

## UPPER PENINSULA VEHICLE TYPE AND CRASH INVOLVEMENT

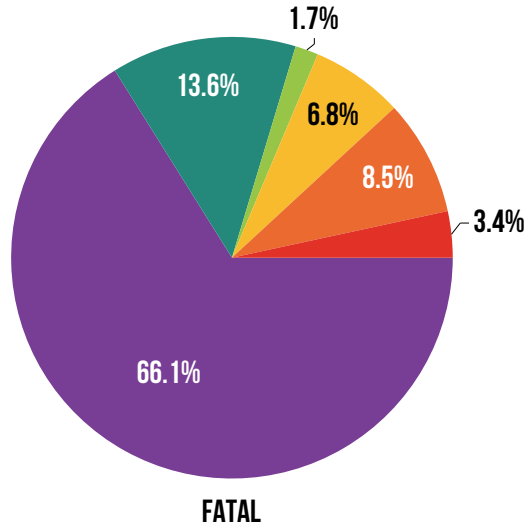
VEHICLE TYPE	MOTOR VEHICLES		FATAL CRASH		INJURY CRASH	PROPERTY DAMAGE ONLY	FATALITY IN VEHICLE		INJURY	NO INJURY
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger Car, SUV, Van	8,841	71.6	39	66.1	1,233	7,569	23	69.7	868	7,950
Motor Home	38	0.3	0	0.0	3	35	0	0.0	2	36
Pickup Truck	2,661	21.5	8	13.6	371	2,282	4	12.1	234	2,423
Small Truck under 10,000 lbs. GVWR	77	0.6	1	1.7	15	61	0	0.0	8	69
Motorcycle	85	0.7	4	6.8	58	23	4	12.1	57	24
Moped / Goped	7	0.1	0	0.0	7	0	0	0.0	7	0
Go-cart / Golf Cart	1	0.0	0	0.0	0	1	0	0.0	0	1
Snowmobile	46	0.4	0	0.0	26	20	0	0.0	24	22
Off-Road Vehicle - ORV / All-Terrain Vehicle - ATV	49	0.4	2	3.4	43	4	2	6.1	41	6
Other	55	0.4	0	0.0	9	46	0	0.0	0	55
Unknown	190	1.5	0	0.0	10	180	0	0.0	0	190
CDL Truck/Bus (breakdown below)	301	2.4	5	8.5	65	231	0	0.0	21	280
<b>Total Number of Vehicles</b>	<b>12,351</b>	<b>100.0</b>	<b>59</b>	<b>100.0</b>	<b>1,840</b>	<b>10,452</b>	<b>33</b>	<b>100.0</b>	<b>1,262</b>	<b>11,056</b>

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

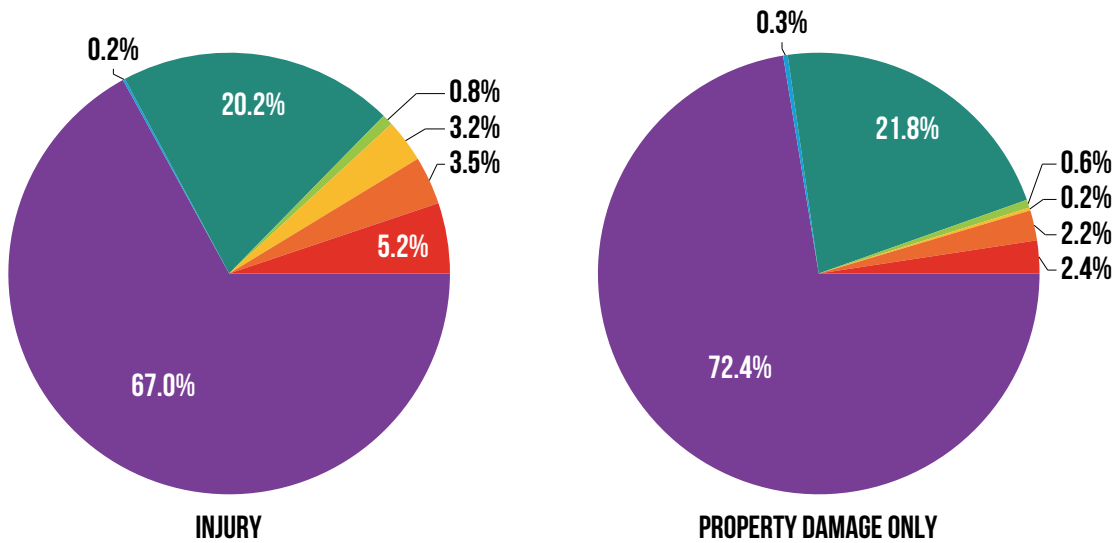
CDL TRUCK/BUS SUB-CATEGORY TYPE	MOTOR VEHICLES		FATAL CRASH		INJURY CRASH	PROPERTY DAMAGE ONLY	FATALITY IN VEHICLE		INJURY	NO INJURY
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
10,000 lbs. or Less	3	1.0	0	0.0	0	3	0	0.0	0	3
10,001 - 26,000 lbs.	95	31.6	0	0.0	13	82	0	0.0	6	89
Greater than 26,000 lbs.	201	66.8	5	100.0	52	144	0	0.0	15	186
Unknown Truck	2	0.7	0	0.0	0	2	0	0.0	0	2
<b>Total Number of Vehicles</b>	<b>301</b>	<b>100.0</b>	<b>5</b>	<b>100.0</b>	<b>65</b>	<b>231</b>	<b>0</b>	<b>0.0</b>	<b>21</b>	<b>280</b>

# UPPER PENINSULA VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

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



The top chart shows that 81.4 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 6.8 percent of fatal crash involvements.



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 (95.2%) 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	8,125	65.8	49	165	327	629	6,955
Turning left	614	5.0	3	36	31	93	451
Turning right	315	2.6	0	6	19	31	259
Stopped on roadway	517	4.2	3	3	25	85	401
In prior crash	4	0.0	0	0	0	1	3
Changing lanes	126	1.0	0	1	0	4	121
Backing	407	3.3	0	2	2	5	398
Slowing/stopping on roadway	645	5.2	0	8	31	89	517
Slowing/stopping other	12	0.1	0	0	0	0	12
Starting up on roadway	199	1.6	0	7	10	28	154
Starting up other	4	0.0	0	0	0	0	4
Entering parking	27	0.2	0	0	0	2	25
Leaving parking	31	0.3	0	1	0	0	30
Entering roadway	149	1.2	0	3	10	18	118
Leaving roadway	21	0.2	0	3	1	4	13
Making U-turn	12	0.1	0	0	0	2	10
Overtaking or passing	83	0.7	3	8	12	6	54
Avoiding object	12	0.1	0	0	0	0	12
Avoiding animal	68	0.6	0	0	4	7	57
Avoiding pedestrian	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	70	0.6	0	2	5	6	57
Avoiding vehicle (angle)	24	0.2	0	0	3	2	19
Driverless moving	9	0.1	0	0	0	0	9
Parked	533	4.3	0	3	15	18	497
Crossing at intersection	6	0.0	0	1	1	0	4
Crossing not at intersection	0	0.0	0	0	0	0	0
Getting on/off vehicle	1	0.0	0	0	1	0	0
In roadway with traffic	2	0.0	0	0	0	1	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	1	0.0	0	0	0	0	1
Negotiating a curve	185	1.5	1	13	19	14	138
Other	19	0.2	0	1	2	3	13
Unknown	130	1.1	0	3	3	5	119
<b>TOTAL</b>	<b>12,351</b>	<b>100.0</b>	<b>59</b>	<b>266</b>	<b>521</b>	<b>1,053</b>	<b>10,452</b>

## 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	63	74.1	74	71.2	4	20	18	9	23
Turning left	2	2.4	4	3.8	0	2	2	0	0
Turning right	3	3.5	3	2.9	0	0	1	1	1
Stopped on roadway	0	0.0	0	0.0	0	0	0	0	0
In prior crash	0	0.0	0	0.0	0	0	0	0	0
Changing lanes	0	0.0	0	0.0	0	0	0	0	0
Backing	0	0.0	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	3	3.5	3	2.9	0	0	1	1	1
Slowing/stopping other	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 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	1	1.2	1	1.0	0	0	0	0	1
Entering roadway	0	0.0	0	0.0	0	0	0	0	0
Leaving roadway	0	0.0	0	0.0	0	0	0	0	0
Making U-turn	1	1.2	1	1.0	0	0	0	1	0
Overtaking or passing	3	3.5	3	2.9	0	3	0	0	0
Avoiding object	0	0.0	0	0.0	0	0	0	0	0
Avoiding animal	0	0.0	0	0.0	0	0	0	0	0
Avoiding pedestrian	0	0.0	0	0.0	0	0	0	0	0
Avoiding vehicle (front/back)	1	1.2	2	1.9	0	1	1	0	0
Avoiding vehicle (angle)	1	1.2	2	1.9	0	0	0	1	1
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	1	1.2	1	1.0	0	0	0	0	0
Crossing at intersection	0	0.0	0	0.0	0	0	0	0	0
Crossing not at intersection	0	0.0	0	0.0	0	0	0	0	0
Getting on/off vehicle	0	0.0	0	0.0	0	0	0	0	0
In roadway with traffic	0	0.0	0	0.0	0	0	0	0	0
In roadway against traffic	0	0.0	0	0.0	0	0	0	0	0
Standing or lying in roadway	0	0.0	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0.0	0	0	0	0	0
Not in roadway	0	0.0	0	0.0	0	0	0	0	0
Negotiating a curve	5	5.9	8	7.7	0	3	2	0	3
Other	1	1.2	2	1.9	0	1	0	0	1
Unknown	0	0.0	0	0.0	0	0	0	0	0
<b>TOTAL</b>	<b>85</b>	<b>100.0</b>	<b>104</b>	<b>100.0</b>	<b>4</b>	<b>30</b>	<b>25</b>	<b>13.0</b>	<b>31.0</b>

\*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	18	64.3	0	3	7	5	3
Turning left	1	3.6	0	1	0	0	0
Turning right	0	0.0	0	0	0	0	0
Stopped on roadway	1	3.6	0	0	1	0	0
In prior crash	0	0.0	0	0	0	0	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	0	0.0	0	0	0	0	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	0	0.0	0	0	0	0	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	1	3.6	0	1	0	0	0
Leaving roadway	0	0.0	0	0	0	0	0
Making U-turn	0	0.0	0	0	0	0	0
Overtaking or passing	1	3.6	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	3	10.7	0	0	1	1	0
Crossing not at intersection	2	7.1	0	1	1	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	0	0.0	0	0	0	0	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	0	0.0	0	0	0	0	0
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	0	0.0	0	0	0	0	0
Not in roadway	0	0.0	0	0	0	0	0
Negotiating a curve	0	0.0	0	0	0	0	0
Other	0	0.0	0	0	0	0	0
Unknown	1	3.6	0	0	0	0	1
<b>TOTAL</b>	<b>28</b>	<b>100.0</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>6</b>	<b>4</b>

\*Includes one bicyclist with unknown injury severity

## UPPER PENINSULA ACTION PRIOR TO CRASH (CONTINUED)

PEDESTRIAN ACTION	PEDESTRIANS*		FATALITY	INJURY			NO INJURY
	Number of Pedestrians	% of Total		A	B	C	
Going straight ahead	1	2.7	0	0	0	0	1
Turning left	0	0.0	0	0	0	0	0
Turning right	0	0.0	0	0	0	0	0
Stopped on roadway	0	0.0	0	0	0	0	0
In prior crash	0	0.0	0	0	0	0	0
Changing lanes	0	0.0	0	0	0	0	0
Backing	1	2.7	0	0	0	0	1
Slowing/stopping on roadway	0	0.0	0	0	0	0	0
Slowing/stopping other	0	0.0	0	0	0	0	0
Starting up on roadway	0	0.0	0	0	0	0	0
Starting up other	0	0.0	0	0	0	0	0
Entering parking	0	0.0	0	0	0	0	0
Leaving parking	0	0.0	0	0	0	0	0
Entering roadway	0	0.0	0	0	0	0	0
Leaving roadway	1	2.7	0	1	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	24.3	0	2	2	4	0
Crossing not at intersection	4	10.8	0	2	0	2	0
Getting on/off vehicle	2	5.4	0	0	2	0	0
In roadway with traffic	4	10.8	0	1	1	0	2
In roadway against traffic	1	2.7	0	0	1	0	0
Standing or lying in roadway	5	13.5	1	3	0	1	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	1	2.7	0	1	0	0	0
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	1	2.7	0	0	0	0	0
Not in roadway	2	5.4	0	1	0	1	0
Negotiating a curve	1	2.7	0	0	0	0	1
Other	3	8.1	0	1	0	2	0
Unknown	1	2.7	0	1	0	0	0
<b>TOTAL</b>	<b>37</b>	<b>100.0</b>	<b>1</b>	<b>13</b>	<b>6</b>	<b>10</b>	<b>5</b>

\*Includes two 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	105	0.9	0	4	10	13	78
Cross center/median	23	0.2	1	3	1	2	16
Ran off road left	45	0.4	0	0	3	6	36
Ran off road right	88	0.7	0	2	3	9	74
Re-center road	9	0.1	0	0	0	1	8
Overturn	308	2.5	3	23	45	52	185
Separation of Units	10	0.1	0	0	2	1	7
Fire/explosion	17	0.1	2	0	0	0	15
Immersion	5	0.0	1	0	0	0	4
Jackknife	7	0.1	0	0	0	0	7
Downhill runaway	2	0.0	0	0	0	1	1
Cargo loss/shift	15	0.1	0	0	1	1	13
Individual fell off	29	0.2	1	16	9	2	1
Other noncollision	25	0.2	0	1	2	1	21
<b>SUBTOTAL</b>	<b>688</b>	<b>5.6</b>	<b>8</b>	<b>49</b>	<b>76</b>	<b>89</b>	<b>466</b>

COLLISION WITH A NONFIXED OBJECT	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Pedestrian	33	0.3	1	11	6	11	4
Bicycle/ Pedalcycle	28	0.2	0	6	11	6	5
Motor vehicle in transport	5,775	46.8	41	143	307	755	4,529
Parked motor vehicle	565	4.6	1	1	10	15	538
Railway train	0	0.0	0	0	0	0	0
Animal	3,794	30.7	3	3	21	41	3,726
Other nonfixed objects	162	1.3	0	2	4	9	147
<b>SUBTOTAL</b>	<b>10,357</b>	<b>83.9</b>	<b>46</b>	<b>166</b>	<b>359</b>	<b>837</b>	<b>8,949</b>

## 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	5	0.0	0	0	0	0	5
Bridge rail	14	0.1	0	0	0	1	13
Guardrail face	71	0.6	0	1	2	3	65
Guardrail end	16	0.1	0	0	3	4	9
Median barrier	8	0.1	0	0	0	0	8
Highway traffic sign post	108	0.9	0	0	2	4	102
Highway signal post	4	0.0	0	0	0	0	4
Luminaire/light support	110	0.9	1	1	3	19	86
Other pole	23	0.2	0	0	1	1	21
Culvert	16	0.1	0	3	2	0	11
Curb	16	0.1	0	0	0	1	15
Ditch	197	1.6	1	6	12	17	161
Embankment	81	0.7	0	5	2	6	68
Fence	18	0.1	0	0	3	0	15
Mailbox	45	0.4	0	1	0	1	43
Tree	385	3.1	3	27	39	55	261
Rail crossing signal	5	0.0	0	1	0	0	4
Building	26	0.2	0	1	5	4	16
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	14	0.1	0	0	0	0	14
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	67	0.5	0	5	8	4	50
<b>SUBTOTAL</b>	<b>1,229</b>	<b>10.0</b>	<b>5</b>	<b>51</b>	<b>82</b>	<b>120</b>	<b>971</b>

	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	77	0.6	0	0	4	7	66
<b>MOST HARMFUL EVENT TOTAL</b>	<b>12,351</b>	<b>100.0</b>	<b>59</b>	<b>266</b>	<b>521</b>	<b>1,053</b>	<b>10,452</b>



## UPPER PENINSULA VEHICLE DEFECTS IN CRASH INVOLVEMENT

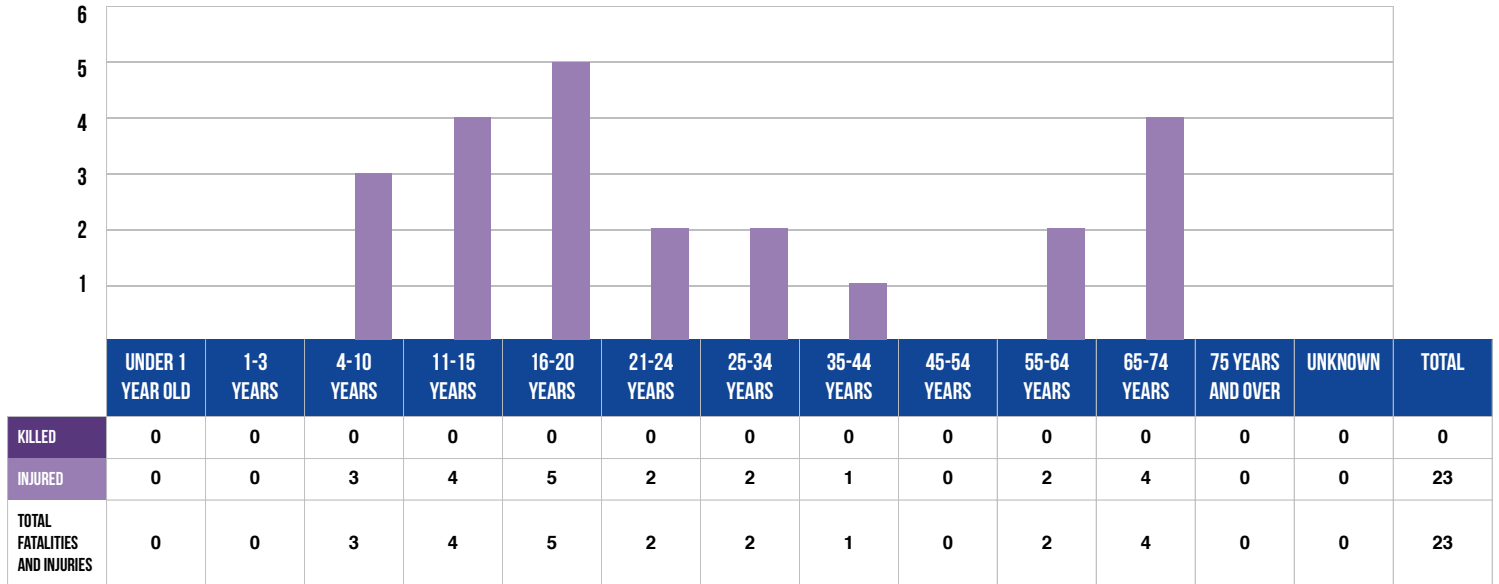
VEHICLE DEFECTS	MOTOR VEHICLES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Vehicles	% of Total		A	B	C	
Brakes	37	0.3	0	1	4	10	22
Lights/reflectors	9	0.1	0	0	1	0	8
Steering	4	0.0	0	0	0	2	2
Tires/wheels	18	0.1	0	0	3	1	14
Windows	2	0.0	0	0	0	0	2
Coupling/hitch/chains	4	0.0	0	0	0	0	4
Other	16	0.1	0	0	2	0	14
None or Unknown	12,261	99.3	59	265	511	1,040	10,386
<b>TOTAL</b>	<b>12,351</b>	<b>100.0</b>	<b>59</b>	<b>266</b>	<b>521</b>	<b>1,053</b>	<b>10,452</b>

## 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	7,405	60.0	29	95	219	490	6,572
Speed too fast	1,007	8.2	9	40	73	107	778
Speed too slow	11	0.1	0	0	0	2	9
Failed to yield	886	7.2	4	36	61	126	659
Disregard traffic control	122	1.0	0	1	13	22	86
Drove wrong way	9	0.1	2	2	1	0	4
Drove left of center	70	0.6	4	4	4	13	45
Improper passing	56	0.5	0	6	7	4	39
Improper lane use	151	1.2	0	1	4	9	137
Improper turn	84	0.7	1	2	2	6	73
Improper/no signal	17	0.1	0	0	0	1	16
Improper backing	283	2.3	0	0	1	2	280
Unable to stop in assured clear distance	904	7.3	2	9	37	145	711
Reckless driving	45	0.4	2	4	4	10	25
Careless/negligent driving	432	3.5	2	28	45	60	297
Other	350	2.8	0	11	33	28	278
Unknown	519	4.2	4	27	17	28	443
<b>Total</b>	<b>12,351</b>	<b>100.0</b>	<b>59</b>	<b>266</b>	<b>521</b>	<b>1,053</b>	<b>10,452</b>

# UPPER PENINSULA MICHIGAN BICYCLE CRASHES

## 2018 BICYCLIST FATALITIES AND INJURIES



In 2018 in the Upper Peninsula, there were 28 bicyclists involved in motor vehicle crashes, with 0 bicyclists killed and 23 injured.

## BICYCLE HELMET USE AND INJURY SEVERITY

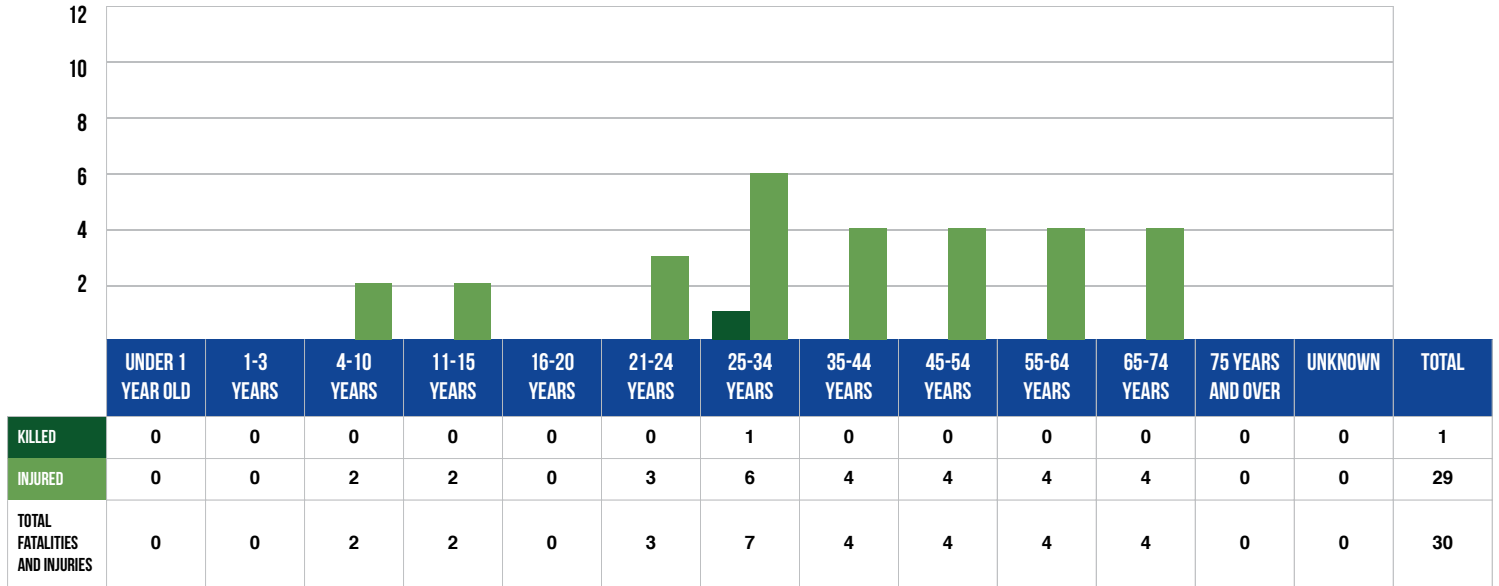
HELMET USE	FATALITY	INJURY			NO INJURY
		A	B	C	
<b>Worn</b>	0	1	3	1	0
<b>Not Worn</b>	0	4	4	3	2
<b>Unknown</b>	0	1	4	2	2
<b>Total</b>	0	6	11	6	4

*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.”

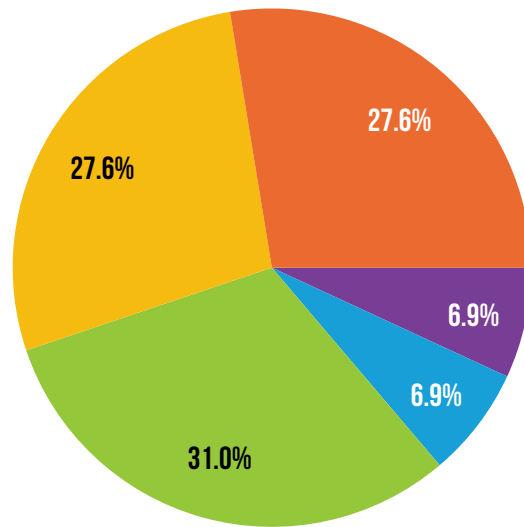
# UPPER PENINSULA MICHIGAN PEDESTRIAN CRASHES

## 2018 PEDESTRIAN FATALITIES AND INJURIES



In 2018 in the Upper Peninsula, there were 37 pedestrians involved in motor vehicle crashes, with one pedestrian killed and 29 injured.

■ 0-10 YEARS   
 ■ 11-20 YEARS   
 ■ 21-34 YEARS   
 ■ 35-54 YEARS   
 ■ 55 AND OVER   
 ■ UNKNOWN



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	0	0.0	0	0	0	0	0
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	1	2.2	0	0	0	0	1
Ran off road right	0	0.0	0	0	0	0	0
Re-center road	0	0.0	0	0	0	0	0
Overturn	4	8.7	0	1	0	1	2
Separation of Units	0	0.0	0	0	0	0	0
Fire/explosion	1	2.2	0	0	0	0	1
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell off	7	15.2	0	4	3	0	0
Other noncollision	1	2.2	0	0	0	1	0
<b>SUBTOTAL</b>	<b>14</b>	<b>30.4</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>4</b>

COLLISION WITH A NONFIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Pedestrian	0	0.0	0	0	0	0	0
Bicycle/ Pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	18	39.1	0	5	2	2	9
Parked motor vehicle	2	4.3	0	0	1	0	1
Railway train	0	0.0	0	0	0	0	0
Animal	1	2.2	0	0	0	0	1
Other nonfixed objects	0	0.0	0	0	0	0	0
<b>SUBTOTAL</b>	<b>21</b>	<b>45.7</b>	<b>0</b>	<b>5</b>	<b>3</b>	<b>2</b>	<b>11</b>

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

COLLISION WITH A FIXED OBJECT	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	0	0.0	0	0	0	0	0
Guardrail end	0	0.0	0	0	0	0	0
Median barrier	0	0.0	0	0	0	0	0
Highway traffic sign post	0	0.0	0	0	0	0	0
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support	0	0.0	0	0	0	0	0
Other pole	0	0.0	0	0	0	0	0
Culvert	1	2.2	0	0	0	0	1
Curb	0	0.0	0	0	0	0	0
Ditch	0	0.0	0	0	0	0	0
Embankment	0	0.0	0	0	0	0	0
Fence	1	2.2	0	0	1	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	8	17.4	0	1	2	1	4
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	2.2	0	1	0	0	0
<b>SUBTOTAL</b>	<b>11</b>	<b>23.9</b>	<b>0</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>5</b>

	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
<b>MOST HARMFUL EVENT TOTAL</b>	<b>46</b>	<b>100.0</b>	<b>0</b>	<b>12</b>	<b>9</b>	<b>5</b>	<b>20</b>

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 46 snowmobiles were reported in crashes on Upper Peninsula public roadways during 2018, but none of the crashes involved fatalities. A total of 26 snowmobiles were involved in 23 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	3	6.1	0	1	1	1	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-center road	0	0.0	0	0	0	0	0
Overturn	12	24.5	0	7	4	1	0
Separation of Units	0	0.0	0	0	0	0	0
Fire/explosion	0	0.0	0	0	0	0	0
Immersion	0	0.0	0	0	0	0	0
Jackknife	0	0.0	0	0	0	0	0
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	0	0.0	0	0	0	0	0
Individual fell off	10	20.4	0	5	4	1	0
Other noncollision	0	0.0	0	0	0	0	0
<b>SUBTOTAL</b>	<b>25</b>	<b>51.0</b>	<b>0</b>	<b>13</b>	<b>9</b>	<b>3</b>	<b>0</b>

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	11	22.4	0	1	4	2	4
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
<b>SUBTOTAL</b>	<b>11</b>	<b>22.4</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>2</b>	<b>4</b>

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

COLLISION WITH A FIXED OBJECT	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge rail	0	0.0	0	0	0	0	0
Guardrail face	0	0.0	0	0	0	0	0
Guardrail end	0	0.0	0	0	0	0	0
Median barrier	0	0.0	0	0	0	0	0
Highway traffic sign post	0	0.0	0	0	0	0	0
Highway signal post	0	0.0	0	0	0	0	0
Luminaire/light support	0	0.0	0	0	0	0	0
Other pole	0	0.0	0	0	0	0	0
Culvert	1	2.0	0	1	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	2	4.1	0	0	1	1	0
Embankment	0	0.0	0	0	0	0	0
Fence	0	0.0	0	0	0	0	0
Mailbox	1	2.0	0	1	0	0	0
Tree	6	12.2	2	3	1	0	0
Rail crossing signal	0	0.0	0	0	0	0	0
Building	0	0.0	0	0	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	3	6.1	0	2	0	1	0
<b>SUBTOTAL</b>	<b>13</b>	<b>26.5</b>	<b>2</b>	<b>7</b>	<b>2</b>	<b>2</b>	<b>0</b>

	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
<b>MOST HARMFUL EVENT TOTAL</b>	<b>49</b>	<b>100.0</b>	<b>2</b>	<b>21</b>	<b>15</b>	<b>7</b>	<b>4</b>

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 49 off-road/all-terrain vehicles were reported in crashes on Upper Peninsula public roadways during 2018, resulting in two fatal crashes. An additional 43 ORV/ATVs were involved in 39 injury crashes.

## UPPER PENINSULA MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

HAZARDOUS ACTION	SNOWMOBILES		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of Snowmobiles	% of Total		A	B	C	
None	14	30.4	0	2	3	2	7
Speed too fast	14	30.4	0	3	3	1	7
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	8	17.4	0	1	0	1	6
Disregard traffic control	1	2.2	0	0	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	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	0	0.0	0	0	0	0	0
Reckless driving	1	2.2	0	0	1	0	0
Careless/negligent driving	2	4.3	0	2	0	0	0
Other	3	6.5	0	2	1	0	0
Unknown	3	6.5	0	2	1	0	0
<b>Total</b>	<b>46</b>	<b>100.0</b>	<b>0</b>	<b>12</b>	<b>9</b>	<b>5</b>	<b>20</b>

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

HAZARDOUS ACTION	ORV/ATV		FATAL CRASH	INJURY CRASH			PROPERTY DAMAGE ONLY
	Number of ORV/ATVs	% of Total		A	B	C	
None	6	12.2	0	2	4	0	0
Speed too fast	13	26.5	2	6	4	1	0
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	5	10.2	0	1	2	0	2
Disregard traffic control	0	0.0	0	0	0	0	0
Drove wrong way	1	2.0	0	0	1	0	0
Drove left of center	0	0.0	0	0	0	0	0
Improper passing	0	0.0	0	0	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	0	0.0	0	0	0	0	0
Improper/no signal	0	0.0	0	0	0	0	0
Improper backing	1	2.0	0	0	0	0	1
Unable to stop in assured clear distance	2	4.1	0	1	1	0	0
Reckless driving	3	6.1	0	1	0	1	1
Careless/negligent driving	4	8.2	0	2	1	1	0
Other	4	8.2	0	1	2	1	0
Unknown	10	20.4	0	7	0	3	0
<b>Total</b>	<b>49</b>	<b>100.0</b>	<b>2</b>	<b>21</b>	<b>15</b>	<b>7</b>	<b>4</b>

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	2017	2018	% CHANGE
Crashes	10	7	-30.0%
Fatalities	0	0	0.0%
Injuries	3	4	33.3%

Seven crashes involving farm equipment were reported on Upper Peninsula roadways during 2018. None of those crashes involved a fatality

## UPPER PENINSULA MICHIGAN VEHICLE-TRAIN CRASHES

VEHICLE TRAIN CRASHES	2017	2018	% CHANGE
Crashes	6	0	-100.0%
Fatalities	0	0	0.0%
Injuries	5	0	-100.0%

No motor-vehicle crashes involving trains were reported in the Upper Peninsula during 2018, down from six in 2017.

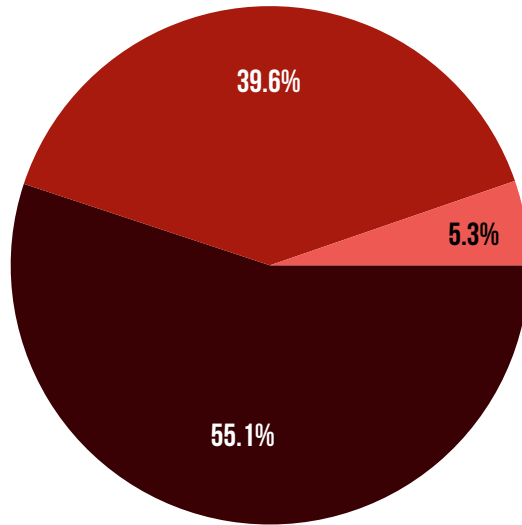
## UPPER PENINSULA MICHIGAN MOTORCYCLE CRASHES

MOTORCYCLE DATA	2017	2018	% CHANGE
Motorcycle Registrations	9,080	8,895	-2.0%
Motorcycles in Crashes	97	85	-12.4%
Motorcyclist Deaths	4	4	0.0%
Motorcyclists Injured	74	68	-8.1%
Death Rate based on 10,000 motorcycle registrations	4.41	4.50	2.1%
Estimated Mileage based on 3,000 miles per motorcycle	27,240,000	26,685,000	-2.0%
Death Rate based on deaths per 100 million vehicle miles traveled	14.68	14.99	2.1%

Motorcycles were involved in 0.9 percent of all traffic crashes in the Upper Peninsula in 2018. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles.

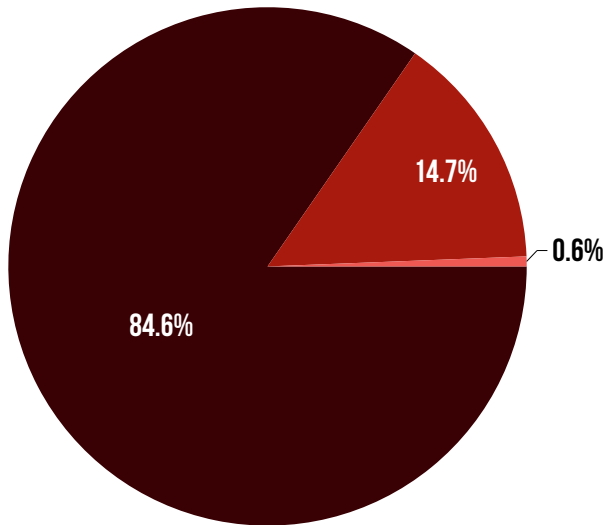
# UPPER PENINSULA DRIVER GENDER INFORMATION

MALES      FEMALES      UNKNOWN

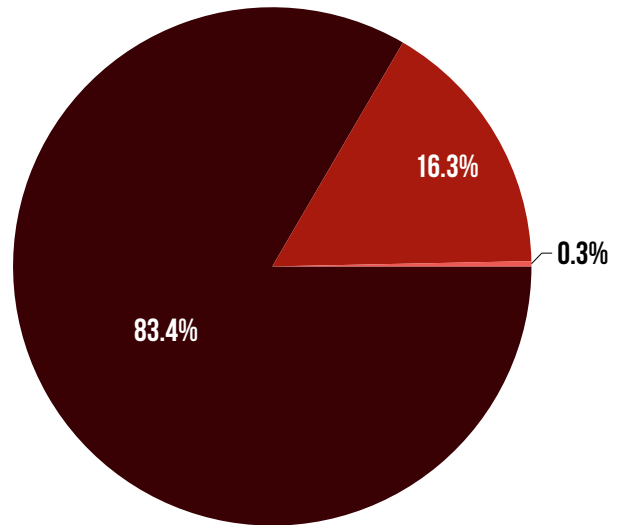


ALL CRASHES

PROPERTY DAMAGE ONLY      INJURY      FATAL



MALE CRASH SEVERITY



FEMALE CRASH SEVERITY

A higher proportion of crashes involved male drivers than female drivers. When examining the severity of crashes involving drivers of each gender, fatal crashes are more prevalent among male drivers than female drivers (0.6% vs. 0.3%).

## 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	1,446	48,033	31	0	0	105	8	0	4	0
16	2,199	3,316	183	0	0	36	2	0	0	0
17	2,571	3,369	223	0	0	40	0	0	0	0
18	2,317	4,132	290	1	1	46	2	0	0	0
19	2,636	5,106	300	2	1	38	1	0	0	0
20	2,744	5,268	283	2	2	32	1	0	0	0
21-24	11,850	19,044	1,053	9	6	118	2	0	4	0
25-29	14,313	16,681	985	2	0	123	1	0	7	0
30-34	14,484	15,447	956	5	3	115	1	0	2	1
35-39	14,912	16,697	865	4	1	95	0	0	3	0
40-44	13,993	15,459	767	5	2	99	1	0	2	0
45-49	15,040	16,780	904	7	3	90	0	0	3	0
50-54	16,941	18,703	946	2	1	126	0	0	1	0
55-59	20,966	22,629	993	5	4	117	1	0	4	0
60-64	22,809	23,929	894	3	1	90	2	0	1	0
65-69	21,251	21,685	753	4	4	68	5	0	2	0
70-74	16,128	16,330	518	2	1	63	0	0	2	0
75-79	11,242	11,791	354	0	0	44	0	0	1	0
80-84	7,046	7,992	213	1	2	22	0	0	0	0
85+	5,507	8,760	155	4	2	19	0	0	0	0
Unknown	---	---	685	1	0	0	1	0	1	0
<b>TOTAL</b>	<b>220,395</b>	<b>301,151</b>	<b>12,351</b>	<b>59</b>	<b>34</b>	<b>1,486</b>	<b>28</b>	<b>0</b>	<b>37</b>	<b>1</b>

## 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	1,446	31	0.021
16	2,199	183	0.083
17	2,571	223	0.087
18	2,317	290	0.125
19	2,636	300	0.114
20	2,744	283	0.103
21-24	11,850	1,053	0.089
25-29	14,313	985	0.069
30-34	14,484	956	0.066
35-39	14,912	865	0.058
40-44	13,993	767	0.055
45-49	15,040	904	0.060
50-54	16,941	946	0.056
55-59	20,966	993	0.047
60-64	22,809	894	0.039
65-69	21,251	753	0.035
70-74	16,128	518	0.032
75-79	11,242	354	0.031
80-84	7,046	213	0.030
85-89	3,853	117	0.030
90-94	1,459	34	0.023
95-99	182	4	0.022
100+	13	0	0.000
<b>TOTAL</b>	<b>220,395</b>	<b>11,666</b>	<b>0.053</b>

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

\* Excludes 685 drivers with unknown age

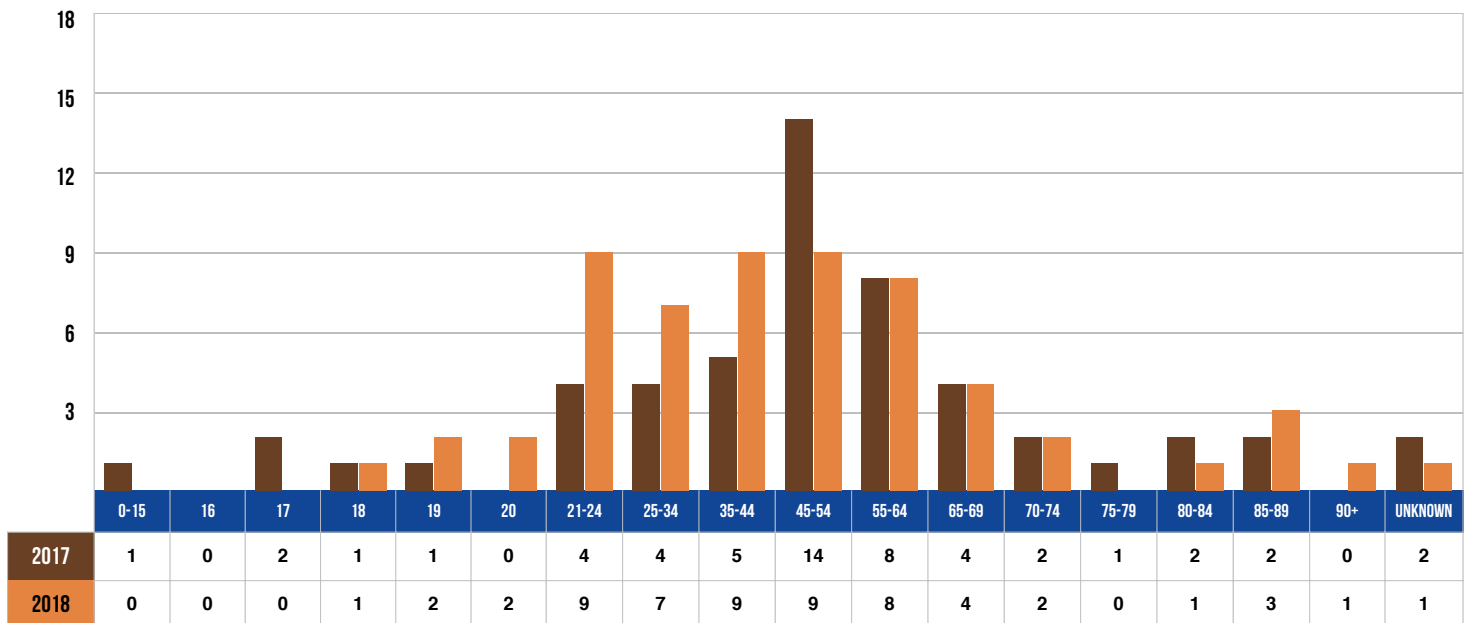
Licensed drivers age 18 have the highest crash rate at 0.125 (total crash involvements in age group divided by total number of licensed drivers in age group). The lower crash rates of the older groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash.

## UPPER PENINSULA DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2017	2018	PERCENT CHANGE	PERCENT 2018 FATAL CRASH INVOLVEMENT	PERCENT ACTIVE DRIVING POPULATION*
15 years and under	1	0	-100.0	0.0	0.7
16 years	0	0	0.0	0.0	1.0
17 years	2	0	-100.0	0.0	1.2
18 years	1	1	0.0	1.7	1.1
19 years	1	2	100.0	3.4	1.2
20 years	0	2	---	3.4	1.3
21 - 24 years	4	9	125.0	15.3	5.4
25 - 34 years	4	7	75.0	11.9	13.2
35 - 44 years	5	9	80.0	15.3	13.2
45 - 54 years	14	9	-35.7	15.3	13.8
55 - 64 years	8	8	0.0	13.6	20.0
65 - 69 years	4	4	0.0	6.8	9.7
70 - 74 years	2	2	0.0	3.4	7.4
75 - 79 years	1	0	-100.0	0.0	5.1
80 - 84 years	2	1	-50.0	1.7	3.2
85 - 89 years	2	3	50.0	5.1	1.8
90 years and over	0	1	---	1.7	0.8
Unknown	2	1	-50.0	1.7	---
<b>Total</b>	<b>53</b>	<b>59</b>	<b>11.3</b>	<b>100.0</b>	<b>100.0</b>

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

### 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	9,246	29	163	371	846	7,837
Fatigued or Asleep	79	0	8	16	18	37
Sick	27	1	1	3	4	18
Medicated	17	0	1	4	3	9
Emotional	135	2	9	18	23	83
Physically Disabled	33	3	13	4	2	11
Unknown	1,810	18	46	49	95	1,602
Other	239	5	24	43	37	130

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 (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		
<b>ALL DRIVERS</b>									
Restraint Used*	10,939	88.6	16	57.1	116	269	615	9,914	9
Restraint Not Used	147	1.2	10	35.7	25	31	18	62	1
Unknown	1,265	10.2	2	7.1	14	21	28	476	724
<b>TOTAL</b>	<b>12,351</b>	<b>100.0</b>	<b>28</b>	<b>100.0</b>	<b>155</b>	<b>321</b>	<b>661</b>	<b>10,452</b>	<b>734</b>
<b>DRINKING DRIVERS ONLY</b>									
Restraint Used*	175	65.1	0	0.0	12	24	21	118	0
Restraint Not Used	22	8.2	1	33.3	8	7	4	2	0
Unknown	72	26.8	2	66.7	4	8	8	50	0
<b>TOTAL</b>	<b>269</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>	<b>24</b>	<b>39</b>	<b>33</b>	<b>170</b>	<b>0</b>
<b>DRUGGED DRIVERS ONLY</b>									
Restraint Used*	40	74.1	2	50.0	4	7	4	23	0
Restraint Not Used	7	13.0	2	50.0	2	0	1	2	0
Unknown	7	13.0	0	0.0	1	2	0	4	0
<b>TOTAL</b>	<b>54</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>7</b>	<b>9</b>	<b>5</b>	<b>29</b>	<b>0</b>
<b>DRINKING AND DRUGGED DRIVERS ONLY</b>									
Restraint Used*	20	52.6	1	33.3	1	1	3	14	0
Restraint Not Used	4	10.5	2	66.7	1	0	0	1	0
Unknown	14	36.8	0	0.0	0	2	3	9	0
<b>TOTAL</b>	<b>38</b>	<b>100.0</b>	<b>3</b>	<b>100.0</b>	<b>2</b>	<b>3</b>	<b>6</b>	<b>24</b>	<b>0</b>

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