

# 2013

## Michigan Traffic Crash Facts Upper Peninsula



**Michigan Department of State Police**





# **2013 Michigan Traffic Crash Facts Upper Peninsula**

A summary of traffic crashes on Upper Peninsula roadways  
in calendar year 2013

[Michigantrafficcrashfacts.org](http://Michigantrafficcrashfacts.org)

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2013

**Quick Facts**  
**Upper Peninsula**

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## UPPER PENINSULA 2013 QUICK FACTS

- ☐ Some exposure factor comparisons between 2013 and 2012 show motor vehicle registrations decreased **0.6** percent, the number of licensed drivers on Upper Peninsula roads increased **0.4**, and vehicle mileage decreased **2.1** percent.
- ☐ The 2013 fatality rate increased to **1.26** deaths per 100 million miles of travel. It remains below the 10-year average of **1.27** (2004-2013).
- ☐ There were **39** people killed and **1,778** people injured in **9,956** reported motor vehicle traffic crashes in the Upper Peninsula during 2013. Compared with the 2012 experience, the number of deaths increased **30.0** percent, persons injured decreased **2.7** percent, and total reported crashes increased **0.1** percent.
- ☐ There were **9,956** reported crashes, of which **36** were fatal, **1,332** were personal injury, and **8,588** were property damage only crashes.
- ☐ Of all fatal crashes, **16.7** percent occurred at intersections.
- ☐ Of all fatal crashes, **50.0** percent involved at least one drinking operator, bicyclist, or pedestrian, **27.8** percent involved drinking but no drugs, **2.8** percent involved drugs but no drinking, and **22.2** percent involved both drinking and drugs.
- ☐ Excessive speed was indicated as the hazardous action by **25.5** percent of the drivers involved in fatal crashes.
- ☐ In 2013, there were **6,059** single vehicle crashes, a decrease of **9.2** percent from last year's count of **6,672**.
- ☐ Of the **9,956** total crashes, **6,059 (60.9%)** involved one vehicle.
- ☐ Of the **36** fatal crashes, **21 (58.3%)** involved one vehicle.
- ☐ Of the **18** alcohol-related fatal crashes, **14 (77.8%)** involved one vehicle.
- ☐ Of the **51** drivers involved in fatal crashes, six (**11.8%**) was under 21 years of age.
- ☐ Of the **309,387** persons living in the Upper Peninsula [1. References and Reporting Agencies] one out of every **7,933** was killed in a traffic crash and one out of every **174** was injured.
- ☐ For each person killed, **46** persons were injured.
- ☐ The pedestrian death toll for the Upper Peninsula stands at three persons (ages 49, 54, and 91). Twenty-eight pedestrians were injured.
- ☐ For each pedestrian killed, there were nine pedestrians injured.
- ☐ Of the three pedestrians killed: two were standing/laying in the roadway, and one was in the roadway for another reason.

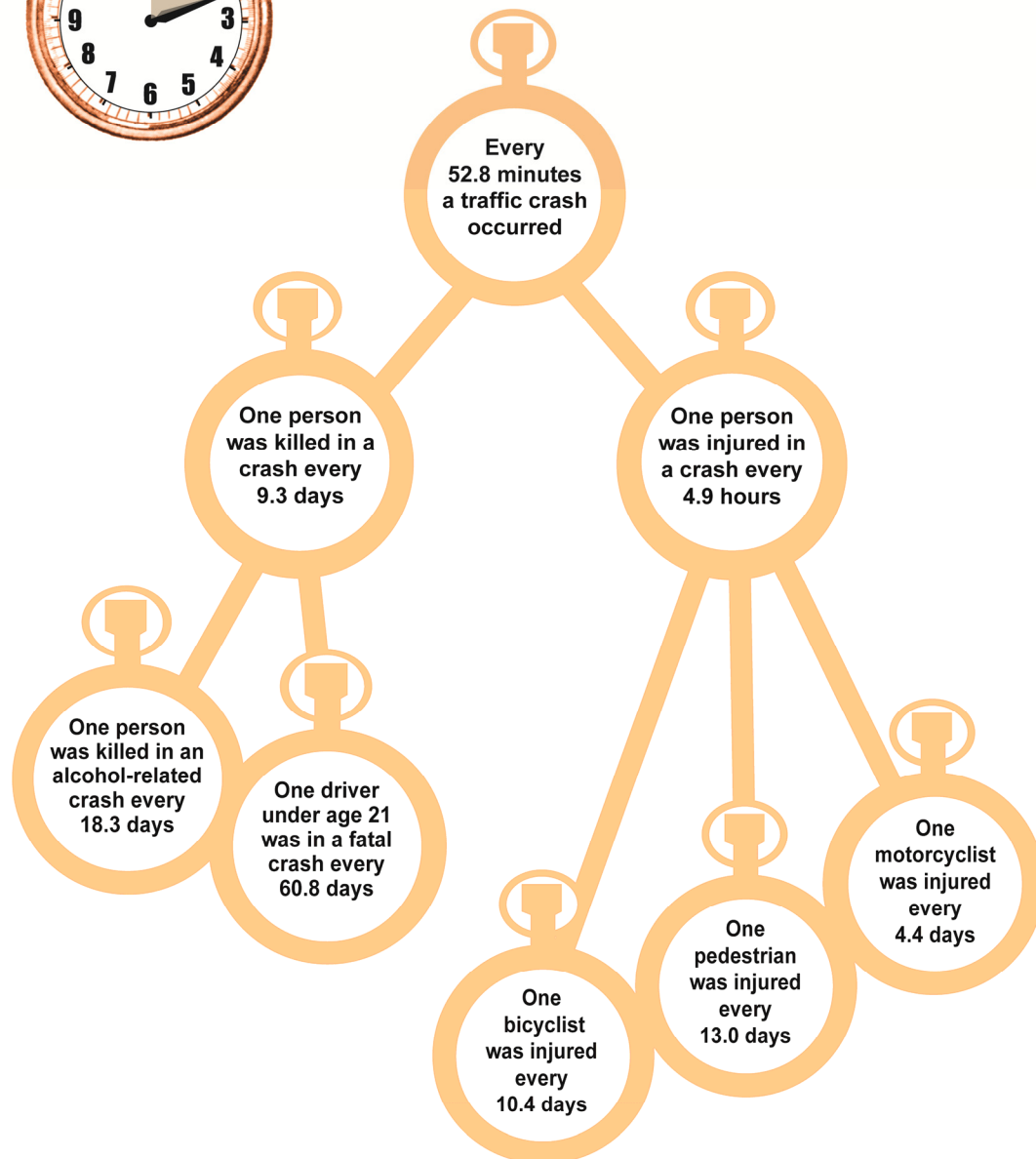


- ☐ There were no bicyclist fatalities and **35** bicyclists were injured.
- ☐ Of the **14,130** drivers and injured passengers involved in crashes, **12,578** or **89.0** percent were *reported* to have been using occupant restraints. Restraint usage among fatal victims, where usage was known, was reported to be **60.0** percent in 2013.
- ☐ Motor vehicle occupants age 75-110 had the highest reported restraint usage (**96.6%**). Children age 11-15 had the lowest reported restraint usage (**83.9%**).
- ☐ The economic loss in traffic crashes in the Upper Peninsula amounted to \$ (**see note**). If costs were spread across the Upper Peninsula's population this would translate into a loss of \$ (**see note**) per resident.

**Note: Information on the cost of crashes will be available from the National Safety Council later this year.**



## Crash Watch 2013 Upper Peninsula





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**Historical  
Information  
Upper Peninsula  
10-, 5-, and 1-year**

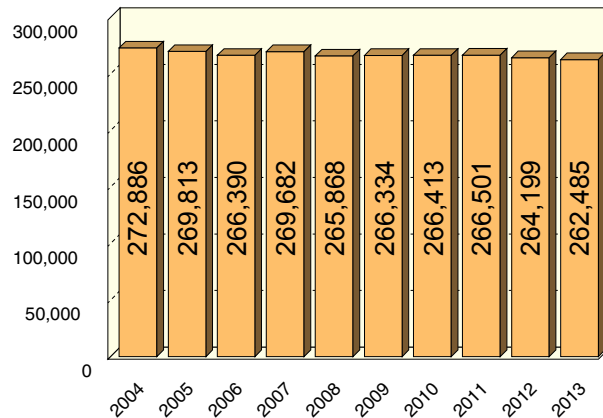






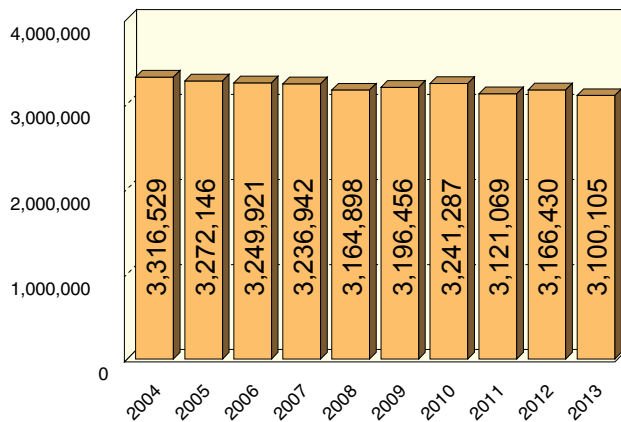
# 10 YEAR TRENDS

## UPPER PENINSULA VEHICLE REGISTRATIONS



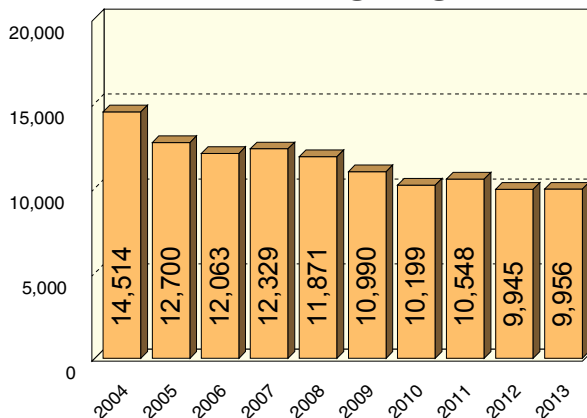
Vehicle registrations in the Upper Peninsula decreased 3.8 percent in the 10-year period.

## UPPER PENINSULA VEHICLE MILES TRAVELED



Vehicle miles traveled in the Upper Peninsula decreased 6.5 percent in the 10-year period.

## UPPER PENINSULA CRASHES

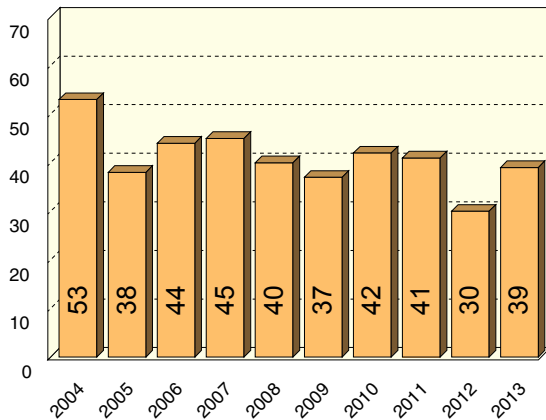


There were 9,956 Upper Peninsula crashes in 2013, a 31.4 percent decrease from 2004.



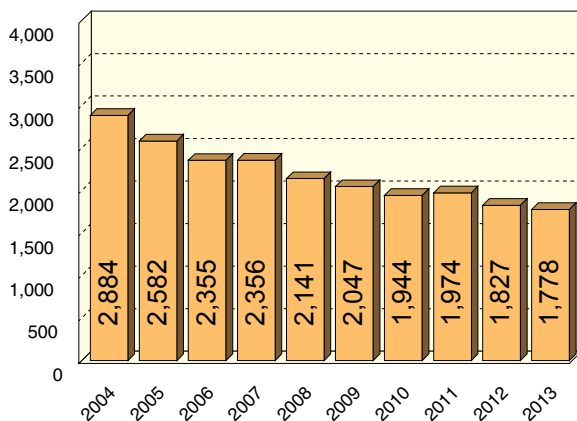
## 10 YEAR TRENDS (continued)

### UPPER PENINSULA DEATHS



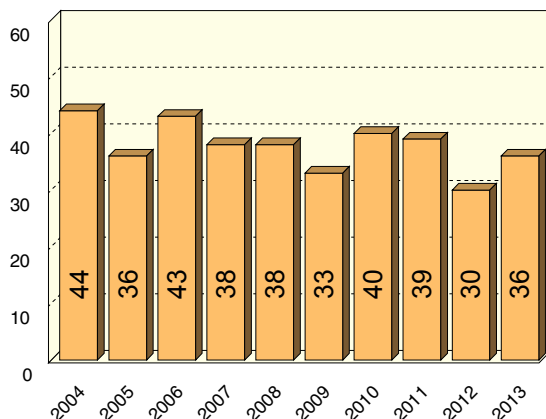
In 2013, 39 people died in motor vehicle crashes in the Upper Peninsula, a decrease of 26.4 percent from 2004.

### UPPER PENINSULA INJURIES



In 2013, 1,778 people received injuries in Upper Peninsula motor vehicle crashes, down 38.3 percent from 2,884 in 2004.

### UPPER PENINSULA FATAL CRASHES

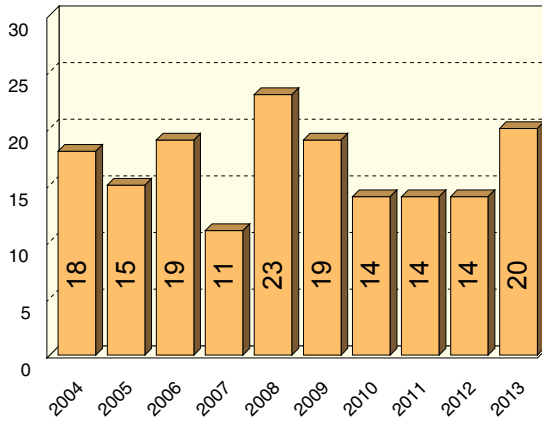


In 2013, there were 36 fatal crashes in the Upper Peninsula, down 18.2 percent from 44 in 2004.

## 10 YEAR TRENDS (continued)

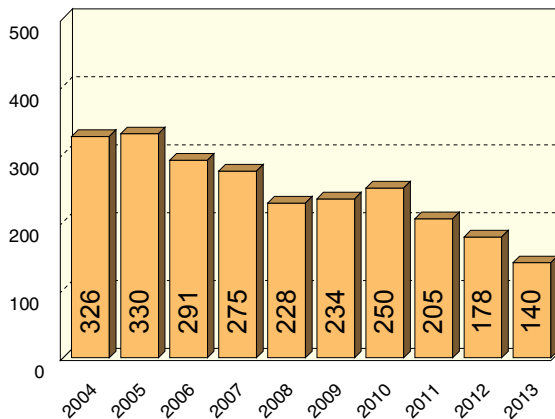


### UPPER PENINSULA HAD-BEEN-DRINKING FATALITIES



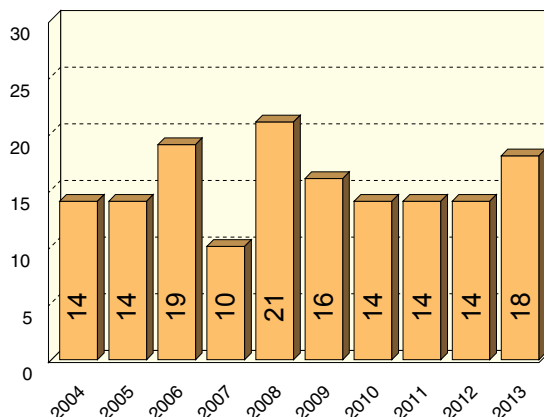
There were 20 deaths in alcohol-related crashes in the Upper Peninsula in 2013, up 11.1 percent from 2004.

### UPPER PENINSULA HAD-BEEN-DRINKING INJURIES

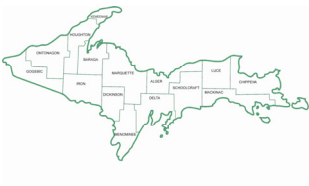


Had-been-drinking injuries were down 57.1 percent from 2004. In 2013, there were 140 injuries in crashes where the operator had been drinking.

### UPPER PENINSULA HAD-BEEN-DRINKING FATAL CRASHES

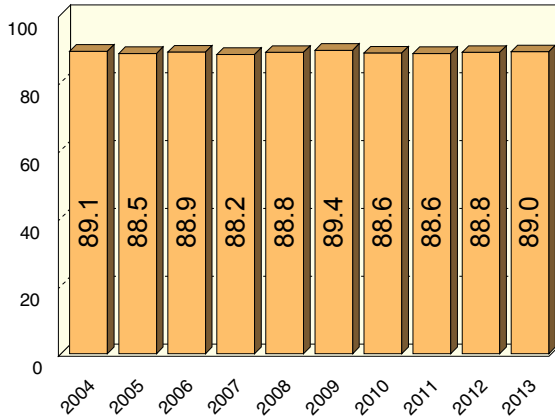


Alcohol involvement in fatal crashes in the Upper Peninsula was up 28.6 percent from 2004. In 2013, there were 18 fatal crashes where the operator had been drinking.



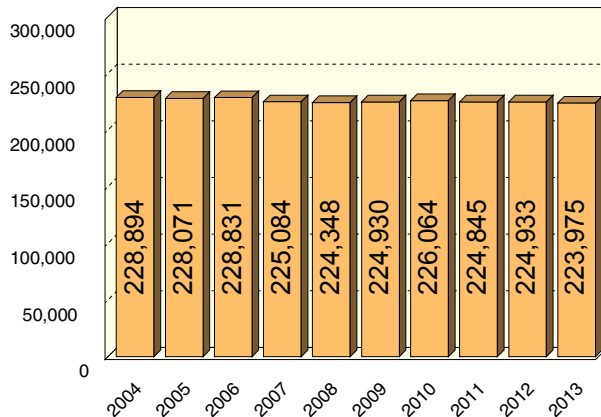
## 10 YEAR TRENDS (continued)

### UPPER PENINSULA RESTRAINT USAGE IN CRASHES



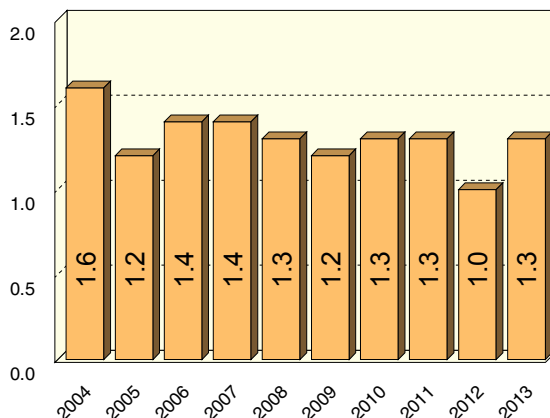
The percentage of motor vehicle occupants using restraints as reported by police in traffic crashes decreased 0.1 percent over the last ten years in the Upper Peninsula.

### UPPER PENINSULA DRIVERS



There were 223,975 licensed drivers on Upper Peninsula roadways in 2013, a 2.1 percent decrease from 2004.

### UPPER PENINSULA MILEAGE DEATH RATE

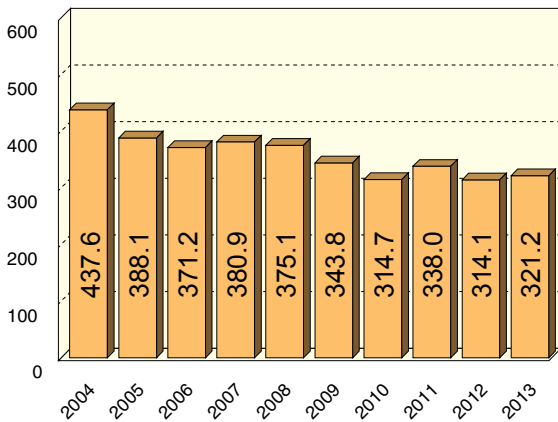


The 1.3 mileage death rate for the Upper Peninsula in 2013 was a 18.8 percent decrease from 1.6 in 2004.

## 10 YEAR TRENDS (continued)

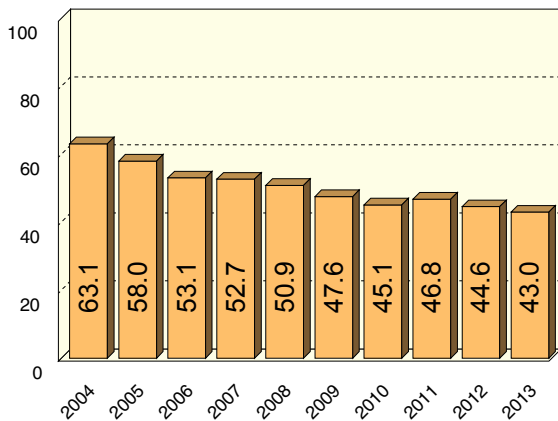


### UPPER PENINSULA TOTAL CRASH RATE



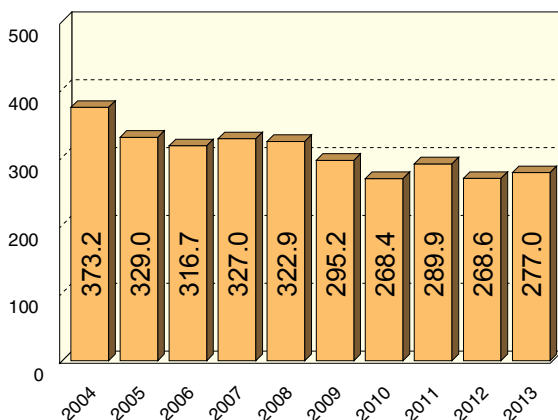
The 10-year total crash rate for the Upper Peninsula peaked in 2004 at 437.6, then decreased by 26.6 percent to 321.2 in 2013.

### UPPER PENINSULA INJURY CRASH RATE



The 10-year injury crash rate of 43.0 in the Upper Peninsula in 2013 was a 31.9 percent decrease from 2004.

### UPPER PENINSULA PROPERTY DAMAGE CRASH RATE



The property damage crash rate of 277.0 in the Upper Peninsula in 2013 was a 25.8 percent decrease from 2004.



## 10 YEAR TRENDS (continued)

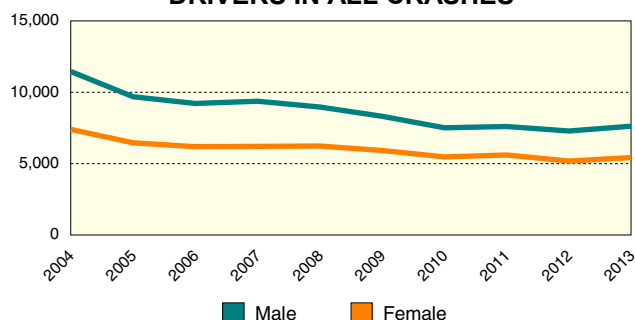
UPPER PENINSULA DRIVERS IN ALL CRASHES		
	Male	Female
2004	11,451	7,394
2005	9,688	6,462
2006	9,222	6,179
2007	9,384	6,203
2008	8,980	6,234
2009	8,319	5,918
2010	7,519	5,465
2011	7,590	5,610
2012	7,291	5,180
2013	7,633	5,418

UPPER PENINSULA DRIVERS IN FATAL CRASHES		
	Male	Female
2004	48	17
2005	39	14
2006	46	20
2007	48	10
2008	41	11
2009	38	10
2010	40	19
2011	47	14
2012	26	11
2013	38	12

UPPER PENINSULA DRINKING DRIVERS IN ALL CRASHES		
	Male	Female
2004	420	123
2005	440	109
2006	409	113
2007	361	116
2008	364	92
2009	343	93
2010	314	105
2011	291	120
2012	289	89
2013	250	77

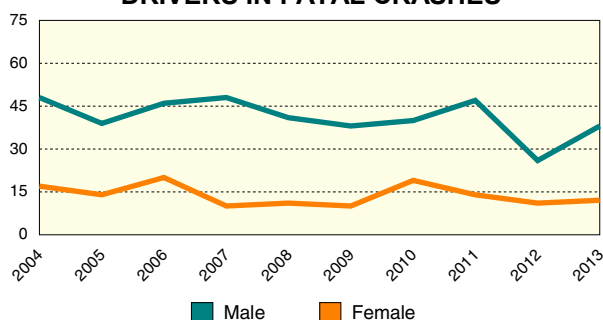
**Note:** 899 drivers in all crashes and 1 driver in a fatal crash were coded as unknown gender in 2013 and are not included in the tables.

### UPPER PENINSULA DRIVERS IN ALL CRASHES



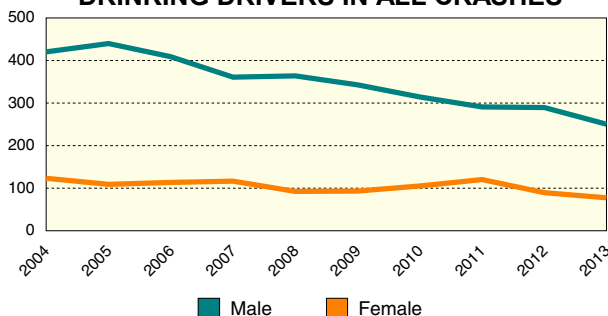
Male drivers accounted for 58.5 percent of all drivers in crashes in the Upper Peninsula during 2013, down from 60.8 percent in 2004. Female drivers accounted for 41.5 percent of all drivers in crashes during 2013, up from 39.2 percent in 2004.

### UPPER PENINSULA DRIVERS IN FATAL CRASHES



Male drivers made up 76.0 percent of all drivers in fatal crashes in the Upper Peninsula in 2013. The 38 male driver count was up from 73.8 percent in 2004. Female drivers made up 24.0 percent of all drivers in fatal crashes in 2013. The 12 female driver count was down from 26.2 percent in 2004.

### UPPER PENINSULA DRINKING DRIVERS IN ALL CRASHES

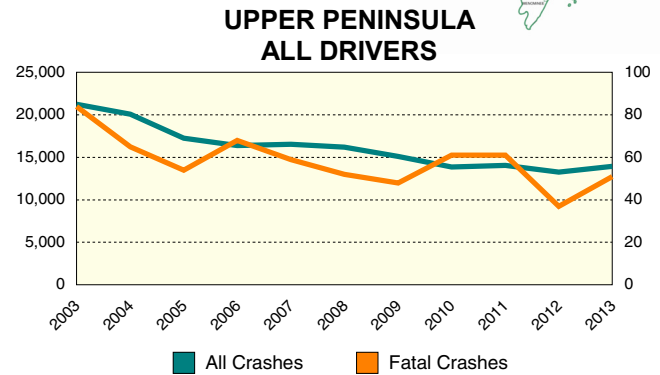


In 2013, males represented 76.5 percent of all drinking drivers in the Upper Peninsula. The 250 male driver count was down from 77.3 percent in 2004. Females represented 23.5 percent of all drinking drivers. The 77 female driver count was up from 22.7 percent in 2004.

# 10 YEAR TRENDS (continued)

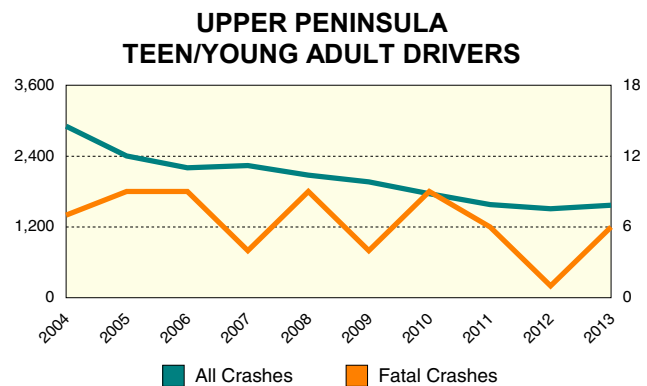


UPPER PENINSULA ALL DRIVERS		
	All Crashes	Fatal Crashes
2004	20,076	65
2005	17,275	54
2006	16,379	68
2007	16,555	59
2008	16,201	52
2009	15,105	48
2010	13,879	61
2011	14,059	61
2012	13,276	37
2013	13,950	51



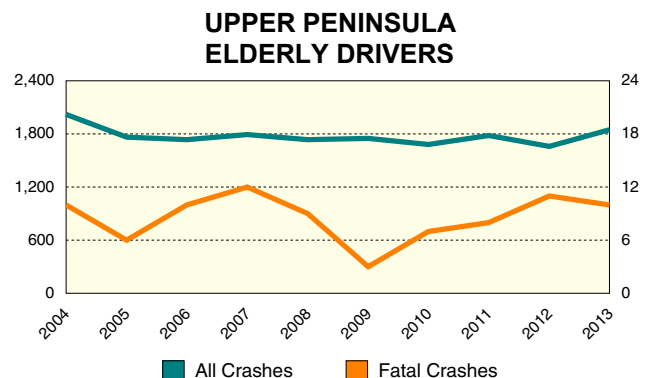
The number of drivers involved in all crashes in the Upper Peninsula decreased 30.5 percent over the 10-year period. The number of drivers involved in fatal crashes in the Upper Peninsula decreased 21.5 percent over the 10-year period.

UPPER PENINSULA TEEN/YOUNG ADULT DRIVERS (Age 16-20)		
	All Crashes	Fatal Crashes
2004	2,910	7
2005	2,406	9
2006	2,204	9
2007	2,239	4
2008	2,078	9
2009	1,966	4
2010	1,765	9
2011	1,581	6
2012	1,508	1
2013	1,568	6



The number of teen/young adult drivers (age 16-20) in all crashes in the Upper Peninsula has decreased by 56.4 percent since 2004. The number of teen/young adult drivers in fatal crashes in the Upper Peninsula has decreased by 14.3 percent since 2004.

UPPER PENINSULA ELDERLY DRIVERS (Age 65 & Over)		
	All Crashes	Fatal Crashes
2004	2,022	10
2005	1,766	6
2006	1,737	10
2007	1,795	12
2008	1,735	9
2009	1,752	3
2010	1,681	7
2011	1,784	8
2012	1,661	11
2013	1,850	10

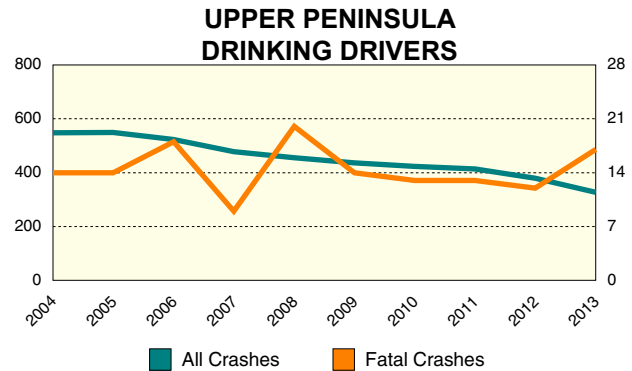


The number of drivers age 65 and over in all crashes in the Upper Peninsula has decreased 8.5 percent since 2004. Their involvement in fatal crashes is the same in 2013 as it was in 2004.



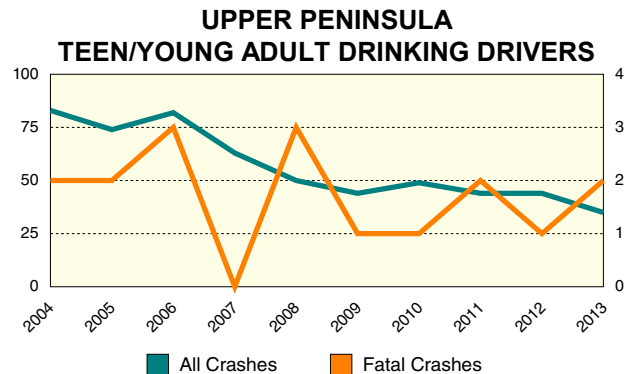
## 10 YEAR TRENDS (continued)

UPPER PENINSULA DRINKING DRIVERS		
	All Crashes	Fatal Crashes
2004	548	14
2005	549	14
2006	523	18
2007	478	9
2008	456	20
2009	436	14
2010	423	13
2011	414	13
2012	379	12
2013	327	17



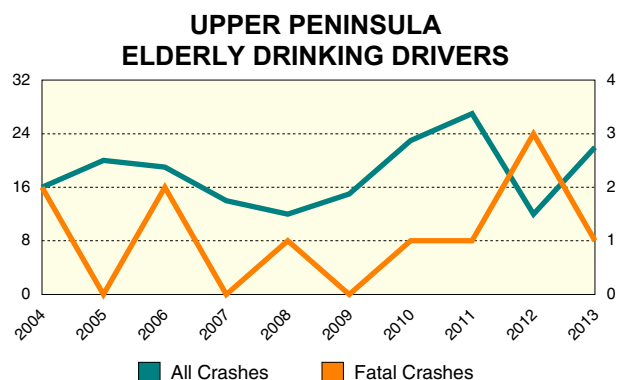
Drinking driver involvement in all crashes in the Upper Peninsula decreased by 32.1 percent since 2004. Drinking driver involvement in fatal crashes decreased by 28.2 percent from 2004.

UPPER PENINSULA TEEN/YOUNG ADULT DRINKING DRIVERS (Age 16-20)		
	All Crashes	Fatal Crashes
2004	83	2
2005	74	2
2006	82	3
2007	63	0
2008	50	3
2009	44	1
2010	49	1
2011	44	2
2012	44	1
2013	35	2



The number of teen/young adult drinking drivers (age 16-20) in all crashes in the Upper Peninsula decreased by 57.8 percent, and their involvement in fatal crashes decreased by 40.7 percent from 2004.

UPPER PENINSULA ELDERLY DRINKING DRIVERS (Age 65 & Over)		
	All Crashes	Fatal Crashes
2004	16	2
2005	20	0
2006	19	2
2007	14	0
2008	12	1
2009	15	0
2010	23	1
2011	27	1
2012	12	3
2013	22	1



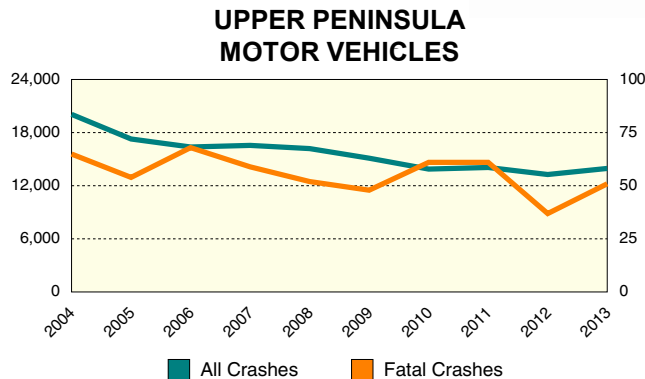
The number of elderly drinking drivers (age 65 and over) in all crashes in the Upper Peninsula has increased 37.5 percent over the 10-year period. Their involvement in fatal crashes decreased by 50.0 percent from 2004.



# 10 YEAR TRENDS (continued)

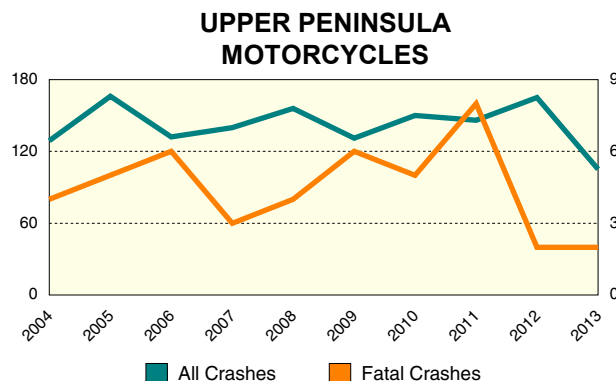


UPPER PENINSULA MOTOR VEHICLES		
	All Crashes	Fatal Crashes
2004	20,076	65
2005	17,275	54
2006	16,379	68
2007	16,555	59
2008	16,201	52
2009	15,105	48
2010	13,879	61
2011	14,059	61
2012	13,276	37
2013	13,950	51



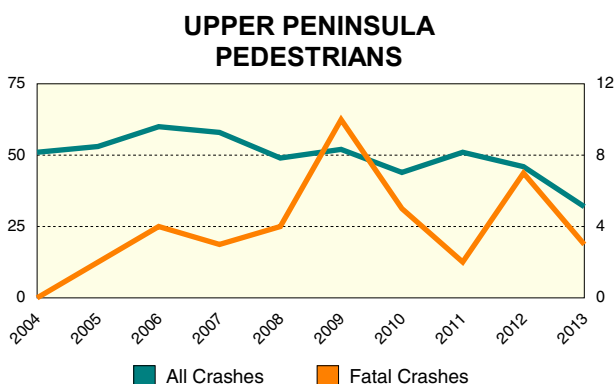
There were 13,950 motor vehicles involved in all Upper Peninsula crashes in 2013, down 30.5 percent from 2004. There were 51 motor vehicles involved fatal crashes in 2013, down 21.5 percent from 2004.

UPPER PENINSULA MOTORCYCLES		
	All Crashes	Fatal Crashes
2004	129	4
2005	166	5
2006	132	6
2007	140	3
2008	156	4
2009	131	6
2010	150	5
2011	146	8
2012	165	2
2013	105	2



There were 105 motorcycles involved in crashes in the Upper Peninsula in 2013, a 18.6 percent increase from 2004. There were 2 motorcycles involved in fatal crashes in 2013, down 50.0 percent from 2004.

UPPER PENINSULA PEDESTRIANS		
	All Crashes	Fatal Crashes
2004	51	0
2005	53	2
2006	60	4
2007	58	3
2008	49	4
2009	52	10
2010	44	5
2011	51	2
2012	46	7
2013	32	3

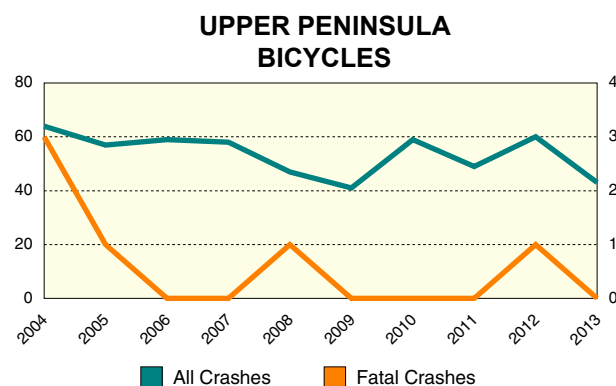


There were 32 pedestrians involved in crashes in the Upper Peninsula in 2013, down 37.3 percent from 2004. There were 3 pedestrians involved in fatal crashes in 2013, up from 0 in 2004.



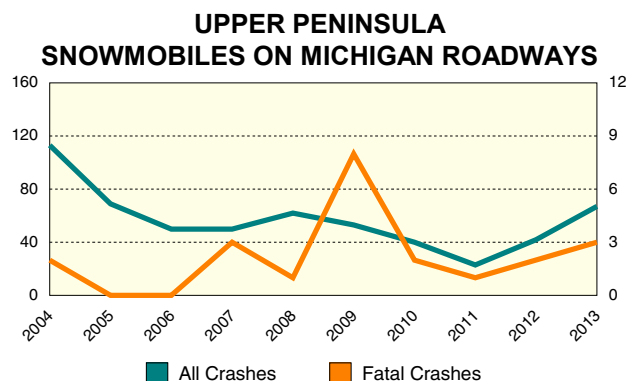
## 10 YEAR TRENDS (continued)

UPPER PENINSULA BICYCLES		
	All Crashes	Fatal Crashes
2004	64	3
2005	57	1
2006	59	0
2007	58	0
2008	47	1
2009	41	0
2010	59	0
2011	49	0
2012	60	1
2013	43	0



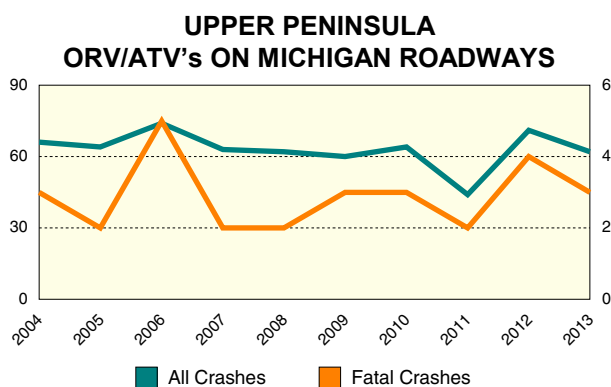
There were 43 bicycles involved in Upper Peninsula crashes in 2013, down 32.8 percent from 2004. There were 0 bicycles involved in fatal crashes in 2013, compared to 3 bicycles involved in fatal crashes in 2004.

UPPER PENINSULA SNOWMOBILES ON MICHIGAN ROADWAYS		
	All Crashes	Fatal Crashes
2004	113	2
2005	69	0
2006	50	0
2007	50	3
2008	62	1
2009	53	8
2010	40	2
2011	23	1
2012	42	2
2013	67	3



There were 67 snowmobile crashes on roadways in the Upper Peninsula in 2013, down 40.7 percent from 2004. There were 3 fatal snowmobile crashes, up 50.0 percent from 2004.

UPPER PENINSULA ORV/ATVs ON MICHIGAN ROADWAYS		
	All Crashes	Fatal Crashes
2004	66	3
2005	64	2
2006	74	5
2007	63	2
2008	62	2
2009	60	3
2010	64	3
2011	44	2
2012	71	4
2013	62	3

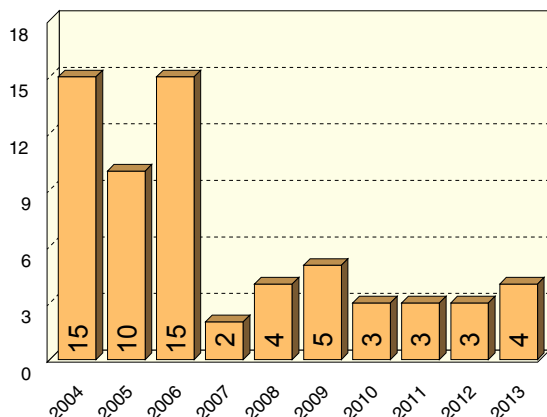


There were 62 ORV/ATV crashes on roadways in the Upper Peninsula in 2013, down 6.1 percent from 2004. There were 3 fatal ORV/ATV crashes in both 2004 and 2013.

# 10 YEAR TRENDS (continued)

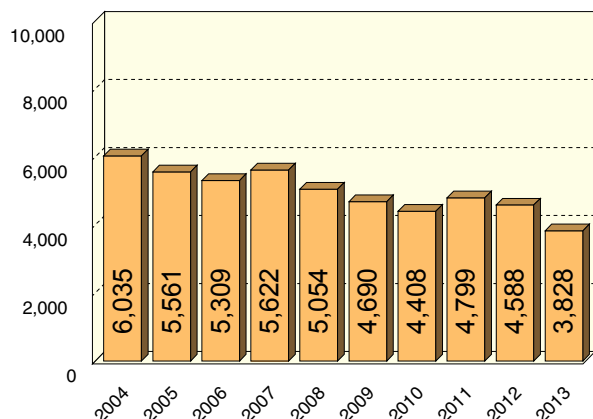


## UPPER PENINSULA VEHICLE-TRAIN CRASHES



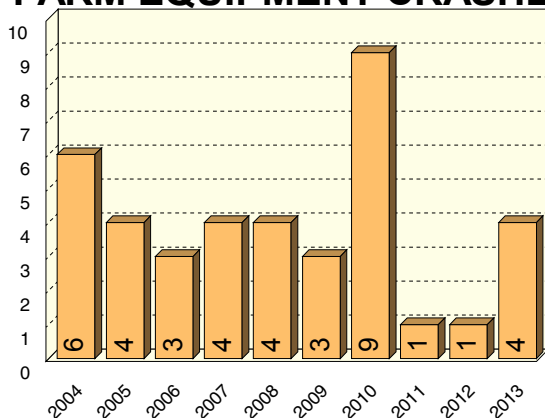
There were four vehicle-train crashes in the Upper Peninsula in 2013, a decrease of 73.3 percent in the 10-year period.

## UPPER PENINSULA VEHICLE-DEER CRASHES



The number of vehicle-deer crashes in the Upper Peninsula decreased 36.6 percent in the 10-year period to 3,828 in 2013.

## UPPER PENINSULA FARM EQUIPMENT CRASHES

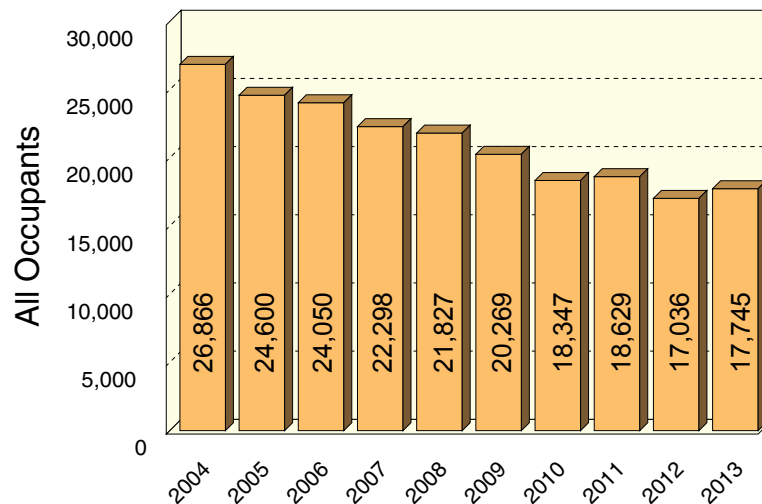


There were four farm equipment crashes in the Upper Peninsula in 2013, an increase of 33.3 percent from 2004.



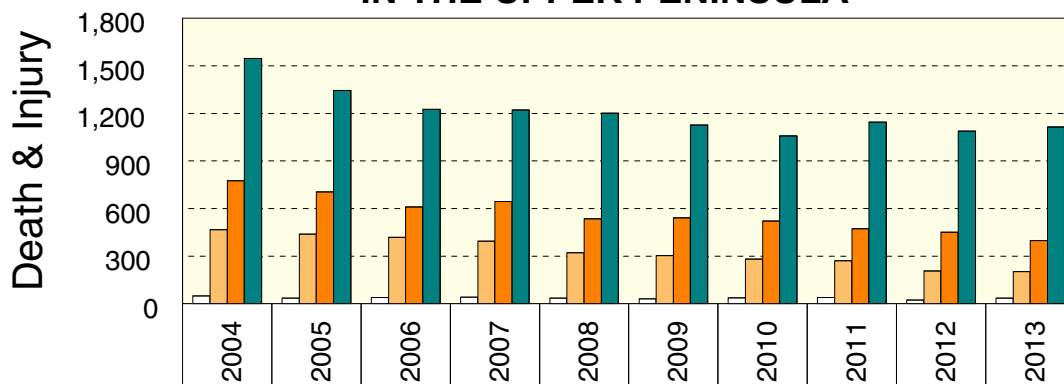
## 10 YEAR TRENDS (continued)

### INJURED OCCUPANTS IN CRASHES IN THE UPPER PENINSULA



Note: The all-occupant figure is the number of occupants recorded by the police officers on the UD-10.

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

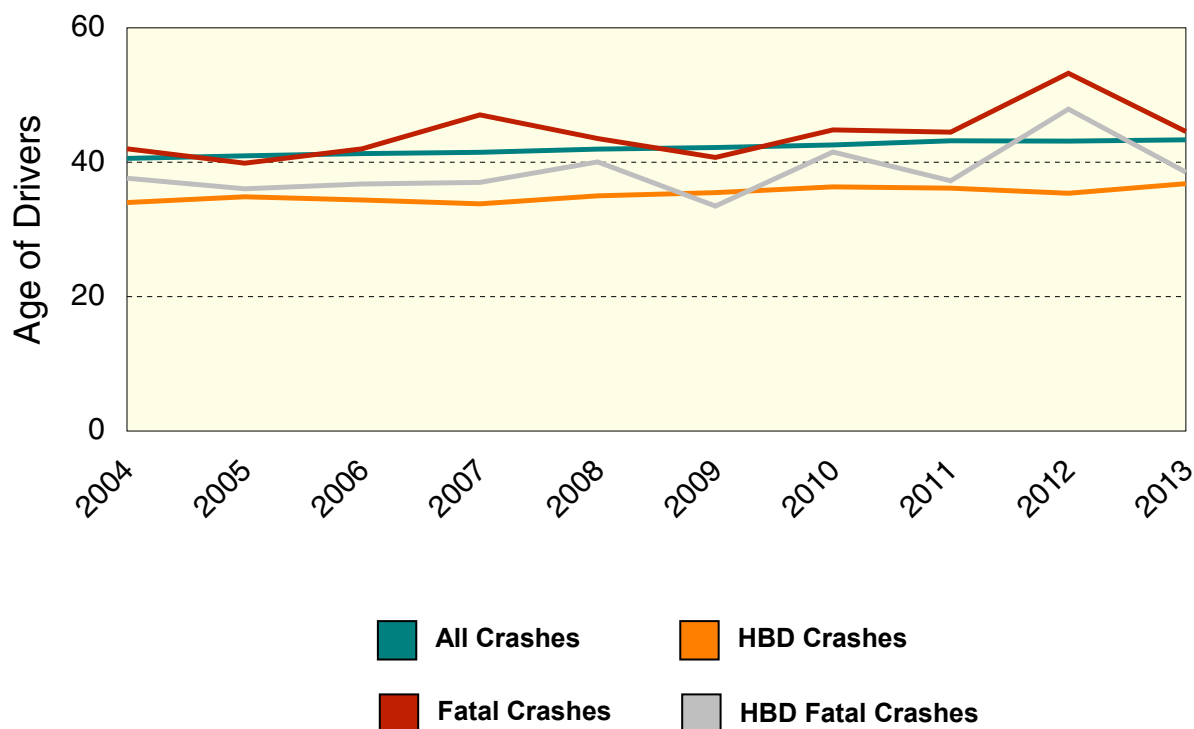


	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Totals
K - Killed	50	35	40	42	35	32	38	39	23	36	370
A - Injured	468	438	419	394	322	304	281	271	206	202	3,305
B - Injured	776	706	611	645	535	541	522	472	451	399	5,658
C - Injured	1,546	1,344	1,226	1,221	1,201	1,127	1,058	1,144	1,088	1,114	12,069

## 10 YEAR TRENDS (continued)



### UPPER PENINSULA AVERAGE AGE OF DRIVERS IN CRASHES 2004 - 2013



The average age of drivers involved in fatal and HBD fatal Upper Peninsula crashes has varied over the 10-year period, with a recent decrease in 2013. The HBD crash average age has increased more than eight percent and the average age for all crashes has increased slightly (6.8%) over the 10-year period to age 42.



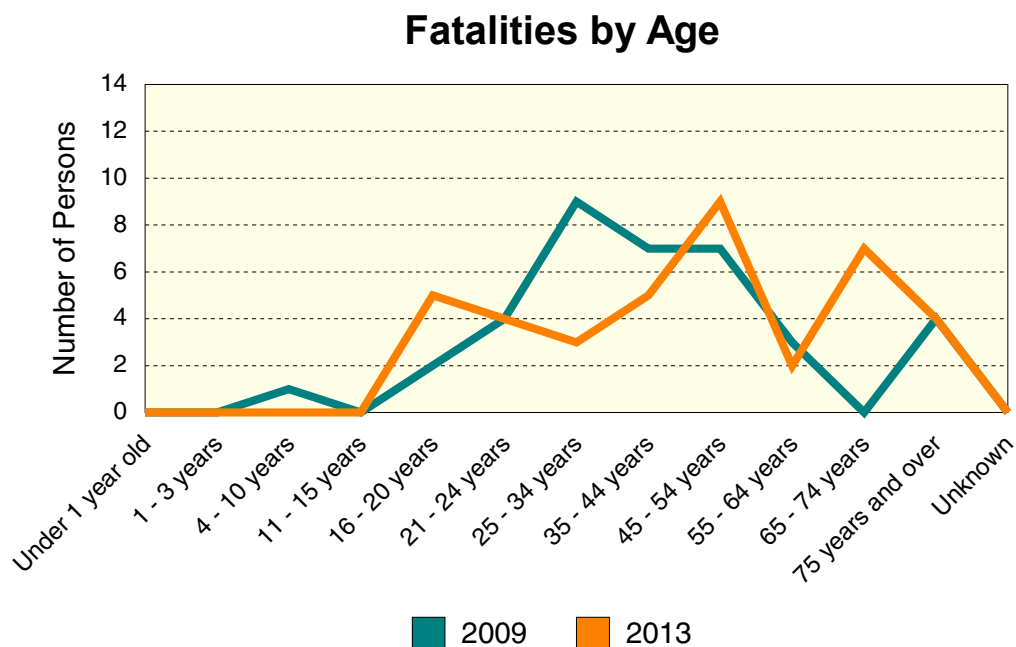


# 5

## YEAR TRENDS

### UPPER PENINSULA TREND DATA FOR FATALITIES

TREND DATA FOR FATALITIES	2009	2010	2011	2012	2013
<b>Fatalities by Age</b>					
Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	1	1	0	0	0
11 - 15 years	0	0	1	0	0
16 - 20 years	2	6	4	1	5
21 - 24 years	4	0	3	1	4
25 - 34 years	9	5	5	2	3
35 - 44 years	7	8	4	3	5
45 - 54 years	7	6	12	8	9
55 - 64 years	3	9	5	4	2
65 - 74 years	0	2	4	5	7
75 years and over	4	5	3	6	4
Unknown	0	0	0	0	0
Totals	37	42	41	30	39





## 5 YEAR TRENDS (continued)

### UPPER PENINSULA TREND DATA FOR FATALITIES (continued)

TREND DATA FOR FATALITIES	2009	2010	2011	2012	2013
<b>Age of Drivers Involved in Fatal Crashes</b>					
13 years and under	0	0	0	0	0
14 years	0	0	0	0	0
15 years	0	0	1	0	0
16 years	0	0	1	0	0
17 years	2	1	0	0	1
18 years	0	2	3	0	1
19 years	1	2	2	1	3
20 years	1	4	0	0	1
21 - 24 years	5	3	6	0	5
25 - 34 years	11	7	8	5	6
35 - 44 years	12	11	6	5	7
45 - 54 years	7	9	17	12	10
55 - 64 years	6	13	9	3	6
65 - 69 years	0	3	2	3	4
70 - 74 years	0	1	2	3	4
75 - 79 years	0	0	1	0	0
80 - 84 years	2	1	2	1	1
85 - 89 years	0	2	1	3	1
90 years and over	1	0	0	1	0
Unknown	0	2	0	0	1
Totals	48	61	61	37	50

#### 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	1	0	0
16 years	0	0	1	0	0
17 years	1	0	0	0	1
18 years	0	0	1	0	1
19 years	0	2	1	1	1
20 years	0	2	0	0	0
21 - 24 years	3	0	4	0	3
25 - 34 years	5	3	1	3	2
35 - 44 years	6	3	2	3	3
45 - 54 years	4	6	5	7	6
55 - 64 years	4	5	1	1	3
65 - 69 years	0	1	1	3	1
70 - 74 years	0	0	0	2	1
75 - 79 years	0	0	0	0	0
80 - 84 years	0	0	1	0	0
85 - 89 years	0	0	0	2	0
90 years and over	0	0	0	1	0
Unknown	0	1	0	0	0
Totals	23	23	19	23	22



# 5 YEAR TRENDS (continued)

## UPPER PENINSULA

### TREND DATA FOR FATALITIES (continued)



TREND DATA FOR FATALITIES	2009	2010	2011	2012	2013
---------------------------	------	------	------	------	------

#### Age of Bicyclists Killed

Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	0	0	0	0
21 - 24 years	0	0	0	0	0
25 - 34 years	0	0	0	0	0
35 - 44 years	0	0	0	0	0
45 - 54 years	0	0	0	0	0
55 - 64 years	0	0	0	0	0
65 - 74 years	0	0	0	0	0
75 years and over	0	0	0	1	0
Unknown	0	0	0	0	0
Totals	0	0	0	1	0

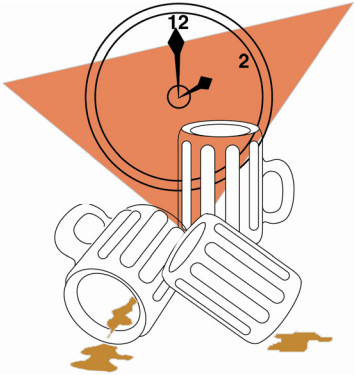
#### Age of Pedestrians Killed

Under 1 year old	0	0	0	0	0
1 - 3 years	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	0	1	0	0
21 - 24 years	1	0	0	0	0
25 - 34 years	3	0	0	1	0
35 - 44 years	0	2	1	1	0
45 - 54 years	1	0	0	1	2
55 - 64 years	0	1	0	1	0
65 - 74 years	0	1	0	1	0
75 years and over	0	0	0	1	1
Unknown	0	0	0	0	0
Totals	5	4	2	6	3



## 5 YEAR TRENDS (continued)

### FATAL CRASHES AND PERSONS KILLED FOR SELECT HOLIDAY PERIODS IN THE UPPER PENINSULA

HOLIDAY PERIOD	Fatal Crashes	Persons Killed	SUMMARY 2013
<b>Memorial Day</b> 2013 (3) MON 2012 (3) MON 2011 (3) MON 2010 (3) MON 2009 (3) MON	1 [0] 0 [0] 1 [1] 1 [0] 1 [1]	1 [0] 0 [0] 1 [1] 2 [0] 1 [1]	<p>This table shows traffic death tolls in the Upper Peninsula for the past five years for the major holiday periods as defined by the National Safety Council.</p> <p>Based on the <i>total</i> 2013 Upper Peninsula experience, deaths averaged <b>3.3 per month</b>. Alcohol-related deaths averaged <b>1.7 per month</b>.</p> <p>Based on the <b>2013</b> Upper Peninsula <i>holiday period</i> experience, deaths averaged <b>1.0 per month</b>. Alcohol-related deaths averaged <b>0.2 per month</b>.</p> 
<b>Fourth of July</b> 2013 (4) THU 2012 (1) WED 2011 (3) MON 2010 (3) SUN 2009 (3) SAT	1 [1] 2 [1] 0 [0] 1 [0] 0 [0]	1 [1] 2 [1] 0 [0] 1 [0] 0 [0]	
<b>Labor Day</b> 2013 (3) MON 2012 (3) MON 2011 (3) MON 2010 (3) MON 2009 (3) MON	0 [0] 0 [0] 0 [0] 0 [0] 1 [0]	0 [0] 0 [0] 0 [0] 0 [0] 1 [0]	
<b>Thanksgiving</b> 2013 (4) THU 2012 (4) THU 2011 (4) THU 2010 (4) THU 2009 (4) THU	0 [0] 0 [0] 0 [0] 0 [0] 0 [0]	0 [0] 0 [0] 0 [0] 0 [0] 0 [0]	
<b>Christmas</b> 2013 (1) WED 2012 (4) TUES 2011 (3) SUN 2010 (3) SAT 2009 (3) FRI	0 [0] 1 [1] 0 [0] 0 [0] 0 [0]	0 [0] 1 [1] 0 [0] 0 [0] 0 [0]	
<b>New Years</b> 2013 (1) WED 2012 (4) TUES 2011 (3) SUN 2010 (3) SAT 2009 (3) FRI	0 [0] 1 [1] 0 [0] 0 [0] 2 [0]	0 [0] 1 [1] 0 [0] 0 [0] 2 [0]	

Figures in parentheses in the 1<sup>st</sup> 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 2<sup>nd</sup> and 3<sup>rd</sup> columns show the number of alcohol-related fatal crashes and deaths. Please view the [glossary](#) for an explanation of holiday periods.

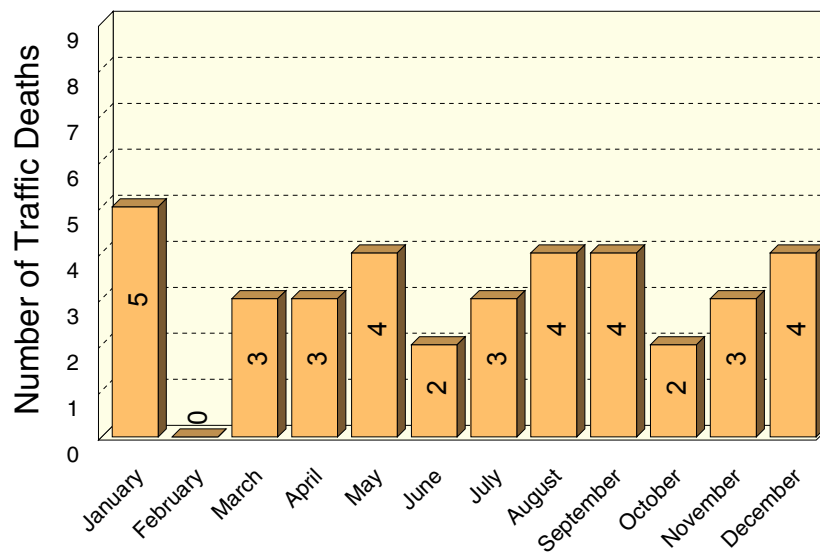
## 5 YEAR TRENDS (continued)



### UPPER PENINSULA MOTOR VEHICLE DEATHS

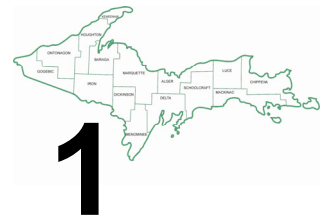
Month	TRAFFIC DEATHS					2013 Percent Deaths
	2009	2010	2011	2012	2013	
January	5	5	5	3	5	13.5
February	2	5	2	2	0	0.0
March	1	2	3	1	3	8.1
April	3	2	0	0	3	8.1
May	1	3	2	1	4	10.8
June	4	4	6	4	2	5.4
July	6	3	4	5	3	8.1
August	3	3	7	2	4	10.8
September	5	2	2	1	4	10.8
October	5	8	3	2	2	5.4
November	0	2	3	4	3	8.1
December	2	3	4	5	4	10.8
Totals	37	42	41	30	37	100.0

### 2013 Upper Peninsula Motor Vehicle Deaths





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## UPPER PENINSULA 2012 - 2013 SUMMARY TRENDS

- ★ Upper Peninsula experienced a **30.0** percent decrease in traffic fatalities, a **2.7** percent decrease in injuries, and a **0.1** percent increase in crashes.
- ★ Deaths among vehicle occupants (drivers and passengers only) increased **80.0** percent.
- ★ Persons sustaining "A" level injuries (the most serious) decreased **2.8** percent.

	2012	2013	% CHANGE
<b>NUMBER OF CRASHES</b>			
Fatal Crashes .....	30	36	20.0
Personal Injury Crashes .....	1,411	1,332	-5.6
Property Damage Crashes .....	8,504	8,588	1.0
<b>Total</b>	<b>9,945</b>	<b>9,956</b>	<b>0.1</b>
<b>ALCOHOL-INVOLVED CRASHES</b>			
Fatal Crashes .....	14	18	28.6
Personal Injury Crashes .....	145	108	-25.5
Property Damage Crashes .....	222	203	-8.6
<b>Total</b>	<b>381</b>	<b>329</b>	<b>-13.7</b>
<b>FATAL CRASHES</b>			
Had Been Drinking (HBD) .....	14 (46.7%)	18 (50.0%)	28.6
Had Not Been Drinking / Not Known If Drinking	16 (53.3%)	18 (50.0%)	12.5
<b>PERSONS IN CRASHES</b>			
Killed .....	30	39	30.0
Injured .....	1,827	1,778	-2.7
Not Injured .....	12,955	13,666	5.5
Unknown Injury .....	942	1,051	11.6
<b>Total</b>	<b>15,754</b>	<b>16,534</b>	<b>4.9</b>
<b>PERSONS IN ALCOHOL-INVOLVED CRASHES</b>			
Killed .....	14	20	42.9
Injured .....	178	140	-21.4
Not Injured .....	388	355	-8.5
Unknown Injury .....	56	41	-28.6
<b>Total</b>	<b>626</b>	<b>556</b>	<b>-11.2</b>
<b>PERSONS INJURED BY GENDER</b>			
Male .....	962	852	-11.4
Female .....	860	923	7.3
Unknown Gender.....	5	3	-40.0
<b>Total</b>	<b>1,827</b>	<b>1,778</b>	<b>-2.7</b>
<b>PERSONS INJURED BY SEVERITY</b>			
"A" Injury .....	218	212	-2.8
"B" Injury .....	486	422	-13.2
"C" Injury .....	1,123	1,144	1.9
<b>Total</b>	<b>1,827</b>	<b>1,778</b>	<b>-2.7</b>



# 1 YEAR TRENDS (continued)

## UPPER PENINSULA 2012 - 2013 SUMMARY TRENDS (continued)

	2012	2013	% CHANGE
<b>PERSONS KILLED BY GENDER</b>			
Male .....	21	25	-16.0
Female .....	9	14	55.6
<b>Total</b>	30	39	30.0
<b>PERSONS KILLED</b>			
Driver .....	12	22	83.3
Passenger .....	3	5	66.7
Pedestrian .....	6	3	50.0
Bicyclist .....	1	0	-100.0
Motorcyclist .....	2	2	0.0
Farm Equipment .....	0	0	0.0
Train Engineer .....	0	0	0.0
Snowmobile .....	2	3	50.0
ORV/ATV .....	4	3	-25.0
Other/Unknown .....	0	2	200.0
<b>Total</b>	30	39	30.0
<b>BELT RESTRAINT USE BY DRIVER</b>			
"Reported Restrained" - Killed .....	7	11	57.1
"Reported Not Restrained" - Killed .....	5	10	100.0
"Reported Restrained" - Injured .....	957	1,026	7.2
"Reported Not Restrained" - Injured .....	71	54	-23.9
<b>BELT RESTRAINT USE BY INJURED PASSENGER</b>			
"Reported Restrained" - Killed .....	7	4	-42.8
"Reported Not Restrained" - Killed .....	2	0	-100.0
"Reported Restrained" - Injured .....	348	357	2.6
"Reported Not Restrained" - Injured .....	50	48	-4.0
<b>DRIVER AGE 16-20 INVOLVED</b>			
Fatal Crashes .....	1	6	500.0
Personal Injury Crashes .....	296	281	-5.1
Property Damage Crashes .....	1,144	1,266	10.7
<b>Total All Crashes</b>	1,441	1,553	7.8
Persons Killed .....	1	6	500.0
Persons Injured .....	410	412	0.5
<b>DRIVER AGE 65 &amp; OVER INVOLVED</b>			
Fatal Crashes .....	11	8	-27.3
Personal Injury Crashes .....	249	272	9.2
Property Damage Crashes .....	1,326	1,470	7.9
<b>Total All Crashes</b>	1,586	1,750	10.3
Persons Killed .....	11	10	-9.1
Persons Injured .....	360	392	8.9

# 1 YEAR TRENDS (continued)



## MORE UPPER PENINSULA CRASH FACTS

CRASH FACTS	2012	2013	% Change
Licensed Drivers	224,933	223,975	-0.4
Registered Vehicles	264,199	262,485	-0.7
Population	310,787	309,387	-0.5
Drivers Involved in Crashes	13,276	13,950	5.1
Occupants Involved in Crashes	17,036	17,792	4.4
Estimated MV Mileage Traveled (thousands)	3,960,576	3,100,105	-21.7
Death Rate Per 100 Million Vehicle Miles	1.0	1.3	30.0
Fatal Crash Rate Per 100 Million Veh Miles	1.0	1.2	19.9



## UPPER PENINSULA 2013 COST OF CRASHES

The cost estimate for Upper Peninsula crashes in 2013 is **\$ (see note)**. This estimate is based on the National Safety Council's [3] cost estimating procedures. Average comprehensive costs are based on the following figures:

Comprehensive Costs, 2013	
Death .....	\$
Incapacitating injury .....	\$
Nonincapacitating evident injury .....	\$
Possible injury .....	\$
No injury .....	\$

These cost estimates are not intended for comparisons to previous years. Deaths and injuries are calculated by number of persons. "No injury" is calculated per crash.

Note: Information on the cost of crashes will be available from the National Safety Council later this year.







## MOTOR VEHICLE TRAFFIC DEATHS BY MONTH UPPER PENINSULA 1982 - 2013

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	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



## MOTOR VEHICLE TRAFFIC CRASH AND RELATED DATA UPPER PENINSULA 1982 - 2013

Year	Deaths	Injuries	Crashes	Estimated Mileage	Motor Vehicle Registrations*	Death Rate Per 100 million miles of travel
1982	58	3,546	11,137	data not available	data not available	data not available
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

\* Excludes trailers and trailer coaches, and includes mopeds

2013

2013

2013

2013

2013

2013

2013

2013

**Age**  
**Upper Peninsula**





## UPPER PENINSULA AGE and INJURY SEVERITY by PERSON TYPE

Age	Driver			Injured Passenger			Motorcyclist			Bicyclist			Pedestrian		
	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
0*	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0
1	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0
2	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
3	1	0	0	6	0	6	0	0	0	0	0	0	0	0	0
4	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0
5	0	0	0	3	0	3	0	0	0	0	0	0	0	0	0
6	0	0	0	3	0	3	0	0	0	1	0	1	0	0	0
7	0	0	0	3	0	3	0	0	0	1	0	1	1	0	1
8	1	0	1	6	0	6	1	0	1	0	0	0	1	0	1
9	0	0	0	7	0	7	0	0	0	2	0	1	0	0	0
10	0	0	0	7	0	7	0	0	0	3	0	3	1	0	1
11	2	0	1	2	0	2	0	0	0	1	0	0	3	0	3
12	2	0	1	7	0	7	0	0	0	0	0	0	0	0	0
13	3	0	1	17	0	17	0	0	0	1	0	0	0	0	0
14	8	0	5	8	0	8	0	0	0	3	0	3	1	0	1
15	20	0	8	24	0	24	0	0	0	2	0	2	0	0	0
16	217	0	30	20	0	20	2	0	2	1	0	1	1	0	1
17	313	1	43	15	0	15	1	0	1	0	0	0	2	0	2
18	347	0	32	19	0	19	1	0	1	0	0	0	1	0	1
19	347	2	22	12	1	11	0	0	0	7	0	7	1	0	1
20	344	1	29	9	0	9	0	0	0	3	0	2	0	0	0
21	355	1	30	15	0	15	3	1	1	0	0	0	0	0	0
22	347	0	36	8	0	8	1	0	1	2	0	2	0	0	0
23	335	1	39	6	0	6	2	0	2	0	0	0	0	0	0
24	247	2	23	14	0	14	4	0	3	2	0	2	1	0	1
25	232	1	19	7	0	7	1	0	1	0	0	0	2	0	2
26	212	0	21	5	0	5	2	0	2	1	0	1	1	0	1
27	207	0	17	7	0	7	3	0	2	0	0	0	0	0	0
28	194	0	16	7	0	7	2	0	1	0	0	0	0	0	0
29	206	1	24	10	0	10	0	0	0	1	0	1	0	0	0
30	188	1	16	3	0	3	1	0	0	0	0	0	0	0	0
31	194	0	14	4	0	4	0	0	0	0	0	0	0	0	0
32	208	0	21	0	0	0	1	0	0	0	0	0	1	0	1

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



## UPPER PENINSULA AGE and INJURY SEVERITY by PERSON TYPE (continued)

Age	Driver			Injured Passenger			Motorcyclist			Bicyclist			Pedestrian		
	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
33	186	0	21	3	0	3	0	0	0	0	0	0	0	0	0
34	186	0	18	1	0	1	2	0	1	0	0	0	0	0	0
35	191	1	20	4	0	4	2	0	2	0	0	0	0	0	0
36	199	1	24	5	0	5	2	0	2	0	0	0	0	0	0
37	186	0	18	1	0	1	1	0	1	1	0	1	0	0	0
38	172	0	14	4	0	4	2	0	2	0	0	0	0	0	0
39	170	1	20	1	0	1	2	0	1	1	0	0	0	0	0
40	193	0	17	1	0	1	1	0	1	0	0	0	0	0	0
41	194	1	26	7	0	7	1	0	1	0	0	0	0	0	0
42	198	0	23	4	0	4	2	0	2	0	0	0	0	0	0
43	196	0	22	8	0	8	0	0	0	1	0	1	0	0	0
44	180	1	10	5	0	5	1	0	1	0	0	0	1	0	1
45	183	1	18	2	0	2	1	0	1	0	0	0	0	0	0
46	217	0	25	5	1	4	6	0	4	0	0	0	1	0	1
47	206	0	14	6	0	6	0	0	0	0	0	0	0	0	0
48	239	1	23	5	0	5	0	0	0	0	0	0	0	0	0
49	246	0	21	5	0	5	7	0	4	0	0	0	1	1	0
50	234	0	20	4	0	4	1	0	1	1	0	1	0	0	0
51	254	1	27	4	0	4	4	0	3	0	0	0	1	0	1
52	229	0	20	5	0	5	4	0	3	0	0	0	0	0	0
53	237	2	27	5	0	5	5	1	4	0	0	0	0	0	0
54	241	1	23	2	0	2	1	0	1	0	0	0	1	1	0
55	226	0	27	5	0	5	3	0	2	0	0	0	0	0	0
56	259	0	24	4	0	4	8	0	5	0	0	0	1	0	0
57	225	1	22	5	0	5	3	0	1	2	0	2	0	0	0
58	228	0	17	5	0	5	2	0	1	1	0	1	0	0	0
59	197	0	12	2	0	2	3	0	2	0	0	0	0	0	0
60	200	0	19	4	0	4	2	0	2	0	0	0	1	0	1
61	215	0	15	2	0	2	4	0	2	0	0	0	0	0	0
62	195	0	17	6	0	6	3	0	3	0	0	0	1	0	1
63	172	1	14	5	0	5	1	0	1	0	0	0	1	0	1
64	176	0	13	2	0	2	1	0	0	0	0	0	0	0	0
65	164	1	14	5	0	5	3	0	3	1	0	1	1	0	1



## UPPER PENINSULA

### AGE and INJURY SEVERITY by PERSON TYPE (continued)

Age	Driver			Injured Passenger			Motorcyclist			Bicyclist			Pedestrian		
	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured	Total	Killed	Injured
66	177	2	14	2	1	1	1	0	1	1	0	1	0	0	0
67	112	0	10	5	0	5	1	0	0	0	0	0	0	0	0
68	113	0	8	4	0	4	2	0	1	0	0	0	1	0	1
69	108	0	6	1	0	1	2	0	2	0	0	0	0	0	0
70	132	1	15	4	0	4	1	0	0	0	0	0	0	0	0
71	118	0	17	5	0	5	1	0	1	0	0	0	0	0	0
72	99	0	9	3	0	3	0	0	0	0	0	0	0	0	0
73	83	1	14	1	1	0	1	0	1	0	0	0	0	0	0
74	84	0	14	5	0	5	1	0	1	0	0	0	0	0	0
75	71	0	4	1	0	1	0	0	0	0	0	0	0	0	0
76	67	0	6	1	0	1	0	0	0	0	0	0	2	0	2
77	78	0	8	2	0	2	0	0	0	0	0	0	0	0	0
78	45	0	2	2	0	2	0	0	0	0	0	0	0	0	0
79	40	0	5	5	1	4	0	0	0	0	0	0	0	0	0
80	49	0	9	2	0	2	0	0	0	0	0	0	0	0	0
81	40	0	6	1	0	1	0	0	0	0	0	0	0	0	0
82	37	0	5	0	0	0	0	0	0	0	0	0	0	0	0
83	39	1	2	0	0	0	0	0	0	0	0	0	0	0	0
84	38	0	2	1	0	1	0	0	0	0	0	0	0	0	0
85	32	0	4	1	0	1	0	0	0	1	0	0	0	0	0
86	29	1	5	0	0	0	0	0	0	0	0	0	0	0	0
87	22	0	1	0	0	0	0	0	0	0	0	0	0	0	0
88	28	0	7	0	0	0	0	0	0	0	0	0	1	0	1
89	13	0	1	1	0	1	0	0	0	0	0	0	0	0	0
90	8	0	0	1	0	1	0	0	0	0	0	0	0	0	0
91	10	0	1	0	0	0	0	0	0	0	0	0	1	1	0
92	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0
93	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0
94	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0
95	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
97	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
98	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



## 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
99	0	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	940	0	1	3	0	3	5	0	0	2	0	0	0	0	0
2013 Totals	13,950*	31	1,272	448	5	443	118*	2	82	43*	0	35	32*	3	28
	* Includes 894 drivers with unknown injury severity and 11,753 with no injury						* Includes 5 motorcyclists with unknown injury severity and 29 with no injury			* Includes 2 bicyclist with unknown injury severity and 6 with no injury			* Includes 3 pedestrian with unknown injury severity and 1 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 Total	Number	% of Total
Going straight ahead	1,015	64.7	5	83.3	198	66.7
Turning left	110	7.0	0	0.0	38	12.8
Turning right	53	3.4	0	0.0	9	3.0
Stopped on roadway	77	4.9	0	0.0	8	2.7
In prior crash	0	0.0	0	0.0	0	0.0
Changing lanes	14	0.9	0	0.0	1	0.3
Backing	60	3.8	0	0.0	1	0.3
Slowing/stopping on roadway	107	6.8	0	0.0	12	4.0
Slowing/stopping other	8	0.5	0	0.0	1	0.3
Starting up on roadway	34	2.2	0	0.0	8	2.7
Starting up other	1	0.1	0	0.0	0	0.0
Entering parking	2	0.1	0	0.0	1	0.3
Leaving parking	3	0.2	0	0.0	0	0.0
Entering roadway	28	1.8	0	0.0	8	2.7
Leaving roadway	1	0.1	0	0.0	1	0.3
Making U-turn	5	0.3	0	0.0	1	0.3
Overtaking or passing	11	0.7	1	16.7	1	0.3
Avoiding object	1	0.1	0	0.0	0	0.0
Avoiding animal	11	0.7	0	0.0	3	1.0
Avoiding pedestrian	0	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	4	0.3	0	0.0	1	0.3
Avoiding vehicle (angle)	5	0.3	0	0.0	3	1.0
Driverless moving	1	0.1	0	0.0	0	0.0
Parked	9	0.6	0	0.0	1	0.3
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	3	0.2	0	0.0	1	0.3
Unknown	5	0.3	0	0.0	0	0.0
Total Drivers	1,568	100.0	6	100.0	297	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 Total	Number	% of Total
Loss of control	10	0.6	0	0.0	2	0.7
Cross center/median	1	0.1	0	0.0	1	0.3
Ran off road left	7	0.4	0	0.0	1	0.3
Ran off road right	4	0.3	0	0.0	0	0.0
Re-enter road	0	0.0	0	0.0	0	0.0
Overtake	70	4.5	0	0.0	24	8.1
Separation of units	0	0.0	0	0.0	0	0.0
Fire/explosion	4	0.3	0	0.0	2	0.7
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	0	0.0	0	0.0	0	0.0
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	0	0.0	0	0.0	0	0.0
Individual fell off	3	0.2	0	0.0	3	1.0
Other noncollision	7	0.4	0	0.0	1	0.3
NONCOLLISION Subtotal	106	6.8	0	0.0	34	11.4

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Pedestrian	5	0.3	1	16.7	4	1.3
Pedalcycle (Bicyclist)	6	0.4	0	0.0	4	1.3
Motor vehicle in transport	885	56.4	3	50.0	188	63.3
Parked motor vehicle	68	4.3	0	0.0	8	2.7
Railway train	0	0.0	0	0.0	0	0.0
Animal	202	12.9	0	0.0	0	0.0
Other nonfixed objects	18	1.1	0	0.0	4	1.3
COLLISION NONFIXED Subtotal	1,184	75.5	4	66.7	208	70.0



## UPPER PENINSULA DRIVER AGE 16-20 (continued)

MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Bridge/pier/abutment	2	0.1	0	0.0	0	0.0
Bridge parapet end	0	0.0	0	0.0	0	0.0
Bridge rail	0	0.0	0	0.0	0	0.0
Guardrail face	25	1.6	0	0.0	4	1.3
Guardrail end	3	0.2	0	0.0	2	0.7
Median barrier	5	0.3	0	0.0	0	0.0
Highway traffic sign post	13	0.8	0	0.0	0	0.0
Highway signal post	1	0.1	0	0.0	0	0.0
Luminaire/light support	1	0.1	0	0.0	0	0.0
Utility pole	27	1.7	0	0.0	8	2.7
Other pole	5	0.3	0	0.0	0	0.0
Culvert	3	0.2	0	0.0	1	0.3
Curb	3	0.2	0	0.0	1	0.3
Ditch	52	3.3	0	0.0	8	2.7
Embankment	24	1.5	0	0.0	4	1.3
Fence	3	0.2	0	0.0	0	0.0
Mailbox	11	0.7	0	0.0	1	0.3
Tree	70	4.5	2	33.3	22	7.4
Rail crossing signal	0	0.0	0	0.0	0	0.0
Building	4	0.3	0	0.0	0	0.0
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	1	0.1	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	20	1.3	0	0.0	3	1.0
COLLISION FIXED <b>Subtotal</b>	273	17.4	2	33.3	54	18.2

For drivers age 16-20 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (4.5%), fatal crashes (33.3%), and injury crashes (7.4%).

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
<b>Unknown Event</b>	5	0.3	0	0.0	1	0.3
<b>TOTAL MOST HARMFUL EVENT</b>	1,568	100.0	6	100.0	297	100.0



## UPPER PENINSULA DRIVER AGE 16-20 (continued)

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	583	37.2	3	50.0	88	29.6
Head On	40	2.6	3	50.0	14	4.7
Head On - Left Turn	36	2.3	0	0.0	18	6.1
Angle	363	23.2	0	0.0	82	27.6
Rear End	309	19.7	0	0.0	53	17.8
Rear End - Left Turn	37	2.4	0	0.0	12	4.0
Rear End - Right Turn	9	0.6	0	0.0	0	0.0
Sideswipe - Same Direction	80	5.1	0	0.0	6	2.0
Sideswipe - Opposite Direct	35	2.2	0	0.0	9	3.0
Other/Unknown	76	4.8	0	0.0	15	5.1
Total Drivers	1,568	100.0	6	100.0	297	100.0

Based on crash type, teen and young adult drivers in the Upper Peninsula are involved in the largest proportion of single vehicle crashes for all crashes (37.2%) and injury crashes (29.6%). Single vehicle and head on crashes have equal involvement for fatal crashes (50.0%).

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
On Road	1,195	76.2	4	66.7	219	73.7
Median	11	0.7	0	0.0	1	0.3
Shoulder	126	8.0	0	0.0	16	5.4
Outside of Shoulder/Curb	207	13.2	2	33.3	56	18.9
Gore	7	0.4	0	0.0	3	1.0
Other/Unknown	22	1.4	0	0.0	2	0.7
Total Drivers	1,568	100.0	6	100.0	297	100.0

Other than on the road crashes, teen and young adult drivers in the Upper Peninsula have the highest proportion where the first impact is outside the shoulder/curb for all crashes (13.2%), injury crashes (33.3%), and fatal crashes (18.9%).

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Interstate Routes	73	4.7	0	0.0	13	4.4
U.S. & Michigan Roads	664	42.3	4	66.7	133	44.8
County & City Roads	831	53.0	2	33.3	151	50.8
Total Drivers	1,568	100.0	6	100.0	297	100.0



## UPPER PENINSULA DRIVER AGE 16-20 (continued)

TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Midnight - 2:59 AM	90	5.7	1	16.7	13	4.4
3:00 AM - 5:59 AM	41	2.6	1	16.7	9	3.0
6:00 AM - 8:59 AM	156	9.9	0	0.0	36	12.1
9:00 AM - 11:59 AM	192	12.2	1	16.7	29	9.8
Noon - 2:59 PM	296	18.9	0	0.0	66	22.2
3:00 PM - 5:59 PM	385	24.6	2	33.3	77	25.9
6:00 PM - 8:59 PM	221	14.1	1	16.7	46	15.5
9:00 PM - 11:59 PM	184	11.7	0	0.0	21	7.1
Unknown	3	0.2	0	0.0	0	0.0
Total Drivers	1,568	100.0	6	100.0	297	100.0

For drivers age 16-20 in the Upper Peninsula, the 3:00 - 5:59 PM time period has the highest proportion of all crashes (24.6%) injury crashes (33.3%), and fatal crashes (25.9%).

HAZARDOUS ACTION	All Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury	Number	% of Issued
None	597	38.1	1	16.7	85	28.6	1	0.4
Speed too fast	311	19.8	4	66.7	64	21.5	86	34.4
Speed too slow	2	0.1	0	0.0	0	0.0	0	0.0
Failed to yield	157	10.0	0	0.0	48	16.2	47	18.8
Disregard traffic control	28	1.8	0	0.0	8	2.7	13	5.2
Drove wrong way	1	0.1	0	0.0	0	0.0	0	0.0
Drove left of center	12	0.8	1	16.7	2	0.7	2	0.8
Improper passing	3	0.2	0	0.0	0	0.0	2	0.8
Improper lane use	17	1.1	0	0.0	1	0.3	2	0.8
Improper turn	16	1.0	0	0.0	4	1.3	4	1.6
Improper/no signal	3	0.2	0	0.0	0	0.0	0	0.0
Improper backing	47	3.0	0	0.0	0	0.0	1	0.4
Unable to stop in assured clear distance	218	13.9	0	0.0	32	10.8	36	14.4
Reckless driving	15	1.0	0	0.0	5	1.7	6	2.4
Careless/negligent driving	86	5.5	0	0.0	33	11.1	40	16.0
Other	44	2.8	0	0.0	13	4.4	9	3.6
Unknown	11	0.7	0	0.0	2	0.7	1	0.4
Total Drivers	1,568	100.0	6	100.0	297	100.0	250	100.0

Other than no hazardous action, the second highest hazardous action category for drivers age 16-20 in the Upper Peninsula is speed too fast for all crashes (19.8%), fatal crashes (66.7%), and injury crashes (21.5%).



## UPPER PENINSULA DRIVER AGE 16-20 (continued)

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Monday	222	14.2	0	0.0	40	13.5
Tuesday	215	13.7	1	16.7	47	15.8
Wednesday	215	13.7	4	66.7	38	12.8
Thursday	245	15.6	0	0.0	35	11.8
Friday	264	16.8	0	0.0	48	16.2
Saturday	202	12.9	0	0.0	42	14.1
Sunday	205	13.1	1	16.7	47	15.8
Total Drivers	1,568	100.0	6	100.0	297	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	855	54.5	4	66.7	145	48.8
Female	713	45.5	2	33.3	152	51.2
Unknown	0	0.0	0	0.0	0	0.0
Total Drivers	1,568	100.0	6	100.0	297	100.0

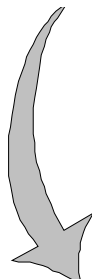
For drivers age 16-20, male drivers (66.7%) are twice the percent of female drivers (33.3%) in fatal crashes.

OCCUPANTS IN MOTOR VEHICLE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
1 occupant	1,077	68.7	5	83.3	181	60.9
2 occupants	340	21.7	1	16.7	72	24.2
3 occupants	99	6.3	0	0.0	31	10.4
4 occupants	35	2.2	0	0.0	6	2.0
5 occupants	8	0.5	0	0.0	6	2.0
6 + occupants	2	0.1	0	0.0	1	0.3
0 occupants	6	0.4	0	0.0	0	0.0
Unknown	1	0.1	0	0.0	0	0.0
Total Drivers	1,568	100.0	6	100.0	297	100.0



## UPPER PENINSULA DRIVER AGE 16-20 (continued)

VEHICLE TYPE CRASH INVOLVEMENT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Passenger Car and Station Wagon	1,254	80.0	6	100.0	225	75.8
Van and Motorhome	26	1.7	0	0.0	3	1.0
Pickup	238	15.2	0	0.0	48	16.2
Small Truck (under 10,000 lbs.)	29	1.8	0	0.0	7	2.4
Motorcycle	3	0.2	0	0.0	3	1.0
Moped	2	0.1	0	0.0	2	0.7
Go Cart	1	0.1	0	0.0	0	0.0
Snowmobile	6	0.4	0	0.0	4	1.3
Off Road Vehicle	7	0.4	0	0.0	4	1.3
Other	1	0.1	0	0.0	1	0.3
Unknown	0	0.0	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	1	0.1	0	0.0	0	0.0
Total Number of Drivers	1,568	100.0	6	100.0	297	100.0



CDL Truck/Bus Sub-category Types	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Commercial Vehicle: Group A	1	100.0	0	0.0	0	0.0
Commercial Vehicle: Group B	0	0.0	0	0.0	0	0.0
Commercial Vehicle: Group C	0	0.0	0	0.0	0	0.0
Other Truck	0	0.0	0	0.0	0	0.0
Unknown Truck	0	0.0	0	0.0	0	0.0
Total Number of Drivers	1	100.0	0	0.0	0	0.0

Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.







## UPPER PENINSULA DRIVER AGE 21-64

DRIVER ACTION PRIOR TO CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Going straight ahead	6,641	69.5	29	85.3	949	65.5
Turning left	455	4.8	2	5.9	110	7.6
Turning right	244	2.6	0	0.0	35	2.4
Stopped on roadway	541	5.7	0	0.0	121	8.4
In prior crash	11	0.1	0	0.0	3	0.2
Changing lanes	83	0.9	0	0.0	10	0.7
Backing	343	3.6	0	0.0	9	0.6
Slowing/stopping on roadway	511	5.3	0	0.0	90	6.2
Slowing/stopping other	20	0.2	0	0.0	2	0.1
Starting up on roadway	166	1.7	0	0.0	22	1.5
Starting up other	6	0.1	0	0.0	2	0.1
Entering parking	16	0.2	0	0.0	1	0.1
Leaving parking	32	0.3	0	0.0	2	0.1
Entering roadway	103	1.1	0	0.0	20	1.4
Leaving roadway	8	0.1	0	0.0	2	0.1
Making U-turn	13	0.1	0	0.0	3	0.2
Overtaking or passing	63	0.7	0	0.0	11	0.8
Avoiding object	11	0.1	0	0.0	2	0.1
Avoiding animal	74	0.8	0	0.0	14	1.0
Avoiding pedestrian	2	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	77	0.8	2	5.9	24	1.7
Avoiding vehicle (angle)	37	0.4	1	2.9	7	0.5
Driverless moving	4	0.0	0	0.0	1	0.1
Parked	58	0.6	0	0.0	6	0.4
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	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 working in roadway	0	0.0	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	8	0.1	0	0.0	1	0.1
Unknown	27	0.3	0	0.0	1	0.1
Total Drivers	9,555	100.0	34	100.0	1,449	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 Total	Number	% of Total
Loss of control	46	0.5	0	0.0	12	0.8
Cross center/median	6	0.1	0	0.0	0	0.0
Ran off road left	18	0.2	0	0.0	3	0.2
Ran off road right	37	0.4	0	0.0	5	0.3
Re-enter road	0	0.0	0	0.0	0	0.0
Overtake	296	3.1	2	5.9	118	8.1
Separation of units	5	0.1	0	0.0	0	0.0
Fire/explosion	11	0.1	0	0.0	0	0.0
Immersion	2	0.0	0	0.0	1	0.1
Jackknife	5	0.1	0	0.0	0	0.0
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	11	0.1	0	0.0	0	0.0
Individual fell off	27	0.3	1	2.9	23	1.6
Other noncollision	34	0.4	0	0.0	7	0.5
NONCOLLISION Subtotal	498	5.2	3	8.8	169	11.7

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Pedestrian	14	0.1	2	5.9	11	0.8
Pedalcycle (Bicyclist)	23	0.2	0	0.0	17	1.2
Motor vehicle in transport	4,373	45.8	16	47.1	949	65.5
Parked motor vehicle	328	3.4	1	2.9	33	2.3
Railway train	3	0.0	0	0.0	2	0.1
Animal	3,125	32.7	0	0.0	48	3.3
Other nonfixed objects	112	1.2	0	0.0	8	0.6
COLLISION NONFIXED Subtotal	7,978	83.5	19	55.9	1,068	73.7



## 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 Total	Number	% of Total
Bridge/pier/abutment	3	0.0	0	0.0	0	0.0
Bridge parapet end	1	0.0	0	0.0	0	0.0
Bridge rail	15	0.2	0	0.0	3	0.2
Guardrail face	63	0.7	0	0.0	14	1.0
Guardrail end	9	0.1	1	2.9	2	0.1
Median barrier	16	0.2	0	0.0	3	0.2
Highway traffic sign post	58	0.6	0	0.0	2	0.1
Highway signal post	4	0.0	0	0.0	0	0.0
Luminaire/light support	10	0.1	0	0.0	1	0.1
Utility pole	76	0.8	0	0.0	27	1.9
Other pole	25	0.3	0	0.0	4	0.3
Culvert	6	0.1	0	0.0	3	0.2
Curb	21	0.2	0	0.0	6	0.4
Ditch	173	1.8	0	0.0	37	2.6
Embankment	97	1.0	1	2.9	15	1.0
Fence	14	0.1	0	0.0	2	0.1
Mailbox	34	0.4	0	0.0	2	0.1
Tree	296	3.1	8	23.5	72	5.0
Rail crossing signal	4	0.0	0	0.0	0	0.0
Building	17	0.2	0	0.0	3	0.2
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	11	0.1	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	98	1.0	2	5.9	15	1.0
<b>COLLISION FIXED Subtotal</b>	<b>1,051</b>	<b>11.0</b>	<b>12</b>	<b>35.3</b>	<b>211</b>	<b>14.6</b>

For drivers age 21-64 in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (3.1%), fatal crashes (23.5%), and injury crashes (5.0%).

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
<b>Unknown Event</b>	28	0.3	0	0.0	1	0.1
<b>TOTAL MOST HARMFUL EVENT</b>	<b>9,555</b>	<b>100.0</b>	<b>34</b>	<b>100.0</b>	<b>1,449</b>	<b>100.0</b>



## UPPER PENINSULA DRIVER AGE 21-64 (continued)

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	4,642	48.6	16	47.1	420	29.0
Head On	157	1.6	12	35.3	67	4.6
Head On - Left Turn	129	1.4	0	0.0	44	3.0
Angle	1,731	18.1	2	5.9	382	26.4
Rear End	1,389	14.5	1	2.9	317	21.9
Rear End - Left Turn	132	1.4	0	0.0	41	2.8
Rear End - Right Turn	83	0.9	0	0.0	17	1.2
Sideswipe - Same Direction	553	5.8	1	2.9	55	3.8
Sideswipe - Opposite Direct	261	2.7	1	2.9	40	2.8
Other/Unknown	478	5.0	1	2.9	66	4.6
Total Drivers	9,555	100.0	34	100.0	1,449	100.0

Based on crash type, drivers age 21-64 in the Upper Peninsula are involved in the largest proportion of single vehicle crashes for all crashes (48.6%), fatal crashes (47.1%), and injury crashes (29.0%).

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
On Road	8,062	84.4	21	61.8	1,119	77.2
Median	32	0.3	0	0.0	5	0.3
Shoulder	487	5.1	2	5.9	91	6.3
Outside of Shoulder/Curb	785	8.2	9	26.5	192	13.3
Gore	55	0.6	0	0.0	16	1.1
Other/Unknown	134	1.4	2	5.9	26	1.8
Total Drivers	9,555	100.0	34	100.0	1,449	100.0

Other than on the road crashes, drivers age 21-64 in the Upper Peninsula have the highest proportion where the first impact is outside the shoulder/curb for all crashes (8.2%), injury crashes (26.5%), and fatal crashes (13.3%).

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Interstate Routes	463	4.8	0	0.0	76	5.2
U.S. & Michigan Roads	5,031	52.7	17	50.0	763	52.7
County & City Roads	4,061	42.5	17	50.0	610	42.1
Total Drivers	9,555	100.0	34	100.0	1,449	100.0



## UPPER PENINSULA DRIVER AGE 21-64 (continued)

TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Midnight - 2:59 AM	359	3.8	4	11.8	42	2.9
3:00 AM - 5:59 AM	426	4.5	3	8.8	49	3.4
6:00 AM - 8:59 AM	1,167	12.2	2	5.9	160	11.0
9:00 AM - 11:59 AM	1,450	15.2	6	17.6	250	17.3
Noon - 2:59 PM	1,704	17.8	5	14.7	310	21.4
3:00 PM - 5:59 PM	1,877	19.6	6	17.6	341	23.5
6:00 PM - 8:59 PM	1,507	15.8	5	14.7	189	13.0
9:00 PM - 11:59 PM	1,048	11.0	3	8.8	105	7.2
Unknown	17	0.2	0	0.0	3	0.2
Total Drivers	9,555	100.0	34	100.0	1,449	100.0

For drivers age 21-64 in the Upper Peninsula, the 3:00 - 5:59 PM time period has the highest proportion of all crashes (19.6%) and injury crashes (23.5%). The 9:00 - 11:59 AM and 3:00 - 5:59 PM time periods both have the highest proportion of fatal crashes (17.6%).

HAZARDOUS ACTION	All Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury	Number	% of Issued
None	5,935	62.1	13	38.2	675	46.6	8	1.0
Speed too fast	976	10.2	9	26.5	222	15.3	244	29.2
Speed too slow	8	0.1	0	0.0	0	0.0	0	0.0
Failed to yield	599	6.3	0	0.0	140	9.7	179	21.4
Disregard traffic control	100	1.0	1	2.9	36	2.5	45	5.4
Drove wrong way	8	0.1	0	0.0	2	0.1	2	0.2
Drove left of center	40	0.4	2	5.9	13	0.9	5	0.6
Improper passing	35	0.4	0	0.0	4	0.3	10	1.2
Improper lane use	95	1.0	0	0.0	8	0.6	5	0.6
Improper turn	57	0.6	0	0.0	5	0.3	7	0.8
Improper/no signal	20	0.2	0	0.0	2	0.1	2	0.2
Improper backing	258	2.7	0	0.0	4	0.3	13	1.6
Unable to stop in assured clear distance	659	6.9	0	0.0	137	9.5	118	14.1
Reckless driving	52	0.5	0	0.0	20	1.4	24	2.9
Careless/negligent driving	328	3.4	4	11.8	108	7.5	136	16.2
Other	288	3.0	1	2.9	57	3.9	37	4.4
Unknown	97	1.0	4	11.8	16	1.1	2	0.2
Total Drivers	9,555	100.0	34	100.0	1,449	100.0	837	100.0

After no hazardous action, the second highest hazardous action category for drivers age 21-64 in the Upper Peninsula for all crashes (10.2%), fatal crashes (26.5%), and injury crashes (15.3%) occurs when the driver's speed is too fast.



## UPPER PENINSULA DRIVER AGE 21-64 (continued)

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Monday	1,429	15.0	5	14.7	204	14.1
Tuesday	1,393	14.6	5	14.7	205	14.1
Wednesday	1,436	15.0	7	20.6	203	14.0
Thursday	1,396	14.6	4	11.8	204	14.1
Friday	1,633	17.1	0	0.0	280	19.3
Saturday	1,234	12.9	6	17.6	209	14.4
Sunday	1,034	10.8	7	20.6	144	9.9
Total Drivers	9,555	100.0	34	100.0	1,449	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	5,524	57.8	27	79.4	818	56.5
Female	4,029	42.2	7	20.6	630	43.5
Unknown	2	0.0	0	0.0	1	0.1
Total Drivers	9,555	100.0	34	100.0	1,449	100.0

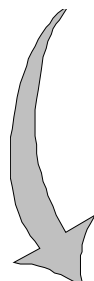
For drivers age 21-64, male drivers (79.4%) are nearly four times the percent of female drivers (20.6%) in fatal crashes.

OCCUPANTS IN MOTOR VEHICLE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
1 occupant	7,245	75.8	25	73.5	1,006	69.4
2 occupants	1,588	16.6	7	20.6	305	21.0
3 occupants	416	4.4	1	2.9	81	5.6
4 occupants	194	2.0	1	2.9	36	2.5
5 occupants	50	0.5	0	0.0	11	0.8
6 + occupants	38	0.4	0	0.0	10	0.7
0 occupants	21	0.2	0	0.0	0	0.0
Unknown	3	0.0	0	0.0	0	0.0
Total Drivers	9,555	100.0	34	100.0	1,449	100.0



## UPPER PENINSULA DRIVER AGE 21-64 (continued)

VEHICLE TYPE CRASH INVOLVEMENT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Passenger Car and Station Wagon	6,334	66.3	12	35.3	901	62.2
Van and Motorhome	449	4.7	1	2.9	54	3.7
Pickup	2,063	21.6	7	20.6	283	19.5
Small Truck (under 10,000 lbs.)	182	1.9	2	5.9	29	2.0
Motorcycle	84	0.9	2	5.9	58	4.0
Moped	13	0.1	0	0.0	9	0.6
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	54	0.6	3	8.8	30	2.1
Off Road Vehicle	40	0.4	3	8.8	32	2.2
Other	47	0.5	0	0.0	7	0.5
Unknown	1	0.0	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	288	3.0	4	11.8	46	3.2
Total Number of Drivers	9,555	100.0	34	100.0	1,449	100.0



CDL Truck/Bus Sub-category Types	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Commercial Vehicle: Group A	205	71.2	3	75.0	33	71.7
Commercial Vehicle: Group B	60	20.8	1	25.0	9	19.6
Commercial Vehicle: Group C	5	1.7	0	0.0	0	0.0
Other Truck	17	5.9	0	0.0	4	8.7
Unknown Truck	1	0.3	0	0.0	0	0.0
Total Number of Drivers	288	100.0	4	100.0	46	100.0

Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.



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## UPPER PENINSULA DRIVER AGE 65 & OVER

DRIVER ACTION PRIOR TO CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Going straight ahead	1,130	61.1	5	50.0	174	59.0
Turning left	162	8.8	2	20.0	36	12.2
Turning right	48	2.6	0	0.0	7	2.4
Stopped on roadway	103	5.6	0	0.0	28	9.5
In prior crash	0	0.0	0	0.0	0	0.0
Changing lanes	27	1.5	0	0.0	2	0.7
Backing	95	5.1	0	0.0	2	0.7
Slowing/stopping on roadway	85	4.6	1	10.0	15	5.1
Slowing/stopping other	7	0.4	0	0.0	1	0.3
Starting up on roadway	48	2.6	0	0.0	7	2.4
Starting up other	1	0.1	0	0.0	1	0.3
Entering parking	11	0.6	0	0.0	0	0.0
Leaving parking	11	0.6	0	0.0	1	0.3
Entering roadway	41	2.2	0	0.0	9	3.1
Leaving roadway	3	0.2	0	0.0	0	0.0
Making U-turn	8	0.4	0	0.0	2	0.7
Overtaking or passing	12	0.6	1	10.0	2	0.7
Avoiding object	1	0.1	0	0.0	0	0.0
Avoiding animal	20	1.1	0	0.0	2	0.7
Avoiding pedestrian	0	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	5	0.3	1	10.0	2	0.7
Avoiding vehicle (angle)	7	0.4	0	0.0	2	0.7
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	11	0.6	0	0.0	0	0.0
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	1	0.1	0	0.0	0	0.0
Playing in roadway	0	0.0	0	0.0	0	0.0
In roadway other reason	0	0.0	0	0.0	0	0.0
Not in roadway	0	0.0	0	0.0	0	0.0
Other	2	0.1	0	0.0	1	0.3
Unknown	11	0.6	0	0.0	1	0.3
Total Drivers	1,850	100.0	10	100.0	295	100.0



## UPPER PENINSULA DRIVER AGE 65 & OVER (continued)

MOST HARMFUL EVENT IN A NONCOLLISION	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Loss of control	3	0.2	0	0.0	1	0.3
Cross center/median	1	0.1	0	0.0	1	0.3
Ran off road left	0	0.0	0	0.0	0	0.0
Ran off road right	5	0.3	0	0.0	1	0.3
Re-enter road	0	0.0	0	0.0	0	0.0
Overturn	26	1.4	1	10.0	11	3.7
Separation of units	1	0.1	0	0.0	1	0.3
Fire/explosion	1	0.1	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	0	0.0	0	0.0	0	0.0
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	1	0.1	0	0.0	0	0.0
Individual fell off	5	0.3	0	0.0	5	1.7
Other noncollision	4	0.2	0	0.0	1	0.3
NONCOLLISION Subtotal	47	2.5	1	10.0	21	7.1

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
Pedestrian	8	0.4	0	0.0	8	2.7
Pedalcycle (Bicyclist)	5	0.3	0	0.0	5	1.7
Motor vehicle in transport	957	51.7	7	70.0	209	70.8
Parked motor vehicle	83	4.5	0	0.0	3	1.0
Railway train	1	0.1	0	0.0	1	0.3
Animal	542	29.3	0	0.0	10	3.4
Other nonfixed objects	24	1.3	0	0.0	0	0.0
COLLISION NONFIXED Subtotal	1,620	87.6	7	70.0	236	80.0



## UPPER PENINSULA DRIVER AGE 65 & 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 Total	Number	% of Total
Bridge/pier/abutment	0	0.0	0	0.0	0	0.0
Bridge parapet end	0	0.0	0	0.0	0	0.0
Bridge rail	0	0.0	0	0.0	0	0.0
Guardrail face	8	0.4	0	0.0	1	0.3
Guardrail end	4	0.2	0	0.0	0	0.0
Median barrier	3	0.2	0	0.0	0	0.0
Highway traffic sign post	13	0.7	0	0.0	0	0.0
Highway signal post	0	0.0	0	0.0	0	0.0
Luminaire/light support	2	0.1	0	0.0	0	0.0
Utility pole	15	0.8	0	0.0	3	1.0
Other pole	4	0.2	0	0.0	0	0.0
Culvert	1	0.1	0	0.0	0	0.0
Curb	4	0.2	0	0.0	1	0.3
Ditch	33	1.8	0	0.0	10	3.4
Embankment	7	0.4	0	0.0	1	0.3
Fence	4	0.2	0	0.0	1	0.3
Mailbox	8	0.4	0	0.0	1	0.3
Tree	51	2.8	2	20.0	19	6.4
Rail crossing signal	1	0.1	0	0.0	0	0.0
Building	1	0.1	0	0.0	0	0.0
Traffic island	0	0.0	0	0.0	0	0.0
Fire hydrant	3	0.2	0	0.0	0	0.0
Impact attenuator	0	0.0	0	0.0	0	0.0
Other fixed object	11	0.6	0	0.0	1	0.3
<b>COLLISION FIXED Subtotal</b>	<b>173</b>	<b>9.4</b>	<b>2</b>	<b>20.0</b>	<b>38</b>	<b>12.9</b>

For drivers age 65 and over in the Upper Peninsula, a tree is the fixed object associated with the highest proportion of all crashes (2.8%), fatal crashes (20.0%), and injury crashes (6.4%).

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Total	Number	% of Total
<b>Unknown Event</b>	<b>10</b>	<b>0.5</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>
<b>TOTAL MOST HARMFUL EVENT</b>	<b>1,850</b>	<b>100.0</b>	<b>10</b>	<b>100.0</b>	<b>295</b>	<b>100.0</b>



## UPPER PENINSULA DRIVER AGE 65 & OVER (continued)

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Single Vehicle	777	42.0	2	20.0	75	25.4
Head On	30	1.6	3	30.0	12	4.1
Head On - Left Turn	36	1.9	0	0.0	13	4.4
Angle	435	23.5	3	30.0	101	34.2
Rear End	234	12.6	0	0.0	52	17.6
Rear End - Left Turn	23	1.2	0	0.0	7	2.4
Rear End - Right Turn	17	0.9	0	0.0	3	1.0
Sideswipe - Same Direction	134	7.2	1	10.0	12	4.1
Sideswipe - Opposite Direct	46	2.5	1	10.0	10	3.4
Other/Unknown	118	6.4	0	0.0	10	3.4
Total Drivers	1,850	100.0	10	100.0	295	100.0

Based on crash type, elderly drivers in the Upper Peninsula are involved in the largest proportion of single vehicle crashes for all crashes (42.0%), head on and angle crashes equally for fatal crashes (30.0%), and angle crashes for injury crashes (34.2%).

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
On Road	1,602	86.6	9	90.0	244	82.7
Median	3	0.2	0	0.0	1	0.3
Shoulder	92	5.0	1	10.0	11	3.7
Outside of Shoulder/Curb	116	6.3	0	0.0	34	11.5
Gore	8	0.4	0	0.0	2	0.7
Other/Unknown	29	1.6	0	0.0	3	1.0
Total Drivers	1,850	100.0	10	100.0	295	100.0

Other than on the road crashes, drivers age 65 and over in the Upper Peninsula have the highest proportion where the first impact is outside the shoulder/curb for all crashes (6.3%) and injury crashes (11.5%). The second highest location is the shoulder for fatal crashes (10.0%).

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Interstate Routes	79	4.3	0	0.0	10	3.4
U.S. & Michigan Roads	990	53.5	6	60.0	177	60.0
County & City Roads	781	42.2	4	40.0	108	36.6
Total Drivers	1,850	100.0	10	100.0	295	100.0



## UPPER PENINSULA DRIVER AGE 65 & OVER (continued)

TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Midnight - 2:59 AM	32	1.7	0	0.0	3	1.0
3:00 AM - 5:59 AM	24	1.3	0	0.0	1	0.3
6:00 AM - 8:59 AM	142	7.7	0	0.0	16	5.4
9:00 AM - 11:59 AM	405	21.9	2	20.0	59	20.0
Noon - 2:59 PM	494	26.7	5	50.0	98	33.2
3:00 PM - 5:59 PM	378	20.4	0	0.0	82	27.8
6:00 PM - 8:59 PM	261	14.1	3	30.0	29	9.8
9:00 PM - 11:59 PM	112	6.1	0	0.0	7	2.4
Unknown	2	0.1	0	0.0	0	0.0
<b>Total Drivers</b>	<b>1,850</b>	<b>100.0</b>	<b>10</b>	<b>100.0</b>	<b>295</b>	<b>100.0</b>

For drivers age 65 and over in the Upper Peninsula, the noon - 2:59 PM time period has the highest proportion of all crashes (26.7%), fatal crashes (50.0%), and injury crashes (33.2%).

HAZARDOUS ACTION	All Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury	Number	% of Issued
None	1,035	55.9	4	40.0	126	42.7	0	0.0
Speed too fast	108	5.8	0	0.0	25	8.5	13	7.9
Speed too slow	3	0.2	0	0.0	1	0.3	2	1.2
Failed to yield	234	12.6	1	10.0	74	25.1	79	47.9
Disregard traffic control	32	1.7	0	0.0	8	2.7	12	7.3
Drove wrong way	2	0.1	0	0.0	0	0.0	1	0.6
Drove left of center	16	0.9	2	20.0	2	0.7	0	0.0
Improper passing	10	0.5	0	0.0	2	0.7	2	1.2
Improper lane use	27	1.5	0	0.0	2	0.7	4	2.4
Improper turn	30	1.6	0	0.0	1	0.3	2	1.2
Improper/no signal	3	0.2	0	0.0	0	0.0	0	0.0
Improper backing	81	4.4	0	0.0	0	0.0	2	1.2
Unable to stop in assured clear distance	116	6.3	0	0.0	24	8.1	24	14.5
Reckless driving	4	0.2	0	0.0	2	0.7	1	0.6
Careless/negligent driving	56	3.0	0	0.0	14	4.7	16	9.7
Other	62	3.4	0	0.0	8	2.7	7	4.2
Unknown	31	1.7	3	30.0	6	2.0	0	0.0
<b>Total Drivers</b>	<b>1,850</b>	<b>100.0</b>	<b>10</b>	<b>100.0</b>	<b>295</b>	<b>100.0</b>	<b>165</b>	<b>100.0</b>

After no hazardous action, the second highest hazardous action category for drivers age 65 and over in the Upper Peninsula for all crashes (12.6%) and injury crashes (25.1%) occurs when the driver fails to yield. The second highest hazardous action is unknown for fatal crashes (30.0%).



## UPPER PENINSULA DRIVER AGE 65 & OVER (continued)

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Monday	273	14.8	1	10.0	41	13.9
Tuesday	291	15.7	0	0.0	47	15.9
Wednesday	282	15.2	3	30.0	48	16.3
Thursday	291	15.7	2	20.0	38	12.9
Friday	323	17.5	1	10.0	51	17.3
Saturday	210	11.4	2	20.0	41	13.9
Sunday	180	9.7	1	10.0	29	9.8
Total Drivers	1,850	100.0	10	100.0	295	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Male	1,199	64.8	7	70.0	175	59.3
Female	651	35.2	3	30.0	120	40.7
Unknown	0	0.0	0	0.0	0	0.0
Total Drivers	1,850	100.0	10	100.0	295	100.0

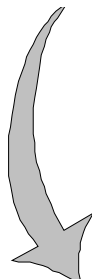
For drivers age 65 and over, male drivers (70.0%) are more than two times the percent of female drivers (30.0%) in fatal crashes.

OCCUPANTS IN MOTOR VEHICLE	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
1 occupant	1,369	74.0	7	70.0	205	69.5
2 occupants	411	22.2	3	30.0	80	27.1
3 occupants	43	2.3	0	0.0	6	2.0
4 occupants	15	0.8	0	0.0	4	1.4
5 occupants	7	0.4	0	0.0	0	0.0
6 + occupants	2	0.1	0	0.0	0	0.0
0 occupants	3	0.2	0	0.0	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
Total Drivers	1,850	100.0	10	100.0	295	100.0



## UPPER PENINSULA DRIVER AGE 65 & OVER (continued)

VEHICLE TYPE CRASH INVOLVEMENT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Passenger Car and Station Wagon	1,316	71.1	7	70.0	195	66.1
Van and Motorhome	74	4.0	0	0.0	14	4.7
Pickup	378	20.4	2	20.0	60	20.3
Small Truck (under 10,000 lbs.)	39	2.1	0	0.0	7	2.4
Motorcycle	12	0.6	0	0.0	10	3.4
Moped	4	0.2	1	10.0	3	1.0
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	2	0.1	0	0.0	2	0.7
Off Road Vehicle	1	0.1	0	0.0	1	0.3
Other	4	0.2	0	0.0	2	0.7
Unknown	0	0.0	0	0.0	0	0.0
CDL Truck/Bus (breakdown below)	20	1.1	0	0.0	1	0.3
Total Number of Drivers	1,850	100.0	10	100.0	295	100.0



CDL Truck/Bus Sub-category Types	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Drivers	% of Total	Number	% of Fatal	Number	% of Injury
Commercial Vehicle: Group A	11	55.0	0	0.0	1	100.0
Commercial Vehicle: Group B	8	40.0	0	0.0	0	0.0
Commercial Vehicle: Group C	1	5.0	0	0.0	0	0.0
Other Truck	0	0.0	0	0.0	0	0.0
Unknown Truck	0	0.0	0	0.0	0	0.0
Total Number of Drivers	20	100.0	0	0.0	1	100.0

Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.



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**Alcohol/Drug  
Upper Peninsula**





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

Alcohol and/or drug use affects the judgment and behavior of people in addition to motor vehicle drivers. Consider the experience of impaired bicyclists, motorcyclists, ORV/ATV riders, pedestrians, and snowmobilers when looking at crash statistics.



	Total	Crashes involving drinking, not drugs		Crashes involving drugs, not drinking		Crashes involving drinking & drugs		Total crashes involving drinking and/or drugs	
		Bicyclist in crash	Bicyclist drinking	Bicyclist in crash	Bicyclist drugged	Bicyclist in crash	Bicyclist drink & drug	Bicyclist in crash	Bicyclist drink &/or drug
Bicyclists in crashes	43	1	1	0	0	1	0	2	1
Bicyclists killed	0	0	0	0	0	0	0	0	0
Bicyclists injured	35	1	1	0	0	1	0	2	1



	Total	Crashes involving drinking, not drugs		Crashes involving drugs, not drinking		Crashes involving drinking & drugs		Total crashes involving drinking and/or drugs	
		Driver in crash	Driver drinking	Driver in crash	Driver drugged	Driver in crash	Driver drink & drug	Driver in crash	Driver drink &/or drug
Drivers in crashes	13,950	390	290	54	36	49	36	493	362
Drivers killed	31	8	7	1	1	9	7	18	15
Drivers injured	1,272	92	81	24	20	10	7	126	108



	Total	Crashes involving drinking, not drugs		Crashes involving drugs, not drinking		Crashes involving drinking & drugs		Total crashes involving drinking and/or drugs	
		Motorcyclist in crash	Motorcyclist drinking	Motorcyclist in crash	Motorcyclist drugged	Motorcyclist in crash	Motorcyclist drink & drug	Motorcyclist in crash	Motorcyclist drink &/or drug
Motorcyclists in crashes	118	8	8	0	0	1	1	9	9
Motorcyclists killed	2	1	1	0	0	0	0	1	1
Motorcyclists injured	82	6	6	0	0	0	0	6	6



## ROADWAY INJURY EXPERIENCE FOR PERSONS WHO HAD BEEN DRINKING AND/OR USING DRUGS (continued)



### ORV/ATV RIDER

	Total	Crashes involving drinking, not drugs		Crashes involving drugs, not drinking		Crashes involving drinking & drugs		Total crashes involving drinking and/or drugs	
		ORV/ATV rider in crash	ORV/ATV rider drinking	ORV/ATV rider in crash	ORV/ATV rider drugged	ORV/ATV rider in crash	ORV/ATV rider drink & drug	ORV/ATV rider in crash	ORV/ATV rider drink &/or drug
ORV/ATV riders in crashes	76	8	8	0	0	1	1	9	9
ORV/ATV riders killed	3	2	2	0	0	0	0	2	2
ORV/ATV riders injured	53	5	5	0	0	1	1	6	6



### PEDESTRIAN

	Total	Crashes involving drinking, not drugs		Crashes involving drugs, not drinking		Crashes involving drinking & drugs		Total crashes involving drinking and/or drugs	
		Pedestrian in crash	Pedestrian drinking	Pedestrian in crash	Pedestrian drugged	Pedestrian in crash	Pedestrian drink & drug	Pedestrian in crash	Pedestrian drink &/or drug
Pedestrians in crashes	32	5	5	0	0	0	0	5	5
Pedestrians killed	3	2	2	0	0	0	0	2	2
Pedestrians injured	28	2	2	0	0	0	0	2	2



### SNOWMOBILER

	Total	Crashes involving drinking, not drugs		Crashes involving drugs, not drinking		Crashes involving drinking & drugs		Total crashes involving drinking and/or drugs	
		Snowmobiler in crash	Snowmobiler drinking	Snowmobiler in crash	Snowmobiler drugged	Snowmobiler in crash	Snowmobiler drink & drug	Snowmobiler in crash	Snowmobiler drink &/or drug
Snowmobilers in crashes	73	4	4	0	0	2	2	6	6
Snowmobilers killed	3	1	1	0	0	1	1	2	2
Snowmobilers injured	38	1	1	0	0	0	0	1	1



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

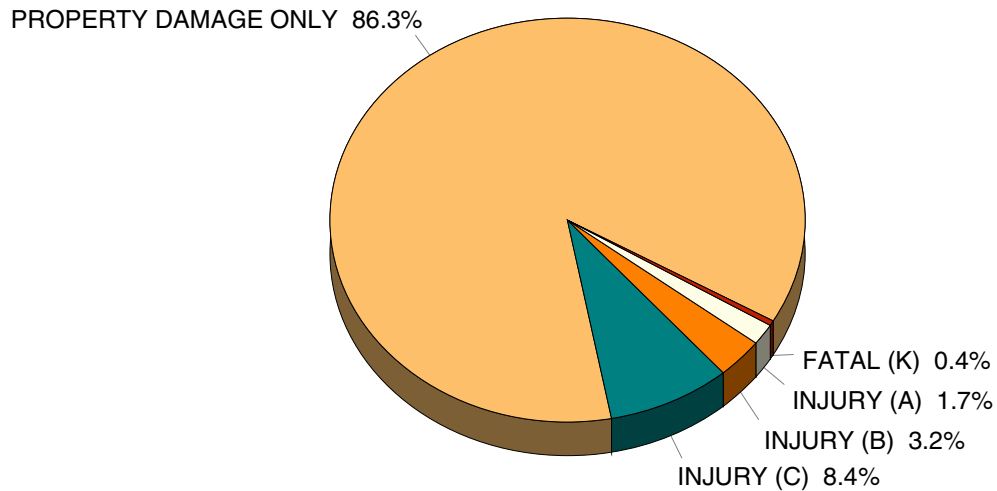
## MOST SEVERE OUTCOME IN CRASH

AGE OF DRIVER IN CRASH	All Crashes				Fatal				Injury			
	Drinking Only	Drug Only	Both	Total	Drinking Only	Drug Only	Both	Total	Drinking Only	Drug Only	Both	Total
13 years & under	0	0	0	0	0	0	0	0	0	0	0	0
14 years	0	0	0	0	0	0	0	0	0	0	0	0
15 years	0	0	0	0	0	0	0	0	0	0	0	0
16 years	0	1	0	1	0	0	0	0	0	1	0	1
17 years	5	1	1	7	0	0	1	1	2	1	0	3
18 years	5	3	0	8	0	0	0	0	0	3	0	3
19 years	7	0	1	8	0	0	1	1	2	0	0	2
20 years	13	2	3	18	0	1	0	1	5	0	2	7
21 - 24 years	54	5	8	67	1	1	2	4	22	2	1	25
25 - 34 years	78	9	6	93	1	0	1	2	24	5	1	30
35 - 44 years	36	5	8	49	2	0	1	3	9	4	2	15
45 - 54 years	48	5	4	57	4	0	1	5	17	3	2	22
55 - 64 years	25	4	2	31	1	0	0	1	10	2	0	12
65 - 69 years	9	1	0	10	0	0	0	0	1	0	0	1
70 - 74 years	9	1	0	10	1	0	0	1	4	1	0	5
75 - 79 years	0	0	0	0	0	0	0	0	0	0	0	0
80 - 84 years	2	0	1	3	0	0	0	0	1	0	0	1
85 - 89 years	0	0	1	1	0	0	0	0	0	0	1	1
90 years & over	0	0	0	0	0	0	0	0	0	0	0	0
Unknown	0	0	1	1	0	0	0	0	0	0	1	1
Total	291	37	36	364	10	2	7	19	97	22	10	129

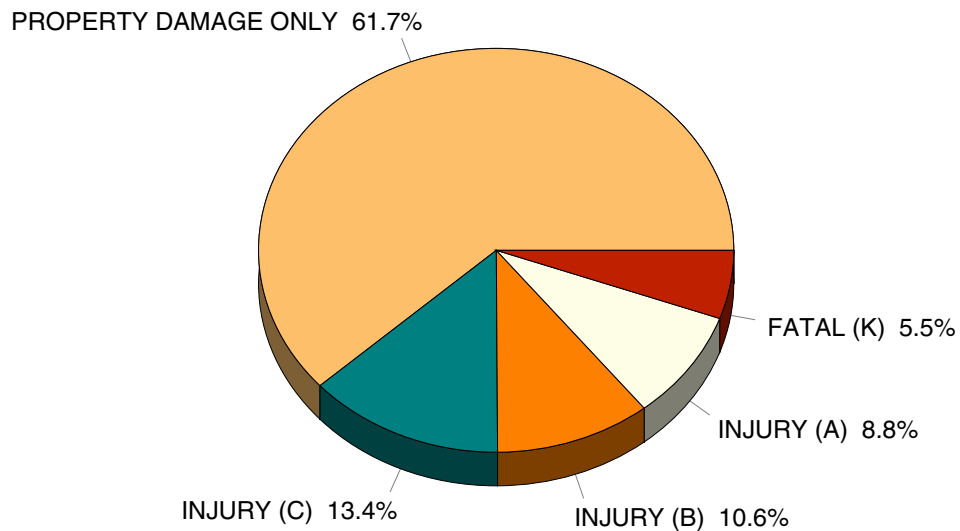
The driver age group 25 to 34 years represents the highest number of drinking and/or drug use in total crashes and total injury crashes. The driver age group 45 to 54 years represents the highest number of drinking and/or drug use in total fatal crashes.



## UPPER PENINSULA ALL CRASHES BY INJURY SEVERITY



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

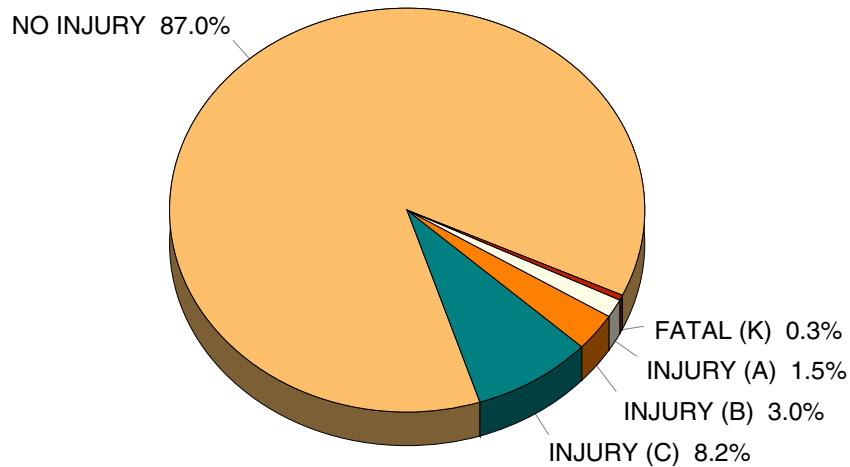


The problem of the drinking driver, pedestrian, and/or cyclist is seen by comparing the two charts on this page. All injury levels are greater, and a fatality in the crash is almost fourteen times more likely when one of the crash-involved operators is reported as had-been-drinking (HBD).

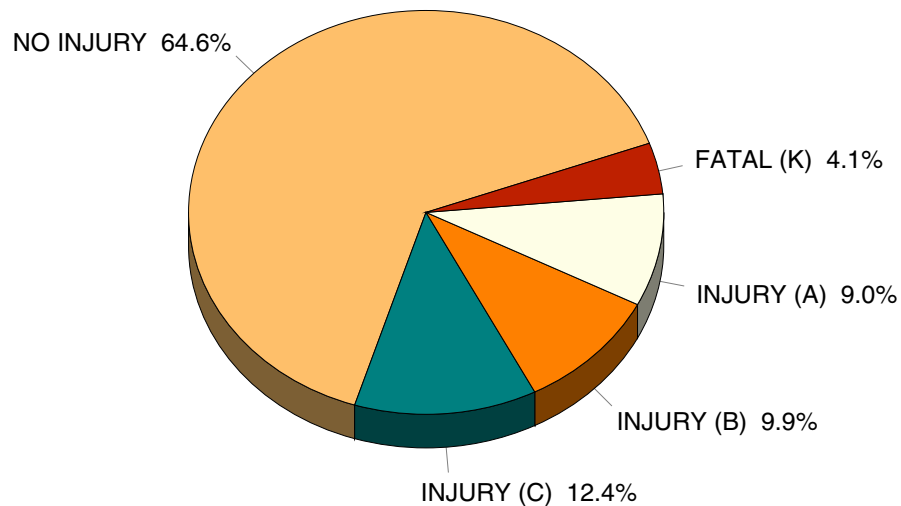


## UPPER PENINSULA DEATH & INJURY FOR CRASH INVOLVED OCCUPANTS

### Occupants in Crashes



### Occupants in HBD Crashes



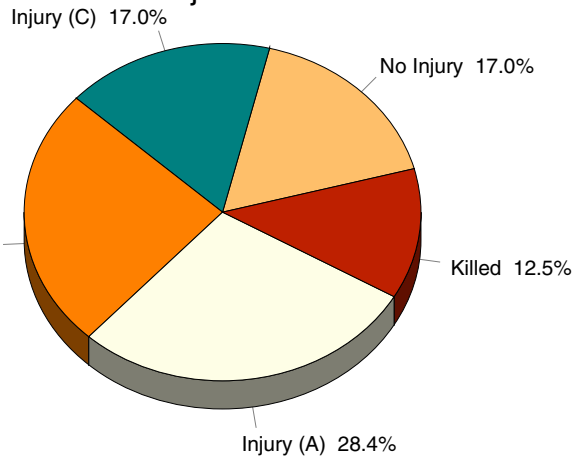
Crashes involving drinking tend to be more serious than nondrinking crashes. The percentage of fatalities is almost fourteen times higher, and the most serious injury level (A) in HBD crashes is six times higher than in all crashes.



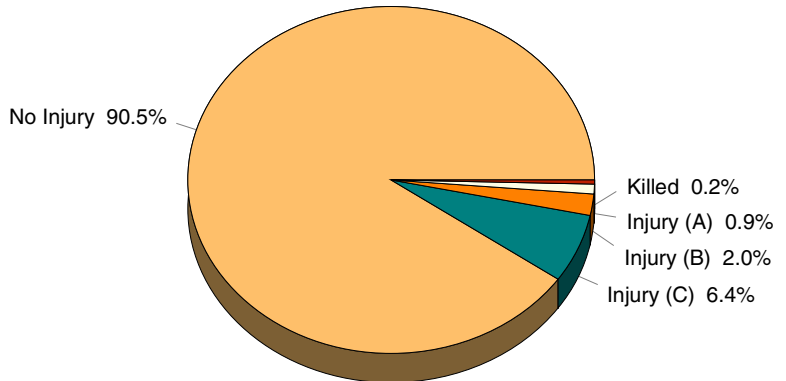
## UPPER PENINSULA ALL DRIVERS and HBD DRIVERS INJURY SEVERITY - EJECTED vs. NOT EJECTED

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

**Ejected**

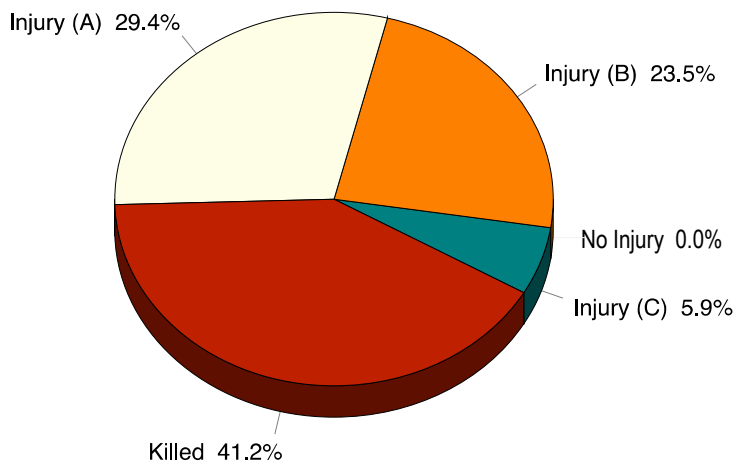


**Not Ejected**

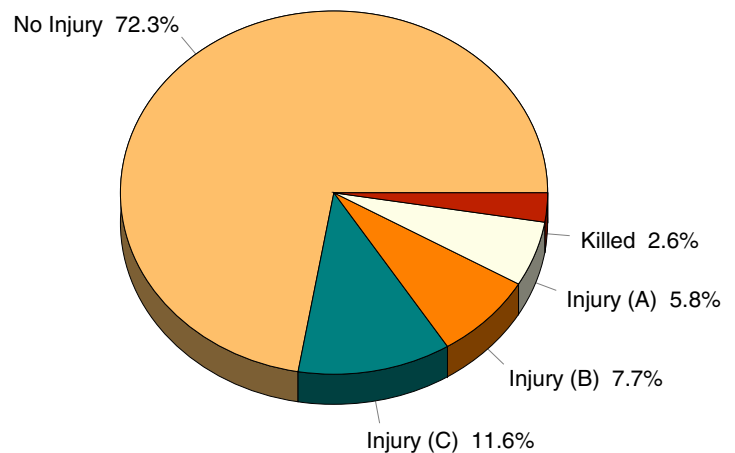


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for drivers who had been drinking in both ejected and non-ejected events.

**HBD Ejected**



**HBD Not Ejected**



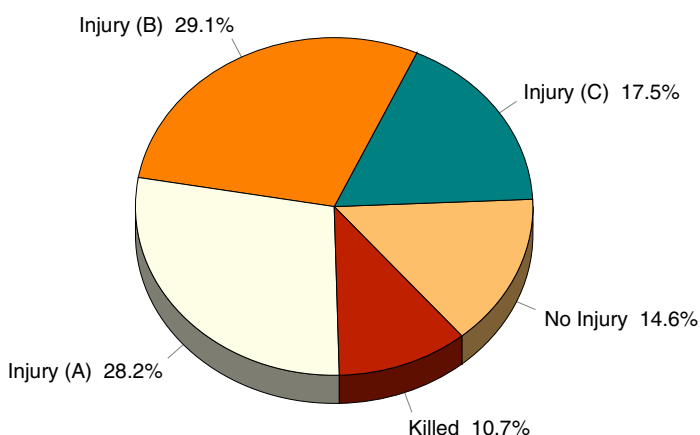




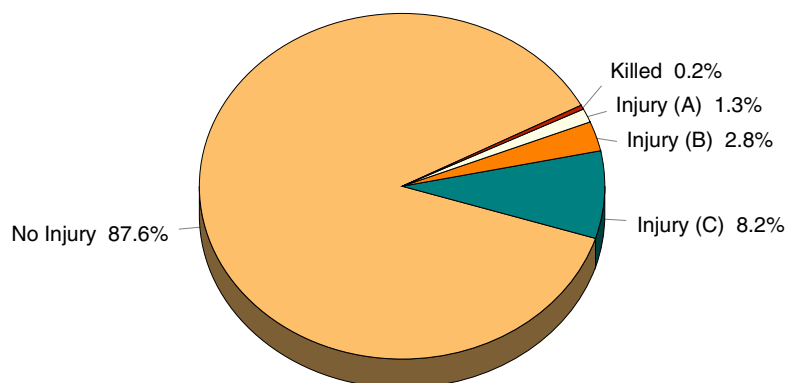
## UPPER PENINSULA ALL OCCUPANTS and OCCUPANTS of HBD CRASHES INJURY SEVERITY - EJECTED vs. NOT EJECTED

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

Ejected

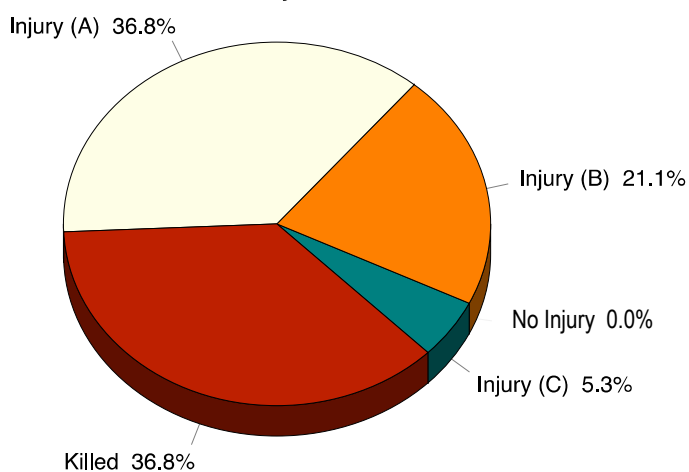


Not Ejected

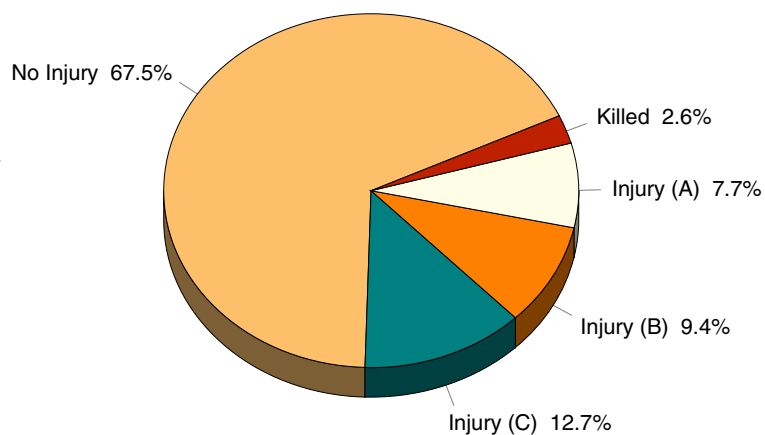


When compared to the charts above, the charts below demonstrate that the injury severity is much worse for occupants in a crash where drinking is reported in both ejected and non-ejected events.

HBD Ejected



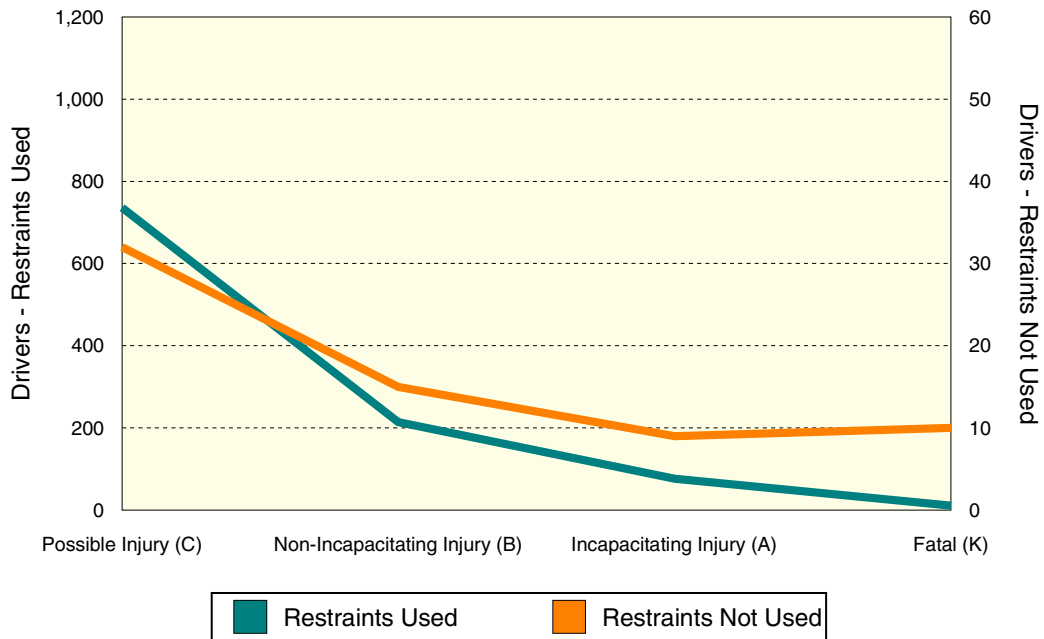
HBD Not Ejected



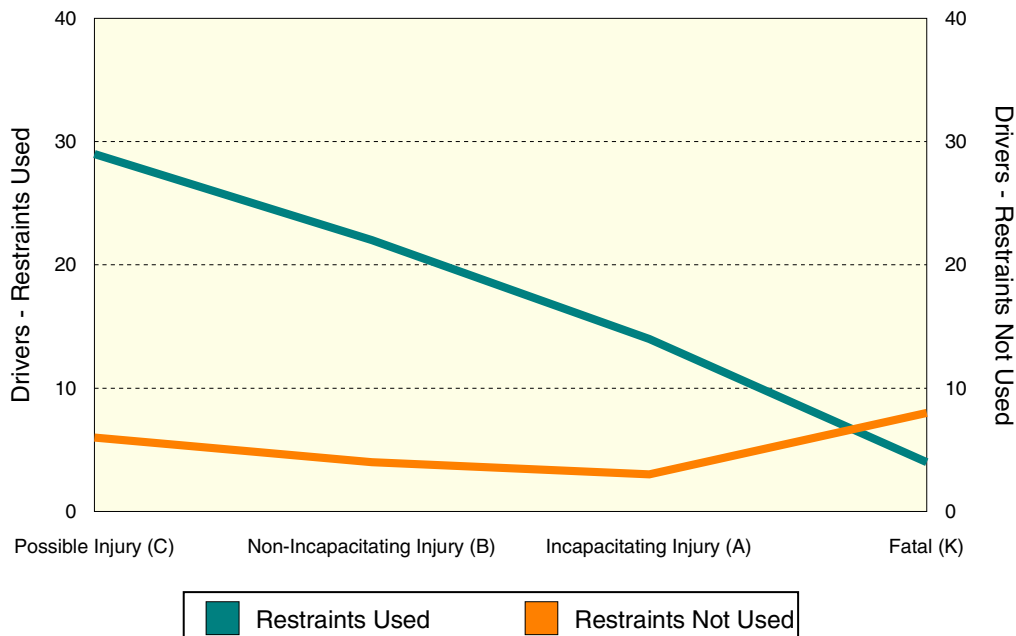


## UPPER PENINSULA INJURY SEVERITY & RESTRAINT USE BY DRIVER INJURY

### ALL CRASHES



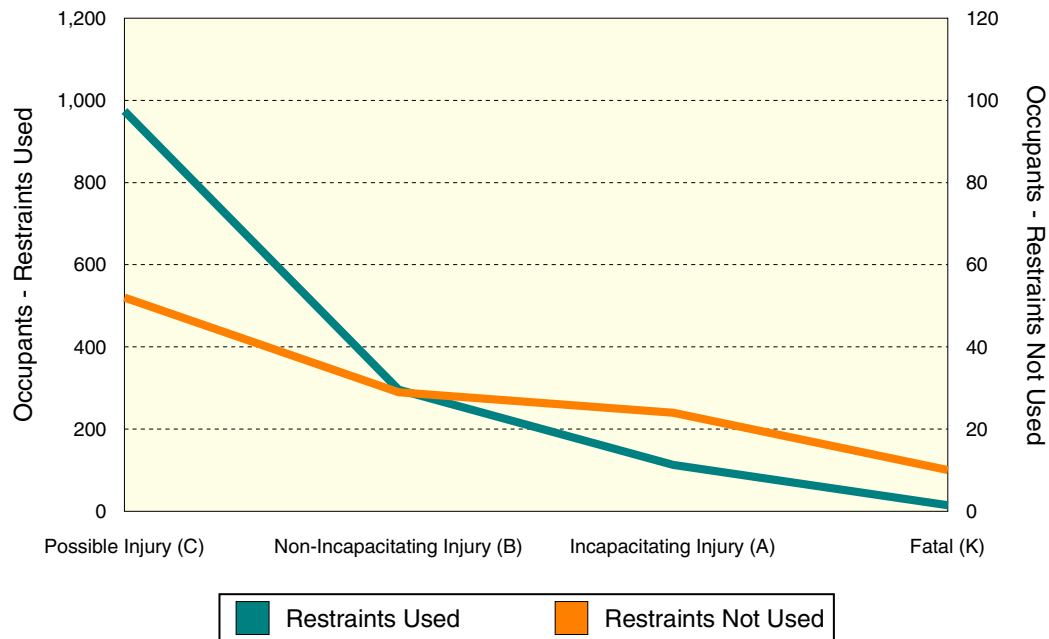
### HBD CRASHES



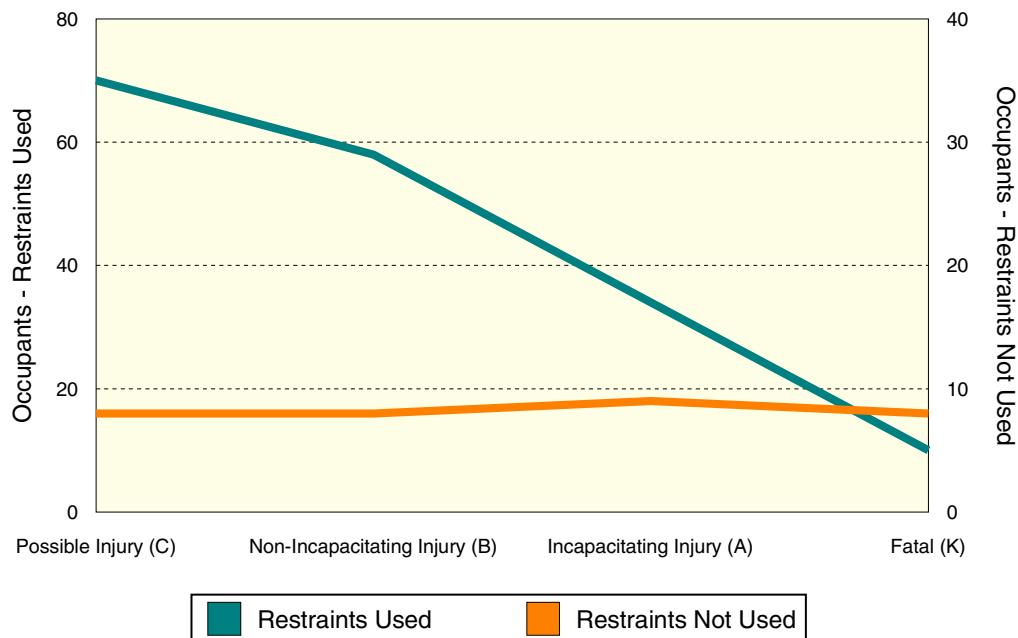


# UPPER PENINSULA INJURY SEVERITY & RESTRAINT USE BY OCCUPANT INJURY

## ALL CRASHES



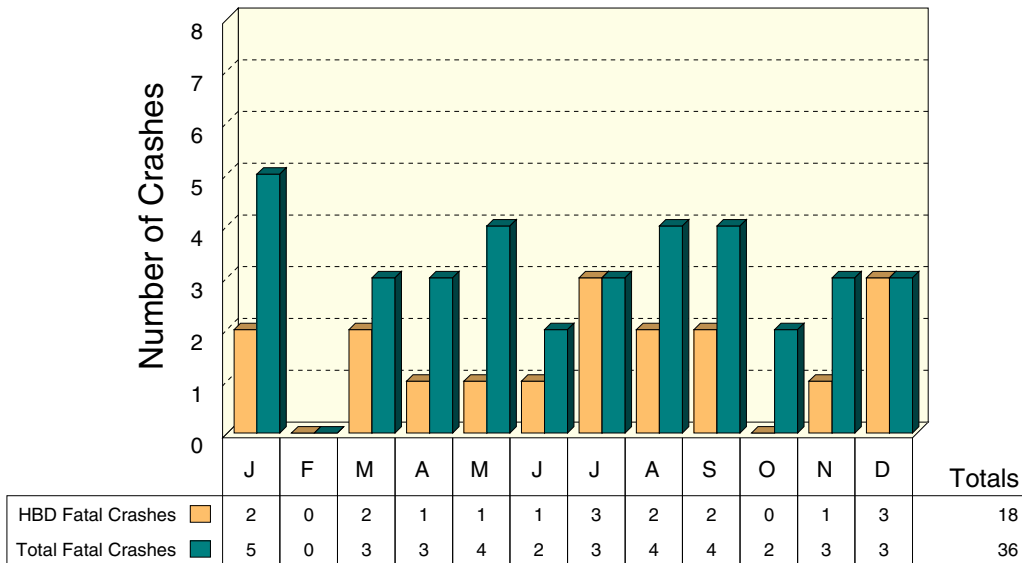
## HBD CRASHES



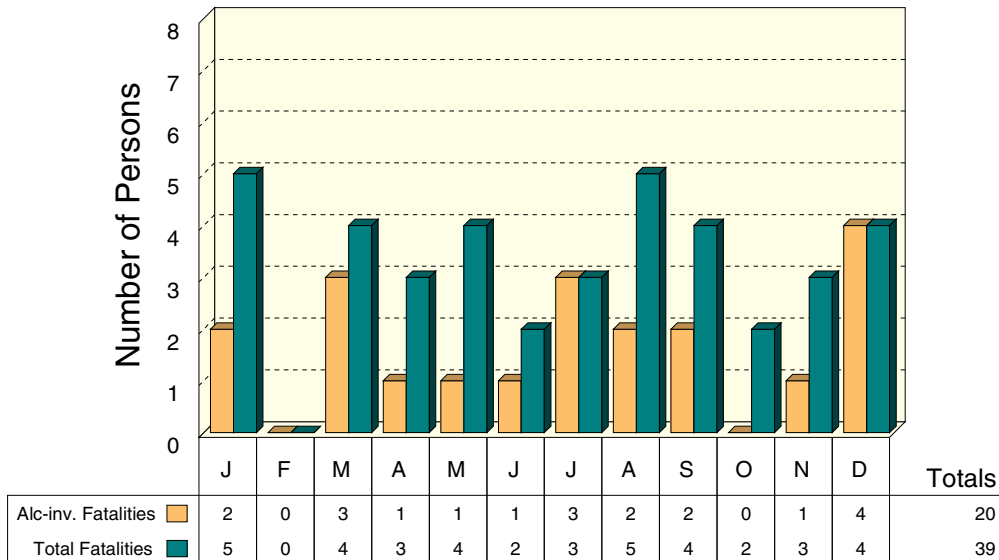


## UPPER PENINSULA ALCOHOL INVOLVEMENT IN FATAL CRASHES

### HBD Fatal Crashes by Month



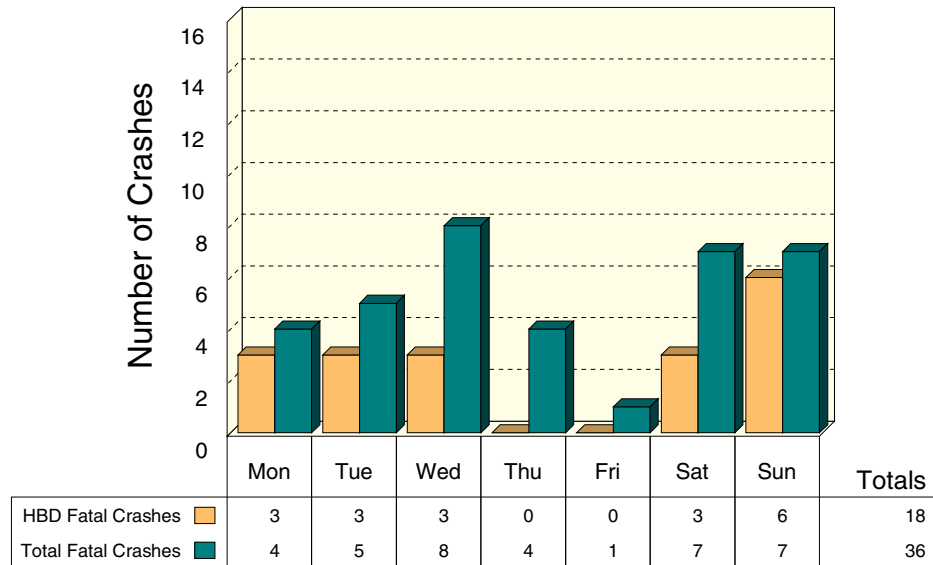
### Alcohol-involved Fatalities by Month



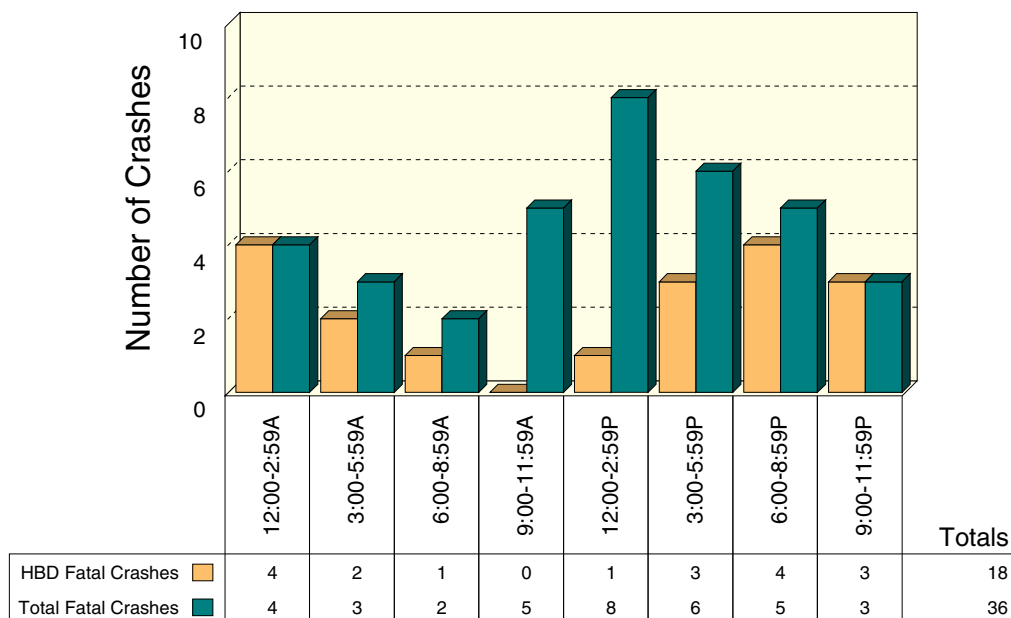
Note: An alcohol-involved fatality is any person killed in an HBD crash.



## HBD Fatal Crashes by Day of Week



## HBD Fatal Crashes by Time of Day

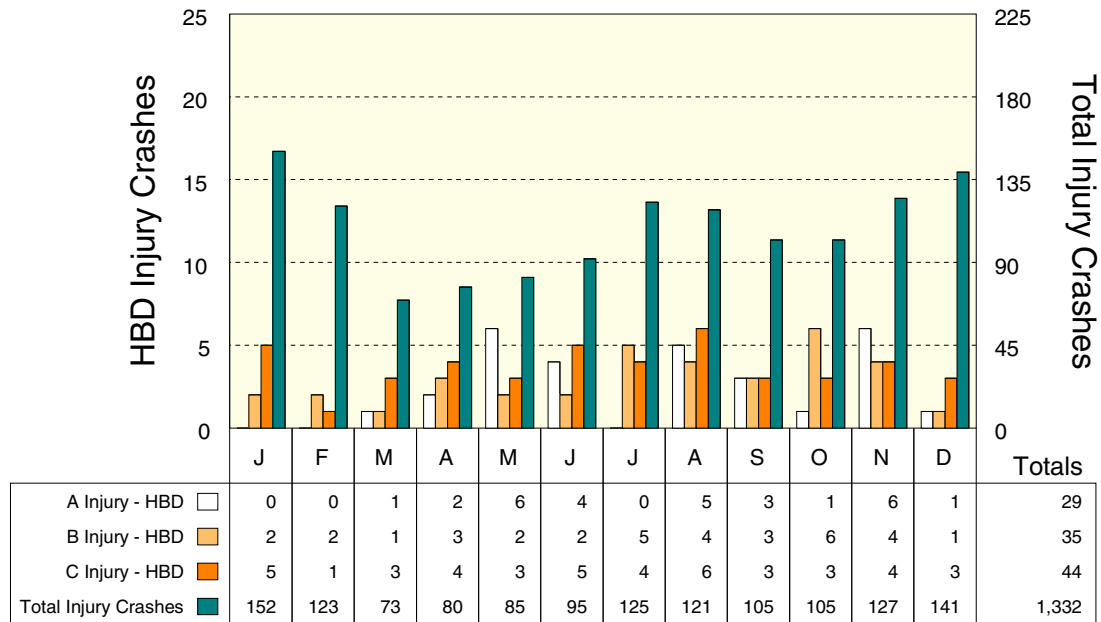


There was one HBD fatal crash where time of day was unknown.



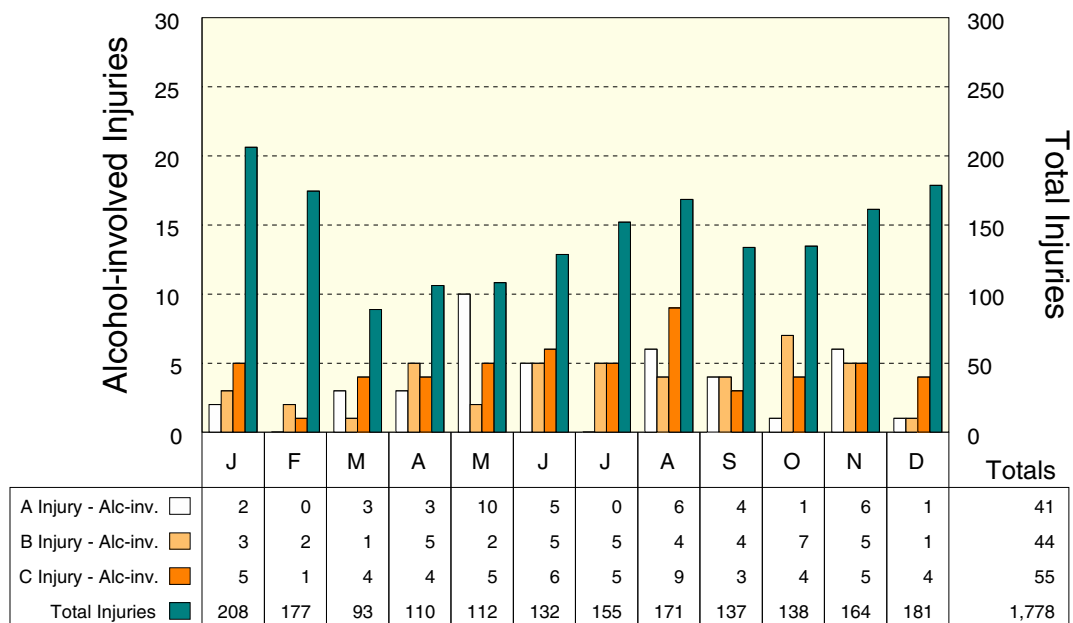
## UPPER PENINSULA ALCOHOL INVOLVEMENT IN INJURY CRASHES

### HBD Injury Crashes by Month



Alcohol involvement in injury crashes is an important indicator of the alcohol impaired driving problem. In 2013, the highest number of HBD injury crashes occurred in August (15). The highest proportion of HBD injury crashes occurred in May (12.9%).

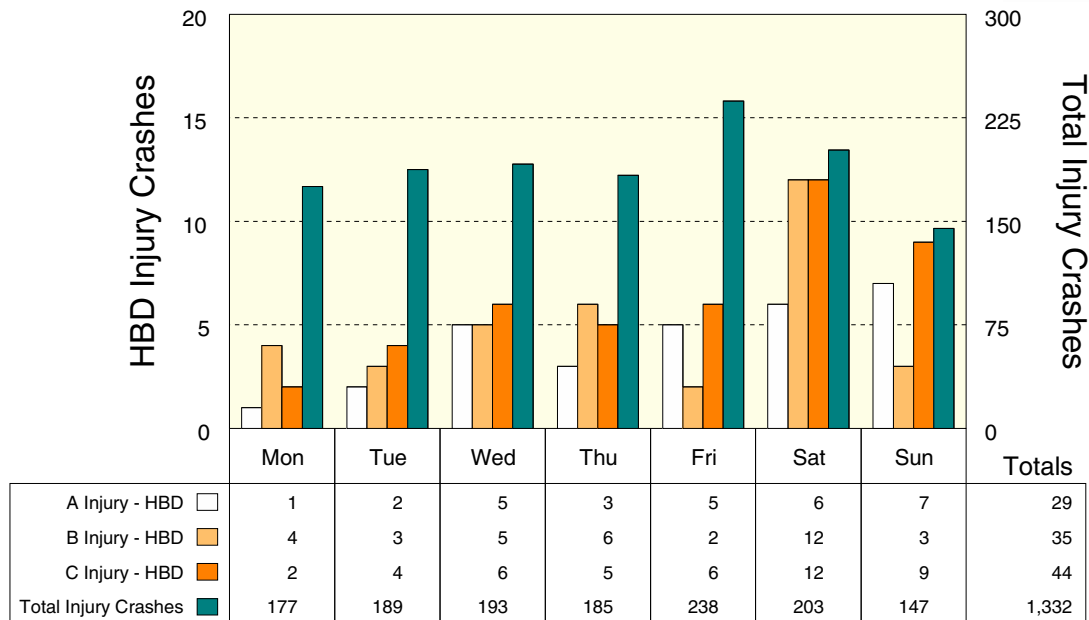
### Alcohol-involved Injuries by Month



Note: An alcohol-involved injury is any person injured in an HBD crash.

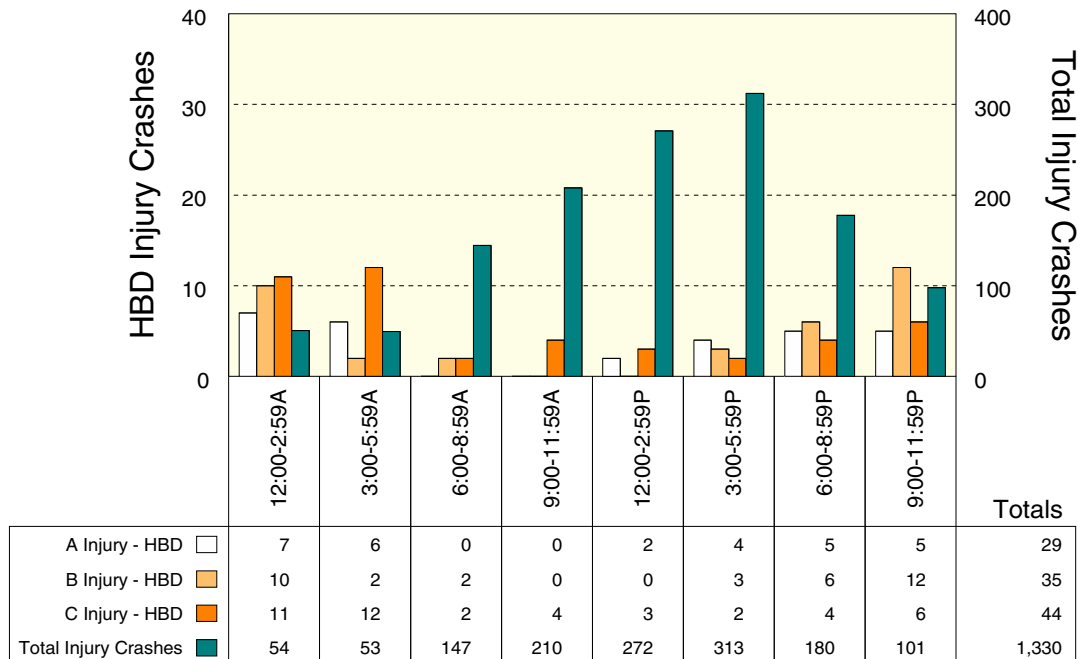


## HBD Injury Crashes by Day of Week



The peak day for all injury crashes is Friday. The highest proportion of HBD injury crashes to total injury crashes occurred on Saturday (14.8%).

## HBD Injury Crashes by Time of Day



Total injury crash frequencies peak in the hours between 3:00 PM and 5:59 PM, while HBD injury crash frequencies peak between midnight and 2:59 AM (a particularly hazardous travel period). There were four HBD injury crashes where the time of day was unknown and they do not appear in this table.



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

### MOST SEVERE OUTCOME IN CRASH

AGE OF DRIVER IN CRASH	Male Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	7	0.1	0	0.0	2	1	2	2
14 years	4	0.1	0	0.0	2	1	0	1
15 years	11	0.1	0	0.0	1	3	1	6
16 years	112	1.5	0	0.0	4	9	12	87
17 years	166	2.2	1	2.6	6	9	19	131
18 years	194	2.5	0	0.0	8	9	20	157
19 years	196	2.6	2	5.3	3	5	18	168
20 years	187	2.4	1	2.6	4	2	17	163
21 - 24 years	726	9.5	4	10.5	17	28	81	596
25 - 34 years	1,127	14.8	5	13.2	21	56	104	941
35 - 44 years	1,044	13.7	4	10.5	20	29	99	892
45 - 54 years	1,361	17.8	9	23.7	31	46	113	1,162
55 - 64 years	1,266	16.6	5	13.2	24	50	99	1,088
65 - 69 years	443	5.8	2	5.3	10	14	31	386
70 - 74 years	337	4.4	3	7.9	10	14	32	278
75 - 79 years	196	2.6	0	0.0	1	8	20	167
80 - 84 years	131	1.7	1	2.6	3	7	14	106
85 - 89 years	71	0.9	1	2.6	1	4	4	61
90 years and over	21	0.3	0	0.0	0	0	2	19
Unknown	33	0.4	0	0.0	0	0	4	29
Total	7,633	100.0	38	100.0	168	295	692	6,440

Note: This table excludes 805 drivers of unknown gender.

The male driver age group 45 to 54 years experienced the highest number of fatal crashes and property damage only crashes.





## UPPER PENINSULA MALE DRINKING DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRINKING DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Male Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	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	3	1.2	1	7.1	0	0	0	2
18 years	3	1.2	0	0.0	0	0	0	3
19 years	5	2.0	1	7.1	1	0	1	2
20 years	13	5.2	0	0.0	1	0	4	8
21 - 24 years	54	21.6	3	21.4	2	5	12	32
25 - 34 years	58	23.2	2	14.3	3	12	4	37
35 - 44 years	34	13.6	1	7.1	5	2	2	24
45 - 54 years	40	16.0	4	28.6	3	6	5	22
55 - 64 years	21	8.4	1	7.1	1	2	4	13
65 - 69 years	7	2.8	0	0.0	1	0	0	6
70 - 74 years	8	3.2	1	7.1	1	2	0	4
75 - 79 years	0	0.0	0	0.0	0	0	0	0
80 - 84 years	3	1.2	0	0.0	1	0	0	2
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	1	0.4	0	0.0	0	0	1	0
Total	250	100.0	14	100.0	19	29	33	155

Note: This table excludes one driver of unknown gender.

The male drinking driver age group 45 to 54 years experienced the highest number of fatal crashes.



## UPPER PENINSULA FEMALE DRIVERS BY AGE & INJURY SEVERITY IN CRASH

AGE OF DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							
	Female Drivers		Fatal		Injury			PDO
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	2	0.0	0	0.0	1	1	0	0
14 years	4	0.1	0	0.0	0	2	0	2
15 years	9	0.2	0	0.0	0	1	2	6
16 years	105	1.9	0	0.0	2	2	25	76
17 years	147	2.7	0	0.0	4	10	24	109
18 years	153	2.8	1	8.3	2	10	23	117
19 years	151	2.8	1	8.3	4	7	7	132
20 years	157	2.9	0	0.0	0	11	21	125
21 - 24 years	558	10.3	1	8.3	13	16	72	456
25 - 34 years	885	16.3	1	8.3	9	20	102	753
35 - 44 years	834	15.4	3	25.0	8	24	109	690
45 - 54 years	925	17.1	1	8.3	18	18	112	776
55 - 64 years	827	15.3	1	8.3	7	21	81	717
65 - 69 years	231	4.3	2	16.7	6	8	17	198
70 - 74 years	179	3.3	1	8.3	2	8	28	140
75 - 79 years	105	1.9	0	0.0	4	3	11	87
80 - 84 years	72	1.3	0	0.0	1	4	10	57
85 - 89 years	53	1.0	0	0.0	2	5	7	39
90 years and over	11	0.2	0	0.0	0	1	3	7
Unknown	10	0.2	0	0.0	0	0	1	9
Total	5,418	100.0	12	100.0	83	172	655	4,496

Note: This table excludes 805 drivers of unknown gender.

The female driver age group 35 to 44 years experienced the highest number of fatal crashes.



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

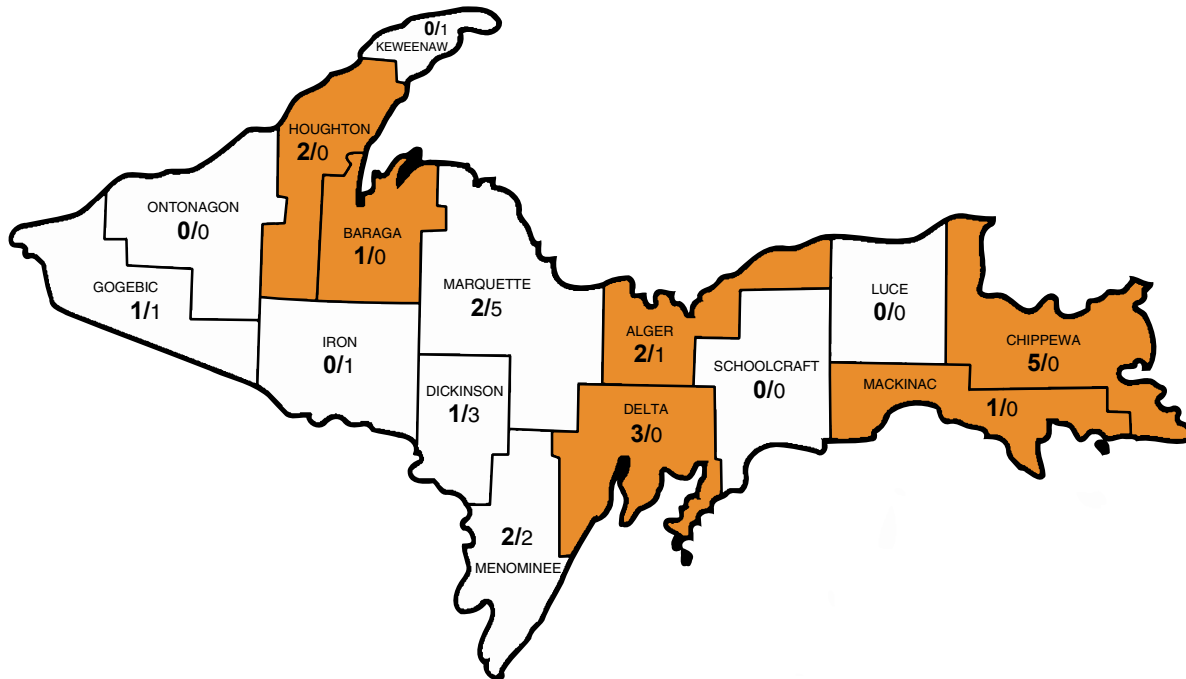
AGE OF DRINKING DRIVER IN CRASH	MOST SEVERE OUTCOME IN CRASH							PDO
	Female Drivers		Fatal		Injury			
	Number	% of Total	Number	% of Fatal	A	B	C	
13 years and under	0	0.0	0	0.0	0	0	0	0
14 years	0	0.0	0	0.0	0	0	0	0
15 years	0	0.0	0	0.0	0	0	0	0
16 years	0	0.0	0	0.0	0	0	0	0
17 years	3	3.9	0	0.0	2	0	0	1
18 years	2	2.6	0	0.0	0	0	0	2
19 years	3	3.9	0	0.0	0	0	0	3
20 years	3	3.9	0	0.0	0	1	1	1
21 - 24 years	8	10.4	0	0.0	1	1	2	4
25 - 34 years	26	33.8	0	0.0	2	1	3	20
35 - 44 years	10	13.0	2	66.7	0	2	0	6
45 - 54 years	12	15.6	1	33.3	2	0	3	6
55 - 64 years	6	7.8	0	0.0	0	0	3	3
65 - 69 years	2	2.6	0	0.0	0	0	0	2
70 - 74 years	1	1.3	0	0.0	0	1	0	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	1	1.3	0	0.0	1	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	77	100.0	3	100.0	8	6	12	48

Note: This table excludes one driver of unknown gender.

The female drinking driver age group 35 to 44 years experienced the highest number of fatal crashes.



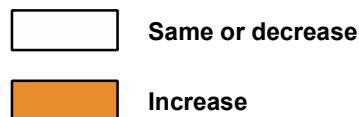
## UPPER PENINSULA TRAFFIC FATALITIES WITH DRINKING INVOLVEMENT BY COUNTY



Where HBD  
Traffic Fatalities Occurred

A One-Year Comparison

2013 = 20 / 2012 = 14



2013

2013

2013

2013

2013

2013

2013

2013

**Deer**  
**Upper Peninsula**

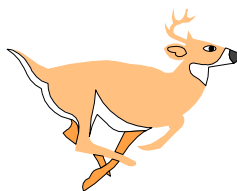
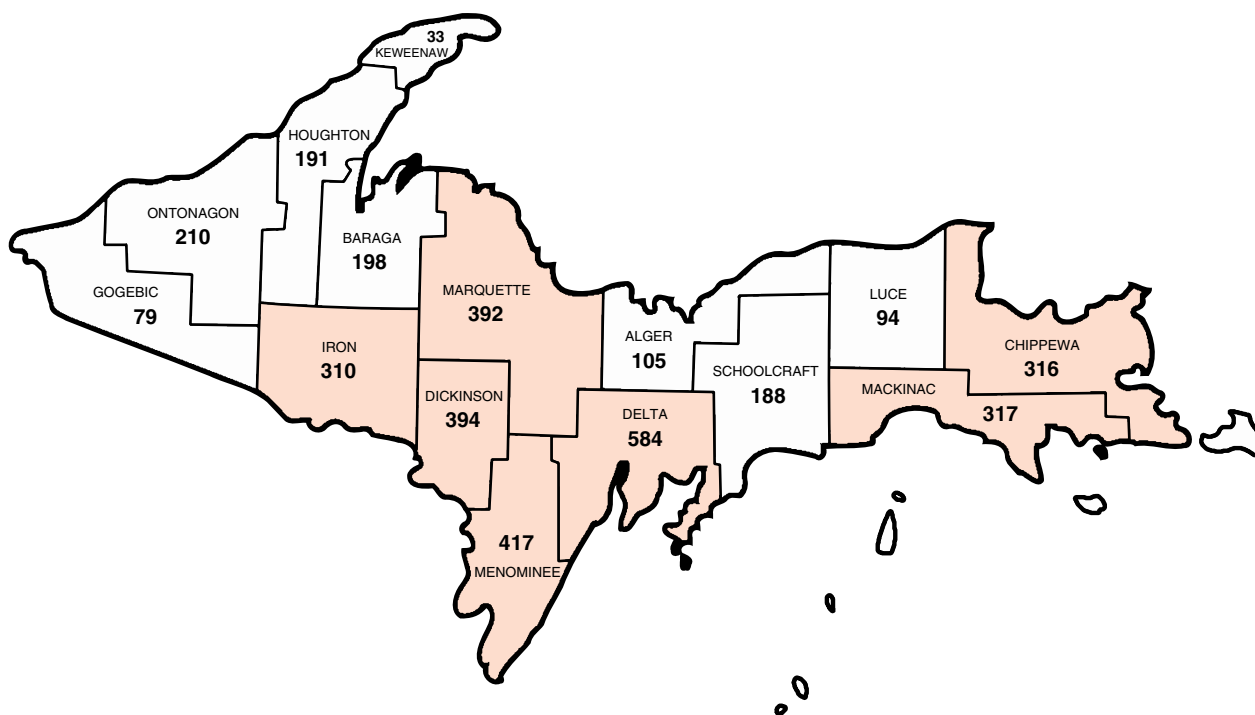




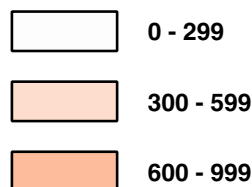
## UPPER PENINSULA MOTOR VEHICLE-DEER INVOLVED CRASHES

The Upper Peninsula had 3,828 reported vehicle-deer crashes during 2013. Those collisions resulted in 83 people injured and one motorcyclist and one passenger car driver killed. Of the 3,835 vehicles involved, 2,728 (71.1%) were passenger cars, 828 (21.6%) were pickups, and 174 (4.5%) were minivans, vans, or motorhomes. All other vehicle types (including motorcycle, snowmobile, ORV/ATV, large truck, and moped) totaled 105 (2.7%).

In the Upper Peninsula, 38.4 percent of crashes in all counties involved deer. This compares to 17.0 percent for the number of deer-involved crashes statewide. Delta County had the highest number of vehicle-deer crashes (584); translating to 45.3 percent of the total crashes in that county in 2013.



### Vehicle-Deer Crashes



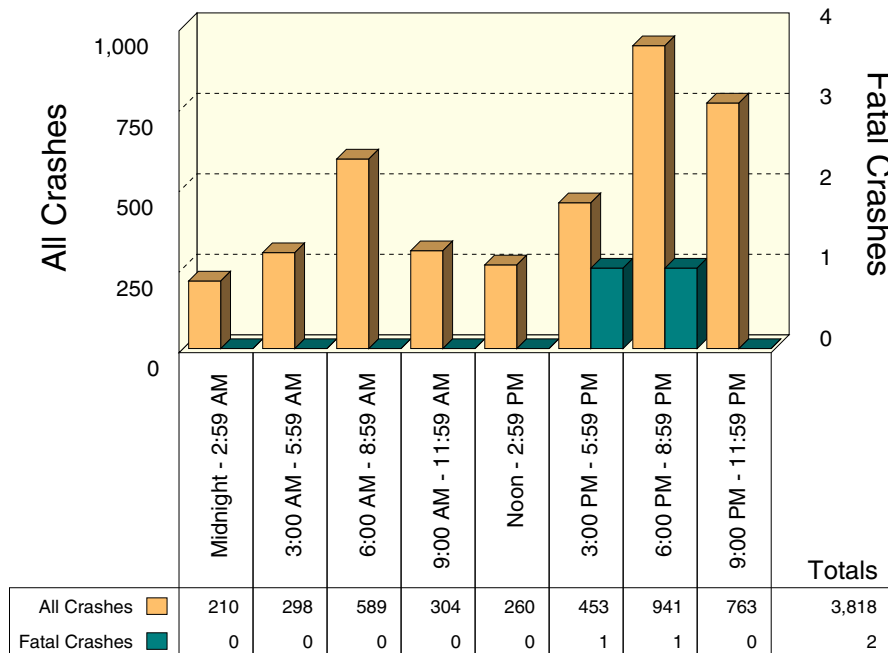


## UPPER PENINSULA - LIGHT CONDITION AND TIME OF DAY IN MOTOR VEHICLE -DEER CRASHES

LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	1,232	32.2	1	50.0	3	10	24	1,194
Dawn	243	6.3	0	0.0	0	2	3	238
Dusk	292	7.6	0	0.0	2	0	0	290
Dark – Lighted	139	3.6	0	0.0	0	0	2	137
Dark – Unlighted	1,857	48.5	1	50.0	1	8	20	1,827
Other/Unknown	65	1.7	0	0.0	1	0	0	64
Total	3,828	100.0	2	100.0	7	20	49	3,750

NOTE: PDO = Property Damage Only

### Time and Severity of Motor Vehicle - Deer Crashes



NOTE: Time and Severity chart excludes 10 crashes where time of day is unknown.

24.6 percent (941) of the reported vehicle-deer collisions occurred during the 6:00 PM to 8:59 PM time period.



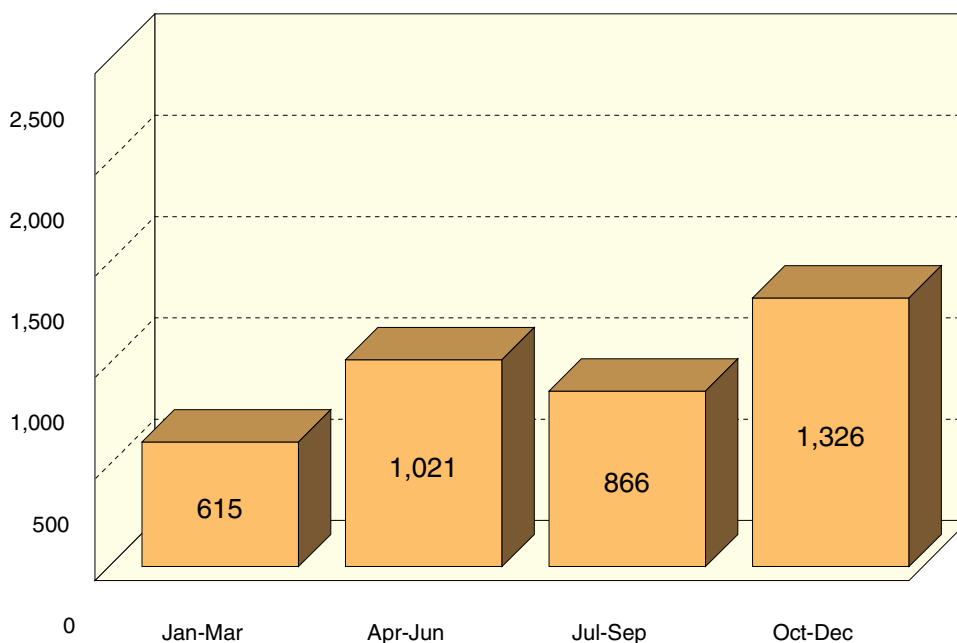


## UPPER PENINSULA MONTHLY AND SEASONAL RATES FOR MOTOR VEHICLE-DEER CRASHES

MONTH	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
January	303	7.9	1	50.0	0	0	3	299
February	149	3.9	0	0.0	0	0	3	146
March	163	4.3	0	0.0	0	0	1	162
April	345	9.0	1	50.0	0	2	4	338
May	291	7.6	0	0.0	0	2	4	285
June	385	10.1	0	0.0	2	1	6	376
July	325	8.5	0	0.0	1	5	6	313
August	223	5.8	0	0.0	1	1	5	216
September	318	8.3	0	0.0	0	2	2	314
October	410	10.7	0	0.0	1	3	7	399
November	540	14.1	0	0.0	2	3	5	530
December	376	9.8	0	0.0	0	1	3	372
Total	3,828	100.0	2	100.0	7	20	49	3,750

NOTE: PDO = Property Damage Only

### Motor Vehicle - Deer Crashes



34.6 percent (1,326) of the reported vehicle-deer collisions occurred during the fourth quarter of the year.



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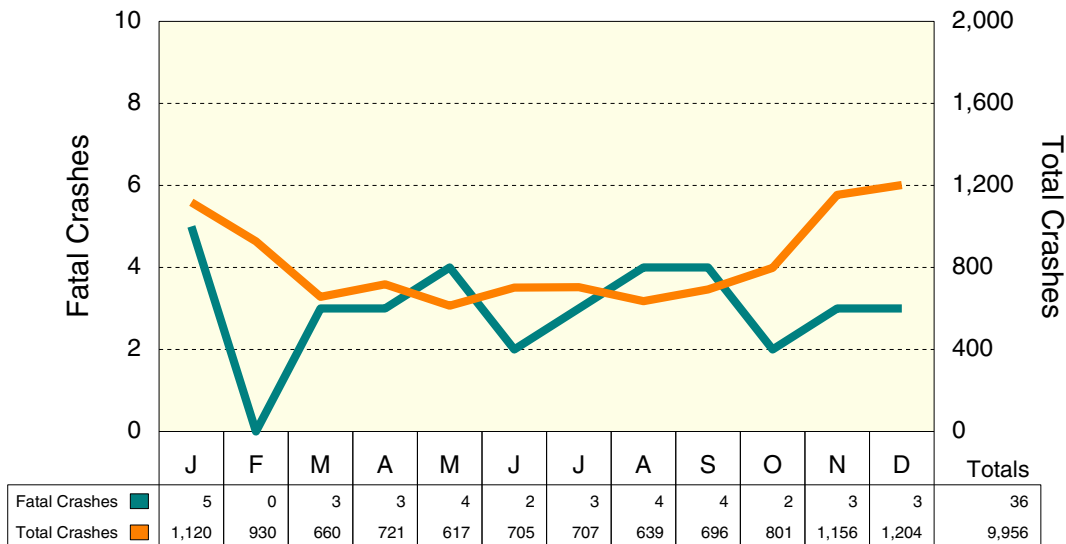
**Crash**  
**Upper Peninsula**



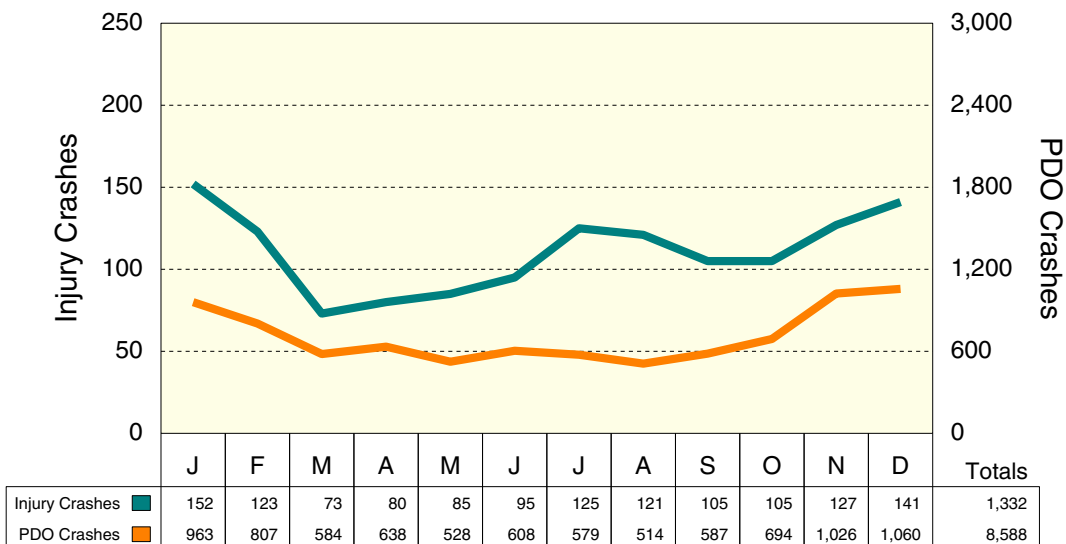


## UPPER PENINSULA ALL CRASHES INJURY SEVERITY BY MONTH

### Fatal and Total Crashes



### Injury and PDO Crashes





## UPPER PENINSULA CRASH TYPE

CRASH TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Single Vehicle	6,059	60.9	21	58.3	84	173	342	5,439
Head On	127	1.3	9	25.0	18	11	19	70
Head On - Left Turn	102	1.0	0	0.0	7	11	20	64
Angle	1,326	13.3	2	5.6	24	63	190	1,047
Rear End	1,006	10.1	1	2.8	14	31	161	799
Rear End - Left Turn	97	1.0	0	0.0	3	8	20	66
Rear End - Right Turn	56	0.6	0	0.0	1	1	8	46
Sideswipe - Same Direction	475	4.8	1	2.8	3	7	29	435
Sideswipe - Opposite Direct	194	1.9	1	2.8	3	8	19	163
Other/Unknown	514	5.2	1	2.8	11	10	33	459
Total	9,956	100.0	36	100.0	168	323	841	8,588

Single Vehicle, Head On, and Angle crash types produce the highest number of fatal crashes (88.9%).

## UPPER PENINSULA RELATIONSHIP TO ROADWAY

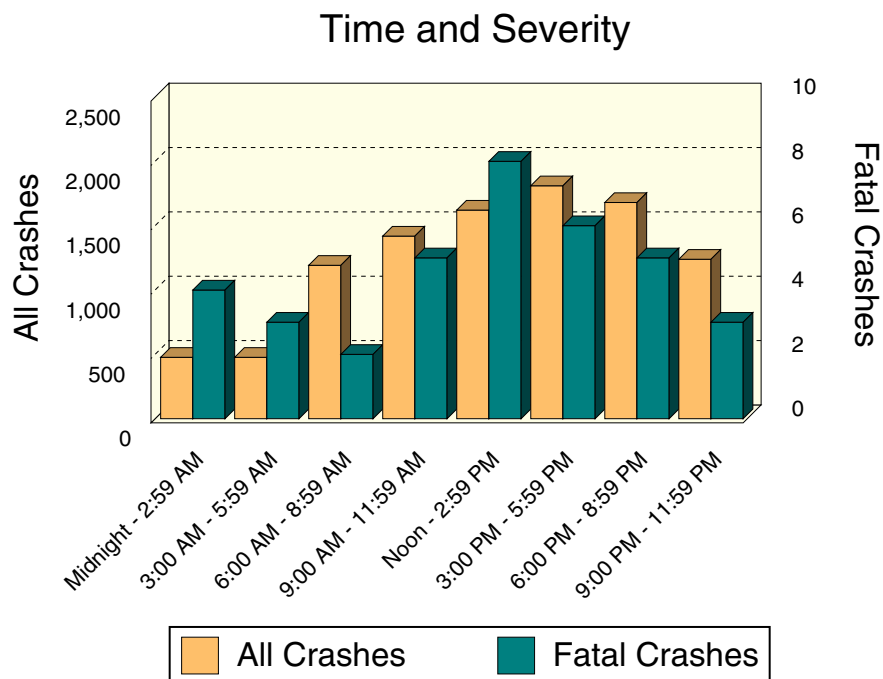
LOCATION OF FIRST IMPACT	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
On Road	7,815	78.5	20	55.6	108	193	582	6,912
Median	45	0.5	0	0.0	1	2	4	38
Shoulder	713	7.2	3	8.3	20	31	62	597
Outside of Shoulder/Curb	1,138	11.4	11	30.6	32	84	167	844
Gore	69	0.7	0	0.0	4	4	11	50
Other/Unknown	176	1.8	2	5.6	3	9	15	147
Total	9,956	100.0	36	100.0	168	323	841	8,588

Crashes that happen outside of the normal driving lanes are overrepresented in the fatal count. Only 11.4 percent of crashes occur outside the shoulder of the road, but these crashes account for 30.6 percent of the fatal crashes.



## UPPER PENINSULA TIME AND SEVERITY

TIME OF DAY	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Midnight - 2:59 AM	477	4.8	4	11.1	8	16	30	419
3:00 AM - 5:59 AM	477	4.8	3	8.3	8	12	33	421
6:00 AM - 8:59 AM	1,192	12.0	2	5.6	9	40	98	1,043
9:00 AM - 11:59 AM	1,419	14.3	5	13.9	24	45	141	1,204
Noon - 2:59 PM	1,621	16.3	8	22.2	38	61	173	1,341
3:00 PM - 5:59 PM	1,810	18.2	6	16.7	37	74	202	1,491
6:00 PM - 8:59 PM	1,680	16.9	5	13.9	24	47	109	1,495
9:00 PM - 11:59 PM	1,239	12.4	3	8.3	19	28	54	1,135
Unknown	41	0.4	0	0.0	1	0	1	39
Total	9,956	100.0	36	100.0	168	323	841	8,588



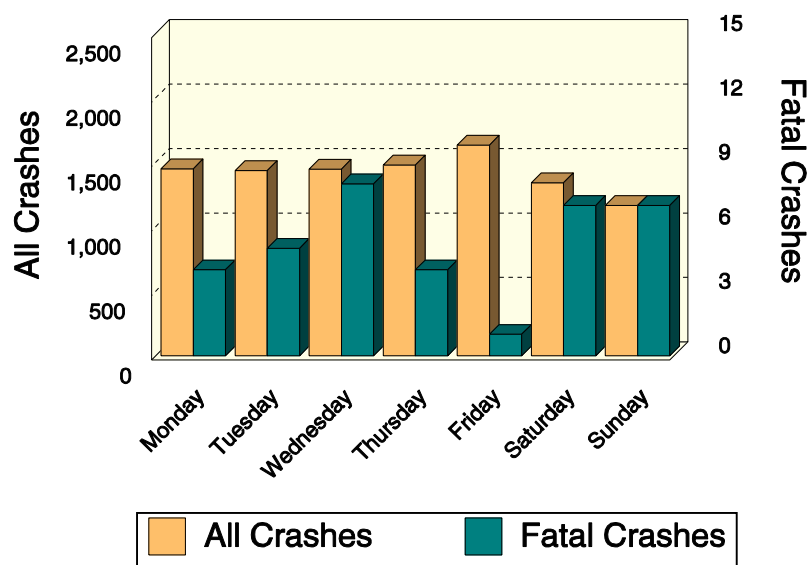
In the Upper Peninsula, all crash frequencies peak in the early evening, then drop off until 6:00 AM (the morning rush hour).



## UPPER PENINSULA DAY OF WEEK

DAY OF WEEK	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Monday	1,450	14.6	4	11.1	26	35	116	1,269
Tuesday	1,437	14.4	5	13.9	18	50	121	1,243
Wednesday	1,447	14.5	8	22.2	19	43	131	1,246
Thursday	1,479	14.9	4	11.1	20	45	120	1,290
Friday	1,634	16.4	1	2.8	33	50	155	1,395
Saturday	1,342	13.5	7	19.4	31	64	108	1,132
Sunday	1,167	11.7	7	19.4	21	36	90	1,013
Total	9,956	100.0	36	100.0	168	323	841	8,588

Day of Week and Severity



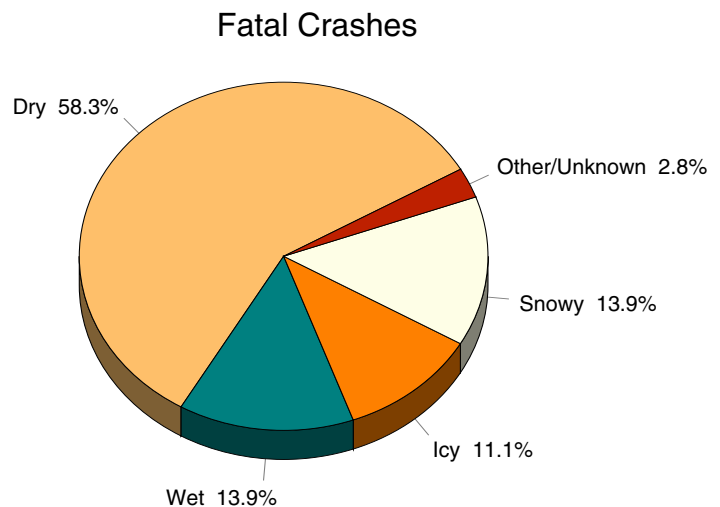
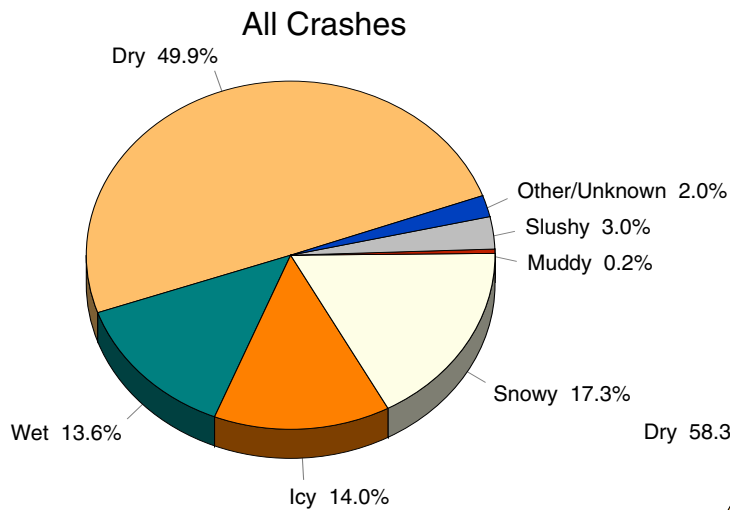
Crash frequencies were higher Monday through Friday than on the weekend. Wednesday (22.2%) and Saturday along with Sunday (19.4%) had the highest number of fatal crashes.





## UPPER PENINSULA ROAD CONDITION

ROAD SURFACE CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Dry	4,966	49.9	21	58.3	88	176	414	4,267
Wet	1,355	13.6	5	13.9	23	40	102	1,185
Icy	1,395	14.0	4	11.1	22	40	148	1,181
Snowy	1,719	17.3	5	13.9	25	45	141	1,503
Muddy	16	0.2	0	0.0	1	0	0	15
Slushy	303	3.0	0	0.0	6	16	29	252
Debris	4	0.0	0	0.0	2	0	1	1
Other/Unknown	198	2.0	1	2.8	1	6	6	184
Total	9,956	100.0	36	100.0	168	323	841	8,588

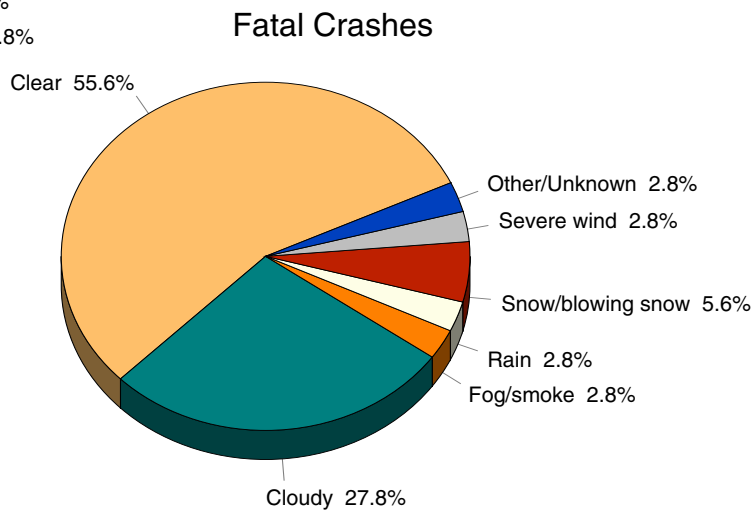
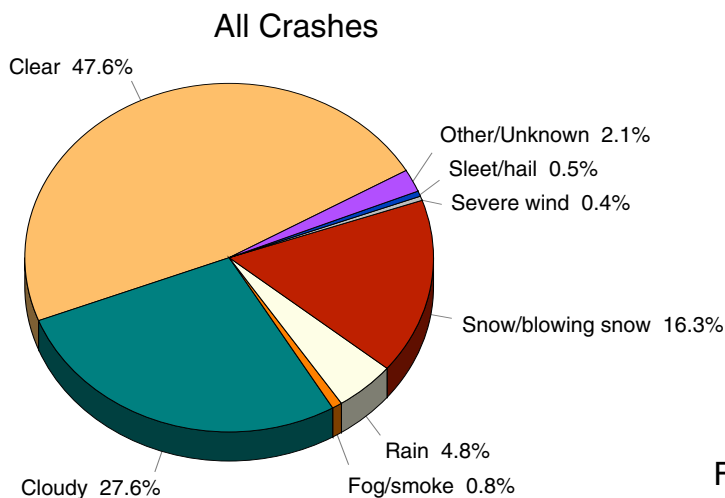


Most crashes (49.9%) and most fatal crashes (58.3%) occur on dry roads.



## UPPER PENINSULA WEATHER CONDITION

WEATHER CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Clear	4,737	47.6	20	55.6	94	162	417	4,044
Cloudy	2,746	27.6	10	27.8	38	83	212	2,403
Fog/Smoke	78	0.8	1	2.8	0	4	5	68
Rain	477	4.8	1	2.8	7	18	45	406
Snow/Blowing Snow	1,622	16.3	2	5.6	28	50	148	1,394
Severe Wind	43	0.4	1	2.8	0	0	3	39
Sleet/Hail	47	0.5	0	0.0	0	1	6	40
Other/Unknown	206	2.1	1	2.8	1	5	5	194
Total	9,956	100.0	36	100.0	168	323	841	8,588



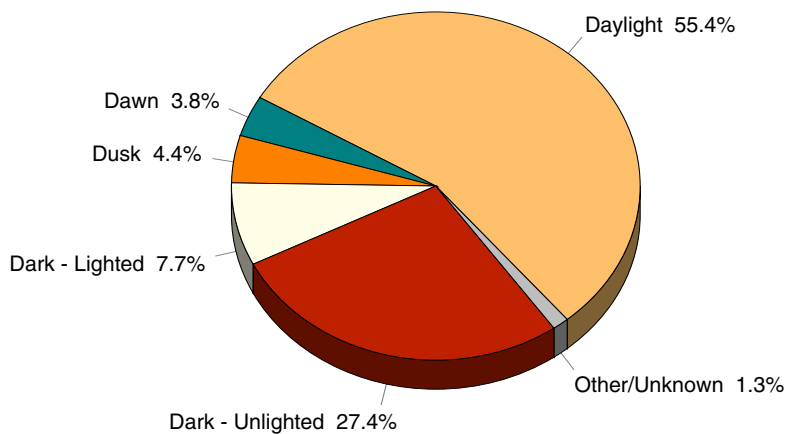
In the Upper Peninsula, most crashes (47.6%) and most fatal crashes (55.6%) occur during clear weather conditions.



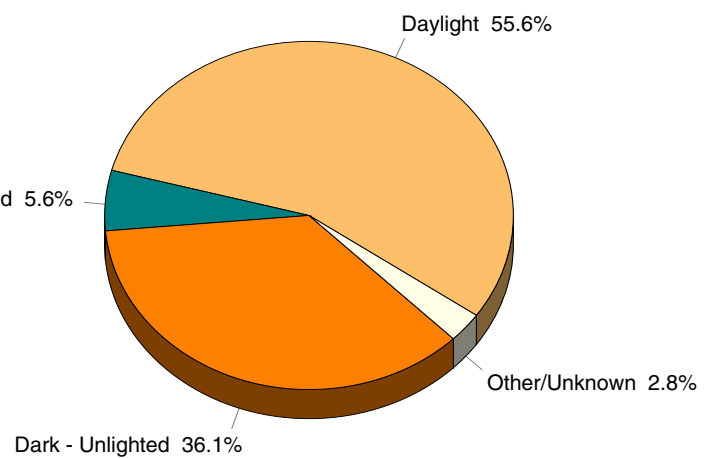
## UPPER PENINSULA LIGHT CONDITION

LIGHT CONDITION	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Daylight	5,515	55.4	20	55.6	113	222	595	4,565
Dawn	382	3.8	0	0.0	3	13	18	348
Dusk	441	4.4	0	0.0	4	5	23	409
Dark – Lighted	762	7.7	2	5.6	11	25	77	647
Dark – Unlighted	2,728	27.4	13	36.1	36	58	126	2,495
Other/Unknown	128	1.3	1	2.8	1	0	2	124
Totals	9,956	100.0	36	100.0	168	323	841	8,588

All Crashes



Fatal Crashes



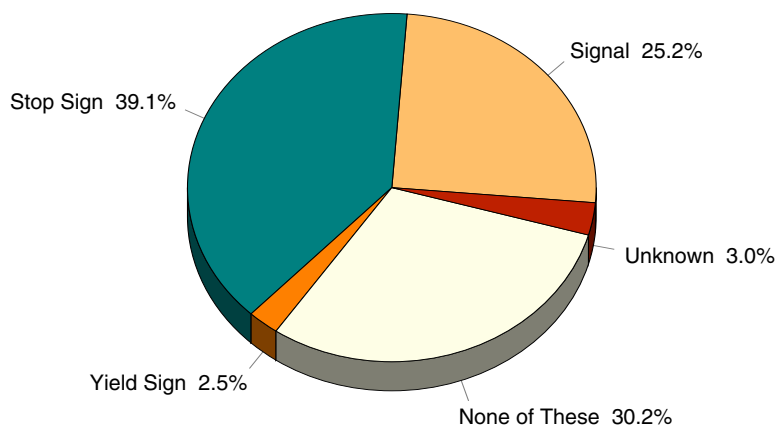
In the Upper Peninsula, the majority (55.4%) of all crashes happen during daylight hours.



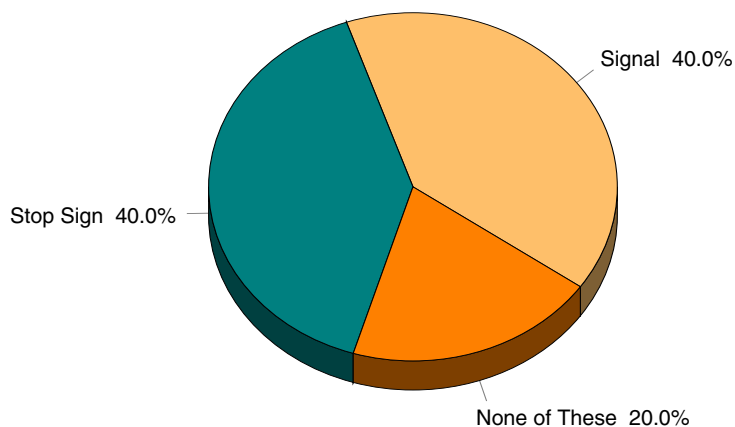
## UPPER PENINSULA INTERSECTION CRASHES BY TRAFFIC CONTROL TYPE

TRAFFIC CONTROL TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Total	Number	% of Fatal	A	B	C	
Signal	559	25.2	2	40.0	11	23	102	421
Stop Sign	866	39.1	2	40.0	17	43	136	668
Yield Sign	55	2.5	0	0.0	0	6	8	41
None of These	669	30.2	1	20.0	11	30	84	543
Unknown	66	3.0	0	0.0	1	3	13	49
Total	2,215	100.0	5	100.0	40	105	343	1,722

All Crashes



Fatal Crashes

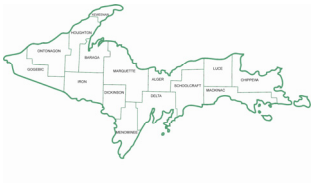


Intersections with stop signs had the highest number of crashes (39.1%). Driver perception, awareness, and adherence to traffic control signing are all key factors in crashes at intersections.



## UPPER PENINSULA CONSTRUCTION ZONE CRASHES

CONSTRUCTION ZONE TYPE	All Crashes		Fatal Crashes		Injury Crashes			PDO Crashes
	Number	% of Subtotal	Number	% of Subtotal	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).						
Activity - On Road								
Lane Closed	28	50.0	0	0.0	0	0	9	19
Lane Open	17	30.4	0	0.0	1	2	2	12
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - Off Road								
Lane Closed	1	1.8	0	0.0	0	1	0	0
Lane Open	1	1.8	0	0.0	0	0	0	1
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - None								
Lane Closed	5	8.9	0	0.0	0	0	1	4
Lane Open	4	7.1	0	0.0	0	0	0	4
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity – Unknown								
Lane Closed	0	0.0	0	0.0	0	0	0	0
Lane Open	0	0.0	0	0.0	0	0	0	0
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Subtotal	56	100.0	0	0.0	1	3	12	40
Utility		Indicates work on facilities other than the roadway such as telephone, electrical, cable television, water, or sewer.						
Activity - On Road								
Lane Closed	0	0.0	0	0.0	0	0	0	0
Lane Open	2	66.7	0	0.0	0	0	0	2
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - Off Road								
Lane Closed	1	33.3	0	0.0	0	0	0	1
Lane Open	0	0.0	0	0.0	0	0	0	0
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - None								
Lane Closed	0	0.0	0	0.0	0	0	0	0
Lane Open	0	0.0	0	0.0	0	0	0	0
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Activity - Unknown								
Lane Closed	0	0.0	0	0.0	0	0	0	0
Lane Open	0	0.0	0	0.0	0	0	0	0
Unknown Lane Closure	0	0.0	0	0.0	0	0	0	0
Subtotal	3	100.0	0	0.0	0	0	0	3
Unknown Type / Unknown Lane Closure / Activity None								
Subtotal	128		0		4	3	6	115
Total	187		0		5	6	18	158



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**Vehicle/  
Driver  
Upper Peninsula**







## UPPER PENINSULA VEHICLE TYPE CRASH INVOLVEMENT

Vehicle Type	MOST SEVERE OUTCOME IN CRASH						MOST SEVERE OUTCOME IN VEHICLE			
	Motor Vehicles		Fatal Crash		Injury Crash	PDO Crash	Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Passenger Car and Station Wagon	9,448	67.7	25	49.0	1,358	8,065	15	44.1	956	8,477
Van and Motorhome	565	4.1	1	2.0	73	491	1	2.9	51	513
Pickup	2,837	20.3	10	19.6	405	2,422	9	26.5	230	2,598
Small Truck (under 10,000 lbs.)	270	1.9	2	3.9	44	224	0	0.0	26	244
Motorcycle	105	0.8	2	3.9	73	30	2	5.9	72	31
Moped	23	0.2	1	2.0	17	5	1	2.9	17	5
Go Cart	1	0.0	0	0.0	0	1	0	0.0	0	1
Snowmobile	67	0.5	3	5.9	38	26	3	8.8	35	29
Off-Road Vehicle	62	0.4	3	5.9	49	10	3	8.8	44	15
Other	59	0.4	0	0.0	12	47	0	0.0	5	54
Unknown	191	1.4	0	0.0	9	182	0	0.0	0	191
CDL Truck/Bus (breakdown below)	322	2.3	4	7.8	47	271	0	0.0	12	310
Total Number of Vehicles	13,950	100.0	51	100.0	2,125	11,774	34	100.0	1,448	12,468

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

CDL Truck/Bus Sub-category Type	Motor Vehicles		Fatal Crash		Injury Crash	PDO Crash	Fatality in Veh		Injury	No Injury
	Number of Vehicles	% of Total	Number	% of Total			Number	% of Total		
Commercial Vehicle: Group A	220	68.3	3	75.0	34	183	0	0.0	6	214
Commercial Vehicle: Group B	70	21.7	1	25.0	9	60	0	0.0	5	65
Commercial Vehicle: Group C	6	1.9	0	0.0	0	6	0	0.0	0	6
Other Truck	18	5.6	0	0.0	4	14	0	0.0	1	17
Unknown Truck	8	2.5	0	0.0	0	8	0	0.0	0	8
Total Number of Vehicles	322	100.0	4	100.0	47	271	0	0.0	12	310

Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

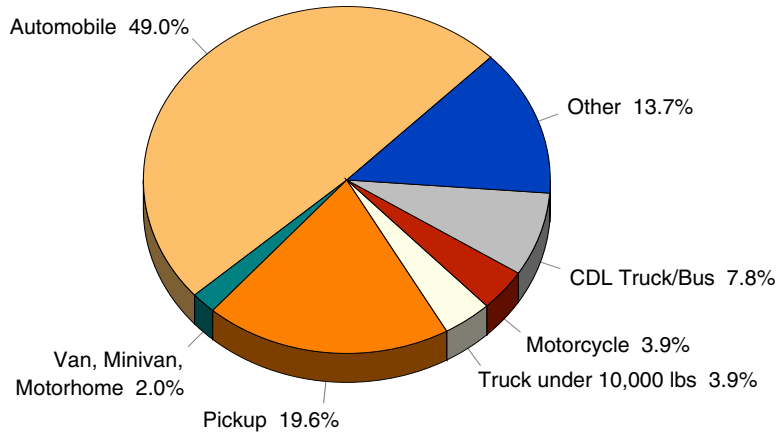
Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.



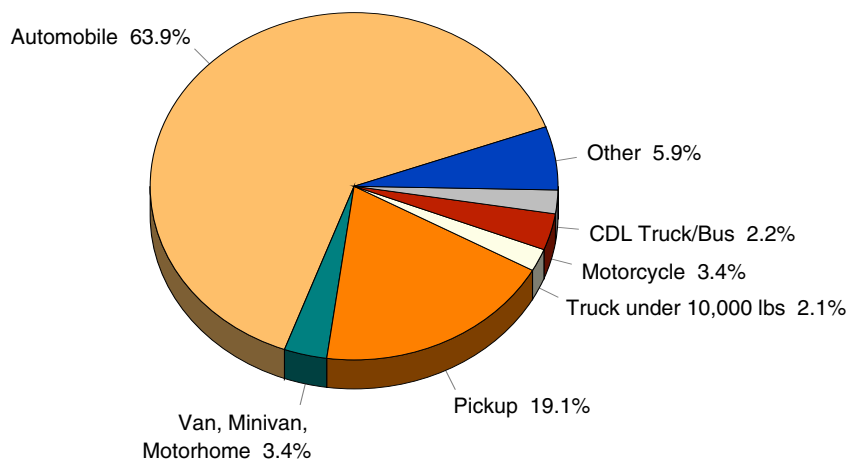
## UPPER PENINSULA VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

### FATAL



The top chart shows that 68.6 percent of vehicles involved in fatal crashes in the Upper Peninsula are automobiles or pickups. Motorcycles and van/minivan/motorhome have a fatal crash involvement of 5.9 percent.

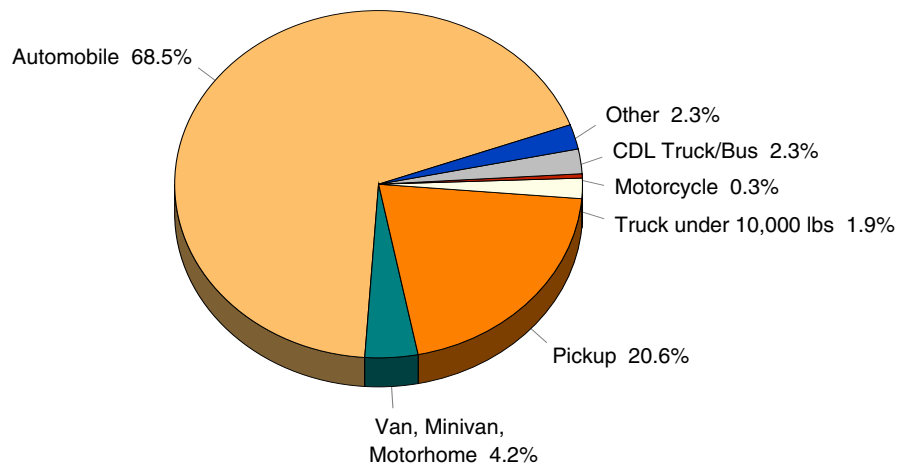
### INJURY



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

As with fatal crashes, injury and property damage only (PDO) crashes are represented primarily by cars and pickups.

### PROPERTY DAMAGE ONLY





## UPPER PENINSULA ACTION PRIOR TO CRASH

### MOST SEVERE OUTCOME IN CRASH

DRIVER ACTION	Vehicles		Fatal Crash	Injury Crash			PDO Crash
	Number of Vehicles	% of Total		A	B	C	
Going straight ahead	8,926	64.0	39	177	330	837	7,543
Turning left	749	5.4	4	25	54	110	556
Turning right	355	2.5	0	6	16	31	302
Stopped on roadway	729	5.2	0	10	16	131	572
In prior crash	18	0.1	0	1	1	2	14
Changing lanes	134	1.0	0	1	4	8	121
Backing	519	3.7	0	1	2	9	507
Slowing/stopping on roadway	713	5.1	1	5	13	101	593
Slowing/stopping other	36	0.3	0	1	0	4	31
Starting up on roadway	252	1.8	0	1	6	31	214
Starting up other	8	0.1	0	2	0	1	5
Entering parking	33	0.2	0	0	0	2	31
Leaving parking	52	0.4	0	0	0	3	49
Entering roadway	174	1.2	0	5	9	23	137
Leaving roadway	13	0.1	0	1	2	0	10
Making U-turn	27	0.2	0	1	0	5	21
Overtaking or passing	93	0.7	2	2	5	8	76
Avoiding object	14	0.1	0	0	0	2	12
Avoiding animal	106	0.8	0	1	8	10	87
Avoiding pedestrian	2	0.0	0	0	0	0	2
Avoiding vehicle (front/back)	86	0.6	3	7	1	19	56
Avoiding vehicle (angle)	49	0.4	1	1	2	9	36
Driverless moving	17	0.1	0	1	1	0	15
Parked	688	4.9	1	11	12	29	635
Crossing at intersection	0	0.0	0	0	0	0	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	1	0.0	0	0	0	1	0
In roadway against traffic	1	0.0	0	0	0	1	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	1	0.0	0	0	0	0	1
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
Other	14	0.1	0	1	1	1	11
Unknown	139	1.0	0	0	0	3	136
<b>Total</b>	<b>13,950</b>	<b>100.0</b>	<b>51</b>	<b>261</b>	<b>483</b>	<b>1,381</b>	<b>11,774</b>



## UPPER PENINSULA ACTION PRIOR TO CRASH (continued)

### MOTORCYCLIST – INJURY SEVERITY

MOTORCYCLIST ACTION	Motorcycles		Motorcyclists*		Fatality	Injury			No Injury
	Number of Motorcycles	% of Total	Number of Motorcyclists	% of Total		A	B	C	
Going straight ahead	69	65.7	76	64.4	2	20	19	17	18
Turning left	6	5.7	6	5.1	0	0	2	4	0
Turning right	6	5.7	7	5.9	0	1	3	1	2
Stopped on roadway	3	2.9	3	2.5	0	0	0	1	2
In prior crash	0	0.0	0	0.0	0	0	0	0	0
Changing lanes	1	1.0	2	1.7	0	0	1	0	1
Backing	0	0.0	0	0.0	0	0	0	0	0
Slowing/stopping on roadway	4	3.8	5	4.2	0	1	1	0	3
Slowing/stopping other	1	1.0	2	1.7	0	0	0	2	0
Starting up on roadway	2	1.9	2	1.7	0	0	0	1	1
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	0.8	0	1	0	0	0
Leaving roadway	0	0.0	0	0.0	0	0	0	0	0
Making U-turn	1	1.0	1	0.8	0	0	0	0	1
Overtaking or passing	3	2.9	4	3.4	0	1	3	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)	3	2.9	4	3.4	0	3	0	0	1
Avoiding vehicle (angle)	0	0.0	0	0.0	0	0	0	0	0
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	5	4.8	5	4.2	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
Other	0	0.0	0	0.0	0	0	0	0	0
Unknown	0	0.0	0	0.0	0	0	0	0	0
<b>Total</b>	<b>105</b>	<b>100.0</b>	<b>118</b>	<b>100.0</b>	<b>2</b>	<b>27</b>	<b>29</b>	<b>26</b>	<b>29</b>

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



## UPPER PENINSULA ACTION PRIOR TO CRASH (continued)

### BICYCLIST - INJURY SEVERITY

BICYCLIST ACTION	Bicycles		Bicyclists*		Fatality	Injury			No Injury
	Number of Bicycles	% of Total	Number of Bicyclists	% of Total		A	B	C	
Going straight ahead	27	62.8	27	62.8	0	5	7	11	4
Turning left	0	0.0	0	0.0	0	0	0	0	0
Turning right	1	2.3	1	2.3	0	0	1	0	0
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	0	0.0	0	0.0	0	0	0	0	0
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	0	0.0	0	0.0	0	0	0	0	0
Entering roadway	1	2.3	1	2.3	0	0	0	1	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	2.3	1	2.3	0	0	1	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)	0	0.0	0	0.0	0	0	0	0	0
Avoiding vehicle (angle)	0	0.0	0	0.0	0	0	0	0	0
Driverless moving	0	0.0	0	0.0	0	0	0	0	0
Parked	0	0.0	0	0.0	0	0	0	0	0
Crossing at intersection	6	14.0	6	14.0	0	1	0	3	0
Crossing not at intersection	2	4.7	2	4.7	0	0	0	1	1
Getting on/off vehicle	0	0.0	0	0.0	0	0	0	0	0
In roadway with traffic	1	2.3	1	2.3	0	0	0	1	0
In roadway against traffic	1	2.3	1	2.3	0	0	1	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	2	4.7	2	4.7	0	0	0	1	1
Other	0	0.0	0	0.0	0	0	0	0	0
Unknown	1	2.3	1	2.3	0	0	1	0	0
Total	43	100.0	43	100.0	0	6	11	18	6

\* Includes two bicyclists with unknown injury severity



## UPPER PENINSULA ACTION PRIOR TO CRASH (continued)

### PEDESTRIAN - INJURY SEVERITY

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)	1	3.1	0	1	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	28.1	0	2	4	3	0
Crossing not at intersection	9	28.1	0	1	3	4	1
Getting on/off vehicle	2	6.3	0	0	2	0	0
In roadway with traffic	2	6.3	0	0	0	2	0
In roadway against traffic	0	0.0	0	0	0	0	0
Standing or lying in roadway	3	9.4	2	0	0	1	0
Pushing/working on vehicle	0	0.0	0	0	0	0	0
Other working in roadway	1	3.1	0	0	1	0	0
Playing in roadway	0	0.0	0	0	0	0	0
In roadway other reason	3	9.4	1	0	1	1	0
Not in roadway	2	6.3	0	0	1	1	0
Other	0	0.0	0	0	0	0	0
Unknown	0	0.0	0	0	0	0	0
Total	32	100.0	3	4	12	12	1

\* Includes no pedestrian with unknown injury severity



## UPPER PENINSULA MOST HARMFUL EVENT

### MOST SEVERE OUTCOME IN CRASH

NONCOLLISION	Motor Vehicles		Fatal Crash	Injury Crash			PDO Crash
	Number of Vehicles	% of Total		A	B	C	
Loss of control	59	0.4	0	4	5	6	44
Cross center/median	8	0.1	0	1	1	0	6
Ran off road left	25	0.2	0	0	1	3	21
Ran off road right	47	0.3	0	0	2	4	41
Re-enter road	0	0.0	0	0	0	0	0
Overturn	398	2.9	3	23	55	78	239
Separation of units	7	0.1	0	1	0	0	6
Fire/explosion	16	0.1	0	0	2	0	14
Immersion	2	0.0	0	1	0	0	1
Jackknife	5	0.0	0	0	0	0	5
Downhill runaway	0	0.0	0	0	0	0	0
Cargo loss/shift	17	0.1	0	0	0	0	17
Individual fell off	37	0.3	1	16	7	10	3
Other noncollision	50	0.4	0	1	4	4	41
NONCOLLISION Subtotal	671	4.8	4	47	77	105	438

### MOST SEVERE OUTCOME IN CRASH

HAD A COLLISION WITH NONFIXED OBJECT	Motor Vehicles		Fatal Crash	Injury Crash			PDO Crash
	Number of Vehicles	% of Total		A	B	C	
Pedestrian	30	0.2	3	3	11	12	1
Bicycle / Pedalcycle	40	0.3	0	5	11	16	8
Motor vehicle in transport	6,943	49.8	27	155	277	975	5,509
Parked motor vehicle	627	4.5	1	5	15	27	579
Railway train	5	0.0	0	1	0	2	2
Animal	3,870	27.7	0	2	14	42	3,812
Other nonfixed objects	160	1.1	0	3	2	7	148
COLLISION NONFIXED Subtotal	11,675	83.7	31	174	330	1,081	10,059



## UPPER PENINSULA MOST HARMFUL EVENT (continued)

### MOST SEVERE OUTCOME IN CRASH

HAD A COLLISION WITH FIXED OBJECT	Motor Vehicles		Fatal Crash	Injury Crash			PDO Crash
	Number of Vehicles	% of Total		A	B	C	
Bridge/pier/abutment	6	0.0	0	0	0	0	6
Bridge parapet end	1	0.0	0	0	0	0	1
Bridge rail	15	0.1	0	0	0	3	12
Guardrail face	97	0.7	0	2	3	14	78
Guardrail end	16	0.1	1	0	2	2	11
Median barrier	24	0.2	0	1	0	2	21
Highway traffic sign post	93	0.7	0	0	1	1	91
Highway signal post	6	0.0	0	0	0	0	6
Luminaire/light support	14	0.1	0	0	0	1	13
Utility pole	124	0.9	0	1	12	26	85
Other pole	36	0.3	0	0	2	2	32
Culvert	10	0.1	0	1	2	1	6
Curb	28	0.2	0	0	1	7	20
Ditch	260	1.9	0	6	14	36	204
Embankment	128	0.9	1	1	1	18	107
Fence	23	0.2	0	0	1	2	20
Mailbox	61	0.4	0	1	0	3	57
Tree	422	3.0	12	25	30	60	295
Rail crossing signal	6	0.0	0	0	0	0	6
Building	22	0.2	0	0	2	1	19
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	15	0.1	0	0	0	0	15
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	136	1.0	2	2	5	14	113
<b>COLLISION FIXED Subtotal</b>	<b>1,543</b>	<b>11.1</b>	<b>16</b>	<b>40</b>	<b>76</b>	<b>193</b>	<b>1,218</b>

### MOST SEVERE OUTCOME IN CRASH

	Motor Vehicles		Fatal Crash	Injury Crash			PDO Crash
	Number of Vehicles	% of Total		A	B	C	
Unknown Event	61	0.4	0	0	0	2	59
<b>TOTAL MOST HARMFUL EVENT</b>	<b>13,950</b>	<b>100.0</b>	<b>51</b>	<b>261</b>	<b>483</b>	<b>1,381</b>	<b>11,774</b>





## UPPER PENINSULA VEHICLE DEFECTS IN CRASH INVOLVEMENT

MOST SEVERE OUTCOME IN CRASH

VEHICLE DEFECTS	Motor Vehicles		Fatal Crash	Injury Crash			PDO Crash
	Number of Vehicles	% of Total		A	B	C	
Brakes	23	0.2	0	2	1	3	17
Lights/reflectors	3	0.0	0	0	1	0	2
Steering	1	0.0	0	0	0	0	1
Tires/wheels	11	0.1	0	0	0	1	10
Windows	0	0.0	0	0	0	0	0
Other	14	0.1	0	1	2	2	9
None or Unknown	13,898	99.6	51	258	479	1,375	11,735
<b>TOTAL</b>	<b>13,950</b>	<b>100.0</b>	<b>51</b>	<b>261</b>	<b>483</b>	<b>1,381</b>	<b>11,774</b>

## UPPER PENINSULA DRIVER HAZARDOUS ACTION

MOST SEVERE OUTCOME IN CRASH

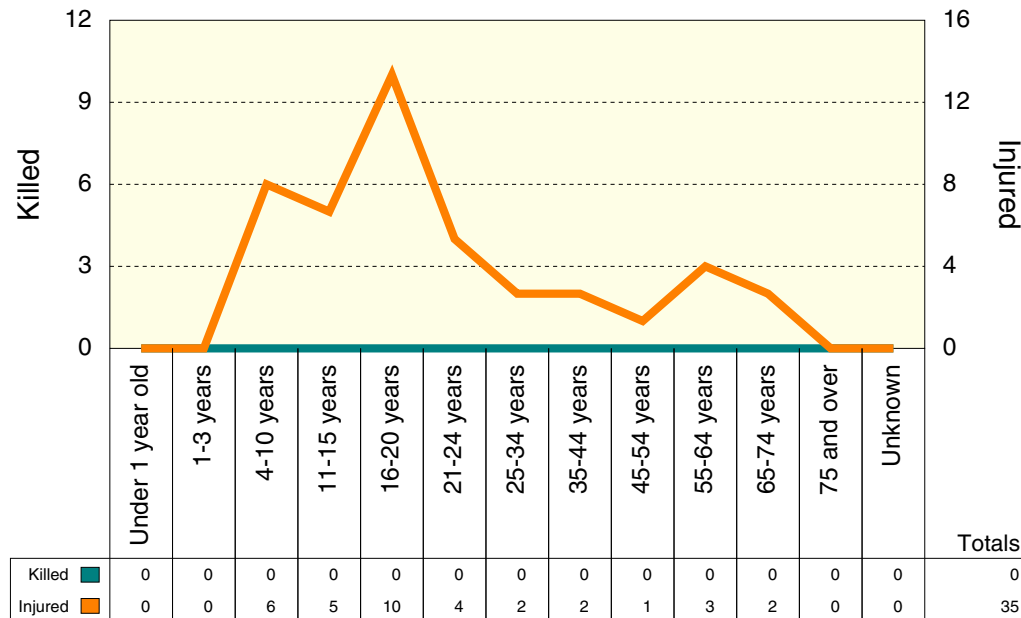
HAZARDOUS ACTION	All Drivers		Fatal Crash	Injury Crash			PDO Crash
	Number of Drivers	% of Total		A	B	C	
None	8,267	59.3	18	111	195	635	7,308
Speed too fast	1,409	10.1	13	41	89	185	1,081
Speed too slow	14	0.1	0	0	1	0	13
Failed to yield	1,007	7.2	1	32	60	174	740
Disregard traffic control	162	1.2	1	3	15	34	109
Drove wrong way	13	0.1	0	0	0	2	11
Drove left of center	73	0.5	5	8	4	6	50
Improper passing	50	0.4	0	1	1	4	44
Improper lane use	152	1.1	0	1	4	6	141
Improper turn	107	0.8	0	0	2	8	97
Improper/no signal	26	0.2	0	0	1	1	24
Improper backing	395	2.8	0	0	0	4	391
Unable to stop in assured clear distance	1,016	7.3	0	9	27	162	818
Reckless driving	76	0.5	0	13	7	9	47
Careless/negligent driving	501	3.6	4	25	47	91	334
Other	418	3.0	2	10	22	47	337
Unknown	264	1.9	7	7	8	13	229
<b>TOTAL</b>	<b>13,950</b>	<b>100.0</b>	<b>51</b>	<b>261</b>	<b>483</b>	<b>1,381</b>	<b>11,774</b>



## UPPER PENINSULA BICYCLE CRASHES



### 2013 Bicycle Crash Information



### BICYCLE HELMET USE AND INJURY SEVERITY

HELMET USE	Fatality	Injury			No Injury
		A	B	C	
Worn	0	2	2	3	1
Not Worn	0	1	6	10	2
Unknown	0	3	3	5	3
<b>Total</b>	<b>0</b>	<b>6</b>	<b>11</b>	<b>18</b>	<b>6</b>

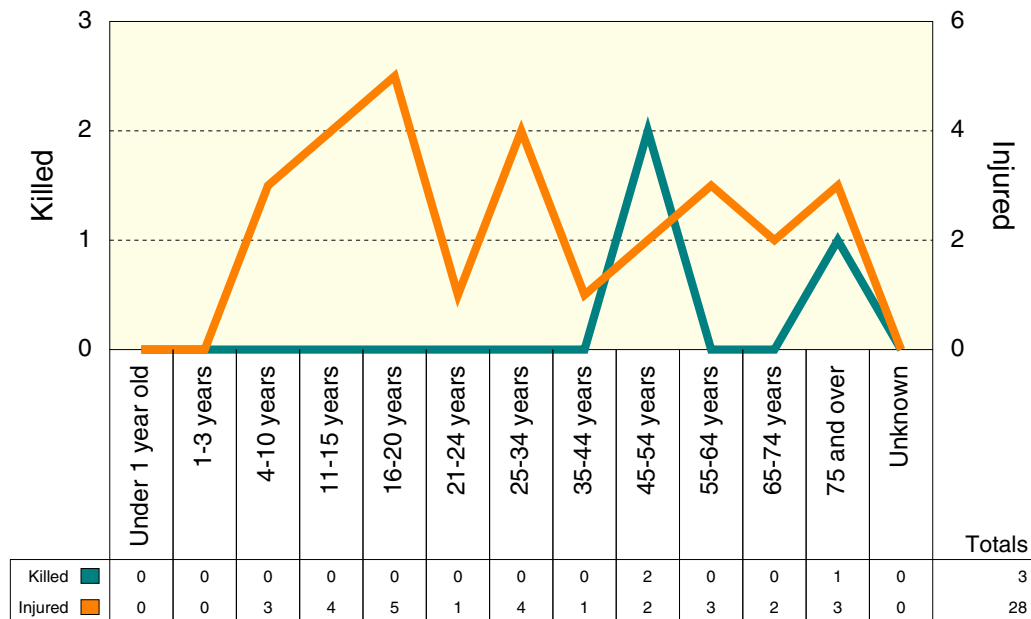
Note: Two bicyclists had an unknown degree of injury and are not represented in this table.

The National Center for Statistics and Analysis of the National Highway Traffic Safety Administration cites a study by the Centers for Disease Control [4]: "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."

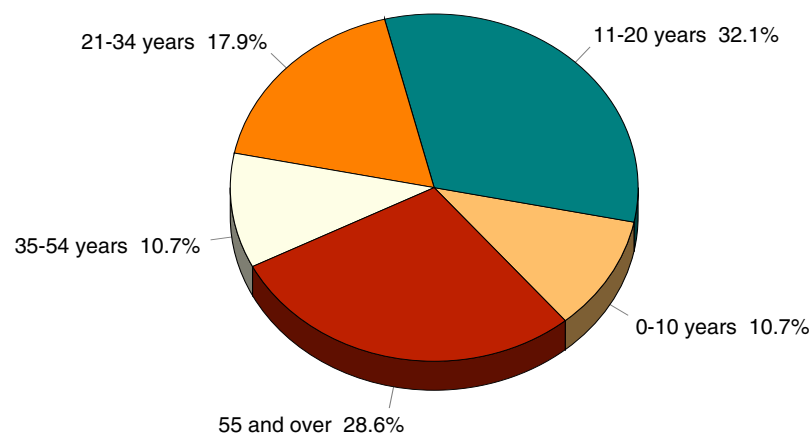


## UPPER PENINSULA PEDESTRIAN CRASHES

### 2013 Pedestrian Crash Information



### Pedestrians Injured





## UPPER PENINSULA SNOWMOBILE CRASHES ON PUBLIC ROADWAYS

### Most Harmful Event

NONCOLLISION	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
	Number of Snowmobiles	% of Total	Fatal Crash	Injury Crash			PDO Crash
				A	B	C	
Loss of control	2	3.0	0	0	1	0	1
Cross center/median	0	0.0	0	0	0	0	0
Ran off road left	0	0.0	0	0	0	0	0
Ran off road right	0	0.0	0	0	0	0	0
Re-enter road	0	0.0	0	0	0	0	0
Overturn	4	6.0	0	2	1	0	1
Separation of units	0	0.0	0	0	0	0	0
Fire/explosion	1	1.5	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	10.4	0	3	1	2	1
Other noncollision	1	1.5	0	0	1	0	0
NONCOLLISION Subtotal	15	22.4	0	5	4	2	4

HAD A COLLISION WITH NONFIXED OBJECT	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
	Number of Snowmobiles	% of Total	Fatal Crash	Injury Crash			PDO Crash
				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	32	47.8	0	4	5	6	17
Parked motor vehicle	4	6.0	0	0	2	2	0
Railway train	1	1.5	0	0	0	0	1
Animal	0	0.0	0	0	0	0	0
Other nonfixed objects	2	3.0	0	1	1	0	0
COLLISION NONFIXED Subtotal	39	58.2	0	5	8	8	18



## MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS (continued)

### Most Harmful Event (continued)

HAD A COLLISION WITH FIXED OBJECT	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
	Number of Snowmobiles	% of Total	Fatal Crash	Injury Crash			PDO Crash
				A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge parapet end	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
Utility pole	1	1.5	0	0	0	0	1
Other pole	0	0.0	0	0	0	0	0
Culvert	0	0.0	0	0	0	0	0
Curb	0	0.0	0	0	0	0	0
Ditch	0	0.0	0	0	0	0	0
Embankment	2	3.0	0	0	0	2	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	8	11.9	3	0	1	2	2
Rail crossing signal	0	0.0	0	0	0	0	0
Building	0	0.0	0	0	0	0	0
Traffic island	0	0.0	0	0	0	0	0
Fire hydrant	0	0.0	0	0	0	0	0
Impact attenuator	0	0.0	0	0	0	0	0
Other fixed object	2	3.0	0	1	0	0	1
COLLISION FIXED <b>Subtotal</b>	13	19.4	3	1	1	4	4
Unknown Event	0	0.0	0	0	0	0	0
<b>TOTAL MOST HARMFUL EVENT</b>	67	100.0	3	11	13	14	26

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 67 snowmobiles were reported in crashes on Upper Peninsula public roadways during 2013. Three of these snowmobiles were involved in fatal crashes. One snowmobile operator was killed when he lost control, left the roadway and struck a tree; the second operator was killed when she ran off the roadway, hit a tree; and the third operator was killed when he ran off the roadway lost control, hit a tree and was ejected from his vehicle. An additional 35 snowmobiles were involved in injury crashes.



## UPPER PENINSULA ORV/ATV CRASHES ON PUBLIC ROADWAYS



### Most Harmful Event

NONCOLLISION	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
	Number of ORV/ATVs	% of Total	Fatal Crash	Injury Crash			PDO Crash
				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	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	14	22.6	1	4	6	3	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	8	12.9	0	4	1	3	0
Other noncollision	0	0.0	0	0	0	0	0
NONCOLLISION Subtotal	22	35.5	1	8	7	6	0

HAD A COLLISION WITH NONFIXED OBJECT	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
	Number of ORV/ATVs	% of Total	Fatal Crash	Injury Crash			PDO Crash
				A	B	C	
Pedestrian	1	1.6	0	0	0	1	0
Bicycle / pedalcycle	0	0.0	0	0	0	0	0
Motor vehicle in transport	24	38.7	0	2	6	6	10
Parked motor vehicle	2	3.2	0	0	2	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
COLLISION NONFIXED Subtotal	27	43.5	0	2	8	7	10



## MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS (continued)

### Most Harmful Event (continued)

HAD A COLLISION WITH FIXED OBJECT	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
	Number of ORV/ATVs	% of Total	Fatal Crash	Injury Crash			PDO Crash
				A	B	C	
Bridge/pier/abutment	0	0.0	0	0	0	0	0
Bridge parapet end	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
Utility pole	1	1.6	0	0	1	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	2	3.2	0	1	1	0	0
Embankment	1	1.6	0	0	0	1	0
Fence	0	0.0	0	0	0	0	0
Mailbox	0	0.0	0	0	0	0	0
Tree	7	11.3	1	3	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	2	3.2	1	0	1	0	0
COLLISION FIXED <b>Subtotal</b>	13	21.0	2	4	4	3	0
Unknown Event	0	0.0	0	0	0	0	0
<b>TOTAL MOST HARMFUL EVENT</b>	62	100.0	3	14	19	16	10

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 62 off-road/all-terrain vehicles were reported in crashes on Upper Peninsula public roadways during 2013. Three of these ORV/ATVs were involved in separate fatal crashes with three ORV/ATV operators killed. Alcohol was involved in two of the fatal crashes.



## UPPER PENINSULA SNOWMOBILE CRASHES ON PUBLIC ROADWAYS



Driver Hazardous Action	SNOWMOBILES		MOST SEVERE OUTCOME IN CRASH				
			Fatal Crash	Injury Crash			PDO Crash
	Number of Snowmobiles	% of Total		A	B	C	
None	15	22.4	1	3	3	5	3
Speed too fast	18	26.9	2	3	5	6	2
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	10	14.9	0	3	0	2	5
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	3.0	0	0	0	0	2
Improper passing	0	0.0	0	0	0	0	0
Improper lane use	0	0.0	0	0	0	0	0
Improper turn	1	1.5	0	0	0	0	1
Improper/no signal	1	1.5	0	0	1	0	0
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	5	7.5	0	0	1	0	4
Reckless driving	1	1.5	0	0	0	0	1
Careless/negligent driving	6	9.0	0	1	0	0	5
Other	6	9.0	0	0	3	1	2
Unknown	2	3.0	0	1	0	0	1
TOTAL	67	100.0	3	11	13	14	26

## UPPER PENINSULA ORV/ATV CRASHES ON PUBLIC ROADWAYS



Driver Hazardous Action	ORV/ATV		MOST SEVERE OUTCOME IN CRASH				
			Fatal Crash	Injury Crash			PDO Crash
	Number of ORV/ATVs	% of Total		A	B	C	
None	8	12.9	0	2	2	2	2
Speed too fast	18	29.0	1	6	6	3	2
Speed too slow	0	0.0	0	0	0	0	0
Failed to yield	5	8.1	0	1	0	2	2
Disregard traffic control	1	1.6	0	0	1	0	0
Drove wrong way	0	0.0	0	0	0	0	0
Drove left of center	1	1.6	0	0	0	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	1	1.6	0	0	0	0	1
Improper backing	0	0.0	0	0	0	0	0
Unable to stop in assured clear distance	6	9.7	0	0	4	1	1
Reckless driving	1	1.6	0	0	0	1	0
Careless/negligent driving	13	21.0	1	3	4	5	0
Other	5	8.1	0	2	2	0	1
Unknown	3	4.8	1	0	0	2	0
TOTAL	62	100.0	3	14	19	16	10

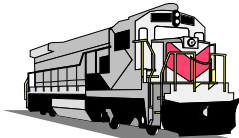
NOTE: These crashes involve a motor vehicle in transport on a public trafficway and result in injury, death, or at least \$1,000 in property damage.





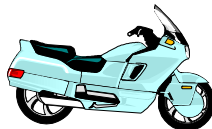
## UPPER PENINSULA FARM EQUIPMENT CRASHES

Four crashes involving farm equipment and two passenger cars was reported on Upper Peninsula roadways during 2013. None of those crashes involved a fatality.



## UPPER PENINSULA VEHICLE-TRAIN CRASHES

Four crashes involving a train and two passenger cars, one snowmobile, and one van was reported on the Upper Peninsula during 2013. None of those crashes involved a fatality.



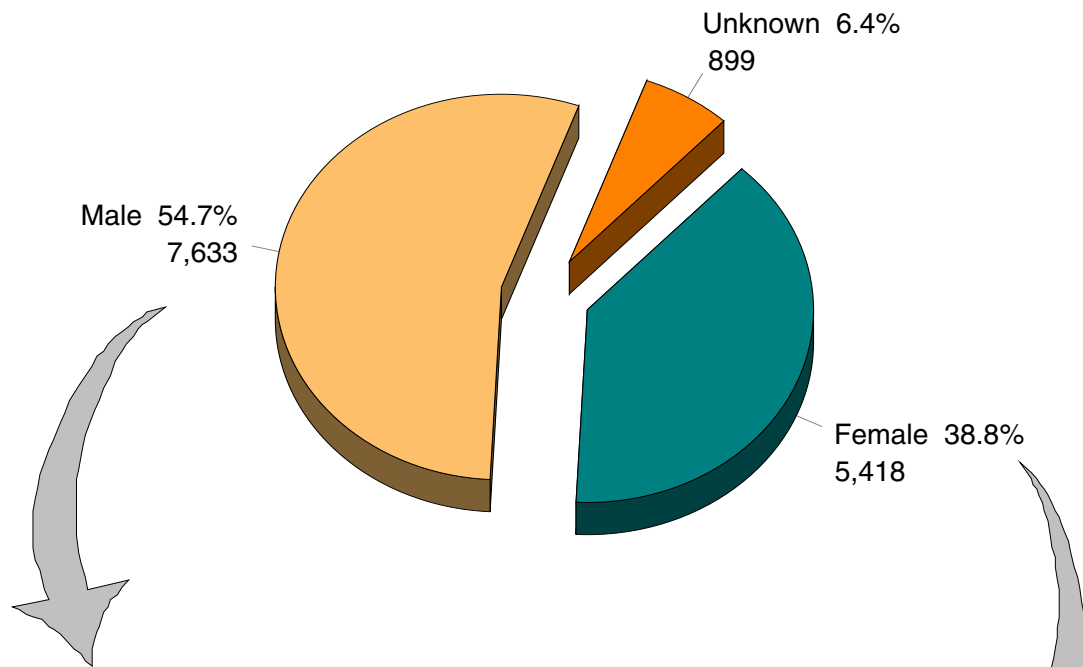
## UPPER PENINSULA MOTORCYCLE CRASHES

MOTORCYCLE DATA	2012	2013	% Change
Motorcycle Registrations	10,321	9,758	-5.5
Motorcycles in Crashes	165	105	-36.4
Motorcyclist Deaths	2	2	0.0
Motorcyclists Injured	149	82	-45.0
Death Rate based on 10,000 motorcycle registrations	1.9	2.0	5.3
Estimated Mileage based on 3,000 miles per motorcycle	30,963,000	29,274,000	-5.5
Death Rate based on deaths per 100 million vehicle miles traveled	6.5	6.8	4.6

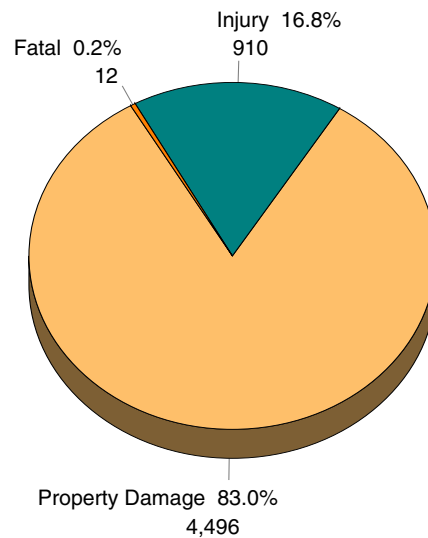
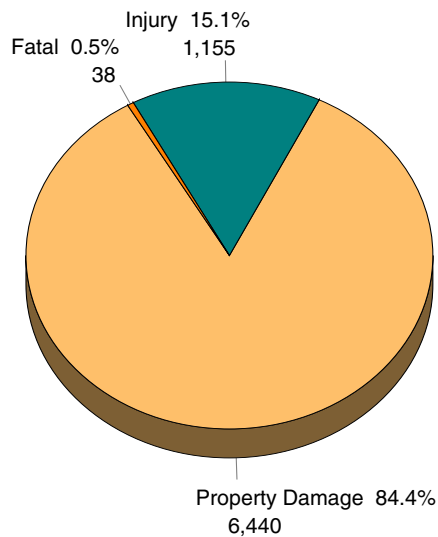
Motorcycles were involved in 1.0 percent of all traffic crashes in the Upper Peninsula in 2013. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles. The 2013 death rate for motorcyclists was 6.8 per 100 million vehicle miles traveled.



## UPPER PENINSULA DRIVER GENDER INFORMATION - ALL CRASHES



### Crash Severity



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



## UPPER PENINSULA PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENT

Age	Licensed Drivers	U.P. Population	Drivers in All Crashes	Drivers in Fatal Crashes	Occupants Killed	Occupants Injured	Bicyclists in All Crashes	Bicyclists in Fatal Crashes	Pedestrians in All Crashes	Pedestrians in Fatal Crashes
0-15	1,631	50,854	37	0	0	120	14	0	7	0
16	2,555	3,600	217	0	0	50	1	0	1	0
17	2,709	3,640	313	1	1	58	0	0	2	0
18	2,673	4,382	347	1	0	51	0	0	1	0
19	2,937	5,277	347	3	3	33	7	0	1	0
20	3,181	5,364	344	1	1	38	3	0	0	0
21-24	13,645	19,405	1,284	5	4	171	4	0	1	0
25-29	15,157	16,143	1,051	5	2	133	2	0	3	0
30-34	14,816	17,059	962	1	1	101	0	0	1	0
35-39	13,880	15,967	918	4	3	111	2	0	0	0
40-44	15,124	17,325	961	3	2	123	1	0	1	0
45-49	17,001	19,433	1,091	5	3	123	0	0	2	1
50-54	21,110	23,401	1,195	5	4	137	1	0	2	1
55-59	23,023	24,881	1,135	3	1	123	3	0	1	0
60-64	21,940	22,957	958	3	1	97	0	0	3	0
65-69	17,714	18,339	674	4	4	68	2	0	2	0
70-74	13,496	14,353	516	4	3	86	0	0	0	0
75-79	9,674	10,475	301	0	1	35	0	0	2	0
80-84	6,648	8,032	203	1	1	28	0	0	0	0
85-100+	5,061	8,500	156	1	1	25	1	0	2	1
Unknown	---	---	940	1	0	4	2	0	0	0
Total	223,975	309,387	13,950	51	36	1,715	43	0	32	3



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

Age	Licensed Drivers	*Drivers in all crashes	Crash Rate
0-15	1,631	37	0.023
16	2,555	217	0.085
17	2,709	313	0.116
18	2,673	347	0.130
19	2,937	347	0.118
20	3,181	344	0.108
21-24	13,645	1,284	0.094
25-29	15,157	1,051	0.069
30-34	14,816	962	0.065
35-39	13,880	918	0.066
40-44	15,124	961	0.064
45-49	17,001	1,091	0.064
50-54	21,110	1,195	0.057
55-59	23,023	1,135	0.049
60-64	21,940	958	0.044
65-69	17,714	674	0.038
70-74	13,496	516	0.038
75-79	9,674	301	0.031
80-84	6,648	203	0.031
85-89	3,735	124	0.033
90-94	1,155	31	0.027
95-99	167	1	0.006
100+	4	0	0.000
Total	223,975	13,010	

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

\* Excludes 940 drivers with unknown age

Licensed drivers age 18 have the highest crash rate (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.



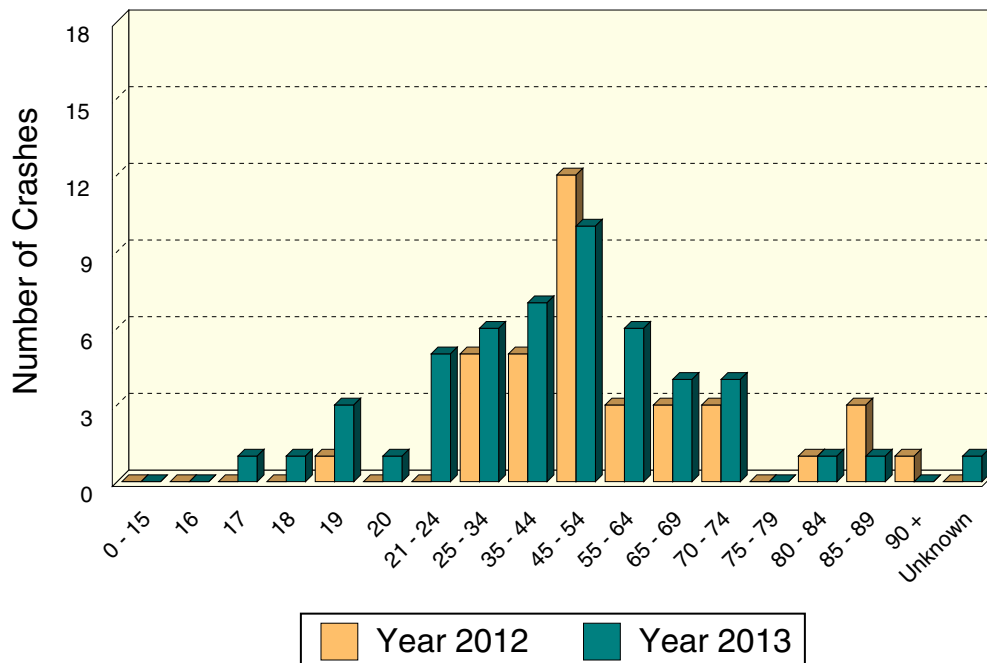
## UPPER PENINSULA DRIVER AGE

AGE OF DRIVERS IN FATAL CRASHES	2012	2013	% Change	% 2013 Fatal Crash Involvement	Percent Active Driving Population*
15 years and under	0	0	†	0.0	0.7
16 years	0	0	†	0.0	1.1
17 years	0	1	†	2.0	1.2
18 years	0	1	†	2.0	1.2
19 years	1	3	200.0	5.9	1.3
20 years	0	1	†	2.0	1.4
21 - 24 years	0	5	†	9.8	6.1
25 - 34 years	5	6	20.0	11.8	13.4
35 - 44 years	5	7	40.0	13.7	12.9
45 - 54 years	12	10	-16.7	19.6	17.0
55 - 64 years	3	6	100.0	11.8	20.1
65 - 69 years	3	4	33.3	7.8	7.9
70 - 74 years	3	4	33.3	7.8	6.0
75 - 79 years	0	0	†	0.0	4.3
80 - 84 years	1	1	0.0	2.0	3.0
85 - 89 years	3	1	-66.7	2.0	1.7
90 years and over	1	0	-100.0	0.0	0.6
Unknown	0	1	†	2.0	---
Total	37	51	37.8	100.0	100.0

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

† Not calculable

### Driver Age in Fatal Crashes





## UPPER PENINSULA DRIVER CONDITION

### MOST SEVERE OUTCOME IN CRASH

POSSIBLE CONDITIONS OF DRIVER*	Conditions Coded by Police	Fatal Crash	Injury Crash			PDO Crash
		Number	A	B	C	
Appeared Normal	11,667	21	192	395	1,178	9,881
Had Been Drinking	296	9	25	35	46	181
Illegal Drug Use	20	0	4	1	6	9
Sick	24	0	3	4	9	8
Fatigue	20	0	0	3	8	9
Asleep	27	0	6	5	7	9
Medication	22	0	0	3	9	10
Driver Distracted	58	0	1	4	19	34
Using Cellular Phone	7	0	0	1	1	5
Unknown	900	20	20	18	59	783

\* 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

	Drivers		Fatality		Injury			No Injury	Unknown
	Number	% of Total	Number	% of Total	A	B	C		
All Drivers									
Restraint Used	12,387	88.8	15	48.4	103	250	786	11,219	14
Restraint Not Used	307	2.2	14	45.2	23	31	42	196	1
Unknown	1,256	9.0	2	6.5	11	6	20	338	879
Total	13,950	100.0	31	100.0	137	287	848	11,753	894

<b>Drinking Only Drivers</b>									
Restraint Used	198	68.0	3	37.5	10	19	22	144	0
Restraint Not Used	31	10.7	5	62.5	5	7	5	9	0
Unknown	62	21.3	0	0.0	5	0	8	49	0
<b>Total</b>	<b>291</b>	<b>100.0</b>	<b>8</b>	<b>100.0</b>	<b>20</b>	<b>26</b>	<b>35</b>	<b>202</b>	<b>0</b>

<b>Drugged Only Drivers</b>									
Restraint Used	31	83.8	1	100.0	0	5	10	15	0
Restraint Not Used	5	13.5	0	0.0	1	1	2	1	0
Unknown	1	2.7	0	0.0	0	0	1	0	0
<b>Total</b>	<b>37</b>	<b>100.0</b>	<b>1</b>	<b>100.0</b>	<b>1</b>	<b>6</b>	<b>13</b>	<b>16</b>	<b>0</b>

<b>Drinking and Drugged Drivers</b>									
Restraint Used	23	63.9	2	28.6	1	1	0	19	0
Restraint Not Used	10	27.8	4	57.1	2	1	2	1	0
Unknown	3	8.3	1	14.3	0	0	0	2	0
<b>Total</b>	<b>36</b>	<b>100.0</b>	<b>7</b>	<b>100.0</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>22</b>	<b>0</b>

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	Crashes	Fatal Crash	MOST SEVERE OUTCOME IN CRASH			PDO Crash
			Injury Crash			
			A	B	C	
Related to intersection	2,215	5	40	105	343	1,722
In intersection	1,154	3	30	67	202	852
With traffic control signal	283	1	8	16	57	201
With hazardous action	73 *	1	3	5	19	45

“Related to intersection” captures crashes that were related to or within 150 feet of an intersection.

“In intersection” captures crashes within all types of intersections.

“With traffic control signal” captures crashes within the intersection and with a traffic control signal present.

“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 73 crashes.



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

SPEED LIMIT*	Crashes	Fatal Crash	MOST SEVERE OUTCOME IN CRASH			PDO Crash
			Injury Crash			
			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	28	0	1	0	6	21
30 miles per hour	2	0	0	0	1	1
35 miles per hour	16	0	1	0	7	8
40 miles per hour	0	0	0	0	0	0
45 miles per hour	13	0	0	3	2	8
50 miles per hour	5	0	0	1	1	3
55 miles per hour	8	1	1	1	2	3
60 miles per hour	0	0	0	0	0	0
65 miles per hour	0	0	0	0	0	0
70 miles per hour	0	0	0	0	0	0
75 miles per hour	0	0	0	0	0	0
Unknown	1	0	0	0	0	1
Total	73	1	3	5	19	45

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

CRASH TYPE	Crashes	Fatal Crash	MOST SEVERE OUTCOME IN CRASH			PDO Crash
			Injury Crash			
			A	B	C	
Single Vehicle	1	0	1	0	0	0
Head on	0	0	0	0	0	0
Head on left turn	2	0	0	0	0	2
Angle	69	1	2	5	18	43
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	0	0	0	0	0	0
Sideswipe opposite direction	1	0	0	0	1	0
Other/ Unknown	0	0	0	0	0	0
Total	73	1	3	5	19	45





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

SPECIAL CIRCUMSTANCES*	MOST SEVERE OUTCOME IN CRASH					
	Crashes	Fatal Crash	Injury Crash			PDO Crash
			A	B	C	
School Bus Involved/Associated	0	0	0	0	0	0
Drinking Involved	2	1	0	0	0	1
Drug Use Involved	1	1	0	0	0	0
Pedestrian Involved	0	0	0	0	0	0
Bicyclist Involved	1	0	1	0	0	0
Snowmobile Involved	0	0	0	0	0	0
Motorcycle Involved	0	0	0	0	0	0
Train Involved	0	0	0	0	0	0
Truck/Bus Involved	3	1	0	0	1	1
Emergency Vehicle Involved	1	0	0	0	1	0
Driver Hazardous Citation	37	0	1	1	13	22

\*Crashes may involve more than one special circumstance.

POSSIBLE CONDITIONS OF PERSONS IN CRASH*	MOST SEVERE OUTCOME IN CRASH					
	Conditions Coded by Police	Fatal Crash	Injury Crash			PDO Crash
			A	B	C	
Appeared Normal	69	1	3	5	18	42
Had Been Drinking	0	0	0	0	0	0
Illegal Drug Use	0	0	0	0	0	0
Sick	0	0	0	0	0	0
Fatigue	0	0	0	0	0	0
Asleep	0	0	0	0	0	0
Medication	0	0	0	0	0	0
Driver Distracted	2	0	0	0	1	1
Using Cellular Phone	0	0	0	0	0	0
Unknown	2	0	0	0	0	2

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

Heavy truck/bus crashes differ from other vehicle crashes in a number of ways, many reflecting the size and use of these vehicles. **When compared to the overall crash picture, heavy truck/bus crash involvement includes:**

- more turning, backing, and avoiding vehicle as the Truck/Bus Driver Action Prior to Crash.
- more fire/explosion, cargo loss/shift, jackknife, and “other non-collisions” as the Most Harmful Event.
- fewer single-vehicle crashes, but more sideswipe, rear-end, and angle crashes.
- fewer truck/bus drivers indicated to be speeding or careless/negligent driving, but more truck/bus drivers indicated to be making backing and turning errors.
- more outside of shoulder/curb crashes, but less shoulder crashes.
- more crashes between the hours of 6:00 AM and 5:59 PM, but fewer crashes between 6:00 PM and 5:59 AM.
- more crashes most weekdays, but a significant drop in weekend crashes.



## UPPER PENINSULA HEAVY TRUCK/BUS INVOLVED CRASHES

HEAVY TRUCK/BUS 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	174	54.0	2	50.0	25	53.2
Turning left	26	8.1	0	0.0	4	8.5
Turning right	23	7.1	0	0.0	4	8.5
Stopped on roadway	16	5.0	0	0.0	1	2.1
In prior crash	0	0.0	0	0.0	0	0.0
Changing lanes	4	1.2	0	0.0	1	2.1
Backing	16	5.0	0	0.0	1	2.1
Slowing/stopping on roadway	22	6.8	0	0.0	7	14.9
Slowing/stopping other	2	0.6	0	0.0	0	0.0
Starting up on roadway	9	2.8	0	0.0	2	4.3
Starting up other	0	0.0	0	0.0	0	0.0
Entering parking	0	0.0	0	0.0	0	0.0
Leaving parking	1	0.3	0	0.0	0	0.0
Entering roadway	5	1.6	0	0.0	0	0.0
Leaving roadway	0	0.0	0	0.0	0	0.0
Making U-turn	0	0.0	0	0.0	0	0.0
Overtaking or passing	3	0.9	0	0.0	1	2.1
Avoiding object	0	0.0	0	0.0	0	0.0
Avoiding animal	0	0.0	0	0.0	0	0.0
Avoiding pedestrian	0	0.0	0	0.0	0	0.0
Avoiding vehicle (front/back)	4	1.2	1	25.0	0	0.0
Avoiding vehicle (angle)	2	0.6	1	25.0	0	0.0
Driverless moving	0	0.0	0	0.0	0	0.0
Parked	11	3.4	0	0.0	1	2.1
Crossing at intersection	0	0.0	0	0.0	0	0.0
Crossing not at intersection	0	0.0	0	0.0	0	0.0
Getting on/off vehicle	0	0.0	0	0.0	0	0.0
In roadway with traffic	0	0.0	0	0.0	0	0.0
In roadway against traffic	0	0.0	0	0.0	0	0.0
Standing/lying in roadway	0	0.0	0	0.0	0	0.0
Pushing/working on vehicle	0	0.0	0	0.0	0	0.0
Other working in roadway	1	0.3	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	0	0.0	0	0.0	0	0.0
Unknown	3	0.9	0	0.0	0	0.0
Total	322	100.0	4	100.0	47	100.0



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

MOST HARMFUL EVENT IN A NONCOLLISION	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Loss of control	2	0.6	0	0.0	1	2.1
Cross center/median	0	0.0	0	0.0	0	0.0
Ran off road left	1	0.3	0	0.0	0	0.0
Ran off road right	1	0.3	0	0.0	0	0.0
Re-enter road	0	0.0	0	0.0	0	0.0
Overturn	6	1.9	0	0.0	1	2.1
Separation of units	0	0.0	0	0.0	0	0.0
Fire/explosion	2	0.6	0	0.0	0	0.0
Immersion	0	0.0	0	0.0	0	0.0
Jackknife	0	0.0	0	0.0	0	0.0
Downhill runaway	0	0.0	0	0.0	0	0.0
Cargo loss/shift	3	0.9	0	0.0	0	0.0
Individual fell off	1	0.3	0	0.0	1	2.1
Other noncollision	7	2.2	0	0.0	1	2.1
NONCOLLISION <b>Subtotal</b>	23	7.1	0	0.0	4	8.5

MOST HARMFUL EVENT IN A COLLISION WITH A NONFIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Pedestrian	0	0.0	0	0.0	0	0.0
Bicyclist	0	0.0	0	0.0	0	0.0
Motor vehicle in transport	188	58.4	4	100.0	38	80.9
Parked motor vehicle	24	7.5	0	0.0	1	2.1
Railway train	0	0.0	0	0.0	0	0.0
Animal	33	10.2	0	0.0	0	0.0
Other nonfixed objects	7	2.2	0	0.0	0	0.0
COLLISION NONFIXED <b>Subtotal</b>	252	78.3	4	100.0	39	83.0



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

MOST HARMFUL EVENT IN A COLLISION WITH A FIXED OBJECT	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Bridge/pier/abutment	1	0.3	0	0.0	0	0.0
Bridge parapet end	0	0.0	0	0.0	0	0.0
Bridge rail	1	0.3	0	0.0	0	0.0
Guardrail face	4	1.2	0	0.0	1	2.1
Guardrail end	0	0.0	0	0.0	0	0.0
Median barrier	1	0.3	0	0.0	1	2.1
Highway traffic sign post	4	1.2	0	0.0	0	0.0
Highway signal post	3	0.9	0	0.0	0	0.0
Luminaire/light support	3	0.9	0	0.0	0	0.0
Utility pole	1	0.3	0	0.0	0	0.0
Other pole	0	0.0	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	9	2.8	0	0.0	1	2.1
Embankment	4	1.2	0	0.0	0	0.0
Fence	0	0.0	0	0.0	0	0.0
Mailbox	1	0.3	0	0.0	0	0.0
Tree	3	0.9	0	0.0	0	0.0
Rail crossing signal	1	0.3	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	0	0.0	0	0.0	0	0.0
Other fixed object	7	2.2	0	0.0	1	2.1
<b>COLLISION FIXED Subtotal</b>	<b>44</b>	<b>13.7</b>	<b>0</b>	<b>0.0</b>	<b>4</b>	<b>8.5</b>

	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Total
Unknown Event	3	0.9	0	0.0	0	0.0
<b>TOTAL MOST HARMFUL EVENT</b>	<b>322</b>	<b>100.0</b>	<b>4</b>	<b>100.0</b>	<b>47</b>	<b>100.0</b>



## 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 Fatal	Number of Heavy Trucks	% of Injury
Single Vehicle	87	27.0	0	0.0	4	8.5
Head On	7	2.2	2	50.0	4	8.5
Head On - Left Turn	3	0.9	0	0.0	1	2.1
Angle	54	16.8	1	25.0	11	23.4
Rear End	56	17.4	0	0.0	11	23.4
Rear End - Left Turn	10	3.1	0	0.0	4	8.5
Rear End - Right Turn	3	0.9	0	0.0	2	4.3
Sideswipe - Same Direction	41	12.7	0	0.0	4	8.5
Sideswipe - Opposite Direct	22	6.8	1	25.0	2	4.3
Other/ Unknown	39	12.1	0	0.0	4	8.5
Total	322	100.0	4	100.0	47	100.0

HAZARDOUS ACTION OF HEAVY TRUCK/BUS	Truck/Bus Crashes		Fatal Crashes		Injury Crashes		Hazardous Citation Issued	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury	Number of Heavy Trucks	% of Issued
None	190	59.0	3	75.0	27	57.4	0	0.0
Speed too fast	20	6.2	0	0.0	4	8.5	9	34.6
Speed too slow	0	0.0	0	0.0	0	0.0	0	0.0
Failed to yield	13	4.0	0	0.0	3	6.4	4	15.4
Disregard traffic control	4	1.2	1	25.0	1	2.1	1	3.8
Drove wrong way	0	0.0	0	0.0	0	0.0	0	0.0
Drove left of center	0	0.0	0	0.0	0	0.0	0	0.0
Improper passing	3	0.9	0	0.0	0	0.0	1	3.8
Improper lane use	7	2.2	0	0.0	0	0.0	0	0.0
Improper turn	7	2.2	0	0.0	0	0.0	0	0.0
Improper/no signal	2	0.6	0	0.0	0	0.0	0	0.0
Improper backing	10	3.1	0	0.0	0	0.0	0	0.0
Unable to stop in assured clear distance	17	5.3	0	0.0	8	17.0	4	15.4
Reckless driving	0	0.0	0	0.0	0	0.0	0	0.0
Careless/Negligent driving	10	3.1	0	0.0	2	4.3	4	15.4
Other	31	9.6	0	0.0	2	4.3	3	11.5
Unknown	8	2.5	0	0.0	0	0.0	0	0.0
Total	322	100.0	4	100.0	47	100.0	26	100.0



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

RELATIONSHIP TO ROADWAY (LOCATION OF FIRST IMPACT IN CRASH)	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
On Road	273	84.8	4	100.0	42	89.4
Median	1	0.3	0	0.0	1	2.1
Shoulder	22	6.8	0	0.0	2	4.3
Outside of Shoulder/Curb	23	7.1	0	0.0	1	2.1
Gore	0	0.0	0	0.0	0	0.0
Other/Unknown	3	0.9	0	0.0	1	2.1
Total	322	100.0	4	100.0	47	100.0

TIME OF DAY IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Midnight - 02:59 AM	8	2.5	0	0.0	2	4.3
03:00 AM - 05:59 AM	10	3.1	0	0.0	0	0.0
06:00 AM - 08:59 AM	40	12.4	0	0.0	8	17.0
09:00 AM - 11:59 AM	83	25.8	1	25.0	16	34.0
Noon - 02:59 PM	89	27.6	1	25.0	9	19.1
03:00 PM - 05:59 PM	47	14.6	1	25.0	5	10.6
06:00 PM - 08:59 PM	31	9.6	1	25.0	5	10.6
09:00 PM - 11:59 PM	14	4.3	0	0.0	2	4.3
Unknown	0	0.0	0	0.0	0	0.0
Total	322	100.0	4	100.0	47	100.0

ROADWAY TYPE IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Interstate Routes	13	4.0	0	0.0	1	2.1
U.S. & Michigan Roads	211	65.5	3	75.0	39	83.0
County & City Roads	98	30.4	1	25.0	7	14.9
Total	322	100.0	4	100.0	47	100.0



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

DAY OF WEEK IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Monday	53	16.5	0	0.0	6	12.8
Tuesday	68	21.1	0	0.0	7	14.9
Wednesday	47	14.6	3	75.0	2	4.3
Thursday	57	17.7	1	25.0	12	25.5
Friday	64	19.9	0	0.0	14	29.8
Saturday	22	6.8	0	0.0	2	4.3
Sunday	11	3.4	0	0.0	4	8.5
Total	322	100.0	4	100.0	47	100.0

DRIVER GENDER IN CRASH	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Male	291	90.4	4	100.0	44	93.6
Female	18	5.6	0	0.0	3	6.4
Unknown	13	4.0	0	0.0	0	0.0
Total	322	100.0	4	100.0	47	100.0

NUMBER OF OCCUPANTS in Heavy Truck/Bus	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Total	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
1 occupant	266	82.6	3	75.0	43	91.5
2 occupants	26	8.1	1	25.0	1	2.1
3 occupants	3	0.9	0	0.0	0	0.0
4 occupants	1	0.3	0	0.0	0	0.0
5 occupants	2	0.6	0	0.0	0	0.0
6 + occupants	11	3.4	0	0.0	3	6.4
0 occupants	9	2.8	0	0.0	0	0.0
Unknown	4	1.2	0	0.0	0	0.0
Total	322	100.0	4	100.0	47	100.0





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

VEHICLE TYPES Involved in Crash with Heavy Truck/Bus	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Vehicles	% of Subtotal	Number of Vehicles	% of Fatal	Number of Vehicles	% of Injury
Passenger Car and Station Wagon	145	64.2	4	80.0	32	69.6
Van and Motorhome	10	4.4	0	0.0	2	4.3
Pickup	53	23.5	1	20.0	7	15.2
Small Truck (under 10,000 lbs.)	8	3.5	0	0.0	2	4.3
Motorcycle	2	0.9	0	0.0	1	2.2
Moped	0	0.0	0	0.0	0	0.0
Go Cart	0	0.0	0	0.0	0	0.0
Snowmobile	2	0.9	0	0.0	1	2.2
Off Road Vehicle	0	0.0	0	0.0	0	0.0
Other	3	1.3	0	0.0	0	0.0
Unknown	3	1.3	0	0.0	1	2.2
Subtotal	226	100.0	5	100.0	46	100.0

HEAVY TRUCK/BUS VEHICLE TYPES	All Crashes		Fatal Crashes		Injury Crashes	
	Number of Heavy Trucks	% of Subtotal	Number of Heavy Trucks	% of Fatal	Number of Heavy Trucks	% of Injury
Commercial Vehicle: Group A	220	68.3	3	75.0	34	72.3
Commercial Vehicle: Group B	70	21.7	1	25.0	9	19.1
Commercial Vehicle: Group C	6	1.9	0	0.0	0	0.0
Other Truck	18	5.6	0	0.0	4	8.5
Unknown Truck	8	2.5	0	0.0	0	0.0
Subtotal	322	100.0	4	100.0	47	100.0

Total Vehicle Types in Heavy Truck/Bus Crashes	548		9		93	
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Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.



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

Hazardous Citation Issued	Heavy Truck/Bus Involved Crash						Passenger Vehicle Only Involved Crash			
	Single Vehicle Crash		Multi-Vehicle Crash				Single Vehicle Crash		Multi-Vehicle Crash	
	Number of Trucks/Buses	% of citation	Number of Trucks/Buses	% of citation	Number of Passenger Vehicles	% of citation	Number of Passenger Vehicles	% of citation	Number of Passenger Vehicles	% of citation
None	0	0.0	0	0.0	0	0.0	5	1.2	4	0.5
Speed too fast	5	50.0	4	25.0	7	21.9	239	56.5	90	11.6
Speed too slow	0	0.0	0	0.0	0	0.0	0	0.0	2	0.3
Failed to yield	0	0.0	4	25.0	5	15.6	3	0.7	293	37.8
Disregard traffic control	0	0.0	1	6.3	2	6.3	5	1.2	62	8.0
Drove wrong way	0	0.0	0	0.0	0	0.0	0	0.0	3	0.4
Drove left of center	0	0.0	0	0.0	1	3.1	0	0.0	6	0.8
Improper passing	0	0.0	1	6.3	0	0.0	3	0.7	10	1.3
Improper lane use	0	0.0	0	0.0	0	0.0	0	0.0	11	1.4
Improper turn	0	0.0	0	0.0	1	3.1	1	0.2	11	1.4
Improper/no signal	0	0.0	0	0.0	1	3.1	0	0.0	1	0.1
Improper backing	0	0.0	0	0.0	0	0.0	1	0.2	15	1.9
Unable to stop in assured clear distance	1	10.0	3	18.8	8	25.0	6	1.4	160	20.6
Reckless driving	0	0.0	0	0.0	0	0.0	19	4.5	12	1.5
Careless/negligent driving	3	30.0	1	6.3	4	12.5	114	27.0	72	9.3
Other	1	10.0	2	12.5	3	9.4	25	5.9	22	2.8
Unknown	0	0.0	0	0.0	0	0.0	2	0.5	1	0.1
Total Cited Vehicles	10	100.0	16	100.0	32	100.0	423	100.0	775	100.0
Percent of Total Vehicles		11.2		6.9		14.3		7.0		10.8
Vehicles with No Citation Issued	79	88.8	217	93.1	191	85.7	5,618	93.0	6,402	89.2
Total Vehicles Involved	89	100.0	233	100.0	223	100.0	6,041	100.0	7,177	100.0

2013

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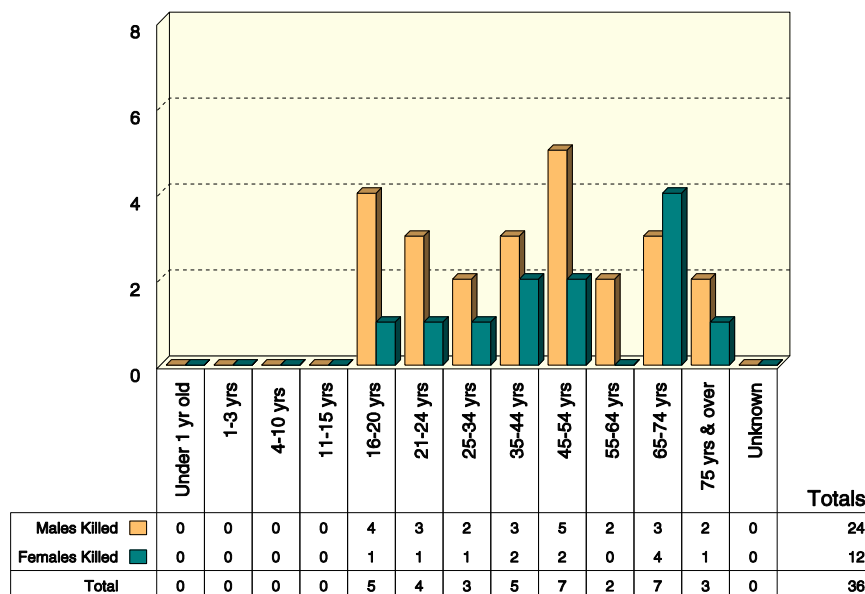
**Occupant/  
Person  
Upper Peninsula**





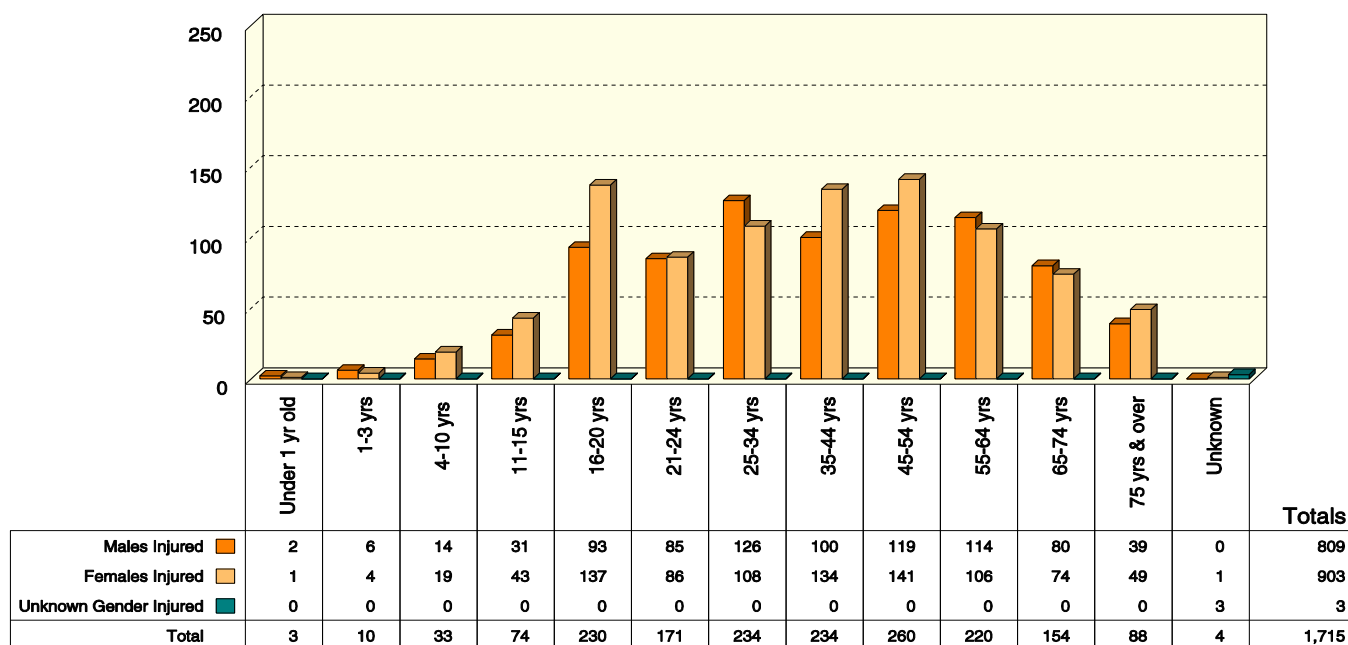
## UPPER PENINSULA AGE AND GENDER OF OCCUPANTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

### Occupants Killed



The majority (66.7%) of occupants killed in traffic crashes in 2013 were male. Almost half of those male occupants killed were between the ages of 35 and 64.

### Occupants Injured

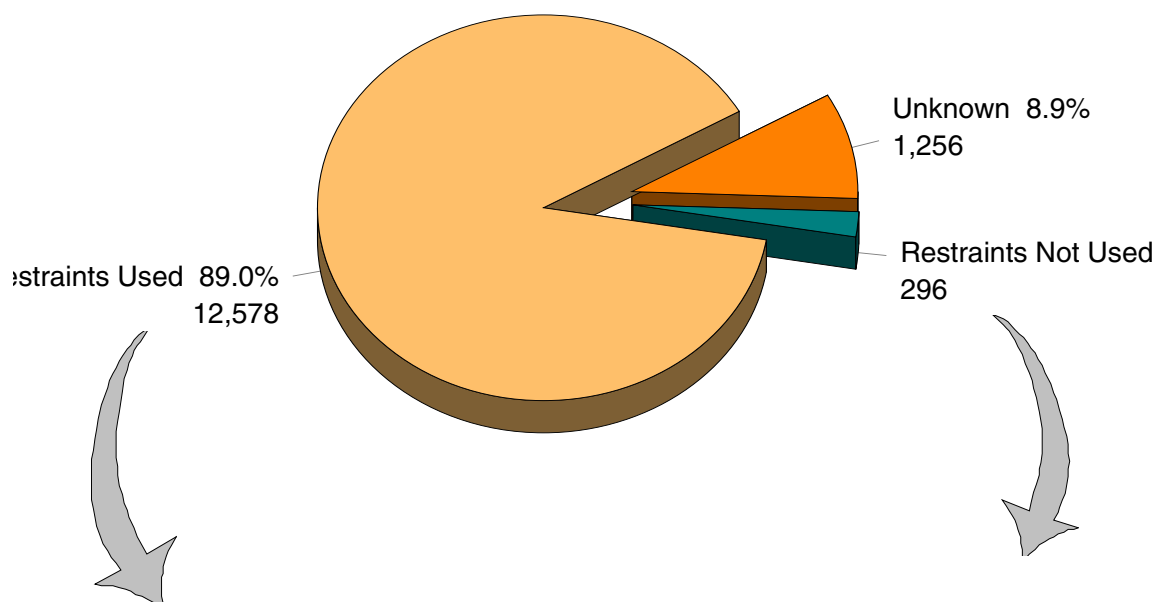


The majority (52.6%) of occupants injured in traffic crashes in 2013 were female.

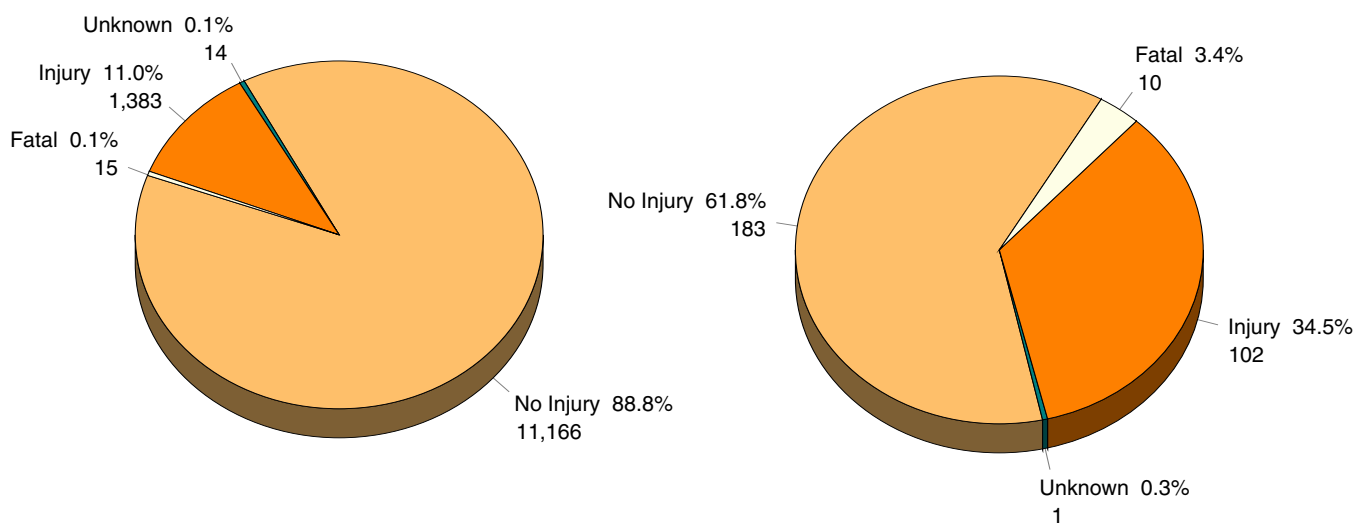
Note: An occupant is any injured or killed person in or on a motor vehicle, *including* all drivers.



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

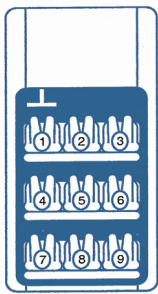


### Injury Severity



Of the 14,130 drivers and injured passengers involved in crashes in the Upper Peninsula, 12,578 (89.0%) were REPORTED to be using occupant restraints.

Occupants in crashes were 34 times more likely to be killed if they were not wearing their restraints.



## 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	12,188	97.2	11	76	216	744	11,141
Center Front	10	0.1	0	0	2	2	6
Right Front	253	2.0	4	27	57	161	4
Left Rear	19	0.2	0	1	6	12	0
Center Rear	7	0.1	0	0	2	5	0
Right Rear	36	0.3	0	2	6	28	0
Left Rear Third Seat	8	0.1	0	2	2	4	0
Center Rear Third Seat	0	0.0	0	0	0	0	0
Right Rear Third Seat	8	0.1	0	2	1	5	0
Unknown	6	0.0	0	0	0	1	5
<b>Total</b>	<b>12,535†</b>	<b>100.0</b>	<b>15</b>	<b>110</b>	<b>292</b>	<b>962</b>	<b>11,156</b>

\* A lap belt, shoulder belt or a combination of lap and shoulder belts used. Children who were coded as using or not using a child restraint device appear in separate tables on the next two pages.

† This total does not include 14 occupants with unknown injury severity.

Seating Position	Belts Not Used*		Fatal	Injury			No Injury
	Number	% of Total		A	B	C	
Left Front	239	81.6	10	9	14	32	174
Center Front	2	0.7	0	1	1	0	0
Right Front	19	6.5	0	6	7	6	0
Left Rear	5	1.7	0	1	1	3	0
Center Rear	5	1.7	0	2	1	2	0
Right Rear	9	3.1	0	4	1	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	4	1.4	0	1	1	2	0
Unknown	10	3.4	0	0	1	1	8
<b>Total</b>	<b>293†</b>	<b>100.0</b>	<b>10</b>	<b>24</b>	<b>27</b>	<b>50</b>	<b>182</b>

\* No belts available or no belts used. Children who were coded as using or not using a child restraint device appear in separate tables on the next two pages.

† This total does not include one occupant with unknown injury severity.

*Michigan law requires that all persons must wear a seat belt  
when riding in the front seat of a motor vehicle.*



## UPPER PENINSULA REPORTED RESTRAINT USE - CHILDREN

**On July 1, 2008, Michigan law was amended** (<http://legislature.mi.gov/doc.aspx?mcl-257-710e>)

**To:**

*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.  
and*

*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.  
and*

*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 Age 0		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used	2	66.7	0	0	1	1
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	1	33.3	0	0	1	0
<b>Total</b>	<b>3</b>	<b>100.0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>1</b>

Restraint Usage	Children Age 1		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used	3	100.0	0	0	1	2
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
<b>Total</b>	<b>3</b>	<b>100.0</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>





## UPPER PENINSULA REPORTED RESTRAINT USE - CHILDREN (continued)

Restraint Usage	Children Age 2		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	1	100.0	0	0	0	1
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used	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
<b>Total</b>	<b>1</b>	<b>100.0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1</b>

Restraint Usage	Children Age 3		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	0	0.0	0	0	0	0
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used	5	100.0	0	1	2	2
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
<b>Total</b>	<b>5</b>	<b>100.0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>

Restraint Usage	Children Age 4-7		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	2	20.0	0	0	1	1
No Belts Used	0	0.0	0	0	0	0
Child Restraint Used	7	70.0	0	2	0	5
Child Restraint Not Used	1	10.0	0	0	0	1
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
<b>Total</b>	<b>10</b>	<b>100.0</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>7</b>

Restraint Usage	Children Age 8-15		Fatal	Injury		
	Number	% Total		A	B	C
Belts Used	60	84.5	0	4	14	42
No Belts Used	9	12.7	0	2	2	5
Child Restraint Used	2	2.8	0	0	0	2
Child Restraint Not Used	0	0.0	0	0	0	0
Restraint Failed	0	0.0	0	0	0	0
Unknown	0	0.0	0	0	0	0
<b>Total</b>	<b>71</b>	<b>100.0</b>	<b>0</b>	<b>6</b>	<b>16</b>	<b>49</b>

Note 1: Safety equipment usage is often self-reported and may not reflect actual usage.

Note 2: Information about uninjured passengers does not have to be reported by the officer on the crash report, thus these tables relate the experience of only those children with injuries in crashes



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

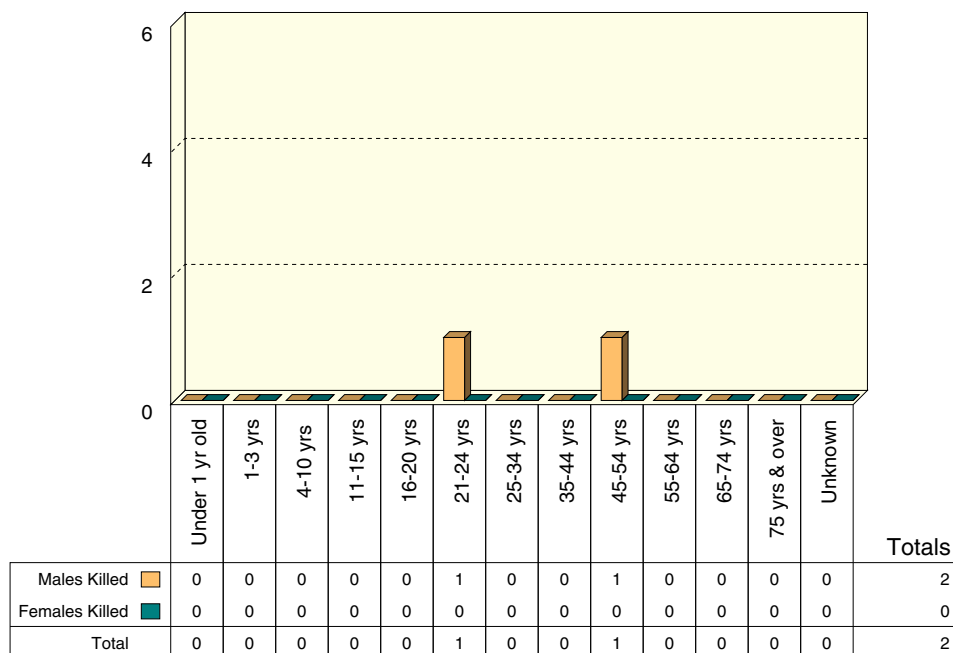
Motor Vehicle Occupant Airbag Deployment	OCCUPANT – INJURY SEVERITY						
	Occupants*		Fatal	Injury			No Injury
	Number	% Total		A	B	C	
Deployed	907	6.3	15	66	149	241	433
Not deployed	11,920	82.8	9	63	164	724	10,800
Not equipped	754	5.2	12	71	81	137	441
Unknown	817	5.7	0	2	5	12	79
Total	14,398	100.0	36	202	399	1,114	11,753

\* Includes 894 occupants (drivers and passengers) with unknown injury severity.

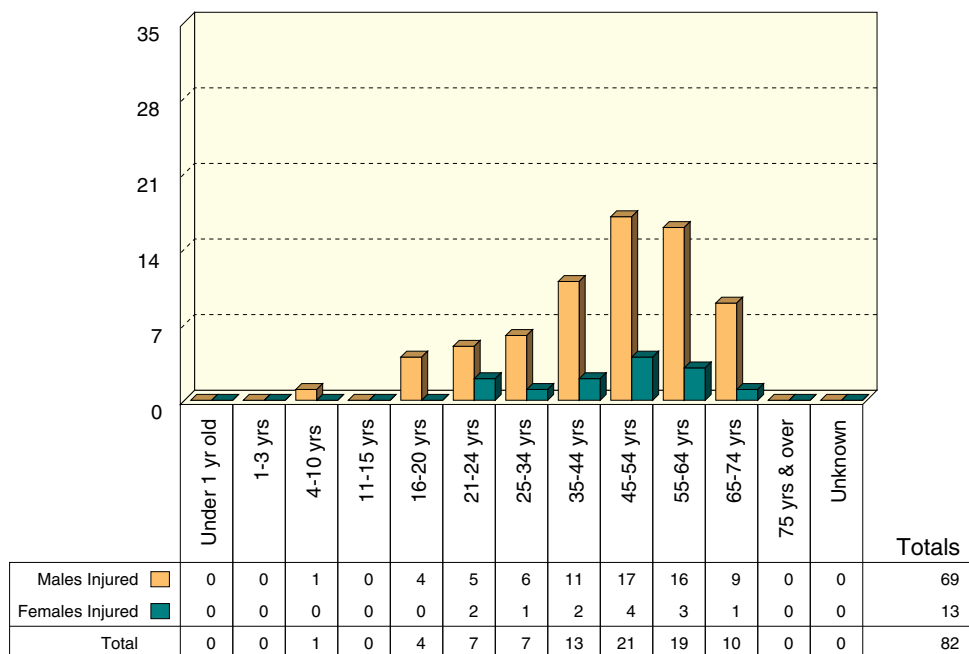


## UPPER PENINSULA AGE AND GENDER OF MOTORCYCLISTS KILLED OR INJURED IN MOTOR VEHICLE CRASHES

### Motorcyclists Killed



### Motorcyclists Injured



84.1 percent of the motorcyclists injured in traffic crashes in the Upper Peninsula in 2013 were male. In comparison, 47.9 percent of all persons injured in crashes in the Upper Peninsula were male.



## UPPER PENINSULA MOTORCYCLE HELMET USE AND INJURY SEVERITY

Helmet Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	1	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	3	0	0	0
21 - 24 years	0	0	5	1	2
25 - 34 years	0	0	3	2	3
35 - 44 years	0	0	1	6	1
45 - 54 years	0	2	5	3	5
55 - 64 years	0	3	3	2	2
65 - 74 years	0	3	0	4	3
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	0	12	17	18	16



### Helmet Worn

Drivers killed 0  
Passengers killed 0

Helmet Not Worn Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
3 years and under	0	0	0	0	0
4 - 10 years	0	0	0	0	0
11 - 15 years	0	0	0	0	0
16 - 20 years	0	1	0	0	0
21 - 24 years	0	0	0	1	0
25 - 34 years	0	0	1	1	0
35 - 44 years	0	1	3	0	0
45 - 54 years	1	5	3	2	2
55 - 64 years	0	5	3	2	8
65 - 74 years	0	1	0	0	0
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	1	13	10	6	10



### Helmet Not Worn

Drivers killed 1  
Passengers killed 0

Helmet Use Unknown Age of Motorcyclist	Fatality	Injury			No Injury
		A	B	C	
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	1	0	0	0	0
25 - 34 years	0	0	0	0	2
35 - 44 years	0	1	0	1	0
45 - 54 years	0	1	0	0	0
55 - 64 years	0	0	0	1	1
65 - 74 years	0	0	2	0	0
75 years and over	0	0	0	0	0
Unknown	0	0	0	0	0
Subtotal	1	2	2	2	3



### Helmet Use Unknown

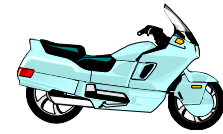
Drivers killed 1  
Passengers killed 0

Total	2	27	29	26	29
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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.



## UPPER PENINSULA OCCUPANT INJURY OUTCOME BY VEHICLE TYPE



VEHICLE TYPE	Killed	A Injured	B Injured	C Injured	Total KABC	% of All Crash Involved KABC Occupants
Passenger Car and Station Wagon	17	110	227	804	1,158	66.1
Van (Minivan) and Motorhome	1	4	13	46	64	3.7
Pickup	9	26	80	168	283	16.2
Small Truck (under 10,000 lbs.)	0	5	6	18	29	1.7
Motorcycle	2	27	29	26	84	4.8
Moped	1	1	8	9	19	1.1
Go Cart	0	0	0	0	0	0.0
Snowmobile	3	10	11	17	41	2.3
Off Road Vehicle	3	15	21	17	56	3.2
Other	0	3	0	2	5	0.3
Unknown	0	0	0	0	0	0.0
CDL Truck/Bus (breakdown below)	0	1	4	7	12	0.7
<b>Total Number of Occupants</b>	<b>36</b>	<b>202</b>	<b>399</b>	<b>1,114</b>	<b>1,751</b>	<b>100.0</b>

### CDL Truck/Bus Sub-category Type

CDL Truck/Bus Sub-category Type	Killed	A Injured	B Injured	C Injured	Total KABC	% of All Crash Involved KABC Occupants
Commercial Vehicle: Group A	0	1	1	4	6	50.0
Commercial Vehicle: Group B	0	0	3	2	5	41.7
Commercial Vehicle: Group C	0	0	0	0	0	0.0
Other Truck	0	0	0	1	1	8.3
Unknown Truck	0	0	0	0	0	0.0
<b>Total Number of Occupants</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>7</b>	<b>12</b>	<b>100.0</b>

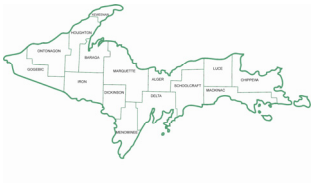
Group "A" is any vehicle that is towing a vehicle or trailer that has a gross vehicle weight rating (GVWR) over 10,000 lbs.

Group "B" is any single vehicle (including buses) with a GVWR of 26,001 lbs. or more. This would include a combination of vehicles with a combined GVWR over 26,000 lbs. when towing a trailer that has a GVWR of 10,000 lbs. or less.

Group "C" is any single vehicle with a GVWR of less than 26,001 lbs. or a combination of vehicles having a combined GVWR under 26,001 lbs. when the vehicle is required to display placards for hazardous material or designed to carry 16 passengers (including driver). Group "C" is also any vehicle carrying 15 or less people (including driver) transporting children to or from school and home on a regular basis for compensation.

#### NOTES:

- 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 roadway and result in injury, death, or at least \$1,000 in property damage.



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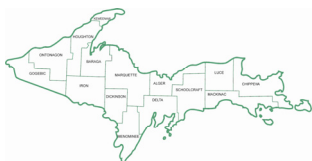
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