MTCF

Michigan Traffic Crash Facts

UPPER PENINSULA

2021

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 2021

MichiganTrafficCrashFacts.org

PRODUCED BY:

Michigan Department of State Police
Criminal Justice Information Center-Traffic Crash Statistics
Michigan.gov/cjic

Michigan Office of Highway Safety Planning
Michigan.gov/ohsp

University of Michigan Transportation Research Institute
umtri.umich.edu

ACKNOWLEDGEMENTS

The creation of this book could not have been made possible without the dedication, planning, guidance, and knowledge of the following organizations and departments:

Criminal Justice Information Center

Fatality Analysis Reporting System

Michigan Department of State Police

Michigan Department of State

Michigan Department of Transportation

Michigan Office of Highway Safety Planning

University of Michigan Transportation Research Institute

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

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 1952-2021.

Special Note:

The Michigan Office of Highway Safety Planning and the University of Michigan Transportation Research Institute would like to acknowledge the differences in traffic and commuting patterns in 2020 due to the COVID-19 pandemic. Travel restrictions from the "Stay Home, Stay Safe" Executive Order (EO 2020-21) were initially in place starting on March 24, 2020. That order was then extended through additional executive orders. The stay-at-home order was officially lifted June 1, 2020.

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).

DATA ELEMENTS WITH CHANGES FOR 2021 DATA

Driver Aggressive – This filter has been newly generated for all years of crash data based on **Hazardous Action** codes. These codes include: "speed too fast," "failed to yield," "disregard traffic control," "improper passing," "improper lane use," "unable to stop in assured clear distance," "reckless driving," and "careless/negligent driving."

Automation System Present in Vehicle (2021+) – This filter is new for 2021 data and indicates whether any automation system is present. All counts for years prior to 2021 have been coded to "Uncoded & errors." This filter is based on what is reported by the police officer at the time of the crash.

Automation System Level in Vehicle (2021+) – This filter is new for 2021 data and indicates the highest level of automation the vehicle is equipped with (0-5). All counts for years prior to 2021 have been coded to "Uncoded & errors." This filter is based on what is reported by the police officer at the time of the crash.

Automation System Level Engaged at Time of Crash (2021+) – This filter is new for 2021 data and indicates the highest level of automation that was active or engaged by the vehicle at the time of the crash (0-5). All counts for years prior to 2021 have been coded to "Uncoded & errors." This filter is based on what is reported by the police officer at the time of the crash.

Person Race (2021+) – This filter is new for 2021 data. All counts for years prior to 2021 have been coded to "Uncoded & errors." This filter is based on what is reported by the police officer at the time of the crash and is not based on driver's license data.

Rural/Urban (2016+) – This filter is new for 2016 data beginning with the 2021 data release and was generated using Census tract data. All counts for years prior to 2016 have been coded to "Uncoded & errors."

Test Result – Cannabinoid (2021+) – This filter is new for 2021 data and indicates whether or not a positive cannabinoid test result was reported. All counts for years prior to 2021 have been coded to "Uncoded & errors." This filter is derived from any cannabinoid test results from **Test Result – Drug**, **Test Result – Drug 2**, or **Test Result – Drug 3**.

Test Result – Drug 1 (2021+) – This filter is new for 2021 data and indicates the first drug test result reported. All counts for years prior to 2021 have been coded to "Uncoded & errors."

Test Result – Drug 2 (2021+) – This filter is new for 2021 data and indicates the second drug test result reported if multiple drugs are present. All counts for years prior to 2021 have been coded to "Uncoded & errors."

Test Result – Drug 3 (2021+) – This filter is new for 2021 data and indicates the third drug test result reported if multiple drugs are present. All counts for years prior to 2021 have been coded to "Uncoded & errors."

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

UD-10 (FRONT)

Authority: 1949 PA 300, Sec.257.622
Compliance: Required MSP UD-10E
Penalty: $100 and/or 90 days (Rev 11/2020)

External # Crash ID

Pag e01 of 01
File Class
Incident #
Reviewer

STATE OF MICHIGAN TRAFFIC CRASH REPORT

ORI | Department Name

Crash Date | Crash Time | No. of Units | Crash Type | Special Circumstances: O None O Fleeing Police O Hit and Run O Unknown O School Bus O Animal | Special Checks: O Fatal O Non-Traffic Area O ORV/Snowmobile

County | Traffic Control | Relation to Roadway | Weather | Area

City/Twsp | Contributing Circumstances 1st 2nd | Light | Road Surface Condition | Total Lanes | Speed Limit | Posted

Work Zone (if applicable) Type | Workers Present | Activity | Location

LOCATION

Prefix | Primary Road Name | Road Type | Suffix | Divided Roadway

Distance / Direction | Trafficway

Prefix | Intersecting Road Name | Road Type | Suffix | Divided Roadway

UNIT/DRIVER

Unit Number 00 | Unit Known | State Driver License Number | Date of Birth (Age) | License Typ: O Operator O Chauffeur O Moped | eEndorsements: O Cycle O Farm O Recreation | Sex | Race | Total Occupants | Hazardous Action

Unit Type | Driver Information | Driver is Owner | Injury | Position | Restraint

Driver Condition at Time of Crash 1st 2nd | Driver Distracted By | Ejected | Trapped | Airbag Deployed

Hospital | Ambulance

Alcohol Suspected | Contributing Factor | Alcohol Test Type: O Breath O Blood O Urine O Field O PBT O Refused O Not Offered | Alcohol Test Results: O Pending Test Results: | Interlock Device

Drug Suspected | Contributing Factor | Drug Test Type: O Blood O Urine O Field O Refused O Not Offered | Drug Test Results: O Pending Test Results: | Citation Issued: O Hazardous O Other

Vehicle Registration | State | Vehicle Description Year Make Model Color

VIN | Vehicle Type | Special Vehicles | Private Trailer Type | Vehicle Defect

Automation System(s) in Vehicle | Automation System Level in Vehicle | Automation System Level Engaged at Time of Crash

Insurance Company | Insurance Policy # | Towed By | Towed To

Location of Greatest Damage | First Impact | Extent of Damage (Power Unit and/or Trailers) | Vehicle Direction | Vehicle Use | Action Prior

Sequence of Events (● indicates MOST harmful event) First Second Third Fourth

PASSENGERS

Passenger Information | Date of Birth (Age) | Sex | Race | Position | Restraint

Injury | Ejected | Trapped | Airbag Deployed

Hospital | Ambulance

Passenger Information | Date of Birth (Age) | Sex | Race | Position | Restraint

Injury | Ejected | Trapped | Airbag Deployed

Hospital | Ambulance

TRUCK/BUS

Carrier Information | USDOT | MC | MPSC

Driver's CDL Type | Endorsements: O H O P O T O N O S O X | CDL Exempt: O Farm O Other

GVWR/GCWR: O 10,000 lbs. or Less O 10,001 - 26,000 lbs. O Greater than 26,000 lbs. | Vehicle Configuration | Cargo Body Type | Medical Card | Hazardous Material: O Placard O Cargo Spill | ID # | Class #

OWNERS

Owner Information | Owner Information

Damaged Property | Public | Owner & Phone

UD-10 (BACK)

UNIT/DRIVER

Unit Number	Unit Known	State Driver License Number	Date of Birth (Age)	License Type / Endorsements	Sex	Race	Total Occupants	Hazardous Action
00				○ Operator ○ Chauffeur ○ Moped / ○ Cycle ○ Farm ○ Recreation				

Unit Type	Driver Information	Driver is Owner	Injury	Position	Restraint

Driver Condition at Time of Crash (1st / 2nd)	Driver Distracted By	Ejected	Trapped	Airbag Deployed

Hospital	Ambulance

Alcohol Suspected	Contributing Factor	Alcohol Test Type	Alcohol Test Results	Interlock Device
		○ Breath ○ Blood ○ Urine ○ Field ○ PBT ○ Refused ○ Not Offered	○ Pending Test Results:	

Drug Suspected	Contributing Factor	Drug Test Type	Drug Test Results	Citation Issued
		○ Blood ○ Urine ○ Field ○ Refused ○ Not Offered	○ Pending Test Results:	○ Hazardous ○ Other

Vehicle Registration	State	Vehicle Description (Year / Make / Model / Color)

VIN	Vehicle Type	Special Vehicles	Private Trailer Type	Vehicle Defect

Automation System(s) in Vehicle	Automation System Level in Vehicle	Automation System Level Engaged at Time of Crash

Insurance Company	Insurance Policy #	Towed By	Towed To

Location of Greatest Damage	First Impact	Extent of Damage (Power Unit and/or Trailers)	Vehicle Direction	Vehicle Use	Action Prior

Sequence of Events (● indicates MOST harmful event)	First	Second	Third	Fourth

PASSENGERS

Passenger Information	Date of Birth (Age)	Sex	Race	Position	Restraint

Injury	Ejected	Trapped	Airbag Deployed

Hospital	Ambulance

Passenger Information	Date of Birth (Age)	Sex	Race	Position	Restraint

Injury	Ejected	Trapped	Airbag Deployed

Hospital	Ambulance

TRUCK/BUS

Carrier Information	USDOT	MC	MPSC

Driver's CDL Type / Endorsements	CDL Exempt
○ H ○ P ○ T ○ N ○ S ○ X	○ Farm ○ Other

GVWR/GCWR	Vehicle Configuration	Cargo Body Type	Medical Card	Hazardous Material	ID #	Class #
○ 10,000 lbs. or Less ○ 10,001 - 26,000 lbs. ○ Greater than 26,000 lbs.				○ Placard ○ Cargo Spill		

OWNERS

Owner Information	Owner Information

WITNESS

Witness Information	Witness Information

Investigated at Scene	Reported Date (Time)	1st Investigator Name (Badge)	2nd Investigator Name (Badge)	Photos

Narrative	Diagram

MICHIGAN VEHICLE CODE

Public Act 300 of 1949

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

MCL 257.622, Amended 2003 - The driver of a motor vehicle involved in an accident that injures or kills any person, or that damages property to an apparent extent totaling $1,000.00 or more, shall immediately report that accident at the nearest or most convenient police station, or to the nearest or most convenient police officer. The officer receiving the report, or his or her commanding officer, shall immediately forward each report to the director of the Department of State Police on forms prescribed by the director of the Department of State Police (*State of Michigan Traffic Crash Report, also known as the UD-10*). The forms shall be completed in full by the investigating officer. The director of the Department of State Police shall analyze each report relative to the cause of the reported accident and shall prepare information compiled from reports filed under this section for public use. A copy of the report under this section . . . shall be retained for at least three years at the local police department, sheriff's department, or local state police post making the report. (*As the repository of the UD 10s submitted by all Michigan law enforcement agencies, the Department of State Police processes all UD-10s received at the Criminal Justice Information Center (CJIC). CJIC retains an electronic copy of UD-10s for 10 years plus the current processing year. Electronic databases containing information from UD-10s prior to this time period are purged.*)

MCL 257.624, Amended 1980 - (1) A report required by this chapter shall not be available for use in a court action, but a report shall be for the purpose of furnishing statistical information regarding the number and cause of accidents.

(2) The Office of Highway Safety Planning (OHSP) may authorize scientific studies and research for the reduction of death, injury, and property losses. All information, records of interviews, written reports, statements, notes, memoranda, or other data collected pursuant to the scientific studies and research conducted by the state, or by other persons, agencies, or organizations authorized by OHSP shall be used solely for the purpose of medical or scientific research and shall not disclose the name or identity of a person unless the person authorizes, in writing, the use of his or her name or identity. If a subject of the research study is deceased, the executor or heir of the deceased person may authorize, in writing, the disclosure of the deceased's name or identity. The furnishing of information to OHSP or to a representative of an authorized study or research project shall not subject a person, hospital, sanitarium, rest home, nursing home, or other person or agency furnishing the information to any action for damages or other relief. The information, records, reports, statements, notes, memoranda, or other data shall not be admissible as evidence in a court or before any other tribunal, board, agency, or person. A person participating in an authorized study or research project shall not disclose, directly or indirectly, the information so obtained except in strict conformity with the research project.

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**
- **KABCO** — **Injury severity scale for traffic crash-related injuries:**
  - **K** - Fatal
  - **A** - Suspected Serious
  - **B** - Suspected Minor
  - **C** - Possible
  - **O** - No Injury

  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.

ABBREVIATIONS & ACRONYMS (CONTINUED)

- **ORV** — **Off-Road Vehicle**
- **OWI** — **Operating While Intoxicated**
  Refers to a person who is driving a vehicle while either under the influence of alcohol, a controlled substance, or both; OR has a BAC of .08 or greater.
- **PDO** — **Property Damage Only**
  Refers to a traffic crash lacking personal injuries.
- **UD-10** — Form number ascribed to the **Michigan Traffic Crash Report form**; the official document used to report traffic crashes in Michigan.
- **UMTRI** — **University of Michigan Transportation Research Institute**
- **USDOT** — **United States Department of Transportation**
- **VMT** — **Vehicle Miles Traveled**
  The estimated total number of miles traveled annually by motor vehicles on Michigan trafficways

GLOSSARY

- **Access Control -** Indicates the degree 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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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

UPPER PENINSULA 2021 QUICK FACTS

- Some exposure factor comparisons between 2021 and 2020 show motor vehicle registrations increased by a count of 24,854 (9.3%), the number of licensed drivers on Upper Peninsula roads increased 1.2 percent, and vehicle mileage increased 14.9 percent.

- The 2021 fatality rate of 1.27 deaths per 100 million miles of travel is an increase from the 2020 fatality rate of 1.16 and is higher than the 10-year average of 1.05 (2012-2021).

- There were 44 people killed and 1,442 people injured in 7,990 reported motor vehicle traffic crashes in the Upper Peninsula during 2021. Compared with the 2020 experience, the number of deaths increased 25.7 percent, people injured increased 3.2 percent, and total reported crashes increased 8.3 percent.

- There were 7,990 reported crashes, of which 41 were fatal, 1,065 were personal injury, and 6,884 were property damage only crashes.

- Of all fatal crashes, 17.1 percent occurred at intersections.

- Of all fatal crashes, 29.3 percent involved at least one drinking operator, bicyclist, or pedestrian, 12.2 percent involved drinking but no drugs, 14.6 percent involved drugs but no drinking, and 17.1 percent involved both drinking and drugs.

- Excessive speed was indicated as the hazardous action for 11.1 percent of the drivers involved in fatal crashes.

- Of the 7,990 total crashes in 2021, 5,035 (63.0%) involved one vehicle only. This is an increase of 5.0 percent from last year's count of 4,797 single-vehicle crashes.

- Of the 41 fatal crashes, 17 (41.5%) involved one vehicle.

- Of the 12 alcohol-involved fatal crashes, nine (75.0%) involved one vehicle.

- Of the 72 drivers involved in fatal crashes, six (8.3%) were under 21 years of age and nine (12.5%) were under 25 years of age.

- Of the 301,396 people living in the Upper Peninsula [1. References and Reporting Agencies] one out of every 6,850 was killed in a traffic crash and one out of every 209 was injured.

- For each person killed, 33 were injured.

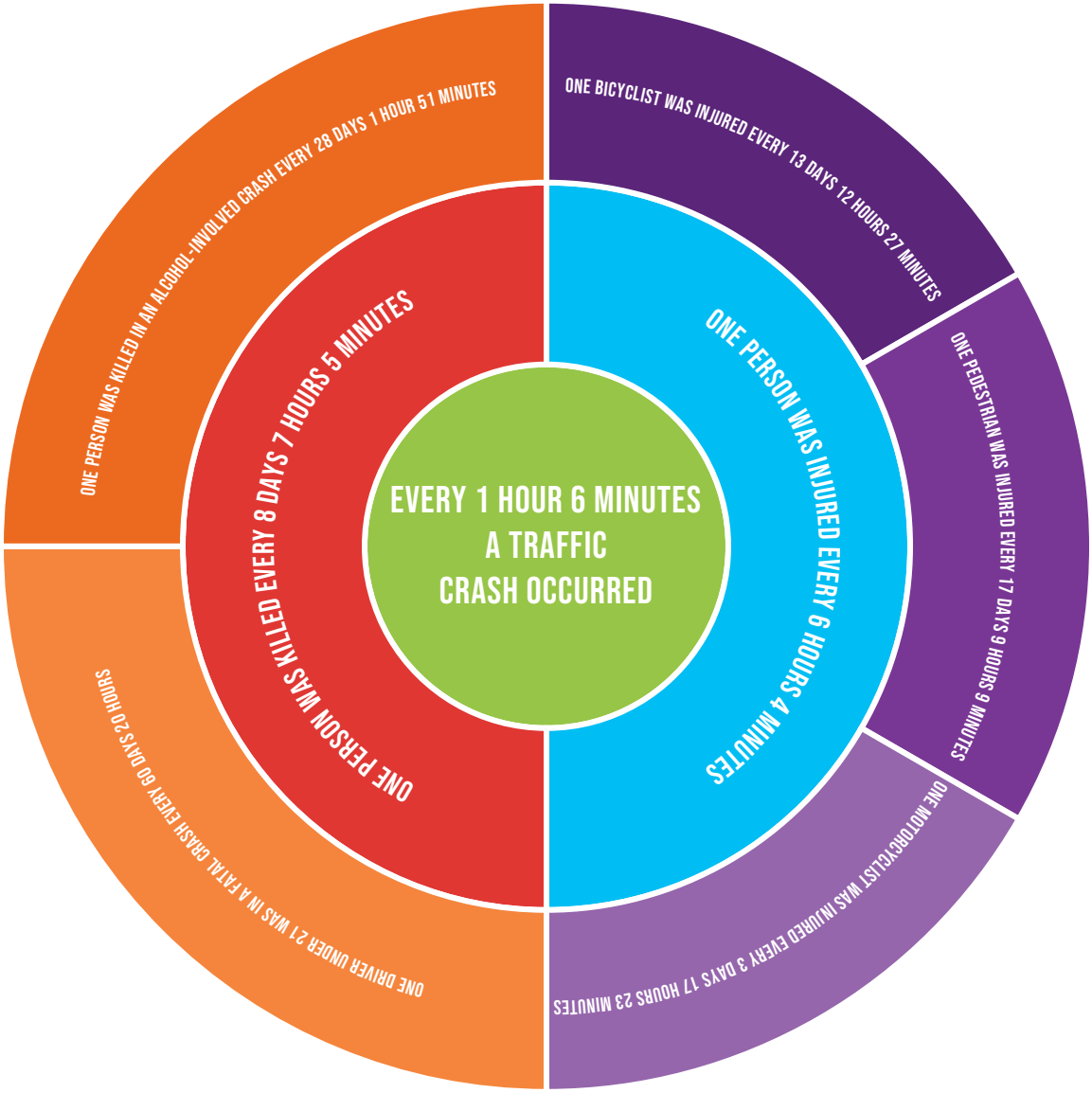
- There were three pedestrian deaths in the Upper Peninsula in 2021. Twenty-one pedestrians were injured.

- There were no bicyclist fatalities and 27 bicyclists were injured.

- Of the 10,057 drivers and injured passengers involved in crashes where restraint use was known, 9,815 or 97.6 percent were reported to have been using occupant restraints. Restraint usage among fatal victims, where usage was known, was reported to be 50.0 percent in 2021.

- The comprehensive costs in the Upper Peninsula traffic crashes amounted to $1,096,296,000.

UPPER PENINSULA MICHIGAN CRASH WATCH 2021



HISTORICAL INFORMATION

UPPER PENINSULA 2020-2021 SUMMARY TRENDS: 1 YEAR TRENDS

	2020	2021	PERCENT OF CHANGE
NUMBER OF CRASHES			
Fatal Crashes	32	41	28.1
Personal Injury Crashes	1,050	1,065	1.4
Property Damage Crashes	6,296	6,884	9.3
TOTAL	7,378	7,990	8.3
ALCOHOL-INVOLVED CRASHES			
Fatal Crashes	12	12	0.0
Personal Injury Crashes	151	124	-17.9
Property Damage Crashes	181	189	4.4
TOTAL	344	325	-5.5
FATAL CRASHES			
Had Been Drinking	12 (37.5%)	12 (29.3%)	0.0
Had Not Been Drinking / Not Known If Drinking	20 (62.5%)	29 (70.7%)	45.0
PEOPLE IN CRASHES			
Killed	35	44	25.7
Injured	1,397	1,442	3.2
Not Injured	9,855	10,893	10.5
Unknown Injury	522	646	23.8
TOTAL	11,809	13,025	10.3
PEOPLE IN ALCOHOL-INVOLVED CRASHES			
Killed	13	13	0.0
Injured	184	170	-7.6
Not Injured	297	313	5.4
Unknown Injury	44	32	-27.3
TOTAL	538	528	-1.9
PEOPLE INJURED BY GENDER			
Male	737	749	1.6
Female	660	693	5.0
Unknown Gender	0	0	0.0
TOTAL	1,397	1,442	3.2
PEOPLE INJURED BY SEVERITY			
A Injury	249	239	-4.0
B Injury	402	428	6.5
C Injury	746	775	3.9
TOTAL	1,397	1,442	3.2

The Upper Peninsula experienced a 8.3 percent increase in crashes, a 25.7 percent increase in traffic fatalities, and a 3.2 percent increase in injuries. People sustaining A level injuries (the most serious) decreased 4.0 percent.

UPPER PENINSULA 2020-2021 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

	2020	2021	PERCENT OF CHANGE
PEOPLE KILLED BY GENDER			
Male	26	28	7.7
Female	9	16	77.8
TOTAL	35	44	25.7
PEOPLE KILLED			
Motor Vehicle Driver	25	35	40.0
Passenger	7	6	-14.3
Bicyclist	2	0	-100.0
Pedestrian	1	3	200.0
Train Engineer	0	0	0.0
TOTAL	35	44	25.7
BELT RESTRAINT USE BY DRIVER			
Reported Restrained – Killed	8	12	50.0
Reported Not Restrained – Killed	10	12	20.0
Reported Restrained – Injured	760	767	0.9
Reported Not Restrained – Injured	49	50	2.0
BELT AND CHILD RESTRAINT USE BY INJURED PASSENGER			
Reported Restrained – Killed	2	4	100.0
Reported Not Restrained – Killed	2	1	-50.0
Reported Restrained – Injured	262	267	1.9
Reported Not Restrained – Injured	36	41	13.9
DRIVER AGE 16-20 INVOLVED			
Fatal Crashes	1	6	500.0
Personal Injury Crashes	178	209	17.4
Property Damage Crashes	862	982	13.9
TOTAL ALL CRASHES	1,041	1,197	15.0
People Killed	1	6	500.0
People Injured	246	294	19.5
DRIVER AGE 65 & OVER INVOLVED			
Fatal Crashes	11	11	0.0
Personal Injury Crashes	232	255	9.9
Property Damage Crashes	1,140	1,393	22.2
TOTAL ALL CRASHES	1,383	1,659	20.0
People Killed	12	11	-8.3
People Injured	339	368	8.6

Deaths among vehicle occupants (drivers and passengers only) increased 28.1 percent.

UPPER PENINSULA 2020-2021 SUMMARY TRENDS: 1 YEAR TRENDS (CONTINUED)

	2020	2021	PERCENT OF CHANGE
CRASH FACTS			
Licensed Drivers	217,175	219,723	1.2
Registered Vehicles	266,717	291,571	9.3
Population	296,181	301,396	1.8
Drivers Involved in Crashes	10,010	11,025	10.1
Occupants* Involved in Crashes	11,760	12,964	10.2
Estimated Vehicle Miles Traveled (thousands)	3,027,865	3,478,015	14.9
Death Rate Per 100 Million Vehicle Miles	1.2	1.3	9.4
Fatal Crash Rate Per 100 Million Vehicle Miles	1.1	1.2	11.5

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

UPPER PENINSULA 2021 COST OF CRASHES IN MICHIGAN

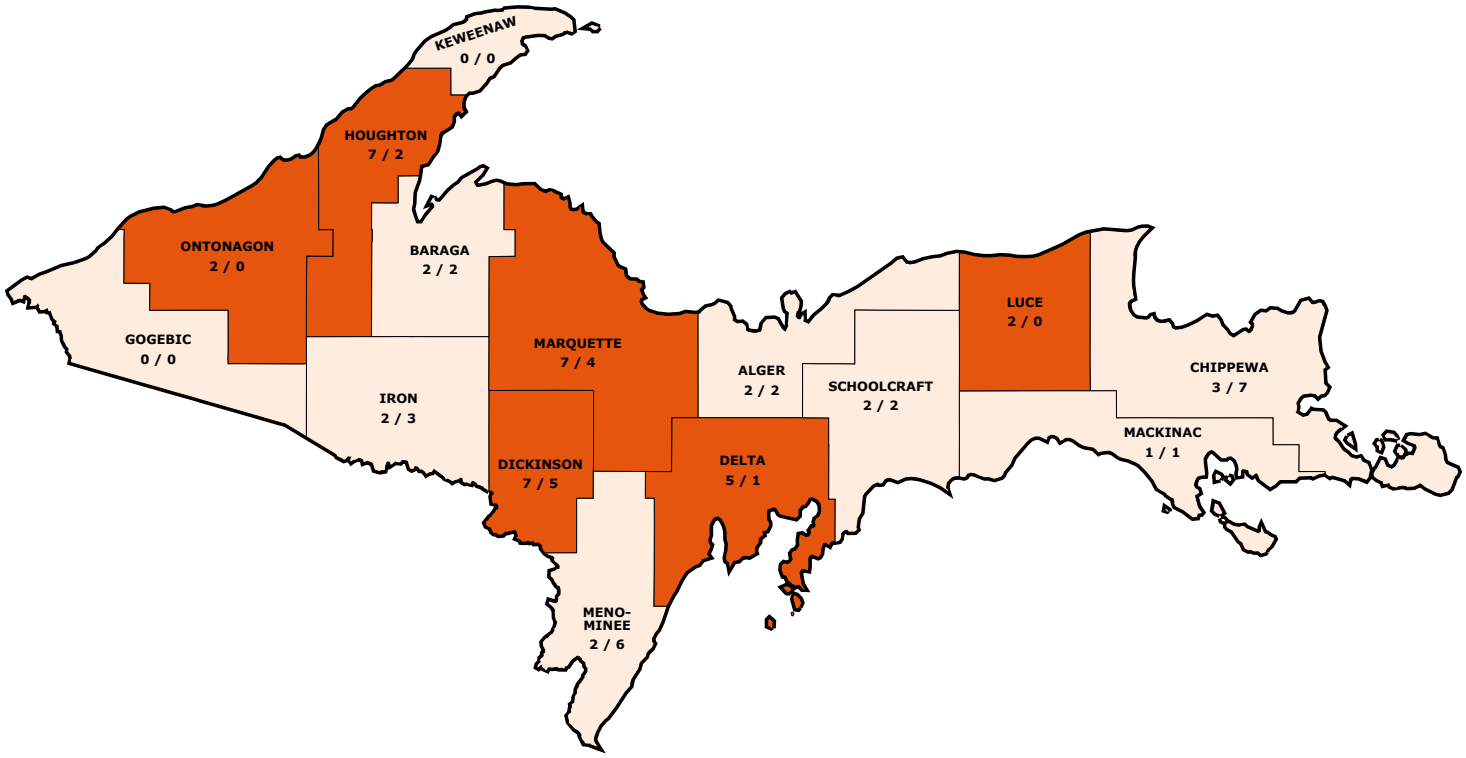
The cost estimate for Upper Peninsula crashes in 2021 was **$1,096,296,000**. This estimate is based on the National Safety Council's cost estimating procedures. Average comprehensive costs are based on the following national figures:

COMPREHENSIVE COSTS, 2021

Death	$12,474,000
Suspected Serious Injury	$1,016,000
Suspected Minor Injury	$221,000
Possible Injury	$120,000
No Injury	$17,000

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 people. "No injury" is calculated per crash.

UPPER PENINSULA WHERE TRAFFIC FATALITIES OCCURRED



Where Traffic Fatalities Occurred - A One-Year Comparison

2021 = 44 / 2020 = 35

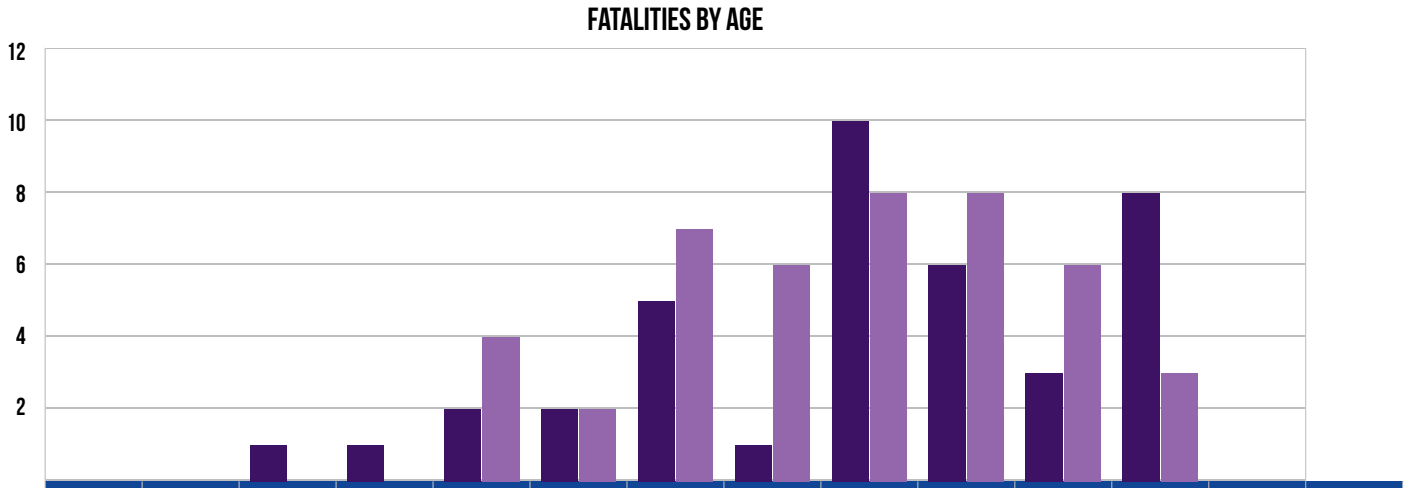
Same or decrease

Increase

5 YEAR TRENDS - UPPER PENINSULA FATALITIES

FATALITIES BY AGE	2017	2018	2019	2020	2021
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	1	0	0	0	0
11 - 15 years	1	0	1	1	0
16 - 20 years	2	4	3	0	4
21 - 24 years	2	6	2	1	2
25 - 34 years	5	4	4	7	7
35 - 44 years	1	3	6	4	6
45 - 54 years	10	4	4	6	8
55 - 64 years	6	5	12	6	8
65 - 74 years	3	5	1	5	6
75 years and over	8	4	7	5	3*
Unknown	0	0	0	0	0
TOTAL	39	35	40	35	44

*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
2017	0	0	1	1	2	2	5	1	10	6	3	8	0	39
2021	0	0	0	0	4	2	7	6	8	8	6	3	0	44

5 YEAR TRENDS - UPPER PENINSULA DRIVERS IN FATAL CRASHES

DRIVER AGE	2017	2018	2019	2020	2021
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	1	0	0	0	0
16 years	0	0	0	1	0
17 years	2	0	0	0	1
18 years	1	1	3	0	1
19 years	1	2	2	0	0
20 years	0	2	0	0	4
21 - 24 years	4	9	5	4	3
25 - 34 years	4	7	4	10	13
35 - 44 years	5	9	7	6	12
45 - 54 years	14	9	6	7	10
55 - 64 years	8	8	16	6	9
65 - 69 years	4	4	3	4	8
70 - 74 years	2	2	0	2	3
75 - 79 years	1	0	4	2	1
80 - 84 years	2	1	2	3	1
85 - 89 years	2	3	0	0	1
90 years and over	0	1	0	1	0
Unknown	2	1	0	4	5
TOTAL	53	59	52	50	72
AGE OF DRIVERS INVOLVED IN SINGLE VEHICLE FATAL CRASHES					
13 years and under	0	0	0	0	0
14 years	0	0	0	0	0
15 years	0	0	0	0	0
16 years	0	0	0	0	0
17 years	0	0	0	0	0
18 years	0	0	2	0	1
19 years	0	1	1	0	0
20 years	0	1	0	0	1
21 - 24 years	0	3	1	1	1
25 - 34 years	3	1	1	5	4
35 - 44 years	2	1	2	3	4
45 - 54 years	7	2	3	3	3
55 - 64 years	4	1	9	2	1
65 - 69 years	1	0	2	0	1
70 - 74 years	0	0	0	1	1
75 - 79 years	0	0	2	1	0
80 - 84 years	0	0	0	0	0
85 - 89 years	1	0	0	0	0
90 years and over	0	0	0	0	0
Unknown	0	1	0	1	0
TOTAL	18	11	23	17	17

5 YEAR TRENDS - UPPER PENINSULA BICYCLIST AND PEDESTRIAN FATALITIES

FATALITIES BY AGE	2017	2018	2019	2020	2021
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	1	0
16 - 20 years	0	0	0	0	0
21 - 24 years	0	0	0	0	0
25 - 34 years	0	0	0	0	0
35 - 44 years	0	0	0	0	0
45 - 54 years	0	0	0	0	0
55 - 64 years	0	0	0	0	0
65 - 74 years	0	0	0	1	0
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
TOTAL	0	0	0	2	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	1
25 - 34 years	0	1	1	0	0
35 - 44 years	0	0	2	0	0
45 - 54 years	0	0	0	0	0
55 - 64 years	0	0	0	1	1
65 - 74 years	0	0	0	0	1
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
TOTAL	0	1	3	1	3

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

HOLIDAY PERIOD	FATAL CRASHES	PEOPLE KILLED
MEMORIAL DAY		
2021 (3) MON	0 [0]	0 [0]
2020 (3) MON	0 [0]	0 [0]
2019 (3) MON	1 [1]	1 [1]
2018 (3) MON	1 [0]	1 [0]
2017 (3) MON	0 [0]	0 [0]
FOURTH OF JULY		
2021 (3) SUN	0 [0]	0 [0]
2020 (3) SAT	0 [0]	0 [0]
2019 (4) THU	0 [0]	0 [0]
2018 (1) WED	0 [0]	0 [0]
2017 (4) TUE	1 [1]	1 [1]
LABOR DAY		
2021 (3) MON	0 [0]	0 [0]
2020 (3) MON	0 [0]	0 [0]
2019 (3) MON	0 [0]	0 [0]
2018 (3) MON	2 [1]	2 [1]
2017 (3) MON	0 [0]	0 [0]
THANKSGIVING		
2021 (4) THU	1 [0]	2 [0]
2020 (4) THU	2 [0]	2 [0]
2019 (4) THU	0 [0]	0 [0]
2018 (4) THU	0 [0]	0 [0]
2017 (4) THU	0 [0]	0 [0]
CHRISTMAS		
2021 (3) SAT	1 [0]	1 [0]
2020 (3) FRI	1 [0]	1 [0]
2019 (1) WED	0 [0]	0 [0]
2018 (4) TUE	0 [0]	0 [0]
2017 (3) MON	0 [0]	0 [0]
NEW YEAR'S		
2021 (3) SAT	0 [0]	0 [0]
2020 (3) FRI	0 [0]	0 [0]
2019 (1) WED	0 [0]	0 [0]
2018 (4) TUE	1 [1]	1 [1]
2017 (3) MON	2 [0]	3 [0]

SUMMARY 2021

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.

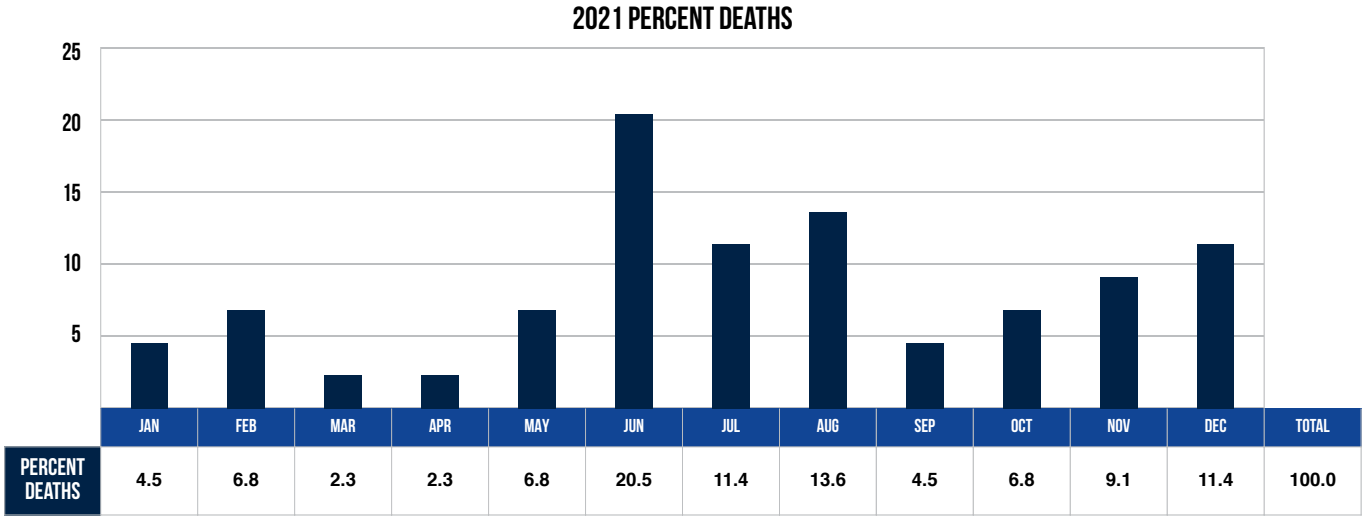
Based on the total 2021 Upper Peninsula experience, deaths averaged 0.12 per day. Alcohol-related deaths averaged 0.04 per day.

Based on the total 2021 Upper Peninsula holiday period experience, deaths averaged 0.16 per day. Alcohol-related deaths averaged 0.00 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

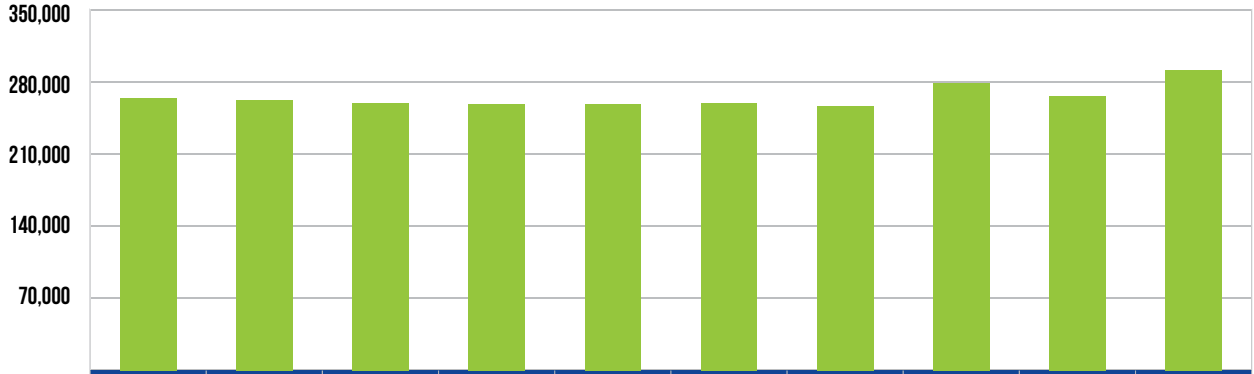
MONTH	TRAFFIC DEATHS					2021 PERCENTAGES
	2017	2018	2019	2020	2021	Percent Deaths
January	2	3	7	5	2	4.5
February	3	2	2	3	3	6.8
March	4	4	4	0	1	2.3
April	5	1	1	3	1	2.3
May	3	2	5	0	3	6.8
June	5	2	4	3	9	20.5
July	4	5	4	5	5	11.4
August	1	3	2	5	6	13.6
September	2	5	6	1	2	4.5
October	1	1	4	3	3	6.8
November	2	3	1	5	4	9.1
December	7	4	0	2	5	11.4
TOTAL	39	35	40	35	44	100.0



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

10 YEAR TRENDS-UPPER PENINSULA

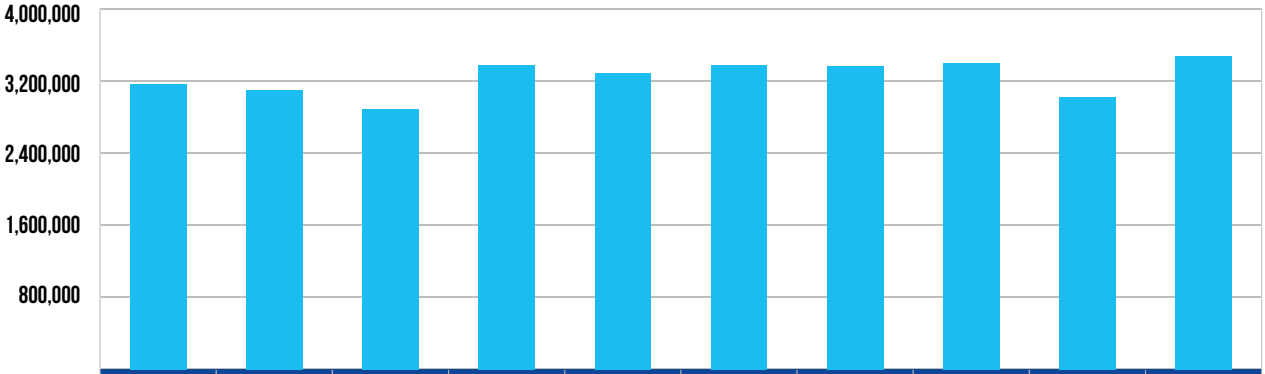
UPPER PENINSULA VEHICLE REGISTRATIONS



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
264,199	262,485	260,036	258,797	258,733	259,530	256,932	278,643	266,717	291,571

Vehicle registrations in the Upper Peninsula increased 10.4 percent over the 10-year period.

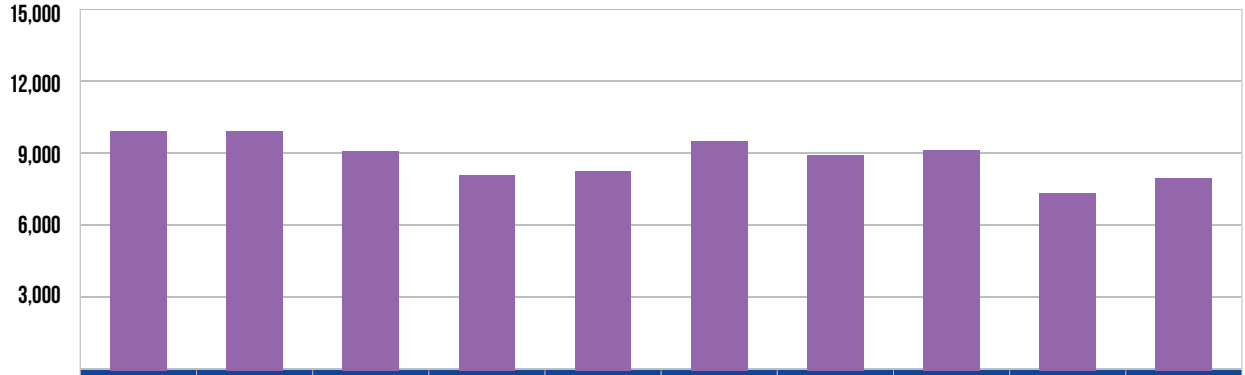
UPPER PENINSULA VEHICLE MILES TRAVELED (THOUSANDS)



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
3,166,430	3,100,105	2,894,265	3,380,731	3,291,504	3,380,362	3,371,820	3,406,208	3,027,865	3,478,015

Vehicle miles traveled in the Upper Peninsula increased 9.8 percent over the 10-year period.

UPPER PENINSULA CRASHES

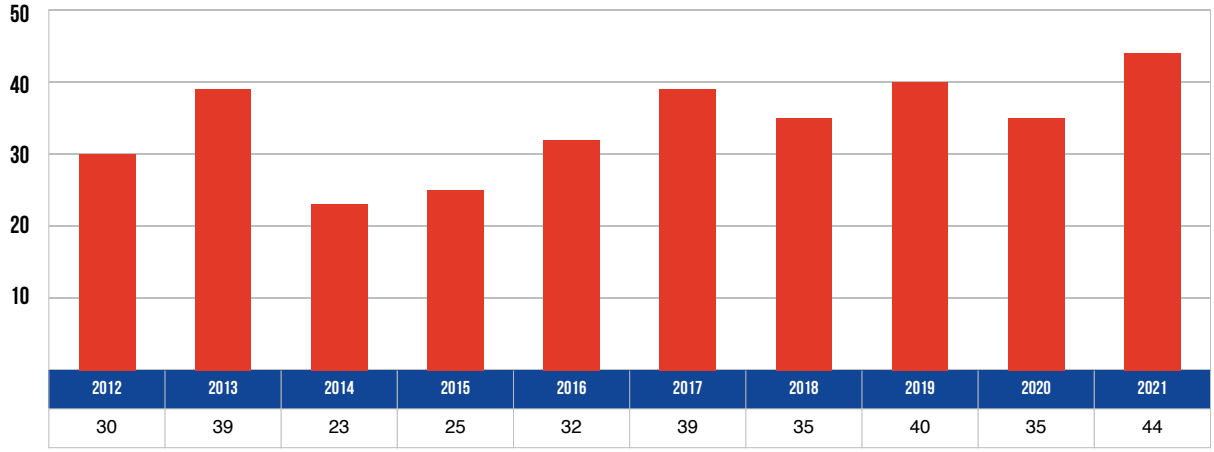


2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
9,945	9,956	9,126	8,099	8,264	9,542	8,948	9,140	7,378	7,990

There were 7,990 Upper Peninsula crashes in 2021--a 19.7 percent decrease from 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

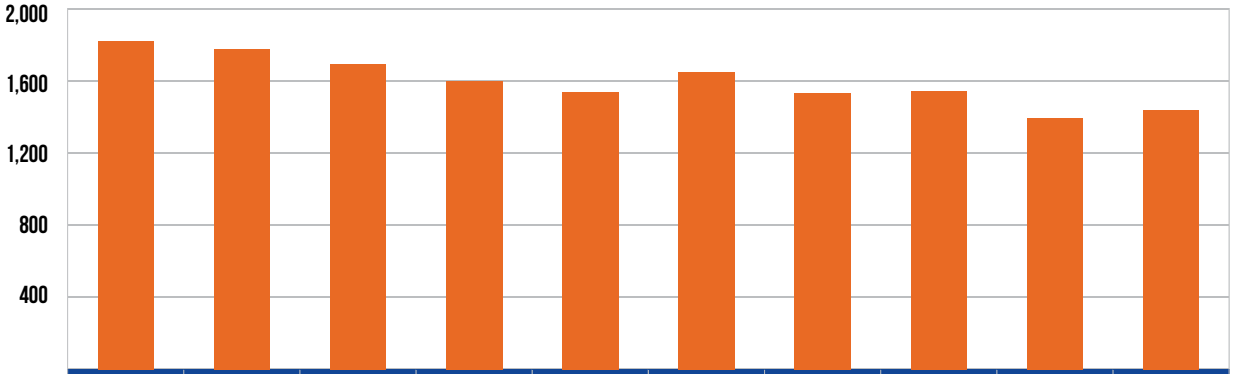
UPPER PENINSULA DEATHS



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
30	39	23	25	32	39	35	40	35	44

In 2021, 44 people died in motor vehicle crashes in the Upper Peninsula--an increase of 46.7 percent from 2012.

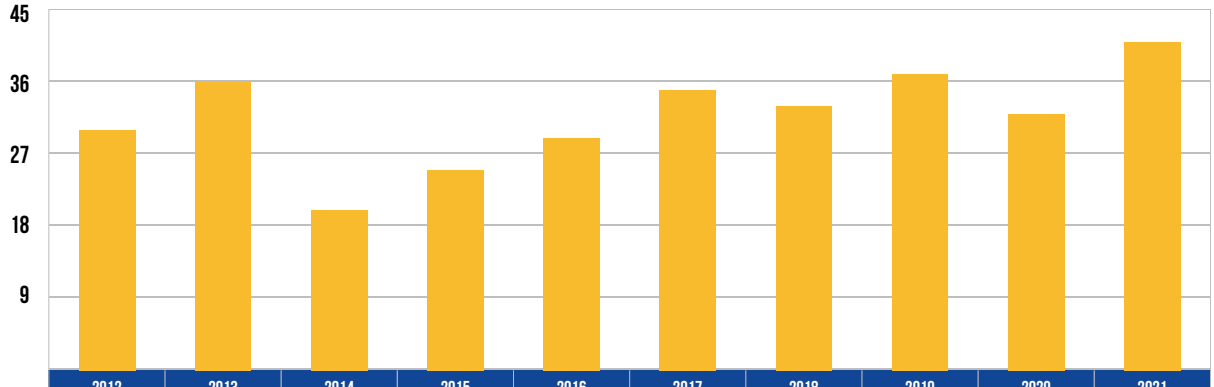
UPPER PENINSULA INJURIES



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1,827	1,778	1,696	1,603	1,541	1,654	1,538	1,548	1,397	1,442

In 2021, 1,442 people received injuries in motor vehicle crashes in the Upper Peninsula--down 21.1 percent from 1,827 in 2012.

UPPER PENINSULA FATAL CRASHES

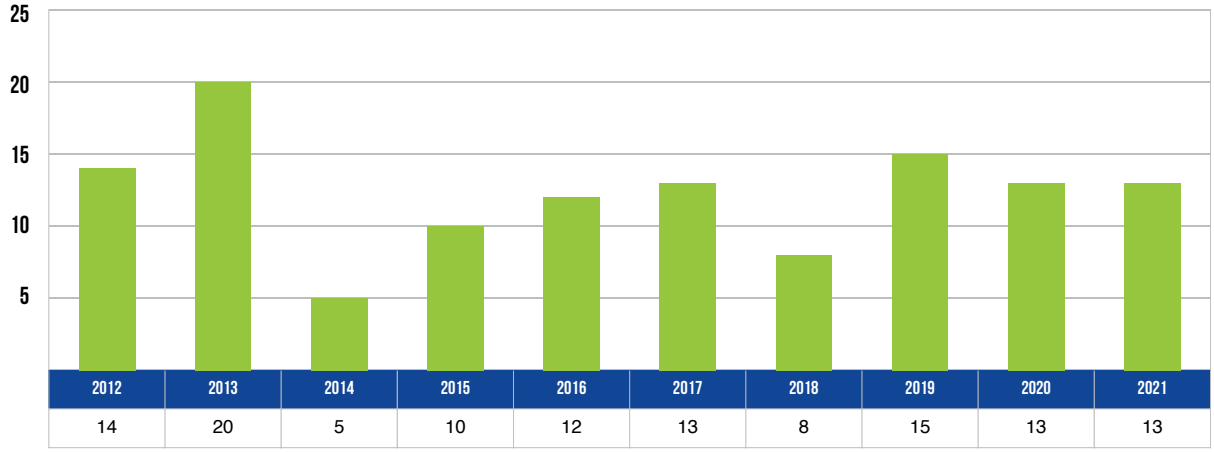


2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
30	36	20	25	29	35	33	37	32	41

In 2021, there were 41 fatal crashes in the Upper Peninsula--up 36.7 percent from 30 in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

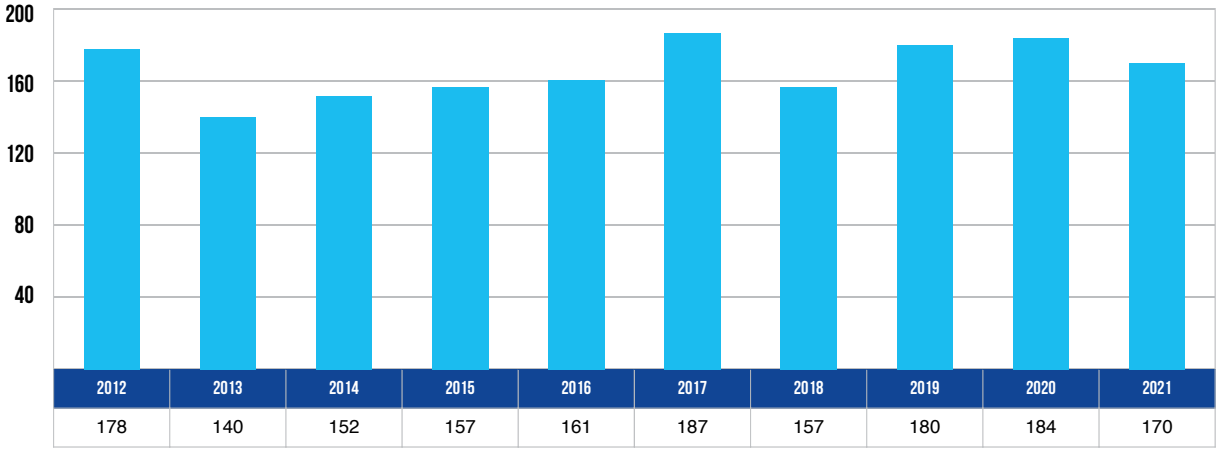
UPPER PENINSULA ALCOHOL-INVOLVED DEATHS



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
14	20	5	10	12	13	8	15	13	13

There were 13 deaths in alcohol-involved crashes in the Upper Peninsula in 2021, one less than the 2012 total.

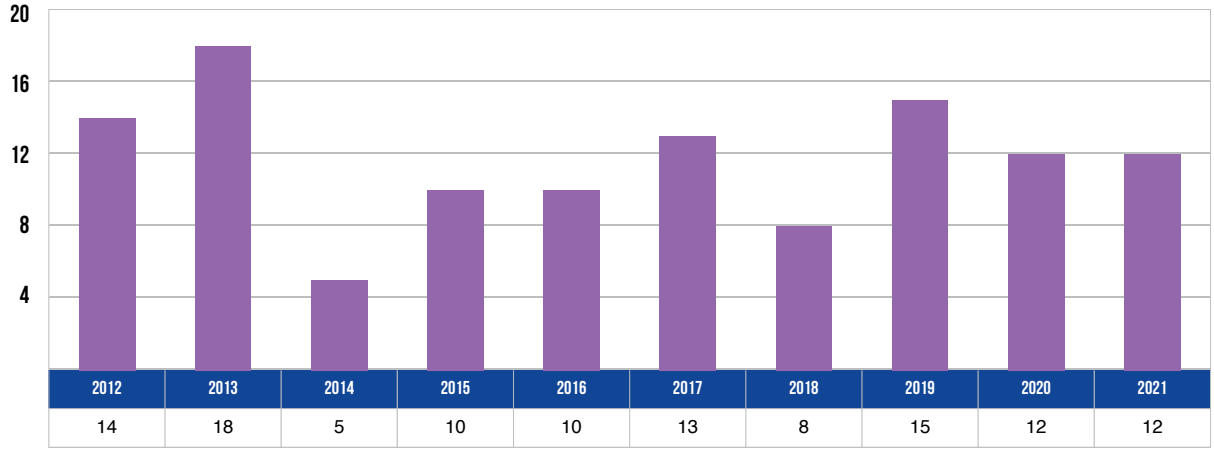
UPPER PENINSULA ALCOHOL-INVOLVED INJURIES



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
178	140	152	157	161	187	157	180	184	170

There were 170 alcohol-involved injuries in the Upper Peninsula in 2021--down 4.5 percent from 2012.

UPPER PENINSULA ALCOHOL-INVOLVED FATAL CRASHES

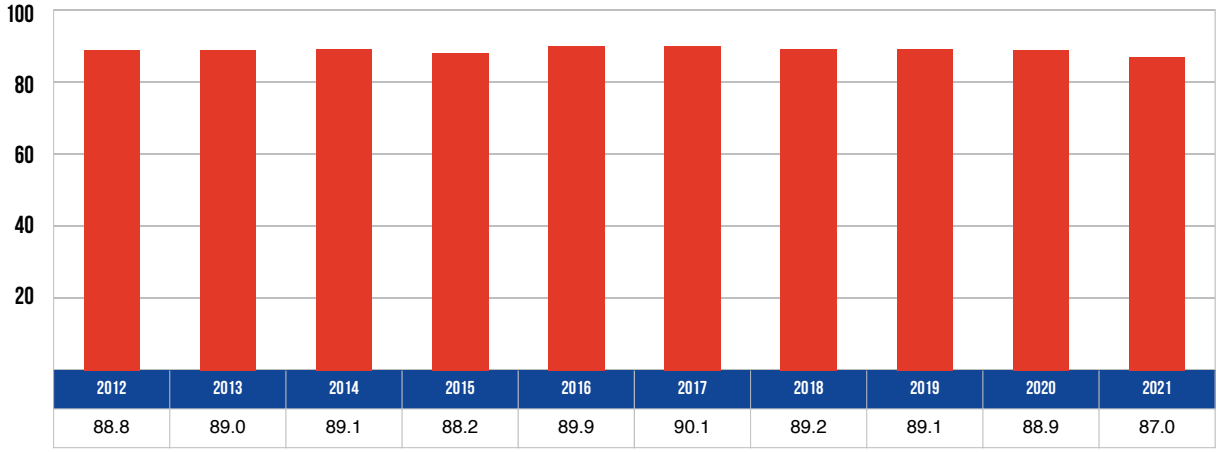


2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
14	18	5	10	10	13	8	15	12	12

There were 12 alcohol-involved fatal crashes in the Upper Peninsula in 2021, two less than the 14 alcohol-involved fatal crashes in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

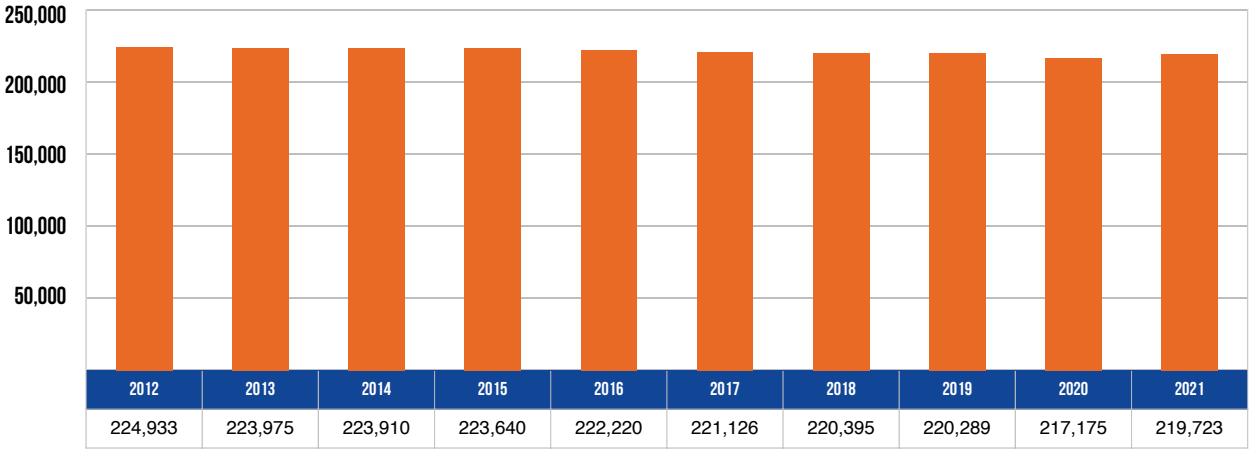
UPPER PENINSULA RESTRAINT USAGE IN CRASHES



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
88.8	89.0	89.1	88.2	89.9	90.1	89.2	89.1	88.9	87.0

The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes was 87.0 percent in 2021, down 2.0 percent from 2012.

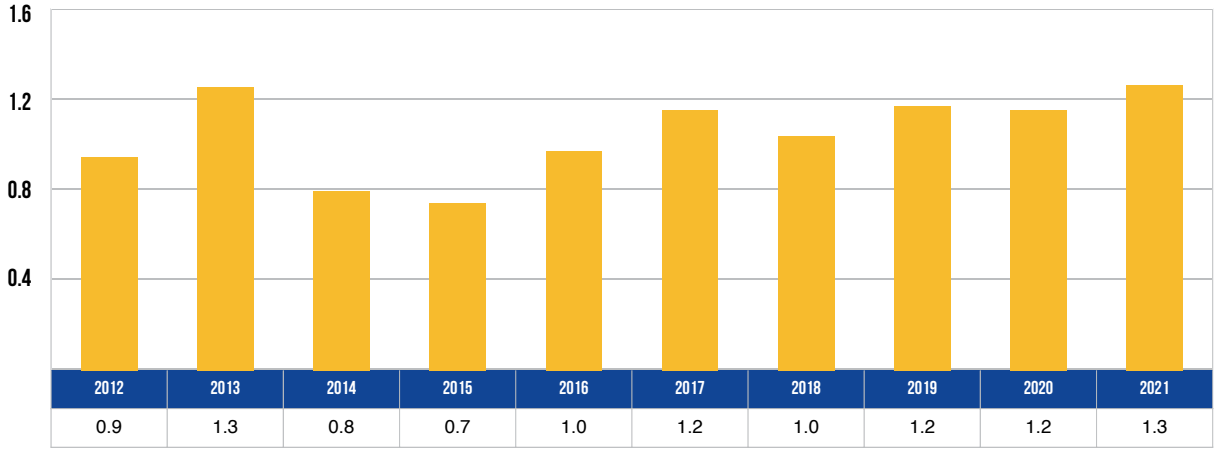
UPPER PENINSULA DRIVERS



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
224,933	223,975	223,910	223,640	222,220	221,126	220,395	220,289	217,175	219,723

There were 219,723 licensed drivers on Upper Peninsula roadways in 2021--a decrease of 2.3 percent from 2012.

UPPER PENINSULA FATALITIES PER 100 MILLION VMT

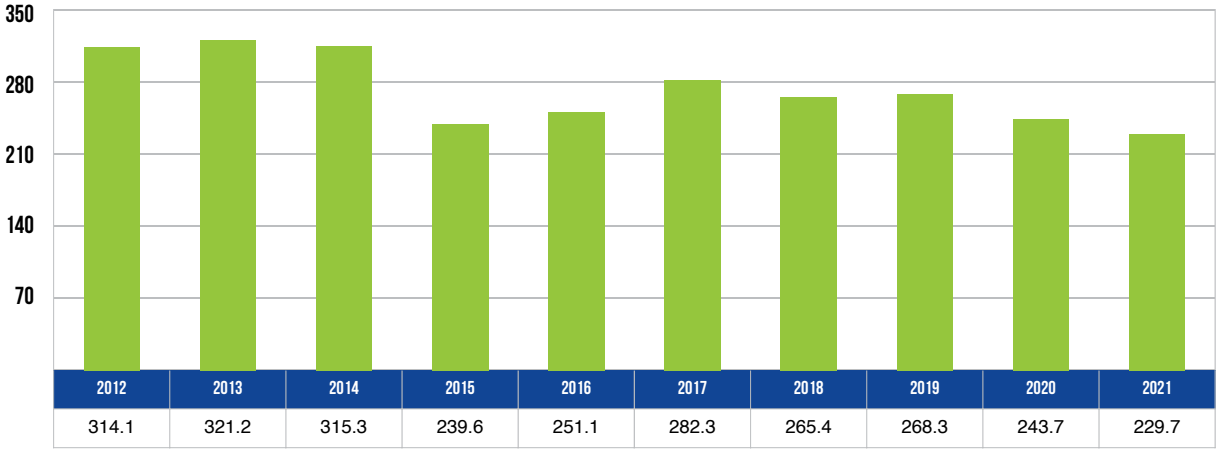


2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
0.9	1.3	0.8	0.7	1.0	1.2	1.0	1.2	1.2	1.3

The 1.3 death rate for the Upper Peninsula in 2021 was a 33.5 percent increase from 0.9 in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

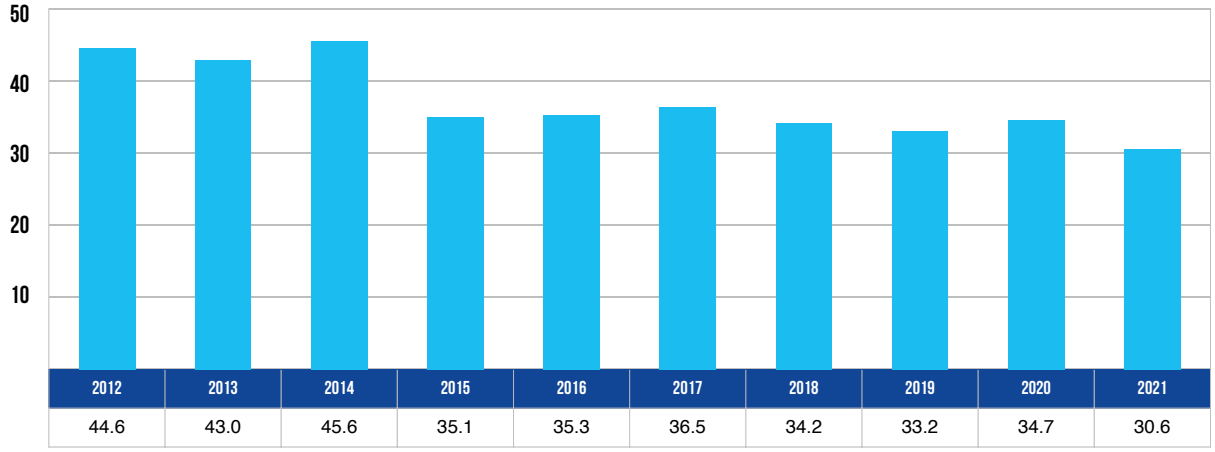
UPPER PENINSULA TOTAL CRASHES PER 100 MILLION VMT



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
314.1	321.2	315.3	239.6	251.1	282.3	265.4	268.3	243.7	229.7

The total crash rate of 229.7 in the Upper Peninsula in 2021 was a 26.9 percent decrease from 2012.

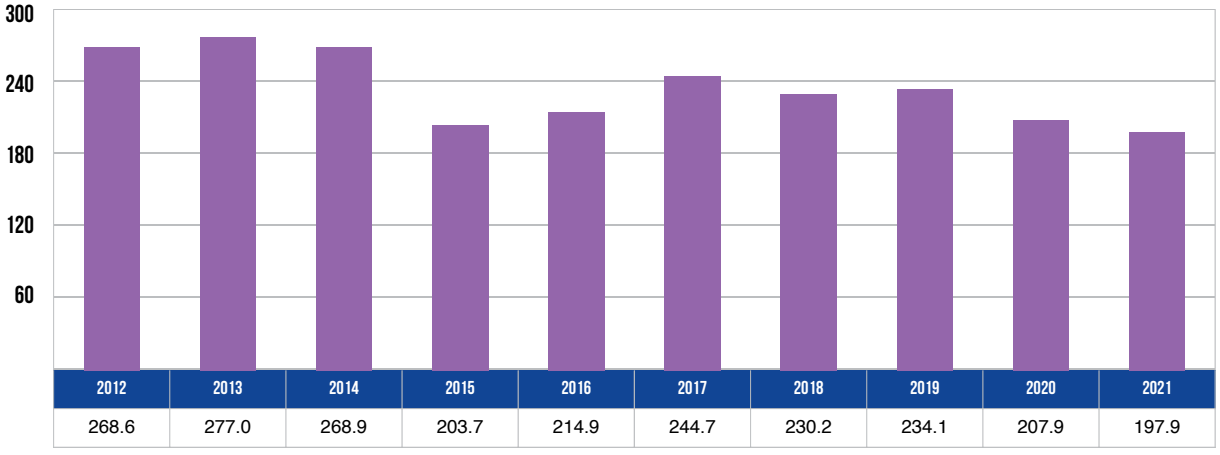
UPPER PENINSULA INJURY CRASHES PER 100 MILLION VMT



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
44.6	43.0	45.6	35.1	35.3	36.5	34.2	33.2	34.7	30.6

The injury crash rate of 30.6 in the Upper Peninsula in 2021 was a 31.3 percent decrease from 2012.

UPPER PENINSULA PROPERTY DAMAGE CRASHES PER 100 MILLION VMT

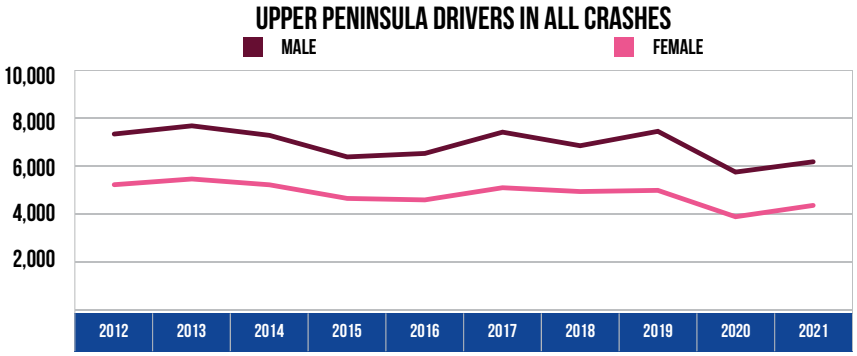


2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
268.6	277.0	268.9	203.7	214.9	244.7	230.2	234.1	207.9	197.9

The property damage crash rate of 197.9 in the Upper Peninsula in 2021 was a 26.3 percent decrease from 2012.

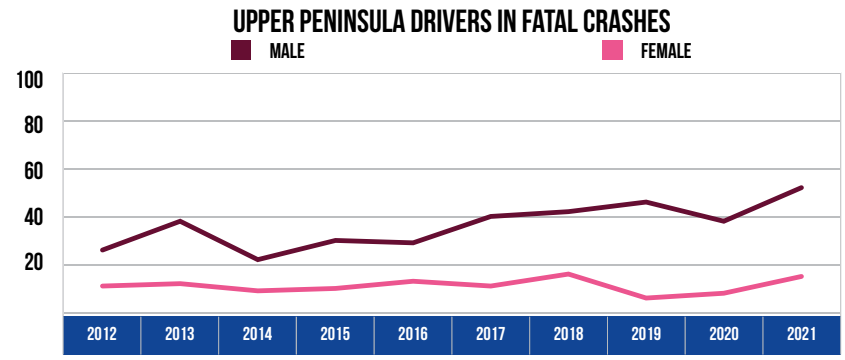
10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA DRIVERS IN ALL CRASHES		
Year	Male	Female
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
2020	5,706	3,845
2021	6,135	4,317



Male drivers accounted for 58.7 percent of all drivers in crashes in the Upper Peninsula during 2021, slightly higher than the 58.5 percent figure in 2012. Female drivers accounted for 41.3 percent of all drivers in crashes during 2021, slightly lower than the 41.5 percent figure in 2012.

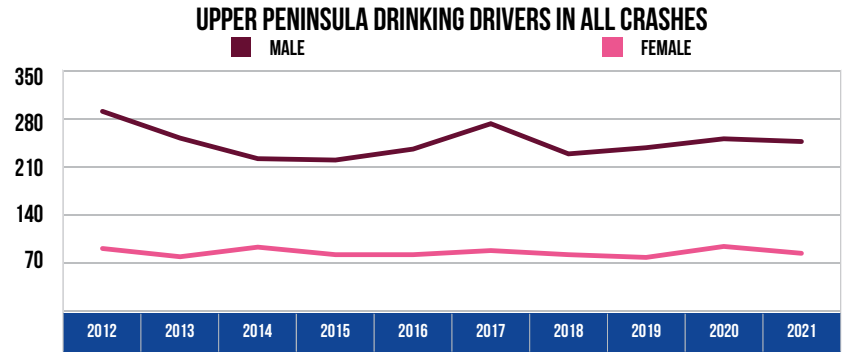
UPPER PENINSULA DRIVERS IN FATAL CRASHES		
Year	Male	Female
2012	26	11
2013	38	12
2014	22	9
2015	30	10
2016	29	13
2017	40	11
2018	42	16
2019	46	6
2020	38	8
2021	52	15



Male drivers made up 77.6 percent of all drivers in fatal crashes in the Upper Peninsula in 2021, which was up from 70.3 percent in 2012. Female drivers made up 22.4 percent of all drivers in fatal crashes in 2021, which was down from 29.7 percent in 2012.

UPPER PENINSULA DRINKING DRIVERS IN ALL CRASHES		
Year	Male	Female
2012	289	89
2013	250	77
2014	220	91
2015	218	80
2016	234	80
2017	271	86
2018	227	80
2019	236	76
2020	249	92
2021	245	82

Note: 573 drivers in all crashes were coded as unknown gender in the Upper Peninsula in 2021 and are not included in the tables.

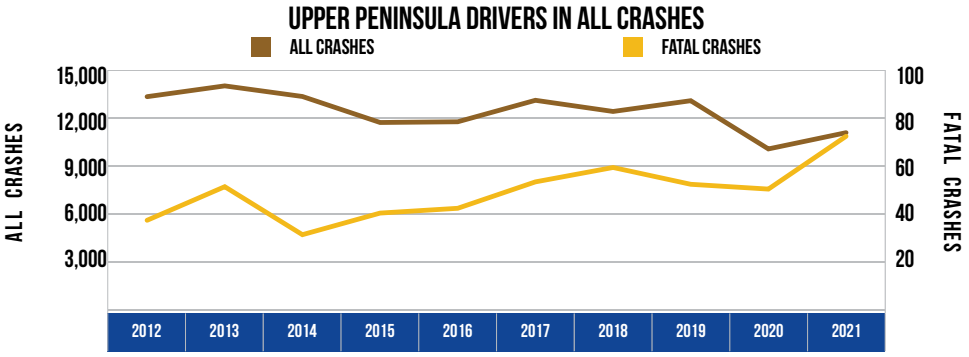


In 2021, males represented 74.9 percent of all drinking drivers in the Upper Peninsula, which was down from 76.5 percent in 2012. Females represented 25.1 percent of all drinking drivers, which was up from 23.5 percent in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA DRIVERS IN ALL CRASHES

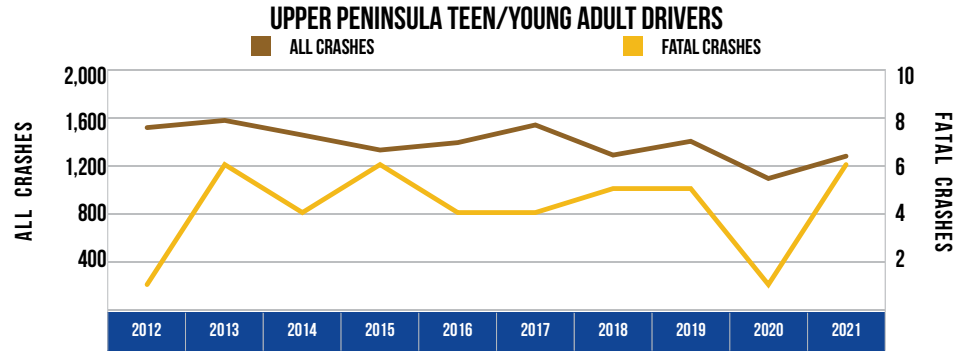
Year	All Crashes	Fatal Crashes
2012	13,276	37
2013	13,950	51
2014	13,287	31
2015	11,662	40
2016	11,707	42
2017	13,050	53
2018	12,351	59
2019	13,024	52
2020	10,010	50
2021	11,025	72



The number of drivers involved in all crashes in the Upper Peninsula decreased 17.0 percent over the 10-year period. The number of drivers involved in fatal crashes in the Upper Peninsula increased 94.6 percent over the 10-year period.

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

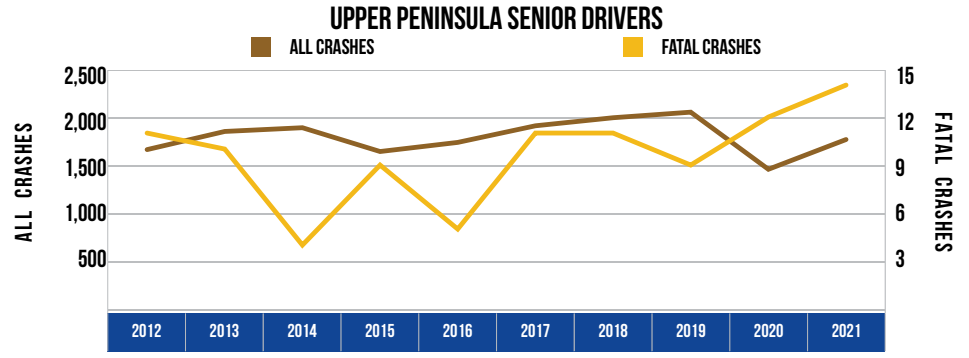
Year	All Crashes	Fatal Crashes
2012	1,508	1
2013	1,568	6
2014	1,446	4
2015	1,321	6
2016	1,383	4
2017	1,530	4
2018	1,279	5
2019	1,394	5
2020	1,084	1
2021	1,270	6



Teen/young adult drivers (age 16-20) in all crashes in the Upper Peninsula has decreased by 15.8 percent since 2012. The number of teen/young adult drivers in fatal crashes in the Upper Peninsula has increased by 500.0 percent since 2012.

UPPER PENINSULA SENIOR DRIVERS (AGE 65 & OVER)

Year	All Crashes	Fatal Crashes
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
2020	1,456	12
2021	1,766	14

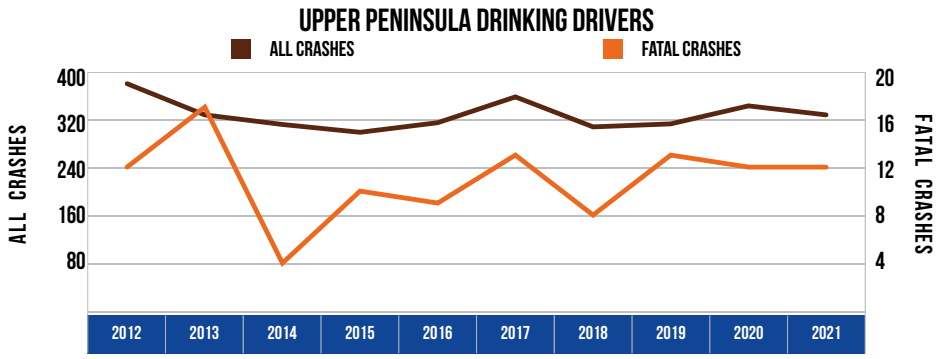


The number of drivers age 65 and over in all crashes in the Upper Peninsula has increased 6.3 percent since 2012. Their involvement in fatal crashes increased 27.3 percent since 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA DRINKING DRIVERS

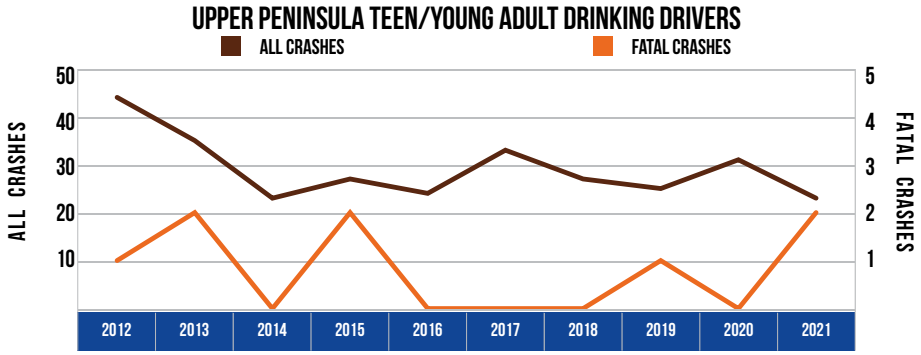
Year	All Crashes	Fatal Crashes
2012	379	12
2013	327	17
2014	311	4
2015	298	10
2016	314	9
2017	357	13
2018	307	8
2019	312	13
2020	342	12
2021	327	12



Drinking driver involvement in all crashes in the Upper Peninsula decreased by 13.7 percent from 2012. Drinking driver involvement in fatal crashes in the Upper Peninsula remained the same as in 2012.

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

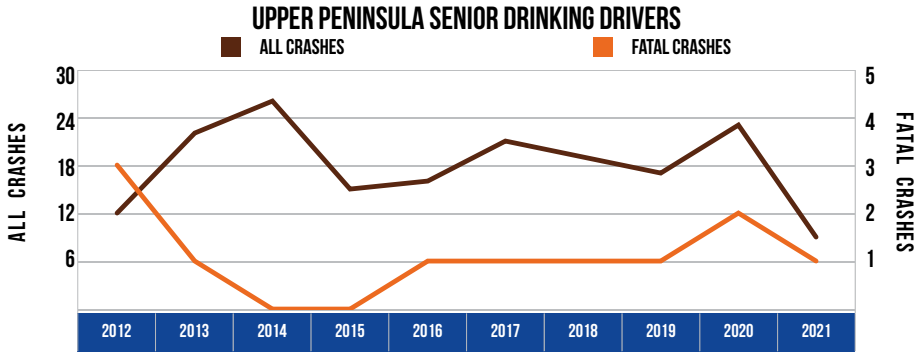
Year	All Crashes	Fatal Crashes
2012	44	1
2013	35	2
2014	23	0
2015	27	2
2016	24	0
2017	33	0
2018	27	0
2019	25	1
2020	31	0
2021	23	2



The number of teen/young adult drinking drivers (age 16-20) in all crashes in the Upper Peninsula decreased by 47.7 percent. The number of teen/young adult drinking drivers involved in a fatal crash increased from one to two in the Upper Peninsula in 2021.

UPPER PENINSULA SENIOR DRINKING DRIVERS (AGE 65 & OVER)

Year	All Crashes	Fatal Crashes
2012	12	3
2013	22	1
2014	26	0
2015	15	0
2016	16	1
2017	21	1
2018	19	1
2019	17	1
2020	23	2
2021	9	1

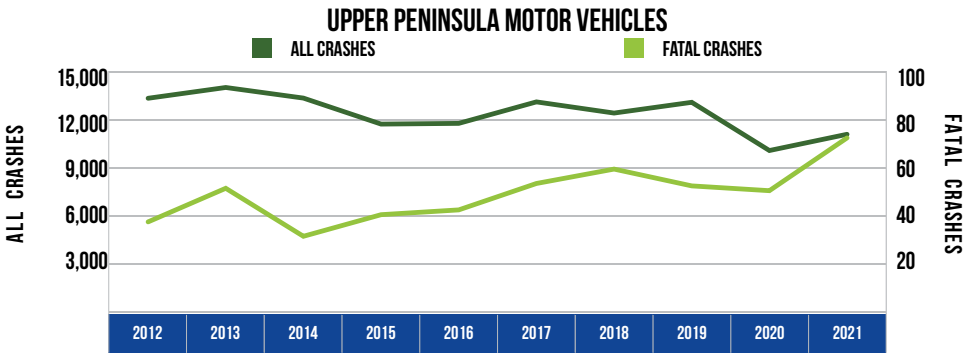


The number of senior drinking drivers (age 65 and over) in all crashes in the Upper Peninsula has decreased 25.0 percent over the 10-year period. Their involvement in fatal crashes decreased to 3 from 1 in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA MOTOR VEHICLES

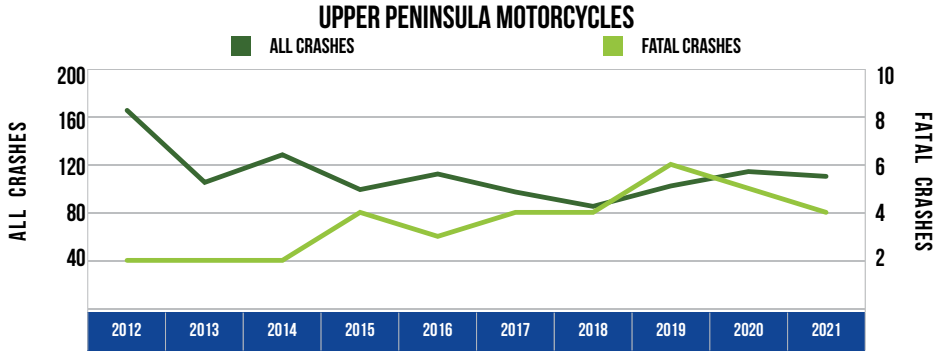
Year	All Crashes	Fatal Crashes
2012	13,276	37
2013	13,950	51
2014	13,287	31
2015	11,662	40
2016	11,707	42
2017	13,050	53
2018	12,351	59
2019	13,024	52
2020	10,010	50
2021	11,025	72



There were 11,025 motor vehicles involved in all Upper Peninsula crashes in 2021, down 17.0 percent from 2012. There were 72 motor vehicles involved in fatal crashes in 2021, up 94.6 percent from 2012.

UPPER PENINSULA MOTORCYCLES

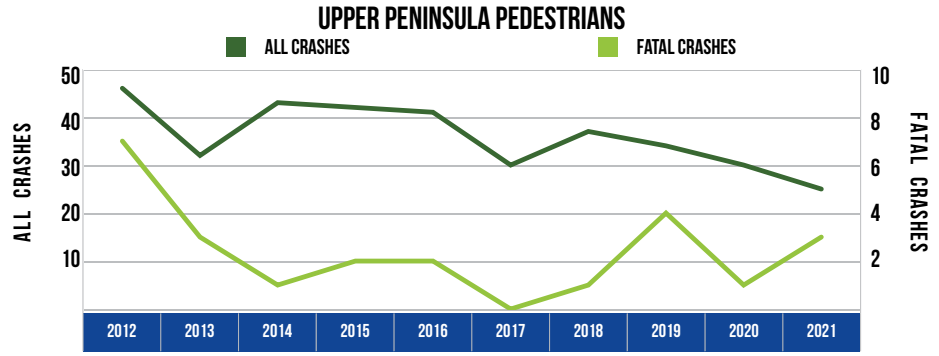
Year	All Crashes	Fatal Crashes
2012	165	2
2013	105	2
2014	128	2
2015	99	4
2016	112	3
2017	97	4
2018	85	4
2019	102	6
2020	114	5
2021	110	4



There were 110 motorcycles involved in crashes in the Upper Peninsula in 2021, a 33.3 percent decrease from 2012. There were three motorcycles involved in fatal crashes in 2021, down from seven in 2012.

UPPER PENINSULA PEDESTRIANS

Year	All Crashes	Fatal Crashes
2012	46	7
2013	32	3
2014	43	1
2015	42	2
2016	41	2
2017	30	0
2018	37	1
2019	34	4
2020	30	1
2021	25	3

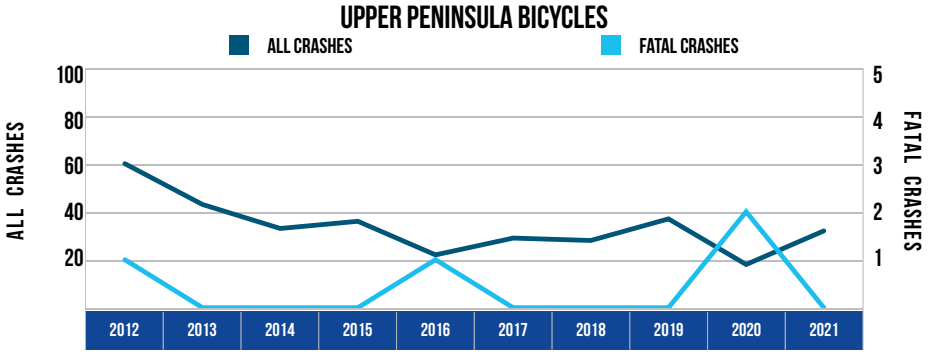


There were 25 pedestrians involved in crashes in the Upper Peninsula in 2021, down 45.7 percent from 2012. Three pedestrians were involved in fatal crashes in 2021, down from seven in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

UPPER PENINSULA BICYCLES

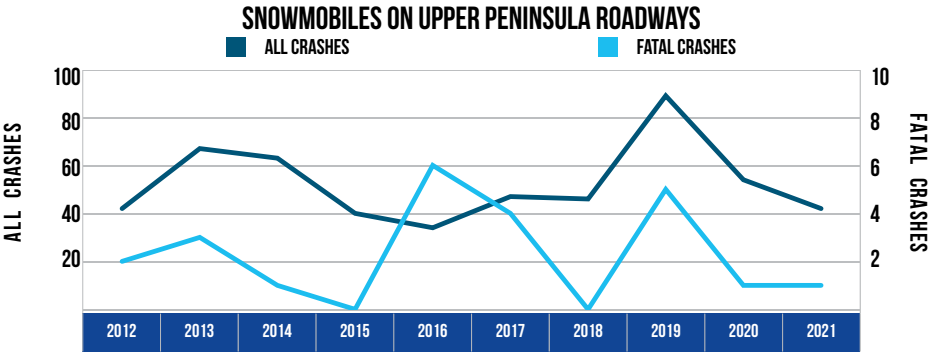
Year	All Crashes	Fatal Crashes
2012	60	1
2013	43	0
2014	33	0
2015	36	0
2016	22	1
2017	29	0
2018	28	0
2019	37	0
2020	18	2
2021	32	0



There were 32 bicycles involved in Upper Peninsula crashes in 2021, down 46.7 percent from 2012. There were no bicycles involved in fatal crashes in 2021, down from one bicycle in 2012.

SNOWMOBILES ON UPPER PENINSULA ROADWAYS

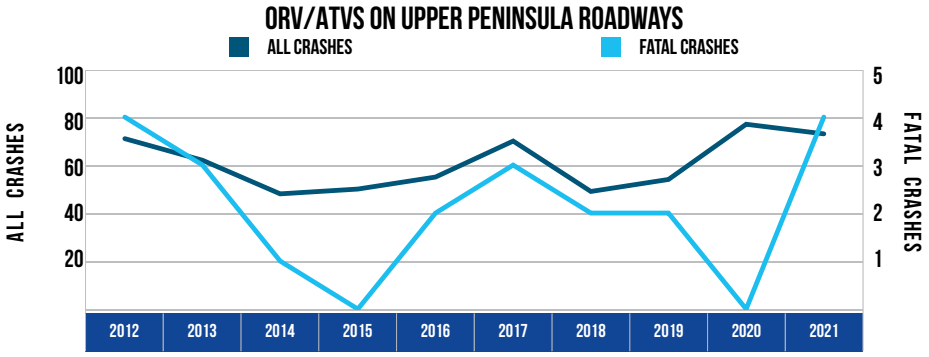
Year	All Crashes	Fatal Crashes
2012	42	2
2013	67	3
2014	63	1
2015	40	0
2016	34	6
2017	47	4
2018	46	0
2019	89	5
2020	54	1
2021	42	1



There were 42 snowmobiles in crashes on roadways in the Upper Peninsula in 2021, the same number as in 2012. There was one snowmobile involved in a fatal crash in 2021, down from two in 2012.

ORV/ATVS ON UPPER PENINSULA ROADWAYS

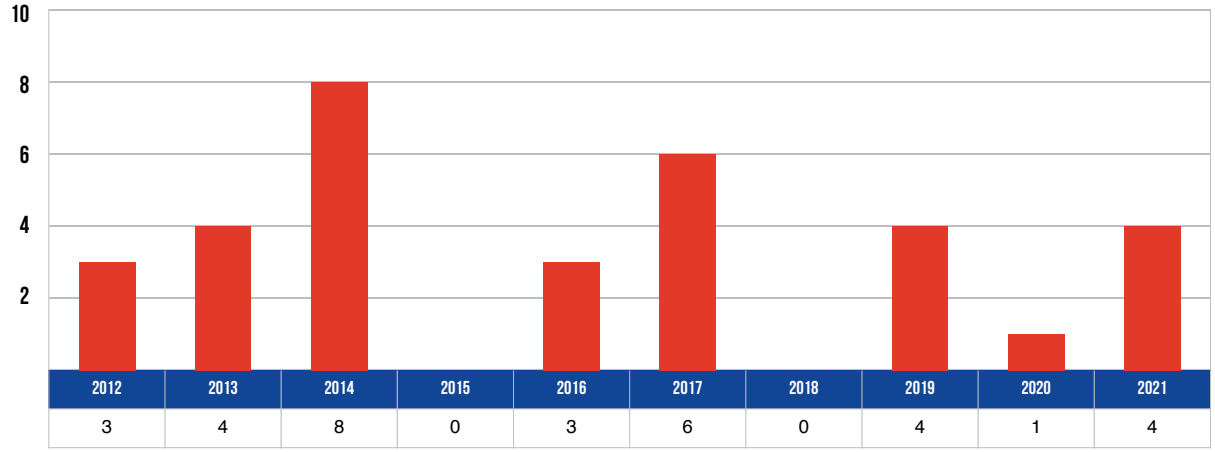
Year	All Crashes	Fatal Crashes
2012	71	4
2013	62	3
2014	48	1
2015	50	0
2016	55	2
2017	70	3
2018	49	2
2019	54	2
2020	77	0
2021	73	4



There were 73 ORV/ATVs in crashes on roadways in the Upper Peninsula in 2021, up 2.8 percent from 2012. There were four ORV/ATVs in fatal crashes in 2021, the same number as in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

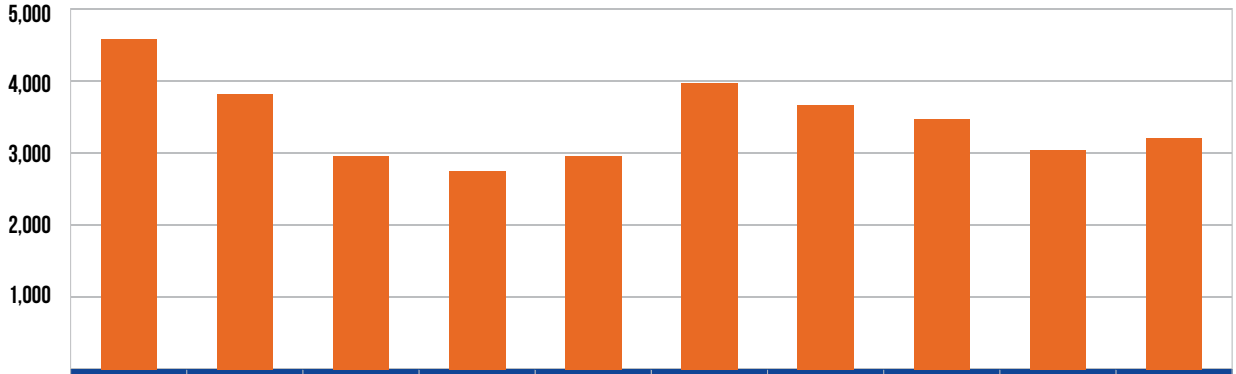
UPPER PENINSULA VEHICLE-TRAIN CRASHES



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
3	4	8	0	3	6	0	4	1	4

There were four vehicle-train crashes in the Upper Peninsula in 2021, compared with three in 2012.

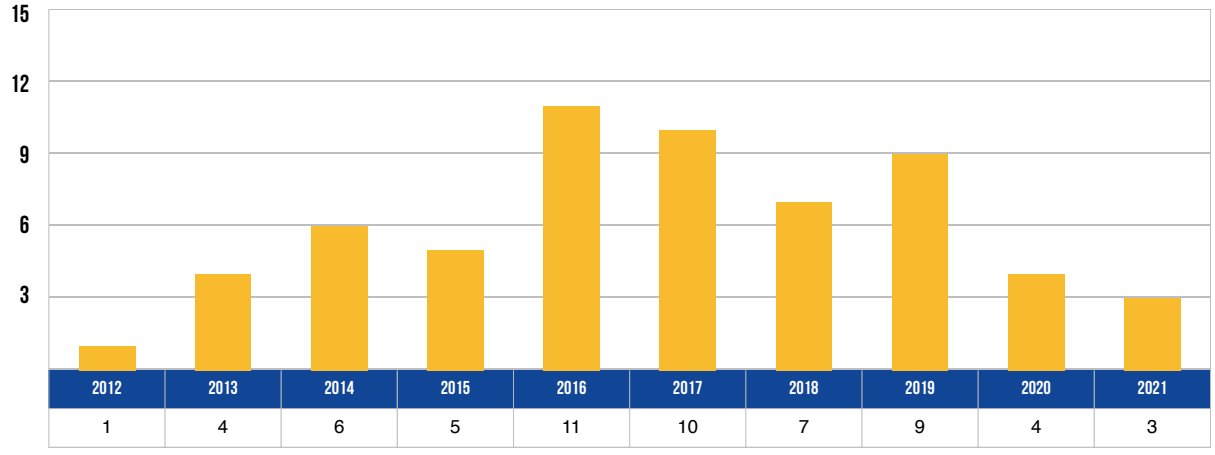
UPPER PENINSULA VEHICLE-DEER CRASHES



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
4,588	3,828	2,961	2,751	2,969	3,973	3,674	3,474	3,045	3,221

The number of vehicle-deer crashes in the Upper Peninsula decreased 29.8 percent in the 10-year period to 3,221 in 2021.

UPPER PENINSULA FARM EQUIPMENT CRASHES

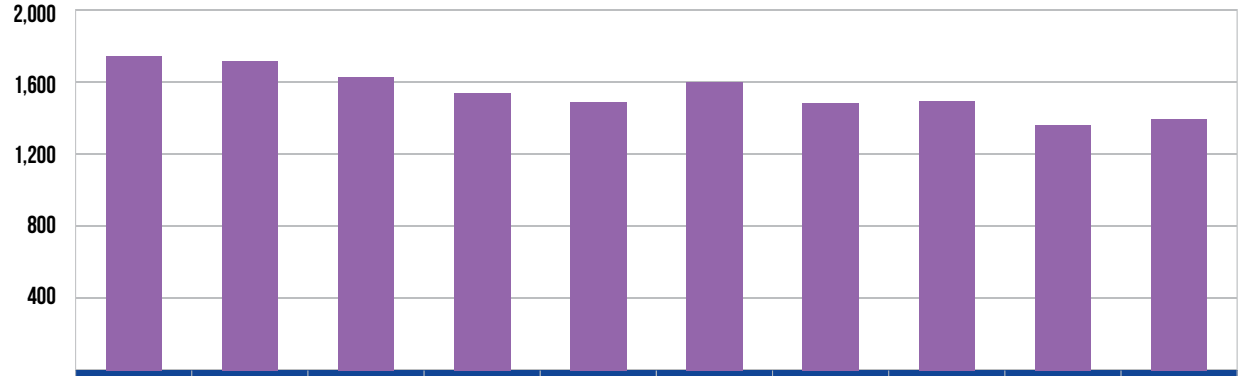


2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1	4	6	5	11	10	7	9	4	3

There were three farm equipment crashes in the Upper Peninsula in 2021, two more than in 2012.

10 YEAR TRENDS-UPPER PENINSULA (CONTINUED)

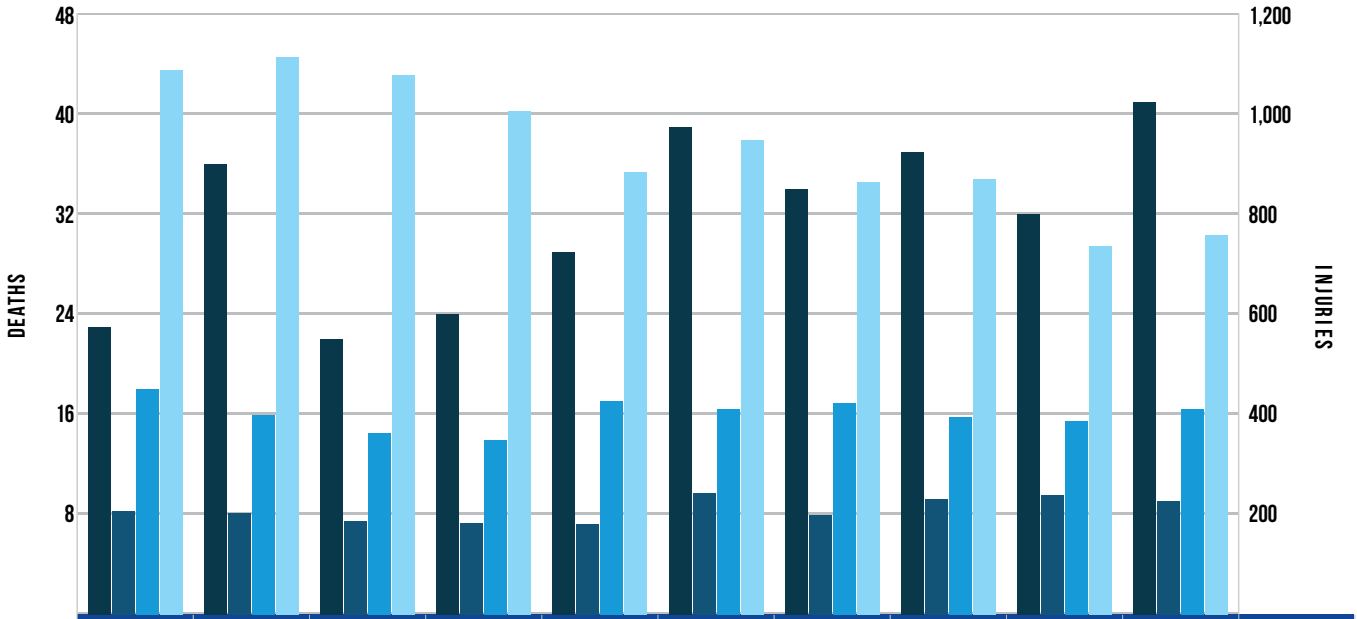
UPPER PENINSULA INJURED OCCUPANTS IN CRASHES



2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
1,745	1,715	1,627	1,538	1,491	1,602	1,486	1,494	1,361	1,394

There were 1,394 occupants injured in the Upper Peninsula in 2021--a decrease of 20.1 percent from 2012.

UPPER PENINSULA DEATH AND INJURY FOR CRASH-INVOLVED OCCUPANTS



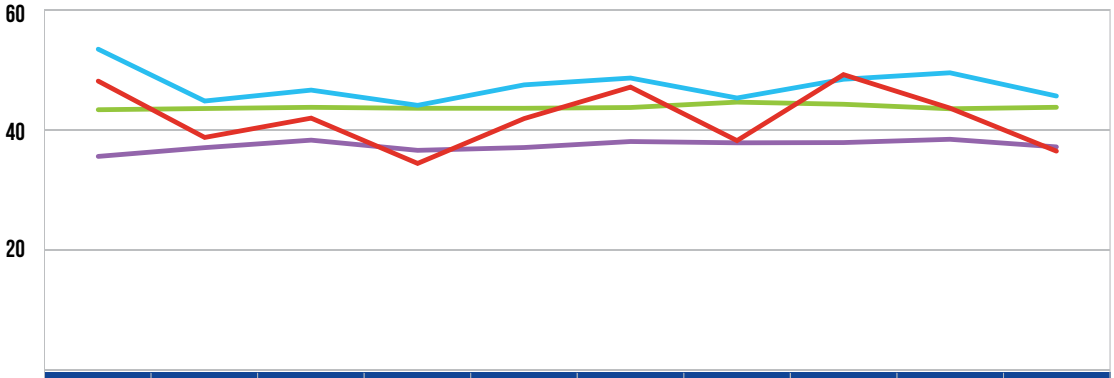
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	TOTALS
KILLED	23	36	22	24	29	39	34	37	32	41	317
A INJURY	206	202	186	183	181	242	199	230	239	226	2,094
B INJURY	451	399	362	348	426	411	423	394	386	410	4,010
C INJURY	1,088	1,114	1,079	1,007	884	949	864	870	736	758	9,349

Over the period from 2012 to 2021 in the Upper Peninsula, occupant deaths increased 78.3 percent, A injuries increased 9.7 percent, B injuries decreased 9.1 percent, and C injuries decreased 30.3 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 2012 - 2021



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
DRIVERS IN ALL CRASHES	43.15	43.35	43.55	43.39	43.39	43.52	44.42	44.06	43.31	43.55
DRIVERS IN FATAL CRASHES	53.24	44.60	46.42	43.88	47.29	48.43	45.10	48.23	49.30	45.43
DRINKING DRIVERS	35.37	36.83	38.08	36.38	36.85	37.85	37.64	37.68	38.22	36.95
DRINKING DRIVERS IN FATAL CRASHES	47.92	38.53	41.75	34.20	41.67	46.92	38.00	49.00	43.42	36.25

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 0.9 percent. The average age of drivers involved in fatal crashes has decreased 14.7 percent. The average age of drinking drivers in crashes has increased 4.5 percent. The average age of drinking drivers in fatal crashes has decreased 24.4 percent since 2012.

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
2020	5	3	0	3	0	3	5	5	1	3	5	2	35
2021	2	3	1	1	3	9	5	6	2	3	4	5	44

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 PEOPLE 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
2020	35	1,397	7,378	3,027,865	266,717	1.2
2021	44	1,442	7,990	3,478,015	291,571	1.3

*Excludes trailers and trailer coaches, and includes mopeds

AGE

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	2	0	0	6	0	6	0	0	0	0	0	0	0	0	0
1	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
2	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
3	1	0	0	4	0	4	0	0	0	0	0	0	0	0	0
4	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
5	0	0	0	6	0	6	0	0	0	0	0	0	0	0	0
6	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0
7	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0
8	0	0	0	5	0	5	0	0	0	0	0	0	0	0	0
9	0	0	0	4	0	4	0	0	0	0	0	0	0	0	0
10	0	0	0	8	0	8	0	0	0	0	0	0	0	0	0
11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	3	0	2	4	0	4	0	0	0	2	0	2	0	0	0
13	2	0	2	6	0	6	0	0	0	2	0	2	0	0	0
14	7	0	6	6	0	6	1	0	1	1	0	1	0	0	0
15	21	0	9	12	0	12	2	0	2	0	0	0	0	0	0
16	187	0	21	11	0	11	1	0	1	2	0	1	4	0	4
17	255	0	33	10	0	10	1	0	1	0	0	0	0	0	0
18	289	0	22	12	0	12	1	0	1	1	0	1	1	0	1
19	249	0	30	8	0	8	2	0	2	5	0	3	0	0	0
20	290	4	29	10	0	10	1	0	1	1	0	1	0	0	0
21	297	1	26	7	0	7	0	0	0	0	0	0	0	0	0
22	209	0	23	11	0	11	3	0	2	2	0	2	1	1	0
23	239	0	22	10	0	10	1	0	1	0	0	0	0	0	0
24	198	0	24	7	0	7	1	0	1	0	0	0	1	0	1
25	218	1	27	8	0	8	1	0	1	1	0	1	2	0	2
26	178	0	16	3	0	3	1	0	1	0	0	0	1	0	1
27	170	0	15	10	0	10	1	0	1	0	0	0	0	0	0
28	195	0	22	6	0	6	3	0	2	0	0	0	0	0	0
29	166	0	18	6	1	5	6	0	5	0	0	0	0	0	0
30	161	3	16	4	0	4	3	0	2	0	0	0	0	0	0
31	198	2	15	0	0	0	2	0	1	0	0	0	0	0	0
32	180	0	14	2	0	2	1	0	1	0	0	0	0	0	0
33	143	0	15	1	0	1	3	0	3	1	0	1	1	0	1
34	170	0	19	5	0	5	1	0	1	0	0	0	0	0	0
35	182	0	26	4	0	4	0	0	0	1	0	1	0	0	0
36	190	0	16	4	0	4	2	0	1	0	0	0	0	0	0
37	159	0	18	4	0	4	0	0	0	0	0	0	1	0	1

*Driver age is calculated from birth date, and invalid date of birth can 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	188	0	15	4	0	4	0	0	0	1	0	1	0	0	0
39	167	0	18	3	0	3	2	0	2	0	0	0	0	0	0
40	156	3	7	5	0	5	6	0	3	0	0	0	0	0	0
41	154	1	13	3	0	3	3	0	3	0	0	0	2	0	2
42	157	0	15	5	0	5	3	0	3	0	0	0	0	0	0
43	138	1	12	4	0	4	4	1	3	0	0	0	0	0	0
44	118	1	8	2	0	2	1	0	1	0	0	0	0	0	0
45	124	1	9	2	0	2	0	0	0	0	0	0	0	0	0
46	142	0	14	1	0	1	4	0	3	0	0	0	0	0	0
47	154	1	9	10	0	10	2	1	1	1	0	0	1	0	1
48	146	1	8	4	0	4	1	0	1	1	0	1	0	0	0
49	143	1	18	4	1	3	4	0	3	0	0	0	0	0	0
50	152	1	21	3	1	2	6	0	5	0	0	0	0	0	0
51	141	0	9	4	0	4	4	0	3	0	0	0	0	0	0
52	144	0	11	1	0	1	2	0	1	0	0	0	0	0	0
53	142	1	11	3	0	3	2	1	1	1	0	1	0	0	0
54	153	0	14	6	0	6	6	0	4	0	0	0	0	0	0
55	175	0	22	0	0	0	3	0	2	1	0	1	0	0	0
56	156	0	12	5	0	5	1	0	1	0	0	0	1	1	0
57	148	0	14	7	0	7	2	0	2	0	0	0	0	0	0
58	136	0	13	2	0	2	5	0	3	1	0	1	1	0	1
59	165	0	19	6	0	6	4	0	2	0	0	0	0	0	0
60	176	1	17	4	1	3	5	1	3	0	0	0	1	0	1
61	153	1	17	6	0	6	1	0	1	1	0	1	0	0	0
62	180	1	19	4	0	4	5	0	5	1	0	1	0	0	0
63	143	1	8	8	1	7	1	0	1	0	0	0	1	0	1
64	147	1	13	4	0	4	1	0	1	1	0	1	2	0	2
65	154	0	17	1	0	1	2	0	2	0	0	0	0	0	0
66	139	1	12	2	0	2	0	0	0	0	0	0	0	0	0
67	136	1	12	3	0	3	2	0	2	0	0	0	1	0	0
68	102	0	10	1	0	1	1	0	1	2	0	2	0	0	0
69	116	0	12	2	0	2	2	0	0	0	0	0	0	0	0
70	104	1	10	2	0	2	0	0	0	0	0	0	0	0	0
71	121	0	12	3	0	3	1	0	1	0	0	0	0	0	0
72	101	0	11	1	0	1	2	0	2	0	0	0	0	0	0
73	87	1	7	6	0	6	0	0	0	0	0	0	2	1	1
74	99	1	12	1	0	1	0	0	0	0	0	0	0	0	0
75	67	0	5	0	0	0	0	0	0	0	0	0	0	0	0
76	67	1	5	1	0	1	0	0	0	1	0	1	0	0	0

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

AGE	DRIVER			INJURED PASSENGER			MOTORCYCLIST			BICYCLIST			PEDESTRIAN		
	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
77	67	0	7	4	0	4	0	0	0	0	0	0	0	0	0
78	59	0	5	3	0	3	0	0	0	0	0	0	0	0	0
79	53	0	5	3	1	2	0	0	0	0	0	0	0	0	0
80	48	0	6	0	0	0	0	0	0	0	0	0	0	0	0
81	42	0	5	0	0	0	1	0	0	0	0	0	1	0	1
82	43	0	6	2	0	2	0	0	0	0	0	0	0	0	0
83	26	0	6	0	0	0	0	0	0	0	0	0	0	0	0
84	27	0	5	1	0	1	0	0	0	0	0	0	0	0	0
85	22	0	2	0	0	0	0	0	0	0	0	0	0	0	0
86	18	1	2	3	0	3	0	0	0	0	0	0	0	0	0
87	14	0	1	2	0	2	0	0	0	0	0	0	0	0	0
88	10	0	3	0	0	0	0	0	0	0	0	0	0	0	0
89	19	0	1	0	0	0	0	0	0	0	0	0	0	0	0
90	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0
91	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
92	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0
93	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
94	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
95	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0
96	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
99	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
101	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
102	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
105	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
106	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
107	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	602	0	0	0	0	0	1	0	0	1	0	0	0	0	0
TOTAL	11,025	35	1,034	366	6	360	128	4	98	32	0	27	25	3	21
	*Includes 645 drivers with unknown injury severity and 9,311 with no injury						*Includes one motorcyclist with unknown injury severity and 25 with no injury			*Includes one bicyclist with unknown injury severity and four with no injury			*Includes no pedestrians with unknown injury severity and one 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	830	65.4	5	83.3	151	68.0
Turning Left	87	6.9	0	0.0	20	9.0
Turning Right	51	4.0	0	0.0	7	3.2
Stopped on Roadway	46	3.6	0	0.0	6	2.7
Involved in Prior Crash at Same Location	0	0.0	0	0.0	0	0.0
Changing Lanes	14	1.1	0	0.0	1	0.5
Backing	44	3.5	0	0.0	0	0.0
Slowing/Stopping on Roadway	66	5.2	0	0.0	10	4.5
Slowing/Stopping Other Area	1	0.1	0	0.0	0	0.0
Starting Up on Roadway	19	1.5	0	0.0	3	1.4
Starting Up in Other Area	0	0.0	0	0.0	0	0.0
Entering Parking	1	0.1	0	0.0	0	0.0
Leaving Parking	5	0.4	0	0.0	1	0.5
Entering Roadway	13	1.0	0	0.0	4	1.8
Leaving Roadway	4	0.3	0	0.0	3	1.4
Making U-Turn	1	0.1	0	0.0	0	0.0
Overtaking or Passing	11	0.9	0	0.0	3	1.4
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)	7	0.6	0	0.0	1	0.5
Avoiding Vehicle (angle)	3	0.2	0	0.0	1	0.5
Driverless Moving	2	0.2	0	0.0	1	0.5
Parked	8	0.6	0	0.0	0	0.0
Crossing at Intersection	1	0.1	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 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
Other	2	0.2	0	0.0	0	0.0
Unknown	2	0.2	0	0.0	0	0.0
Avoiding Animal	5	0.4	0	0.0	0	0.0
Negotiating a Curve	47	3.7	1	16.7	10	4.5
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	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	27	2.1	0	0.0	6	2.7
Cross Centerline	5	0.4	0	0.0	0	0.0
Cross Median	2	0.2	0	0.0	0	0.0
Ran Off Roadway Left	15	1.2	0	0.0	1	0.5
Ran Off Roadway Right	16	1.3	0	0.0	1	0.5
Re-Enter Roadway	0	0.0	0	0.0	0	0.0
Overturn	66	5.2	1	16.7	30	13.5
Separation of Units	7	0.6	0	0.0	3	1.4
Fire/Explosion	2	0.2	0	0.0	1	0.5
Immersion	1	0.1	0	0.0	1	0.5
Jackknife	0	0.0	0	0.0	0	0.0
Downhill Runaway	0	0.0	0	0.0	0	0.0
Cargo Loss/Shift	1	0.1	0	0.0	0	0.0
Individual Fell from Vehicle	4	0.3	0	0.0	4	1.8
Equipment Failure (blown tire, brake failure, etc.)	4	0.3	0	0.0	1	0.5
Other Noncollision	4	0.3	0	0.0	2	0.9
SUBTOTAL	154	12.1	1	16.7	50	22.5

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 (5.2%), fatal crashes (16.7%), and injury crashes (13.5%).

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	4	0.3	1	16.7	3	1.4
Bicyclist	3	0.2	0	0.0	2	0.9
Motor Vehicle in Transport (in motion or on roadway)	638	50.2	3	50.0	117	52.7
Parked Motor Vehicle	44	3.5	0	0.0	4	1.8
Work Zone/Maintenance Equipment	0	0.0	0	0.0	0	0.0
Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle	1	0.1	0	0.0	0	0.0
Railroad Train	1	0.1	0	0.0	0	0.0
Animal	206	16.2	0	0.0	4	1.8
Other Nonfixed Object	19	1.5	0	0.0	5	2.3
SUBTOTAL	916	72.1	4	66.7	135	60.8

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/Support	0	0.0	0	0.0	0	0.0
Bridge Rail	0	0.0	0	0.0	0	0.0
Bridge Overhead Structure	0	0.0	0	0.0	0	0.0
Guardrail Face	7	0.6	0	0.0	1	0.5
Guardrail End	4	0.3	0	0.0	1	0.5
Cable Barrier	0	0.0	0	0.0	0	0.0
Concrete Barrier	2	0.2	0	0.0	1	0.5
Traffic Sign/Post	20	1.6	0	0.0	0	0.0
Traffic Signal Equipment	4	0.3	0	0.0	1	0.5
Utility Pole/Light Support	20	1.6	0	0.0	3	1.4
Other Post/Pole/Support	3	0.2	0	0.0	1	0.5
Culvert	0	0.0	0	0.0	0	0.0
Curb	1	0.1	0	0.0	0	0.0
Ditch	40	3.1	1	16.7	7	3.2
Embankment	9	0.7	0	0.0	3	1.4
Fence	0	0.0	0	0.0	0	0.0
Mailbox	3	0.2	0	0.0	0	0.0
Tree	71	5.6	0	0.0	18	8.1
Railroad Crossing Signal	0	0.0	0	0.0	0	0.0
Building	3	0.2	0	0.0	0	0.0
Traffic Island	0	0.0	0	0.0	0	0.0
Fire Hydrant	3	0.2	0	0.0	0	0.0
Impact Attenuator (crash cushion)	2	0.2	0	0.0	0	0.0
Other Fixed Object	8	0.6	0	0.0	1	0.5
SUBTOTAL	200	15.7	1	16.7	37	16.7

For drivers age 16-20 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (5.6%) and injury crashes (8.1%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	0	0.0	0	0.0	0	0.0
No Event Coded as Most Harmful	0	0.0	0	0.0	0	0.0
MOST HARMFUL EVENT TOTAL	1,270	100.0	6	100.0	222	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 Motor Vehicle	540	42.5	2	33.3	84	37.8
Head-On	16	1.3	0	0.0	8	3.6
Head-On - Left Turn	37	2.9	0	0.0	12	5.4
Angle	203	16.0	1	16.7	46	20.7
Rear-End	225	17.7	1	16.7	38	17.1
Rear-End - Left Turn	24	1.9	0	0.0	6	2.7
Rear-End - Right Turn	11	0.9	0	0.0	1	0.5
Sideswipe - Same Direction	106	8.3	1	16.7	11	5.0
Sideswipe - Opposite Directions	25	2.0	0	0.0	4	1.8
Backing	39	3.1	0	0.0	0	0.0
Other	38	3.0	1	16.7	12	5.4
Unknown	6	0.5	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	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 (42.5%) and injury crashes (37.8%).

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 the Road	1,020	80.3	6	100.0	170	76.6
In the Median	6	0.5	0	0.0	1	0.5
On the Shoulder	76	6.0	0	0.0	15	6.8
Outside of the Shoulder/Curb-Line	124	9.8	0	0.0	32	14.4
In the Gore (area between ramp and freeway convergence)	8	0.6	0	0.0	0	0.0
On-Street Parking	21	1.7	0	0.0	0	0.0
Off the Roadway	0	0.0	0	0.0	0	0.0
On the Sidewalk	0	0.0	0	0.0	0	0.0
In the Bicycle Lane	1	0.1	0	0.0	0	0.0
Other/Unknown	14	1.1	0	0.0	4	1.8
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	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-line for all crashes (9.8%) and injury crashes (14.4%).

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	41	3.2	1	16.7	8	3.6
U.S. & Michigan Roads	629	49.5	5	83.3	114	51.4
County & City Roads	599	47.2	0	0.0	100	45.0
Uncoded & Errors	1	0.1	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	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	60	4.7	0	0.0	14	6.3
3:00 AM - 5:59 AM	25	2.0	0	0.0	5	2.3
6:00 AM - 8:59 AM	136	10.7	1	16.7	24	10.8
9:00 AM - 11:59 AM	143	11.3	0	0.0	26	11.7
12:00 PM - 2:59 PM	226	17.8	0	0.0	34	15.3
3:00 PM - 5:59 PM	343	27.0	3	50.0	73	32.9
6:00 PM - 8:59 PM	188	14.8	2	33.3	22	9.9
9:00 PM - 11:59 PM	147	11.6	0	0.0	24	10.8
Unknown	2	0.2	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	100.0

For drivers age 16-20 in the Upper Peninsula, the 3:00 PM - 5:59 PM time period has the highest proportion of all crashes (27.0%) and injury crashes (32.9%).

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	525	41.3	2	33.3	59	26.6	3	1.6
Speed Too Fast	200	15.7	1	16.7	50	22.5	53	27.5
Speed Too Slow	1	0.1	0	0.0	1	0.5	0	0.0
Failed to Yield	128	10.1	0	0.0	28	12.6	40	20.7
Disregard Traffic Control	22	1.7	0	0.0	10	4.5	17	8.8
Drove Wrong Way	1	0.1	0	0.0	0	0.0	1	0.5
Drove Left of Center	6	0.5	0	0.0	0	0.0	1	0.5
Improper Passing	8	0.6	0	0.0	1	0.5	2	1.0
Improper Lane Use	22	1.7	0	0.0	2	0.9	2	1.0
Improper Turn	17	1.3	0	0.0	3	1.4	3	1.6
Improper/No Signal	3	0.2	0	0.0	0	0.0	0	0.0
Improper Backing	29	2.3	0	0.0	0	0.0	3	1.6
Unable to Stop in Assured Clear Distance	154	12.1	0	0.0	26	11.7	26	13.5
Other	47	3.7	1	16.7	11	5.0	7	3.6
Unknown	33	2.6	1	16.7	6	2.7	1	0.5
Reckless Driving	7	0.6	1	16.7	4	1.8	5	2.6
Careless/Negligent Driving	67	5.3	0	0.0	21	9.5	29	15.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	100.0	193	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 (15.7%) and injury crashes (22.5%).

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	211	16.6	0	0.0	31	14.0
Tuesday	167	13.1	1	16.7	31	14.0
Wednesday	154	12.1	1	16.7	22	9.9
Thursday	191	15.0	2	33.3	37	16.7
Friday	199	15.7	0	0.0	34	15.3
Saturday	184	14.5	2	33.3	40	18.0
Sunday	164	12.9	0	0.0	27	12.2
TOTAL	1,270	100.0	6	100.0	222	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	677	53.3	4	66.7	121	54.5
Female	591	46.5	2	33.3	101	45.5
Uncoded & Errors	2	0.2	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	100.0

For drivers age 16-20 in the Upper Peninsula, male drivers (66.7%) account for 2.0 times that of female drivers (33.3%) in fatal crashes.

NUMBER OF OCCUPANTS	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
1 occupant	950	74.8	4	66.7	144	64.9
2 occupants	222	17.5	2	33.3	54	24.3
3 occupants	59	4.6	0	0.0	12	5.4
4 occupants	22	1.7	0	0.0	6	2.7
5 occupants	9	0.7	0	0.0	5	2.3
6+ occupants	2	0.2	0	0.0	0	0.0
0 occupants	6	0.5	0	0.0	1	0.5
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,270	100.0	6	100.0	222	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	1,015	79.9	4	66.7	162	73.0
Motor Home	0	0.0	0	0.0	0	0.0
Pickup Truck	213	16.8	2	33.3	40	18.0
Small Truck Under 10,000 lbs. GVWR	10	0.8	0	0.0	3	1.4
Motorcycle	4	0.3	0	0.0	4	1.8
Moped/Goped	3	0.2	0	0.0	2	0.9
Go-Cart/Golf Cart	0	0.0	0	0.0	0	0.0
Snowmobile	4	0.3	0	0.0	2	0.9
Off-Road Vehicle (ORV)/All-Terrain Vehicle (ATV)	13	1.0	0	0.0	8	3.6
Other (non-registered farm equipment, construction equipment, snow plows, etc.)	0	0.0	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
Truck/Bus (over 10,000 lbs. GVWR/8+ occupants/hazmat placard) (breakdown below)	8	0.6	0	0.0	1	0.5
TOTAL	1,270	100.0	6	100.0	222	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.	3	37.5	0	0.0	0	0.0
Greater Than 26,000 lbs.	5	62.5	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	5,231	71.2	33	70.2	737	65.9
Turning Left	291	4.0	0	0.0	84	7.5
Turning Right	206	2.8	0	0.0	26	2.3
Stopped on Roadway	330	4.5	2	4.3	64	5.7
Involved in Prior Crash at Same Location	0	0.0	0	0.0	0	0.0
Changing Lanes	70	1.0	0	0.0	7	0.6
Backing	240	3.3	0	0.0	6	0.5
Slowing/Stopping on Roadway	322	4.4	0	0.0	69	6.2
Slowing/Stopping Other Area	11	0.1	0	0.0	3	0.3
Starting Up on Roadway	77	1.0	1	2.1	8	0.7
Starting Up in Other Area	4	0.1	1	2.1	1	0.1
Entering Parking	17	0.2	0	0.0	0	0.0
Leaving Parking	23	0.3	0	0.0	2	0.2
Entering Roadway	67	0.9	2	4.3	14	1.3
Leaving Roadway	14	0.2	1	2.1	1	0.1
Making U-Turn	16	0.2	0	0.0	9	0.8
Overtaking or Passing	52	0.7	0	0.0	13	1.2
Avoiding Object	6	0.1	0	0.0	0	0.0
Avoiding Pedestrian	2	0.0	0	0.0	0	0.0
Avoiding Vehicle (front/back)	33	0.4	0	0.0	12	1.1
Avoiding Vehicle (angle)	10	0.1	1	2.1	3	0.3
Driverless Moving	3	0.0	0	0.0	0	0.0
Parked	96	1.3	0	0.0	5	0.4
Crossing at Intersection	4	0.1	0	0.0	2	0.2
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	1	0.0	0	0.0	1	0.1
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 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	1	0.0	0	0.0	0	0.0
Other	13	0.2	1	2.1	2	0.2
Unknown	13	0.2	1	2.1	1	0.1
Avoiding Animal	37	0.5	0	0.0	6	0.5
Negotiating a Curve	161	2.2	4	8.5	42	3.8
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	7,351	100.0	47	100.0	1,118	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	132	1.8	0	0.0	27	2.4
Cross Centerline	30	0.4	0	0.0	5	0.4
Cross Median	4	0.1	0	0.0	2	0.2
Ran Off Roadway Left	58	0.8	1	2.1	9	0.8
Ran Off Roadway Right	79	1.1	0	0.0	9	0.8
Re-Enter Roadway	12	0.2	0	0.0	3	0.3
Overturn	166	2.3	6	12.8	81	7.2
Separation of Units	26	0.4	0	0.0	2	0.2
Fire/Explosion	14	0.2	0	0.0	2	0.2
Immersion	4	0.1	0	0.0	2	0.2
Jackknife	5	0.1	0	0.0	0	0.0
Downhill Runaway	0	0.0	0	0.0	0	0.0
Cargo Loss/Shift	9	0.1	0	0.0	1	0.1
Individual Fell from Vehicle	18	0.2	1	2.1	16	1.4
Equipment Failure (blown tire, brake failure, etc.)	15	0.2	0	0.0	2	0.2
Other Noncollision	17	0.2	0	0.0	4	0.4
SUBTOTAL	589	8.0	8	17.0	165	14.8

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 (2.3%) and injury crashes (7.2%).

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	11	0.1	1	2.1	10	0.9
Bicyclist	18	0.2	0	0.0	16	1.4
Motor Vehicle in Transport (in motion or on roadway)	3,084	42.0	31	66.0	670	59.9
Parked Motor Vehicle	271	3.7	1	2.1	29	2.6
Work Zone/Maintenance Equipment	0	0.0	0	0.0	0	0.0
Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle	10	0.1	0	0.0	2	0.2
Railroad Train	1	0.0	1	2.1	0	0.0
Animal	2,571	35.0	0	0.0	46	4.1
Other Nonfixed Object	71	1.0	0	0.0	7	0.6
SUBTOTAL	6,037	82.1	34	72.3	780	69.8

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/Support	0	0.0	0	0.0	0	0.0
Bridge Rail	7	0.1	0	0.0	1	0.1
Bridge Overhead Structure	0	0.0	0	0.0	0	0.0
Guardrail Face	49	0.7	0	0.0	10	0.9
Guardrail End	8	0.1	0	0.0	2	0.2
Cable Barrier	2	0.0	0	0.0	0	0.0
Concrete Barrier	4	0.1	0	0.0	1	0.1
Traffic Sign/Post	54	0.7	0	0.0	2	0.2
Traffic Signal Equipment	10	0.1	0	0.0	2	0.2
Utility Pole/Light Support	73	1.0	1	2.1	14	1.3
Other Post/Pole/Support	21	0.3	0	0.0	4	0.4
Culvert	8	0.1	0	0.0	3	0.3
Curb	9	0.1	0	0.0	1	0.1
Ditch	128	1.7	0	0.0	28	2.5
Embankment	27	0.4	1	2.1	8	0.7
Fence	4	0.1	0	0.0	1	0.1
Mailbox	19	0.3	0	0.0	1	0.1
Tree	238	3.2	2	4.3	84	7.5
Railroad Crossing Signal	0	0.0	0	0.0	0	0.0
Building	18	0.2	1	2.1	2	0.2
Traffic Island	0	0.0	0	0.0	0	0.0
Fire Hydrant	9	0.1	0	0.0	2	0.2
Impact Attenuator (crash cushion)	8	0.1	0	0.0	2	0.2
Other Fixed Object	29	0.4	0	0.0	5	0.4
SUBTOTAL	725	9.9	5	10.6	173	15.5

For drivers age 21-64 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (3.2%), fatal crashes (4.3%), and injury crashes (7.5%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	0	0.0	0	0.0	0	0.0
No Event Coded as Most Harmful	0	0.0	0	0.0	0	0.0
MOST HARMFUL EVENT TOTAL	7,351	100.0	47	100.0	1,118	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 Motor Vehicle	3,718	50.6	13	27.7	359	32.1
Head-On	91	1.2	9	19.1	55	4.9
Head-On - Left Turn	152	2.1	0	0.0	68	6.1
Angle	978	13.3	12	25.5	253	22.6
Rear-End	1,033	14.1	6	12.8	237	21.2
Rear-End - Left Turn	81	1.1	0	0.0	25	2.2
Rear-End - Right Turn	59	0.8	0	0.0	6	0.5
Sideswipe - Same Direction	524	7.1	1	2.1	43	3.8
Sideswipe - Opposite Directions	171	2.3	1	2.1	19	1.7
Backing	262	3.6	0	0.0	3	0.3
Other	256	3.5	5	10.6	46	4.1
Unknown	26	0.4	0	0.0	4	0.4
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	7,351	100.0	47	100.0	1,118	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 (50.6%), fatal crashes (27.7%), and injury crashes (32.1%).

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT)	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
On the Road	6,478	88.1	36	76.6	922	82.5
In the Median	14	0.2	0	0.0	3	0.3
On the Shoulder	284	3.9	5	10.6	61	5.5
Outside of the Shoulder/Curb-Line	415	5.6	5	10.6	121	10.8
In the Gore (area between ramp and freeway convergence)	14	0.2	0	0.0	1	0.1
On-Street Parking	97	1.3	0	0.0	6	0.5
Off the Roadway	0	0.0	0	0.0	0	0.0
On the Sidewalk	5	0.1	0	0.0	1	0.1
In the Bicycle Lane	0	0.0	0	0.0	0	0.0
Other/Unknown	44	0.6	1	2.1	3	0.3
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	7,351	100.0	47	100.0	1,118	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-line for all crashes (5.6%) and injury crashes (10.8%).

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	293	4.0	2	4.3	47	4.2
U.S. & Michigan Roads	4,173	56.8	24	51.1	635	56.8
County & City Roads	2,835	38.6	21	44.7	427	38.2
Uncoded & Errors	50	0.7	0	0.0	9	0.8
TOTAL	7,351	100.0	47	100.0	1,118	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	298	4.1	4	8.5	52	4.7
3:00 AM - 5:59 AM	316	4.3	2	4.3	29	2.6
6:00 AM - 8:59 AM	1,056	14.4	2	4.3	113	10.1
9:00 AM - 11:59 AM	987	13.4	5	10.6	156	14.0
12:00 PM - 2:59 PM	1,289	17.5	9	19.1	237	21.2
3:00 PM - 5:59 PM	1,561	21.2	11	23.4	315	28.2
6:00 PM - 8:59 PM	1,144	15.6	9	19.1	155	13.9
9:00 PM - 11:59 PM	694	9.4	5	10.6	61	5.5
Unknown	6	0.1	0	0.0	0	0.0
TOTAL	7,351	100.0	47	100.0	1,118	100.0

For drivers age 21-64 in the Upper Peninsula, the 3:00 PM - 5:59 PM time period has the highest proportion of all crashes (21.2%), fatal crashes (23.4%), and injury crashes (28.2%).

HAZARDOUS ACTION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES		HAZARDOUS CITATION ISSUED	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
None	4,634	63.0	17	36.2	523	46.8	10	1.4
Speed Too Fast	540	7.3	4	8.5	125	11.2	155	21.6
Speed Too Slow	4	0.1	0	0.0	2	0.2	1	0.1
Failed to Yield	422	5.7	5	10.6	118	10.6	122	17.0
Disregard Traffic Control	79	1.1	2	4.3	24	2.1	29	4.0
Drove Wrong Way	2	0.0	0	0.0	0	0.0	1	0.1
Drove Left of Center	38	0.5	1	2.1	14	1.3	7	1.0
Improper Passing	29	0.4	0	0.0	2	0.2	7	1.0
Improper Lane Use	79	1.1	0	0.0	5	0.4	9	1.3
Improper Turn	64	0.9	0	0.0	10	0.9	7	1.0
Improper/No Signal	10	0.1	0	0.0	1	0.1	1	0.1
Improper Backing	168	2.3	0	0.0	2	0.2	11	1.5
Unable to Stop in Assured Clear Distance	480	6.5	2	4.3	81	7.2	100	13.9
Other	226	3.1	0	0.0	59	5.3	63	8.8
Unknown	217	3.0	7	14.9	36	3.2	11	1.5
Reckless Driving	42	0.6	4	8.5	14	1.3	22	3.1
Careless/Negligent Driving	317	4.3	5	10.6	102	9.1	162	22.6
Uncoded & Errors	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	7,351	100.0	47	100.0	1,118	100.0	718	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 (7.3%) and injury crashes (11.2%).

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	1,095	14.9	0	0.0	153	13.7
Tuesday	1,025	13.9	7	14.9	152	13.6
Wednesday	1,048	14.3	5	10.6	159	14.2
Thursday	1,109	15.1	13	27.7	170	15.2
Friday	1,169	15.9	5	10.6	191	17.1
Saturday	1,011	13.8	12	25.5	158	14.1
Sunday	894	12.2	5	10.6	135	12.1
TOTAL	7,351	100.0	47	100.0	1,118	100.0

DRIVER GENDER	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Male	4,322	58.8	36	76.6	659	58.9
Female	3,028	41.2	11	23.4	459	41.1
Uncoded & Errors	1	0.0	0	0.0	0	0.0
TOTAL	7,351	100.0	47	100.0	1,118	100.0

For drivers age 21-64 in the Upper Peninsula, male drivers (76.6%) account for 3.3 times that of female drivers (23.4%) 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	5,784	78.7	32	68.1	767	68.6
2 occupants	1,091	14.8	9	19.1	245	21.9
3 occupants	239	3.3	3	6.4	60	5.4
4 occupants	115	1.6	2	4.3	29	2.6
5 occupants	47	0.6	1	2.1	12	1.1
6+ occupants	24	0.3	0	0.0	4	0.4
0 occupants	51	0.7	0	0.0	1	0.1
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	7,351	100.0	47	100.0	1,118	100.0

UPPER PENINSULA DRIVER AGE 21-64 (CONTINUED)

VEHICLE TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Passenger Car, SUV, Van	5,000	68.0	27	57.4	684	61.2
Motor Home	7	0.1	0	0.0	0	0.0
Pickup Truck	1,822	24.8	9	19.1	253	22.6
Small Truck Under 10,000 lbs. GVWR	50	0.7	0	0.0	3	0.3
Motorcycle	92	1.3	4	8.5	74	6.6
Moped/Goped	6	0.1	0	0.0	4	0.4
Go-Cart/Golf Cart	0	0.0	0	0.0	0	0.0
Snowmobile	33	0.4	1	2.1	28	2.5
Off-Road Vehicle (ORV)/All-Terrain Vehicle (ATV)	40	0.5	3	6.4	28	2.5
Other (non-registered farm equipment, construction equipment, snow plows, etc.)	27	0.4	0	0.0	4	0.4
Uncoded & Errors	1	0.0	0	0.0	0	0.0
Truck/Bus (over 10,000 lbs. GVWR/8+ occupants/hazmat placard) (breakdown below)	273	3.7	3	6.4	40	3.6
TOTAL	7,351	100.0	47	100.0	1,118	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.	110	40.3	2	66.7	13	32.5
Greater Than 26,000 lbs.	163	59.7	1	33.3	27	67.5
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	273	100.0	3	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	1,145	64.8	11	78.6	155	56.2
Turning Left	135	7.6	0	0.0	47	17.0
Turning Right	59	3.3	0	0.0	8	2.9
Stopped on Roadway	93	5.3	0	0.0	18	6.5
Involved in Prior Crash at Same Location	0	0.0	0	0.0	0	0.0
Changing Lanes	31	1.8	1	7.1	0	0.0
Backing	74	4.2	0	0.0	2	0.7
Slowing/Stopping on Roadway	59	3.3	0	0.0	13	4.7
Slowing/Stopping Other Area	3	0.2	0	0.0	1	0.4
Starting Up on Roadway	25	1.4	0	0.0	5	1.8
Starting Up in Other Area	1	0.1	0	0.0	0	0.0
Entering Parking	3	0.2	0	0.0	0	0.0
Leaving Parking	17	1.0	0	0.0	2	0.7
Entering Roadway	28	1.6	0	0.0	8	2.9
Leaving Roadway	6	0.3	0	0.0	3	1.1
Making U-Turn	3	0.2	0	0.0	0	0.0
Overtaking or Passing	14	0.8	0	0.0	4	1.4
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)	8	0.5	0	0.0	3	1.1
Avoiding Vehicle (angle)	1	0.1	0	0.0	0	0.0
Driverless Moving	2	0.1	0	0.0	0	0.0
Parked	27	1.5	0	0.0	1	0.4
Crossing at Intersection	1	0.1	0	0.0	0	0.0
Crossing Not at Intersection	1	0.1	0	0.0	1	0.4
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 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
Other	6	0.3	0	0.0	2	0.7
Unknown	2	0.1	0	0.0	0	0.0
Avoiding Animal	5	0.3	0	0.0	1	0.4
Negotiating a Curve	17	1.0	2	14.3	2	0.7
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,766	100.0	14	100.0	276	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	17	1.0	0	0.0	6	2.2
Cross Centerline	13	0.7	0	0.0	3	1.1
Cross Median	0	0.0	0	0.0	0	0.0
Ran Off Roadway Left	7	0.4	0	0.0	1	0.4
Ran Off Roadway Right	13	0.7	0	0.0	1	0.4
Re-Enter Roadway	7	0.4	1	7.1	2	0.7
Overturn	16	0.9	1	7.1	6	2.2
Separation of Units	10	0.6	0	0.0	4	1.4
Fire/Explosion	1	0.1	0	0.0	0	0.0
Immersion	2	0.1	0	0.0	0	0.0
Jackknife	1	0.1	0	0.0	0	0.0
Downhill Runaway	0	0.0	0	0.0	0	0.0
Cargo Loss/Shift	2	0.1	1	7.1	0	0.0
Individual Fell from Vehicle	1	0.1	0	0.0	1	0.4
Equipment Failure (blown tire, brake failure, etc.)	2	0.1	0	0.0	0	0.0
Other Noncollision	6	0.3	0	0.0	0	0.0
SUBTOTAL	98	5.5	3	21.4	24	8.7

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 (1.0%). For injury crashes, the most common harmful events in a noncolision for drivers age 65 and over are loss of control and overturn (2.2% each).

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	5	1.8
Bicyclist	7	0.4	0	0.0	5	1.8
Motor Vehicle in Transport (in motion or on roadway)	873	49.4	9	64.3	193	69.9
Parked Motor Vehicle	78	4.4	0	0.0	6	2.2
Work Zone/Maintenance Equipment	0	0.0	0	0.0	0	0.0
Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle	3	0.2	0	0.0	0	0.0
Railroad Train	2	0.1	0	0.0	1	0.4
Animal	567	32.1	0	0.0	9	3.3
Other Nonfixed Object	14	0.8	0	0.0	3	1.1
SUBTOTAL	1,550	87.8	9	64.3	222	80.4

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/Support	0	0.0	0	0.0	0	0.0
Bridge Rail	1	0.1	0	0.0	0	0.0
Bridge Overhead Structure	1	0.1	0	0.0	0	0.0
Guardrail Face	2	0.1	0	0.0	1	0.4
Guardrail End	0	0.0	0	0.0	0	0.0
Cable Barrier	1	0.1	0	0.0	0	0.0
Concrete Barrier	3	0.2	0	0.0	0	0.0
Traffic Sign/Post	10	0.6	0	0.0	1	0.4
Traffic Signal Equipment	0	0.0	0	0.0	0	0.0
Utility Pole/Light Support	6	0.3	0	0.0	3	1.1
Other Post/Pole/Support	4	0.2	0	0.0	0	0.0
Culvert	1	0.1	0	0.0	1	0.4
Curb	0	0.0	0	0.0	0	0.0
Ditch	23	1.3	1	7.1	3	1.1
Embankment	6	0.3	0	0.0	3	1.1
Fence	2	0.1	0	0.0	1	0.4
Mailbox	6	0.3	0	0.0	1	0.4
Tree	40	2.3	1	7.1	11	4.0
Railroad Crossing Signal	1	0.1	0	0.0	0	0.0
Building	1	0.1	0	0.0	1	0.4
Traffic Island	1	0.1	0	0.0	0	0.0
Fire Hydrant	0	0.0	0	0.0	0	0.0
Impact Attenuator (crash cushion)	1	0.1	0	0.0	0	0.0
Other Fixed Object	8	0.5	0	0.0	4	1.4
SUBTOTAL	118	6.7	2	14.3	30	10.9

For drivers age 65 and over in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (2.3%) and injury crashes (4.0%).

	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Uncoded & Errors	0	0.0	0	0.0	0	0.0
No Event Coded as Most Harmful	0	0.0	0	0.0	0	0.0
MOST HARMFUL EVENT TOTAL	1,766	100.0	14	100.0	276	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 Motor Vehicle	738	41.8	2	14.3	58	21.0
Head-On	29	1.6	6	42.9	15	5.4
Head-On - Left Turn	53	3.0	0	0.0	20	7.2
Angle	317	18.0	2	14.3	87	31.5
Rear-End	214	12.1	1	7.1	54	19.6
Rear-End - Left Turn	13	0.7	0	0.0	3	1.1
Rear-End - Right Turn	14	0.8	0	0.0	2	0.7
Sideswipe - Same Direction	193	10.9	0	0.0	16	5.8
Sideswipe - Opposite Directions	38	2.2	2	14.3	7	2.5
Backing	83	4.7	0	0.0	1	0.4
Other	63	3.6	1	7.1	13	4.7
Unknown	11	0.6	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,766	100.0	14	100.0	276	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 (41.8%). Angle crashes are the most common crash type for drivers age 65 and over to be involved in among injury crashes (31.5%).

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 the Road	1,580	89.5	12	85.7	233	84.4
In the Median	4	0.2	0	0.0	0	0.0
On the Shoulder	66	3.7	2	14.3	17	6.2
Outside of the Shoulder/Curb-Line	66	3.7	0	0.0	22	8.0
In the Gore (area between ramp and freeway convergence)	4	0.2	0	0.0	1	0.4
On-Street Parking	30	1.7	0	0.0	2	0.7
Off the Roadway	0	0.0	0	0.0	0	0.0
On the Sidewalk	3	0.2	0	0.0	0	0.0
In the Bicycle Lane	0	0.0	0	0.0	0	0.0
Other/Unknown	13	0.7	0	0.0	1	0.4
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,766	100.0	14	100.0	276	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 either on the shoulder or outside the shoulder/curb-line for all crashes (3.7% each). For injury crashes, the first impact for drivers age 65 and over is outside of the shouldner/curb-line (8.0%).

ROADWAY TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
Interstate Routes	62	3.5	0	0.0	10	3.6
U.S. & Michigan Roads	1,053	59.6	11	78.6	176	63.8
County & City Roads	643	36.4	3	21.4	88	31.9
Uncoded & Errors	8	0.5	0	0.0	2	0.7
TOTAL	1,766	100.0	14	100.0	276	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	26	1.5	0	0.0	5	1.8
3:00 AM - 5:59 AM	31	1.8	0	0.0	6	2.2
6:00 AM - 8:59 AM	138	7.8	0	0.0	17	6.2
9:00 AM - 11:59 AM	349	19.8	5	35.7	54	19.6
12:00 PM - 2:59 PM	470	26.6	5	35.7	84	30.4
3:00 PM - 5:59 PM	410	23.2	2	14.3	84	30.4
6:00 PM - 8:59 PM	237	13.4	2	14.3	18	6.5
9:00 PM - 11:59 PM	102	5.8	0	0.0	8	2.9
Unknown	3	0.2	0	0.0	0	0.0
TOTAL	1,766	100.0	14	100.0	276	100.0

For drivers age 65 and over in the Upper Peninsula, the 12:00 PM - 2:59 PM time period has the highest proportion of all crashes (26.6%) and the 12:00 PM - 2:59 PM and 3:00 PM - 5:59 PM time periods have the highest proportion of injury crashes (30.4% each).

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	1,068	60.5	6	42.9	118	42.8	3	2.0
Speed Too Fast	78	4.4	3	21.4	12	4.3	11	7.4
Speed Too Slow	1	0.1	0	0.0	0	0.0	0	0.0
Failed to Yield	219	12.4	2	14.3	67	24.3	55	37.2
Disregard Traffic Control	37	2.1	0	0.0	15	5.4	17	11.5
Drove Wrong Way	6	0.3	0	0.0	1	0.4	1	0.7
Drove Left of Center	11	0.6	1	7.1	1	0.4	0	0.0
Improper Passing	9	0.5	0	0.0	2	0.7	3	2.0
Improper Lane Use	43	2.4	0	0.0	3	1.1	9	6.1
Improper Turn	23	1.3	0	0.0	5	1.8	7	4.7
Improper/No Signal	2	0.1	0	0.0	1	0.4	2	1.4
Improper Backing	58	3.3	0	0.0	1	0.4	3	2.0
Unable to Stop in Assured Clear Distance	74	4.2	0	0.0	17	6.2	14	9.5
Other	56	3.2	0	0.0	18	6.5	7	4.7
Unknown	34	1.9	2	14.3	0	0.0	0	0.0
Reckless Driving	2	0.1	0	0.0	1	0.4	1	0.7
Careless/Negligent Driving	45	2.5	0	0.0	14	5.1	15	10.1
Uncoded & Errors	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	1,766	100.0	14	100.0	276	100.0	148	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 (12.4%) and injury crashes (24.3%) 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	266	15.1	0	0.0	37	13.4
Tuesday	262	14.8	0	0.0	39	14.1
Wednesday	294	16.6	1	7.1	53	19.2
Thursday	260	14.7	5	35.7	42	15.2
Friday	273	15.5	4	28.6	42	15.2
Saturday	234	13.3	3	21.4	32	11.6
Sunday	177	10.0	1	7.1	31	11.2
TOTAL	1,766	100.0	14	100.0	276	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	1,088	61.6	12	85.7	170	61.6
Female	676	38.3	2	14.3	106	38.4
Uncoded & Errors	2	0.1	0	0.0	0	0.0
TOTAL	1,766	100.0	14	100.0	276	100.0

For drivers age 65 and over in the Upper Peninsula, male drivers (85.7%) account for 6.0 times that of female drivers (14.3%) in fatal crashes.

NUMBER OF OCCUPANTS	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
1 occupant	1,373	77.7	9	64.3	205	74.3
2 occupants	328	18.6	3	21.4	63	22.8
3 occupants	30	1.7	2	14.3	5	1.8
4 occupants	12	0.7	0	0.0	1	0.4
5 occupants	5	0.3	0	0.0	2	0.7
6+ occupants	2	0.1	0	0.0	0	0.0
0 occupants	16	0.9	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	1,766	100.0	14	100.0	276	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	1,268	71.8	7	50.0	194	70.3
Motor Home	8	0.5	0	0.0	0	0.0
Pickup Truck	431	24.4	6	42.9	58	21.0
Small Truck Under 10,000 lbs. GVWR	8	0.5	0	0.0	3	1.1
Motorcycle	10	0.6	0	0.0	7	2.5
Moped/Goped	4	0.2	0	0.0	4	1.4
Go-Cart/Golf Cart	0	0.0	0	0.0	0	0.0
Snowmobile	5	0.3	0	0.0	3	1.1
Off-Road Vehicle (ORV)/All-Terrain Vehicle (ATV)	6	0.3	1	7.1	5	1.8
Other (non-registered farm equipment, construction equipment, snow plows, etc.)	3	0.2	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
Truck/Bus (over 10,000 lbs. GVWR/8+ occupants/hazmat placard) (breakdown below)	23	1.3	0	0.0	2	0.7
TOTAL	1,766	100.0	14	100.0	276	100.0

HEAVY TRUCK/BUS GROSS VEHICLE WEIGHT RATING	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Drivers	% of Total	Number of Drivers	% of Total	Number of Drivers	% of Total
10,000 lbs. or Less	1	4.3	0	0.0	0	0.0
10,001-26,000 lbs.	7	30.4	0	0.0	1	50.0
Greater Than 26,000 lbs.	15	65.2	0	0.0	1	50.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	23	100.0	0	0.0	2	100.0

ALCOHOL

UPPER PENINSULA ROADWAY INJURY EXPERIENCE FOR PEOPLE 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*	32	0	0	1	0	1	0	2	0
	Killed	0	0	0	0	0	0	0	0	0**
	Injured	27	0	0	1	0	1	0	2	0
DRIVERS	Total*	11,025	346	267	126	80	73	60	545	407
	Killed	35	4	4	5	3	7	7	16	14**
	Injured	1,034	97	89	38	26	22	20	157	135
MOTORCYCLISTS	Total*	128	4	4	2	1	2	2	8	7
	Killed	4	0	0	1	0	1	1	2	1**
	Injured	98	4	4	1	1	1	1	6	6
ORV/ATV RIDERS	Total*	98	16	14	0	0	0	0	16	14
	Killed	4	2	2	0	0	0	0	2	2**
	Injured	63	11	11	0	0	0	0	11	11
PEDESTRIANS	Total*	25	3	2	1	1	1	0	5	3
	Killed	3	1	1	0	0	0	0	1	1**
	Injured	21	2	1	1	1	1	0	4	2
SNOWMOBILERS	Total*	45	4	3	0	0	0	0	4	3
	Killed	1	0	0	0	0	0	0	0	0**
	Injured	34	4	3	0	0	0	0	4	3

**Total does include property damage only crashes*

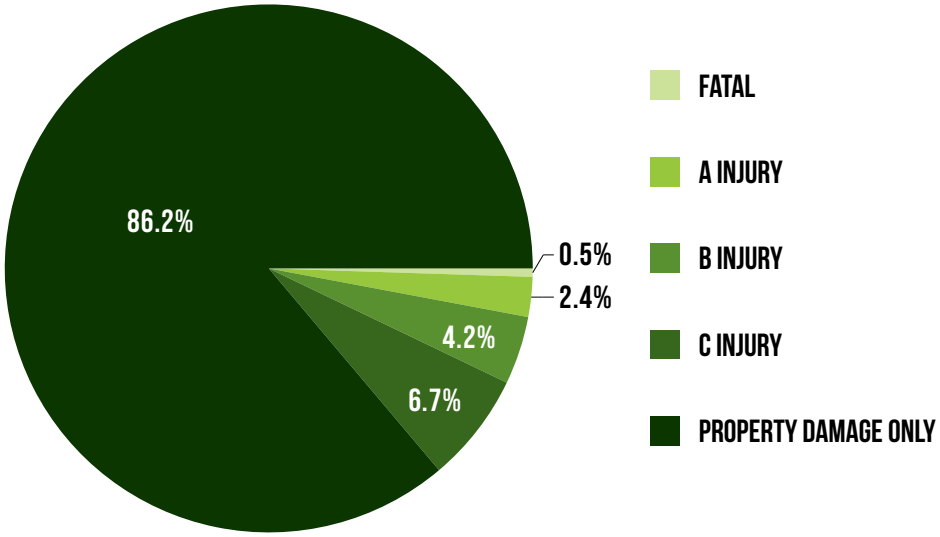
**In the Upper Peninsula, there were no bicyclists, 14 drivers, one motorcyclist, two ORV/ATV riders, one pedestrian, and no snowmobilers who were killed and coded as drinking and/or using drugs by the police officer.

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	1	1	0	0	0	0	0	0	1	1
15 years	1	0	0	1	0	0	0	0	1	0	0	1
16 years	3	2	0	5	0	0	0	0	1	0	0	1
17 years	1	0	0	1	0	0	0	0	0	0	0	0
18 years	3	0	0	3	0	0	0	0	1	0	0	1
19 years	2	2	0	4	0	0	0	0	1	1	0	2
20 years	9	0	5	14	1	0	1	2	2	0	2	4
21 - 24 years	42	7	10	59	0	1	1	2	15	3	5	23
25 - 34 years	68	30	18	116	3	2	1	6	23	13	5	41
35 - 44 years	57	25	17	99	1	2	2	5	23	8	5	36
45 - 54 years	33	8	5	46	0	1	0	1	12	3	4	19
55 - 64 years	40	4	3	47	0	1	1	2	16	1	2	19
65 - 69 years	3	1	1	5	0	0	1	1	3	0	0	3
70 - 74 years	5	1	0	6	0	0	0	0	3	0	0	3
75 - 79 years	0	1	0	1	0	0	0	0	0	0	0	0
80 - 84 years	0	0	0	0	0	0	0	0	0	0	0	0
85 - 89 years	0	0	0	0	0	0	0	0	0	0	0	0
90 years and over	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	0	0	0	0	0	0	0	0	0	0
Total	267	81	60	408	5	7	7	19	101	29	24	154

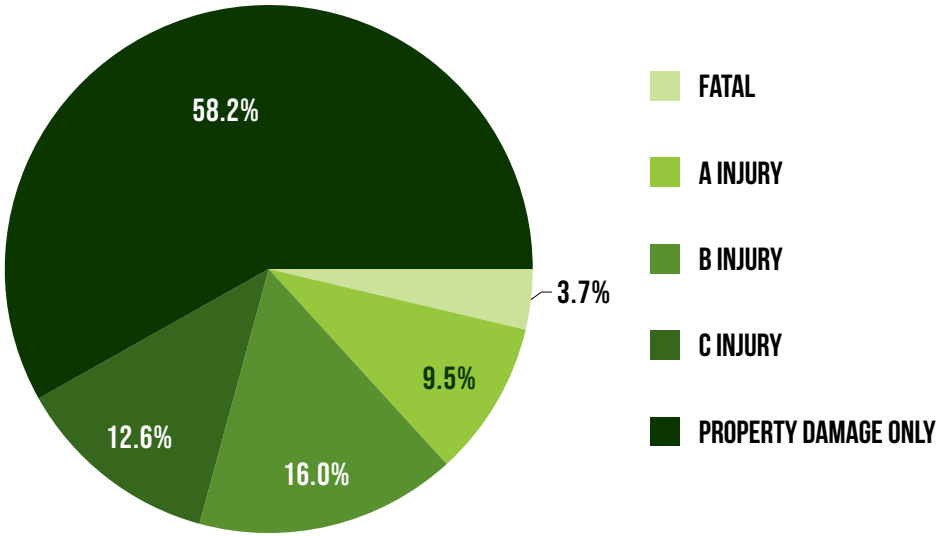
The driver age group 25 to 34 years represents the highest number of drinking and/or drug use in total crashes, injury crashes, and fatal crashes.

UPPER PENINSULA ALL CRASHES BY INJURY SEVERITY



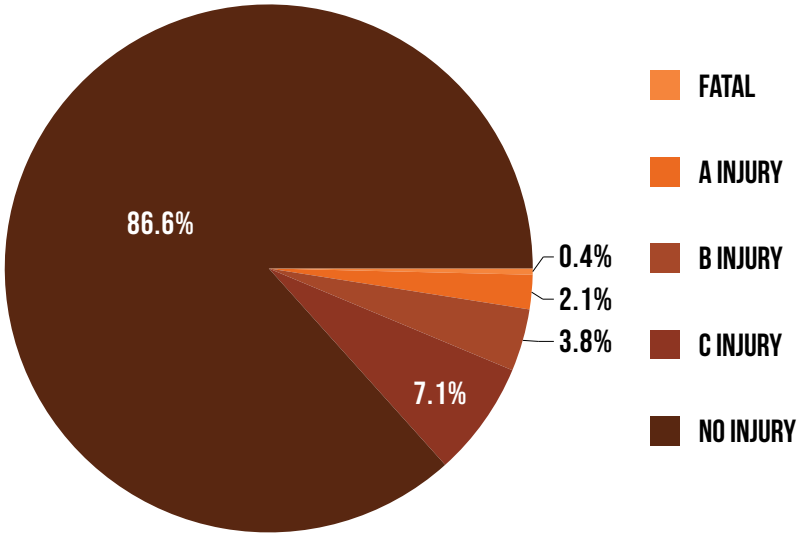
The majority of crashes do not involve injury (86.2%). Possible (C) injury crashes represent about 49% of all injury crashes.

UPPER PENINSULA HAD-BEEN-DRINKING CRASHES BY INJURY SEVERITY



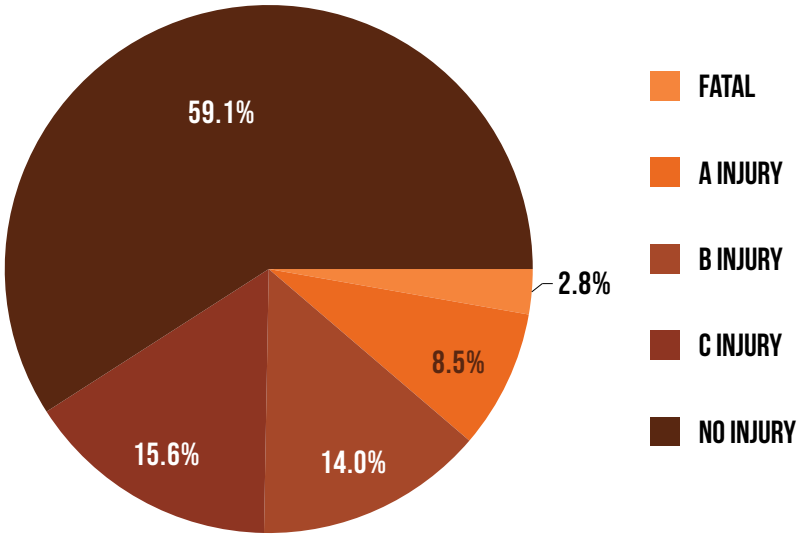
The problem of the drinking driver, pedestrian, and/or bicyclist is seen by comparing the two charts on this page. All injury levels are greater, and a fatal crash is about seven times more likely when one of the crash-involved operators is reported as had-been-drinking (HBD).

UPPER PENINSULA DEATH & INJURY FOR CRASH INVOLVED OCCUPANTS



The majority of occupants involved in crashes are not injured (86.6%). About 53% of those who are injured receive only possible (C) injuries.

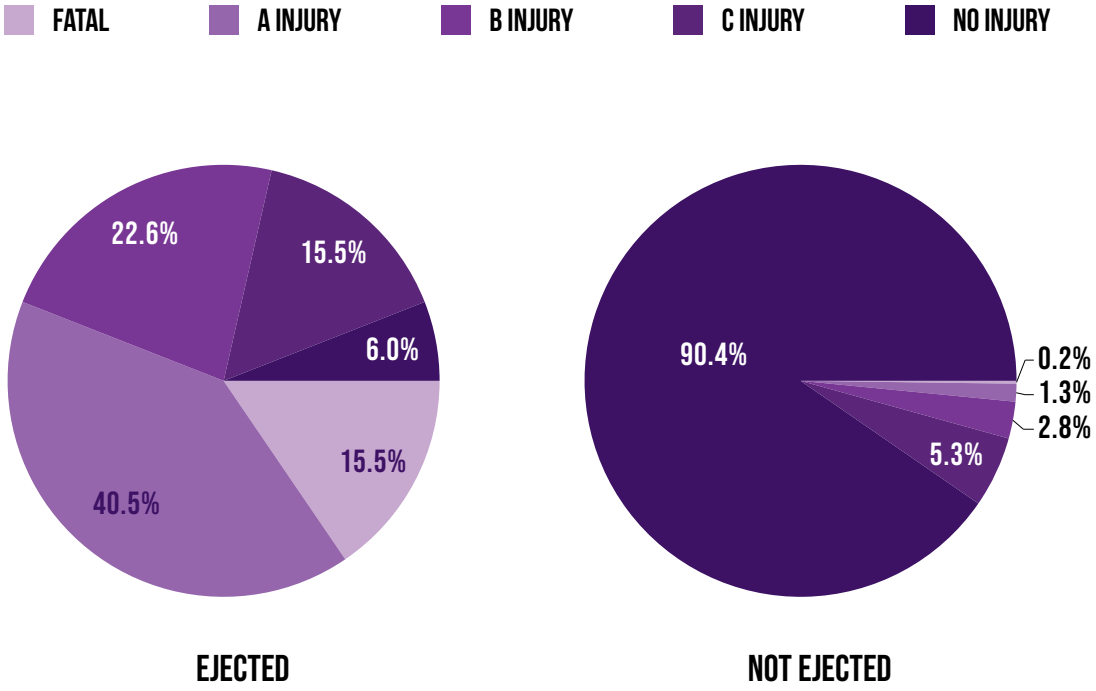
UPPER PENINSULA OCCUPANTS IN HAD-BEEN-DRINKING CRASHES



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

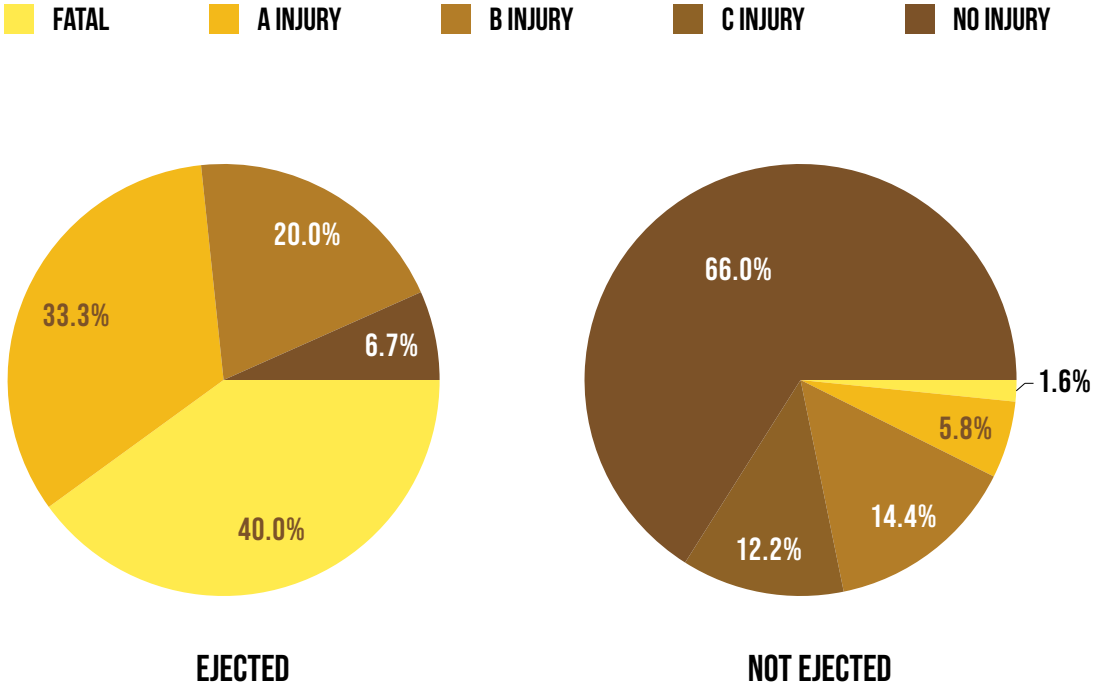
Note: Occupants include all drivers plus all injured or killed people in or on a motor vehicle.

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



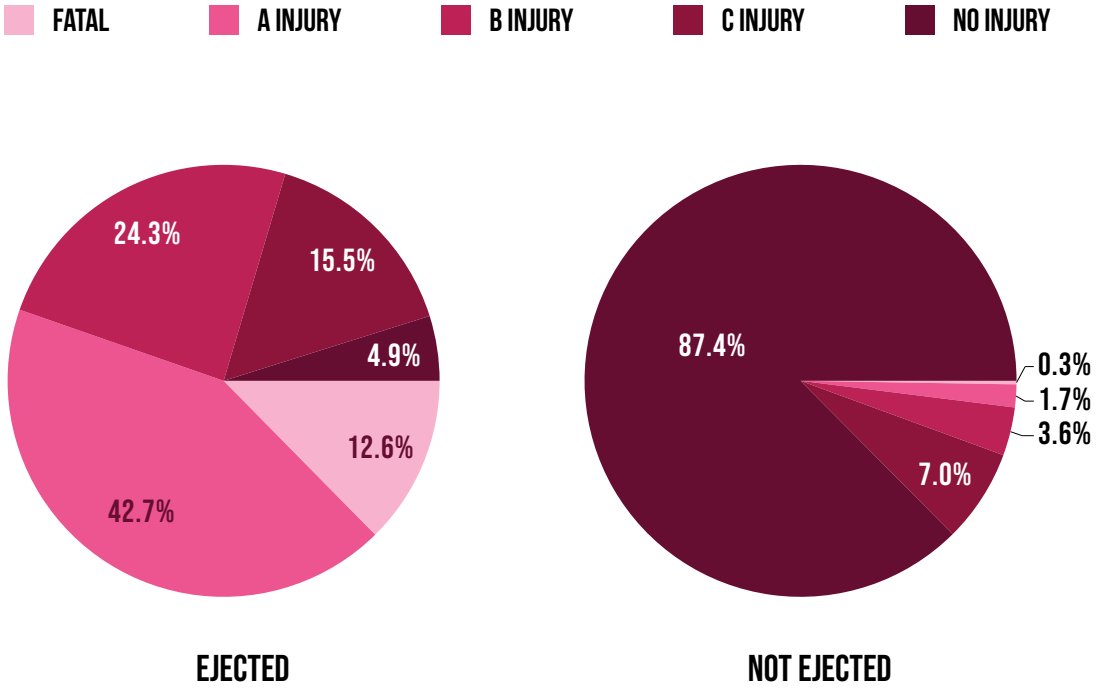
As shown by the two charts above, death and injury are much more likely when drivers are ejected from vehicles.

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



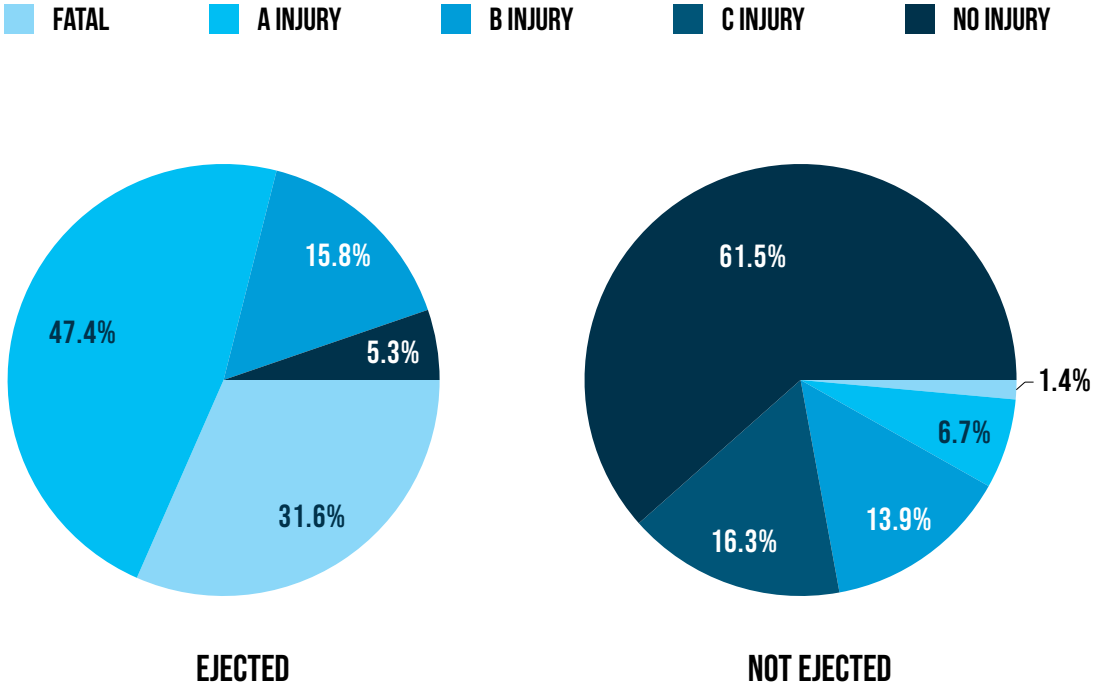
When compared to the charts above, the had-been-drinking charts demonstrate that injury severity is much worse for drivers reported to be drinking in both ejected and non-ejected events.

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.

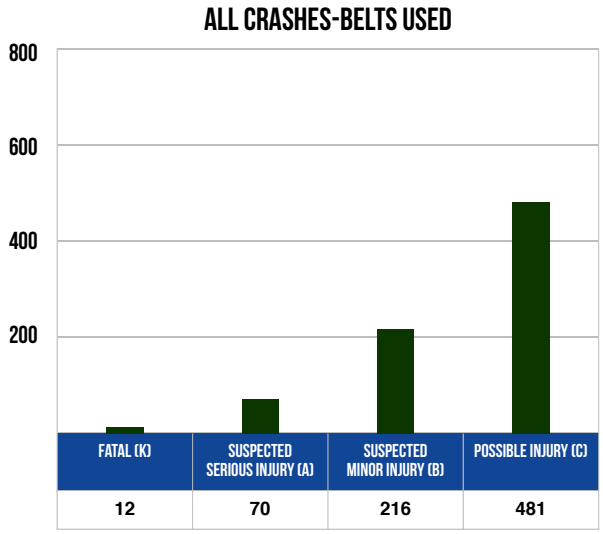
UPPER PENINSULA OCCUPANTS OF HAD-BEEN-DRINKING CRASHES INJURY SEVERITY - EJECTED VS. NOT EJECTED

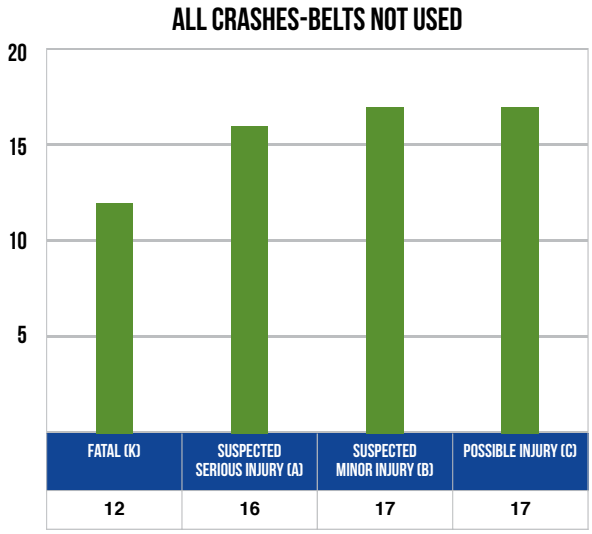


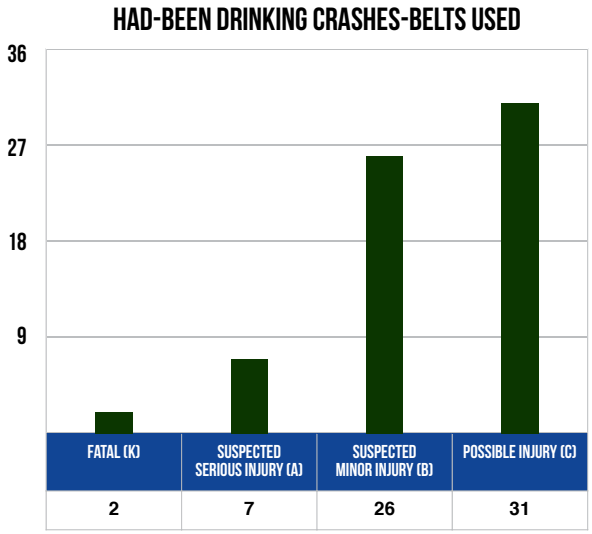
When compared to the charts above, the charts of occupants of had-been-drinking crashes demonstrate that injury severity is much worse for occupants in a crash where drinking is reported in both ejected and non-ejected events.

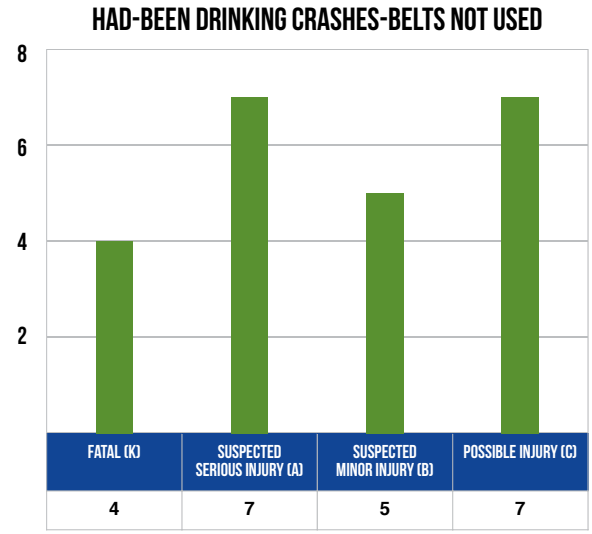
Note: Occupants include all drivers plus all injured or killed people in or on a motor vehicle.

UPPER PENINSULA INJURY SEVERITY & BELT USE BY DRIVER INJURY





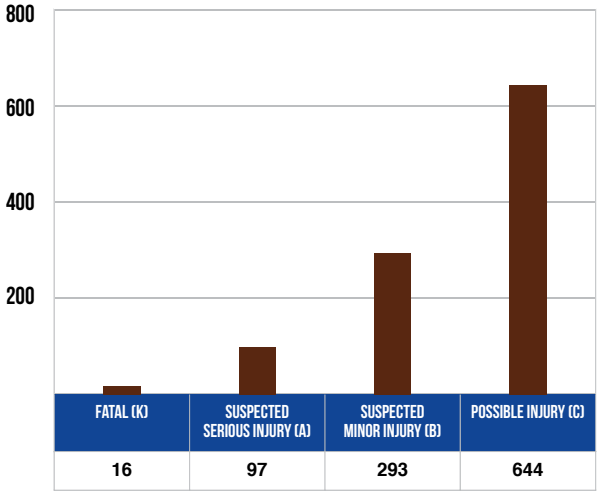




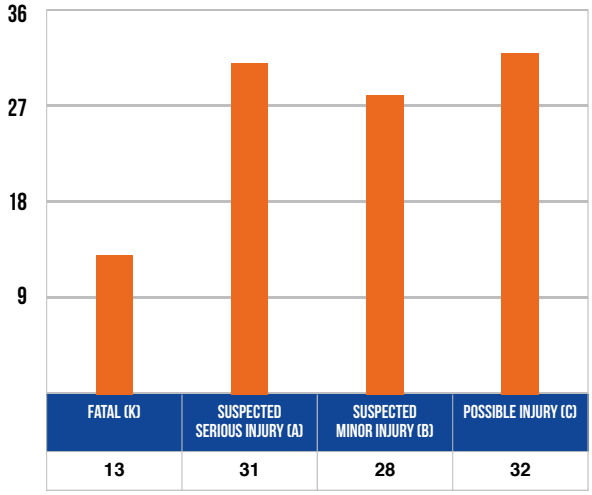
Note: "Belts Used" represents shoulder belts only used, lap belts only used, both lap and shoulder belts used, and restraint failure. "Belts Not Used" represents no belts available and no belts used.

UPPER PENINSULA INJURY SEVERITY & RESTRAINT USE BY OCCUPANT INJURY

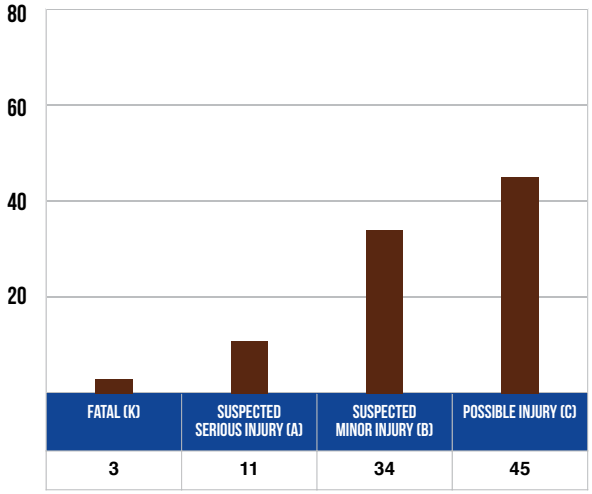
ALL CRASHES - RESTRAINTS USED



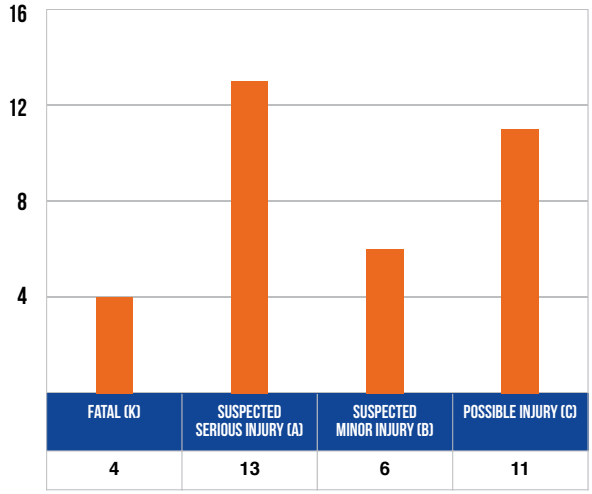
ALL CRASHES - RESTRAINTS NOT USED



HAD-BEEN-DRINKING CRASHES - RESTRAINTS USED



HAD-BEEN-DRINKING CRASHES - RESTRAINTS NOT USED

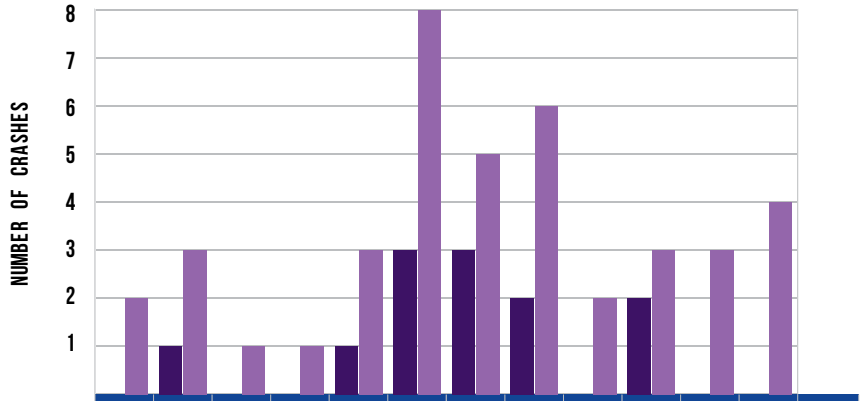


Note: "Restraints Used" represents shoulder belts only used, lap belts only used, both lap and shoulder belts used, child restraints used, and restraint failure. "Restraints Not Used" represents no belts available; no belts used; and child restraint not used, unavailable, or improper use.

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

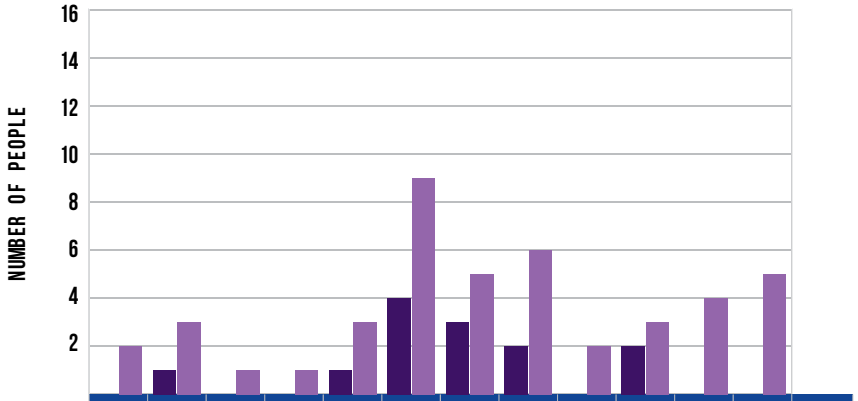
UPPER PENINSULA ALCOHOL INVOLVMENT IN FATAL CRASHES

HAD-BEEN-DRINKING FATAL CRASHES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
HBD FATAL CRASHES	0	1	0	0	1	3	3	2	0	2	0	0	12
TOTAL FATAL CRASHES	2	3	1	1	3	8	5	6	2	3	3	4	41

ALCOHOL-INVOLVED FATALITIES BY MONTH

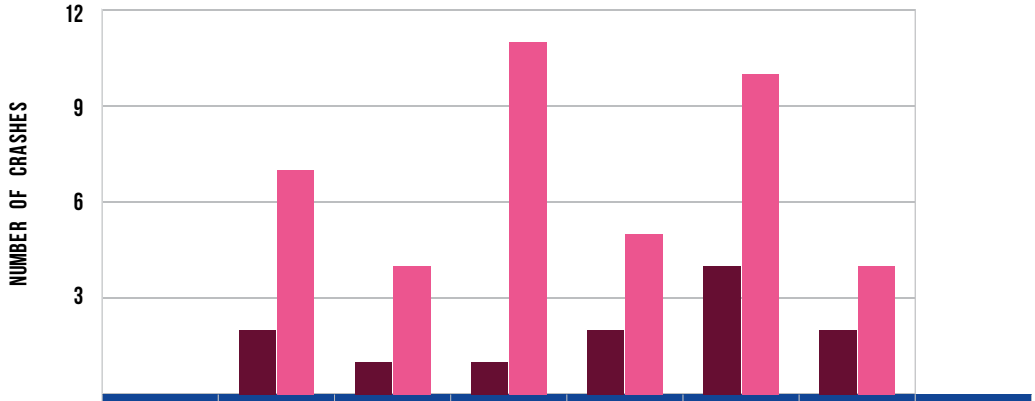


	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
ALCOHOL-INVOLVED FATALITIES	0	1	0	0	1	4	3	2	0	2	0	0	13
TOTAL FATALITIES	2	3	1	1	3	9	5	6	2	3	4	5	44

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

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

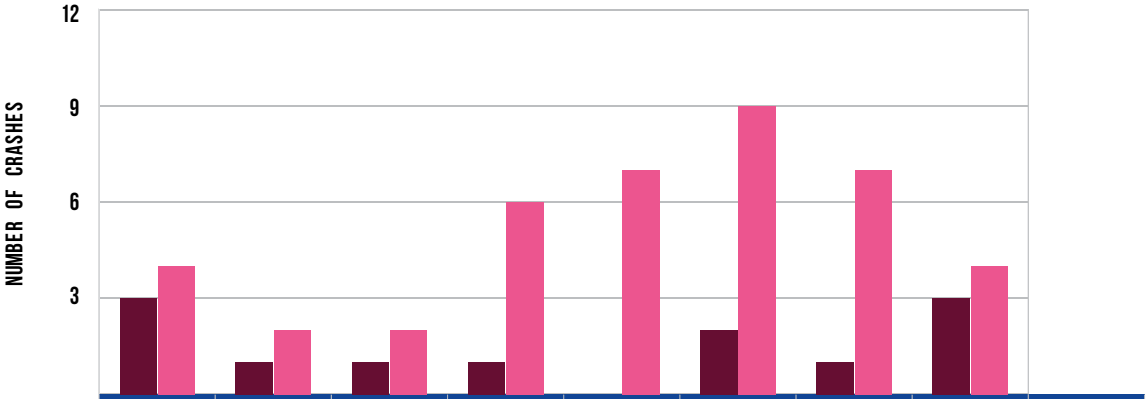
HAD-BEEN-DRINKING FATAL CRASHES BY DAY OF THE WEEK



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
HBD FATAL CRASHES	0	2	1	1	2	4	2	12
TOTAL FATAL CRASHES	0	7	4	11	5	10	4	41

Thursday had the highest number of fatal crashes, and Saturday had the highest number of drinking-related fatal crashes in 2021.

HAD-BEEN-DRINKING FATAL CRASHES BY TIME OF DAY

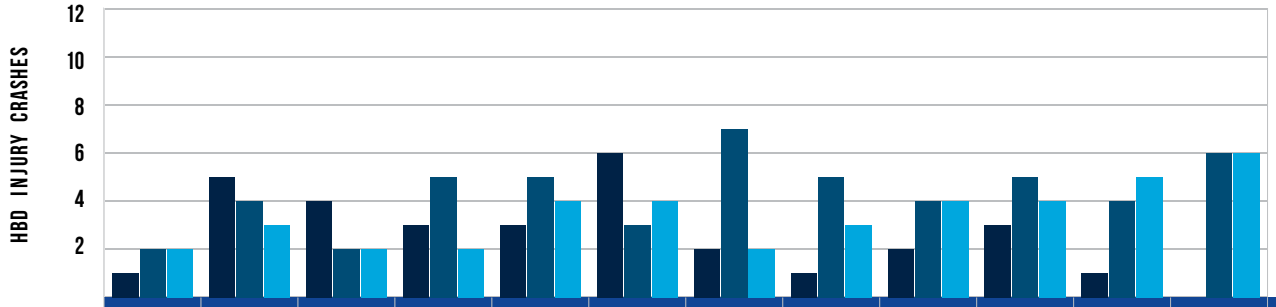


	12:00-2:59AM	3:00-5:59AM	6:00-8:59AM	9:00-11:59AM	12:00-2:59PM	3:00-5:59PM	6:00-8:59PM	9:00-11:59PM	TOTALS
HBD FATAL CRASHES	3	1	1	1	0	2	1	3	12
TOTAL FATAL CRASHES	4	2	2	6	7	9	7	4	41

The 12:00 AM to 2:59 AM and 9:00 PM to 11:59 PM time periods had the highest number of HBD fatal crashes (3 each), while the 3:00 PM to 5:59 PM time period had the highest number of total fatal crashes (9).

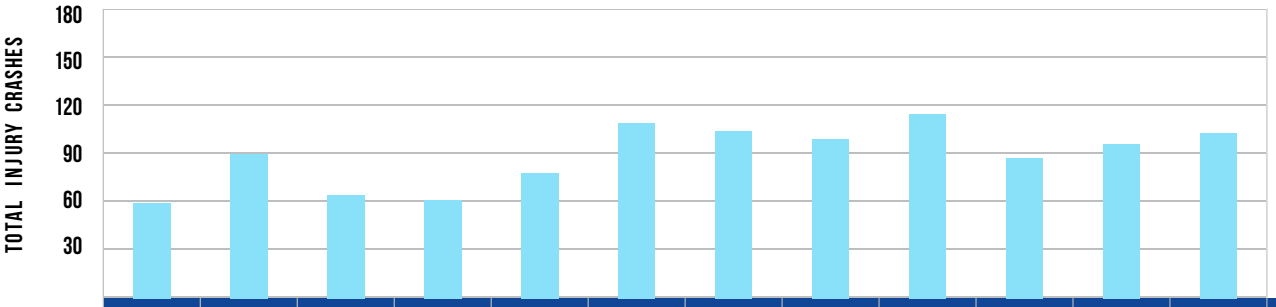
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES

HAD-BEEN-DRINKING INJURY CRASHES BY MONTH



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
HBD A INJURY CRASHES	1	5	4	3	3	6	2	1	2	3	1	0	31
HBD B INJURY CRASHES	2	4	2	5	5	3	7	5	4	5	4	6	52
HBD C INJURY CRASHES	2	3	2	2	4	4	2	3	4	4	5	6	41

TOTAL INJURY CRASHES BY MONTH

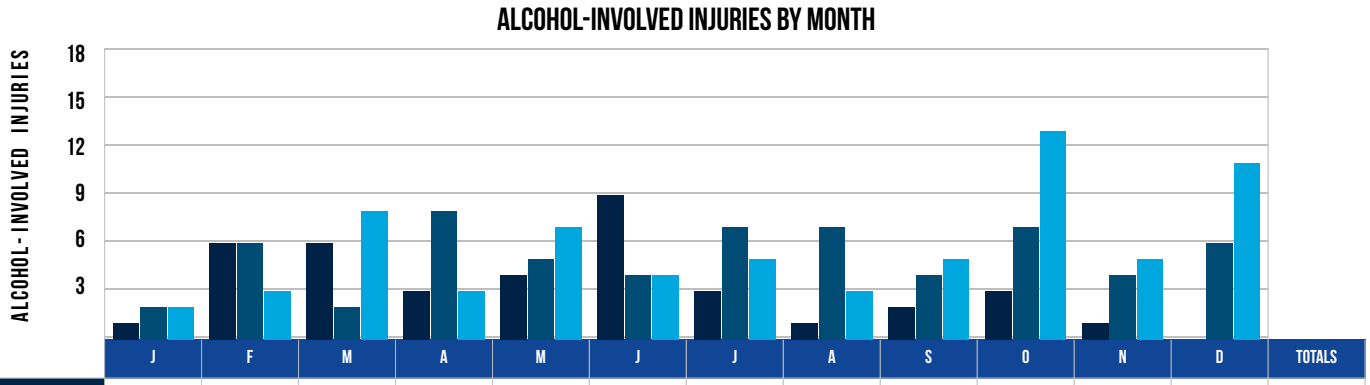


	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
TOTAL INJURY CRASHES	59	90	64	61	78	109	104	99	115	87	96	103	1,065

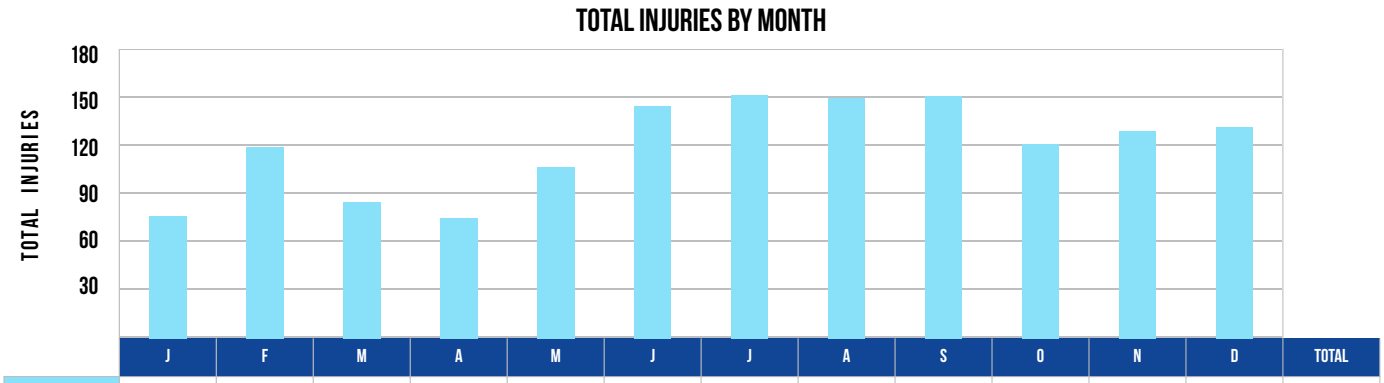
Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2021, the highest number of had-been-drinking injury crashes occurred in June (13).

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

UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)



	J	F	M	A	M	J	J	A	S	O	N	D	TOTALS
ALCOHOL-INVOLVED A INJURIES	1	6	6	3	4	9	3	1	2	3	1	0	39
ALCOHOL-INVOLVED B INJURIES	2	6	2	8	5	4	7	7	4	7	4	6	62
ALCOHOL-INVOLVED C INJURIES	2	3	8	3	7	4	5	3	5	13	5	11	69

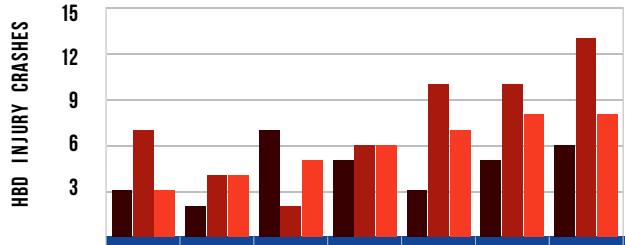


	J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
TOTAL INJURIES	76	119	85	75	107	145	152	150	151	121	129	132	1,442

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

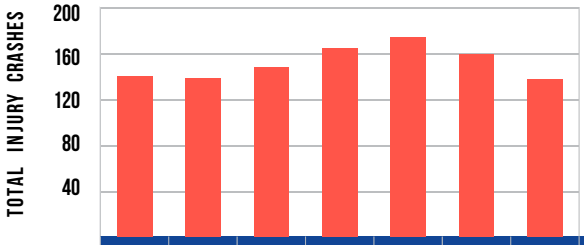
UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES (CONTINUED)

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



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
HBD A INJURY CRASHES	3	2	7	5	3	5	6	31
HBD B INJURY CRASHES	7	4	2	6	10	10	13	52
HBD C INJURY CRASHES	3	4	5	6	7	8	8	41

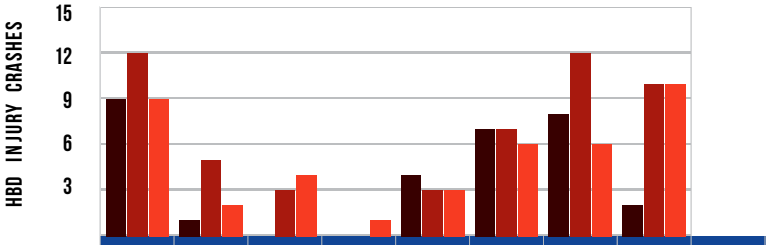
TOTAL INJURY CRASHES BY DAY OF THE WEEK



	MON	TUES	WED	THURS	FRI	SAT	SUN	TOTALS
TOTAL INJURY CRASHES	140	139	148	165	175	160	138	1,065

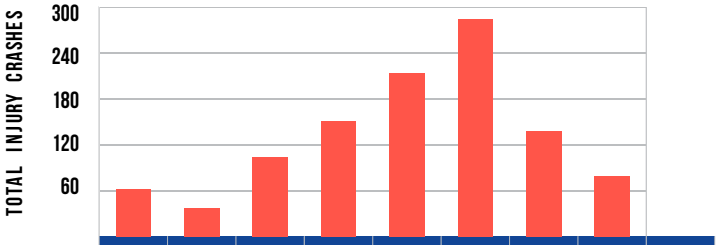
The peak day for all injury crashes is Friday. The highest proportion of had-been-drinking injury crashes to total injury crashes occurred on Sunday (19.6%).

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	9	1	0	0	4	7	8	2	31
HBD B INJURY CRASHES	12	5	3	0	3	7	12	10	52
HBD C INJURY CRASHES	9	2	4	1	3	6	6	10	41

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	61	36	103	151	214	285	137	78	1,065

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	7	0.1	0	0.0	1	1	2	3
14 years	5	0.1	0	0.0	0	3	1	1
15 years	11	0.2	0	0.0	6	1	1	3
16 years	98	1.6	0	0.0	5	7	7	79
17 years	135	2.2	1	1.9	5	12	17	100
18 years	151	2.5	1	1.9	6	6	11	127
19 years	133	2.2	0	0.0	3	8	13	109
20 years	160	2.6	2	3.8	4	5	12	137
21 - 24 years	558	9.1	2	3.8	11	27	43	475
25 - 34 years	1,005	16.4	10	19.2	27	59	74	835
35 - 44 years	890	14.5	8	15.4	21	51	51	759
45 - 54 years	877	14.3	7	13.5	38	42	52	738
55 - 64 years	992	16.2	9	17.3	35	46	82	820
65 - 69 years	393	6.4	7	13.5	10	19	28	329
70 - 74 years	327	5.3	2	3.8	9	17	30	269
75 - 79 years	195	3.2	1	1.9	6	7	11	170
80 - 84 years	113	1.8	1	1.9	2	6	17	87
85 - 89 years	48	0.8	1	1.9	2	2	3	40
90 years and over	12	0.2	0	0.0	1	0	0	11
Unknown	25	0.4	0	0.0	0	1	0	24
TOTAL	6,135**	100.0	52	100.0	192	320	455	5,116

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

***Note: This table excludes 573 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	1	0.4	0	0.0	0	1	0	0
15 years	1	0.4	0	0.0	1	0	0	0
16 years	3	1.2	0	0.0	1	0	0	2
17 years	1	0.4	0	0.0	0	0	0	1
18 years	2	0.8	0	0.0	0	1	0	1
19 years	2	0.8	0	0.0	0	0	1	1
20 years	11	4.5	2	22.2	1	0	1	7
21 - 24 years	39	15.9	0	0.0	3	7	4	25
25 - 34 years	59	24.1	3	33.3	4	10	7	35
35 - 44 years	51	20.8	2	22.2	5	10	6	28
45 - 54 years	31	12.7	0	0.0	4	7	2	18
55 - 64 years	36	14.7	1	11.1	5	7	4	19
65 - 69 years	4	1.6	1	11.1	1	0	2	0
70 - 74 years	4	1.6	0	0.0	2	0	0	2
75 - 79 years	0	0.0	0	0.0	0	0	0	0
80 - 84 years	0	0.0	0	0.0	0	0	0	0
85 - 89 years	0	0.0	0	0.0	0	0	0	0
90 years and over	0	0.0	0	0.0	0	0	0	0
Unknown	0	0.0	0	0.0	0	0	0	0
TOTAL	245**	100.0	9	100.0	27	43	27	139

Among male drinking drivers, the age group 25 to 34 years experienced the highest number of fatal crashes and property damage only crashes and both the age group 25 to 34 years and the age group 35 to 44 years experienced the highest number of injury crashes.

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

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	1	0.0	0	0.0	0	0	0	1
14 years	2	0.0	0	0.0	0	1	1	0
15 years	10	0.2	0	0.0	1	1	2	6
16 years	88	2.0	0	0.0	6	5	9	68
17 years	120	2.8	0	0.0	2	4	13	101
18 years	138	3.2	0	0.0	2	7	10	119
19 years	116	2.7	0	0.0	2	5	13	96
20 years	129	3.0	2	13.3	2	3	18	104
21 - 24 years	385	8.9	1	6.7	6	18	41	319
25 - 34 years	774	17.9	3	20.0	20	29	73	649
35 - 44 years	718	16.6	4	26.7	15	30	64	605
45 - 54 years	564	13.1	3	20.0	11	20	51	479
55 - 64 years	587	13.6	0	0.0	19	19	43	506
65 - 69 years	253	5.9	1	6.7	3	5	24	220
70 - 74 years	185	4.3	1	6.7	4	9	18	153
75 - 79 years	117	2.7	0	0.0	1	2	12	102
80 - 84 years	73	1.7	0	0.0	4	3	12	54
85 - 89 years	35	0.8	0	0.0	0	2	3	30
90 years and over	13	0.3	0	0.0	1	1	2	9
Unknown	9	0.2	0	0.0	0	0	0	9
TOTAL	4,317**	100.0	15	100.0	99	164	409	3,630

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

***Note: This table excludes 573 drivers of unknown gender.*

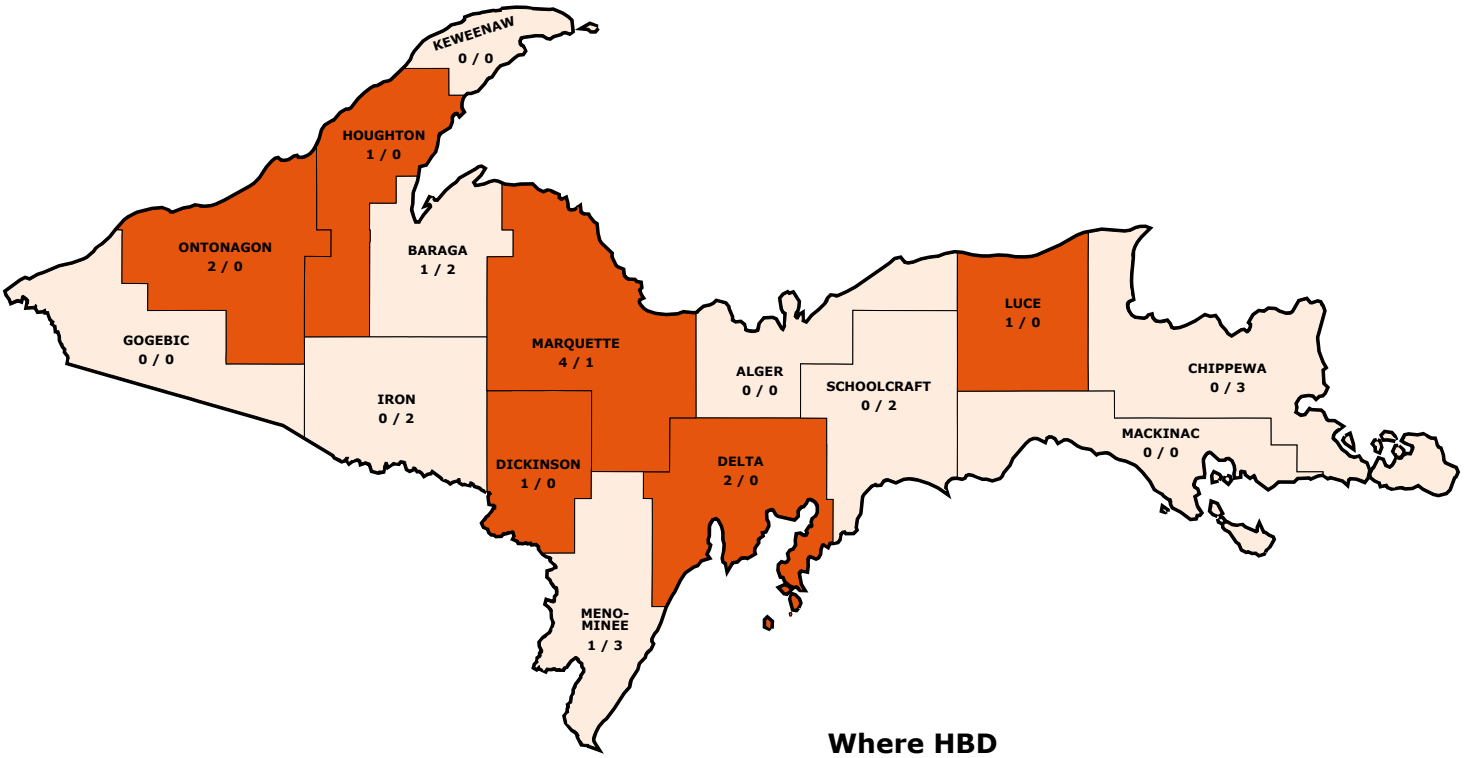
UPPER PENINSULA FEMALE DRINKING DRIVERS BY AGE AND INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	FEMALE DRIVERS		FATAL		INJURY			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
13 years and under	0	0.0	0	0.0	0	0	0	0
14 years	0	0.0	0	0.0	0	0	0	0
15 years	0	0.0	0	0.0	0	0	0	0
16 years	0	0.0	0	0.0	0	0	0	0
17 years	0	0.0	0	0.0	0	0	0	0
18 years	1	1.2	0	0.0	0	0	0	1
19 years	0	0.0	0	0.0	0	0	0	0
20 years	3	3.7	0	0.0	1	0	1	1
21 - 24 years	13	15.9	1	33.3	2	3	1	6
25 - 34 years	27	32.9	1	33.3	0	1	6	19
35 - 44 years	23	28.0	1	33.3	2	3	2	15
45 - 54 years	7	8.5	0	0.0	0	1	2	4
55 - 64 years	7	8.5	0	0.0	0	0	2	5
65 - 69 years	0	0.0	0	0.0	0	0	0	0
70 - 74 years	1	1.2	0	0.0	0	0	1	0
75 - 79 years	0	0.0	0	0.0	0	0	0	0
80 - 84 years	0	0.0	0	0.0	0	0	0	0
85 - 89 years	0	0.0	0	0.0	0	0	0	0
90 years and over	0	0.0	0	0.0	0	0	0	0
Unknown	0	0.0	0	0.0	0	0	0	0
TOTAL	82**	100.0	3	100.0	5	8	15	51

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

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

TRAFFIC FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY



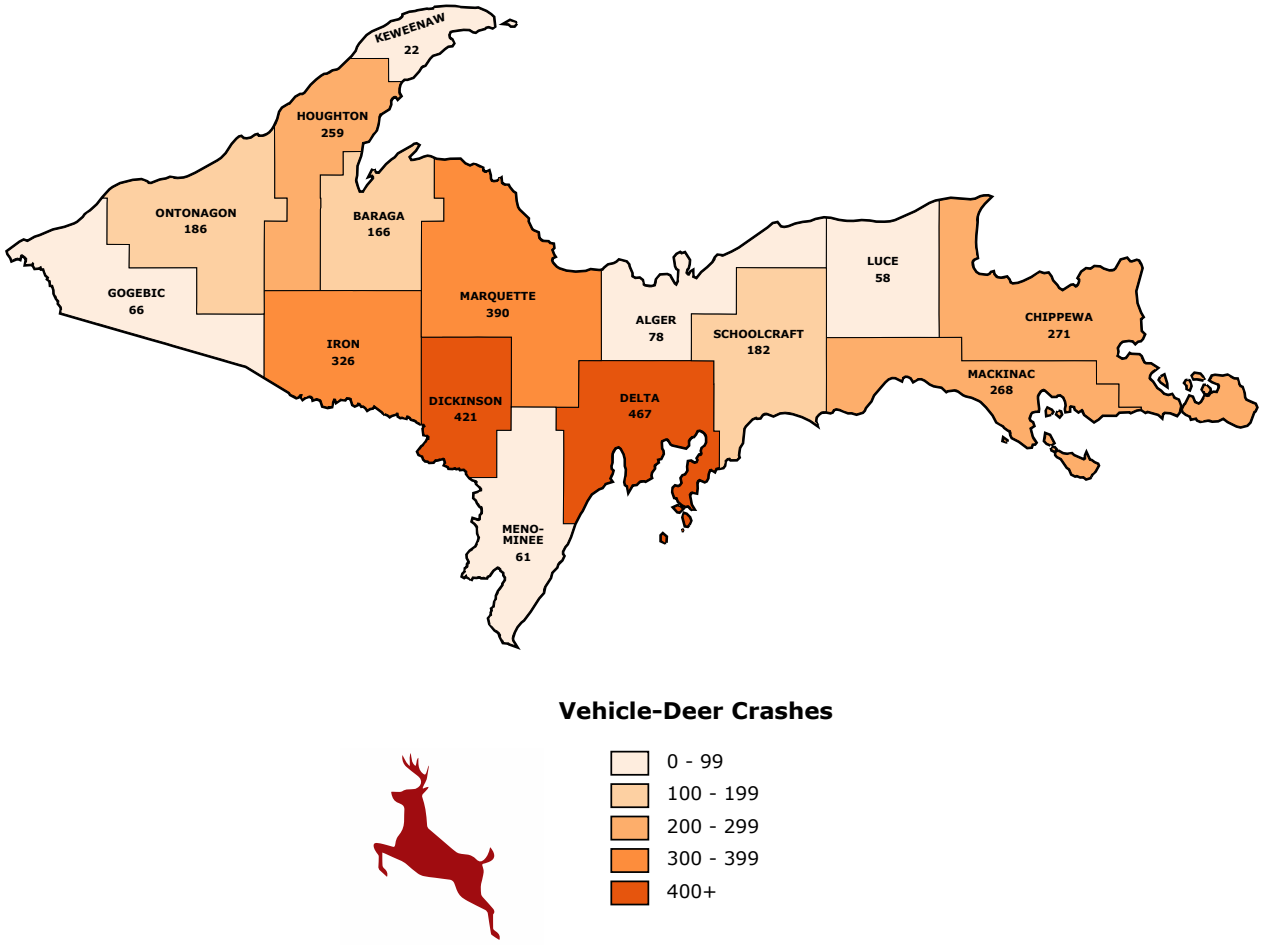
Where HBD
Traffic Fatalities Occured

A One-Year Comparision
2021 = 13 / 2020 = 13

Same or decrease
Increase

DEER

UPPER PENINSULA MICHIGAN MOTOR VEHICLE-DEER INVOLVED CRASHES



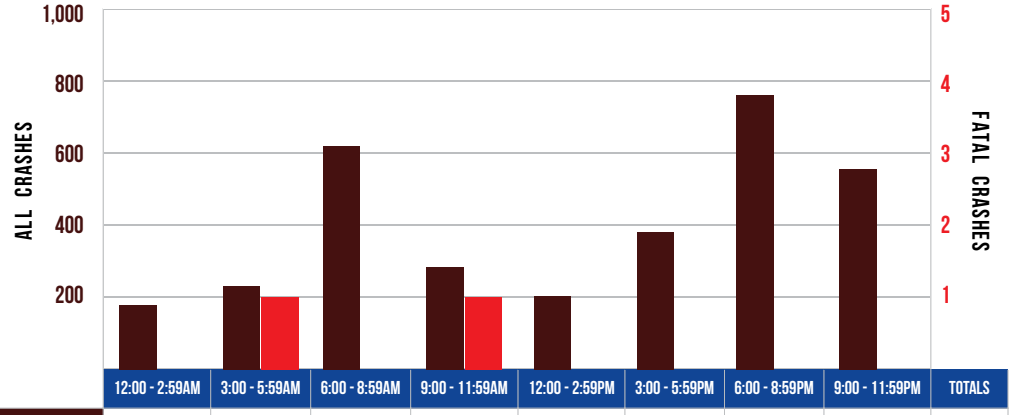
The Upper Peninsula had 3,221 reported vehicle-deer crashes during 2021. Those collisions resulted in 74 people injured and two people killed. Of the 3,233 motor vehicles involved, 2,367 (73.2%) were passenger cars, SUVs, or vans; 766 (23.7%) were pickup trucks; nine (0.3%) were motorhomes; and 19 (0.6%) were motorcycles. All other vehicle types (including uncoded and errors) totaled 72 (2.2%).

In the Upper Peninsula, 40.3 percent of crashes in all counties involved deer. This compares to 18.5 percent for the number of deer-involved crashes statewide. Delta County had the highest number of vehicle-deer crashes (467) in the Upper Peninsula, translating to 43.4 percent of the total crashes in that county in 2021.

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	1,128	35.0	1	50.0	7	8	15	1,097
Dawn	230	7.1	1	50.0	0	2	3	224
Dusk	197	6.1	0	0.0	0	1	2	194
Dark - Lighted	153	4.8	0	0.0	0	0	1	152
Dark - Unlighted	1,493	46.4	0	0.0	6	4	17	1,466
Other	0	0.0	0	0.0	0	0	0	0
Unknown	20	0.6	0	0.0	0	0	0	20
Uncoded & Errors	0	0.0	0	0.0	0	0	0	0
Total	3,221	100.0	2	100.0	13	15	38	3,153

TIME OF DAY AND SEVERITY OF DEER CRASHES



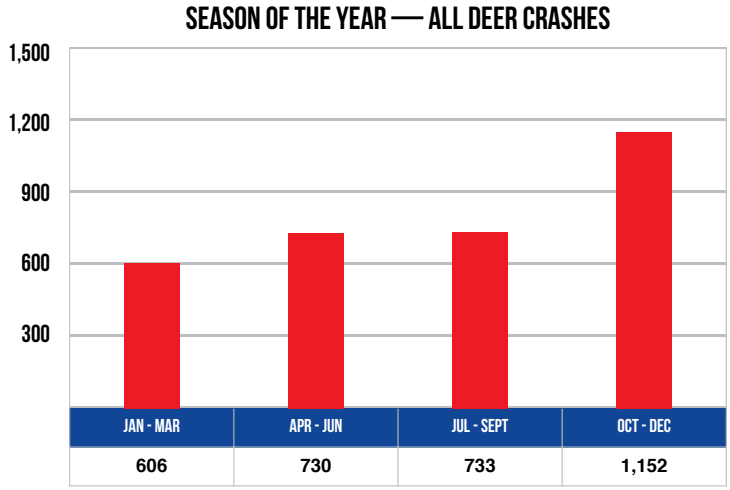
	12:00 - 2:59AM	3:00 - 5:59AM	6:00 - 8:59AM	9:00 - 11:59AM	12:00 - 2:59PM	3:00 - 5:59PM	6:00 - 8:59PM	9:00 - 11:59PM	TOTALS
ALL CRASHES	179	232	621	284	203	381	763	558	3,221
FATAL CRASHES	0	1	0	1	0	0	0	0	2

The highest number of reported vehicle-deer collisions occurred during the 6:00 PM to 8:59 PM time period, when 23.7 percent (763) of the vehicle-deer crashes occurred. The 3:00 AM to 5:59 AM and 9:00 AM to 11:59 AM time periods had one fatal crash each.

Note: Time and Severity chart excludes 0 crashes 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	260	8.1	0	0.0	0	1	3	256
February	111	3.4	0	0.0	0	0	0	111
March	235	7.3	0	0.0	2	0	1	232
April	195	6.1	0	0.0	0	2	2	191
May	234	7.3	0	0.0	3	0	2	229
June	301	9.3	2	100.0	1	3	5	290
July	226	7.0	0	0.0	2	2	6	216
August	198	6.1	0	0.0	2	0	4	192
September	309	9.6	0	0.0	1	5	5	298
October	359	11.1	0	0.0	1	1	4	353
November	479	14.9	0	0.0	0	1	5	473
December	314	9.7	0	0.0	1	0	1	312
Total	3,221	100.0	2	100.0	13	15	38	3,153



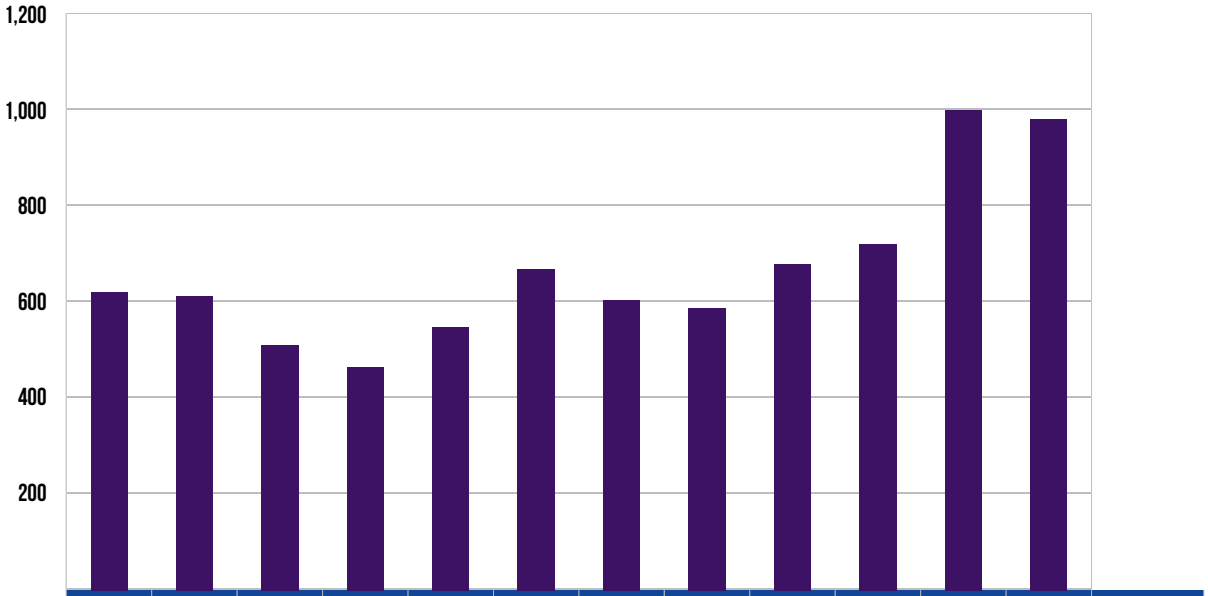
Of the total 3,221 reported vehicle-deer collisions in the Upper Peninsula, 35.8 percent (1,152) occurred during the fourth quarter of the year.

CRASH

(circumstances common to all traffic units in a crash)

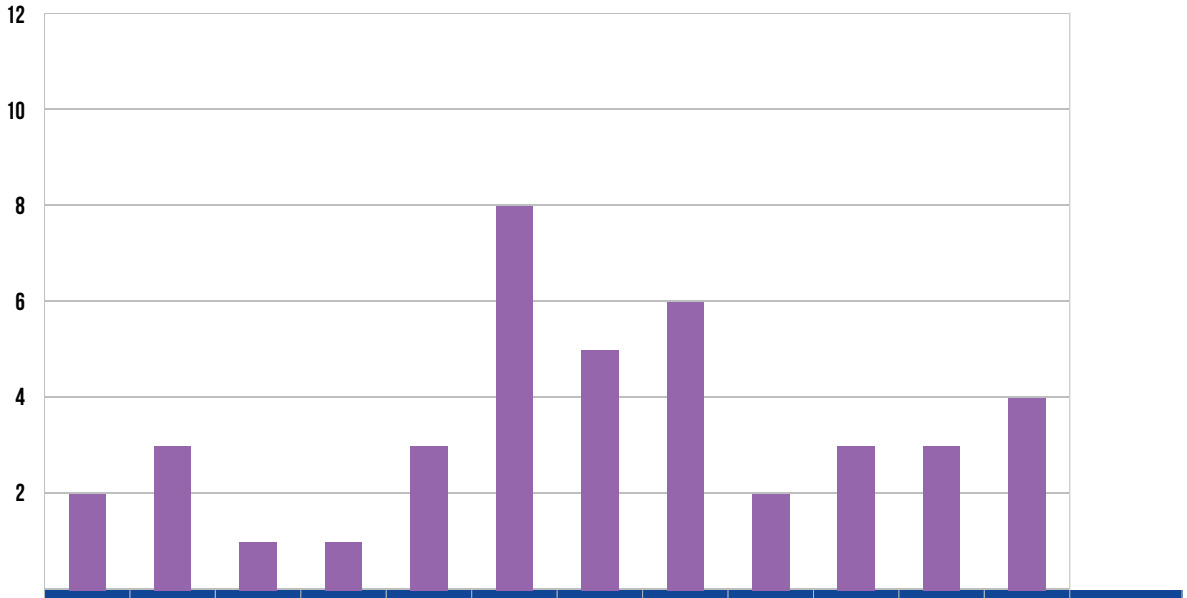
UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH

TOTAL CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
620	612	509	463	548	668	604	587	678	721	1,000	980	7,990

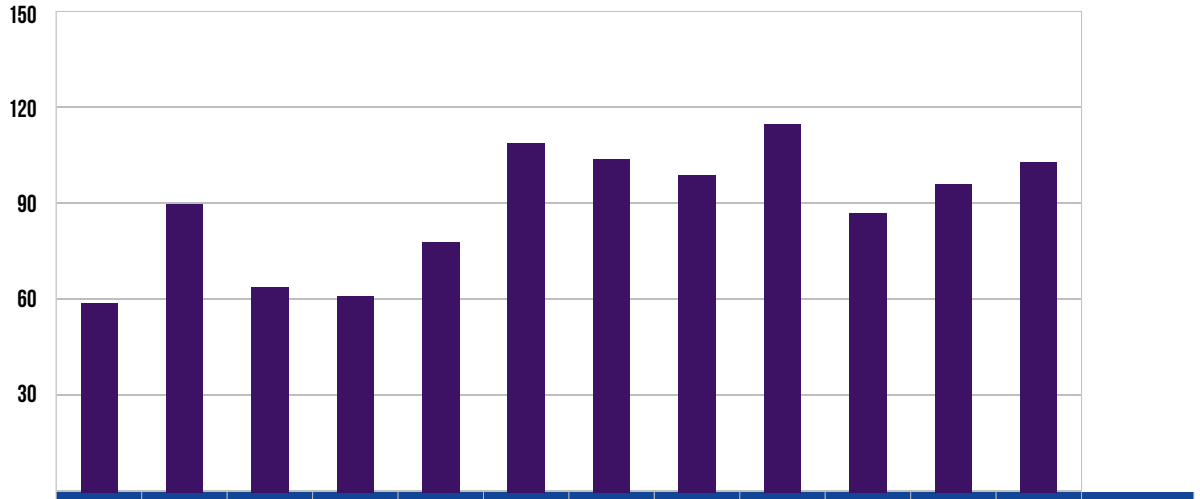
FATAL CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
2	3	1	1	3	8	5	6	2	3	3	4	41

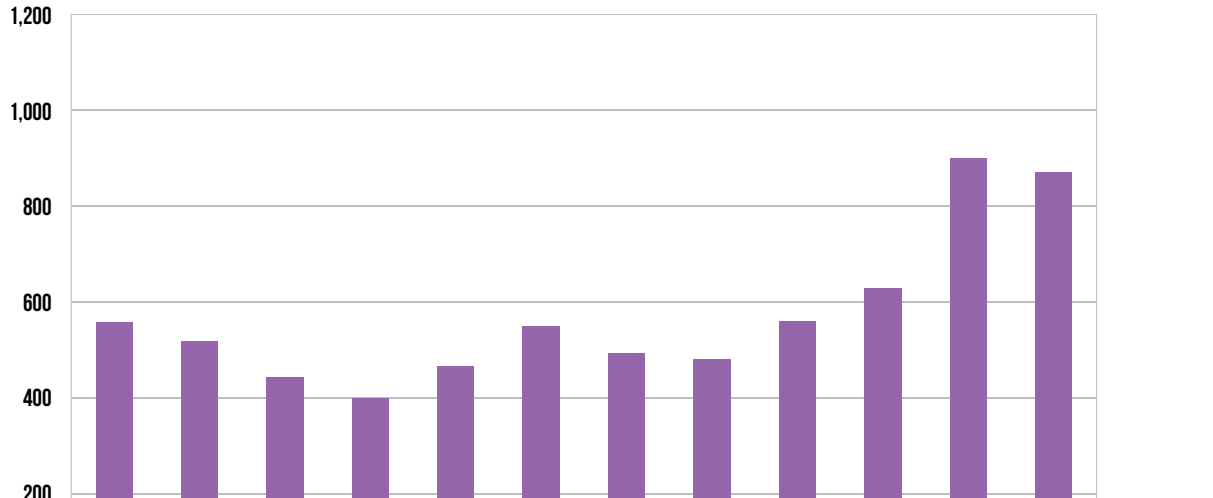
UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH (CONTINUED)

INJURY CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
59	90	64	61	78	109	104	99	115	87	96	103	1,065

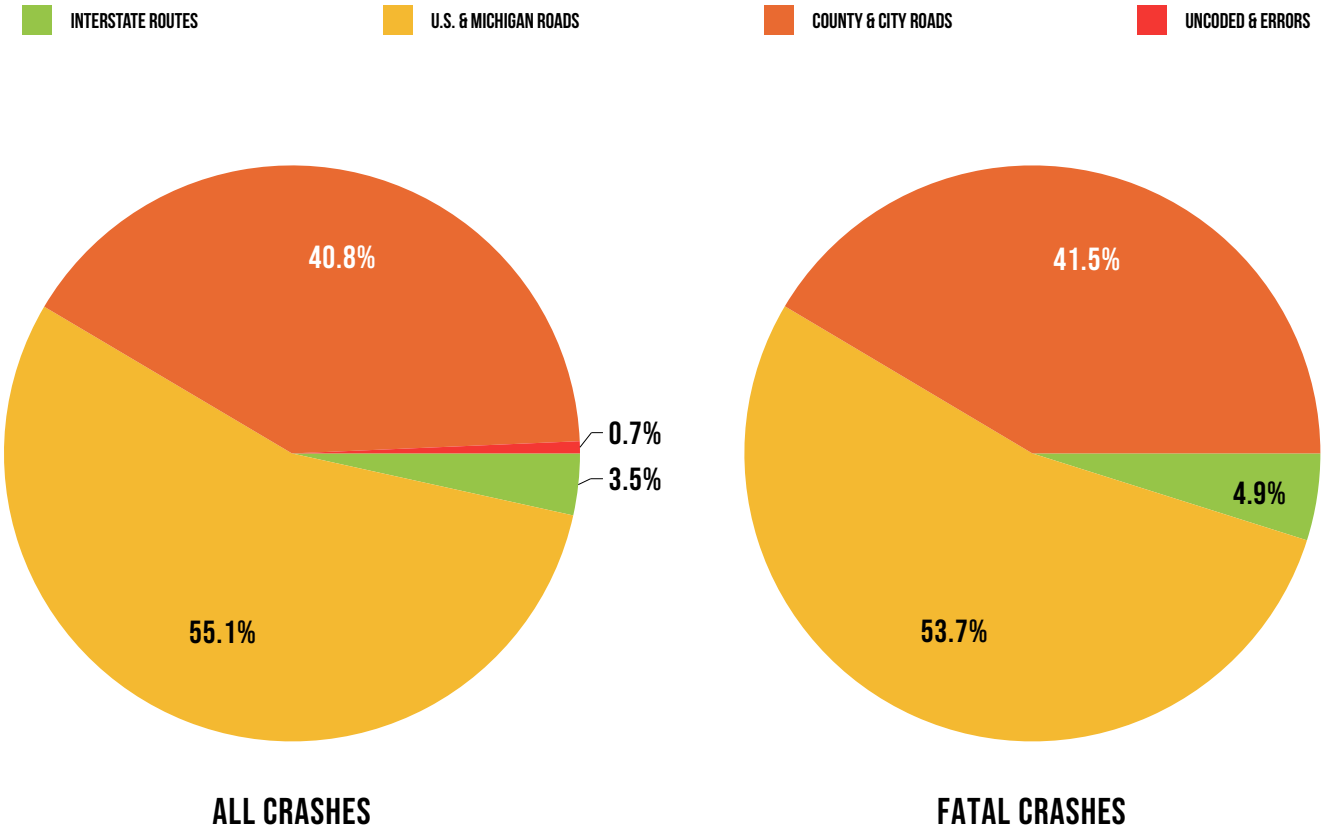
PROPERTY DAMAGE ONLY CRASHES



J	F	M	A	M	J	J	A	S	O	N	D	TOTAL
559	519	444	401	467	551	495	482	561	631	901	873	6,884

UPPER PENINSULA CRASH EXPERIENCE BY HIGHWAY CLASS

HIGHWAY CLASS	ALL CRASHES	FATAL CRASHES	INJURY CRASHES	PROPERTY DAMAGE ONLY
Interstate Routes	276	2	37	237
U.S. & Michigan Roads	4,399	22	552	3,825
County & City Roads	3,261	17	467	2,777
Uncoded & Errors	54	0	9	45



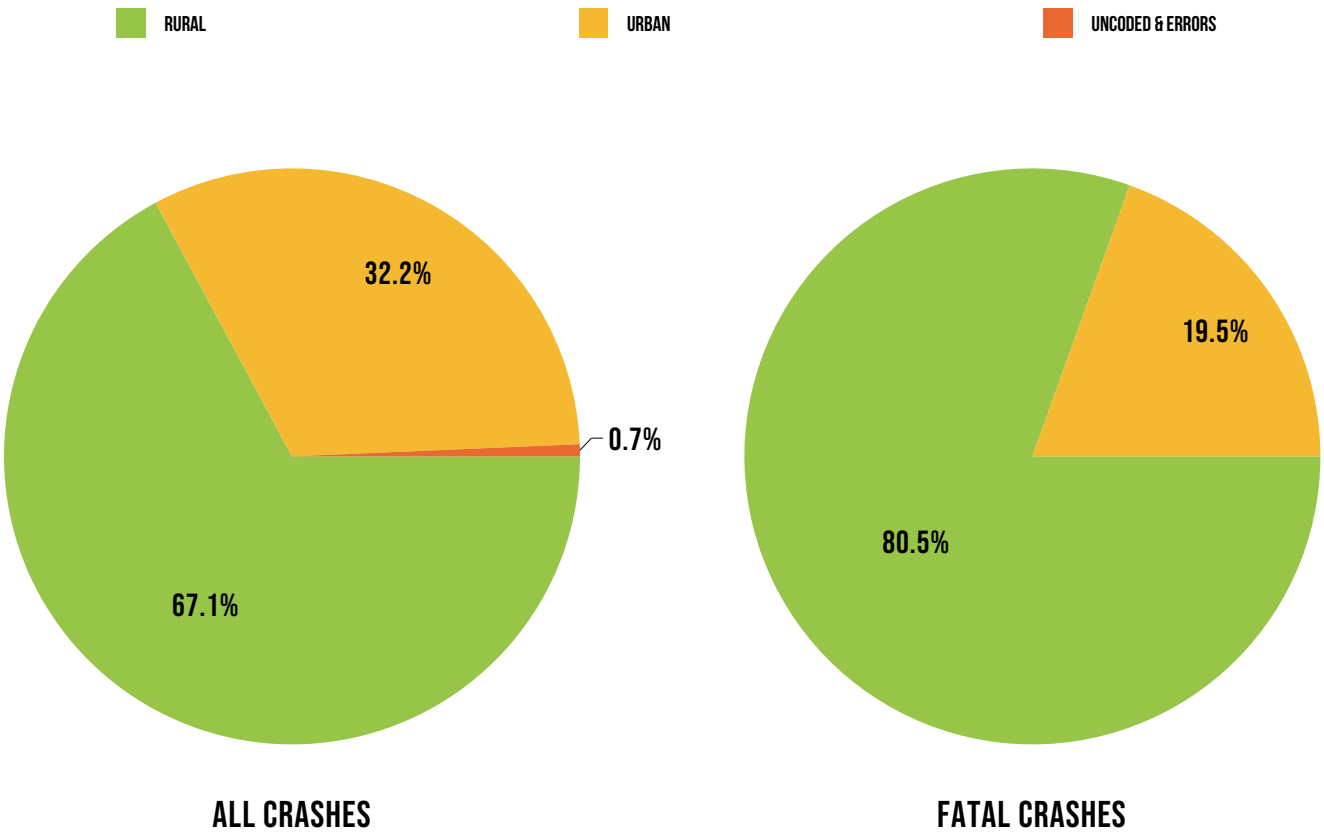
ALL CRASHES

FATAL CRASHES

The highest percentage of all crashes (55.1%), fatal crashes (53.7%), injury crashes (51.8%), and property damage only crashes (55.6%) occurred on U.S. and Michigan roads.

UPPER PENINSULA CRASH EXPERIENCE BY RURAL/URBAN AREA

RURAL/URBAN	ALL CRASHES	FATAL CRASHES	INJURY CRASHES	PROPERTY DAMAGE ONLY
Rural	5,365	33	653	4,679
Urban	2,571	8	403	2,160
Uncoded & Errors	54	0	9	45



The highest percentage of all crashes (67.1%), fatal crashes (80.5%), injury crashes (61.3%), and property damage only crashes (68.0%) occurred in rural areas.

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	5,035	63.0	17	41.5	102	185	225	4,506
Head On	69	0.9	7	17.1	9	15	15	23
Head On – Left Turn	119	1.5	0	0.0	16	13	19	71
Angle	770	9.6	7	17.1	34	47	111	571
Rear End	745	9.3	4	9.8	12	37	106	586
Rear End – Left Turn	59	0.7	0	0.0	3	5	9	42
Rear End – Right Turn	42	0.5	0	0.0	0	1	3	38
Sideswipe – Same Direction	469	5.9	1	2.4	6	12	18	432
Sideswipe – Opposite Directions	129	1.6	1	2.4	1	6	8	113
Backing	251	3.1	0	0.0	0	0	2	249
Other	226	2.8	4	9.8	11	12	21	178
Unknown	76	1.0	0	0.0	1	0	0	75
Uncoded & Errors	0	0.0	0	0.0	0	0	0	0
TOTAL	7,990	100.0	41	100.0	195	333	537	6,884

RELATIONSHIP TO ROADWAY

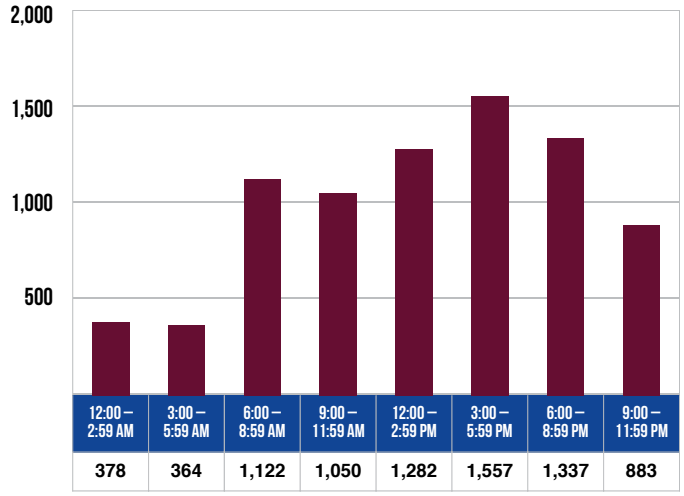
LOCATION OF FIRST IMPACT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
On Road	6,708	84.0	30	73.2	147	235	405	5,891
Median	22	0.3	0	0.0	0	1	3	18
Shoulder	395	4.9	5	12.2	13	25	45	307
Outside of Shoulder/Curb	617	7.7	5	12.2	33	64	77	438
Gore	26	0.3	0	0.0	1	1	0	24
On-Street Parking	151	1.9	0	0.0	0	4	4	143
Off the Roadway	0	0.0	0	0.0	0	0	0	0
On the Sidewalk	9	0.1	0	0.0	0	0	1	8
In the Bicycle Lane	1	0.0	0	0.0	0	0	0	1
Other/Unknown	61	0.8	1	2.4	1	3	2	54
TOTAL	7,990	100.0	41	100.0	195	333	537	6,884

In the Upper Peninsula, only 7.7 percent of crashes occur outside of the shoulder/curb of the road, but these crashes account for 12.2 percent of the fatal crashes.

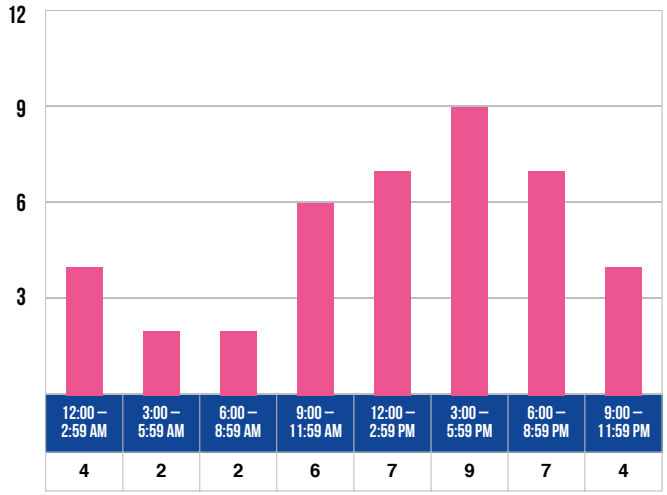
UPPER PENINSULA TIME AND SEVERITY

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	378	4.7	4	9.8	14	19	28	313
3:00 AM – 5:59 AM	364	4.6	2	4.9	7	12	17	326
6:00 AM – 8:59 AM	1,122	14.0	2	4.9	15	31	57	1,017
9:00 AM – 11:59 AM	1,050	13.1	6	14.6	32	40	79	893
12:00 PM – 2:59 PM	1,282	16.0	7	17.1	38	72	104	1,061
3:00 PM – 5:59 PM	1,557	19.5	9	22.0	52	84	149	1,263
6:00 PM – 8:59 PM	1,337	16.7	7	17.1	25	46	66	1,193
9:00 PM – 11:59 PM	883	11.1	4	9.8	12	29	37	801
Unknown	17	0.2	0	0.0	0	0	0	17
TOTAL	7,990	100.0	41	100.0	195	333	537	6,884

ALL CRASHES BY TIME OF DAY



FATAL CRASHES BY TIME OF DAY

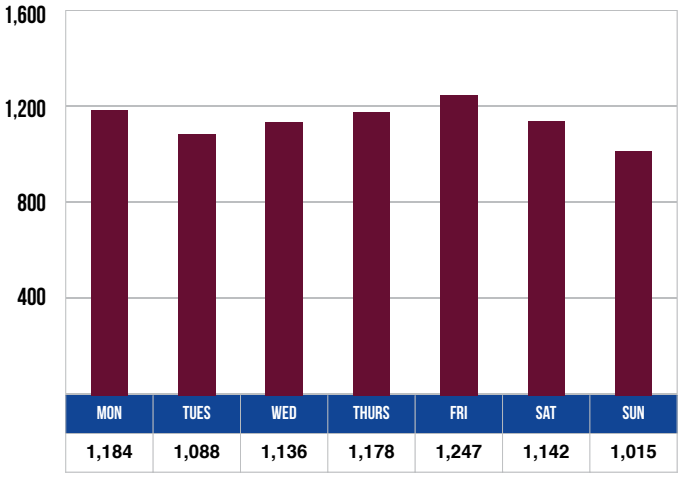


In the Upper Peninsula, crash frequencies peak in the late afternoon, then drop off until 6:00 AM (the morning rush hour). In 2021, fatal crashes were more prevalent in the PM hours than the AM hours, with the highest concentration (9) occurring during the 3:00 PM to 5:59 PM time period.

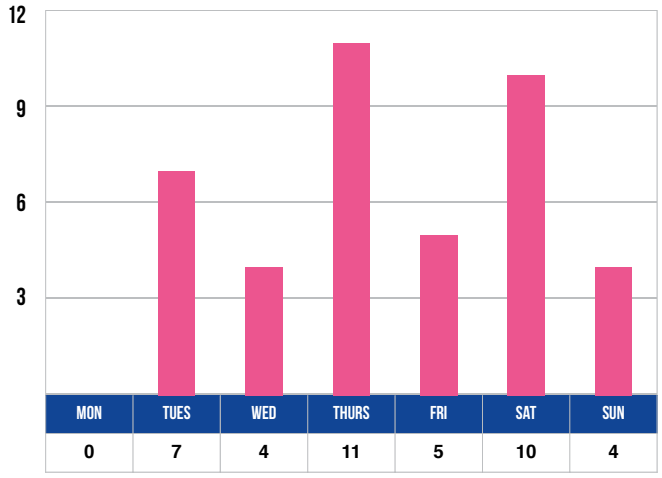
UPPER PENINSULA DAY OF WEEK

DAY OF WEEK	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Monday	1,184	14.8	0	0.0	26	47	67	1,044
Tuesday	1,088	13.6	7	17.1	27	38	74	942
Wednesday	1,136	14.2	4	9.8	24	45	79	984
Thursday	1,178	14.7	11	26.8	29	51	85	1,002
Friday	1,247	15.6	5	12.2	38	54	83	1,067
Saturday	1,142	14.3	10	24.4	33	53	74	972
Sunday	1,015	12.7	4	9.8	18	45	75	873
TOTAL	7,990	100.0	41	100.0	195	333	537	6,884

ALL CRASHES BY DAY OF WEEK



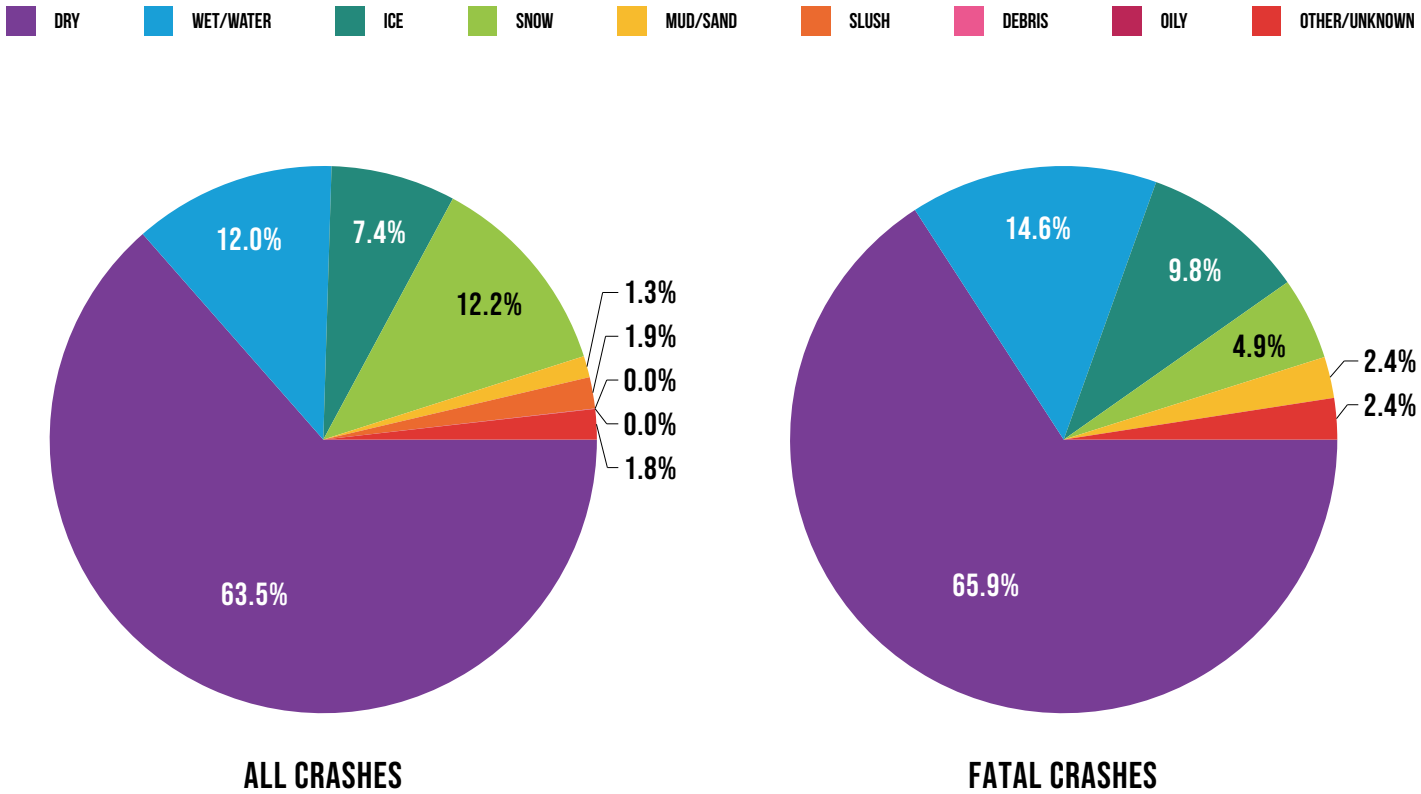
FATAL CRASHES BY DAY OF WEEK



In the Upper Peninsula, overall crash frequencies are the highest on Friday (1,247), but Thursday had the highest number of fatal crashes (11).

UPPER PENINSULA ROAD CONDITION

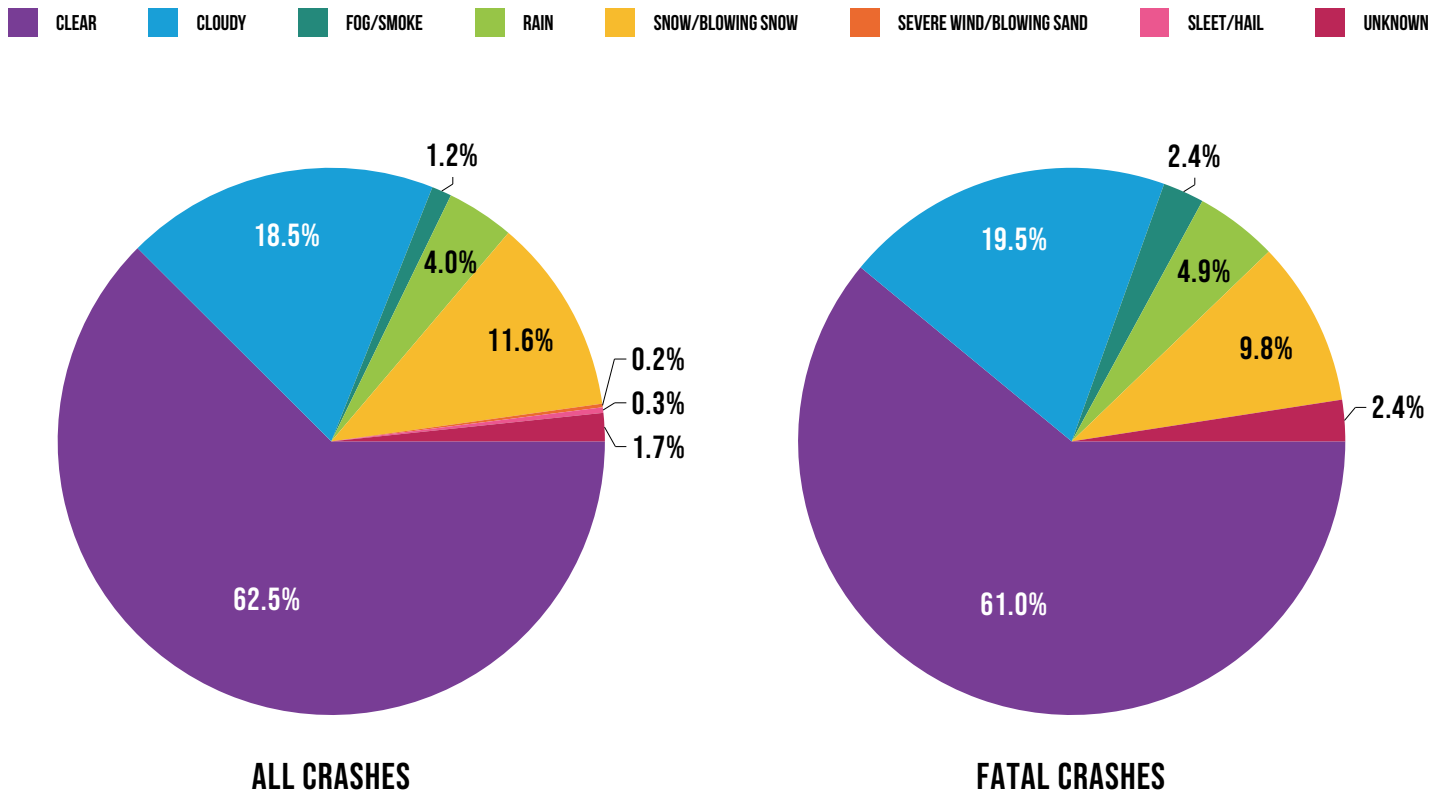
ROAD SURFACE CONDITION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Dry	5,076	63.5	27	65.9	130	212	325	4,382
Wet	952	11.9	6	14.6	22	33	56	835
Ice	589	7.4	4	9.8	7	27	46	505
Snow	976	12.2	2	4.9	19	35	73	847
Mud, Dirt, Gravel	97	1.2	1	2.4	9	14	16	57
Slush	148	1.9	0	0.0	5	9	18	116
Debris	1	0.0	0	0.0	0	0	0	1
Water (standing/moving)	3	0.0	0	0.0	1	0	0	2
Sand	4	0.1	0	0.0	0	0	0	4
Oily	1	0.0	0	0.0	0	1	0	0
Other	7	0.1	0	0.0	1	0	1	5
Unknown	136	1.7	1	2.4	1	2	2	130
Uncoded & Errors	0	0.0	0	0.0	0	0	0	0
TOTAL	7,990	100.0	41	100.0	195	333	537	6,884



In the Upper Peninsula, the highest percentage of all crashes (63.5%), fatal crashes (65.9%), injury crashes (62.6%), and property damage only crashes (63.7%) occur on dry roads.

UPPER PENINSULA WEATHER CONDITION

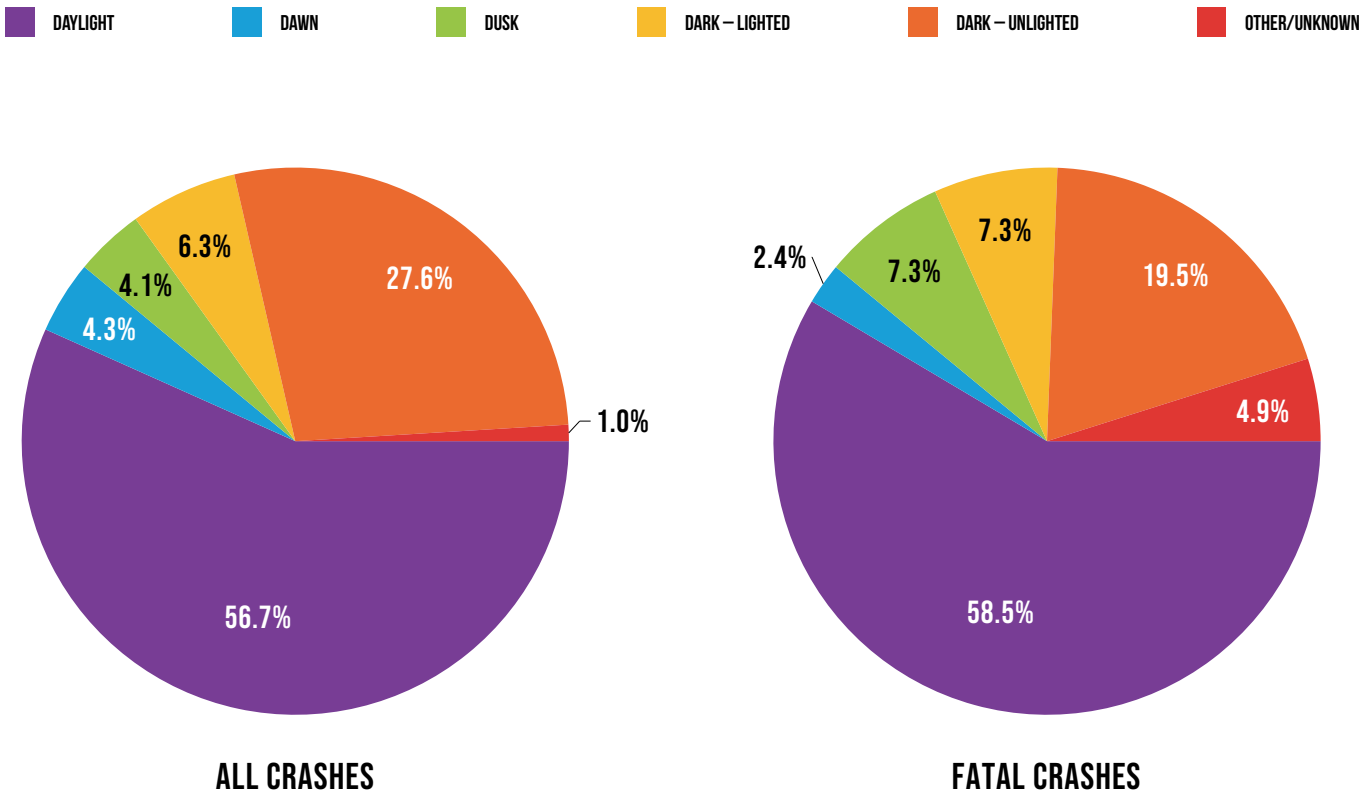
WEATHER CONDITION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Clear	4,992	62.5	25	61.0	137	213	332	4,285
Cloudy	1,482	18.5	8	19.5	35	63	100	1,276
Fog	93	1.2	1	2.4	3	2	8	79
Rain	320	4.0	2	4.9	12	15	22	269
Snow	819	10.3	3	7.3	6	27	65	718
Severe Crosswinds	17	0.2	0	0.0	0	1	1	15
Sleet/Hail	26	0.3	0	0.0	1	2	3	20
Blowing Snow	107	1.3	1	2.4	0	9	3	94
Blowing Sand, Soil, Dirt	0	0.0	0	0.0	0	0	0	0
Smoke	1	0.0	0	0.0	0	0	0	1
Unknown	133	1.7	1	2.4	1	1	3	127
TOTAL	7,990	100.0	41	100.0	195	333	537	6,884



In the Upper Peninsula, the highest percentage of all crashes (62.5%), fatal crashes (61.0%), injury crashes (64.0%), and property damage only crashes (62.2%) occur during clear weather conditions.

UPPER PENINSULA LIGHT CONDITION

LIGHT CONDITION	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Daylight	4,530	56.7	24	58.5	137	233	390	3,746
Dawn	343	4.3	1	2.4	5	6	16	315
Dusk	327	4.1	3	7.3	7	8	21	288
Dark – Lighted	506	6.3	3	7.3	13	22	32	436
Dark – Unlighted	2,207	27.6	8	19.5	32	64	77	2,026
Other	3	0.0	0	0.0	0	0	0	3
Unknown	74	0.9	2	4.9	1	0	1	70
TOTAL	7,990	100.0	41	100.0	195	333	537	6,884



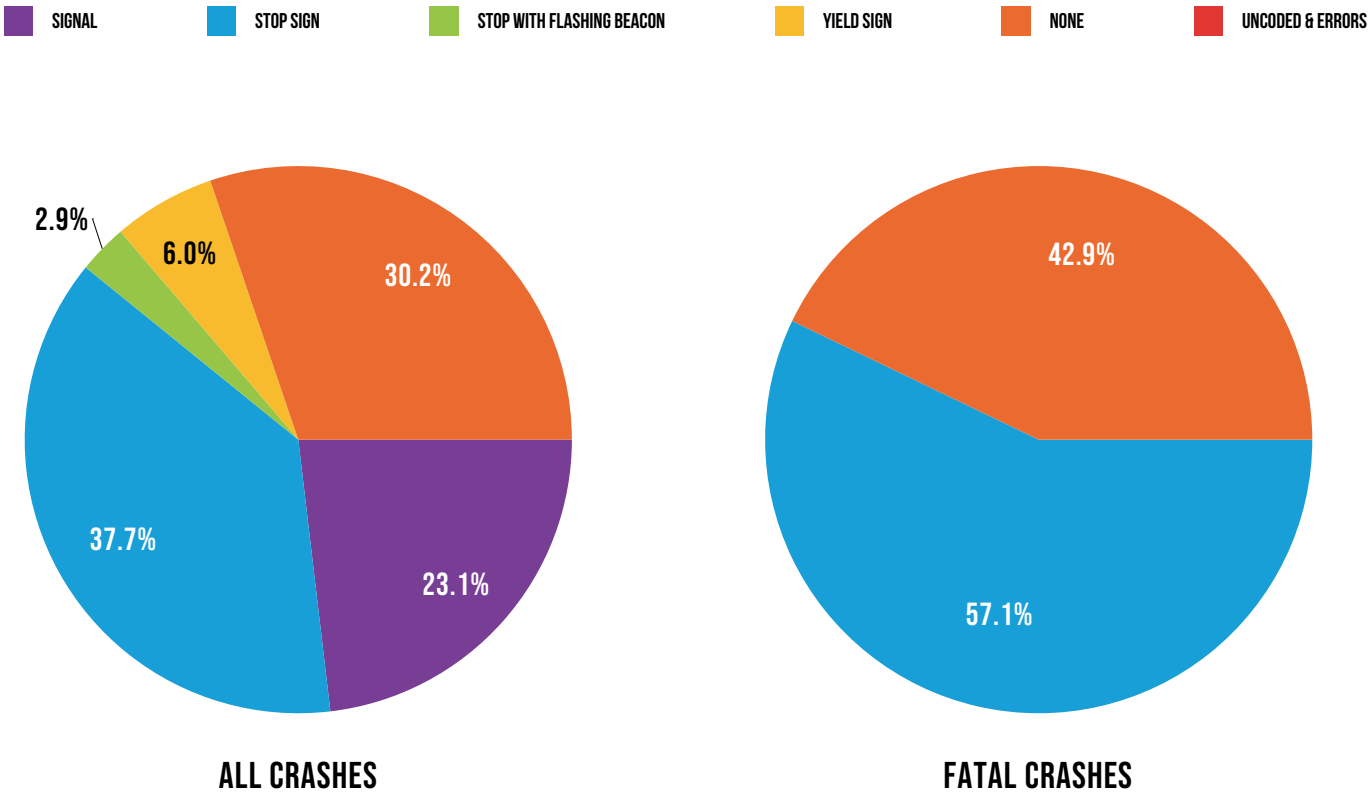
ALL CRASHES

FATAL CRASHES

In the Upper Peninsula, the highest percentage of all crashes (56.7%), fatal crashes (58.5%), injury crashes (71.4%), and property damage only crashes (54.4%) occur during during daylight hours.

UPPER PENINSULA INTERSECTION CRASHES BY TRAFFIC CONTROL TYPE

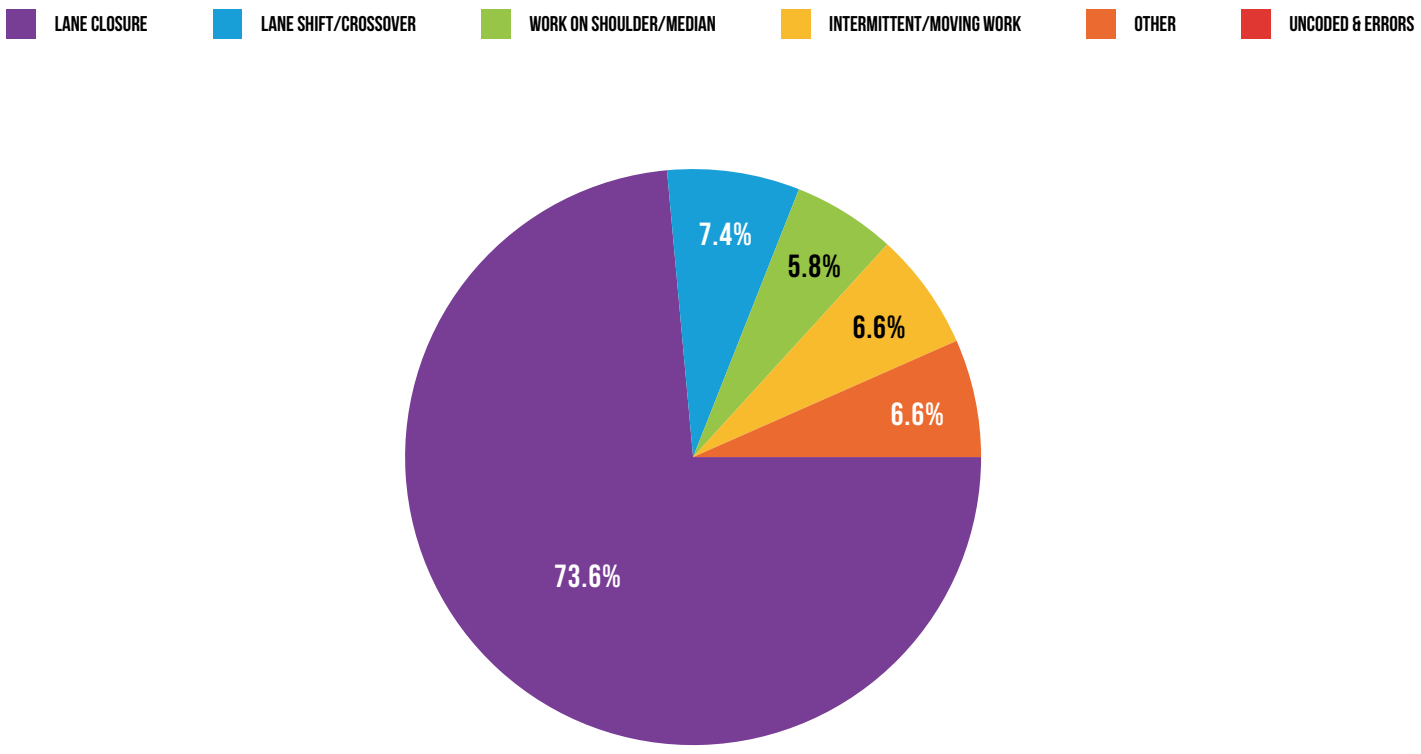
TRAFFIC CONTROL TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES			PROPERTY DAMAGE ONLY
	Number	% of Total	Number	% of Total	A	B	C	
Signal	398	23.1	0	0.0	17	21	68	292
Stop Sign	649	37.7	4	57.1	25	45	73	502
Stop with Flashing Beacon	50	2.9	0	0.0	2	1	7	40
Yield Sign	104	6.0	0	0.0	1	1	10	92
None	520	30.2	3	42.9	17	27	55	418
Uncoded & Errors	0	0.0	0	0.0	0	0	0	0
TOTAL	1,721	100.0	7	100.0	62	95	213	1,344



Compared to other intersection crashes, Upper Peninsula intersections with stop signs have the highest percentage of all crashes (37.7%), fatal crashes (57.1%), injury crashes (38.6%), and property damage only crashes (37.4%).

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	89	73.6	1	50.0	0	10	14	64
Lane Shift/Crossover	9	7.4	0	0.0	0	1	2	6
Work on Shoulder/Median	7	5.8	1	50.0	0	0	0	6
Intermittent/Moving Work	8	6.6	0	0.0	0	1	0	7
Other	8	6.6	0	0.0	1	1	0	6
Uncoded & Errors	0	0.0	0	0.0	0	0	0	0
TOTAL	121	100.0	2	100.0	1	13	16	89

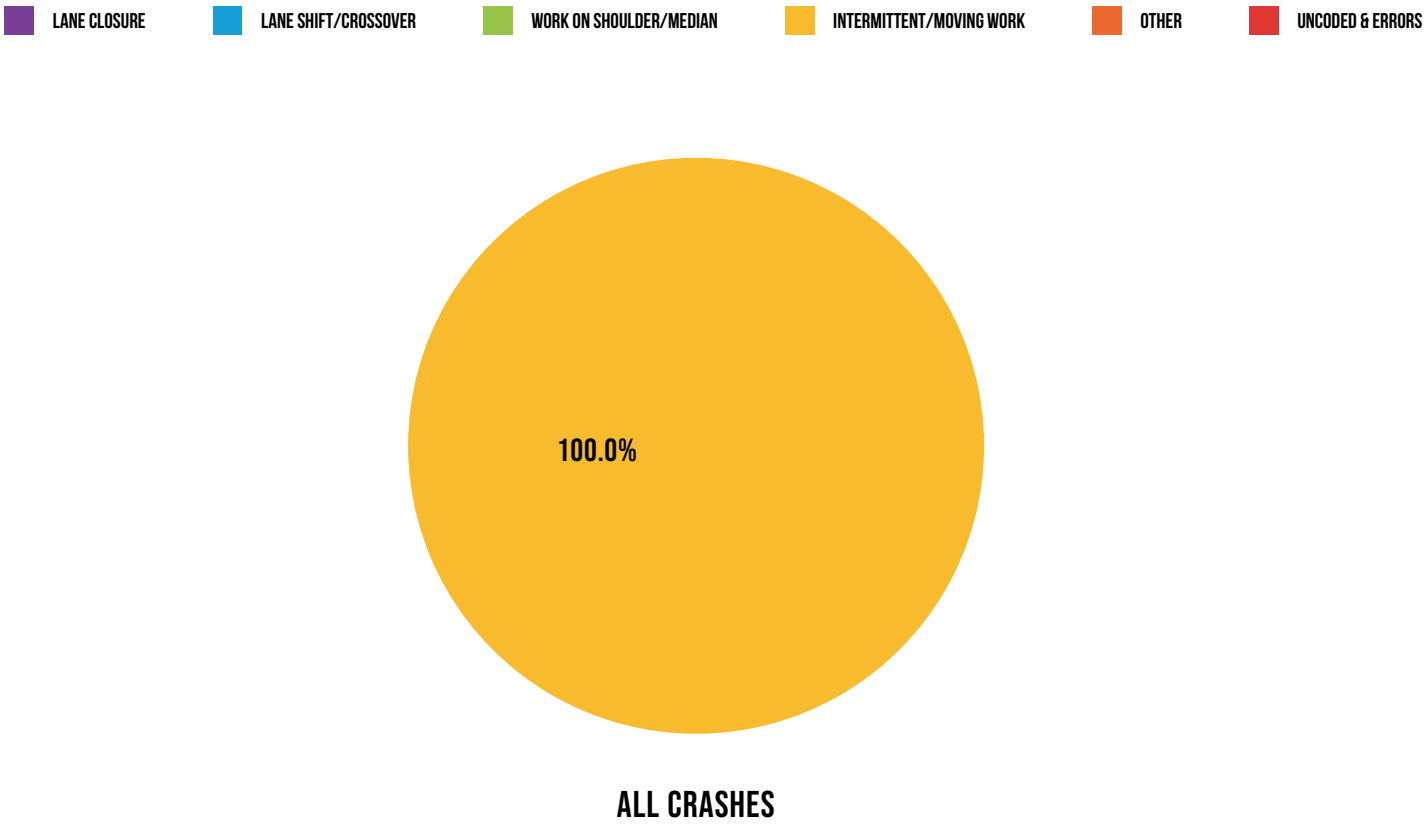


ALL CRASHES

For crashes taking place in construction/maintenance zones, the highest percentage of all crashes (73.6%), injury crashes (80.0%), and property damage only crashes (71.9%) 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	0	0.0	0	0.0	0	0	0	0
Intermittent/Moving Work	1	100.0	0	0.0	0	0	0	1
Other	0	0.0	0	0.0	0	0	0	0
Uncoded & Errors	0	0.0	0	0.0	0	0	0	0
TOTAL	1	100.0	0	0.0	0	0	0	1



ALL CRASHES

One crash occurred in a utility construction zone in the Upper Peninsula in 2021 and it was a property damage only crash.

VEHICLE/DRIVER

(characteristics specific to individual traffic units)

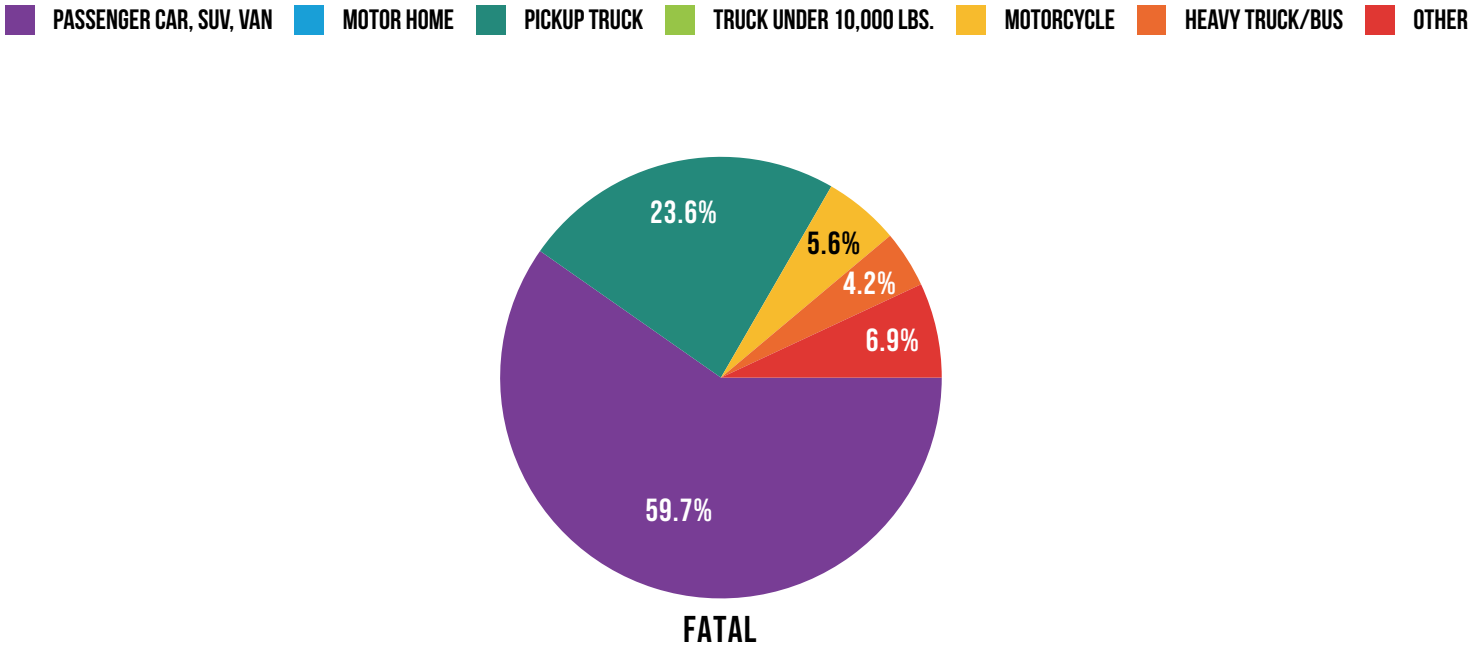
UPPER PENINSULA VEHICLE TYPE AND CRASH INVOLVEMENT

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	7,590	68.8	43	59.7	1,071	6,476	19	50.0	749	6,822
Motor Home	16	0.1	0	0.0	1	15	0	0.0	0	16
Pickup Truck	2,589	23.5	17	23.6	361	2,211	10	26.3	217	2,362
Small Truck Under 10,000 lbs. GVWR	69	0.6	0	0.0	9	60	0	0.0	6	63
Motorcycle	110	1.0	4	5.6	88	18	4	10.5	85	21
Moped/Goped	17	0.2	0	0.0	12	5	0	0.0	12	5
Go-Cart/Golf Cart	0	0.0	0	0.0	0	0	0	0.0	0	0
Snowmobile	42	0.4	1	1.4	33	8	1	2.6	32	9
Off-Road Vehicle (ORV)/ All-Terrain Vehicle (ATV)	73	0.7	4	5.6	53	16	4	10.5	50	19
Other (non-registered farm equipment, construction equipment, snow plows, etc.)	38	0.3	0	0.0	7	31	0	0.0	3	35
Uncoded & Errors	171	1.6	0	0.0	5	166	0	0.0	0	171
Truck/Bus (over 10,000 lbs. GVWR/8+ occupants/ hazmat placard) (breakdown below)	310	2.8	3	4.2	44	263	0	0.0	13	297
Total Number of Vehicles	11,025	100.0	72	100.0	1,684	9,269	38	100.0	1,167	9,820

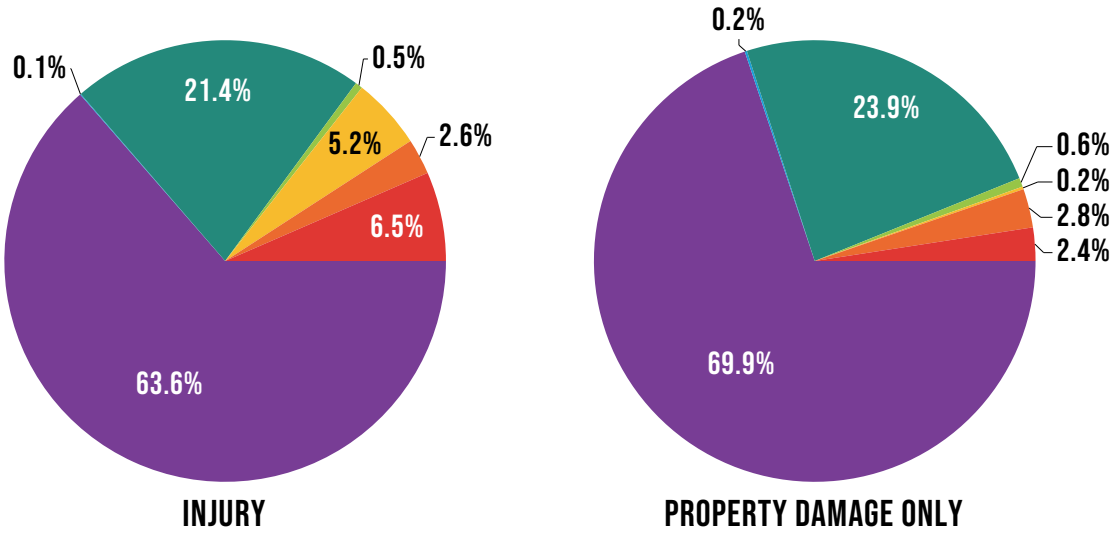
Note: Buses cannot be broken out of Heavy Truck/Bus

HEAVY 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	1	0.3	0	0.0	0	1	0	0.0	0	1
10,001-26,000 lbs.	125	40.3	2	66.7	15	108	0	0.0	6	119
Greater Than 26,000 lbs.	184	59.4	1	33.3	29	154	0	0.0	7	177
Uncoded & Errors	0	0.0	0	0.0	0	0	0	0.0	0	0
Total Number of Vehicles	310	100.0	3	100.0	44	263	0	0.0	13	297

UPPER PENINSULA VEHICLE TYPES IN CRASHES BY CRASH SEVERITY



The top chart shows that 83.3 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 5.6 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 (85.6%) and property damage only (PDO) crashes (94.6%) than they do of fatal crashes.

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

UPPER PENINSULA ACTION PRIOR TO CRASH

DRIVER ACTION	VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number	% of Total		A	B	C	
Going Straight Ahead	7,305	66.3	49	196	320	542	6,198
Turning Left	526	4.8	0	32	36	86	372
Turning Right	324	2.9	0	5	14	24	281
Stopped on Roadway	471	4.3	2	5	26	59	379
Involved in Prior Crash at Same Location	0	0.0	0	0	0	0	0
Changing Lanes	123	1.1	1	0	3	5	114
Backing	376	3.4	0	0	1	7	368
Slowing/Stopping on Roadway	455	4.1	0	6	19	68	362
Slowing/Stopping Other Area	15	0.1	0	1	2	1	11
Starting Up on Roadway	122	1.1	1	3	8	5	105
Starting Up in Other Area	6	0.1	1	0	1	0	4
Entering Parking	21	0.2	0	0	0	0	21
Leaving Parking	49	0.4	0	1	0	4	44
Entering Roadway	112	1.0	2	8	9	9	84
Leaving Roadway	25	0.2	1	3	1	3	17
Making U-Turn	20	0.2	0	3	3	3	11
Overtaking or Passing	79	0.7	0	5	9	7	58
Avoiding Object	6	0.1	0	0	0	0	6
Avoiding Animal	47	0.4	0	0	3	4	40
Avoiding Pedestrian	2	0.0	0	0	0	0	2
Avoiding Vehicle (front/back)	49	0.4	0	4	4	8	33
Avoiding Vehicle (angle)	14	0.1	1	1	2	1	9
Driverless Moving	16	0.1	0	1	0	1	14
Parked	499	4.5	5	7	18	19	450
Crossing at Intersection	6	0.1	0	1	1	0	4
Crossing Not at Intersection	1	0.0	0	1	0	0	0
Getting On/Off Vehicle	0	0.0	0	0	0	0	0
In Roadway With Traffic	1	0.0	0	0	0	1	0
In Roadway Against Traffic	0	0.0	0	0	0	0	0
Standing/Lying in Roadway	0	0.0	0	0	0	0	0
Pushing/Working on Vehicle	0	0.0	0	0	0	0	0
Other Work in Roadway	0	0.0	0	0	0	0	0
Playing in Roadway	0	0.0	0	0	0	0	0
In Roadway Other Reason	0	0.0	0	0	0	0	0
Not in Roadway	1	0.0	0	0	0	0	1
Negotiating a Curve	231	2.1	7	12	19	25	168
Other	21	0.2	1	0	1	3	16
Unknown	102	0.9	1	0	2	2	97
TOTAL	11,025	100.0	72	295	502	887	9,269

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

MOTORCYCLIST ACTION	MOTORCYCLES		MOTORCYCLISTS*		FATALITY	INJURY			NO INJURY
	Number of Motorcycles	% of Total	Number of Motorcyclists	% of Total		A	B	C	
Going Straight Ahead	67	60.9	75	58.6	3	31	23	7	11
Turning Left	6	5.5	7	5.5	0	0	1	1	5
Turning Right	2	1.8	2	1.6	0	0	0	1	1
Stopped on Roadway	2	1.8	4	3.1	0	0	1	2	1
Involved in Prior Crash at Same Location	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	7	6.4	9	7.0	0	4	1	1	3
Slowing/Stopping Other Area	0	0.0	0	0.0	0	0	0	0	0
Starting Up on Roadway	0	0.0	0	0.0	0	0	0	0	0
Starting Up in Other Area	0	0.0	0	0.0	0	0	0	0	0
Entering Parking	0	0.0	0	0.0	0	0	0	0	0
Leaving Parking	0	0.0	0	0.0	0	0	0	0	0
Entering Roadway	1	0.9	1	0.8	0	0	0	0	1
Leaving Roadway	0	0.0	0	0.0	0	0	0	0	0
Making U-Turn	0	0.0	0	0.0	0	0	0	0	0
Overtaking or Passing	5	4.5	6	4.7	0	1	4	1	0
Avoiding Object	0	0.0	0	0.0	0	0	0	0	0
Avoiding Animal	1	0.9	1	0.8	0	0	1	0	0
Avoiding Pedestrian	0	0.0	0	0.0	0	0	0	0	0
Avoiding Vehicle (front/back)	4	3.6	5	3.9	0	3	0	1	1
Avoiding Vehicle (angle)	2	1.8	2	1.6	0	0	0	1	1
Driverless Moving	0	0.0	0	0.0	0	0	0	0	0
Parked	2	1.8	2	1.6	0	0	0	0	1
Crossing at Intersection	0	0.0	0	0.0	0	0	0	0	0
Crossing Not at Intersection	0	0.0	0	0.0	0	0	0	0	0
Getting On/Off Vehicle	0	0.0	0	0.0	0	0	0	0	0
In Roadway With Traffic	0	0.0	0	0.0	0	0	0	0	0
In Roadway Against Traffic	0	0.0	0	0.0	0	0	0	0	0
Standing/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 Work 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	10	9.1	13	10.2	1	7	3	2	0
Other	0	0.0	0	0.0	0	0	0	0	0
Unknown	1	0.9	1	0.8	0	0	1	0	0
TOTAL	110	100.0	128	100.0	4	46	35	17	25

*Includes one motorcyclist (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	22	68.8	0	4	9	5	4
Turning Left	1	3.1	0	1	0	0	0
Turning Right	0	0.0	0	0	0	0	0
Stopped on Roadway	0	0.0	0	0	0	0	0
Involved in Prior Crash at Same Location	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 Area	0	0.0	0	0	0	0	0
Starting Up on Roadway	0	0.0	0	0	0	0	0
Starting Up in Other Area	0	0.0	0	0	0	0	0
Entering Parking	1	3.1	0	0	1	0	0
Leaving Parking	0	0.0	0	0	0	0	0
Entering Roadway	0	0.0	0	0	0	0	0
Leaving Roadway	0	0.0	0	0	0	0	0
Making U-Turn	0	0.0	0	0	0	0	0
Overtaking or Passing	1	3.1	0	0	1	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	6	18.8	0	2	1	3	0
Crossing Not at Intersection	0	0.0	0	0	0	0	0
Getting On/Off Vehicle	0	0.0	0	0	0	0	0
In Roadway With Traffic	0	0.0	0	0	0	0	0
In Roadway Against Traffic	0	0.0	0	0	0	0	0
Standing/Lying in Roadway	0	0.0	0	0	0	0	0
Pushing/Working on Vehicle	0	0.0	0	0	0	0	0
Other Work in Roadway	0	0.0	0	0	0	0	0
Playing in Roadway	0	0.0	0	0	0	0	0
In Roadway Other Reason	1	3.1	0	0	0	0	0
Not in Roadway	0	0.0	0	0	0	0	0
Negotiating a Curve	0	0.0	0	0	0	0	0
Other	0	0.0	0	0	0	0	0
Unknown	0	0.0	0	0	0	0	0
TOTAL	32	100.0	0	7	12	8	4

*Includes one bicyclist with unknown injury severity

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

PEDESTRIAN ACTION	PEDESTRIANS*		FATALITY	INJURY			NO INJURY
	Number of Pedestrians	% of Total		A	B	C	
Going Straight Ahead	0	0.0	0	0	0	0	0
Turning Left	0	0.0	0	0	0	0	0
Turning Right	0	0.0	0	0	0	0	0
Stopped on Roadway	0	0.0	0	0	0	0	0
Involved in Prior Crash at Same Location	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 Area	0	0.0	0	0	0	0	0
Starting Up on Roadway	0	0.0	0	0	0	0	0
Starting Up in Other Area	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	11	44.0	1	3	4	3	0
Crossing Not at Intersection	4	16.0	0	0	1	2	1
Getting On/Off Vehicle	0	0.0	0	0	0	0	0
In Roadway With Traffic	1	4.0	0	1	0	0	0
In Roadway Against Traffic	0	0.0	0	0	0	0	0
Standing/Lying in Roadway	2	8.0	0	0	1	1	0
Pushing/Working on Vehicle	0	0.0	0	0	0	0	0
Other Work in Roadway	2	8.0	1	0	0	1	0
Playing in Roadway	1	4.0	0	0	0	1	0
In Roadway Other Reason	2	8.0	0	1	0	1	0
Not in Roadway	1	4.0	0	1	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	4.0	1	0	0	0	0
TOTAL	25	100.0	3	6	6	9	1

*Includes no pedestrians with unknown injury severity

UPPER PENINSULA MOST HARMFUL EVENT

NONCOLLISION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Loss of Control	182	1.7	0	11	19	11	141
Ran Off Roadway Left	81	0.7	1	1	5	5	69
Ran Off Roadway Right	108	1.0	0	0	5	6	97
Re-Enter Roadway	20	0.2	1	2	0	3	14
Overturn	253	2.3	8	20	45	55	125
Separation of Units	47	0.4	0	2	0	7	38
Fire/Explosion	17	0.2	0	1	1	1	14
Immersion	7	0.1	0	0	3	0	4
Jackknife	6	0.1	0	0	0	0	6
Downhill Runaway	0	0.0	0	0	0	0	0
Cargo Loss/Shift	15	0.1	1	0	1	0	13
Individual Fell from Vehicle	25	0.2	1	10	8	5	1
Other Noncollision	32	0.3	0	2	1	3	26
Equipment Failure (blown tire, brake failure, etc.)	21	0.2	0	0	3	0	18
Cross Centerline	49	0.4	0	3	3	2	41
Cross Median	7	0.1	0	1	0	1	5
SUBTOTAL	870	7.9	12	53	94	99	612

COLLISION WITH A NONFIXED OBJECT	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Pedestrian	22	0.2	2	5	5	9	1
Bicyclist	29	0.3	0	6	11	7	5
Motor Vehicle in Transport (in motion or on roadway)	5,024	45.6	47	162	266	601	3,948
Parked Motor Vehicle	523	4.7	2	5	17	22	477
Railroad Train	4	0.0	1	0	0	1	2
Animal	3,345	30.3	0	11	15	33	3,286
Other Nonfixed Object	113	1.0	0	1	6	8	98
Work Zone/Maintenance Equipment	1	0.0	0	0	0	0	1
Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle	19	0.2	0	0	0	2	17
SUBTOTAL	9,080	82.4	52	190	320	683	7,835

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/Support	0	0.0	0	0	0	0	0
Bridge Rail	8	0.1	0	0	0	1	7
Guardrail Face	58	0.5	0	0	7	5	46
Guardrail End	13	0.1	0	1	1	1	10
Other Post/Pole/Support	29	0.3	0	1	3	1	24
Culvert	10	0.1	0	0	2	2	6
Curb	10	0.1	0	0	0	1	9
Ditch	197	1.8	2	5	14	21	155
Embankment	44	0.4	1	2	5	7	29
Fence	7	0.1	0	0	1	1	5
Mailbox	28	0.3	0	0	1	1	26
Tree	354	3.2	3	31	38	46	236
Railroad Crossing Signal	1	0.0	0	0	0	0	1
Building	23	0.2	1	0	0	3	19
Traffic Island	1	0.0	0	0	0	0	1
Fire Hydrant	13	0.1	0	0	2	0	11
Impact Attenuator (crash cushion)	11	0.1	0	2	0	0	9
Other Fixed Object	49	0.4	0	4	5	2	38
Bridge Overhead Structure	1	0.0	0	0	0	0	1
Cable Barrier	3	0.0	0	0	0	0	3
Concrete Barrier	9	0.1	0	0	0	2	7
Traffic Sign/Post	86	0.8	0	0	3	0	83
Traffic Signal Equipment	14	0.1	0	0	1	2	11
Utility Pole/Light Support	105	1.0	1	6	5	9	84
SUBTOTAL	1,074	9.7	8	52	88	105	821

	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Uncoded & Errors	0	0.0	0	0	0	0	0
No Event Coded as Most Harmful	1	0.0	0	0	0	0	1
MOST HARMFUL EVENT TOTAL	11,025	100.0	72	295	502	887	9,269

UPPER PENINSULA VEHICLE DEFECTS IN CRASH INVOLVEMENT

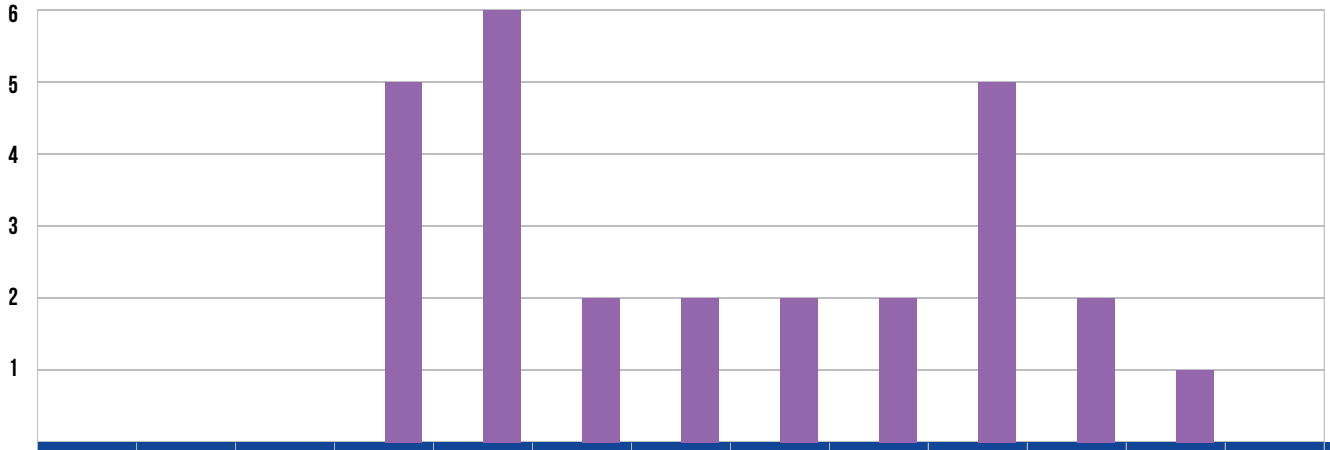
VEHICLE DEFECTS	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Brakes	17	0.2	0	0	0	4	13
Lights/Reflectors	6	0.1	0	0	0	0	6
Steering	4	0.0	0	0	0	1	3
Tires/Wheels/Rims	21	0.2	0	0	3	0	18
Windows/Windshield	5	0.0	0	0	1	1	3
Coupling/Hitch/Chains	5	0.0	0	0	0	0	5
Other	20	0.2	0	0	5	1	14
Uncoded & Errors	10,947	99.3	72	295	493	880	9,207
TOTAL	11,025	100.0	72	295	502	887	9,269

UPPER PENINSULA DRIVER HAZARDOUS ACTION

HAZARDOUS ACTION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
None	6,535	59.3	29	113	214	406	5,773
Speed Too Fast	832	7.5	8	35	59	102	628
Speed Too Slow	6	0.1	0	2	1	0	3
Failed to Yield	788	7.1	7	51	61	104	565
Disregard Traffic Control	138	1.3	2	7	6	36	87
Drove Wrong Way	9	0.1	0	0	0	1	8
Drove Left of Center	61	0.6	2	4	5	6	44
Improper Passing	50	0.5	0	1	0	4	45
Improper Lane Use	150	1.4	0	0	4	6	140
Improper Turn	107	1.0	0	3	6	9	89
Improper/No Signal	15	0.1	0	0	0	2	13
Improper Backing	264	2.4	0	0	0	3	261
Unable to Stop in Assured Clear Distance	720	6.5	2	7	27	90	594
Reckless Driving	57	0.5	5	6	8	5	33
Careless/Negligent Driving	447	4.1	5	33	56	52	301
Other	347	3.1	1	16	37	36	257
Unknown	499	4.5	11	17	18	25	428
TOTAL	11,025	100.0	72	295	502	887	9,269

UPPER PENINSULA MICHIGAN BICYCLE CRASHES

2021 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	0	5	6	2	2	2	2	5	2	1	0	27
TOTAL FATALITIES AND INJURIES	0	0	0	5	6	2	2	2	2	5	2	1	0	27

In 2021 in the Upper Peninsula, there were 32 bicyclists involved in motor vehicle crashes, with no bicyclists killed and 27 injured.

BICYCLE HELMET USE AND INJURY SEVERITY

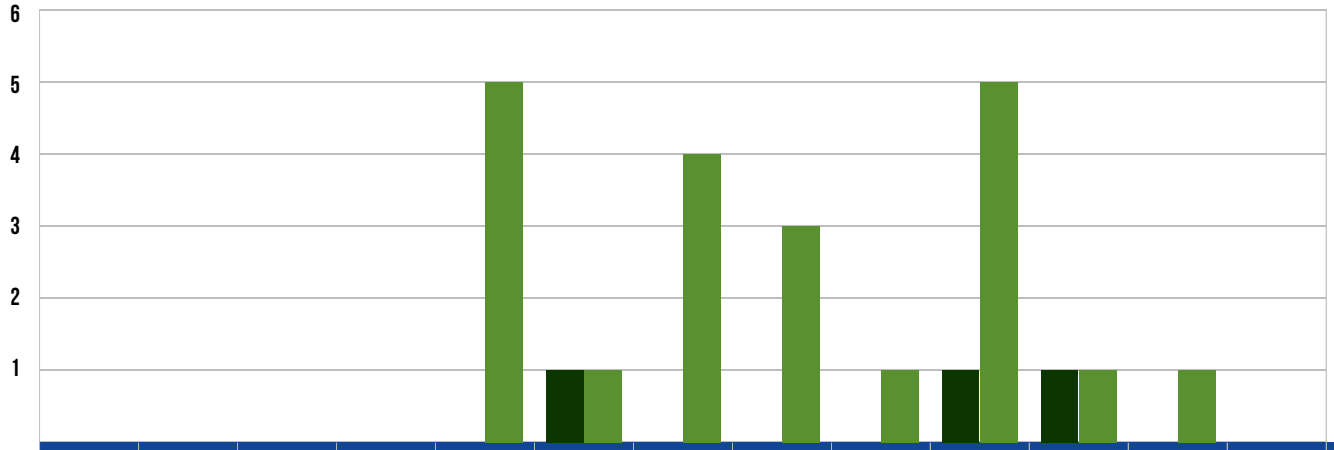
HELMET USE	FATALITY	INJURY			NO INJURY	UNKNOWN	TOTAL
		A	B	C			
Worn	0	3	2	2	1	0	8
Not Worn	0	3	6	5	3	0	17
Unknown	0	1	4	1	0	1	7
TOTAL	0	7	12	8	4	1	32

Note: The data does not include helmet use for all bicyclists. There were seven 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.”

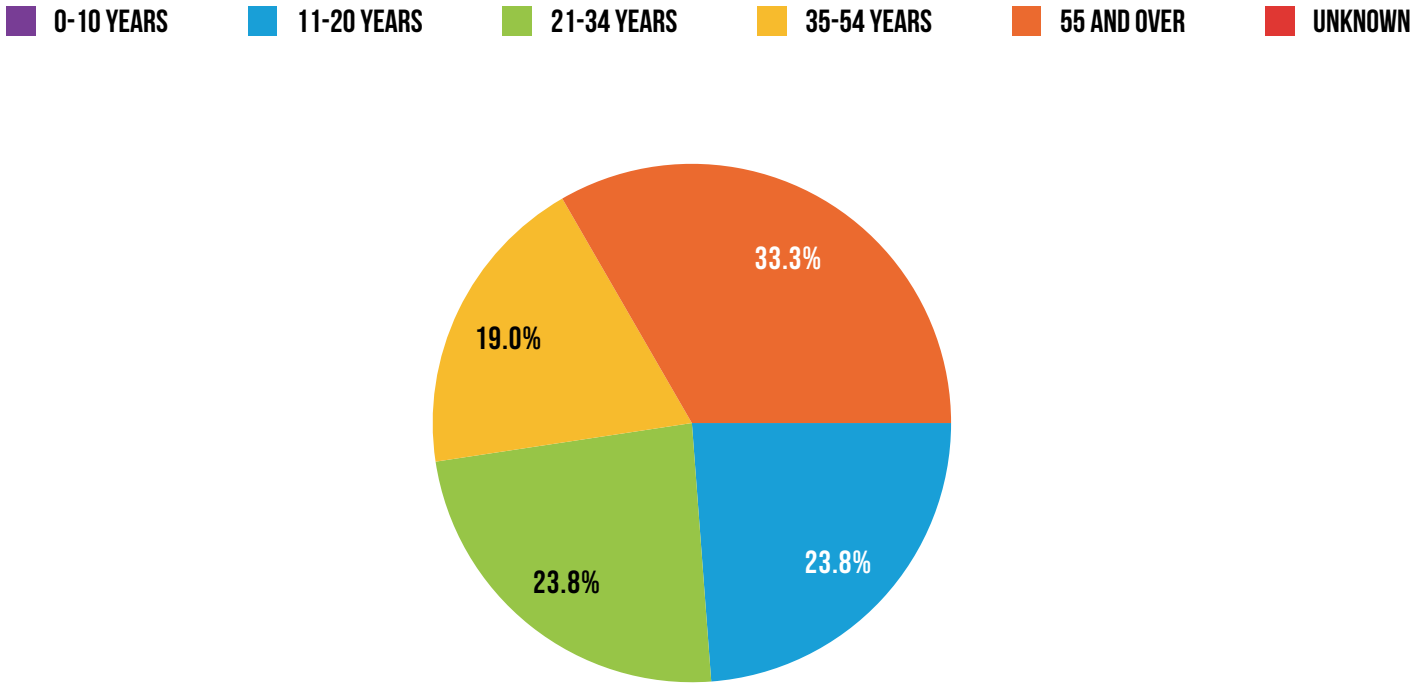
UPPER PENINSULA MICHIGAN PEDESTRIAN CRASHES

2021 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	1	0	0	0	1	1	0	0	3
INJURED	0	0	0	0	5	1	4	3	1	5	1	1	0	21
TOTAL FATALITIES AND INJURIES	0	0	0	0	5	2	4	3	1	6	2	1	0	24

In 2021 in the Upper Peninsula, there were 25 pedestrians involved in motor vehicle crashes, with three pedestrians killed and 21 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	7	16.7	0	3	4	0	0
Ran Off Roadway Left	0	0.0	0	0	0	0	0
Ran Off Roadway Right	0	0.0	0	0	0	0	0
Re-Enter Roadway	1	2.4	0	1	0	0	0
Overturn	4	9.5	0	2	2	0	0
Separation of Units	0	0.0	0	0	0	0	0
Fire/Explosion	1	2.4	0	0	0	0	1
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill Runaway	0	0.0	0	0	0	0	0
Cargo Loss/Shift	0	0.0	0	0	0	0	0
Individual Fell from Vehicle	4	9.5	0	1	2	0	1
Other Noncollision	0	0.0	0	0	0	0	0
Equipment Failure (blown tire, brake failure, etc.)	0	0.0	0	0	0	0	0
Cross Centerline	0	0.0	0	0	0	0	0
Cross Median	0	0.0	0	0	0	0	0
SUBTOTAL	17	40.5	0	7	8	0	2

COLLISION WITH A NONFIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	0	0.0	0	0	0	0	0
Bicyclist	0	0.0	0	0	0	0	0
Motor Vehicle in Transport (in motion or on roadway)	12	28.6	1	4	3	2	2
Parked Motor Vehicle	1	2.4	0	0	0	0	1
Railroad Train	0	0.0	0	0	0	0	0
Animal	0	0.0	0	0	0	0	0
Other Nonfixed Object	0	0.0	0	0	0	0	0
Work Zone/Maintenance Equipment	0	0.0	0	0	0	0	0
Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle	0	0.0	0	0	0	0	0
SUBTOTAL	13	31.0	1	4	3	2	3

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/Support	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
Other Post/Pole/Support	0	0.0	0	0	0	0	0
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	0	0.0	0	0	0	0	0
Embankment	1	2.4	0	0	1	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	8	19.0	0	5	0	1	2
Railroad 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 (crash cushion)	1	2.4	0	1	0	0	0
Other Fixed Object	1	2.4	0	0	0	1	0
Bridge Overhead Structure	0	0.0	0	0	0	0	0
Cable Barrier	0	0.0	0	0	0	0	0
Concrete Barrier	0	0.0	0	0	0	0	0
Traffic Sign/Post	0	0.0	0	0	0	0	0
Traffic Signal Equipment	0	0.0	0	0	0	0	0
Utility Pole/Light Support	1	2.4	0	0	0	0	1
SUBTOTAL	12	28.6	0	6	1	2	3

	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Uncoded & Errors	0	0.0	0	0	0	0	0
No Event Coded as Most Harmful	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	42	100.0	1	17	12	4	8

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 42 snowmobiles were reported in crashes on Upper Peninsula public roadways during 2021, resulting in one fatal crash. A total of 33 snowmobiles were involved in 31 injury crashes.

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

NONCOLLISION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ ATVs	% of Total		A	B	C	
Loss of Control	5	6.8	0	0	1	3	1
Ran Off Roadway Left	1	1.4	0	0	1	0	0
Ran Off Roadway Right	0	0.0	0	0	0	0	0
Re-Enter Roadway	1	1.4	0	0	0	0	1
Overturn	16	21.9	1	5	5	4	1
Separation of Units	0	0.0	0	0	0	0	0
Fire/Explosion	0	0.0	0	0	0	0	0
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill Runaway	0	0.0	0	0	0	0	0
Cargo Loss/Shift	0	0.0	0	0	0	0	0
Individual Fell from Vehicle	8	11.0	0	3	1	4	0
Other Noncollision	0	0.0	0	0	0	0	0
Equipment Failure (blown tire, brake failure, etc.)	1	1.4	0	0	1	0	0
Cross Centerline	1	1.4	0	0	0	0	1
Cross Median	0	0.0	0	0	0	0	0
SUBTOTAL	33	45.2	1	8	9	11	4

COLLISION WITH A NONFIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ ATVs	% of Total		A	B	C	
Pedestrian	1	1.4	0	0	0	1	0
Bicyclist	0	0.0	0	0	0	0	0
Motor Vehicle in Transport (in motion or on roadway)	20	27.4	2	7	2	5	4
Parked Motor Vehicle	2	2.7	0	0	0	0	2
Railroad Train	0	0.0	0	0	0	0	0
Animal	4	5.5	0	0	0	1	3
Other Nonfixed Object	0	0.0	0	0	0	0	0
Work Zone/Maintenance Equipment	0	0.0	0	0	0	0	0
Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle	0	0.0	0	0	0	0	0
SUBTOTAL	27	37.0	2	7	2	7	9

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

COLLISION WITH A FIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ ATVs	% of Total		A	B	C	
Bridge Pier/Abutment/Support	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
Other Post/Pole/Support	0	0.0	0	0	0	0	0
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	3	4.1	0	1	2	0	0
Embankment	1	1.4	1	0	0	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	1	1.4	0	0	0	0	1
Tree	5	6.8	0	2	0	3	0
Railroad 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 (crash cushion)	0	0.0	0	0	0	0	0
Other Fixed Object	2	2.7	0	1	0	0	1
Bridge Overhead Structure	0	0.0	0	0	0	0	0
Cable Barrier	0	0.0	0	0	0	0	0
Concrete Barrier	0	0.0	0	0	0	0	0
Traffic Sign/Post	0	0.0	0	0	0	0	0
Traffic Signal Equipment	0	0.0	0	0	0	0	0
Utility Pole/Light Support	1	1.4	0	0	0	0	1
SUBTOTAL	13	17.8	1	4	2	3	3

	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ ATVs	% of Total		A	B	C	
Uncoded & Errors	0	0.0	0	0	0	0	0
No Event Coded as Most Harmful	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	73	100.0	4	19	13	21	16

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 73 off-road/all-terrain vehicles were reported in crashes on Upper Peninsula public roadways during 2021, resulting in four fatal crashes. An additional 53 ORV/ATVs were involved in 48 injury crashes.

UPPER PENINSULA MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS - HAZARDOUS ACTION

HAZARDOUS ACTION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
None	11	26.2	0	3	5	1	2
Speed Too Fast	2	4.8	0	0	2	0	0
Speed Too Slow	2	4.8	0	2	0	0	0
Failed to Yield	7	16.7	1	3	2	0	1
Disregard Traffic Control	2	4.8	0	1	0	1	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	1	2.4	0	0	1	0	0
Improper Turn	0	0.0	0	0	0	0	0
Improper/No Signal	0	0.0	0	0	0	0	0
Improper Backing	0	0.0	0	0	0	0	0
Unable to Stop in Assured Clear Distance	0	0.0	0	0	0	0	0
Reckless Driving	0	0.0	0	0	0	0	0
Careless/Negligent Driving	4	9.5	0	2	1	1	0
Other	4	9.5	0	1	1	0	2
Unknown	9	21.4	0	5	0	1	3
TOTAL	42	100.0	1	17	12	4	8

UPPER PENINSULA MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS - HAZARDOUS ACTION

HAZARDOUS ACTION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
None	15	20.5	0	2	3	4	6
Speed Too Fast	24	32.9	0	7	5	10	2
Speed Too Slow	0	0.0	0	0	0	0	0
Failed to Yield	5	6.8	1	2	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	1	1.4	0	0	1	0	0
Improper Turn	3	4.1	0	0	1	1	1
Improper/No Signal	2	2.7	0	0	0	1	1
Improper Backing	0	0.0	0	0	0	0	0
Unable to Stop in Assured Clear Distance	2	2.7	0	0	0	0	2
Reckless Driving	2	2.7	0	1	1	0	0
Careless/Negligent Driving	5	6.8	0	2	1	1	1
Other	6	8.2	0	3	1	1	1
Unknown	8	11.0	3	2	0	2	1
TOTAL	73	100.0	4	19	13	21	16

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	2020	2021	% CHANGE
Crashes	4	3	-25.0%
Fatalities	0	0	0.0%
Injuries	5	0	-100.0%

Three crashes involving farm equipment were reported on Upper Peninsula roadways during 2021. None of those crashes involved a fatality.

UPPER PENINSULA MICHIGAN VEHICLE-TRAIN CRASHES

VEHICLE TRAIN CRASHES	2020	2021	% CHANGE
Crashes	1	4	300.0%
Fatalities	0	1	---
Injuries	0	1	---

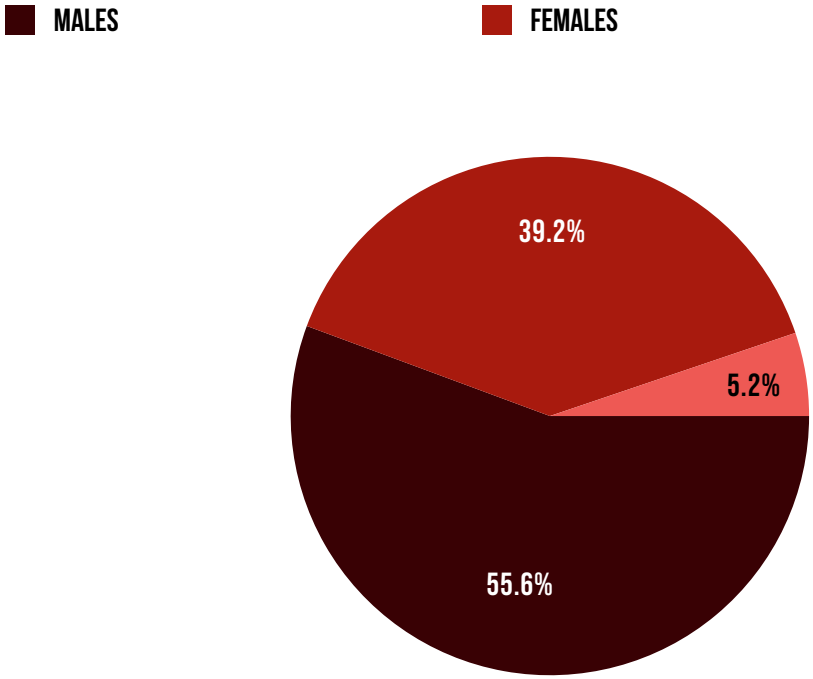
A total of four motor-vehicle crashes involving trains was reported in the Upper Peninsula during 2021, and one crash involved a fatality.

UPPER PENINSULA MICHIGAN MOTORCYLE CRASHES

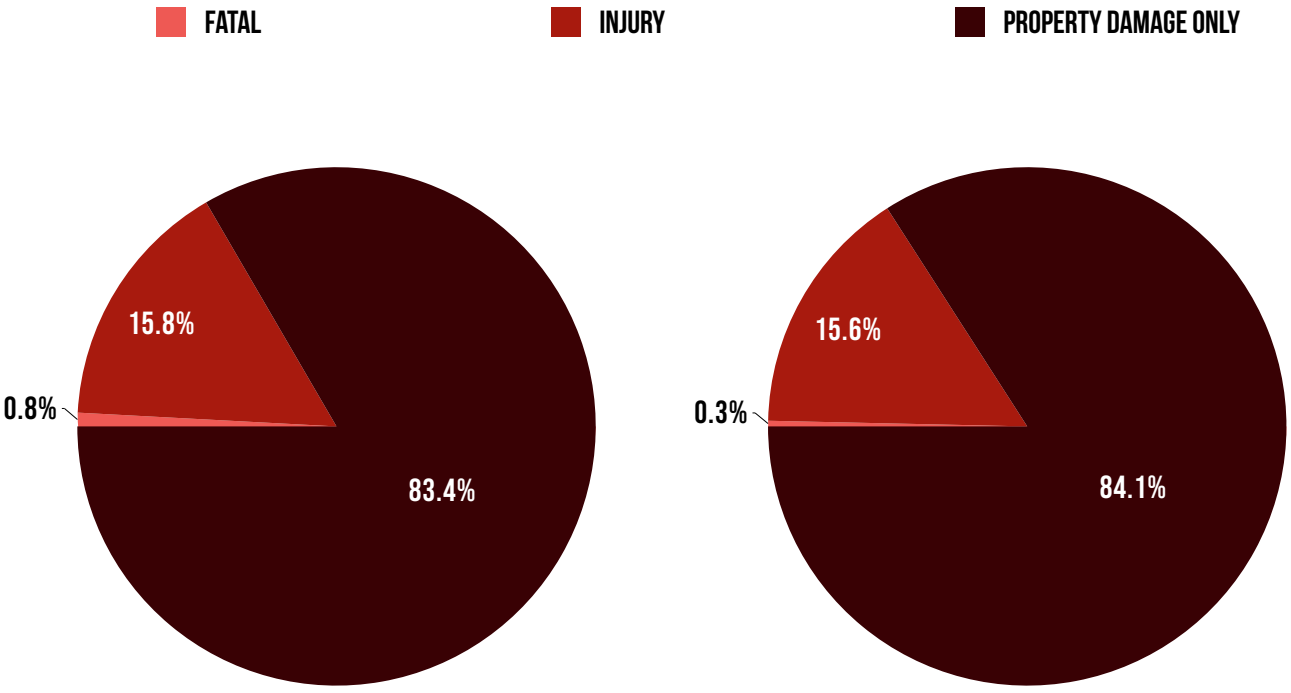
MOTORCYCLE DATA	2020	2021	% CHANGE
Motorcycle Registrations	7,985	9,121	14.2%
Motorcycles in Crashes	114	110	-3.5%
Motorcyclist Deaths	5	4	-20.0%
Motorcyclists Injured	105	98	-6.7%
Death Rate based on 10,000 motorcycle registrations	6.26	4.39	-30.0%
Estimated Mileage based on 3,000 miles per motorcycle	23,955,000	27,363,000	14.2%
Death Rate based on deaths per 100 million vehicle miles traveled	20.87	14.62	-30.0%

Motorcycles were involved in 1.3 percent of all traffic crashes in the Upper Peninsula in 2021. 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 (0.8% vs. 0.3%).

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	1,244	---	36	0	0	91	5	0	0	0
16	2,141	---	187	0	0	32	2	0	4	0
17	2,377	---	255	1	0	43	0	0	0	0
18	2,337	---	289	1	0	34	1	0	1	0
19	2,507	---	249	0	0	38	5	0	0	0
20	2,816	---	290	4	4	39	1	0	0	0
21-24	11,795	---	943	3	1	130	2	0	2	1
25-29	14,604	---	927	4	2	130	1	0	3	0
30-34	16,348	---	852	9	5	91	1	0	1	0
35-39	17,262	---	886	3	0	112	2	0	1	0
40-44	17,614	---	723	9	6	74	0	0	2	0
45-49	16,905	---	709	8	5	78	2	0	1	0
50-54	19,883	---	732	2	3	82	1	0	0	0
55-59	23,991	---	780	4	0	100	2	0	2	1
60-64	27,849	---	799	5	7	98	3	0	4	0
65-69	28,551	---	647	8	2	72	2	0	1	0
70-74	22,445	---	512	3	3	65	0	0	2	1
75-79	14,079	---	313	1	2	37	1	0	0	0
80-84	8,550	---	186	1	0	31	0	0	1	0
85+	6,204	---	108	1	1	17	0	0	0	0
Unknown	---	---	602	5	0	0	1	0	0	0
TOTAL	259,502	---	11,025	72	41	1,394	32	0	25	3

**Population data for 2021 by age is not yet available for the Upper Peninsula.*

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	1,244	36	0.029
16	2,141	187	0.087
17	2,377	255	0.107
18	2,337	289	0.124
19	2,507	249	0.099
20	2,816	290	0.103
21-24	11,795	943	0.080
25-29	14,604	927	0.063
30-34	16,348	852	0.052
35-39	17,262	886	0.051
40-44	17,614	723	0.041
45-49	16,905	709	0.042
50-54	19,883	732	0.037
55-59	23,991	780	0.033
60-64	27,849	799	0.029
65-69	28,551	647	0.023
70-74	22,445	512	0.023
75-79	14,079	313	0.022
80-84	8,550	186	0.022
85-89	4,262	83	0.019
90-94	1,645	20	0.012
95-99	285	5	0.018
100+	12	0	0.000
TOTAL	259,502	10,423	0.040

Data entry errors may result in an over-representation of age "100+" drivers

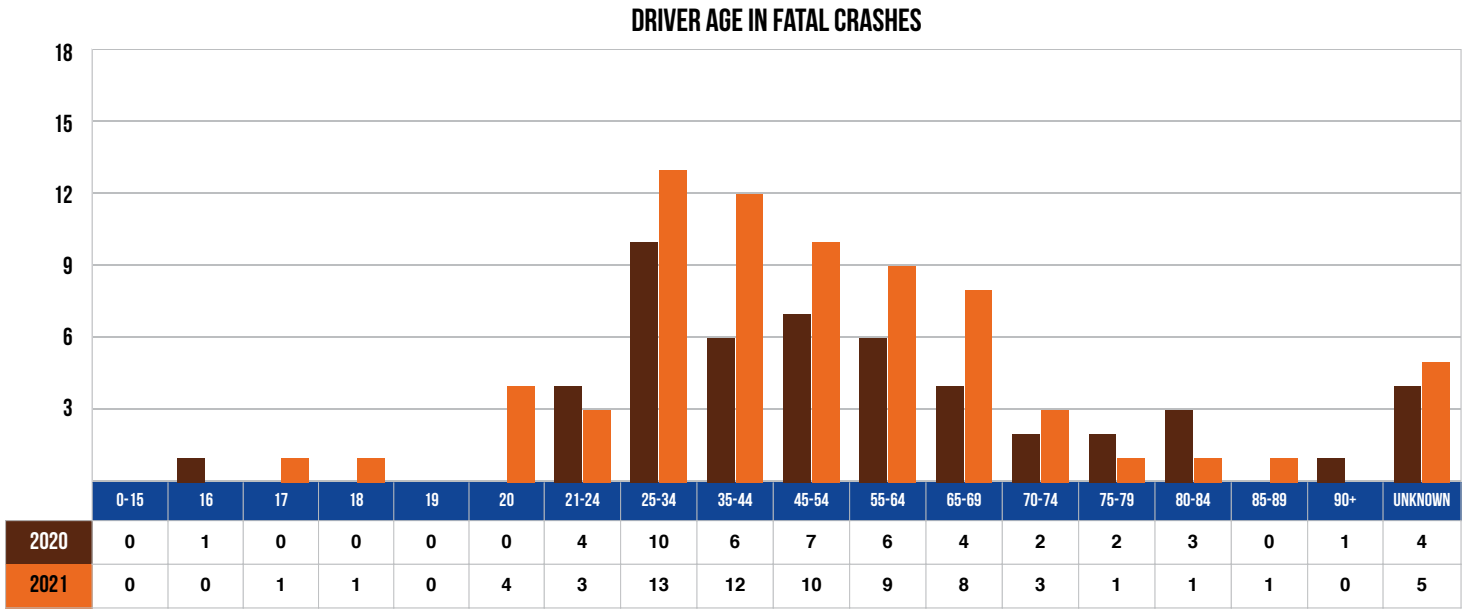
*Excludes 602 drivers with unknown age

Licensed drivers age 18 have the highest crash rate at 0.124 (total crash involvements in age group divided by total number of licensed drivers in age group). The lower crash rates of many 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	2020	2021	PERCENT CHANGE	PERCENT 2021 FATAL CRASH INVOLVEMENT	PERCENT ACTIVE DRIVING POPULATION*
15 years and under	0	0	0.0	0.0	0.5
16 years	1	0	-100.0	0.0	0.8
17 years	0	1	---	1.4	0.9
18 years	0	1	---	1.4	0.9
19 years	0	0	0.0	0.0	1.0
20 years	0	4	---	5.6	1.1
21 - 24 years	4	3	-25.0	4.2	4.5
25 - 34 years	10	13	30.0	18.1	11.9
35 - 44 years	6	12	100.0	16.7	13.4
45 - 54 years	7	10	42.9	13.9	14.2
55 - 64 years	6	9	50.0	12.5	20.0
65 - 69 years	4	8	100.0	11.1	11.0
70 - 74 years	2	3	50.0	4.2	8.6
75 - 79 years	2	1	-50.0	1.4	5.4
80 - 84 years	3	1	-66.7	1.4	3.3
85 - 89 years	0	1	---	1.4	1.6
90 years and over	1	0	-100.0	0.0	0.7
Unknown	4	5	25.0	6.9	---
TOTAL	50	72	44.0	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	7,879	23	151	304	623	6,778
Fatigued or Asleep	74	0	4	11	19	40
Sick	24	1	1	6	6	10
Medicated	17	0	1	1	4	11
Emotional	200	3	19	31	54	93
Physically Disabled	53	10	26	6	5	6
Unknown	1,851	20	57	76	106	1,592
Other	299	12	35	51	54	147

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*	9,531	86.4	14	40.0	119	252	505	8,641	0
Restraint Not Used	191	1.7	17	48.6	33	34	27	80	0
Unknown	1,303	11.8	4	11.4	19	17	28	590	645
TOTAL	11,025	100.0	35	100.0	171	303	560	9,311	645
DRINKING DRIVERS ONLY									
Restraint Used*	169	63.3	1	25.0	8	23	26	111	0
Restraint Not Used	31	11.6	2	50.0	10	7	4	8	0
Unknown	67	25.1	1	25.0	3	7	1	55	0
TOTAL	267	100.0	4	100.0	21	37	31	174	0
DRUGGED DRIVERS ONLY									
Restraint Used*	46	56.8	0	0.0	4	7	4	31	0
Restraint Not Used	9	11.1	3	100.0	2	2	0	2	0
Unknown	26	32.1	0	0.0	2	2	3	19	0
TOTAL	81	100.0	3	100.0	8	11	7	52	0
DRINKING AND DRUGGED DRIVERS ONLY									
Restraint Used*	26	43.3	2	28.6	1	5	2	16	0
Restraint Not Used	9	15.0	4	57.1	0	3	2	0	0
Unknown	25	41.7	1	14.3	1	3	3	17	0
TOTAL	60	100.0	7	100.0	2	11	7	33	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	1,721	7	62	95	213	1,344
2. In intersection	792	2	42	53	116	579
3. With traffic control signal	219	0	14	13	41	151
4. With hazardous action*	55	0	2	2	16	35

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 55 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	22	0	0	1	3	18
30 Miles per Hour	6	0	0	1	2	3
35 Miles per Hour	8	0	1	0	4	3
40 Miles per Hour	0	0	0	0	0	0
45 Miles per Hour	6	0	0	0	3	3
50 Miles per Hour	4	0	0	0	2	2
55 Miles per Hour	7	0	1	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
Uncoded & Errors	2	0	0	0	1	1
TOTAL	55	0	2	2	16	35

* 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 Motor Vehicle	1	0	0	1	0	0
Head-On	0	0	0	0	0	0
Head-On - Left Turn	4	0	0	0	1	3
Angle	46	0	2	1	13	30
Rear-End	0	0	0	0	0	0
Rear-End - Left Turn	0	0	0	0	0	0
Rear-End - Right Turn	0	0	0	0	0	0
Sideswipe - Same Direction	1	0	0	0	0	1
Sideswipe - Opposite Directions	1	0	0	0	0	1
Backing	0	0	0	0	0	0
Other/Unknown	0	0	0	0	0	0
Other	2	0	0	0	2	0
Unknown	0	0	0	0	0	0
Uncoded & Errors	0	0	0	0	0	0
TOTAL	55	0	2	2	16	35

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	1	0	0	0	0	1
Drinking involved	1	0	0	0	1	0
Drug Use Involved	0	0	0	0	0	0
Pedestrian Involved	0	0	0	0	0	0
Bicyclist Involved	1	0	0	1	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	0	0	0	0	0	0
Driver Hazardous Citation	29	0	2	0	9	18

*Crashes may involve more than one special circumstance

POSSIBLE CONDITIONS OF PEOPLE IN CRASH*	CONDITIONS (CODED BY POLICE)	FATAL CRASHES	INJURY CRASHES			PROPERTY DAMAGE ONLY
			A	B	C	
Normal	50	0	1	2	12	35
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	5	0	1	0	3	1
Other	1	0	0	0	1	0

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

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., 8+ occupants, or a hazmat placard.

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 to crash.
- 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.
- Fewer crashes outside of the shoulder/curb.
- More crashes between the period of time between the hours of 7:00 AM and 3:59 PM.
- More crashes Monday through Thursday 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	184	59.4	2	66.7	21	47.7
Turning Left	17	5.5	0	0.0	4	9.1
Turning Right	17	5.5	0	0.0	2	4.5
Stopped on Roadway	15	4.8	0	0.0	5	11.4
Involved in Prior Crash at Same Location	0	0.0	0	0.0	0	0.0
Changing Lanes	10	3.2	0	0.0	1	2.3
Backing	21	6.8	0	0.0	1	2.3
Slowing/Stopping on Roadway	8	2.6	0	0.0	5	11.4
Slowing/Stopping Other Area	0	0.0	0	0.0	0	0.0
Starting Up on Roadway	3	1.0	0	0.0	0	0.0
Starting Up in Other Area	0	0.0	0	0.0	0	0.0
Entering Parking	1	0.3	0	0.0	0	0.0
Leaving Parking	0	0.0	0	0.0	0	0.0
Entering Roadway	4	1.3	0	0.0	1	2.3
Leaving Roadway	2	0.6	0	0.0	0	0.0
Making U-Turn	2	0.6	0	0.0	0	0.0
Overtaking or Passing	1	0.3	0	0.0	0	0.0
Avoiding Object	0	0.0	0	0.0	0	0.0
Avoiding Animal	2	0.6	0	0.0	0	0.0
Avoiding Pedestrian	1	0.3	0	0.0	0	0.0
Avoiding Vehicle (front/back)	4	1.3	0	0.0	1	2.3
Avoiding Vehicle (angle)	1	0.3	0	0.0	0	0.0
Driverless Moving	2	0.6	0	0.0	0	0.0
Parked	7	2.3	0	0.0	3	6.8
Crossing at Intersection	0	0.0	0	0.0	0	0.0
Crossing Not at Intersection	0	0.0	0	0.0	0	0.0
Getting On/Off Vehicle	0	0.0	0	0.0	0	0.0
In Roadway With Traffic	0	0.0	0	0.0	0	0.0
In Roadway Against Traffic	0	0.0	0	0.0	0	0.0
Standing/Lying in Roadway	0	0.0	0	0.0	0	0.0
Pushing/Working on Vehicle	0	0.0	0	0.0	0	0.0
Other 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	2.6	1	33.3	0	0.0
Other	0	0.0	0	0.0	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	310	100.0	3	100.0	44	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	7	2.3	0	0.0	1	2.3
Cross Centerline	1	0.3	0	0.0	0	0.0
Cross Median	0	0.0	0	0.0	0	0.0
Ran Off Roadway Left	2	0.6	0	0.0	0	0.0
Ran Off Roadway Right	6	1.9	0	0.0	0	0.0
Re-Enter Roadway	1	0.3	0	0.0	0	0.0
Overturn	6	1.9	0	0.0	2	4.5
Separation of Units	5	1.6	0	0.0	1	2.3
Fire/Explosion	1	0.3	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	4	1.3	0	0.0	0	0.0
Downhill Runaway	0	0.0	0	0.0	0	0.0
Cargo Loss/Shift	2	0.6	0	0.0	1	2.3
Individual Fell from Vehicle	0	0.0	0	0.0	0	0.0
Equipment Failure (blown tire, brake failure, etc.)	1	0.3	0	0.0	1	2.3
Other Noncollision	4	1.3	0	0.0	1	2.3
SUBTOTAL	40	12.9	0	0.0	7	15.9

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Pedestrian	1	0.3	0	0.0	1	2.3
Bicyclist	0	0.0	0	0.0	0	0.0
Motor Vehicle in Transport (in motion or on roadway)	171	55.2	3	100.0	32	72.7
Parked Motor Vehicle	16	5.2	0	0.0	2	4.5
Work Zone/Maintenance Equipment	0	0.0	0	0.0	0	0.0
Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle	1	0.3	0	0.0	0	0.0
Railroad Train	0	0.0	0	0.0	0	0.0
Animal	43	13.9	0	0.0	0	0.0
Other Nonfixed Object	2	0.6	0	0.0	0	0.0
SUBTOTAL	234	75.5	3	100.0	35	79.5

The majority of heavy trucks/buses are involved in crashes with a motor vehicle in transport for all crashes (55.2%), fatal crashes (100.0%), and injury crashes (72.7%) for most harmful event in a collision with a nonfixed object 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/Support	0	0.0	0	0.0	0	0.0
Bridge Rail	2	0.6	0	0.0	0	0.0
Bridge Overhead Structure	1	0.3	0	0.0	0	0.0
Guardrail Face	4	1.3	0	0.0	0	0.0
Guardrail End	1	0.3	0	0.0	0	0.0
Cable Barrier	0	0.0	0	0.0	0	0.0
Concrete Barrier	0	0.0	0	0.0	0	0.0
Traffic Sign/Post	3	1.0	0	0.0	0	0.0
Traffic Signal Equipment	0	0.0	0	0.0	0	0.0
Utility Pole/Light Support	8	2.6	0	0.0	0	0.0
Other Post/Pole/Support	6	1.9	0	0.0	0	0.0
Culvert	0	0.0	0	0.0	0	0.0
Curb	0	0.0	0	0.0	0	0.0
Ditch	3	1.0	0	0.0	1	2.3
Embankment	0	0.0	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	4	1.3	0	0.0	1	2.3
Railroad 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	1	0.3	0	0.0	0	0.0
Impact Attenuator (crash cushion)	1	0.3	0	0.0	0	0.0
Other Fixed Object	2	0.6	0	0.0	0	0.0
SUBTOTAL	36	11.6	0	0.0	2	4.5

	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	0	0.0	0	0.0	0	0.0
No Event Coded as Most Harmful	0	0.0	0	0.0	0	0.0
MOST HARMFUL EVENT TOTAL	310	100.0	3	100.0	44	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 Motor Vehicle	107	34.5	0	0.0	8	18.2
Head-On	7	2.3	1	33.3	3	6.8
Head-On - Left Turn	7	2.3	0	0.0	3	6.8
Angle	37	11.9	1	33.3	11	25.0
Rear-End	39	12.6	0	0.0	8	18.2
Rear-End - Left Turn	3	1.0	0	0.0	1	2.3
Rear-End - Right Turn	3	1.0	0	0.0	1	2.3
Sideswipe - Same Direction	45	14.5	0	0.0	1	2.3
Sideswipe - Opposite Directions	16	5.2	1	33.3	3	6.8
Backing	20	6.5	0	0.0	0	0.0
Other	22	7.1	0	0.0	5	11.4
Unknown	4	1.3	0	0.0	0	0.0
Uncoded & Errors	0	0.0	0	0.0	0	0.0
TOTAL	310	100.0	3	100.0	44	100.0

The highest percentage of heavy trucks/buses are involved in single vehicle crashes for all crashes (34.5%) and angle crashes for injury crashes (25.0%).

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	176	56.8	3	100.0	32	72.7	1	3.3
Speed Too Fast	23	7.4	0	0.0	0	0.0	8	26.7
Speed Too Slow	0	0.0	0	0.0	0	0.0	0	0.0
Failed to Yield	20	6.5	0	0.0	5	11.4	4	13.3
Disregard Traffic Control	2	0.6	0	0.0	1	2.3	1	3.3
Drove Wrong Way	0	0.0	0	0.0	0	0.0	0	0.0
Drove Left of Center	1	0.3	0	0.0	0	0.0	0	0.0
Improper Passing	0	0.0	0	0.0	0	0.0	0	0.0
Improper Lane Use	11	3.5	0	0.0	0	0.0	2	6.7
Improper Turn	7	2.3	0	0.0	0	0.0	0	0.0
Improper/No Signal	0	0.0	0	0.0	0	0.0	0	0.0
Improper Backing	13	4.2	0	0.0	0	0.0	2	6.7
Unable to Stop in Assured Clear Distance	20	6.5	0	0.0	3	6.8	8	26.7
Reckless Driving	0	0.0	0	0.0	0	0.0	0	0.0
Careless/Negligent Driving	5	1.6	0	0.0	0	0.0	1	3.3
Other	18	5.8	0	0.0	2	4.5	2	6.7
Unknown	14	4.5	0	0.0	1	2.3	1	3.3
TOTAL	310	100.0	3	100.0	44	100.0	30	100.0

After no hazardous action, the most common hazardous action coded for drivers of heavy trucks/buses in all crashes is speed too fast (7.4%) and for drivers of heavy trucks/buses in injury crashes the second most common hazardous action is failed to yield (11.4%).

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 the Road	263	84.8	3	100.0	38	86.4
In the Median	1	0.3	0	0.0	0	0.0
On the Shoulder	22	7.1	0	0.0	4	9.1
Outside of the Shoulder/Curb-Line	13	4.2	0	0.0	2	4.5
In the Gore (area between ramp and freeway convergence)	0	0.0	0	0.0	0	0.0
On-Street Parking	5	1.6	0	0.0	0	0.0
Off the Roadway	0	0.0	0	0.0	0	0.0
On the Sidewalk	1	0.3	0	0.0	0	0.0
In the Bicycle Lane	0	0.0	0	0.0	0	0.0
Other/Unknown	5	1.6	0	0.0	0	0.0
TOTAL	310	100.0	3	100.0	44	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	5	1.6	0	0.0	0	0.0
3:00 AM - 5:59 AM	17	5.5	0	0.0	2	4.5
6:00 AM - 8:59 AM	48	15.5	0	0.0	8	18.2
9:00 AM - 11:59 AM	70	22.6	0	0.0	8	18.2
12:00 PM - 2:59 PM	75	24.2	3	100.0	10	22.7
3:00 PM - 5:59 PM	52	16.8	0	0.0	12	27.3
6:00 PM - 8:59 PM	25	8.1	0	0.0	3	6.8
9:00 PM - 11:59 PM	18	5.8	0	0.0	1	2.3
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	310	100.0	3	100.0	44	100.0

Heavy truck/bus frequencies in crashes peak in the late evening, 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 (24.2%) and for fatal crashes (100.0%). The most common time for heavy trucks/buses to be involved in injury crashes is between 3:00 PM and 5:59 PM (27.3%).

ROADWAY TYPE	ALL CRASHES		FATAL CRASHES		INJURY CRASHES	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Interstate Routes	20	6.5	0	0.0	2	4.5
US and Michigan Routes	209	67.4	3	100.0	32	72.7
County Roads and City Streets	79	25.5	0	0.0	10	22.7
Uncoded & Errors	2	0.6	0	0.0	0	0.0
TOTAL	310	100.0	3	100.0	44	100.0

The highest percentage of heavy trucks/buses are involved in crashes on US and Michigan routes for all crashes (67.4%), fatal crashes (100.0%), and injury crashes (72.7%).

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	60	19.4	0	0.0	5	11.4
Tuesday	63	20.3	0	0.0	8	18.2
Wednesday	46	14.8	0	0.0	10	22.7
Thursday	52	16.8	2	66.7	7	15.9
Friday	62	20.0	1	33.3	10	22.7
Saturday	16	5.2	0	0.0	3	6.8
Sunday	11	3.5	0	0.0	1	2.3
TOTAL	310	100.0	3	100.0	44	100.0

The highest percentage of heavy trucks/buses are involved in crashes on Tuesday for all crashes (20.3%), Thursday for fatal crashes (66.7%) and both Wednesday and Friday for injury crashes (22.7% each).

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	290	93.5	3	100.0	41	93.2
Female	15	4.8	0	0.0	2	4.5
Uncoded & Errors	5	1.6	0	0.0	1	2.3
TOTAL	310	100.0	3	100.0	44	100.0

The majority of heavy truck/bus drivers are male in all crashes (93.5%), fatal crashes (100.0%), and injury crashes (93.2%).

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	267	86.1	3	100.0	36	81.8
2 occupants	23	7.4	0	0.0	4	9.1
3 occupants	5	1.6	0	0.0	2	4.5
4 occupants	2	0.6	0	0.0	0	0.0
5 occupants	1	0.3	0	0.0	0	0.0
6+ occupants	7	2.3	0	0.0	1	2.3
0 occupants	5	1.6	0	0.0	1	2.3
Unknown	0	0.0	0	0.0	0	0.0
TOTAL	310	100.0	3	100.0	44	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	126	66.7	2	50.0	28	63.6
Motor Home	0	0.0	0	0.0	0	0.0
Pickup Truck	51	27.0	2	50.0	11	25.0
Small Truck Under 10,000 lbs. GVWR	3	1.6	0	0.0	0	0.0
Motorcycle	2	1.1	0	0.0	2	4.5
Moped/Goped	0	0.0	0	0.0	0	0.0
Go-Cart/Golf Cart	0	0.0	0	0.0	0	0.0
Snowmobile	2	1.1	0	0.0	2	4.5
Off-Road Vehicle (ORV)/All-Terrain Vehicle (ATV)	0	0.0	0	0.0	0	0.0
Other (non-registered farm equipment, construction equipment, snow plows, etc.)	0	0.0	0	0.0	0	0.0
Truck/Bus (over 10,000 lbs. GVWR/8+ occupants/hazmat placard)	0	0.0	0	0.0	0	0.0
Uncoded & Errors	5	2.6	0	0.0	1	2.3
SUBTOTAL	189	100.0	4	100.0	44	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	1	0.3	0	0.0	0	0.0
10,001-26,000 lbs.	125	40.3	2	66.7	15	34.1
Greater Than 26,000 lbs.	184	59.4	1	33.3	29	65.9
Uncoded & Errors	0	0.0	0	0.0	0	0.0
SUBTOTAL	310	100.0	3	100.0	44	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	499	---	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	1	5.3	0	0.0	8	2.0	8	1.3
Speed Too Fast	6	54.5	2	10.5	2	8.7	161	40.1	48	7.9
Speed Too Slow	0	0.0	0	0.0	0	0.0	0	0.0	1	0.2
Failed to Yield	0	0.0	4	21.1	7	30.4	5	1.2	203	33.4
Disregard Traffic Control	0	0.0	1	5.3	3	13.0	3	0.7	56	9.2
Drove Wrong Way	0	0.0	0	0.0	0	0.0	0	0.0	3	0.5
Drove Left of Center	0	0.0	0	0.0	0	0.0	4	1.0	4	0.7
Improper Passing	0	0.0	0	0.0	1	4.3	3	0.7	8	1.3
Improper Lane Use	0	0.0	2	10.5	0	0.0	1	0.2	17	2.8
Improper Turn	0	0.0	0	0.0	2	8.7	0	0.0	15	2.5
Improper/No Signal	0	0.0	0	0.0	0	0.0	0	0.0	3	0.5
Improper Backing	0	0.0	2	10.5	0	0.0	1	0.2	14	2.3
Unable to Stop in Assured Clear Distance	1	9.1	7	36.8	3	13.0	8	2.0	121	19.9
Reckless Driving	0	0.0	0	0.0	0	0.0	21	5.2	7	1.2
Careless/Negligent Driving	1	9.1	0	0.0	3	13.0	131	32.7	71	11.7
Other	2	18.2	0	0.0	2	8.7	46	11.5	27	4.4
Unknown	1	9.1	0	0.0	0	0.0	9	2.2	2	0.3
CITED VEHICLES SUBTOTAL	11	100.0	19	100.0	23	100.0	401	100.0	608	100.0

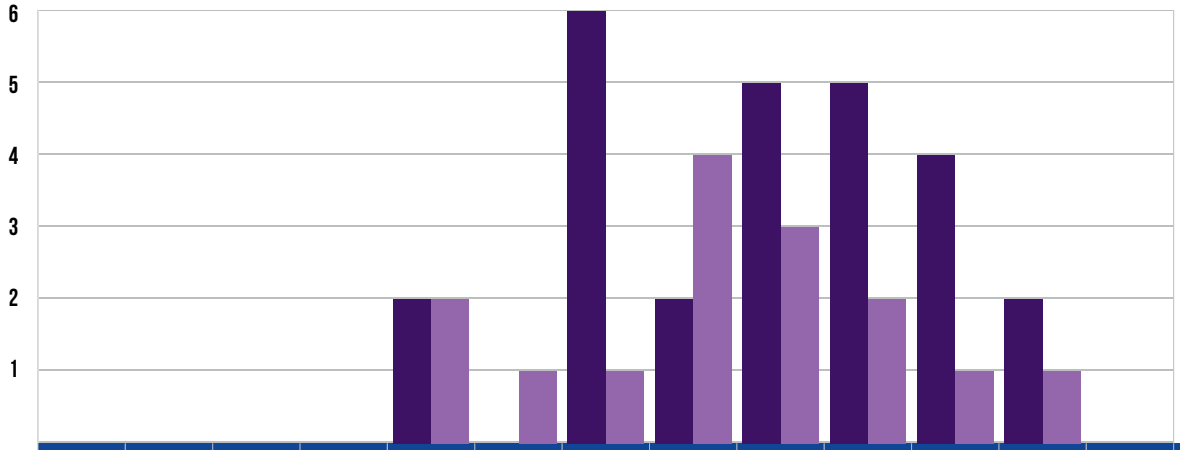
	HEAVY TRUCK/BUS INVOLVED CRASH						NON-HEAVY TRUCK/BUS INVOLVED CRASH			
	Single Vehicle Crash		Multi-Vehicle Crash				Single Vehicle Crash		Multi-Vehicle Crash	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Non-Heavy Truck Vehicles	% of Total	Number of Vehicles	% of Total	Number of Vehicles	% of Total
Cited Vehicles	11	10.1	19	9.5	23	12.5	401	8.0	608	11.3
Vehicles with No Citation Issued	98	89.9	182	90.5	161	87.5	4,588	92.0	4,764	88.6
Vehicles with Unknown Citation	0	0.0	0	0.0	0	0.0	0	0.0	3	0.1
TOTAL VEHICLES INVOLVED	109	100.0	201	100.0	184	100.0	4,989	100.0	5,375	100.0

OCCUPANT/PERSON

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

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

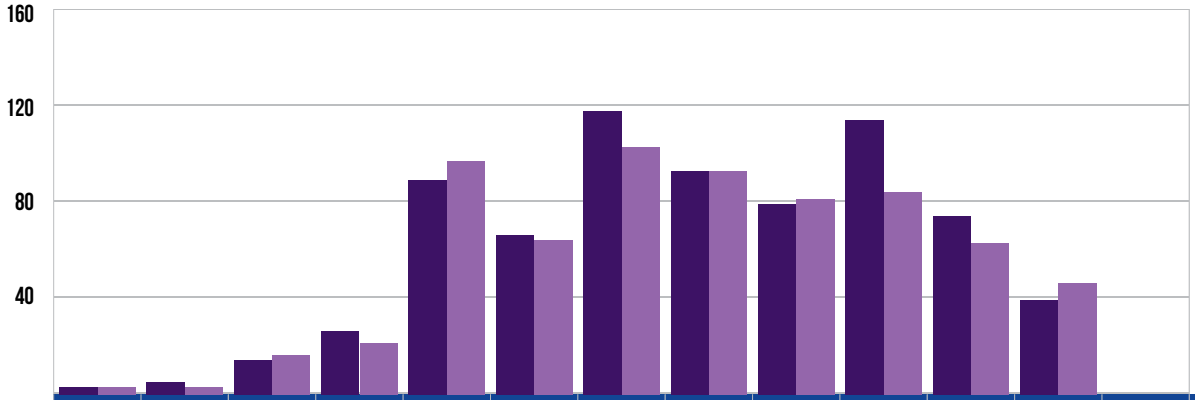
OCCUPANTS KILLED



	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	0	6	2	5	5	4	2	0	26
FEMALES KILLED	0	0	0	0	2	1	1	4	3	2	1	1	0	15
TOTAL	0	0	0	0	4	1	7	6	8	7	5	3	0	41

The majority (63.4%) of occupants killed in traffic crashes in 2021 were male.

OCCUPANTS INJURED



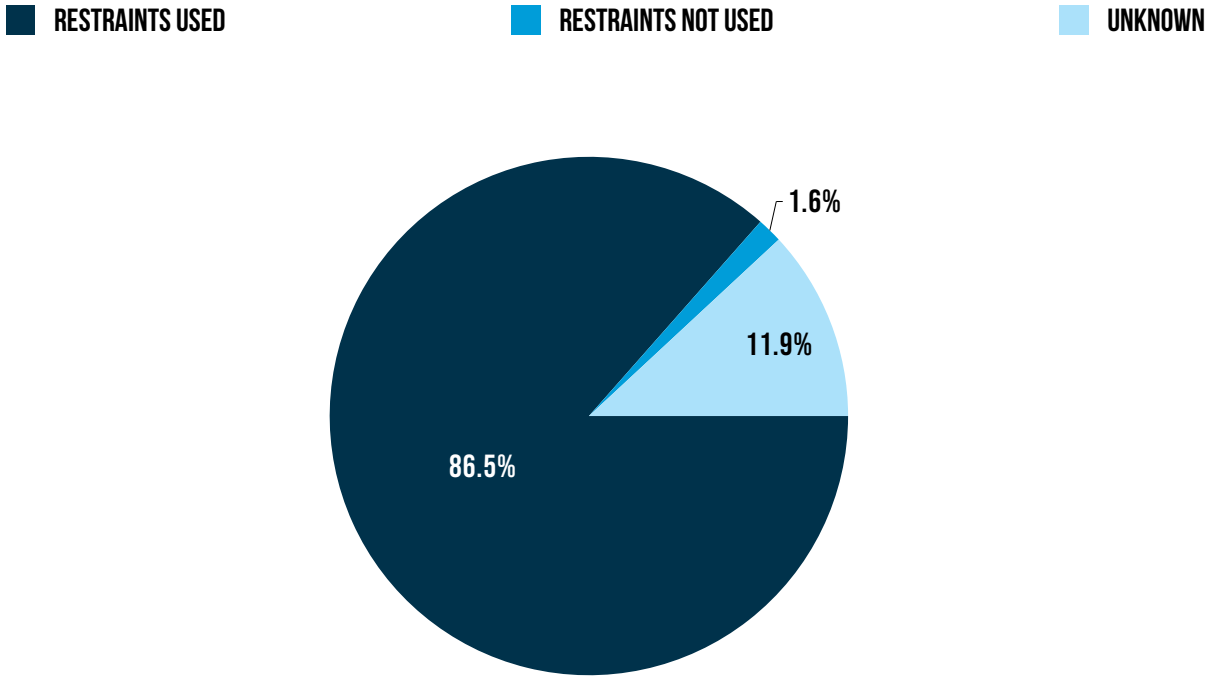
	UNDER 1 YEAR OLD	1-3 YEARS	4-10 YEARS	11-15 YEARS	16-20 YEARS	21-24 YEARS	25-34 YEARS	35-44 YEARS	45-54 YEARS	55-64 YEARS	66-74 YEARS	75 YEARS AND OVER	UNKNOWN	TOTAL
MALES INJURED	3	5	14	26	89	66	118	93	79	114	74	39	0	720
FEMALES INJURED	3	3	16	21	97	64	103	93	81	84	63	46	0	674
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	6	8	30	47	186	130	221	186	160	198	137	85	0	1,394

A majority (51.6%) of occupants injured in traffic crashes in 2021 were male.

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

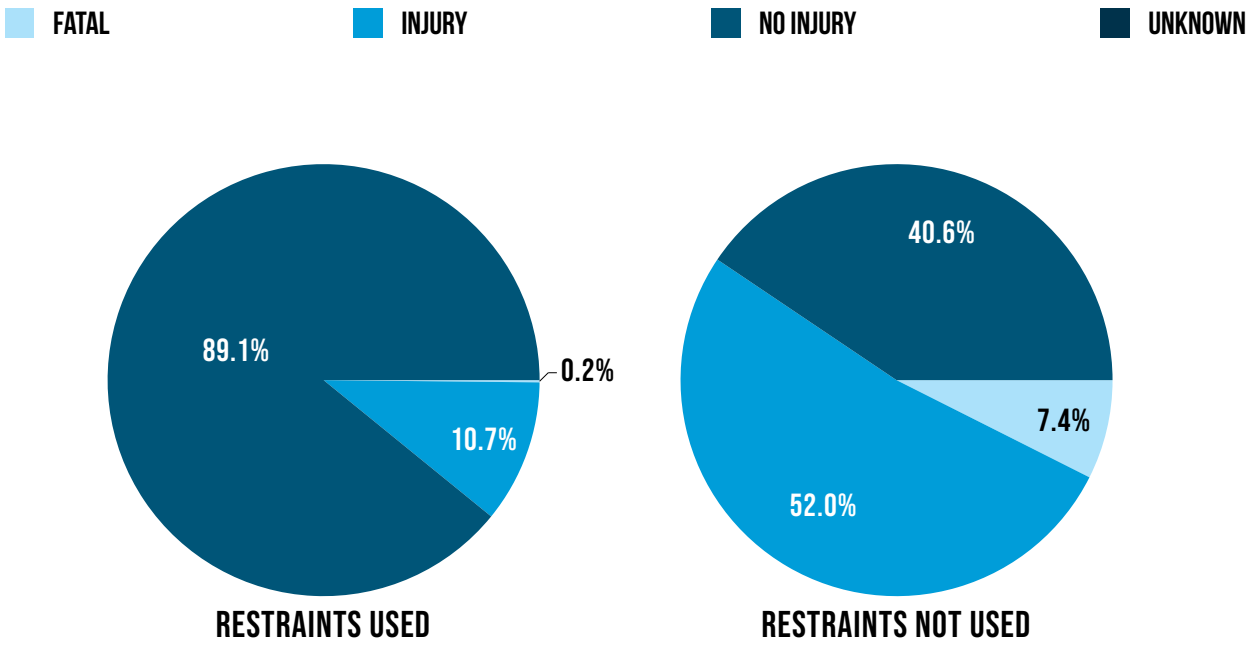
UPPER PENINSULA REPORTED OCCUPANT RESTRAINT USAGE FOR ALL DRIVERS AND INJURED PASSENGERS

REPORTED OCCUPANT RESTRAINT USAGE



Of the 11,168 drivers and injured passengers involved in crashes in the Upper Peninsula, 9,662 (86.5%) were REPORTED to be using occupant restraints.

INJURY SEVERITY



Occupants in crashes were 45 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	9,390	97.4	12	70	218	485	8,605
Center Front	13	0.1	0	0	4	8	1
Right Front	181	1.9	3	18	47	111	2
Left Rear Second Seat	30	0.3	0	6	9	15	0
Center Rear Second Seat	5	0.1	0	1	2	2	0
Right Rear Second Seat	15	0.2	0	0	6	9	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	2	0.0	0	0	1	1	0
Left Rear Fourth Seat	0	0.0	0	0	0	0	0
Center Rear Fourth Seat	0	0.0	0	0	0	0	0
Right Rear Fourth Seat	0	0.0	0	0	0	0	0
Other Passenger Area	0	0.0	0	0	0	0	0
Unknown	5	0.1	1	0	0	0	4
Uncoded & Errors	0	0.0	0	0	0	0	0
TOTAL	9,641	100.0	16	95	287	631	8,612

* 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.

SEATING POSITION	BELTS NOT USED *		FATAL	INJURY			NO INJURY
	Number	% of Total		A	B	C	
Left Front	118	68.2	12	15	18	17	56
Center Front	3	1.7	0	0	2	1	0
Right Front	16	9.2	1	8	2	5	0
Left Rear Second Seat	4	2.3	0	2	1	1	0
Center Rear Second Seat	3	1.7	0	1	1	1	0
Right Rear Second Seat	10	5.8	0	4	2	4	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	1	0.6	0	0	0	1	0
Left Rear Fourth Seat	0	0.0	0	0	0	0	0
Center Rear Fourth Seat	0	0.0	0	0	0	0	0
Right Rear Fourth Seat	0	0.0	0	0	0	0	0
Other Passenger Area	2	1.2	0	0	1	1	0
Unknown	16	9.2	0	1	0	0	15
Uncoded & Errors	0	0.0	0	0	0	0	0
TOTAL †	173	100.0	13	31	27	31	71

* 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	1	16.7	0	0	0	1
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	0	0.0	0	0	0	0
Child Restraint Used - Rear Facing	5	83.3	0	2	0	3
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	6	100.0	0	2	0	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	1	50.0	0	0	1	0
Child Restraint Used - Rear Facing	1	50.0	0	0	1	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	2	0
AGE 2						
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	2	100.0	0	0	0	2
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	0	0.0	0	0	0	0
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	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	3	75.0	0	0	1	2
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	0	0.0	0	0	0	0
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	1	25.0	0	0	0	1
Total	4	100.0	0	0	1	3
AGE 4-7						
Belts Used	2	15.4	0	0	2	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used - Forward Facing	1	7.7	0	0	0	1
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	7	53.8	0	0	3	4
Child Restraint Not Used	2	15.4	0	0	1	1
Restraint Failed	0	0.0	0	0	0	0
Unknown	1	7.7	0	0	0	1
Total	13	100.0	0	0	6	7
AGE 8-15						
Belts Used	36	72.0	0	3	11	22
No Belts Used	10	20.0	0	2	5	3
Child Restraint Used - Forward Facing	0	0.0	0	0	0	0
Child Restraint Used - Rear Facing	0	0.0	0	0	0	0
Child Restraint Used - Booster Seat	1	2.0	0	0	0	1
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	1	2.0	0	0	0	1
Unknown	2	4.0	0	1	1	0
Total	50	100.0	0	6	17	27

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.

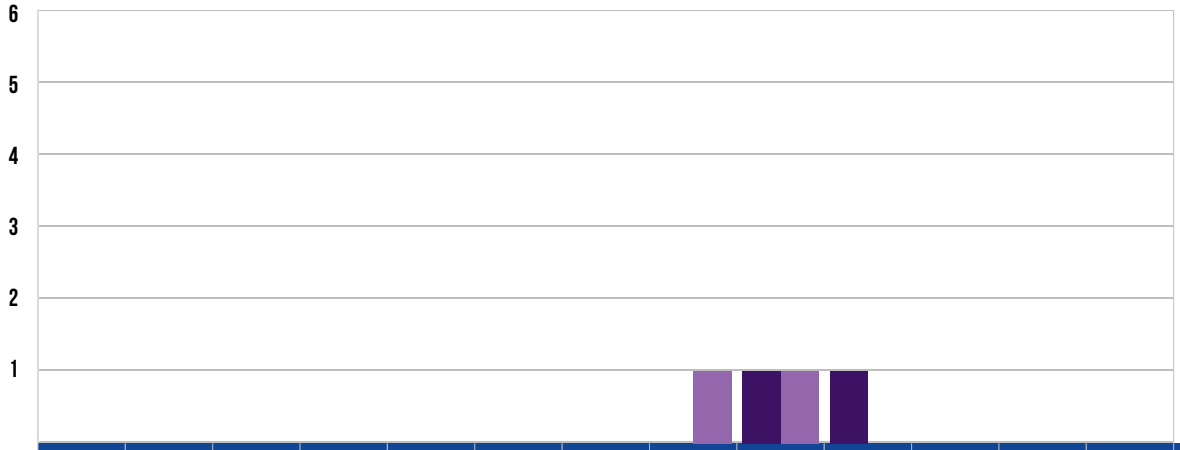
UPPER PENINSULA MOTOR VEHICLE OCCUPANT INJURY SEVERITY BY KNOWN AIRBAG DEPLOYMENT

MOTOR VEHICLE OCCUPANT AIRBAG DEPLOYMENT	OCCUPANTS*		FATAL	OCCUPANT INJURY SEVERITY			NO INJURY
	Number	% of Total		A	B	C	
Deployed - Front	735	6.5	11	44	98	150	432
Deployed - Side	117	1.0	0	6	14	20	77
Deployed - Curtain	75	0.7	0	3	11	17	44
Deployed - Combination	466	4.1	10	44	76	124	212
Deployed - Other	5	0.0	0	0	0	1	4
Not Deployed	8,866	77.8	7	46	126	354	8,321
Not Equipped	378	3.3	9	77	77	72	143
Unknown	736	6.5	4	6	7	20	77
Uncoded & Errors	13	0.1	0	0	1	0	1
TOTAL	11,391	100.0	41	226	410	758	9,311

**Includes 645 occupants (drivers and passengers) with unknown injury severity.*

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

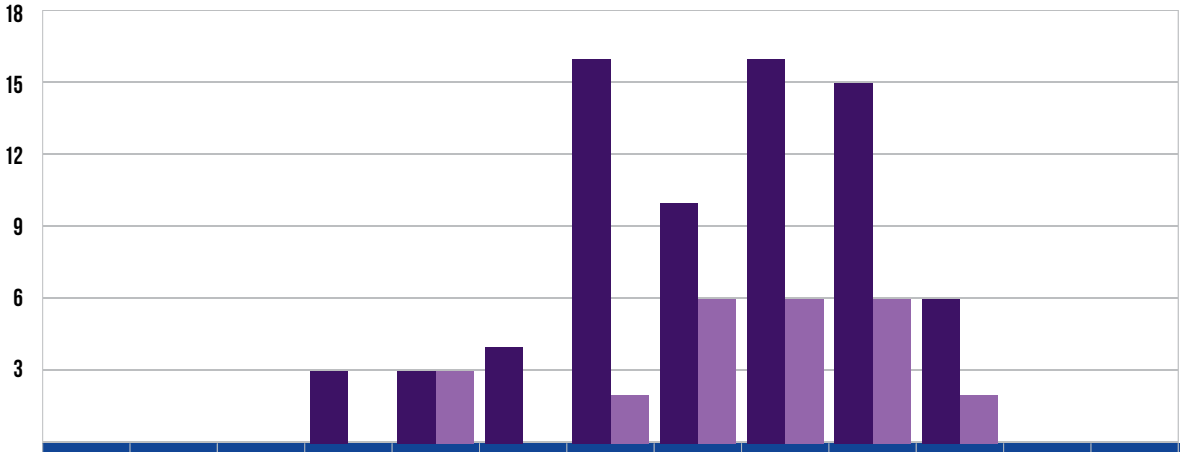
MOTORCYCLISTS KILLED



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

Of the 4 motorcyclists killed in traffic crashes in the Upper Peninsula in 2021, 50.0 percent were male. In comparison, 63.4 percent of all occupants killed in crashes in the Upper Peninsula 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	3	3	4	16	10	16	15	6	0	0	73
FEMALES INJURED	0	0	0	0	3	0	2	6	6	6	2	0	0	25
UNKNOWN	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	3	6	4	18	16	22	21	8	0	0	98

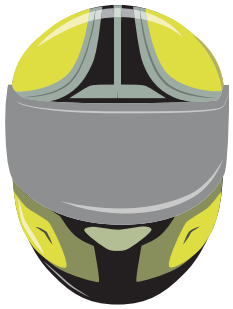
Of the 98 motorcyclists injured in traffic crashes in the Upper Peninsula in 2021, 74.5 percent were male. In comparison, 51.6 percent of all occupants injured in crashes in the Upper Peninsula were male.

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	2	0	0	0
16 - 20 years	0	2	1	1	0
21 - 24 years	0	1	2	1	1
25 - 34 years	0	6	4	1	4
35 - 44 years	0	1	4	2	2
45 - 54 years	0	4	7	1	3
55 - 64 years	0	10	3	1	5
65 - 74 years	0	2	2	2	1
75 years and over	0	0	0	0	1
Unknown	0	0	0	0	0
Subtotal	0	28	23	9	17
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	1	0	0
16 - 20 years	0	1	1	0	0
21 - 24 years	0	0	0	0	0
25 - 34 years	0	2	4	1	0
35 - 44 years	1	3	3	3	1
45 - 54 years	2	6	2	1	4
55 - 64 years	1	5	0	2	1
65 - 74 years	0	1	0	1	1
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	4	18	11	8	7
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	0
35 - 44 years	0	0	0	0	1
45 - 54 years	0	0	1	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	4	46	35	17	25

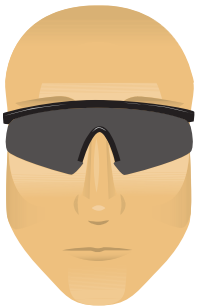
2011 Michigan motor vehicle crash data represents the last full year of data that was collected during Michigan's universal helmet law, enacted in 1969: Michigan Vehicle Code Public Act 300 of 1949, Section 257.658, requiring all motorcycle riders to wear a helmet. On April 13, 2012, Michigan changed 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: 0
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	22	98	262	548	930	64.8
Motor Home	0	0	0	0	0	0.0
Pickup Truck	10	44	68	139	261	18.2
Small Truck Under 10,000 lbs. GVWR	0	0	1	5	6	0.4
Motorcycle	4	46	35	17	102	7.1
Moped/Goped	0	3	7	2	12	0.8
Go-Cart/Golf Cart	0	0	0	0	0	0.0
Snowmobile	1	17	12	5	35	2.4
Off-Road Vehicle (ORV)/All-Terrain Vehicle (ATV)	4	16	15	32	67	4.7
Other (non-registered farm equipment, construction equipment, snow plows, etc.)	0	1	2	1	4	0.3
Uncoded & Errors	0	0	0	0	0	0.0
Truck/Bus (over 10,000 lbs. GVWR/8+ occupants/hazmat placard) (breakdown below)	0	1	8	9	18	1.3
Total Number of Occupants	41	226	410	758	1,435	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	1	4	5	10	55.6
Greater Than 26,000 lbs.	0	0	4	4	8	44.4
Uncoded & Errors	0	0	0	0	0	0.0
Total Number of Occupants	0	1	8	9	18	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.

REFERENCES

REFERENCES AND REPORTING AGENCIES

[1] Annual Estimates of the Resident Population for Counties of Michigan: 2020-2021. Population Division, U.S. Census Bureau. Release Date: March 2022. https://www.census.gov/programs-surveys/popest.html

[2] Leading Cause of Deaths for Ten Leading Causes by Age Michigan 2020. Michigan Department of Health & Human Services, Division for Vital Records & Health Statistics Section, Lansing, MI. https://vitalstats.michigan.gov/osr/chi/deaths/frame.asp?Topic=8

[3] Statistics Department, National Safety Council, 1121 Spring Lake Drive, Itasca, Illinois 60143-3201. https://injuryfacts.nsc.org/motor-vehicle/overview/preliminary-estimates/

[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, 530 W Allegan St, Lansing, MI 48922.

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