

UPPER PENINSULA VEHICLE TYPE AND CRASH INVOLVEMENT

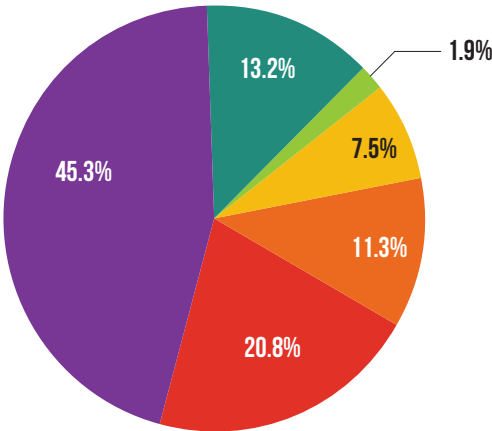
VEHICLE TYPE	MOTOR VEHICLES		FATAL CRASH		INJURY CRASH	PROPERTY DAMAGE ONLY	FATALITY IN VEHICLE		INJURY	NO INJURY
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger Car, SUV, Van	9,284	71.1	24	45.3	1,301	7,959	18	51.4	917	8,349
Motorhome	24	0.2	0	0.0	3	21	0	0.0	2	22
Pickup truck	2,844	21.8	7	13.2	384	2,453	2	5.7	240	2,602
Small Truck under 10,000 lbs. GVWR	107	0.8	1	1.9	14	92	1	2.9	5	101
Motorcycle	97	0.7	4	7.5	70	23	4	11.4	69	24
Moped / goped	13	0.1	1	1.9	12	0	1	2.9	12	0
Go-cart / golf cart	3	0.0	1	1.9	1	1	1	2.9	1	1
Snowmobile	47	0.4	4	7.5	26	17	3	8.6	25	19
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	70	0.5	3	5.7	54	13	3	8.6	51	16
Other	69	0.5	2	3.8	9	58	0	0.0	5	64
Unknown	160	1.2	0	0.0	11	149	0	0.0	0	160
CDL Truck/Bus (break-down below)	332	2.5	6	11.3	45	281	2	5.7	12	318
Total Number of Vehicles	13,050	100.0	53	100.0	1,930	11,067	35	100.0	1,339	11,676

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

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

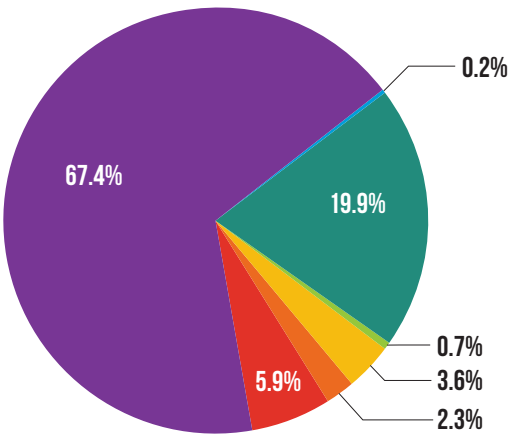
UPPER PENINSULA VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

PASSENGER CAR, SUV, VAN MOTORHOME PICKUP TRUCK TRUCK UNDER 10,000 LBS. MOTORCYCLE CDL TRUCK/BUS OTHER

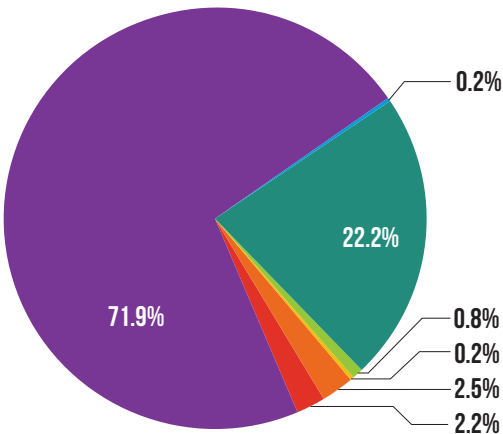


FATAL

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



INJURY



PROPERTY DAMAGE ONLY

Passenger vehicles (passenger cars, SUVs, vans, motorhomes, pickup trucks, or trucks under 10,000 lbs.) make up an even larger share of vehicles in injury crashes (88.2%) and property damage only (PDO) crashes (95.1%) than they do of fatal crashes.

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

UPPER PENINSULA ACTION PRIOR TO CRASH

DRIVER ACTION	VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number	% of Total		A	B	C	
Going straight ahead	8,722	66.8	36	199	328	710	7,449
Turning left	648	5.0	2	21	43	100	482
Turning right	334	2.6	1	3	10	25	295
Stopped on roadway	574	4.4	1	3	18	89	463
In prior crash	10	0.1	0	1	0	2	7
Changing lanes	125	1.0	1	0	1	9	114
Backing	389	3.0	0	1	0	5	383
Slowing/stopping on roadway	671	5.1	2	18	12	100	539
Slowing/stopping other	24	0.2	0	1	1	4	18
Starting up on roadway	179	1.4	1	0	10	19	149
Starting up other	3	0.0	0	0	0	0	3
Entering parking	26	0.2	1	0	0	1	24
Leaving parking	59	0.5	0	2	1	8	48
Entering roadway	167	1.3	2	4	10	27	124
Leaving roadway	22	0.2	1	0	3	2	16
Making U-turn	26	0.2	0	0	2	1	23
Overtaking or passing	102	0.8	1	3	4	13	81
Avoiding object	9	0.1	1	0	1	2	5
Avoiding animal	79	0.6	1	1	7	3	67
Avoiding pedestrian	2	0.0	0	0	0	0	2
Avoiding vehicle (front/back)	72	0.6	0	8	6	5	53
Avoiding vehicle (angle)	26	0.2	0	0	2	3	21
Driverless moving	8	0.1	0	0	1	0	7
Parked	488	3.7	2	2	6	15	463
Crossing at intersection	3	0.0	0	0	0	1	2
Crossing not at intersection	0	0.0	0	0	0	0	0
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	0	0.0	0	0	0	0	0
In roadway against traffic	0	0.0	0	0	0	0	0
Standing or lying in roadway	1	0.0	0	0	0	0	1
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0	0	0	0
Not in roadway	1	0.0	0	0	0	0	1
Negotiating a curve	146	1.1	0	14	14	10	108
Other	23	0.2	0	1	2	4	16
Unknown	111	0.9	0	0	4	4	103
TOTAL	13,050	100.0	53	282	486	1,162	11,067

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

MOTORCYCLIST ACTION	MOTORCYCLES		MOTORCYCLISTS*		FATALITY	INJURY			NO INJURY
	Number of Motorcycles	% of Total	Number of Motorcyclists	% of Total		A	B	C	
Going straight ahead	67	69.1	77	70.0	3	22	25	9	18
Turning left	6	6.2	7	6.4	0	0	2	2	3
Turning right	1	1.0	1	0.9	0	0	0	0	1
Stopped on roadway	2	2.1	3	2.7	0	0	0	2	1
In prior crash	0	0.0	0	0.0	0	0	0	0	0
Changing lanes	2	2.1	2	1.8	1	0	0	0	1
Backing	0	0.0	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	2	2.1	2	1.8	0	0	0	2	0
Slowing/stopping other	1	1.0	1	0.9	0	0	0	1	0
Starting up on roadway	1	1.0	1	0.9	0	0	1	0	0
Starting up other	0	0.0	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0.0	0	0	0	0	0
Entering roadway	1	1.0	1	0.9	0	0	1	0	0
Leaving roadway	0	0.0	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0.0	0	0	0	0	0
Overtaking or passing	1	1.0	2	1.8	0	0	1	0	1
Avoiding object	0	0.0	0	0.0	0	0	0	0	0
Avoiding animal	1	1.0	1	0.9	0	0	1	0	0
Avoiding pedestrian	0	0.0	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	2	2.1	2	1.8	0	0	0	0	2
Avoiding vehicle (angle)	1	1.0	1	0.9	0	0	0	1	0
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	3	3.1	3	2.7	0	0	0	0	1
Crossing at intersection	0	0.0	0	0.0	0	0	0	0	0
Crossing not at intersection	0	0.0	0	0.0	0	0	0	0	0
Getting on/off vehicle	0	0.0	0	0.0	0	0	0	0	0
In roadway with traffic	0	0.0	0	0.0	0	0	0	0	0
In roadway against traffic	0	0.0	0	0.0	0	0	0	0	0
Standing or lying in roadway	0	0.0	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0.0	0	0	0	0	0
Not in roadway	0	0.0	0	0.0	0	0	0	0	0
Negotiating a curve	4	4.1	4	3.6	0	2	1	0	1
Other	2	2.1	2	1.8	0	0	1	0	1
Unknown	0	0.0	0	0.0	0	0	0	0	0
TOTAL	97	100.0	110	100.0	4	24	33	17	30

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

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

BICYCLIST ACTION	BICYCLISTS*		FATALITY	INJURY			NO INJURY
	Number of Bicyclists	% of Total		A	B	C	
Going straight ahead	16	55.2	0	0	9	7	0
Turning left	5	17.2	0	1	3	0	0
Turning right	0	0.0	0	0	0	0	0
Stopped on roadway	1	3.4	0	0	0	0	1
In prior crash	0	0.0	0	0	0	0	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	0	0.0	0	0	0	0	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	1	3.4	0	0	0	0	1
Starting up other	0	0.0	0	0	0	0	0
Entering parking	1	3.4	0	0	1	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	0	0.0	0	0	0	0	0
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	0	0.0	0	0	0	0	0
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	0	0.0	0	0	0	0	0
Avoiding vehicle (angle)	0	0.0	0	0	0	0	0
Driverless moving	0	0.0	0	0	0	0	0
Parked	0	0.0	0	0	0	0	0
Crossing at intersection	3	10.3	0	0	0	1	2
Crossing not at intersection	1	3.4	0	0	0	1	0
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	1	3.4	0	0	0	0	1
In roadway against traffic	0	0.0	0	0	0	0	0
Standing or lying in roadway	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0	0	0	0
Not in roadway	0	0.0	0	0	0	0	0
Negotiating a curve	0	0.0	0	0	0	0	0
Other	0	0.0	0	0	0	0	0
Unknown	0	0.0	0	0	0	0	0
TOTAL	29	100.0	0	1	13	9	5

*Includes one bicyclist with unknown injury severity

UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

PEDESTRIAN ACTION	PEDESTRIANS*		FATALITY	INJURY			NO INJURY
	Number of Pedestrians	% of Total		A	B	C	
Going straight ahead	0	0.0	0	0	0	0	0
Turning left	0	0.0	0	0	0	0	0
Turning right	0	0.0	0	0	0	0	0
Stopped on roadway	0	0.0	0	0	0	0	0
In prior crash	0	0.0	0	0	0	0	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	0	0.0	0	0	0	0	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	0	0.0	0	0	0	0	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	0	0.0	0	0	0	0	0
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	0	0.0	0	0	0	0	0
Avoiding object	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	0	0.0	0	0	0	0	0
Avoiding vehicle (angle)	0	0.0	0	0	0	0	0
Driverless moving	0	0.0	0	0	0	0	0
Parked	0	0.0	0	0	0	0	0
Crossing at intersection	9	30.0	0	2	5	2	0
Crossing not at intersection	9	30.0	0	2	4	3	0
Getting on/off vehicle	0	0.0	0	0	0	0	0
In roadway with traffic	1	3.3	0	1	0	0	0
In roadway against traffic	2	6.7	0	1	0	1	0
Standing or lying in roadway	2	6.7	0	1	0	0	1
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	1	3.3	0	0	0	1	0
In roadway other reason	0	0.0	0	0	0	0	0
Not in roadway	4	13.3	0	2	1	1	0
Negotiating a curve	0	0.0	0	0	0	0	0
Other	1	3.3	0	0	1	0	0
Unknown	1	3.3	0	1	0	0	0
TOTAL	30	100.0	0	10	11	8	1

* Includes no pedestrians with unknown injury severity

UPPER PENINSULA MOST HARMFUL EVENT

NONCOLLISION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Loss of control	95	0.7	0	7	5	7	76
Cross center/median	18	0.1	0	1	1	3	13
Ran off road left	60	0.5	0	1	3	7	49
Ran off road right	92	0.7	0	0	4	12	76
Re-enter road	5	0.0	0	0	1	0	4
Overturn	355	2.7	5	22	42	68	218
Separation of units	9	0.1	0	0	1	1	7
Fire/explosion	18	0.1	0	1	0	2	15
Immersion	3	0.0	0	0	0	0	3
Jackknife	10	0.1	0	0	0	1	9
Downhill runaway	1	0.0	0	0	0	0	1
Cargo loss/shift	18	0.1	0	1	0	0	17
Individual fell off	26	0.2	0	11	11	4	0
Other noncollision	35	0.3	1	2	2	3	27
SUBTOTAL	745	5.7	6	46	70	108	515

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

UPPER PENINSULA MOST HARMFUL EVENT (CONTINUED)

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

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

UPPER PENINSULA VEHICLE DEFECTS IN CRASH INVOLVEMENT

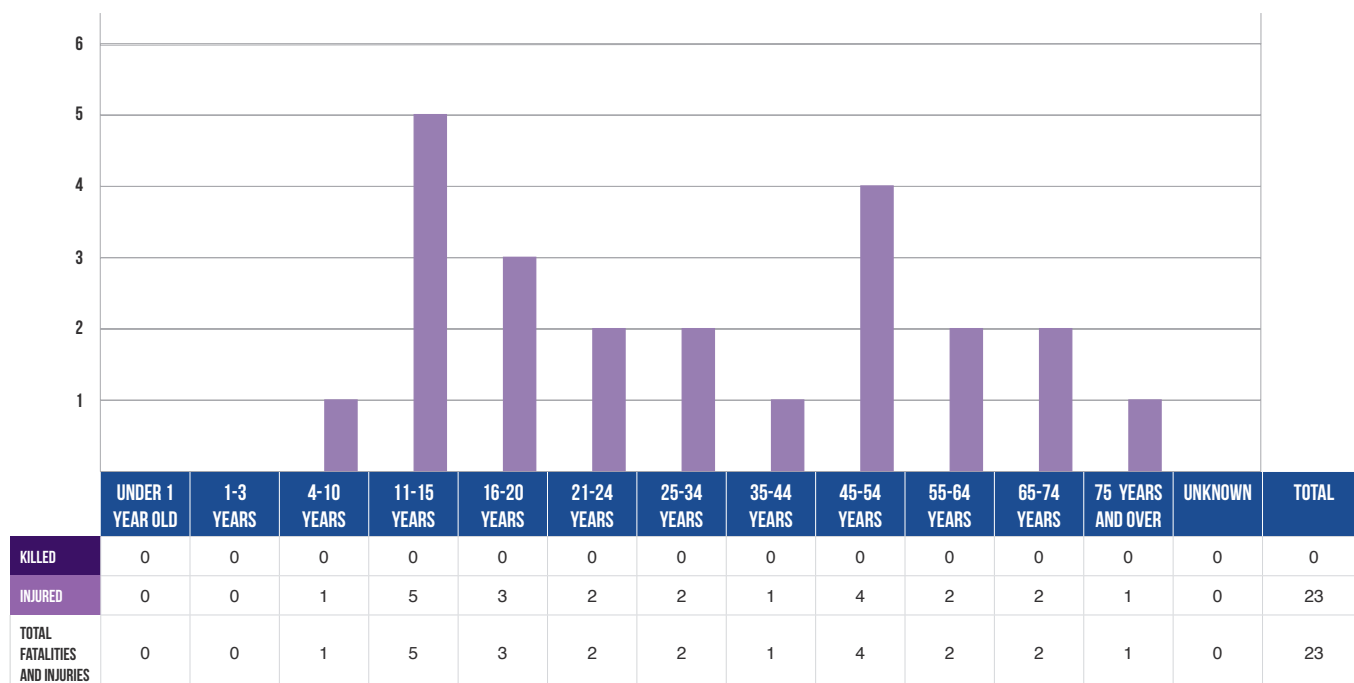
VEHICLE DEFECTS	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Brakes	24	0.2	0	3	2	2	17
Lights/reflectors	10	0.1	0	0	0	0	10
Steering	10	0.1	0	0	1	4	5
Tires/wheels	33	0.3	2	1	3	1	26
Windows	1	0.0	0	0	1	0	0
Coupling/hitch/chains	8	0.1	0	0	0	0	8
Other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

UPPER PENINSULA DRIVER HAZARDOUS ACTION

HAZARDOUS ACTION	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
None	7,832	60.0	20	117	214	534	6,947
Speed too fast	1,182	9.1	11	44	70	137	920
Speed too slow	9	0.1	0	1	0	0	8
Failed to yield	903	6.9	6	23	59	147	668
Disregard traffic control	111	0.9	2	3	6	30	70
Drove wrong way	6	0.0	0	1	1	1	3
Drove left of center	52	0.4	0	6	7	10	29
Improper passing	46	0.4	0	1	2	4	39
Improper lane use	135	1.0	1	2	5	8	119
Improper turn	110	0.8	0	2	3	5	100
Improper/no signal	15	0.1	0	0	1	2	12
Improper backing	263	2.0	0	1	0	3	259
Unable to stop in assured clear distance	941	7.2	4	11	29	129	768
Reckless driving	68	0.5	0	12	7	16	33
Careless/negligent driving	521	4.0	4	30	44	71	372
Other	396	3.0	2	20	22	36	316
Unknown	460	3.5	3	8	16	29	404
TOTAL	13,050	100.0	53	282	486	1,162	11,067

UPPER PENINSULA MICHIGAN BICYCLE CRASHES

2017 BICYCLIST FATALITIES AND INJURIES



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

BICYCLE HELMET USE AND INJURY SEVERITY

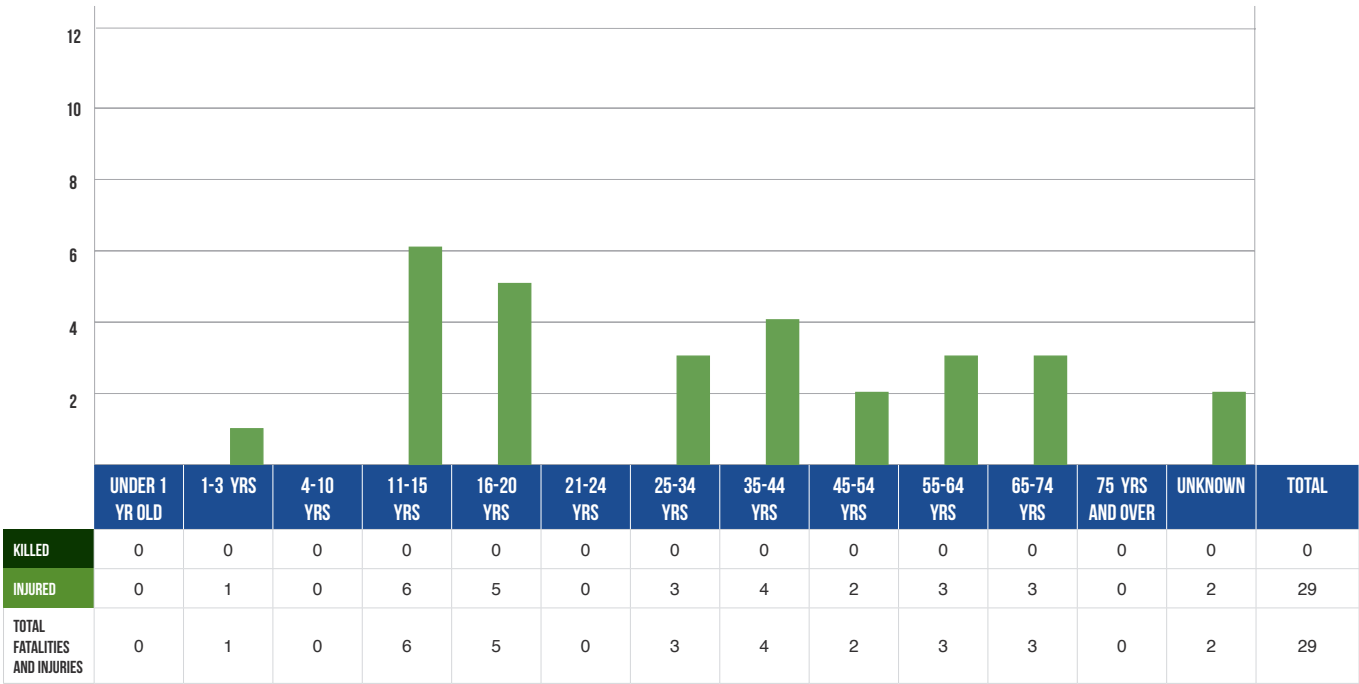
HELMET USE	FATALITY	INJURY			NO INJURY
		A	B	C	
Worn	0	0	3	0	1
Not worn	0	1	4	3	2
Unknown	0	0	6	6	2
Total	0	1	13	9	5

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

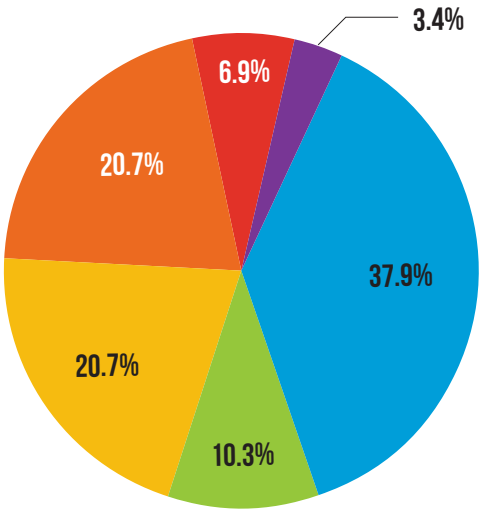
The National Center for Statistics and Analysis of the National Highway Traffic Safety Administration cites a study by the Centers for Disease Control [12]: "Bicycle helmets are 85 to 88 percent effective in mitigating head and brain injuries in all types of bicycle accidents, making the use of helmets the single most effective countermeasure available to reduce head injuries and fatalities resulting from bicycle crashes."

UPPER PENINSULA MICHIGAN PEDESTRIAN CRASHES

2017 PEDESTRIAN FATALITIES AND INJURIES



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



PEDESTRIANS INJURED

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

NONCOLLISION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Loss of control	3	6.4	0	1	0	2	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	0	0.0	0	0	0	0	0
Ran off road right	0	0.0	0	0	0	0	0
Re-enter road	0	0.0	0	0	0	0	0
Overturn	6	12.8	0	3	0	1	2
Separation of units	0	0.0	0	0	0	0	0
Fire/explosion	3	6.4	0	0	0	0	3
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell off	5	10.6	0	1	3	1	0
Other noncollision	0	0.0	0	0	0	0	0
SUBTOTAL	17	36.2	0	5	3	4	5

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

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

COLLISION WITH A FIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	2	4.3	0	0	0	1	1
Guardrail end	0	0.0	0	0	0	0	0
Median barrier	0	0.0	0	0	0	0	0
Highway traffic sign post	0	0.0	0	0	0	0	0
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support	0	0.0	0	0	0	0	0
Other pole	1	2.1	0	0	0	0	1
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	0	0.0	0	0	0	0	0
Embankment	1	2.1	1	0	0	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	7	14.9	0	4	1	1	1
Rail crossing signal	0	0.0	0	0	0	0	0
Building	0	0.0	0	0	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	1	2.1	0	1	0	0	0
SUBTOTAL	12	25.5	1	5	1	2	3

	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Unknown Event	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	47	100.0	4	15	4	7	17

Note: These crashes involve a motor vehicle in transport on a public trafficway and result in injury, death, or at least \$1,000 in property damage.

A total of 47 snowmobiles were reported in crashes on Upper Peninsula public roadways during 2017, resulting in three fatal crashes. A total of 26 snowmobiles were involved in 25 injury crashes.

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

NONCOLLISION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Loss of control	5	7.1	0	4	1	0	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	0	0.0	0	0	0	0	0
Ran off road right	0	0.0	0	0	0	0	0
Re-enter road	1	1.4	0	0	1	0	0
Overturn	16	22.9	2	5	3	4	2
Separation of units	1	1.4	0	0	0	0	1
Fire/explosion	0	0.0	0	0	0	0	0
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell off	10	14.3	0	5	4	1	0
Other noncollision	0	0.0	0	0	0	0	0
SUBTOTAL	33	47.1	2	14	9	5	3

COLLISION WITH A NONFIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Pedestrian	0	0.0	0	0	0	0	0
Bicycle / Pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	17	24.3	0	2	8	0	7
Parked motor vehicle	3	4.3	0	1	0	0	2
Railway train	0	0.0	0	0	0	0	0
Animal	0	0.0	0	0	0	0	0
Other nonfixed objects	2	2.9	0	0	2	0	0
SUBTOTAL	22	31.4	0	3	10	0	9

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

COLLISION WITH A FIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	0	0.0	0	0	0	0	0
Guardrail end	0	0.0	0	0	0	0	0
Median barrier	0	0.0	0	0	0	0	0
Highway traffic sign post	1	1.4	0	0	0	0	1
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support	0	0.0	0	0	0	0	0
Other pole	0	0.0	0	0	0	0	0
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	3	4.3	0	2	0	1	0
Embankment	3	4.3	0	2	1	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	7	10.0	0	4	1	2	0
Rail crossing signal	0	0.0	0	0	0	0	0
Building	0	0.0	0	0	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	1	1.4	1	0	0	0	0
SUBTOTAL	15	21.4	1	8	2	3	1

	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Unknown Event	0	0.0	0	0	0	0	0
MOST HARMFUL EVENT TOTAL	70	100.0	3	25	21	8	13

Note: These crashes involve a motor vehicle in transport on a public trafficway and result in injury, death, or at least \$1,000 in property damage.

A total of 70 off-road/all-terrain vehicles were reported in crashes on Upper Peninsula public roadways during 2017, resulting in three fatal crashes. An additional 54 ORV/ATVs were involved in injury crashes.

UPPER PENINSULA MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

DRIVER HAZARDOUS ACTION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
None	16	34.0	1	4	1	2	8
Speed too fast	8	17.0	0	2	0	2	4
Speed too slow	1	2.1	0	1	0	0	0
Failed to yield	5	10.6	1	1	0	1	2
Disregard traffic control	1	2.1	0	1	0	0	0
Drove wrong way	0	0.0	0	0	0	0	0
Drove left of center	0	0.0	0	0	0	0	0
Improper passing	0	0.0	0	0	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	0	0.0	0	0	0	0	0
Improper/no signal	0	0.0	0	0	0	0	0
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	1	2.1	0	1	0	0	0
Reckless driving	2	4.3	0	1	0	1	0
Careless/negligent driving	7	14.9	1	2	1	0	3
Other	5	10.6	0	2	2	1	0
Unknown	1	2.1	1	0	0	0	0
TOTAL	47	100.0	4	15	4	7	17

UPPER PENINSULA MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS

DRIVER HAZARDOUS ACTION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
None	15	21.4	0	5	5	1	4
Speed too fast	14	20.0	2	6	4	2	0
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	7	10.0	0	1	3	0	3
Disregard traffic control	0	0.0	0	0	0	0	0
Drove wrong way	0	0.0	0	0	0	0	0
Drove left of center	2	2.9	0	0	1	0	1
Improper passing	0	0.0	0	0	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	0	0.0	0	0	0	0	0
Improper/no signal	0	0.0	0	0	0	0	0
Improper backing	1	1.4	0	1	0	0	0
Unable to stop in assured clear distance	3	4.3	0	1	1	0	1
Reckless driving	0	0.0	0	0	0	0	0
Careless/negligent driving	15	21.4	0	6	5	3	1
Other	8	11.4	0	4	1	1	2
Unknown	5	7.1	1	1	1	1	1
TOTAL	70	100.0	3	25	21	8	13

Note: These crashes involve a motor vehicle in transport on a public trafficway and result in injury, death, or at least \$1,000 in property damage.

UPPER PENINSULA MICHIGAN FARM EQUIPMENT CRASHES

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

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

UPPER PENINSULA MICHIGAN VEHICLE-TRAIN CRASHES

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

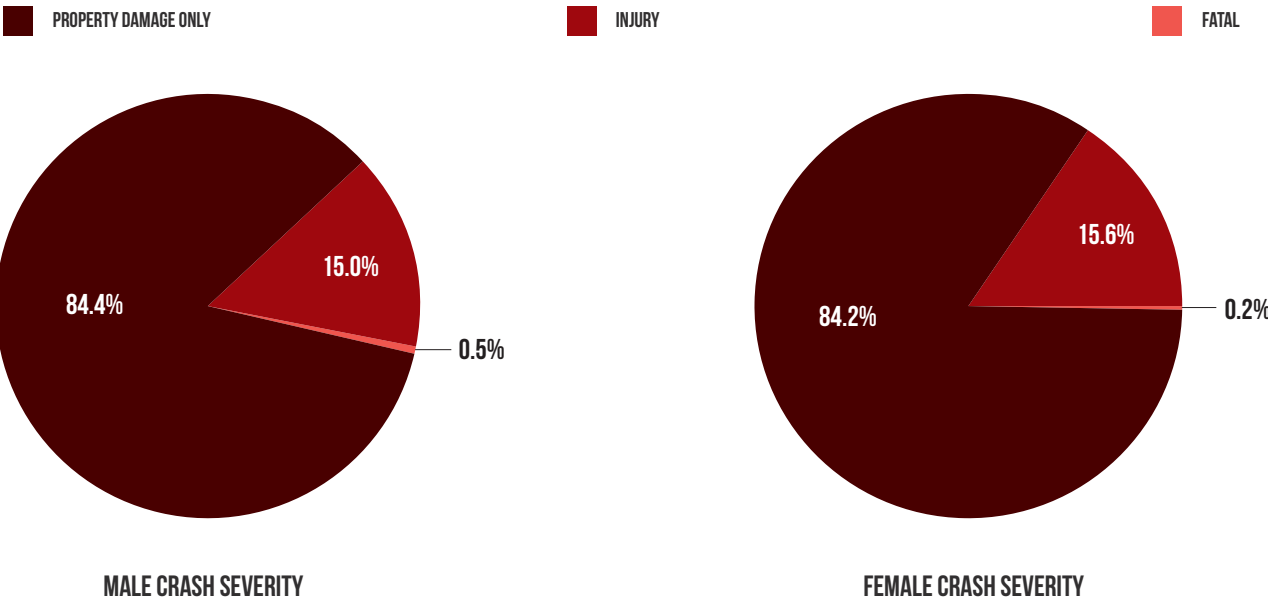
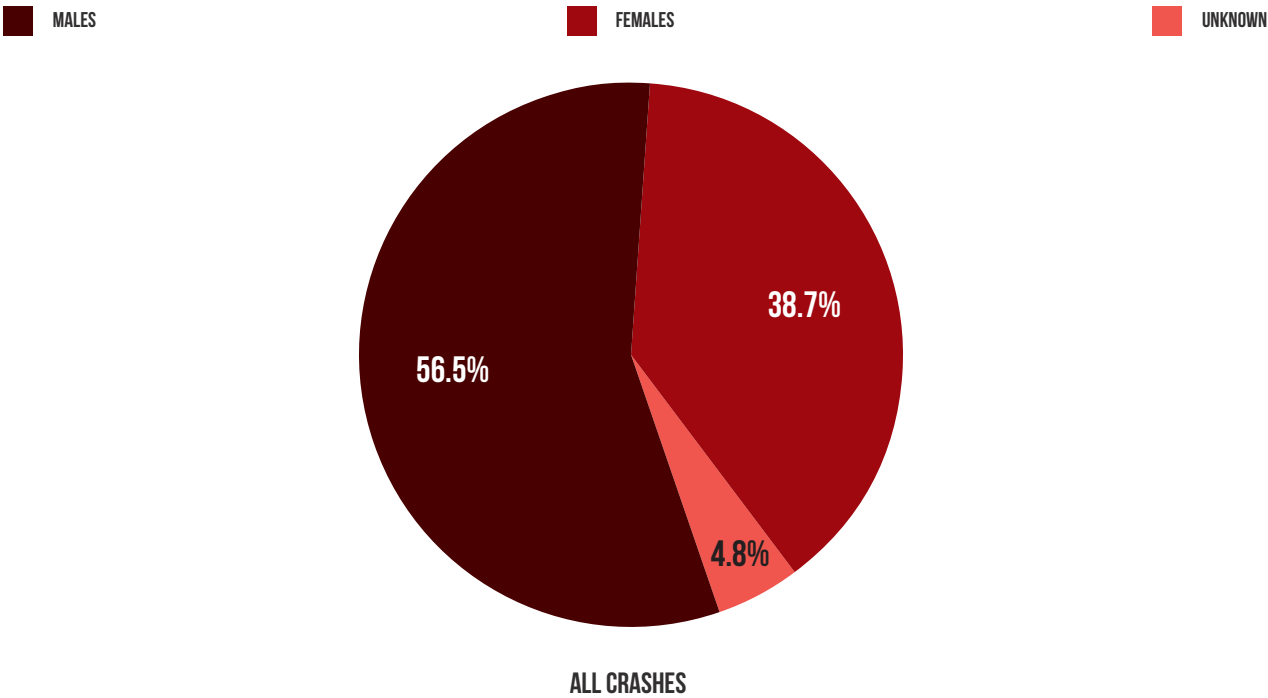
Six crashes involving trains were reported in the Upper Peninsula during 2017. As a result five people were injured, but none were killed.

UPPER PENINSULA MICHIGAN MOTORCYCLE CRASHES

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

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

UPPER PENINSULA DRIVER GENDER INFORMATION



A higher proportion of crashes involved male drivers than female drivers. When examining the severity of crashes involving drivers of each gender, fatal crashes are more prevalent among male drivers than female drivers (0.5% vs. 0.2%).

UPPER PENINSULA PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

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

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

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

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

* Excludes 659 drivers with unknown age

Licensed drivers age 18 have the highest crash rate at 0.141 (total crashes in age group divided by total number of licensed drivers in age group). The lower crash rates of the older groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash.

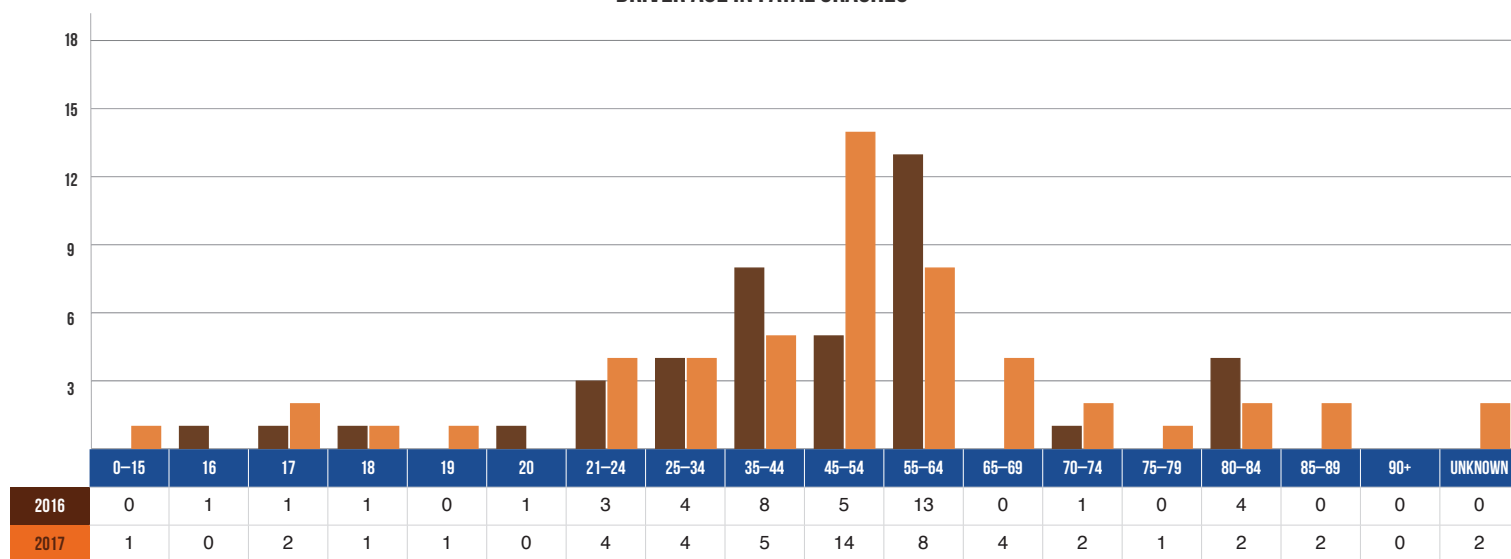
UPPER PENINSULA DRIVER AGE

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

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

† Not calculable

DRIVER AGE IN FATAL CRASHES



UPPER PENINSULA DRIVER CONDITION

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

Note: Drivers may have more than one condition including “Appeared Normal.” These are driver conditions that, in the opinion of the investigating officer, were involved in the crash. While some conditions may be evident, others (such as distraction) will only be known if the driver admits to the condition, thus leading to possible underreporting.

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

RESTRAINT USAGE	DRIVERS		FATALITY		INJURY			NO INJURY	UNKNOWN
	Number	% of Total	Number	% of Total	A	B	C		
ALL DRIVERS									
Restraint Used*	11,712	89.7	14	50.0	115	258	654	10,645	26
Restraint Not Used	197	1.5	12	42.9	41	37	28	79	0
Unknown	1,141	8.7	2	7.1	17	17	22	401	682
TOTAL	13,050	100.0	28	100.0	173	312	704	11,125	708
DRINKING DRIVERS ONLY									
Restraint Used*	208	68.0	3	33.3	13	26	24	142	0
Restraint Not Used	34	11.1	5	55.6	9	8	5	7	0
Unknown	64	20.9	1	11.1	10	6	4	43	0
TOTAL	306	100.0	9	100.0	32	40	33	192	0
DRUGGED DRIVERS ONLY									
Restraint Used*	34	77.3	0	0.0	1	6	8	19	0
Restraint Not Used	3	6.8	0	0.0	1	0	0	2	0
Unknown	7	15.9	0	0.0	1	1	1	4	0
TOTAL	44	100.0	0	0.0	3	7	9	25	0
DRINKING AND DRUGGED DRIVERS ONLY									
Restraint Used*	30	58.8	1	50.0	2	0	4	23	0
Restraint Not Used	9	17.6	0	0.0	6	0	2	1	0
Unknown	12	23.5	1	50.0	1	0	1	9	0
TOTAL	51	100.0	2	100.0	9	0	7	33	0

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