MTCF

Michigan Traffic Crash Facts

UPPER PENINSULA

2017

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 2017

MichiganTrafficCrashFacts.org

PRODUCED BY:

Michigan Department of State Police
Criminal Justice Information Center-Traffic Crash Statistics
(517) 241-1699
Michigan.gov/cjic

Michigan Office of Highway Safety Planning
(517) 241-1505
Michigan.gov/ohsp

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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 1952-2017.

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CDL Restriction 28 (2004-2015) – This variable is no longer active starting with 2016 data and all counts have been coded to "Uncoded & errors."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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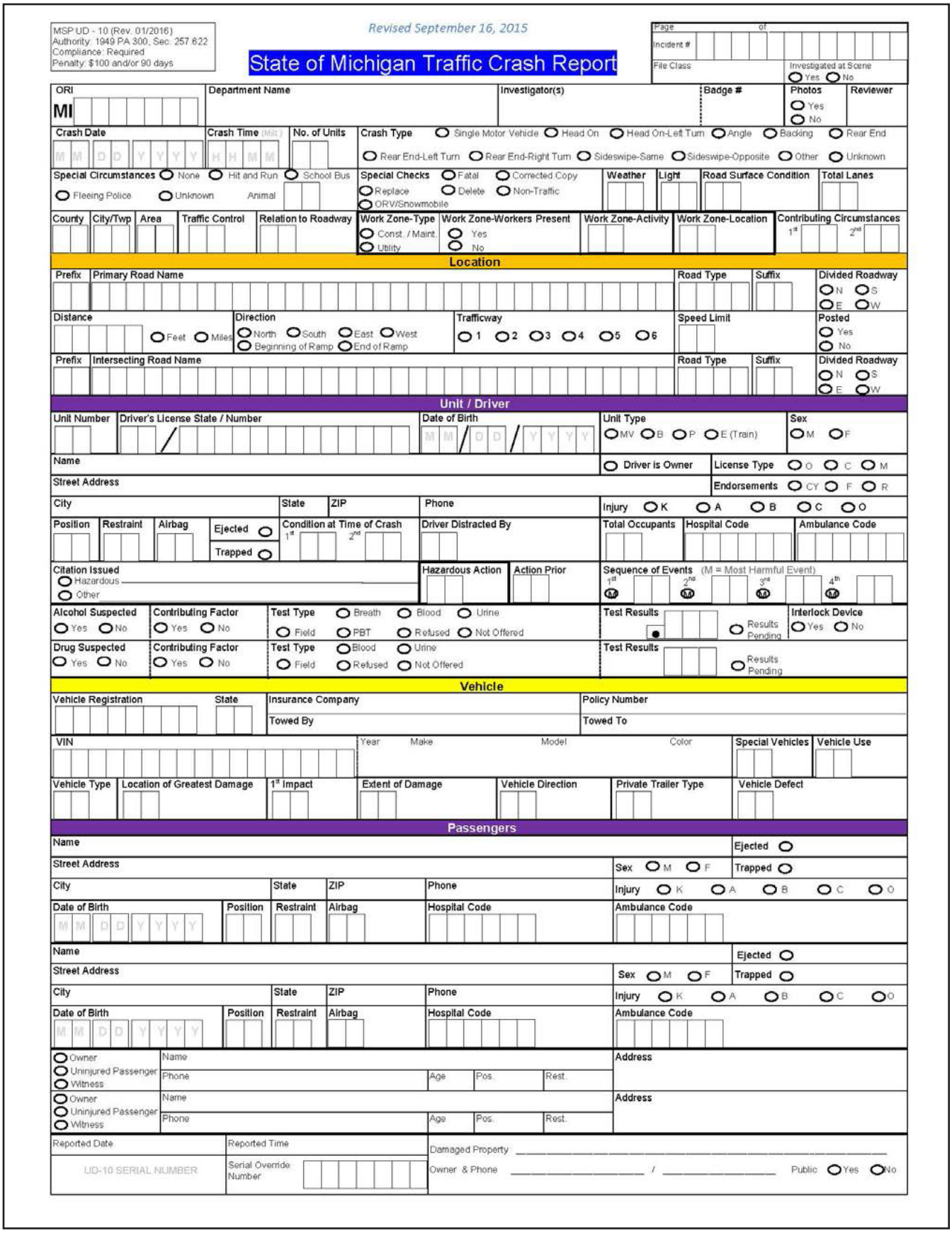
UD-10 (FRONT)



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

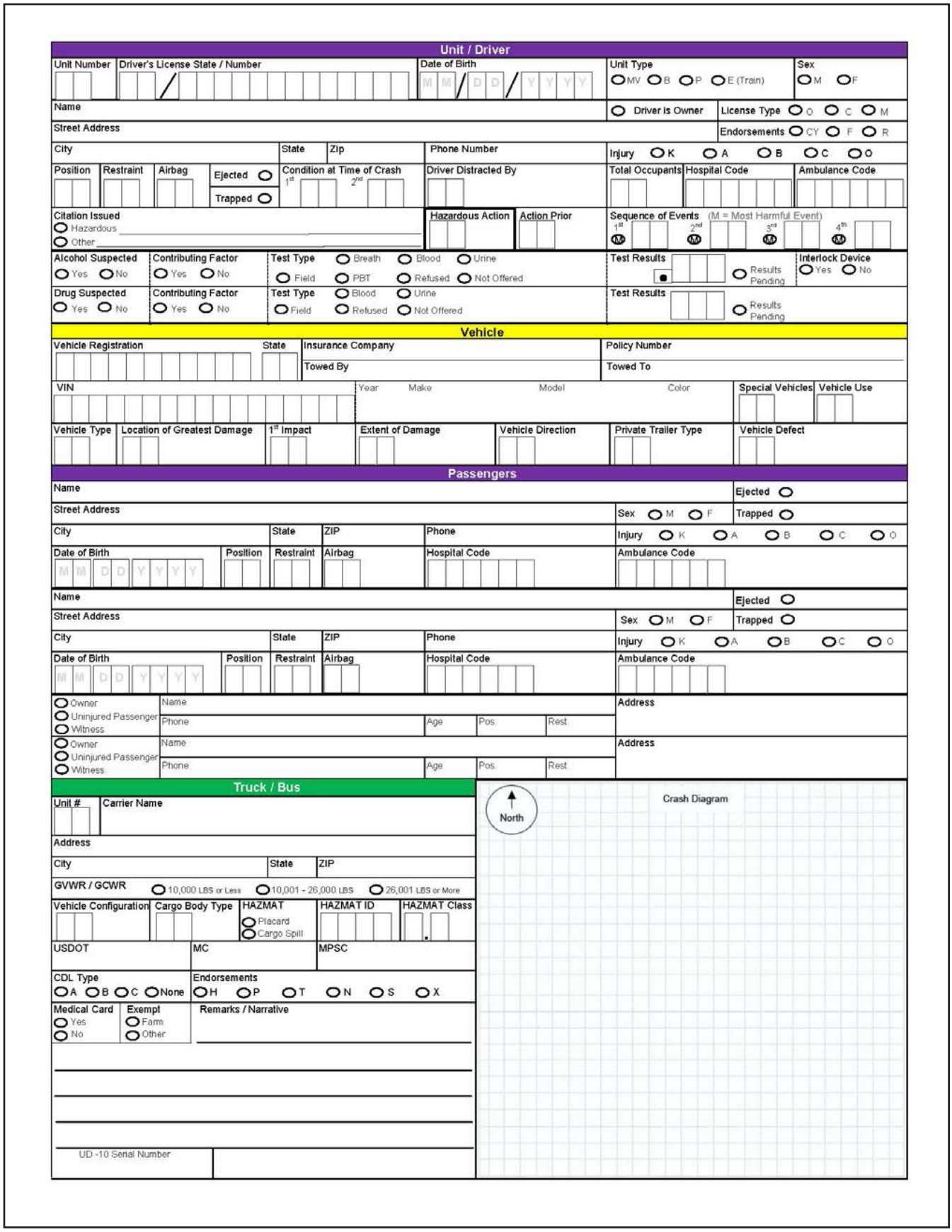
Name
Ejected
Street Address
Sex: M / F
Trapped
City
State
ZIP
Phone
Injury: K / A / B / C / O
Date of Birth (M M D D Y Y Y Y)
Position
Restraint
Airbag
Hospital Code
Ambulance Code

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 2017 QUICK FACTS

- Some exposure factor comparisons between 2017 and 2016 show motor vehicle registrations increased by a count of 797 (0.3%), the number of licensed drivers on Upper Peninsula roads decreased 0.5 percent, and vehicle mileage increased 2.7 percent.
- The 2017 fatality rate increased to 1.15 deaths per 100 million miles of travel, higher than both the 21016 fatality rate of 0.97 and the 10-year average of 1.09 (2008-2017).
- There were 39 people killed and 1,654 people injured in 9,542 reported motor vehicle traffic crashes in the Upper Peninsula during 2017. Compared with the 2016 experience, the number of deaths increased 21.9 percent, people injured increased 7.3 percent, and total reported crashes increased 15.5 percent.
- There were 9,542 reported crashes, of which 35 were fatal, 1,234 were personal injury, and 8,273 were property damage only crashes.
- Of all fatal crashes, 20.0 percent occurred at intersections.
- Of all fatal crashes, 37.1 percent involved at least one drinking operator, bicyclist, or pedestrian, 28.6 percent involved drinking but no drugs, 0.0 percent involved drugs but no drinking, and 8.6 percent involved both drinking and drugs.
- Speed too fast was indicated as the hazardous action for 20.8 percent of the drivers involved in fatal crashes.
- In 2017, there were 6,151 single-vehicle crashes, an increase of 25.1 percent from last year's count of 4,918.
- Of the 9,542 total crashes, 6,151 (64.5%) involved one vehicle.
- Of the 35 fatal crashes, 18 (51.4%) involved one vehicle.
- Of the 13 alcohol-involved fatal crashes, 12 (92.3%) involved one vehicle.
- Of the 53 drivers involved in fatal crashes, five (9.4%) were under 21 years of age.
- Of the 302,077 people living in the Upper Peninsula [1. References and Reporting Agencies] one out of every 7,746 was killed in a traffic crash and one out of every 183 was injured.
- For each person killed, 42 people were injured.
- There were no pedestrian deaths in the Upper Peninsula in 2017. Twenty-nine pedestrians were injured.
- There were no bicyclist fatalities and 23 bicyclists were injured.
- Of the 12,306 drivers and injured passengers involved in crashes where restraint use was known, 12,047 or 97.9 percent were reported to have been using occupant restraints. Restraint usage among fatal crash victims, where usage was known, was reported to be 52.8 percent in 2017.
- The comprehenisve costs in traffic crashes in the Upper Peninsula amounted to $1,387,360,100 in 2017.

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

UPPER PENINSULA MICHIGAN CRASH WATCH 2017

HISTORICAL INFORMATION

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UPPER PENINSULA 2016-2017 SUMMARY TRENDS: 1 YEAR TRENDS

	2016	2017	PERCENT OF CHANGE
NUMBER OF CRASHES			
Fatal Crashes	29	35	20.7
Personal Injury Crashes	1,163	1,234	6.1
Property Damage Crashes	7,072	8,273	17.0
TOTAL	8,264	9,542	15.5
ALCOHOL-INVOLVED CRASHES			
Fatal Crashes	10	13	30.0
Personal Injury Crashes	130	147	13.1
Property Damage Crashes	179	205	14.5
TOTAL	319	365	14.4
FATAL CRASHES			
Had Been Drinking	10 (34.5%)	13 (37.1%)	30.0
Had Not Been Drinking / Not Known If Drinking	19 (65.5%)	22 (62.9%)	15.8
PERSONS IN CRASHES			
Killed	32	39	21.9
Injured	1,541	1,654	7.3
Not Injured	11,514	12,851	11.6
Unknown Injury	727	730	0.4
TOTAL	13,814	15,274	10.6
PERSONS IN ALCOHOL-INVOLVED CRASHES			
Killed	12	13	8.3
Injured	161	187	16.1
Not Injured	307	318	3.6
Unknown Injury	52	35	-32.7
TOTAL	532	553	3.9
PERSONS INJURED BY GENDER			
Male	764	828	8.4
Female	773	826	6.9
Unknown Gender	4	0	-100.0
TOTAL	1,541	1,654	7.3
PERSONS INJURED BY SEVERITY			
"A" Injury	195	253	29.7
"B" Injury	440	435	-1.1
"C" Injury	906	966	6.6
TOTAL	1,541	1,654	7.3

The Upper Peninsula experienced a 15.5 percent increase in crashes, a 21.9 percent increase in traffic fatalities, and a 7.3 percent increase in injuries. Persons sustaining “A” level injuries (the most serious) increased 29.7 percent.

UPPER PENINSULA 2016-2017 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

	2016	2017	PERCENT OF CHANGE
PERSONS KILLED BY GENDER			
Male	25	25	0.0
Female	7	14	100.0
TOTAL	32	39	21.9
PERSONS KILLED			
Motor Vehicle Driver	22	28	27.3
Passenger	7	11	57.1
Bicyclist	1	0	-100.0
Pedestrian	2	0	-100.0
Train Engineer	0	0	0.0
TOTAL	32	39	21.9
BELT RESTRAINT USE BY DRIVER			
"Reported Restrained" - Killed	4	9	125.0
"Reported Not Restrained" - Killed	5	9	80.0
"Reported Restrained" - Injured	885	956	8.0
"Reported Not Restrained" - Injured	43	71	65.1
BELT RESTRAINT USE BY INJURED PASSENGER			
"Reported Restrained" - Killed	4	5	25.0
"Reported Not Restrained" - Killed	3	4	33.3
"Reported Restrained" - Injured	304	322	5.9
"Reported Not Restrained" - Injured	37	54	45.9
DRIVER AGE 16-20 INVOLVED			
Fatal Crashes	4	4	0.0
Personal Injury Crashes	245	288	17.6
Property Damage Crashes	1,055	1,151	9.1
TOTAL ALL CRASHES	1,304	1,443	10.7
Persons Killed	4	6	50.0
Persons Injured	338	430	27.2
DRIVER AGE 65 & OVER INVOLVED			
Fatal Crashes	4	10	150.0
Personal Injury Crashes	235	265	12.8
Property Damage Crashes	1,399	1,538	9.9
TOTAL ALL CRASHES	1,638	1,813	10.7
Persons Killed	5	13	160.0
Persons Injured	332	376	13.3

Deaths among vehicle occupants (drivers and passengers only) increased 34.5 percent.

UPPER PENINSULA 2016-2017 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

	2016	2017	PERCENT OF CHANGE
CRASH FACTS			
Licensed Drivers	222,220	221,126	-0.5
Registered Vehicles	258,733	259,530	0.3
Upper Peninsula Population	303,181	302,077	-0.4
Drivers Involved in Crashes	11,707	13,050	11.5
Occupants* Involved in Crashes	13,748	15,209	10.6
Estimated Vehicle Miles Traveled (thousands)	3,291,504	3,380,362	2.7
Death Rate Per 100 Million Vehicle Miles	1.0	1.2	20
Fatal Crash Rate Per 100 Million Vehicle Miles	0.9	1.0	11.1

** Occupants include all drivers and passengers in or on a motor vehicle.*

UPPER PENINSULA 2017 COST OF CRASHES IN MICHIGAN

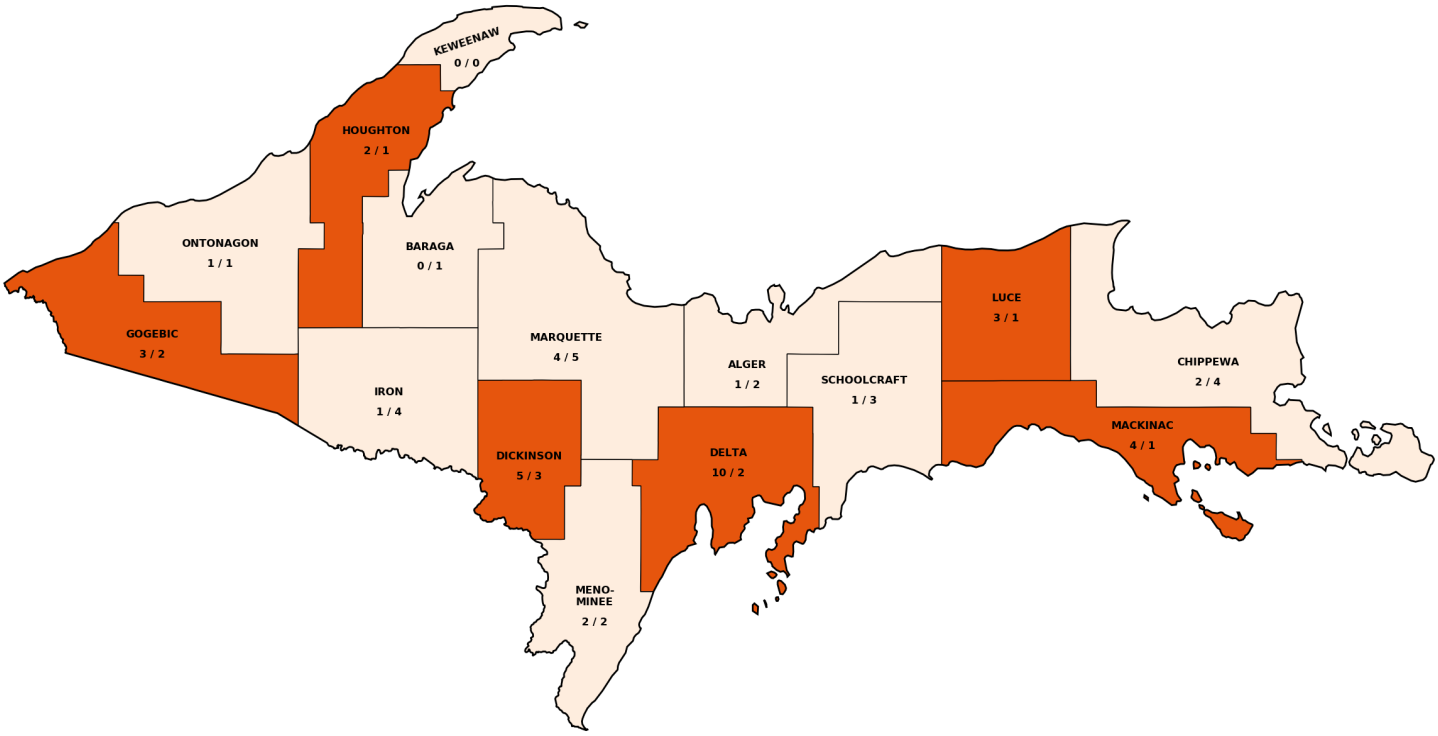
The cost estimate for Upper Peninsula crashes in 2017 was $1,387,360,100. This estimate is based on the National Safety Council's [3] cost estimating procedures. Average comprehensive costs are based on the following national figures:

COMPREHENSIVE COSTS, 2017	
Death	$10,562,000
Suspected Serious Injury	$1,155,000
Suspected Minor Injury	$318,000
Possible Injury	$147,000
No Injury	$48,700

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
2017 = 39 / 2016 = 32

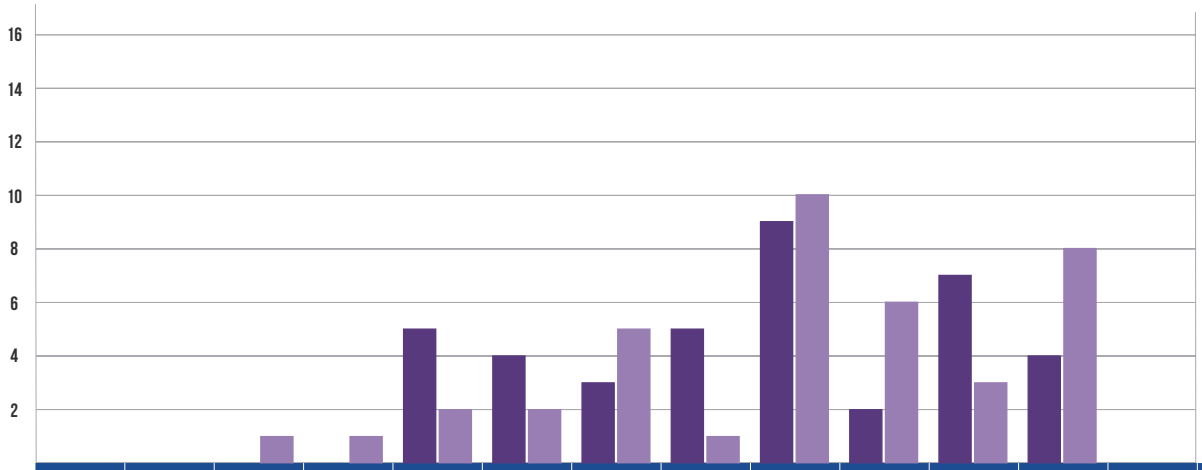
Same or decrease
Increase

5 YEAR TRENDS-UPPER PENINSULA TREND DATA FOR FATALITIES

FATALITIES BY AGE	2013	2014	2015	2016	2017
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	0	0	0	0	1
11 - 15 years	0	4	0	0	1
16 - 20 years	5	2	4	1	2
21 - 24 years	4	1	0	3	2
25 - 34 years	3	1	5	3	5
35 - 44 years	5	1	1	7	1
45 - 54 years	9	4	5	3	10
55 - 64 years	2	7	3	9	6
65 - 74 years	7	1	4	2	3
75 years and over	4	2	3	4	8
Unknown	0	0	0	0	0
TOTAL	39	23	25	32	39

**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
2013	0	0	0	0	5	4	3	5	9	2	7	4	0	39
2017	0	0	1	1	2	2	5	1	10	6	3	8	0	39

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

FATALITIES BY AGE	2013	2014	2015	2016	2017
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	1	0	0	1
16 years	0	0	0	1	0
17 years	1	0	2	1	2
18 years	1	1	1	1	1
19 years	3	3	2	0	1
20 years	1	0	1	1	0
21 - 24 years	5	2	5	3	4
25 - 34 years	6	1	6	4	4
35 - 44 years	7	7	4	8	5
45 - 54 years	10	4	5	5	14
55 - 64 years	6	8	5	13	8
65 - 69 years	4	2	3	0	4
70 - 74 years	4	0	4	1	2
75 - 79 years	0	0	1	0	1
80 - 84 years	1	1	1	4	2
85 - 89 years	1	1	0	0	2
90 years and over	0	0	0	0	0
Unknown	1	0	0	0	2
Totals	51	31	40	42	53
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	1	0	1	0	0
18 years	1	0	0	0	0
19 years	1	0	1	0	0
20 years	0	0	1	1	0
21 - 24 years	3	1	1	1	0
25 - 34 years	2	0	3	3	3
35 - 44 years	3	3	0	4	2
45 - 54 years	6	0	2	3	7
55 - 64 years	2	4	3	4	4
65 - 69 years	1	1	1	0	1
70 - 74 years	1	0	0	0	0
75 - 79 years	0	0	1	0	0
80 - 84 years	0	0	1	1	0
85 - 89 years	0	0	0	0	1
90 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Totals	21	9	15	17	18

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

FATALITIES BY AGE	2013	2014	2015	2016	2017
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	1	0
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	0	0	0	0	0
Unknown	0	0	0	0	0
Totals	0	0	0	1	0
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	0	0	0	0	0
35 - 44 years	0	0	0	1	0
45 - 54 years	2	0	0	0	0
55 - 64 years	0	1	0	0	0
65 - 74 years	0	0	1	1	0
75 years and over	1	0	0	0	0
Unknown	0	0	0	0	0
Totals	3	1	1	2	0

**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
MEMORIAL DAY		
2017 (3) MON	0 [0]	0 [0]
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]
FOURTH OF JULY		
2017 (4) TUE	1 [1]	1 [1]
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]
LABOR DAY		
2017 (3) MON	0 [0]	0 [0]
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]
THANKSGIVING		
2017 (4) THU	0 [0]	0 [0]
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]
CHRISTMAS		
2017 (3) MON	0 [0]	0 [0]
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]
NEW YEARS		
2017 (3) MON	2 [0]	3 [0]
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]

SUMMARY 2017

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 2017 Upper Peninsula experience, deaths averaged 0.11 per day. Alcohol-related deaths averaged 0.04 per day.

Based on the total 2017 Upper Peninsula holiday period experience, deaths averaged 0.20 per day. Alcohol-related deaths averaged 0.05 per day.

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

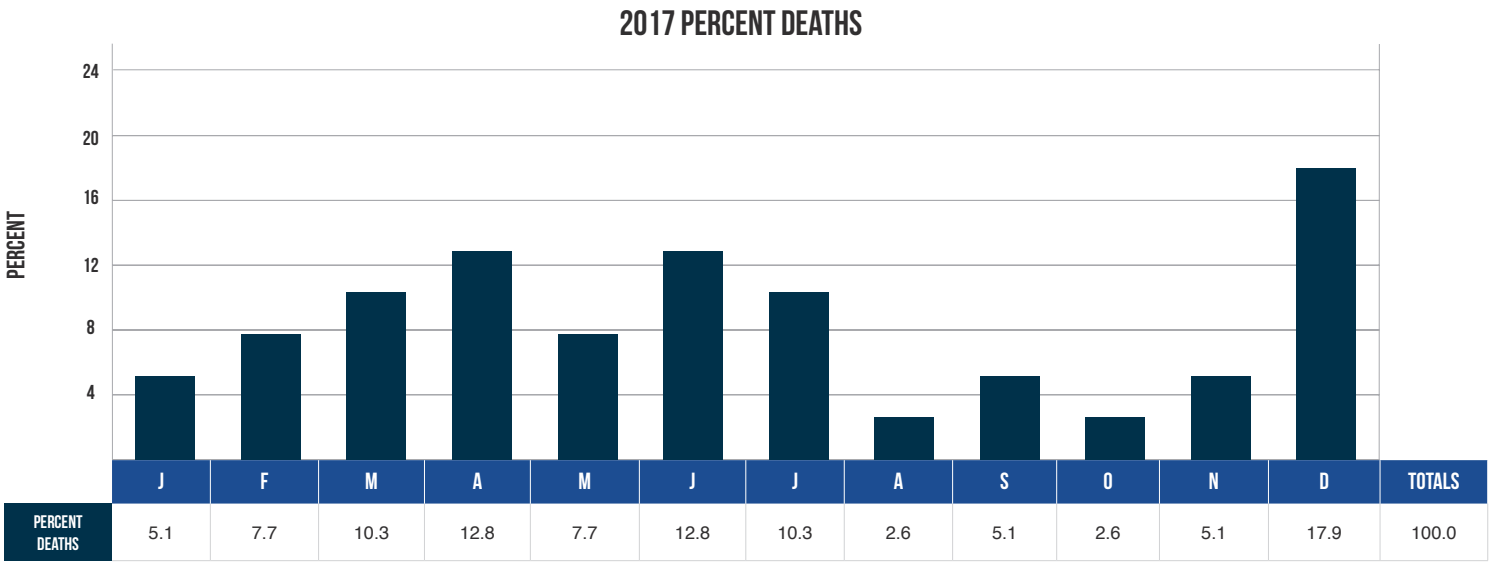
Fatal crashes and deaths are for these days plus six hours of the preceding day.

Figures in brackets in the 2nd and 3rd columns show the number of alcohol-related fatal crashes and deaths.

Please view the glossary for an explanation of holiday periods.

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

MONTH	TRAFFIC DEATHS					2017 PERCENTAGES
	2013	2014	2015	2016	2017	Percent Deaths
January	5	2	2	6	2	5.1
February	0	2	0	4	3	7.7
March	4	0	0	2	4	10.3
April	3	0	2	0	5	12.8
May	4	1	1	1	3	7.7
June	2	4	1	8	5	12.8
July	3	1	6	3	4	10.3
August	5	3	4	1	1	2.6
September	4	0	1	1	2	5.1
October	2	3	4	1	1	2.6
November	3	5	2	2	2	5.1
December	4	2	2	3	7	17.9
TOTAL	39	23	25	32	39	100.0



Note: Data for percent miles driven is not available for the Upper Peninsula.

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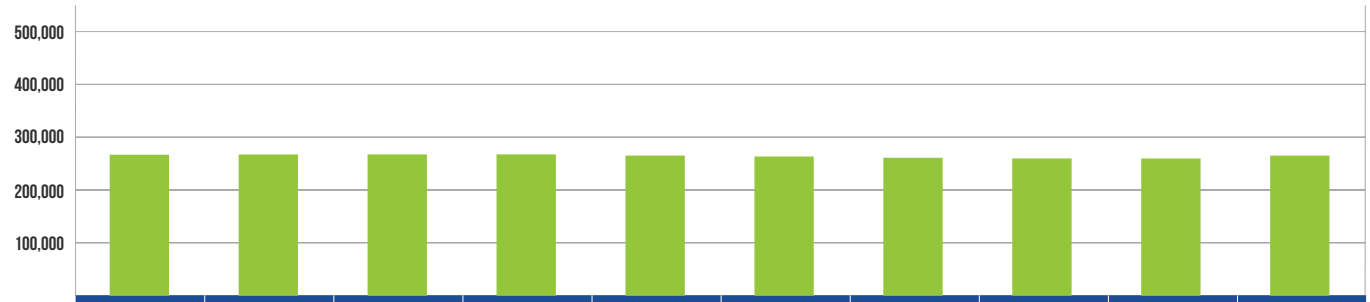
10 YEAR TRENDS-UPPER PENINSULA

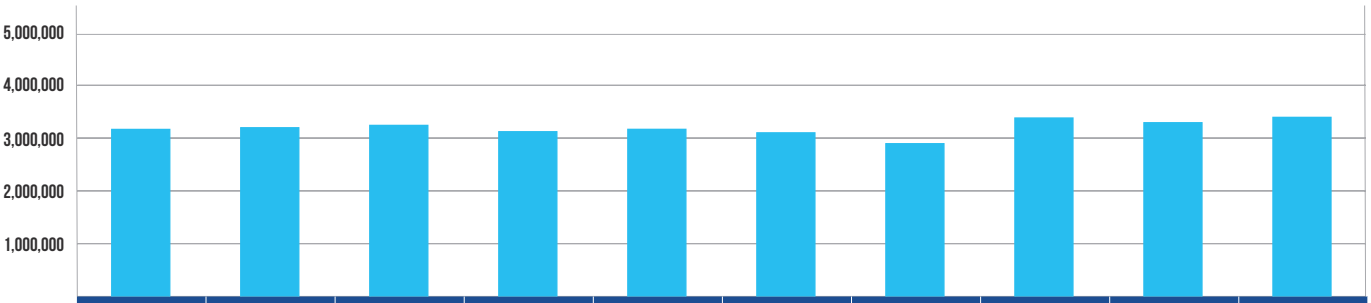
UPPER PENINSULA VEHICLE REGISTRATIONS



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
265,868	266,334	266,413	266,501	264,199	262,485	260,036	258,797	258,733	259,530

Vehicle registrations in the Upper Peninsula decreased 2.4 percent over the 10-year period.

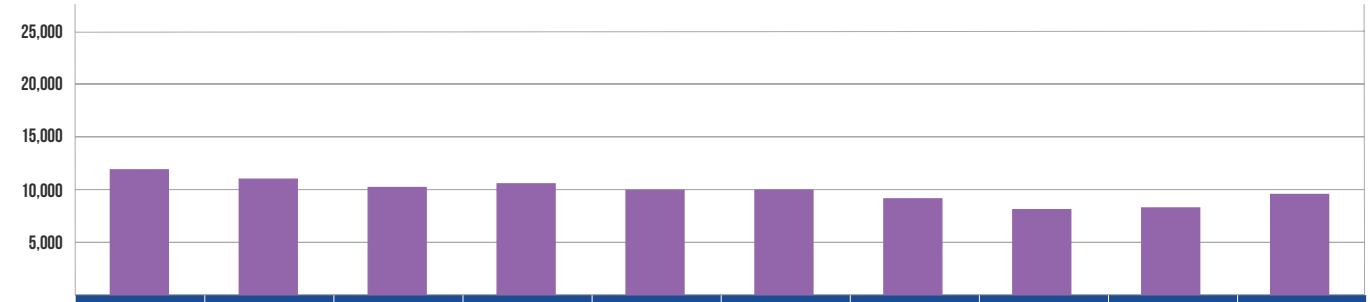
UPPER PENINSULA VEHICLE MILES TRAVELED (THOUSANDS)



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
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	3,380,362

Vehicle miles traveled in the Upper Peninsula increased 6.8 percent over the 10-year period.

UPPER PENINSULA CRASHES

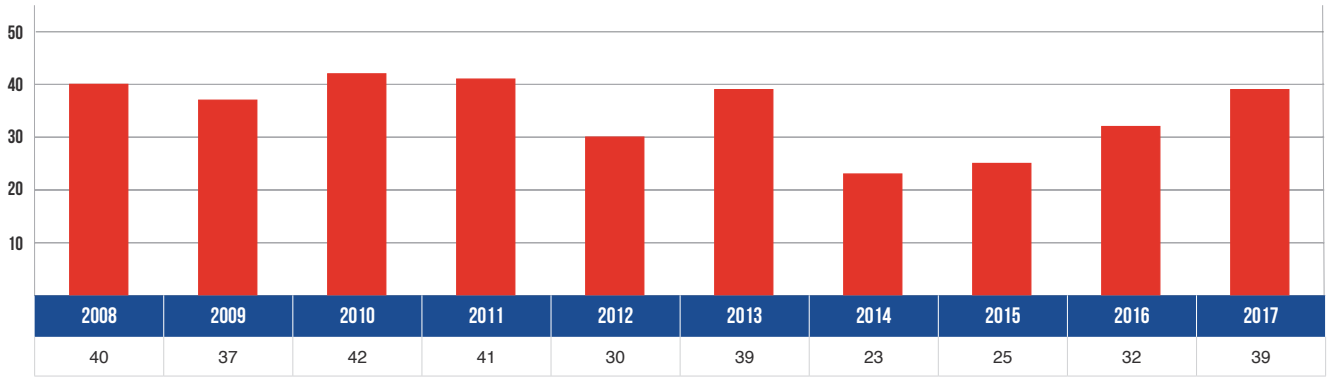


2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
11,871	10,990	10,199	10,548	9,945	9,956	9,126	8,099	8,264	9,542

There were 9,542 Upper Peninsula crashes in 2017 – a 19.6 percent decrease from 2008.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

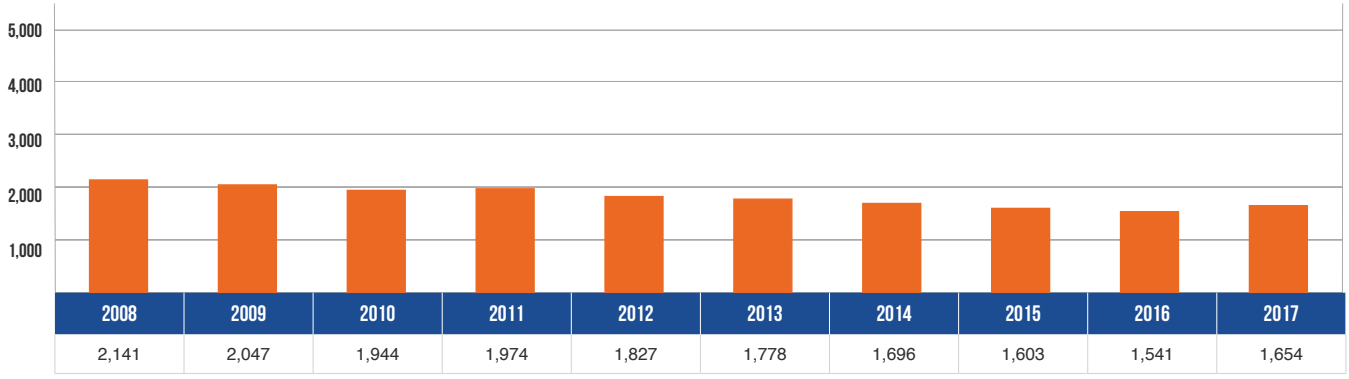
UPPER PENINSULA DEATHS



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
40	37	42	41	30	39	23	25	32	39

In 2017, 39 people died in motor vehicle crashes in the Upper Peninsula – a decrease of 2.5 percent from 2008.

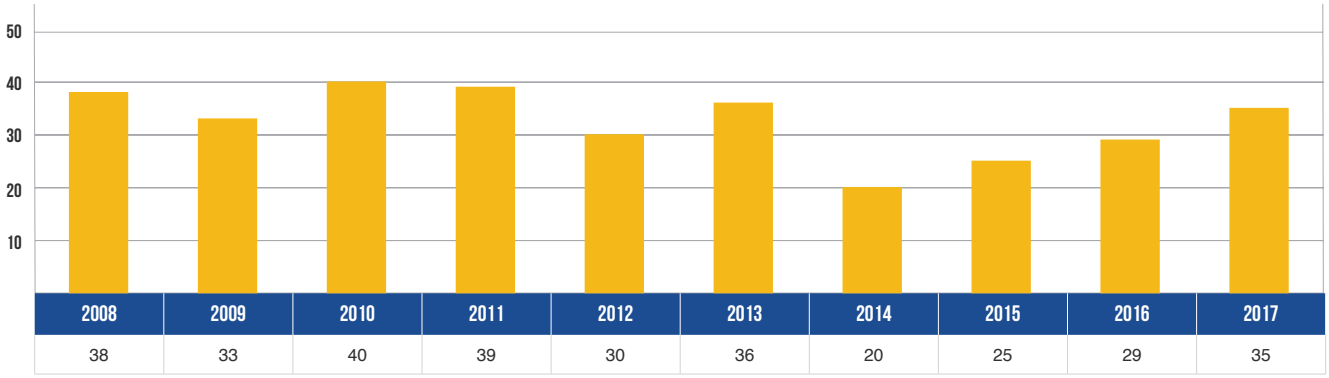
UPPER PENINSULA INJURIES



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
2,141	2,047	1,944	1,974	1,827	1,778	1,696	1,603	1,541	1,654

In 2017, 1,654 people received injuries in motor vehicle crashes in the Upper Peninsula – down 22.7 percent from 2,141 in 2008.

UPPER PENINSULA FATAL CRASHES

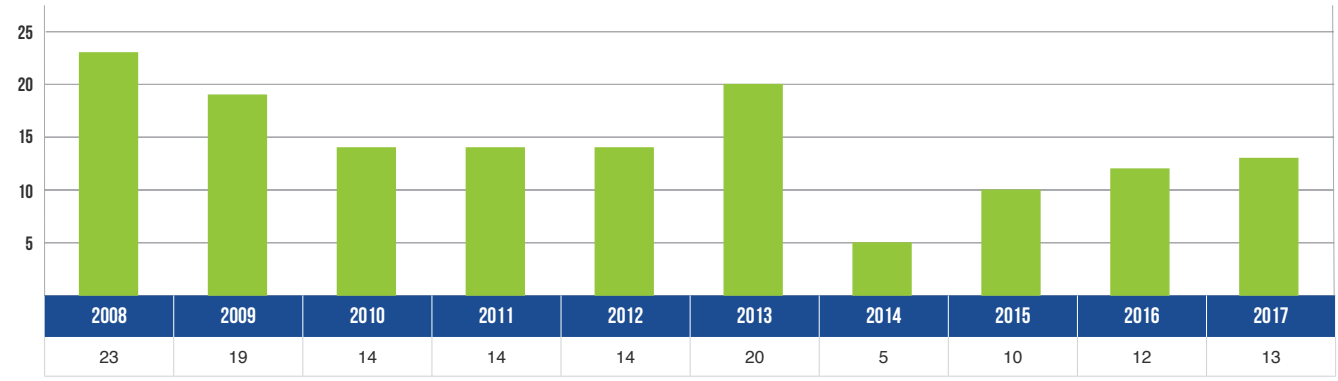


2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
38	33	40	39	30	36	20	25	29	35

In 2017, there were 35 fatal crashes in the Upper Peninsula – down 7.9 percent from 38 in 2008.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

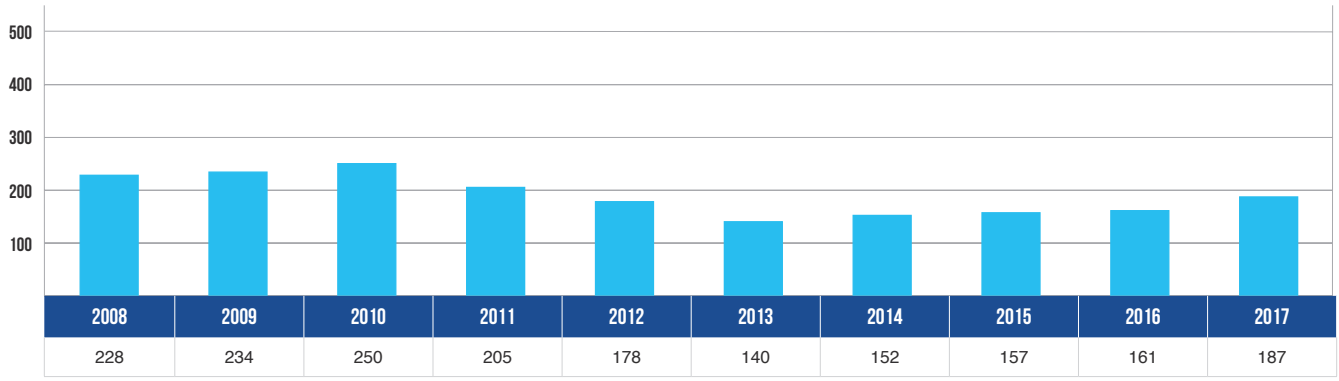
UPPER PENINSULA ALCOHOL-INVOLVED DEATHS



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
23	19	14	14	14	20	5	10	12	13

There were thirteen deaths in alcohol-involved crashes in the Upper Peninsula in 2017 – down 43.5 percent from 2008.

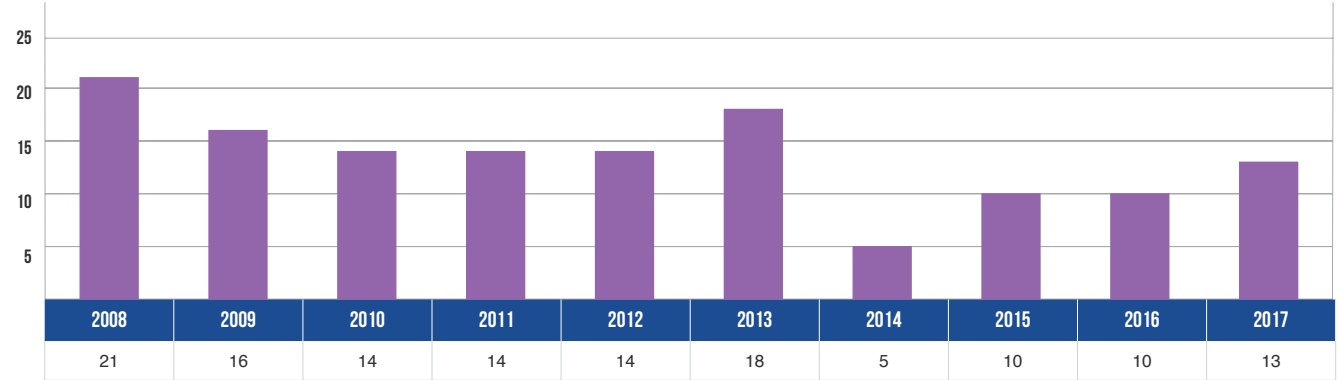
UPPER PENINSULA ALCOHOL-INVOLVED INJURIES



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
228	234	250	205	178	140	152	157	161	187

There were 187 alcohol-involved injuries in the Upper Peninsula in 2017 – down 18.0 percent from 2008.

UPPER PENINSULA ALCOHOL-INVOLVED FATAL CRASHES

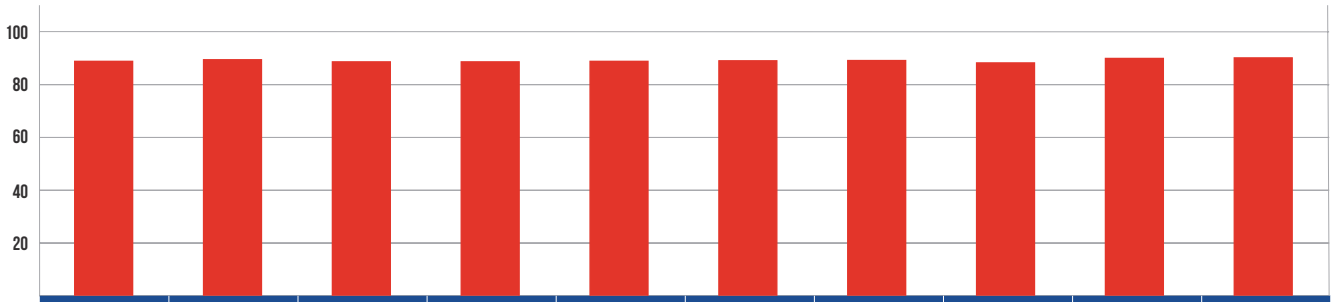


2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
21	16	14	14	14	18	5	10	10	13

There were thirteen injuries in alcohol-involved fatal crashes in the Upper Peninsula in 2017 – down 38.1 percent from 2008.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

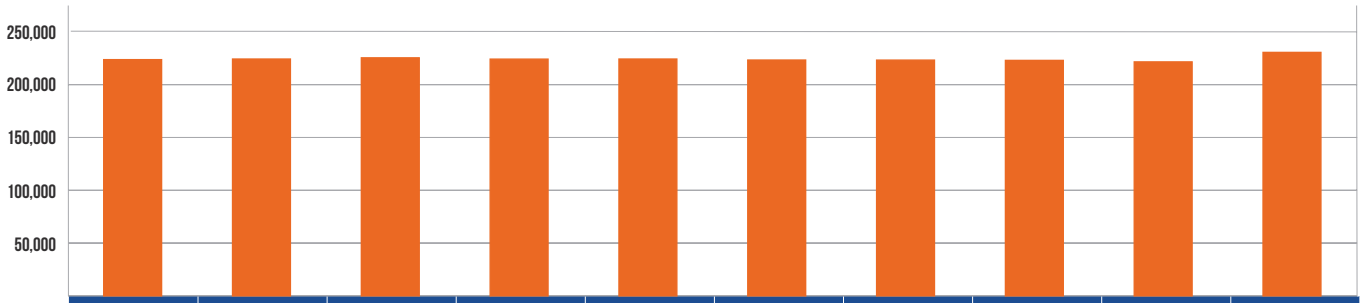
UPPER PENINSULA RESTRAINT USAGE IN CRASHES



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
88.8	89.4	88.6	88.6	88.8	89.0	89.1	88.2	89.9	90.1

The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes increased 1.5 percent over the last ten years in the Upper Peninsula.

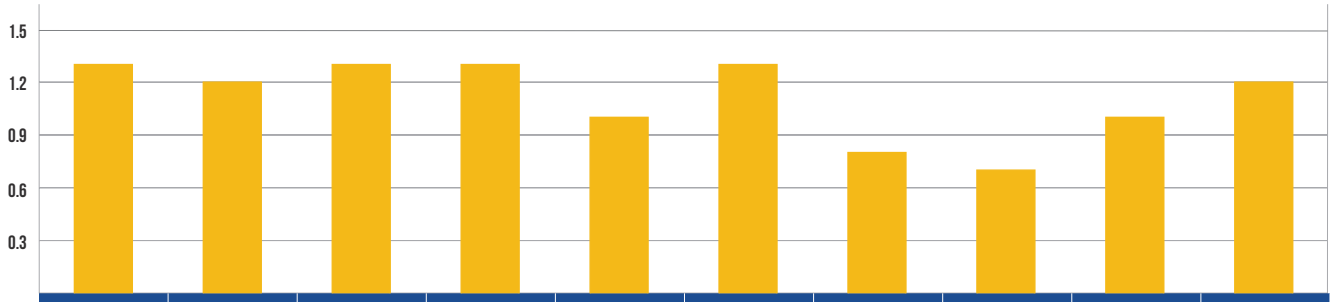
UPPER PENINSULA DRIVERS



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
224,348	224,930	226,064	224,845	224,933	223,975	223,910	223,640	222,220	221,126

There were 221,126 licensed drivers on Upper Peninsula roadways in 2017 – a decrease of 0.5 percent from 2008.

UPPER PENINSULA FATALITIES PER 100 MILLION VMT

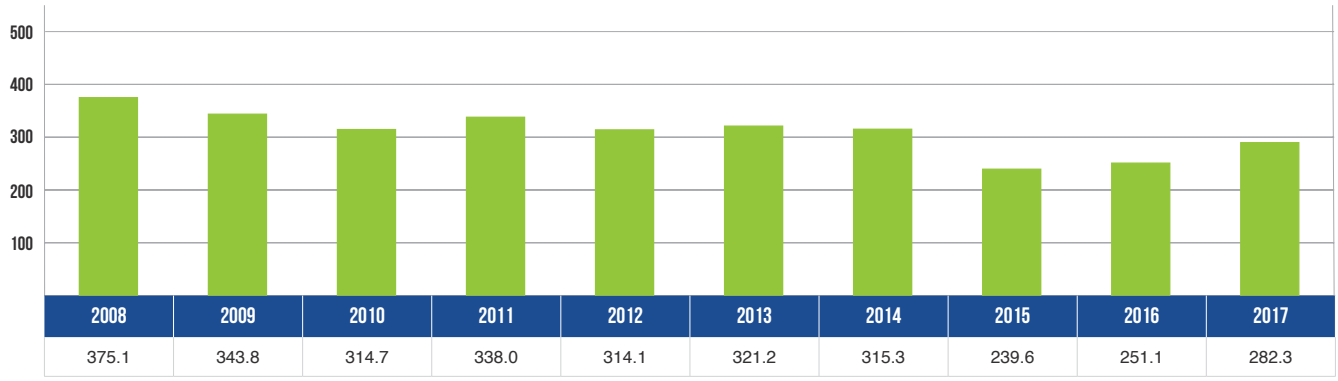


2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
1.3	1.2	1.3	1.3	1.0	1.3	0.8	0.7	1.0	1.2

The 1.2 death rate for the Upper Peninsula in 2017 was a 7.7 percent decrease from 1.3 in 2008.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

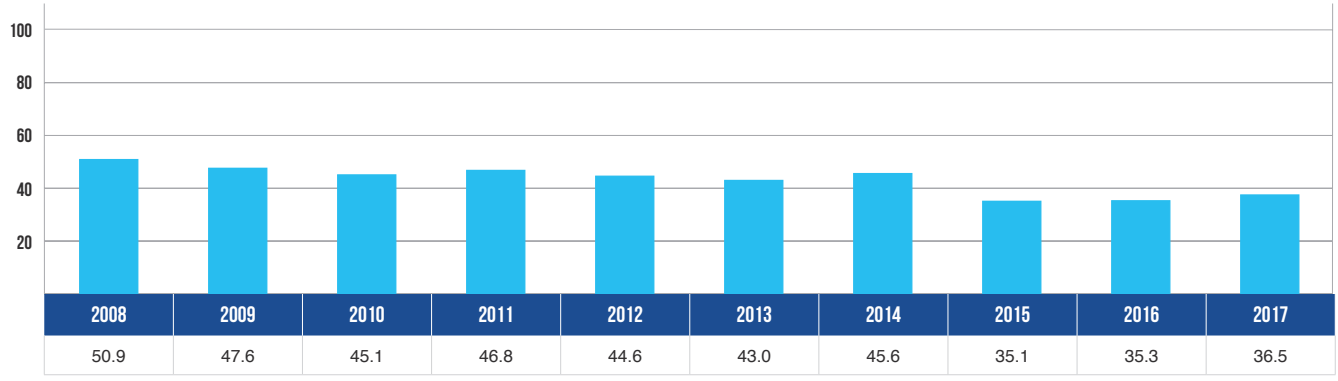
UPPER PENINSULA TOTAL CRASHES PER 100 MILLION VMT



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
375.1	343.8	314.7	338.0	314.1	321.2	315.3	239.6	251.1	282.3

The total crash rate of 282.3 in the Upper Peninsula in 2017 was a 24.7 percent decrease from 375.1 in 2008.

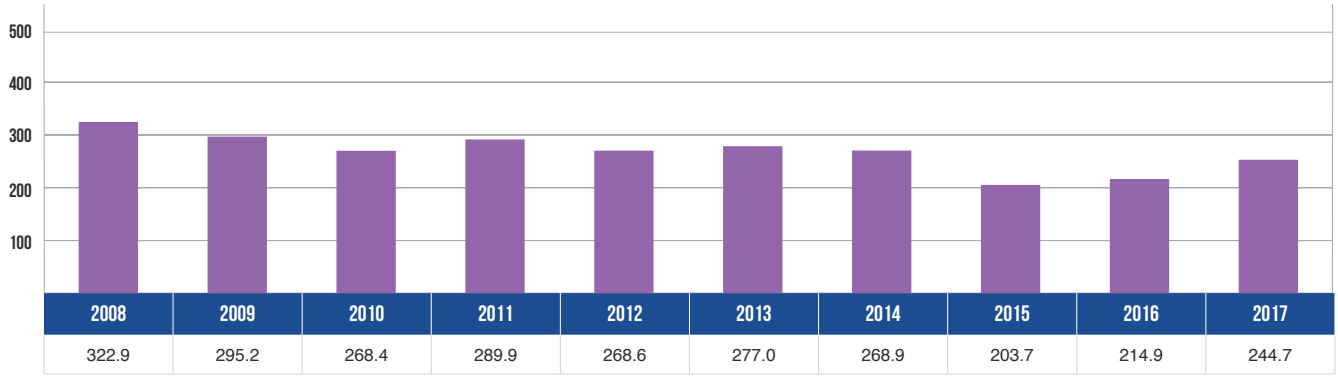
UPPER PENINSULA INJURY CRASHES PER 100 MILLION VMT



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
50.9	47.6	45.1	46.8	44.6	43.0	45.6	35.1	35.3	36.5

The injury crash rate of 36.5 in the Upper Peninsula in 2017 was a 28.3 percent decrease from 2008.

UPPER PENINSULA PROPERTY DAMAGE CRASHES PER 100 MILLION VMT

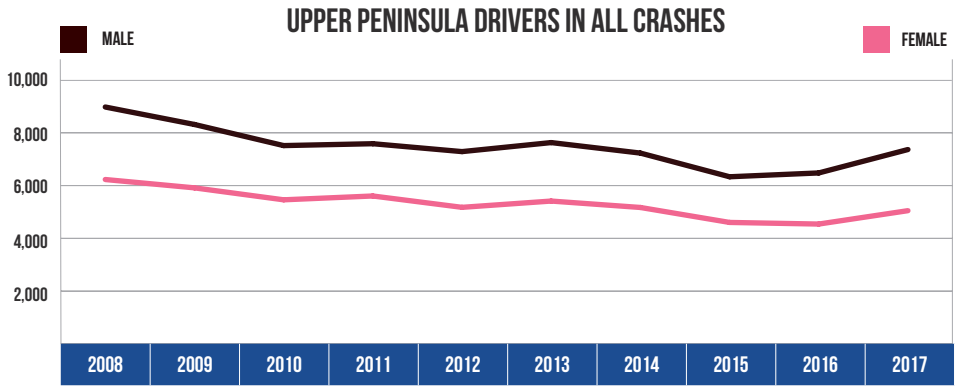


2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
322.9	295.2	268.4	289.9	268.6	277.0	268.9	203.7	214.9	244.7

The property damage crash rate of 244.7 in the Upper Peninsula in 2017 was a 24.2 percent decrease from 2008.

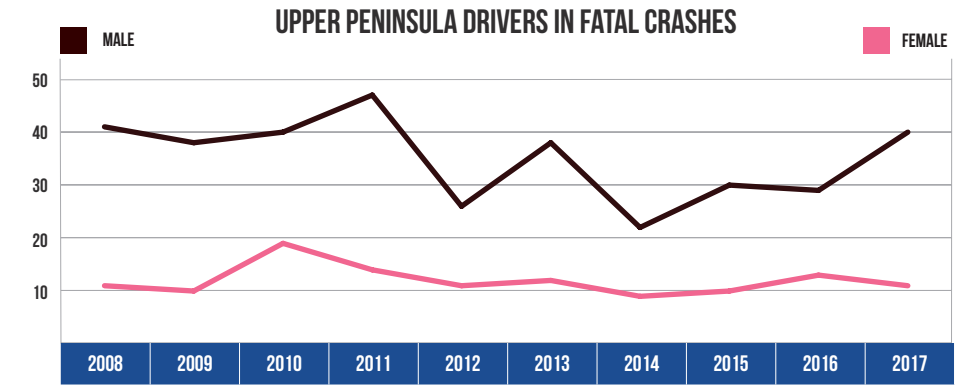
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA DRIVERS IN ALL CRASHES		
Year	Male	Female
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
2017	7,370	5,054



Male drivers accounted for 59.3 percent of all drivers in crashes in the Upper Peninsula during 2017, which was up from 59.0 percent in 2008. Female drivers accounted for 40.7 percent of all drivers in crashes during 2017, which was down from 41.0 percent in 2008.

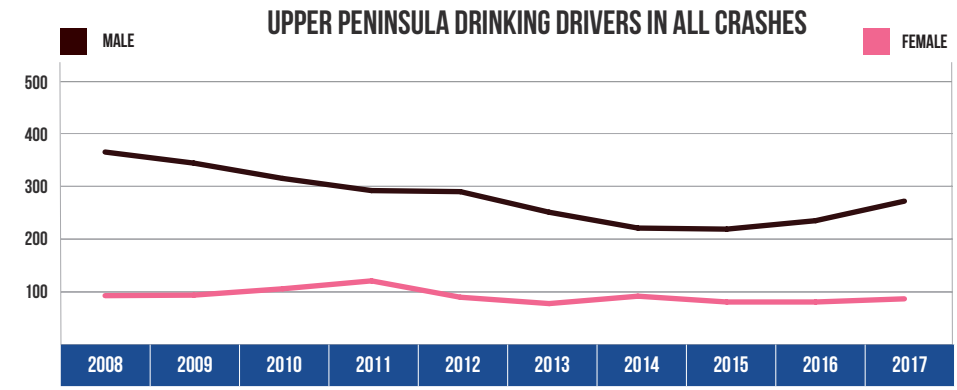
UPPER PENINSULA DRIVERS IN FATAL CRASHES		
Year	Male	Female
2008	41	11
2009	38	10
2010	40	19
2011	47	14
2012	26	11
2013	38	12
2014	22	9
2015	30	10
2016	29	13
2017	40	11



Male drivers made up 78.4 percent of all drivers in fatal crashes in the Upper Peninsula in 2017, which was down from 78.8 percent in 2008. Female drivers made up 21.6 percent of all drivers in fatal crashes in 2017, which was down from 21.2 percent in 2008.

UPPER PENINSULA DRINKING DRIVERS IN ALL CRASHES		
Year	Male	Female
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
2017	271	86

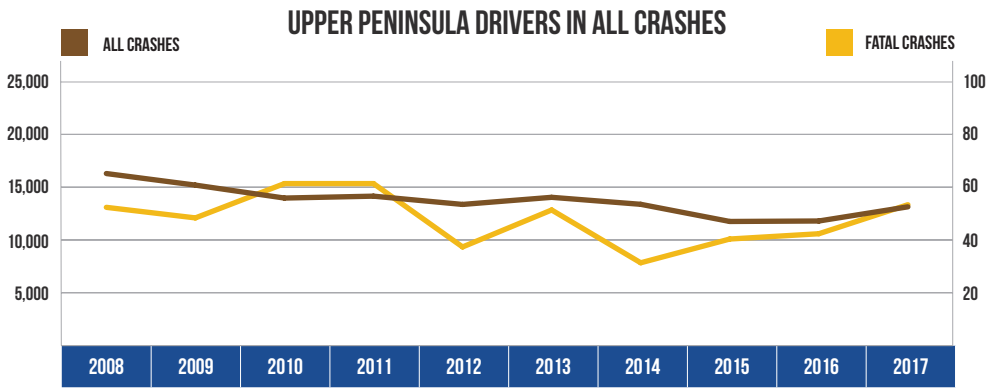
Note: 626 drivers in all crashes and two drivers in fatal crashes were coded as unknown gender in the Upper Peninsula in 2017 and are not included in the tables.



In 2017, males represented 75.9 percent of all drinking drivers in the Upper Peninsula, which was down from 79.8 percent in 2008. Females represented 24.1 percent of all drinking drivers, which was up from 20.2 percent in 2008.

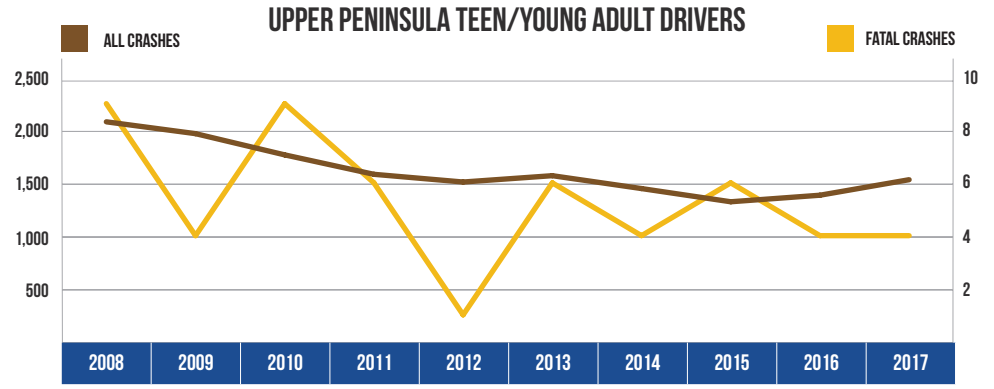
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA ALL CRASHES		
Year	All Crashes	Fatal Crashes
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
2017	13,050	53



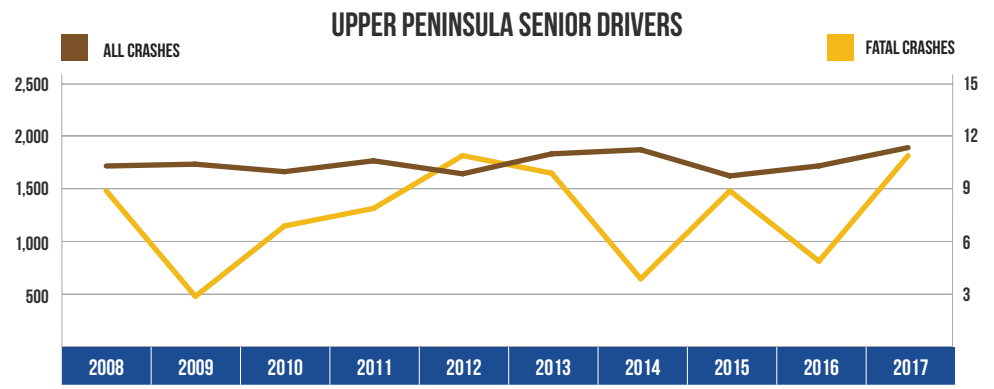
The number of drivers involved in all crashes in the Upper Peninsula decreased 19.4 percent over the 10-year period. The number of drivers involved in fatal crashes in the Upper Peninsula increased 1.9 percent over the 10-year period.

UPPER PENINSULA TEEN/YOUNG ADULT DRIVERS (AGE 16-20)		
Year	All Crashes	Fatal Crashes
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
2017	1,530	4



Teen/young adult drivers (age 16-20) in all crashes in the Upper Peninsula has decreased by 26.4 percent since 2008. The number of teen/young adult drivers in fatal crashes in the Upper Peninsula has decreased by 55.6 percent since 2008.

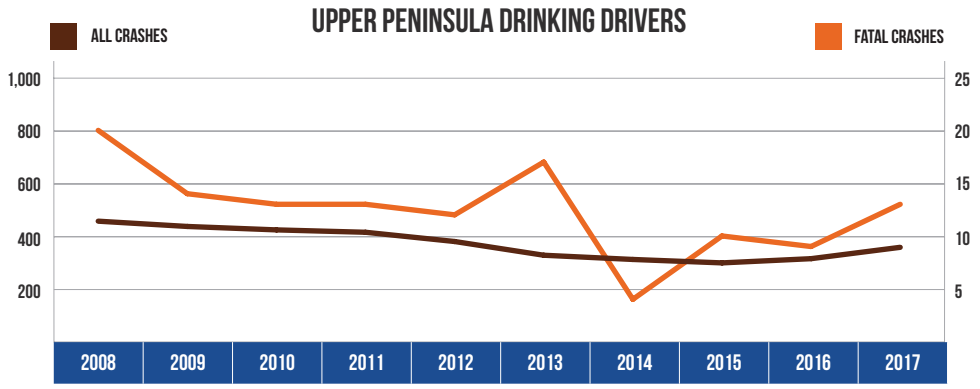
UPPER PENINSULA SENIOR DRIVERS (AGE 65 & OVER)		
Year	All Crashes	Fatal Crashes
2008	1,735	9
2009	1,752	3
2010	1,681	7
2011	1,784	8
2012	1,661	11
2013	1,850	10
2014	1,889	4
2015	1,641	9
2016	1,736	5
2017	1,909	11



The number of drivers age 65 and over in all crashes in the Upper Peninsula has increased 10.0 percent since 2008. Their involvement in fatal crashes increased 22.2 percent from 2008.

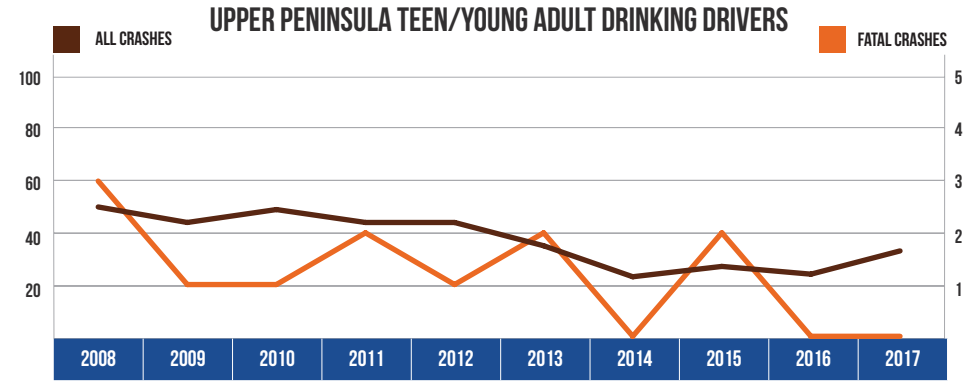
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA DRINKING DRIVERS		
Year	All Crashes	Fatal Crashes
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
2017	357	13



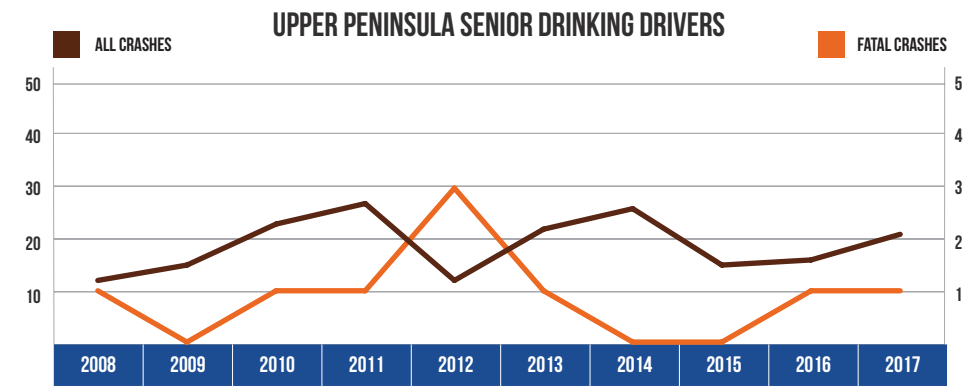
Drinking driver involvement in all crashes in the Upper Peninsula decreased by 21.7 percent since 2008. Drinking driver involvement in fatal crashes decreased by 35.0 percent from 2008.

UPPER PENINSULA TEEN/YOUNG ADULT DRINKING DRIVERS (AGE 16-20)		
Year	All Crashes	Fatal Crashes
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
2017	33	0



The number of teen/young adult drinking drivers (age 16-20) in all crashes in the Upper Peninsula decreased by 34.0 percent. There were no teen/young adult drinking drivers in fatal crashes in 2017.

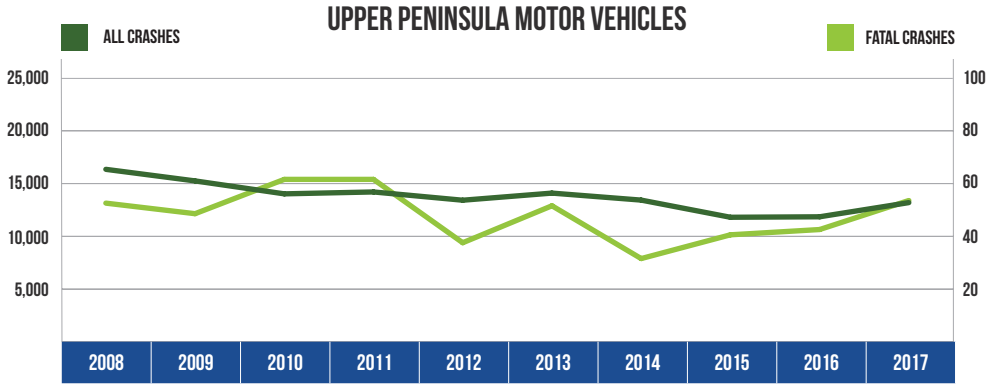
UPPER PENINSULA SENIOR DRINKING DRIVERS (AGE 65 & OVER)		
Year	All Crashes	Fatal Crashes
2008	12	1
2009	15	0
2010	23	1
2011	27	1
2012	12	3
2013	22	1
2014	26	0
2015	15	0
2016	16	1
2017	21	1



The number of senior drinking drivers (age 65 and over) in all crashes in the Upper Peninsula has increased 75.0 percent over the 10-year period. There was no change in the number senior drinking drivers involved in fatal crashes in 2017.

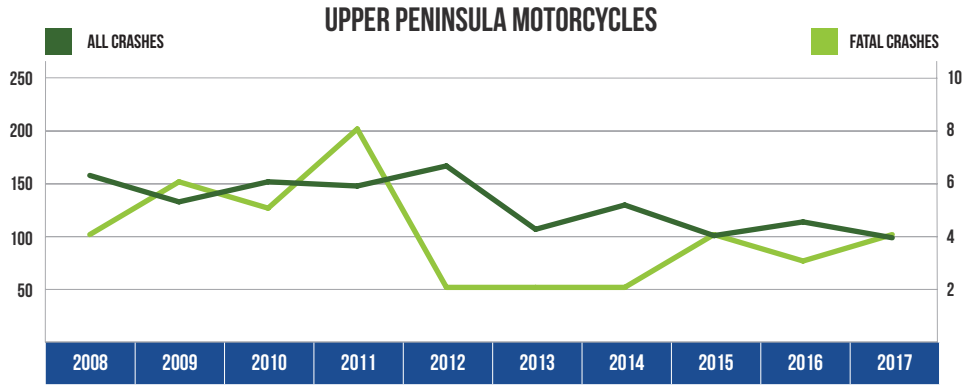
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA MOTOR VEHICLES		
Year	All Crashes	Fatal Crashes
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
2017	13,050	53



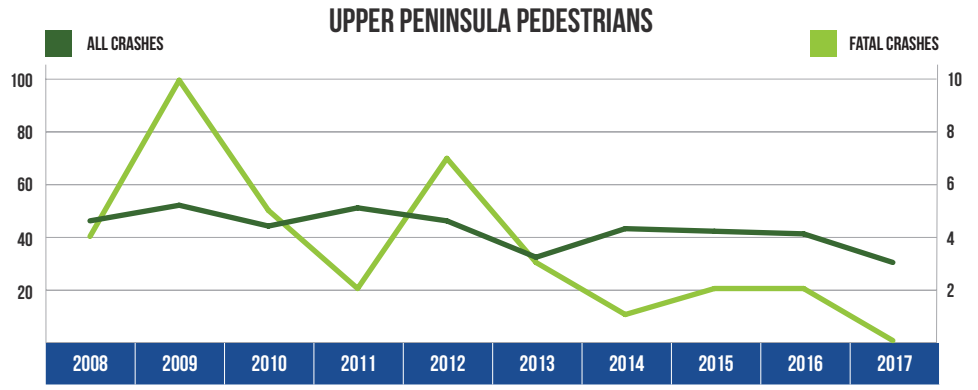
There were 13,050 motor vehicles involved in all Upper Peninsula crashes in 2017, down 19.4 percent from 2008. There were 53 motor vehicles involved in fatal crashes in 2017, up 1.9 percent from 2008.

UPPER PENINSULA MOTORCYCLES		
Year	All Crashes	Fatal Crashes
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
2017	97	4



There were 97 motorcycles involved in crashes in the Upper Peninsula in 2017, a 37.8 percent decrease from 2008. There was no change in the number of motorcycles involved in fatal crashes over the 10 year period.

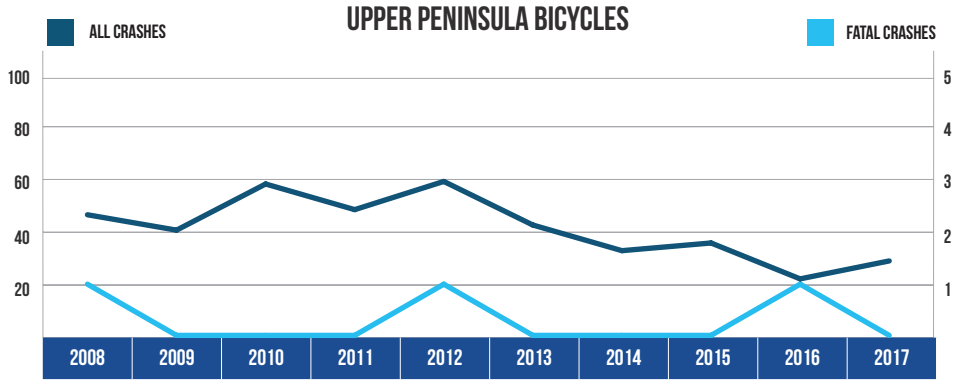
UPPER PENINSULA PEDESTRIANS		
Year	All Crashes	Fatal Crashes
2008	46	4
2009	52	10
2010	44	5
2011	51	2
2012	46	7
2013	32	3
2014	43	1
2015	42	2
2016	41	2
2017	30	0



There were 30 pedestrians involved in crashes in the Upper Peninsula in 2017, down 34.8 percent from 2008. There were no pedestrians involved in fatal crashes in 2017.

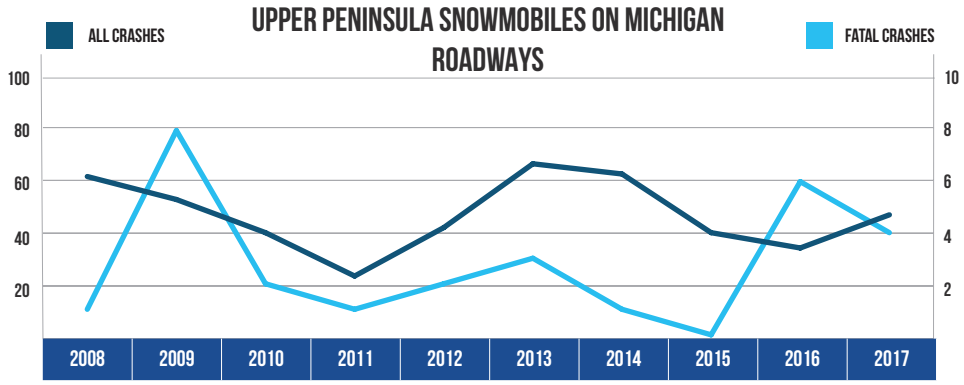
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA BICYCLES		
Year	All Crashes	Fatal Crashes
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
2017	29	0



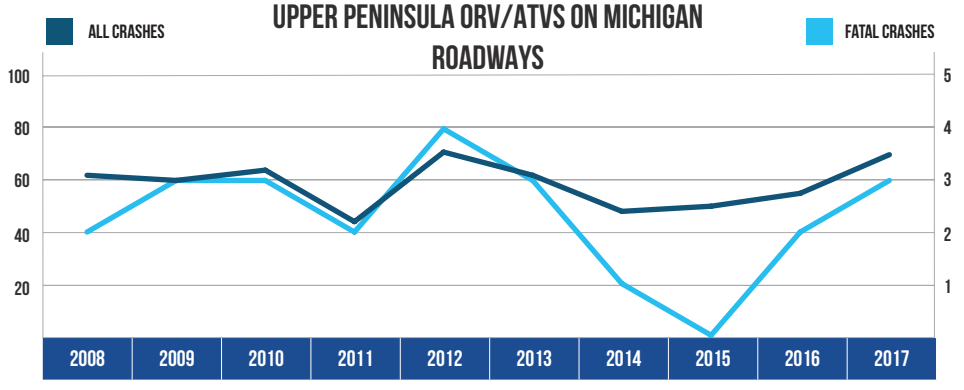
There were 29 bicycles involved in Upper Peninsula crashes in 2017, down 38.3 percent from 2008. There were no bicycles involved in fatal crashes in 2017.

UPPER PENINSULA SNOWMOBILES ON MICHIGAN ROADWAYS		
Year	All Crashes	Fatal Crashes
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
2017	47	4



There were 47 snowmobiles in crashes on roadways in the Upper Peninsula in 2017, down 24.2 percent from 2008. The number of snowmobiles in fatal crashes rose from one in 2008 to four in 2017.

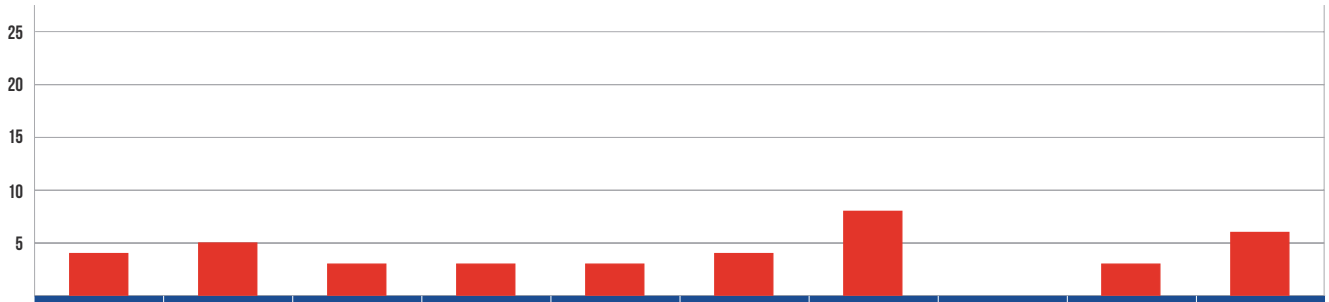
UPPER PENINSULA ORV/ATVS ON MICHIGAN ROADWAYS		
Year	All Crashes	Fatal Crashes
2008	62	2
2009	60	3
2010	64	3
2011	44	2
2012	71	4
2013	62	3
2014	48	1
2015	50	0
2016	55	2
2017	70	3



There were 70 ORV/ATVs in crashes on roadways in the Upper Peninsula in 2017, up 12.9 percent from 2008. There were three ORV/ATVs in fatal crashes in 2017, up 50.0 percent from 2008.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

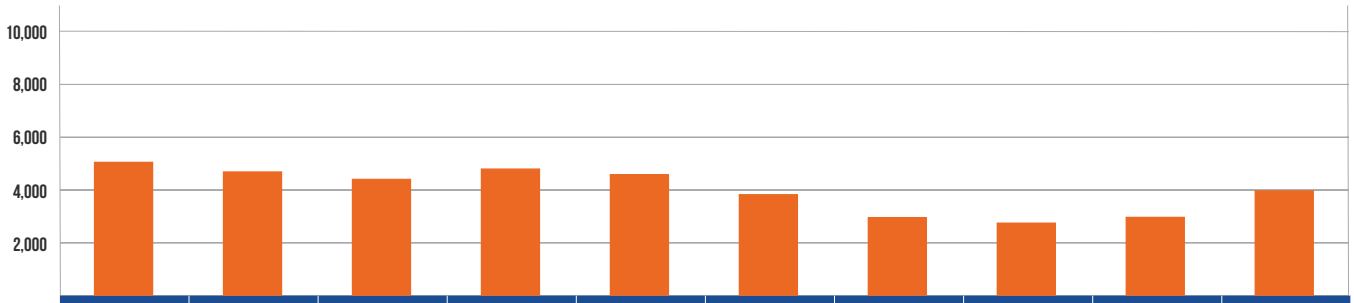
UPPER PENINSULA VEHICLE-TRAIN CRASHES



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
4	5	3	3	3	4	8	0	3	6

There were six vehicle-train crashes in the Upper Peninsula in 2017 – an increase of 50.0 percent from 2008.

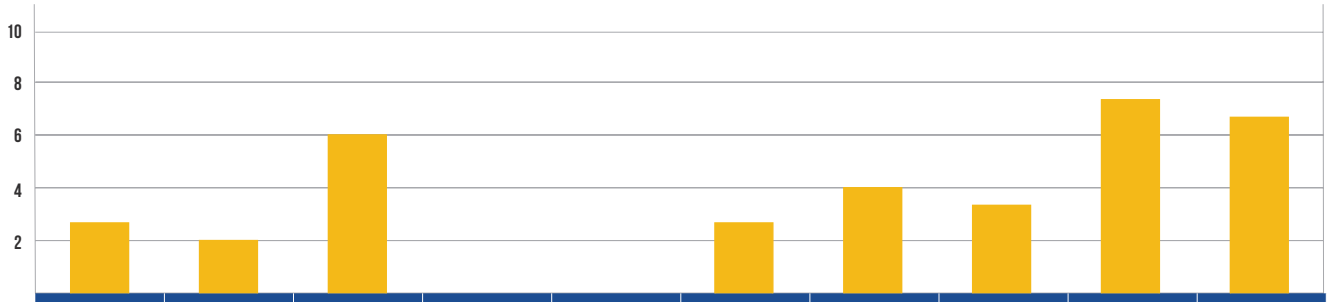
UPPER PENINSULA VEHICLE-DEER CRASHES



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
5,054	4,690	4,408	4,799	4,588	3,828	2,961	2,751	2,969	3,973

The number of vehicle-deer crashes in the Upper Peninsula decreased 21.4 percent in the 10-year period to 3,973 in 2017.

UPPER PENINSULA FARM EQUIPMENT CRASHES

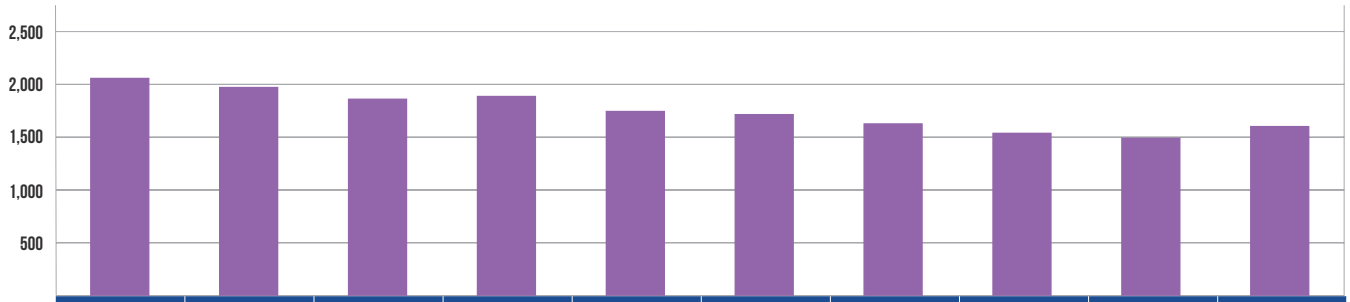


2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
4	3	9	1	1	4	6	5	11	10

There were ten farm equipment crashes in the Upper Peninsula in 2017 – an increase of 150.0 percent from 2008.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

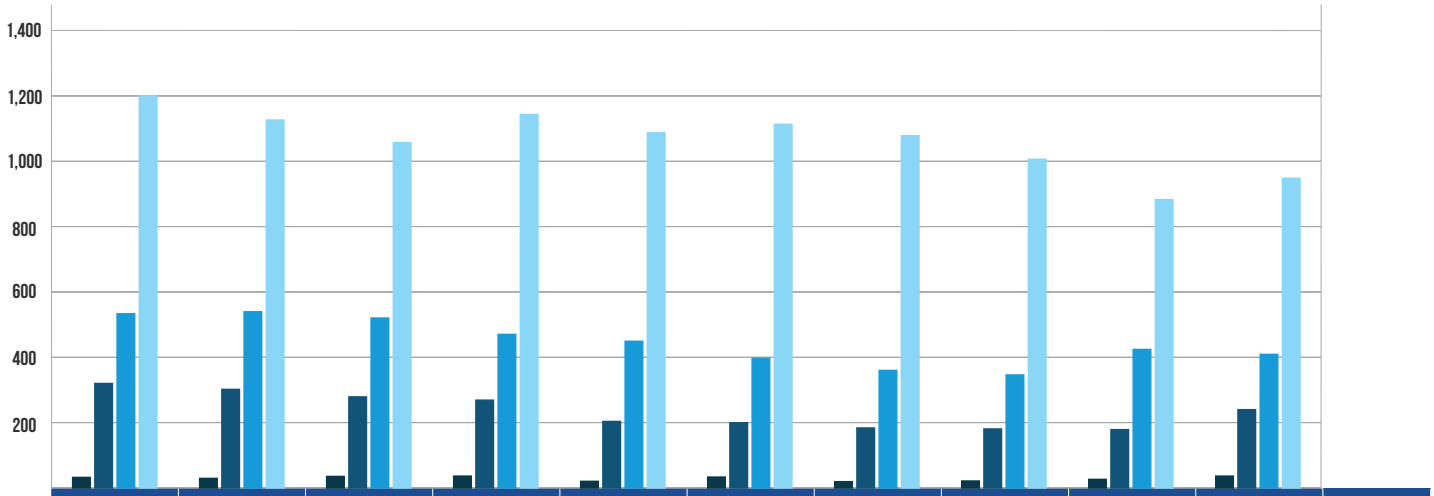
UPPER PENINSULA INJURED OCCUPANTS IN CRASHES



2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
2,058	1,972	1,861	1,887	1,745	1,715	1,627	1,538	1,491	1,602

There were 1,602 occupants injured in the Upper Peninsula in 2017 – a decrease of 22.2 percent from 2008.

UPPER PENINSULA DEATH AND INJURY FOR CRASH-INVOLVED OCCUPANTS



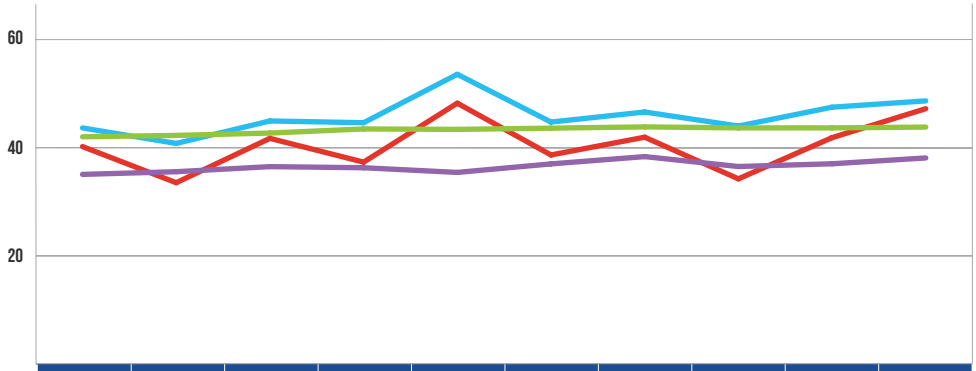
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	TOTALS
KILLED	35	32	38	39	23	36	22	24	29	39	317
A INJURY	322	304	281	271	206	202	186	183	181	242	2,378
B INJURY	535	541	522	472	451	399	362	348	426	411	4,467
C INJURY	1,201	1,127	1,058	1,144	1,088	1,114	1,079	1,007	884	949	10,651

Over the period from 2008 to 2017 in the Upper Peninsula, occupant deaths increased 11.4 percent, A injuries decreased 24.8 percent, B injuries decreased 23.2 percent, and C injuries decreased 21.0 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 2008 - 2017



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
DRIVERS IN ALL CRASHES	41.96	42.18	42.56	43.22	43.15	43.35	43.55	43.39	43.39	43.52
DRIVERS IN FATAL CRASHES	43.54	40.73	44.80	44.48	53.24	44.60	46.42	43.88	47.29	48.43
DRINKING DRIVERS	35.03	35.49	36.36	36.17	35.37	36.83	38.08	36.38	36.85	37.85
DRINKING DRIVERS IN FATAL CRASHES	40.05	33.50	41.54	37.23	47.92	38.53	41.75	34.20	41.67	46.92

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 nearly four percent. The average age of drivers involved in fatal crashes has increased more than eleven percent. Drinking drivers in crashes has increased more than eight percent. The average age of drinking drivers in fatal crashes has increased 17.2 percent since 2008.

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
2017	2	3	4	5	3	5	4	1	2	1	2	7	39

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
2017	39	1,654	9,542	3,380,362	259,530	1.2

*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	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0
1	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
3	0	0	0	3	0	3	0	0	0	0	0	0	1	0	1
4	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
5	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
6	0	0	0	3	1	2	0	0	0	0	0	0	0	0	0
7	1	0	1	6	0	6	0	0	0	0	0	0	0	0	0
8	0	0	0	9	0	9	0	0	0	0	0	0	0	0	0
9	1	0	1	3	0	3	0	0	0	1	0	1	0	0	0
10	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0
11	1	0	1	2	0	2	0	0	0	0	0	0	1	0	1
12	3	0	3	8	0	8	0	0	0	1	0	1	2	0	2
13	1	0	1	5	0	5	1	0	1	2	0	2	1	0	1
14	5	0	3	12	1	11	0	0	0	0	0	0	2	0	2
15	22	0	12	16	0	16	0	0	0	3	0	2	0	0	0
16	233	0	27	13	0	13	0	0	0	0	0	0	0	0	0
17	260	0	33	21	1	20	1	0	1	1	0	0	2	0	2
18	345	1	34	12	0	12	1	0	0	1	0	1	0	0	0
19	328	0	35	10	0	10	2	0	1	1	0	1	1	0	1
20	364	0	49	16	0	16	4	0	3	1	0	1	2	0	2
21	328	1	32	18	0	18	0	0	0	1	0	0	0	0	0
22	288	0	29	6	0	6	2	0	0	1	0	1	0	0	0
23	258	1	30	5	0	5	6	0	4	1	0	1	0	0	0
24	249	0	23	6	0	6	1	0	0	0	0	0	0	0	0
25	223	0	19	6	0	6	1	0	1	1	0	0	1	0	1
26	225	0	24	7	1	6	2	0	2	0	0	0	0	0	0
27	236	1	19	8	0	8	3	1	2	0	0	0	0	0	0
28	216	0	22	6	0	6	1	0	0	0	0	0	0	0	0
29	198	0	22	5	0	5	0	0	0	0	0	0	1	0	1
30	201	1	17	4	0	4	0	0	0	1	0	1	0	0	0
31	181	0	18	5	1	4	0	0	0	1	0	1	0	0	0
32	203	0	18	9	1	8	1	1	0	0	0	0	0	0	0
33	186	0	18	5	0	5	0	0	0	0	0	0	1	0	1
34	194	0	15	4	0	4	2	0	1	0	0	0	0	0	0
35	200	0	16	3	0	3	0	0	0	0	0	0	3	0	3
36	203	0	18	3	0	3	2	0	2	0	0	0	0	0	0
37	194	0	19	5	0	5	2	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	172	0	18	4	0	4	2	0	1	0	0	0	0	0	0
39	180	0	16	4	0	4	1	0	1	0	0	0	0	0	0
40	165	1	15	5	0	5	0	0	0	0	0	0	0	0	0
41	162	0	13	5	0	5	0	0	0	0	0	0	0	0	0
42	182	0	17	1	0	1	1	0	1	1	0	1	0	0	0
43	171	0	16	1	0	1	0	0	0	0	0	0	0	0	0
44	153	0	15	1	0	1	0	0	0	0	0	0	1	0	1
45	175	2	16	3	0	3	0	0	0	0	0	0	1	0	1
46	181	1	17	3	0	3	2	0	2	1	0	1	0	0	0
47	184	0	10	5	1	4	1	0	1	0	0	0	0	0	0
48	170	1	12	1	0	1	2	0	0	0	0	0	1	0	1
49	185	0	14	5	0	5	1	0	1	0	0	0	0	0	0
50	187	1	19	3	0	3	2	0	2	1	0	1	0	0	0
51	175	1	14	6	0	6	5	0	3	1	0	1	0	0	0
52	222	2	22	8	0	8	4	0	2	1	0	1	0	0	0
53	215	1	13	7	0	7	2	1	1	0	0	0	0	0	0
54	215	0	23	1	0	1	4	0	4	0	0	0	0	0	0
55	224	1	19	5	0	5	6	0	4	2	0	0	1	0	0
56	204	0	21	2	0	2	2	0	1	2	0	2	0	0	0
57	242	0	29	3	0	3	3	0	2	0	0	0	0	0	0
58	215	0	17	3	0	3	5	0	4	0	0	0	0	0	0
59	198	0	18	2	0	2	3	0	3	0	0	0	0	0	0
60	223	1	15	1	0	1	1	0	0	0	0	0	0	0	0
61	212	1	15	4	0	4	4	0	3	0	0	0	0	0	0
62	186	0	17	4	0	4	5	0	4	0	0	0	2	0	2
63	187	2	11	10	1	9	4	0	4	0	0	0	0	0	0
64	150	0	15	4	0	4	2	0	2	0	0	0	1	0	1
65	156	0	14	4	0	4	1	0	1	0	0	0	0	0	0
66	143	0	13	4	0	4	1	0	0	0	0	0	1	0	1
67	127	1	10	4	0	4	0	0	0	0	0	0	0	0	0
68	141	0	16	1	0	1	2	0	1	1	0	1	0	0	0
69	130	1	11	4	0	4	5	1	3	0	0	0	0	0	0
70	152	0	18	3	0	3	2	0	2	0	0	0	1	0	1
71	123	0	7	0	0	0	0	0	0	0	0	0	0	0	0
72	102	0	7	3	0	3	1	0	1	1	0	1	0	0	0
73	88	1	4	0	0	0	1	0	0	0	0	0	0	0	0
74	87	0	8	2	0	2	0	0	0	0	0	0	1	0	1
75	83	0	9	1	0	1	0	0	0	0	0	0	0	0	0
76	52	1	10	7	0	7	0	0	0	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	58	0	6	3	1	2	0	0	0	0	0	0	0	0	0
78	73	0	7	3	0	3	0	0	0	0	0	0	0	0	0
79	52	0	6	0	0	0	0	0	0	0	0	0	0	0	0
80	43	0	4	3	1	2	0	0	0	0	0	0	0	0	0
81	55	0	3	1	0	1	0	0	0	1	0	1	0	0	0
82	42	1	1	2	0	2	0	0	0	0	0	0	0	0	0
83	36	0	3	0	0	0	0	0	0	0	0	0	0	0	0
84	32	1	4	2	1	1	1	0	1	0	0	0	0	0	0
85	28	0	5	3	0	3	0	0	0	0	0	0	0	0	0
86	20	0	2	3	0	3	0	0	0	0	0	0	0	0	0
87	23	1	6	0	0	0	0	0	0	0	0	0	0	0	0
88	13	0	2	1	0	1	0	0	0	0	0	0	0	0	0
89	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0
90	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0
91	17	0	3	1	0	1	0	0	0	0	0	0	0	0	0
92	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	5	0	3	0	0	0	0	0	0	0	0	0	0	0	0
94	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
97	1	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	1	0	1	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
Unknown	659	0	0	4	0	4	2	0	0	0	0	0	2	0	2
TOTAL	13,050	28	1,189	424	11	413	110	4	74	29	0	23	30	0	29
	* Includes 708 drivers with unknown injury severity and 11,125 with no injury						*Includes 2 motorcyclists with unknown injury severity and 30 with no injury			*Includes 1 bicyclist with unknown injury severity and 5 with no injury			*Includes 1 pedestrian 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	1,028	67.2	3	75.0	216	69.9
Turning left	95	6.2	0	0.0	24	7.8
Turning right	57	3.7	0	0.0	4	1.3
Stopped on roadway	53	3.5	0	0.0	9	2.9
In prior crash	0	0.0	0	0.0	0	0.0
Changing lanes	18	1.2	0	0.0	3	1.0
Backing	34	2.2	0	0.0	1	0.3
Slowing/stopping on roadway	93	6.1	0	0.0	15	4.9
Slowing/stopping other	3	0.2	0	0.0	1	0.3
Starting up on roadway	19	1.2	0	0.0	5	1.6
Starting up other	3	0.2	0	0.0	0	0.0
Entering parking	0	0.0	0	0.0	0	0.0
Leaving parking	7	0.5	0	0.0	3	1.0
Entering roadway	21	1.4	0	0.0	6	1.9
Leaving roadway	3	0.2	0	0.0	0	0.0
Making U-turn	0	0.0	0	0.0	0	0.0
Overtaking or passing	25	1.6	1	25.0	5	1.6
Avoiding object	1	0.1	0	0.0	1	0.3
Avoiding pedestrian	1	0.1	0	0.0	0	0.0
Avoiding vehicle (front/back)	8	0.5	0	0.0	2	0.6
Avoiding vehicle (angle)	2	0.1	0	0.0	0	0.0
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	7	0.5	0	0.0	1	0.3
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	3	0.2	0	0.0	1	0.3
Unknown	2	0.1	0	0.0	2	0.6
Avoiding animal	12	0.8	0	0.0	4	1.3
Negotiating a curve	33	2.2	0	0.0	5	1.6
Uncoded & Errors	2	0.1	0	0.0	1	0.3
TOTAL	1,530	100.0	4	100.0	309	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	22	1.4	0	0.0	3	1.0
Cross center/median	2	0.1	0	0.0	1	0.3
Ran off road left	8	0.5	0	0.0	0	0.0
Ran off road right	16	1.0	0	0.0	3	1.0
Re-enter road	2	0.1	0	0.0	0	0.0
Overturn	93	6.1	0	0.0	32	10.4
Separation of units	2	0.1	0	0.0	1	0.3
Fire/explosion	3	0.2	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	4	0.3	0	0.0	4	1.3
Other noncollision	1	0.1	0	0.0	0	0.0
SUBTOTAL	154	10.1	0	0.0	44	14.2

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 (6.1%) and injury crashes (10.4%).

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	0.4	0	0.0	6	1.9
Bicyclist	3	0.2	0	0.0	1	0.3
Motor vehicle in transport	796	52.0	4	100.0	193	62.5
Parked motor vehicle	40	2.6	0	0.0	3	1.0
Railway train	0	0.0	0	0.0	0	0.0
Animal	247	16.1	0	0.0	6	1.9
Other nonfixed objects	6	0.4	0	0.0	1	0.3
SUBTOTAL	1,098	71.8	4	100.0	210	68.0

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	0	0.0	0	0.0	0	0.0
Bridge rail	3	0.2	0	0.0	1	0.3
Guardrail face	17	1.1	0	0.0	1	0.3
Guardrail end	2	0.1	0	0.0	1	0.3
Median barrier	0	0.0	0	0.0	0	0.0
Highway traffic sign post	25	1.6	0	0.0	4	1.3
Highway signal post	0	0.0	0	0.0	0	0.0
Luminaire/light support	30	2.0	0	0.0	10	3.2
Other pole	11	0.7	0	0.0	1	0.3
Culvert	4	0.3	0	0.0	0	0.0
Curb	7	0.5	0	0.0	1	0.3
Ditch	42	2.7	0	0.0	6	1.9
Embankment	19	1.2	0	0.0	4	1.3
Fence	0	0.0	0	0.0	0	0.0
Mailbox	11	0.7	0	0.0	0	0.0
Tree	81	5.3	0	0.0	21	6.8
Rail crossing signal	0	0.0	0	0.0	0	0.0
Building	2	0.1	0	0.0	0	0.0
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	3	0.2	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	12	0.8	0	0.0	4	1.3
SUBTOTAL	269	17.6	0	0.0	54	17.5

For drivers age 16-20 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (5.3%) and injury crashes (6.8%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	9	0.6	0	0.0	1	0.3
No event coded as most harmful	0	0.0	0	0.0	0	0.0
TOTAL	1,530	100.0	4	100.0	309	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	661	43.2	0	0.0	104	33.7
Head On	17	1.1	1	25.0	8	2.6
Head On - Left Turn	32	2.1	0	0.0	10	3.2
Angle	241	15.8	2	50.0	61	19.7
Rear End	300	19.6	0	0.0	75	24.3
Rear End - Left Turn	45	2.9	0	0.0	11	3.6
Rear End - Right Turn	16	1.0	0	0.0	2	0.6
Sideswipe - Same Direction	84	5.5	0	0.0	12	3.9
Sideswipe - Opposite Direction	36	2.4	0	0.0	10	3.2
Backing	16	1.0	0	0.0	0	0.0
Other	77	5.0	0	0.0	15	4.9
Unknown	5	0.3	1	25.0	1	0.3
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,530	100.0	4	100.0	309	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 (43.2%) and injury crashes (33.7%).

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	1,166	76.2	3	75.0	231	74.8
Median	9	0.6	0	0.0	3	1.0
Shoulder	126	8.2	0	0.0	27	8.7
Outside of Shoulder/Curb	187	12.2	1	25.0	40	12.9
Gore	11	0.7	0	0.0	3	1.0
On-Street Parking	18	1.2	0	0.0	1	0.3
Off the Roadway	2	0.1	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	10	0.7	0	0.0	3	1.0
Uncoded & Errors	1	0.1	0	0.0	1	0.3
TOTAL	1,530	100.0	4	100.0	309	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 (12.2%) and injury crashes (12.9%). The highest proportion of fatal crashes occurred on the road (75%).

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	86	5.6	0	0.0	16	5.2
U.S. & Michigan Roads	737	48.2	3	75.0	155	50.2
County & City Roads	689	45.0	1	25.0	133	43.0
Uncoded & Errors	18	1.2	0	0.0	5	1.6
TOTAL	1,530	100.0	4	100.0	309	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 - 2:59 AM	70	4.6	0	0.0	16	5.2
3:00 AM - 5:59 AM	28	1.8	0	0.0	4	1.3
6:00 AM - 8:59 AM	137	9.0	0	0.0	26	8.4
9:00 AM - 11:59 AM	176	11.5	3	75.0	30	9.7
12:00 PM - 2:59 PM	315	20.6	1	25.0	76	24.6
3:00 PM - 5:59 PM	352	23.0	0	0.0	73	23.6
6:00 PM - 8:59 PM	265	17.3	0	0.0	55	17.8
9:00 PM - 11:59 PM	186	12.2	0	0.0	29	9.4
Unknown	1	0.1	0	0.0	0	0.0
TOTAL	1,530	100.0	4	100.0	309	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 (23.0%), while the noon - 2:59 PM time period has the highest proportion of injury crashes (24.6%).

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	584	38.2	2	50.0	89	28.8	2	0.7
Speed too fast	310	20.3	1	25.0	59	19.1	99	33.2
Speed too slow	1	0.1	0	0.0	0	0.0	0	0.0
Failed to yield	143	9.3	0	0.0	44	14.2	62	20.8
Disregard traffic control	21	1.4	0	0.0	6	1.9	9	3.0
Drove wrong way	0	0.0	0	0.0	0	0.0	0	0.0
Drove left of center	6	0.4	0	0.0	2	0.6	2	0.7
Improper passing	8	0.5	0	0.0	0	0.0	0	0.0
Improper lane use	15	1.0	0	0.0	3	1.0	3	1.0
Improper turn	10	0.7	0	0.0	0	0.0	0	0.0
Improper/no signal	3	0.2	0	0.0	1	0.3	2	0.7
Improper backing	24	1.6	0	0.0	0	0.0	1	0.3
Unable to stop in assured clear distance	216	14.1	0	0.0	49	15.9	54	18.1
Other	52	3.4	0	0.0	13	4.2	16	5.4
Unknown	28	1.8	1	25.0	9	2.9	0	0.0
Reckless driving	13	0.8	0	0.0	6	1.9	5	1.7
Careless/negligent driving	95	6.2	0	0.0	28	9.1	43	14.4
Uncoded & Errors	1	0.1	0	0.0	0	0.0	0	0.0
TOTAL	1,530	100.0	4	100.0	309	100.0	298	100.0

Other than no hazardous action, the second highest known hazardous action category for drivers age 16-20 in the Upper Peninsula is speed too fast for all crashes (20.3%), fatal crashes (25.0%), and injury crashes (19.1%).

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	153	10.0	0	0.0	38	12.3
Tuesday	212	13.9	1	25.0	52	16.8
Wednesday	211	13.8	0	0.0	46	14.9
Thursday	252	16.5	0	0.0	42	13.6
Friday	282	18.4	1	25.0	51	16.5
Saturday	221	14.4	2	50.0	44	14.2
Sunday	199	13.0	0	0.0	36	11.7
TOTAL	1,530	100.0	4	100.0	309	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	846	55.3	2	50.0	178	57.6
Female	683	44.6	2	50.0	131	42.4
Uncoded & Errors	1	0.1	0	0.0	0	0.0
TOTAL	1,530	100.0	4	100.0	309	100.0

For drivers age 16-20 in the Upper Peninsula, there is a greater proportion of female drivers in all 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	1,113	72.7	3	75.0	197	63.8
2 occupants	298	19.5	1	25.0	69	22.3
3 occupants	77	5.0	0	0.0	31	10.0
4 occupants	31	2.0	0	0.0	10	3.2
5 occupants	7	0.5	0	0.0	2	0.6
6+ occupants	2	0.1	0	0.0	0	0.0
0 occupants	2	0.1	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,530	100.0	4	100.0	309	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	1,193	78.0	3	75.0	229	74.1
Motor home	2	0.1	0	0.0	1	0.3
Pickup truck	293	19.2	0	0.0	61	19.7
Small Truck under 10,000 lbs. GVWR	8	0.5	0	0.0	1	0.3
Motorcycle	8	0.5	0	0.0	5	1.6
Moped / goped	3	0.2	0	0.0	3	1.0
Go-cart / golf cart	1	0.1	0	0.0	0	0.0
Snowmobile	5	0.3	1	25.0	2	0.6
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	9	0.6	0	0.0	7	2.3
Other	3	0.2	0	0.0	0	0.0
Unknown	1	0.1	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	4	0.3	0	0.0	0	0.0
TOTAL	1,530	100.0	4	100.0	309	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	25.0	0	0.0	0	0.0
10,001 - 26,000 lbs.	0	0.0	0	0.0	0	0.0
Greater than 26,000 lbs.	3	75.0	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	4	100.0	0	0.0	0	0.0

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	6,304	70.7	27	77.1	815	64.0
Turning left	414	4.6	0	0.0	103	8.1
Turning right	220	2.5	0	0.0	25	2.0
Stopped on roadway	429	4.8	1	2.9	82	6.4
In prior crash	8	0.1	0	0.0	1	0.1
Changing lanes	64	0.7	0	0.0	5	0.4
Backing	273	3.1	0	0.0	5	0.4
Slowing/stopping on roadway	478	5.4	1	2.9	98	7.7
Slowing/stopping other	19	0.2	0	0.0	5	0.4
Starting up on roadway	122	1.4	0	0.0	17	1.3
Starting up other	0	0.0	0	0.0	0	0.0
Entering parking	20	0.2	1	2.9	1	0.1
Leaving parking	39	0.4	0	0.0	7	0.5
Entering roadway	100	1.1	2	5.7	22	1.7
Leaving roadway	12	0.1	1	2.9	3	0.2
Making U-turn	16	0.2	0	0.0	1	0.1
Overtaking or passing	57	0.6	0	0.0	13	1.0
Avoiding object	8	0.1	1	2.9	2	0.2
Avoiding pedestrian	1	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	58	0.7	0	0.0	17	1.3
Avoiding vehicle (angle)	21	0.2	0	0.0	5	0.4
Driverless moving	4	0.0	0	0.0	0	0.0
Parked	58	0.7	0	0.0	5	0.4
Crossing at intersection	3	0.0	0	0.0	1	0.1
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	1	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	16	0.2	0	0.0	4	0.3
Unknown	13	0.1	0	0.0	1	0.1
Avoiding animal	61	0.7	1	2.9	5	0.4
Negotiating a curve	96	1.1	0	0.0	30	2.4
Uncoded & Errors	3	0.0	0	0.0	1	0.1
TOTAL	8,918	100.0	35	100.0	1,274	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	63	0.7	0	0.0	13	1.0
Cross center/median	12	0.1	0	0.0	4	0.3
Ran off road left	42	0.5	0	0.0	8	0.6
Ran off road right	61	0.7	0	0.0	9	0.7
Re-enter road	1	0.0	0	0.0	0	0.0
Overturn	228	2.6	5	14.3	85	6.7
Separation of units	5	0.1	0	0.0	1	0.1
Fire/explosion	14	0.2	0	0.0	3	0.2
Immersion	3	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	12	0.1	0	0.0	1	0.1
Individual fell off	16	0.2	0	0.0	16	1.3
Other noncollision	27	0.3	1	2.9	6	0.5
SUBTOTAL	493	5.5	6	17.1	147	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 (2.6%), fatal crashes (14.3%), and injury crashes (6.7%).

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	13	0.1	0	0.0	12	0.9
Bicyclist	16	0.2	0	0.0	12	0.9
Motor vehicle in transport	3,807	42.7	18	51.4	801	62.9
Parked motor vehicle	282	3.2	0	0.0	20	1.6
Railway train	5	0.1	0	0.0	3	0.2
Animal	3,216	36.1	1	2.9	54	4.2
Other nonfixed objects	77	0.9	1	2.9	8	0.6
SUBTOTAL	7,416	83.2	20	57.1	910	71.4

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	3	0.0	0	0.0	1	0.1
Bridge rail	21	0.2	0	0.0	4	0.3
Guardrail face	73	0.8	0	0.0	17	1.3
Guardrail end	13	0.1	0	0.0	2	0.2
Median barrier	8	0.1	0	0.0	1	0.1
Highway traffic sign post	68	0.8	0	0.0	7	0.5
Highway signal post	1	0.0	0	0.0	0	0.0
Luminaire/light support	90	1.0	0	0.0	17	1.3
Other pole	14	0.2	0	0.0	1	0.1
Culvert	14	0.2	0	0.0	6	0.5
Curb	20	0.2	0	0.0	2	0.2
Ditch	164	1.8	0	0.0	44	3.5
Embankment	65	0.7	1	2.9	15	1.2
Fence	13	0.1	0	0.0	0	0.0
Mailbox	32	0.4	0	0.0	0	0.0
Tree	284	3.2	5	14.3	84	6.6
Rail crossing signal	1	0.0	0	0.0	0	0.0
Building	14	0.2	1	2.9	4	0.3
Traffic island	1	0.0	0	0.0	0	0.0
Fire hydrant	9	0.1	0	0.0	1	0.1
Impact attenuator	2	0.0	0	0.0	0	0.0
Other fixed object	34	0.4	1	2.9	4	0.3
SUBTOTAL	944	10.6	8	22.9	210	16.5

For drivers age 21-64 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (3.2%), fatal crashes (14.3%), and injury crashes (6.6%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	59	0.7	1	2.9	5	0.4
No event coded as most harmful	6	0.1	0	0.0	2	0.2
TOTAL	8,918	100.0	35	100.0	1,274	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	4,596	51.5	16	45.7	409	32.1
Head On	120	1.3	5	14.3	44	3.5
Head On - Left Turn	176	2.0	0	0.0	54	4.2
Angle	1,160	13.0	6	17.1	265	20.8
Rear End	1,369	15.4	4	11.4	287	22.5
Rear End - Left Turn	135	1.5	0	0.0	35	2.7
Rear End - Right Turn	64	0.7	0	0.0	7	0.5
Sideswipe - Same Direction	472	5.3	0	0.0	33	2.6
Sideswipe - Opposite Direction	186	2.1	0	0.0	42	3.3
Backing	154	1.7	0	0.0	4	0.3
Other	463	5.2	3	8.6	91	7.1
Unknown	23	0.3	1	2.9	3	0.2
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	8,918	100.0	35	100.0	1,274	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 (51.5%), fatal crashes (45.7%), and injury crashes (32.1%).

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	7,669	86.0	24	68.6	1,010	79.3
Median	45	0.5	0	0.0	11	0.9
Shoulder	398	4.5	4	11.4	82	6.4
Outside of Shoulder/Curb	636	7.1	7	20.0	153	12.0
Gore	19	0.2	0	0.0	3	0.2
On-Street Parking	97	1.1	0	0.0	4	0.3
Off the Roadway	4	0.0	0	0.0	2	0.2
On the Sidewalk	10	0.1	0	0.0	2	0.2
In the Bicycle Lane	0	0.0	0	0.0	0	0.0
Other/Unknown	32	0.4	0	0.0	6	0.5
Uncoded & Errors	8	0.1	0	0.0	1	0.1
TOTAL	8,918	100.0	35	100.0	1,274	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 (7.1%), fatal crashes (20.0%), and injury crashes (12.0%).

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	405	4.5	1	2.9	71	5.6
U.S. & Michigan Roads	4,885	54.8	18	51.4	702	55.1
County & City Roads	3,552	39.8	16	45.7	484	38.0
Uncoded & Errors	76	0.9	0	0.0	17	1.3
TOTAL	8,918	100.0	35	100.0	1,274	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 - 2:59 AM	374	4.2	4	11.4	54	4.2
3:00 AM - 5:59 AM	376	4.2	0	0.0	35	2.7
6:00 AM - 8:59 AM	1,293	14.5	5	14.3	124	9.7
9:00 AM - 11:59 AM	1,229	13.8	3	8.6	223	17.5
12:00 PM - 2:59 PM	1,576	17.7	7	20.0	309	24.3
3:00 PM - 5:59 PM	1,743	19.5	5	14.3	279	21.9
6:00 PM - 8:59 PM	1,426	16.0	6	17.1	178	14.0
9:00 PM - 11:59 PM	895	10.0	5	14.3	72	5.7
Unknown	6	0.1	0	0.0	0	0.0
TOTAL	8,918	100.0	35	100.0	1,274	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 (19.5%). The 12:00 - 2:59 PM time period has the highest proportion of fatal crashes (20.0%) and injury crashes (24.3%).

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	5,699	63.9	14	40.0	615	48.3	11	1.3
Speed too fast	770	8.6	9	25.7	166	13.0	218	24.8
Speed too slow	6	0.1	0	0.0	1	0.1	1	0.1
Failed to yield	538	6.0	3	8.6	123	9.7	190	21.6
Disregard traffic control	64	0.7	1	2.9	25	2.0	35	4.0
Drove wrong way	3	0.0	0	0.0	1	0.1	1	0.1
Drove left of center	34	0.4	0	0.0	16	1.3	10	1.1
Improper passing	27	0.3	0	0.0	5	0.4	10	1.1
Improper lane use	66	0.7	0	0.0	7	0.5	13	1.5
Improper turn	73	0.8	0	0.0	6	0.5	10	1.1
Improper/no signal	6	0.1	0	0.0	1	0.1	0	0.0
Improper backing	182	2.0	0	0.0	4	0.3	13	1.5
Unable to stop in assured clear distance	610	6.8	2	5.7	101	7.9	130	14.8
Other	277	3.1	2	5.7	51	4.0	51	5.8
Unknown	178	2.0	1	2.9	26	2.0	6	0.7
Reckless driving	49	0.5	0	0.0	27	2.1	21	2.4
Careless/negligent driving	321	3.6	3	8.6	94	7.4	157	17.8
Uncoded & Errors	15	0.2	0	0.0	5	0.4	3	0.3
TOTAL	8,918	100.0	35	100.0	1,274	100.0	880	100.0

After no hazardous action, the second highest hazardous action category for drivers age 21-64 in the Upper Peninsula for all crashes (8.6%), fatal crashes (25.7%), and injury crashes (13.0%) occurs when the driver's speed is too fast.

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	1,183	13.3	6	17.1	160	12.6
Tuesday	1,328	14.9	4	11.4	179	14.1
Wednesday	1,355	15.2	7	20.0	192	15.1
Thursday	1,362	15.3	4	11.4	182	14.3
Friday	1,526	17.1	9	25.7	214	16.8
Saturday	1,174	13.2	3	8.6	206	16.2
Sunday	990	11.1	2	5.7	141	11.1
TOTAL	8,918	100.0	35	100.0	1,274	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	5,249	58.9	28	80.0	727	57.1
Female	3,668	41.1	7	20.0	547	42.9
Uncoded & Errors	1	0.0	0	0.0	0	0.0
TOTAL	8,918	100.0	35	100.0	1,274	100.0

For drivers age 21-64 in the Upper Peninsula, male drivers (80.0%) account for four times that of female drivers (20.0%) 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	6,917	77.6	24	68.6	889	69.8
2 occupants	1,383	15.5	7	20.0	255	20.0
3 occupants	330	3.7	0	0.0	73	5.7
4 occupants	165	1.9	4	11.4	26	2.0
5 occupants	49	0.5	0	0.0	14	1.1
6+ occupants	33	0.4	0	0.0	9	0.7
0 occupants	33	0.4	0	0.0	4	0.3
Uncoded & Errors	8	0.1	0	0.0	4	0.3
TOTAL	8,918	100.0	35	100.0	1,274	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	6,301	70.7	13	37.1	841	66.0
Motor home	13	0.1	0	0.0	0	0.0
Pickup truck	2,014	22.6	6	17.1	263	20.6
Small Truck under 10,000 lbs. GVWR	79	0.9	1	2.9	9	0.7
Motorcycle	73	0.8	3	8.6	54	4.2
Moped / goped	5	0.1	0	0.0	5	0.4
Go-cart / golf cart	1	0.0	0	0.0	1	0.1
Snowmobile	40	0.4	3	8.6	22	1.7
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	38	0.4	3	8.6	27	2.1
Other	56	0.6	1	2.9	8	0.6
Unknown	1	0.0	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	297	3.3	5	14.3	44	3.5
TOTAL	8,918	100.0	35	100.0	1,274	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	6	2.0	0	0.0	0	0.0
10,001 - 26,000 lbs.	74	24.9	1	20.0	14	31.8
Greater than 26,000 lbs.	217	73.1	4	80.0	30	68.2
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	297	100.0	5	100.0	44	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	1,268	66.4	5	45.5	176	62.2
Turning left	132	6.9	2	18.2	34	12.0
Turning right	52	2.7	1	9.1	8	2.8
Stopped on roadway	86	4.5	0	0.0	18	6.4
In prior crash	1	0.1	0	0.0	1	0.4
Changing lanes	39	2.0	1	9.1	2	0.7
Backing	67	3.5	0	0.0	0	0.0
Slowing/stopping on roadway	91	4.8	1	9.1	15	5.3
Slowing/stopping other	2	0.1	0	0.0	0	0.0
Starting up on roadway	35	1.8	1	9.1	6	2.1
Starting up other	0	0.0	0	0.0	0	0.0
Entering parking	5	0.3	0	0.0	0	0.0
Leaving parking	12	0.6	0	0.0	1	0.4
Entering roadway	42	2.2	0	0.0	11	3.9
Leaving roadway	3	0.2	0	0.0	1	0.4
Making U-turn	9	0.5	0	0.0	2	0.7
Overtaking or passing	14	0.7	0	0.0	0	0.0
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)	6	0.3	0	0.0	0	0.0
Avoiding vehicle (angle)	3	0.2	0	0.0	0	0.0
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	19	1.0	0	0.0	1	0.4
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	2	0.7
Unknown	0	0.0	0	0.0	0	0.0
Avoiding animal	6	0.3	0	0.0	2	0.7
Negotiating a curve	13	0.7	0	0.0	3	1.1
Uncoded & Errors	2	0.1	0	0.0	0	0.0
TOTAL	1,909	100.0	11	100.0	283	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	1	0.4
Cross center/median	3	0.2	0	0.0	0	0.0
Ran off road left	9	0.5	0	0.0	3	1.1
Ran off road right	13	0.7	0	0.0	3	1.1
Re-enter road	2	0.1	0	0.0	1	0.4
Overturn	27	1.4	0	0.0	12	4.2
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	1	0.1	0	0.0	0	0.0
Downhill runaway	1	0.1	0	0.0	0	0.0
Cargo loss/shift	3	0.2	0	0.0	0	0.0
Individual fell off	3	0.2	0	0.0	3	1.1
Other noncollision	4	0.2	0	0.0	1	0.4
SUBTOTAL	74	3.9	0	0.0	24	8.5

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 (1.4%) and injury crashes (4.2%).

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	0	0.0	2	0.7
Bicyclist	6	0.3	0	0.0	6	2.1
Motor vehicle in transport	957	50.1	8	72.7	202	71.4
Parked motor vehicle	63	3.3	1	9.1	3	1.1
Railway train	1	0.1	0	0.0	1	0.4
Animal	632	33.1	0	0.0	7	2.5
Other nonfixed objects	15	0.8	0	0.0	1	0.4
SUBTOTAL	1,676	87.8	9	81.8	222	78.4

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	0	0.0
Bridge rail	1	0.1	0	0.0	0	0.0
Guardrail face	5	0.3	0	0.0	1	0.4
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	12	0.6	0	0.0	3	1.1
Highway signal post	1	0.1	0	0.0	0	0.0
Luminaire/light support	11	0.6	1	9.1	2	0.7
Other pole	5	0.3	0	0.0	0	0.0
Culvert	1	0.1	0	0.0	0	0.0
Curb	1	0.1	0	0.0	0	0.0
Ditch	21	1.1	1	9.1	6	2.1
Embankment	10	0.5	0	0.0	2	0.7
Fence	0	0.0	0	0.0	0	0.0
Mailbox	8	0.4	0	0.0	0	0.0
Tree	53	2.8	0	0.0	18	6.4
Rail crossing signal	2	0.1	0	0.0	1	0.4
Building	1	0.1	0	0.0	0	0.0
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	1	0.1	0	0.0	1	0.4
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	5	0.3	0	0.0	3	1.1
SUBTOTAL	144	7.5	2	18.2	37	13.1

For drivers age 65 and over in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (2.8%) and injury crashes (6.4%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	15	0.8	0	0.0	0	0.0
No event coded as most harmful	0	0.0	0	0.0	0	0.0
TOTAL	1,909	100.0	11	100.0	283	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	841	44.1	2	18.2	71	25.1
Head On	21	1.1	0	0.0	12	4.2
Head On - Left Turn	56	2.9	0	0.0	26	9.2
Angle	324	17.0	4	36.4	72	25.4
Rear End	240	12.6	3	27.3	50	17.7
Rear End - Left Turn	27	1.4	0	0.0	2	0.7
Rear End - Right Turn	10	0.5	0	0.0	3	1.1
Sideswipe - Same Direction	163	8.5	0	0.0	11	3.9
Sideswipe - Opposite Direction	45	2.4	0	0.0	14	4.9
Backing	58	3.0	0	0.0	0	0.0
Other	120	6.3	2	18.2	21	7.4
Unknown	4	0.2	0	0.0	1	0.4
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,909	100.0	11	100.0	283	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 (44.1%) and angle crashes for fatal crashes (36.4%) and injury crashes (25.4%).

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	1,689	88.5	10	90.9	233	82.3
Median	7	0.4	0	0.0	1	0.4
Shoulder	54	2.8	0	0.0	9	3.2
Outside of Shoulder/Curb	106	5.6	1	9.1	32	11.3
Gore	3	0.2	0	0.0	1	0.4
On-Street Parking	35	1.8	0	0.0	4	1.4
Off the Roadway	0	0.0	0	0.0	0	0.0
On the Sidewalk	4	0.2	0	0.0	0	0.0
In the Bicycle Lane	1	0.1	0	0.0	0	0.0
Other/Unknown	5	0.3	0	0.0	1	0.4
Uncoded & Errors	5	0.3	0	0.0	2	0.7
TOTAL	1,909	100.0	11	100.0	283	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 (5.6%), fatal crashes (9.1%), and injury crashes (11.3%).

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	80	4.2	0	0.0	11	3.9
U.S. & Michigan Roads	1,110	58.1	8	72.7	173	61.1
County & City Roads	706	37.0	3	27.3	98	34.6
Uncoded & Errors	13	0.7	0	0.0	1	0.4
TOTAL	1,909	100.0	11	100.0	283	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 - 2:59 AM	23	1.2	0	0.0	2	0.7
3:00 AM - 5:59 AM	22	1.2	0	0.0	2	0.7
6:00 AM - 8:59 AM	171	9.0	1	9.1	21	7.4
9:00 AM - 11:59 AM	401	21.0	1	9.1	66	23.3
12:00 PM - 2:59 PM	472	24.7	3	27.3	91	32.2
3:00 PM - 5:59 PM	413	21.6	5	45.5	73	25.8
6:00 PM - 8:59 PM	264	13.8	1	9.1	21	7.4
9:00 PM - 11:59 PM	140	7.3	0	0.0	7	2.5
Unknown	3	0.2	0	0.0	0	0.0
TOTAL	1,909	100.0	11	100.0	283	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 (24.7%) and injury crashes (32.2%). The highest porportion of fatal crashes occurs in the 3:00 - 5:59 PM time period (45.5%).

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	1,183	62.0	2	18.2	136	48.1	2	1.2
Speed too fast	87	4.6	0	0.0	22	7.8	22	13.3
Speed too slow	2	0.1	0	0.0	0	0.0	0	0.0
Failed to yield	210	11.0	3	27.3	58	20.5	65	39.2
Disregard traffic control	22	1.2	1	9.1	7	2.5	14	8.4
Drove wrong way	3	0.2	0	0.0	2	0.7	0	0.0
Drove left of center	10	0.5	0	0.0	4	1.4	2	1.2
Improper passing	9	0.5	0	0.0	1	0.4	5	3.0
Improper lane use	47	2.5	1	9.1	4	1.4	7	4.2
Improper turn	24	1.3	0	0.0	3	1.1	4	2.4
Improper/no signal	6	0.3	0	0.0	1	0.4	1	0.6
Improper backing	52	2.7	0	0.0	0	0.0	1	0.6
Unable to stop in assured clear distance	97	5.1	2	18.2	16	5.7	16	9.6
Other	54	2.8	0	0.0	12	4.2	6	3.6
Unknown	29	1.5	1	9.1	2	0.7	0	0.0
Reckless driving	1	0.1	0	0.0	1	0.4	0	0.0
Careless/negligent driving	69	3.6	1	9.1	14	4.9	21	12.7
Uncoded & Errors	4	0.2	0	0.0	0	0.0	0	0.0
TOTAL	1,909	100.0	11	100.0	283	100.0	166	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 (11.0%), fatal crashes (27.3%), and injury crashes (20.5%) 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	13.6	2	18.2	38	13.4
Tuesday	273	14.3	3	27.3	34	12.0
Wednesday	297	15.6	1	9.1	45	15.9
Thursday	280	14.7	0	0.0	39	13.8
Friday	368	19.3	4	36.4	60	21.2
Saturday	259	13.6	1	9.1	44	15.5
Sunday	173	9.1	0	0.0	23	8.1
TOTAL	1,909	100.0	11	100.0	283	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	1,227	64.3	9	81.8	180	63.6
Female	681	35.7	2	18.2	103	36.4
Uncoded & Errors	1	0.1	0	0.0	0	0.0
TOTAL	1,909	100.0	11	100.0	283	100.0

For drivers age 65 and over in the Upper Peninsula, there were nine male drivers (81.8%) and two female drivers (18.2%) 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	1,426	74.7	6	54.5	195	68.9
2 occupants	421	22.1	5	45.5	75	26.5
3 occupants	36	1.9	0	0.0	8	2.8
4 occupants	15	0.8	0	0.0	3	1.1
5 occupants	3	0.2	0	0.0	2	0.7
6+ occupants	0	0.0	0	0.0	0	0.0
0 occupants	8	0.4	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,909	100.0	11	100.0	283	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	1,420	74.4	7	63.6	206	72.8
Motor home	8	0.4	0	0.0	2	0.7
Pickup truck	421	22.1	0	0.0	54	19.1
Small Truck under 10,000 lbs. GVWR	14	0.7	0	0.0	3	1.1
Motorcycle	13	0.7	1	9.1	10	3.5
Moped / goped	1	0.1	1	9.1	0	0.0
Go-cart / golf cart	0	0.0	0	0.0	0	0.0
Snowmobile	0	0.0	0	0.0	0	0.0
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	7	0.4	0	0.0	7	2.5
Other	2	0.1	1	9.1	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	23	1.2	1	9.1	1	0.4
TOTAL	1,909	100.0	11	100.0	283	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	2	8.7	0	0.0	0	0.0
10,001 - 26,000 lbs.	10	43.5	0	0.0	0	0.0
Greater than 26,000 lbs.	10	43.5	1	100.0	1	100.0
Uncoded & Errors	1	4.3	0	0.0	0	0.0
TOTAL	23	100.0	1	100.0	1	100.0

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

UNIT	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	29	4	4	0	0	0	0	4	4
	Killed	0	0	0	0	0	0	0	0	0
	Injured	23	4	4	0	0	0	0	4	4
DRIVERS	Total	13,050	378	305	62	42	64	51	504	398
	Killed	28	9	9	0	0	2	2	11	11
	Injured	1,189	114	104	24	19	22	16	160	139
MOTORCYCLISTS	Total	110	2	2	5	4	3	3	10	9
	Killed	4	1	1	0	0	2	2	3	3
	Injured	74	1	1	4	3	1	1	6	5
ORV/ATV RIDERS	Total	89	22	21	2	2	1	1	25	24
	Killed	3	2	2	0	0	0	0	2	2
	Injured	57	12	12	1	1	1	1	14	14
PEDESTRIANS	Total	30	6	6	0	0	0	0	6	6
	Killed	0	0	0	0	0	0	0	0	0
	Injured	29	5	5	0	0	0	0	5	5
SNOWMOBILERS	Total	47	7	7	0	0	0	0	7	7
	Killed	3	1	1	0	0	0	0	1	1
	Injured	25	5	5	0	0	0	0	5	5

**Total does include property damage only crashes*

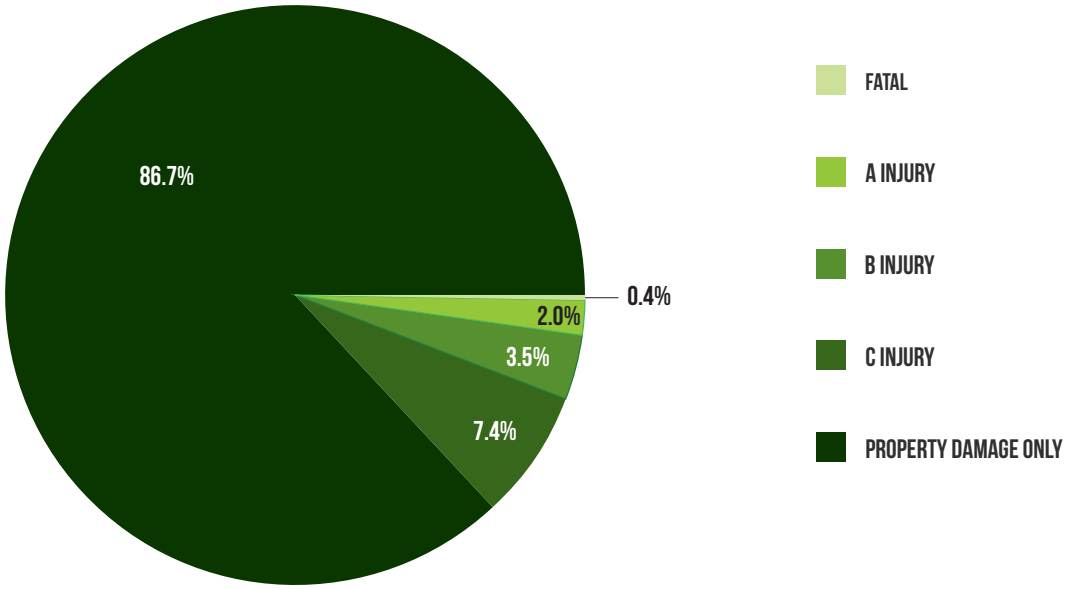
**In the Upper Peninsula, there were no bicyclists, 11 drivers, three motorcyclists, two ORV/ATV riders, no pedestrians, and one snowmobiler who were killed and coded as drinking and/or using drugs by the police officer.

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	0	0	0	0	0	0	0	0	0	0	0	0
16 years	3	1	0	4	0	0	0	0	0	0	0	0
17 years	5	1	1	7	0	0	0	0	2	1	1	4
18 years	3	1	1	5	0	0	0	0	1	0	0	1
19 years	8	3	4	15	0	0	0	0	1	3	2	6
20 years	7	1	1	9	0	0	0	0	2	1	1	4
21 - 24 years	43	5	7	55	0	1	0	1	22	1	3	26
25 - 34 years	75	14	16	105	1	0	2	3	28	5	8	41
35 - 44 years	54	7	10	71	1	0	0	1	24	5	1	30
45 - 54 years	56	4	5	65	4	0	1	5	22	2	1	25
55 - 64 years	31	5	6	42	3	0	0	3	10	3	2	15
65 - 69 years	16	1	0	17	1	0	0	1	8	1	0	9
70 - 74 years	4	0	0	4	0	0	0	0	1	0	0	1
75 - 79 years	1	1	0	2	0	0	0	0	0	1	0	1
80 - 84 years	0	0	0	0	0	0	0	0	0	0	0	0
85 - 89 years	0	0	0	0	0	0	0	0	0	0	0	0
90 years and over	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Total	306	44	51	401	10	1	3	14	121	23	19	163

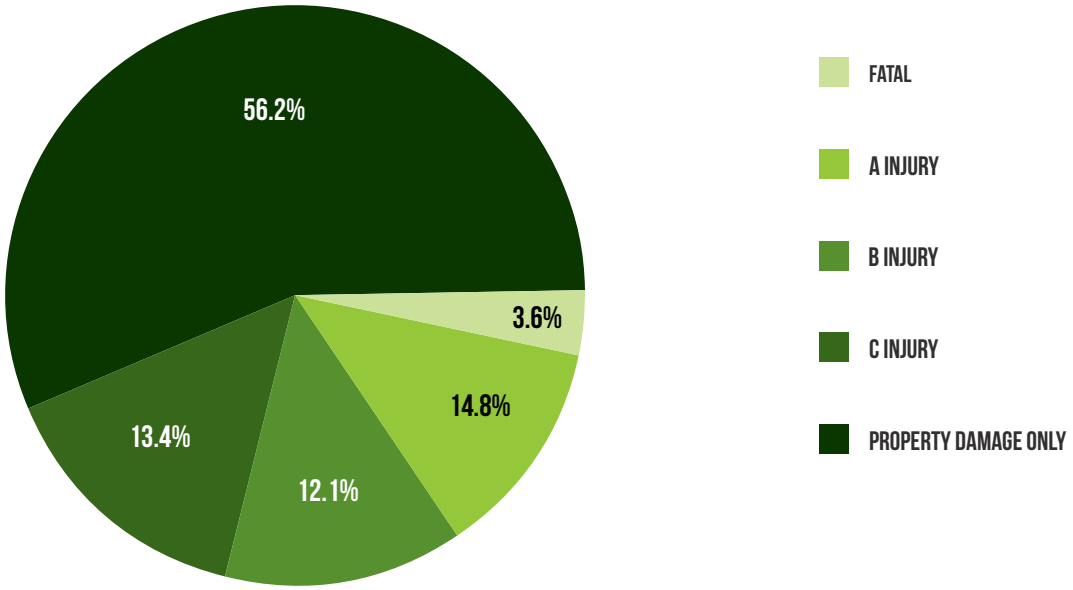
The driver age group 25 to 34 years represents the highest number of drinking and/or drug use in total crashes and injury crashes.

UPPER PENINSULA ALL CRASHES BY INJURY SEVERITY



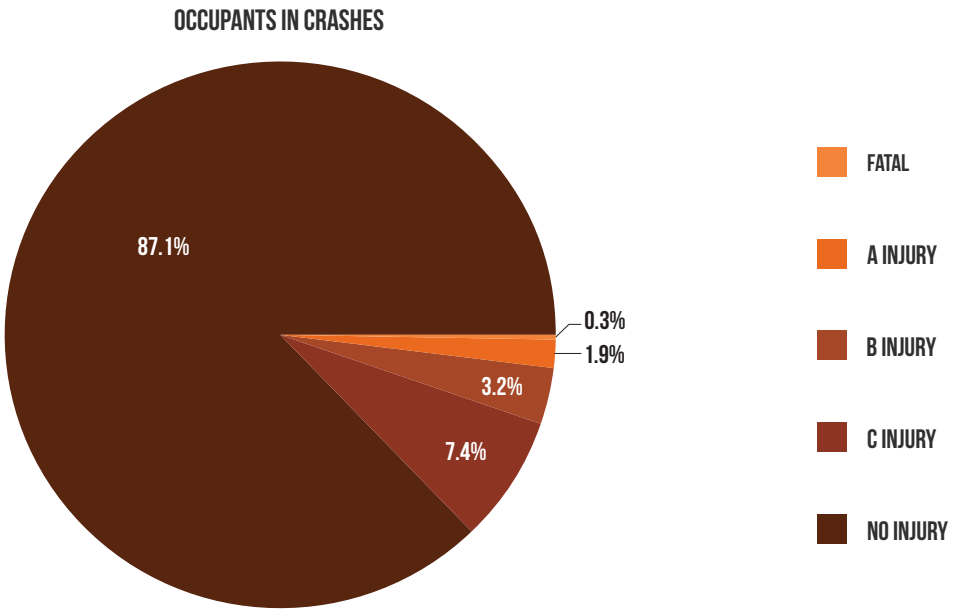
The majority of crashes do not involve injury (86.7%). Possible (C) injury crashes represent about 56% of all injury crashes.

UPPER PENINSULA HAD-BEEN-DRINKING CRASHES BY INJURY SEVERITY

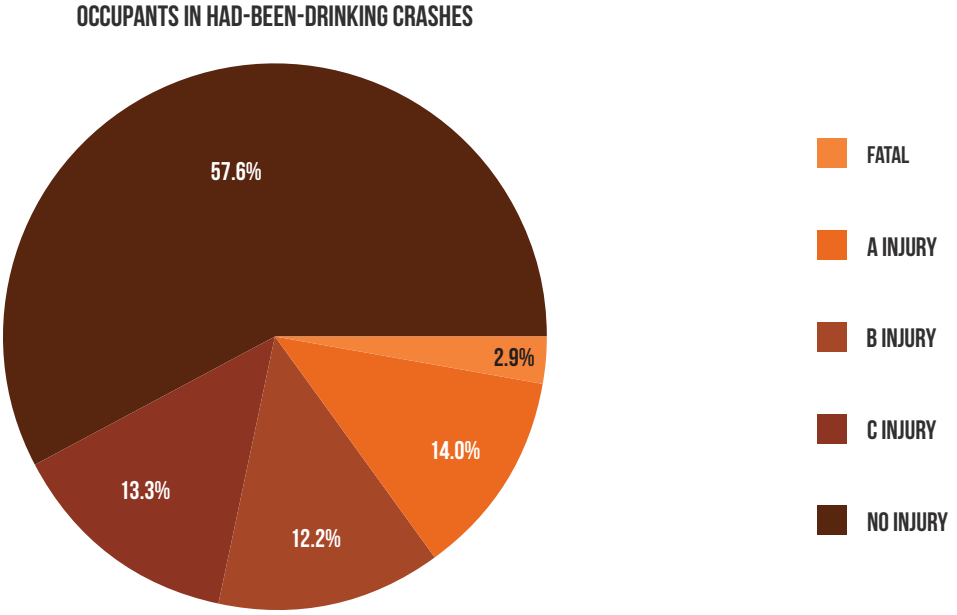


The problem of the drinking driver, pedestrian, and/or bicyclist is seen by comparing the two charts on this page. All injury levels are greater, and a fatality in the crash is about ten times more likely, when one of the crash-involved operators is reported as had-been-drinking (HBD).

UPPER PENINSULA DEATH & INJURY FOR CRASH INVOLVED OCCUPANTS



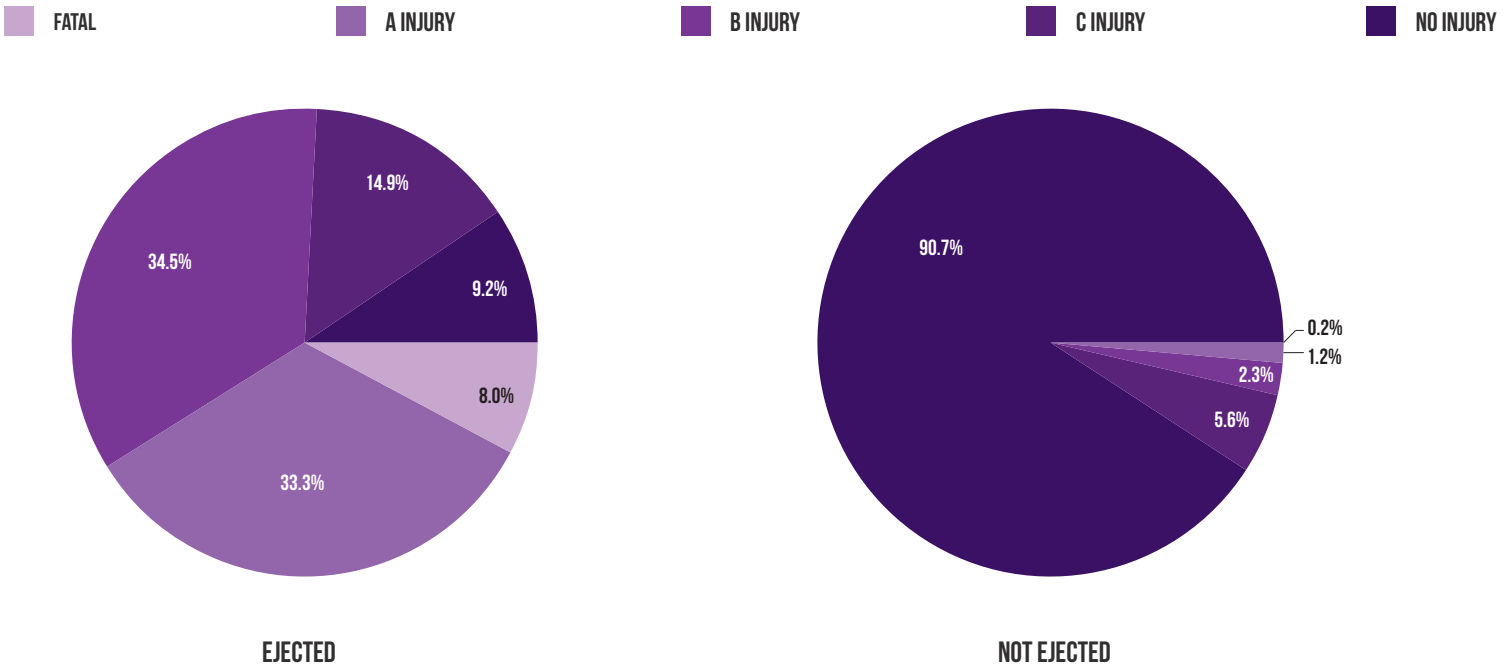
The majority of occupants involved in crashes are not injured (87.1%). About 58% of those who are injured receive only possible (C) injuries.



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

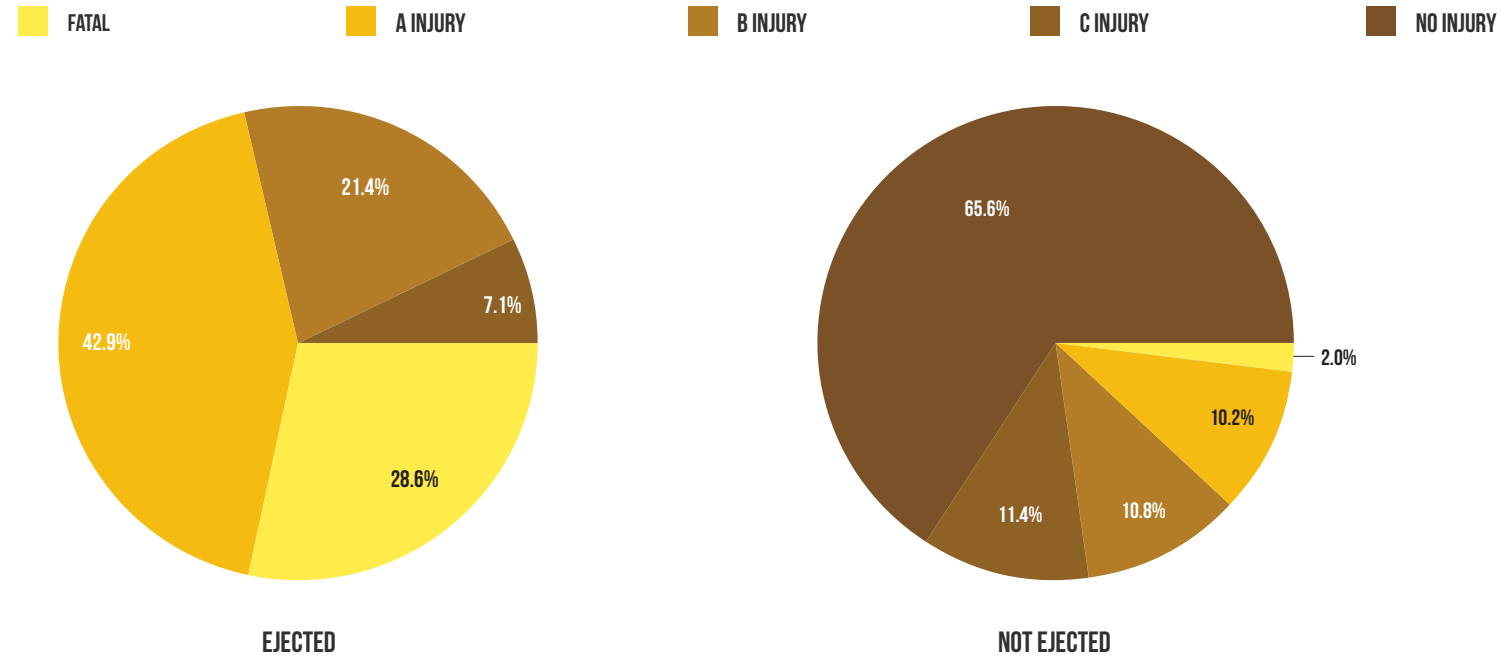
Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.

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



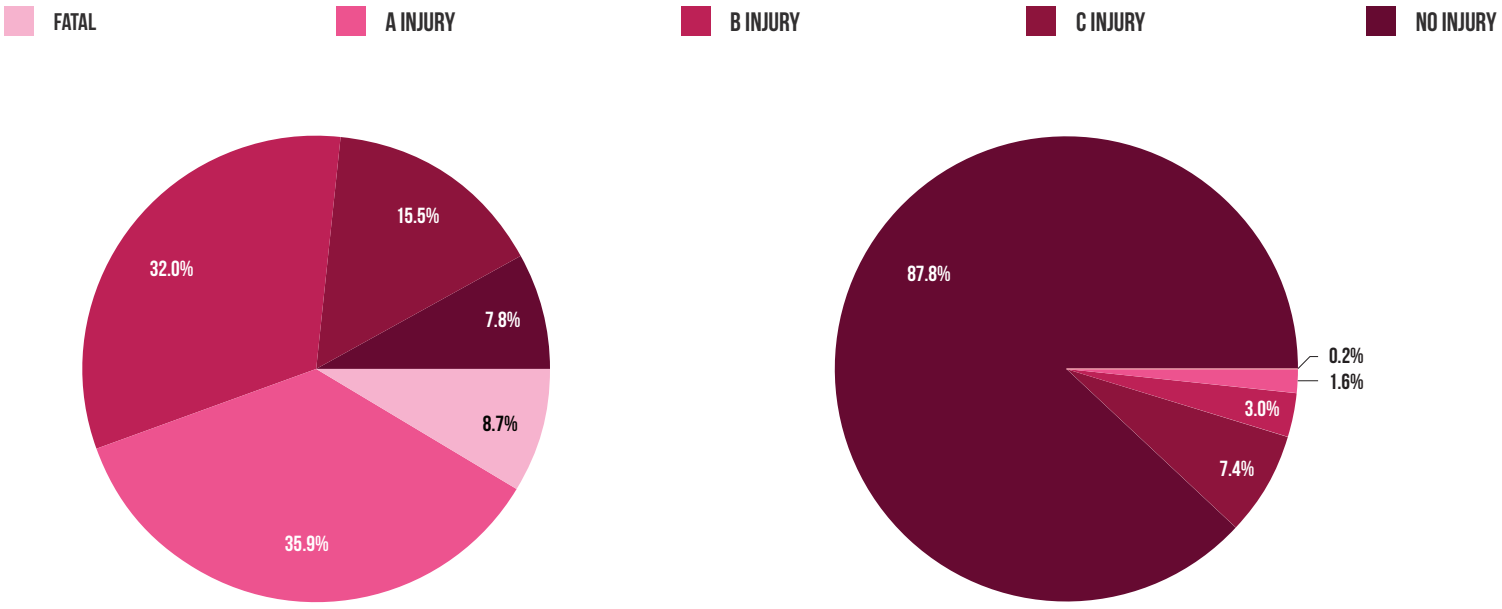
As can be seen in the two charts above, death and injury are much more likely when drivers are ejected from vehicles.

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.

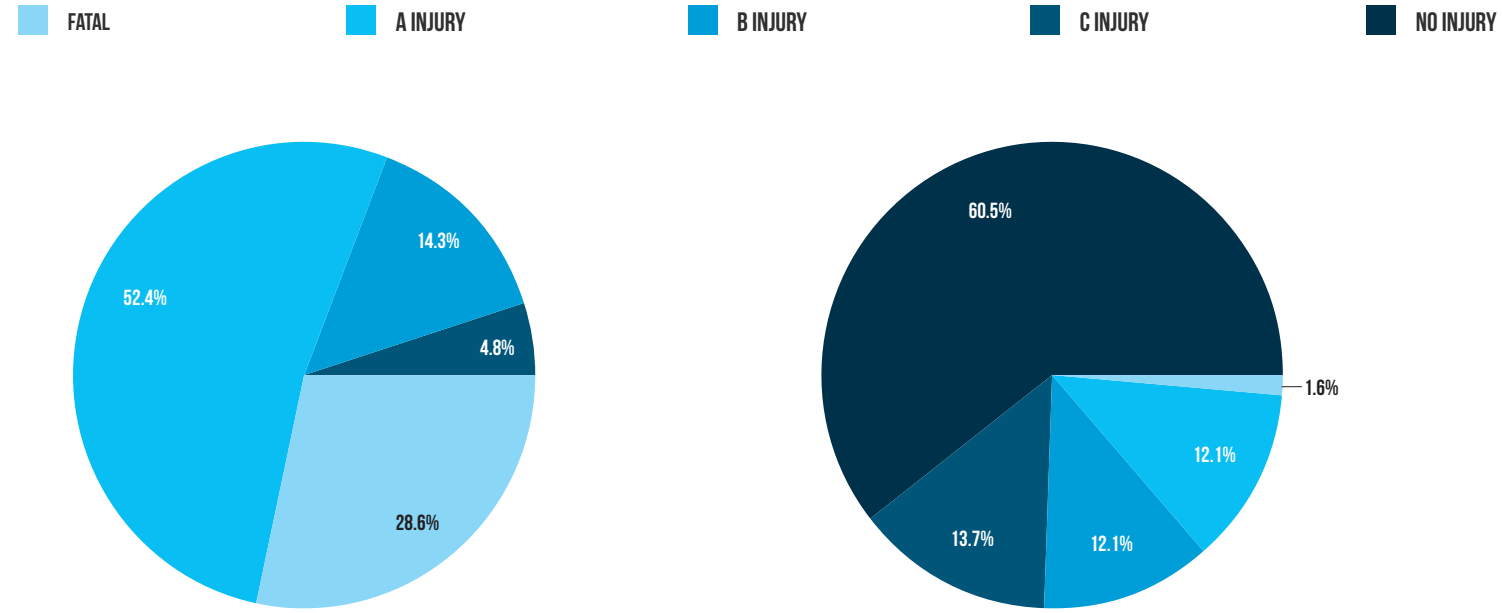
UPPER PENINSULA ALL OCCUPANTS OF CRASHES INJURY SEVERITY - EJECTED VS. NOT EJECTED



EJECTED 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



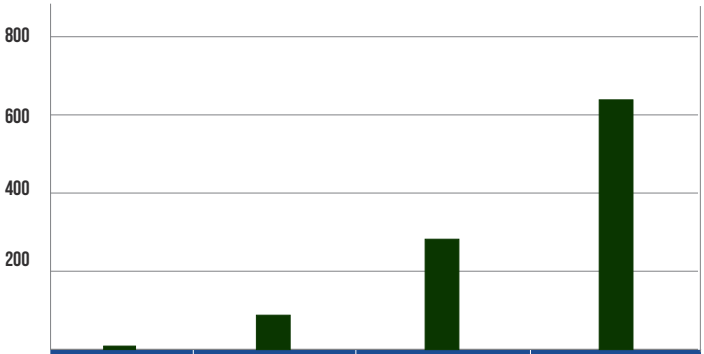
EJECTED NOT EJECTED

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.

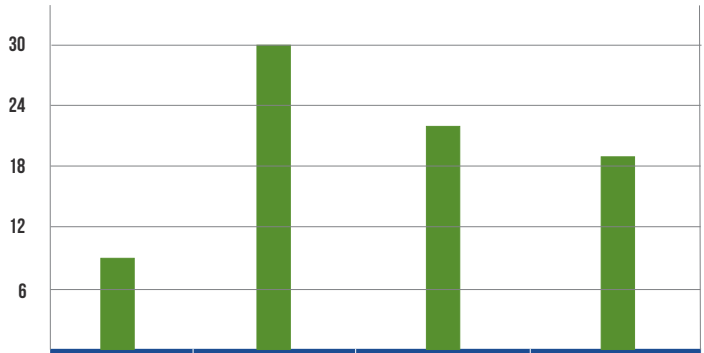
UPPER PENINSULA INJURY SEVERITY & BELT USE BY DRIVER INJURY

ALL CRASHES-BELTS USED



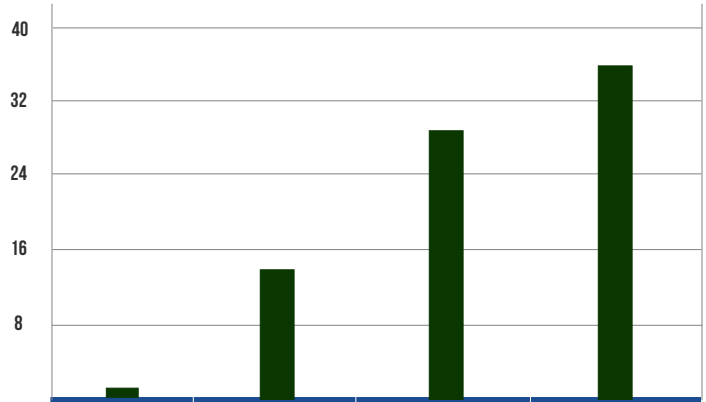
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
9	88	231	637

ALL CRASHES-BELTS NOT USED



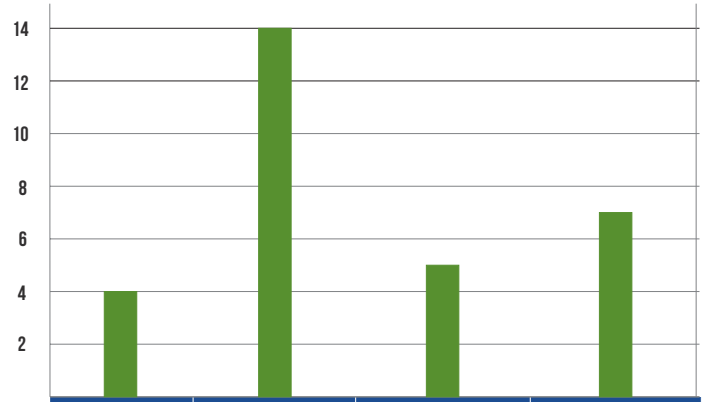
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
9	30	22	19

HAD-BEEN DRINKING CRASHES-BELTS USED



FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
1	14	29	36

HAD-BEEN DRINKING CRASHES-BELTS NOT USED

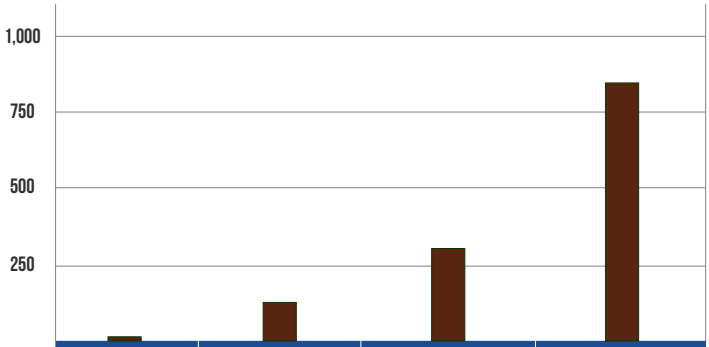


FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
4	14	5	7

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.

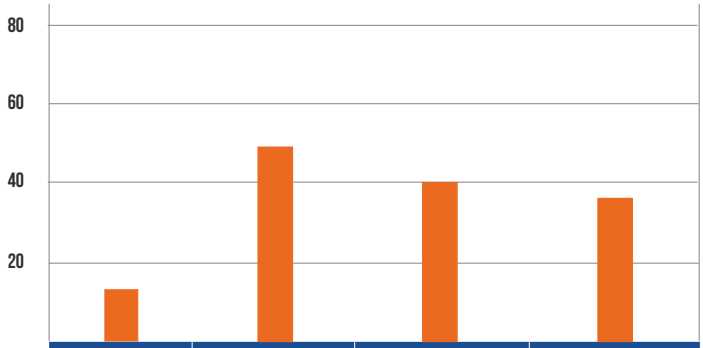
UPPER PENINSULA INJURY SEVERITY & RESTRAINT USE BY OCCUPANT INJURY

ALL CRASHES-RESTRAINTS USED



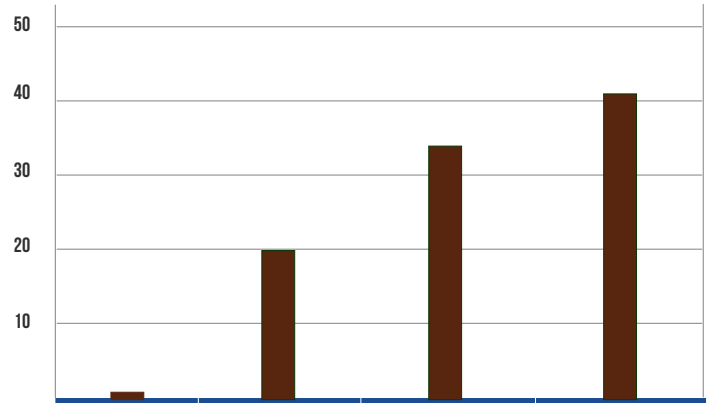
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
14	127	304	848

ALL CRASHES-RESTRAINTS NOT USED



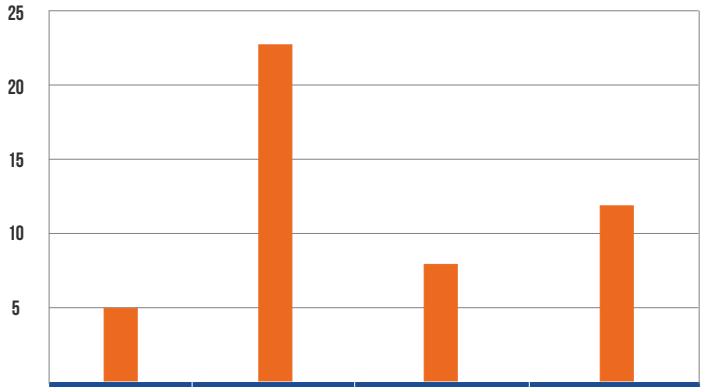
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
13	49	40	36

HAD-BEEN DRINKING CRASHES-RESTRAINTS USED



FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
1	20	34	41

HAD-BEEN DRINKING CRASHES-RESTRAINTS NOT USED



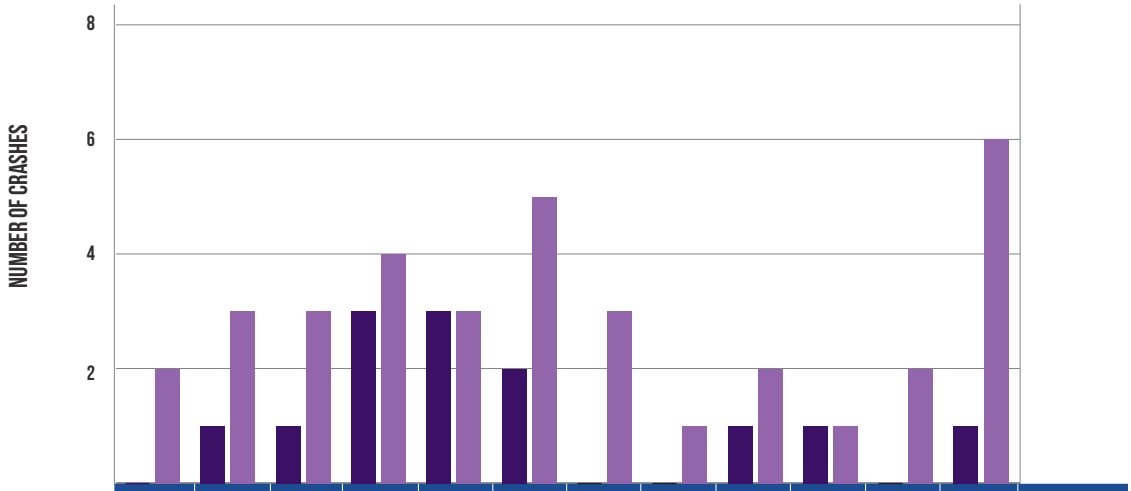
FATAL (K)	SUSPECTED SERIOUS INJURY (A)	SUSPECTED MINOR INJURY (B)	POSSIBLE INJURY (C)
5	23	8	12

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.

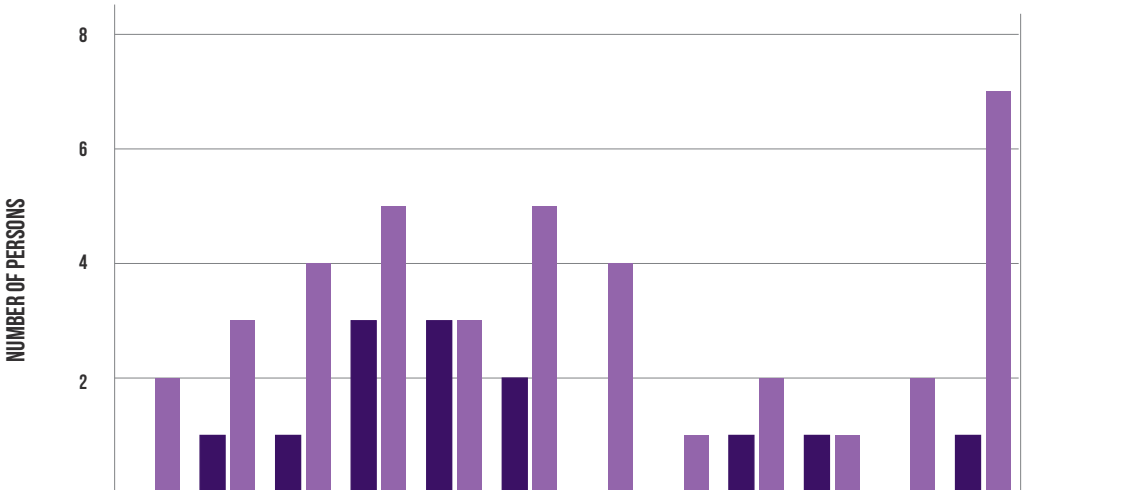
UPPER PENINSULA ALCOHOL INVOLVEMENT IN FATAL CRASHES

HAD-BEEN-DRINKING FATAL CRASHES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
HBD FATAL CRASHES	0	1	1	3	3	2	0	0	1	1	0	1	13
TOTAL FATAL CRASHES	2	3	3	4	3	5	3	1	2	1	2	6	35

ALCOHOL-INVOLVED FATALITIES BY MONTH



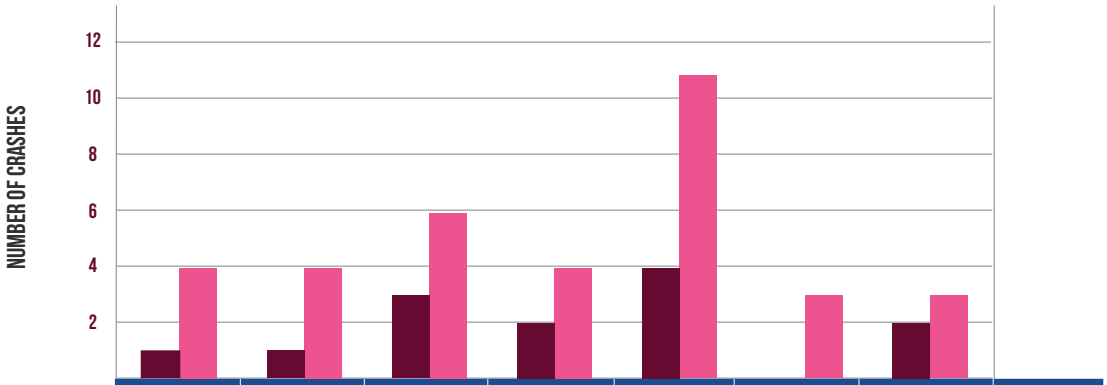
	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
ALCOHOL-IN-VOLVED FATALITIES	0	1	1	3	3	2	0	0	1	1	0	1	13
TOTAL FATALITIES	2	3	4	5	3	5	4	1	2	1	2	7	39

Had-been-drinking fatal crashes were highest in number during the months of April and May. The number of total fatal crashes (total of non-had-been-drinking and had-been-drinking fatal crashes) reached highest levels in December.

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

UPPER PENINSULA ALCOHOL INVOLVEMENT IN FATAL CRASHES (CONTINUED)

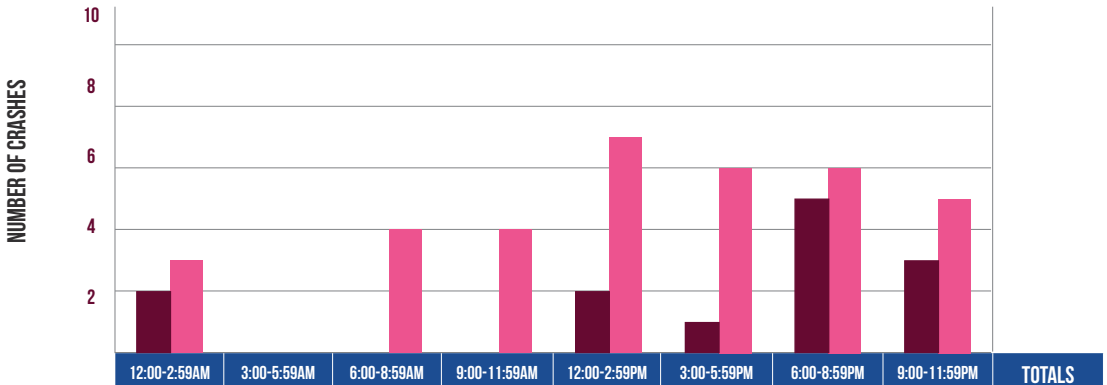
HAD-BEEN-DRINKING FATAL CRASHES BY DAY OF THE WEEK



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
HBD FATAL CRASHES	1	1	3	2	4	0	2	13
TOTAL FATAL CRASHES	4	4	6	4	11	3	3	35

Friday had the highest number of fatal crashes, and the highest number of drinking-related fatal crashes in 2017.

HAD-BEEN-DRINKING FATAL CRASHES BY TIME OF DAY

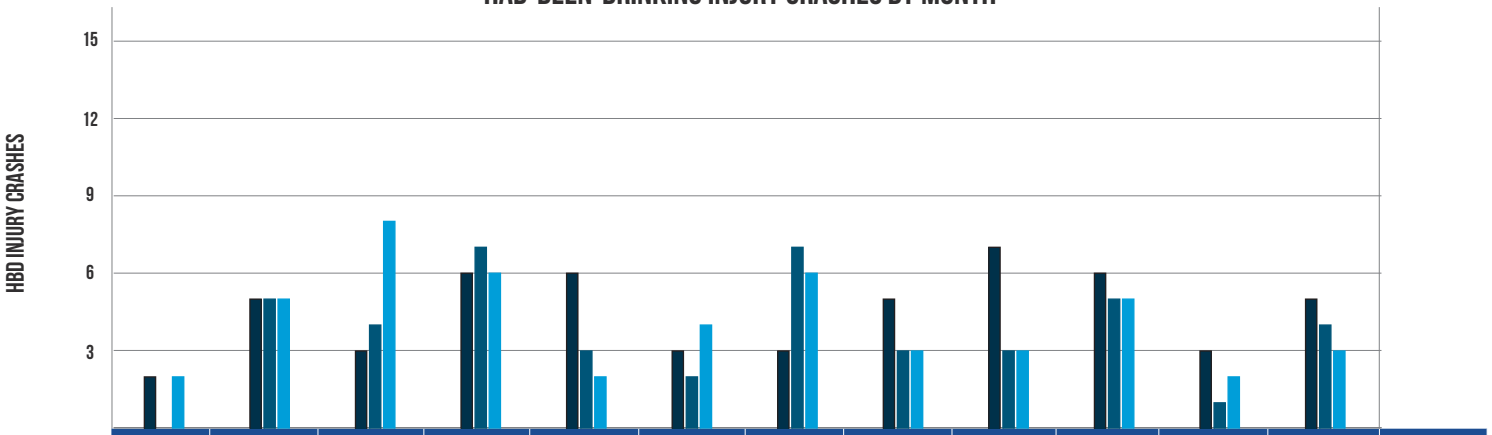


	12:00-2:59AM	3:00-5:59AM	6:00-8:59AM	9:00-11:59AM	12:00-2:59PM	3:00-5:59PM	6:00-8:59PM	9:00-11:59PM	TOTALS
HBD FATAL CRASHES	2	0	0	0	2	1	5	3	13
TOTAL FATAL CRASHES	3	0	4	4	7	6	6	5	35

The 6:00 PM to 8:59 PM time period had the highest number of HBD fatal crashes (5), while the 12:00 PM to 2:59 PM time period had the highest number of total fatal crashes (7).

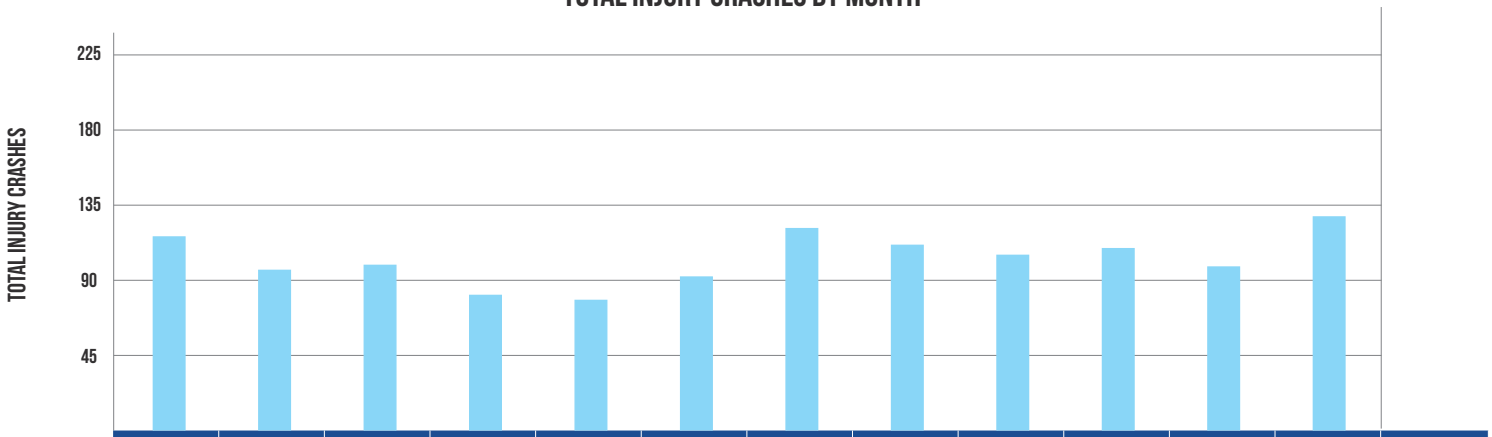
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES

HAD-BEEN-DRINKING INJURY CRASHES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
HBD A INJURY CRASHES	2	5	3	6	6	3	3	5	7	6	3	5	54
HBD B INJURY CRASHES	0	5	4	7	3	2	7	3	3	5	1	4	44
HBD C INJURY CRASHES	2	5	8	6	2	4	6	3	3	5	2	3	49

TOTAL INJURY CRASHES BY MONTH

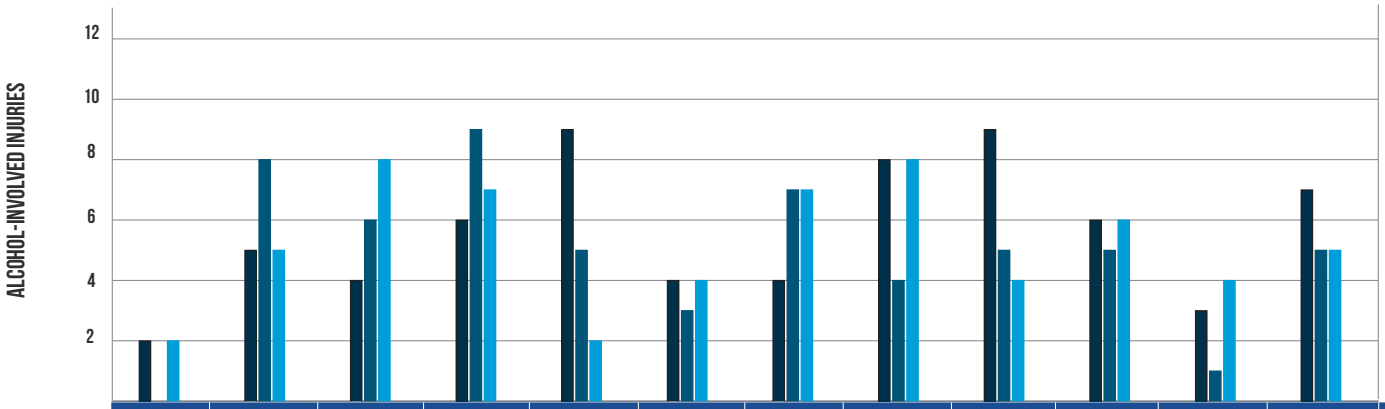


	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
TOTAL INJURY CRASHES	116	96	99	81	78	92	121	111	105	109	98	128	1,234

Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2017, the highest number of had-been-drinking injury crashes occurred in April (19).

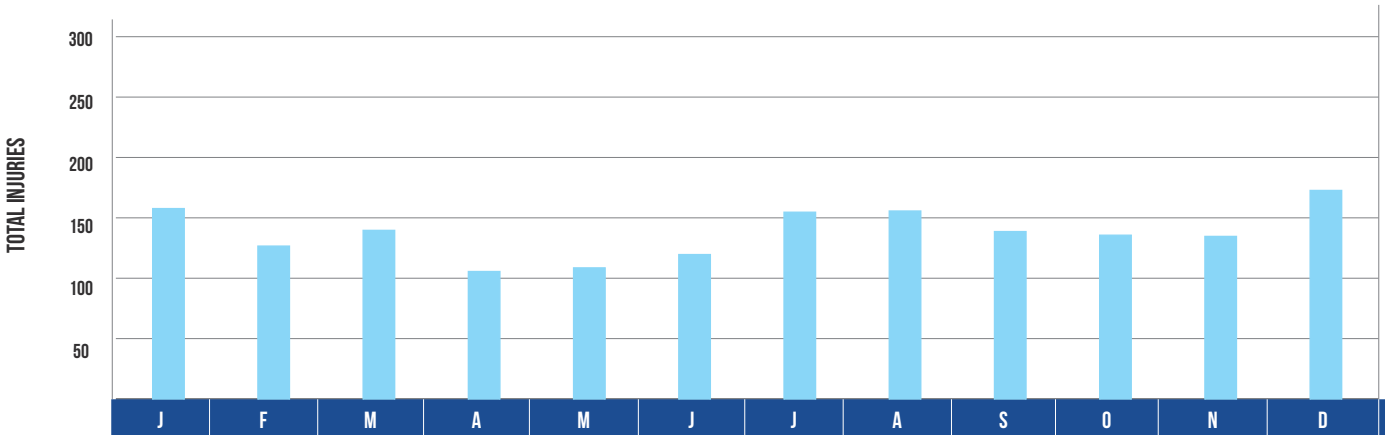
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)

ALCOHOL-INVOLVED INJURIES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
ALCOHOL-INVOLVED A INJURIES	2	5	4	6	9	4	4	8	9	6	3	7	67
ALCOHOL-INVOLVED B INJURIES	0	8	6	9	5	3	7	4	5	5	1	5	58
ALCOHOL-INVOLVED C INJURIES	2	5	8	7	2	4	7	8	4	6	4	5	62

TOTAL INJURIES BY MONTH

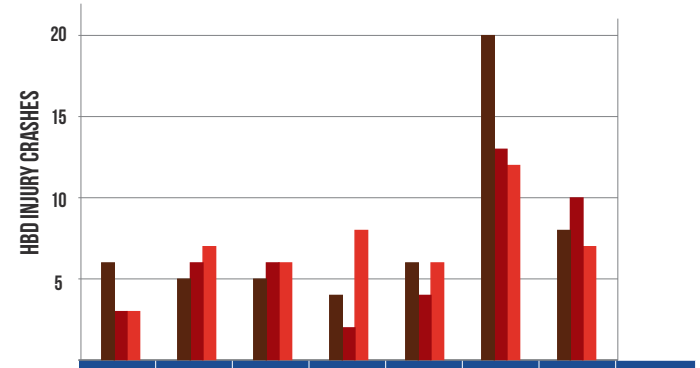


	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
TOTAL INJURIES	158	127	140	106	109	120	155	156	139	136	135	173	1,654

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

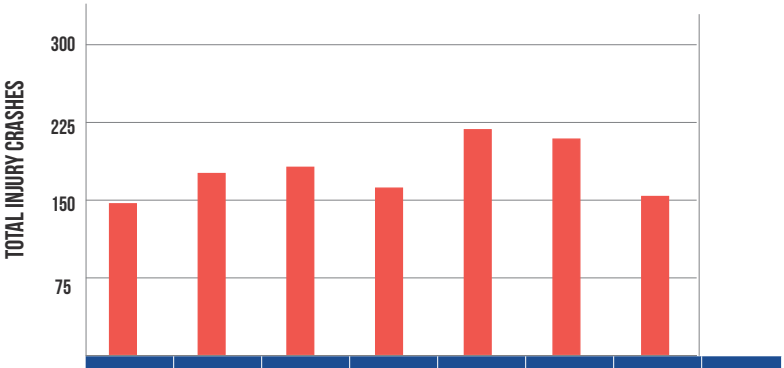
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)

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



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
HBD A INJURY	6	5	5	4	6	20	8	54
HBD B INJURY	3	6	6	2	4	13	10	44
HBD C INJURY	3	7	6	8	6	12	7	49

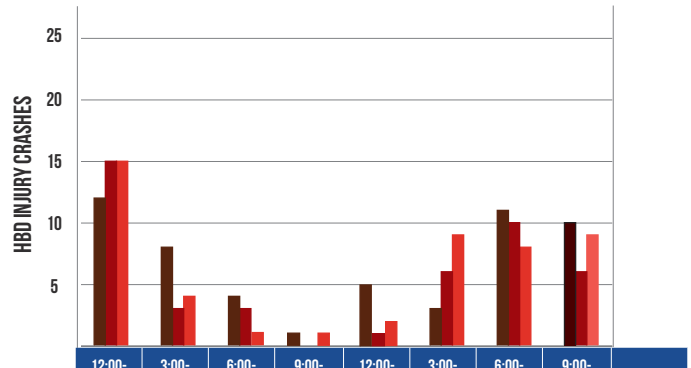
TOTAL INJURY CRASHES BY DAY OF THE WEEK



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
TOTAL INJURY CRASHES	145	174	180	160	216	207	152	1,234

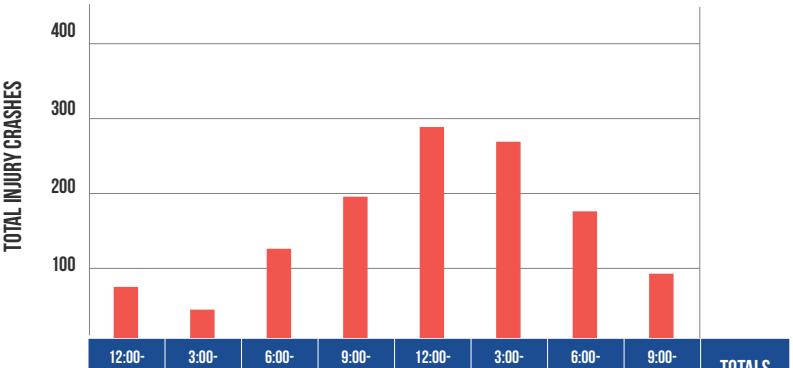
The peak day for all injury crashes is Friday. The highest proportion of had-been-drinking injury crashes to total injury crashes occurred on Saturday (21.7%).

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 INJURY	12	8	4	1	5	3	11	10	54
HBD B INJURY	15	3	3	0	1	6	10	6	44
HBD C INJURY	15	4	1	1	2	9	8	9	49

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	69	38	121	192	287	267	172	87	1,233

Total injury crash frequencies peak in the hours between 12:00 PM and 2:59 PM, while had-been-drinking injury crash frequencies peak between 12:00 AM and 2:59 AM. There were no had-been-drinking injury crashes and one injury crash 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	5	0.1	0	0.0	0	4	1	0
14 years	1	0.0	0	0.0	1	0	0	0
15 years	20	0.3	1	2.5	3	7	3	6
16 years	119	1.6	0	0.0	5	7	15	92
17 years	138	1.9	1	2.5	9	9	17	102
18 years	184	2.5	0	0.0	4	6	24	150
19 years	193	2.6	1	2.5	5	12	24	151
20 years	212	2.9	0	0.0	5	11	25	171
21 - 24 years	664	9.0	3	7.5	16	30	60	555
25 - 34 years	1,174	15.9	3	7.5	36	40	94	1,001
35 - 44 years	1,022	13.9	3	7.5	26	46	80	867
45 - 54 years	1,141	15.5	12	30.0	26	43	67	993
55 - 64 years	1,248	16.9	7	17.5	35	43	85	1,078
65 - 69 years	460	6.2	3	7.5	6	15	44	392
70 - 74 years	359	4.9	2	5.0	5	15	25	312
75 - 79 years	199	2.7	1	2.5	3	9	18	168
80 - 84 years	126	1.7	1	2.5	1	7	7	110
85 - 89 years	58	0.8	2	5.0	4	3	9	40
90 years and over	25	0.3	0	0.0	1	5	3	16
Unknown	22	0.3	0	0.0	0	2	2	18
Total	7,370	100.0	40	100.0	191	314	603	6,222

The male driver age group 45 to 54 experienced the highest number of fatal crashes, and the male driver age group 25 to 34 experienced the highest number of injury crashes. Property damage only crashes were highest among the male driver age group 55 to 64.

***Note: This table excludes 626 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	3	1.1	0	0.0	0	0	0	3
17 years	2	0.7	0	0.0	1	0	0	1
18 years	2	0.7	0	0.0	0	0	1	1
19 years	11	4.1	0	0.0	2	1	0	8
20 years	6	2.2	0	0.0	1	0	0	5
21 - 24 years	38	14.0	0	0.0	6	5	9	18
25 - 34 years	72	26.6	3	25.0	13	5	10	41
35 - 44 years	46	17.0	0	0.0	4	9	6	27
45 - 54 years	47	17.3	5	41.7	5	4	6	27
55 - 64 years	28	10.3	3	25.0	3	4	3	15
65 - 69 years	13	4.8	1	8.3	2	1	4	5
70 - 74 years	2	0.7	0	0.0	0	0	0	2
75 - 79 years	1	0.4	0	0.0	0	0	0	1
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	0	0.0	0	0.0	0	0	0	0
Unknown	0	0.0	0	0.0	0	0	0	0
Total	271	100.0	12	100.0	37	29	39	154

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	0	1	1	0
14 years	4	0.1	0	0.0	0	2	1	1
15 years	2	0.0	0	0.0	0	0	1	1
16 years	114	2.3	0	0.0	2	8	12	92
17 years	122	2.4	1	9.1	1	8	15	97
18 years	161	3.2	1	9.1	5	7	14	134
19 years	135	2.7	0	0.0	3	7	13	112
20 years	151	3.0	0	0.0	4	7	25	115
21 - 24 years	459	9.1	1	9.1	3	15	58	382
25 - 34 years	889	17.6	1	9.1	18	23	103	744
35 - 44 years	760	15.0	2	18.2	18	30	79	631
45 - 54 years	768	15.2	2	18.2	14	16	67	669
55 - 64 years	792	15.7	1	9.1	11	17	75	688
65 - 69 years	237	4.7	1	9.1	3	7	25	201
70 - 74 years	193	3.8	0	0.0	2	5	21	165
75 - 79 years	119	2.4	0	0.0	3	4	16	96
80 - 84 years	81	1.6	1	9.1	1	2	7	70
85 - 89 years	38	0.8	0	0.0	0	1	4	33
90 years and over	13	0.3	0	0.0	0	1	1	11
Unknown	14	0.3	0	0.0	0	0	1	13
Total	5,054	100.0	11	100.0	88	161	539	4,255

The female driver age groups 35 to 44 and 45 to 54 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 626 drivers of unknown gender.*

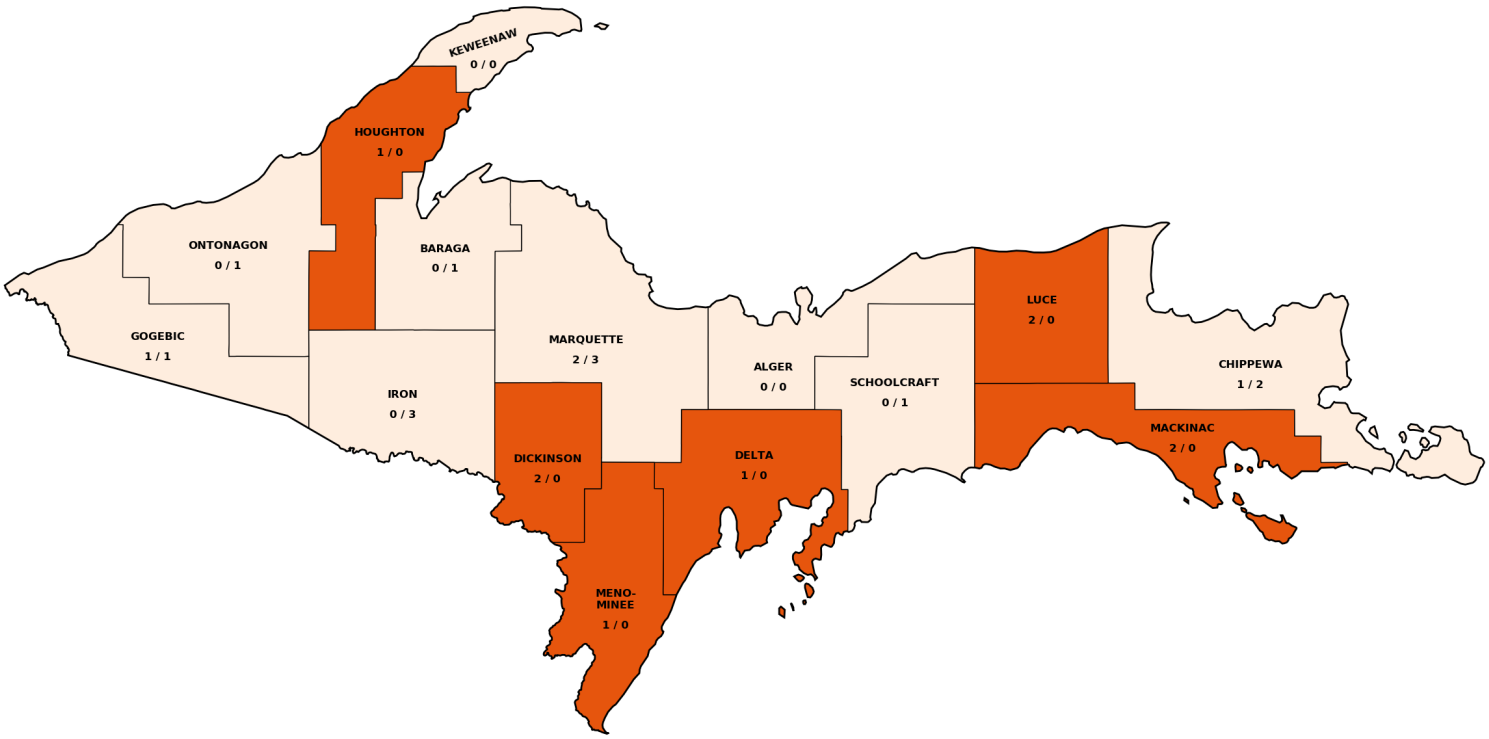
UPPER PENINSULA FEMALE DRINKING DRIVERS BY AGE AND INJURY SEVERITY IN CRASH

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	0	0.0	0	0.0	0	0	0	0
16 years	0	0.0	0	0.0	0	0	0	0
17 years	4	4.7	0	0.0	0	1	1	2
18 years	2	2.3	0	0.0	0	0	0	2
19 years	1	1.2	0	0.0	0	0	0	1
20 years	2	2.3	0	0.0	1	1	0	0
21 - 24 years	12	14.0	0	0.0	1	1	3	7
25 - 34 years	19	22.1	0	0.0	4	4	0	11
35 - 44 years	18	20.9	1	100.0	4	1	1	11
45 - 54 years	14	16.3	0	0.0	4	2	2	6
55 - 64 years	9	10.5	0	0.0	0	1	1	7
65 - 69 years	3	3.5	0	0.0	0	1	0	2
70 - 74 years	2	2.3	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	0	0.0	0	0.0	0	0	0	0
Unknown	0	0.0	0	0.0	0	0	0	0
Total	86	100.0	1	100.0	14	12	9	50

The female drinking driver age groups 25-34 and 45-54 experienced the highest number of injury crashes. The age groups 25-34 and 35-44 experienced the highest number of 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
2017 = 13 / 2016 = 12

- Same or decrease
- Increase

DEER

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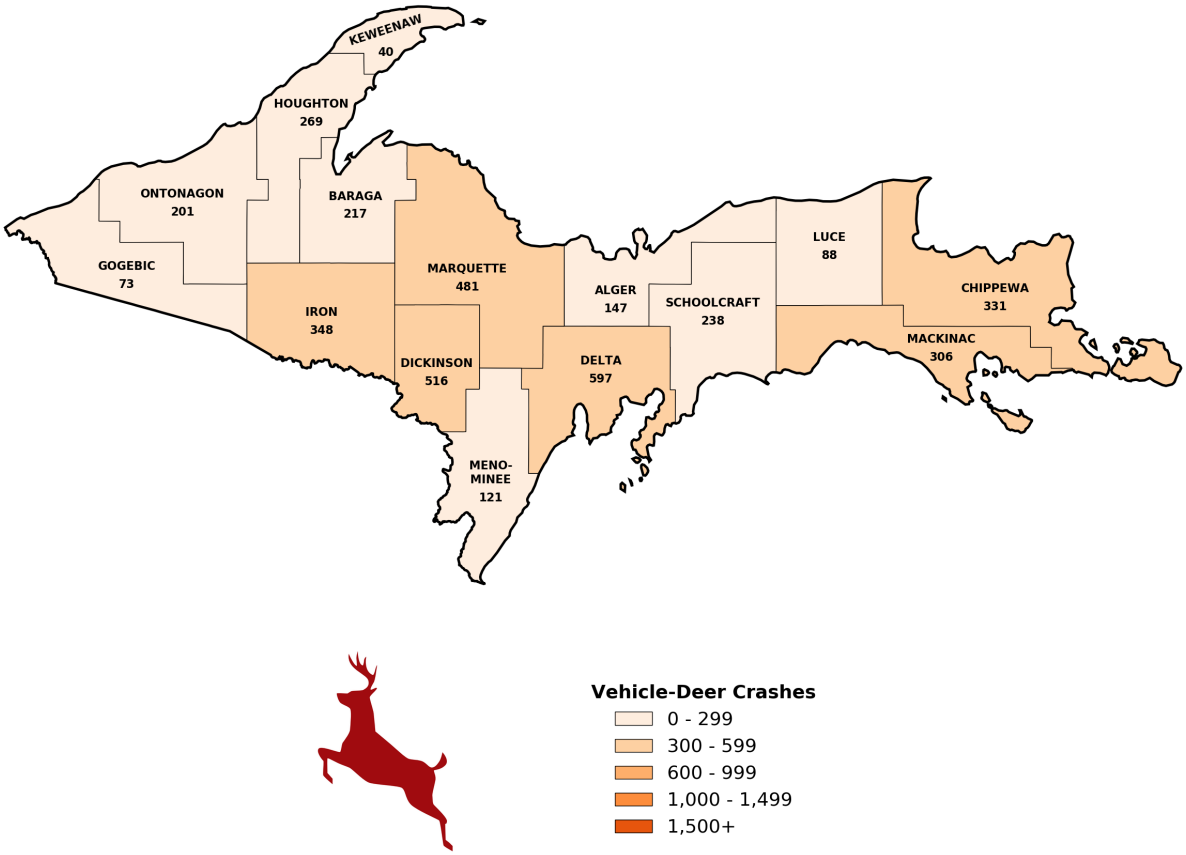
UPPER PENINSULA MICHIGAN MOTOR VEHICLE-DEER INVOLVED CRASHES



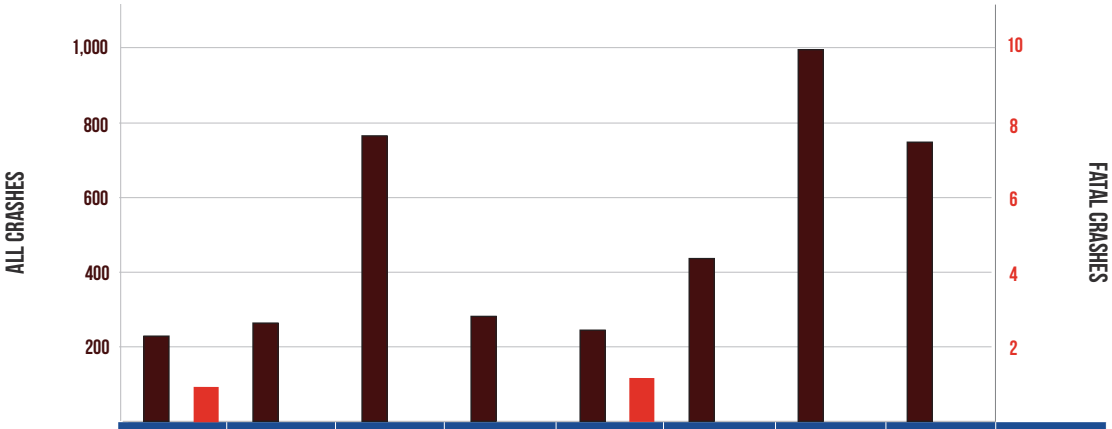
The Upper Peninsula had 3,973 reported vehicle-deer crashes during 2017. Those collisions resulted in 93 people injured and two killed. Of the 3,981 vehicles involved, 3,006 (75.5%) were passenger cars, SUVs, or vans; 876 (22.0%) were pickups; and 10 (0.3%) were motorhomes. All other vehicle types (including motorcycle, snowmobile, ORV/ATV, large truck, and moped; uncoded and errors are also included) totaled 89 (2.2%).

In the Upper Peninsula, 41.6 percent of crashes in all counties involved deer. This compares to 16.2 percent for the number of deer-involved crashes statewide. Delta County had the highest number of vehicle-deer crashes (597), translating to 44.8 percent of the total crashes in that county in 2017.

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	1,183	29.8	1	50.0	3	16	18	1,145
Dawn	308	7.8	0	0.0	0	1	2	305
Dusk	283	7.1	0	0.0	1	1	2	279
Dark - Lighted	143	3.6	0	0.0	0	0	2	141
Dark - Unlighted	2,022	50.9	1	50.0	3	10	25	1,983
Other/Unknown	34	0.9	0	0.0	0	0	0	34
Total	3,973	100.0	2	100.0	7	28	49	3,887

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	229	264	766	282	245	437	997	749	3,969
FATAL CRASHES	1	0	0	0	1	0	0	0	2

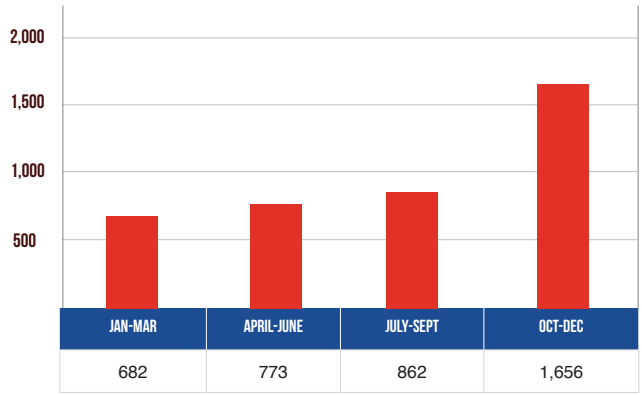
The highest number of reported vehicle-deer collisions occurred during the 6:00 PM to 8:59 PM time period, when 25.1 percent (997) of the vehicle-deer crashes occurred. One fatal vehicle-deer crash occured in the midnight to 2:59 AM time period and in the noon to 2:59 PM time period in the Upper Peninsula in 2017.

Note: Time and Severity chart excludes 4 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	225	5.7	0	0.0	1	1	1	222
February	224	5.6	0	0.0	1	2	1	220
March	233	5.9	0	0.0	0	1	1	231
April	212	5.3	0	0.0	1	3	4	204
May	193	4.9	0	0.0	0	2	3	188
June	368	9.3	1	50.0	0	3	6	358
July	246	6.2	0	0.0	0	4	5	237
August	238	6.0	0	0.0	1	4	5	228
September	378	9.5	0	0.0	2	4	2	370
October	588	14.8	1	50.0	1	1	6	579
November	609	15.3	0	0.0	0	1	9	599
December	459	11.6	0	0.0	0	2	6	451
Total	3,973	100.0	2	100.0	7	28	49	3,887

MOTOR VEHICLE — DEER CRASHES



Of the total 3,887 reported vehicle-deer collisions in the Upper Peninsula, 42.6 percent (1,656) 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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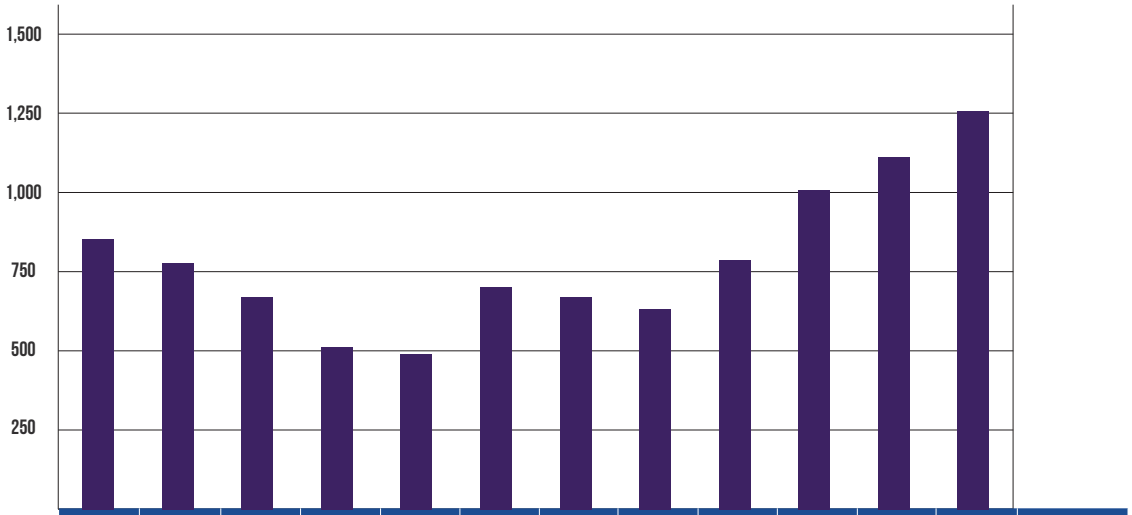
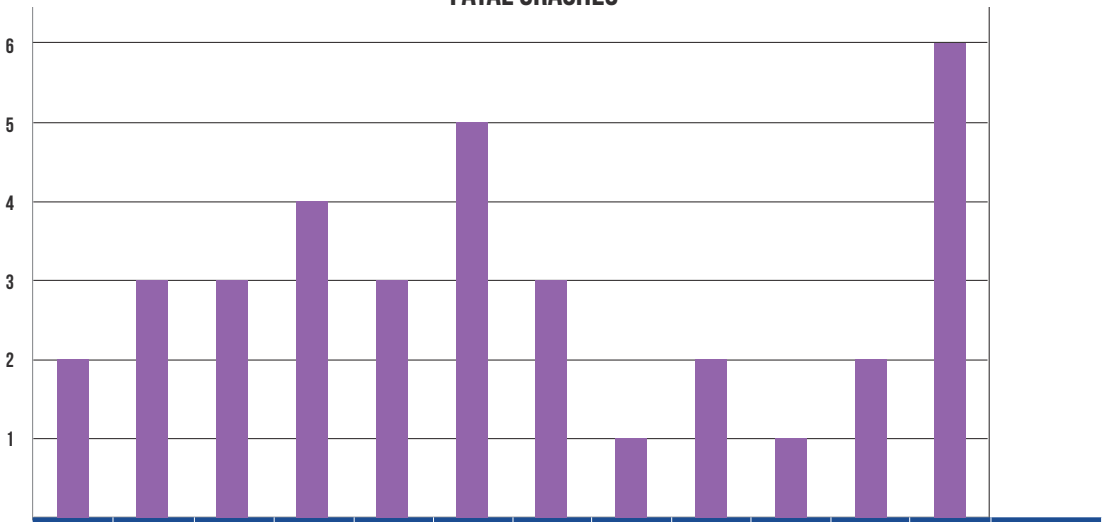
UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH

TOTAL CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
861	783	676	516	494	706	676	637	794	1,015	1,119	1,265	9,542

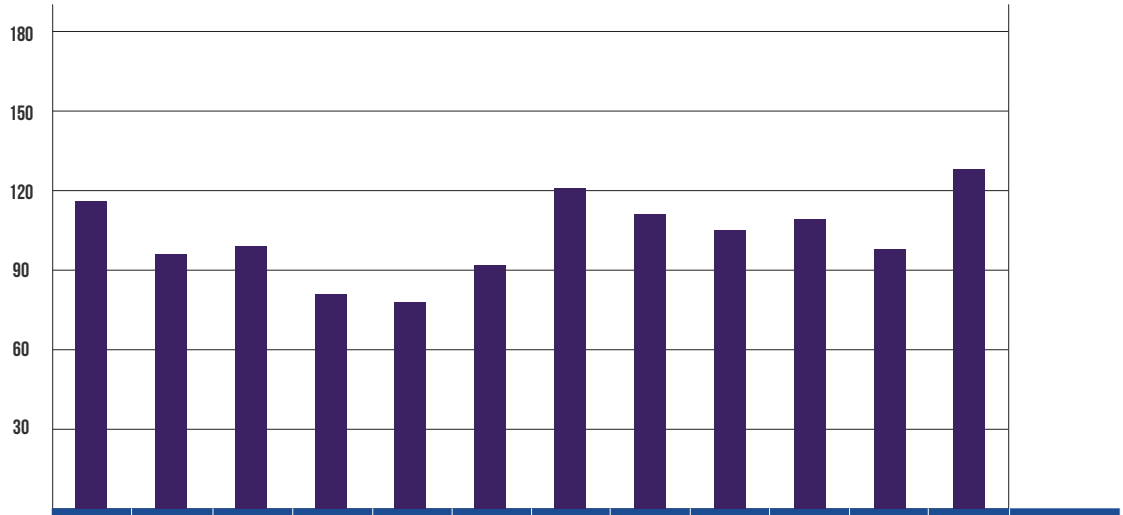
FATAL CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
2	3	3	4	3	5	3	1	2	1	2	6	35

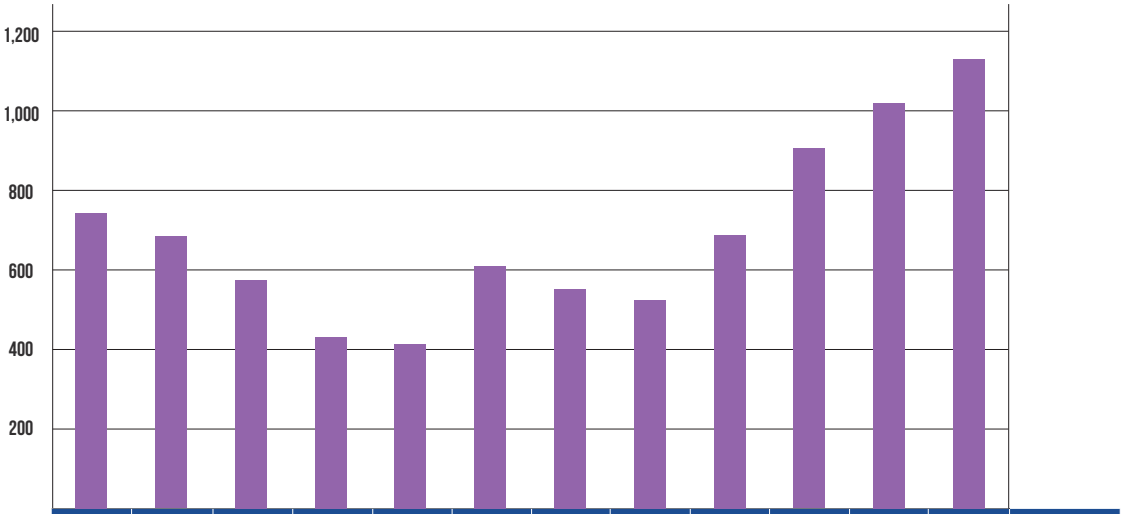
UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH (CONTINUED)

INJURY CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
116	96	99	81	78	92	121	111	105	109	98	128	1,234

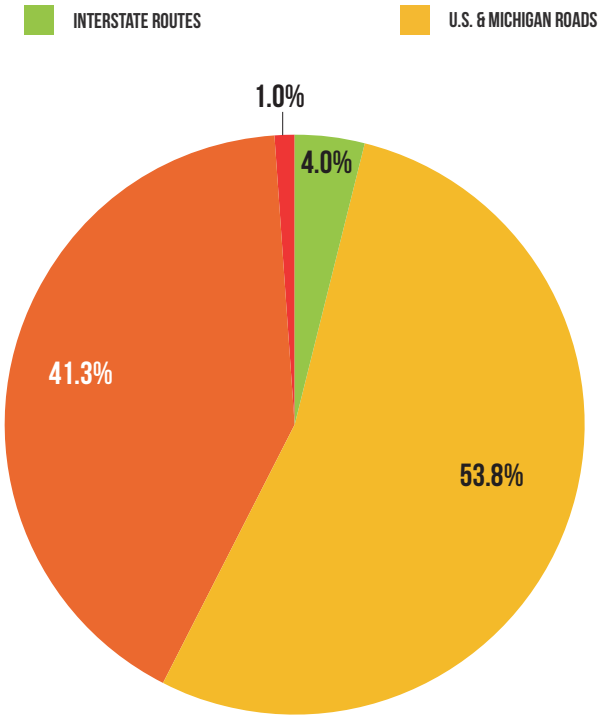
PROPERTY DAMAGE ONLY CRASHES



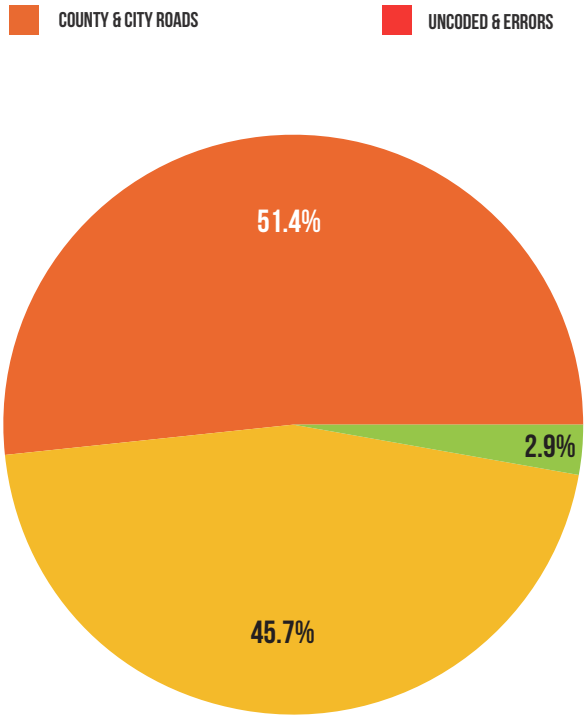
J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
743	684	574	431	413	609	552	525	687	905	1,019	1,131	8,273

UPPER PENINSULA CRASH EXPERIENCE BY HIGHWAY CLASS

HIGHWAY CLASS	ALL CRASHES	FATAL CRASHES	INJURY CRASHES	PROPERTY DAMAGE ONLY
Interstate Routes	380	1	58	321
U.S. & Michigan Roads	5,130	16	617	4,497
County & City Roads	3,941	18	537	3,386
Uncoded & Errors	91	0	22	69
TOTAL	9,542	35	1,234	8,273



ALL CRASHES



FATAL CRASHES

The highest percentage of all crashes (53.8%), injury crashes (50.0%), and property damage only crashes (54.4%) occurred on U.S. and Michigan roads. The highest percentage of fatal crashes (51.4%) occurred on county and city 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	6,151	64.5	18	51.4	120	190	293	5,530
Head On	86	0.9	3	8.6	15	8	9	51
Head On - Left Turn	128	1.3	0	0.0	5	13	25	85
Angle	897	9.4	6	17.1	22	42	138	689
Rear End	964	10.1	5	14.3	12	31	155	761
Rear End - Left Turn	98	1.0	0	0.0	2	8	12	76
Rear End - Right Turn	44	0.5	0	0.0	0	1	5	38
Sideswipe - Same Direction	426	4.5	0	0.0	3	8	20	395
Sideswipe - Opposite Direction	145	1.5	0	0.0	7	5	20	113
Backing	159	1.7	0	0.0	1	0	1	157
Other/Unknown	444	4.7	3	8.6	8	27	28	378
TOTAL	9,542	100.0	35	100.0	195	333	706	8,273

RELATIONSHIP TO ROADWAY

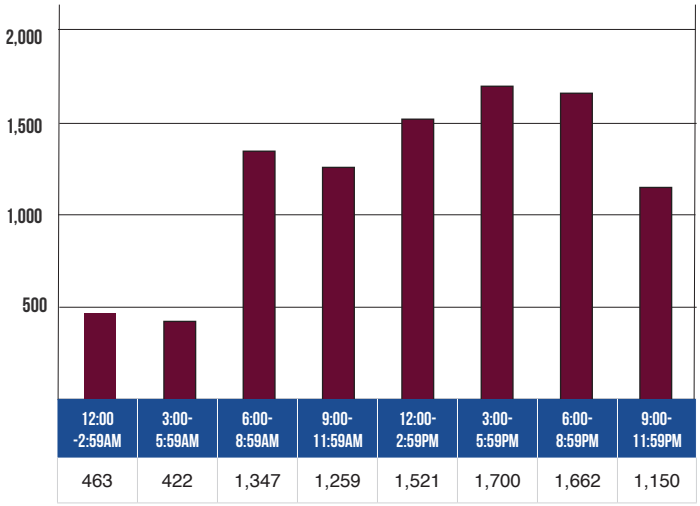
LOCATION OF FIRST IMPACT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
On Road	7,718	80.9	22	62.9	119	228	508	6,841
Median	49	0.5	0	0.0	1	4	5	39
Shoulder	563	5.9	5	14.3	28	33	52	445
Outside of Shoulder/Curb	940	9.9	8	22.9	42	59	125	706
Gore	32	0.3	0	0.0	1	2	4	25
On-Street Parking	172	1.8	0	0.0	1	2	6	163
Off the Roadway	6	0.1	0	0.0	1	1	0	4
On the Sidewalk	15	0.2	0	0.0	1	0	1	13
In the Bicycle Lane	2	0.0	0	0.0	0	0	0	2
Other/Unknown	45	0.5	0	0.0	1	4	5	35
TOTAL	9,542	100.0	35	100.0	195	333	706	8,273

In the Upper Peninsula, only 9.9 percent of crashes occur outside of the shoulder/curb of the road, but these crashes account for 22.9 percent of the fatal crashes.

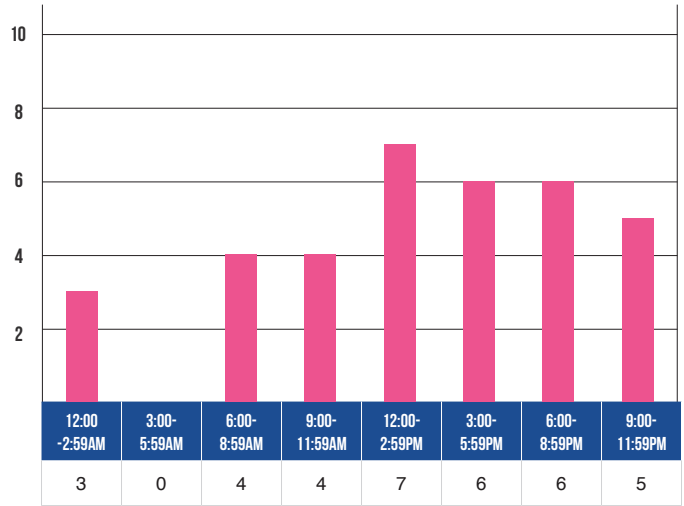
UPPER PENINSULA TIME AND SEVERITY

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	463	4.9	3	8.6	14	26	29	391
3:00 AM - 5:59 AM	422	4.4	0	0.0	10	9	19	384
6:00 AM - 8:59 AM	1,347	14.1	4	11.4	18	30	73	1,222
9:00 AM - 11:59 AM	1,259	13.2	4	11.4	27	44	121	1,063
12:00 PM - 2:59 PM	1,521	15.9	7	20.0	33	82	172	1,227
3:00 PM - 5:59 PM	1,700	17.8	6	17.1	38	67	162	1,427
6:00 PM - 8:59 PM	1,662	17.4	6	17.1	40	49	83	1,484
9:00 PM - 11:59 PM	1,150	12.1	5	14.3	15	26	46	1,058
Unknown	18	0.2	0	0.0	0	0	1	17
TOTAL	9,542	100.0	35	100.0	195	333	706	8,273

ALL CRASHES BY TIME OF DAY



FATAL CRASHES BY TIME OF DAY

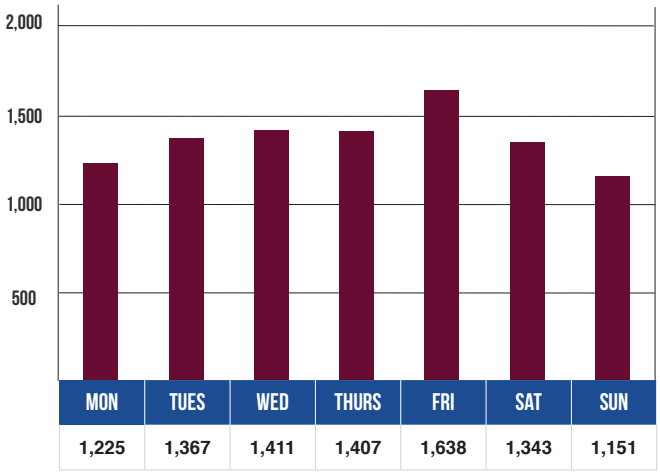


In the Upper Peninsula, crash frequencies peak in the early evening, then drop off until 6:00 AM (the morning rush hour). In 2017, the highest percentage of fatal crashes occurs during the 12:00 PM to 2:59 PM time period (20.0%).

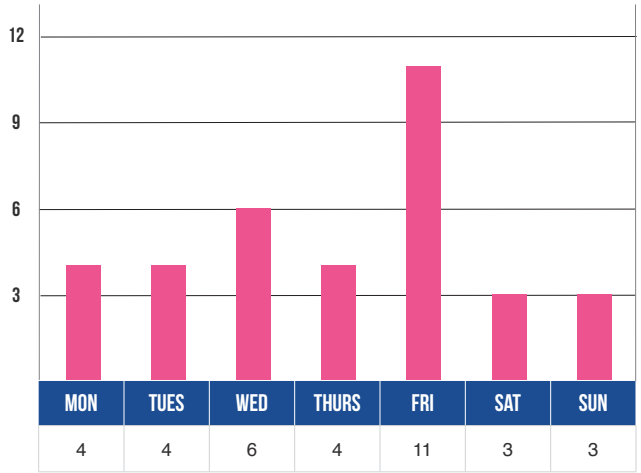
UPPER PENINSULA DAY OF WEEK

DAY OF WEEK	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Monday	1,225	12.8	4	11.4	17	36	92	1,076
Tuesday	1,367	14.3	4	11.4	23	45	106	1,189
Wednesday	1,411	14.8	6	17.1	25	55	100	1,225
Thursday	1,407	14.7	4	11.4	23	38	99	1,243
Friday	1,638	17.2	11	31.4	32	45	139	1,411
Saturday	1,343	14.1	3	8.6	39	69	99	1,133
Sunday	1,151	12.1	3	8.6	36	45	71	996
TOTAL	9,542	100.0	35	100.0	195	333	706	8,273

ALL CRASHES BY DAY OF THE WEEK



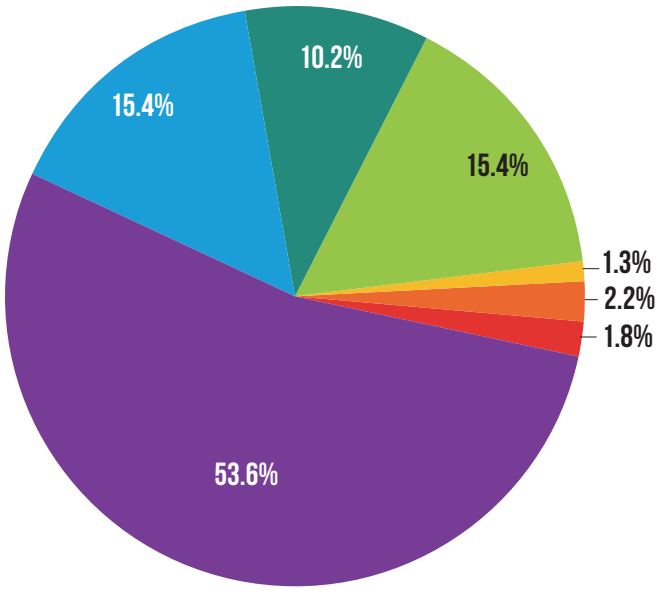
FATAL CRASHES BY DAY OF THE WEEK



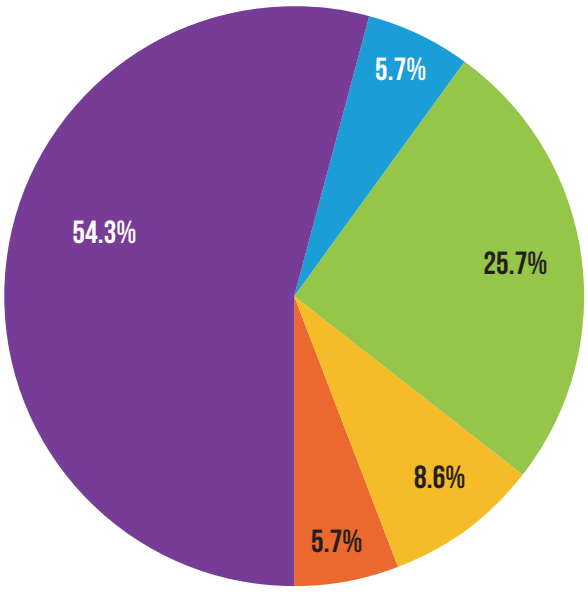
In the Upper Peninsula, crash frequencies are the highest on Friday (1,638). Friday also has the highest number of fatal crashes (11).

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	5,116	53.6	19	54.3	94	189	334	4,480
Wet	1,468	15.4	2	5.7	29	43	118	1,276
Ice	975	10.2	0	0.0	21	29	101	824
Snow	1,470	15.4	9	25.7	25	36	108	1,292
Mud, Dirt, Gravel	116	1.2	3	8.6	18	18	12	65
Slush	209	2.2	2	5.7	3	12	26	166
Debris	4	0.0	0	0.0	0	0	1	3
Water (Standing/Moving)	3	0.0	0	0.0	0	0	0	3
Sand	6	0.1	0	0.0	2	4	0	0
Oily	3	0.0	0	0.0	0	0	0	3
Other/Unknown	172	1.8	0	0.0	3	2	6	161
TOTAL	9,542	100.0	35	100.0	195	333	706	8,273



ALL CRASHES

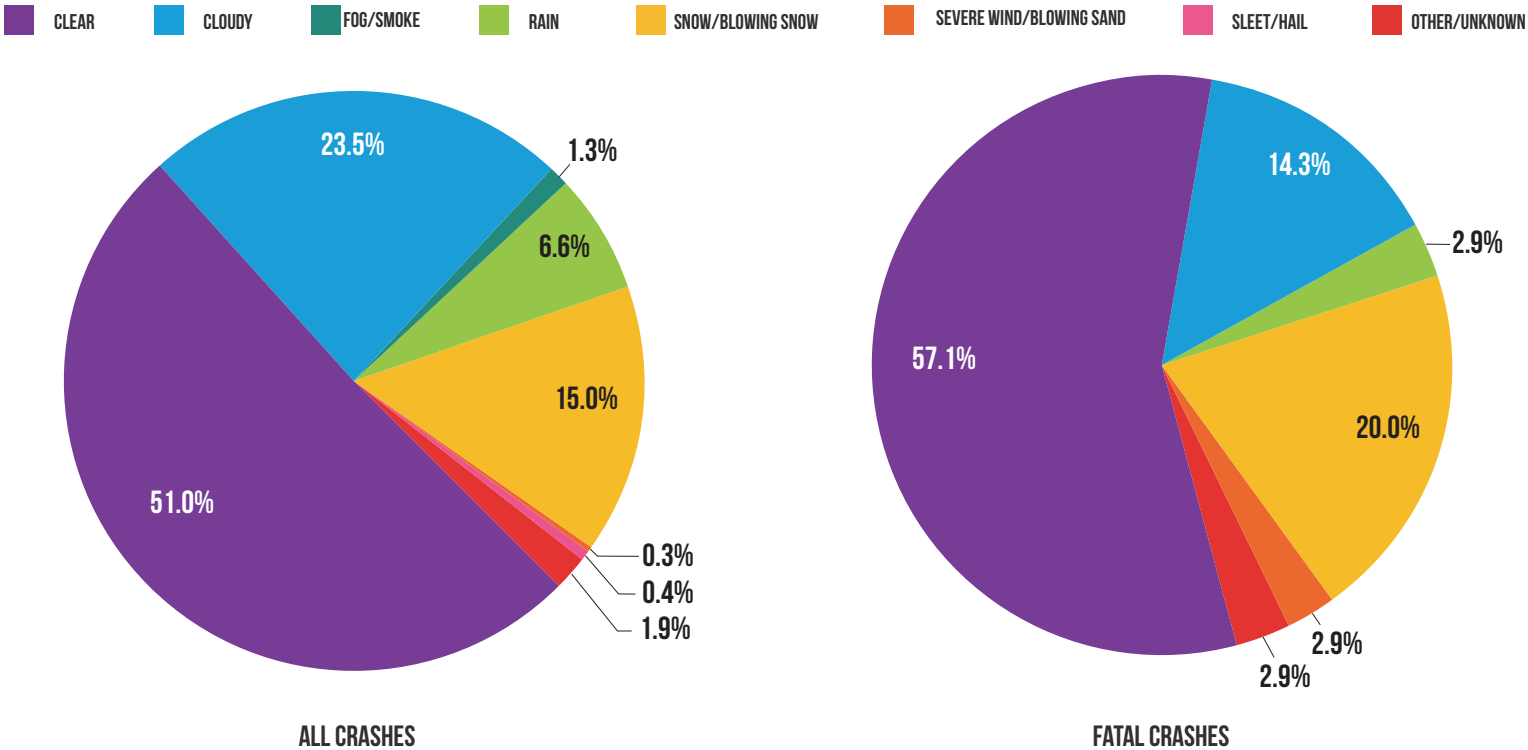


FATAL CRASHES

In the Upper Peninsula, the highest percentage of all crashes (53.6%), fatal crashes (54.3%), injury crashes (50.0%), and property damage only crashes (54.2%) 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	4,865	51.0	20	57.1	105	196	331	4,213
Cloudy	2,244	23.5	5	14.3	35	58	190	1,956
Fog	124	1.3	0	0.0	4	6	6	108
Rain	634	6.6	1	2.9	17	29	57	530
Snow	1,183	12.4	6	17.1	18	33	89	1,037
Severe Wind	24	0.3	1	2.9	0	1	2	20
Sleet/Hail	38	0.4	0	0.0	2	0	6	30
Blowing Snow	248	2.6	1	2.9	9	10	22	206
Blowing Sand	2	0.0	0	0.0	0	0	0	2
Smoke	2	0.0	0	0.0	0	0	0	2
Other/Unknown	178	1.9	1	2.9	5	0	3	169
TOTAL	9,542	100.0	35	100.0	195	333	706	8,273



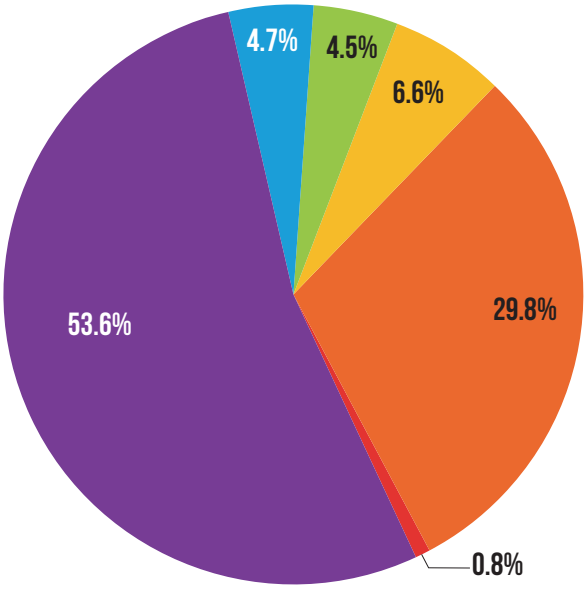
ALL CRASHES

FATAL CRASHES

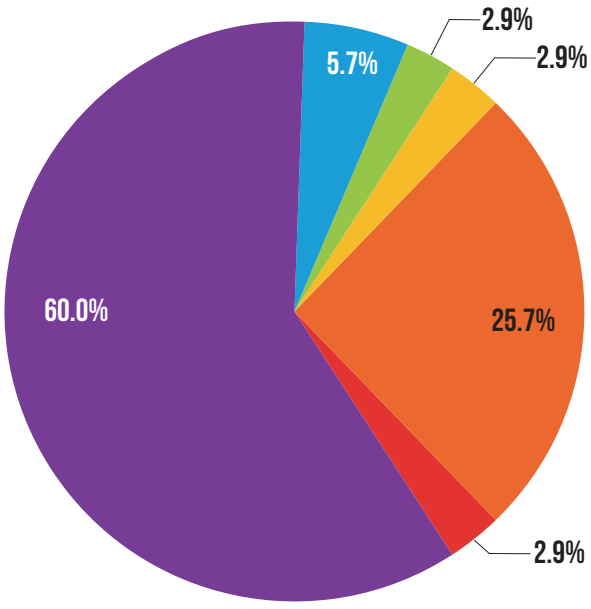
In the Upper Peninsula, the highest percentage of all crashes (51.0%), fatal crashes (57.1%), injury crashes (51.2%), and property damage only crashes (50.9%) occur during clear weather conditions.

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	5,117	53.6	21	60.0	128	235	514	4,219
Dawn	445	4.7	2	5.7	5	5	21	412
Dusk	434	4.5	1	2.9	5	7	18	403
Dark – Lighted	633	6.6	1	2.9	10	20	43	559
Dark – Unlighted	2,840	29.8	9	25.7	46	66	110	2,609
Other/Unknown	73	0.8	1	2.9	1	0	0	71
TOTAL	9,542	100.0	35	100.0	195	333	706	8,273



ALL CRASHES

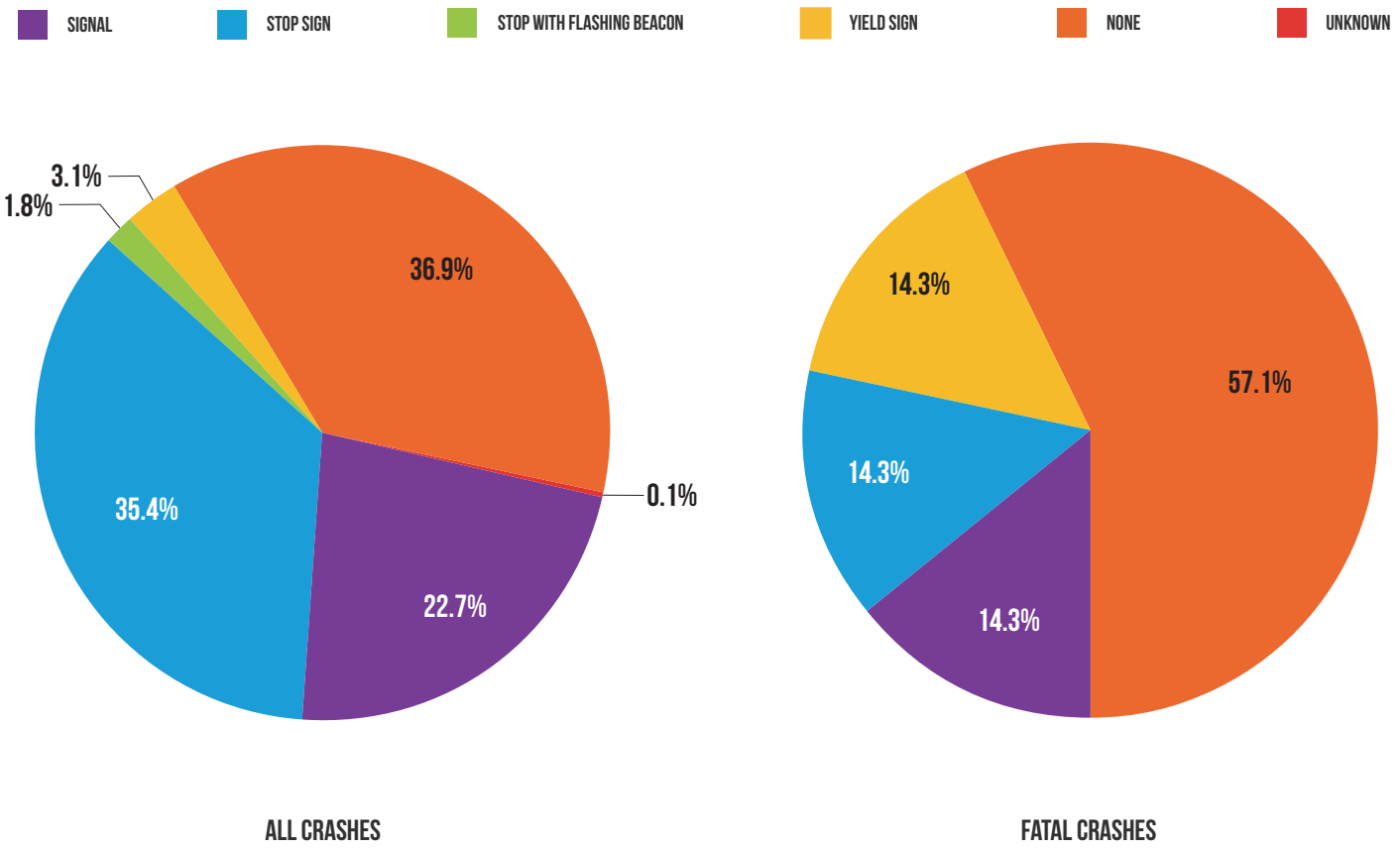


FATAL CRASHES

In the Upper Peninsula, the highest percentage of all crashes (53.6%), fatal crashes (60.0%), injury crashes (71.1%), and property damage only crashes (51.0%) occur during daylight hours.

UPPER PENINSULA INTERSECTION CRASHES BY TRAFFIC CONTROL TYPE

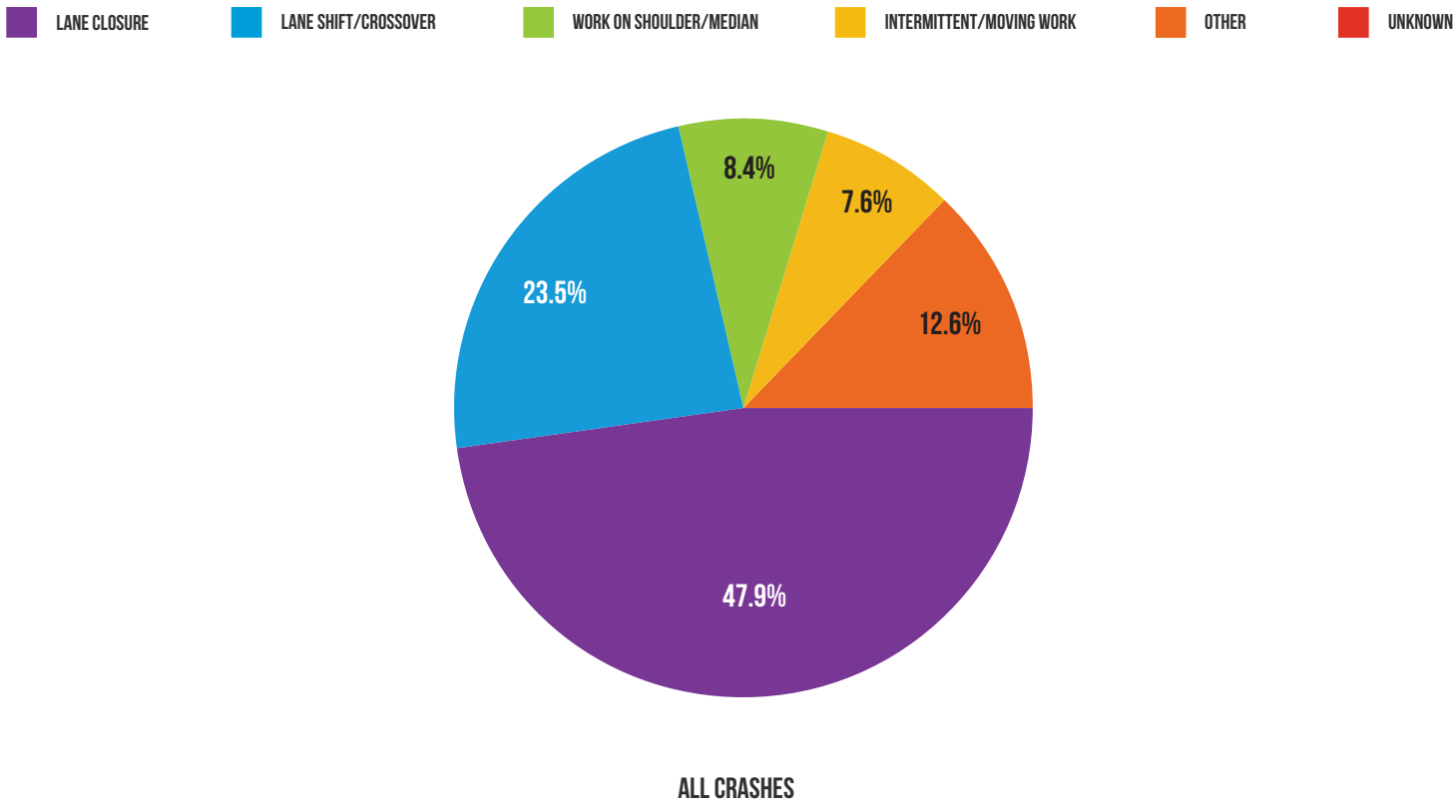
TRAFFIC CONTROL TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Signal	507	22.7	1	14.3	8	26	83	389
Stop Sign	788	35.4	1	14.3	21	36	104	626
Stop with Flashing Beacon	41	1.8	0	0.0	1	1	6	33
Yield Sign	69	3.1	1	14.3	0	0	13	55
None of These	822	36.9	4	57.1	27	48	89	654
Unknown	2	0.1	0	0.0	0	0	1	1
TOTAL	2,229	100.0	7	100.0	57	111	296	1,758



Compared to other intersection crashes, Upper Peninsula intersections with no traffic control signals have the highest percentage of all crashes (36.9%) and fatal crashes (57.1%).

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	57	47.9	1	100.0	0	4	9	43
Lane Shift/Crossover	28	23.5	0	0.0	0	1	3	24
Work on Shoulder/Median	10	8.4	0	0.0	0	2	1	7
Intermittent/Moving Work	9	7.6	0	0.0	0	0	1	8
Other	15	12.6	0	0.0	1	1	1	12
Unknown	0	0.0	0	0.0	0	0	0	0
TOTAL	119	100.0	1	100.0	1	8	15	94



ALL CRASHES

For crashes taking place in construction/maintenance zones, the highest percentage of all crashes (47.9%), injury crashes (54.2%), and property damage only crashes (45.7%) in construction zones occur in closed lanes.

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	**0**	**0.0**	**0**	**0.0**	**0**	**0**	**0**	**0**
Lane Shift/Crossover	**0**	**0.0**	**0**	**0.0**	**0**	**0**	**0**	**0**
Work on Shoulder/Median	**1**	**100.0**	**0**	**0.0**	**0**	**0**	**0**	**1**
Intermittent/Moving Work	**0**	**0.0**	**0**	**0.0**	**0**	**0**	**0**	**0**
Other	**0**	**0.0**	**0**	**0.0**	**0**	**0**	**0**	**0**
Unknown	**0**	**0.0**	**0**	**0.0**	**0**	**0**	**0**	**0**
TOTAL	**1**	**100.0**	**0**	**0.0**	**0**	**0**	**0**	**1**

The only crash that occured in a utility construction zone in the Upper Penninsula in 2017 was a property damage only crash that occured when work was being done on the shoulder/median.

VEHICLE/DRIVER

(characteristics specific to individual traffic units)

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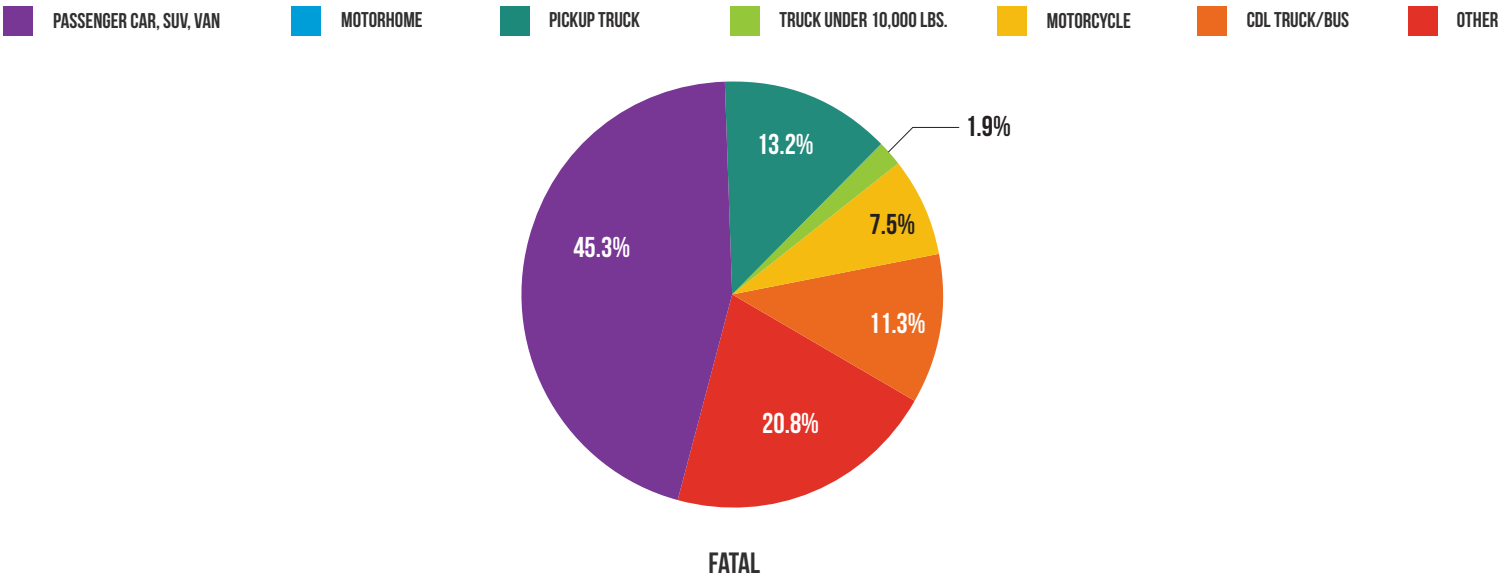
UPPER PENINSULA VEHICLE TYPE AND CRASH INVOLVEMENT

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	9,284	71.1	24	45.3	1,301	7,959	18	51.4	917	8,349
Motorhome	24	0.2	0	0.0	3	21	0	0.0	2	22
Pickup truck	2,844	21.8	7	13.2	384	2,453	2	5.7	240	2,602
Small Truck under 10,000 lbs. GVWR	107	0.8	1	1.9	14	92	1	2.9	5	101
Motorcycle	97	0.7	4	7.5	70	23	4	11.4	69	24
Moped / goped	13	0.1	1	1.9	12	0	1	2.9	12	0
Go-cart / golf cart	3	0.0	1	1.9	1	1	1	2.9	1	1
Snowmobile	47	0.4	4	7.5	26	17	3	8.6	25	19
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	70	0.5	3	5.7	54	13	3	8.6	51	16
Other	69	0.5	2	3.8	9	58	0	0.0	5	64
Unknown	160	1.2	0	0.0	11	149	0	0.0	0	160
CDL Truck/Bus (break-down below)	332	2.5	6	11.3	45	281	2	5.7	12	318
Total Number of Vehicles	13,050	100.0	53	100.0	1,930	11,067	35	100.0	1,339	11,676

Note: School bus cannot be broken out of CDL Truck/Bus

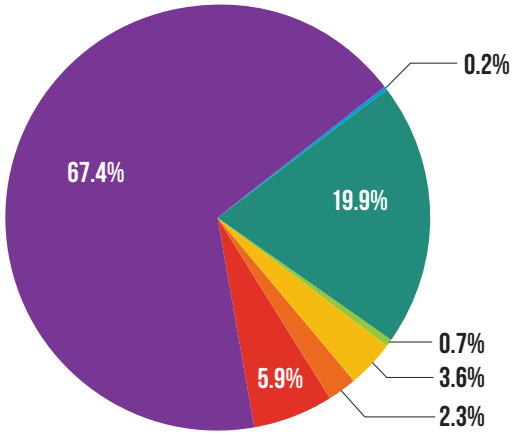
CDL TRUCK/BUS SUB-CATEGORY TYPE	MOTOR VEHICLES		FATAL CRASH		INJURY CRASH	PROPERTY DAMAGE ONLY	FATALITY IN VEHICLE		INJURY	NO INJURY
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
10,000 lbs. or Less	9	2.7	0	0.0	0	9	0	0.0	0	9
10,001 - 26,000 lbs.	85	25.6	1	16.7	14	70	1	50.0	6	78
Greater than 26,000 lbs.	233	70.2	5	83.3	31	197	1	50.0	6	226
Unknown Truck	5	1.5	0	0.0	0	5	0	0.0	0	5
Total Number of Vehicles	332	100.0	6	100.0	45	281	2	100.0	12	318

UPPER PENINSULA VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

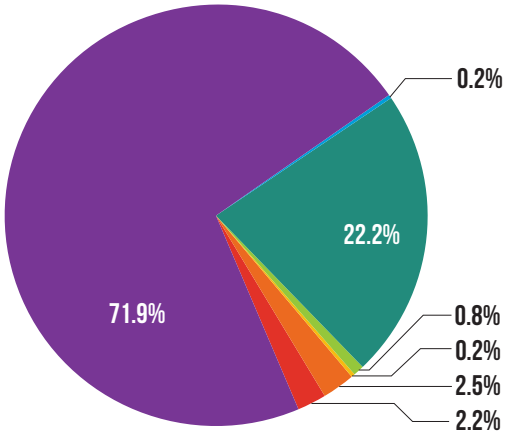


FATAL

The top chart shows that 60.4 percent of vehicles involved in fatal crashes in the Upper Peninsula are passenger vehicles (passenger cars, station wagons, vans, minivans, motorhomes, pickups, or trucks under 10,000 lbs.). Motorcycles have a fatal crash involvement of 7.5 percent.



INJURY



PROPERTY DAMAGE ONLY

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 (88.2%) and property damage only (PDO) crashes (95.1%) 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	8,722	66.8	36	199	328	710	7,449
Turning left	648	5.0	2	21	43	100	482
Turning right	334	2.6	1	3	10	25	295
Stopped on roadway	574	4.4	1	3	18	89	463
In prior crash	10	0.1	0	1	0	2	7
Changing lanes	125	1.0	1	0	1	9	114
Backing	389	3.0	0	1	0	5	383
Slowing/stopping on roadway	671	5.1	2	18	12	100	539
Slowing/stopping other	24	0.2	0	1	1	4	18
Starting up on roadway	179	1.4	1	0	10	19	149
Starting up other	3	0.0	0	0	0	0	3
Entering parking	26	0.2	1	0	0	1	24
Leaving parking	59	0.5	0	2	1	8	48
Entering roadway	167	1.3	2	4	10	27	124
Leaving roadway	22	0.2	1	0	3	2	16
Making U-turn	26	0.2	0	0	2	1	23
Overtaking or passing	102	0.8	1	3	4	13	81
Avoiding object	9	0.1	1	0	1	2	5
Avoiding animal	79	0.6	1	1	7	3	67
Avoiding pedestrian	2	0.0	0	0	0	0	2
Avoiding vehicle (front/back)	72	0.6	0	8	6	5	53
Avoiding vehicle (angle)	26	0.2	0	0	2	3	21
Driverless moving	8	0.1	0	0	1	0	7
Parked	488	3.7	2	2	6	15	463
Crossing at intersection	3	0.0	0	0	0	1	2
Crossing not at intersection	0	0.0	0	0	0	0	0
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	1	0.0	0	0	0	0	1
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	1	0.0	0	0	0	0	1
Negotiating a curve	146	1.1	0	14	14	10	108
Other	23	0.2	0	1	2	4	16
Unknown	111	0.9	0	0	4	4	103
TOTAL	13,050	100.0	53	282	486	1,162	11,067

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	67	69.1	77	70.0	3	22	25	9	18
Turning left	6	6.2	7	6.4	0	0	2	2	3
Turning right	1	1.0	1	0.9	0	0	0	0	1
Stopped on roadway	2	2.1	3	2.7	0	0	0	2	1
In prior crash	0	0.0	0	0.0	0	0	0	0	0
Changing lanes	2	2.1	2	1.8	1	0	0	0	1
Backing	0	0.0	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	2	2.1	2	1.8	0	0	0	2	0
Slowing/stopping other	1	1.0	1	0.9	0	0	0	1	0
Starting up on roadway	1	1.0	1	0.9	0	0	1	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	1.0	1	0.9	0	0	1	0	0
Leaving roadway	0	0.0	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0.0	0	0	0	0	0
Overtaking or passing	1	1.0	2	1.8	0	0	1	0	1
Avoiding object	0	0.0	0	0.0	0	0	0	0	0
Avoiding animal	1	1.0	1	0.9	0	0	1	0	0
Avoiding pedestrian	0	0.0	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	2	2.1	2	1.8	0	0	0	0	2
Avoiding vehicle (angle)	1	1.0	1	0.9	0	0	0	1	0
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	3	3.1	3	2.7	0	0	0	0	1
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	4	4.1	4	3.6	0	2	1	0	1
Other	2	2.1	2	1.8	0	0	1	0	1
Unknown	0	0.0	0	0.0	0	0	0	0	0
TOTAL	97	100.0	110	100.0	4	24	33	17	30

*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 Bicy-clists	% of Total		A	B	C	
Going straight ahead	16	55.2	0	0	9	7	0
Turning left	5	17.2	0	1	3	0	0
Turning right	0	0.0	0	0	0	0	0
Stopped on roadway	1	3.4	0	0	0	0	1
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	1	3.4	0	0	0	0	1
Starting up other	0	0.0	0	0	0	0	0
Entering parking	1	3.4	0	0	1	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	3	10.3	0	0	0	1	2
Crossing not at intersection	1	3.4	0	0	0	1	0
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	1	3.4	0	0	0	0	1
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	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	29	100.0	0	1	13	9	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	0	0.0	0	0	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	9	30.0	0	2	5	2	0
Crossing not at intersection	9	30.0	0	2	4	3	0
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	1	3.3	0	1	0	0	0
In roadway against traffic	2	6.7	0	1	0	1	0
Standing or lying in roadway	2	6.7	0	1	0	0	1
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	1	3.3	0	0	0	1	0
In roadway other reason	0	0.0	0	0	0	0	0
Not in roadway	4	13.3	0	2	1	1	0
Negotiating a curve	0	0.0	0	0	0	0	0
Other	1	3.3	0	0	1	0	0
Unknown	1	3.3	0	1	0	0	0
TOTAL	30	100.0	0	10	11	8	1

* 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	95	0.7	0	7	5	7	76
Cross center/median	18	0.1	0	1	1	3	13
Ran off road left	60	0.5	0	1	3	7	49
Ran off road right	92	0.7	0	0	4	12	76
Re-enter road	5	0.0	0	0	1	0	4
Overturn	355	2.7	5	22	42	68	218
Separation of units	9	0.1	0	0	1	1	7
Fire/explosion	18	0.1	0	1	0	2	15
Immersion	3	0.0	0	0	0	0	3
Jackknife	10	0.1	0	0	0	1	9
Downhill runaway	1	0.0	0	0	0	0	1
Cargo loss/shift	18	0.1	0	1	0	0	17
Individual fell off	26	0.2	0	11	11	4	0
Other noncollision	35	0.3	1	2	2	3	27
SUBTOTAL	745	5.7	6	46	70	108	515

COLLISION WITH A NONFIXED OBJECT	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Pedestrian	28	0.2	0	10	9	8	1
Bicycle / Pedalcycle	28	0.2	0	1	12	9	6
Motor vehicle in transport	6,040	46.3	32	149	266	820	4,773
Parked motor vehicle	501	3.8	2	4	5	20	470
Railway train	6	0.0	0	2	0	2	2
Animal	4,095	31.4	1	7	20	40	4,027
Other nonfixed objects	106	0.8	1	0	7	3	95
SUBTOTAL	10,804	82.8	36	173	319	902	9,374

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	4	0.0	0	0	1	0	3
Bridge rail	25	0.2	0	0	3	2	20
Guardrail face	95	0.7	0	1	5	13	76
Guardrail end	18	0.1	0	1	1	1	15
Median barrier	12	0.1	0	0	1	0	11
Highway traffic sign post	109	0.8	0	1	4	9	95
Highway signal post	2	0.0	0	0	0	0	2
Luminaire/light support	136	1.0	1	5	14	10	106
Other pole	31	0.2	0	1	0	1	29
Culvert	19	0.1	0	0	3	3	13
Curb	28	0.2	0	0	1	2	25
Ditch	230	1.8	1	10	11	35	173
Embankment	96	0.7	1	4	3	14	74
Fence	13	0.1	0	0	0	0	13
Mailbox	53	0.4	0	0	0	0	53
Tree	425	3.3	5	32	39	55	294
Rail crossing signal	3	0.0	0	0	1	0	2
Building	18	0.1	1	3	1	0	13
Traffic island	1	0.0	0	0	0	0	1
Fire hydrant	14	0.1	0	0	2	0	12
Impact attenuator	2	0.0	0	0	0	0	2
Other fixed object	51	0.4	1	5	2	4	39
SUBTOTAL	1,385	10.6	10	63	92	149	1,071

	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	116	0.9	1	0	5	3	107
MOST HARMFUL EVENT TOTAL	13,050	100.0	53	282	486	1,162	11,067

UPPER PENINSULA VEHICLE DEFECTS IN CRASH INVOLVEMENT

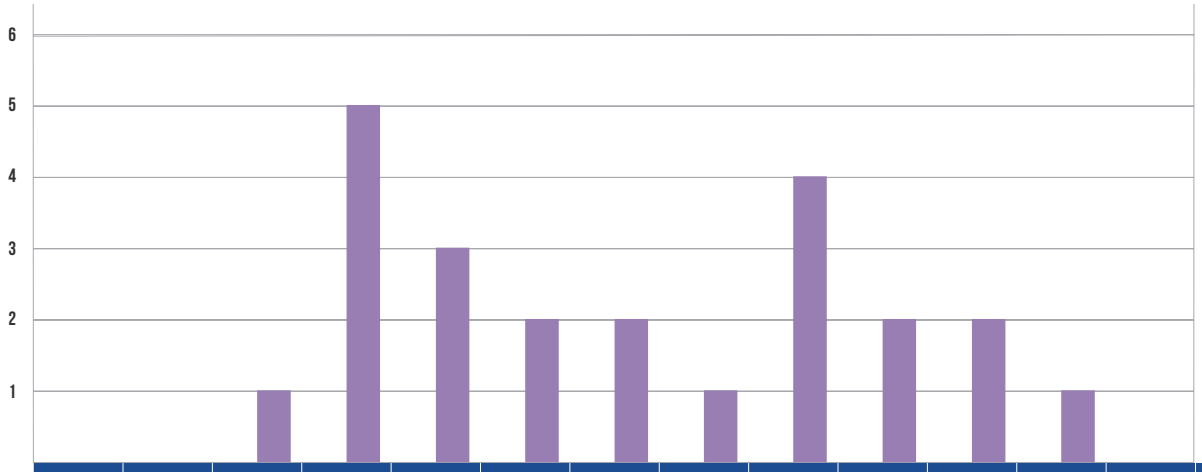
VEHICLE DEFECTS	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Brakes	24	0.2	0	3	2	2	17
Lights/reflectors	10	0.1	0	0	0	0	10
Steering	10	0.1	0	0	1	4	5
Tires/wheels	33	0.3	2	1	3	1	26
Windows	1	0.0	0	0	1	0	0
Coupling/hitch/chains	8	0.1	0	0	0	0	8
Other	29	0.2	0	1	2	0	26
None or Unknown	12,935	99.1	51	277	477	1,155	10,975
TOTAL	13,050	100.0	53	282	486	1,162	11,067

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	7,832	60.0	20	117	214	534	6,947
Speed too fast	1,182	9.1	11	44	70	137	920
Speed too slow	9	0.1	0	1	0	0	8
Failed to yield	903	6.9	6	23	59	147	668
Disregard traffic control	111	0.9	2	3	6	30	70
Drove wrong way	6	0.0	0	1	1	1	3
Drove left of center	52	0.4	0	6	7	10	29
Improper passing	46	0.4	0	1	2	4	39
Improper lane use	135	1.0	1	2	5	8	119
Improper turn	110	0.8	0	2	3	5	100
Improper/no signal	15	0.1	0	0	1	2	12
Improper backing	263	2.0	0	1	0	3	259
Unable to stop in assured clear distance	941	7.2	4	11	29	129	768
Reckless driving	68	0.5	0	12	7	16	33
Careless/negligent driving	521	4.0	4	30	44	71	372
Other	396	3.0	2	20	22	36	316
Unknown	460	3.5	3	8	16	29	404
TOTAL	13,050	100.0	53	282	486	1,162	11,067

UPPER PENINSULA MICHIGAN BICYCLE CRASHES

2017 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	0	0	0	0	0	0	0
INJURED	0	0	1	5	3	2	2	1	4	2	2	1	0	23
TOTAL FATALITIES AND INJURIES	0	0	1	5	3	2	2	1	4	2	2	1	0	23

In 2017 in the Upper Peninsula, there were 29 bicyclists involved in motor vehicles crashes, with 0 bicyclists killed and 23 injured.

BICYCLE HELMET USE AND INJURY SEVERITY

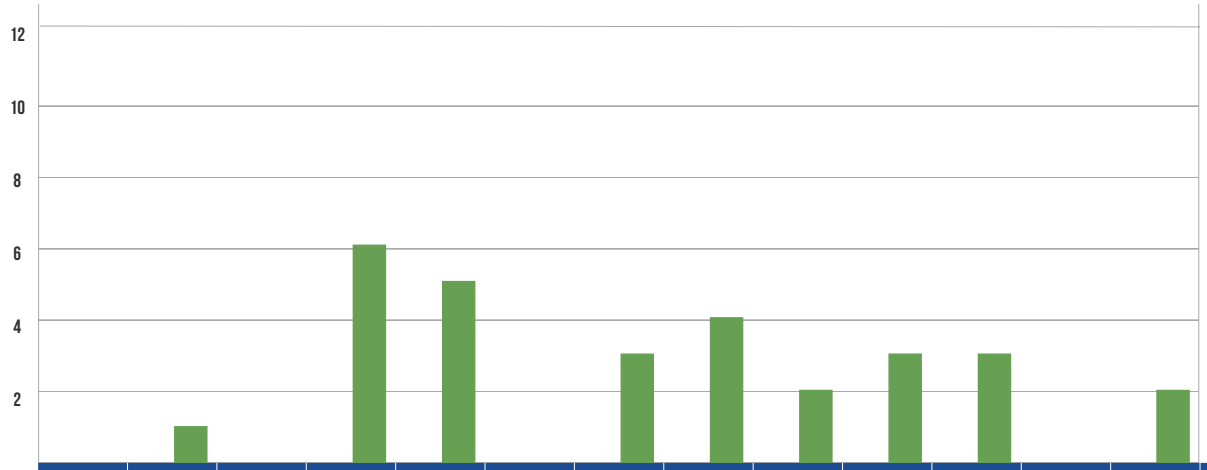
HELMET USE	FATALITY	INJURY			NO INJURY
		A	B	C	
Worn	**0**	**0**	**3**	**0**	**1**
Not worn	**0**	**1**	**4**	**3**	**2**
Unknown	**0**	**0**	**6**	**6**	**2**
Total	**0**	**1**	**13**	**9**	**5**

Note: One bicyclist had an unknown degree of injury and was 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.”

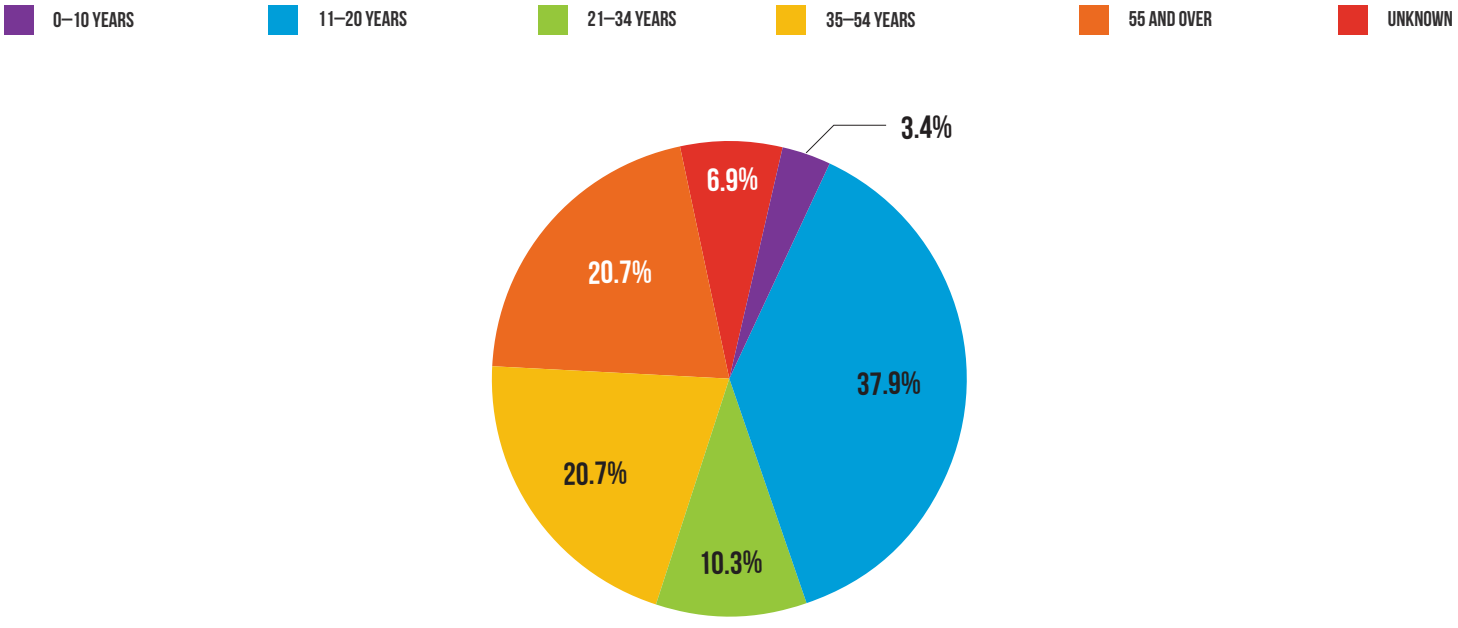
UPPER PENINSULA MICHIGAN PEDESTRIAN CRASHES

2017 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	0	0	0	0	0	0	0
INJURED	0	1	0	6	5	0	3	4	2	3	3	0	2	29
TOTAL FATALITIES AND INJURIES	0	1	0	6	5	0	3	4	2	3	3	0	2	29

In 2017 in the Upper Peninsula, there were 30 pedestrians involved in motor vehicles crashes, with 0 pedestrians killed and 29 injured.



PEDESTRIANS 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	3	6.4	0	1	0	2	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	6	12.8	0	3	0	1	2
Separation of units	0	0.0	0	0	0	0	0
Fire/explosion	3	6.4	0	0	0	0	3
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	5	10.6	0	1	3	1	0
Other noncollision	0	0.0	0	0	0	0	0
SUBTOTAL	17	36.2	0	5	3	4	5

COLLISION WITH A NONFIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	1	2.1	0	1	0	0	0
Bicycle / Pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	17	36.2	3	4	0	1	9
Parked motor vehicle	0	0.0	0	0	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	18	38.3	3	5	0	1	9

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	2	4.3	0	0	0	1	1
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	1	2.1	0	0	0	0	1
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	2.1	1	0	0	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	7	14.9	0	4	1	1	1
Rail crossing signal	0	0.0	0	0	0	0	0
Building	0	0.0	0	0	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	1	2.1	0	1	0	0	0
SUBTOTAL	12	25.5	1	5	1	2	3

	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	47	100.0	4	15	4	7	17

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 47 snowmobiles were reported in crashes on Upper Peninsula public roadways during 2017, resulting in three fatal crashes. A total of 26 snowmobiles were involved in 25 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	5	7.1	0	4	1	0	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	0	0.0	0	0	0	0	0
Ran off road right	0	0.0	0	0	0	0	0
Re-enter road	1	1.4	0	0	1	0	0
Overturn	16	22.9	2	5	3	4	2
Separation of units	1	1.4	0	0	0	0	1
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	10	14.3	0	5	4	1	0
Other noncollision	0	0.0	0	0	0	0	0
SUBTOTAL	33	47.1	2	14	9	5	3

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	17	24.3	0	2	8	0	7
Parked motor vehicle	3	4.3	0	1	0	0	2
Railway train	0	0.0	0	0	0	0	0
Animal	0	0.0	0	0	0	0	0
Other nonfixed objects	2	2.9	0	0	2	0	0
SUBTOTAL	22	31.4	0	3	10	0	9

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	1.4	0	0	0	0	1
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	3	4.3	0	2	0	1	0
Embankment	3	4.3	0	2	1	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	7	10.0	0	4	1	2	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	1.4	1	0	0	0	0
SUBTOTAL	15	21.4	1	8	2	3	1

	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	70	100.0	3	25	21	8	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 70 off-road/all-terrain vehicles were reported in crashes on Upper Peninsula public roadways during 2017, resulting in three fatal crashes. An additional 54 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	16	34.0	1	4	1	2	8
Speed too fast	8	17.0	0	2	0	2	4
Speed too slow	1	2.1	0	1	0	0	0
Failed to yield	5	10.6	1	1	0	1	2
Disregard traffic control	1	2.1	0	1	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	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	1	2.1	0	1	0	0	0
Reckless driving	2	4.3	0	1	0	1	0
Careless/negligent driving	7	14.9	1	2	1	0	3
Other	5	10.6	0	2	2	1	0
Unknown	1	2.1	1	0	0	0	0
TOTAL	47	100.0	4	15	4	7	17

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	21.4	0	5	5	1	4
Speed too fast	14	20.0	2	6	4	2	0
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	7	10.0	0	1	3	0	3
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	2	2.9	0	0	1	0	1
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	1	1.4	0	1	0	0	0
Unable to stop in assured clear distance	3	4.3	0	1	1	0	1
Reckless driving	0	0.0	0	0	0	0	0
Careless/negligent driving	15	21.4	0	6	5	3	1
Other	8	11.4	0	4	1	1	2
Unknown	5	7.1	1	1	1	1	1
TOTAL	70	100.0	3	25	21	8	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.

UPPER PENINSULA MICHIGAN FARM EQUIPMENT CRASHES

FARM EQUIPMENT CRASHES	2016	2017	% CHANGE
Crashes	11	10	-9.1%
Fatalities	0	0	---
Injuries	3	3	0.0%

Ten crashes involving farm equipment were reported on Upper Peninsula roadways during 2017. None of those crashes involved a fatality.

UPPER PENINSULA MICHIGAN VEHICLE-TRAIN CRASHES

VEHICLE-TRAIN CRASHES	2016	2017	% CHANGE
Crashes	3	6	100.0%
Fatalities	0	0	---
Injuries	3	5	66.7%

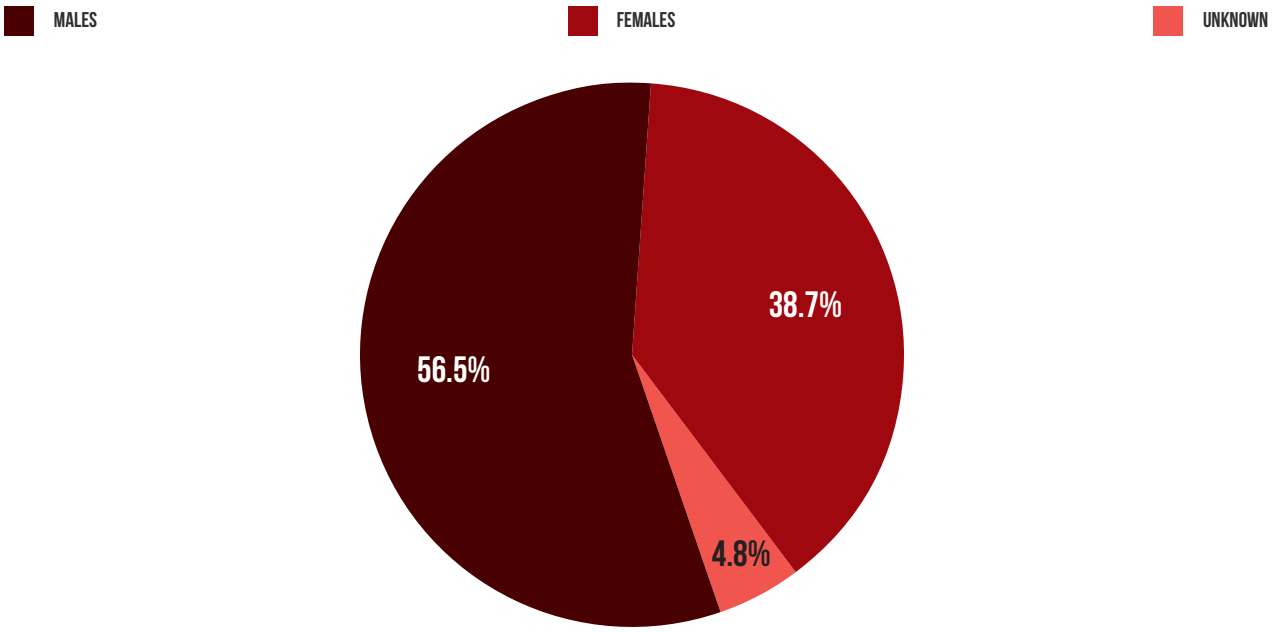
Six crashes involving trains were reported in the Upper Peninsula during 2017. As a result five people were injured, but none were killed.

UPPER PENINSULA MICHIGAN MOTORCYCLE CRASHES

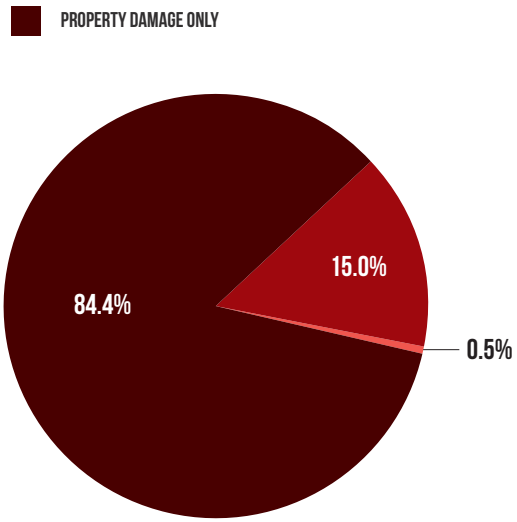
MOTORCYCLE DATA	2016	2017	% CHANGE
Motorcycle Registrations	9,320	9,080	-2.6%
Motorcycles in Crashes	112	97	-13.4%
Motorcyclist Deaths	3	4	33.3%
Motorcyclists Injured	97	74	-23.7%
Death Rate based on 10,000 motorcycle registrations	3.22	4.41	36.9%
Estimated Mileage based on 3,000 miles per motorcycle	27,960,000	27,240,000	-2.6%
Death Rate based on deaths per 100 million vehicle miles traveled	10.73	14.68	36.9%

Motorcycles were involved in 1.0 percent of all traffic crashes in the Upper Peninsula in 2017. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles.

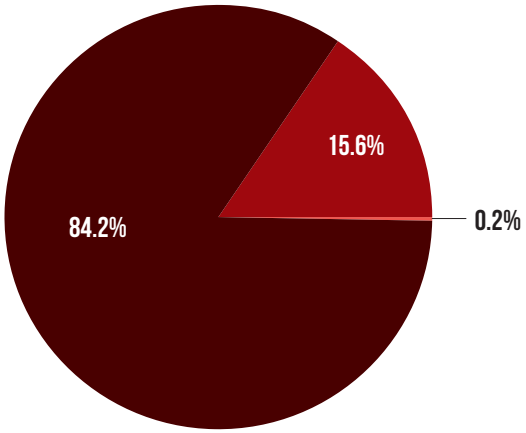
UPPER PENINSULA DRIVER GENDER INFORMATION



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 (0.5% vs. 0.2%).

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	1,464	48,274	34	1	2	106	7	0	7	0
16	2,367	3,360	233	0	0	40	0	0	0	0
17	2,485	3,442	260	2	1	53	1	0	2	0
18	2,444	4,180	345	1	1	46	1	0	0	0
19	2,666	5,168	328	1	0	45	1	0	1	0
20	2,962	5,230	364	0	0	65	1	0	2	0
21-24	11,997	19,176	1,123	4	2	149	3	0	0	0
25-29	14,560	16,303	1,098	2	2	137	1	0	2	0
30-34	14,476	15,847	965	2	3	111	2	0	1	0
35-39	14,809	16,631	949	2	0	106	0	0	3	0
40-44	13,861	15,388	833	3	1	89	1	0	1	0
45-49	15,395	17,208	895	8	5	85	1	0	2	0
50-54	17,800	19,782	1,014	6	5	116	3	0	0	0
55-59	21,457	23,087	1,083	3	1	119	4	0	1	0
60-64	23,047	24,065	958	5	5	95	0	0	3	0
65-69	20,695	21,267	697	4	2	81	1	0	1	0
70-74	15,347	15,769	552	2	1	52	1	0	2	0
75-79	11,012	11,275	318	1	2	51	0	0	0	0
80-84	6,834	7,797	208	2	4	21	1	0	0	0
85+	5,448	8,828	134	2	2	31	0	0	0	0
Unknown	---	---	659	2	0	4	0	0	2	0
TOTAL	221,126	302,077	13,050	53	39	1,602	29	0	30	0

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	1,464	34	0.023
16	2,367	233	0.098
17	2,485	260	0.105
18	2,444	345	0.141
19	2,666	328	0.123
20	2,962	364	0.123
21-24	11,997	1,123	0.094
25-29	14,560	1,098	0.075
30-34	14,476	965	0.067
35-39	14,809	949	0.064
40-44	13,861	833	0.060
45-49	15,395	895	0.058
50-54	17,800	1,014	0.057
55-59	21,457	1,083	0.050
60-64	23,047	958	0.042
65-69	20,695	697	0.034
70-74	15,347	552	0.036
75-79	11,012	318	0.029
80-84	6,834	208	0.030
85-89	3,910	96	0.025
90-94	1,339	35	0.026
95-99	188	3	0.016
100+	11	0	0.000
Total	221,126	12,391	0.056

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

* Excludes 659 drivers with unknown age

Licensed drivers age 18 have the highest crash rate at 0.141 (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.

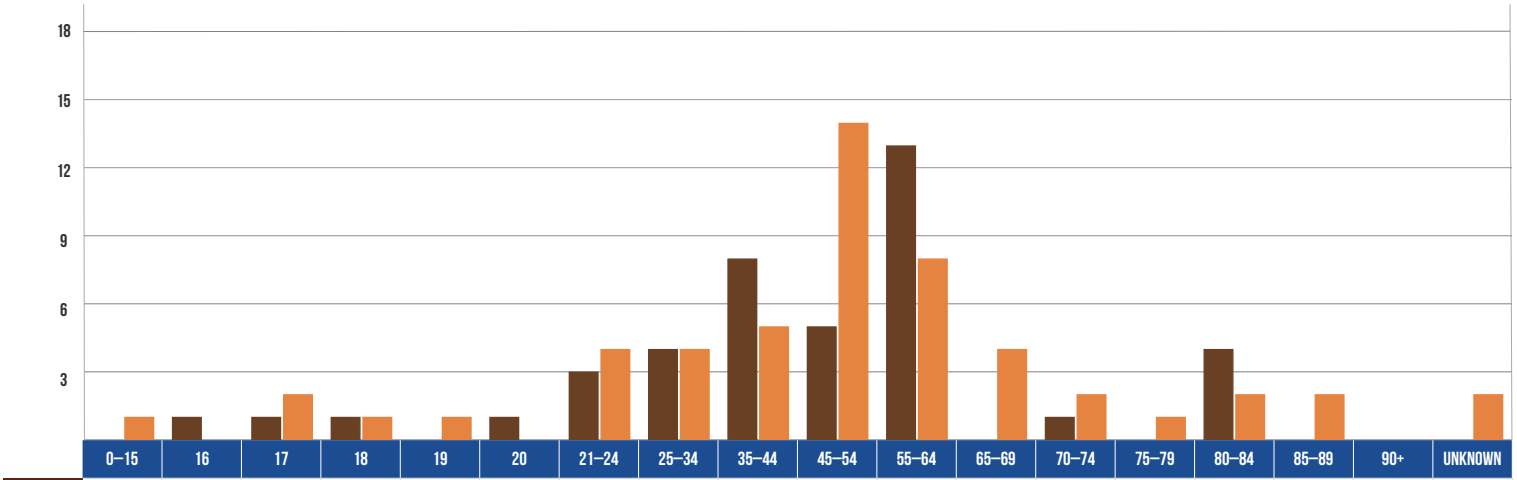
UPPER PENINSULA DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2016	2017	PERCENT CHANGE	PERCENT 2017 FATAL CRASH INVOLVEMENT	PERCENT ACTIVE DRIVING POPULATION*
15 years and under	0	1	†	1.9	0.7
16 years	1	0	-100.0	0.0	1.1
17 years	1	2	100.0	3.8	1.1
18 years	1	1	0.0	1.9	1.1
19 years	0	1	†	1.9	1.2
20 years	1	0	-100.0	0.0	1.3
21 - 24 years	3	4	33.3	7.5	5.4
25 - 34 years	4	4	0.0	7.5	13.1
35 - 44 years	8	5	-37.5	9.4	13.0
45 - 54 years	5	14	180.0	26.4	13.9
55 - 64 years	13	8	-38.5	15.1	20.1
65 - 69 years	0	4	†	7.5	9.4
70 - 74 years	1	2	100.0	3.8	6.9
75 - 79 years	0	1	†	1.9	5.0
80 - 84 years	4	2	-50.0	3.8	3.1
85 - 89 years	0	2	†	3.8	1.8
90 years and over	0	0	†	0.0	0.7
Unknown	0	2	†	3.8	---
Total	42	53	26.2	100.0	100.0

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

† Not calculable

DRIVER AGE IN FATAL CRASHES



	0–15	16	17	18	19	20	21–24	25–34	35–44	45–54	55–64	65–69	70–74	75–79	80–84	85–89	90+	UNKNOWN
2016	0	1	1	1	0	1	3	4	8	5	13	0	1	0	4	0	0	0
2017	1	0	2	1	1	0	4	4	5	14	8	4	2	1	2	2	0	2

UPPER PENINSULA DRIVER CONDITION

POSSIBLE CONDITIONS OF DRIVER	CONDITIONS (CODED BY POLICE)	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
Normal	9,709	16	150	363	917	8,263
Fatigued or Asleep	118	0	6	8	21	83
Sick	39	1	2	1	4	31
Medicated	27	0	1	3	7	16
Emotional	146	1	9	14	38	84
Physically Disabled	37	1	14	3	7	12
Unknown	1,949	24	63	41	97	1,724
Other	269	7	29	32	43	158

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*	11,712	89.7	14	50.0	115	258	654	10,645	26
Restraint Not Used	197	1.5	12	42.9	41	37	28	79	0
Unknown	1,141	8.7	2	7.1	17	17	22	401	682
TOTAL	13,050	100.0	28	100.0	173	312	704	11,125	708
DRINKING DRIVERS ONLY									
Restraint Used*	208	68.0	3	33.3	13	26	24	142	0
Restraint Not Used	34	11.1	5	55.6	9	8	5	7	0
Unknown	64	20.9	1	11.1	10	6	4	43	0
TOTAL	306	100.0	9	100.0	32	40	33	192	0
DRUGGED DRIVERS ONLY									
Restraint Used*	34	77.3	0	0.0	1	6	8	19	0
Restraint Not Used	3	6.8	0	0.0	1	0	0	2	0
Unknown	7	15.9	0	0.0	1	1	1	4	0
TOTAL	44	100.0	0	0.0	3	7	9	25	0
DRINKING AND DRUGGED DRIVERS ONLY									
Restraint Used*	30	58.8	1	50.0	2	0	4	23	0
Restraint Not Used	9	17.6	0	0.0	6	0	2	1	0
Unknown	12	23.5	1	50.0	1	0	1	9	0
TOTAL	51	100.0	2	100.0	9	0	7	33	0

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

UPPER PENINSULA RED-LIGHT-RUNNING CRASHES

INTERSECTION CRASH TYPE	CRASHES	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
1. Related to intersection	2,229	7	57	111	296	1,758
2. In intersection	1,399	5	37	69	210	1,078
3. With traffic control signal	339	1	6	19	61	252
4. With hazardous action*	44	1	1	1	18	23

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 44 crashes.

UPPER PENINSULA 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	14	0	0	1	5	8
30 miles per hour	4	0	1	0	3	0
35 miles per hour	5	0	0	0	1	4
40 miles per hour	1	0	0	0	1	0
45 miles per hour	8	0	0	0	3	5
50 miles per hour	6	1	0	0	2	3
55 miles per hour	4	0	0	0	2	2
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	2	0	0	0	1	1
TOTAL	44	1	1	1	18	23

*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	0	0	0	0	0	0
Head on	1	0	0	0	0	1
Head on left turn	3	0	0	0	1	2
Angle	33	1	0	1	14	17
Rear end	0	0	0	0	0	0
Rear end left turn	1	0	0	0	0	1
Rear end right turn	0	0	0	0	0	0
Sideswipe same direction	0	0	0	0	0	0
Sideswipe opposite direction	0	0	0	0	0	0
Backing	0	0	0	0	0	0
Other/Unknown	6	0	1	0	3	2
TOTAL	44	1	1	1	18	23

UPPER PENINSULA 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	0	0	0	0	0	0
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	0	0	0	0	0	0
Emergency Vehicle Involved	0	0	0	0	0	0
Driver Hazardous Citation	31	0	1	1	18	11

*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	39	1	1	1	16	20
Fatigued or Asleep	0	0	0	0	0	0
Sick	1	0	0	0	1	0
Medicated	0	0	0	0	0	0
Emotional	1	0	0	0	0	1
Physically Disabled	0	0	0	0	0	0
Unknown	2	0	0	0	0	2
Other	1	0	0	0	0	1

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

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UPPER PENINSULA 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 bridge/pier/abutments and parked motor vehicles, as well as noncollision events such as jackknife and cargo loss/shift as the Most Harmful Event.
- Fewer collisions with ditches, trees, and animals.
- Fewer single-vehicle crashes but more sideswipes.
- Fewer drivers indicated to be speeding, failing to yield, 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 3:00 AM and 5:59 PM, and fewer crashes between 6:00 PM and 2:59 AM.
- More weekday crashes and a drop in weekend crashes.

UPPER PENINSUULA 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	183	55.1	5	83.3	28	62.2
Turning left	33	9.9	0	0.0	4	8.9
Turning right	23	6.9	0	0.0	2	4.4
Stopped on roadway	14	4.2	1	16.7	1	2.2
In prior crash	0	0.0	0	0.0	0	0.0
Changing lanes	2	0.6	0	0.0	0	0.0
Backing	19	5.7	0	0.0	0	0.0
Slowing/stopping on roadway	17	5.1	0	0.0	3	6.7
Slowing/stopping other	2	0.6	0	0.0	0	0.0
Starting up on roadway	7	2.1	0	0.0	0	0.0
Starting up other	0	0.0	0	0.0	0	0.0
Entering parking	0	0.0	0	0.0	0	0.0
Leaving parking	1	0.3	0	0.0	0	0.0
Entering roadway	9	2.7	0	0.0	2	4.4
Leaving roadway	0	0.0	0	0.0	0	0.0
Making U-turn	1	0.3	0	0.0	0	0.0
Overtaking or passing	2	0.6	0	0.0	0	0.0
Avoiding object	0	0.0	0	0.0	0	0.0
Avoiding animal	1	0.3	0	0.0	0	0.0
Avoiding pedestrian	0	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	6	1.8	0	0.0	2	4.4
Avoiding vehicle (angle)	2	0.6	0	0.0	1	2.2
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	4	1.2	0	0.0	1	2.2
Crossing at intersection	1	0.3	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	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
Negotiating a curve	5	1.5	0	0.0	1	2.2
Other	0	0.0	0	0.0	0	0.0
Unkown	0	0.0	0	0.0	0	0.0
Uncoded & errors	0	0.0	0	0.0	0	0.0
TOTAL	332	100.0	6	100.0	45	100.0

UPPER PENINSULA 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	0	0.0	0	0.0	0	0.0
Cross center/median	0	0.0	0	0.0	0	0.0
Ran off road left	2	0.6	0	0.0	0	0.0
Ran off road right	4	1.2	0	0.0	0	0.0
Re-enter road	0	0.0	0	0.0	0	0.0
Overturn	6	1.8	1	16.7	1	2.2
Separation of units	1	0.3	0	0.0	0	0.0
Fire/explosion	1	0.3	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	4	1.2	0	0.0	1	2.2
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	5	1.5	0	0.0	0	0.0
Individual fell off	0	0.0	0	0.0	0	0.0
Other noncollision	2	0.6	0	0.0	1	2.2
SUBTOTAL	25	7.5	1	16.7	3	6.7

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	0	0.0	0	0.0	0	0.0
Bicycle / Pedalcycle	0	0.0	0	0.0	0	0.0
Motor vehicle in transport	193	58.1	5	83.3	33	73.3
Parked motor vehicle	20	6.0	0	0.0	4	8.9
Railway train	1	0.3	0	0.0	0	0.0
Animal	36	10.8	0	0.0	0	0.0
Other nonfixed objects	2	0.6	0	0.0	0	0.0
SUBTOTAL	252	75.9	5	83.3	37	82.2

The majority of heavy trucks/buses are involved in crashes with a motor vehicle in transport for all crashes (58.1%), fatal crashes (83.3%), and injury crashes (73.3%) for most harmful event in the crash.

UPPER PENINSULA 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	1	0.3	0	0.0	1	2.2
Bridge parapet end	0	0.0	0	0.0	0	0.0
Bridge rail	1	0.3	0	0.0	0	0.0
Guardrail face	2	0.6	0	0.0	0	0.0
Guardrail end	2	0.6	0	0.0	0	0.0
Median barrier	1	0.3	0	0.0	0	0.0
Highway traffic sign post	2	0.6	0	0.0	0	0.0
Highway signal post	1	0.3	0	0.0	0	0.0
Luminaire/light support	8	2.4	0	0.0	0	0.0
Utility pole	0	0.0	0	0.0	0	0.0
Other pole	2	0.6	0	0.0	0	0.0
Culvert	1	0.3	0	0.0	1	2.2
Curb	2	0.6	0	0.0	0	0.0
Ditch	5	1.5	0	0.0	0	0.0
Embankment	1	0.3	0	0.0	0	0.0
Fence	0	0.0	0	0.0	0	0.0
Mailbox	1	0.3	0	0.0	0	0.0
Tree	4	1.2	0	0.0	1	2.2
Rail crossing signal	0	0.0	0	0.0	0	0.0
Building	2	0.6	0	0.0	1	2.2
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	1	0.3	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	9	2.7	0	0.0	0	0.0
SUBTOTAL	46	13.9	0	0.0	4	8.9

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Unknown Event	9	2.7	0	0.0	1	2.2
MOST HARMFUL EVENT TOTAL	332	100.0	6	100.0	45	100.0

UPPER PENINSULA 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	104	31.3	1	16.7	6	13.3
Head On	10	3.0	2	33.3	2	4.4
Head On - Left Turn	2	0.6	0	0.0	1	2.2
Angle	44	13.3	1	16.7	7	15.6
Rear End	60	18.1	1	16.7	15	33.3
Rear End - Left Turn	3	0.9	0	0.0	0	0.0
Rear End - Right Turn	1	0.3	0	0.0	0	0.0
Sideswipe - Same Direction	45	13.6	0	0.0	4	8.9
Sideswipe - Opposite Direction	14	4.2	0	0.0	5	11.1
Backing	7	2.1	0	0.0	0	0.0
Other/Unknown	42	12.7	1	16.7	5	11.1
TOTAL	332	100.0	6	100.0	45	100.0

The highest percentage of heavy trucks/buses are involved in single vehicle crashes for all crashes (31.3%) and rear end crashes for injury crashes (33.3%).

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	187	56.3	3	50.0	24	53.3	1	2.8
Speed too fast	16	4.8	0	0.0	3	6.7	6	16.7
Speed too slow	0	0.0	0	0.0	0	0.0	0	0.0
Failed to yield	14	4.2	0	0.0	3	6.7	4	11.1
Disregard traffic control	1	0.3	1	16.7	0	0.0	0	0.0
Drove wrong way	0	0.0	0	0.0	0	0.0	0	0.0
Drove left of center	1	0.3	0	0.0	1	2.2	0	0.0
Improper passing	0	0.0	0	0.0	0	0.0	0	0.0
Improper lane use	12	3.6	0	0.0	2	4.4	3	8.3
Improper turn	14	4.2	0	0.0	1	2.2	1	2.8
Improper/no signal	0	0.0	0	0.0	0	0.0	0	0.0
Improper backing	9	2.7	0	0.0	0	0.0	0	0.0
Unable to stop in assured clear distance	22	6.6	1	16.7	5	11.1	5	13.9
Reckless driving	2	0.6	0	0.0	1	2.2	1	2.8
Careless/negligent driving	15	4.5	0	0.0	3	6.7	10	27.8
Other	28	8.4	1	16.7	2	4.4	5	13.9
Unknown	11	3.3	0	0.0	0	0.0	0	0.0
TOTAL	332	100.0	6	100.0	45	100.0	36	100.0

After no hazardous action and “other” hazardous action, the most common hazardous action coded for drivers of heavy trucks/buses in all crashes is unable to stop in assured clear distance (6.6%). For injury crashes, unable to stop in assured clear distance (11.1%) is the most common hazardous action coded after no hazardous action.

UPPER PENINSULA 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	278	83.7	5	83.3	40	88.9
Median	3	0.9	0	0.0	1	2.2
Shoulder	17	5.1	0	0.0	1	2.2
Outside of Shoulder/Curb	25	7.5	1	16.7	3	6.7
Gore	0	0.0	0	0.0	0	0.0
On-Street Parking	6	1.8	0	0.0	0	0.0
Off the Roadway	0	0.0	0	0.0	0	0.0
On the Sidewalk	3	0.9	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	332	100.0	6	100.0	45	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 - 2:59 AM	8	2.4	2	33.3	0	0.0
3:00 AM - 5:59 AM	15	4.5	0	0.0	2	4.4
6:00 AM - 8:59 AM	58	17.5	0	0.0	6	13.3
9:00 AM - 11:59 AM	73	22.0	1	16.7	8	17.8
12:00 PM - 2:59 PM	70	21.1	0	0.0	10	22.2
3:00 PM - 5:59 PM	66	19.9	3	50.0	6	13.3
6:00 PM - 8:59 PM	24	7.2	0	0.0	9	20.0
9:00 PM - 11:59 PM	18	5.4	0	0.0	4	8.9
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	332	100.0	6	100.0	45	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 (22.0%) for all crashes, between 3:00 and 5:59 PM (50.0%) for fatal crashes, and between 12:00 and 2:59 PM (22.2%) 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	20	6.0	0	0.0	4	8.9
U.S. & Michigan Roads	205	61.7	5	83.3	31	68.9
County & City Roads	106	31.9	1	16.7	10	22.2
Uncoded & Errors	1	0.3	0	0.0	0	0.0
TOTAL	332	100.0	6	100.0	45	100.0

The highest percentage of heavy trucks/buses are involved in crashes on U.S. & Michigan roads for all crashes (61.7%), fatal crashes (83.3%), and injury crashes (68.9%).

UPPER PENINSULA 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	55	16.6	2	33.3	8	17.8
Tuesday	44	13.3	1	16.7	7	15.6
Wednesday	74	22.3	0	0.0	9	20.0
Thursday	66	19.9	0	0.0	10	22.2
Friday	60	18.1	3	50.0	7	15.6
Saturday	21	6.3	0	0.0	2	4.4
Sunday	12	3.6	0	0.0	2	4.4
TOTAL	332	100.0	6	100.0	45	100.0

The highest percentage of heavy trucks/buses are involved in all crashes on Wednesday (22.3%) and injury crashes on Thursday (22.2%).

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	306	92.2	5	83.3	40	88.9
Female	19	5.7	1	16.7	5	11.1
Unknown	7	2.1	0	0.0	0	0.0
TOTAL	332	100.0	6	100.0	45	100.0

The majority of heavy truck/bus drivers are male in all crashes (92.2%), fatal crashes (83.3%), and injury crashes (88.9%).

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	292	88.0	4	66.7	36	80.0
2 occupants	18	5.4	2	33.3	6	13.3
3 occupants	2	0.6	0	0.0	0	0.0
4 occupants	3	0.9	0	0.0	0	0.0
5 occupants	1	0.3	0	0.0	0	0.0
6 + occupants	9	2.7	0	0.0	3	6.7
0 occupants	7	2.1	0	0.0	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	332	100.0	6	100.0	45	100.0

UPPER PENINSULA 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	156	71.6	3	75.0	36	73.5
Motor Home	1	0.5	0	0.0	0	0.0
Pickup	48	22.0	1	25.0	12	24.5
Small Truck (under 10,000 lbs.)	4	1.8	0	0.0	0	0.0
Motorcycle	1	0.5	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	0.5	0	0.0	0	0.0
Off Road Vehicle	0	0.0	0	0.0	0	0.0
Other	4	1.8	0	0.0	0	0.0
Unknown	3	1.4	0	0.0	1	2.0
SUBTOTAL	218	100.0	4	100.0	49	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT 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	9	2.7	0	0.0	0	0.0
10,001 - 26,000 lbs.	85	25.6	1	16.7	14	31.1
Greater than 26,000 lbs.	233	70.2	5	83.3	31	68.9
Uncoded & Errors	5	1.5	0	0.0	0	0.0
SUBTOTAL	332	100.0	6	100.0	45	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	550	---	10	---	94	---

UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

HEAVY TRUCK/BUS 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	1	5.6	0	0.0	8	1.7	6	0.7
Speed too fast	3	16.7	3	16.7	8	32.0	227	48.6	98	12.0
Speed too slow	0	0.0	0	0.0	0	0.0	1	0.2	0	0.0
Failed to yield	1	5.6	3	16.7	4	16.0	7	1.5	303	37.0
Disregard traffic control	0	0.0	0	0.0	1	4.0	3	0.6	54	6.6
Drove wrong way	0	0.0	0	0.0	0	0.0	0	0.0	1	0.1
Drove left of center	0	0.0	0	0.0	4	16.0	3	0.6	7	0.9
Improper passing	0	0.0	0	0.0	1	4.0	2	0.4	13	1.6
Improper lane use	0	0.0	3	16.7	1	4.0	0	0.0	19	2.3
Improper turn	0	0.0	1	5.6	0	0.0	3	0.6	10	1.2
Improper/no signal	0	0.0	0	0.0	0	0.0	0	0.0	3	0.4
Improper backing	0	0.0	0	0.0	0	0.0	1	0.2	14	1.7
Unable to stop in assured clear distance	2	11.1	3	16.7	3	12.0	9	1.9	183	22.3
Reckless driving	0	0.0	1	5.6	0	0.0	15	3.2	10	1.2
Careless/Negligent driving	7	38.9	3	16.7	2	8.0	135	28.9	75	9.2
Other	5	27.8	0	0.0	1	4.0	46	9.9	21	2.6
Unknown	0	0.0	0	0.0	0	0.0	7	1.5	2	0.2
CITED VEHICLES SUBTOTAL	18	100.0	18	100.0	25	100.0	467	100.0	819	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	18	16.8	18	8.0	25	11.7	467	7.6	819	13.1
Vehicles with No Citation Issued	89	83.2	207	92.0	189	88.3	5,642	92.4	5,421	86.9
Vehicles with Unknown Citation	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL VEHICLES INVOLVED	107	100.0	225	100.0	214	100.0	6,109	100.0	6,240	100.0

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OCCUPANT/PERSON

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

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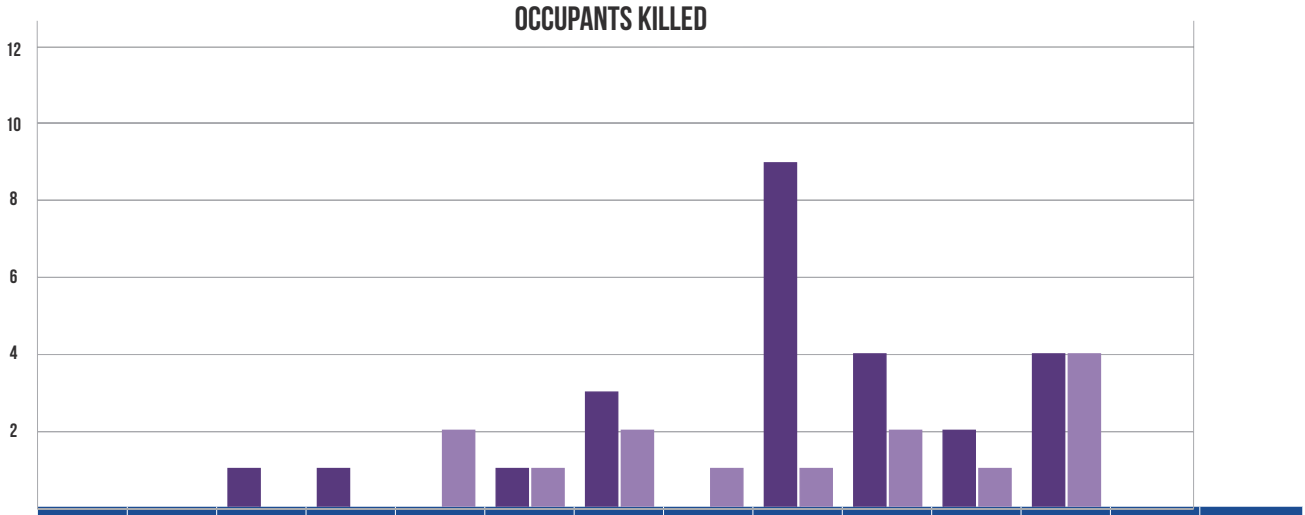
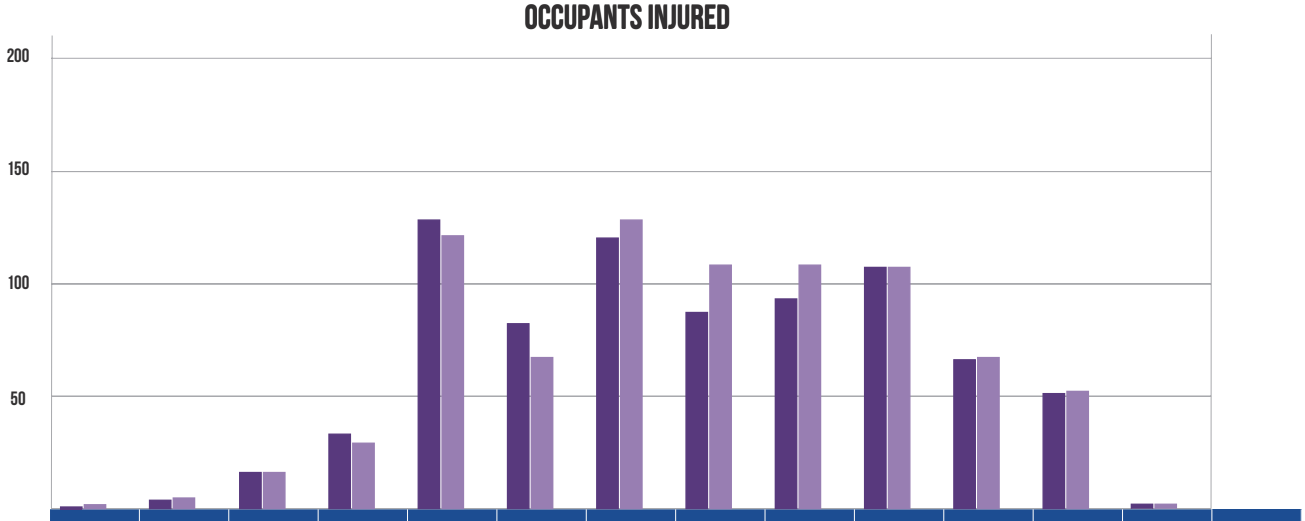
UPPER PENINSULA AGE AND GENDER OF OCCUPANTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES



	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	1	1	0	1	3	0	9	4	2	4	0	25
FEMALES KILLED	0	0	0	0	2	1	2	1	1	2	1	4	0	14
TOTAL	0	0	1	1	2	2	5	1	10	6	3	8	0	39

The majority (64.1%) of occupants killed in traffic crashes in 2017 were male.



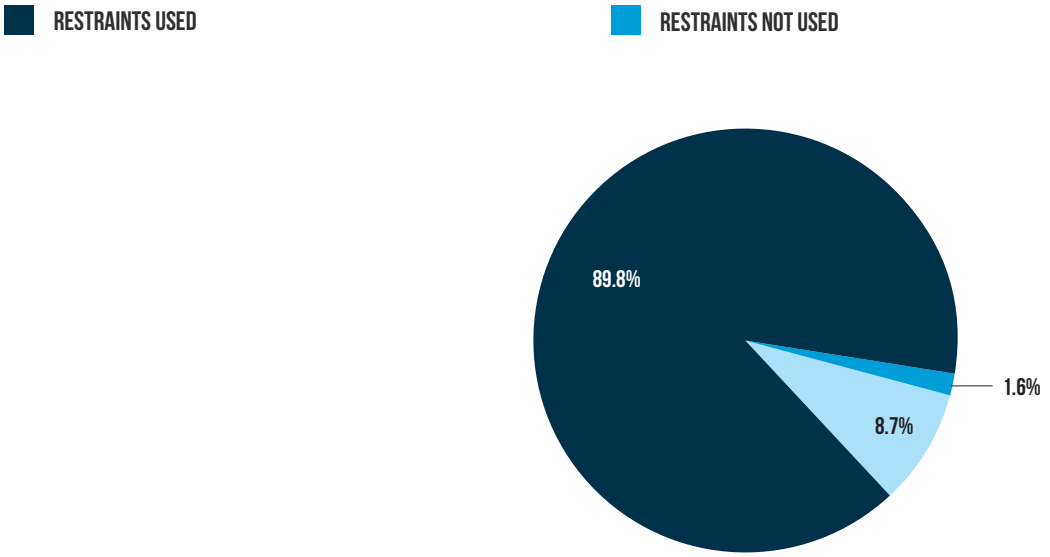
	UNDER 1 YEAR OLD	1-3 YEARS	4-10 YEARS	11-15 YEARS	16-20 YEARS	21-24 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55-64 YEARS	65-74 YEARS	75 YEARS AND OVER	UNKNOWN	TOTAL
MALES INJURED	1	4	16	33	128	82	120	87	93	107	66	51	2	790
FEMALES INJURED	2	5	16	29	121	67	128	108	108	107	67	52	2	812
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	3	9	32	62	249	149	248	195	201	214	133	103	4	1,602

The majority (50.7%) of occupants injured in traffic crashes in 2017 were female.

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

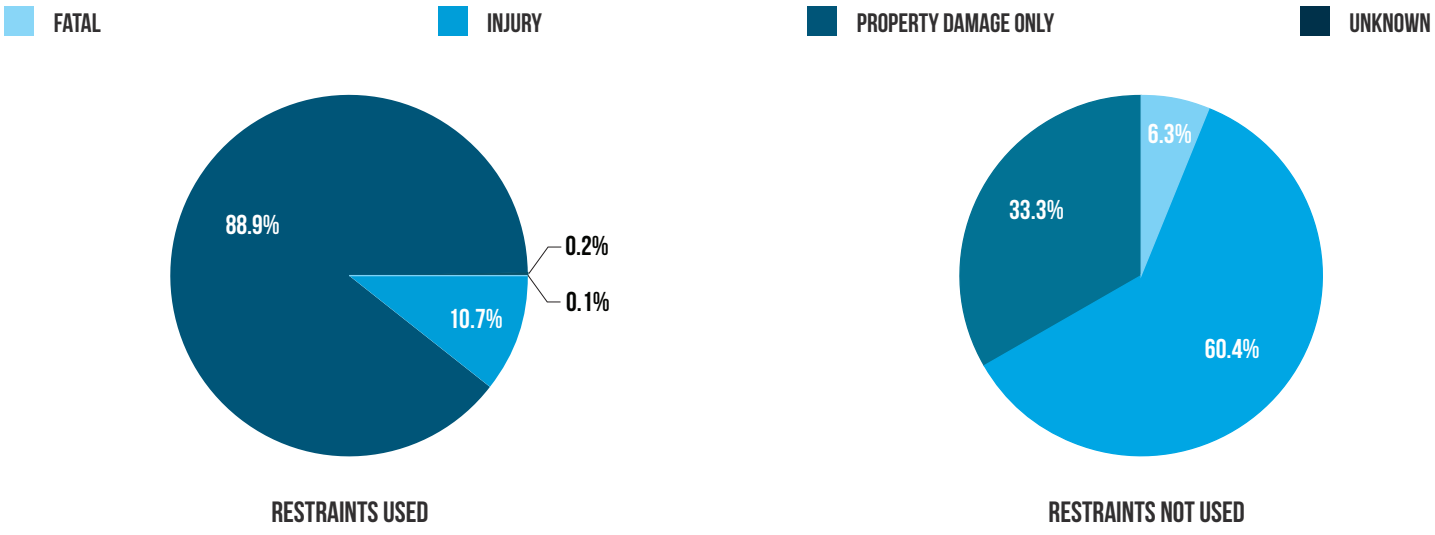
UPPER PENINSULA REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

REPORTED OCCUPANT RESTRAINT USAGE



Of the 13,293 drivers and injured passengers involved in crashes in the Upper Peninsula, 11,934 (89.8%) were REPORTED to be using occupant restraints.

INJURY SEVERITY



Occupants in crashes were 54 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	11,569	97.3	9	89	230	640	10,601
Center Front	23	0.2	1	1	6	11	4
Right Front	223	1.9	4	26	47	141	5
Left Rear Second Seat	24	0.2	0	4	4	16	0
Center Rear Second Seat	3	0.0	0	1	0	2	0
Right Rear Second Seat	33	0.3	0	6	10	17	0
Left Rear Third Seat	3	0.0	0	0	1	2	0
Center Rear Third Seat	2	0.0	0	0	1	1	0
Right Rear Third Seat	3	0.0	0	0	1	2	0
Left Rear Fourth Seat	1	0.0	0	0	0	1	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	1	0.0	0	0	0	1	0
Unknown	2	0.0	0	0	0	0	2
Uncoded & Errors	2	0.0	0	0	0	0	2
TOTAL †	11,889	100.0	14	127	300	834	10,614

* 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 26 occupants with unknown injury severity.

SEATING POSITION	BELTS NOT USED*		FATAL	INJURY			NO INJURY
	Number	% of Total		A	B	C	
Left Front	138	66.7	9	30	22	17	60
Center Front	6	2.9	0	3	0	1	2
Right Front	22	10.6	3	6	8	5	0
Left Rear Second Seat	9	4.3	0	3	4	2	0
Center Rear Second Seat	0	0.0	0	0	0	0	0
Right Rear Second Seat	14	6.8	0	5	4	5	0
Left Rear Third Seat	2	1.0	0	0	1	1	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	9	4.3	1	2	1	4	1
Unknown	7	3.4	0	0	0	1	6
Uncoded & Errors	0	0.0	0	0	0	0	0
TOTAL	207	100.0	13	49	40	36	69

* 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	1	33.3	0	0	1	0
Child Restraint Used - Rear Facing	2	66.7	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	3	100.0	0	0	1	2
AGE 1						
Belts Used	1	20.0	0	0	0	1
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	2	40.0	0	0	0	2
Child Restraint Used - Rear Facing	2	40.0	0	0	1	1
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	5	100.0	0	0	1	4
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	1	100.0	0	0	0	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	1	100.0	0	0	0	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	2	66.7	0	0	0	2
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	1	33.3	0	0	0	1
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	3	100.0	0	0	0	3
AGE 4-7						
Belts Used	5	35.7	0	2	1	2
No Belts Used	3	21.4	1	0	1	1
Child Restraint Used - Forward Facing	3	21.4	0	0	1	2
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	3	21.4	0	0	1	2
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	14	100.0	1	2	4	7
AGE 8-15						
Belts Used	55	75.3	1	5	19	30
No Belts Used	13	17.8	0	6	5	2
Child Restraint Used - Forward Facing	0	0.0	0	0	0	0
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	1	1.4	0	0	1	0
Unknown	4	5.5	0	1	1	2
Total	73	100.0	1	12	26	34

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.

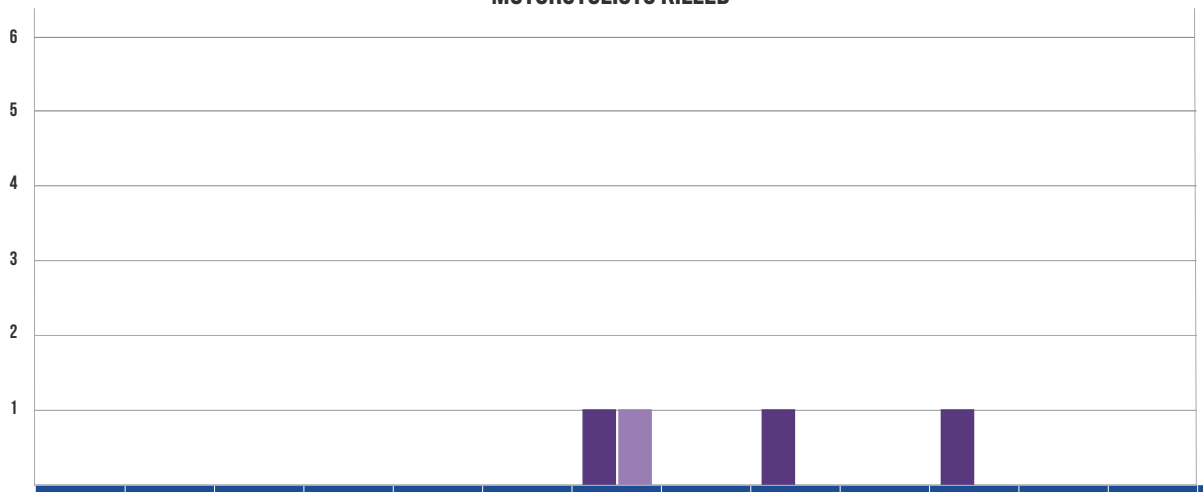
UPPER PENINSULA MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

MOTOR VEHICLE OCCUPANT AIRBAG DEPLOYMENT	OCCUPANTS*		FATAL	OCCUPANT INJURY SEVERITY			NO INJURY
	Number	% of Total		A	B	C	
Deployed - front	780	5.8	11	51	106	173	437
Deployed - side	115	0.9	1	4	8	30	72
Deployed - curtain	76	0.6	0	4	17	21	34
Deployed - combination	246	1.8	5	30	37	68	106
Deployed - other	4	0.0	0	0	0	0	4
Not deployed	11,004	81.7	8	68	164	577	10,161
Not equipped	460	3.4	14	78	69	64	233
Unknown	709	5.3	0	5	9	11	63
Uncoded & Errors	80	0.6	0	2	1	5	15
TOTAL	13,474	100.0	39	242	411	949	11,125

* Includes 708 occupants (drivers and passengers) with unknown injury severity.

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

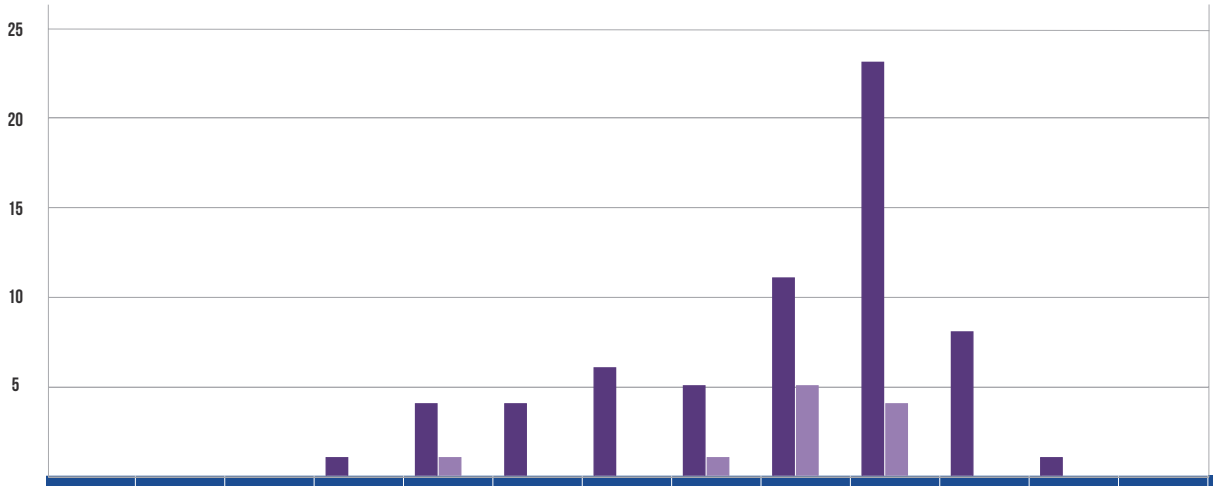
MOTORCYCLISTS KILLED



	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	1	0	1	0	1	0	0	3
FEMALES KILLED	0	0	0	0	0	0	1	0	0	0	0	0	0	1
TOTAL	0	0	0	0	0	0	2	0	1	0	1	0	0	4

Of the four motorcyclists killed in traffic crashes in the Upper Peninsula in 2017, three 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 INJURED	0	0	0	1	4	4	6	5	11	23	8	1	0	63
FEMALES INJURED	0	0	0	0	1	0	0	1	5	4	0	0	0	11
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	1	5	4	6	6	16	27	8	1	0	74

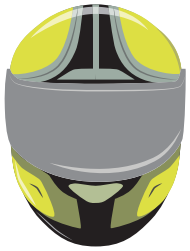
Of the 74 motorcyclists injured in traffic crashes in the Upper Peninsula in 2017, 85.1 percent were male.

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	1	0	0
16 - 20 years	0	0	2	1	2
21 - 24 years	0	2	0	0	2
25 - 34 years	1	1	3	0	2
35 - 44 years	0	1	0	1	0
45 - 54 years	0	3	2	4	4
55 - 64 years	0	3	9	4	4
65 - 74 years	1	2	1	3	2
75 years and over	0	0	1	0	0
Unknown	0	0	0	0	0
Subtotal	2	12	19	13	16
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	1	1	0
21 - 24 years	0	0	1	1	3
25 - 34 years	1	1	0	0	0
35 - 44 years	0	1	3	0	1
45 - 54 years	1	0	4	2	2
55 - 64 years	0	7	3	0	3
65 - 74 years	0	1	1	0	1
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	2	10	13	4	10
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	0	0	1
21 - 24 years	0	0	0	0	0
25 - 34 years	0	1	0	0	0
35 - 44 years	0	0	0	0	1
45 - 54 years	0	0	1	0	0
55 - 64 years	0	1	0	0	1
65 - 74 years	0	0	0	0	1
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	0	2	1	0	4
TOTAL	4	24	33	17	30

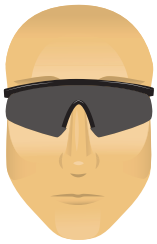
2011 Michigan motor vehicle crash data represents the last full year of data that was collected during Michigan's universal helmet law, enacted in 1969: Michigan Vehicle Code Public Act 300 of 1949, Section 257.658, requiring all motorcycle riders to wear a helmet. On April 13, 2012, Michigan changed 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: 2
PASSENGERS KILLED: 0

HELMET NOT WORN



DRIVERS KILLED: 1
PASSENGERS KILLED: 1

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	22	122	253	732	1,129	68.8
Motorhome	0	0	0	2	2	0.1
Pickup truck	2	48	83	159	292	17.8
Small Truck under 10,000 lbs. GVWR	1	3	2	2	8	0.5
Motorcycle	4	24	33	17	78	4.8
Moped / goped	1	1	8	3	13	0.8
Go-cart / golf cart	1	1	0	1	3	0.2
Snowmobile	3	14	4	7	28	1.7
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	3	25	22	10	60	3.7
Other	0	0	4	5	9	0.5
Unknown	0	0	0	0	0	0.0
CDL Truck/Bus (breakdown below)	2	4	2	11	19	1.2
Total Number of Occupants	39	242	411	949	1,641	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.	1	1	2	7	11	57.9
Greater than 26,000 lbs.	1	3	0	4	8	42.1
Uncoded & Errors	0	0	0	0	0	0.0
Total Number of Occupants	2	4	2	11	19	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: 2010-2017. Population Division, U.S. Census Bureau. Release Date: July 2018. https://www.census.gov/programs-surveys/popest.html

[2] Number of Deaths by Underlying Cause of Death Michigan Residents, 2016. 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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