**MICHIGAN** 



Office of Highway Safety Planning

2015

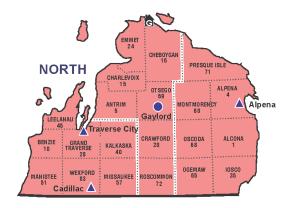


# Michigan **Traffic** Crash **Facts**

## **MDOT Region - North**

## 2015 Traffic Crash Data & 2011-2015 5-Year Trends

Beginning October 2015, MDOT Region - North is comprised of Alcona, Alpena, Antrim, Benzie, Charlevoix, Cheboygan, Crawford, Emmet, Grand Traverse, Iosco, Kalkaska, Leelanau, Manistee, Missaukee, Montmorency, Ogemaw, Oscoda, Otsego, Presque Isle, Roscommon, and Wexford counties. Trend tables for this report are based on those counties.



#### Sources:

The crashes in this report occurred on public roadways in Michigan and resulted in injuries, fatalities, or property damage (with \$1,000 as a reporting threshold). The information was gathered from Michigan Traffic Crash Report Forms (UD-10) submitted by local police departments, sheriff's offices, and the Michigan State Police. Other related information was obtained from the departments of Transportation, State, and Community Health.

#### Reporting Criteria

Please pay particular attention to the wording when interpreting the three levels of data gathered for this report.

The Crash Level analyzes data related to crash events and returns one result

Examples: Time, weather, and location.

The Units Level analyzes the experience of the units in the crash and returns one result per vehicle, driver, pedestrian, bicyclist, or train. Examples: Vehicle type, driver

condition, and unit events.

#### People

The People Level analyzes the experience of the people involved in the crash and returns one result per occupant/person/party.

Examples: Age, injury severity, and seat belt or helmet use.

#### **KABCO Injury Indicator:**

- K = Killed
- A = Incapacitating Injury
- B = Non-incapacitating Injury
- C = Possible Injury
- O = No Injury

Property Damage Only (PDO)





## MDOT Region - North Experience

#### In 2015:

There were 24,545 drivers involved in 17,755 motor vehicle crashes in MDOT Region North. Of those crashes, 64 were classified as fatal, resulting in 69 fatalities. An additional 3,303 persons were injured.

MDOT Region North experienced the highest number of motor vehicle crashes (2,187) in November, the highest number of fatal crashes (9) in July and August, and the highest number of persons killed (10) in August.

Michigan driver statistics indicate 5.6 percent of licensed drivers in MDOT Region North were age 16-20, and 10.9 percent of drivers in crashes were also in that age group.

2015 - Crashes and Injuries by Month

|           |        | Cra   | shes   |                                  | Pers       | sons     |
|-----------|--------|-------|--------|----------------------------------|------------|----------|
| Month     | Total  | Fatal | Injury | Property<br>Damage Only<br>(PDO) | Fatalities | Injuries |
| January   | 1,797  | 5     | 198    | 1,594                            | 6          | 270      |
| February  | 1,538  | 4     | 177    | 1,357                            | 5          | 251      |
| March     | 1,125  | 2     | 139    | 984                              | 2          | 182      |
| April     | 1,074  | 2     | 115    | 957                              | 2          | 144      |
| May       | 1,173  | 7     | 210    | 956                              | 8          | 282      |
| June      | 1,606  | 4     | 199    | 1,403                            | 4          | 262      |
| July      | 1,505  | 9     | 289    | 1,207                            | 9          | 404      |
| August    | 1,363  | 9     | 266    | 1,088                            | 10         | 389      |
| September | 1,264  | 8     | 204    | 1,052                            | 9          | 286      |
| October   | 1,684  | 2     | 196    | 1,486                            | 2          | 275      |
| November  | 2,187  | 7     | 209    | 1,971                            | 7          | 308      |
| December  | 1,439  | 5     | 181    | 1,253                            | 5          | 250      |
| Total     | 17,755 | 64    | 2,383  | 15,308                           | 69         | 3,303    |

#### 2015 - Driver Statistics

|           |                    | MDOT Regio          | n - North             | Driver                | Rates               |
|-----------|--------------------|---------------------|-----------------------|-----------------------|---------------------|
| Age Group | 2015<br>Population | Licensed<br>Drivers | Drivers in<br>Crashes | Per 10k<br>Population | Per 10k<br>Licensed |
| 0 - 15    | 84,764             | 2,821               | 49                    | 5.8                   | 173.7               |
| 16 - 20   | 27,033             | 22,675              | 2,675                 | 989.5                 | 1,179.7             |
| 21 - 24   | 21,182             | 21,204              | 1,923                 | 907.8                 | 906.9               |
| 25 - 64   | 257,081            | 248,157             | 15,455                | 601.2                 | 622.8               |
| 65 +      | 116,358            | 110,552             | 3,531                 | 303.5                 | 319.4               |
| Unknown   |                    |                     | 912                   |                       |                     |
| Total     | 506,418            | 405,409             | 24,545                | 484.7                 | 605.4               |

#### 2015 - Vehicles in Crashes

|  | Motor Veh             | nicles        | Fatal Cr | ashes         | Injury<br>Crashes | PDO Crashes |
|--|-----------------------|---------------|----------|---------------|-------------------|-------------|
| Vehicle Type                                       | Number of<br>Vehicles | % of<br>Total | Number   | % of<br>Total | Number            | Number      |
| Passenger car & station wagon                      | 17,402                | 70.9          | 52       | 55.3          | 2,548             | 14,802      |
| Van & motorhome                                    | 864                   | 3.5           | 2        | 2.1           | 120               | 742         |
| Pickup truck                                       | 4,693                 | 19.1          | 16       | 17.0          | 667               | 4,010       |
| Small truck under 10,000 lbs. GVWR                 | 430                   | 1.8           | 0        | 0.0           | 59                | 371         |
| Cycle  | 197                   | 0.8           | 9        | 9.6           | 134               | 54          |
| Moped  | 26                    | 0.1           | 0        | 0.0           | 23                | 3           |
| Go Cart  | 2                     | 0.0           | 0        | 0.0           | 2                 | 0           |
| Snowmobile   | 49                    | 0.2           | 1        | 1.1           | 33                | 15          |
| Off-Road Vehicle (ORV) & All-Terrain Vehicle (ATV) | 72                    | 0.3           | 3        | 3.2           | 63                | 6           |
| Other  | 90                    | 0.4           | 1        | 1.1           | 19                | 70          |
| Truck/bus over 10,000 lbs.                         | 477                   | 1.9           | 10       | 10.6          | 71                | 396         |
| Unknown  | 243                   | 1.0           | 0        | 0.0           | 18                | 225         |
| Total  | 24,545                | 100.0         | 94       | 100.0         | 3,757             | 20,694      |

5-Year Trend - Crashes by Month

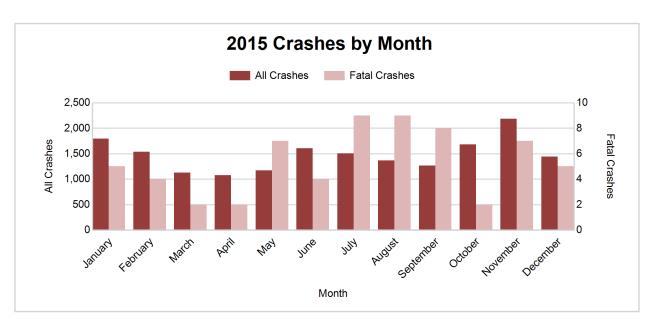
|           | 201              | 11               | 201              | 2                | 201              | 3                | 201              | 14               | 2015             |                  |
|-----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Month     | Total<br>Crashes | Fatal<br>Crashes |
| January   | 1,933            | 8                | 1,891            | 5                | 1,853            | 5                | 2,155            | 3                | 1,797            | 5                |
| February  | 1,259            | 6                | 1,492            | 4                | 1,483            | 9                | 1,579            | 4                | 1,538            | 4                |
| March     | 1,312            | 5                | 1,052            | 2                | 1,282            | 2                | 1,607            | 1                | 1,125            | 2                |
| April     | 1,116            | 3                | 862              | 2                | 1,243            | 3                | 1,178            | 4                | 1,074            | 2                |
| May       | 1,083            | 5                | 1,102            | 7                | 1,137            | 3                | 1,156            | 6                | 1,173            | 7                |
| June      | 1,541            | 7                | 1,428            | 8                | 1,473            | 6                | 1,421            | 4                | 1,606            | 4                |
| July      | 1,451            | 5                | 1,373            | 7                | 1,407            | 9                | 1,370            | 5                | 1,505            | 9                |
| August    | 1,205            | 4                | 1,230            | 6                | 1,323            | 9                | 1,260            | 5                | 1,363            | 9                |
| September | 1,377            | 4                | 1,354            | 2                | 1,341            | 15               | 1,189            | 9                | 1,264            | 8                |
| October   | 1,757            | 2                | 1,781            | 2                | 1,673            | 3                | 1,643            | 3                | 1,684            | 2                |
| November  | 2,074 †          | 4                | 2,214 †          | 6                | 2,473 †          | 9                | 2,575 †          | 6                | 2,187 †          | 7                |
| December  | 1,988            | 8                | 1,736            | 5                | 2,296            | 4                | 1,771            | 4                | 1,439            | 5                |
| Total     | 18,096           | 61               | 17,515           | 56               | 18,984           | 77               | 18,904           | 54               | 17,755           | 64               |

Note: † Indicates that the highest number of total crashes reported in the 5-year period occurred in the same month

5-Year Trend - Crashes by Day of Week

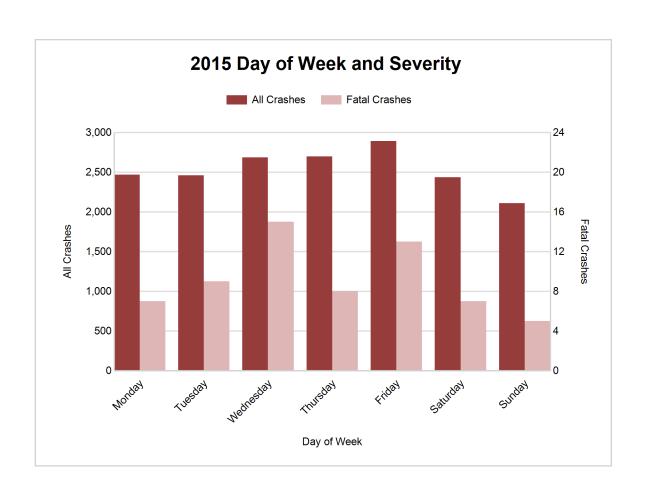
|           | 201              | 1                | 2012             |                  | 2013             |                  | 201              | 4                | 2015             |                  |
|-----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Day       | Total<br>Crashes | Fatal<br>Crashes |
| Monday    | 2,489            | 5                | 2,477            | 5                | 2,718            | 12               | 2,626            | 9                | 2,469            | 7                |
| Tuesday   | 2,582            | 9                | 2,347            | 6                | 2,833            | 9                | 2,777            | 5                | 2,462            | 9                |
| Wednesday | 2,489            | 6                | 2,377            | 7                | 2,776            | 7                | 2,827            | 7                | 2,688            | 15               |
| Thursday  | 2,786            | 11               | 2,598            | 4                | 2,955            | 6                | 2,801            | 5                | 2,698            | 8                |
| Friday    | 2,958 †          | 9                | 3,194 †          | 11               | 3,051 †          | 15               | 3,289 †          | 6                | 2,890 †          | 13               |
| Saturday  | 2,669            | 11               | 2,421            | 11               | 2,587            | 16               | 2,388            | 13               | 2,437            | 7                |
| Sunday    | 2,123            | 10               | 2,101            | 12               | 2,064            | 12               | 2,196            | 9                | 2,111            | 5                |
| Total     | 18,096           | 61               | 17,515           | 56               | 18,984           | 77               | 18,904           | 54               | 17,755           | 64               |

Note: † Indicates that the highest number of total crashes reported in the 5-year period occurred on the same day of the week



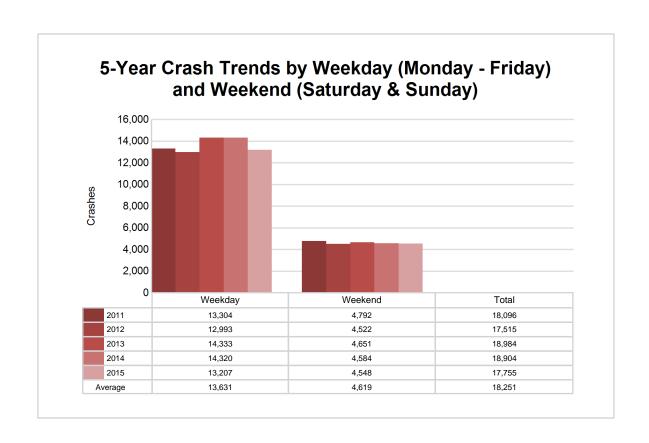
2015 - Crashes by Day of Week

|           | All Cra | ashes         | Fatal C | rashes        | lnj | ury Crash | ies   | PDO<br>Crashes |
|-----------|---------|---------------|---------|---------------|-----|-----------|-------|----------------|
| Day       | Number  | % of<br>Total | Number  | % of<br>Fatal | Α   | В         | С     | Number         |
| Monday    | 2,469   | 13.9          | 7       | 10.9          | 26  | 78        | 209   | 2,149          |
| Tuesday   | 2,462   | 13.9          | 9       | 14.1          | 32  | 83        | 181   | 2,157          |
| Wednesday | 2,688   | 15.1          | 15      | 23.4          | 36  | 103       | 199   | 2,335          |
| Thursday  | 2,698   | 15.2          | 8       | 12.5          | 36  | 100       | 212   | 2,342          |
| Friday    | 2,890   | 16.3          | 13      | 20.3          | 42  | 125       | 230   | 2,480          |
| Saturday  | 2,437   | 13.7          | 7       | 10.9          | 51  | 107       | 193   | 2,079          |
| Sunday    | 2,111   | 11.9          | 5       | 7.8           | 44  | 111       | 185   | 1,766          |
| Total     | 17,755  | 100.0         | 64      | 100.0         | 267 | 707       | 1,409 | 15,308         |



5-Year Trend - Crashes by Weekday and Weekend

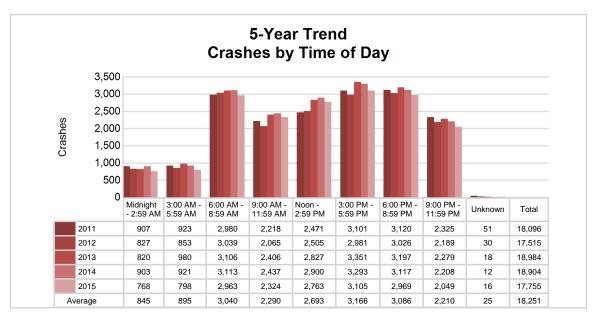
|                 | 2011             |                  | 2012             |                  | 2013             |                  | 201              | 14               | 2015             |                  |  |
|-----------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|
| Portion of Week | Total<br>Crashes | Fatal<br>Crashes |  |
| Weekday         | 13,304           | 40               | 12,993           | 33               | 14,333           | 49               | 14,320           | 32               | 13,207           | 52               |  |
| Weekend         | 4,792            | 21               | 4,522            | 23               | 4,651            | 28               | 4,584            | 22               | 4,548            | 12               |  |
| Total           | 18,096           | 61               | 17,515           | 56               | 18,984           | 77               | 18,904           | 54               | 17,755           | 64               |  |

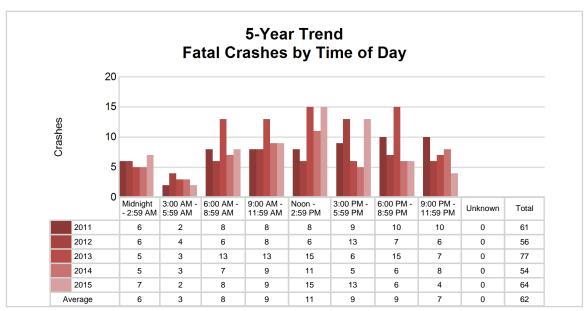


5-Year Trend - Crashes by Time of Day

|           |    |          | 201              | 11               | 201              | 12               | 201              | 13               | 201              | 14               | 2015             |                  |  |
|-----------|----|----------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--|
| Time of D | ay |          | Total<br>Crashes | Fatal<br>Crashes |  |
| Midnight  | -  | 2:59 AM  | 907              | 6                | 827              | 6                | 820              | 5                | 903              | 5                | 768              | 7                |  |
| 3:00 AM   | -  | 5:59 AM  | 923              | 2                | 853              | 4                | 980              | 3                | 921              | 3                | 798              | 2                |  |
| 6:00 AM   | -  | 8:59 AM  | 2,980            | 8                | 3,039            | 6                | 3,106            | 13               | 3,113            | 7                | 2,963            | 8                |  |
| 9:00 AM   | -  | 11:59 AM | 2,218            | 8                | 2,065            | 8                | 2,406            | 13               | 2,437            | 9                | 2,324            | 9                |  |
| Noon      | -  | 2:59 PM  | 2,471            | 8                | 2,505            | 6                | 2,827            | 15               | 2,900            | 11               | 2,763            | 15               |  |
| 3:00 PM   | -  | 5:59 PM  | 3,101            | 9                | 2,981            | 13               | 3,351            | 6                | 3,293            | 5                | 3,105            | 13               |  |
| 6:00 PM   | -  | 8:59 PM  | 3,120            | 10               | 3,026            | 7                | 3,197            | 15               | 3,117            | 6                | 2,969            | 6                |  |
| 9:00 PM   | -  | 11:59 PM | 2,325            | 10               | 2,189            | 6                | 2,279            | 7                | 2,208            | 8                | 2,049            | 4                |  |
| Unknown   |    |          | 51               | 0                | 30               | 0                | 18               | 0                | 12               | 0                | 16               | 0                |  |
| Total     |    |          | 18,096           | 61               | 17,515           | 56               | 18,984           | 77               | 18,904           | 54               | 17,755           | 64               |  |

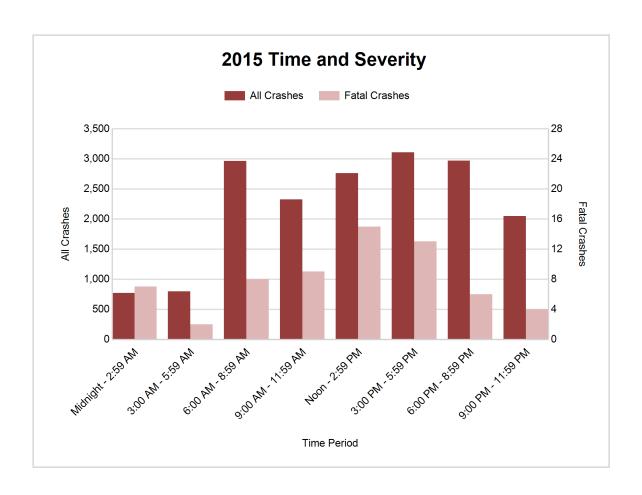
Note: † Indicates that the highest number of total crashes reported in the 5-year period occurred in the same time period





2015 - Time and Severity

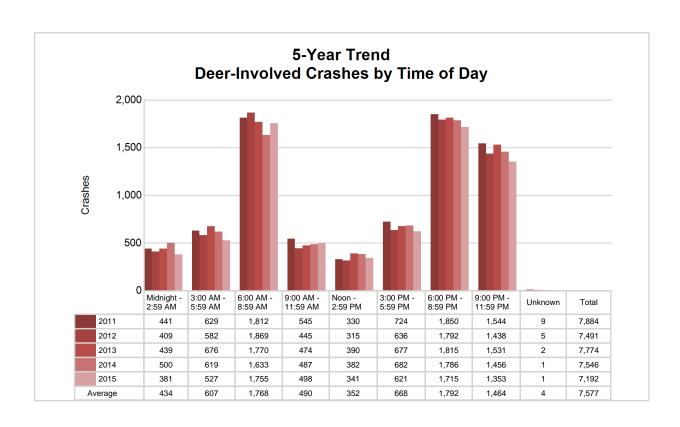
|           |           | All     | Crashes       | Fata  | al Crashes      |     | Injury Cras | shes  | PDO<br>Crashes |
|-----------|-----------|---------|---------------|-------|-----------------|-----|-------------|-------|----------------|
| Time of D | ay        | Number  | % of<br>Total | Numbe | r % of<br>Fatal | Α   | В           | С     | Number         |
| Midnight  | - 2:59 A  | M 768   | 4.3           | 7     | 10.9            | 13  | 41          | 52    | 655            |
| 3:00 AM   | - 5:59 A  | M 798   | 4.5           | 2     | 3.1             | 14  | 24          | 29    | 729            |
| 6:00 AM   | - 8:59 A  | M 2,963 | 16.7          | 8     | 12.5            | 20  | 81          | 151   | 2,703          |
| 9:00 AM   | - 11:59 A | M 2,324 | 13.1          | 9     | 14.1            | 37  | 87          | 253   | 1,938          |
| Noon      | - 2:59 P  | M 2,763 | 15.6          | 15    | 23.4            | 55  | 162         | 306   | 2,225          |
| 3:00 PM   | - 5:59 P  | M 3,105 | 17.5          | 13    | 20.3            | 61  | 149         | 329   | 2,553          |
| 6:00 PM   | - 8:59 P  | M 2,969 | 16.7          | 6     | 9.4             | 43  | 96          | 174   | 2,650          |
| 9:00 PM   | - 11:59 P | M 2,049 | 11.5          | 4     | 6.3             | 24  | 67          | 114   | 1,840          |
| Unknown   |           | 16      | 0.1           | 0     | 0.0             | 0   | 0           | 1     | 15             |
| Total     |           | 17,755  | 100.0         | 64    | 100.0           | 267 | 707         | 1,409 | 15,308         |

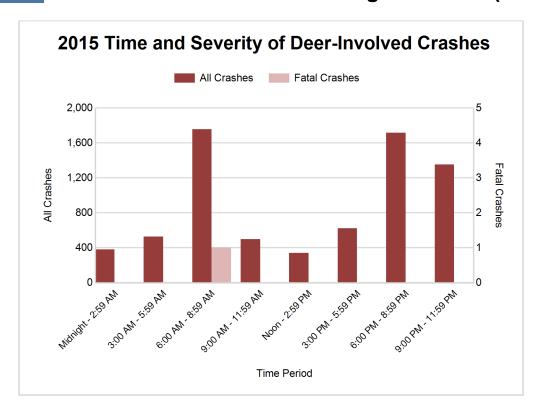


5-Year Trend - Deer-Involved Crashes by Time of Day

|                 |      | 20               | 11               | 20               | 12               | 20               | 13               | 20               | 14               | 2015             |                  |
|-----------------|------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Time of Day     |      | Total<br>Crashes | Fatal<br>Crashes |
| Midnight - 2:59 | 9 AM | 441              | 0                | 409              | 0                | 439              | 0                | 500              | 0                | 381              | 0                |
| 3:00 AM - 5:59  | 9 AM | 629              | 0                | 582              | 0                | 676              | 0                | 619              | 0                | 527              | 0                |
| 6:00 AM - 8:59  | 9 AM | 1,812            | 0                | 1,869            | 0                | 1,770            | 0                | 1,633            | 0                | 1,755            | 1                |
| 9:00 AM - 11:59 | 9 AM | 545              | 0                | 445              | 0                | 474              | 0                | 487              | 0                | 498              | 0                |
| Noon - 2:59     | 9 PM | 330              | 0                | 315              | 0                | 390              | 0                | 382              | 0                | 341              | 0                |
| 3:00 PM - 5:59  | 9 PM | 724              | 0                | 636              | 0                | 677              | 0                | 682              | 0                | 621              | 0                |
| 6:00 PM - 8:59  | 9 PM | 1,850            | 0                | 1,792            | 0                | 1,815            | 0                | 1,786            | 0                | 1,715            | 0                |
| 9:00 PM - 11:59 | 9 PM | 1,544            | 0                | 1,438            | 0                | 1,531            | 0                | 1,456            | 0                | 1,353            | 0                |
| Unknown         |      | 9                | 0                | 5                | 0                | 2                | 0                | 1                | 0                | 1                | 0                |
| Total           |      | 7,884            | 0                | 7,491            | 0                | 7,774            | 0                | 7,546            | 0                | 7,192            | 1                |

Note: † Indicates that the highest number of total crashes reported in the 5-year period occurred in the same time period



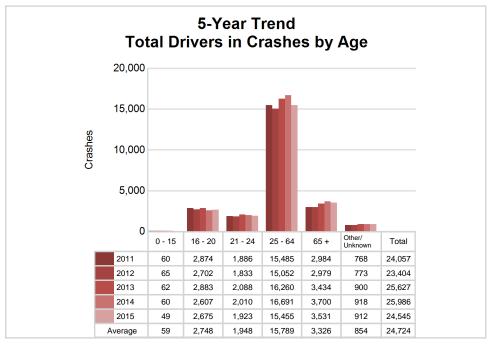


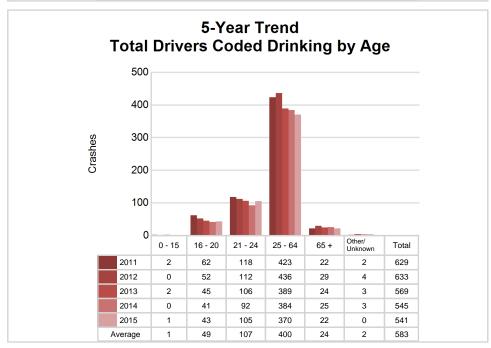
2015 - Reported Motor Vehicle Crashes by County

|                |        |       |        |                    |                 | Crashes     |                |                 |                      |                   |                   | Pers       | sons     |
|----------------|--------|-------|--------|--------------------|-----------------|-------------|----------------|-----------------|----------------------|-------------------|-------------------|------------|----------|
| County         | Total  | Fatal | Injury | Property<br>Damage | Inter-<br>state | US<br>Route | State<br>Route | Local<br>Street | Alcohol-<br>Involved | Drug-<br>Involved | Deer-<br>Involved | Fatalities | Injuries |
| Alcona         | 565    | 1     | 43     | 521                | 0               | 91          | 130            | 344             | 12                   | 2                 | 443               | 1          | 54       |
| Alpena         | 798    | 2     | 120    | 676                | 0               | 176         | 170            | 452             | 33                   | 6                 | 291               | 2          | 154      |
| Antrim         | 803    | 3     | 103    | 697                | 0               | 184         | 135            | 484             | 21                   | 3                 | 409               | 3          | 143      |
| Benzie         | 557    | 4     | 68     | 485                | 0               | 146         | 123            | 288             | 16                   | 4                 | 281               | 4          | 92       |
| Charlevoix     | 1,087  | 1     | 110    | 976                | 0               | 291         | 223            | 573             | 24                   | 6                 | 540               | 2          | 147      |
| Cheboygan      | 885    | 0     | 136    | 749                | 191             | 54          | 214            | 426             | 33                   | 3                 | 409               | 0          | 177      |
| Crawford       | 511    | 1     | 72     | 438                | 146             | 17          | 148            | 200             | 9                    | 2                 | 228               | 1          | 103      |
| Emmet          | 1,393  | 3     | 175    | 1,215              | 11              | 498         | 111            | 773             | 46                   | 14                | 442               | 4          | 238      |
| Grand Traverse | 3,439  | 10    | 490    | 2,939              | 0               | 1,015       | 431            | 1,993           | 104                  | 29                | 629               | 11         | 697      |
| losco          | 541    | 3     | 109    | 429                | 0               | 138         | 105            | 298             | 19                   | 3                 | 198               | 3          | 149      |
| Kalkaska       | 497    | 3     | 80     | 414                | 0               | 114         | 120            | 263             | 14                   | 0                 | 207               | 3          | 114      |
| Leelanau       | 635    | 4     | 70     | 561                | 0               | 0           | 306            | 329             | 35                   | 3                 | 293               | 4          | 102      |
| Manistee       | 910    | 0     | 107    | 803                | 0               | 280         | 154            | 476             | 29                   | 4                 | 455               | 0          | 154      |
| Missaukee      | 589    | 4     | 65     | 520                | 0               | 0           | 244            | 345             | 20                   | 4                 | 368               | 5          | 80       |
| Montmorency    | 318    | 0     | 37     | 281                | 0               | 0           | 141            | 177             | 6                    | 0                 | 198               | 0          | 44       |
| Ogemaw         | 779    | 5     | 105    | 669                | 131             | 0           | 250            | 398             | 21                   | 8                 | 418               | 5          | 154      |
| Oscoda         | 262    | 0     | 39     | 223                | 0               | 0           | 131            | 131             | 5                    | 1                 | 144               | 0          | 49       |
| Otsego         | 866    | 7     | 151    | 708                | 212             | 0           | 227            | 427             | 27                   | 7                 | 226               | 7          | 216      |
| Presque Isle   | 526    | 2     | 41     | 483                | 0               | 98          | 157            | 271             | 18                   | 4                 | 364               | 2          | 60       |
| Roscommon      | 701    | 2     | 102    | 597                | 85              | 88          | 220            | 308             | 26                   | 4                 | 306               | 2          | 149      |
| Wexford        | 1,093  | 9     | 160    | 924                | 0               | 319         | 296            | 478             | 29                   | 10                | 343               | 10         | 227      |
| Total          | 17,755 | 64    | 2,383  | 15,308             | 776             | 3,509       | 4,036          | 9,434           | 547                  | 117               | 7,192             | 69         | 3,303    |

5-Year Trend - Drivers in Crashes Coded Drinking by Driver Age

|            | 20                             | 11                                    | 20                             | 12                                    | 20                             | 13                                    | 20                             | 14                                    | 2015                           |                                       |  |
|------------|--------------------------------|---------------------------------------|--------------------------------|---------------------------------------|--------------------------------|---------------------------------------|--------------------------------|---------------------------------------|--------------------------------|---------------------------------------|--|
| Driver Age | Total<br>Drivers in<br>Crashes | Total<br>Drivers<br>Coded<br>Drinking |  |
| 0 - 15     | 60                             | 2                                     | 65                             | 0                                     | 62                             | 2                                     | 60                             | 0                                     | 49                             | 1                                     |  |
| 16 - 20    | 2,874                          | 62                                    | 2,702                          | 52                                    | 2,883                          | 45                                    | 2,607                          | 41                                    | 2,675                          | 43                                    |  |
| 21 - 24    | 1,886                          | 118                                   | 1,833                          | 112                                   | 2,088                          | 106                                   | 2,010                          | 92                                    | 1,923                          | 105                                   |  |
| 25 - 64    | 15,485                         | 423                                   | 15,052                         | 436                                   | 16,260                         | 389                                   | 16,691                         | 384                                   | 15,455                         | 370                                   |  |
| 65 +       | 2,984                          | 22                                    | 2,979                          | 29                                    | 3,434                          | 24                                    | 3,700                          | 25                                    | 3,531                          | 22                                    |  |
| Unknown    | 768                            | 2                                     | 773                            | 4                                     | 900                            | 3                                     | 918                            | 3                                     | 912                            | 0                                     |  |
| Total      | 24,057                         | 629                                   | 23,404                         | 633                                   | 25,627                         | 569                                   | 25,986                         | 545                                   | 24,545                         | 541                                   |  |





2015 - Bodily Alcohol Concentration (BAC) Results Among All Vehicle Drivers in Alcohol-Involved Crashes by Age

|           |  | Dri   | vers   |                                       | BAC F      | Result Ranç | ge for Drive                        | ers Coded | Drinking               |
|-----------|--|---|--|---------------------------------------|------------|-------------|-------------------------------------|-----------|------------------------|
| Age Group | Total Drivers in Alcohol- Involved Crashes | Total<br>Drivers<br>Tested<br>in all<br>Crashes | Total<br>Drivers<br>Coded<br>Drinking,<br>Tested | Total<br>Drivers<br>Coded<br>Drinking | BAC = 0.00 | to          | BAC<br>0.08 g/dL<br>to<br>0.16 g/dL | and       | BAC<br>Not<br>Reported |
| 0 - 15    | 1  | 1   | 0  | 1                                     | 0          | 0           | 0                                   | 0         | 1                      |
| 16 - 20   | 57   | 75  | 36   | 43                                    | 0          | 7           | 18                                  | 5         | 13                     |
| 21 - 24   | 112  | 122   | 92   | 105                                   | 1          | 15          | 35                                  | 31        | 23                     |
| 25 - 64   | 464  | 510   | 321  | 370                                   | 4          | 30          | 104                                 | 119       | 113                    |
| 65 +      | 37   | 59  | 19   | 22                                    | 0          | 6           | 6                                   | 3         | 7                      |
| Unknown   | 29   | 0   | 0  | 0                                     | 0          | 0           | 0                                   | 0         | 0                      |
| Total     | 700  | 767   | 468  | 541                                   | 5          | 58          | 163                                 | 158       | 157                    |

Notes: BAC measured in grams (g) per deciliter (dL).

BAC may not be reported if drivers are not tested or if the results are not available immediately (as in the case of a blood test). A driver may be coded by the officer as drinking even though no test is administered.

#### Alcohol-Involved Crashes

In 2015, there were 700 drivers in alcohol-involved crashes; 541 (77.3%) of those drivers were coded as had-been-drinking by the officer on the crash form.

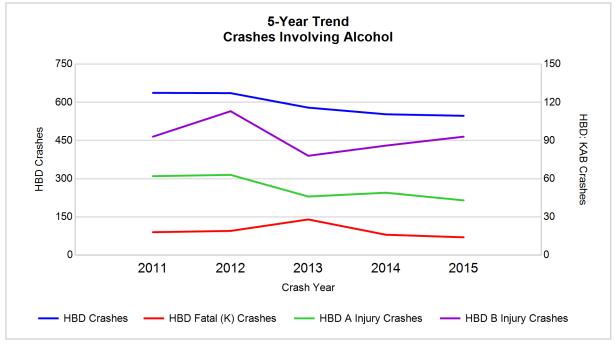
- 321 (59.3%) of the 541 drivers had a blood alcohol concentration (BAC) of 0.08 g/dL (grams per deciliter) or greater, and 158 (49.2%) of the 321 drivers had a BAC at or above 0.17 g/dL.
- 468 (86.5%) of the 541 drivers were coded as hadbeen-drinking and were tested for alcohol consumption.

#### 5-Year Trend - Crashes Involving Alcohol

| Year | All<br>Crashes | HBD<br>Crashes | %<br>HBD | Fatal<br>Crashes | HBD Fatal<br>Crashes | %<br>HBD | A Injury<br>Crashes | HBD<br>A Injury<br>Crashes | %<br>HBD | B Injury<br>Crashes | HBD<br>B Injury<br>Crashes | % HBD |
|------|----------------|----------------|----------|------------------|----------------------|----------|---------------------|----------------------------|----------|---------------------|----------------------------|-------|
| 2011 | 18,096         | 637            | 3.5      | 61               | 18                   | 29.5     | 346                 | 62                         | 17.9     | 795                 | 93                         | 11.7  |
| 2012 | 17,515         | 636            | 3.6      | 56               | 19                   | 33.9     | 345                 | 63                         | 18.3     | 773                 | 113                        | 14.6  |
| 2013 | 18,984         | 579            | 3.0      | 77               | 28                   | 36.4     | 318                 | 46                         | 14.5     | 732                 | 78                         | 10.7  |
| 2014 | 18,904         | 553            | 2.9      | 54               | 16                   | 29.6     | 291                 | 49                         | 16.8     | 679                 | 86                         | 12.7  |
| 2015 | 17,755         | 547*           | 3.1      | 64               | 14*                  | 21.9*    | 267*                | 43*                        | 16.1     | 707                 | 93                         | 13.2  |

Note: \* Indicates that the most recent year is the lowest number or percentage reported in the 5-year period in that column

<sup>\*\*</sup> Indicates that the most recent year is the highest number or percentage reported in the 5-year period in that column



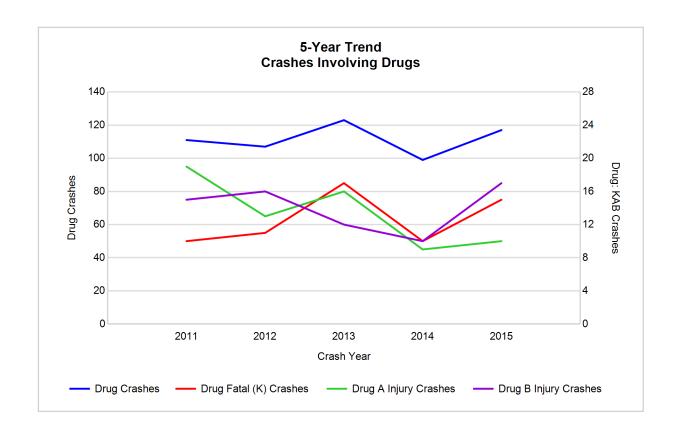
Note: Had-Been-Drinking (HBD)

#### 5-Year Trend - Crashes Involving Drugs

| Year | All<br>Crashes | Drug<br>Crashes | %<br>Drug | Fatal<br>Crashes | Drug<br>Fatal<br>Crashes | %<br>Drug | A Injury<br>Crashes | Drug<br>A Injury<br>Crashes | %<br>Drug | B Injury<br>Crashes | Drug<br>B Injury<br>Crashes | %<br>Drug |
|------|----------------|-----------------|-----------|------------------|--------------------------|-----------|---------------------|-----------------------------|-----------|---------------------|-----------------------------|-----------|
| 2011 | 18,096         | 111             | 0.6       | 61               | 10                       | 16.4      | 346                 | 19                          | 5.5       | 795                 | 15                          | 1.9       |
| 2012 | 17,515         | 107             | 0.6       | 56               | 11                       | 19.6      | 345                 | 13                          | 3.8       | 773                 | 16                          | 2.1       |
| 2013 | 18,984         | 123             | 0.6       | 77               | 17                       | 22.1      | 318                 | 16                          | 5.0       | 732                 | 12                          | 1.6       |
| 2014 | 18,904         | 99              | 0.5       | 54               | 10                       | 18.5      | 291                 | 9                           | 3.1       | 679                 | 10                          | 1.5       |
| 2015 | 17,755         | 117             | 0.7**     | 64               | 15                       | 23.4**    | 267*                | 10                          | 3.7       | 707                 | 17**                        | 2.4**     |

Note: \* Indicates that the most recent year is the lowest number or percentage reported in the 5-year period in that column

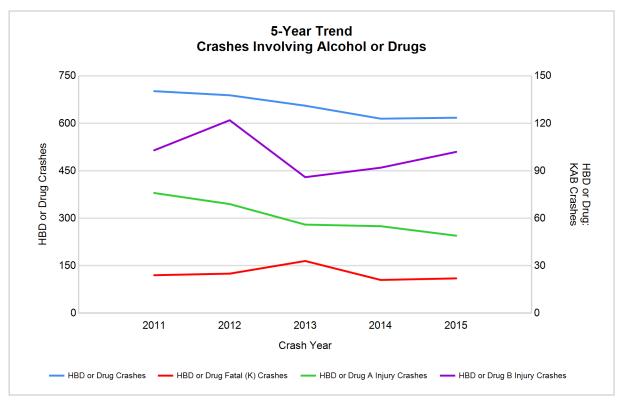
<sup>\*\*</sup> Indicates that the most recent year is the highest number or percentage reported in the 5-year period in that column



#### 5-Year Trend - Crashes Involving Alcohol or Drugs

| Year | All<br>Crashes | HBD or Drug<br>Crashes | % HBD<br>or Drug | Fatal<br>Crashes | HBD or Drug<br>Fatal Crashes | % HBD<br>or Drug | A Injury<br>Crashes | HBD or Drug<br>A Injury<br>Crashes | % HBD<br>or Drug | B Injury<br>Crashes | HBD or Drug<br>B Injury<br>Crashes | % HBD<br>or Drug |
|------|----------------|------------------------|------------------|------------------|------------------------------|------------------|---------------------|------------------------------------|------------------|---------------------|------------------------------------|------------------|
| 2011 | 18,096         | 702                    | 3.9              | 61               | 24                           | 39.3             | 346                 | 76                                 | 22.0             | 795                 | 103                                | 13.0             |
| 2012 | 17,515         | 689                    | 3.9              | 56               | 25                           | 44.6             | 345                 | 69                                 | 20.0             | 773                 | 122                                | 15.8             |
| 2013 | 18,984         | 656                    | 3.5              | 77               | 33                           | 42.9             | 318                 | 56                                 | 17.6             | 732                 | 86                                 | 11.7             |
| 2014 | 18,904         | 615                    | 3.3              | 54               | 21                           | 38.9             | 291                 | 55                                 | 18.9             | 679                 | 92                                 | 13.5             |
| 2015 | 17,755         | 618                    | 3.5              | 64               | 22                           | 34.4*            | 267*                | 49*                                | 18.4             | 707                 | 102                                | 14.4             |

Note: \* Indicates that the most recent year is the lowest number or percentage reported in the 5-year period in that column



Note: Had-Been-Drinking (HBD)

<sup>\*\*</sup> Indicates that the most recent year is the highest number or percentage reported in the 5-year period in that column

2015 - Restraints Worn Among Vehicle Drivers and Injured Passengers by Vehicle Type

|   | Tota   | l Occupar         | nts  |       | Fatalities        |       | A - Iı | ncapacita         | ting  | B - No | n-incapacit       | tating | C - P | ossible Inj       | jury | ı      | No Injury         |      |
|---|--------|-------------------|------|-------|-------------------|-------|--------|-------------------|-------|--------|-------------------|--------|-------|-------------------|------|--------|-------------------|------|
| Vehicle Type  | Total  | Used<br>Restraint | %    | Total | Used<br>Restraint | %     | Total  | Used<br>Restraint | %     | Total  | Used<br>Restraint | %      | Total | Used<br>Restraint | %    | Total  | Used<br>Restraint | %    |
| Passenger car & station wagon                               | 18,053 | 17,080            | 94.6 | 38    | 20                | 52.6  | 185    | 132               | 71.4  | 559    | 514               | 91.9   | 1,519 | 1,448             | 95.3 | 15,316 | 14,956            | 97.6 |
| Van & motorhome   | 906    | 851               | 93.9 | 2     | 1                 | 50.0  | 9      | 7                 | 77.8  | 27     | 19                | 70.4   | 71    | 68                | 95.8 | 774    | 755               | 97.5 |
| Pickup truck  | 4,857  | 4,537             | 93.4 | 11    | 6                 | 54.5  | 41     | 24                | 58.5  | 142    | 118               | 83.1   | 297   | 268               | 90.2 | 4,216  | 4,113             | 97.6 |
| Small truck<br>under 10,000<br>lbs. GVWR                    | 440    | 405               | 92.0 | 0     | 0                 | 0.0   | 3      | 0                 | 0.0   | 10     | 10                | 100.0  | 25    | 24                | 96.0 | 385    | 370               | 96.1 |
| Cycle   | 212    | 140               | 66.0 | 9     | 7                 | 77.8  | 41     | 27                | 65.9  | 55     | 38                | 69.1   | 51    | 31                | 60.8 | 55     | 37                | 67.3 |
| Moped   | 27     | 12                | 44.4 | 0     | 0                 | 0.0   | 7      | 4                 | 57.1  | 10     | 4                 | 40.0   | 5     | 2                 | 40.0 | 5      | 2                 | 40.0 |
| Go Cart   | 4      | 0                 | 0.0  | 0     | 0                 | 0.0   | 0      | 0                 | 0.0   | 3      | 0                 | 0.0    | 0     | 0                 | 0.0  | 1      | 0                 | 0.0  |
| Snowmobile  | 53     | 42                | 79.2 | 1     | 1                 | 100.0 | 8      | 8                 | 100.0 | 14     | 11                | 78.6   | 10    | 7                 | 70.0 | 19     | 15                | 78.9 |
| Off-Road<br>Vehicle (ORV)<br>& All-Terrain<br>Vehicle (ATV) | 80     | 43                | 53.8 | 3     | 1                 | 33.3  | 15     | 10                | 66.7  | 29     | 14                | 48.3   | 22    | 13                | 59.1 | 11     | 5                 | 45.5 |
| Other   | 90     | 56                | 62.2 | 0     | 0                 | 0.0   | 2      | 0                 | 0.0   | 2      | 0                 | 0.0    | 4     | 2                 | 50.0 | 76     | 54                | 71.1 |
| Truck/bus over 10,000 lbs.                                  | 487    | 453               | 93.0 | 2     | 1                 | 50.0  | 3      | 1                 | 33.3  | 12     | 8                 | 66.7   | 15    | 11                | 73.3 | 446    | 431               | 96.6 |
| Unknown   | 243    | 4                 | 1.6  | 0     | 0                 | 0.0   | 0      | 0                 | 0.0   | 0      | 0                 | 0.0    | 0     | 0                 | 0.0  | 5      | 3                 | 60.0 |
| Total   | 25,452 | 23,623            | 92.8 | 66    | 37                | 56.1  | 314    | 213               | 67.8  | 863    | 736               | 85.3   | 2,019 | 1,874             | 92.8 | 21,309 | 20,741            | 97.3 |

Note: Restraint Use includes shoulder belt only used, lap belt only used, both lap and shoulder belts used, child restraint used, restraint failure, and helmet worn.

2015 - Restraints Worn Among Vehicle Drivers and Injured Passengers by Age

|           | Tota   | al Occupar        | nts  |       | Fatalities        |      | A - Iı | ncapacitat        | ing  | B - No | n-incapacit       | ating | C - P | ossible In        | jury |        | No Injury         |      |
|-----------|--------|-------------------|------|-------|-------------------|------|--------|-------------------|------|--------|-------------------|-------|-------|-------------------|------|--------|-------------------|------|
| Age Group | Total  | Used<br>Restraint | %    | Total | Used<br>Restraint | %    | Total  | Used<br>Restraint | %    | Total  | Used<br>Restraint | %     | Total | Used<br>Restraint | %    | Total  | Used<br>Restraint | %    |
| 0 - 15    | 271    | 229               | 84.5 | 2     | 1                 | 50.0 | 17     | 10                | 58.8 | 69     | 53                | 76.8  | 153   | 139               | 90.8 | 30     | 26                | 86.7 |
| 16 - 20   | 2,832  | 2,712             | 95.8 | 7     | 5                 | 71.4 | 42     | 25                | 59.5 | 133    | 113               | 85.0  | 302   | 274               | 90.7 | 2,343  | 2,292             | 97.8 |
| 21 - 24   | 1,990  | 1,892             | 95.1 | 4     | 1                 | 25.0 | 28     | 21                | 75.0 | 83     | 73                | 88.0  | 156   | 140               | 89.7 | 1,718  | 1,657             | 96.4 |
| 25 - 64   | 15,790 | 15,219            | 96.4 | 32    | 16                | 50.0 | 172    | 113               | 65.7 | 454    | 384               | 84.6  | 1,091 | 1,014             | 92.9 | 14,010 | 13,680            | 97.6 |
| 65 +      | 3,655  | 3,557             | 97.3 | 21    | 14                | 66.7 | 55     | 44                | 80.0 | 121    | 113               | 93.4  | 314   | 305               | 97.1 | 3,138  | 3,077             | 98.1 |
| Unknown   | 914    | 14                | 1.5  | 0     | 0                 | 0.0  | 0      | 0                 | 0.0  | 3      | 0                 | 0.0   | 3     | 2                 | 66.7 | 70     | 9                 | 12.9 |
| Total     | 25,452 | 23,623            | 92.8 | 66    | 37                | 56.1 | 314    | 213               | 67.8 | 863    | 736               | 85.3  | 2,019 | 1,874             | 92.8 | 21,309 | 20,741            | 97.3 |

Note: Restraint Use includes shoulder belt only used, lap belt only used, both lap and shoulder belts used, child restraint used, restraint failure, and helmet worn.

### 5-Year Trend - Restraint Use Among Drivers

|   |         | 2011             |                    |         | 2012             |                    |         | 2013             |                    |         | 2014             |                    |         | 2015             |                    |
|---|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|
| Restraint Use   | Drivers | Fatal<br>Drivers | Injured<br>Drivers |
| No belts available                                    | 187     | 0                | 30                 | 209     | 0                | 32                 | 120     | 1                | 26                 | 202     | 0                | 22                 | 120     | 1                | 18                 |
| Shoulder belt only used                               | 12      | 0                | 1                  | 16      | 0                | 4                  | 15      | 0                | 3                  | 39      | 0                | 9                  | 45      | 0                | 11                 |
| Lap belt only used                                    | 95      | 0                | 5                  | 83      | 0                | 8                  | 68      | 0                | 12                 | 86      | 0                | 5                  | 79      | 0                | 5                  |
| Both lap & shoulder belts used                        | 22,084  | 23               | 2,001              | 21,444  | 22               | 1,844              | 23,650  | 26               | 1,982              | 23,839  | 17               | 1,839              | 22,521  | 15               | 1,913              |
| No belts used   | 206     | 14               | 103                | 185     | 12               | 90                 | 161     | 15               | 67                 | 202     | 5                | 75                 | 182     | 15               | 81                 |
| Child restraint used                                  | 0       | 0                | 0                  | 4       | 0                | 0                  | 2       | 0                | 0                  | 1       | 0                | 0                  | 0       | 0                | 0                  |
| Child restraint not used, unavailable or improper use | 5       | 0                | 1                  | 4       | 0                | 0                  | 3       | 0                | 0                  | 1       | 0                | 0                  | 1       | 0                | 1                  |
| Restraint failure                                     | 14      | 0                | 1                  | 12      | 0                | 2                  | 16      | 0                | 1                  | 7       | 1                | 1                  | 4       | 0                | 0                  |
| Restraint use<br>unknown                              | 425     | 2                | 67                 | 447     | 3                | 54                 | 488     | 2                | 57                 | 515     | 2                | 66                 | 479     | 5                | 49                 |
| Helmet worn   | 337     | 7                | 257                | 286     | 6                | 203                | 268     | 8                | 192                | 257     | 7                | 192                | 216     | 8                | 150                |
| Helmet not worn                                       | 22      | 2                | 19                 | 64      | 4                | 52                 | 75      | 8                | 62                 | 65      | 1                | 48                 | 91      | 3                | 68                 |
| Helmet use<br>unknown                                 | 6       | 0                | 2                  | 15      | 1                | 7                  | 11      | 2                | 5                  | 9       | 0                | 3                  | 17      | 1                | 9                  |
| Uncoded & errors                                      | 664     | 0                | 6                  | 635     | 0                | 5                  | 750     | 0                | 2                  | 763     | 0                | 2                  | 790     | 0                | 2                  |
| Total   | 24,057  | 48               | 2,493              | 23,404  | 48               | 2,301              | 25,627  | 62               | 2,409              | 25,986  | 33               | 2,262              | 24,545  | 48               | 2,307              |

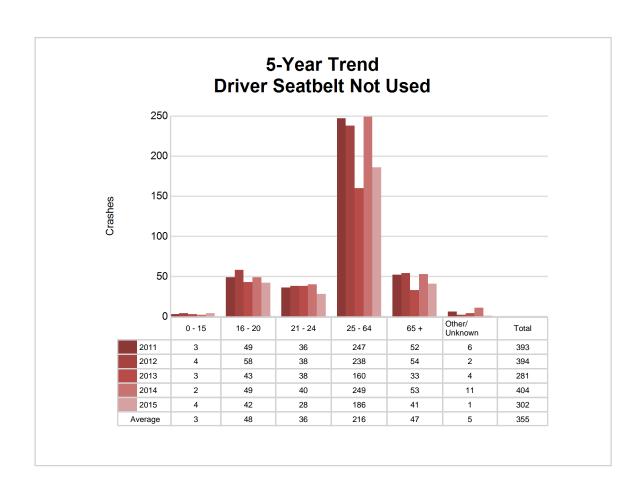
#### 5-Year Trend - Restraint Use Among Drivers Coded Drinking

|   |         | 2011             |                    |         | 2012             |                    |         | 2013             |                    |         | 2014             |                    |         | 2015             |                    |
|---|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|
| Restraint Use   | Drivers | Fatal<br>Drivers | Injured<br>Drivers |
| No belts available                                    | 11      | 0                | 5                  | 3       | 0                | 1                  | 3       | 0                | 2                  | 6       | 0                | 1                  | 4       | 0                | 3                  |
| Shoulder belt only used                               | 0       | 0                | 0                  | 4       | 0                | 2                  | 2       | 0                | 2                  | 2       | 0                | 2                  | 2       | 0                | 0                  |
| Lap belt only used                                    | 1       | 0                | 0                  | 2       | 0                | 0                  | 3       | 0                | 2                  | 2       | 0                | 0                  | 1       | 0                | 1                  |
| Both lap & shoulder belts used                        | 432     | 6                | 115                | 445     | 4                | 129                | 390     | 5                | 99                 | 375     | 3                | 100                | 392     | 2                | 120                |
| No belts used   | 50      | 4                | 34                 | 51      | 9                | 30                 | 36      | 9                | 16                 | 38      | 3                | 30                 | 42      | 5                | 25                 |
| Child restraint used                                  | 0       | 0                | 0                  | 0       | 0                | 0                  | 0       | 0                | 0                  | 0       | 0                | 0                  | 0       | 0                | 0                  |
| Child restraint not used, unavailable or improper use | 0       | 0                | 0                  | 0       | 0                | 0                  | 0       | 0                | 0                  | 0       | 0                | 0                  | 0       | 0                | 0                  |
| Restraint failure                                     | 0       | 0                | 0                  | 0       | 0                | 0                  | 0       | 0                | 0                  | 2       | 0                | 0                  | 0       | 0                | 0                  |
| Restraint use<br>unknown                              | 97      | 1                | 27                 | 90      | 1                | 31                 | 94      | 1                | 26                 | 87      | 1                | 31                 | 74      | 1                | 24                 |
| Helmet worn   | 20      | 4                | 10                 | 20      | 3                | 15                 | 21      | 4                | 15                 | 18      | 3                | 13                 | 12      | 4                | 8                  |
| Helmet not worn                                       | 10      | 0                | 10                 | 11      | 0                | 10                 | 18      | 4                | 13                 | 12      | 0                | 12                 | 12      | 0                | 12                 |
| Helmet use<br>unknown                                 | 3       | 0                | 1                  | 2       | 0                | 2                  | 0       | 0                | 0                  | 1       | 0                | 0                  | 1       | 0                | 1                  |
| Uncoded & errors                                      | 5       | 0                | 1                  | 5       | 0                | 0                  | 2       | 0                | 0                  | 2       | 0                | 0                  | 1       | 0                | 0                  |
| Total   | 629     | 15               | 203                | 633     | 17               | 220                | 569     | 23               | 175                | 545     | 10               | 189                | 541     | 12               | 194                |

5-Year Trend - Seatbelt Not Used Among Drivers by Age

|           |         | 2011             |                    |         | 2012             |                    |         | 2013             |                    |         | 2014             |                    |         | 2015             |                    |
|-----------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|
| Age Group | Drivers | Fatal<br>Drivers | Injured<br>Drivers |
| 0 - 15    | 3       | 0                | 2                  | 4       | 0                | 2                  | 3       | 0                | 2                  | 2       | 0                | 0                  | 4       | 0                | 1                  |
| 16 - 20   | 49      | 1                | 18                 | 58      | 1                | 21                 | 43      | 0                | 23                 | 49      | 1                | 14                 | 42      | 1                | 18                 |
| 21 - 24   | 36      | 0                | 20                 | 38      | 4                | 13                 | 38      | 2                | 8                  | 40      | 0                | 16                 | 28      | 1                | 8                  |
| 25 - 64   | 247     | 11               | 82                 | 238     | 4                | 70                 | 160     | 11               | 52                 | 249     | 3                | 58                 | 186     | 9                | 62                 |
| 65 +      | 52      | 2                | 10                 | 54      | 3                | 16                 | 33      | 3                | 8                  | 53      | 1                | 9                  | 41      | 5                | 10                 |
| Unknown   | 6       | 0                | 1                  | 2       | 0                | 0                  | 4       | 0                | 0                  | 11      | 0                | 0                  | 1       | 0                | 0                  |
| Total     | 393     | 14               | 133                | 394     | 12               | 122                | 281     | 16               | 93                 | 404     | 5                | 97                 | 302     | 16               | 99                 |

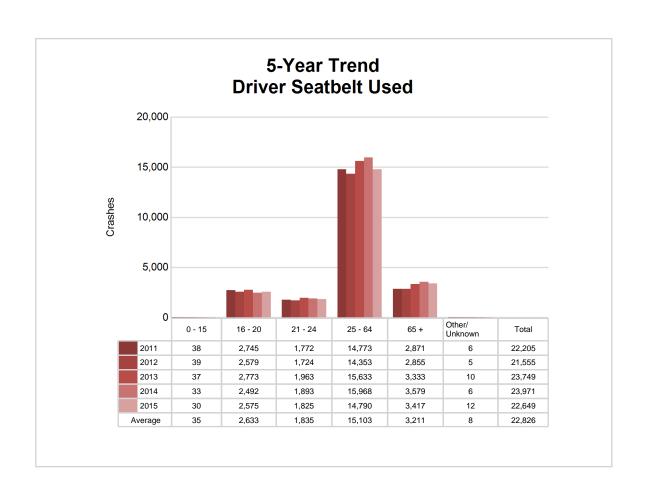
Note: Seatbelt Not Used includes no belts available or no belts used.

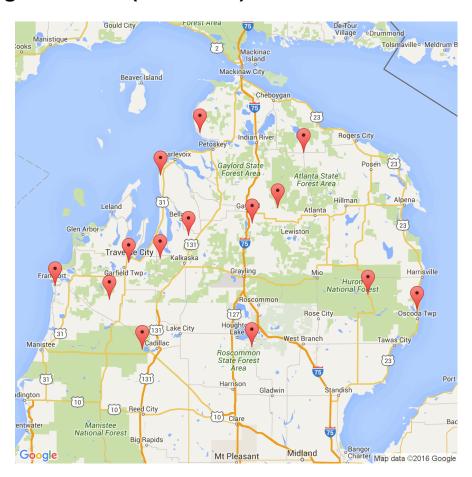


5-Year Trend - Seatbelt Used Among Drivers by Age

|           |         | 2011             |                    |         | 2012             |                    |         | 2013             |                    |         | 2014             |                    |         | 2015             |                    |
|-----------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|---------|------------------|--------------------|
| Age Group | Drivers | Fatal<br>Drivers | Injured<br>Drivers |
| 0 - 15    | 38      | 0                | 6                  | 39      | 0                | 1                  | 37      | 1                | 4                  | 33      | 0                | 4                  | 30      | 0                | 5                  |
| 16 - 20   | 2,745   | 0                | 304                | 2,579   | 1                | 284                | 2,773   | 4                | 266                | 2,492   | 2                | 224                | 2,575   | 3                | 283                |
| 21 - 24   | 1,772   | 5                | 184                | 1,724   | 3                | 164                | 1,963   | 1                | 190                | 1,893   | 3                | 171                | 1,825   | 0                | 176                |
| 25 - 64   | 14,773  | 10               | 1,216              | 14,353  | 11               | 1,130              | 15,633  | 11               | 1,203              | 15,968  | 10               | 1,124              | 14,790  | 7                | 1,130              |
| 65 +      | 2,871   | 8                | 298                | 2,855   | 7                | 279                | 3,333   | 9                | 334                | 3,579   | 3                | 330                | 3,417   | 5                | 334                |
| Unknown   | 6       | 0                | 0                  | 5       | 0                | 0                  | 10      | 0                | 1                  | 6       | 0                | 1                  | 12      | 0                | 1                  |
| Total     | 22,205  | 23               | 2,008              | 21,555  | 22               | 1,858              | 23,749  | 26               | 1,998              | 23,971  | 18               | 1,854              | 22,649  | 15               | 1,929              |

Note: Seatbelt Used includes shoulder belt only used, lap belt only used, both lap and shoulder belts used, and restraint failure.





The picture above represents all 2015 alcohol-involved fatal crashes in MDOT Region - North. In

2015, there were 547 alcohol-involved crashes in MDOT Region - North:

- 14 K Fatal Crashes
- 43 A Incapacitating Injury Crashes
- 93 B Non-incapacitating Injury Crashes
- 102 C Possible Injury Crashes
- 295 O Property Damage Only/No Injury Crashes

## Office of Highway Safety Planning

Physical Address: 7150 Harris Drive Dimondale, Michigan 48821

Mailing Address: P.O. Box 30634 Lansing, Michigan 48909

Phone: (517) 284-3140 Fax: (517) 284-3151

Find us on the web: MichiganTrafficCrashFacts.org

