MTCF

Michigan Traffic Crash Facts

# UPPER PENINSULA

# 2019

# 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 2019

MichiganTrafficCrashFacts.org

## PRODUCED BY:

Michigan Department of State Police
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**Michigan Department of Transportation**

**Michigan Office of Highway Safety Planning**

**University of Michigan Transportation Research Institute**

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

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# FOREWORD

Traffic records improvement projects have been ongoing to streamline the process of data collection and processing. Current projects such as the Traffic Crash Reporting System (TCRS) Modernization and the Traffic Records Data Linkage strive to improve the quality, timeliness, and accuracy of data outputs, as well as integration of traffic records data systems. New technologies, including electronic data collection, increased error checking, quality assurance, and crash locating, are continually emerging and improving. By utilizing these technologies as they become available, the quality of Michigan's traffic records data will continue to improve.

Please visit MichiganTrafficCrashFacts.org for easy access to crash data from 1952-2019.

# 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**CDL Restriction 28 (2004-2015)** – This variable is no longer active starting with 2016 data and all counts have been coded to “Uncoded & errors.”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 "Nontruck, 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 September16, 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 (Milt.) 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 | Damaged Property

UD-10 SERIAL NUMBER | Serial Override Number | 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

Crash Diagram

North

# 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 ¼** |
| **Monday** | **6:00 PM FRI** | **23:59 PM MON** | **3 ¼** |
| **Tuesday** | **6:00 PM FRI** | **23:59 PM TUE** | **4 ¼** |
| **Wednesday** | **6:00 PM TUE** | **23:59 PM WED** | **1 ¼** |
| **Thursday** | **6:00 PM WED** | **23:59 PM SUN** | **3 ¼** |
| **Friday** | **6:00 PM THU** | **23:59 PM SUN** | **3 ¼** |
| **Saturday** | **6:00 PM THU** | **23:59 PM SUN** | **3 ¼** |

- **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 noncollision crashes include explosion or fire in vehicle, rollover, immersion, etc.
- **Occupant -** Any injured or killed person in or on a motor vehicle, including all drivers.
- **Passenger -** Any person in or on a motor vehicle, excluding the driver.
- **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.

# GLOSSARY (CONTINUED)

- **School Bus -** Every motor vehicle, except station wagons, with a manufacturers' rated seating capacity of 18 or more passengers, including the driver, owned by a public, private, or governmental agency and operated for the transportation of children to or from school, or privately owned and operated for compensation for the transportation of children to or from school. School bus does not include buses operated by a municipally owned transportation system or by a common passenger carrier certificated by the state transportation department.
- **Traffic Unit -** Anything in transit on a public trafficway (i.e., motor vehicle, motorcycle, bicycle, pedestrian, snowmobile, farm equipment).
- **Trafficway -** Indicates whether or not a trafficway is not physically divided, or is divided with a median strip, with or without a traffic barrier, and whether it serves one-way or twoway 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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## QUICK FACTS AND FIGURES



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## DEER



## CRASH - CIRCUMSTANCES COMMON TO ALL TRAFFIC UNITS IN A CRASH



## VEHICLE/DRIVER - CHARACTERISTICS SPECIFIC TO INDIVIDUAL TRAFFIC UNITS

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# QUICK FACTS AND FIGURES

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# UPPER PENINSULA 2019 QUICK FACTS

- Some exposure factor comparisons between 2019 and 2018 show motor vehicle registrations increased by a count of 21,711 (8.5%), the number of licensed drivers on Upper Peninsula roads decreased 0.0 percent, and vehicle mileage increased 1.0 percent.

- The 2019 fatality rate of 1.17 deaths per 100 million miles of travel is an increase from the 2018 fatality rate of 1.04 and is higher than the 10-year average of 1.07 (2010-2019).

- There were 40 people killed and 1,548 people injured in 9,140 reported motor vehicle traffic crashes in the Upper Peninsula during 2019. Compared with the 2018 experience, the number of deaths increased 14.3 percent, people injured increased 0.7 percent, and total reported crashes increased 2.1 percent.

- There were 9,140 reported crashes, of which 37 were fatal, 1,130 were personal injury, and 7,973 were property damage only crashes.

- Of all fatal crashes, 29.7 percent occurred at intersections.

- Of all fatal crashes, 40.5 percent involved at least one drinking operator, bicyclist, or pedestrian, 27.0 percent involved drinking but no drugs, 8.1 percent involved drugs but no drinking, and 13.5 percent involved both drinking and drugs.

- Excessive speed was indicated as the hazardous action for 13.5 percent of the drivers involved in fatal crashes.

- Of the 9,140 total crashes in 2019, 5,406 (59.1%) involved one vehicle only. This is a decrease of 4.3 percent from last year's count of 5,649 single-vehicle crashes.

- Of the 37 fatal crashes, 23 (62.2%) involved one vehicle.

- Of the 15 alcohol-involved fatal crashes, 14 (93.3%) involved one vehicle.

- Of the 52 drivers involved in fatal crashes, five (9.6%) were under 21 years of age and ten (19.2%) were under 25 years of age.

- Of the 298,851 people living in the Upper Peninsula [1. References and Reporting Agencies] one out of every 7,471 was killed in a traffic crash and one out of every 193 was injured.

- For each person killed, 39 were injured.

- There were three pedestrian deaths in the Upper Peninsula in 2019. Twenty-five pedestrians were injured.

- There were no bicyclist fatalities and 29 bicyclists were injured.

- Of the 12,081 drivers and injured passengers involved in crashes where restraint use was known, 11,861 or 98.2 percent were reported to have been using occupant restraints. Restraint usage among fatal victims, where usage was known, was reported to be 60.0 percent in 2019.

- The comprehensive costs in the Upper Peninsula traffic crashes amounted to $1,427,033,000.

# UPPER PENINSULA MICHIGAN CRASH WATCH 2019

# HISTORICAL INFORMATION

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# UPPER PENINSULA 2018-2019 SUMMARY TRENDS: 1 YEAR TRENDS

| | 2018 | 2019 | PERCENT OF CHANGE |
|---|---|---|---|
| **NUMBER OF CRASHES** | | | |
| Fatal Crashes | 33 | 37 | 12.1 |
| Personal Injury Crashes | 1,153 | 1,130 | -2.0 |
| Property Damage Crashes | 7,762 | 7,973 | 2.7 |
| TOTAL | 8,948 | 9,140 | 2.1 |
| **ALCOHOL-INVOLVED CRASHES** | | | |
| Fatal Crashes | 8 | 15 | 87.5 |
| Personal Injury Crashes | 127 | 133 | 4.7 |
| Property Damage Crashes | 174 | 165 | -5.2 |
| TOTAL | 309 | 313 | 1.3 |
| **FATAL CRASHES** | | | |
| Had Been Drinking | 8 (24.2%) | 15 (40.5%) | 87.5 |
| Had Not Been Drinking / Not Known If Drinking | 25 (75.8%) | 22 (59.5%) | -12.0 |
| **PERSONS IN CRASHES** | | | |
| Killed | 35 | 40 | 14.3 |
| Injured | 1,538 | 1,548 | 0.7 |
| Not Injured | 12,093 | 13,033 | 7.8 |
| Unknown Injury | 750 | 778 | 3.7 |
| TOTAL | 14,416 | 15,399 | 6.8 |
| **PERSONS IN ALCOHOL-INVOLVED CRASHES** | | | |
| Killed | 8 | 15 | 87.5 |
| Injured | 157 | 180 | 14.6 |
| Not Injured | 292 | 291 | -0.3 |
| Unknown Injury | 34 | 24 | -29.4 |
| TOTAL | 491 | 510 | 3.9 |
| **PERSONS INJURED BY GENDER** | | | |
| Male | 753 | 784 | 4.1 |
| Female | 784 | 764 | -2.6 |
| Unknown Gender | 1 | 0 | -100.0 |
| TOTAL | 1,538 | 1,548 | 0.7 |
| **PERSONS INJURED BY SEVERITY** | | | |
| A Injury | 218 | 244 | 11.9 |
| B Injury | 440 | 414 | -5.9 |
| C Injury | 880 | 890 | 1.1 |
| TOTAL | 1,538 | 1,548 | 0.7 |

The Upper Peninsula experienced a 2.1 percent increase in crashes, a 14.3 percent increase in traffic fatalities, and a 0.7 percent increase in injuries. Persons sustaining A level injuries (the most serious) increased 11.9 percent.

# UPPER PENINSULA 2018-2019 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

| | 2018 | 2019 | PERCENT OF CHANGE |
|---|---|---|---|
| **PERSONS KILLED BY GENDER** | | | |
| Male | 25 | 33 | 32.0 |
| Female | 10 | 7 | -30.0 |
| TOTAL | 35 | 40 | 14.3 |
| **PERSONS KILLED** | | | |
| Motor Vehicle Driver | 28 | 31 | 10.7 |
| Passenger | 6 | 6 | 0.0 |
| Bicyclist | 0 | 0 | 0.0 |
| Pedestrian | 1 | 3 | 200.0 |
| Train Engineer | 0 | 0 | 0.0 |
| TOTAL | 35 | 40 | 14.3 |
| **BELT RESTRAINT USE BY DRIVER** | | | |
| Reported Restrained – Killed | 13 | 11 | -15.4 |
| Reported Not Restrained – Killed | 8 | 6 | -25.0 |
| Reported Restrained – Injured | 916 | 862 | -5.9 |
| Reported Not Restrained – Injured | 45 | 33 | -26.7 |
| **BELT AND CHILD RESTRAINT USE BY INJURED PASSENGER** | | | |
| Reported Restrained – Killed | 2 | 3 | 50.0 |
| Reported Not Restrained – Killed | 1 | 3 | 200.0 |
| Reported Restrained – Injured | 269 | 323 | 20.1 |
| Reported Not Restrained – Injured | 48 | 37 | -22.9 |
| **DRIVER AGE 16-20 INVOLVED** | | | |
| Fatal Crashes | 5 | 5 | 0.0 |
| Personal Injury Crashes | 215 | 219 | 1.9 |
| Property Damage Crashes | 1,011 | 1,095 | 8.3 |
| TOTAL ALL CRASHES | 1,231 | 1,319 | 7.1 |
| Persons Killed | 5 | 7 | 40.0 |
| Persons Injured | 306 | 314 | 2.6 |
| **DRIVER AGE 65 & OVER INVOLVED** | | | |
| Fatal Crashes | 11 | 9 | -18.2 |
| Personal Injury Crashes | 268 | 285 | 6.3 |
| Property Damage Crashes | 1,614 | 1,642 | 1.7 |
| TOTAL ALL CRASHES | 1,893 | 1,936 | 2.3 |
| Persons Killed | 13 | 9 | -30.8 |
| Persons Injured | 378 | 394 | 4.2 |

Deaths among vehicle occupants (drivers and passengers only) increased 8.8 percent.

# UPPER PENINSULA 2018-2019 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

| | 2018 | 2019 | PERCENT OF CHANGE |
|---|---|---|---|
| **CRASH FACTS** | | | |
| Licensed Drivers | 220,395 | 220,289 | 0.0 |
| Registered Vehicles | 256,932 | 278,643 | 8.5 |
| Population | 301,151 | 298,851 | -0.8 |
| Drivers Involved in Crashes | 12,351 | 13,024 | 5.4 |
| Occupants* Involved in Crashes | 14,351 | 15,324 | 6.8 |
| Estimated Vehicle Miles Traveled (thousands) | 3,371,820 | 3,406,208 | 1.0 |
| Death Rate Per 100 Million Vehicle Miles | 1.0 | 1.2 | 13.1 |
| Fatal Crash Rate Per 100 Million Vehicle Miles | 1.0 | 1.1 | 11.0 |

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

# UPPER PENINSULA 2019 COST OF CRASHES IN MICHIGAN

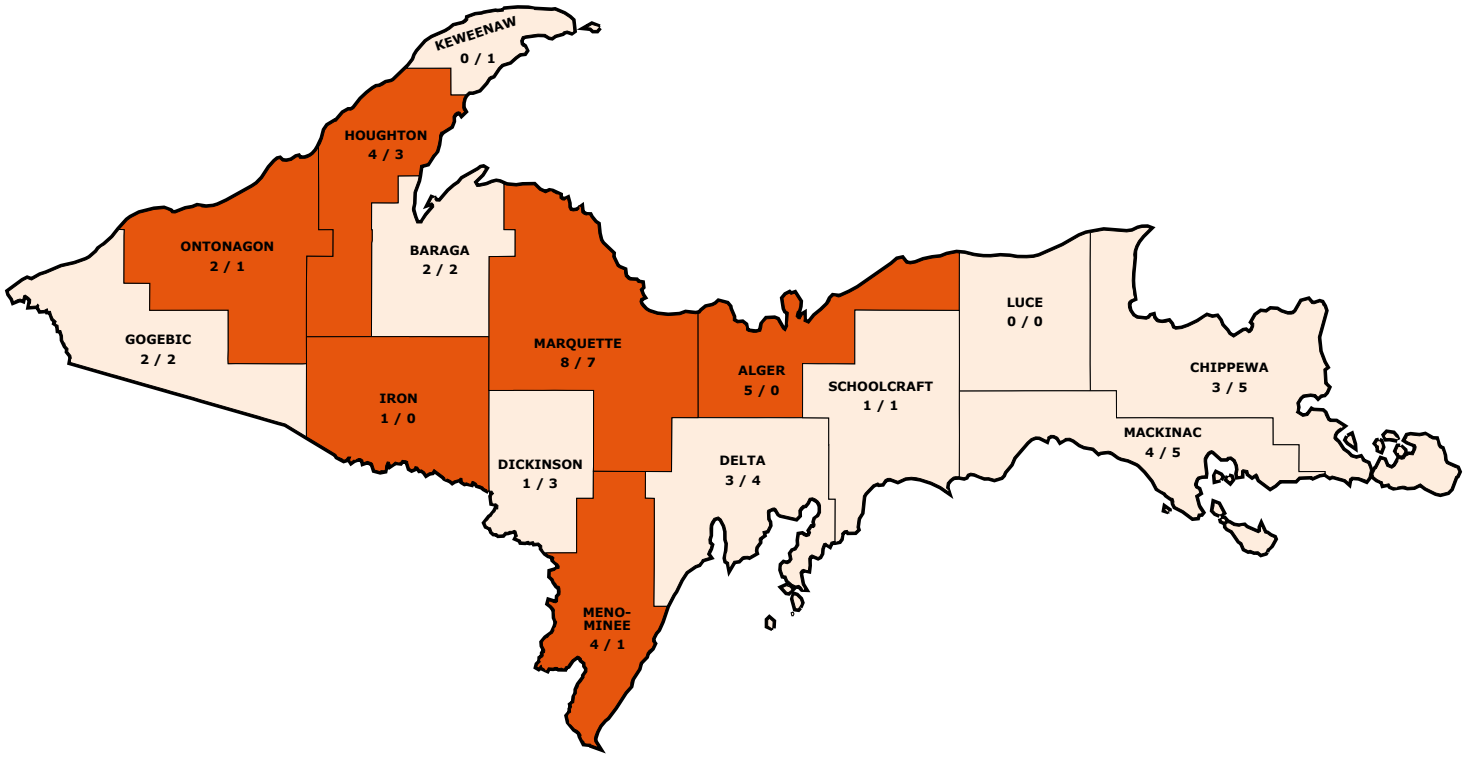
The cost estimate for Upper Peninsula crashes in 2019 was **$1,427,033,000**. This estimate is based on the National Safety Council's cost estimating procedures. Average comprehensive costs are based on the following national figures:

## COMPREHENSIVE COSTS, 2019

| | |
|---|---|
| Death | $11,148,000 |
| Suspected Serious Injury | $1,219,000 |
| Suspected Minor Injury | $336,000 |
| Possible Injury | $155,000 |
| No Injury | $51,000 |

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.

# UPPER PENINSULA WHERE TRAFFIC FATALITIES OCCURRED




**Where Traffic Fatalities Occurred - A One-Year Comparison**

**2019 = 40 / 2018 = 35**

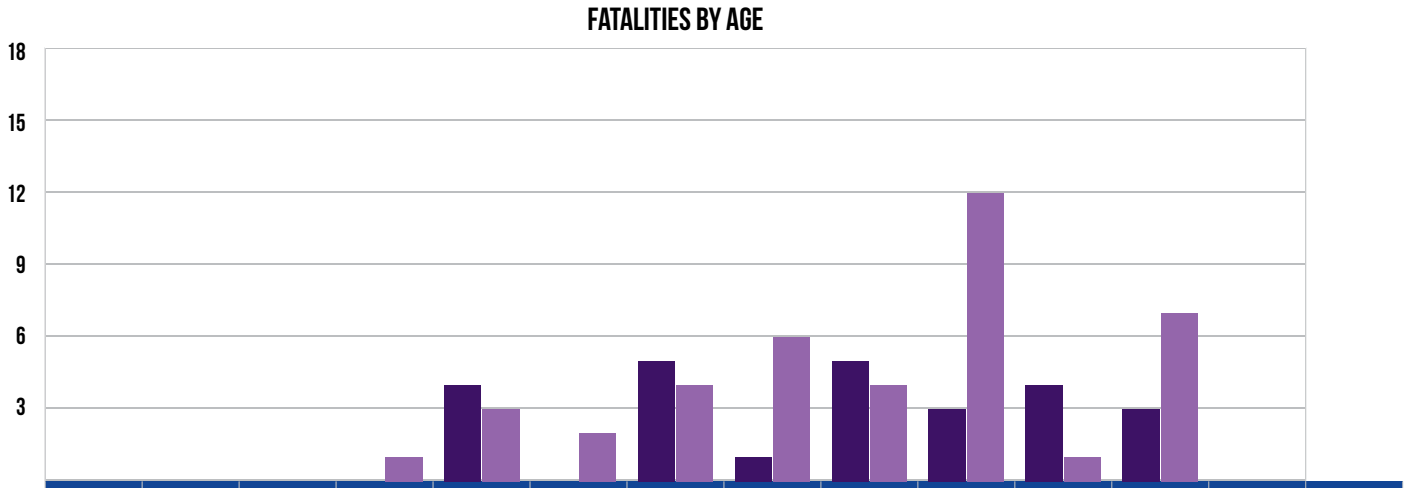
Same or decrease

Increase

# 5 YEAR TRENDS - UPPER PENINSULA FATALITIES

| FATALITIES BY AGE | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| Under 1 year old | 0 | 0 | 0 | 0 | 0 |
| 1 - 3 years | 0 | 0 | 0 | 0 | 0 |
| 4 - 10 years | 0 | 0 | 1 | 0 | 0 |
| 11 - 15 years | 0 | 0 | 1 | 0 | 1 |
| 16 - 20 years | 4 | 1 | 2 | 4 | 3 |
| 21 - 24 years | 0 | 3 | 2 | 6 | 2 |
| 25 - 34 years | 5 | 3 | 5 | 4 | 4 |
| 35 - 44 years | 1 | 7 | 1 | 3 | 6 |
| 45 - 54 years | 5 | 3 | 10 | 4 | 4 |
| 55 - 64 years | 3 | 9 | 6 | 5 | 12 |
| 65 - 74 years | 4 | 2 | 3 | 5 | 1* |
| 75 years and over | 3 | 4 | 8 | 4 | 7 |
| Unknown | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 25 | 32 | 39 | 35 | 40 |

*Indicates that the most recent year is the lowest number of fatalities in the 5-year period in that age group




| | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2015 | 0 | 0 | 0 | 0 | 4 | 0 | 5 | 1 | 5 | 3 | 4 | 3 | 0 | 25 |
| 2019 | 0 | 0 | 0 | 1 | 3 | 2 | 4 | 6 | 4 | 12 | 1 | 7 | 0 | 40 |

# 5 YEAR TRENDS - UPPER PENINSULA DRIVERS IN FATAL CRASHES

| DRIVER AGE | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| **AGE OF DRIVERS INVOLVED IN FATAL CRASHES** | | | | | |
| 13 years and under | 0 | 0 | 0 | 0 | 0 |
| 14 years | 0 | 0 | 0 | 0 | 0 |
| 15 years | 0 | 0 | 1 | 0 | 0 |
| 16 years | 0 | 1 | 0 | 0 | 0 |
| 17 years | 2 | 1 | 2 | 0 | 0 |
| 18 years | 1 | 1 | 1 | 1 | 3 |
| 19 years | 2 | 0 | 1 | 2 | 2 |
| 20 years | 1 | 1 | 0 | 2 | 0 |
| 21 - 24 years | 5 | 3 | 4 | 9 | 5 |
| 25 - 34 years | 6 | 4 | 4 | 7 | 4 |
| 35 - 44 years | 4 | 8 | 5 | 9 | 7 |
| 45 - 54 years | 5 | 5 | 14 | 9 | 6 |
| 55 - 64 years | 5 | 13 | 8 | 8 | 16 |
| 65 - 69 years | 3 | 0 | 4 | 4 | 3 |
| 70 - 74 years | 4 | 1 | 2 | 2 | 0 |
| 75 - 79 years | 1 | 0 | 1 | 0 | 4 |
| 80 - 84 years | 1 | 4 | 2 | 1 | 2 |
| 85 - 89 years | 0 | 0 | 2 | 3 | 0 |
| 90 years and over | 0 | 0 | 0 | 1 | 0 |
| Unknown | 0 | 0 | 2 | 1 | 0 |
| Totals | 40 | 42 | 53 | 59 | 52 |
| **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 | 0 | 0 | 0 |
| 18 years | 0 | 0 | 0 | 0 | 2 |
| 19 years | 1 | 0 | 0 | 1 | 1 |
| 20 years | 1 | 1 | 0 | 1 | 0 |
| 21 - 24 years | 1 | 1 | 0 | 3 | 1 |
| 25 - 34 years | 3 | 3 | 3 | 1 | 1 |
| 35 - 44 years | 0 | 4 | 2 | 1 | 2 |
| 45 - 54 years | 2 | 3 | 7 | 2 | 3 |
| 55 - 64 years | 3 | 4 | 4 | 1 | 9 |
| 65 - 69 years | 1 | 0 | 1 | 0 | 2 |
| 70 - 74 years | 0 | 0 | 0 | 0 | 0 |
| 75 - 79 years | 1 | 0 | 0 | 0 | 2 |
| 80 - 84 years | 1 | 1 | 0 | 0 | 0 |
| 85 - 89 years | 0 | 0 | 1 | 0 | 0 |
| 90 years and over | 0 | 0 | 0 | 0 | 0 |
| Unknown | 0 | 0 | 0 | 1 | 0 |
| Totals | 15 | 17 | 18 | 11 | 23 |

# 5 YEAR TRENDS - UPPER PENINSULA BICYCLIST AND PEDESTRIAN FATALITIES

| FATALITIES BY AGE | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|
| **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 | 1 | 0 | 0 | 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 | 1 | 0 | 0 | 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 | 1 | 1 |
| 35 - 44 years | 0 | 1 | 0 | 0 | 2 |
| 45 - 54 years | 0 | 0 | 0 | 0 | 0 |
| 55 - 64 years | 0 | 0 | 0 | 0 | 0 |
| 65 - 74 years | 1 | 1 | 0 | 0 | 0 |
| 75 years and over | 0 | 0 | 0 | 0 | 0 |
| Unknown | 0 | 0 | 0 | 0 | 0 |
| Totals | 1 | 2 | 0 | 1 | 3 |

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

| HOLIDAY PERIOD | FATAL CRASHES | PERSONS KILLED |
|---|---|---|
| **MEMORIAL DAY** | | |
| 2019 (3) MON | 1 [1] | 1 [1] |
| 2018 (3) MON | 1 [0] | 1 [0] |
| 2017 (3) MON | 0 [0] | 0 [0] |
| 2016 (3) MON | 0 [0] | 0 [0] |
| 2015 (3) MON | 0 [0] | 0 [0] |
| **FOURTH OF JULY** | | |
| 2019 (4) THU | 0 [0] | 0 [0] |
| 2018 (1) WED | 0 [0] | 0 [0] |
| 2017 (4) TUE | 1 [1] | 1 [1] |
| 2016 (3) MON | 0 [0] | 0 [0] |
| 2015 (3) SAT | 0 [0] | 0 [0] |
| **LABOR DAY** | | |
| 2019 (3) MON | 0 [0] | 0 [0] |
| 2018 (3) MON | 2 [1] | 2 [1] |
| 2017 (3) MON | 0 [0] | 0 [0] |
| 2016 (3) MON | 0 [0] | 0 [0] |
| 2015 (3) MON | 1 [1] | 1 [1] |
| **THANKSGIVING** | | |
| 2019 (4) THU | 0 [0] | 0 [0] |
| 2018 (4) THU | 0 [0] | 0 [0] |
| 2017 (4) THU | 0 [0] | 0 [0] |
| 2016 (4) THU | 0 [0] | 0 [0] |
| 2015 (4) THU | 0 [0] | 0 [0] |
| **CHRISTMAS** | | |
| 2019 (1) WED | 0 [0] | 0 [0] |
| 2018 (4) TUE | 0 [0] | 0 [0] |
| 2017 (3) MON | 0 [0] | 0 [0] |
| 2016 (3) SUN | 0 [0] | 0 [0] |
| 2015 (3) FRI | 0 [0] | 0 [0] |
| **NEW YEAR'S** | | |
| 2019 (1) WED | 0 [0] | 0 [0] |
| 2018 (4) TUE | 1 [1] | 1 [1] |
| 2017 (3) MON | 2 [0] | 3 [0] |
| 2016 (3) SUN | 0 [0] | 0 [0] |
| 2015 (3) FRI | 0 [0] | 0 [0] |

**SUMMARY 2019**

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

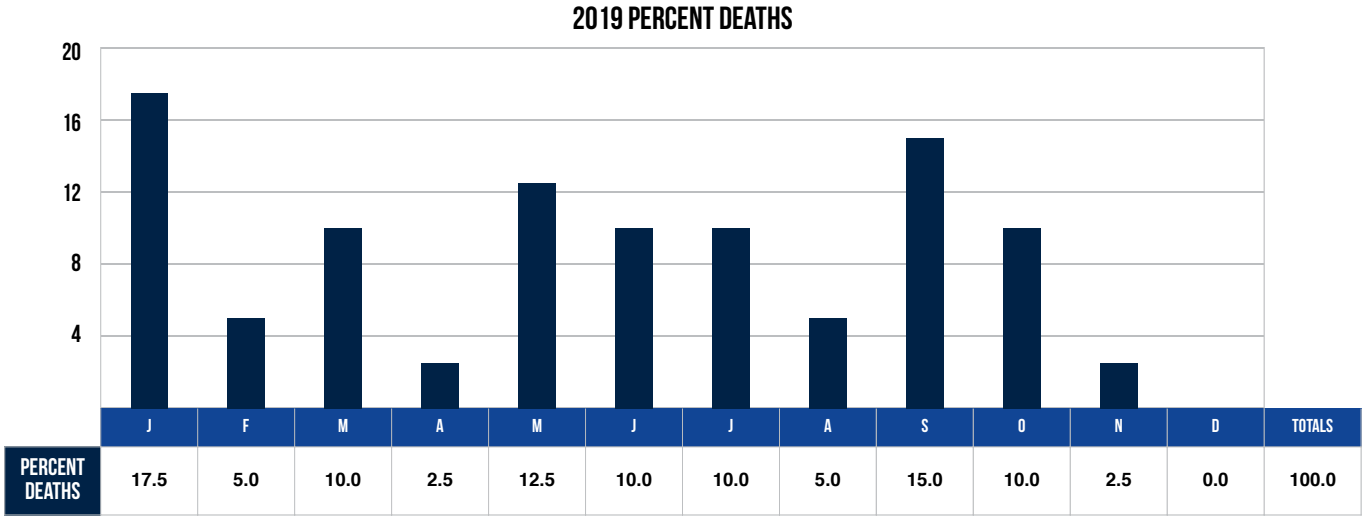
Based on the total 2019 Upper Peninsula experience, deaths averaged 0.11 per day. Alcohol-related deaths averaged 0.04 per day.

Based on the total 2019 Upper Peninsula holiday period experience, deaths averaged 0.06 per day. Alcohol-related deaths also averaged 0.06 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 BY MONTH

| MONTH | TRAFFIC DEATHS | | | | | 2019 PERCENTAGES |
|---|---|---|---|---|---|---|
| | 2015 | 2016 | 2017 | 2018 | 2019 | Percent Deaths |
| January | 2 | 6 | 2 | 3 | 7 | 17.5 |
| February | 0 | 4 | 3 | 2 | 2 | 5.0 |
| March | 0 | 2 | 4 | 4 | 4 | 10.0 |
| April | 2 | 0 | 5 | 1 | 1 | 2.5 |
| May | 1 | 1 | 3 | 2 | 5 | 12.5 |
| June | 1 | 8 | 5 | 2 | 4 | 10.0 |
| July | 6 | 3 | 4 | 5 | 4 | 10.0 |
| August | 4 | 1 | 1 | 3 | 2 | 5.0 |
| September | 1 | 1 | 2 | 5 | 6 | 15.0 |
| October | 4 | 1 | 1 | 1 | 4 | 10.0 |
| November | 2 | 2 | 2 | 3 | 1 | 2.5 |
| December | 2 | 3 | 7 | 4 | 0 | 0.0 |
| Totals | 25 | 32 | 39 | 35 | 40 | 100.0 |




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

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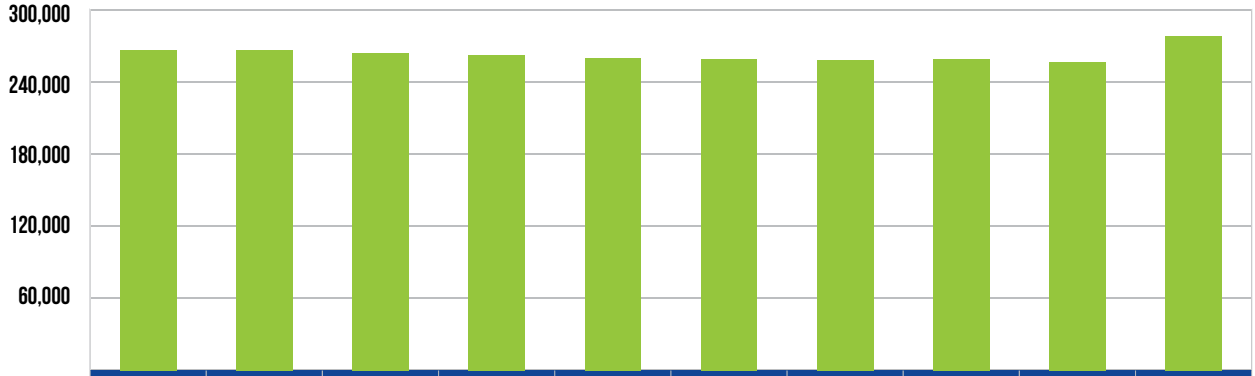
# 10 YEAR TRENDS-UPPER PENINSULA

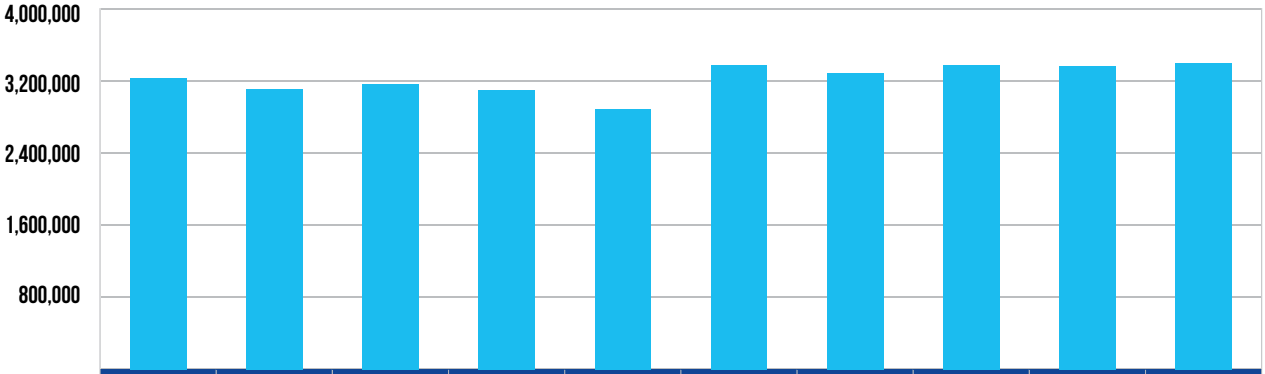
## UPPER PENINSULA VEHICLE REGISTRATIONS




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 266,413 | 266,501 | 264,199 | 262,485 | 260,036 | 258,797 | 258,733 | 259,530 | 256,932 | 278,643 |

Vehicle registrations in the Upper Peninsula increased 4.6 percent over the 10-year period.

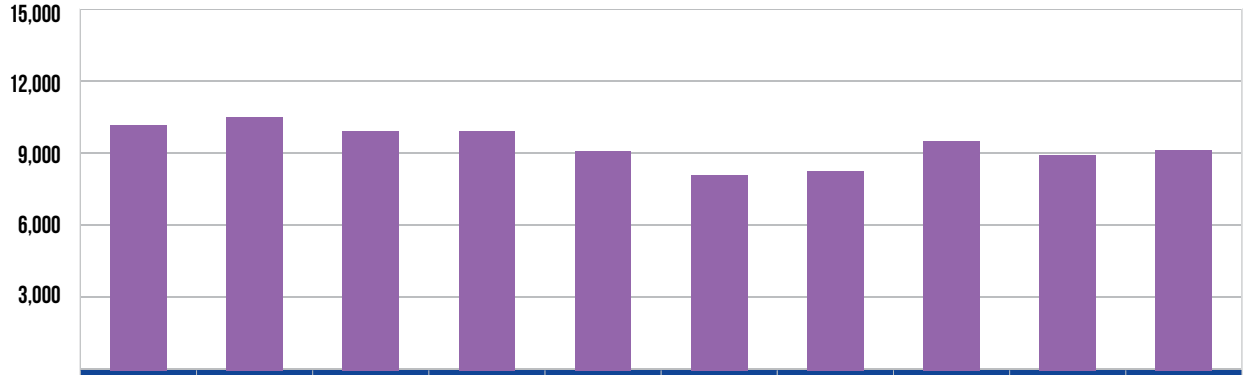
## UPPER PENINSULA VEHICLE MILES TRAVELED (THOUSANDS)




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 3,241,287 | 3,121,069 | 3,166,430 | 3,100,105 | 2,894,265 | 3,380,731 | 3,291,504 | 3,380,362 | 3,371,820 | 3,406,208 |

Vehicle miles traveled in the Upper Peninsula increased 5.1 percent over the 10-year period.

## UPPER PENINSULA CRASHES

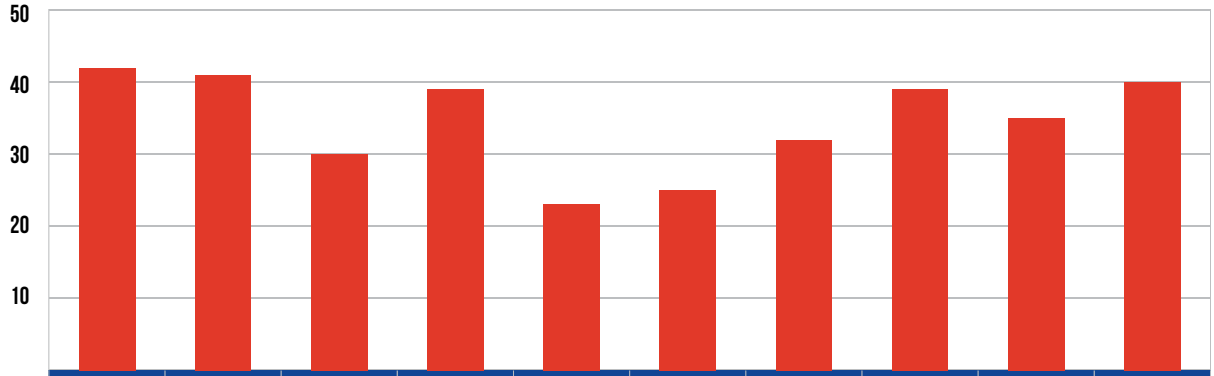



| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 10,199 | 10,548 | 9,945 | 9,956 | 9,126 | 8,099 | 8,264 | 9,542 | 8,948 | 9,140 |

There were 9,140 Upper Peninsula crashes in 2019--a 10.4 percent decrease from 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

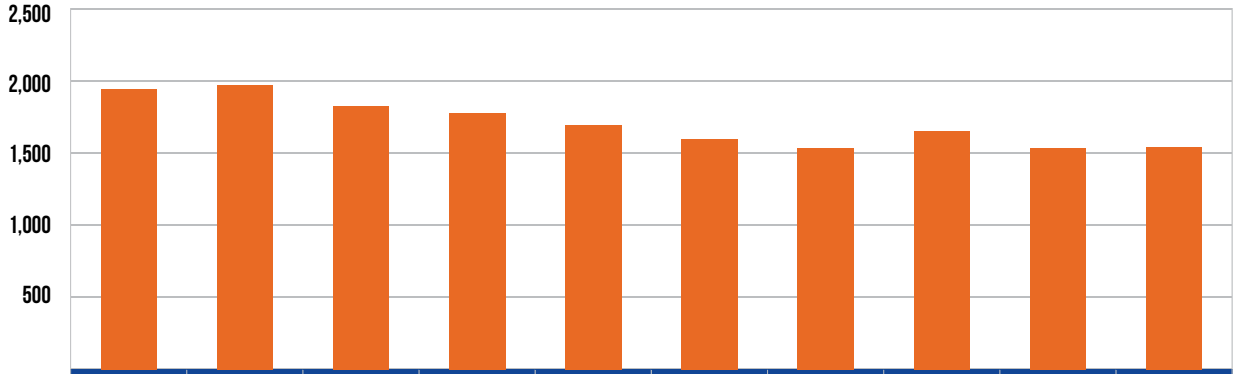
## UPPER PENINSULA DEATHS




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 42 | 41 | 30 | 39 | 23 | 25 | 32 | 39 | 35 | 40 |

In 2019, 40 people died in motor vehicle crashes in the Upper Peninsula--a decrease of 4.8 percent from 2010.

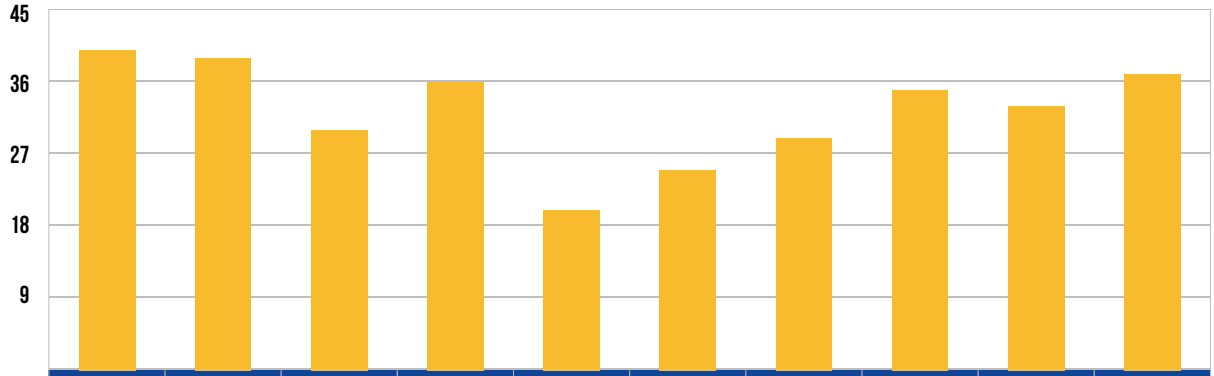
## UPPER PENINSULA INJURIES




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 1,944 | 1,974 | 1,827 | 1,778 | 1,696 | 1,603 | 1,541 | 1,654 | 1,538 | 1,548 |

In 2019, 1,548 people received injuries in motor vehicle crashes in the Upper Peninsula--down 20.4 percent from 1,944 in 2010.

## UPPER PENINSULA FATAL CRASHES

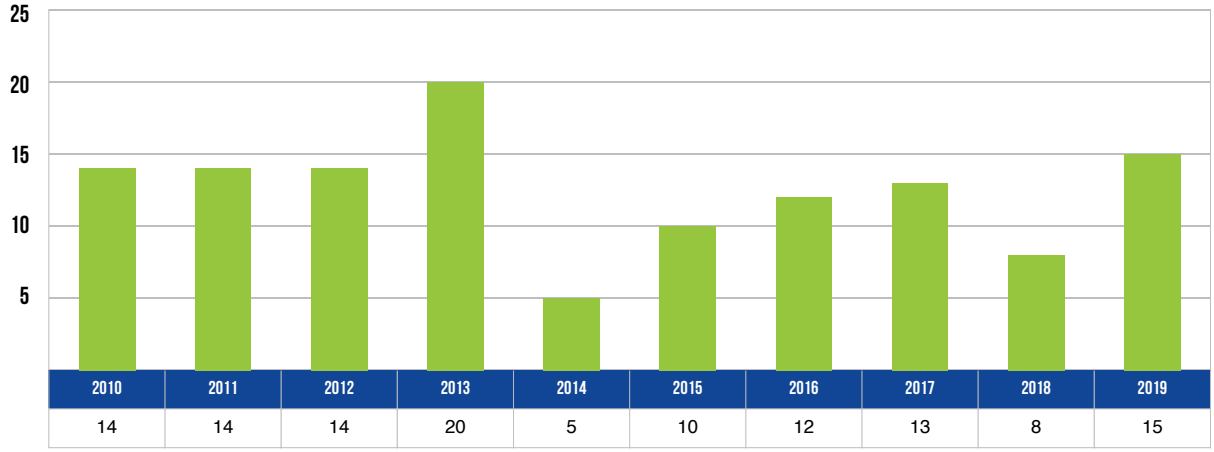



| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 40 | 39 | 30 | 36 | 20 | 25 | 29 | 35 | 33 | 37 |

In 2019, there were 37 fatal crashes in the Upper Peninsula, down 7.5 percent from 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

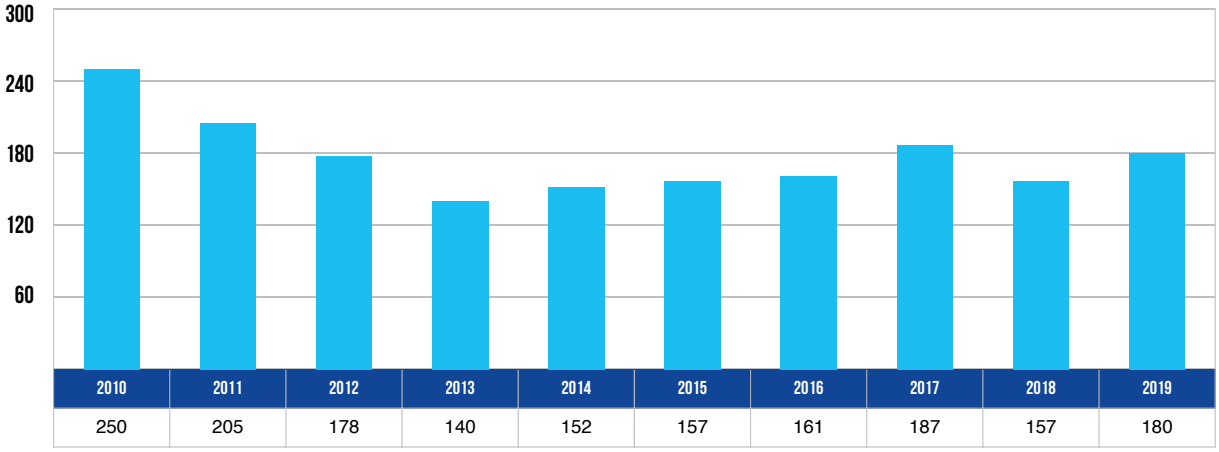
## UPPER PENINSULA ALCOHOL-INVOLVED DEATHS




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 14 | 14 | 14 | 20 | 5 | 10 | 12 | 13 | 8 | 15 |

There were 15 deaths in alcohol-involved crashes in the Upper Peninsula in 2019, one more than the 2010 total.

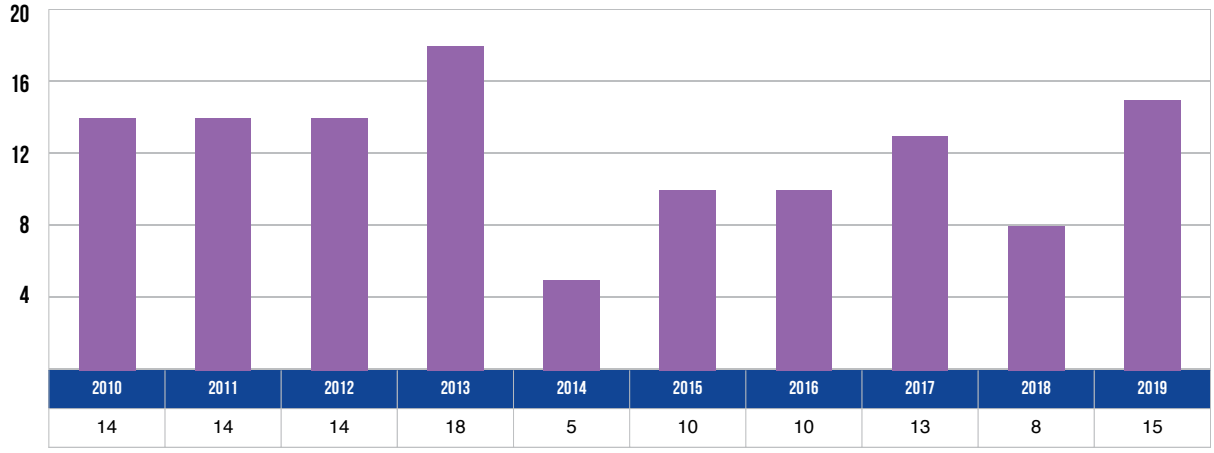
## UPPER PENINSULA ALCOHOL-INVOLVED INJURIES




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 250 | 205 | 178 | 140 | 152 | 157 | 161 | 187 | 157 | 180 |

There were 180 alcohol-involved injuries in the Upper Peninsula in 2019--down 28.0 percent from 2010.

## UPPER PENINSULA ALCOHOL-INVOLVED FATAL CRASHES

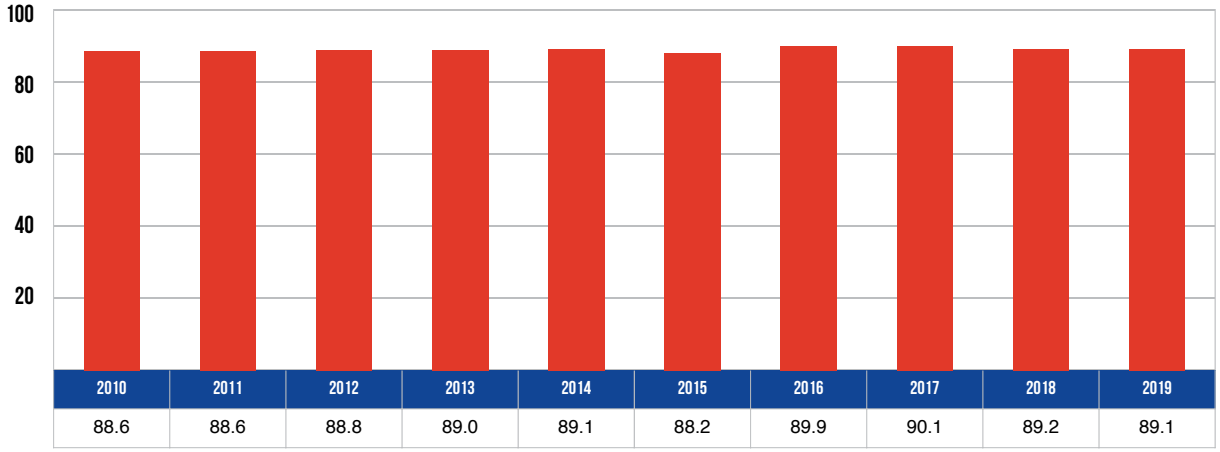



| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 14 | 14 | 14 | 18 | 5 | 10 | 10 | 13 | 8 | 15 |

There were 15 alcohol-involved fatal crashes in the Upper Peninsula in 2019, one more than the 14 alcohol-involved fatal crashes in 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

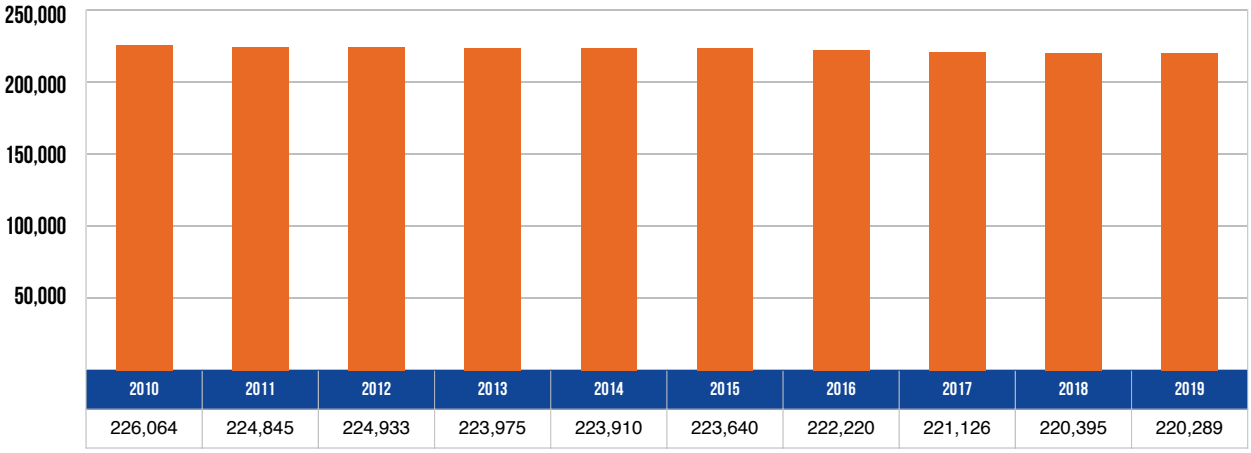
## UPPER PENINSULA RESTRAINT USAGE IN CRASHES




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 88.6 | 88.6 | 88.8 | 89.0 | 89.1 | 88.2 | 89.9 | 90.1 | 89.2 | 89.1 |

The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes was 89.1 percent in 2019, up 0.6 percent from 2010.

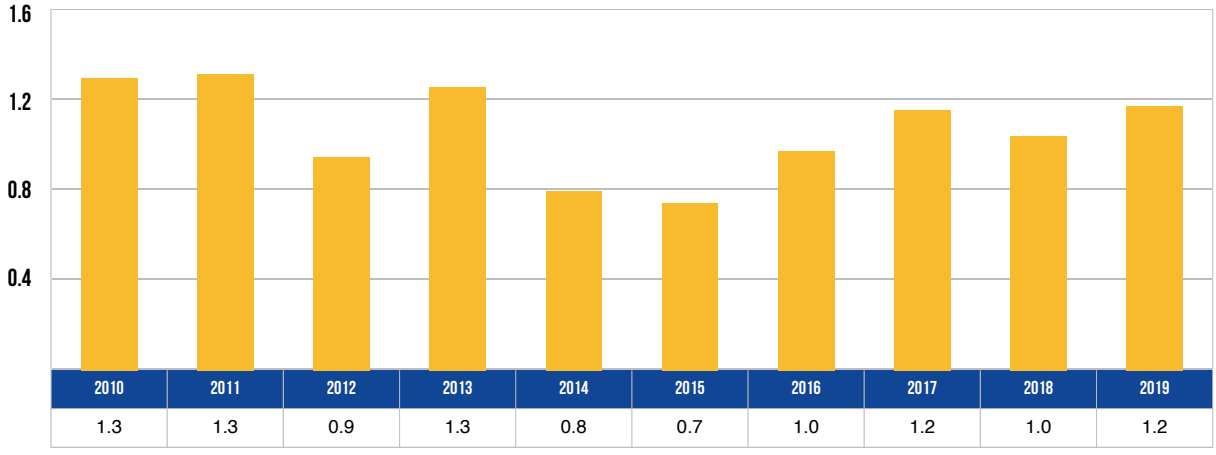
## UPPER PENINSULA DRIVERS




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 226,064 | 224,845 | 224,933 | 223,975 | 223,910 | 223,640 | 222,220 | 221,126 | 220,395 | 220,289 |

There were 220,289 licensed drivers on Upper Peninsula roadways in 2019--a decrease of 2.6 percent from 2010.

## UPPER PENINSULA FATALITIES PER 100 MILLION VMT

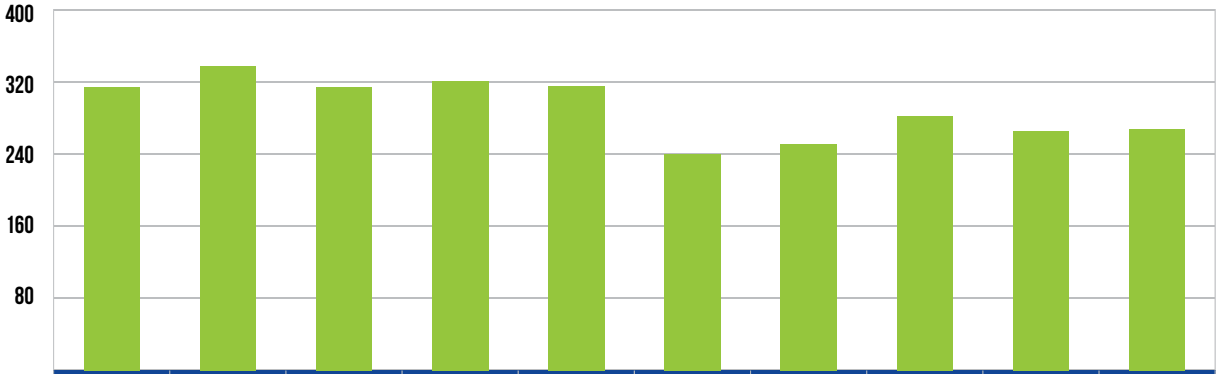



| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 1.3 | 1.3 | 0.9 | 1.3 | 0.8 | 0.7 | 1.0 | 1.2 | 1.0 | 1.2 |

The 1.2 death rate for the Upper Peninsula in 2019 was a 9.4 percent decrease from 1.3 in 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

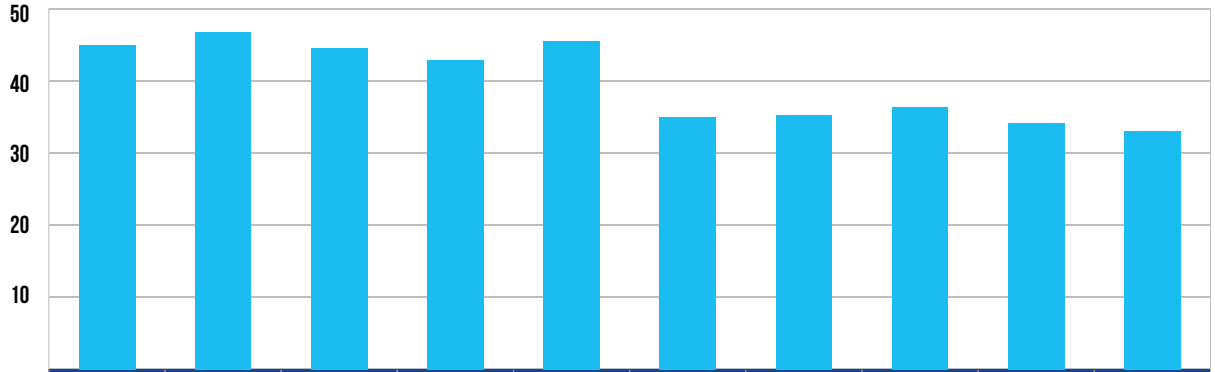
## UPPER PENINSULA TOTAL CRASHES PER 100 MILLION VMT




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 314.7 | 338.0 | 314.1 | 321.2 | 315.3 | 239.6 | 251.1 | 282.3 | 265.4 | 268.3 |

The total crash rate of 268.3 in the Upper Peninsula in 2019 was a 14.7 percent decrease from 314.7 in 2010.

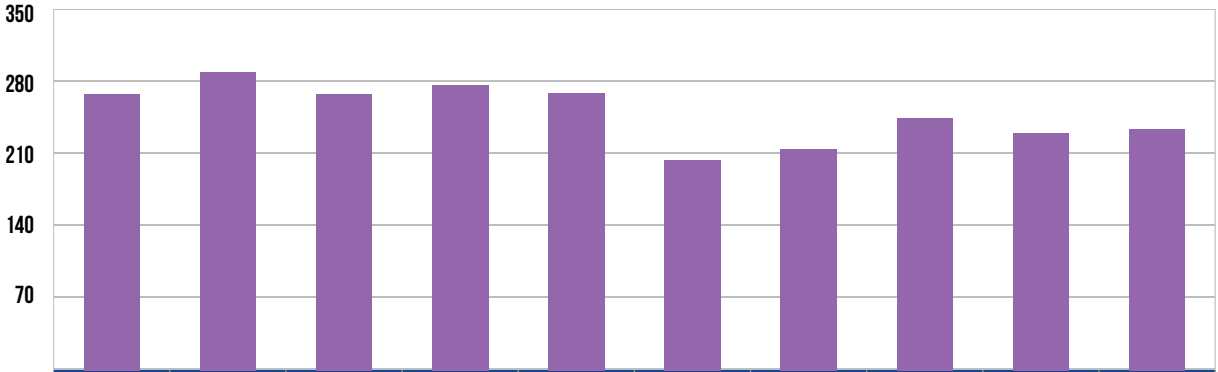
## UPPER PENINSULA INJURY CRASHES PER 100 MILLION VMT




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 45.1 | 46.8 | 44.6 | 43.0 | 45.6 | 35.1 | 35.3 | 36.5 | 34.2 | 33.2 |

The injury crash rate of 33.2 in the Upper Peninsula in 2019 was a 26.4 percent decrease from 2010.

## UPPER PENINSULA PROPERTY DAMAGE CRASHES PER 100 MILLION VMT

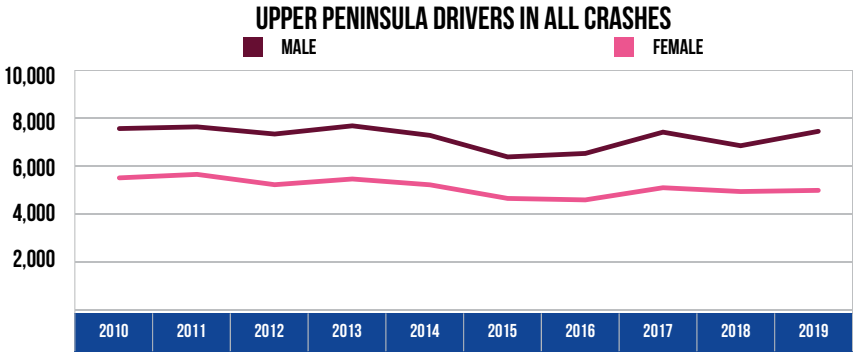



| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 268.4 | 289.9 | 268.6 | 277.0 | 268.9 | 203.7 | 214.9 | 244.7 | 230.2 | 234.1 |

The property damage crash rate of 234.1 in the Upper Peninsula in 2019 was a 12.8 percent decrease from 2010.

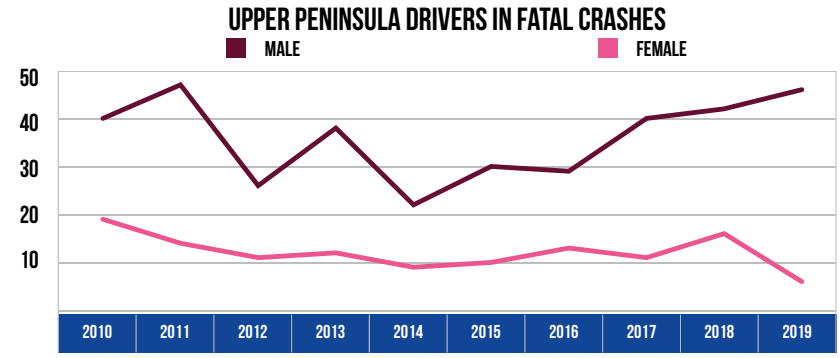
# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

| UPPER PENINSULA DRIVERS IN ALL CRASHES | | |
|---|---|---|
| Year | Male | Female |
| 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 |
| 2018 | 6,804 | 4,895 |
| 2019 | 7,404 | 4,944 |




Male drivers accounted for 60.0 percent of all drivers in crashes in the Upper Peninsula during 2019, slightly higher than the 57.9 percent figure in 2010. Female drivers accounted for 40.0 percent of all drivers in crashes during 2019, slightly lower than the 42.1 percent figure in 2010.

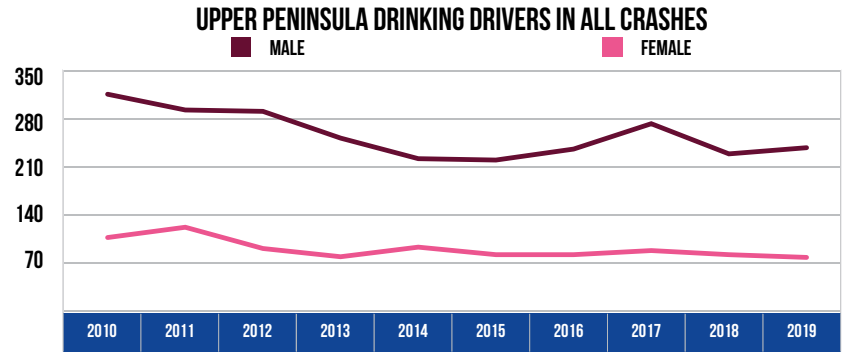
| UPPER PENINSULA DRIVERS IN FATAL CRASHES | | |
|---|---|---|
| Year | Male | Female |
| 2010 | 40 | 19 |
| 2011 | 47 | 14 |
| 2012 | 26 | 11 |
| 2013 | 38 | 12 |
| 2014 | 22 | 9 |
| 2015 | 30 | 10 |
| 2016 | 29 | 13 |
| 2017 | 40 | 11 |
| 2018 | 42 | 16 |
| 2019 | 46 | 6 |




Male drivers made up 88.5 percent of all drivers in fatal crashes in the Upper Peninsula in 2019, which was up from 67.8 percent in 2010. Female drivers made up 11.5 percent of all drivers in fatal crashes in 2019, which was down from 32.2 percent in 2010.

| UPPER PENINSULA DRINKING DRIVERS IN ALL CRASHES | | |
|---|---|---|
| Year | Male | Female |
| 2010 | 314 | 105 |
| 2011 | 291 | 120 |
| 2012 | 289 | 89 |
| 2013 | 250 | 77 |
| 2014 | 220 | 91 |
| 2015 | 218 | 80 |
| 2016 | 234 | 80 |
| 2017 | 271 | 86 |
| 2018 | 227 | 80 |
| 2019 | 236 | 76 |

Note: 676 drivers in all crashes were coded as unknown gender in the Upper Peninsula in 2019 and are not included in the tables.

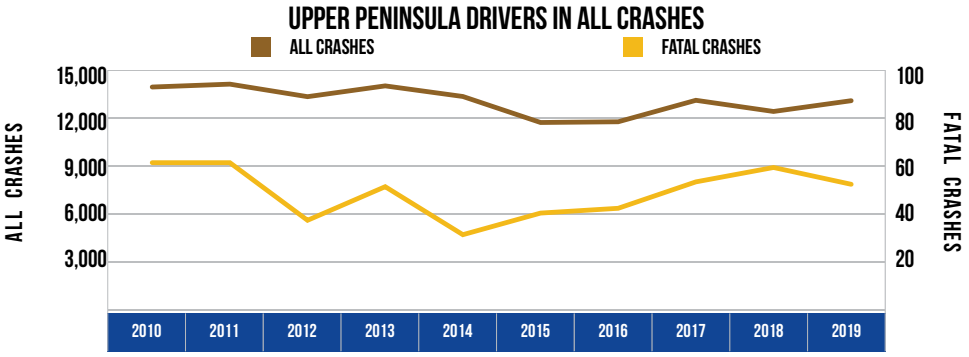



In 2019, males represented 75.6 percent of all drinking drivers in the Upper Peninsula, which was up slightly from 74.9 percent in 2010. Females represented 24.4 percent of all drinking drivers, which was down slightly from 25.1 percent in 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

## UPPER PENINSULA DRIVERS IN ALL CRASHES

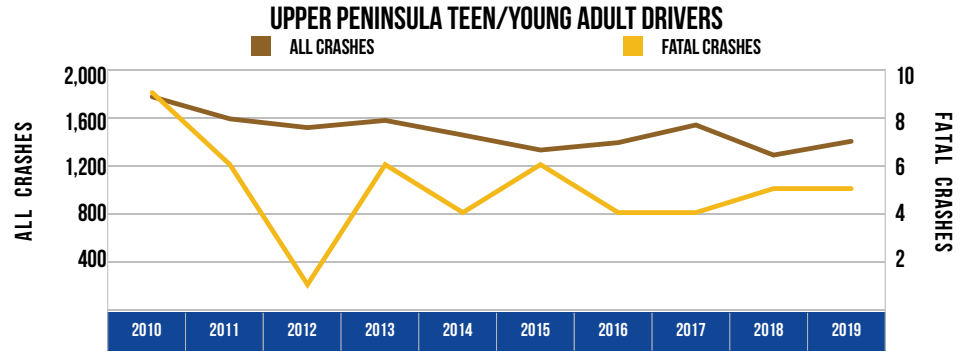
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 13,879 | 61 |
| 2011 | 14,059 | 61 |
| 2012 | 13,276 | 37 |
| 2013 | 13,950 | 51 |
| 2014 | 13,287 | 31 |
| 2015 | 11,662 | 40 |
| 2016 | 11,707 | 42 |
| 2017 | 13,050 | 53 |
| 2018 | 12,351 | 59 |
| 2019 | 13,024 | 52 |




The number of drivers involved in all crashes in the Upper Peninsula decreased 6.2 percent over the 10-year period. The number of drivers involved in fatal crashes in the Upper Peninsula decreased 14.8 percent over the 10-year period.

## UPPER PENINSULA TEEN/YOUNG ADULT DRIVERS (AGE 16-20)

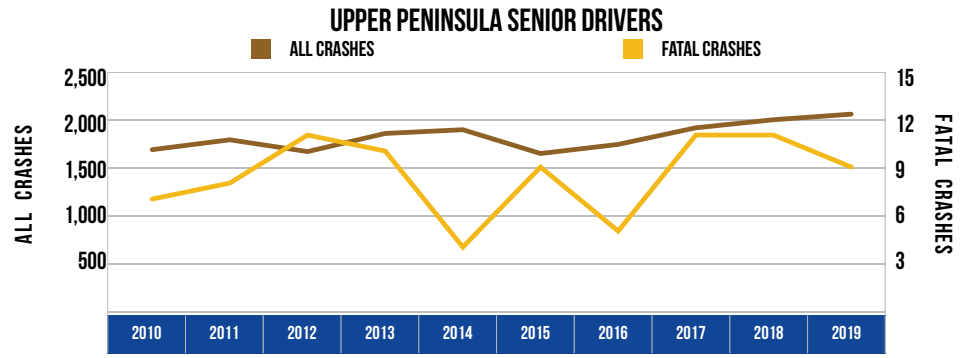
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 1,765 | 9 |
| 2011 | 1,581 | 6 |
| 2012 | 1,508 | 1 |
| 2013 | 1,568 | 6 |
| 2014 | 1,446 | 4 |
| 2015 | 1,321 | 6 |
| 2016 | 1,383 | 4 |
| 2017 | 1,530 | 4 |
| 2018 | 1,279 | 5 |
| 2019 | 1,394 | 5 |




Teen/young adult drivers (age 16-20) in all crashes in the Upper Peninsula has decreased by 21.0 percent since 2010. The number of teen/young adult drivers in fatal crashes in the Upper Peninsula has decreased by 44.4 percent since 2010.

## UPPER PENINSULA SENIOR DRIVERS (AGE 65 & OVER)

| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 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 |
| 2018 | 1,993 | 11 |
| 2019 | 2,051 | 9 |

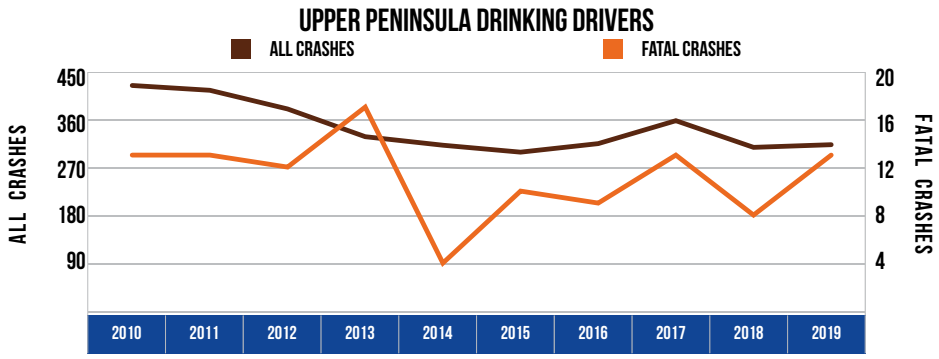



The number of drivers age 65 and over in all crashes in the Upper Peninsula has increased 22.0 percent since 2010. Their involvement in fatal crashes increased 28.6 percent since 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

## UPPER PENINSULA DRINKING DRIVERS

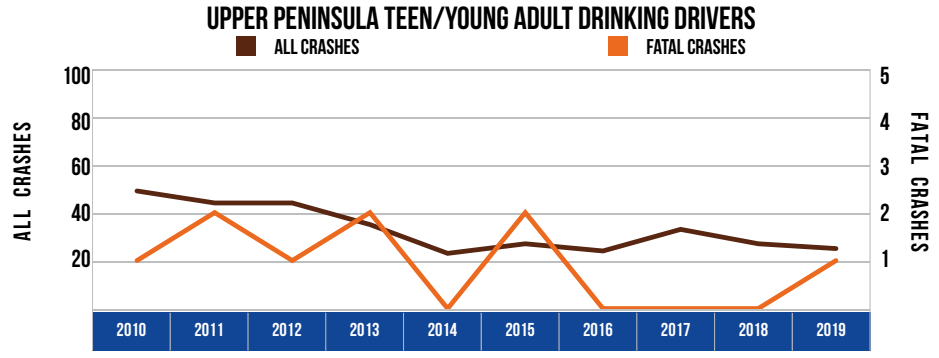
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 423 | 13 |
| 2011 | 414 | 13 |
| 2012 | 379 | 12 |
| 2013 | 327 | 17 |
| 2014 | 311 | 4 |
| 2015 | 298 | 10 |
| 2016 | 314 | 9 |
| 2017 | 357 | 13 |
| 2018 | 307 | 8 |
| 2019 | 312 | 13 |




Drinking driver involvement in all crashes in the Upper Peninsula decreased by 26.2 percent since 2010. In both 2019 and 2010 there were 13 drinking drivers in fatal crashes in the Upper Peninsula.

## UPPER PENINSULA TEEN/YOUNG ADULT DRINKING DRIVERS (AGE 16-20)

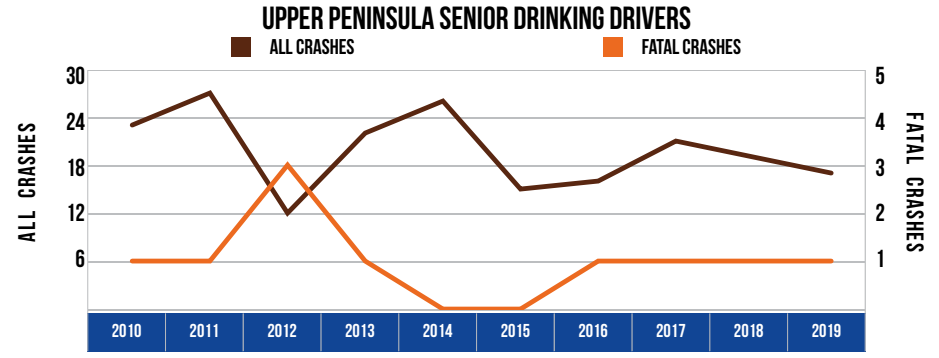
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 49 | 1 |
| 2011 | 44 | 2 |
| 2012 | 44 | 1 |
| 2013 | 35 | 2 |
| 2014 | 23 | 0 |
| 2015 | 27 | 2 |
| 2016 | 24 | 0 |
| 2017 | 33 | 0 |
| 2018 | 27 | 0 |
| 2019 | 25 | 1 |




The number of teen/young adult drinking drivers (age 16-20) in all crashes in the Upper Peninsula decreased by 49.0 percent. One teen/young adult drinking driver was involved in a fatal crash in both 2010 and 2019.

## UPPER PENINSULA SENIOR DRINKING DRIVERS (AGE 65 & OVER)

| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 23 | 1 |
| 2011 | 27 | 1 |
| 2012 | 12 | 3 |
| 2013 | 22 | 1 |
| 2014 | 26 | 0 |
| 2015 | 15 | 0 |
| 2016 | 16 | 1 |
| 2017 | 21 | 1 |
| 2018 | 19 | 1 |
| 2019 | 17 | 1 |

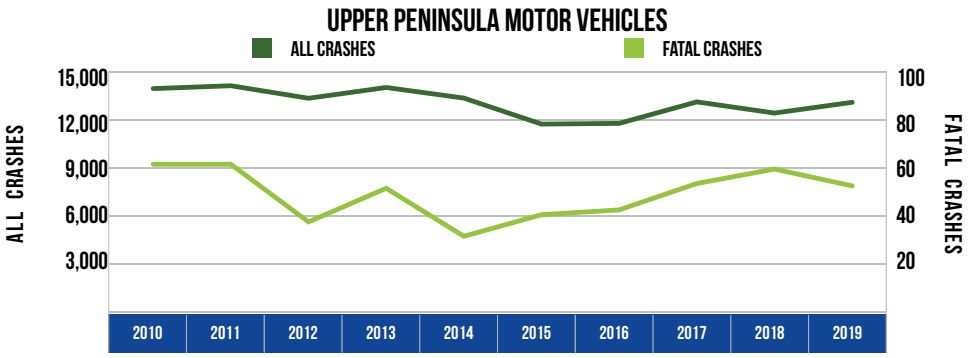



The number of senior drinking drivers (age 65 and over) in all crashes in the Upper Peninsula has decreased 26.1 percent over the 10-year period. There was one senior drinking driver involved in a fatal crash in both 2019 and 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

## UPPER PENINSULA MOTOR VEHICLES

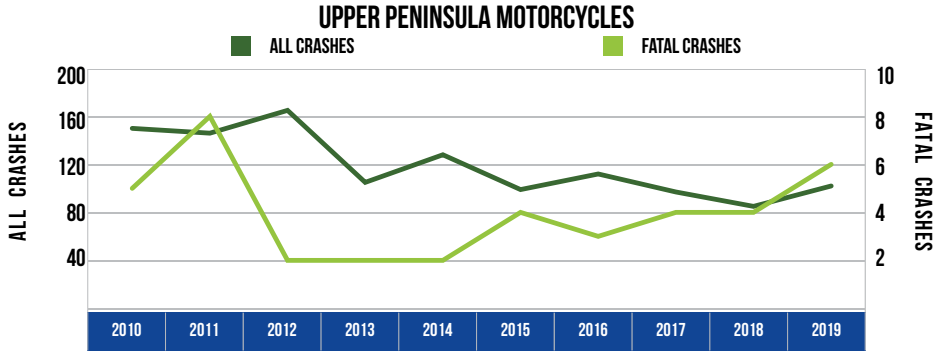
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 13,879 | 61 |
| 2011 | 14,059 | 61 |
| 2012 | 13,276 | 37 |
| 2013 | 13,950 | 51 |
| 2014 | 13,287 | 31 |
| 2015 | 11,662 | 40 |
| 2016 | 11,707 | 42 |
| 2017 | 13,050 | 53 |
| 2018 | 12,351 | 59 |
| 2019 | 13,024 | 52 |




There were 13,024 motor vehicles involved in all Upper Peninsula crashes in 2019, down 6.2 percent from 2010. There were 52 motor vehicles involved in fatal crashes in 2019, down 14.8 percent from 2010.

## UPPER PENINSULA MOTORCYCLES

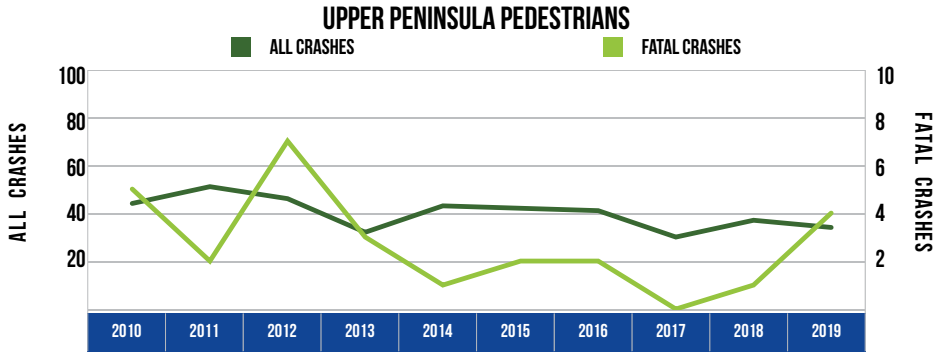
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 150 | 5 |
| 2011 | 146 | 8 |
| 2012 | 165 | 2 |
| 2013 | 105 | 2 |
| 2014 | 128 | 2 |
| 2015 | 99 | 4 |
| 2016 | 112 | 3 |
| 2017 | 97 | 4 |
| 2018 | 85 | 4 |
| 2019 | 102 | 6 |




There were 102 motorcycles involved in crashes in the Upper Peninsula in 2019, a 32.0 percent decrease from 2010. There were five motorcycles involved in fatal crashes in 2019, down from six in 2010.

## UPPER PENINSULA PEDESTRIANS

| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 44 | 5 |
| 2011 | 51 | 2 |
| 2012 | 46 | 7 |
| 2013 | 32 | 3 |
| 2014 | 43 | 1 |
| 2015 | 42 | 2 |
| 2016 | 41 | 2 |
| 2017 | 30 | 0 |
| 2018 | 37 | 1 |
| 2019 | 34 | 4 |

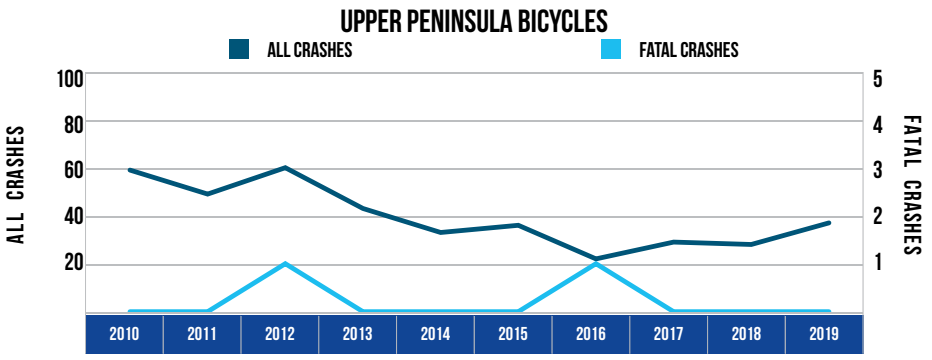



There were 34 pedestrians involved in crashes in the Upper Peninsula in 2019, down 22.7 percent from 2010. Four pedestrians were involved in fatal crashes in 2019, down from five in 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

## UPPER PENINSULA BICYCLES

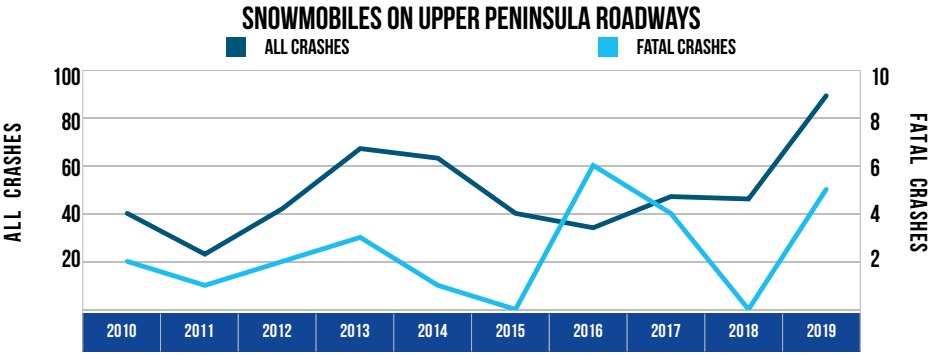
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 59 | 0 |
| 2011 | 49 | 0 |
| 2012 | 60 | 1 |
| 2013 | 43 | 0 |
| 2014 | 33 | 0 |
| 2015 | 36 | 0 |
| 2016 | 22 | 1 |
| 2017 | 29 | 0 |
| 2018 | 28 | 0 |
| 2019 | 37 | 0 |




There were 37 bicycles involved in Upper Peninsula crashes in 2019, down 37.3 percent from 2010. There were no bicycles involved in fatal crashes in 2019.

## SNOWMOBILES ON UPPER PENINSULA ROADWAYS

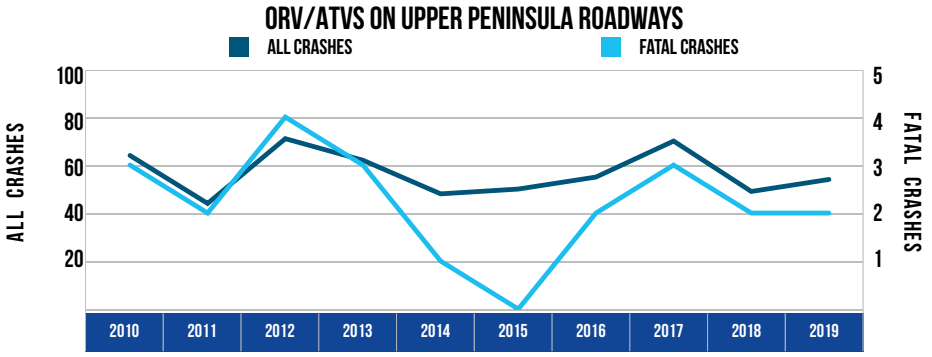
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 40 | 2 |
| 2011 | 23 | 1 |
| 2012 | 42 | 2 |
| 2013 | 67 | 3 |
| 2014 | 63 | 1 |
| 2015 | 40 | 0 |
| 2016 | 34 | 6 |
| 2017 | 47 | 4 |
| 2018 | 46 | 0 |
| 2019 | 89 | 5 |




There were 89 snowmobiles in crashes on roadways in the Upper Peninsula in 2019, up 122.5 percent from 2010. There were five snowmobiles involved in fatal crashes in 2019, up from two in 2010.

## ORV/ATVS ON UPPER PENINSULA ROADWAYS

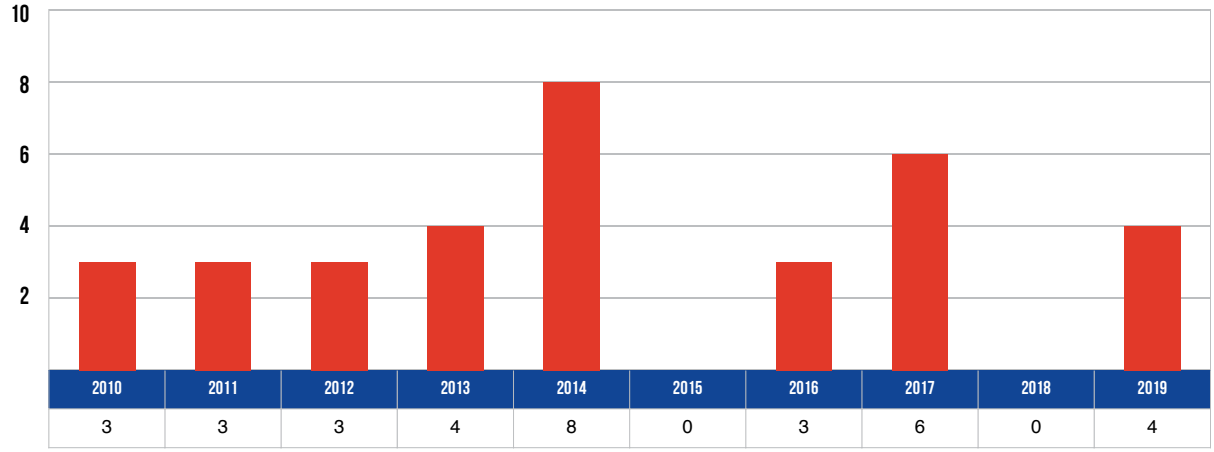
| Year | All Crashes | Fatal Crashes |
|---|---|---|
| 2010 | 64 | 3 |
| 2011 | 44 | 2 |
| 2012 | 71 | 4 |
| 2013 | 62 | 3 |
| 2014 | 48 | 1 |
| 2015 | 50 | 0 |
| 2016 | 55 | 2 |
| 2017 | 70 | 3 |
| 2018 | 49 | 2 |
| 2019 | 54 | 2 |




There were 54 ORV/ATVs in crashes on roadways in the Upper Peninsula in 2019, down 15.6 percent from 2010. There were two ORV/ATVs in fatal crashes in 2019, compared with three in 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

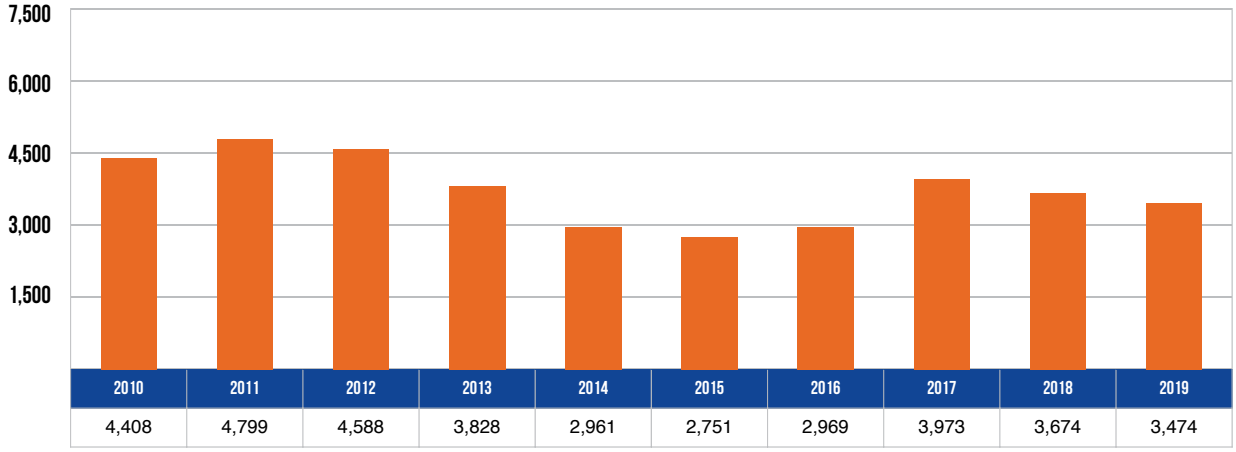
## UPPER PENINSULA VEHICLE-TRAIN CRASHES




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 3 | 3 | 3 | 4 | 8 | 0 | 3 | 6 | 0 | 4 |

There were four vehicle-train crashes in the Upper Peninsula in 2019, compared with three in 2010.

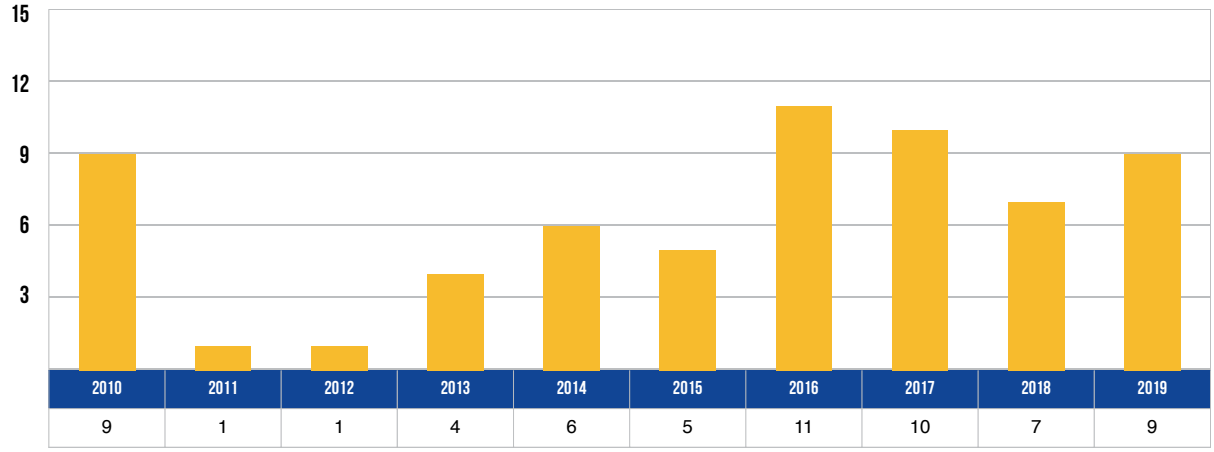
## UPPER PENINSULA VEHICLE-DEER CRASHES




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 4,408 | 4,799 | 4,588 | 3,828 | 2,961 | 2,751 | 2,969 | 3,973 | 3,674 | 3,474 |

The number of vehicle-deer crashes in the Upper Peninsula decreased 21.2 percent in the 10-year period to 3,474 in 2019.

## UPPER PENINSULA FARM EQUIPMENT CRASHES

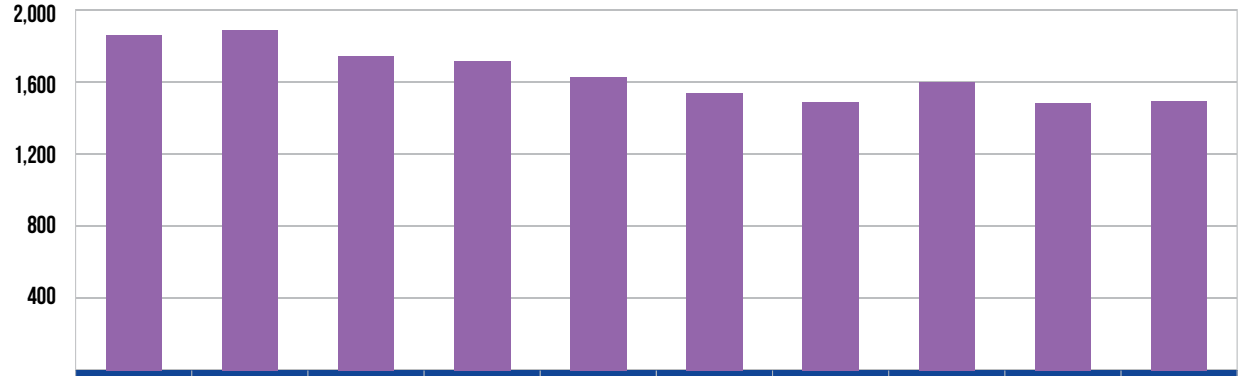



| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 9 | 1 | 1 | 4 | 6 | 5 | 11 | 10 | 7 | 9 |

There were nine farm equipment crashes in the Upper Peninsula in 2019, the same number as in 2010.

# 10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

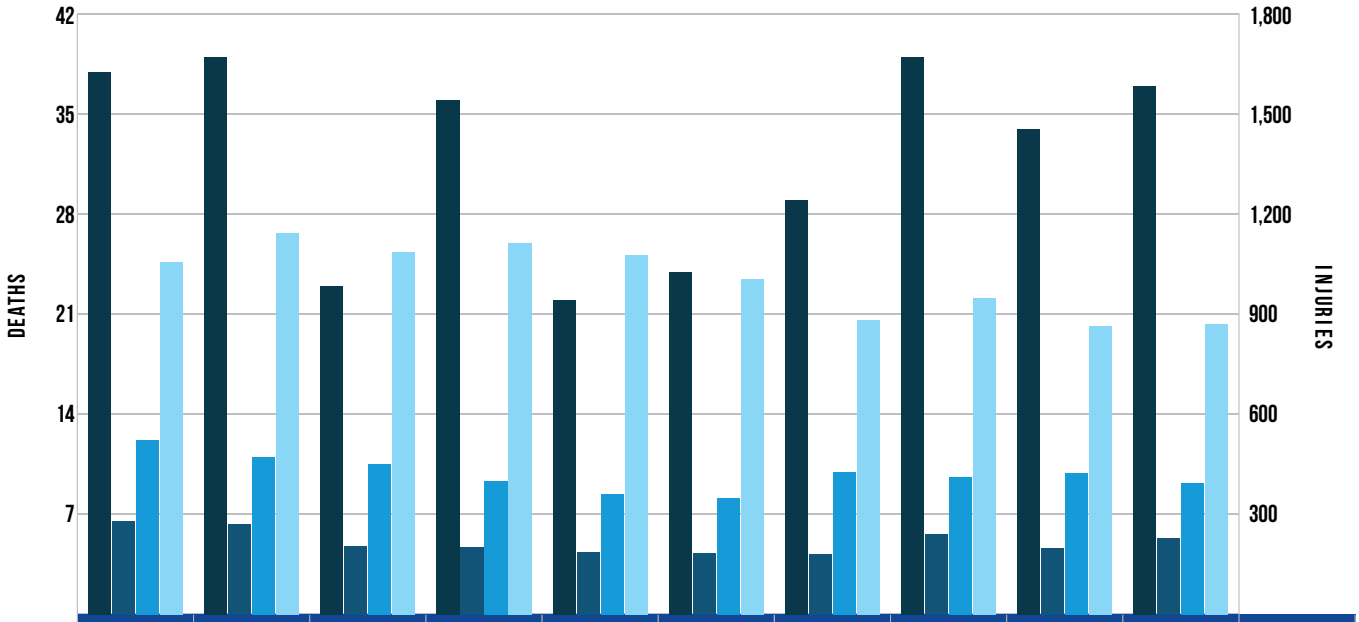
## UPPER PENINSULA INJURED OCCUPANTS IN CRASHES




| 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|
| 1,861 | 1,887 | 1,745 | 1,715 | 1,627 | 1,538 | 1,491 | 1,602 | 1,486 | 1,494 |

There were 1,494 occupants injured in the Upper Peninsula in 2019--a decrease of 19.7 percent from 2010.

## UPPER PENINSULA DEATH AND INJURY FOR CRASH-INVOLVED OCCUPANTS



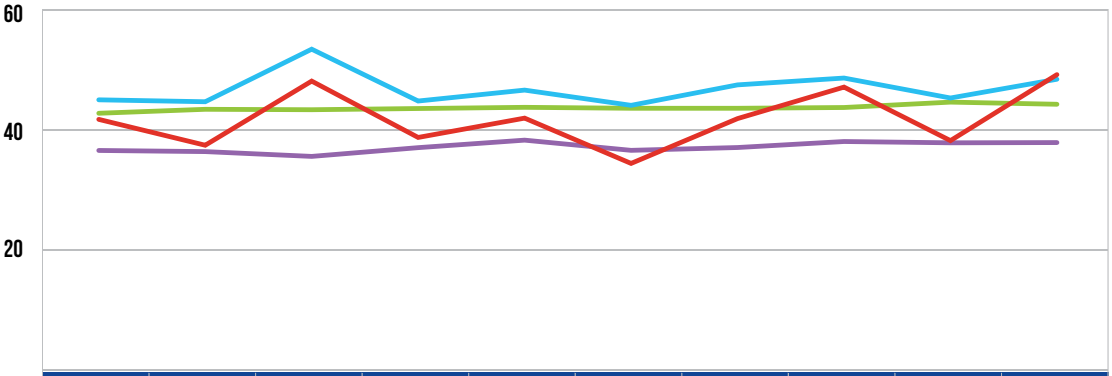

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| KILLED | 38 | 39 | 23 | 36 | 22 | 24 | 29 | 39 | 34 | 37 | 321 |
| A INJURY | 281 | 271 | 206 | 202 | 186 | 183 | 181 | 242 | 199 | 230 | 2,181 |
| B INJURY | 522 | 472 | 451 | 399 | 362 | 348 | 426 | 411 | 423 | 394 | 4,208 |
| C INJURY | 1,058 | 1,144 | 1,088 | 1,114 | 1,079 | 1,007 | 884 | 949 | 864 | 870 | 10,057 |

Over the period from 2010 to 2019 in the Upper Peninsula, occupant deaths decreased 2.6 percent, A injuries decreased 18.1 percent, B injuries decreased 24.5 percent, and C injuries decreased 17.8 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)

## UPPER PENINSULA AVERAGE AGE OF DRIVERS IN CRASHES 2010 - 2019




| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| DRIVERS IN ALL CRASHES | 42.56 | 43.22 | 43.15 | 43.35 | 43.55 | 43.39 | 43.39 | 43.52 | 44.42 | 44.06 |
| DRIVERS IN FATAL CRASHES | 44.80 | 44.48 | 53.24 | 44.60 | 46.42 | 43.88 | 47.29 | 48.43 | 45.10 | 48.23 |
| DRINKING DRIVERS | 36.36 | 36.17 | 35.37 | 36.83 | 38.08 | 36.38 | 36.85 | 37.85 | 37.64 | 37.68 |
| DRINKING DRIVERS IN FATAL CRASHES | 41.54 | 37.23 | 47.92 | 38.53 | 41.75 | 34.20 | 41.67 | 46.92 | 38.00 | 49.00 |

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 3.5 percent. The average age of drivers involved in fatal crashes has increased 7.7 percent. The average age of drinking drivers in crashes has increased 3.6 percent. The average age of drinking drivers in fatal crashes has increased 18.0 percent since 2010.

# 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 |
| 2018 | 3 | 2 | 4 | 1 | 2 | 2 | 5 | 3 | 5 | 1 | 3 | 4 | 35 |
| 2019 | 7 | 2 | 4 | 1 | 5 | 4 | 4 | 2 | 6 | 4 | 1 | 0 | 40 |

*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 | Upper 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 |
| 2018 | 35 | 1,538 | 8,948 | 3,371,820 | 256,932 | 1.0 |
| 2019 | 40 | 1,548 | 9,140 | 3,406,208 | 278,643 | 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 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 3 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 4 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 6 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 7 | 0 | 0 | 0 | 6 | 0 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 2 |
| 10 | 1 | 0 | 1 | 6 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 11 | 0 | 0 | 0 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | 2 | 0 | 1 | 6 | 0 | 6 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 13 | 2 | 0 | 2 | 5 | 0 | 5 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 14 | 4 | 0 | 2 | 7 | 0 | 7 | 0 | 0 | 0 | 1 | 0 | 1 | 2 | 0 | 2 |
| 15 | 18 | 0 | 7 | 8 | 1 | 7 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 16 | 200 | 0 | 21 | 15 | 0 | 15 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 17 | 255 | 0 | 28 | 22 | 0 | 22 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 18 | 285 | 3 | 31 | 14 | 0 | 14 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| 19 | 349 | 0 | 41 | 17 | 0 | 17 | 1 | 0 | 0 | 3 | 0 | 2 | 1 | 0 | 1 |
| 20 | 305 | 0 | 27 | 11 | 0 | 11 | 1 | 0 | 1 | 3 | 0 | 2 | 0 | 0 | 0 |
| 21 | 325 | 1 | 32 | 11 | 0 | 11 | 1 | 0 | 1 | 3 | 0 | 3 | 2 | 0 | 1 |
| 22 | 299 | 0 | 24 | 6 | 1 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 23 | 276 | 0 | 30 | 7 | 0 | 7 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 24 | 258 | 0 | 27 | 7 | 0 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 25 | 215 | 0 | 17 | 9 | 0 | 9 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 26 | 204 | 0 | 20 | 5 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 27 | 194 | 0 | 20 | 4 | 1 | 3 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | 213 | 0 | 22 | 3 | 0 | 3 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | 230 | 1 | 20 | 11 | 1 | 10 | 3 | 0 | 2 | 0 | 0 | 0 | 3 | 1 | 2 |
| 30 | 208 | 0 | 19 | 2 | 0 | 2 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 31 | 183 | 0 | 15 | 8 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | 201 | 0 | 18 | 5 | 0 | 5 | 3 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 |
| 33 | 203 | 0 | 14 | 3 | 0 | 3 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 34 | 189 | 0 | 9 | 3 | 0 | 3 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 35 | 184 | 2 | 16 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| 36 | 212 | 0 | 20 | 8 | 0 | 8 | 2 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 |
| 37 | 175 | 1 | 12 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

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

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

| AGE | DRIVER | | | INJURED PASSENGER | | | MOTORCYCLIST | | | BICYCLIST | | | PEDESTRIAN | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Total | Killed | Injured | Total | Killed | Injured | Total | Killed | Injured | Total | Killed | Injured | Total | Killed | Injured |
| 38 | 174 | 0 | 16 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 39 | 199 | 0 | 17 | 7 | 0 | 7 | 4 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 40 | 175 | 1 | 14 | 2 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 1 | 0 | 0 |
| 41 | 181 | 0 | 19 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 42 | 173 | 0 | 14 | 3 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| 43 | 168 | 0 | 11 | 4 | 0 | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 44 | 167 | 0 | 13 | 5 | 0 | 5 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 45 | 152 | 0 | 12 | 2 | 0 | 2 | 4 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 46 | 168 | 0 | 14 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 47 | 201 | 0 | 17 | 5 | 0 | 5 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 48 | 201 | 0 | 15 | 8 | 0 | 8 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 |
| 49 | 167 | 0 | 16 | 8 | 0 | 8 | 3 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 50 | 182 | 0 | 8 | 3 | 0 | 3 | 4 | 0 | 2 | 1 | 0 | 1 | 1 | 0 | 0 |
| 51 | 175 | 0 | 9 | 7 | 0 | 7 | 2 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 1 |
| 52 | 197 | 1 | 17 | 5 | 0 | 5 | 3 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 53 | 191 | 0 | 13 | 5 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 54 | 168 | 3 | 15 | 5 | 0 | 5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 55 | 212 | 1 | 17 | 3 | 0 | 3 | 3 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 56 | 213 | 1 | 25 | 2 | 0 | 2 | 5 | 1 | 3 | 2 | 0 | 2 | 1 | 0 | 1 |
| 57 | 205 | 2 | 21 | 3 | 0 | 3 | 6 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 58 | 231 | 0 | 14 | 4 | 0 | 4 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 59 | 218 | 2 | 18 | 3 | 0 | 3 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 2 |
| 60 | 207 | 0 | 15 | 3 | 0 | 3 | 1 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 2 |
| 61 | 182 | 0 | 12 | 4 | 0 | 4 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 62 | 211 | 1 | 18 | 6 | 0 | 6 | 4 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| 63 | 173 | 4 | 10 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| 64 | 170 | 1 | 13 | 4 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 65 | 181 | 0 | 15 | 5 | 0 | 5 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| 66 | 163 | 0 | 15 | 3 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 67 | 166 | 0 | 17 | 3 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| 68 | 129 | 0 | 12 | 1 | 0 | 1 | 5 | 0 | 4 | 0 | 0 | 0 | 0 | 0 | 0 |
| 69 | 134 | 1 | 16 | 3 | 0 | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 2 |
| 70 | 125 | 0 | 11 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| 71 | 128 | 0 | 12 | 2 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 72 | 96 | 0 | 7 | 3 | 0 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 |
| 73 | 103 | 0 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 74 | 78 | 0 | 10 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 75 | 77 | 1 | 5 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 76 | 95 | 1 | 7 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

# 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 | 74 | 0 | 4 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 78 | 76 | 1 | 8 | 5 | 1 | 4 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 79 | 67 | 1 | 6 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 80 | 54 | 0 | 7 | 4 | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 81 | 44 | 0 | 7 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 82 | 43 | 1 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 83 | 35 | 0 | 3 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 84 | 38 | 0 | 5 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 85 | 33 | 0 | 2 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 86 | 27 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 87 | 20 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 88 | 10 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 89 | 18 | 0 | 3 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 90 | 11 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 91 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 92 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 93 | 5 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 94 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 95 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 96 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 97 | 0 | 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 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 101 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 103 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 105 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 106 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 108 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 109 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 110 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 722 | 0 | 0 | 0 | 0 | 0 | 4 | 0 | 0 | 2 | 0 | 0 | 1 | 0 | 0 |
| TOTAL | 13,024 | 31 | 1,093 | 407 | 6 | 401 | 113 | 6 | 68 | 37 | 0 | 29 | 34 | 3 | 25 |
| | * Includes 774 drivers with unknown injury severity and 11,126 with no injury | | | | | | * Includes 5 motorcyclists with unknown injury severity and 34 with no injury | | | * Includes 2 bicyclists with unknown injury severity and 6 with no injury | | | * Includes 1 pedestrian with unknown injury severity and 5 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 | 877 | 62.9 | 4 | 80.0 | 146 | 61.9 |
| Turning left | 104 | 7.5 | 1 | 20.0 | 21 | 8.9 |
| Turning right | 44 | 3.2 | 0 | 0.0 | 8 | 3.4 |
| Stopped on roadway | 50 | 3.6 | 0 | 0.0 | 6 | 2.5 |
| In prior crash | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Changing lanes | 12 | 0.9 | 0 | 0.0 | 1 | 0.4 |
| Backing | 41 | 2.9 | 0 | 0.0 | 1 | 0.4 |
| Slowing/stopping on roadway | 109 | 7.8 | 0 | 0.0 | 18 | 7.6 |
| Slowing/stopping other | 3 | 0.2 | 0 | 0.0 | 2 | 0.8 |
| Starting up on roadway | 32 | 2.3 | 0 | 0.0 | 6 | 2.5 |
| Starting up other | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Entering parking | 3 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Leaving parking | 8 | 0.6 | 0 | 0.0 | 2 | 0.8 |
| Entering roadway | 29 | 2.1 | 0 | 0.0 | 7 | 3.0 |
| Leaving roadway | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Making U-turn | 1 | 0.1 | 0 | 0.0 | 1 | 0.4 |
| Overtaking or passing | 10 | 0.7 | 0 | 0.0 | 2 | 0.8 |
| Avoiding object | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Avoiding pedestrian | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Avoiding vehicle (front/back) | 12 | 0.9 | 0 | 0.0 | 2 | 0.8 |
| Avoiding vehicle (angle) | 5 | 0.4 | 0 | 0.0 | 2 | 0.8 |
| Driverless moving | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Parked | 10 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Crossing at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Crossing not at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Getting on/off vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway with traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway against traffic | 1 | 0.1 | 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 | 0 | 0.0 |
| Unknown | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Avoiding animal | 6 | 0.4 | 0 | 0.0 | 1 | 0.4 |
| Negotiating a curve | 28 | 2.0 | 0 | 0.0 | 10 | 4.2 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 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 | 35 | 2.5 | 0 | 0.0 | 6 | 2.5 |
| Cross center/median | 4 | 0.3 | 0 | 0.0 | 1 | 0.4 |
| Ran off road left | 5 | 0.4 | 0 | 0.0 | 1 | 0.4 |
| Ran off road right | 12 | 0.9 | 0 | 0.0 | 4 | 1.7 |
| Re-enter road | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Overturn | 60 | 4.3 | 1 | 20.0 | 23 | 9.7 |
| Separation of units | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Fire/explosion | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Immersion | 1 | 0.1 | 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 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Individual fell off | 4 | 0.3 | 0 | 0.0 | 3 | 1.3 |
| Other noncollision | 4 | 0.3 | 0 | 0.0 | 2 | 0.8 |
| SUBTOTAL | 128 | 9.2 | 1 | 20.0 | 40 | 16.9 |

For drivers age 16-20 in the Upper Peninsula, an overturn is the most common harmful event in a noncollision with the highest proportion of all crashes (4.3%) and injury crashes (9.7%).

| 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 | 5 | 0.4 | 1 | 20.0 | 4 | 1.7 |
| Bicyclist | 3 | 0.2 | 0 | 0.0 | 3 | 1.3 |
| Motor vehicle in transport | 807 | 57.9 | 2 | 40.0 | 140 | 59.3 |
| Parked motor vehicle | 62 | 4.4 | 0 | 0.0 | 8 | 3.4 |
| Railway train | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Animal | 189 | 13.6 | 0 | 0.0 | 2 | 0.8 |
| Other nonfixed objects | 12 | 0.9 | 0 | 0.0 | 3 | 1.3 |
| SUBTOTAL | 1,078 | 77.3 | 3 | 60.0 | 160 | 67.8 |

# 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 | 1 | 0.1 | 0 | 0.0 | 1 | 0.4 |
| Guardrail face | 11 | 0.8 | 0 | 0.0 | 1 | 0.4 |
| Guardrail end | 5 | 0.4 | 0 | 0.0 | 2 | 0.8 |
| Median barrier | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Highway traffic sign post | 15 | 1.1 | 0 | 0.0 | 0 | 0.0 |
| Highway signal post | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Luminaire/light support | 15 | 1.1 | 0 | 0.0 | 4 | 1.7 |
| Other pole | 7 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Culvert | 2 | 0.1 | 0 | 0.0 | 1 | 0.4 |
| Curb | 3 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Ditch | 48 | 3.4 | 0 | 0.0 | 9 | 3.8 |
| Embankment | 10 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Fence | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Mailbox | 3 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Tree | 53 | 3.8 | 1 | 20.0 | 16 | 6.8 |
| Rail crossing signal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Building | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Traffic island | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Fire hydrant | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Impact attenuator | 1 | 0.1 | 0 | 0.0 | 1 | 0.4 |
| Other fixed object | 4 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| SUBTOTAL | 182 | 13.1 | 1 | 20.0 | 35 | 14.8 |

For drivers age 16-20 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (3.8%) 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 | 6 | 0.4 | 0 | 0.0 | 1 | 0.4 |
| No event coded as most harmful | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 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 | 482 | 34.6 | 3 | 60.0 | 78 | 33.1 |
| Head On | 25 | 1.8 | 0 | 0.0 | 7 | 3.0 |
| Head On - Left Turn | 24 | 1.7 | 0 | 0.0 | 6 | 2.5 |
| Angle | 348 | 25.0 | 2 | 40.0 | 61 | 25.8 |
| Rear End | 268 | 19.2 | 0 | 0.0 | 44 | 18.6 |
| Rear End - Left Turn | 34 | 2.4 | 0 | 0.0 | 8 | 3.4 |
| Rear End - Right Turn | 7 | 0.5 | 0 | 0.0 | 2 | 0.8 |
| Sideswipe - Same Direction | 78 | 5.6 | 0 | 0.0 | 10 | 4.2 |
| Sideswipe - Opposite Direction | 47 | 3.4 | 0 | 0.0 | 10 | 4.2 |
| Backing | 39 | 2.8 | 0 | 0.0 | 2 | 0.8 |
| Other | 38 | 2.7 | 0 | 0.0 | 8 | 3.4 |
| Unknown | 4 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 100.0 |

Single-vehicle crashes are the most common type of crash that drivers age 16-20 in the Upper Peninsula are involved in for all crashes (34.6%) and injury crashes (33.1%).

| 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 | 1,153 | 82.7 | 4 | 80.0 | 183 | 77.5 |
| Median | 10 | 0.7 | 0 | 0.0 | 2 | 0.8 |
| Shoulder | 70 | 5.0 | 1 | 20.0 | 12 | 5.1 |
| Outside of Shoulder/Curb | 133 | 9.5 | 0 | 0.0 | 35 | 14.8 |
| Gore | 6 | 0.4 | 0 | 0.0 | 2 | 0.8 |
| On-Street Parking | 19 | 1.4 | 0 | 0.0 | 1 | 0.4 |
| Off the Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| On the Sidewalk | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| In the Bicycle Lane | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other/Unknown | 2 | 0.1 | 0 | 0.0 | 1 | 0.4 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 100.0 |

Other than on the road crashes, drivers age 16-20 in the Upper Peninsula are most commonly involved in crashes where the first impact is outside the shoulder/curb for all crashes (9.5%) and injury crashes (14.8%).

| ROADWAY TYPE | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| Interstate Routes | 61 | 4.4 | 2 | 40.0 | 8 | 3.4 |
| U.S. & Michigan Roads | 640 | 45.9 | 1 | 20.0 | 113 | 47.9 |
| County & City Roads | 681 | 48.9 | 2 | 40.0 | 114 | 48.3 |
| Uncoded & Errors | 12 | 0.9 | 0 | 0.0 | 1 | 0.4 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 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 | 50 | 3.6 | 1 | 20.0 | 12 | 5.1 |
| 3:00 AM - 5:59 AM | 44 | 3.2 | 1 | 20.0 | 10 | 4.2 |
| 6:00 AM - 8:59 AM | 154 | 11.0 | 0 | 0.0 | 22 | 9.3 |
| 9:00 AM - 11:59 AM | 166 | 11.9 | 0 | 0.0 | 28 | 11.9 |
| 12:00 PM - 2:59 PM | 263 | 18.9 | 2 | 40.0 | 41 | 17.4 |
| 3:00 PM - 5:59 PM | 341 | 24.5 | 0 | 0.0 | 66 | 28.0 |
| 6:00 PM - 8:59 PM | 219 | 15.7 | 1 | 20.0 | 35 | 14.8 |
| 9:00 PM - 11:59 PM | 156 | 11.2 | 0 | 0.0 | 22 | 9.3 |
| Unknown | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 100.0 |

For drivers age 16-20 in the Upper Peninsula, the 3:00 - 5:59 PM time period has the highest proportion of all crashes (24.5%) and injury crashes (28.0%).

| HAZARDOUS ACTION | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | HAZARDOUS CITATION ISSUED | |
|---|---|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| None | 547 | 39.2 | 2 | 40.0 | 75 | 31.8 | 1 | 0.4 |
| Speed too fast | 218 | 15.6 | 1 | 20.0 | 39 | 16.5 | 83 | 31.9 |
| Speed too slow | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Failed to yield | 176 | 12.6 | 0 | 0.0 | 31 | 13.1 | 66 | 25.4 |
| Disregard traffic control | 17 | 1.2 | 0 | 0.0 | 5 | 2.1 | 13 | 5.0 |
| Drove wrong way | 1 | 0.1 | 0 | 0.0 | 1 | 0.4 | 0 | 0.0 |
| Drove left of center | 6 | 0.4 | 0 | 0.0 | 1 | 0.4 | 2 | 0.8 |
| Improper passing | 3 | 0.2 | 0 | 0.0 | 0 | 0.0 | 1 | 0.4 |
| Improper lane use | 21 | 1.5 | 1 | 20.0 | 0 | 0.0 | 4 | 1.5 |
| Improper turn | 13 | 0.9 | 0 | 0.0 | 3 | 1.3 | 2 | 0.8 |
| Improper/no signal | 2 | 0.1 | 0 | 0.0 | 1 | 0.4 | 0 | 0.0 |
| Improper backing | 31 | 2.2 | 0 | 0.0 | 0 | 0.0 | 1 | 0.4 |
| Unable to stop in assured clear distance | 196 | 14.1 | 0 | 0.0 | 28 | 11.9 | 42 | 16.2 |
| Other | 47 | 3.4 | 0 | 0.0 | 12 | 5.1 | 7 | 2.7 |
| Unknown | 33 | 2.4 | 0 | 0.0 | 4 | 1.7 | 2 | 0.8 |
| Reckless driving | 6 | 0.4 | 0 | 0.0 | 3 | 1.3 | 4 | 1.5 |
| Careless/negligent driving | 76 | 5.5 | 1 | 20.0 | 33 | 14.0 | 32 | 12.3 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 100.0 | 260 | 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 (15.6%) and injury crashes (16.5%).

# 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 | 183 | 13.1 | 1 | 20.0 | 22 | 9.3 |
| Tuesday | 195 | 14.0 | 0 | 0.0 | 28 | 11.9 |
| Wednesday | 223 | 16.0 | 0 | 0.0 | 39 | 16.5 |
| Thursday | 216 | 15.5 | 1 | 20.0 | 43 | 18.2 |
| Friday | 241 | 17.3 | 1 | 20.0 | 39 | 16.5 |
| Saturday | 175 | 12.6 | 2 | 40.0 | 33 | 14.0 |
| Sunday | 161 | 11.5 | 0 | 0.0 | 32 | 13.6 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 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 | 776 | 55.7 | 3 | 60.0 | 128 | 54.2 |
| Female | 618 | 44.3 | 2 | 40.0 | 108 | 45.8 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 100.0 |

Male drivers make up 55.7 percent of drivers in all crashes in the Upper Peninsula and 54.2 percent of drivers in injury 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 | 1,009 | 72.4 | 2 | 40.0 | 150 | 63.6 |
| 2 occupants | 265 | 19.0 | 1 | 20.0 | 59 | 25.0 |
| 3 occupants | 75 | 5.4 | 2 | 40.0 | 20 | 8.5 |
| 4 occupants | 30 | 2.2 | 0 | 0.0 | 5 | 2.1 |
| 5 occupants | 9 | 0.6 | 0 | 0.0 | 2 | 0.8 |
| 6+ occupants | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 0 occupants | 6 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 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 | 1,110 | 79.6 | 3 | 60.0 | 183 | 77.5 |
| Motor home | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Pickup truck | 245 | 17.6 | 2 | 40.0 | 31 | 13.1 |
| Small Truck under 10,000 lbs. GVWR | 6 | 0.4 | 0 | 0.0 | 2 | 0.8 |
| Motorcycle | 5 | 0.4 | 0 | 0.0 | 5 | 2.1 |
| Moped/goped | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Go-cart/golf cart | 1 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Snowmobile | 9 | 0.6 | 0 | 0.0 | 8 | 3.4 |
| Off-Road Vehicle - ORV/All-Terrain Vehicle - ATV | 8 | 0.6 | 0 | 0.0 | 6 | 2.5 |
| Other | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| CDL Truck/Bus (breakdown below) | 8 | 0.6 | 0 | 0.0 | 1 | 0.4 |
| TOTAL | 1,394 | 100.0 | 5 | 100.0 | 236 | 100.0 |

| HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| 10,000 lbs. or less | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 10,001 - 26,000 lbs. | 6 | 75.0 | 0 | 0.0 | 0 | 0.0 |
| Greater than 26,000 lbs. | 2 | 25.0 | 0 | 0.0 | 1 | 100.0 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8 | 100.0 | 0 | 0.0 | 1 | 100.0 |

# UPPER PENINSULA DRIVER AGE 21-64

| DRIVER ACTION PRIOR TO CRASH | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| Going straight ahead | 6,092 | 69.0 | 33 | 86.8 | 810 | 65.0 |
| Turning left | 452 | 5.1 | 0 | 0.0 | 104 | 8.3 |
| Turning right | 236 | 2.7 | 0 | 0.0 | 19 | 1.5 |
| Stopped on roadway | 448 | 5.1 | 0 | 0.0 | 60 | 4.8 |
| In prior crash | 2 | 0.0 | 0 | 0.0 | 1 | 0.1 |
| Changing lanes | 56 | 0.6 | 0 | 0.0 | 7 | 0.6 |
| Backing | 312 | 3.5 | 0 | 0.0 | 11 | 0.9 |
| Slowing/stopping on roadway | 423 | 4.8 | 0 | 0.0 | 81 | 6.5 |
| Slowing/stopping other | 14 | 0.2 | 0 | 0.0 | 3 | 0.2 |
| Starting up on roadway | 144 | 1.6 | 0 | 0.0 | 24 | 1.9 |
| Starting up other | 5 | 0.1 | 1 | 2.6 | 0 | 0.0 |
| Entering parking | 16 | 0.2 | 0 | 0.0 | 1 | 0.1 |
| Leaving parking | 31 | 0.4 | 0 | 0.0 | 5 | 0.4 |
| Entering roadway | 104 | 1.2 | 0 | 0.0 | 26 | 2.1 |
| Leaving roadway | 19 | 0.2 | 0 | 0.0 | 5 | 0.4 |
| Making U-turn | 18 | 0.2 | 0 | 0.0 | 5 | 0.4 |
| Overtaking or passing | 68 | 0.8 | 0 | 0.0 | 12 | 1.0 |
| Avoiding object | 5 | 0.1 | 0 | 0.0 | 1 | 0.1 |
| Avoiding pedestrian | 1 | 0.0 | 0 | 0.0 | 1 | 0.1 |
| Avoiding vehicle (front/back) | 50 | 0.6 | 0 | 0.0 | 17 | 1.4 |
| Avoiding vehicle (angle) | 24 | 0.3 | 0 | 0.0 | 8 | 0.6 |
| Driverless moving | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Parked | 104 | 1.2 | 0 | 0.0 | 6 | 0.5 |
| Crossing at intersection | 2 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Crossing not at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Getting on/off vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway with traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway against traffic | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Standing/lying in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Pushing/working on vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other working in roadway | 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 | 1 | 0.0 | 0 | 0.0 | 1 | 0.1 |
| Other | 12 | 0.1 | 0 | 0.0 | 3 | 0.2 |
| Unknown | 14 | 0.2 | 1 | 2.6 | 6 | 0.5 |
| Avoiding animal | 37 | 0.4 | 0 | 0.0 | 3 | 0.2 |
| Negotiating a curve | 137 | 1.6 | 3 | 7.9 | 26 | 2.1 |
| Uncoded & Errors | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 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 | 117 | 1.3 | 0 | 0.0 | 23 | 1.8 |
| Cross center/median | 22 | 0.2 | 0 | 0.0 | 2 | 0.2 |
| Ran off road left | 39 | 0.4 | 0 | 0.0 | 4 | 0.3 |
| Ran off road right | 66 | 0.7 | 0 | 0.0 | 11 | 0.9 |
| Re-enter road | 12 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Overturn | 210 | 2.4 | 4 | 10.5 | 91 | 7.3 |
| Separation of units | 7 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Fire/explosion | 14 | 0.2 | 0 | 0.0 | 1 | 0.1 |
| Immersion | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Jackknife | 12 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| 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 | 14 | 0.2 | 0 | 0.0 | 12 | 1.0 |
| Other noncollision | 23 | 0.3 | 0 | 0.0 | 3 | 0.2 |
| SUBTOTAL | 548 | 6.2 | 4 | 10.5 | 148 | 11.9 |

For drivers age 21-64 in the Upper Peninsula, an overturn is the most common harmful event in a noncollision with the highest proportion of all crashes (2.4%) and injury crashes (7.3%).

| MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| Pedestrian | 16 | 0.2 | 2 | 5.3 | 12 | 1.0 |
| Bicyclist | 24 | 0.3 | 0 | 0.0 | 19 | 1.5 |
| Motor vehicle in transport | 4,186 | 47.4 | 21 | 55.3 | 846 | 67.9 |
| Parked motor vehicle | 300 | 3.4 | 0 | 0.0 | 20 | 1.6 |
| Railway train | 4 | 0.0 | 0 | 0.0 | 2 | 0.2 |
| Animal | 2,739 | 31.0 | 0 | 0.0 | 45 | 3.6 |
| Other nonfixed objects | 141 | 1.6 | 0 | 0.0 | 9 | 0.7 |
| SUBTOTAL | 7,410 | 83.9 | 23 | 60.5 | 953 | 76.5 |

# 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 | 2 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Bridge rail | 7 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Guardrail face | 45 | 0.5 | 0 | 0.0 | 9 | 0.7 |
| Guardrail end | 7 | 0.1 | 0 | 0.0 | 2 | 0.2 |
| Median barrier | 7 | 0.1 | 0 | 0.0 | 1 | 0.1 |
| Highway traffic sign post | 71 | 0.8 | 0 | 0.0 | 2 | 0.2 |
| Highway signal post | 2 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Luminaire/light support | 66 | 0.7 | 2 | 5.3 | 11 | 0.9 |
| Other pole | 20 | 0.2 | 0 | 0.0 | 2 | 0.2 |
| Culvert | 7 | 0.1 | 0 | 0.0 | 2 | 0.2 |
| Curb | 16 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Ditch | 186 | 2.1 | 1 | 2.6 | 31 | 2.5 |
| Embankment | 70 | 0.8 | 0 | 0.0 | 11 | 0.9 |
| Fence | 8 | 0.1 | 0 | 0.0 | 1 | 0.1 |
| Mailbox | 32 | 0.4 | 0 | 0.0 | 1 | 0.1 |
| Tree | 204 | 2.3 | 8 | 21.1 | 54 | 4.3 |
| Rail crossing signal | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Building | 11 | 0.1 | 0 | 0.0 | 3 | 0.2 |
| Traffic island | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Fire hydrant | 3 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Impact attenuator | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other fixed object | 57 | 0.6 | 0 | 0.0 | 7 | 0.6 |
| SUBTOTAL | 823 | 9.3 | 11 | 28.9 | 137 | 11.0 |

For drivers age 21-64 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (2.3%), fatal crashes (21.1%), and injury crashes (4.3%).

| | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| Uncoded & Errors | 49 | 0.6 | 0 | 0.0 | 8 | 0.6 |
| No event coded as most harmful | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 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 | 4,039 | 45.7 | 16 | 42.1 | 331 | 26.6 |
| Head On | 117 | 1.3 | 5 | 13.2 | 55 | 4.4 |
| Head On - Left Turn | 156 | 1.8 | 1 | 2.6 | 68 | 5.5 |
| Angle | 1,568 | 17.8 | 12 | 31.6 | 371 | 29.8 |
| Rear End | 1,198 | 13.6 | 0 | 0.0 | 235 | 18.9 |
| Rear End - Left Turn | 127 | 1.4 | 0 | 0.0 | 24 | 1.9 |
| Rear End - Right Turn | 74 | 0.8 | 0 | 0.0 | 10 | 0.8 |
| Sideswipe - Same Direction | 558 | 6.3 | 0 | 0.0 | 42 | 3.4 |
| Sideswipe - Opposite Direction | 306 | 3.5 | 4 | 10.5 | 45 | 3.6 |
| Backing | 282 | 3.2 | 0 | 0.0 | 5 | 0.4 |
| Other | 373 | 4.2 | 0 | 0.0 | 56 | 4.5 |
| Unknown | 32 | 0.4 | 0 | 0.0 | 4 | 0.3 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 100.0 |

Single-vehicle crashes are the most common type of crash that drivers age 21-64 in the Upper Peninsula are involved in for all crashes (45.7%) and fatal crashes (42.1%). Among injury crashes, angle crashes (29.8%) are the most common crash type for this age group.

| 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 | 7,788 | 88.2 | 28 | 73.7 | 1,051 | 84.3 |
| Median | 46 | 0.5 | 1 | 2.6 | 7 | 0.6 |
| Shoulder | 358 | 4.1 | 2 | 5.3 | 55 | 4.4 |
| Outside of Shoulder/Curb | 472 | 5.3 | 6 | 15.8 | 113 | 9.1 |
| Gore | 22 | 0.2 | 1 | 2.6 | 6 | 0.5 |
| On-Street Parking | 95 | 1.1 | 0 | 0.0 | 3 | 0.2 |
| Off the Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| On the Sidewalk | 8 | 0.1 | 0 | 0.0 | 2 | 0.2 |
| In the Bicycle Lane | 2 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other/Unknown | 38 | 0.4 | 0 | 0.0 | 9 | 0.7 |
| Uncoded & Errors | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 100.0 |

Other than on the road crashes, drivers age 21-64 in the Upper Peninsula are most commonly involved in crashes where the first impact is outside the shoulder/curb for all crashes (5.3%), fatal crashes (15.8%), and injury crashes (9.1%).

| 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 | 390 | 4.4 | 3 | 7.9 | 54 | 4.3 |
| U.S. & Michigan Roads | 4,823 | 54.6 | 17 | 44.7 | 707 | 56.7 |
| County & City Roads | 3,546 | 40.2 | 18 | 47.4 | 476 | 38.2 |
| Uncoded & Errors | 71 | 0.8 | 0 | 0.0 | 9 | 0.7 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 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 | 334 | 3.8 | 3 | 7.9 | 44 | 3.5 |
| 3:00 AM - 5:59 AM | 360 | 4.1 | 1 | 2.6 | 38 | 3.0 |
| 6:00 AM - 8:59 AM | 1,306 | 14.8 | 4 | 10.5 | 154 | 12.4 |
| 9:00 AM - 11:59 AM | 1,293 | 14.6 | 5 | 13.2 | 176 | 14.1 |
| 12:00 PM - 2:59 PM | 1,614 | 18.3 | 9 | 23.7 | 282 | 22.6 |
| 3:00 PM - 5:59 PM | 1,823 | 20.6 | 7 | 18.4 | 321 | 25.8 |
| 6:00 PM - 8:59 PM | 1,320 | 14.9 | 3 | 7.9 | 170 | 13.6 |
| 9:00 PM - 11:59 PM | 774 | 8.8 | 6 | 15.8 | 61 | 4.9 |
| Unknown | 6 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 100.0 |

For drivers age 21-64 in the Upper Peninsula, the 3:00 - 5:59 PM time period has the highest proportion of all crashes (20.6%) and injury crashes (25.8%). The 12:00 - 2:59 PM time period has the highest proportion of fatal crashes (23.7%).

| 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 | 5,490 | 62.2 | 13 | 34.2 | 595 | 47.8 | 8 | 0.9 |
| Speed too fast | 801 | 9.1 | 5 | 13.2 | 145 | 11.6 | 218 | 24.5 |
| Speed too slow | 2 | 0.0 | 0 | 0.0 | 1 | 0.1 | 0 | 0.0 |
| Failed to yield | 591 | 6.7 | 2 | 5.3 | 152 | 12.2 | 195 | 22.0 |
| Disregard traffic control | 101 | 1.1 | 2 | 5.3 | 38 | 3.0 | 60 | 6.8 |
| Drove wrong way | 4 | 0.0 | 0 | 0.0 | 1 | 0.1 | 1 | 0.1 |
| Drove left of center | 43 | 0.5 | 2 | 5.3 | 5 | 0.4 | 12 | 1.4 |
| Improper passing | 38 | 0.4 | 0 | 0.0 | 6 | 0.5 | 9 | 1.0 |
| Improper lane use | 77 | 0.9 | 0 | 0.0 | 6 | 0.5 | 14 | 1.6 |
| Improper turn | 74 | 0.8 | 0 | 0.0 | 8 | 0.6 | 14 | 1.6 |
| Improper/no signal | 11 | 0.1 | 0 | 0.0 | 1 | 0.1 | 0 | 0.0 |
| Improper backing | 211 | 2.4 | 0 | 0.0 | 6 | 0.5 | 14 | 1.6 |
| Unable to stop in assured clear distance | 581 | 6.6 | 0 | 0.0 | 101 | 8.1 | 122 | 13.7 |
| Other | 268 | 3.0 | 4 | 10.5 | 51 | 4.1 | 51 | 5.7 |
| Unknown | 211 | 2.4 | 8 | 21.1 | 26 | 2.1 | 6 | 0.7 |
| Reckless driving | 32 | 0.4 | 1 | 2.6 | 20 | 1.6 | 17 | 1.9 |
| Careless/negligent driving | 293 | 3.3 | 1 | 2.6 | 84 | 6.7 | 147 | 16.6 |
| Uncoded & Errors | 2 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 100.0 | 888 | 100.0 |

After no hazardous action, the second highest known hazardous action category for drivers age 21-64 in the Upper Peninsula is speed too fast for all crashes (9.1%) and fatal crashes (13.2%) and failed to yield for drivers in injury crashes (12.2%).

# 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 | 1,300 | 14.7 | 9 | 23.7 | 177 | 14.2 |
| Tuesday | 1,205 | 13.6 | 4 | 10.5 | 159 | 12.8 |
| Wednesday | 1,427 | 16.2 | 3 | 7.9 | 194 | 15.6 |
| Thursday | 1,360 | 15.4 | 10 | 26.3 | 203 | 16.3 |
| Friday | 1,428 | 16.2 | 7 | 18.4 | 198 | 15.9 |
| Saturday | 1,150 | 13.0 | 3 | 7.9 | 183 | 14.7 |
| Sunday | 960 | 10.9 | 2 | 5.3 | 132 | 10.6 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 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 | 5,273 | 59.7 | 34 | 89.5 | 724 | 58.1 |
| Female | 3,555 | 40.3 | 4 | 10.5 | 522 | 41.9 |
| Uncoded & Errors | 2 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 100.0 |

For drivers age 21-64 in the Upper Peninsula, male drivers (89.5%) account for 8.5 times that of female drivers (10.5%) 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 | 6,893 | 78.1 | 33 | 86.8 | 862 | 69.2 |
| 2 occupants | 1,308 | 14.8 | 4 | 10.5 | 262 | 21.0 |
| 3 occupants | 334 | 3.8 | 0 | 0.0 | 70 | 5.6 |
| 4 occupants | 156 | 1.8 | 0 | 0.0 | 30 | 2.4 |
| 5 occupants | 47 | 0.5 | 1 | 2.6 | 14 | 1.1 |
| 6+ occupants | 39 | 0.4 | 0 | 0.0 | 6 | 0.5 |
| 0 occupants | 53 | 0.6 | 0 | 0.0 | 2 | 0.2 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 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 | 6,118 | 69.3 | 15 | 39.5 | 809 | 64.9 |
| Motor home | 13 | 0.1 | 0 | 0.0 | 1 | 0.1 |
| Pickup truck | 2,072 | 23.5 | 9 | 23.7 | 268 | 21.5 |
| Small Truck under 10,000 lbs. GVWR | 30 | 0.3 | 0 | 0.0 | 1 | 0.1 |
| Motorcycle | 78 | 0.9 | 5 | 13.2 | 50 | 4.0 |
| Moped/goped | 4 | 0.0 | 0 | 0.0 | 3 | 0.2 |
| Go-cart/golf cart | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Snowmobile | 66 | 0.7 | 4 | 10.5 | 51 | 4.1 |
| Off-Road Vehicle - ORV/All-Terrain Vehicle - ATV | 31 | 0.4 | 1 | 2.6 | 21 | 1.7 |
| Other | 58 | 0.7 | 0 | 0.0 | 2 | 0.2 |
| Uncoded & Errors | 2 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| CDL Truck/Bus (breakdown below) | 358 | 4.1 | 4 | 10.5 | 40 | 3.2 |
| TOTAL | 8,830 | 100.0 | 38 | 100.0 | 1,246 | 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 | 8 | 2.2 | 0 | 0.0 | 0 | 0.0 |
| 10,001 - 26,000 lbs. | 123 | 34.4 | 0 | 0.0 | 7 | 17.5 |
| Greater than 26,000 lbs. | 225 | 62.8 | 4 | 100.0 | 33 | 82.5 |
| Uncoded & Errors | 2 | 0.6 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 358 | 100.0 | 4 | 100.0 | 40 | 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 | 1,309 | 63.8 | 4 | 44.4 | 171 | 54.3 |
| Turning left | 152 | 7.4 | 1 | 11.1 | 35 | 11.1 |
| Turning right | 70 | 3.4 | 1 | 11.1 | 8 | 2.5 |
| Stopped on roadway | 103 | 5.0 | 0 | 0.0 | 22 | 7.0 |
| In prior crash | 1 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Changing lanes | 31 | 1.5 | 0 | 0.0 | 3 | 1.0 |
| Backing | 85 | 4.1 | 0 | 0.0 | 4 | 1.3 |
| Slowing/stopping on roadway | 86 | 4.2 | 0 | 0.0 | 25 | 7.9 |
| Slowing/stopping other | 9 | 0.4 | 0 | 0.0 | 1 | 0.3 |
| Starting up on roadway | 45 | 2.2 | 0 | 0.0 | 8 | 2.5 |
| Starting up other | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Entering parking | 8 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Leaving parking | 8 | 0.4 | 0 | 0.0 | 2 | 0.6 |
| Entering roadway | 44 | 2.1 | 2 | 22.2 | 12 | 3.8 |
| Leaving roadway | 8 | 0.4 | 1 | 11.1 | 3 | 1.0 |
| Making U-turn | 4 | 0.2 | 0 | 0.0 | 2 | 0.6 |
| Overtaking or passing | 11 | 0.5 | 0 | 0.0 | 3 | 1.0 |
| 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) | 12 | 0.6 | 0 | 0.0 | 3 | 1.0 |
| Avoiding vehicle (angle) | 3 | 0.1 | 0 | 0.0 | 1 | 0.3 |
| Driverless moving | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Parked | 22 | 1.1 | 0 | 0.0 | 2 | 0.6 |
| 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 | 9 | 0.4 | 0 | 0.0 | 4 | 1.3 |
| Unknown | 3 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Avoiding animal | 4 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Negotiating a curve | 24 | 1.2 | 0 | 0.0 | 5 | 1.6 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 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 | 23 | 1.1 | 0 | 0.0 | 4 | 1.3 |
| Cross center/median | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Ran off road left | 8 | 0.4 | 0 | 0.0 | 3 | 1.0 |
| Ran off road right | 15 | 0.7 | 0 | 0.0 | 2 | 0.6 |
| Re-enter road | 3 | 0.1 | 0 | 0.0 | 1 | 0.3 |
| Overturn | 22 | 1.1 | 3 | 33.3 | 10 | 3.2 |
| Separation of units | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Fire/explosion | 3 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Immersion | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Jackknife | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Downhill runaway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Cargo loss/shift | 3 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Individual fell off | 2 | 0.1 | 1 | 11.1 | 1 | 0.3 |
| Other noncollision | 4 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| SUBTOTAL | 88 | 4.3 | 4 | 44.4 | 21 | 6.7 |

For drivers age 65 and over in the Upper Peninsula, loss of control is the most common harmful event in a noncollision for all crashes (1.1%), and overturn is the most common harmful event in a noncollision for injury crashes (3.2%).

| 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 | 6 | 0.3 | 0 | 0.0 | 3 | 1.0 |
| Bicyclist | 6 | 0.3 | 0 | 0.0 | 4 | 1.3 |
| Motor vehicle in transport | 1,045 | 51.0 | 5 | 55.6 | 232 | 73.7 |
| Parked motor vehicle | 91 | 4.4 | 0 | 0.0 | 2 | 0.6 |
| Railway train | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Animal | 630 | 30.7 | 0 | 0.0 | 8 | 2.5 |
| Other nonfixed objects | 29 | 1.4 | 0 | 0.0 | 1 | 0.3 |
| SUBTOTAL | 1,807 | 88.1 | 5 | 55.6 | 250 | 79.4 |

# 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 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Bridge rail | 1 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Guardrail face | 5 | 0.2 | 0 | 0.0 | 4 | 1.3 |
| Guardrail end | 1 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Median barrier | 2 | 0.1 | 0 | 0.0 | 0 | 0.0 |
| Highway traffic sign post | 13 | 0.6 | 0 | 0.0 | 2 | 0.6 |
| Highway signal post | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Luminaire/light support | 11 | 0.5 | 0 | 0.0 | 4 | 1.3 |
| Other pole | 4 | 0.2 | 0 | 0.0 | 1 | 0.3 |
| Culvert | 1 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Curb | 3 | 0.1 | 0 | 0.0 | 1 | 0.3 |
| Ditch | 29 | 1.4 | 0 | 0.0 | 7 | 2.2 |
| Embankment | 14 | 0.7 | 0 | 0.0 | 2 | 0.6 |
| Fence | 1 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Mailbox | 5 | 0.2 | 0 | 0.0 | 1 | 0.3 |
| Tree | 38 | 1.9 | 0 | 0.0 | 13 | 4.1 |
| Rail crossing signal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Building | 2 | 0.1 | 0 | 0.0 | 1 | 0.3 |
| Traffic island | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Fire hydrant | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Impact attenuator | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other fixed object | 9 | 0.4 | 0 | 0.0 | 2 | 0.6 |
| SUBTOTAL | 142 | 6.9 | 0 | 0.0 | 42 | 13.3 |

For drivers age 65 and over in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (1.9%) and injury crashes (4.1%).

| | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| Uncoded & Errors | 14 | 0.7 | 0 | 0.0 | 2 | 0.6 |
| No event coded as most harmful | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 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 | 840 | 41.0 | 4 | 44.4 | 66 | 21.0 |
| Head On | 23 | 1.1 | 1 | 11.1 | 11 | 3.5 |
| Head On - Left Turn | 54 | 2.6 | 1 | 11.1 | 18 | 5.7 |
| Angle | 449 | 21.9 | 3 | 33.3 | 113 | 35.9 |
| Rear End | 232 | 11.3 | 0 | 0.0 | 56 | 17.8 |
| Rear End - Left Turn | 29 | 1.4 | 0 | 0.0 | 6 | 1.9 |
| Rear End - Right Turn | 9 | 0.4 | 0 | 0.0 | 2 | 0.6 |
| Sideswipe - Same Direction | 169 | 8.2 | 0 | 0.0 | 10 | 3.2 |
| Sideswipe - Opposite Direction | 69 | 3.4 | 0 | 0.0 | 9 | 2.9 |
| Backing | 77 | 3.8 | 0 | 0.0 | 1 | 0.3 |
| Other | 94 | 4.6 | 0 | 0.0 | 23 | 7.3 |
| Unknown | 6 | 0.3 | 0 | 0.0 | 0 | 0.0 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 100.0 |

Single-vehicle crashes are the most common type of crash that drivers age 65 and over in the Upper Peninsula are involved in for all crashes (41.0%). Angle crashes are the most common crash type for these drivers to be involved in among injury (35.9%) crashes.

| 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 | 1,847 | 90.1 | 6 | 66.7 | 262 | 83.2 |
| Median | 4 | 0.2 | 0 | 0.0 | 1 | 0.3 |
| Shoulder | 72 | 3.5 | 2 | 22.2 | 21 | 6.7 |
| Outside of Shoulder/Curb | 89 | 4.3 | 1 | 11.1 | 25 | 7.9 |
| Gore | 6 | 0.3 | 0 | 0.0 | 1 | 0.3 |
| On-Street Parking | 25 | 1.2 | 0 | 0.0 | 4 | 1.3 |
| Off the Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| On the Sidewalk | 3 | 0.1 | 0 | 0.0 | 1 | 0.3 |
| In the Bicycle Lane | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other/Unknown | 5 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 100.0 |

Other than on the road crashes, drivers age 65 and over in the Upper Peninsula are most commonly involved in crashes where the first impact is outside the shoulder/curb for all crashes (4.3%) and injury crashes (7.9%).

| 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 | 90 | 4.4 | 0 | 0.0 | 13 | 4.1 |
| U.S. & Michigan Roads | 1,164 | 56.8 | 8 | 88.9 | 191 | 60.6 |
| County & City Roads | 780 | 38.0 | 1 | 11.1 | 109 | 34.6 |
| Uncoded & Errors | 17 | 0.8 | 0 | 0.0 | 2 | 0.6 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 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 | 35 | 1.7 | 0 | 0.0 | 3 | 1.0 |
| 3:00 AM - 5:59 AM | 32 | 1.6 | 0 | 0.0 | 3 | 1.0 |
| 6:00 AM - 8:59 AM | 196 | 9.6 | 1 | 11.1 | 20 | 6.3 |
| 9:00 AM - 11:59 AM | 451 | 22.0 | 0 | 0.0 | 70 | 22.2 |
| 12:00 PM - 2:59 PM | 527 | 25.7 | 3 | 33.3 | 98 | 31.1 |
| 3:00 PM - 5:59 PM | 435 | 21.2 | 3 | 33.3 | 82 | 26.0 |
| 6:00 PM - 8:59 PM | 246 | 12.0 | 1 | 11.1 | 32 | 10.2 |
| 9:00 PM - 11:59 PM | 129 | 6.3 | 1 | 11.1 | 7 | 2.2 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 100.0 |

For drivers age 65 and over in the Upper Peninsula, the 12:00 - 2:59 PM time period has the highest proportion of all crashes (25.7%) and injury crashes (31.1%).

| HAZARDOUS ACTION | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | HAZARDOUS CITATION ISSUED | |
|---|---|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| None | 1,206 | 58.8 | 1 | 11.1 | 135 | 42.9 | 1 | 0.5 |
| Speed too fast | 96 | 4.7 | 1 | 11.1 | 22 | 7.0 | 18 | 9.2 |
| Speed too slow | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Failed to yield | 266 | 13.0 | 3 | 33.3 | 71 | 22.5 | 88 | 45.1 |
| Disregard traffic control | 29 | 1.4 | 0 | 0.0 | 10 | 3.2 | 15 | 7.7 |
| Drove wrong way | 3 | 0.1 | 0 | 0.0 | 2 | 0.6 | 0 | 0.0 |
| Drove left of center | 12 | 0.6 | 1 | 11.1 | 3 | 1.0 | 2 | 1.0 |
| Improper passing | 10 | 0.5 | 0 | 0.0 | 1 | 0.3 | 3 | 1.5 |
| Improper lane use | 40 | 2.0 | 0 | 0.0 | 6 | 1.9 | 8 | 4.1 |
| Improper turn | 26 | 1.3 | 0 | 0.0 | 3 | 1.0 | 6 | 3.1 |
| Improper/no signal | 4 | 0.2 | 0 | 0.0 | 0 | 0.0 | 1 | 0.5 |
| Improper backing | 66 | 3.2 | 0 | 0.0 | 1 | 0.3 | 3 | 1.5 |
| Unable to stop in assured clear distance | 112 | 5.5 | 0 | 0.0 | 26 | 8.3 | 23 | 11.8 |
| Other | 67 | 3.3 | 0 | 0.0 | 12 | 3.8 | 8 | 4.1 |
| Unknown | 52 | 2.5 | 2 | 22.2 | 6 | 1.9 | 1 | 0.5 |
| Reckless driving | 2 | 0.1 | 0 | 0.0 | 1 | 0.3 | 2 | 1.0 |
| Careless/negligent driving | 60 | 2.9 | 1 | 11.1 | 16 | 5.1 | 16 | 8.2 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 100.0 | 195 | 100.0 |

After no hazardous action, the second highest hazardous action category for drivers age 65 and over in the Upper Peninsula for all crashes (13.0%) and injury crashes (22.5%) 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 | 331 | 16.1 | 0 | 0.0 | 66 | 21.0 |
| Tuesday | 309 | 15.1 | 2 | 22.2 | 45 | 14.3 |
| Wednesday | 372 | 18.1 | 2 | 22.2 | 55 | 17.5 |
| Thursday | 316 | 15.4 | 1 | 11.1 | 36 | 11.4 |
| Friday | 309 | 15.1 | 1 | 11.1 | 46 | 14.6 |
| Saturday | 241 | 11.8 | 2 | 22.2 | 38 | 12.1 |
| Sunday | 173 | 8.4 | 1 | 11.1 | 29 | 9.2 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 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 | 1,309 | 63.8 | 9 | 100.0 | 206 | 65.4 |
| Female | 741 | 36.1 | 0 | 0.0 | 109 | 34.6 |
| Uncoded & Errors | 1 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 100.0 |

For drivers age 65 and over in the Upper Peninsula, all nine drivers in fatal crashes were male.

| 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 | 1,587 | 77.4 | 7 | 77.8 | 228 | 72.4 |
| 2 occupants | 402 | 19.6 | 2 | 22.2 | 71 | 22.5 |
| 3 occupants | 33 | 1.6 | 0 | 0.0 | 10 | 3.2 |
| 4 occupants | 11 | 0.5 | 0 | 0.0 | 2 | 0.6 |
| 5 occupants | 4 | 0.2 | 0 | 0.0 | 1 | 0.3 |
| 6+ occupants | 4 | 0.2 | 0 | 0.0 | 1 | 0.3 |
| 0 occupants | 10 | 0.5 | 0 | 0.0 | 2 | 0.6 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 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 | 1,495 | 72.9 | 5 | 55.6 | 222 | 70.5 |
| Motor home | 7 | 0.3 | 0 | 0.0 | 2 | 0.6 |
| Pickup truck | 479 | 23.4 | 1 | 11.1 | 62 | 19.7 |
| Small Truck under 10,000 lbs. GVWR | 7 | 0.3 | 0 | 0.0 | 1 | 0.3 |
| Motorcycle | 14 | 0.7 | 1 | 11.1 | 10 | 3.2 |
| Moped/goped | 1 | 0.0 | 0 | 0.0 | 1 | 0.3 |
| Go-cart/golf cart | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Snowmobile | 9 | 0.4 | 1 | 11.1 | 8 | 2.5 |
| Off-Road Vehicle - ORV/All-Terrain Vehicle - ATV | 5 | 0.2 | 1 | 11.1 | 3 | 1.0 |
| Other | 4 | 0.2 | 0 | 0.0 | 1 | 0.3 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| CDL Truck/Bus (breakdown below) | 30 | 1.5 | 0 | 0.0 | 5 | 1.6 |
| TOTAL | 2,051 | 100.0 | 9 | 100.0 | 315 | 100.0 |

| HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Drivers | % of Total | Number of Drivers | % of Total | Number of Drivers | % of Total |
| 10,000 lbs. or less | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| 10,001 - 26,000 lbs. | 12 | 40.0 | 0 | 0.0 | 2 | 40.0 |
| Greater than 26,000 lbs. | 18 | 60.0 | 0 | 0.0 | 3 | 60.0 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 30 | 100.0 | 0 | 0.0 | 5 | 100.0 |

# ALCOHOL

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

| VEHICLE | SEVERITY | TOTAL | CRASHES INVOLVING DRINKING, NOT DRUGS | | CRASHES INVOLVING DRUGS, NOT DRINKING | | CRASHES INVOLVING DRINKING AND DRUGS | | TOTAL CRASHES INVOLVING DRINKING AND/OR DRUGS | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Operator in Crash | Operator Drinking | Operator in Crash | Operator Drugs | Operator in Crash | Operator Drinking and Drugs | Operator in Crash | Operator Drinking and/or Drugs |
| BICYCLISTS | Total* | 37 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | Killed | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0** |
| | Injured | 29 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DRIVERS | Total* | 13,024 | 333 | 258 | 111 | 70 | 77 | 53 | 521 | 381 |
| | Killed | 31 | 8 | 8 | 2 | 2 | 4 | 4 | 14 | 14** |
| | Injured | 1,093 | 108 | 92 | 37 | 27 | 29 | 21 | 174 | 140 |
| MOTORCYCLISTS | Total* | 113 | 15 | 13 | 0 | 0 | 3 | 3 | 18 | 16 |
| | Killed | 6 | 2 | 2 | 0 | 0 | 1 | 1 | 3 | 3** |
| | Injured | 68 | 9 | 9 | 0 | 0 | 2 | 2 | 11 | 11 |
| ORV/ATV RIDERS | Total* | 70 | 15 | 14 | 0 | 0 | 3 | 3 | 18 | 17 |
| | Killed | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 2 | 2** |
| | Injured | 46 | 9 | 9 | 0 | 0 | 3 | 3 | 12 | 12 |
| PEDESTRIANS | Total* | 34 | 4 | 3 | 2 | 0 | 2 | 2 | 8 | 5 |
| | Killed | 3 | 2 | 2 | 0 | 0 | 1 | 1 | 3 | 3** |
| | Injured | 25 | 2 | 1 | 2 | 0 | 1 | 1 | 5 | 2 |
| SNOWMOBILERS | Total* | 92 | 11 | 11 | 0 | 0 | 0 | 0 | 11 | 11 |
| | Killed | 5 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1** |
| | Injured | 60 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 9 |

**Total does include property damage only crashes*

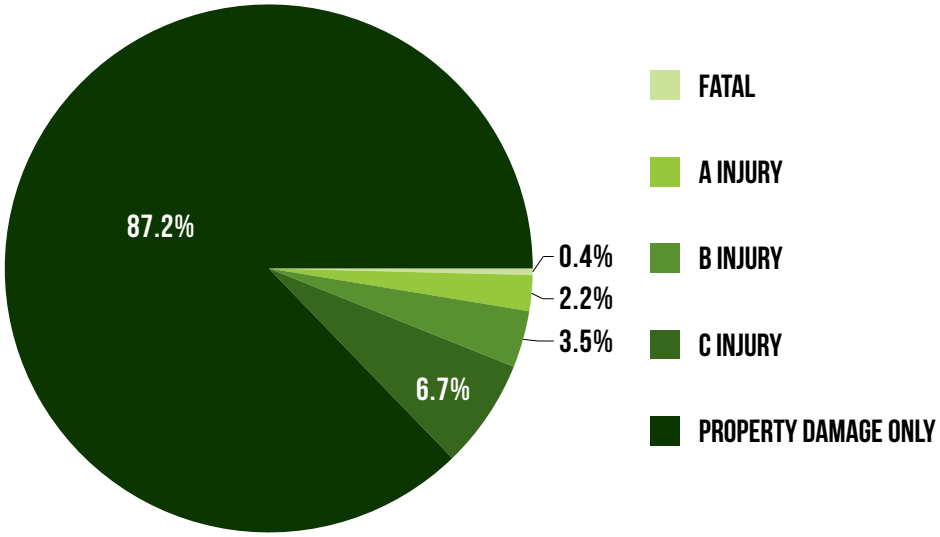
**In the Upper Peninsula, there were no bicyclists, 14 drivers, three motorcyclists, two ORV/ATV riders, three pedestrians, and one snowmobiler who were killed and coded as drinking and/or using drugs by the police officer.

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

| AGE OF DRIVER IN CRASH | ALL CRASHES | | | | FATAL | | | | INJURY | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Drinking Only | Drugs Only | Both | Total | Drinking Only | Drugs Only | Both | Total | Drinking Only | Drugs Only | Both | Total |
| 13 years and under | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 years | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 16 years | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 17 years | 4 | 3 | 0 | 7 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
| 18 years | 4 | 5 | 1 | 10 | 1 | 1 | 0 | 2 | 1 | 3 | 0 | 4 |
| 19 years | 9 | 5 | 2 | 16 | 0 | 2 | 0 | 2 | 4 | 1 | 2 | 7 |
| 20 years | 4 | 1 | 1 | 6 | 0 | 0 | 0 | 0 | 2 | 1 | 1 | 4 |
| 21 - 24 years | 40 | 2 | 12 | 54 | 0 | 0 | 0 | 0 | 14 | 2 | 6 | 22 |
| 25 - 34 years | 65 | 16 | 15 | 96 | 1 | 1 | 1 | 3 | 24 | 7 | 6 | 37 |
| 35 - 44 years | 50 | 15 | 8 | 73 | 1 | 0 | 1 | 2 | 26 | 7 | 4 | 37 |
| 45 - 54 years | 31 | 9 | 4 | 44 | 1 | 0 | 0 | 1 | 15 | 5 | 3 | 23 |
| 55 - 64 years | 36 | 9 | 8 | 53 | 4 | 0 | 2 | 6 | 14 | 5 | 3 | 22 |
| 65 - 69 years | 7 | 3 | 2 | 12 | 0 | 1 | 0 | 1 | 4 | 1 | 0 | 5 |
| 70 - 74 years | 4 | 1 | 0 | 5 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| 75 - 79 years | 4 | 1 | 0 | 5 | 1 | 0 | 0 | 1 | 2 | 0 | 0 | 2 |
| 80 - 84 years | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| 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 | 259 | 71 | 53 | 383 | 9 | 5 | 4 | 18 | 109 | 34 | 25 | 168 |

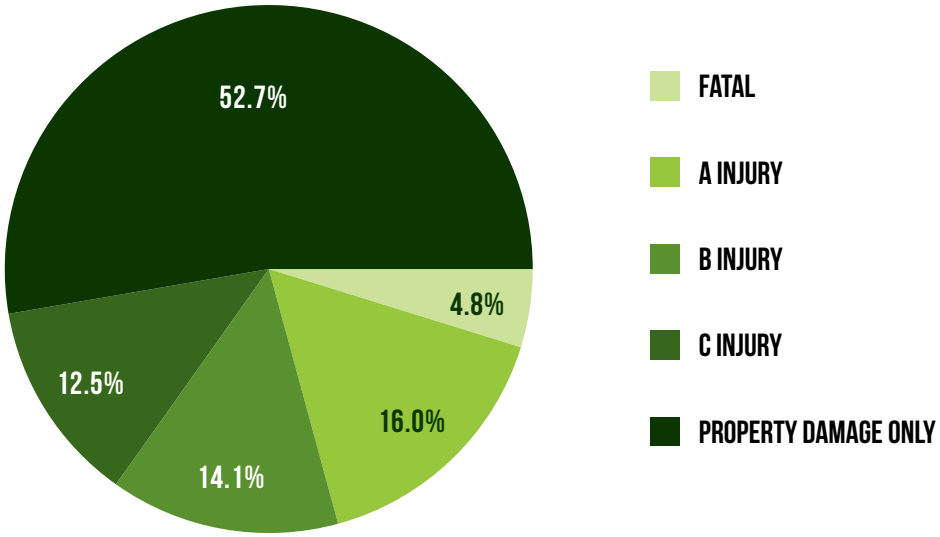
The driver age group 25 to 34 years represents the highest number of drinking and/or drug use in total crashes. That age group and the 35 to 44 years age group together represent the highest number of drinking and/or drug use in injury crashes.

## UPPER PENINSULA ALL CRASHES BY INJURY SEVERITY



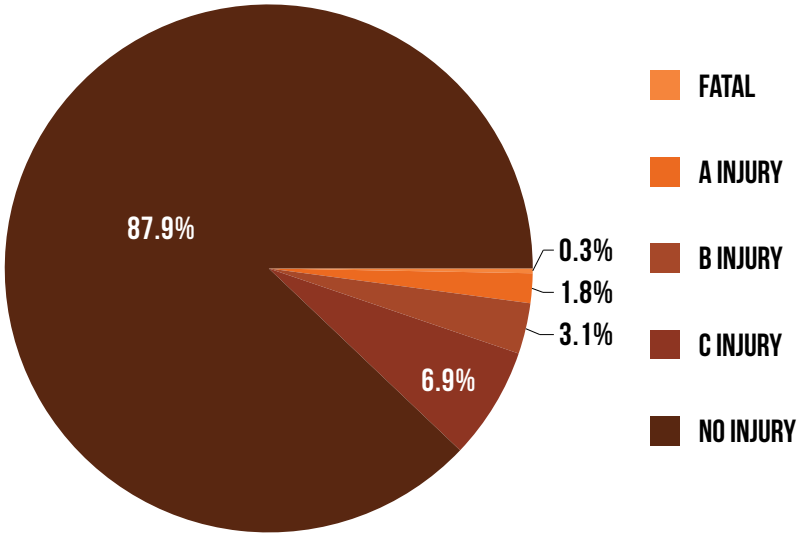

The majority of crashes do not involve injury (87.2%). Possible (C) injury crashes represent about 52% of all injury crashes.

## UPPER PENINSULA HAD-BEEN-DRINKING CRASHES BY INJURY SEVERITY



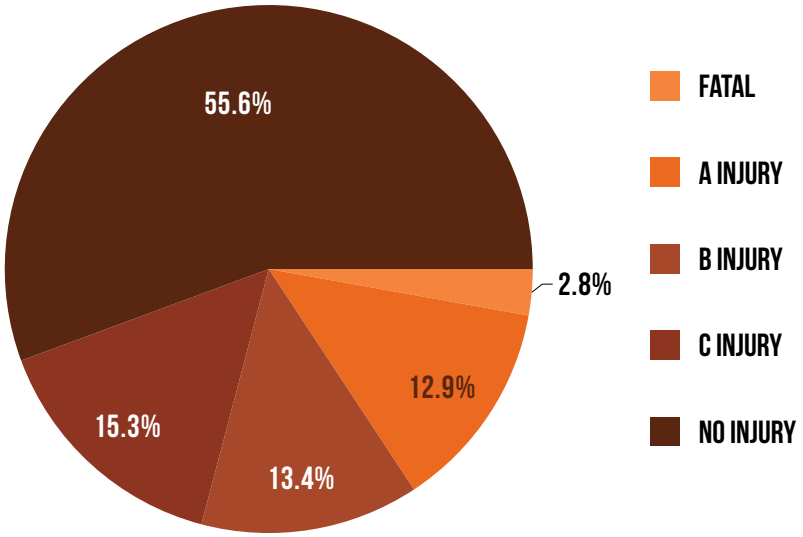

The problem of the drinking driver, pedestrian, and/or bicyclist is seen by comparing the two charts on this page. All injury levels are greater, and a fatality in the crash is about 12 times more likely when one of the crash-involved operators is reported as had-been-drinking (HBD).

## UPPER PENINSULA DEATH & INJURY FOR CRASH INVOLVED OCCUPANTS




The majority of occupants involved in crashes are not injured (87.9%). About 57% of those who are injured receive only possible (C) injuries.

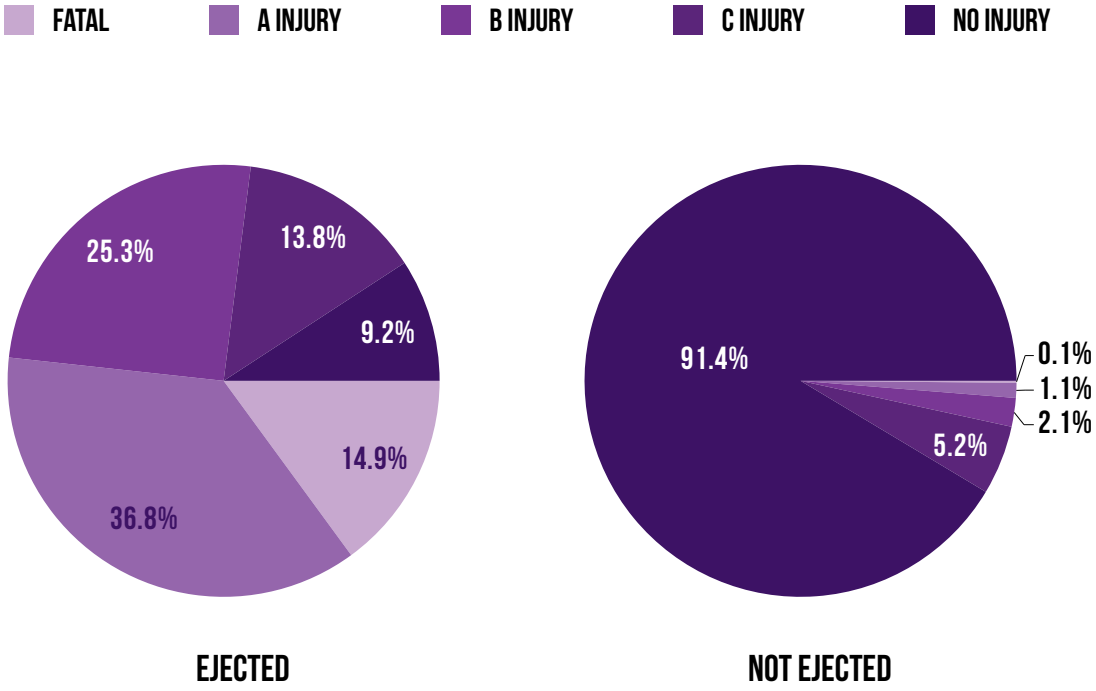
## UPPER PENINSULA OCCUPANTS IN HAD-BEEN-DRINKING CRASHES




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

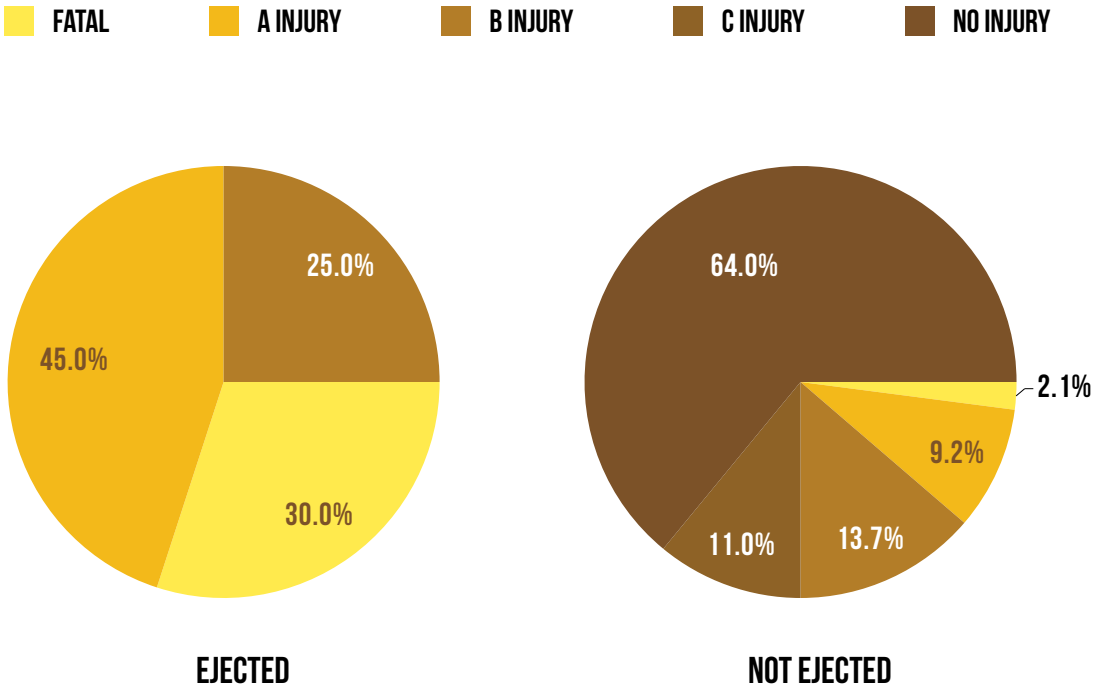
*Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.*

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



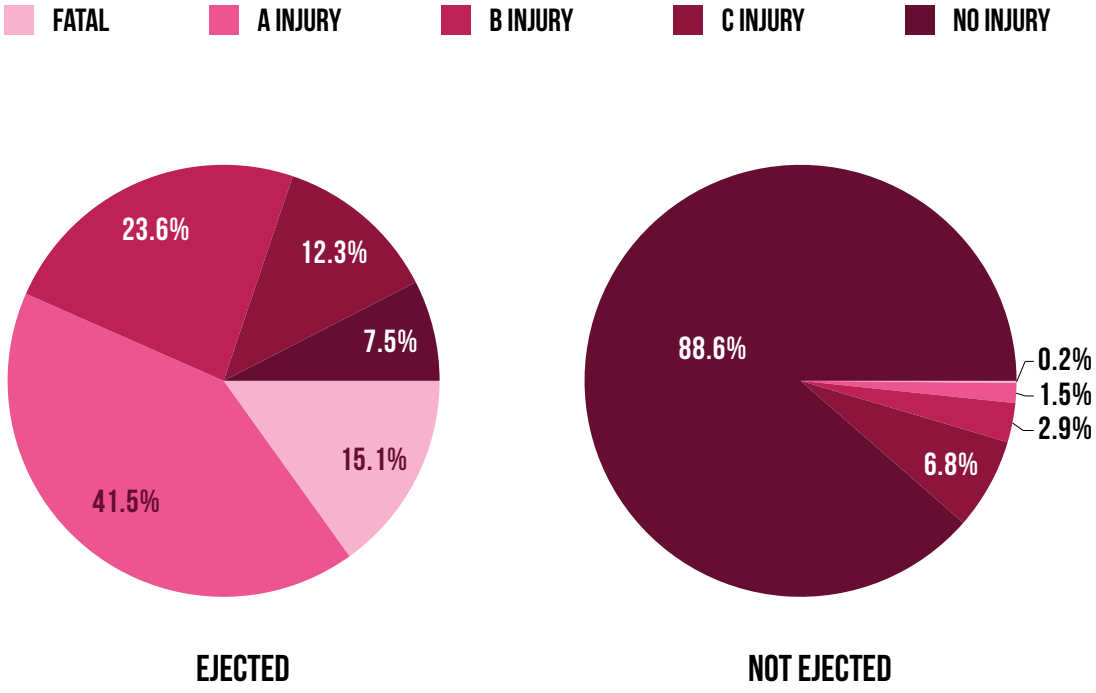

As shown by the two charts above, death and injury are much more likely when drivers are ejected from vehicles.

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



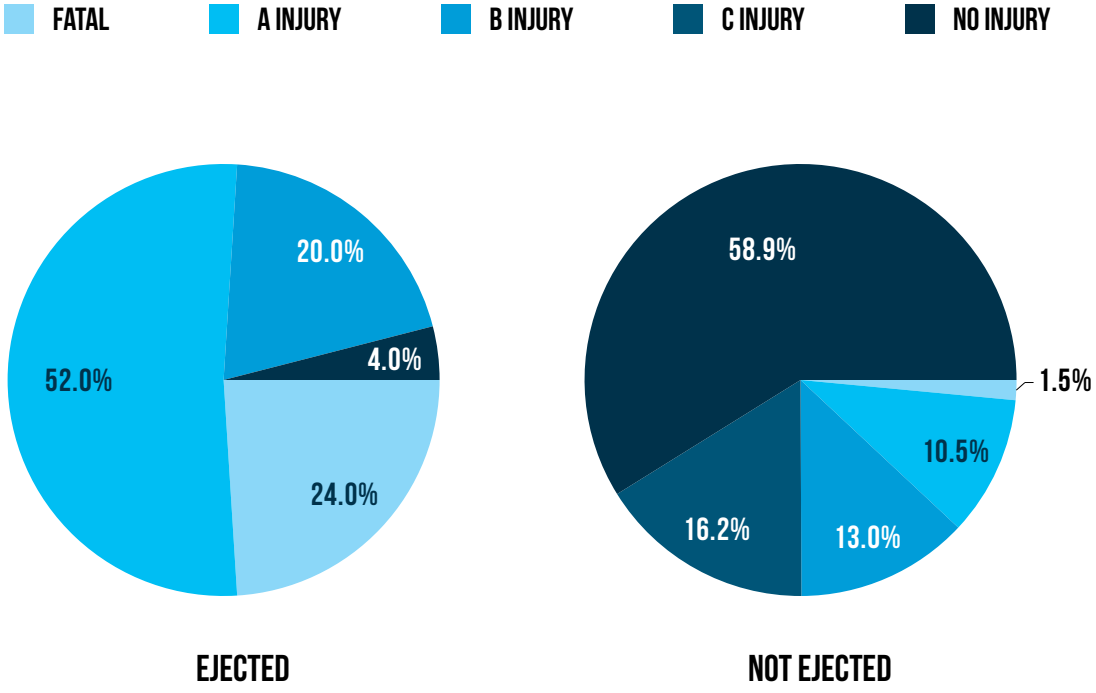

When compared to the charts above, the had-been-drinking charts demonstrate that injury severity is much worse for drivers reported to be drinking in both ejected and non-ejected events.

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




As shown by the two charts above, death and injury are much more likely when occupants are ejected from vehicles.

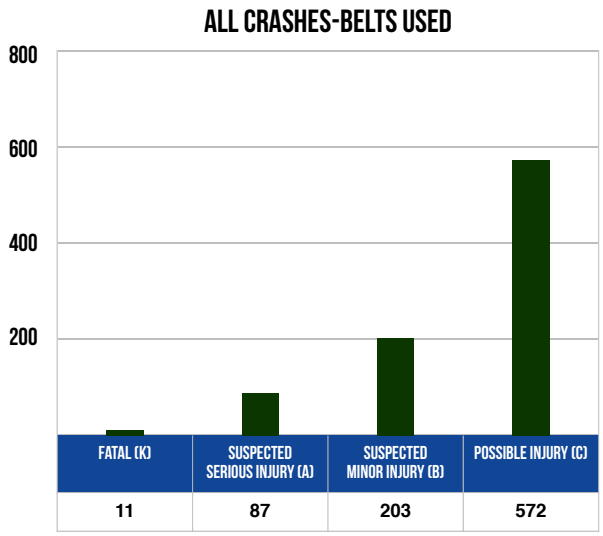
## UPPER PENINSULA OCCUPANTS OF HAD-BEEN-DRINKING CRASHES INJURY SEVERITY - EJECTED VS. NOT EJECTED

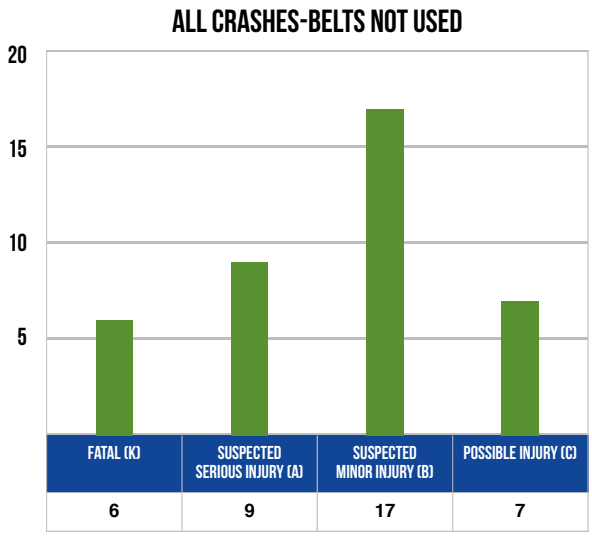


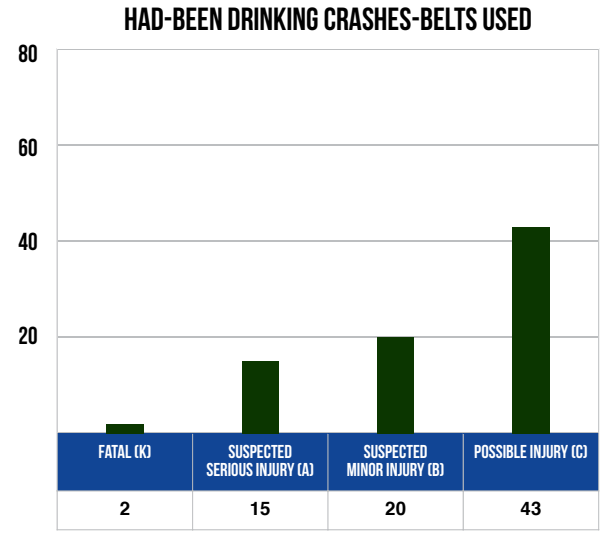

When compared to the charts above, the charts of occupants of had-been-drinking crashes demonstrate that injury severity is much worse for occupants in a crash where drinking is reported in both ejected and non-ejected events.

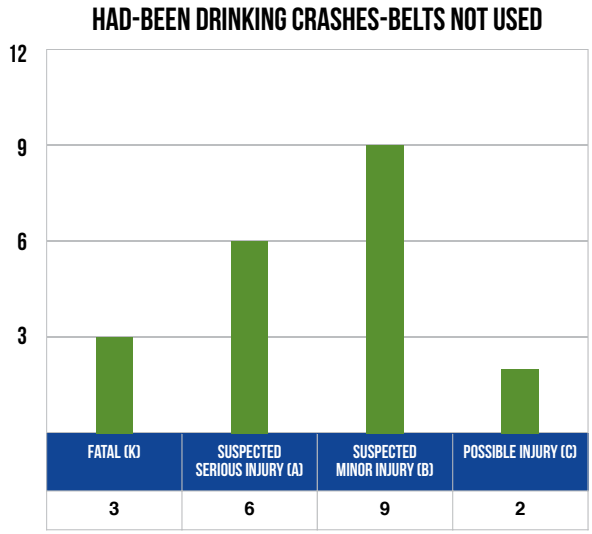
*Note: Occupants include all drivers plus all injured or killed persons in or on a motor vehicle.*

# UPPER PENINSULA INJURY SEVERITY & BELT USE BY DRIVER INJURY



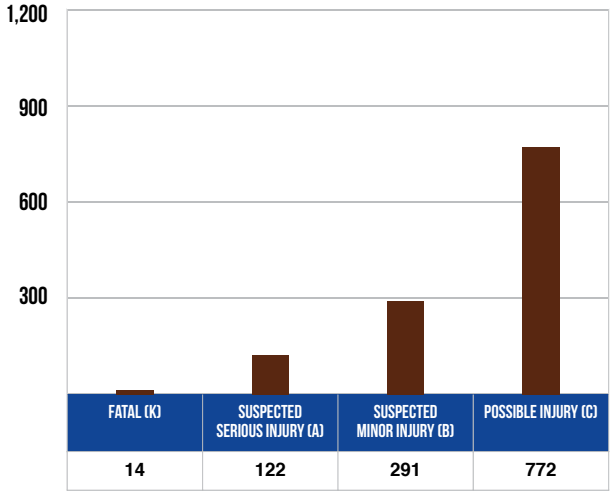



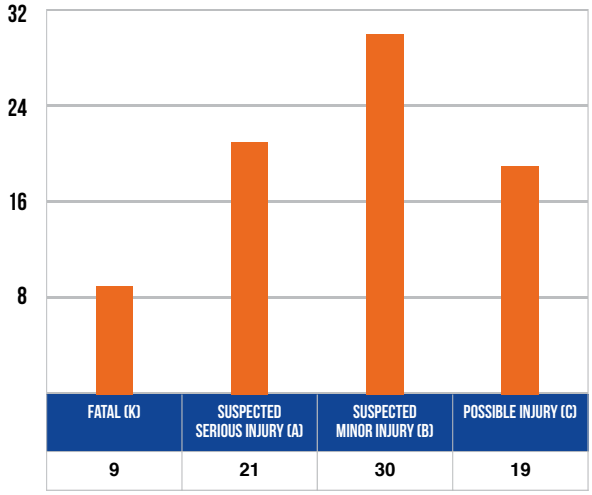

*Note: "Belts Used" represents shoulder belts only used, lap belts only used, both lap and shoulder belts used, and restraint failure. "Belts Not Used" represents no belts available and no belts used.*

# UPPER PENINSULA INJURY SEVERITY & RESTRAINT USE BY OCCUPANT INJURY

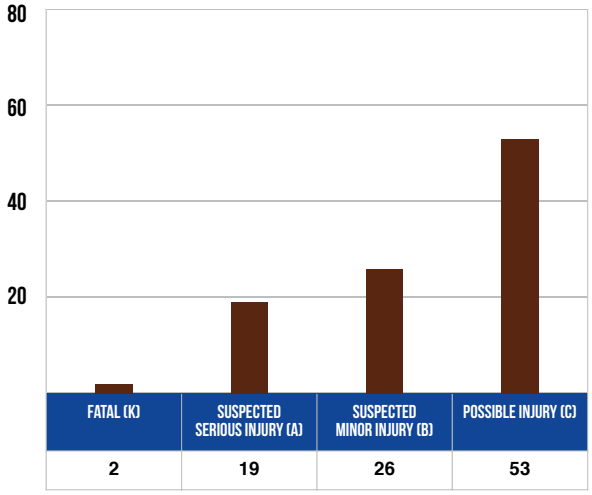
## ALL CRASHES - RESTRAINTS USED



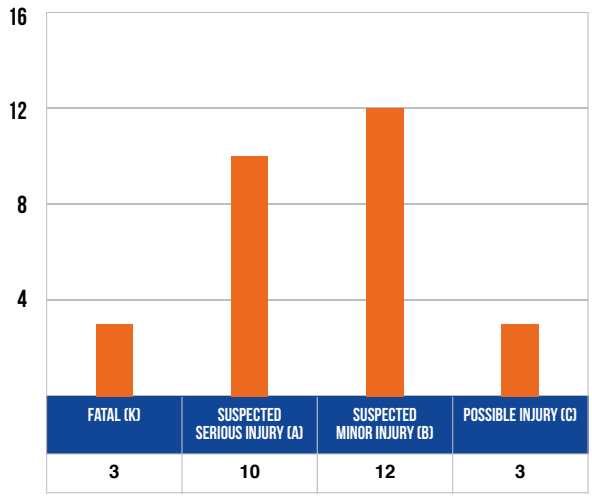

## ALL CRASHES - RESTRAINTS NOT USED




## HAD-BEEN-DRINKING CRASHES - RESTRAINTS USED




## HAD-BEEN-DRINKING CRASHES - RESTRAINTS NOT USED

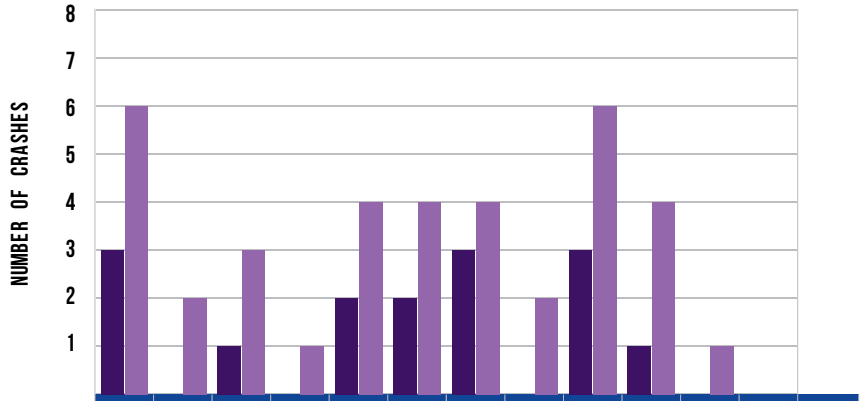



*Note: "Restraints Used" represents shoulder belts only used, lap belts only used, both lap and shoulder belts used, child restraints used, and restraint failure. "Restraints Not Used" represents no belts available; no belts used; and child restraint not used, unavailable, or improper use.*

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

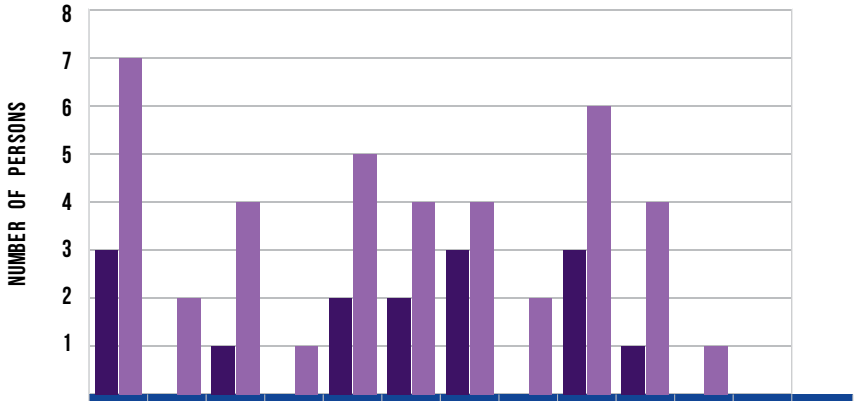
# UPPER PENINSULA ALCOHOL INVOLVMENT IN FATAL CRASHES

## HAD-BEEN-DRINKING FATAL CRASHES BY MONTH




| | J | F | M | A | M | J | J | A | S | O | N | D | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HBD FATAL CRASHES | 3 | 0 | 1 | 0 | 2 | 2 | 3 | 0 | 3 | 1 | 0 | 0 | 15 |
| TOTAL FATAL CRASHES | 6 | 2 | 3 | 1 | 4 | 4 | 4 | 2 | 6 | 4 | 1 | 0 | 37 |

## ALCOHOL-INVOLVED FATALITIES BY MONTH

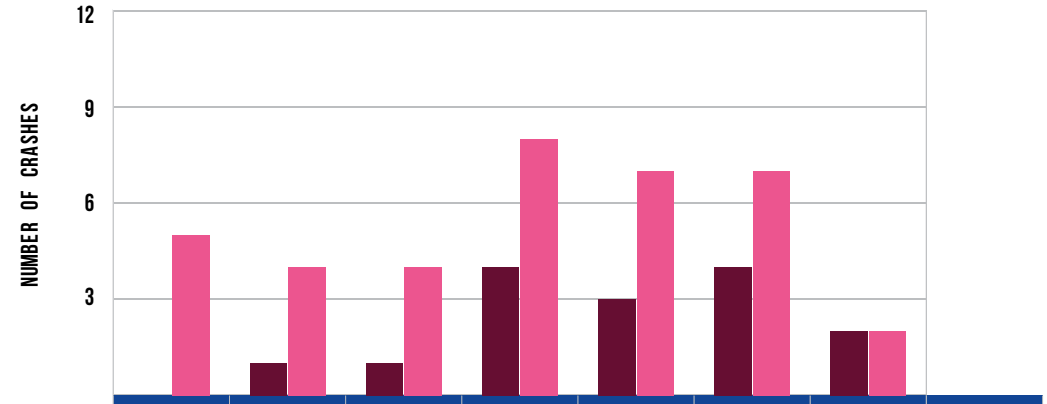



| | J | F | M | A | M | J | J | A | S | O | N | D | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALCOHOL-INVOLVED FATALITIES | 3 | 0 | 1 | 0 | 2 | 2 | 3 | 0 | 3 | 1 | 0 | 0 | 15 |
| TOTAL FATALITIES | 7 | 2 | 4 | 1 | 5 | 4 | 4 | 2 | 6 | 4 | 1 | 0 | 40 |

Had-been-drinking fatal crashes were highest in number during the months of January, July, and September. The number of total fatal crashes (total of non-had-been-drinking and had-been-drinking fatal crashes) reached highest levels in January and September.

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

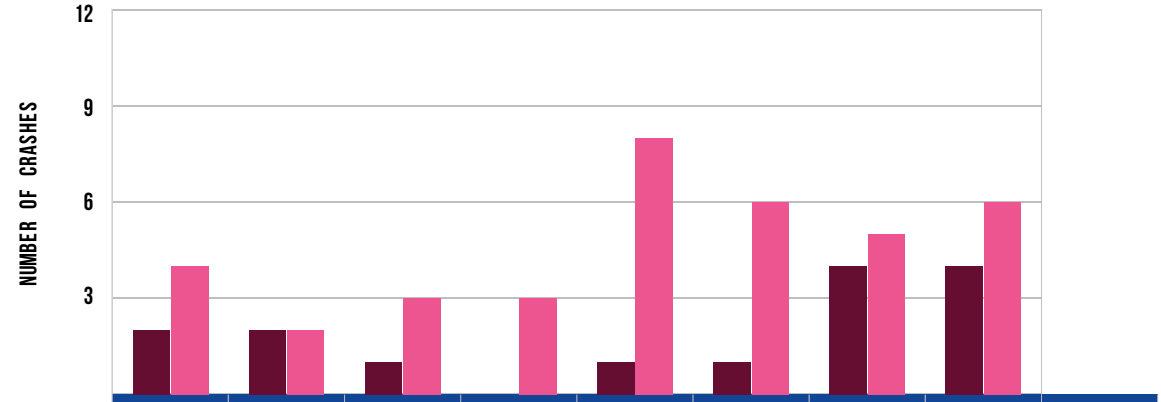
## HAD-BEEN-DRINKING FATAL CRASHES BY DAY OF THE WEEK




| | MON | TUES | WED | THURS | FRI | SAT | SUN | TOTALS |
|---|---|---|---|---|---|---|---|---|
| HBD FATAL CRASHES | 0 | 1 | 1 | 4 | 3 | 4 | 2 | 15 |
| TOTAL FATAL CRASHES | 5 | 4 | 4 | 8 | 7 | 7 | 2 | 37 |

Thursday had the highest number of fatal crashes, and Thursday and Saturday had the highest number of drinking-related fatal crashes in 2019.

## HAD-BEEN-DRINKING FATAL CRASHES BY TIME OF DAY

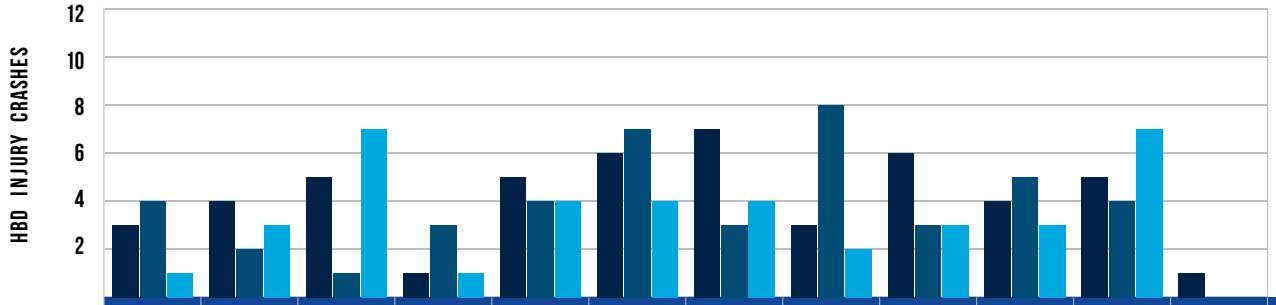



| | 12:00-2:59AM | 3:00-5:59AM | 6:00-8:59AM | 9:00-11:59AM | 12:00-2:59PM | 3:00-5:59PM | 6:00-8:59PM | 9:00-11:59PM | TOTALS |
|---|---|---|---|---|---|---|---|---|---|
| HBD FATAL CRASHES | 2 | 2 | 1 | 0 | 1 | 1 | 4 | 4 | 15 |
| TOTAL FATAL CRASHES | 4 | 2 | 3 | 3 | 8 | 6 | 5 | 6 | 37 |

The 6:00 PM to 8:59 PM and 9:00 PM to 11:59 PM time periods had the highest number of HBD fatal crashes (4), while the 12:00 PM to 2:59 PM time period had the highest number of total fatal crashes (8).

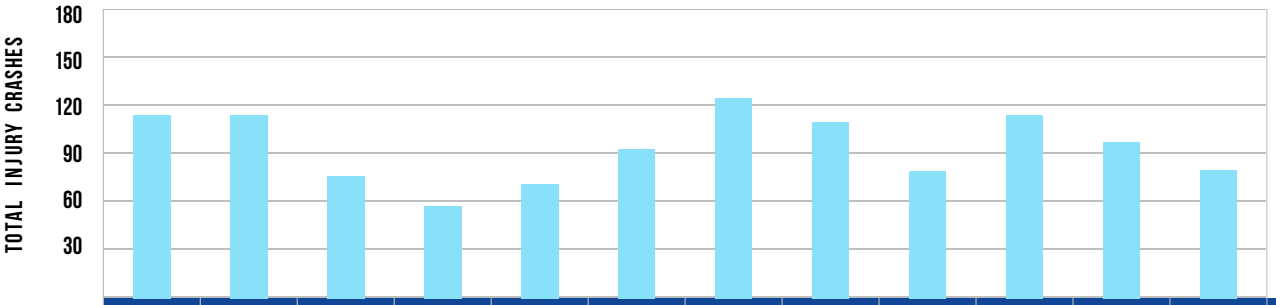
# UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES

## HAD-BEEN-DRINKING INJURY CRASHES BY MONTH




| | J | F | M | A | M | J | J | A | S | O | N | D | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HBD A INJURY CRASHES | 3 | 4 | 5 | 1 | 5 | 6 | 7 | 3 | 6 | 4 | 5 | 1 | 50 |
| HBD B INJURY CRASHES | 4 | 2 | 1 | 3 | 4 | 7 | 3 | 8 | 3 | 5 | 4 | 0 | 44 |
| HBD C INJURY CRASHES | 1 | 3 | 7 | 1 | 4 | 4 | 4 | 2 | 3 | 3 | 7 | 0 | 39 |

## TOTAL INJURY CRASHES BY MONTH



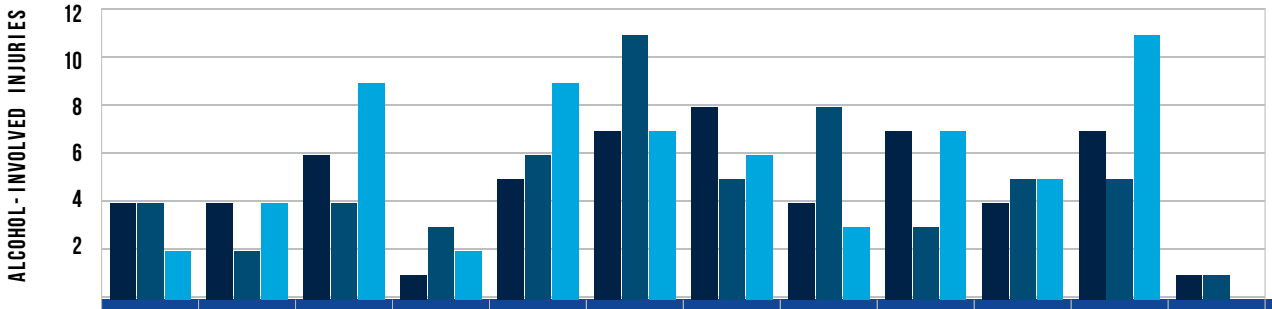

| | J | F | M | A | M | J | J | A | S | O | N | D | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL INJURY CRASHES | 114 | 114 | 76 | 57 | 71 | 93 | 125 | 110 | 79 | 114 | 97 | 80 | 1,130 |

Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2019, the highest number of had-been-drinking injury crashes occurred in June (17).

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

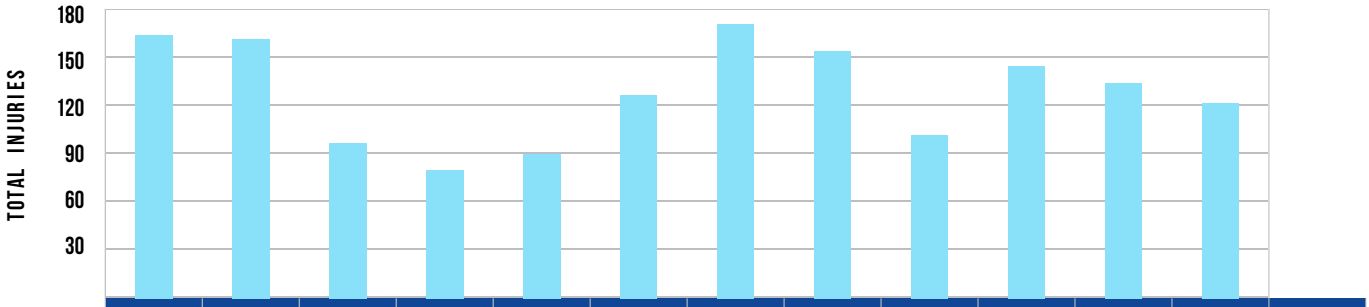
# UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)

## ALCOHOL-INVOLVED INJURIES BY MONTH




| | J | F | M | A | M | J | J | A | S | O | N | D | TOTALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALCOHOL-INVOLVED A INJURIES | 4 | 4 | 6 | 1 | 5 | 7 | 8 | 4 | 7 | 4 | 7 | 1 | 58 |
| ALCOHOL-INVOLVED B INJURIES | 4 | 2 | 4 | 3 | 6 | 11 | 5 | 8 | 3 | 5 | 5 | 1 | 57 |
| ALCOHOL-INVOLVED C INJURIES | 2 | 4 | 9 | 2 | 9 | 7 | 6 | 3 | 7 | 5 | 11 | 0 | 65 |

## TOTAL INJURIES BY MONTH

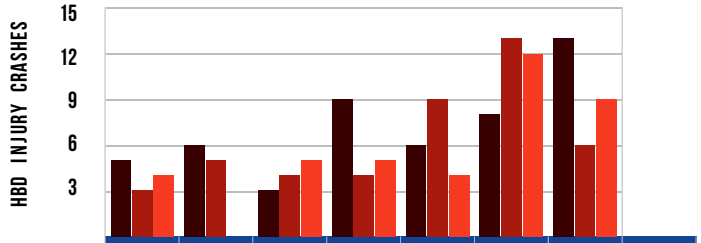



| | J | F | M | A | M | J | J | A | S | O | N | D | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOTAL INJURIES | 164 | 162 | 97 | 80 | 90 | 127 | 171 | 154 | 102 | 145 | 134 | 122 | 1,548 |

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

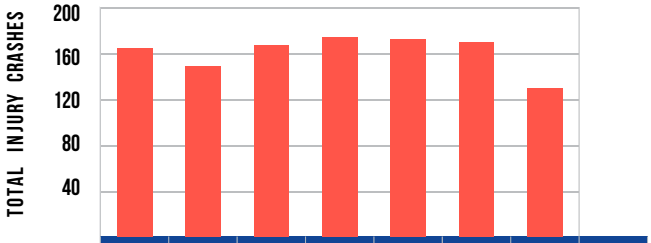
# UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)

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




| | MON | TUES | WED | THURS | FRI | SAT | SUN | TOTALS |
|---|---|---|---|---|---|---|---|---|
| HBD A INJURY CRASHES | 5 | 6 | 3 | 9 | 6 | 8 | 13 | 50 |
| HBD B INJURY CRASHES | 3 | 5 | 4 | 4 | 9 | 13 | 6 | 44 |
| HBD C INJURY CRASHES | 4 | 0 | 5 | 5 | 4 | 12 | 9 | 39 |

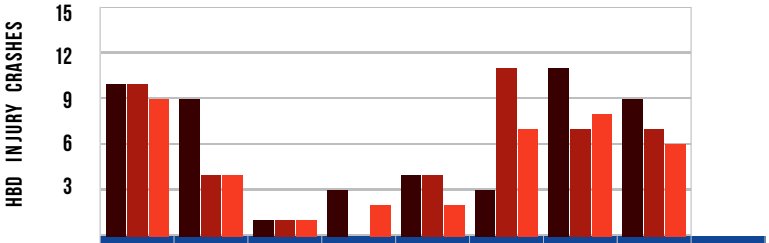
## TOTAL INJURY CRASHES BY DAY OF THE WEEK




| | MON | TUES | WED | THURS | FRI | SAT | SUN | TOTALS |
|---|---|---|---|---|---|---|---|---|
| TOTAL INJURY CRASHES | 165 | 149 | 168 | 175 | 173 | 170 | 130 | 1,130 |

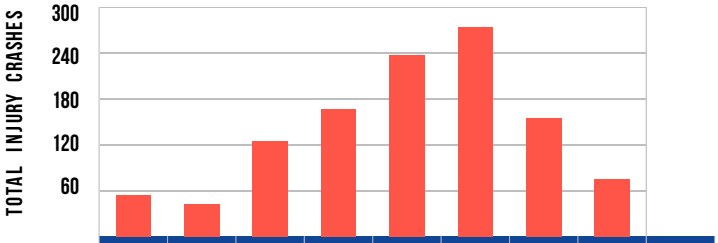
The peak day for all injury crashes is Thursday. The highest proportion of had-been-drinking injury crashes to total injury crashes occurred on Sunday (21.5%).

## 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 CRASHES | 10 | 9 | 1 | 3 | 4 | 3 | 11 | 9 | 50 |
| HBD B INJURY CRASHES | 10 | 4 | 1 | 0 | 4 | 11 | 7 | 7 | 44 |
| HBD C INJURY CRASHES | 9 | 4 | 1 | 2 | 2 | 7 | 8 | 6 | 39 |

## 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 | 54 | 42 | 124 | 167 | 238 | 275 | 155 | 75 | 1,130 |

Total injury crash frequencies peak in the hours between 3:00 PM and 5:59 PM, while had-been-drinking injury crash frequencies peak between 12:00 AM and 2:59 AM. There were no injury crashes where the time of day was unknown.

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

| AGE OF DRIVER IN CRASH | MALE DRIVERS | | FATAL | | INJURY | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| 13 years and under | 5 | 0.1 | 0 | 0.0 | 3 | 2 | 0 | 0 |
| 14 years | 3 | 0.0 | 0 | 0.0 | 1 | 1 | 0 | 1 |
| 15 years | 10 | 0.1 | 0 | 0.0 | 1 | 3 | 1 | 5 |
| 16 years | 111 | 1.5 | 0 | 0.0 | 3 | 6 | 10 | 92 |
| 17 years | 130 | 1.8 | 0 | 0.0 | 4 | 7 | 10 | 109 |
| 18 years | 178 | 2.4 | 2 | 4.3 | 3 | 8 | 15 | 150 |
| 19 years | 182 | 2.5 | 1 | 2.2 | 6 | 15 | 19 | 141 |
| 20 years | 175 | 2.4 | 0 | 0.0 | 2 | 7 | 13 | 153 |
| 21 - 24 years | 661 | 8.9 | 5 | 10.9 | 11 | 26 | 54 | 565 |
| 25 - 34 years | 1,169 | 15.8 | 3 | 6.5 | 31 | 44 | 86 | 1,005 |
| 35 - 44 years | 1,080 | 14.6 | 5 | 10.9 | 36 | 44 | 75 | 920 |
| 45 - 54 years | 1,083 | 14.6 | 6 | 13.0 | 36 | 35 | 73 | 933 |
| 55 - 64 years | 1,280 | 17.3 | 15 | 32.6 | 34 | 45 | 94 | 1,092 |
| 65 - 69 years | 493 | 6.7 | 3 | 6.5 | 21 | 28 | 33 | 408 |
| 70 - 74 years | 343 | 4.6 | 0 | 0.0 | 11 | 10 | 23 | 299 |
| 75 - 79 years | 251 | 3.4 | 4 | 8.7 | 4 | 11 | 25 | 207 |
| 80 - 84 years | 138 | 1.9 | 2 | 4.3 | 3 | 10 | 12 | 111 |
| 85 - 89 years | 65 | 0.9 | 0 | 0.0 | 4 | 4 | 5 | 52 |
| 90 years and over | 19 | 0.3 | 0 | 0.0 | 0 | 1 | 1 | 17 |
| Unknown | 28 | 0.4 | 0 | 0.0 | 0 | 0 | 2 | 26 |
| TOTAL | 7,404** | 100.0 | 46 | 100.0 | 214 | 307 | 551 | 6,286 |

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

***Note: This table excludes 676 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 | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 17 years | 4 | 1.7 | 0 | 0.0 | 0 | 1 | 1 | 2 |
| 18 years | 5 | 2.1 | 1 | 8.3 | 0 | 1 | 0 | 3 |
| 19 years | 8 | 3.4 | 0 | 0.0 | 1 | 2 | 1 | 4 |
| 20 years | 4 | 1.7 | 0 | 0.0 | 0 | 1 | 1 | 2 |
| 21 - 24 years | 35 | 14.8 | 0 | 0.0 | 6 | 2 | 2 | 25 |
| 25 - 34 years | 54 | 22.9 | 2 | 16.7 | 9 | 4 | 5 | 34 |
| 35 - 44 years | 45 | 19.1 | 1 | 8.3 | 12 | 8 | 4 | 20 |
| 45 - 54 years | 29 | 12.3 | 1 | 8.3 | 6 | 7 | 3 | 12 |
| 55 - 64 years | 38 | 16.1 | 6 | 50.0 | 5 | 5 | 4 | 18 |
| 65 - 69 years | 7 | 3.0 | 0 | 0.0 | 1 | 3 | 0 | 3 |
| 70 - 74 years | 4 | 1.7 | 0 | 0.0 | 1 | 0 | 0 | 3 |
| 75 - 79 years | 3 | 1.3 | 1 | 8.3 | 0 | 0 | 2 | 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 | 236** | 100.0 | 12 | 100.0 | 41 | 34 | 23 | 126 |

Among male drinking drivers, the age group 55 to 64 years experienced the highest number of fatal crashes, the 35 to 44 year age group experienced the highest number of injury crashes, and the 25 to 34 year age group experienced the highest number of 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 | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 14 years | 1 | 0.0 | 0 | 0.0 | 0 | 0 | 1 | 0 |
| 15 years | 8 | 0.2 | 0 | 0.0 | 1 | 3 | 1 | 3 |
| 16 years | 89 | 1.8 | 0 | 0.0 | 2 | 1 | 17 | 69 |
| 17 years | 125 | 2.5 | 0 | 0.0 | 4 | 4 | 12 | 105 |
| 18 years | 107 | 2.2 | 1 | 16.7 | 3 | 3 | 14 | 86 |
| 19 years | 167 | 3.4 | 1 | 16.7 | 0 | 8 | 18 | 140 |
| 20 years | 130 | 2.6 | 0 | 0.0 | 5 | 2 | 15 | 108 |
| 21 - 24 years | 497 | 10.1 | 0 | 0.0 | 8 | 25 | 52 | 412 |
| 25 - 34 years | 870 | 17.6 | 1 | 16.7 | 17 | 35 | 92 | 725 |
| 35 - 44 years | 728 | 14.7 | 2 | 33.3 | 13 | 27 | 60 | 626 |
| 45 - 54 years | 719 | 14.5 | 0 | 0.0 | 14 | 18 | 58 | 629 |
| 55 - 64 years | 741 | 15.0 | 1 | 16.7 | 13 | 20 | 70 | 637 |
| 65 - 69 years | 280 | 5.7 | 0 | 0.0 | 8 | 3 | 20 | 249 |
| 70 - 74 years | 186 | 3.8 | 0 | 0.0 | 1 | 7 | 24 | 154 |
| 75 - 79 years | 138 | 2.8 | 0 | 0.0 | 5 | 1 | 13 | 119 |
| 80 - 84 years | 76 | 1.5 | 0 | 0.0 | 2 | 4 | 13 | 57 |
| 85 - 89 years | 43 | 0.9 | 0 | 0.0 | 1 | 0 | 3 | 39 |
| 90 years and over | 18 | 0.4 | 0 | 0.0 | 0 | 1 | 3 | 14 |
| Unknown | 21 | 0.4 | 0 | 0.0 | 0 | 0 | 1 | 20 |
| TOTAL | 4,944** | 100.0 | 6 | 100.0 | 97 | 162 | 487 | 4,192 |

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 676 drivers of unknown gender.*

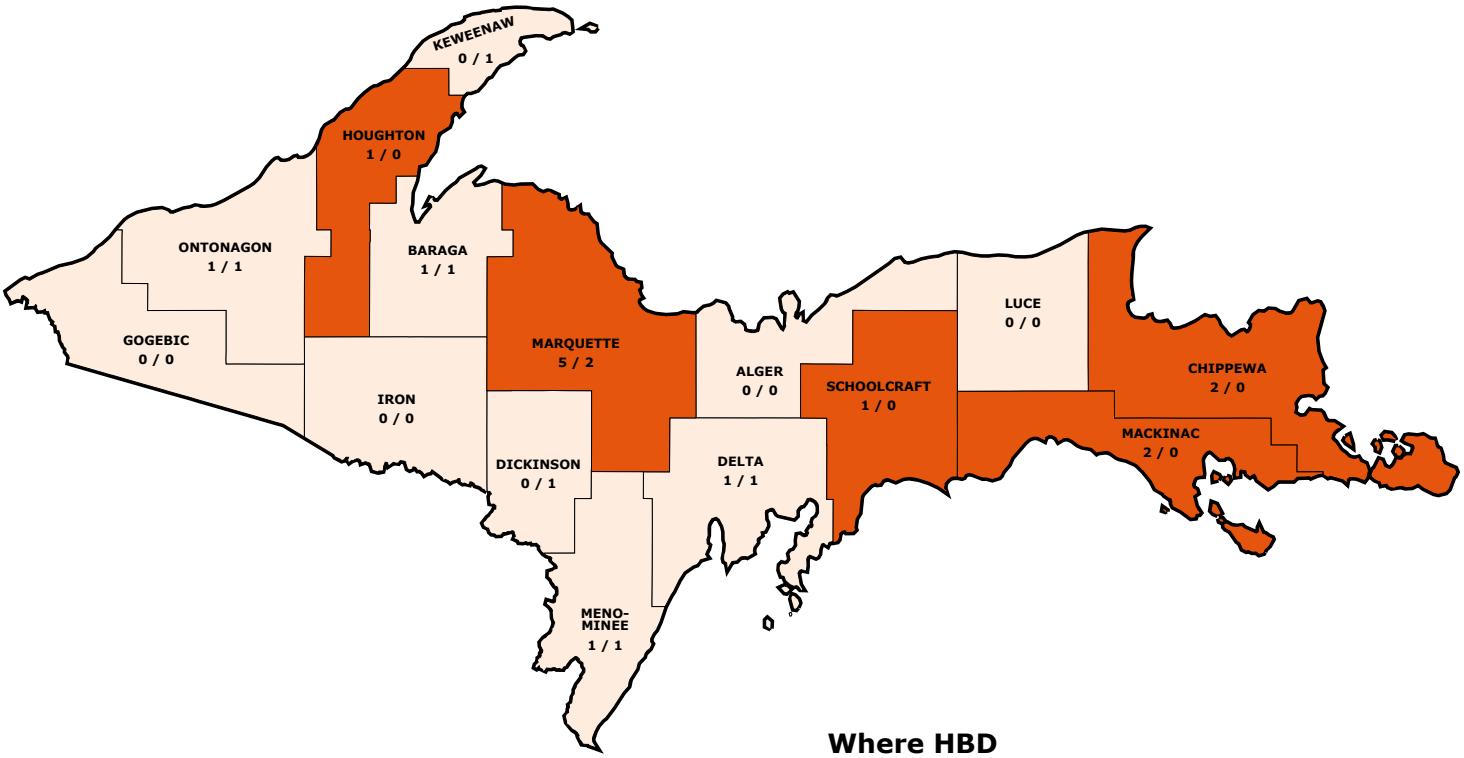
# UPPER PENINSULA FEMALE DRINKING DRIVERS BY AGE AND INJURY SEVERITY IN CRASH

| AGE OF DRINKING DRIVER IN CRASH | FEMALE DRIVERS | | FATAL | | INJURY | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| 13 years and under | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 14 years | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 15 years | 1 | 1.3 | 0 | 0.0 | 0 | 0 | 0 | 1 |
| 16 years | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 17 years | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 18 years | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 19 years | 3 | 3.9 | 0 | 0.0 | 0 | 0 | 2 | 1 |
| 20 years | 1 | 1.3 | 0 | 0.0 | 0 | 0 | 1 | 0 |
| 21 - 24 years | 17 | 22.4 | 0 | 0.0 | 2 | 4 | 4 | 7 |
| 25 - 34 years | 26 | 34.2 | 0 | 0.0 | 5 | 4 | 3 | 14 |
| 35 - 44 years | 13 | 17.1 | 1 | 100.0 | 1 | 2 | 3 | 6 |
| 45 - 54 years | 6 | 7.9 | 0 | 0.0 | 1 | 0 | 1 | 4 |
| 55 - 64 years | 6 | 7.9 | 0 | 0.0 | 0 | 1 | 2 | 3 |
| 65 - 69 years | 2 | 2.6 | 0 | 0.0 | 0 | 0 | 0 | 2 |
| 70 - 74 years | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| 75 - 79 years | 1 | 1.3 | 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 | 76** | 100.0 | 1 | 100.0 | 9 | 11 | 16 | 39 |

The female 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.*

# TRAFFIC FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY




**Where HBD**
**Traffic Fatalities Occured**

**A One-Year Comparision**
**2019 = 15 / 2018 = 8**

Same or decrease
Increase

# DEER

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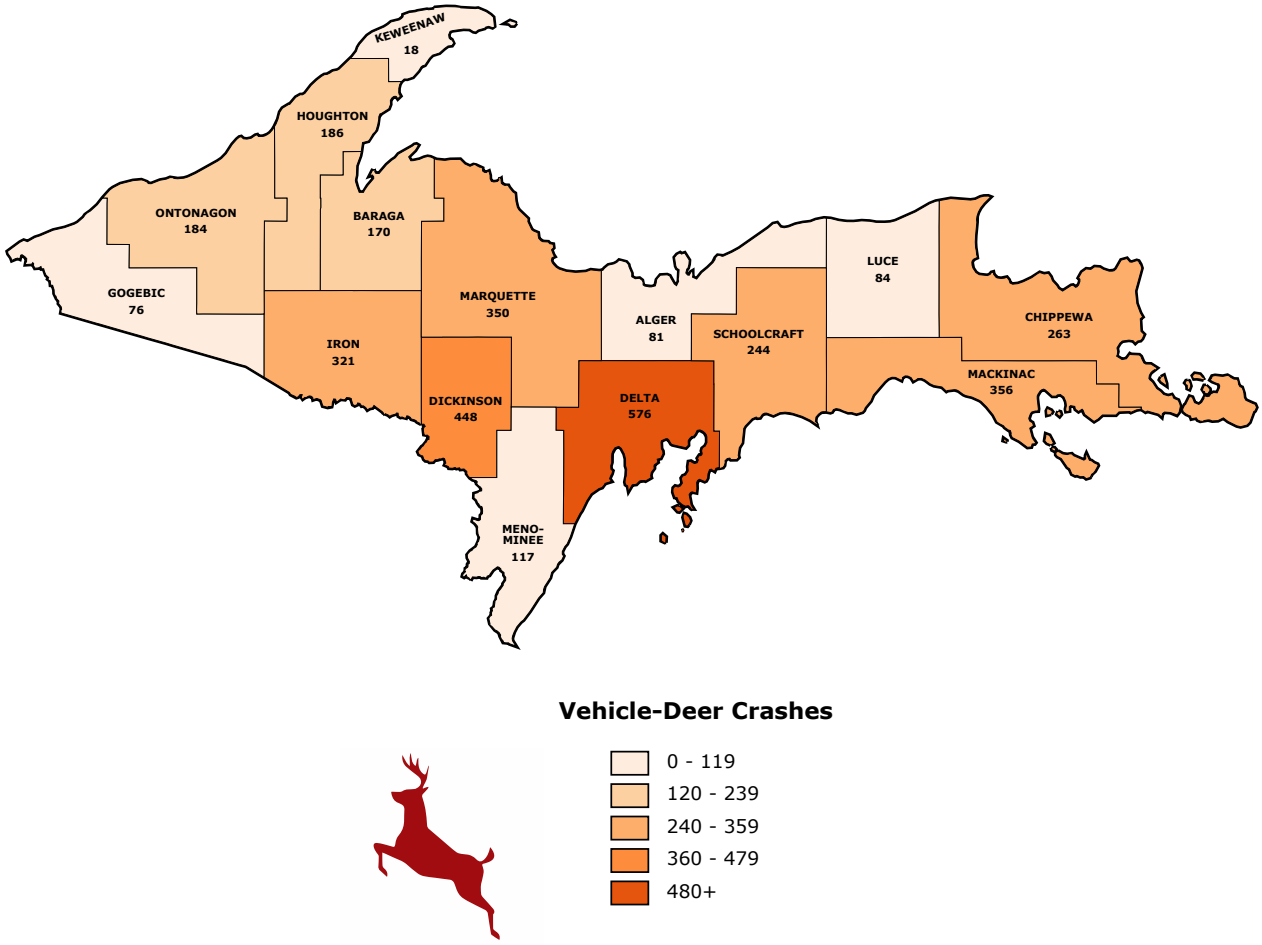
# UPPER PENINSULA MICHIGAN MOTOR VEHICLE-DEER INVOLVED CRASHES



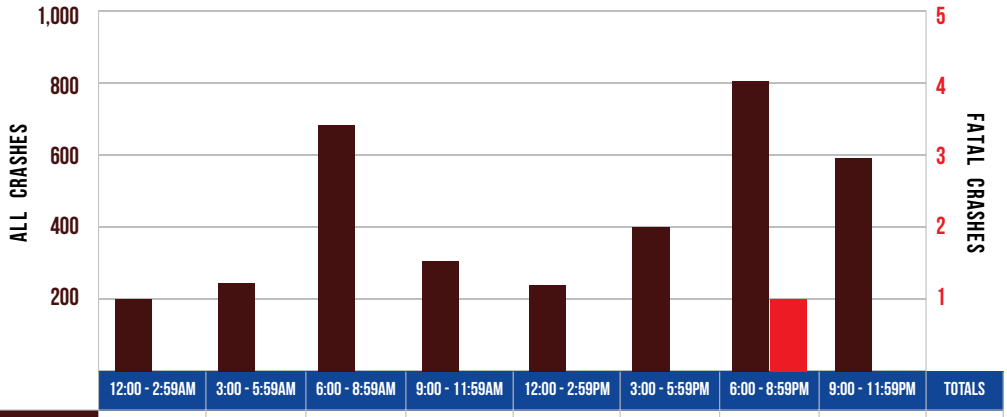

The Upper Peninsula had 3,474 reported vehicle-deer crashes during 2019. Those collisions resulted in 74 people injured and one killed. Of the 3,487 units involved, 2,622 (75.2%) were passenger cars, SUVs, or vans; 794 (22.8%) were pickup trucks; 3 (0.1%) were motorhomes; and 17 (0.5%) were motorcycles. All other vehicle types (including uncoded and errors) totaled 51 (1.5%).

In the Upper Peninsula, 38.0 percent of crashes in all counties involved deer. This compares to 17.7 percent for the number of deer-involved crashes statewide. Delta County had the highest number of vehicle-deer crashes (576) in the Upper Peninsula, translating to 43.8 percent of the total crashes in that county in 2019.

# 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 | 1,262 | 36.3 | 0 | 0.0 | 3 | 7 | 14 | 1,238 |
| Dawn | 247 | 7.1 | 0 | 0.0 | 0 | 3 | 2 | 242 |
| Dusk | 213 | 6.1 | 0 | 0.0 | 1 | 1 | 1 | 210 |
| Dark lighted | 163 | 4.7 | 0 | 0.0 | 0 | 2 | 2 | 159 |
| Dark unlighted | 1,571 | 45.2 | 0 | 0.0 | 3 | 6 | 20 | 1,542 |
| Other/Unknown | 18 | 0.5 | 1 | 100.0 | 0 | 0 | 0 | 17 |
| Total | 3,474 | 100.0 | 1 | 100.0 | 7 | 19 | 39 | 3,408 |

## TIME OF DAY AND SEVERITY OF DEER CRASHES



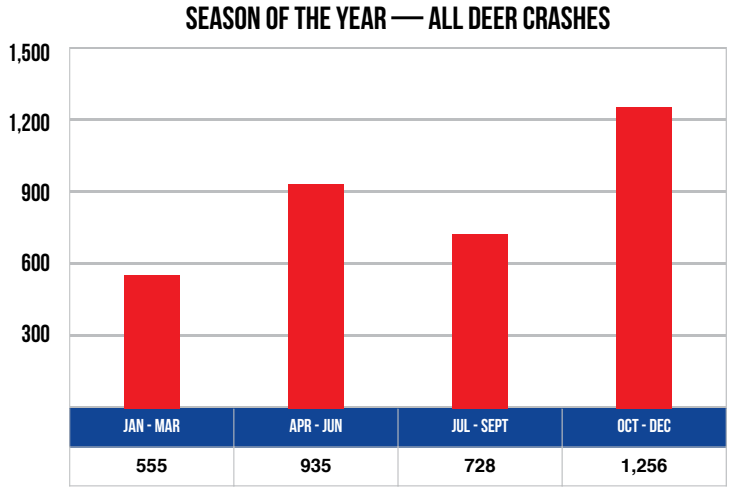

| | 12:00 - 2:59AM | 3:00 - 5:59AM | 6:00 - 8:59AM | 9:00 - 11:59AM | 12:00 - 2:59PM | 3:00 - 5:59PM | 6:00 - 8:59PM | 9:00 - 11:59PM | TOTALS |
|---|---|---|---|---|---|---|---|---|---|
| ALL CRASHES | 200 | 245 | 684 | 306 | 239 | 401 | 807 | 591 | 3,473 |
| FATAL CRASHES | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

The highest number of reported vehicle-deer collisions occurred during the 6:00 PM to 8:59 PM time period, when 23.2 percent (807) of the vehicle-deer crashes occurred. One fatal vehicle-deer crash occurred in the 6:00 AM to 8:59 AM time period in the Upper Peninsula in 2019.

*Note: Time and Severity chart excludes one crash where time of day is unknown.*

# MONTHLY AND SEASONAL RATES FOR MOTOR VEHICLE-DEER CRASHES

| MONTH | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| January | 205 | 5.9 | 0 | 0.0 | 0 | 0 | 2 | 203 |
| February | 134 | 3.9 | 0 | 0.0 | 0 | 0 | 1 | 133 |
| March | 216 | 6.2 | 0 | 0.0 | 0 | 3 | 1 | 212 |
| April | 316 | 9.1 | 0 | 0.0 | 0 | 0 | 1 | 315 |
| May | 261 | 7.5 | 0 | 0.0 | 2 | 0 | 3 | 256 |
| June | 358 | 10.3 | 1 | 100.0 | 0 | 2 | 4 | 351 |
| July | 265 | 7.6 | 0 | 0.0 | 2 | 3 | 7 | 253 |
| August | 222 | 6.4 | 0 | 0.0 | 0 | 4 | 4 | 214 |
| September | 241 | 6.9 | 0 | 0.0 | 2 | 1 | 1 | 237 |
| October | 458 | 13.2 | 0 | 0.0 | 0 | 4 | 8 | 446 |
| November | 501 | 14.4 | 0 | 0.0 | 1 | 2 | 6 | 492 |
| December | 297 | 8.5 | 0 | 0.0 | 0 | 0 | 1 | 296 |
| Total | 3,474 | 100.0 | 1 | 100.0 | 7 | 19 | 39 | 3,408 |




Of the total 3,474 reported vehicle-deer collisions in the Upper Peninsula, 36.2 percent (1,256) 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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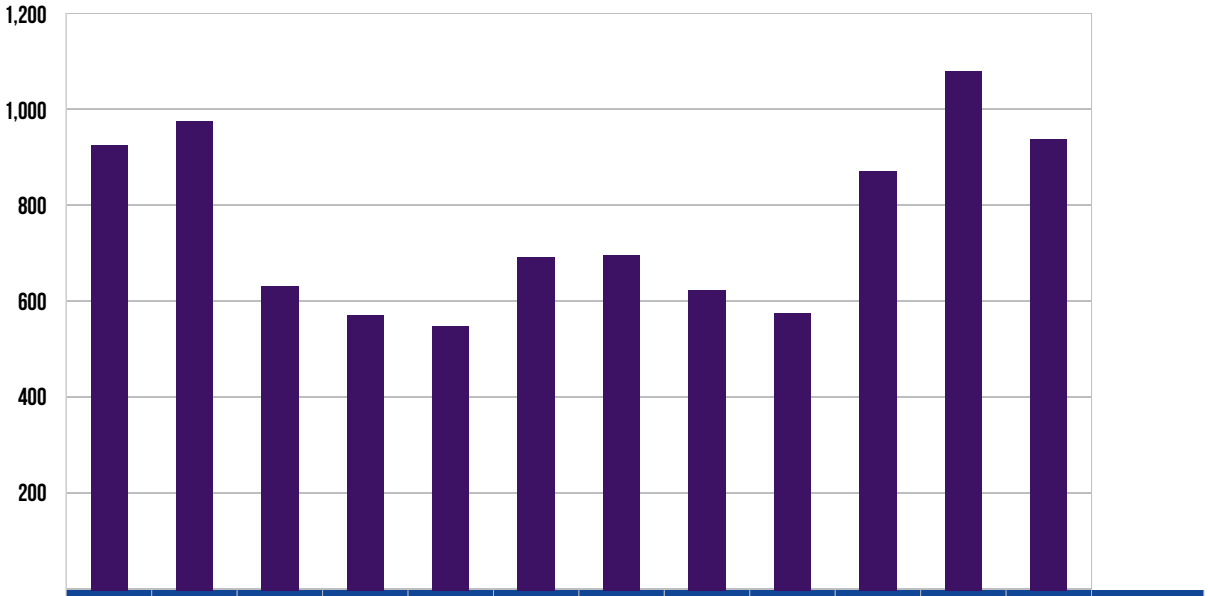
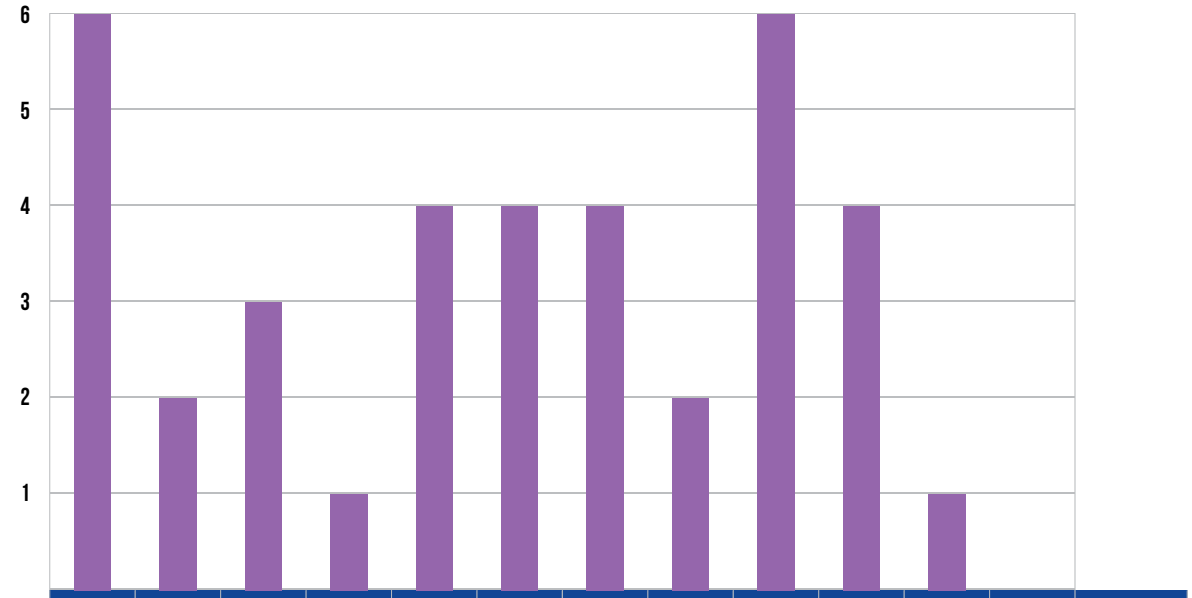
# UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH

## TOTAL CRASHES




| J | F | M | A | M | J | J | A | S | O | N | D | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 926 | 977 | 632 | 572 | 550 | 692 | 698 | 625 | 577 | 872 | 1,080 | 939 | 9,140 |

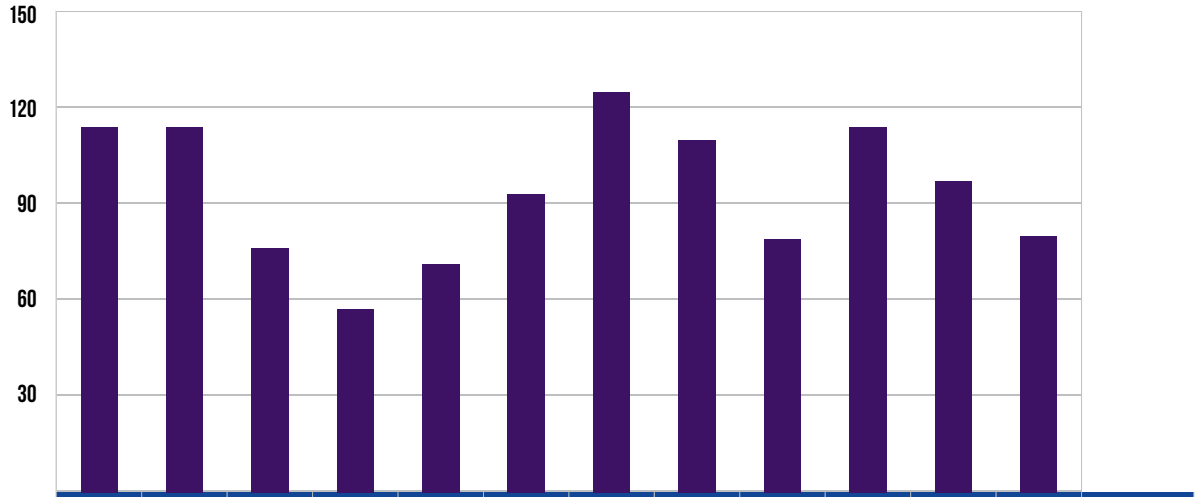
## FATAL CRASHES




| J | F | M | A | M | J | J | A | S | O | N | D | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 2 | 3 | 1 | 4 | 4 | 4 | 2 | 6 | 4 | 1 | 0 | 37 |

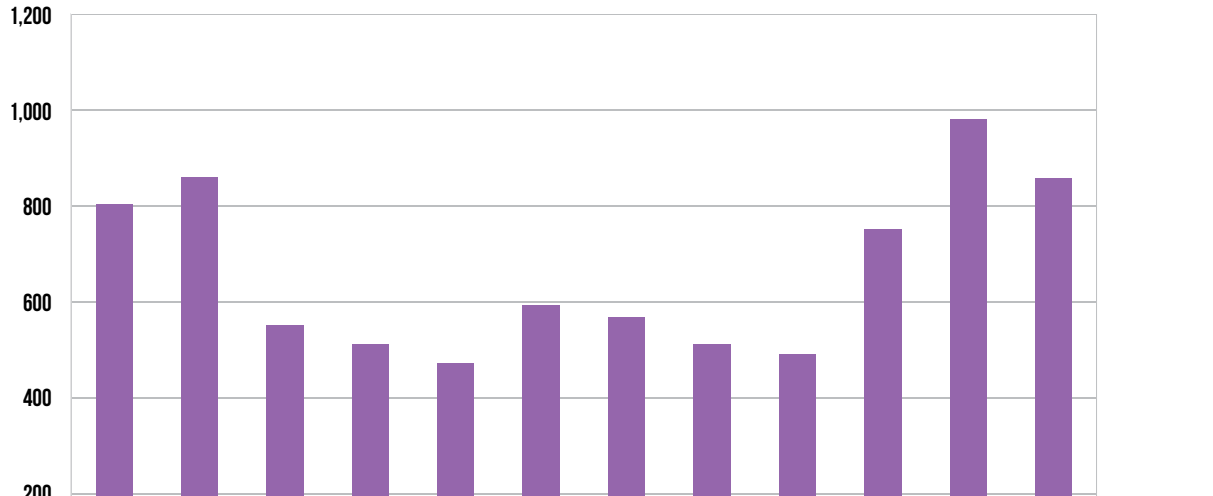
# UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH (CONTINUED)

## INJURY CRASHES




| J | F | M | A | M | J | J | A | S | O | N | D | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 114 | 114 | 76 | 57 | 71 | 93 | 125 | 110 | 79 | 114 | 97 | 80 | 1,130 |

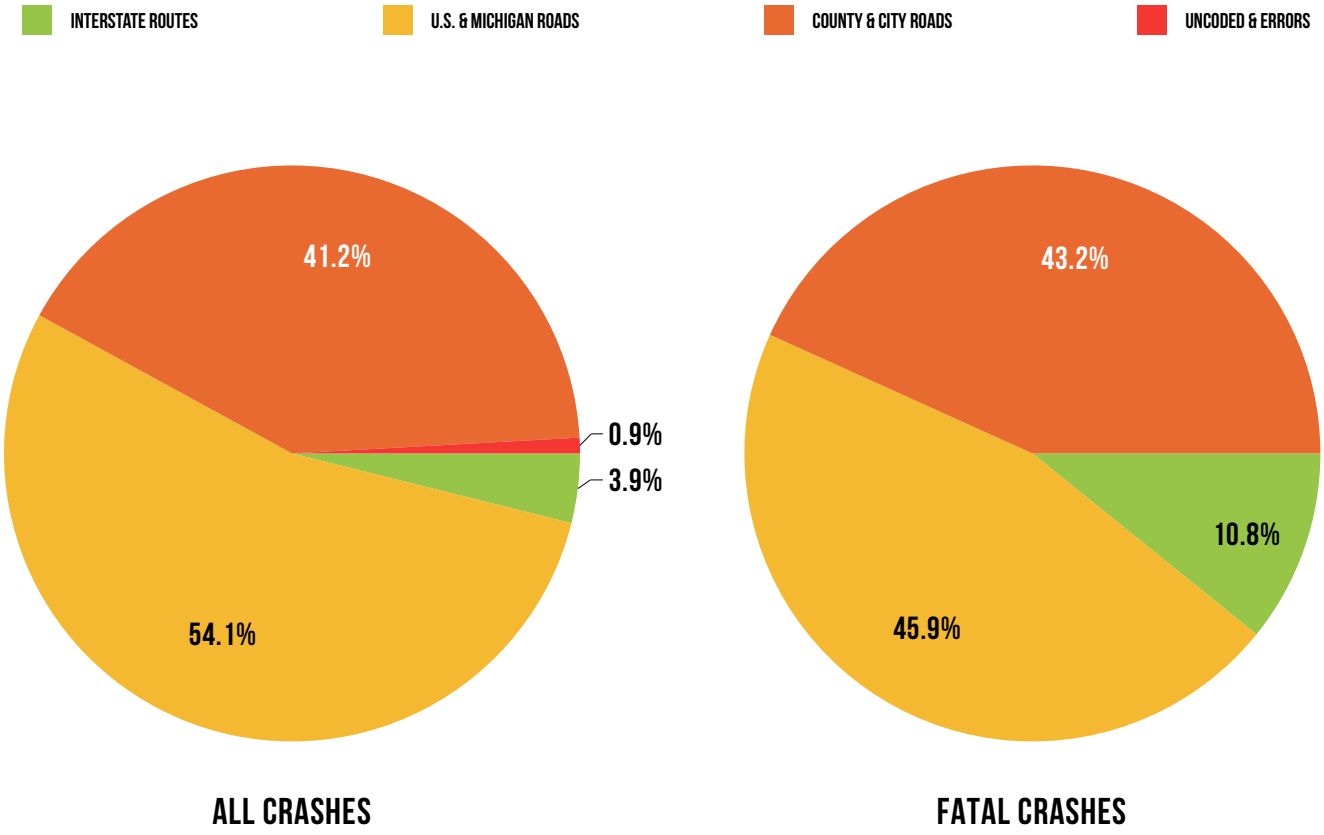
## PROPERTY DAMAGE ONLY CRASHES




| J | F | M | A | M | J | J | A | S | O | N | D | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 806 | 861 | 553 | 514 | 475 | 595 | 569 | 513 | 492 | 754 | 982 | 859 | 7,973 |

# UPPER PENINSULA CRASH EXPERIENCE BY HIGHWAY CLASS

| HIGHWAY CLASS | ALL CRASHES | FATAL CRASHES | INJURY CRASHES | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|
| Interstate Routes | 356 | 4 | 37 | 315 |
| U.S. & Michigan Roads | 4,942 | 17 | 592 | 4,333 |
| County & City Roads | 3,762 | 16 | 492 | 3,254 |
| Uncoded & Errors | 80 | 0 | 9 | 71 |




ALL CRASHES

FATAL CRASHES

The highest percentage of all crashes (54.1%), fatal crashes (45.9%), injury crashes (52.4%), and property damage only crashes (54.3%) occurred on U.S. and Michigan roads.

## UPPER PENINSULA CRASH EXPERIENCE BY CRASH TYPE

| CRASH TYPE | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| Single Vehicle | 5,406 | 59.1 | 23 | 62.2 | 106 | 162 | 218 | 4,897 |
| Head On | 90 | 1.0 | 3 | 8.1 | 11 | 11 | 15 | 50 |
| Head On – Left Turn | 118 | 1.3 | 1 | 2.7 | 8 | 15 | 23 | 71 |
| Angle | 1,212 | 13.3 | 8 | 21.6 | 36 | 59 | 172 | 937 |
| Rear End | 838 | 9.2 | 0 | 0.0 | 13 | 28 | 113 | 684 |
| Rear End – Left Turn | 94 | 1.0 | 0 | 0.0 | 2 | 6 | 10 | 76 |
| Rear End – Right Turn | 46 | 0.5 | 0 | 0.0 | 1 | 4 | 2 | 39 |
| Sideswipe – Same Direction | 478 | 5.2 | 0 | 0.0 | 8 | 8 | 17 | 445 |
| Sideswipe – Opposite Direction | 222 | 2.4 | 2 | 5.4 | 6 | 8 | 16 | 190 |
| Backing | 256 | 2.8 | 0 | 0.0 | 0 | 0 | 4 | 252 |
| Other/Unknown | 380 | 4.2 | 0 | 0.0 | 9 | 17 | 22 | 332 |
| TOTAL | 9,140 | 100.0 | 37 | 100.0 | 200 | 318 | 612 | 7,973 |

## RELATIONSHIP TO ROADWAY

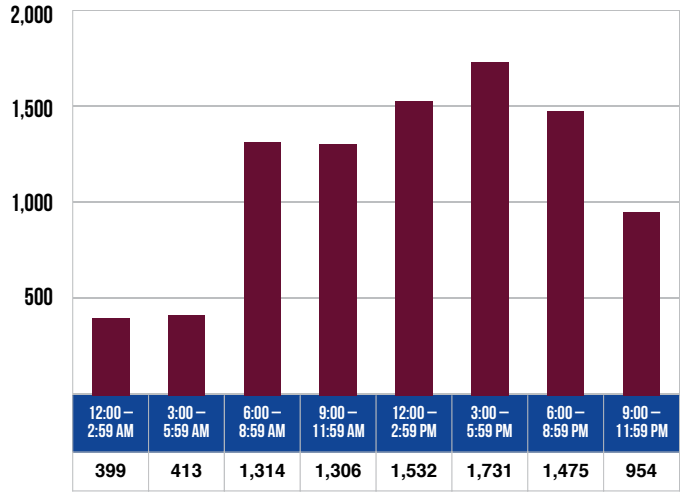
| LOCATION OF FIRST IMPACT | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| On Road | 7,684 | 84.1 | 23 | 62.2 | 137 | 225 | 482 | 6,817 |
| Median | 45 | 0.5 | 1 | 2.7 | 1 | 2 | 5 | 36 |
| Shoulder | 479 | 5.2 | 5 | 13.5 | 17 | 25 | 40 | 392 |
| Outside of Shoulder/Curb | 692 | 7.6 | 7 | 18.9 | 37 | 62 | 73 | 513 |
| Gore | 33 | 0.4 | 1 | 2.7 | 2 | 2 | 5 | 23 |
| On-Street Parking | 157 | 1.7 | 0 | 0.0 | 0 | 2 | 4 | 151 |
| Off the Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| On the Sidewalk | 10 | 0.1 | 0 | 0.0 | 1 | 0 | 2 | 7 |
| In the Bicycle Lane | 2 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 2 |
| Other/Unknown | 38 | 0.4 | 0 | 0.0 | 5 | 0 | 1 | 32 |
| TOTAL | 9,140 | 100.0 | 37 | 100.0 | 200 | 318 | 612 | 7,973 |

In the Upper Peninsula, only 7.6 percent of crashes occur outside of the shoulder/curb of the road, but these crashes account for 18.9 percent of the fatal crashes.

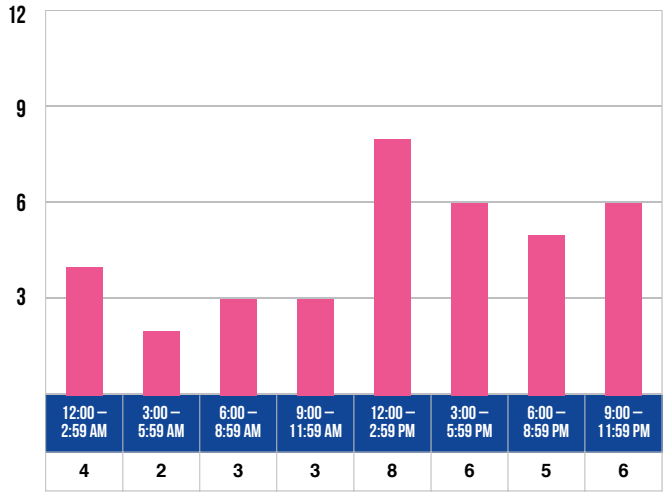
# UPPER PENINSULA TIME AND SEVERITY

| 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 | 399 | 4.4 | 4 | 10.8 | 12 | 18 | 24 | 341 |
| 3:00 AM – 5:59 AM | 413 | 4.5 | 2 | 5.4 | 12 | 10 | 20 | 369 |
| 6:00 AM – 8:59 AM | 1,314 | 14.4 | 3 | 8.1 | 12 | 30 | 82 | 1,187 |
| 9:00 AM – 11:59 AM | 1,306 | 14.3 | 3 | 8.1 | 29 | 50 | 88 | 1,136 |
| 12:00 PM – 2:59 PM | 1,532 | 16.8 | 8 | 21.6 | 41 | 69 | 128 | 1,286 |
| 3:00 PM – 5:59 PM | 1,731 | 18.9 | 6 | 16.2 | 51 | 79 | 145 | 1,450 |
| 6:00 PM – 8:59 PM | 1,475 | 16.1 | 5 | 13.5 | 28 | 41 | 86 | 1,315 |
| 9:00 PM – 11:59 PM | 954 | 10.4 | 6 | 16.2 | 15 | 21 | 39 | 873 |
| Unknown | 16 | 0.2 | 0 | 0.0 | 0 | 0 | 0 | 16 |
| TOTAL | 9,140 | 100.0 | 37 | 100.0 | 200 | 318 | 612 | 7,973 |

## ALL CRASHES BY TIME OF DAY




## FATAL CRASHES BY TIME OF DAY

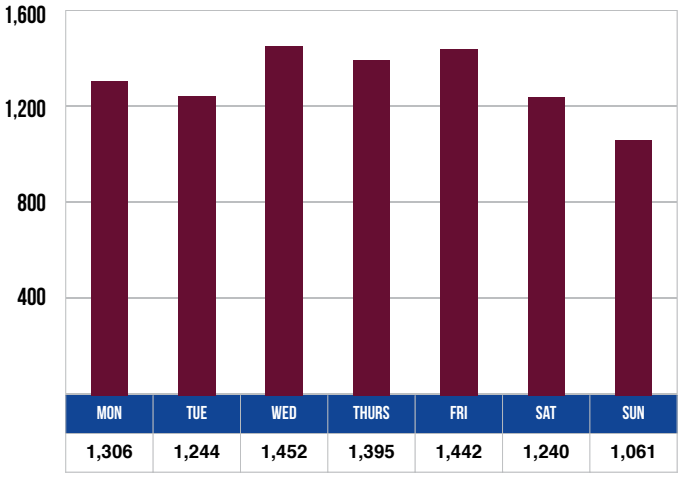



In the Upper Peninsula, crash frequencies peak in the late afternoon, then drop off until 6:00 AM (the morning rush hour). In 2019, fatal crashes were more prevalent in the PM hours than the AM hours, with the highest concentration (8) occurring during the 12:00 PM to 2:59 PM time period.

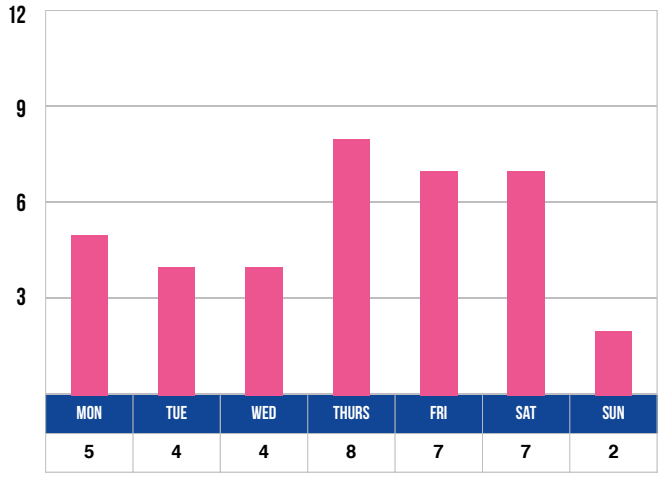
# UPPER PENINSULA DAY OF WEEK

| DAY OF WEEK | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| Monday | 1,306 | 14.3 | 5 | 13.5 | 37 | 41 | 87 | 1,136 |
| Tuesday | 1,244 | 13.6 | 4 | 10.8 | 23 | 45 | 81 | 1,091 |
| Wednesday | 1,452 | 15.9 | 4 | 10.8 | 25 | 48 | 95 | 1,280 |
| Thursday | 1,395 | 15.3 | 8 | 21.6 | 29 | 45 | 101 | 1,212 |
| Friday | 1,442 | 15.8 | 7 | 18.9 | 20 | 46 | 107 | 1,262 |
| Saturday | 1,240 | 13.6 | 7 | 18.9 | 40 | 47 | 83 | 1,063 |
| Sunday | 1,061 | 11.6 | 2 | 5.4 | 26 | 46 | 58 | 929 |
| TOTAL | 9,140 | 100.0 | 37 | 100.0 | 200 | 318 | 612 | 7,973 |

## ALL CRASHES BY DAY OF WEEK



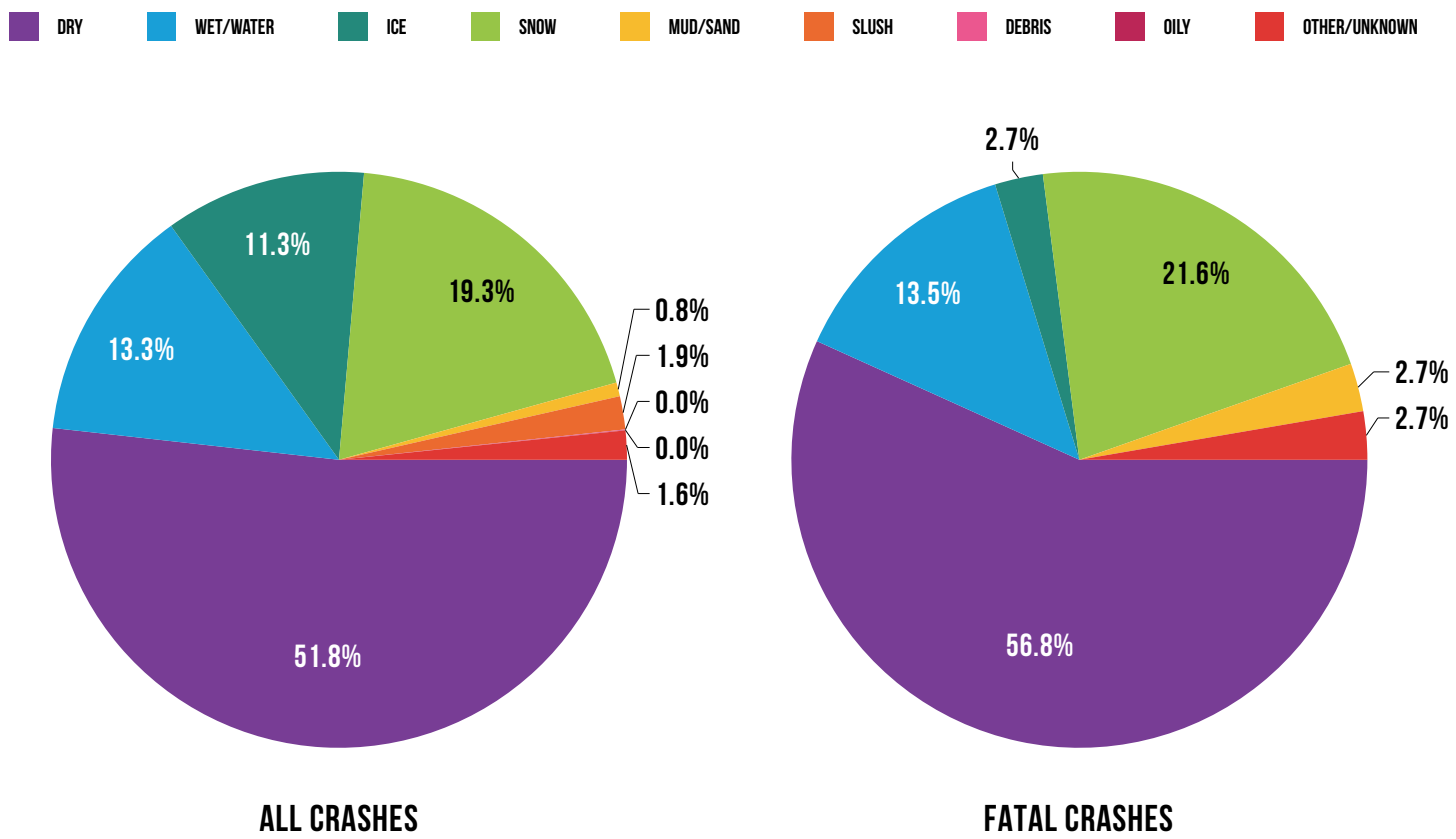

## FATAL CRASHES BY DAY OF WEEK




In the Upper Peninsula, overall crash frequencies are the highest on Wednesday (1,452), but Thursday has the highest number of fatal crashes (eight).

# UPPER PENINSULA ROAD CONDITION

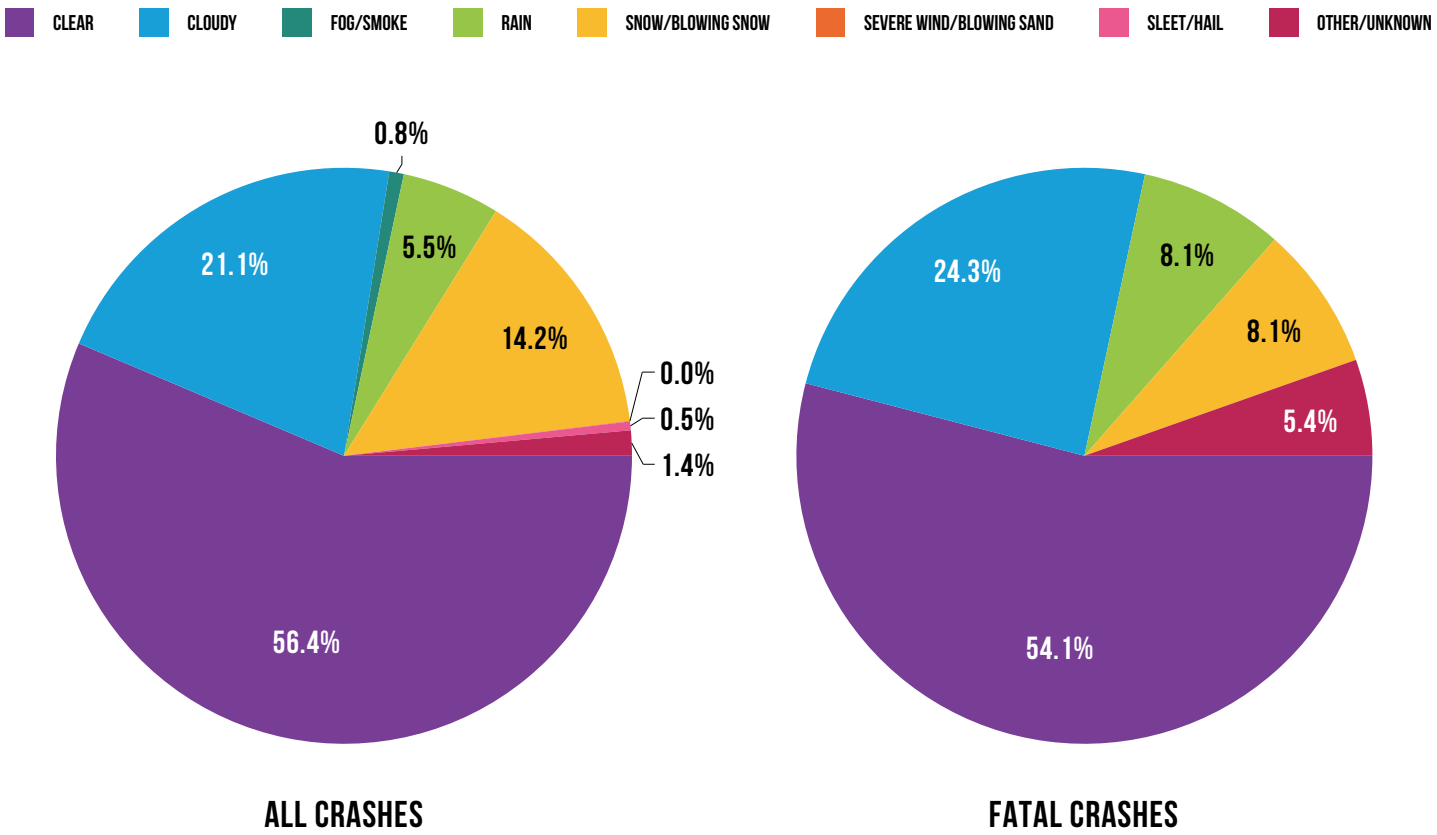
| ROAD SURFACE CONDITION | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| Dry | 4,731 | 51.8 | 21 | 56.8 | 106 | 179 | 327 | 4,098 |
| Wet | 1,213 | 13.3 | 5 | 13.5 | 24 | 41 | 85 | 1,058 |
| Ice | 1,033 | 11.3 | 1 | 2.7 | 12 | 28 | 75 | 917 |
| Snow | 1,763 | 19.3 | 8 | 21.6 | 39 | 55 | 106 | 1,555 |
| Mud, Dirt, Gravel | 68 | 0.7 | 1 | 2.7 | 9 | 9 | 4 | 45 |
| Slush | 170 | 1.9 | 0 | 0.0 | 5 | 4 | 10 | 151 |
| Debris | 3 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 3 |
| Water (Standing/Flowing) | 5 | 0.1 | 0 | 0.0 | 1 | 0 | 1 | 3 |
| Sand | 3 | 0.0 | 0 | 0.0 | 2 | 0 | 0 | 1 |
| Oily | 2 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 2 |
| Other/Unknown | 149 | 1.6 | 1 | 2.7 | 2 | 2 | 4 | 140 |
| TOTAL | 9,140 | 100.0 | 37 | 100.0 | 200 | 318 | 612 | 7,973 |




In the Upper Peninsula, the highest percentage of all crashes (51.8%), fatal crashes (56.8%), injury crashes (54.2%), and property damage only crashes (51.4%) occur on dry roads.

# UPPER PENINSULA WEATHER CONDITION

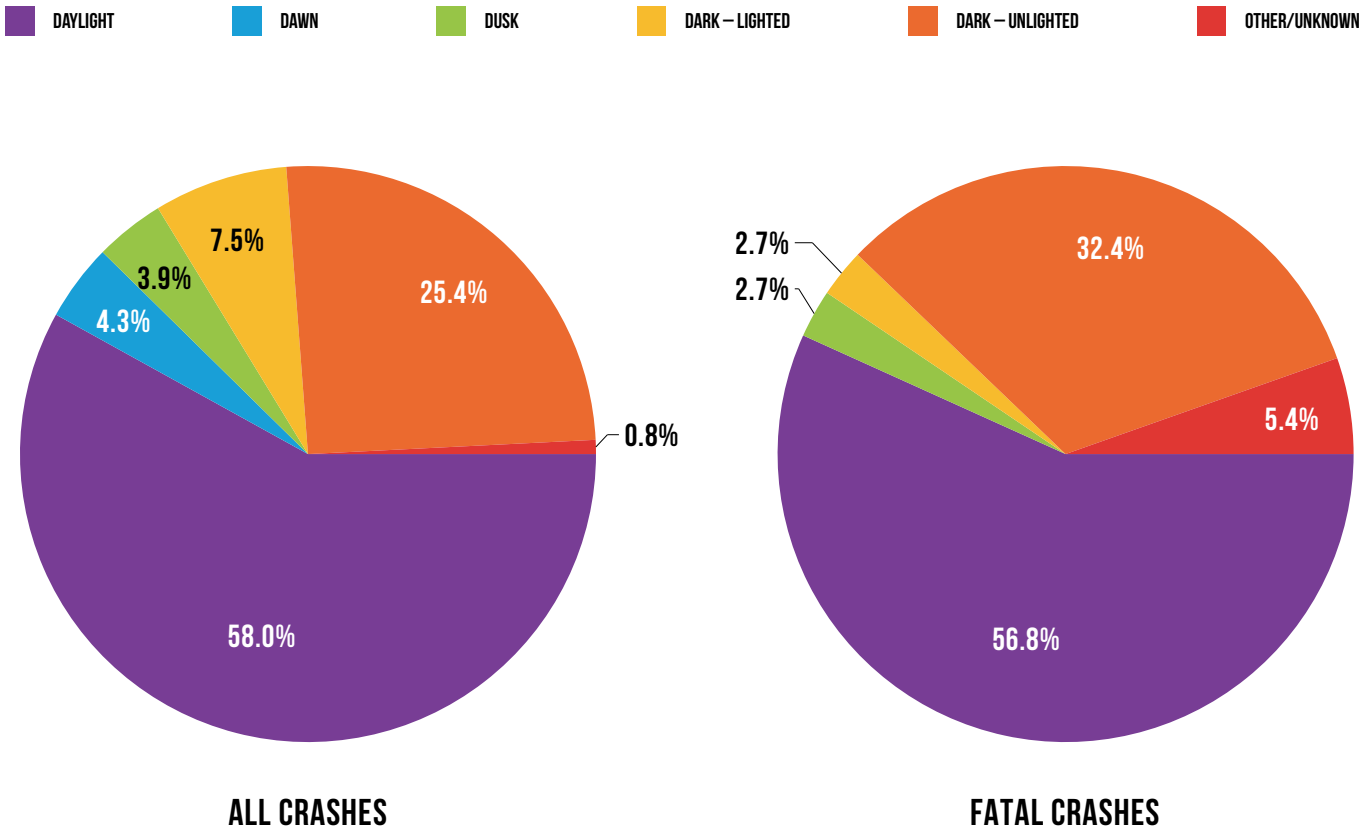
| WEATHER CONDITION | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|---|
| | Number | % of Total | Number | % of Total | A | B | C | |
| Clear | 5,153 | 56.4 | 20 | 54.1 | 134 | 186 | 352 | 4,461 |
| Cloudy | 1,932 | 21.1 | 9 | 24.3 | 32 | 68 | 131 | 1,692 |
| Fog | 75 | 0.8 | 0 | 0.0 | 1 | 1 | 7 | 66 |
| Rain | 504 | 5.5 | 3 | 8.1 | 11 | 19 | 34 | 437 |
| Snow | 1,114 | 12.2 | 3 | 8.1 | 14 | 34 | 71 | 992 |
| Severe Crosswinds | 3 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 3 |
| Sleet/Hail | 45 | 0.5 | 0 | 0.0 | 2 | 0 | 3 | 40 |
| Blowing Snow | 185 | 2.0 | 0 | 0.0 | 5 | 7 | 12 | 161 |
| Blowing Sand, Soil, Dirt | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Smoke | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Other/Unknown | 129 | 1.4 | 2 | 5.4 | 1 | 3 | 2 | 121 |
| TOTAL | 9,140 | 100.0 | 37 | 100.0 | 200 | 318 | 612 | 7,973 |




In the Upper Peninsula, the highest percentage of all crashes (56.4%), fatal crashes (54.1%), injury crashes (59.5%), and property damage only crashes (56.0%) 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 | 5,305 | 58.0 | 21 | 56.8 | 140 | 224 | 422 | 4,498 |
| Dawn | 395 | 4.3 | 0 | 0.0 | 6 | 11 | 19 | 359 |
| Dusk | 358 | 3.9 | 1 | 2.7 | 5 | 12 | 22 | 318 |
| Dark – Lighted | 687 | 7.5 | 1 | 2.7 | 11 | 21 | 55 | 599 |
| Dark – Unlighted | 2,323 | 25.4 | 12 | 32.4 | 38 | 50 | 94 | 2,129 |
| Other/Unknown | 72 | 0.8 | 2 | 5.4 | 0 | 0 | 0 | 70 |
| TOTAL | 9,140 | 100.0 | 37 | 100.0 | 200 | 318 | 612 | 7,973 |



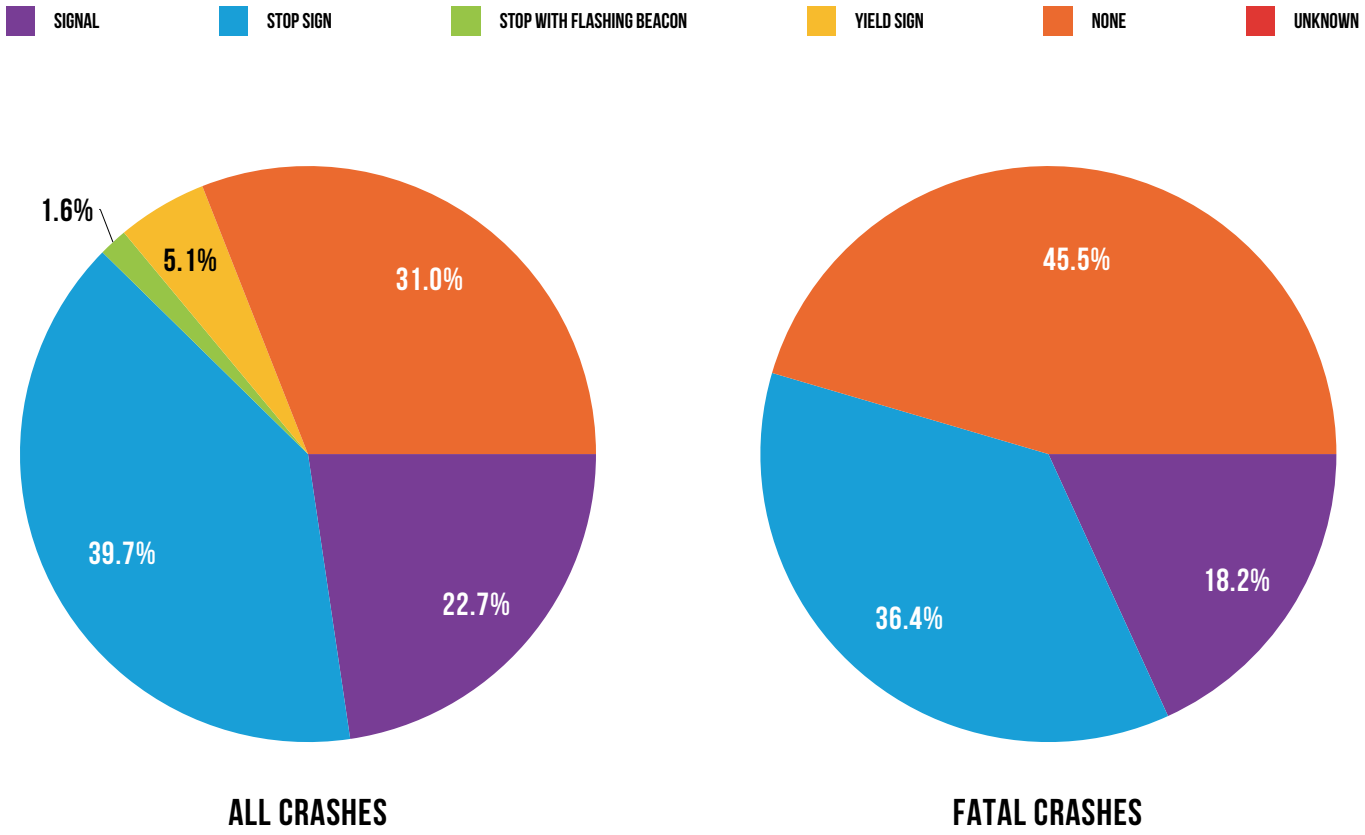

ALL CRASHES

FATAL CRASHES

In the Upper Peninsula, the highest percentage of all crashes (58.0%), fatal crashes (56.8%), injury crashes (69.6%), and property damage only crashes (56.4%) occur during 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 | 520 | 22.7 | 2 | 18.2 | 9 | 27 | 80 | 402 |
| Stop Sign | 911 | 39.7 | 4 | 36.4 | 25 | 37 | 108 | 737 |
| Stop with Flashing Beacon | 37 | 1.6 | 0 | 0.0 | 2 | 5 | 4 | 26 |
| Yield Sign | 116 | 5.1 | 0 | 0.0 | 2 | 5 | 13 | 96 |
| None | 711 | 31.0 | 5 | 45.5 | 21 | 35 | 63 | 587 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| TOTAL | 2,295 | 100.0 | 11 | 100.0 | 59 | 109 | 268 | 1,848 |



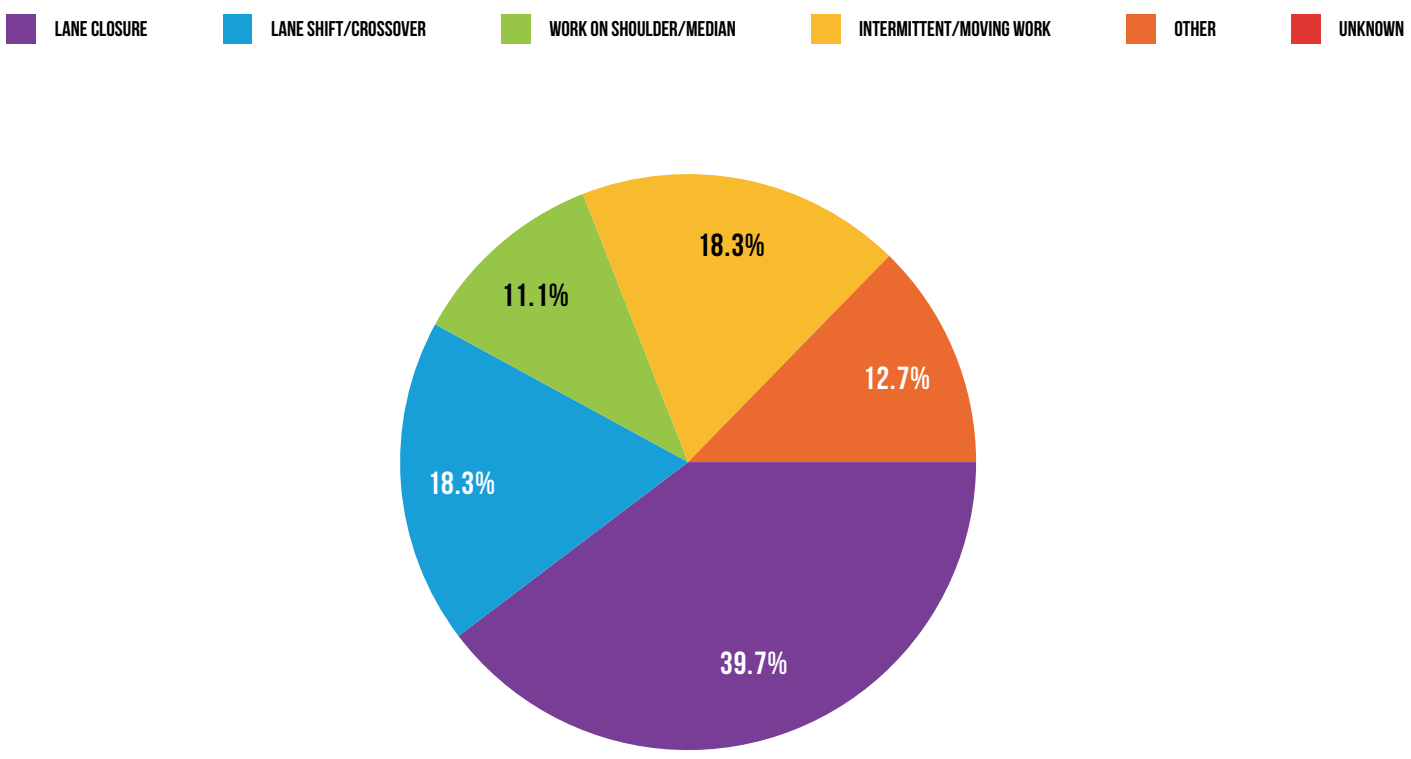

ALL CRASHES

FATAL CRASHES

Compared to other intersection crashes, Upper Peninsula intersections with stop signs have the highest percentage of all crashes (39.7%) and injury crashes (39.0%).

# 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 roadway-related features (e.g., overhead signs, signals).* | | | | | | | |
| Lane Closure | 50 | 39.7 | 0 | 0.0 | 1 | 4 | 8 | 37 |
| Lane Shift/Crossover | 23 | 18.3 | 0 | 0.0 | 0 | 2 | 1 | 20 |
| Work on Shoulder/Median | 14 | 11.1 | 0 | 0.0 | 0 | 0 | 3 | 11 |
| Intermittent/Moving Work | 23 | 18.3 | 0 | 0.0 | 1 | 0 | 1 | 21 |
| Other | 16 | 12.7 | 0 | 0.0 | 1 | 0 | 0 | 15 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| TOTAL | 126 | 100.0 | 0 | 0.0 | 3 | 6 | 13 | 104 |

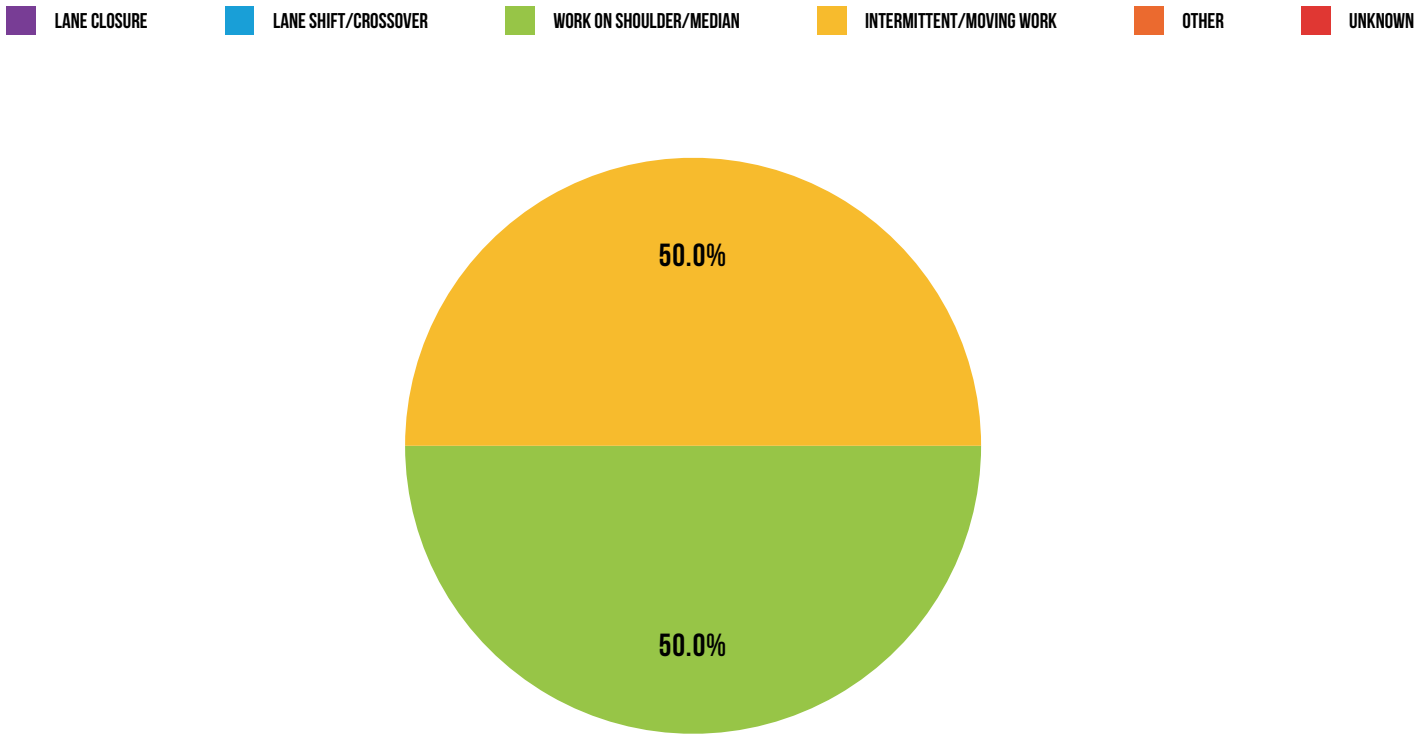



ALL CRASHES

For crashes taking place in construction/maintenance zones, the highest percentage of all crashes (39.7%), injury crashes (59.1%), and property damage only crashes (35.6%) occur in lane closure situations.

# 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 | 50.0 | 0 | 0.0 | 0 | 0 | 0 | 1 |
| Intermittent/Moving Work | 1 | 50.0 | 0 | 0.0 | 0 | 0 | 0 | 1 |
| Other | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| TOTAL | 2 | 100.0 | 0 | 0.0 | 0 | 0 | 0 | 2 |




ALL CRASHES

Two crashes occurred in a utility construction zone in the Upper Peninsula in 2019, both property damage only. One involved work on the shoulder/median, and the other involved intermittent/moving work.

# VEHICLE/DRIVER

*(characteristics specific to individual traffic units)*

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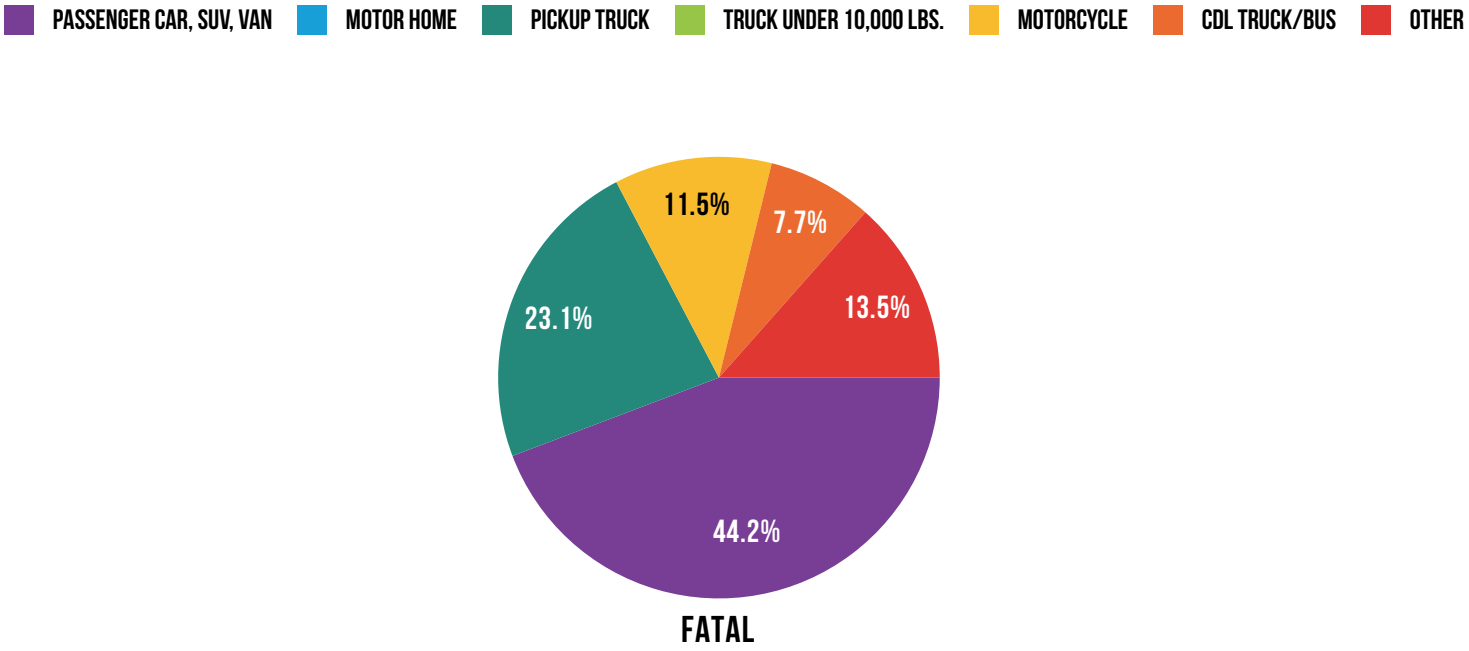
# UPPER PENINSULA VEHICLE TYPE AND CRASH INVOLVEMENT

| 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 | 9,102 | 69.9 | 23 | 44.2 | 1,234 | 7,845 | 19 | 54.3 | 856 | 8,227 |
| Motor Home | 21 | 0.2 | 0 | 0.0 | 3 | 18 | 0 | 0.0 | 2 | 19 |
| Pickup Truck | 2,936 | 22.5 | 12 | 23.1 | 376 | 2,548 | 2 | 5.7 | 217 | 2,717 |
| Small Truck under 10,000 lbs. GVWR | 47 | 0.4 | 0 | 0.0 | 5 | 42 | 0 | 0.0 | 1 | 46 |
| Motorcycle | 102 | 0.8 | 6 | 11.5 | 67 | 29 | 6 | 17.1 | 62 | 34 |
| Moped / Goped | 5 | 0.0 | 0 | 0.0 | 4 | 1 | 0 | 0.0 | 4 | 1 |
| Go-cart / Golf Cart | 1 | 0.0 | 0 | 0.0 | 0 | 1 | 0 | 0.0 | 0 | 1 |
| Snowmobile | 89 | 0.7 | 5 | 9.6 | 69 | 15 | 5 | 14.3 | 58 | 26 |
| Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV | 54 | 0.4 | 2 | 3.8 | 39 | 13 | 2 | 5.7 | 36 | 16 |
| Other | 71 | 0.5 | 0 | 0.0 | 3 | 68 | 0 | 0.0 | 0 | 71 |
| Unknown | 192 | 1.5 | 0 | 0.0 | 6 | 186 | 0 | 0.0 | 0 | 192 |
| CDL Truck/Bus (breakdown below) | 404 | 3.1 | 4 | 7.7 | 47 | 353 | 1 | 2.9 | 13 | 390 |
| Total Number of Vehicles | 13,024 | 100.0 | 52 | 100.0 | 1,853 | 11,119 | 35 | 100.0 | 1,249 | 11,740 |

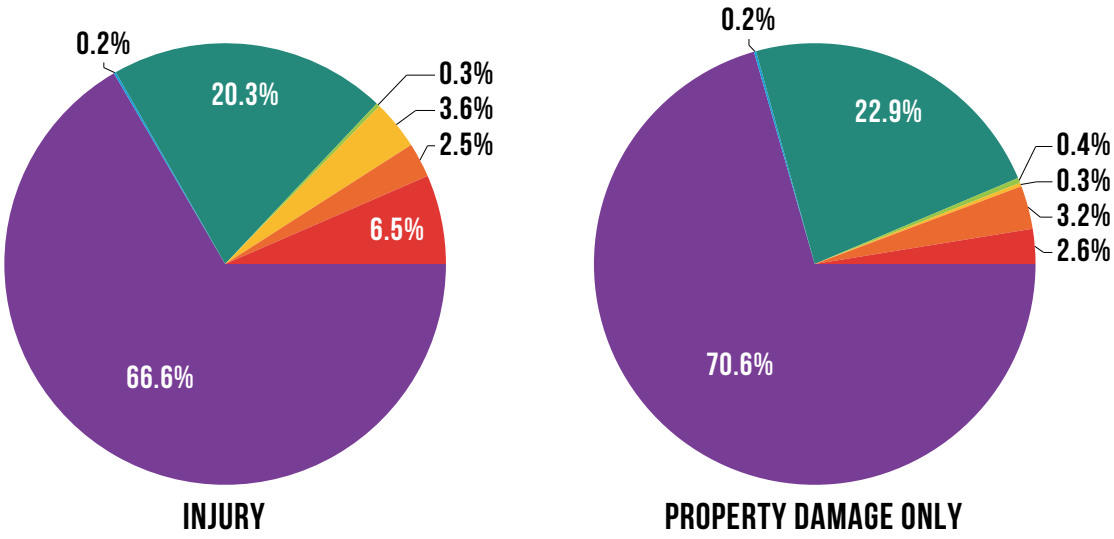
*Note: Buses cannot be broken out of CDL Truck/Bus*

| 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 | 8 | 2.0 | 0 | 0.0 | 0 | 8 | 0 | 0.0 | 0 | 8 |
| 10,001 - 26,000 lbs. | 144 | 35.6 | 0 | 0.0 | 10 | 134 | 0 | 0.0 | 3 | 141 |
| Greater than 26,000 lbs. | 250 | 61.9 | 4 | 100.0 | 37 | 209 | 1 | 100.0 | 10 | 239 |
| Unknown Truck | 2 | 0.5 | 0 | 0.0 | 0 | 2 | 0 | 0.0 | 0 | 2 |
| Total Number of Vehicles | 404 | 100.0 | 4 | 100.0 | 47 | 353 | 1 | 100.0 | 13 | 390 |

# UPPER PENINSULA VEHICLE TYPES IN CRASHES BY CRASH SEVERITY




The top chart shows that 67.3 percent of vehicles involved in fatal crashes in the Upper Peninsula are passenger vehicles (passenger cars, SUVs, vans, motor homes, pickup trucks, or trucks under 10,000 lbs.). Motorcycles make up 11.5 percent of fatal crash involvements.




Passenger vehicles (passenger cars, SUVs, vans, motor homes, pickup trucks, or trucks under 10,000 lbs.) make up an even larger share of vehicles in injury crashes (87.3%) and property damage only (PDO) crashes (94.0%) 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 | 8,399 | 64.5 | 41 | 201 | 306 | 634 | 7,217 |
| Turning left | 724 | 5.6 | 2 | 29 | 36 | 99 | 558 |
| Turning right | 356 | 2.7 | 1 | 8 | 13 | 17 | 317 |
| Stopped on roadway | 609 | 4.7 | 0 | 7 | 19 | 64 | 519 |
| In prior crash | 3 | 0.0 | 0 | 0 | 0 | 2 | 1 |
| Changing lanes | 103 | 0.8 | 0 | 2 | 3 | 6 | 92 |
| Backing | 450 | 3.5 | 0 | 1 | 3 | 12 | 434 |
| Slowing/stopping on roadway | 624 | 4.8 | 0 | 10 | 22 | 93 | 499 |
| Slowing/stopping other | 26 | 0.2 | 0 | 1 | 1 | 4 | 20 |
| Starting up on roadway | 224 | 1.7 | 0 | 6 | 13 | 20 | 185 |
| Starting up other | 5 | 0.0 | 1 | 0 | 0 | 0 | 4 |
| Entering parking | 27 | 0.2 | 0 | 0 | 0 | 1 | 26 |
| Leaving parking | 47 | 0.4 | 0 | 0 | 1 | 8 | 38 |
| Entering roadway | 179 | 1.4 | 2 | 11 | 10 | 24 | 132 |
| Leaving roadway | 30 | 0.2 | 1 | 3 | 2 | 3 | 21 |
| Making U-turn | 23 | 0.2 | 0 | 4 | 1 | 3 | 15 |
| Overtaking or passing | 94 | 0.7 | 0 | 2 | 6 | 9 | 77 |
| Avoiding object | 7 | 0.1 | 0 | 0 | 1 | 0 | 6 |
| Avoiding animal | 48 | 0.4 | 0 | 2 | 0 | 3 | 43 |
| Avoiding pedestrian | 1 | 0.0 | 0 | 1 | 0 | 0 | 0 |
| Avoiding vehicle (front/back) | 76 | 0.6 | 0 | 10 | 4 | 8 | 54 |
| Avoiding vehicle (angle) | 32 | 0.2 | 0 | 0 | 2 | 9 | 21 |
| Driverless moving | 4 | 0.0 | 0 | 0 | 0 | 0 | 4 |
| Parked | 585 | 4.5 | 0 | 5 | 15 | 14 | 551 |
| Crossing at intersection | 2 | 0.0 | 0 | 0 | 0 | 0 | 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 | 2 | 0.0 | 0 | 0 | 0 | 0 | 2 |
| 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 | 2 | 0.0 | 0 | 0 | 0 | 1 | 1 |
| Negotiating a curve | 196 | 1.5 | 3 | 10 | 22 | 12 | 149 |
| Other | 32 | 0.2 | 0 | 3 | 4 | 0 | 25 |
| Unknown | 114 | 0.9 | 1 | 2 | 1 | 4 | 106 |
| TOTAL | 13,024 | 100.0 | 52 | 318 | 485 | 1,050 | 11,119 |

# 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 | 69 | 67.6 | 78 | 69.0 | 4 | 23 | 16 | 10 | 24 |
| Turning left | 6 | 5.9 | 7 | 6.2 | 0 | 0 | 1 | 1 | 5 |
| Turning right | 4 | 3.9 | 4 | 3.5 | 1 | 1 | 1 | 0 | 1 |
| Stopped on roadway | 2 | 2.0 | 2 | 1.8 | 0 | 0 | 0 | 0 | 2 |
| In prior crash | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Changing lanes | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Backing | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Slowing/stopping on roadway | 1 | 1.0 | 1 | 0.9 | 0 | 0 | 1 | 0 | 0 |
| Slowing/stopping other | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Starting up on roadway | 1 | 1.0 | 1 | 0.9 | 0 | 0 | 0 | 1 | 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 | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Leaving roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Making U-turn | 1 | 1.0 | 1 | 0.9 | 0 | 1 | 0 | 0 | 0 |
| Overtaking or passing | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Avoiding object | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Avoiding animal | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Avoiding pedestrian | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Avoiding vehicle (front/back) | 1 | 1.0 | 1 | 0.9 | 0 | 1 | 0 | 0 | 0 |
| Avoiding vehicle (angle) | 2 | 2.0 | 2 | 1.8 | 0 | 0 | 1 | 1 | 0 |
| Driverless moving | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Parked | 3 | 2.9 | 3 | 2.7 | 0 | 0 | 0 | 0 | 0 |
| Crossing at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Crossing not at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Getting on/off vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In roadway with traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In roadway against traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Standing or lying in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Pushing/working on vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other working in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Playing in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In roadway other reason | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Not in roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Negotiating a curve | 11 | 10.8 | 12 | 10.6 | 1 | 4 | 5 | 0 | 2 |
| Other | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 1 | 1.0 | 1 | 0.9 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 102 | 100.0 | 113 | 100.0 | 6 | 30 | 25 | 13 | 34 |

*Includes five motorcyclists (drivers and passengers) with unknown injury severity

# UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

| BICYCLIST ACTION | BICYCLISTS* | | FATALITY | INJURY | | | NO INJURY |
|---|---|---|---|---|---|---|---|
| | Number of Bicyclists | % of Total | | A | B | C | |
| Going straight ahead | 20 | 54.1 | 0 | 2 | 10 | 6 | 2 |
| 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 | 1 | 2.7 | 0 | 0 | 0 | 0 | 1 |
| 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 | 3 | 8.1 | 0 | 1 | 0 | 0 | 2 |
| 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) | 1 | 2.7 | 0 | 0 | 1 | 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 | 24.3 | 0 | 0 | 2 | 5 | 1 |
| Crossing not at intersection | 1 | 2.7 | 0 | 0 | 1 | 0 | 0 |
| Getting on/off vehicle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In roadway with traffic | 1 | 2.7 | 0 | 1 | 0 | 0 | 0 |
| In roadway against traffic | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Standing or lying in roadway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Pushing/working on vehicle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other working in roadway | 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 | 1 | 2.7 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 37 | 100.0 | 0 | 4 | 14 | 11 | 6 |

*Includes two bicyclists 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 | 15 | 44.1 | 0 | 3 | 3 | 4 | 4 |
| Crossing not at intersection | 3 | 8.8 | 1 | 0 | 0 | 2 | 0 |
| Getting on/off vehicle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In roadway with traffic | 5 | 14.7 | 0 | 3 | 2 | 0 | 0 |
| In roadway against traffic | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Standing or lying in roadway | 2 | 5.9 | 1 | 1 | 0 | 0 | 0 |
| Pushing/working on vehicle | 1 | 2.9 | 0 | 1 | 0 | 0 | 0 |
| Other working in roadway | 1 | 2.9 | 0 | 0 | 0 | 0 | 1 |
| Playing in roadway | 1 | 2.9 | 0 | 0 | 0 | 1 | 0 |
| In roadway other reason | 3 | 8.8 | 1 | 1 | 0 | 1 | 0 |
| Not in roadway | 2 | 5.9 | 0 | 0 | 1 | 1 | 0 |
| Negotiating a curve | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 1 | 2.9 | 0 | 1 | 0 | 0 | 0 |
| TOTAL | 34 | 100.0 | 3 | 10 | 6 | 9 | 5 |

*Includes one pedestrian 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 | 177 | 1.4 | 0 | 12 | 9 | 13 | 143 |
| Cross center/median | 30 | 0.2 | 0 | 1 | 1 | 2 | 26 |
| Ran off road left | 53 | 0.4 | 0 | 2 | 3 | 3 | 45 |
| Ran off road right | 95 | 0.7 | 0 | 4 | 7 | 6 | 78 |
| Re-enter road | 16 | 0.1 | 0 | 0 | 1 | 0 | 15 |
| Overturn | 298 | 2.3 | 8 | 32 | 38 | 56 | 164 |
| Separation of Units | 13 | 0.1 | 0 | 0 | 0 | 0 | 13 |
| Fire/explosion | 18 | 0.1 | 0 | 0 | 1 | 0 | 17 |
| Immersion | 1 | 0.0 | 0 | 0 | 0 | 0 | 1 |
| Jackknife | 13 | 0.1 | 0 | 0 | 0 | 0 | 13 |
| Downhill runaway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cargo loss/shift | 19 | 0.1 | 0 | 0 | 0 | 1 | 18 |
| Individual fell off | 23 | 0.2 | 1 | 7 | 10 | 2 | 3 |
| Other noncollision | 34 | 0.3 | 0 | 0 | 1 | 4 | 29 |
| SUBTOTAL | 790 | 6.1 | 9 | 58 | 71 | 87 | 565 |

| COLLISION WITH A NONFIXED OBJECT | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of Vehicles | % of Total | | A | B | C | |
| Pedestrian | 29 | 0.2 | 3 | 9 | 6 | 6 | 5 |
| Bicycle/ Pedalcycle | 36 | 0.3 | 0 | 4 | 13 | 11 | 8 |
| Motor vehicle in transport | 6,564 | 50.4 | 28 | 190 | 282 | 786 | 5,278 |
| Parked motor vehicle | 591 | 4.5 | 0 | 4 | 14 | 15 | 558 |
| Railway train | 4 | 0.0 | 0 | 0 | 2 | 0 | 2 |
| Animal | 3,561 | 27.3 | 0 | 2 | 19 | 34 | 3,506 |
| Other nonfixed objects | 204 | 1.6 | 0 | 3 | 4 | 6 | 191 |
| SUBTOTAL | 10,989 | 84.4 | 31 | 212 | 340 | 858 | 9,548 |

# 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 | 3 | 0.0 | 0 | 0 | 0 | 0 | 3 |
| Bridge rail | 9 | 0.1 | 0 | 0 | 0 | 2 | 7 |
| Guardrail face | 63 | 0.5 | 0 | 2 | 1 | 11 | 49 |
| Guardrail end | 14 | 0.1 | 0 | 1 | 2 | 2 | 9 |
| Median barrier | 10 | 0.1 | 0 | 0 | 0 | 1 | 9 |
| Highway traffic sign post | 102 | 0.8 | 0 | 0 | 1 | 3 | 98 |
| Highway signal post | 3 | 0.0 | 0 | 0 | 0 | 0 | 3 |
| Luminaire/light support | 93 | 0.7 | 2 | 2 | 7 | 10 | 72 |
| Other pole | 31 | 0.2 | 0 | 1 | 1 | 1 | 28 |
| Culvert | 10 | 0.1 | 0 | 0 | 3 | 1 | 6 |
| Curb | 22 | 0.2 | 0 | 0 | 1 | 0 | 21 |
| Ditch | 266 | 2.0 | 1 | 9 | 12 | 26 | 218 |
| Embankment | 95 | 0.7 | 0 | 4 | 5 | 4 | 82 |
| Fence | 10 | 0.1 | 0 | 1 | 0 | 1 | 8 |
| Mailbox | 45 | 0.3 | 0 | 1 | 0 | 1 | 43 |
| Tree | 300 | 2.3 | 9 | 23 | 32 | 30 | 206 |
| Rail crossing signal | 1 | 0.0 | 0 | 0 | 0 | 0 | 1 |
| Building | 13 | 0.1 | 0 | 0 | 2 | 2 | 9 |
| Traffic island | 1 | 0.0 | 0 | 0 | 0 | 0 | 1 |
| Fire hydrant | 6 | 0.0 | 0 | 0 | 0 | 0 | 6 |
| Impact attenuator | 2 | 0.0 | 0 | 1 | 0 | 0 | 1 |
| Other fixed object | 71 | 0.5 | 0 | 0 | 5 | 4 | 62 |
| SUBTOTAL | 1,170 | 9.0 | 12 | 45 | 72 | 99 | 942 |

| | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of Vehicles | % of Total | | A | B | C | |
| Unknown Event | 75 | 0.6 | 0 | 3 | 2 | 6 | 64 |
| MOST HARMFUL EVENT TOTAL | 13,024 | 100.0 | 52 | 318 | 485 | 1,050 | 11,119 |

## UPPER PENINSULA VEHICLE DEFECTS IN CRASH INVOLVEMENT

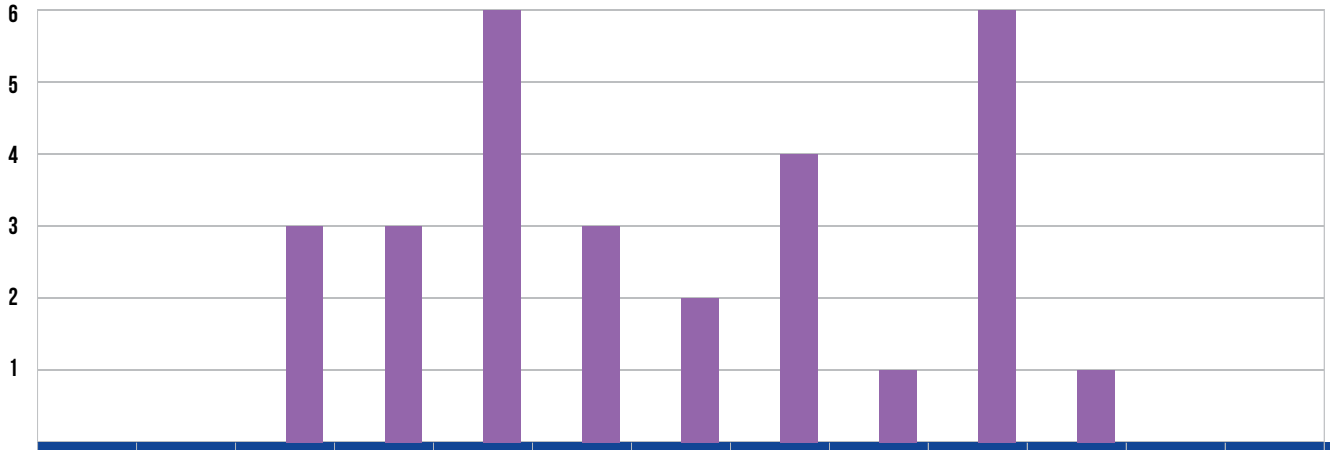
| VEHICLE DEFECTS | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of Vehicles | % of Total | | A | B | C | |
| Brakes | 24 | 0.2 | 0 | 0 | 2 | 8 | 14 |
| Lights/reflectors | 5 | 0.0 | 0 | 0 | 1 | 0 | 4 |
| Steering | 5 | 0.0 | 0 | 0 | 1 | 0 | 4 |
| Tires/wheels | 17 | 0.1 | 0 | 1 | 1 | 0 | 15 |
| Windows | 5 | 0.0 | 0 | 0 | 0 | 1 | 4 |
| Coupling/hitch/chains | 2 | 0.0 | 0 | 0 | 0 | 1 | 1 |
| Other | 24 | 0.2 | 0 | 0 | 0 | 4 | 20 |
| None or Unknown | 12,942 | 99.4 | 52 | 317 | 480 | 1,036 | 11,057 |
| TOTAL | 13,024 | 100.0 | 52 | 318 | 485 | 1,050 | 11,119 |

## 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 | 7,617 | 58.5 | 16 | 124 | 201 | 507 | 6,769 |
| Speed too fast | 1,127 | 8.7 | 7 | 58 | 61 | 94 | 907 |
| Speed too slow | 3 | 0.0 | 0 | 0 | 0 | 1 | 2 |
| Failed to yield | 1,049 | 8.1 | 5 | 38 | 66 | 156 | 784 |
| Disregard traffic control | 153 | 1.2 | 2 | 8 | 12 | 34 | 97 |
| Drove wrong way | 9 | 0.1 | 0 | 1 | 1 | 3 | 4 |
| Drove left of center | 64 | 0.5 | 3 | 3 | 3 | 3 | 52 |
| Improper passing | 55 | 0.4 | 0 | 0 | 1 | 6 | 48 |
| Improper lane use | 148 | 1.1 | 1 | 2 | 3 | 7 | 135 |
| Improper turn | 118 | 0.9 | 0 | 2 | 5 | 7 | 104 |
| Improper/no signal | 17 | 0.1 | 0 | 0 | 1 | 1 | 15 |
| Improper backing | 313 | 2.4 | 0 | 0 | 2 | 5 | 306 |
| Unable to stop in assured clear distance | 897 | 6.9 | 0 | 12 | 34 | 110 | 741 |
| Reckless driving | 43 | 0.3 | 1 | 11 | 10 | 3 | 18 |
| Careless/negligent driving | 442 | 3.4 | 3 | 36 | 43 | 55 | 305 |
| Other | 405 | 3.1 | 4 | 16 | 25 | 36 | 324 |
| Unknown | 564 | 4.3 | 10 | 7 | 17 | 22 | 508 |
| TOTAL | 13,024 | 100.0 | 52 | 318 | 485 | 1,050 | 11,119 |

# UPPER PENINSULA MICHIGAN BICYCLE CRASHES

## 2019 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 | 3 | 3 | 6 | 3 | 2 | 4 | 1 | 6 | 1 | 0 | 0 | 29 |
| TOTAL FATALITIES AND INJURIES | 0 | 0 | 3 | 3 | 6 | 3 | 2 | 4 | 1 | 6 | 1 | 0 | 0 | 29 |

In 2019 in the Upper Peninsula, there were 37 bicyclists involved in motor vehicle crashes, with 0 bicyclists killed and 29 injured.

## BICYCLE HELMET USE AND INJURY SEVERITY

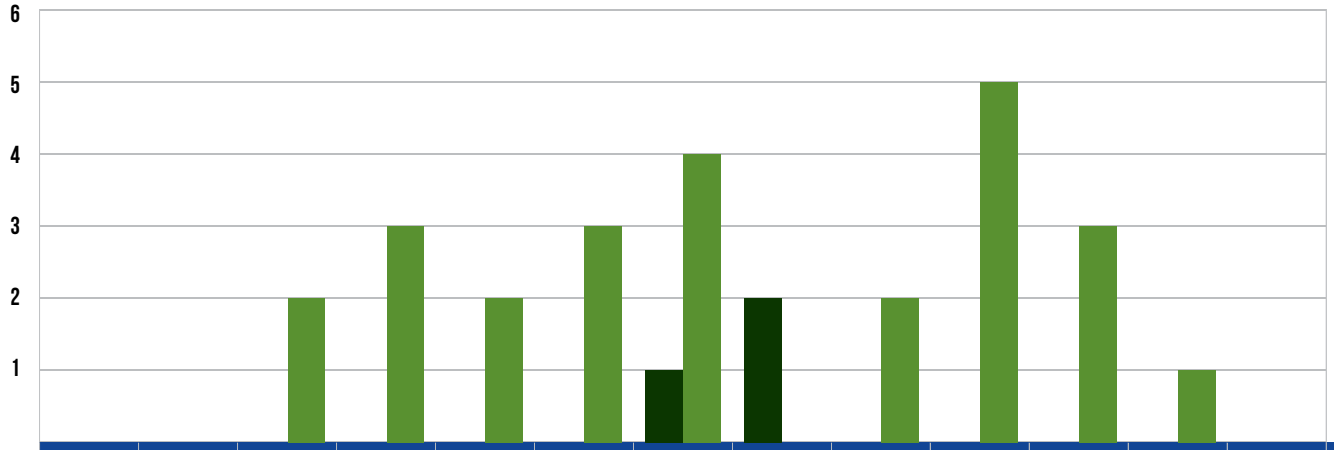
| HELMET USE | FATALITY | INJURY | | | NO INJURY | UNKNOWN | TOTAL |
|---|---|---|---|---|---|---|---|
| | | A | B | C | | | |
| Worn | 0 | 0 | 3 | 2 | 1 | 0 | 6 |
| Not Worn | 0 | 2 | 2 | 5 | 1 | 0 | 10 |
| Unknown | 0 | 2 | 9 | 4 | 4 | 2 | 21 |
| Total | 0 | 4 | 14 | 11 | 6 | 2 | 37 |

*Note: The data does not include helmet use for all bicyclists. There were 21 bicyclists with unknown helmet use.*

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.”

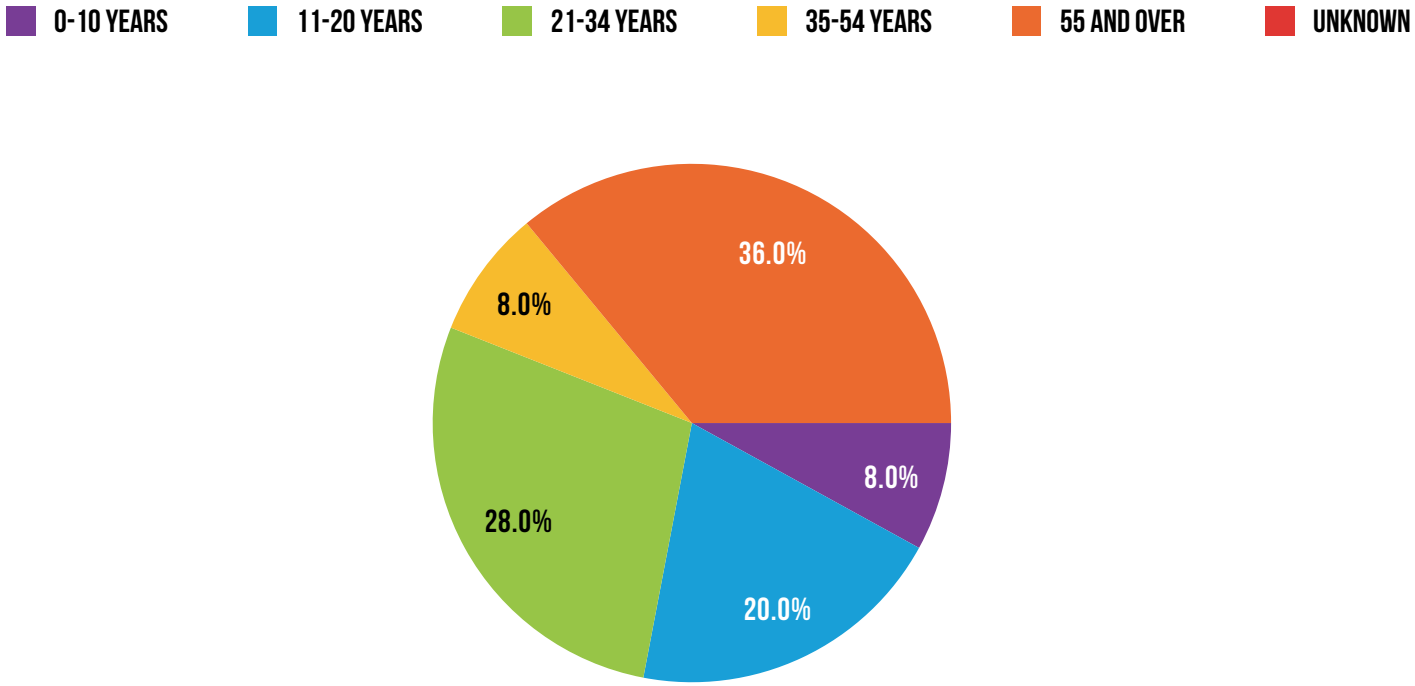
# UPPER PENINSULA MICHIGAN PEDESTRIAN CRASHES

## 2019 PEDESTRIAN 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 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 3 |
| INJURED | 0 | 0 | 2 | 3 | 2 | 3 | 4 | 0 | 2 | 5 | 3 | 1 | 0 | 25 |
| TOTAL FATALITIES AND INJURIES | 0 | 0 | 2 | 3 | 2 | 3 | 5 | 2 | 2 | 5 | 3 | 1 | 0 | 28 |

In 2019 in the Upper Peninsula, there were 34 pedestrians involved in motor vehicle crashes, with three pedestrians killed and 25 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 | 1 | 1.1 | 0 | 0 | 1 | 0 | 0 |
| Cross center/median | 1 | 1.1 | 0 | 0 | 0 | 1 | 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 | 4 | 4.5 | 0 | 1 | 1 | 2 | 0 |
| Separation of Units | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Fire/explosion | 1 | 1.1 | 0 | 0 | 0 | 0 | 1 |
| Immersion | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Jackknife | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Downhill runaway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cargo loss/shift | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Individual fell off | 6 | 6.7 | 0 | 3 | 2 | 0 | 1 |
| Other noncollision | 1 | 1.1 | 0 | 0 | 0 | 1 | 0 |
| SUBTOTAL | 14 | 15.7 | 0 | 4 | 4 | 4 | 2 |

| COLLISION WITH A NONFIXED OBJECT | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| Pedestrian | 1 | 1.1 | 0 | 1 | 0 | 0 | 0 |
| Bicycle/ Pedalcycle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Motor vehicle in transport | 47 | 52.8 | 4 | 13 | 7 | 14 | 9 |
| Parked motor vehicle | 4 | 4.5 | 0 | 3 | 1 | 0 | 0 |
| Railway train | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Animal | 1 | 1.1 | 0 | 0 | 0 | 0 | 1 |
| Other nonfixed objects | 3 | 3.4 | 0 | 1 | 0 | 1 | 1 |
| SUBTOTAL | 56 | 62.9 | 4 | 18 | 8 | 15 | 11 |

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

| COLLISION WITH A FIXED OBJECT | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| Bridge/pier/abutment | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Bridge rail | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Guardrail face | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Guardrail end | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Median barrier | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Highway traffic sign post | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Highway signal post | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Luminaire/light support | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other pole | 1 | 1.1 | 0 | 1 | 0 | 0 | 0 |
| Culvert | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Curb | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Ditch | 1 | 1.1 | 0 | 1 | 0 | 0 | 0 |
| Embankment | 1 | 1.1 | 0 | 1 | 0 | 0 | 0 |
| Fence | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Mailbox | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Tree | 13 | 14.6 | 1 | 6 | 4 | 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 | 1 | 1.1 | 0 | 1 | 0 | 0 | 0 |
| Other fixed object | 2 | 2.2 | 0 | 0 | 1 | 0 | 1 |
| SUBTOTAL | 19 | 21.3 | 1 | 10 | 5 | 1 | 2 |

| | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| Unknown Event | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| MOST HARMFUL EVENT TOTAL | 89 | 100.0 | 5 | 32 | 17 | 20 | 15 |

*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 89 snowmobiles were reported in crashes on Upper Peninsula public roadways during 2019, resulting in four fatal crashes. A total of 69 snowmobiles were involved in 53 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 | 4 | 7.4 | 0 | 2 | 1 | 0 | 1 |
| Cross center/median | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Ran off road left | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Ran off road right | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Re-enter road | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Overturn | 16 | 29.6 | 2 | 9 | 2 | 3 | 0 |
| Separation of Units | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Fire/explosion | 1 | 1.9 | 0 | 0 | 0 | 0 | 1 |
| Immersion | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Jackknife | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Downhill runaway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cargo loss/shift | 1 | 1.9 | 0 | 0 | 0 | 1 | 0 |
| Individual fell off | 9 | 16.7 | 0 | 2 | 6 | 0 | 1 |
| Other noncollision | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL | 31 | 57.4 | 2 | 13 | 9 | 4 | 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 | 16 | 29.6 | 0 | 7 | 0 | 2 | 7 |
| Parked motor vehicle | 2 | 3.7 | 0 | 0 | 0 | 1 | 1 |
| 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 | 33.3 | 0 | 7 | 0 | 3 | 8 |

# 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 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Highway signal post | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Luminaire/light support | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other pole | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Culvert | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Curb | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Ditch | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Embankment | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Fence | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Mailbox | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Tree | 5 | 9.3 | 0 | 3 | 0 | 0 | 2 |
| Rail crossing signal | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Building | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Traffic island | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Fire hydrant | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Impact attenuator | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other fixed object | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL | 5 | 9.3 | 0 | 3 | 0 | 0 | 2 |

| | ORV/ATV | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of ORV/ATVs | % of Total | | A | B | C | |
| Unknown Event | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| MOST HARMFUL EVENT TOTAL | 54 | 100.0 | 2 | 23 | 9 | 7 | 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 54 off-road/all-terrain vehicles were reported in crashes on Upper Peninsula public roadways during 2019, resulting in two fatal crashes. An additional 39 ORV/ATVs were involved in 38 injury crashes.

## UPPER PENINSULA MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

| HAZARDOUS ACTION | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| None | 29 | 32.6 | 1 | 9 | 6 | 8 | 5 |
| Speed too fast | 19 | 21.3 | 1 | 10 | 5 | 2 | 1 |
| Speed too slow | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Failed to yield | 9 | 10.1 | 1 | 2 | 2 | 2 | 2 |
| Disregard traffic control | 4 | 4.5 | 0 | 1 | 0 | 2 | 1 |
| Drove wrong way | 1 | 1.1 | 0 | 1 | 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 | 1 | 1.1 | 0 | 0 | 0 | 1 | 0 |
| Improper turn | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper/no signal | 1 | 1.1 | 0 | 0 | 1 | 0 | 0 |
| Improper backing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Unable to stop in assured clear distance | 5 | 5.6 | 0 | 3 | 1 | 1 | 0 |
| Reckless driving | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Careless/negligent driving | 6 | 6.7 | 0 | 3 | 1 | 1 | 1 |
| Other | 7 | 7.9 | 0 | 3 | 1 | 2 | 1 |
| Unknown | 7 | 7.9 | 2 | 0 | 0 | 1 | 4 |
| Total | 89 | 100.0 | 5 | 32 | 17 | 20 | 15 |

## UPPER PENINSULA MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

| HAZARDOUS ACTION | ORV/ATV | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|---|
| | Number of ORV/ATVs | % of Total | | A | B | C | |
| None | 12 | 22.2 | 0 | 5 | 1 | 2 | 4 |
| Speed too fast | 18 | 33.3 | 2 | 8 | 2 | 2 | 4 |
| Speed too slow | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Failed to yield | 5 | 9.3 | 0 | 3 | 0 | 1 | 1 |
| Disregard traffic control | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Drove wrong way | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Drove left of center | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper passing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper lane use | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper turn | 3 | 5.6 | 0 | 1 | 1 | 1 | 0 |
| Improper/no signal | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper backing | 1 | 1.9 | 0 | 0 | 0 | 0 | 1 |
| Unable to stop in assured clear distance | 1 | 1.9 | 0 | 0 | 0 | 0 | 1 |
| Reckless driving | 3 | 5.6 | 0 | 2 | 1 | 0 | 0 |
| Careless/negligent driving | 5 | 9.3 | 0 | 2 | 1 | 0 | 2 |
| Other | 1 | 1.9 | 0 | 1 | 0 | 0 | 0 |
| Unknown | 5 | 9.3 | 0 | 1 | 3 | 1 | 0 |
| Total | 54 | 100.0 | 2 | 23 | 9 | 7 | 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 | 2018 | 2019 | % CHANGE |
|---|---|---|---|
| Crashes | 7 | 9 | 28.6% |
| Fatalities | 0 | 0 | 0.0% |
| Injuries | 4 | 1 | -75.0% |

Nine crashes involving farm equipment were reported on Upper Peninsula roadways during 2019. None of those crashes involved a fatality.

## UPPER PENINSULA MICHIGAN VEHICLE-TRAIN CRASHES

| VEHICLE TRAIN CRASHES | 2018 | 2019 | % CHANGE |
|---|---|---|---|
| Crashes | 0 | 4 | --- |
| Fatalities | 0 | 0 | 0.0% |
| Injuries | 0 | 2 | --- |

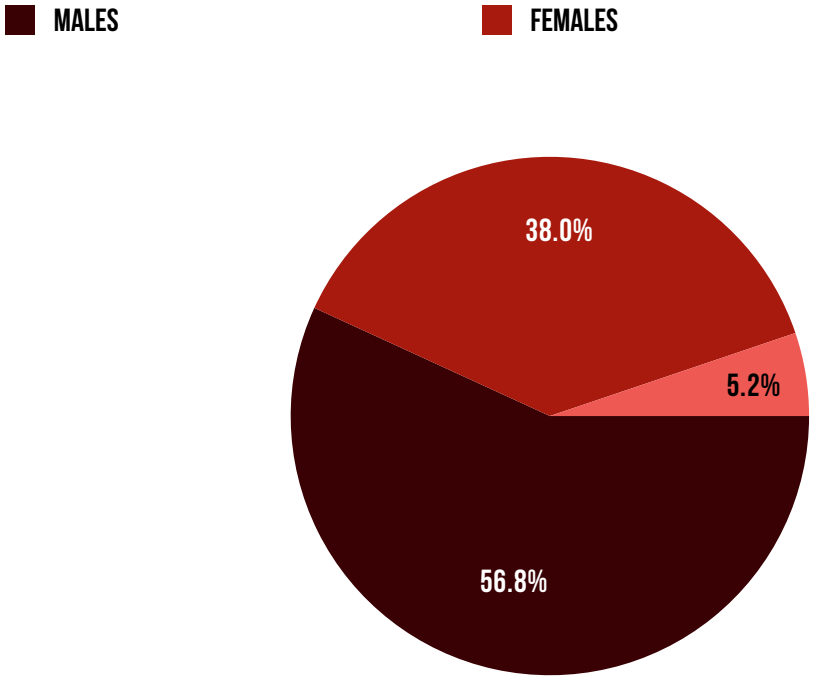
A total of four motor-vehicle crashes involving trains were reported in the Upper Peninsula during 2019, none of which involved fatalities.

## UPPER PENINSULA MICHIGAN MOTORCYLE CRASHES

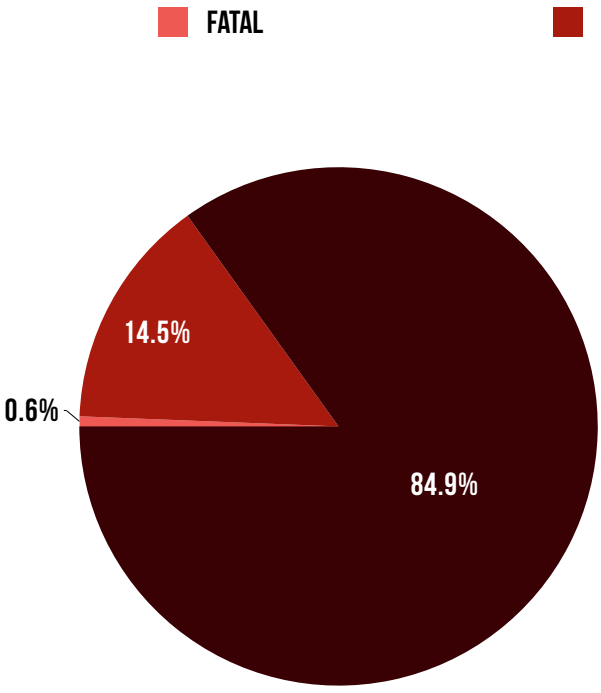
| MOTORCYCLE DATA | 2018 | 2019 | % CHANGE |
|---|---|---|---|
| Motorcycle Registrations | 8,895 | 8,873 | -0.2% |
| Motorcycles in Crashes | 85 | 102 | 20.0% |
| Motorcyclist Deaths | 4 | 6 | 50.0% |
| Motorcyclists Injured | 68 | 68 | 0.0% |
| Death Rate based on 10,000 motorcycle registrations | 4.50 | 6.76 | 50.4% |
| Estimated Mileage based on 3,000 miles per motorcycle | 26,685,000 | 26,619,000 | -0.2% |
| Death Rate based on deaths per 100 million vehicle miles traveled | 14.99 | 22.54 | 50.4% |

Motorcycles were involved in 1.0 percent of all traffic crashes in the Upper Peninsula in 2019. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles.

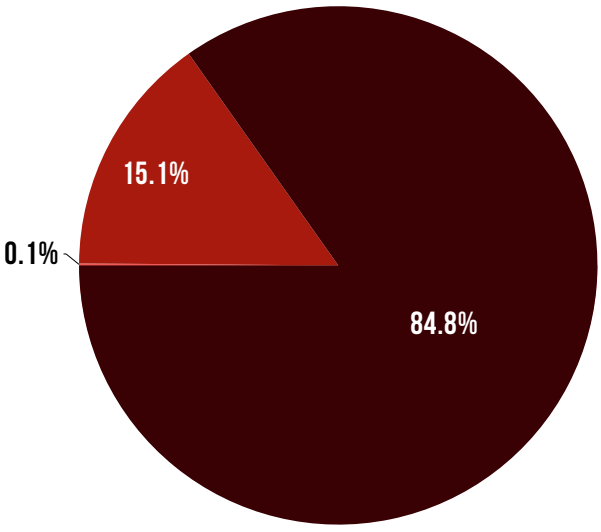
## UPPER PENINSULA DRIVER GENDER INFORMATION




ALL DRIVERS




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 (0.6% vs. 0.1%).

# UPPER PENINSULA PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

| AGE | LICENSED DRIVERS | 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 | 1,425 | 47,429 | 27 | 0 | 1 | 89 | 8 | 0 | 5 | 0 |
| 16 | 2,269 | 3,175 | 200 | 0 | 0 | 36 | 1 | 0 | 0 | 0 |
| 17 | 2,425 | 3,293 | 255 | 0 | 0 | 50 | 0 | 0 | 0 | 0 |
| 18 | 2,358 | 4,000 | 285 | 3 | 3 | 45 | 1 | 0 | 1 | 0 |
| 19 | 2,504 | 5,026 | 349 | 2 | 0 | 58 | 3 | 0 | 1 | 0 |
| 20 | 2,749 | 5,141 | 305 | 0 | 0 | 38 | 3 | 0 | 0 | 0 |
| 21-24 | 11,632 | 18,719 | 1,158 | 5 | 2 | 143 | 3 | 0 | 4 | 0 |
| 25-29 | 14,039 | 16,755 | 1,056 | 4 | 3 | 129 | 1 | 0 | 4 | 1 |
| 30-34 | 14,519 | 15,336 | 984 | 0 | 0 | 96 | 2 | 0 | 1 | 1 |
| 35-39 | 14,895 | 16,530 | 944 | 6 | 3 | 101 | 2 | 0 | 1 | 1 |
| 40-44 | 14,305 | 15,540 | 864 | 1 | 1 | 85 | 2 | 0 | 2 | 1 |
| 45-49 | 14,730 | 16,244 | 889 | 0 | 0 | 98 | 0 | 0 | 2 | 0 |
| 50-54 | 16,487 | 17,881 | 913 | 6 | 4 | 87 | 1 | 0 | 2 | 0 |
| 55-59 | 20,423 | 21,925 | 1,079 | 10 | 6 | 110 | 5 | 0 | 3 | 0 |
| 60-64 | 22,480 | 23,602 | 943 | 6 | 6 | 86 | 2 | 0 | 2 | 0 |
| 65-69 | 21,819 | 22,202 | 773 | 3 | 1 | 90 | 1 | 0 | 2 | 0 |
| 70-74 | 17,031 | 17,212 | 530 | 0 | 0 | 56 | 0 | 0 | 2 | 0 |
| 75-79 | 11,388 | 11,940 | 389 | 4 | 5 | 41 | 0 | 0 | 1 | 0 |
| 80-84 | 7,315 | 8,222 | 214 | 2 | 2 | 38 | 0 | 0 | 0 | 0 |
| 85+ | 5,496 | 8,679 | 145 | 0 | 0 | 18 | 0 | 0 | 0 | 0 |
| Unknown | --- | --- | 722 | 0 | 0 | 0 | 2 | 0 | 1 | 0 |
| TOTAL | 220,289 | 298,851 | 13,024 | 52 | 37 | 1,494 | 37 | 0 | 34 | 4 |

# 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 | 1,425 | 27 | 0.019 |
| 16 | 2,269 | 200 | 0.088 |
| 17 | 2,425 | 255 | 0.105 |
| 18 | 2,358 | 285 | 0.121 |
| 19 | 2,504 | 349 | 0.139 |
| 20 | 2,749 | 305 | 0.111 |
| 21-24 | 11,632 | 1,158 | 0.100 |
| 25-29 | 14,039 | 1,056 | 0.075 |
| 30-34 | 14,519 | 984 | 0.068 |
| 35-39 | 14,895 | 944 | 0.063 |
| 40-44 | 14,305 | 864 | 0.060 |
| 45-49 | 14,730 | 889 | 0.060 |
| 50-54 | 16,487 | 913 | 0.055 |
| 55-59 | 20,423 | 1,079 | 0.053 |
| 60-64 | 22,480 | 943 | 0.042 |
| 65-69 | 21,819 | 773 | 0.035 |
| 70-74 | 17,031 | 530 | 0.031 |
| 75-79 | 11,388 | 389 | 0.034 |
| 80-84 | 7,315 | 214 | 0.029 |
| 85-89 | 3,804 | 108 | 0.028 |
| 90-94 | 1,495 | 31 | 0.021 |
| 95-99 | 188 | 5 | 0.027 |
| 100+ | 9 | 1 | 0.111 |
| TOTAL | 220,289 | 12,302 | 0.056 |

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

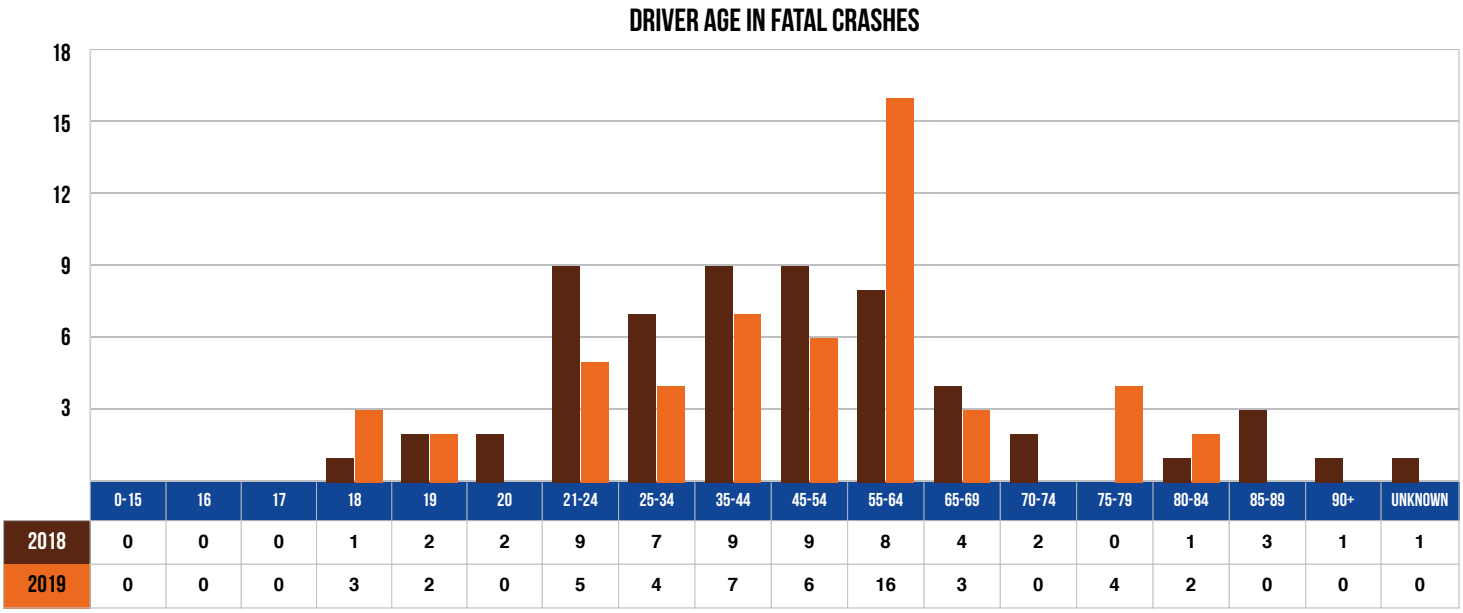
* Excludes 722 drivers with unknown age

Licensed drivers age 19 have the highest crash rate at 0.139 (total crash involvements 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 | 2018 | 2019 | PERCENT CHANGE | PERCENT 2019 FATAL CRASH INVOLVEMENT | PERCENT ACTIVE DRIVING POPULATION* |
|---|---|---|---|---|---|
| 15 years and under | 0 | 0 | 0.0 | 0.0 | 0.6 |
| 16 years | 0 | 0 | 0.0 | 0.0 | 1.0 |
| 17 years | 0 | 0 | 0.0 | 0.0 | 1.1 |
| 18 years | 1 | 3 | 200.0 | 5.8 | 1.1 |
| 19 years | 2 | 2 | 0.0 | 3.8 | 1.1 |
| 20 years | 2 | 0 | -100.0 | 0.0 | 1.2 |
| 21 - 24 years | 9 | 5 | -44.4 | 9.6 | 5.3 |
| 25 - 34 years | 7 | 4 | -42.9 | 7.7 | 13.0 |
| 35 - 44 years | 9 | 7 | -22.2 | 13.5 | 13.3 |
| 45 - 54 years | 9 | 6 | -33.3 | 11.5 | 14.2 |
| 55 - 64 years | 8 | 16 | 100.0 | 30.8 | 19.5 |
| 65 - 69 years | 4 | 3 | -25.0 | 5.8 | 9.9 |
| 70 - 74 years | 2 | 0 | -100.0 | 0.0 | 7.7 |
| 75 - 79 years | 0 | 4 | --- | 7.7 | 5.2 |
| 80 - 84 years | 1 | 2 | 100.0 | 3.8 | 3.3 |
| 85 - 89 years | 3 | 0 | -100.0 | 0.0 | 1.7 |
| 90 years and over | 1 | 0 | -100.0 | 0.0 | 0.8 |
| Unknown | 1 | 0 | -100.0 | 0.0 | --- |
| Total | 59 | 52 | -11.9 | 100.0 | 100.0 |

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



## UPPER PENINSULA DRIVER CONDITION

| POSSIBLE CONDITIONS OF DRIVER | CONDITIONS (CODED BY POLICE) | FATAL CRASHES | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|
| | | | A | B | C | |
| Normal | 9,945 | 15 | 180 | 332 | 851 | 8,567 |
| Fatigued or Asleep | 62 | 2 | 7 | 9 | 11 | 33 |
| Sick | 37 | 1 | 1 | 4 | 10 | 21 |
| Medicated | 20 | 0 | 1 | 7 | 4 | 8 |
| Emotional | 146 | 3 | 12 | 23 | 31 | 77 |
| Physically Disabled | 47 | 3 | 19 | 10 | 5 | 10 |
| Unknown | 1,739 | 22 | 54 | 49 | 75 | 1,539 |
| Other | 262 | 7 | 39 | 40 | 50 | 126 |

*Note: Drivers may have more than one condition including "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 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* | 11,521 | 88.5 | 18 | 58.1 | 135 | 239 | 606 | 10,521 | 2 |
| Restraint Not Used | 172 | 1.3 | 11 | 35.5 | 25 | 29 | 15 | 92 | 0 |
| Unknown | 1,331 | 10.2 | 2 | 6.5 | 8 | 15 | 21 | 513 | 772 |
| TOTAL | 13,024 | 100.0 | 31 | 100.0 | 168 | 283 | 642 | 11,126 | 774 |
| **DRINKING DRIVERS ONLY** | | | | | | | | | |
| Restraint Used* | 176 | 68.0 | 4 | 50.0 | 19 | 21 | 19 | 113 | 0 |
| Restraint Not Used | 26 | 10.0 | 2 | 25.0 | 7 | 11 | 1 | 5 | 0 |
| Unknown | 57 | 22.0 | 2 | 25.0 | 3 | 5 | 6 | 41 | 0 |
| TOTAL | 259 | 100.0 | 8 | 100.0 | 29 | 37 | 26 | 159 | 0 |
| **DRUGGED DRIVERS ONLY** | | | | | | | | | |
| Restraint Used* | 54 | 76.1 | 1 | 50.0 | 4 | 9 | 9 | 31 | 0 |
| Restraint Not Used | 6 | 8.5 | 1 | 50.0 | 1 | 2 | 0 | 2 | 0 |
| Unknown | 11 | 15.5 | 0 | 0.0 | 0 | 3 | 0 | 8 | 0 |
| TOTAL | 71 | 100.0 | 2 | 100.0 | 5 | 14 | 9 | 41 | 0 |
| **DRINKING AND DRUGGED DRIVERS ONLY** | | | | | | | | | |
| Restraint Used* | 29 | 54.7 | 0 | 0.0 | 2 | 4 | 5 | 18 | 0 |
| Restraint Not Used | 16 | 30.2 | 4 | 100.0 | 5 | 3 | 1 | 3 | 0 |
| Unknown | 8 | 15.1 | 0 | 0.0 | 0 | 1 | 0 | 7 | 0 |
| TOTAL | 53 | 100.0 | 4 | 100.0 | 7 | 8 | 6 | 28 | 0 |

*Note: '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 | ALL CRASHES | FATAL CRASHES | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|
| | | | A | B | C | |
| 1. Related to intersection | 2,295 | 11 | 59 | 109 | 268 | 1,848 |
| 2. In intersection | 1,165 | 5 | 32 | 69 | 158 | 901 |
| 3. With traffic control signal | 298 | 1 | 6 | 21 | 54 | 216 |
| 4. With hazardous action* | 50 | 0 | 4 | 4 | 15 | 27 |

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 50 crashes.

# UPPER PENINSULA RED-LIGHT-RUNNING MOST SEVERE OUTCOME IN CRASH

| SPEED LIMIT* | ALL 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 | 15 | 0 | 0 | 0 | 6 | 9 |
| 30 miles per hour | 4 | 0 | 0 | 2 | 0 | 2 |
| 35 miles per hour | 12 | 0 | 1 | 1 | 5 | 5 |
| 40 miles per hour | 1 | 0 | 0 | 0 | 1 | 0 |
| 45 miles per hour | 8 | 0 | 1 | 1 | 2 | 4 |
| 50 miles per hour | 2 | 0 | 0 | 0 | 0 | 2 |
| 55 miles per hour | 8 | 0 | 2 | 0 | 1 | 5 |
| 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 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 50 | 0 | 4 | 4 | 15 | 27 |

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

| CRASH TYPE | ALL CRASHES | FATAL CRASHES | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|
| | | | A | B | C | |
| Single Vehicle | 0 | 0 | 0 | 0 | 0 | 0 |
| Head On | 0 | 0 | 0 | 0 | 0 | 0 |
| Head On - Left Turn | 2 | 0 | 1 | 0 | 0 | 1 |
| Angle | 44 | 0 | 3 | 4 | 15 | 22 |
| Rear End | 1 | 0 | 0 | 0 | 0 | 1 |
| Rear End - Left Turn | 0 | 0 | 0 | 0 | 0 | 0 |
| Rear End - Right Turn | 0 | 0 | 0 | 0 | 0 | 0 |
| Sideswipe - Same Direction | 2 | 0 | 0 | 0 | 0 | 2 |
| Sideswipe - Opposite Direction | 0 | 0 | 0 | 0 | 0 | 0 |
| Backing | 0 | 0 | 0 | 0 | 0 | 0 |
| Other/Unknown | 1 | 0 | 0 | 0 | 0 | 1 |
| TOTAL | 50 | 0 | 4 | 4 | 15 | 27 |

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

| SPECIAL CIRCUMSTANCES* | ALL CRASHES | FATAL CRASHES | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|---|---|---|---|---|---|---|
| | | | A | B | C | |
| School Bus Involved/Associated | 0 | 0 | 0 | 0 | 0 | 0 |
| Drinking involved | 1 | 0 | 0 | 0 | 0 | 1 |
| Drug Use Involved | 1 | 0 | 0 | 0 | 1 | 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 | 3 | 0 | 0 | 0 | 0 | 3 |
| Emergency Vehicle Involved | 1 | 0 | 0 | 0 | 0 | 1 |
| Driver Hazardous Citation | 35 | 0 | 4 | 3 | 12 | 16 |

*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 | 44 | 0 | 3 | 4 | 13 | 24 |
| Fatigued or Asleep | 0 | 0 | 0 | 0 | 0 | 0 |
| Sick | 0 | 0 | 0 | 0 | 0 | 0 |
| Medicated | 0 | 0 | 0 | 0 | 0 | 0 |
| Emotional | 0 | 0 | 0 | 0 | 0 | 0 |
| Physically Disabled | 0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 3 | 0 | 0 | 0 | 1 | 2 |
| Other | 2 | 0 | 1 | 0 | 1 | 0 |

*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 Upper Peninsula crash picture, heavy truck/bus crashes in the Upper Peninsula involve:**

- More turning and backing as the Truck/Bus Driver Action Prior.
- More noncollision events such as jackknife, cargo loss/shift, and overturn 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, and reckless driving, but more drivers indicated to be making backing, lane use, and turning errors.
- More crashes on the shoulder of the road.
- More crashes between the hours of 3:00 AM and 2:59 PM, and fewer crashes between 3:00 PM and 2:59 AM.
- More crashes Monday through Wednesday and fewer crashes on all other days of the week.

# UPPER PENINSULA 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 | 222 | 55.0 | 3 | 75.0 | 28 | 59.6 |
| Turning left | 26 | 6.4 | 0 | 0.0 | 4 | 8.5 |
| Turning right | 29 | 7.2 | 0 | 0.0 | 2 | 4.3 |
| Stopped on roadway | 18 | 4.5 | 0 | 0.0 | 4 | 8.5 |
| In prior crash | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Changing lanes | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Backing | 29 | 7.2 | 0 | 0.0 | 0 | 0.0 |
| Slowing/stopping on roadway | 25 | 6.2 | 0 | 0.0 | 4 | 8.5 |
| Slowing/stopping on other | 1 | 0.2 | 0 | 0.0 | 1 | 2.1 |
| Starting up on roadway | 9 | 2.2 | 0 | 0.0 | 3 | 6.4 |
| Starting up on other | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Entering parking | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Leaving parking | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Entering roadway | 3 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Leaving roadway | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Making U-turn | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Overtaking or passing | 7 | 1.7 | 0 | 0.0 | 0 | 0.0 |
| Avoiding object | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Avoiding animal | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Avoiding pedestrian | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Avoiding vehicle (front/back) | 5 | 1.2 | 0 | 0.0 | 0 | 0.0 |
| Avoiding vehicle (angle) | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Driverless moving | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Parked | 13 | 3.2 | 0 | 0.0 | 0 | 0.0 |
| Crossing at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Crossing not at intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Getting on / off vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway with traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| In roadway against traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Standing / laying 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 work 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 | 8 | 2.0 | 1 | 25.0 | 0 | 0.0 |
| Other | 1 | 0.2 | 0 | 0.0 | 1 | 2.1 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Uncoded & errors | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 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 | 8 | 2.0 | 0 | 0.0 | 1 | 2.1 |
| Cross centerline / median | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Ran off roadway left | 3 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Ran off roadway right | 11 | 2.7 | 0 | 0.0 | 2 | 4.3 |
| Re-enter roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Overturn | 10 | 2.5 | 0 | 0.0 | 5 | 10.6 |
| Separation of units | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Fire / explosion | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Immersion | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Jackknife | 5 | 1.2 | 0 | 0.0 | 0 | 0.0 |
| Downhill runaway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Cargo loss / shift | 5 | 1.2 | 0 | 0.0 | 0 | 0.0 |
| Individual fell from vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other noncollision | 2 | 0.5 | 0 | 0.0 | 1 | 2.1 |
| SUBTOTAL | 47 | 11.6 | 0 | 0.0 | 9 | 19.1 |

| 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 | 2 | 0.5 | 0 | 0.0 | 2 | 4.3 |
| Bicyclist (pedalcycle) | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Motor vehicle in transport | 219 | 54.2 | 3 | 75.0 | 29 | 61.7 |
| Parked motor vehicle | 30 | 7.4 | 0 | 0.0 | 1 | 2.1 |
| Railroad train / engineer | 1 | 0.2 | 0 | 0.0 | 1 | 2.1 |
| Animal | 41 | 10.1 | 0 | 0.0 | 0 | 0.0 |
| Other nonfixed object | 10 | 2.5 | 0 | 0.0 | 1 | 2.1 |
| SUBTOTAL | 303 | 75.0 | 3 | 75.0 | 34 | 72.3 |

The majority of heavy trucks/buses are involved in crashes with a motor vehicle in transport for all crashes (54.2%), fatal crashes (75.0%), and injury crashes (61.7%) 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 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Bridge parapet end | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Bridge rail | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Guardrail face | 3 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Guardrail end | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Median barrier | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Highway traffic sign post | 4 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| Highway signal post | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Luminaire / light support | 7 | 1.7 | 1 | 25.0 | 0 | 0.0 |
| Utility pole | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other pole | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Culvert | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Curb | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Ditch | 7 | 1.7 | 0 | 0.0 | 1 | 2.1 |
| Embankment | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Fence | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Mailbox | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Tree | 7 | 1.7 | 0 | 0.0 | 1 | 2.1 |
| Railroad crossing signal | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| Building | 3 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Traffic island | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Fire hydrant | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Impact attenuator (crash cushion) | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other fixed object | 3 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| SUBTOTAL | 42 | 10.4 | 1 | 25.0 | 2 | 4.3 |

| | ALL CRASHES | | FATAL CRASHES | | INJURY CRASHES | |
|---|---|---|---|---|---|---|
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total |
| Uncoded & errors | 12 | 3.0 | 0 | 0.0 | 2 | 4.3 |
| MOST HARMFUL EVENT TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 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 | 121 | 30.0 | 1 | 25.0 | 8 | 17.0 |
| Head On | 6 | 1.5 | 1 | 25.0 | 3 | 6.4 |
| Head On - Left Turn | 6 | 1.5 | 0 | 0.0 | 1 | 2.1 |
| Angle | 51 | 12.6 | 1 | 25.0 | 10 | 21.3 |
| Rear-end | 58 | 14.4 | 0 | 0.0 | 8 | 17.0 |
| Rear End - Left Turn | 7 | 1.7 | 0 | 0.0 | 3 | 6.4 |
| Rear End - Right Turn | 3 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Sideswipe - Same Direction | 63 | 15.6 | 0 | 0.0 | 4 | 8.5 |
| Sideswipe - Opposite Direction | 33 | 8.2 | 1 | 25.0 | 7 | 14.9 |
| Backing | 20 | 5.0 | 0 | 0.0 | 0 | 0.0 |
| Other / Unknown | 36 | 8.9 | 0 | 0.0 | 3 | 6.4 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 100.0 |

The highest percentage of heavy trucks/buses are involved in single vehicle crashes for all crashes (30.0%) and angle crashes for injury crashes (21.3%).

| 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 | 216 | 53.5 | 2 | 50.0 | 26 | 55.3 | 0 | 0.0 |
| Speed too fast | 16 | 4.0 | 0 | 0.0 | 1 | 2.1 | 6 | 15.4 |
| Speed too slow | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Failed to yield | 18 | 4.5 | 0 | 0.0 | 5 | 10.6 | 6 | 15.4 |
| Disregard traffic control | 5 | 1.2 | 0 | 0.0 | 2 | 4.3 | 4 | 10.3 |
| Drove wrong way | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Drove left of center | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Improper passing | 3 | 0.7 | 0 | 0.0 | 1 | 2.1 | 2 | 5.1 |
| Improper lane use | 14 | 3.5 | 0 | 0.0 | 1 | 2.1 | 1 | 2.6 |
| Improper turn | 17 | 4.2 | 0 | 0.0 | 0 | 0.0 | 2 | 5.1 |
| Improper / no signal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Improper backing | 21 | 5.2 | 0 | 0.0 | 0 | 0.0 | 1 | 2.6 |
| Unable to stop in assured clear distance | 25 | 6.2 | 0 | 0.0 | 5 | 10.6 | 5 | 12.8 |
| Reckless driving | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Careless / negligent driving | 15 | 3.7 | 0 | 0.0 | 1 | 2.1 | 7 | 17.9 |
| Other | 38 | 9.4 | 0 | 0.0 | 5 | 10.6 | 5 | 12.8 |
| Unknown | 14 | 3.5 | 2 | 50.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 100.0 | 39 | 100.0 |

After no hazardous action, the most common hazardous action coded for drivers of heavy trucks/buses in all crashes is "other" (9.4%).

# 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 | 345 | 85.4 | 3 | 75.0 | 43 | 91.5 |
| Median | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| Shoulder | 21 | 5.2 | 0 | 0.0 | 2 | 4.3 |
| Outside of Shoulder/Curb | 24 | 5.9 | 1 | 25.0 | 2 | 4.3 |
| Gore | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| On-Street Parking | 7 | 1.7 | 0 | 0.0 | 0 | 0.0 |
| Off the Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| On the Sidewalk | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| In the Bicycle Lane | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other/Unknown | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 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 | 10 | 2.5 | 0 | 0.0 | 0 | 0.0 |
| 3:00 AM - 5:59 AM | 18 | 4.5 | 0 | 0.0 | 2 | 4.3 |
| 6:00 AM - 8:59 AM | 66 | 16.3 | 1 | 25.0 | 6 | 12.8 |
| 9:00 AM - 11:59 AM | 85 | 21.0 | 3 | 75.0 | 10 | 21.3 |
| 12:00 PM - 2:59 PM | 105 | 26.0 | 0 | 0.0 | 17 | 36.2 |
| 3:00 PM - 5:59 PM | 81 | 20.0 | 0 | 0.0 | 10 | 21.3 |
| 6:00 PM - 8:59 PM | 23 | 5.7 | 0 | 0.0 | 0 | 0.0 |
| 9:00 PM - 11:59 PM | 16 | 4.0 | 0 | 0.0 | 2 | 4.3 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 100.0 |

Heavy truck/bus frequencies in crashes peak in the early afternoon, then drop off steadily until 3 AM. The most common time for heavy trucks/buses to be involved in crashes is between 12:00 PM and 2:59 PM for all crashes (26.0%) and for injury crashes (36.2%). For fatal crashes, the most common time is between 9:00 AM and 11:59 AM (75.0%).

| 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 | 22 | 5.4 | 0 | 0.0 | 0 | 0.0 |
| U.S. and Michigan Roads | 246 | 60.9 | 4 | 100.0 | 32 | 68.1 |
| County & City Roads | 129 | 31.9 | 0 | 0.0 | 15 | 31.9 |
| Uncoded & Errors | 7 | 1.7 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 100.0 |

The highest percentage of heavy trucks/buses are involved in crashes on U.S. & Michigan roads for all crashes (60.9%), fatal crashes (100.0%), and injury crashes (68.1%).

# 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 | 76 | 18.8 | 2 | 50.0 | 9 | 19.1 |
| Tuesday | 75 | 18.6 | 0 | 0.0 | 7 | 14.9 |
| Wednesday | 100 | 24.8 | 0 | 0.0 | 9 | 19.1 |
| Thursday | 57 | 14.1 | 1 | 25.0 | 5 | 10.6 |
| Friday | 60 | 14.9 | 1 | 25.0 | 12 | 25.5 |
| Saturday | 20 | 5.0 | 0 | 0.0 | 2 | 4.3 |
| Sunday | 16 | 4.0 | 0 | 0.0 | 3 | 6.4 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 100.0 |

The highest percentage of heavy trucks/buses are involved in crashes on Wednesday for all crashes (24.8%) and Friday for injury crashes (25.5%).

| 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 | 375 | 92.8 | 4 | 100.0 | 44 | 93.6 |
| Female | 21 | 5.2 | 0 | 0.0 | 2 | 4.3 |
| Unknown | 8 | 2.0 | 0 | 0.0 | 1 | 2.1 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 100.0 |

The majority of heavy truck/bus drivers are male in all crashes (92.8%), fatal crashes (100.0%), and injury crashes (93.6%).

| 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 | 347 | 85.9 | 3 | 75.0 | 43 | 91.5 |
| 2 occupants | 29 | 7.2 | 1 | 25.0 | 2 | 4.3 |
| 3 occupants | 4 | 1.0 | 0 | 0.0 | 0 | 0.0 |
| 4 occupants | 1 | 0.2 | 0 | 0.0 | 0 | 0.0 |
| 5 occupants | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| 6+ occupants | 12 | 3.0 | 0 | 0.0 | 1 | 2.1 |
| 0 occupants | 9 | 2.2 | 0 | 0.0 | 1 | 2.1 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 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 | 192 | 70.6 | 3 | 100.0 | 28 | 68.3 |
| Motor Home | 1 | 0.4 | 0 | 0.0 | 0 | 0.0 |
| Pickup | 64 | 23.5 | 0 | 0.0 | 7 | 17.1 |
| Small Truck (under 10,000 lbs.) | 2 | 0.7 | 0 | 0.0 | 0 | 0.0 |
| Motorcycle | 2 | 0.7 | 0 | 0.0 | 2 | 4.9 |
| Moped | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Go Cart | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Snowmobile | 4 | 1.5 | 0 | 0.0 | 1 | 2.4 |
| Off Road Vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Other | 3 | 1.1 | 0 | 0.0 | 1 | 2.4 |
| Unknown | 4 | 1.5 | 0 | 0.0 | 2 | 4.9 |
| SUBTOTAL | 272 | 100.0 | 3 | 100.0 | 41 | 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 | 8 | 2.0 | 0 | 0.0 | 0 | 0.0 |
| 10,001 - 26,000 lbs | 144 | 35.6 | 0 | 0.0 | 10 | 21.3 |
| Greater than 26,000 lbs. | 250 | 61.9 | 4 | 100.0 | 37 | 78.7 |
| Uncoded & Errors | 2 | 0.5 | 0 | 0.0 | 0 | 0.0 |
| SUBTOTAL | 404 | 100.0 | 4 | 100.0 | 47 | 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 | 676 | --- | 7 | --- | 88 | --- |

# UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES (CONTINUED)

| DRIVER HAZARDOUS ACTION WHERE HAZARDOUS CITATION ISSUED | HEAVY TRUCK/BUS INVOLVED CRASH | | | | | | NON-HEAVY TRUCK/BUS INVOLVED CRASH | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Single Vehicle Crash | | Multi-Vehicle Crash | | | | Single Vehicle Crash | | Multi-Vehicle Crash | |
| | Number of Heavy Trucks | % of Total | Number of Heavy Trucks | % of Total | Number of Non-Heavy Truck Vehicles | % of Total | Number of Vehicles | % of Total | Number of Vehicles | % of Total |
| None | 0 | 0.0 | 0 | 0.0 | 1 | 2.7 | 7 | 1.7 | 2 | 0.2 |
| Speed too fast | 3 | 21.4 | 3 | 12.0 | 12 | 32.4 | 209 | 50.7 | 93 | 10.8 |
| Speed too slow | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| Failed to yield | 0 | 0.0 | 6 | 24.0 | 7 | 18.9 | 7 | 1.7 | 330 | 38.4 |
| Disregard traffic control | 1 | 7.1 | 3 | 12.0 | 0 | 0.0 | 0 | 0.0 | 84 | 9.8 |
| 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 | 0 | 0.0 | 1 | 0.2 | 15 | 1.7 |
| Improper passing | 0 | 0.0 | 2 | 8.0 | 0 | 0.0 | 0 | 0.0 | 11 | 1.3 |
| Improper lane use | 1 | 7.1 | 0 | 0.0 | 0 | 0.0 | 5 | 1.2 | 20 | 2.3 |
| Improper turn | 0 | 0.0 | 2 | 8.0 | 1 | 2.7 | 1 | 0.2 | 18 | 2.1 |
| Improper / no signal | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 1 | 0.1 |
| Improper backing | 0 | 0.0 | 1 | 4.0 | 0 | 0.0 | 0 | 0.0 | 17 | 2.0 |
| Unable to stop in assured clear distance | 1 | 7.1 | 4 | 16.0 | 9 | 24.3 | 15 | 3.6 | 158 | 18.4 |
| Reckless driving | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 14 | 3.4 | 9 | 1.0 |
| Careless / negligent driving | 4 | 28.6 | 3 | 12.0 | 3 | 8.1 | 121 | 29.4 | 65 | 7.6 |
| Other | 4 | 28.6 | 1 | 4.0 | 4 | 10.8 | 25 | 6.1 | 33 | 3.8 |
| Unknown | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 7 | 1.7 | 2 | 0.2 |
| CITED VEHICLES SUBTOTAL | 14 | 100.0 | 25 | 100.0 | 37 | 100.0 | 412 | 100.0 | 859 | 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 | 14 | 11.1 | 25 | 9.0 | 37 | 13.9 | 412 | 7.7 | 859 | 12.6 |
| Vehicles with No Citation Issued | 112 | 88.9 | 253 | 91.0 | 230 | 86.1 | 4,924 | 92.3 | 5,969 | 87.4 |
| Vehicles with Unknown Citation | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 | 0 | 0.0 |
| TOTAL VEHICLES INVOLVED | 126 | 100.0 | 278 | 100.0 | 267 | 100.0 | 5,336 | 100.0 | 6,828 | 100.0 |

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# OCCUPANT/PERSON

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

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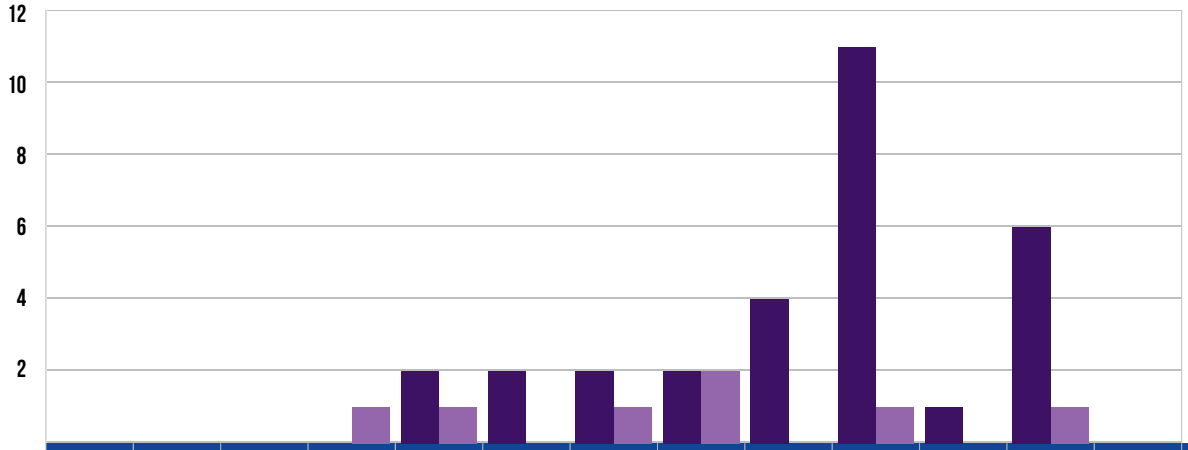
# UPPER PENINSULA AGE AND GENDER OF OCCUPANTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

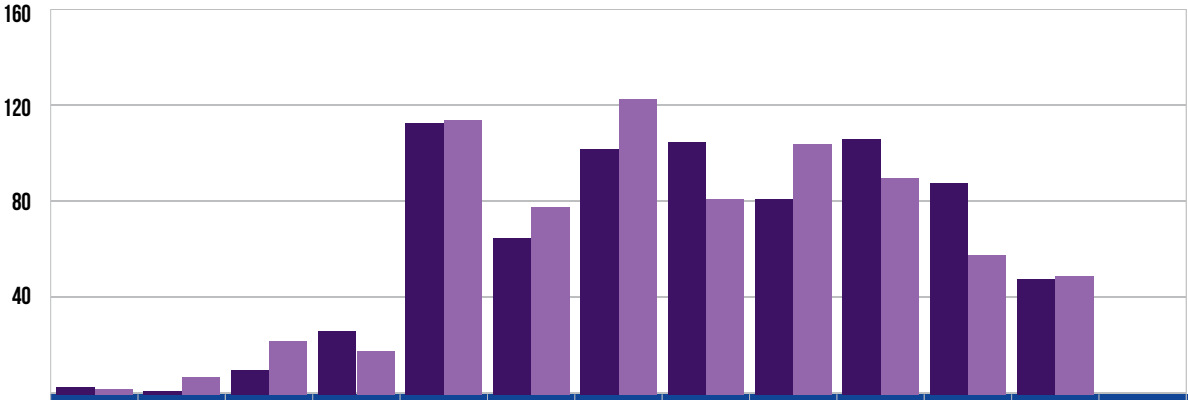
## OCCUPANTS KILLED




| | UNDER 1 YEAR OLD | 1-3 YEARS | 4-10 YEARS | 11-15 YEARS | 16-20 YEARS | 21-24 YEARS | 25-34 YEARS | 35-44 YEARS | 45-54 YEARS | 55-64 YEARS | 66-74 YEARS | 75 YEARS AND OVER | UNKNOWN | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MALES KILLED | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 4 | 11 | 1 | 6 | 0 | 30 |
| FEMALES KILLED | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 0 | 1 | 0 | 1 | 0 | 7 |
| TOTAL | 0 | 0 | 0 | 1 | 3 | 2 | 3 | 4 | 4 | 12 | 1 | 7 | 0 | 37 |

The majority (81.1%) of occupants killed in traffic crashes in 2019 were male.

## OCCUPANTS INJURED



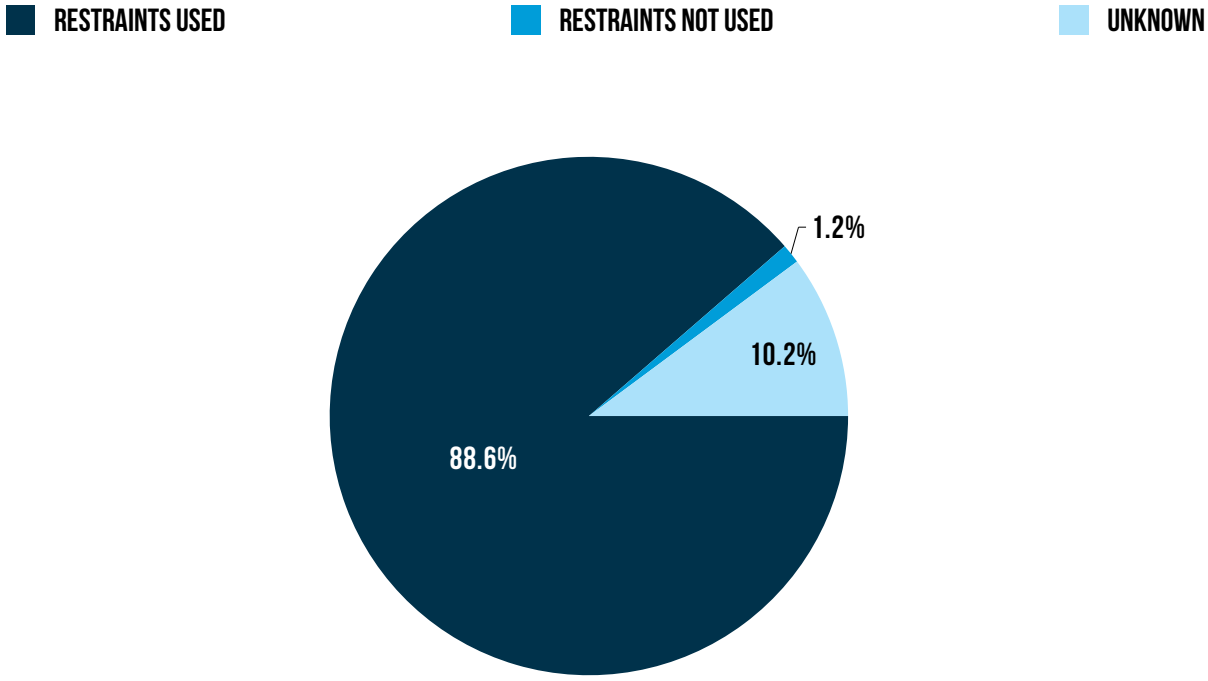

| | UNDER 1 YEAR OLD | 1-3 YEARS | 4-10 YEARS | 11-15 YEARS | 16-20 YEARS | 21-24 YEARS | 25-34 YEARS | 35-44 YEARS | 45-54 YEARS | 55-64 YEARS | 66-74 YEARS | 75 YEARS AND OVER | UNKNOWN | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MALES INJURED | 3 | 1 | 10 | 26 | 113 | 65 | 102 | 105 | 81 | 106 | 88 | 48 | 0 | 748 |
| FEMALES INJURED | 2 | 7 | 22 | 18 | 114 | 78 | 123 | 81 | 104 | 90 | 58 | 49 | 0 | 746 |
| UNKNOWN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 5 | 8 | 32 | 44 | 227 | 143 | 225 | 186 | 185 | 196 | 146 | 97 | 0 | 1,494 |

A slight majority (50.1%) of occupants injured in traffic crashes in 2019 were male.

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

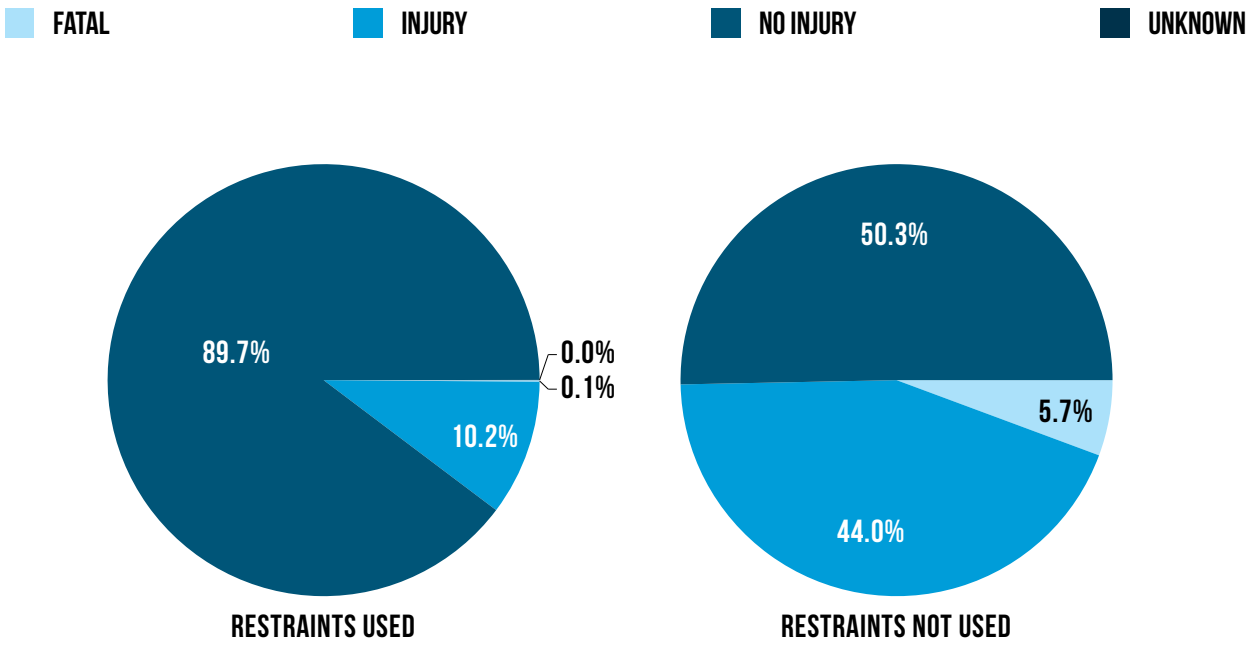
# UPPER PENINSULA REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

## REPORTED OCCUPANT RESTRAINT USAGE




Of the 13,167 drivers and injured passengers involved in crashes in the Upper Peninsula, 11,670 (88.6%) were REPORTED to be using occupant restraints.

## INJURY SEVERITY




Occupants in crashes were 47 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 OCCUPANTS & INJURY SEVERITY BY SEATING POSITION AND KNOWN BELT USAGE

| SEATING POSITION | BELTS USED * | | FATAL | INJURY | | | NO INJURY |
|---|---|---|---|---|---|---|---|
| | Number | % of Total | | A | B | C | |
| Left Front | 11,328 | 97.3 | 11 | 88 | 203 | 576 | 10,450 |
| Center Front | 18 | 0.2 | 0 | 1 | 2 | 4 | 11 |
| Right Front | 233 | 2.0 | 3 | 27 | 58 | 140 | 5 |
| Left Rear Second Seat | 27 | 0.2 | 0 | 2 | 9 | 16 | 0 |
| Center Rear Second Seat | 5 | 0.0 | 0 | 0 | 1 | 4 | 0 |
| Right Rear Second Seat | 21 | 0.2 | 0 | 2 | 5 | 14 | 0 |
| Left Rear Third Seat | 2 | 0.0 | 0 | 0 | 1 | 1 | 0 |
| Center Rear Third Seat | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Right Rear Third Seat | 2 | 0.0 | 0 | 0 | 1 | 1 | 0 |
| Left Rear Fourth Seat | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Center Rear Fourth Seat | 1 | 0.0 | 0 | 0 | 0 | 1 | 0 |
| Right Rear Fourth Seat | 1 | 0.0 | 0 | 0 | 0 | 1 | 0 |
| Other Passenger Area | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 5 | 0.0 | 0 | 0 | 2 | 0 | 3 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL † | 11,643 | 100.0 | 14 | 120 | 282 | 758 | 10,469 |

* 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 two occupants with unknown injury severity.

| SEATING POSITION | BELTS NOT USED * | | FATAL | INJURY | | | NO INJURY |
|---|---|---|---|---|---|---|---|
| | Number | % of Total | | A | B | C | |
| Left Front | 109 | 68.6 | 6 | 9 | 16 | 7 | 71 |
| Center Front | 3 | 1.9 | 0 | 0 | 1 | 0 | 2 |
| Right Front | 25 | 15.7 | 1 | 6 | 8 | 9 | 1 |
| Left Rear Second Seat | 3 | 1.9 | 0 | 1 | 1 | 1 | 0 |
| Center Rear Second Seat | 2 | 1.3 | 0 | 0 | 1 | 1 | 0 |
| Right Rear Second Seat | 10 | 6.3 | 2 | 5 | 2 | 1 | 0 |
| Left Rear Third Seat | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Center Rear Third Seat | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Right Rear Third Seat | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Left Rear Fourth Seat | 1 | 0.6 | 0 | 0 | 1 | 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 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Unknown | 6 | 3.8 | 0 | 0 | 0 | 0 | 6 |
| Uncoded & Errors | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 159 | 100.0 | 9 | 21 | 30 | 19 | 80 |

* 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 USAGE - 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 | 20.0 | 0 | 0 | 1 | 0 |
| Child Restraint Used - Rear Facing | 4 | 80.0 | 0 | 0 | 0 | 4 |
| 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 1** | | | | | | |
| Belts Used | 0 | 0.0 | 0 | 0 | 0 | 0 |
| No Belts Used | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Child Restraint Used - Forward Facing | 3 | 75.0 | 0 | 0 | 2 | 1 |
| Child Restraint Used - Rear Facing | 1 | 25.0 | 0 | 0 | 0 | 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 | 4 | 100.0 | 0 | 0 | 2 | 2 |
| **AGE 2** | | | | | | |
| Belts Used | 1 | 50.0 | 0 | 0 | 0 | 1 |
| No Belts Used | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Child Restraint Used - Forward Facing | 1 | 50.0 | 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 | 2 | 100.0 | 0 | 0 | 0 | 2 |

# 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 | 100.0 | 0 | 1 | 1 | 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 | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Unknown | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Total | 2 | 100.0 | 0 | 1 | 1 | 0 |
| **AGE 4-7** | | | | | | |
| Belts Used | 9 | 47.4 | 0 | 1 | 5 | 3 |
| No Belts Used | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Child Restraint Used - Forward Facing | 7 | 36.8 | 0 | 0 | 3 | 4 |
| Child Restraint Used - Rear Facing | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Child Restraint Used - Booster Seat | 3 | 15.8 | 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 | 19 | 100.0 | 0 | 1 | 9 | 9 |
| **AGE 8-15** | | | | | | |
| Belts Used | 38 | 88.4 | 0 | 3 | 8 | 27 |
| No Belts Used | 3 | 7.0 | 1 | 0 | 2 | 0 |
| Child Restraint Used - Forward Facing | 1 | 2.3 | 0 | 0 | 0 | 1 |
| Child Restraint Used - Rear Facing | 0 | 0.0 | 0 | 0 | 0 | 0 |
| Child Restraint Used - Booster Seat | 1 | 2.3 | 0 | 1 | 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 | 43 | 100.0 | 1 | 4 | 10 | 28 |

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.*

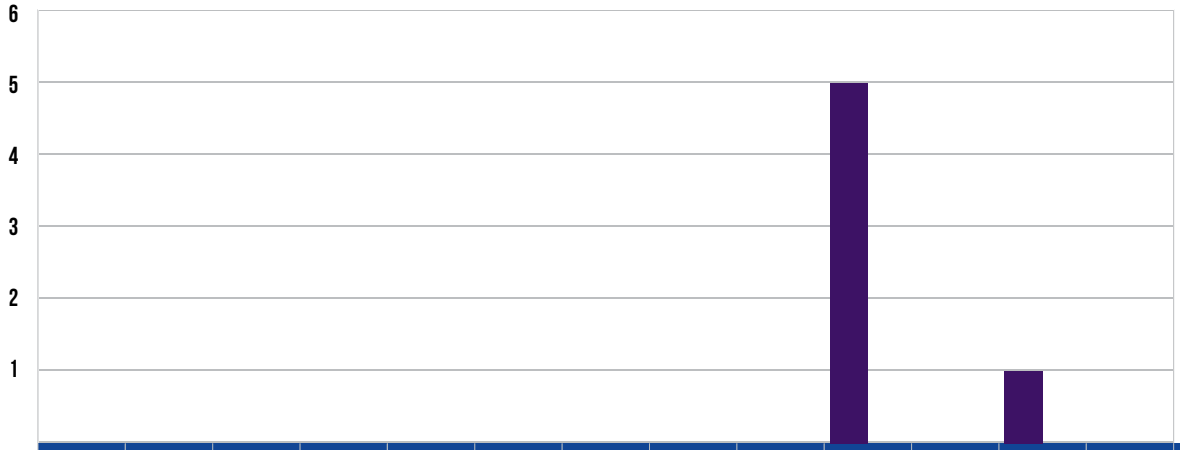
# UPPER PENINSULA MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

| MOTOR VEHICLE OCCUPANT AIRBAG DEPLOYMENT | OCCUPANTS* | | FATAL | OCCUPANT INJURY SEVERITY | | | NO INJURY |
|---|---|---|---|---|---|---|---|
| | Number | % of Total | | A | B | C | |
| Deployed - front | 805 | 6.0 | 7 | 51 | 85 | 194 | 467 |
| Deployed - side | 130 | 1.0 | 1 | 6 | 11 | 26 | 86 |
| Deployed - curtain | 83 | 0.6 | 0 | 2 | 10 | 18 | 53 |
| Deployed - combination | 352 | 2.6 | 2 | 34 | 65 | 90 | 161 |
| Deployed - other | 4 | 0.0 | 0 | 1 | 1 | 0 | 2 |
| Not deployed | 10,734 | 79.9 | 13 | 55 | 141 | 461 | 10,060 |
| Not equipped | 436 | 3.2 | 12 | 75 | 73 | 67 | 209 |
| Unknown | 860 | 6.4 | 2 | 6 | 8 | 12 | 87 |
| Uncoded & Errors | 27 | 0.2 | 0 | 0 | 0 | 2 | 1 |
| TOTAL | 13,431 | 100.0 | 37 | 230 | 394 | 870 | 11,126 |

**Includes 774 occupants (drivers and passengers) with unknown injury severity.*

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

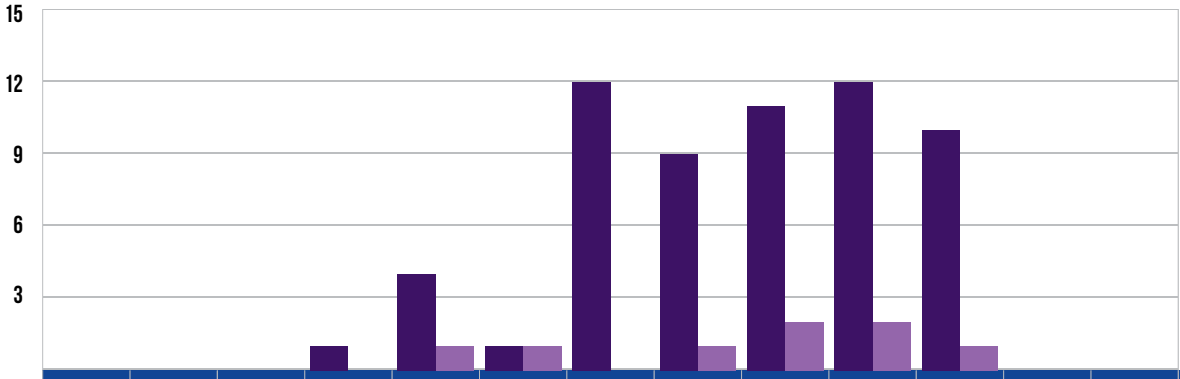
## MOTORCYCLISTS KILLED




| | 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 | 66-74 YEARS | 75 YEARS AND OVER | UNKNOWN | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MALES KILLED | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 6 |
| FEMALES KILLED | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 1 | 0 | 6 |

All six motorcyclists killed in traffic crashes in the Upper Peninsula in 2019 were male.

## 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 | 66-74 YEARS | 75 YEARS AND OVER | UNKNOWN | TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MALES INJURED | 0 | 0 | 0 | 1 | 4 | 1 | 12 | 9 | 11 | 12 | 10 | 0 | 0 | 60 |
| FEMALES INJURED | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 8 |
| UNKNOWN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL | 0 | 0 | 0 | 1 | 5 | 2 | 12 | 10 | 13 | 14 | 11 | 0 | 0 | 68 |

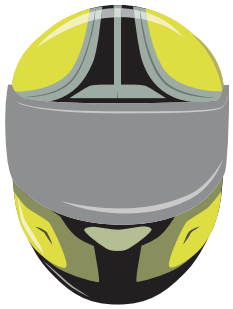
Of the 68 motorcyclists injured in traffic crashes in the Upper Peninsula in 2019, 88.2 percent were male.

# 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 | 2 | 1 | 1 | 1 |
| 21 - 24 years | 0 | 0 | 2 | 0 | 1 |
| 25 - 34 years | 0 | 1 | 1 | 3 | 4 |
| 35 - 44 years | 0 | 2 | 3 | 2 | 2 |
| 45 - 54 years | 0 | 3 | 2 | 1 | 7 |
| 55 - 64 years | 2 | 6 | 3 | 2 | 6 |
| 65 - 74 years | 0 | 7 | 2 | 0 | 3 |
| 75 years and over | 0 | 0 | 0 | 0 | 1 |
| Unknown | 0 | 0 | 0 | 0 | 0 |
| Subtotal | 2 | 21 | 15 | 9 | 25 |
| **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 | 1 | 0 | 0 | 0 |
| 21 - 24 years | 0 | 0 | 0 | 0 | 0 |
| 25 - 34 years | 0 | 3 | 1 | 3 | 2 |
| 35 - 44 years | 0 | 1 | 1 | 0 | 3 |
| 45 - 54 years | 0 | 3 | 3 | 1 | 3 |
| 55 - 64 years | 3 | 1 | 2 | 0 | 0 |
| 65 - 74 years | 0 | 0 | 2 | 0 | 0 |
| 75 years and over | 1 | 0 | 0 | 0 | 0 |
| Unknown | 0 | 0 | 0 | 0 | 0 |
| Subtotal | 4 | 9 | 9 | 4 | 8 |
| **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 | 0 |
| 21 - 24 years | 0 | 0 | 0 | 0 | 0 |
| 25 - 34 years | 0 | 0 | 0 | 0 | 1 |
| 35 - 44 years | 0 | 0 | 1 | 0 | 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 |
| Subtotal | 0 | 0 | 1 | 0 | 1 |
| TOTAL | 6 | 30 | 25 | 13 | 34 |

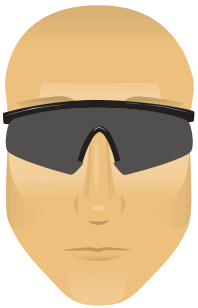
2011 Michigan motor vehicle crash data represents the last full year of data that was collected during Michigan's universal helmet law, enacted in 1969: Michigan Vehicle Code Public Act 300 of 1949, Section 257.658, requiring all motorcycle riders to wear a helmet. On April 13, 2012, Michigan changed 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: 4
PASSENGERS KILLED: 0

### HELMET USE UNKNOWN


DRIVERS KILLED: 0
PASSENGERS KILLED: 0

# UPPER PENINSULA OCCUPANT INJURY OUTCOME BY VEHICLE TYPE

| VEHICLE | KILLED | INJURY | | | TOTAL KABC | % OF ALL CRASH INVOLVED KABC OCCUPANTS |
|---|---|---|---|---|---|---|
| | | A | B | C | | |
| Passenger car, SUV, van | 21 | 112 | 254 | 672 | 1,059 | 69.2 |
| Motor home | 0 | 1 | 1 | 0 | 2 | 0.1 |
| Pickup truck | 2 | 39 | 77 | 144 | 262 | 17.1 |
| Small Truck under 10,000 lbs. GVWR | 0 | 0 | 0 | 2 | 2 | 0.1 |
| Motorcycle | 6 | 30 | 25 | 13 | 74 | 4.8 |
| Moped/goped | 0 | 0 | 1 | 4 | 5 | 0.3 |
| Go-cart/golf cart | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Snowmobile | 5 | 23 | 16 | 21 | 65 | 4.2 |
| Off-Road Vehicle - ORV/All-Terrain Vehicle - ATV | 2 | 23 | 14 | 9 | 48 | 3.1 |
| Other | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Unknown | 0 | 0 | 0 | 0 | 0 | 0.0 |
| CDL Truck/Bus (breakdown below) | 1 | 2 | 6 | 5 | 14 | 0.9 |
| Total Number of Occupants | 37 | 230 | 394 | 870 | 1,531 | 100.0 |

| HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING | KILLED | INJURY | | | TOTAL KABC | % OF ALL CRASH INVOLVED KABC OCCUPANTS |
|---|---|---|---|---|---|---|
| | | A | B | C | | |
| 10,000 lbs. or less | 0 | 0 | 0 | 0 | 0 | 0.0 |
| 10,001 - 26,000 lbs. | 0 | 0 | 2 | 1 | 3 | 21.4 |
| Greater than 26,000 lbs. | 1 | 2 | 4 | 4 | 11 | 78.6 |
| Uncoded & Errors | 0 | 0 | 0 | 0 | 0 | 0.0 |
| Total Number of Occupants | 1 | 2 | 6 | 5 | 14 | 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: 2010-2019. Population Division, U.S. Census Bureau. Release Date: July 2020. https://www.census.gov/programs-surveys/popest.html

[2] Number of Deaths by Underlying Cause of Death Michigan Residents, 2018. 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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