	0	0.0	3	5	22	199
70 - 74 years	160	3.5	0	0.0	3	5	19	133
75 - 79 years	116	2.6	0	0.0	3	4	8	101
80 - 84 years	77	1.7	0	0.0	3	3	8	63
85 - 89 years	32	0.7	0	0.0	0	1	6	25
90 years and over	14	0.3	0	0.0	0	0	2	12
Unknown	18	0.4	0	0.0	0	0	0	18
Total	4,547	100.0	13	100.0	82	161	506	3,785

The female driver age group 35 to 44 years experienced the highest number of fatal crashes. The female driver age group 25 to 34 years experienced the highest number of injury crashes and property damage only crashes.

***Note: This table excludes 677 drivers of unknown gender.*

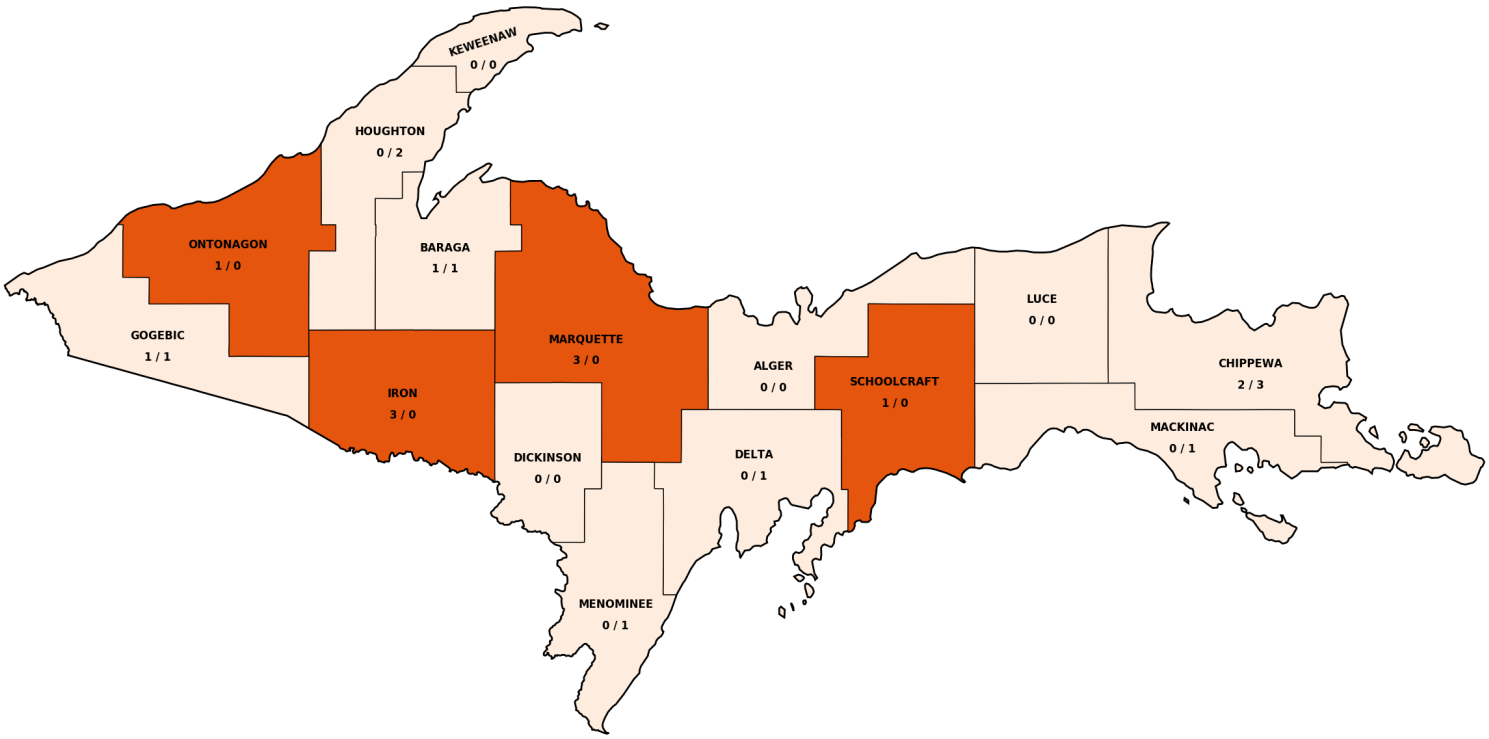
UPPER PENINSULA FEMALE DRINKING DRIVERS BY AGE AND INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	FEMALE DRIVERS		FATAL		INJURY			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	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	1.2	0	0.0	0	1	0	0
16 years	0	0.0	0	0.0	0	0	0	0
17 years	0	0.0	0	0.0	0	0	0	0
18 years	2	2.5	0	0.0	0	0	0	2
19 years	0	0.0	0	0.0	0	0	0	0
20 years	7	8.8	0	0.0	0	1	3	3
21 - 24 years	11	13.8	0	0.0	0	2	2	7
25 - 34 years	29	36.2	2	66.7	3	5	1	18
35 - 44 years	10	12.5	1	33.3	0	1	2	6
45 - 54 years	11	13.8	0	0.0	3	1	0	7
55 - 64 years	4	5.0	0	0.0	0	1	0	3
65 - 69 years	2	2.5	0	0.0	0	1	0	1
70 - 74 years	2	2.5	0	0.0	0	0	1	1
75 - 79 years	0	0.0	0	0.0	0	0	0	0
80 - 84 years	0	0.0	0	0.0	0	0	0	0
85 - 89 years	0	0.0	0	0.0	0	0	0	0
90 years and over	1	1.2	0	0.0	0	0	0	1
Unknown	0	0.0	0	0.0	0	0	0	0
Total	80	100.0	3	100.0	6	13	9	49

The female drinking driver age group 25 to 34 years experienced the highest number of fatal crashes, injury crashes, and property damage only crashes.

***Note: This table excludes no drivers of unknown gender.*

TRAFFIC FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY



Where HBD Traffic Fatalities Occurred

A One-Year Comparison
2016 = 12 / 2015 = 10

- Same or decrease
- Increase

DEER

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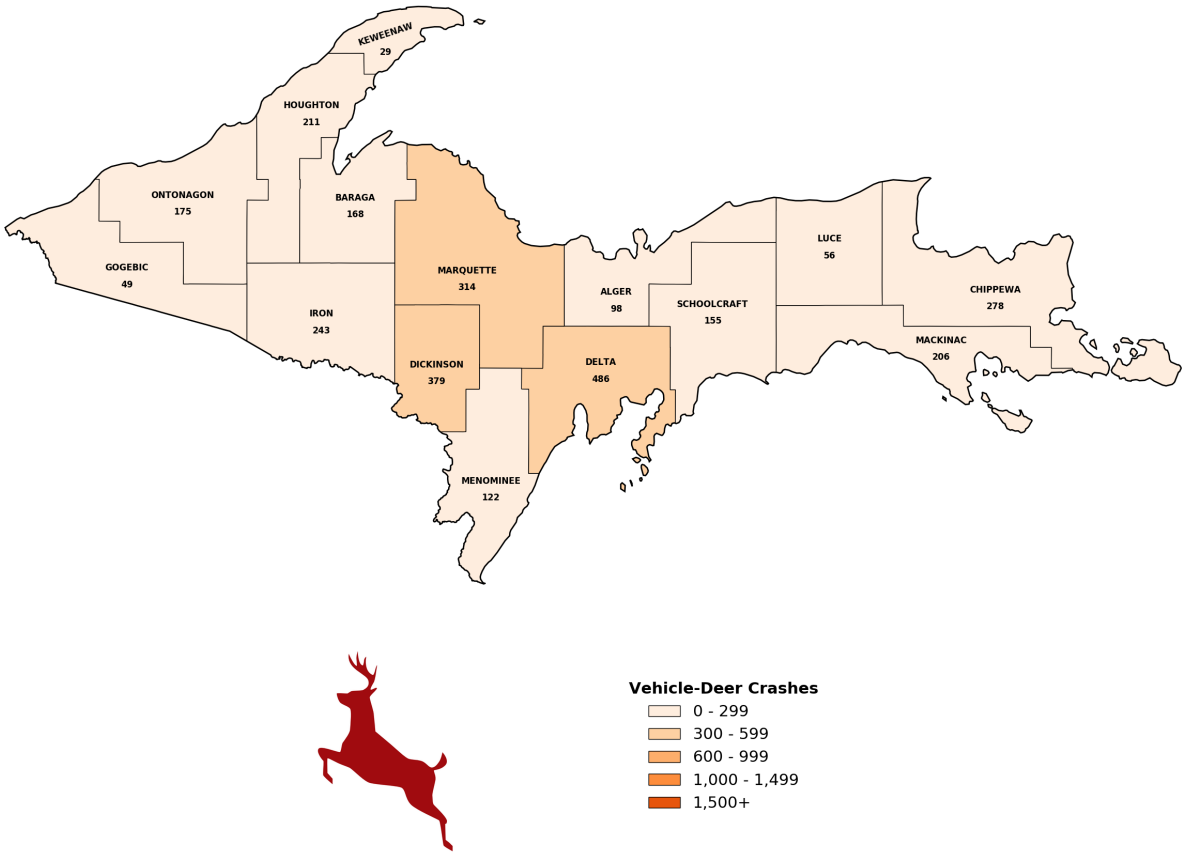
UPPER PENINSULA MICHIGAN MOTOR VEHICLE-DEER INVOLVED CRASHES



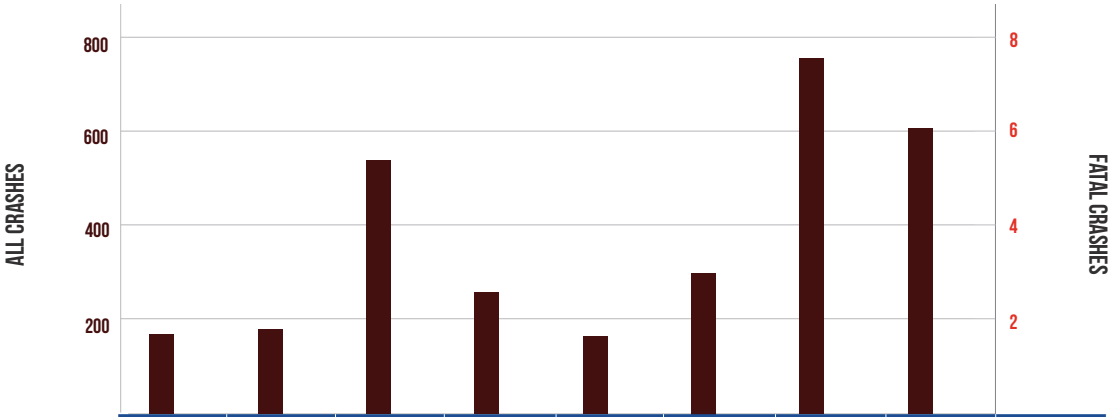
The Upper Peninsula had 2,969 reported vehicle-deer crashes during 2016. Those collisions resulted in 79 people injured and none killed. Of the 2,976 vehicles involved, 2,260 (75.9%) were passenger cars, SUVs, or vans; 621 (20.9%) were pickups; and 18 (0.6%) were motorhomes. All other vehicle types (including motorcycle, snowmobile, ORV/ATV, large truck, and moped; uncoded and errors are also included) totaled 77 (2.6%).

In the Upper Peninsula, 35.9 percent of crashes in all counties involved deer. This compares to 15.0 percent for the number of deer-involved crashes statewide. Delta County had the highest number of vehicle-deer crashes (486), translating to 42.2 percent of the total crashes in that county in 2016.

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

LIGHT CONDITION	ALL CRASHES		FATAL		INJURY			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Daylight	932	31.4	0	0.0	6	14	9	903
Dawn	226	7.6	0	0.0	1	2	2	221
Dusk	241	8.1	0	0.0	0	1	1	239
Dark - Lighted	87	2.9	0	0.0	0	1	1	85
Dark - Unlighted	1,450	48.8	0	0.0	3	7	18	1,422
Other/Unknown	33	1.1	0	0.0	0	0	1	32
Total	2,969	100.0	0	0.0	10	25	32	2,902

TIME AND SEVERITY OF MOTOR VEHICLE — DEER CRASHES



	12:00-2:59AM	3:00-5:59AM	6:00-8:59AM	9:00-11:59AM	12:00-2:59PM	3:00-5:59PM	6:00-8:59PM	9:00-11:59PM	TOTALS
ALL CRASHES	169	179	537	258	165	299	754	606	2,967
FATAL CRASHES	0	0	0	0	0	0	0	0	0

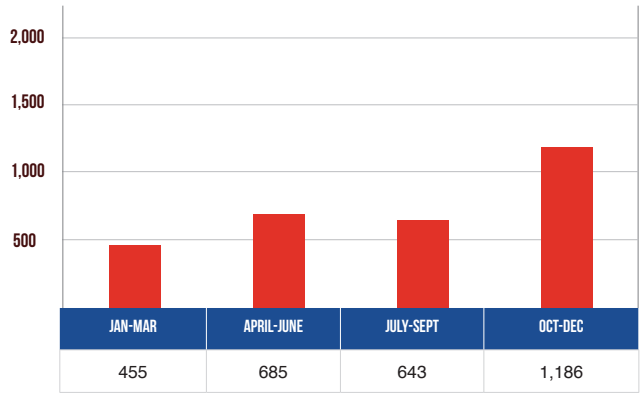
The highest number of reported vehicle-deer collisions occurred during the 6:00 PM to 8:59 PM time period, when 25.4 percent (754) vehicle-deer crashes occurred. There were no fatal vehicle-deer crashes in the Upper Peninsula in 2016.

Note: Time and Severity chart excludes 2 crashes where time of day is unknown.

MONTHLY AND SEASONAL RATES FOR MOTOR VEHICLE-DEER CRASHES

MONTH	ALL CRASHES		FATAL		INJURY			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
January	210	7.1	0	0.0	0	1	3	206
February	100	3.4	0	0.0	0	0	1	99
March	145	4.9	0	0.0	0	0	1	144
April	166	5.6	0	0.0	0	2	1	163
May	212	7.1	0	0.0	3	2	1	206
June	307	10.3	0	0.0	4	6	8	289
July	206	6.9	0	0.0	0	1	5	200
August	187	6.3	0	0.0	1	5	1	180
September	250	8.4	0	0.0	1	2	2	245
October	363	12.2	0	0.0	1	5	3	354
November	498	16.8	0	0.0	0	1	3	494
December	325	10.9	0	0.0	0	0	3	322
Total	2,969	100.0	0	0.0	10	25	32	2,902

MOTOR VEHICLE — DEER CRASHES



Of the total 2,969 reported vehicle-deer collisions in the Upper Peninsula, 39.9 percent (1,186) occurred during the fourth quarter of the year.

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CRASH

(circumstances common to all traffic units in a crash)

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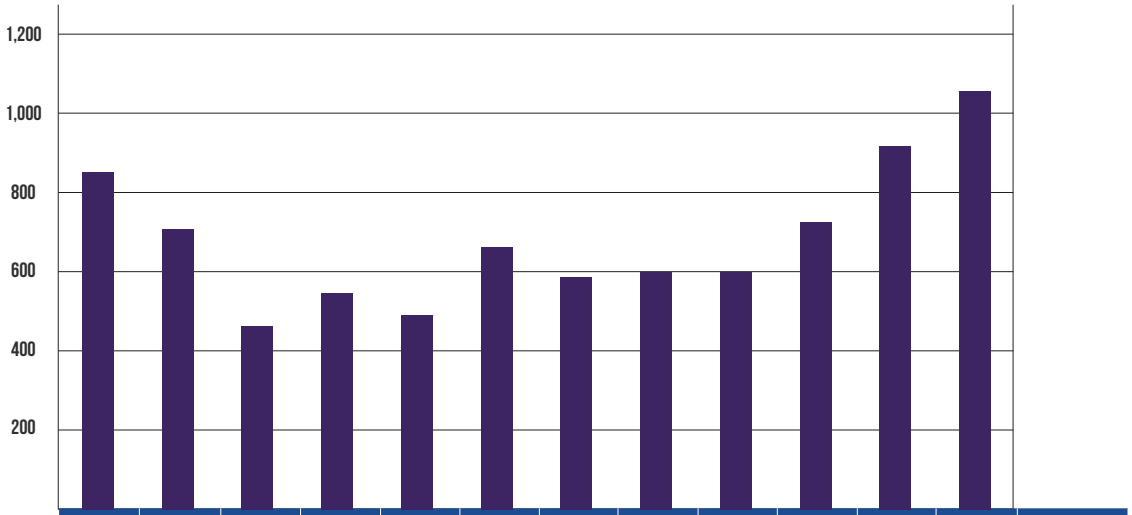
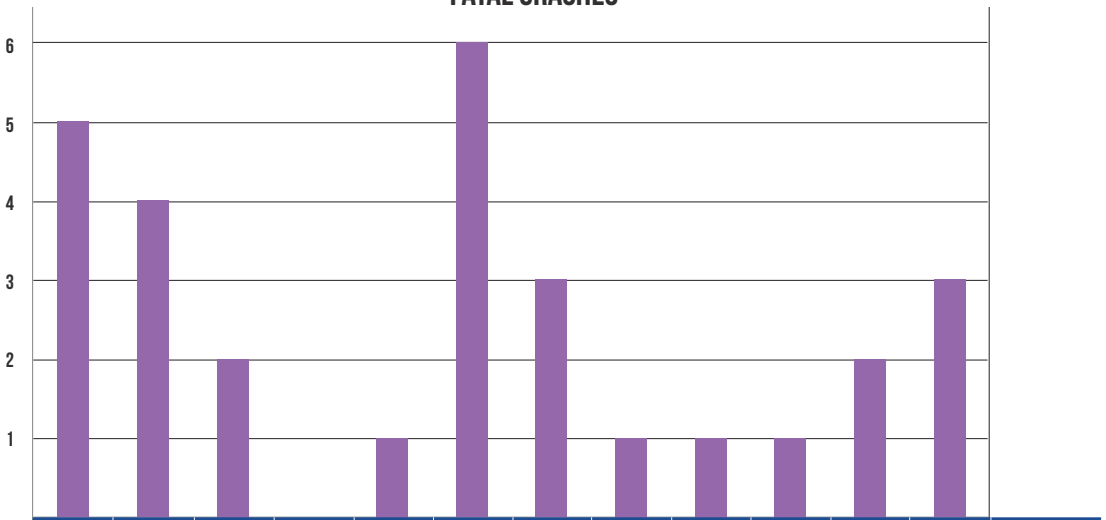
UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH

TOTAL CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
857	713	467	550	494	667	591	603	603	732	924	1,063	8,264

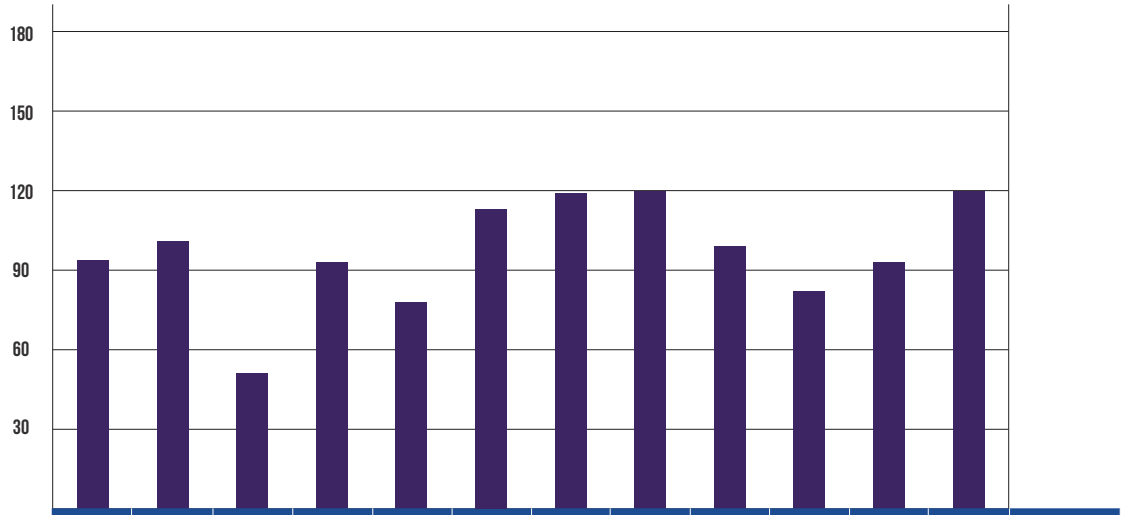
FATAL CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
5	4	2	0	1	6	3	1	1	1	2	3	29

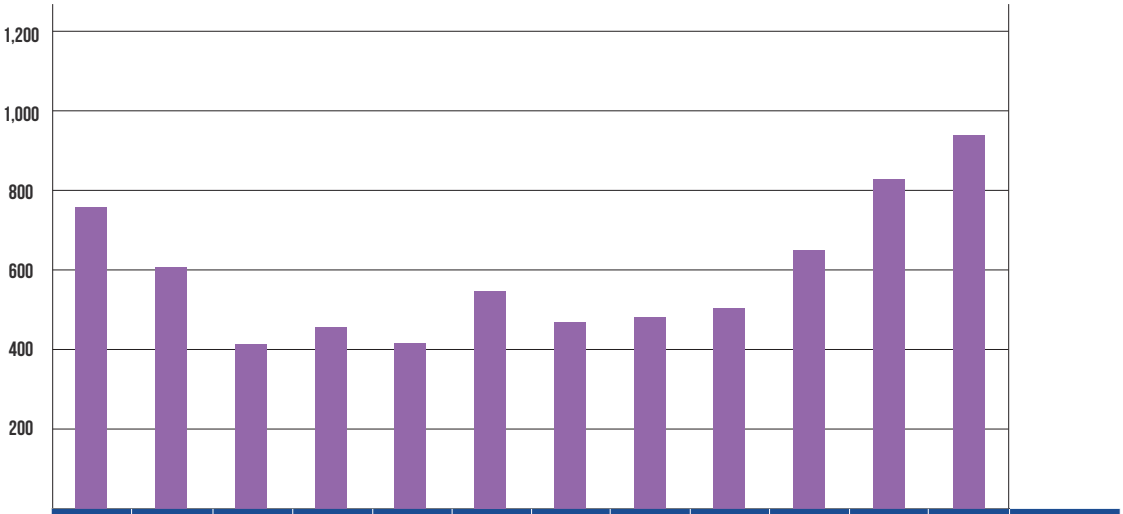
UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH (CONTINUED)

INJURY CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
94	101	51	93	78	113	119	120	99	82	93	120	1,163

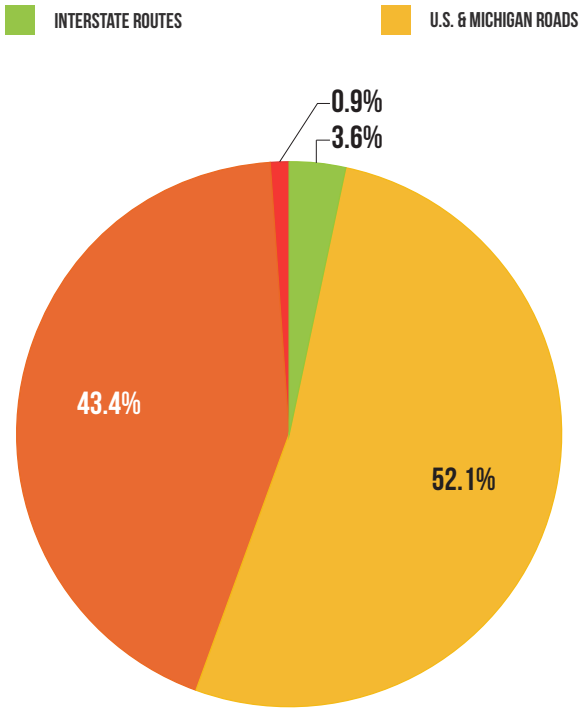
PROPERTY DAMAGE ONLY CRASHES



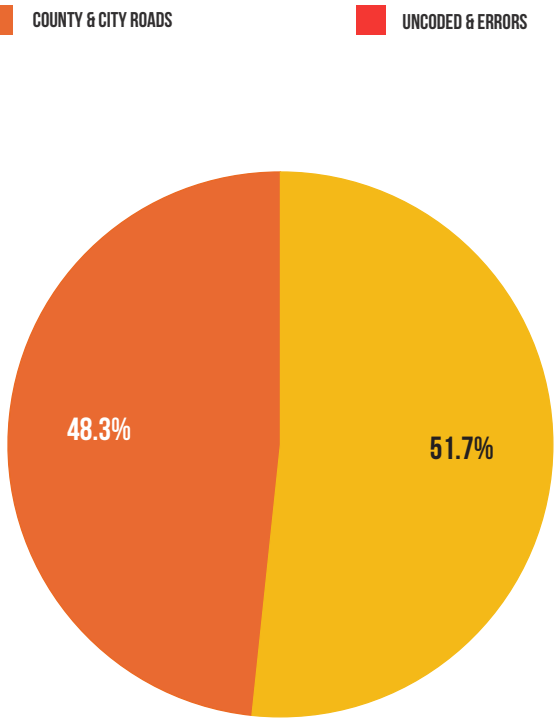
J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
758	608	414	457	415	548	469	482	503	649	829	940	7,072

UPPER PENINSULA CRASH EXPERIENCE BY HIGHWAY CLASS

HIGHWAY CLASS	ALL CRASHES	FATAL CRASHES	INJURY CRASHES	PROPERTY DAMAGE ONLY
Interstate Routes	297	0	46	251
U.S. & Michigan Roads	4,304	15	567	3,722
County & City Roads	3,589	14	528	3,047
Uncoded & Errors	74	0	22	52
TOTAL	8,264	29	1,163	7,072



ALL CRASHES



FATAL CRASHES

The highest percentage of all crashes (52.1%), fatal crashes (51.7%), injury crashes (48.8%), and property damage only crashes (52.6%) occur on U.S. and Michigan roads.

UPPER PENINSULA CRASH EXPERIENCE BY CRASH TYPE

CRASH TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Single Vehicle	4,918	59.5	17	58.6	94	206	236	4,365
Head On	90	1.1	2	6.9	14	13	19	42
Head On - Left Turn	111	1.3	1	3.4	7	18	17	68
Angle	1,009	12.2	5	17.2	19	60	148	777
Rear End	904	10.9	3	10.3	10	27	138	726
Rear End - Left Turn	100	1.2	0	0.0	5	2	11	82
Rear End - Right Turn	55	0.7	0	0.0	0	1	10	44
Sideswipe - Same Direction	418	5.1	0	0.0	5	7	26	380
Sideswipe - Opposite Direction	149	1.8	0	0.0	3	3	14	129
Backing	100	1.2	0	0.0	0	0	2	98
Other/Unknown	410	5.0	1	3.4	9	12	27	361
TOTAL	8,264	100.0	29	100.0	166	349	648	7,072

RELATIONSHIP TO ROADWAY

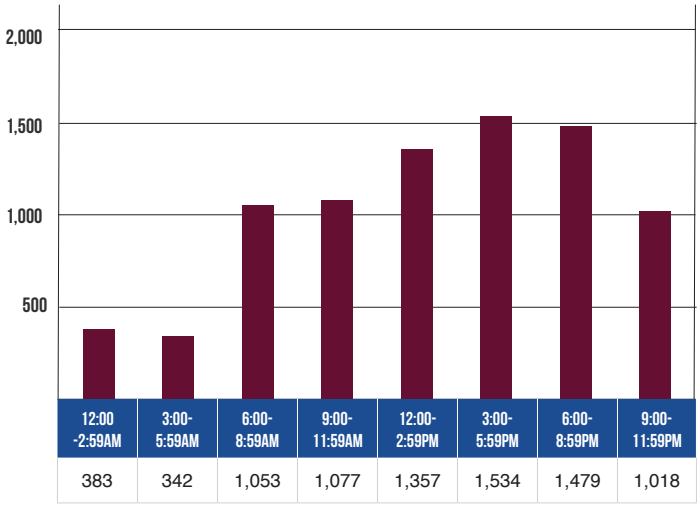
LOCATION OF FIRST IMPACT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
On Road	6,466	78.2	17	58.6	103	203	476	5,667
Median	47	0.6	0	0.0	1	3	5	38
Shoulder	613	7.4	4	13.8	18	41	53	497
Outside of Shoulder/Curb	893	10.8	6	20.7	43	93	96	655
Gore	47	0.6	1	3.4	0	2	6	38
On-Street Parking	112	1.4	0	0.0	0	2	3	107
Off the Roadway	13	0.2	0	0.0	1	3	2	7
On the Sidewalk	8	0.1	0	0.0	0	0	3	5
In the Bicycle Lane	2	0.0	0	0.0	0	0	0	2
Other/Unknown	63	0.8	1	3.4	0	2	4	56
TOTAL	8,264	100.0	29	100.0	166	349	648	7,072

In the Upper Peninsula, only 10.8 percent of crashes occur outside of the shoulder/curb of the road, but these crashes account for 20.7 percent of the fatal crashes.

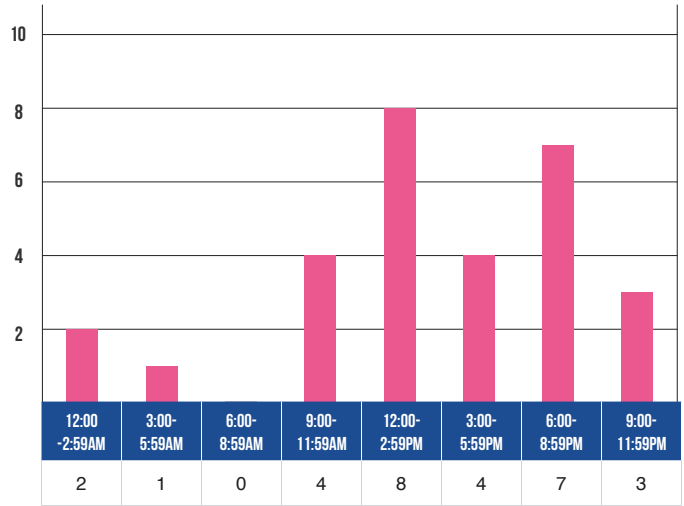
UPPER PENINSULA TIME AND SEVERITY

TIME OF DAY	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
12:00 AM - 2:59 AM	383	4.6	2	6.9	9	24	33	315
3:00 AM - 5:59 AM	342	4.1	1	3.4	4	23	25	289
6:00 AM - 8:59 AM	1,053	12.7	0	0.0	16	38	77	922
9:00 AM - 11:59 AM	1,077	13.0	4	13.8	20	35	95	923
12:00 PM - 2:59 PM	1,357	16.4	8	27.6	28	61	143	1,117
3:00 PM - 5:59 PM	1,534	18.6	4	13.8	35	79	152	1,264
6:00 PM - 8:59 PM	1,479	17.9	7	24.1	35	55	81	1,301
9:00 PM - 11:59 PM	1,018	12.3	3	10.3	19	32	42	922
Unknown	21	0.3	0	0.0	0	2	0	19
TOTAL	8,264	100.0	29	100.0	166	349	648	7,072

ALL CRASHES BY TIME OF DAY



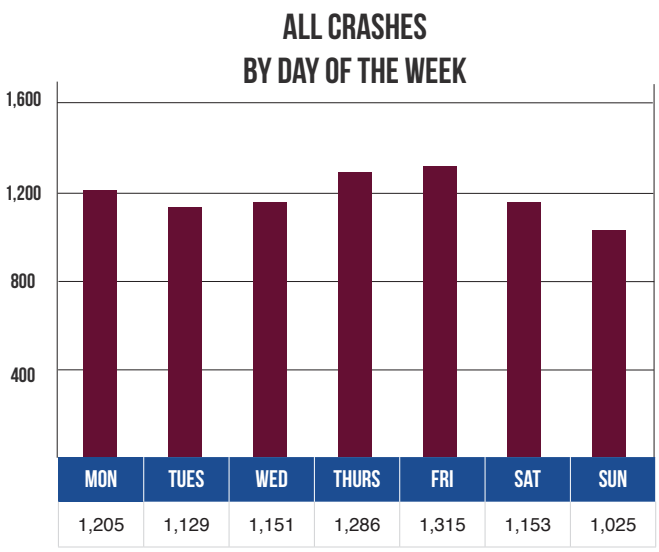
FATAL CRASHES BY TIME OF DAY

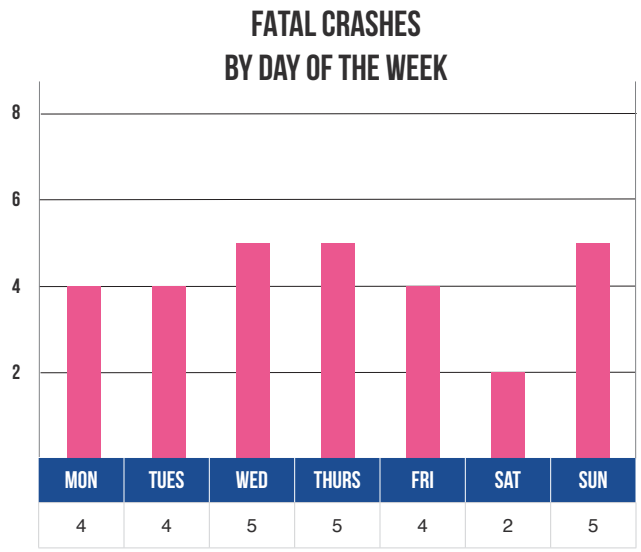


In the Upper Peninsula, crash frequencies peak in the early evening, then drop off until 6:00 AM (the morning rush hour). In 2016, the highest percentage of fatal crashes occurs during the 12:00 PM to 2:59 PM time period (27.6%).

UPPER PENINSULA DAY OF WEEK

DAY OF WEEK	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Monday	1,205	14.6	4	13.8	21	48	101	1,031
Tuesday	1,129	13.7	4	13.8	22	43	91	969
Wednesday	1,151	13.9	5	17.2	23	37	104	982
Thursday	1,286	15.6	5	17.2	23	44	81	1,133
Friday	1,315	15.9	4	13.8	25	62	114	1,110
Saturday	1,153	14.0	2	6.9	26	57	89	979
Sunday	1,025	12.4	5	17.2	26	58	68	868
TOTAL	8,264	100.0	29	100.0	166	349	648	7,072

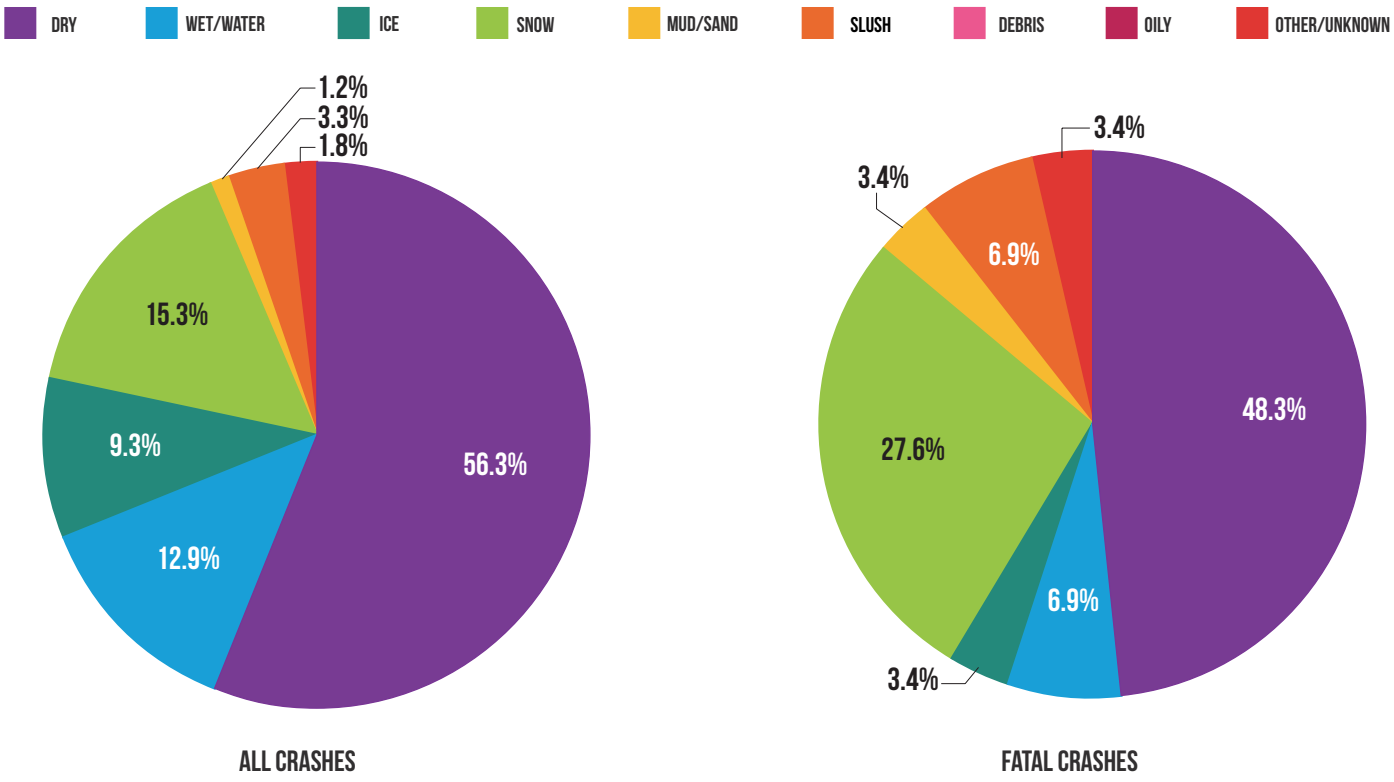




In the Upper Peninsula, crash frequencies are the highest on Friday (1,315). Wednesday, Thursday, and Sunday have the highest number of fatal crashes (5).

UPPER PENINSULA ROAD CONDITION

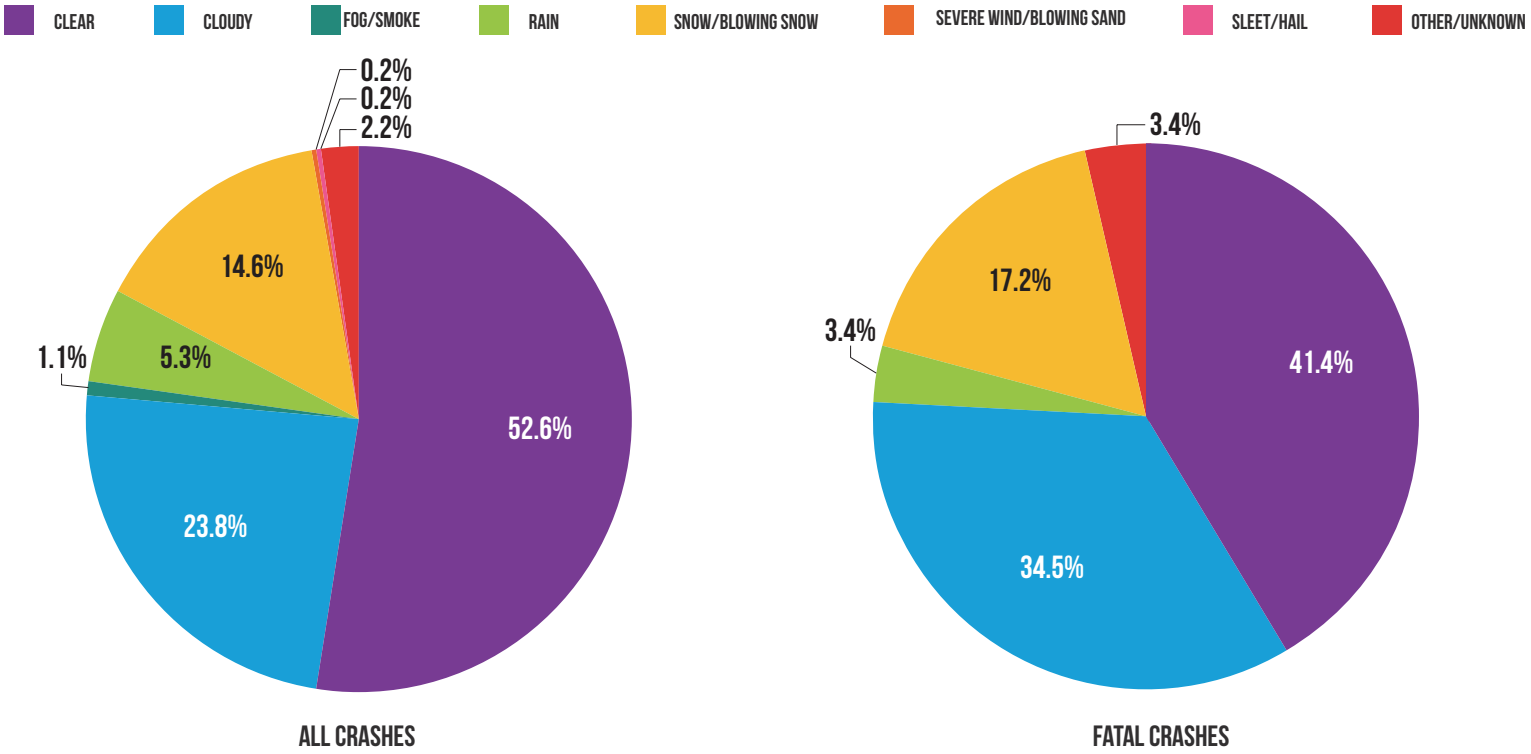
ROAD SURFACE CONDITION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Dry	4,655	56.3	14	48.3	114	213	347	3,967
Wet	1,058	12.8	2	6.9	18	47	88	903
Ice	770	9.3	1	3.4	8	28	79	654
Snow	1,261	15.3	8	27.6	15	34	88	1,116
Mud, Dirt, Gravel	88	1.1	1	3.4	8	10	12	57
Slush	269	3.3	2	6.9	2	13	29	223
Debris	4	0.0	0	0.0	1	0	0	3
Water (Standing/Moving)	5	0.1	0	0.0	0	1	0	4
Sand	8	0.1	0	0.0	0	2	0	6
Oily	0	0.0	0	0.0	0	0	0	0
Other/Unknown	146	1.8	1	3.4	0	1	5	139
TOTAL	8,264	100.0	29	100.0	166	349	648	7,072



In the Upper Peninsula, the highest percentage of all crashes (56.3%), fatal crashes (48.3%), injury crashes (58.0%), and property damage only crashes (56.1%) occur on dry roads.

UPPER PENINSULA WEATHER CONDITION

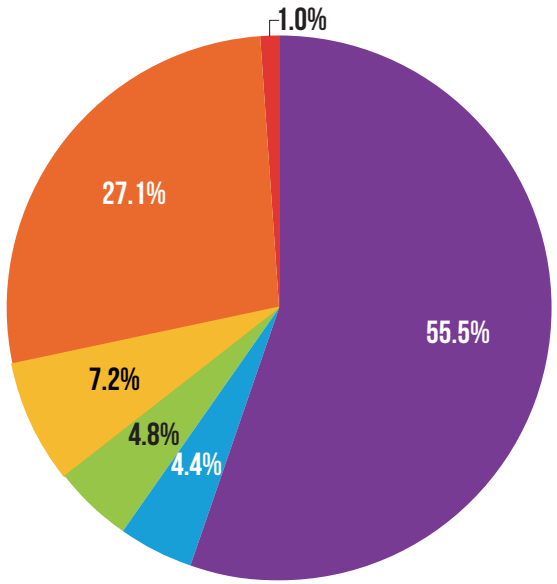
WEATHER CONDITION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Clear	4,350	52.6	12	41.4	108	210	335	3,685
Cloudy	1,966	23.8	10	34.5	32	63	151	1,710
Fog	90	1.1	0	0.0	3	3	8	76
Rain	434	5.3	1	3.4	11	29	38	355
Snow	1,109	13.4	5	17.2	5	38	96	965
Severe Wind	16	0.2	0	0.0	1	1	3	11
Sleet/Hail	17	0.2	0	0.0	0	0	3	14
Blowing Snow	101	1.2	0	0.0	5	1	10	85
Blowing Sand	2	0.0	0	0.0	0	0	0	2
Smoke	0	0.0	0	0.0	0	0	0	0
Other/Unknown	179	2.2	1	3.4	1	4	4	169
TOTAL	8,264	100.0	29	100.0	166	349	648	7,072



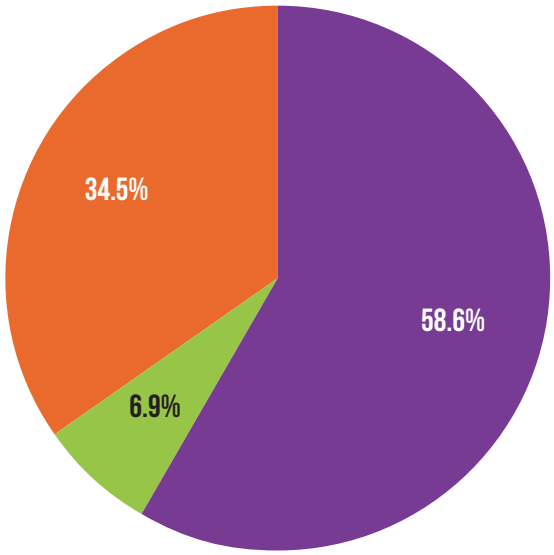
In the Upper Peninsula, the highest percentage of all crashes (52.6%), fatal crashes (41.4%), injury crashes (56.1%), and property damage only crashes (52.1%) occur during clear weather conditions.

UPPER PENINSULA LIGHT CONDITION

LIGHT CONDITION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Daylight	4,589	55.5	17	58.6	112	223	457	3,780
Dawn	364	4.4	0	0.0	4	12	21	327
Dusk	395	4.8	2	6.9	6	9	18	360
Dark – Lighted	593	7.2	0	0.0	13	33	56	491
Dark – Unlighted	2,239	27.1	10	34.5	31	71	93	2,034
Other/Unknown	84	1.0	0	0.0	0	1	3	80
TOTAL	8,264	100.0	29	100.0	166	349	648	7,072



ALL CRASHES

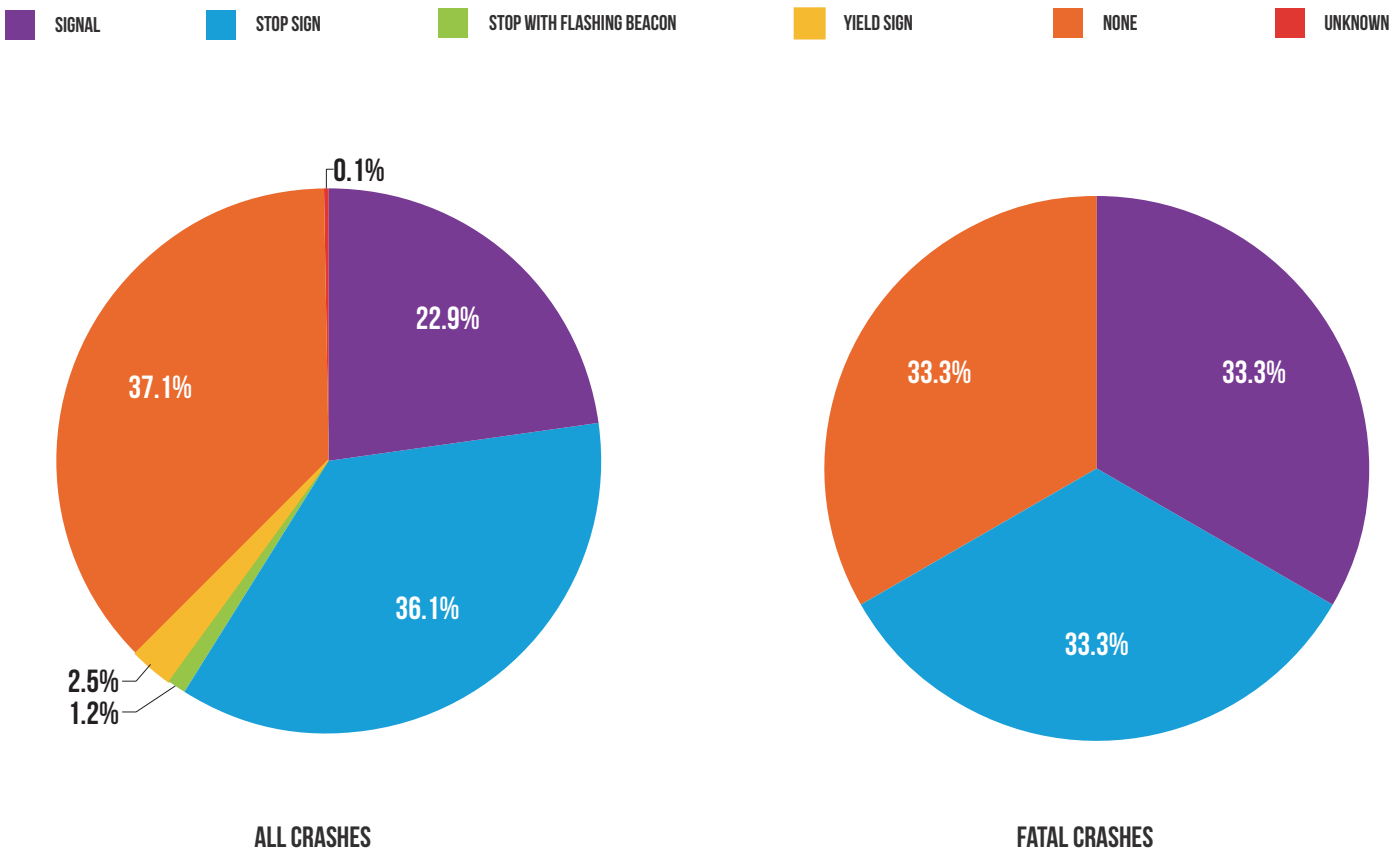


FATAL CRASHES

In the Upper Peninsula, the highest percentage of all crashes (55.5%), fatal crashes (58.6%), injury crashes (68.1%), and property damage only crashes (53.5%) occur during daylight hours.

UPPER PENINSULA INTERSECTION CRASHES BY TRAFFIC CONTROL TYPE

TRAFFIC CONTROL TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Signal	514	22.9	2	33.3	7	29	91	385
Stop Sign	810	36.1	2	33.3	17	45	118	628
Stop with Flashing Beacon	27	1.2	0	0.0	0	3	8	16
Yield Sign	56	2.5	0	0.0	1	1	11	43
None of These	831	37.1	2	33.3	19	43	86	681
Unknown	3	0.1	0	0.0	0	0	0	3
TOTAL	2,241	100.0	6	100.0	44	121	314	1,756



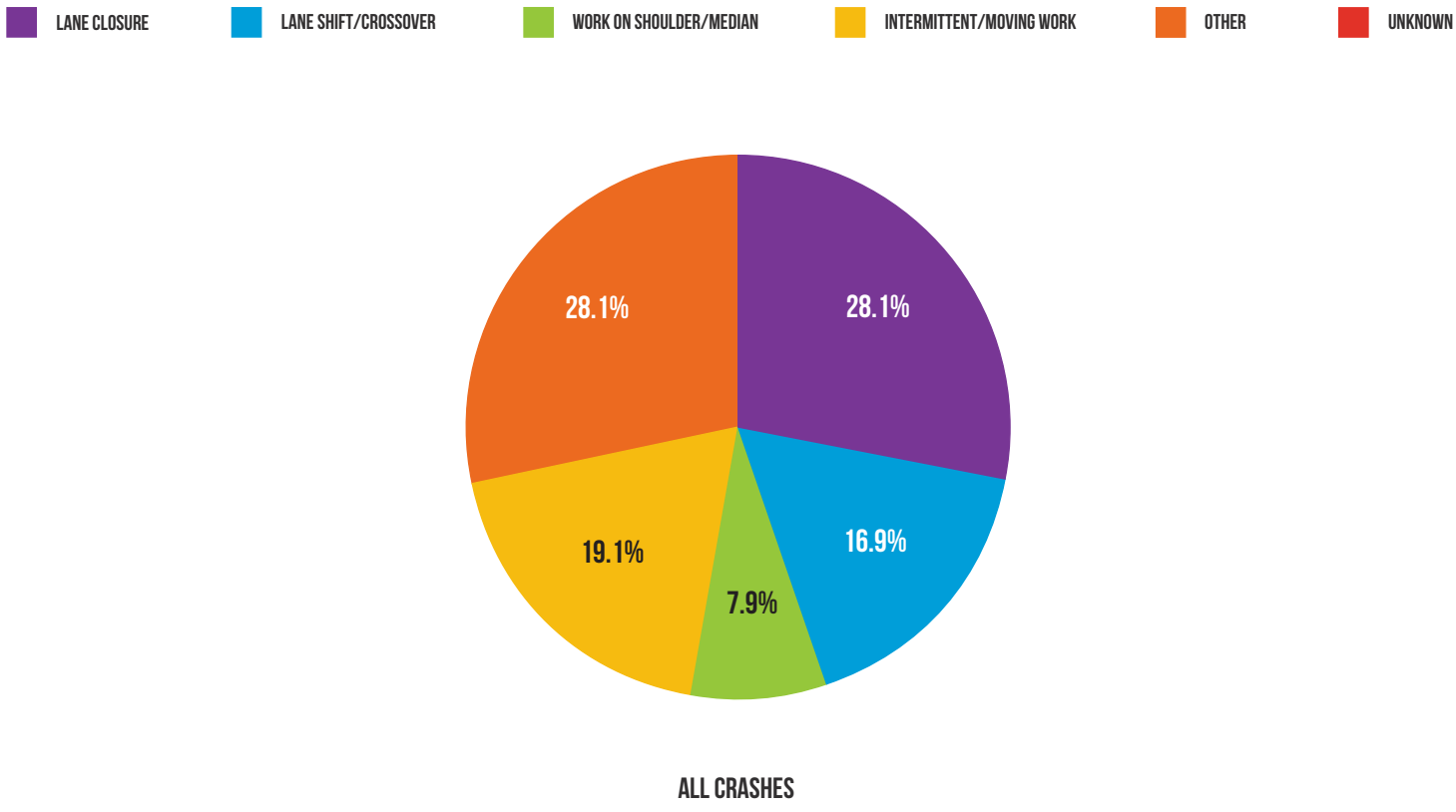
ALL CRASHES

FATAL CRASHES

Compared to other intersection crashes, Upper Peninsula intersections with stop signs have the highest percentage of all crashes (36.1%) and injury crashes (37.6%).

UPPER PENINSULA CONSTRUCTION ZONE CRASHES

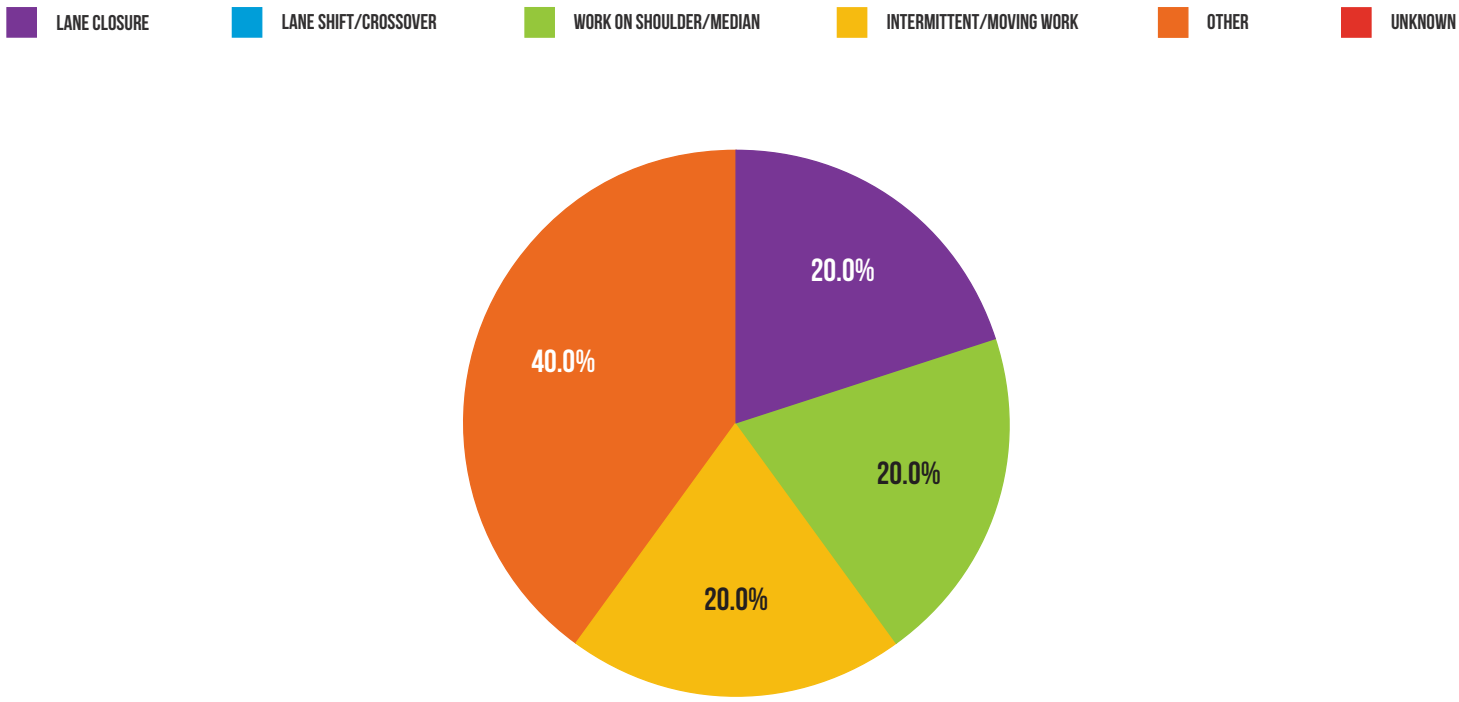
CONSTRUCTION ZONE TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
CONSTRUCTION/MAINTENANCE	*Indicates roadway construction, maintenance, or repair. The building, maintenance, or repair of the road itself and road-way-related features (e.g., overhead signs, signals).*							
Lane Closure	25	28.1	0	0.0	1	2	3	19
Lane Shift/Crossover	15	16.9	0	0.0	0	0	2	13
Work on Shoulder/Median	7	7.9	0	0.0	0	0	0	7
Intermittent/Moving Work	17	19.1	0	0.0	0	1	1	15
Other	25	28.1	0	0.0	0	0	3	22
Unknown	0	0.0	0	0.0	0	0	0	0
TOTAL	89	100.0	0	0.0	1	3	9	76



For crashes taking place in construction/maintenance zones, the highest percentage of all crashes occur in closed lanes or other construction zone types (28.1%). Injury crashes (46.2%) occur most frequently in closed lanes in construction zones. Property damage only crashes (28.9%) occur most frequently in other construction zone types.

UPPER PENINSULA CONSTRUCTION ZONE CRASHES

CONSTRUCTION ZONE TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
UTILITY	*Indicates work on facilities other than the roadway such as telephone, electrical, cable television, water, or sewer.*							
Lane Closure	1	20.0	0	0.0	0	0	0	1
Lane Shift/Crossover	0	0.0	0	0.0	0	0	0	0
Work on Shoulder/Median	1	20.0	0	0.0	0	0	0	1
Intermittent/Moving Work	1	20.0	0	0.0	0	0	0	1
Other	2	40.0	0	0.0	0	0	1	1
Unknown	0	0.0	0	0.0	0	0	0	0
TOTAL	5	100.0	0	0.0	0	0	1	4



ALL CRASHES

For crashes taking place in utility construction zones, the highest percentage of all crashes (40.0%) and injury crashes (100.0%) occur in other utility construction zone types. Property damage only crashes occur equally (25.0%) in closed lanes, shoulders, moving, and other utility construction zone types.

VEHICLE/DRIVER

(characteristics specific to individual traffic units)

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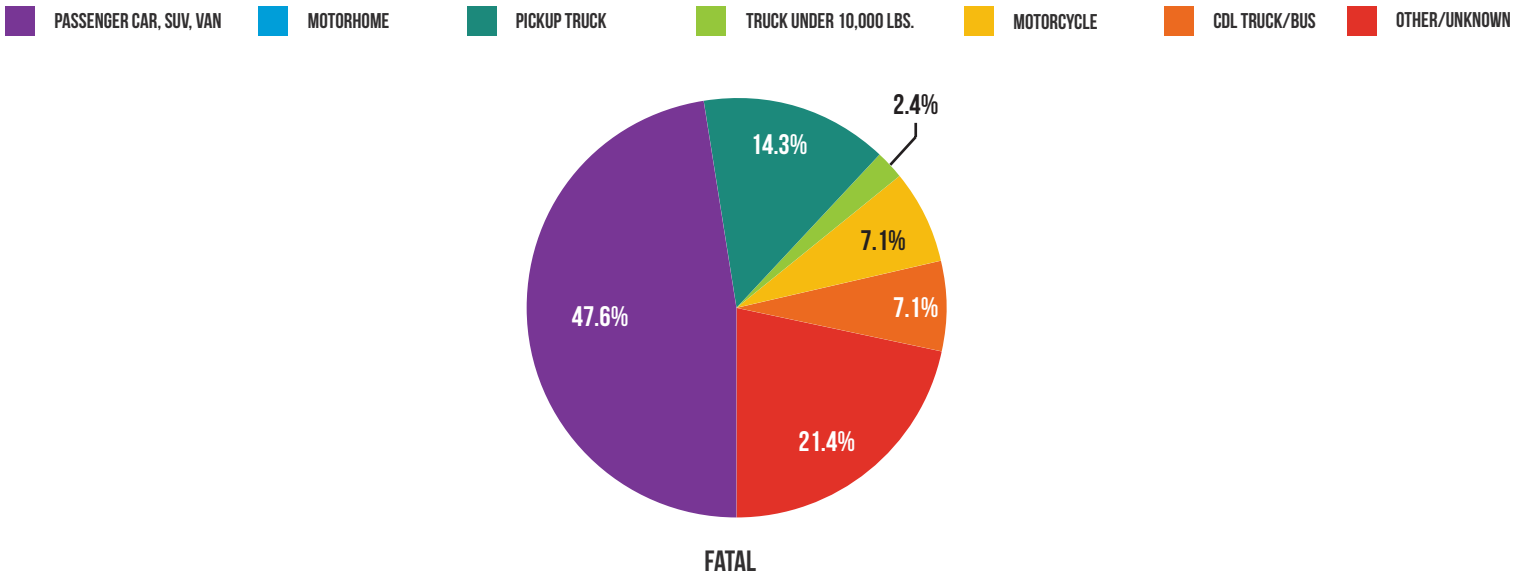
UPPER PENINSULA VEHICLE TYPE AND CRASH INVOLVEMENT

VEHICLE TYPE	MOTOR VEHICLES		FATAL CRASH		INJURY CRASH	PROPERTY DAMAGE ONLY	FATALITY IN VEHICLE		INJURY	NO INJURY
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger car, SUV, van	8,263	70.6	20	47.6	1,232	7,011	12	44.4	865	7,386
Motor home	132	1.1	0	0.0	20	112	0	0.0	8	124
Pickup truck	2,516	21.5	6	14.3	372	2,138	2	7.4	218	2,296
Small Truck under 10,000 lbs. GVWR	130	1.1	1	2.4	13	116	1	3.7	7	122
Motorcycle	112	1.0	3	7.1	87	22	3	11.1	86	23
Moped / goped	10	0.1	1	2.4	7	2	1	3.7	7	2
Go-cart / golf cart	1	0.0	0	0.0	0	1	0	0.0	0	1
Snowmobile	34	0.3	6	14.3	15	13	6	22.2	14	14
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	55	0.5	2	4.8	46	7	2	7.4	43	10
Other	58	0.5	0	0.0	7	51	0	0.0	1	57
Unknown	160	1.4	0	0.0	7	153	0	0.0	1	159
CDL Truck/Bus (break-down below)	236	2.0	3	7.1	39	194	0	0.0	9	227
Total Number of Vehicles	11,707	100.0	42	100.0	1,845	9,820	27	100.0	1,259	10,421

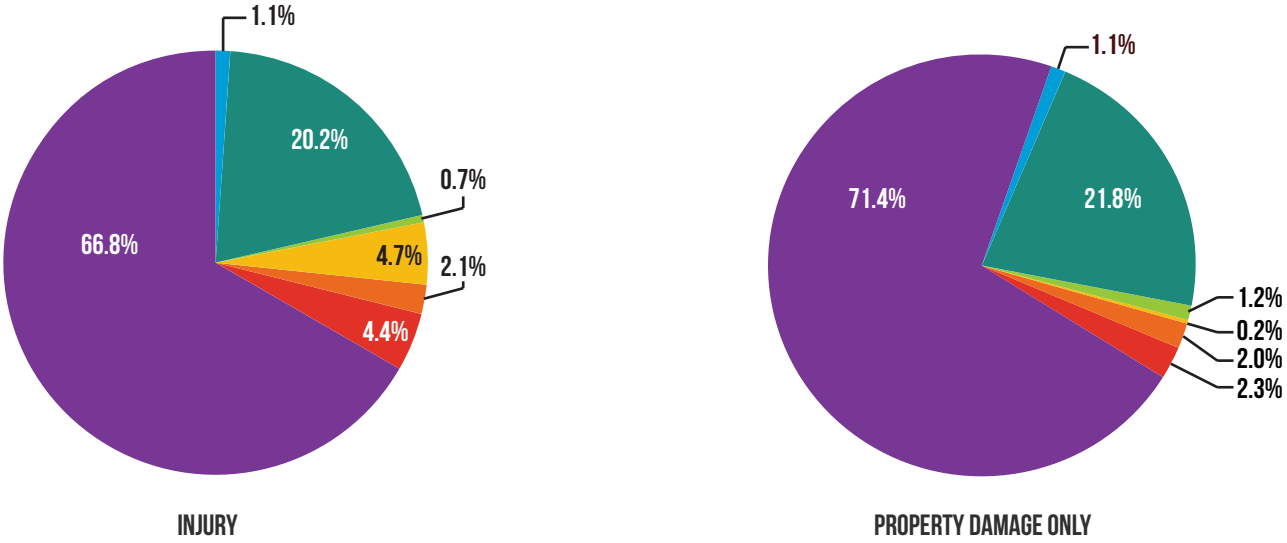
Note: School bus cannot be broken out of Truck/Bus over 10,000 lbs.

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	PROPERTY DAMAGE ONLY CRASHES	FATALITY IN HEAVY TRUCK		INJURY IN HEAVY TRUCK	NO INJURY IN HEAVY TRUCK
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total			Number of Heavy Trucks	% of Total		
10,000 lbs. or Less	6	2.5	0	0.0	1	5	0	0.0	0	6
10,001 - 26,000 lbs.	45	19.1	0	0.0	6	39	0	0.0	1	44
Greater than 26,000 lbs.	181	76.7	3	100.0	31	147	0	0.0	8	173
Uncoded & Errors	4	1.7	0	0.0	1	3	0	0.0	0	4
Total Number of Vehicles	236	100.0	3	100.0	39	194	0	100.0	9	227

UPPER PENINSULA VEHICLE TYPES IN CRASHES BY CRASH SEVERITY



The chart shows that 64.3 percent of vehicles involved in fatal crashes are passenger vehicles (passenger cars, SUVs, vans, motorhomes, pickup trucks, or trucks under 10,000 lbs.). Snowmobiles (part of Other/Unknown) have a fatal crash involvement of 14.3 percent.



Passenger vehicles (passenger cars, SUVs, vans, motorhomes, pickup trucks, or trucks under 10,000 lbs.) make up an even larger share of vehicles in injury crashes (88.7%) and property damage only (PDO) crashes (95.5%) than they do of fatal crashes.

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

UPPER PENINSULA ACTION PRIOR TO CRASH

DRIVER ACTION	VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number	% of Total		A	B	C	
Going straight ahead	7,408	63.3	30	171	336	649	6,222
Turning left	672	5.7	2	25	45	86	514
Turning right	314	2.7	0	2	9	37	266
Stopped on roadway	604	5.2	2	6	12	100	484
In prior crash	12	0.1	0	0	1	4	7
Changing lanes	110	0.9	0	0	3	10	97
Backing	446	3.8	0	1	6	9	430
Slowing/stopping on roadway	635	5.4	0	8	15	85	527
Slowing/stopping other	23	0.2	0	0	2	2	19
Starting up on roadway	190	1.6	1	4	8	37	140
Starting up other	5	0.0	0	0	0	0	5
Entering parking	25	0.2	0	0	0	0	25
Leaving parking	32	0.3	0	0	0	1	31
Entering roadway	139	1.2	1	2	12	16	108
Leaving roadway	26	0.2	1	2	5	3	15
Making U-turn	18	0.2	0	0	2	3	13
Overtaking or passing	87	0.7	2	5	3	9	68
Avoiding object	9	0.1	0	0	0	0	9
Avoiding animal	59	0.5	0	0	7	2	50
Avoiding pedestrian	4	0.0	0	1	1	0	2
Avoiding vehicle (front/back)	91	0.8	0	1	5	13	72
Avoiding vehicle (angle)	32	0.3	0	0	4	6	22
Driverless moving	12	0.1	0	0	1	1	10
Parked	549	4.7	0	2	11	16	520
Crossing at intersection	2	0.0	0	0	0	0	2
Crossing not at intersection	1	0.0	0	0	0	0	1
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	0	0.0	0	0	0	0	0
In roadway against traffic	0	0.0	0	0	0	0	0
Standing or lying in roadway	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	2	0.0	0	0	0	0	2
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0	0	0	0
Not in roadway	0	0.0	0	0	0	0	0
Negotiating a curve	59	0.5	3	8	5	7	36
Other	22	0.2	0	2	2	2	16
Unknown	119	1.0	0	4	7	1	107
TOTAL	11,707	100.0	42	244	502	1,099	9,820

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

MOTORCYCLIST ACTION	MOTORCYCLES		MOTORCYCLISTS*		FATALITY	INJURY			NO INJURY
	Number of Motorcycles	% of Total	Number of Motorcyclists	% of Total		A	B	C	
Going straight ahead	78	69.6	90	70.3	2	19	37	13	18
Turning left	5	4.5	6	4.7	0	2	2	1	1
Turning right	3	2.7	3	2.3	0	0	1	1	1
Stopped on roadway	3	2.7	4	3.1	0	0	1	1	2
In prior crash	0	0.0	0	0.0	0	0	0	0	0
Changing lanes	1	0.9	1	0.8	0	0	1	0	0
Backing	0	0.0	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	2	1.8	2	1.6	0	0	0	1	1
Slowing/stopping other	1	0.9	1	0.8	0	0	0	1	0
Starting up on roadway	0	0.0	0	0.0	0	0	0	0	0
Starting up other	0	0.0	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0.0	0	0	0	0	0
Entering roadway	1	0.9	1	0.8	0	0	0	1	0
Leaving roadway	1	0.9	1	0.8	0	0	1	0	0
Making U-turn	0	0.0	0	0.0	0	0	0	0	0
Overtaking or passing	1	0.9	1	0.8	0	0	1	0	0
Avoiding object	0	0.0	0	0.0	0	0	0	0	0
Avoiding animal	1	0.9	2	1.6	0	0	2	0	0
Avoiding pedestrian	0	0.0	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	1	0.9	1	0.8	0	0	0	1	0
Avoiding vehicle (angle)	1	0.9	2	1.6	0	0	0	0	2
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	1	0.9	1	0.8	0	0	0	0	0
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
Negotiating a curve	11	9.8	11	8.6	1	3	4	2	1
Other	0	0.0	0	0.0	0	0	0	0	0
Unknown	1	0.9	1	0.8	0	0	1	0	0
TOTAL	112	100.0	128	100.0	3	24	51	22	26

This table includes two motorcyclists (drivers and passengers) with unknown injury severity.

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

BICYCLIST ACTION	BICYCLISTS*		FATALITY	INJURY			NO INJURY
	Number of Bicyclists	% of Total		A	B	C	
Going straight ahead	13	59.1	0	1	3	4	4
Turning left	0	0.0	0	0	0	0	0
Turning right	1	4.5	0	0	0	1	0
Stopped on roadway	0	0.0	0	0	0	0	0
In prior crash	0	0.0	0	0	0	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	0	0.0	0	0	0	0	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	0	0.0	0	0	0	0	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	1	4.5	0	1	0	0	0
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	0	0.0	0	0	0	0	0
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	0	0.0	0	0	0	0	0
Avoiding vehicle (angle)	1	4.5	0	0	1	0	0
Driverless moving	0	0.0	0	0	0	0	0
Parked	0	0.0	0	0	0	0	0
Crossing at intersection	3	13.6	0	0	0	2	1
Crossing not at intersection	1	4.5	0	0	0	1	0
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	1	4.5	0	0	1	0	0
In roadway against traffic	1	4.5	1	0	0	0	0
Standing or lying in roadway	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0	0	0	0
Not in roadway	0	0.0	0	0	0	0	0
Negotiating a curve	0	0.0	0	0	0	0	0
Other	0	0.0	0	0	0	0	0
Unknown	0	0.0	0	0	0	0	0
TOTAL	22	100.0	1	2	5	8	5

*Includes one bicyclist with unknown injury severity

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

PEDESTRIAN ACTION	PEDESTRIANS*		FATALITY	INJURY			NO INJURY
	Number of Pedestrians	% of Total		A	B	C	
Going straight ahead	1	2.4	0	1	0	0	0
Turning left	0	0.0	0	0	0	0	0
Turning right	0	0.0	0	0	0	0	0
Stopped on roadway	0	0.0	0	0	0	0	0
In prior crash	0	0.0	0	0	0	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	0	0.0	0	0	0	0	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	0	0.0	0	0	0	0	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	0	0.0	0	0	0	0	0
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	0	0.0	0	0	0	0	0
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	0	0.0	0	0	0	0	0
Avoiding vehicle (angle)	0	0.0	0	0	0	0	0
Driverless moving	0	0.0	0	0	0	0	0
Parked	0	0.0	0	0	0	0	0
Crossing at intersection	12	29.3	0	2	2	6	2
Crossing not at intersection	9	22.0	0	5	2	1	1
Getting on/off vehicle	1	2.4	0	0	0	1	0
In roadway with traffic	6	14.6	1	1	3	1	0
In roadway against traffic	3	7.3	0	1	0	1	1
Standing or lying in roadway	5	12.2	1	1	1	2	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	1	2.4	0	0	0	1	0
Not in roadway	1	2.4	0	0	0	1	0
Negotiating a curve	0	0.0	0	0	0	0	0
Other	1	2.4	0	1	0	0	0
Unknown	1	2.4	0	0	1	0	0
TOTAL	41	100.0	2	12	9	14	4

* Includes no pedestrians with unknown injury severity

UPPER PENINSULA MOST HARMFUL EVENT

NONCOLLISION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Loss of control	56	0.5	0	4	8	6	38
Cross center/median	9	0.1	0	0	2	1	6
Ran off road left	34	0.3	0	1	2	1	30
Ran off road right	56	0.5	0	0	5	4	47
Re-enter road	6	0.1	0	0	1	0	5
Overturn	301	2.6	5	23	55	47	171
Separation of units	5	0.0	0	0	0	0	5
Fire/explosion	12	0.1	0	0	0	0	12
Immersion	0	0.0	0	0	0	0	0
Jackknife	10	0.1	0	0	0	1	9
Downhill runaway	2	0.0	0	0	0	0	2
Cargo loss/shift	13	0.1	0	0	1	0	12
Individual fell off	38	0.3	1	14	15	7	1
Other noncollision	35	0.3	1	3	1	3	27
SUBTOTAL	577	4.9	7	45	90	70	365

COLLISION WITH A NONFIXED OBJECT	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Pedestrian	39	0.3	2	11	9	13	4
Bicycle / Pedalcycle	21	0.2	1	2	5	7	6
Motor vehicle in transport	5,943	50.8	23	132	266	824	4,698
Parked motor vehicle	542	4.6	0	3	5	19	515
Railway train	3	0.0	0	1	0	1	1
Animal	3,086	26.4	0	5	20	24	3,037
Other nonfixed objects	110	0.9	0	1	3	4	102
SUBTOTAL	9,744	83.2	26	155	308	892	8,363

UPPER PENINSULA MOST HARMFUL EVENT (CONTINUED)

COLLISION WITH A FIXED OBJECT	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Bridge/pier/abutment	7	0.1	0	1	0	0	6
Bridge rail	11	0.1	0	0	0	1	10
Guardrail face	78	0.7	0	1	2	5	70
Guardrail end	16	0.1	0	0	1	0	15
Median barrier	13	0.1	0	0	0	2	11
Highway traffic sign post	93	0.8	0	1	2	3	87
Highway signal post	5	0.0	0	0	0	0	5
Luminaire/light support*	135	1.2	0	4	14	23	94
Other pole	34	0.3	0	0	4	0	30
Culvert	8	0.1	0	1	0	0	7
Curb	16	0.1	0	0	2	0	14
Ditch	224	1.9	1	8	18	30	167
Embankment	85	0.7	0	1	4	14	66
Fence	11	0.1	0	0	1	1	9
Mailbox	56	0.5	0	0	0	3	53
Tree	389	3.3	8	25	43	42	271
Rail crossing signal	3	0.0	0	0	0	1	2
Building	20	0.2	0	1	4	4	11
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	14	0.1	0	0	0	0	14
Impact attenuator	1	0.0	0	0	1	0	0
Other fixed object	77	0.7	0	0	4	4	69
SUBTOTAL	1,296	11.1	9	43	100	133	1,011

	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	90	0.8	0	1	4	4	81
MOST HARMFUL EVENT TOTAL	11,707	100.0	42	244	502	1,099	9,820

UPPER PENINSULA VEHICLE DEFECTS IN CRASH INVOLVEMENT

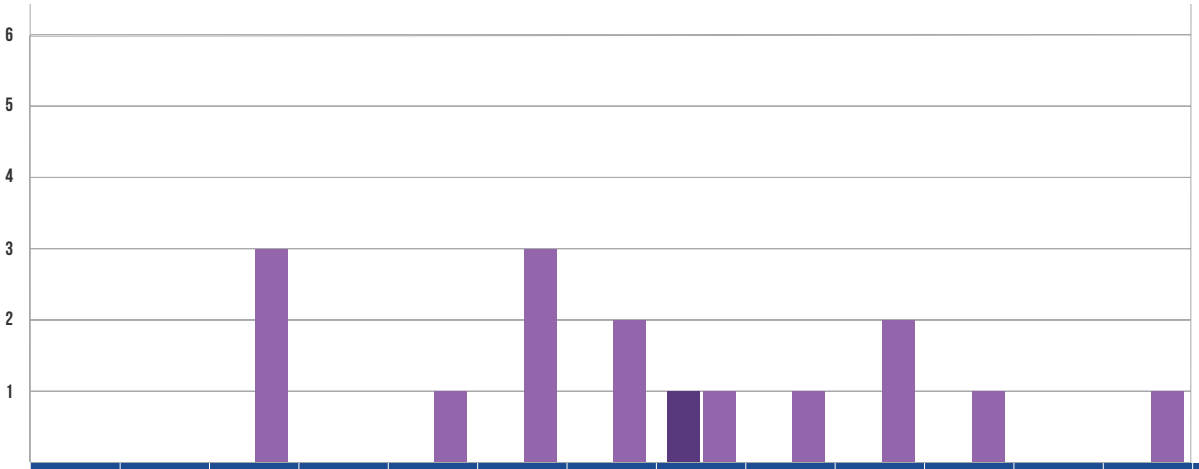
VEHICLE DEFECTS	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Brakes	33	0.3	0	0	1	5	27
Lights/reflectors	7	0.1	0	0	1	1	5
Steering	11	0.1	0	0	1	1	9
Tires/wheels	32	0.3	0	0	6	4	22
Windows	0	0.0	0	0	0	0	0
Coupling/hitch/chains	6	0.1	0	0	0	0	6
Other	25	0.2	1	1	3	1	19
None or Unknown	11,593	99.0	41	243	490	1,087	9,732
TOTAL	11,707	100.0	42	244	502	1,099	9,820

UPPER PENINSULA DRIVER HAZARDOUS ACTION

HAZARDOUS ACTION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
None	6,770	57.8	15	100	197	497	5,961
Speed too fast	1,093	9.3	8	27	73	120	865
Speed too slow	14	0.1	0	0	0	1	13
Failed to yield	917	7.8	5	25	59	152	676
Disregard traffic control	137	1.2	1	8	17	27	84
Drove wrong way	10	0.1	1	0	3	2	4
Drove left of center	57	0.5	1	4	4	12	36
Improper passing	52	0.4	0	1	0	7	44
Improper lane use	127	1.1	0	0	3	7	117
Improper turn	96	0.8	0	0	4	10	82
Improper/no signal	14	0.1	0	0	1	3	10
Improper backing	331	2.8	0	1	2	6	322
Unable to stop in assured clear distance	881	7.5	2	8	22	125	724
Reckless driving	46	0.4	1	6	7	8	24
Careless/negligent driving	458	3.9	3	38	53	62	302
Other	353	3.0	3	13	35	35	267
Unknown	351	3.0	2	13	22	25	289
TOTAL	11,707	100.0	42	244	502	1,099	9,820

UPPER PENINSULA MICHIGAN BICYCLE CRASHES

2016 BICYCLIST FATALITIES AND INJURIES



	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 YEARS AND OVER	UNKNOWN	TOTAL
KILLED	0	0	0	0	0	0	0	1	0	0	0	0	0	1
INJURED	0	0	3	0	1	3	2	1	1	2	1	0	1	15
TOTAL FATALITIES AND INJURIES	0	0	3	0	1	3	2	2	1	2	1	0	1	16

In 2016 in the Upper Peninsula, there were 22 bicyclists involved in motor vehicles crashes, with one bicyclist killed and 15 injured.

BICYCLE HELMET USE AND INJURY SEVERITY

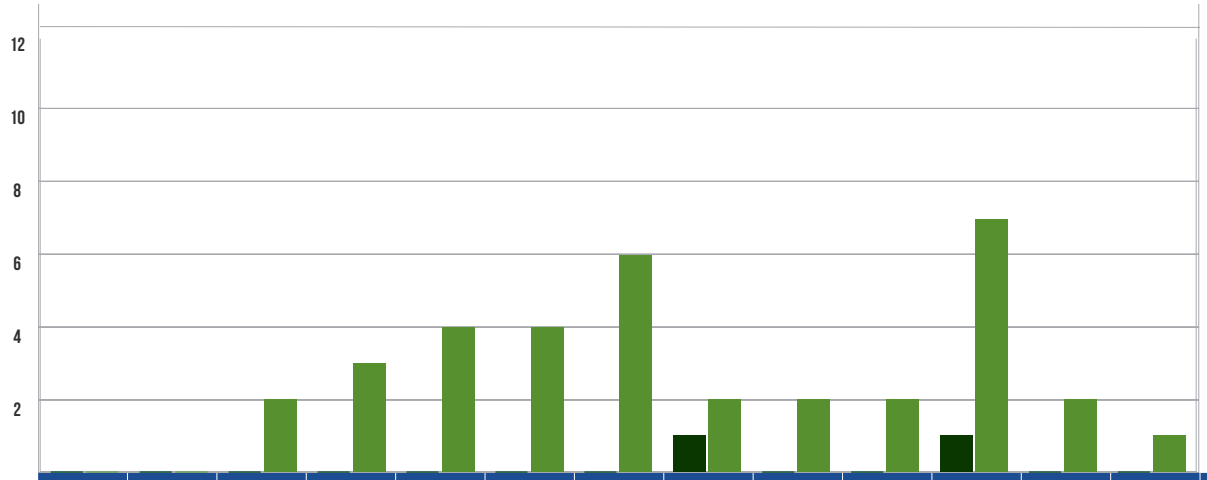
HELMET USE	FATALITY	INJURY			NO INJURY
		A	B	C	
Worn	**0**	**0**	**0**	**0**	**0**
Not worn	**1**	**0**	**4**	**3**	**2**
Unknown	**0**	**2**	**1**	**5**	**3**
Total	**1**	**2**	**5**	**8**	**5**

Note: One bicyclist had an unknown degree of injury and is not represented in this table.

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.”

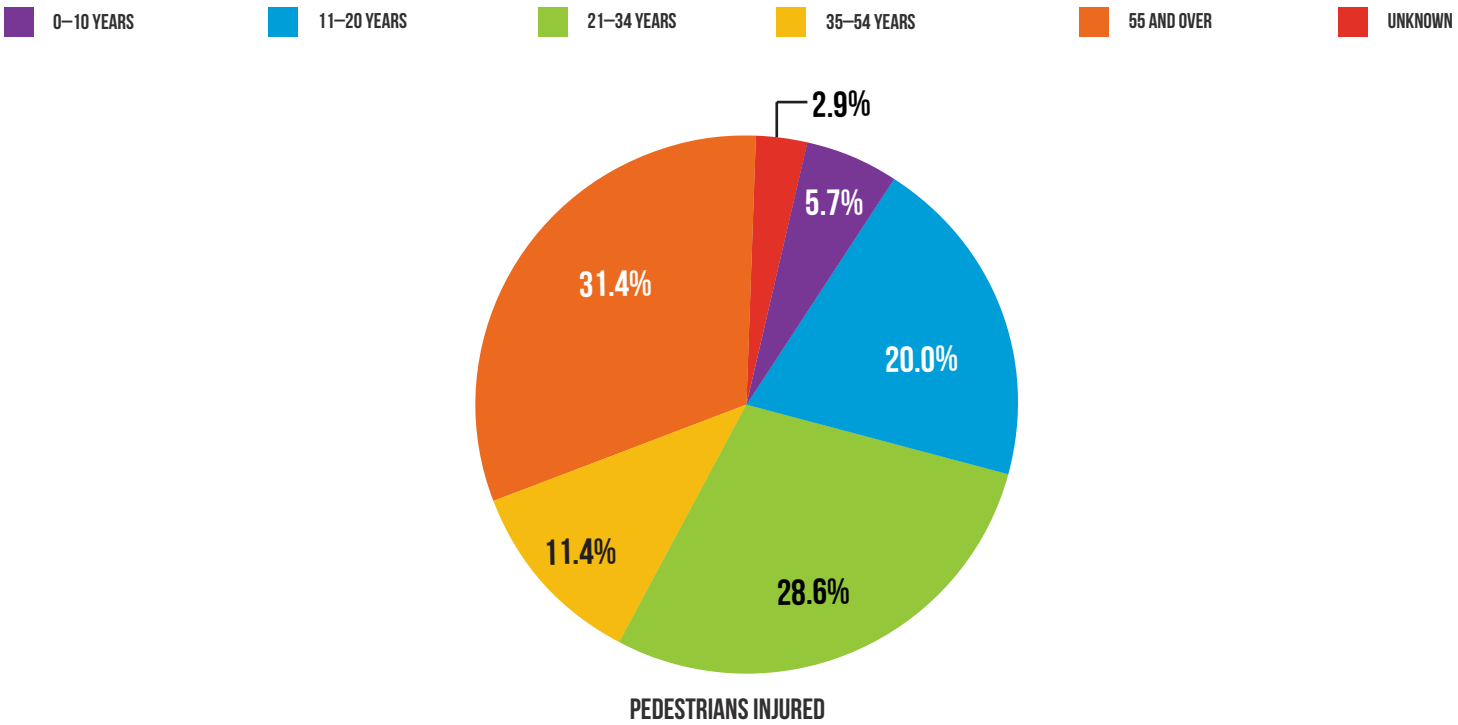
UPPER PENINSULA MICHIGAN PEDESTRIAN CRASHES

2016 PEDESTRIAN FATALITIES AND INJURIES



	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 AND OVER	UNKNOWN	TOTAL
KILLED	0	0	0	0	0	0	0	1	0	0	1	0	0	2
INJURED	0	0	2	3	4	4	6	2	2	2	7	2	1	35
TOTAL	0	0	2	3	4	4	6	3	2	2	8	2	1	37

In 2016 in the Upper Peninsula, there were 41 pedestrians involved in motor vehicles crashes, with two pedestrians killed and 35 injured.



UPPER PENINSULA MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT

NONCOLLISION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Loss of control	0	0.0	0	0	0	0	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	0	0.0	0	0	0	0	0
Ran off road right	0	0.0	0	0	0	0	0
Re-enter road	0	0.0	0	0	0	0	0
Overturn	2	5.9	2	0	0	0	0
Separation of units	0	0.0	0	0	0	0	0
Fire/explosion	2	5.9	0	0	0	0	2
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	4	11.8	0	3	1	0	0
Other noncollision	1	2.9	0	0	0	0	1
SUBTOTAL	9	26.5	2	3	1	0	3

COLLISION WITH A NONFIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	0	0.0	0	0	0	0	0
Bicycle / Pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	15	44.1	2	2	3	2	6
Parked motor vehicle	1	2.9	0	0	0	0	1
Railway train	0	0.0	0	0	0	0	0
Animal	0	0.0	0	0	0	0	0
Other nonfixed objects	1	2.9	0	0	0	0	1
SUBTOTAL	17	50.0	2	2	3	2	8

UPPER PENINSULA MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT (CONTINUED)

COLLISION WITH A FIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	0	0.0	0	0	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	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
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	0	0.0	0	0	0	0	0
Embankment	1	2.9	0	0	0	0	1
Fence	1	2.9	0	0	1	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	5	14.7	2	2	1	0	0
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	1	2.9	0	0	0	0	1
SUBTOTAL	8	23.5	2	2	2	0	2

	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Unknown Event	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	34	100.0	6	7	6	2	13

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 34 snowmobiles were reported in crashes on Upper Peninsula public roadways during 2016, resulting in six fatal crashes. A total of 15 snowmobiles were involved in 14 injury crashes.

UPPER PENINSULA MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT

NONCOLLISION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Loss of control	1	1.8	0	1	0	0	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	0	0.0	0	0	0	0	0
Ran off road right	2	3.6	0	0	1	1	0
Re-enter road	0	0.0	0	0	0	0	0
Overturn	9	16.4	0	1	4	3	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	13	23.6	0	4	7	2	0
Other noncollision	0	0.0	0	0	0	0	0
SUBTOTAL	25	45.5	0	6	12	6	1

COLLISION WITH A NONFIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Pedestrian	0	0.0	0	0	0	0	0
Bicycle / Pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	15	27.3	0	6	2	3	4
Parked motor vehicle	1	1.8	0	1	0	0	0
Railway train	0	0.0	0	0	0	0	0
Animal	0	0.0	0	0	0	0	0
Other nonfixed objects	0	0.0	0	0	0	0	0
SUBTOTAL	16	29.1	0	7	2	3	4

UPPER PENINSULA MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT (CONTINUED)

COLLISION WITH A FIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	0	0.0	0	0	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	1.8	0	0	1	0	0
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support*	1	1.8	0	0	1	0	0
Other pole	1	1.8	0	0	0	0	1
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	5	9.1	0	2	0	2	1
Embankment	0	0.0	0	0	0	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	6	10.9	2	3	1	0	0
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	0	0.0	0	0	0	0	0
SUBTOTAL	14	25.5	2	5	3	2	2

	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Unknown Event	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	55	100.0	2	18	17	11	7

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 55 off-road/all-terrain vehicles were reported in crashes on Upper Peninsula public roadways during 2016, resulting in two fatal crashes. An additional 46 ORV/ATVs were involved in injury crashes.

UPPER PENINSULA MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

DRIVER HAZARDOUS ACTION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
None	8	23.5	0	2	1	0	5
Speed too fast	6	17.6	2	1	2	0	1
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	11	32.4	1	2	0	2	6
Disregard traffic control	1	2.9	1	0	0	0	0
Drove wrong way	2	5.9	1	0	1	0	0
Drove left of center	0	0.0	0	0	0	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	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	2	5.9	0	0	1	0	1
Reckless driving	0	0.0	0	0	0	0	0
Careless/negligent driving	2	5.9	0	2	0	0	0
Other	0	0.0	0	0	0	0	0
Unknown	2	5.9	1	0	1	0	0
TOTAL	34	100.0	6	7	6	2	13

UPPER PENINSULA MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

DRIVER HAZARDOUS ACTION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
None	15	27.3	0	6	5	1	3
Speed too fast	11	20.0	1	4	5	0	1
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	3	5.5	0	1	0	1	1
Disregard traffic control	0	0.0	0	0	0	0	0
Drove wrong way	0	0.0	0	0	0	0	0
Drove left of center	0	0.0	0	0	0	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	1	1.8	0	0	0	1	0
Improper/no signal	0	0.0	0	0	0	0	0
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	2	3.6	0	1	0	1	0
Reckless driving	1	1.8	0	1	0	0	0
Careless/negligent driving	13	23.6	0	4	3	5	1
Other	7	12.7	1	1	3	1	1
Unknown	2	3.6	0	0	1	1	0
TOTAL	55	100.0	2	18	17	11	7

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.

UPPER PENINSULA MICHIGAN FARM EQUIPMENT CRASHES

FARM EQUIPMENT CRASHES	2015	2016	% CHANGE
Crashes	5	11	120.0%
Fatalities	0	0	---
Injuries	2	3	50.0%

Eleven crashes involving farm equipment were reported on Upper Peninsula roadways during 2016. None of those crashes involved a fatality.

UPPER PENINSULA MICHIGAN VEHICLE-TRAIN CRASHES

VEHICLE-TRAIN CRASHES	2015	2016	% CHANGE
Crashes	0	3	---
Fatalities	0	0	---
Injuries	0	3	---

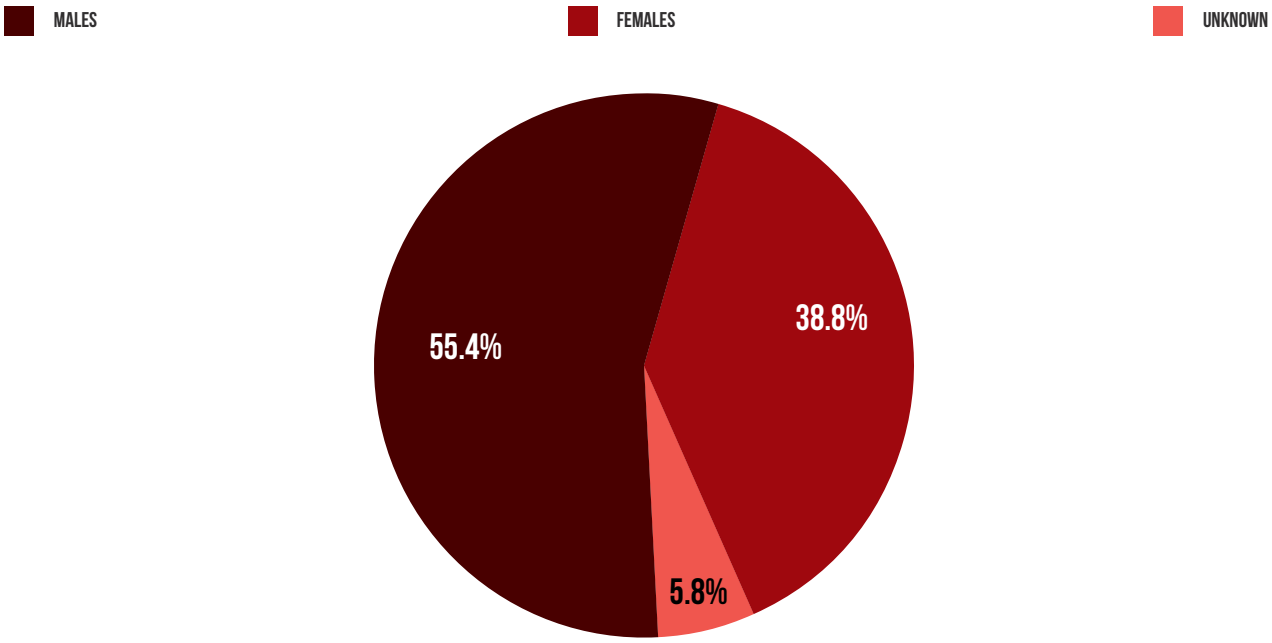
Three crashes involving trains were reported in the Upper Peninsula during 2016. As a result three people were injured, but none were killed.

UPPER PENINSULA MICHIGAN MOTORCYCLE CRASHES

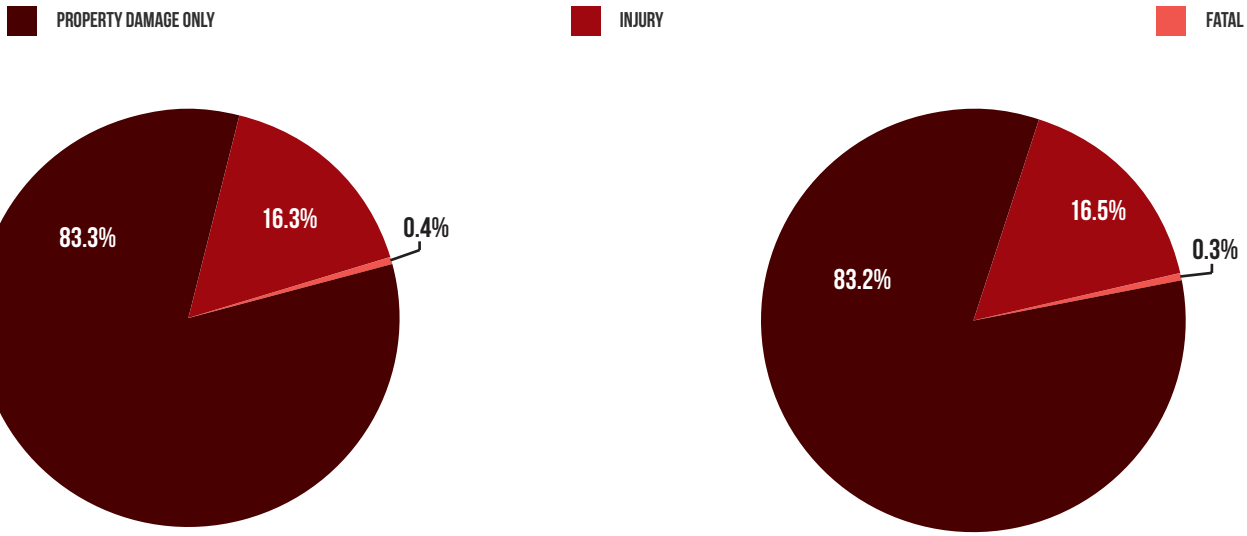
MOTORCYCLE DATA	2015	2016	% CHANGE
Motorcycle Registrations	9,287	9,320	0.4%
Motorcycles in Crashes	99	112	13.1%
Motorcyclist Deaths	4	3	-25.0%
Motorcyclists Injured	81	97	19.8%
Death Rate based on 10,000 motorcycle registrations	4.31	3.22	-25.3%
Estimated Mileage based on 3,000 miles per motorcycle	27,861,000	27,960,000	0.4%
Death Rate based on deaths per 100 million vehicle miles traveled	14.36	10.73	-25.3%

Motorcycles were involved in 1.3 percent of all traffic crashes in the Upper Peninsula in 2016. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles.

UPPER PENINSULA DRIVER GENDER INFORMATION



ALL CRASHES



MALE CRASH SEVERITY

FEMALE CRASH SEVERITY

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. 0.3%).

UPPER PENINSULA PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

AGE	LICENSED DRIVERS	UPPER PENINSULA POPULATION	TOTAL DRIVERS IN CRASHES	DRIVERS IN FATAL CRASHES	OCCUPANTS KILLED	OCCUPANTS INJURED	TOTAL BICYCLISTS IN CRASHES	BICYCLISTS IN FATAL CRASHES	TOTAL PEDESTRIANS IN CRASHES	PEDESTRIANS IN FATAL CRASHES
0-15	1,582	48,734	33	0	0	88	3	0	5	0
16	2,270	3,418	186	1	0	42	2	0	1	0
17	2,609	3,503	262	1	0	30	0	0	0	0
18	2,480	4,138	303	1	1	49	1	0	1	0
19	2,844	5,027	301	0	0	46	0	0	1	0
20	2,987	5,133	331	1	0	52	1	0	2	0
21-24	12,325	19,339	1,013	3	3	141	4	0	4	0
25-29	14,803	16,078	1,016	3	3	122	3	0	2	0
30-34	14,768	16,493	856	1	0	104	0	0	5	0
35-39	14,657	16,359	795	7	5	86	0	0	1	0
40-44	13,811	15,584	807	1	0	98	2	1	2	1
45-49	15,702	17,635	785	3	3	98	0	0	2	0
50-54	18,663	20,665	877	2	0	118	1	0	0	0
55-59	21,863	23,567	895	5	4	99	2	0	2	0
60-64	23,104	23,940	797	8	5	101	0	0	2	0
65-69	20,410	21,293	654	0	0	76	0	0	4	1
70-74	14,686	14,774	416	1	1	50	1	0	4	0
75-79	10,478	11,140	311	0	1	34	0	0	1	0
80-84	6,702	7,735	217	4	3	33	0	0	0	0
85+	5,476	8,626	138	0	0	21	0	0	1	0
Unknown	---	---	714	0	0	3	2	0	1	0
TOTAL	222,220	303,181	11,707	42	29	1,491	22	1	41	2

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

AGE	LICENSED DRIVERS	TOTAL DRIVERS IN CRASHES*	CRASH RATE
0-15	1,582	33	0.021
16	2,270	186	0.082
17	2,609	262	0.100
18	2,480	303	0.122
19	2,844	301	0.106
20	2,987	331	0.111
21-24	12,325	1,013	0.082
25-29	14,803	1,016	0.069
30-34	14,768	856	0.058
35-39	14,657	795	0.054
40-44	13,811	807	0.058
45-49	15,702	785	0.050
50-54	18,663	877	0.047
55-59	21,863	895	0.041
60-64	23,104	797	0.034
65-69	20,410	654	0.032
70-74	14,686	416	0.028
75-79	10,478	311	0.030
80-84	6,702	217	0.032
85-89	3,946	101	0.026
90-94	1,328	31	0.023
95-99	196	6	0.031
100+	6	0	0.000
Total	222,220	10,993	---

Note: Data entry errors resulted in an over-representation of age "100+" drivers.

* Excludes 714 drivers with unknown age.

Licensed drivers age 18 have the highest crash rate at 0.122 (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.

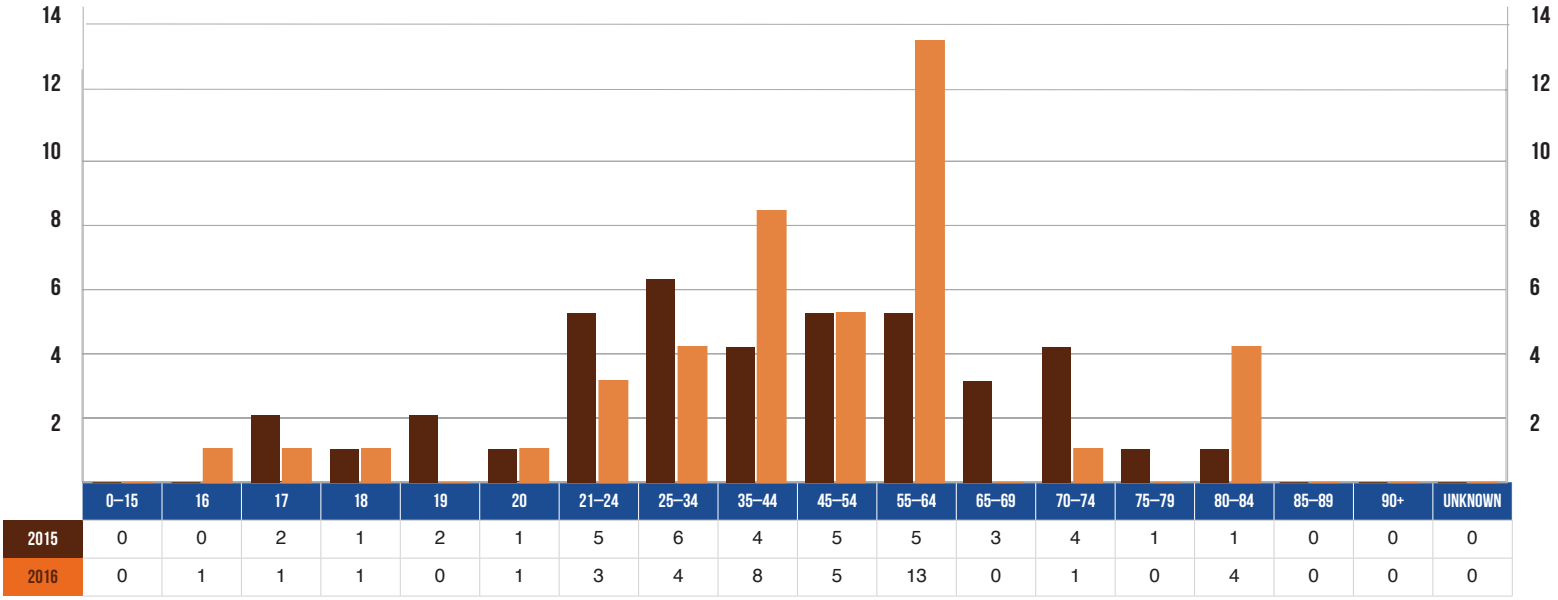
UPPER PENINSULA DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2015	2016	PERCENT CHANGE	PERCENT 2016 FATAL CRASH INVOLVEMENT	PERCENT ACTIVE DRIVING POPULATION*
15 years and under	0	0	†	0.0	0.7
16 years	0	1	†	2.0	1.0
17 years	2	1	-50.0	2.0	1.2
18 years	1	1	0.0	2.0	1.1
19 years	2	0	-100.0	0.0	1.3
20 years	1	1	0.0	2.0	1.3
21 - 24 years	5	3	-40.0	7.0	5.5
25 - 34 years	6	4	-33.3	10.0	13.3
35 - 44 years	4	8	100.0	19.0	12.8
45 - 54 years	5	5	0.0	12.0	14.1
55 - 64 years	5	13	160.0	31.0	20.2
65 - 69 years	3	0	-100.0	0.0	9.2
70 - 74 years	4	1	-75.0	2.0	6.6
75 - 79 years	1	0	-100.0	0.0	4.7
80 - 84 years	1	4	300.0	10.0	3.0
85 - 89 years	0	0	†	0.0	1.8
90 years and over	0	0	†	0.0	0.7
Unknown	0	0	†	0.0	---
Total	40	42	†	100.0	100.0

*Figures courtesy of the Michigan Department of State [5]

† Not calculable

DRIVER AGE IN FATAL CRASHES



UPPER PENINSULA DRIVER CONDITION

POSSIBLE CONDITIONS OF DRIVER	CONDITIONS (CODED BY POLICE)	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
Normal	9,092	18	151	365	912	7,646
Fatigued or Asleep	86	1	8	12	22	43
Sick	28	0	4	6	7	11
Medicated	39	0	3	5	3	28
Emotional	64	0	7	5	21	31
Physically Disabled	10	0	2	0	3	5
Unknown	1,297	18	40	40	66	1,133
Other	179	3	16	34	34	92

Note: Drivers may have more than one 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.

UPPER PENINSULA DRIVER INJURY SEVERITY BY RESTRAINT, ALCOHOL, AND DRUG USE

RESTRAINT USAGE	DRIVERS		FATALITY		INJURY			NO INJURY	UNKNOWN
	Number	% of Total	Number	% of Total	A	B	C		
ALL DRIVERS									
Restraint Used*	10,424	89.0	13	59.1	94	271	610	9,430	6
Restraint Not Used	203	1.7	8	36.4	29	36	22	107	1
Unknown	1,080	9.2	1	4.5	13	14	23	323	706
TOTAL	11,707	100.0	22	100.0	136	321	655	9,860	713
DRINKING DRIVERS ONLY									
Restraint Used*	182	68.4	0	0.0	4	23	23	132	0
Restraint Not Used	25	9.4	2	100.0	7	5	4	7	0
Unknown	59	22.2	0	0.0	3	6	8	41	1
TOTAL	266	100.0	2	100.0	14	34	35	180	1
DRUGGED DRIVERS ONLY									
Restraint Used*	37	78.7	4	100.0	4	5	2	22	0
Restraint Not Used	3	6.4	0	0.0	2	0	0	1	0
Unknown	7	14.9	0	0.0	2	1	0	4	0
TOTAL	47	100.0	4	100.0	8	6	2	27	0
DRINKING AND DRUGGED DRIVERS ONLY									
Restraint Used*	34	70.8	2	40.0	3	5	5	19	0
Restraint Not Used	9	18.8	3	60.0	1	0	2	3	0
Unknown	5	10.4	0	0.0	0	1	2	2	0
TOTAL	48	100.0	5	100.0	4	6	9	24	0

*'Restraint Used' includes shoulder belt only, lap belt only, both lap and shoulder belts, restraint failed, and helmet worn

RED-LIGHT-RUNNING CRASHES

INTERSECTION CRASH TYPE	CRASHES	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
1. Related to intersection	2,241	6	44	121	314	1,756
2. In intersection	1,556	6	38	100	238	1,174
3. With traffic control signal	364	2	6	27	64	265
4. With hazardous action*	54	0	3	6	12	33

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

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

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

4. "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 54 crashes.

RED-LIGHT-RUNNING MOST SEVERE OUTCOME IN CRASH

SPEED LIMIT*	CRASHES	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
5 miles per hour	0	0	0	0	0	0
10 miles per hour	0	0	0	0	0	0
15 miles per hour	0	0	0	0	0	0
20 miles per hour	0	0	0	0	0	0
25 miles per hour	17	0	0	2	4	11
30 miles per hour	2	0	0	0	1	1
35 miles per hour	13	0	0	1	2	10
40 miles per hour	1	0	0	0	1	0
45 miles per hour	12	0	2	0	2	8
50 miles per hour	1	0	0	0	1	0
55 miles per hour	7	0	0	3	1	3
60 miles per hour	0	0	0	0	0	0
65 miles per hour	0	0	0	0	0	0
70 miles per hour	0	0	0	0	0	0
75 miles per hour	0	0	0	0	0	0
Unknown	1	0	1	0	0	0
TOTAL	54	0	3	6	12	33

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

CRASH TYPE	CRASHES	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
Single Vehicle	2	0	0	1	0	1
Head on	0	0	0	0	0	0
Head on left turn	2	0	0	0	0	2
Angle	43	0	2	3	12	26
Rear end	0	0	0	0	0	0
Rear end left turn	0	0	0	0	0	0
Rear end right turn	0	0	0	0	0	0
Sideswipe same direction	2	0	0	0	0	2
Sideswipe opposite direction	0	0	0	0	0	0
Backing	0	0	0	0	0	0
Other/Unknown	5	0	1	2	0	2
TOTAL	54	0	3	6	12	33

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

SPECIAL CIRCUMSTANCES*	CRASHES	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
School Bus Involved/Associated	0	0	0	0	0	0
Drinking Involved	0	0	0	0	0	0
Drug Use Involved	0	0	0	0	0	0
Pedestrian Involved	0	0	0	0	0	0
Bicyclist Involved	2	0	0	1	0	1
Snowmobile Involved	0	0	0	0	0	0
Motorcycle Involved	0	0	0	0	0	0
Train Involved	0	0	0	0	0	0
Truck/Bus Involved	1	0	0	1	0	0
Emergency Vehicle Involved	1	0	0	1	0	0
Driver Hazardous Citation	33	0	1	5	9	18

*Crashes may involve more than one special circumstance

POSSIBLE CONDITIONS OF PERSONS IN CRASH*	CONDITIONS (CODED BY POLICE)	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
Normal	46	0	2	5	12	27
Fatigued or Asleep	0	0	0	0	0	0
Sick	1	0	1	0	0	0
Medicated	0	0	0	0	0	0
Emotional	0	0	0	0	0	0
Physically Disabled	0	0	0	0	0	0
Unknown	3	0	0	2	0	1
Other	0	0	0	0	0	0

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

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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 and backing as the Truck/Bus Driver Action Prior.
- More collisions with fixed object (bridge/pier/abutments), nonfixed object (parked motor vehicles), and noncollision event (cargo loss/shift and other non-collisions) as the Most Harmful Event.
- Fewer collisions with fixed objects (ditches, trees), and nonfixed object (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 12:00 AM and 2:59 PM, and fewer crashes between 3:00 PM and 11:59 PM.
- More weekday crashes and a drop in weekend crashes.

HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

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	128	54.2	2	66.7	24	61.5
Turning left	20	8.5	0	0.0	2	5.1
Turning right	12	5.1	0	0.0	0	0.0
Stopped on roadway	10	4.2	1	33.3	3	7.7
In prior crash	0	0.0	0	0.0	0	0.0
Changing lanes	2	0.8	0	0.0	0	0.0
Backing	22	9.3	0	0.0	1	2.6
Slowing/stopping on roadway	17	7.2	0	0.0	6	15.4
Slowing/stopping other	1	0.4	0	0.0	0	0.0
Starting up on roadway	3	1.3	0	0.0	1	2.6
Starting up other	0	0.0	0	0.0	0	0.0
Entering parking	3	1.3	0	0.0	0	0.0
Leaving parking	0	0.0	0	0.0	0	0.0
Entering roadway	2	0.8	0	0.0	0	0.0
Leaving roadway	1	0.4	0	0.0	0	0.0
Making U-turn	0	0.0	0	0.0	0	0.0
Overtaking or passing	4	1.7	0	0.0	0	0.0
Avoiding object	0	0.0	0	0.0	0	0.0
Avoiding animal	0	0.0	0	0.0	0	0.0
Avoiding pedestrian	0	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	1	0.4	0	0.0	0	0.0
Avoiding vehicle (angle)	2	0.8	0	0.0	1	2.6
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	4	1.7	0	0.0	0	0.0
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing or 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	2	0.8	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Negotiating a curve	1	0.4	0	0.0	0	0.0
Other	1	0.4	0	0.0	1	2.6
Unkown	0	0.0	0	0.0	0	0.0
Uncoded & errors	0	0.0	0	0.0	0	0.0
TOTAL	236	100.0	3	100.0	39	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	1	0.4	0	0.0	0	0.0
Cross center/median	0	0.0	0	0.0	0	0.0
Ran off road left	0	0.0	0	0.0	0	0.0
Ran off road right	3	1.3	0	0.0	0	0.0
Re-enter road	0	0.0	0	0.0	0	0.0
Overturn	6	2.5	0	0.0	5	12.8
Separation of units	0	0.0	0	0.0	0	0.0
Fire/explosion	1	0.4	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	0	0.0	0	0.0	0	0.0
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	4	1.7	0	0.0	1	2.6
Individual fell off	0	0.0	0	0.0	0	0.0
Other noncollision	3	1.3	0	0.0	1	2.6
SUBTOTAL	18	7.6	0	0.0	7	17.9

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Pedestrian	1	0.4	0	0.0	1	2.6
Bicycle / Pedalcycle	1	0.4	0	0.0	1	2.6
Motor vehicle in transport	131	55.5	3	100.0	27	69.2
Parked motor vehicle	16	6.8	0	0.0	0	0.0
Railway train	0	0.0	0	0.0	0	0.0
Animal	22	9.3	0	0.0	0	0.0
Other nonfixed objects	5	2.1	0	0.0	0	0.0
SUBTOTAL	176	74.6	3	100.0	29	74.4

The majority of heavy trucks/buses are involved in crashes with a motor vehicle in transport for all crashes (55.5%), fatal crashes (100%), and injury crashes (69.2%) for most harmful event in the crash.

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	2	0.8	0	0.0	0	0.0
Bridge parapet end	0	0.0	0	0.0	0	0.0
Bridge rail	1	0.4	0	0.0	0	0.0
Guardrail face	1	0.4	0	0.0	0	0.0
Guardrail end	2	0.8	0	0.0	0	0.0
Median barrier	1	0.4	0	0.0	0	0.0
Highway traffic sign post	2	0.8	0	0.0	0	0.0
Highway signal post	1	0.4	0	0.0	0	0.0
Luminaire/light support	5	2.1	0	0.0	0	0.0
Utility pole	0	0.0	0	0.0	0	0.0
Other pole	1	0.4	0	0.0	0	0.0
Culvert	0	0.0	0	0.0	0	0.0
Curb	0	0.0	0	0.0	0	0.0
Ditch	3	1.3	0	0.0	0	0.0
Embankment	1	0.4	0	0.0	0	0.0
Fence	0	0.0	0	0.0	0	0.0
Mailbox	1	0.4	0	0.0	0	0.0
Tree	6	2.5	0	0.0	2	5.1
Rail crossing signal	0	0.0	0	0.0	0	0.0
Building	0	0.0	0	0.0	0	0.0
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	0	0.0	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	6	2.5	0	0.0	0	0.0
SUBTOTAL	33	14.0	0	0.0	2	5.1

	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	9	3.8	0	0.0	1	2.6
MOST HARMFUL EVENT TOTAL	236	100.0	3	100.0	39	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 Total	Number of Heavy Trucks	% of Total
Single Vehicle	66	28.0	0	0.0	8	20.5
Head On	4	1.7	1	33.3	3	7.7
Head On - Left Turn	1	0.4	0	0.0	1	2.6
Angle	47	19.9	1	33.3	11	28.2
Rear End	32	13.6	1	33.3	9	23.1
Rear End - Left Turn	2	0.8	0	0.0	0	0.0
Rear End - Right Turn	5	2.1	0	0.0	1	2.6
Sideswipe - Same Direction	34	14.4	0	0.0	3	7.7
Sideswipe - Opposite Direction	10	4.2	0	0.0	1	2.6
Backing	9	3.8	0	0.0	1	2.6
Other/Unknown	26	11.0	0	0.0	1	2.6
TOTAL	236	100.0	3	100.0	39	100.0

The highest percentage of heavy trucks/buses are involved in single vehicle crashes for all crashes (28.0%) and crashes at an angle for injury crashes (28.2%).

HAZARDOUS ACTION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES		HAZARDOUS CITATION ISSUED	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
None	137	58.1	3	100.0	24	61.5	0	0.0
Speed too fast	7	3.0	0	0.0	0	0.0	2	10.0
Speed too slow	0	0.0	0	0.0	0	0.0	0	0.0
Failed to yield	13	5.5	0	0.0	3	7.7	5	25.0
Disregard traffic control	2	0.8	0	0.0	1	2.6	1	5.0
Drove wrong way	0	0.0	0	0.0	0	0.0	0	0.0
Drove left of center	0	0.0	0	0.0	0	0.0	0	0.0
Improper passing	0	0.0	0	0.0	0	0.0	0	0.0
Improper lane use	4	1.7	0	0.0	0	0.0	0	0.0
Improper turn	11	4.7	0	0.0	1	2.6	0	0.0
Improper/no signal	1	0.4	0	0.0	0	0.0	0	0.0
Improper backing	13	5.5	0	0.0	1	2.6	0	0.0
Unable to stop in assured clear distance	10	4.2	0	0.0	3	7.7	1	5.0
Reckless driving	0	0.0	0	0.0	0	0.0	0	0.0
Careless/negligent driving	11	4.7	0	0.0	4	10.3	6	30.0
Other	19	8.1	0	0.0	0	0.0	4	20.0
Unknown	8	3.4	0	0.0	2	5.1	1	5.0
TOTAL	236	100.0	3	100.0	39	100.0	20	100.0

After no hazardous action, the most common hazardous action coded for drivers of heavy trucks/buses in all crashes is “other” (8.1%). For injury crashes, careless/negligent driving (10.3%) is the most common hazardous action coded after no hazardous action.

HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT)	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
On Road	200	84.7	3	100.0	34	87.2
Median	1	0.4	0	0.0	0	0.0
Shoulder	18	7.6	0	0.0	0	0.0
Outside of Shoulder/Curb	13	5.5	0	0.0	5	12.8
Gore	0	0.0	0	0.0	0	0.0
On-Street Parking	4	1.7	0	0.0	0	0.0
Off the Roadway	0	0.0	0	0.0	0	0.0
On the Sidewalk	0	0.0	0	0.0	0	0.0
In the Bicycle Lane	0	0.0	0	0.0	0	0.0
Other/Unknown	0	0.0	0	0.0	0	0.0
TOTAL	236	100.0	3	100.0	39	100.0

TIME OF DAY	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
12:00 AM - 02:59 AM	9	3.8	0	0.0	3	7.7
03:00 AM - 05:59 AM	10	4.2	0	0.0	3	7.7
06:00 AM - 08:59 AM	30	12.7	0	0.0	8	20.5
09:00 AM - 11:59 AM	58	24.6	0	0.0	6	15.4
12:00 PM - 02:59 PM	56	23.7	1	33.3	9	23.1
03:00 PM - 05:59 PM	39	16.5	0	0.0	5	12.8
06:00 PM - 08:59 PM	24	10.2	2	66.7	3	7.7
09:00 PM - 11:59 PM	10	4.2	0	0.0	2	5.1
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	236	100.0	3	100.0	39	100.0

Heavy truck/bus frequencies in crashes peak in the late morning, then drop off steadily until 3:00 AM. The most common time for heavy trucks/buses to be involved in crashes is between 9:00 and 11:59 AM (24.6%) for all crashes, between 6:00 and 8:59 PM (66.7%) for fatal crashes, and between 12:00 and 2:59 PM (23.1%) for injury crashes.

ROADWAY TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Interstate Routes	16	6.8	0	0.0	2	5.1
U.S. & Michigan Roads	149	63.1	2	66.7	28	71.8
County & City Roads	70	29.7	1	33.3	8	20.5
Uncoded & Errors	1	0.4	0	0.0	1	2.6
TOTAL	236	100.0	3	100.0	39	100.0

The highest percentage of heavy trucks/buses are involved in crashes on U.S. & Michigan roads for all crashes (63.1%), fatal crashes (66.7%), and injury crashes (71.8%).

HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

DAY OF WEEK	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Monday	45	19.1	0	0.0	10	25.6
Tuesday	34	14.4	0	0.0	8	20.5
Wednesday	44	18.6	1	33.3	5	12.8
Thursday	49	20.8	2	66.7	8	20.5
Friday	39	16.5	0	0.0	5	12.8
Saturday	14	5.9	0	0.0	2	5.1
Sunday	11	4.7	0	0.0	1	2.6
TOTAL	236	100.0	3	100.0	39	100.0

The highest percentage of heavy trucks/buses are involved in all crashes on Thursday (20.8%) and injury crashes on Monday (25.6%).

DRIVER GENDER	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Male	215	91.1	3	100.0	35	89.7
Female	19	8.1	0	0.0	4	10.3
Unknown	2	0.8	0	0.0	0	0.0
TOTAL	236	100.0	3	100.0	39	100.0

The majority of heavy truck/bus drivers are male in all crashes (91.1%), fatal crashes (100.0%), and injury crashes (89.7%).

NUMBER OF OCCUPANTS	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
1 occupant	202	85.6	3	100.0	32	82.1
2 occupants	19	8.1	0	0.0	3	7.7
3 occupants	0	0.0	0	0.0	0	0.0
4 occupants	1	0.4	0	0.0	0	0.0
5 occupants	2	0.8	0	0.0	1	2.6
6 + occupants	10	4.2	0	0.0	3	7.7
0 occupants	2	0.8	0	0.0	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	236	100.0	3	100.0	39	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 Total	Number of Vehicles	% of Total	Number of Vehicles	% of Total
Passenger Car, SUV, Van	111	67.7	2	66.7	22	61.1
Motor Home	6	3.7	0	0.0	1	2.8
Pickup	37	22.6	0	0.0	9	25.0
Small Truck (under 10,000 lbs.)	2	1.2	1	33.3	1	2.8
Motorcycle	0	0.0	0	0.0	0	0.0
Moped	0	0.0	0	0.0	0	0.0
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	1	0.6	0	0.0	1	2.8
Off Road Vehicle	0	0.0	0	0.0	0	0.0
Other	3	1.8	0	0.0	0	0.0
Unknown	4	2.4	0	0.0	2	5.6
SUBTOTAL	164	100.0	3	100.0	36	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WRIGHT RATING	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
10,000 lbs. or Less	6	2.5	0	0.0	1	2.6
10,001 - 26,000 lbs.	45	19.1	0	0.0	6	15.4
Greater than 26,000 lbs.	181	76.7	3	100.0	31	79.5
Uncoded & Errors	4	1.7	0	0.0	1	2.6
SUBTOTAL	236	100.0	3	100.0	39	100.0

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Vehicles	% of Total	Number of Vehicles	% of Total	Number of Vehicles	% of Total
Total Number of Vehicles in Heavy Truck/ Bus Crashes	400	---	6	---	75	---

HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

DRIVER ACTION PRIOR TO CRASH HAZARDOUS CITATION ISSUED	HEAVY TRUCK/BUS INVOLVED CRASH						NON-HEAVY TRUCK/BUS INVOLVED CRASH			
	Single Vehicle Crash		Multi-Vehicle Crash				Single Vehicle Crash		Multi-Vehicle Crash	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Non-Heavy Truck Vehicles	% of Total	Number of Vehicles	% of Total	Number of Vehicles	% of Total
None	0	0.0	0	0.0	0	0.0	9	2.0	10	1.2
Speed too fast	1	9.1	1	11.1	3	11.1	210	47.2	65	7.8
Speed too slow	0	0.0	0	0.0	1	3.7	1	0.2	0	0.0
Failed to yield	0	0.0	5	55.6	8	29.6	6	1.3	306	36.7
Disregard traffic control	0	0.0	1	11.1	1	3.7	6	1.3	68	8.2
Drove wrong way	0	0.0	0	0.0	0	0.0	0	0.0	5	0.6
Drove left of center	0	0.0	0	0.0	0	0.0	2	0.4	14	1.7
Improper passing	0	0.0	0	0.0	2	7.4	0	0.0	12	1.4
Improper lane use	0	0.0	0	0.0	0	0.0	2	0.4	21	2.5
Improper turn	0	0.0	0	0.0	0	0.0	1	0.2	15	1.8
Improper/no signal	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0
Improper backing	0	0.0	0	0.0	0	0.0	1	0.2	9	1.1
Unable to stop in assured clear distance	0	0.0	1	11.1	4	14.8	5	1.1	204	24.5
Reckless driving	0	0.0	0	0.0	1	3.7	14	3.1	10	1.2
Careless/Negligent driving	5	45.5	1	11.1	1	3.7	146	32.8	62	7.4
Other	4	36.4	0	0.0	6	22.2	33	7.4	30	3.6
Unknown	1	9.1	0	0.0	0	0.0	8	1.8	2	0.2
CITED VEHICLES SUBTOTAL	11	100.0	9	100.0	27	100.0	445	100.0	833	100.0

	HEAVY TRUCK/BUS INVOLVED CRASH						NON-HEAVY TRUCK/BUS INVOLVED CRASH			
	Single Vehicle Crash		Multi-Vehicle Crash				Single Vehicle Crash		Multi-Vehicle Crash	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Non-Heavy Truck Vehicles	% of Total	Number of Vehicles	% of Total	Number of Vehicles	% of Total
Cited Vehicles	11	16.7	9	5.3	27	16.9	445	9.1	833	13.3
Vehicles with No Citation Issued	55	83.3	161	94.7	133	83.1	4,462	90.9	5,413	86.7
Vehicles with Unknown Citation	0	0.0	0	0.0	0	0.0	1	0.0	0	0.0
TOTAL VEHICLES INVOLVED	66	100.0	170	100.0	160	100.0	4,908	100.0	6,246	100.0

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OCCUPANT/PERSON

(specific information on each driver and injured person in a crash)

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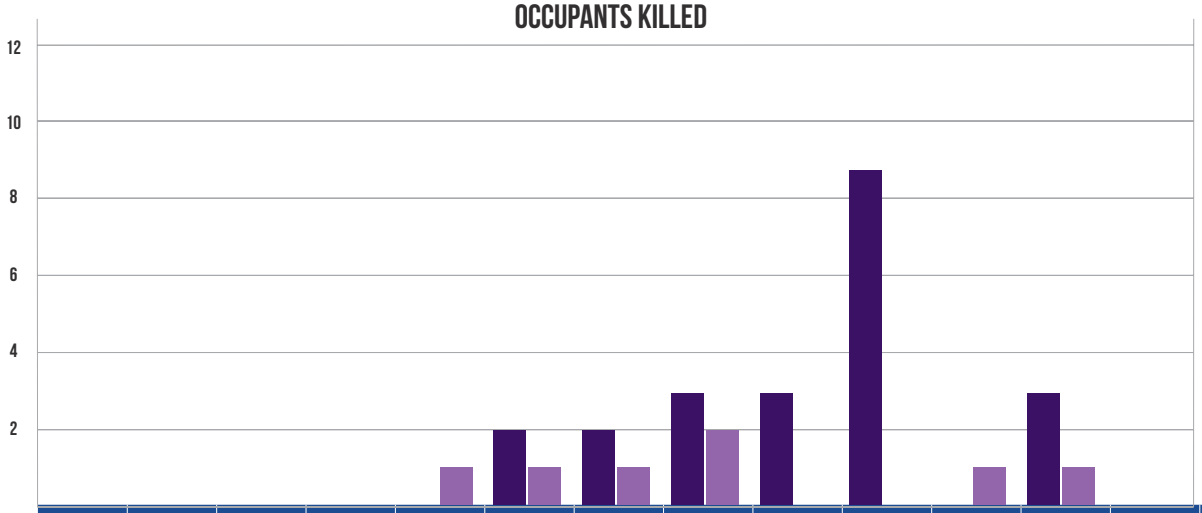
UPPER PENINSULA AGE AND GENDER OF OCCUPANTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

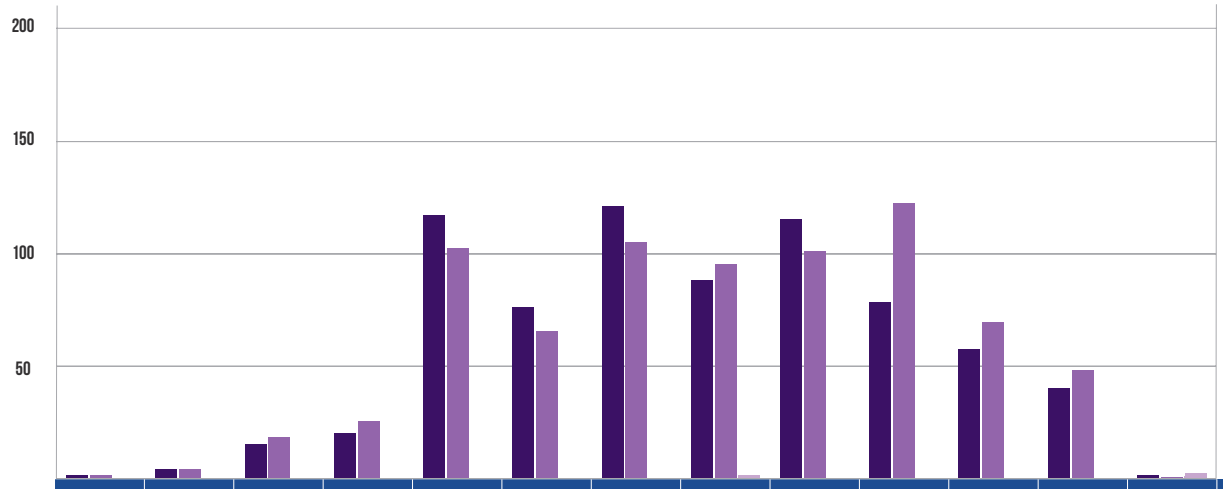
OCCUPANTS KILLED



	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 YEARS AND OVER	UNKNOWN	TOTAL
MALES KILLED	0	0	0	0	0	2	2	3	3	9	0	3	0	22
FEMALES KILLED	0	0	0	0	1	1	1	2	0	0	1	1	0	7
TOTAL	0	0	0	0	1	3	3	5	3	9	1	4	0	29

The majority (75.9%) of occupants killed in traffic crashes in 2016 were male.

OCCUPANTS INJURED



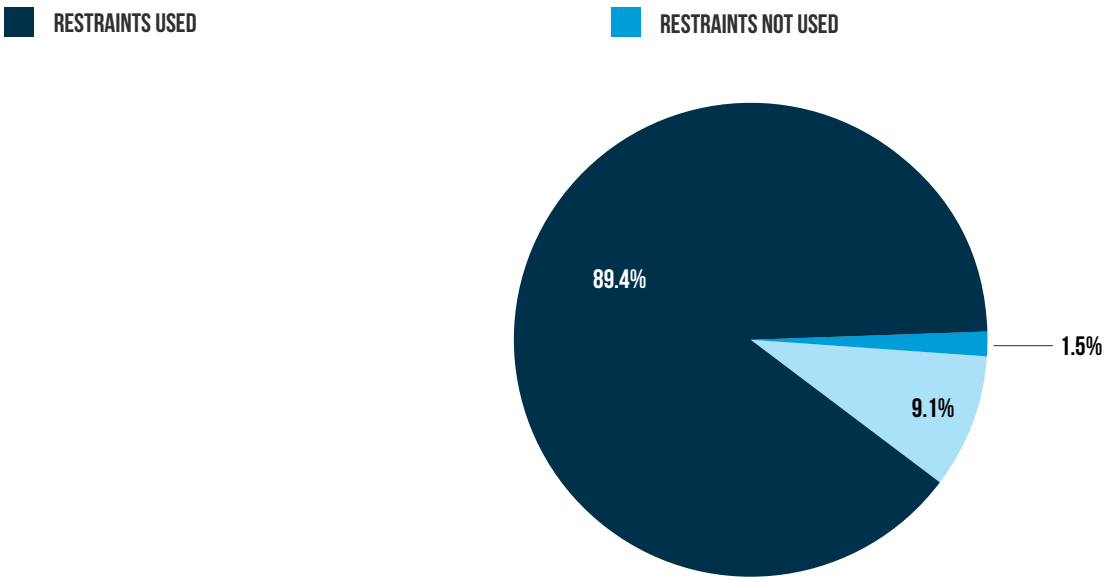
	UNDER 1 YEAR OLD	1-3 YEARS	4-10 YEARS	11-15 YEARS	16-20 YEARS	21-24 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55-64 YEARS	65-74 YEARS	75 YEARS AND OVER	UNKNOWN	TOTAL
MALES KILLED	1	4	15	20	117	76	121	88	115	78	57	40	1	733
FEMALES KILLED	1	4	18	25	102	65	105	95	101	122	69	48	0	755
UNKNOWN	0	0	0	0	0	0	0	1	0	0	0	0	2	3
TOTAL	2	8	33	45	219	141	226	184	216	200	126	88	3	1,491

The majority (50.6%) of occupants injured in traffic crashes in 2016 were female.

Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.

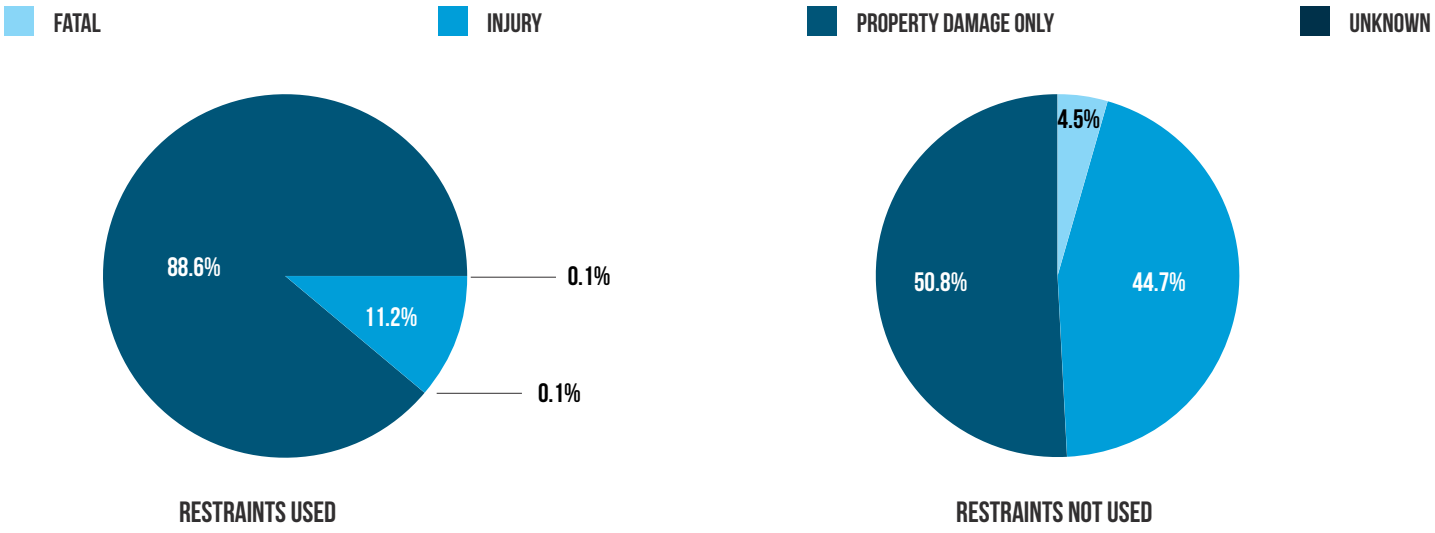
UPPER PENINSULA REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

REPORTED OCCUPANT RESTRAINT USAGE



Of the 11,872 drivers and injured passengers involved in crashes in the Upper Peninsula, 10,612 (89.4%) were REPORTED to be using occupant restraints.

INJURY SEVERITY



Occupants in crashes were 59 times more likely to be killed if they were not wearing their restraints.

Note: These charts do not include helmet usage.

UPPER PENINSULA MOTOR VEHICLE DRIVERS AND INJURED PASSENGERS BY SEATING POSITION AND KNOWN BELT USAGE

SEATING POSITION	BELTS USED*		FATAL	INJURY			NO INJURY
	Number	% of Total		A	B	C	
Left Front	10,282	97.2	4	73	226	591	9,388
Center Front	9	0.1	0	0	3	2	4
Right Front	226	2.1	4	19	56	139	8
Left Rear Second Seat	16	0.2	0	0	6	10	0
Center Rear Second Seat	4	0.0	0	0	0	4	0
Right Rear Second Seat	29	0.3	0	2	5	22	0
Left Rear Third Seat	1	0.0	0	0	1	0	0
Center Rear Third Seat	1	0.0	0	0	1	0	0
Right Rear Third Seat	2	0.0	0	0	1	1	0
Left Rear Fourth Seat	1	0.0	0	0	0	0	1
Center Rear Fourth Seat	0	0.0	0	0	0	0	0
Right Rear Fourth Seat	0	0.0	0	0	0	0	0
Other Passenger Area	0	0.0	0	0	0	0	0
Unknown	5	0.0	0	0	1	0	4
Uncoded & Errors	1	0.0	0	0	0	0	1
TOTAL	10,577 †	100.0	8	94	300	769	9,406

* Belts Used includes use of lap, shoulder, or both belts, or restraint failure. Children who were using or not using a child restraint are in separate tables on the next two pages.

† This total does not include six occupants with unknown injury severity.

SEATING POSITION	BELTS NOT USED*		FATAL	INJURY			NO INJURY
	Number	% of Total		A	B	C	
Left Front	128	71.9	5	12	16	15	80
Center Front	5	2.8	0	2	0	1	2
Right Front	15	8.4	2	3	5	4	1
Left Rear Second Seat	5	2.8	0	1	1	3	0
Center Rear Second Seat	6	3.4	1	2	1	2	0
Right Rear Second Seat	9	5.1	0	4	2	3	0
Left Rear Third Seat	1	0.6	0	0	1	0	0
Center Rear Third Seat	0	0.0	0	0	0	0	0
Right Rear Third Seat	0	0.0	0	0	0	0	0
Left Rear Fourth Seat	0	0.0	0	0	0	0	0
Center Rear Fourth Seat	0	0.0	0	0	0	0	0
Right Rear Fourth Seat	0	0.0	0	0	0	0	0
Other Passenger Area	2	1.1	0	2	0	0	0
Unknown	7	3.9	0	0	0	0	7
Uncoded & Errors	0	0.0	0	0	0	0	0
TOTAL	178	100.0	8	26	26	28	90

* No belts were available or no belts were used. Children who were using or not using a child restraint are in separate tables on the next two pages.

Note: Michigan law requires that all persons must wear a seatbelt when riding in the front seat of a motor vehicle.

UPPER PENINSULA REPORTED RESTRAINT USE - CHILDREN

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

Any child under four years of age must be in an approved Child Safety Seat (CSS)/Child Restraint Device (CRD), and riding in the rear seat. All children less than 8 years of age AND who are less than 4'9" in height, must be properly restrained in a child restraint system. All children ages 8 through 15 must wear a properly adjusted and fastened seat belt when riding in either the front or back seat of a vehicle.

RESTRAINT USAGE	CHILDREN		FATAL	INJURY		
	Number	% of Total		A	B	C
AGE 0						
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	0	0.0	0	0	0	0
Child Restraint Used - Rear Facing	2	100.0	0	0	0	2
Child Restraint Used - Booster Seat	0	0.0	0	0	0	0
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
Total	2	100.0	0	0	0	2
AGE 1						
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	2	100.0	0	0	1	1
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	0	0.0	0	0	0	0
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
Total	2	100.0	0	0	1	1
AGE 2						
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	2	100.0	0	0	1	1
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	0	0.0	0	0	0	0
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
Total	2	100.0	0	0	1	1

UPPER PENINSULA REPORTED RESTRAINT USE - CHILDREN (CONTINUED)

RESTRAINT USAGE	CHILDREN		FATAL	INJURY		
	Number	% of Total		A	B	C
AGE 3						
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	4	100.0	0	0	1	3
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	0	0.0	0	0	0	0
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
Total	4	100.0	0	0	1	3
AGE 4-7						
Belts Used	4	21.1	0	0	0	4
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	12	63.2	0	2	3	7
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	2	10.5	0	0	1	1
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	1	5.3	0	0	0	1
Total	19	100.0	0	2	4	13
AGE 8-15						
Belts Used	37	77.1	0	1	9	27
No Belts Used	6	12.5	0	3	0	3
Child Restraint Used - Forward Facing	2	4.2	0	0	0	2
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	0	0.0	0	0	0	0
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	3	6.2	0	0	0	3
Total	48	100.0	0	4	9	35

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

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

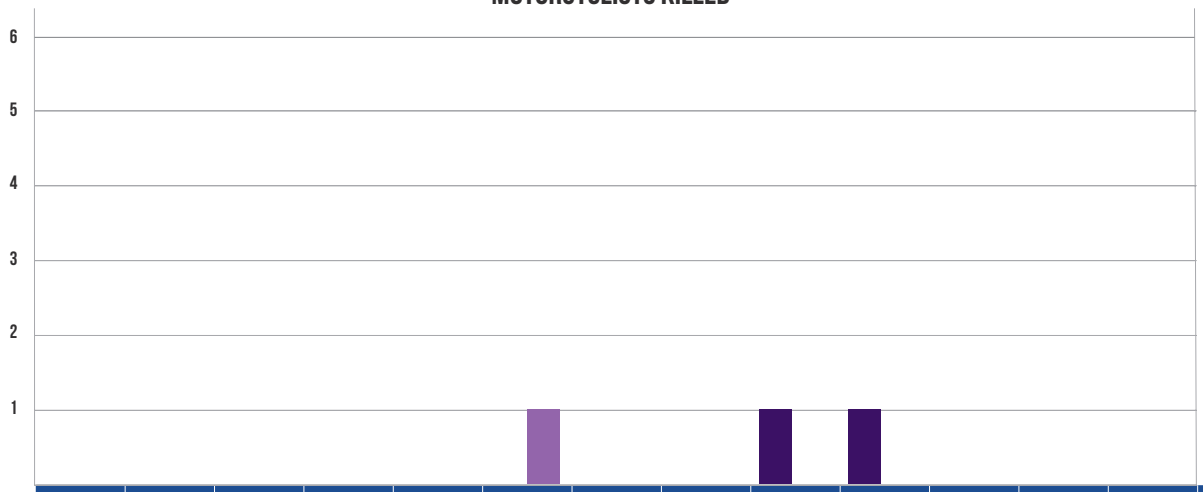
UPPER PENINSULA MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

MOTOR VEHICLE OCCUPANT AIRBAG DEPLOYMENT	OCCUPANTS		FATAL	OCCUPANT INJURY SEVERITY			NO INJURY
	Number	% of Total		A	B	C	
Deployed - front	826	6.8	8	51	130	202	435
Deployed - side	63	0.5	0	2	6	19	36
Deployed - curtain	23	0.2	1	2	4	5	11
Deployed - combination	142	1.2	2	15	41	33	51
Deployed - other	3	0.0	0	0	1	1	1
Not deployed	9,829	81.3	6	47	151	539	9,041
Not equipped	452	3.7	11	61	84	64	231
Unknown	438	3.6	1	2	8	16	39
Uncoded & Errors	317	2.6	0	1	1	5	15
TOTAL	12,093	100.0	29	181	426	884	9,860

* Includes 713 occupants (drivers and passengers) with unknown injury severity.

UPPER PENINSULA AGE AND GENDER OF MOTORCYCLISTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

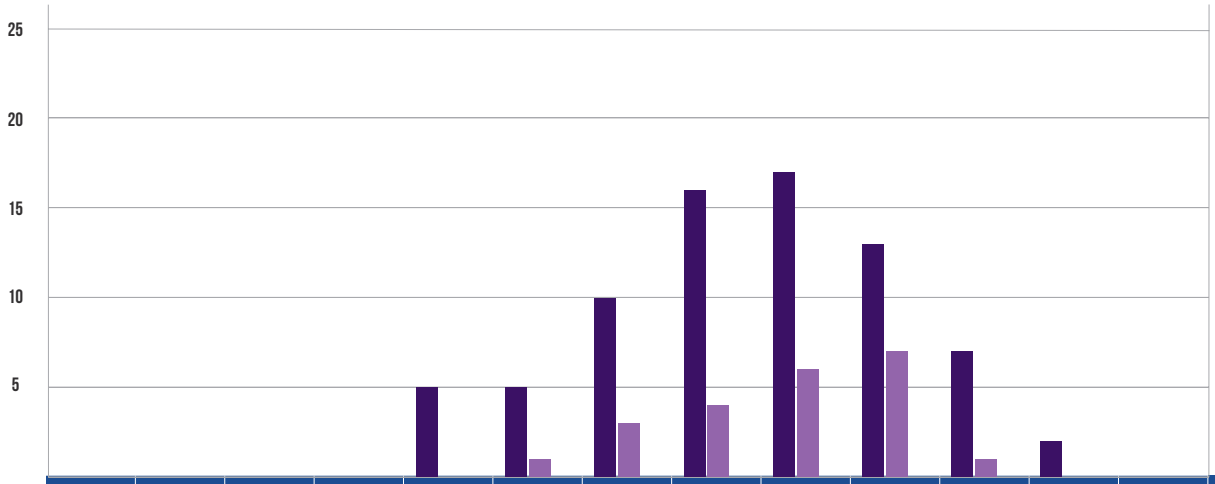
MOTORCYCLISTS KILLED



	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 YEARS AND OVER	UNKNOWN	TOTAL
MALES KILLED	0	0	0	0	0	0	0	0	1	1	0	0	0	2
FEMALES KILLED	0	0	0	0	0	1	0	0	0	0	0	0	0	1
TOTAL	0	0	0	0	0	1	0	0	1	1	0	0	0	3

Of the three motorcyclists killed in traffic crashes in the Upper Peninsula in 2016, two were male and one was female.

MOTORCYCLISTS INJURED



	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 YEARS AND OVER	UNKNOWN	TOTAL
MALES KILLED	0	0	0	0	5	5	10	16	17	13	7	2	0	75
FEMALES KILLED	0	0	0	0	0	1	3	4	6	7	1	0	0	22
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	5	6	13	20	23	20	8	2	0	97

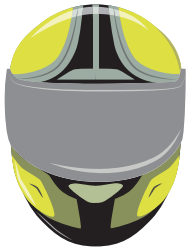
Of the 97 motorcyclists injured in traffic crashes in the Upper Peninsula in 2016, 77.3 percent were male.

UPPER PENINSULA MOTORCYCLE HELMET USAGE AND INJURY SEVERITY

AGE OF MOTORCYCLIST	FATALITIES	INJURY			NO INJURY
		A	B	C	
HELMET WORN					
3 years and under	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	1	3	0	1
21 - 24 years	1	0	3	3	1
25 - 34 years	0	0	4	1	2
35 - 44 years	0	1	4	7	1
45 - 54 years	0	2	5	3	3
55 - 64 years	0	4	11	1	3
65 - 74 years	0	1	1	1	2
75 years and over	0	0	0	1	0
Unknown	0	0	0	0	0
Subtotal	1	9	31	17	13
HELMET NOT WORN					
3 years and under	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	0	0	0	0
21 - 24 years	0	0	0	0	0
25 - 34 years	0	1	5	0	1
35 - 44 years	0	3	5	0	1
45 - 54 years	1	7	3	2	3
55 - 64 years	1	1	2	0	3
65 - 74 years	0	1	0	0	3
75 years and over	0	0	1	0	0
Unknown	0	0	0	0	0
Subtotal	2	13	16	2	11
HELMET USE UNKNOWN					
3 years and under	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	0	1	0	0
21 - 24 years	0	0	0	0	0
25 - 34 years	0	0	2	0	0
35 - 44 years	0	0	0	0	0
45 - 54 years	0	0	0	1	1
55 - 64 years	0	0	0	0	1
65 - 74 years	0	1	0	2	0
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	0	1	3	3	2
TOTAL	3	23	50	22	26

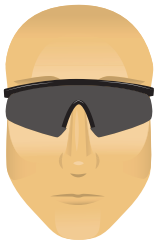
2011 Michigan motor vehicle crash data represents the last full year of data that was collected during Michigan's universal helmet law, enacted in 1969: Michigan Vehicle Code Public Act 300 of 1949, Section 257.658, requiring all motorcycle riders to wear a helmet. On April 13, 2012, Michigan changed their helmet law from a universal to a partial helmet law. The partial law allows some certified Michigan riders, who are over 21 and carry additional insurance, to ride without a helmet.

HELMET WORN



DRIVERS KILLED: 1
PASSENGERS KILLED: 0

HELMET NOT WORN



DRIVERS KILLED: 2
PASSENGERS KILLED: 0

HELMET USE UNKNOWN

DRIVERS KILLED: 0
PASSENGERS KILLED: 0

UPPER PENINSULA OCCUPANT INJURY OUTCOME BY VEHICLE TYPE

VEHICLE	KILLED	INJURY			TOTAL KABC	% OF ALL CRASH-INVOLVED KABC OCCUPANTS
		A	B	C		
Passenger Car, SUV, Van	14	100	256	675	1,045	68.8
Motorhome	0	0	2	9	11	0.7
Pickup truck	2	30	82	152	266	17.5
Small Truck under 10,000 lbs. GVWR	1	0	6	3	10	0.7
Motorcycle	3	24	51	22	100	6.6
Moped / goped	1	1	4	2	8	0.5
Go-cart / golf cart	0	0	0	0	0	0.0
Snowmobile	6	7	5	2	20	1.3
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	2	15	18	12	47	3.1
Other	0	1	1	0	2	0.1
Unknown	0	0	0	1	1	0.1
CDL Truck/Bus (breakdown below)	0	3	1	6	10	0.7
Total Number of Occupants	29	181	426	884	1,520	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING	KILLED	INJURY			TOTAL KABC	% OF ALL CRASH INVOLVED KABC OCCUPANTS
		A	B	C		
10,000 lbs. or less	0	0	0	0	0	0.0
10,001 - 26,000 lbs.	0	0	0	1	1	10.0
Greater than 26,000 lbs.	0	3	1	5	9	90.0
Uncoded & Errors	0	0	0	0	0	0.0
Total Number of Occupants	0	3	1	6	10	100.0

Note:

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.

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REFERENCES

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REFERENCES AND REPORTING AGENCIES

[1] Annual Estimates of the Resident Population for Counties of Michigan: 2010-2013. Population Division, U.S. Census Bureau. Release Date: March 2014. http://www.census.gov/popest/data/counties/asrh/2014/PEPSR6H.html

[2] Number of Deaths by Underlying Cause of Death Michigan Residents, 2012. Michigan Department of Community Health, Vital Records and Health Statistics Section, Lansing, MI. http://www.mdch.state.mi.us/PHA/OSR/chi/deaths/frame.asp?Topic=7&Mode=1

[3] Statistics Department, National Safety Council, 1121 Spring Lake Drive, Itasca, Illinois 60143-3201. http://www.nsc.org/news_resources/injury_and_death_statistics/Documents/InjuryFactsHighlights.pdf

[4] 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.) http://www.nhtsa.gov/people/injury/TSFLaws/PDFs/810886.pdf

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

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