

VEHICLE TYPE AND CRASH INVOLVEMENT

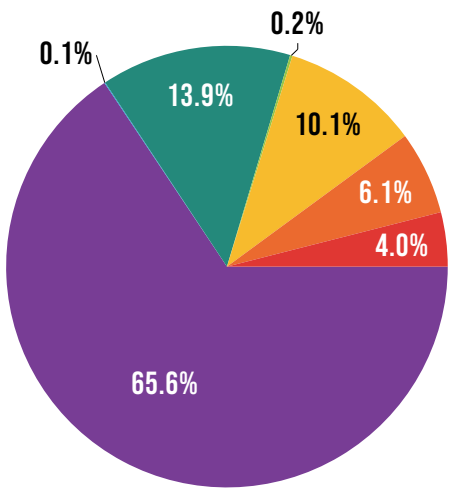
| VEHICLE TYPE | MOTOR VEHICLES | | FATAL CRASH | | INJURY CRASH | PROPERTY DAMAGE ONLY | FATALITY IN VEHICLE | | INJURY | NO INJURY |
|--|--------------------|------------|-------------|------------|--------------|----------------------|---------------------|------------|--------|-----------|
| | Number of Vehicles | % of Total | Number | % of Total | | | Number | % of Total | | |
| Passenger Car, SUV, Van | 381,041 | 80.0 | 1,108 | 65.6 | 77,319 | 302,614 | 545 | 62.4 | 49,437 | 331,059 |
| Motor Home | 1,044 | 0.2 | 1 | 0.1 | 174 | 869 | 0 | 0.0 | 106 | 938 |
| Pickup Truck | 57,120 | 12.0 | 235 | 13.9 | 9,897 | 46,988 | 105 | 12.0 | 5,152 | 51,863 |
| Small Truck Under 10,000 lbs. GVWR | 2,090 | 0.4 | 3 | 0.2 | 340 | 1,747 | 2 | 0.2 | 155 | 1,933 |
| Motorcycle | 3,271 | 0.7 | 171 | 10.1 | 2,376 | 724 | 164 | 18.8 | 2,331 | 776 |
| Moped/Goped | 482 | 0.1 | 7 | 0.4 | 395 | 80 | 7 | 0.8 | 387 | 88 |
| Go-Cart/Golf Cart | 41 | 0.0 | 0 | 0.0 | 29 | 12 | 0 | 0.0 | 27 | 14 |
| Snowmobile | 102 | 0.0 | 5 | 0.3 | 65 | 32 | 5 | 0.6 | 62 | 35 |
| Off-Road Vehicle (ORV)/ All-Terrain Vehicle (ATV) | 452 | 0.1 | 21 | 1.2 | 299 | 132 | 21 | 2.4 | 285 | 146 |
| Other (non-registered farm equipment, construction equipment, snow plows, etc.) | 1,594 | 0.3 | 14 | 0.8 | 306 | 1,274 | 8 | 0.9 | 158 | 1,428 |
| Uncoded & Errors | 13,920 | 2.9 | 20 | 1.2 | 1,511 | 12,389 | 0 | 0.0 | 11 | 13,909 |
| Truck/Bus (over 10,000 lbs. GVWR/8+ occupants/ hazmat placard) (breakdown below) | 14,972 | 3.1 | 103 | 6.1 | 2,586 | 12,283 | 17 | 1.9 | 725 | 14,230 |
| Total Number of Vehicles | 476,129 | 100.0 | 1,688 | 100.0 | 95,297 | 379,144 | 874 | 100.0 | 58,836 | 416,419 |

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

| HEAVY TRUCK/BUS SUB-CATEGORY TYPE | MOTOR VEHICLES | | FATAL CRASH | | INJURY CRASH | PROPERTY DAMAGE ONLY | FATALITY IN VEHICLE | | INJURY | NO INJURY |
|-----------------------------------|--------------------|------------|-------------|------------|--------------|----------------------|---------------------|------------|--------|-----------|
| | Number of Vehicles | % of Total | Number | % of Total | | | Number | % of Total | | |
| 10,000 lbs. or Less | 95 | 0.6 | 1 | 1.0 | 5 | 89 | 1 | 5.9 | 1 | 93 |
| 10,001-26,000 lbs. | 5,672 | 37.9 | 23 | 22.3 | 830 | 4,819 | 7 | 41.2 | 264 | 5,401 |
| Greater Than 26,000 lbs. | 8,943 | 59.7 | 79 | 76.7 | 1,746 | 7,118 | 9 | 52.9 | 460 | 8,474 |
| Uncoded & Errors | 262 | 1.7 | 0 | 0.0 | 5 | 257 | 0 | 0.0 | 0 | 262 |
| Total Number of Vehicles | 14,972 | 100.0 | 103 | 100.0 | 2,586 | 12,283 | 17 | 100.0 | 725 | 14,230 |

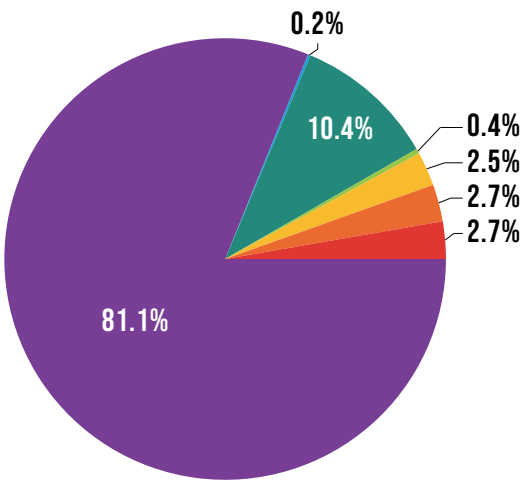
VEHICLE TYPES IN CRASHES BY CRASH SEVERITY

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

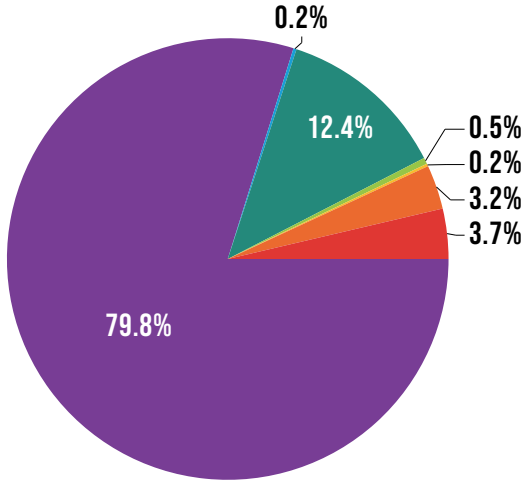


FATAL

The chart shows that 79.8 percent of vehicles involved in fatal crashes are passenger vehicles (passenger cars, SUVs, vans, motor homes, pickup trucks, or trucks under 10,000 lbs.). Motorcycles make up 10.1 percent of fatal crash involvements.



INJURY



PROPERTY DAMAGE ONLY

Passenger vehicles (passenger cars, SUVs, vans, motor homes, pickup trucks, or trucks under 10,000 lbs.) make up an even larger share of vehicles in injury crashes (92.1%) and property damage only (PDO) crashes (92.9%) than they do of fatal crashes.

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

ACTION PRIOR TO CRASH

| DRIVER ACTION | VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--|----------|------------|-------------|--------------|--------|--------|----------------------|
| | Number | % of Total | | A | B | C | |
| Going Straight Ahead | 270,568 | 56.8 | 1,213 | 5,582 | 17,966 | 33,238 | 212,569 |
| Turning Left | 34,074 | 7.2 | 122 | 802 | 3,154 | 5,279 | 24,717 |
| Turning Right | 14,171 | 3.0 | 12 | 119 | 619 | 1,169 | 12,252 |
| Stopped on Roadway | 39,431 | 8.3 | 59 | 391 | 2,256 | 6,097 | 30,628 |
| Involved in Prior Crash at Same Location | 220 | 0.0 | 4 | 8 | 31 | 36 | 141 |
| Changing Lanes | 15,450 | 3.2 | 21 | 138 | 497 | 1,157 | 13,637 |
| Backing | 9,406 | 2.0 | 2 | 18 | 78 | 213 | 9,095 |
| Slowing/Stopping on Roadway | 38,356 | 8.1 | 38 | 281 | 1,751 | 5,437 | 30,849 |
| Slowing/Stopping Other Area | 505 | 0.1 | 0 | 7 | 34 | 76 | 388 |
| Starting Up on Roadway | 7,685 | 1.6 | 12 | 100 | 472 | 1,055 | 6,046 |
| Starting Up in Other Area | 104 | 0.0 | 1 | 3 | 10 | 14 | 76 |
| Entering Parking | 339 | 0.1 | 0 | 0 | 10 | 10 | 319 |
| Leaving Parking | 973 | 0.2 | 2 | 8 | 44 | 108 | 811 |
| Entering Roadway | 5,113 | 1.1 | 18 | 86 | 344 | 660 | 4,005 |
| Leaving Roadway | 637 | 0.1 | 7 | 28 | 71 | 85 | 446 |
| Making U-Turn | 1,097 | 0.2 | 3 | 27 | 73 | 158 | 836 |
| Overtaking or Passing | 3,052 | 0.6 | 31 | 78 | 184 | 270 | 2,489 |
| Avoiding Object | 388 | 0.1 | 1 | 9 | 26 | 38 | 314 |
| Avoiding Animal | 879 | 0.2 | 0 | 16 | 65 | 85 | 713 |
| Avoiding Pedestrian | 63 | 0.0 | 2 | 1 | 12 | 11 | 37 |
| Avoiding Vehicle (front/back) | 2,779 | 0.6 | 10 | 64 | 238 | 398 | 2,069 |
| Avoiding Vehicle (angle) | 1,195 | 0.3 | 2 | 30 | 101 | 165 | 897 |
| Driverless Moving | 229 | 0.0 | 1 | 6 | 13 | 16 | 193 |
| Parked | 18,921 | 4.0 | 36 | 213 | 658 | 1,085 | 16,929 |
| Crossing at Intersection | 71 | 0.0 | 0 | 2 | 14 | 11 | 44 |
| Crossing Not at Intersection | 10 | 0.0 | 0 | 2 | 0 | 2 | 6 |
| Getting On/Off Vehicle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In Roadway With Traffic | 25 | 0.0 | 0 | 2 | 1 | 4 | 18 |
| In Roadway Against Traffic | 10 | 0.0 | 0 | 1 | 1 | 4 | 4 |
| Standing/Lying in Roadway | 4 | 0.0 | 0 | 1 | 0 | 1 | 2 |
| Pushing/Working on Vehicle | 1 | 0.0 | 0 | 0 | 0 | 0 | 1 |
| Other Work in Roadway | 3 | 0.0 | 0 | 1 | 0 | 0 | 2 |
| Playing in Roadway | 4 | 0.0 | 0 | 0 | 0 | 0 | 4 |
| In Roadway Other Reason | 8 | 0.0 | 0 | 1 | 0 | 1 | 6 |
| Not in Roadway | 40 | 0.0 | 0 | 3 | 5 | 5 | 27 |
| Negotiating a Curve | 4,504 | 0.9 | 72 | 163 | 409 | 469 | 3,391 |
| Other | 616 | 0.1 | 5 | 23 | 47 | 76 | 465 |
| Unknown | 5,198 | 1.1 | 14 | 49 | 127 | 290 | 4,718 |
| TOTAL | 476,129 | 100.0 | 1,688 | 8,263 | 29,311 | 57,723 | 379,144 |

ACTION PRIOR TO CRASH (CONTINUED)

| MOTORCYCLIST ACTION | MOTORCYCLES | | MOTORCYCLISTS* | | FATALITY | INJURY | | | NO INJURY |
|--|-----------------------|--------------|-------------------------|--------------|------------|------------|--------------|------------|------------|
| | Number of Motorcycles | % of Total | Number of Motorcyclists | % of Total | | A | B | C | |
| Going Straight Ahead | 2,262 | 69.2 | 2,467 | 69.1 | 128 | 635 | 799 | 374 | 468 |
| Turning Left | 122 | 3.7 | 134 | 3.8 | 2 | 26 | 42 | 26 | 37 |
| Turning Right | 96 | 2.9 | 107 | 3.0 | 0 | 15 | 33 | 19 | 37 |
| Stopped on Roadway | 117 | 3.6 | 130 | 3.6 | 4 | 9 | 19 | 31 | 65 |
| Involved in Prior Crash at Same Location | 2 | 0.1 | 2 | 0.1 | 0 | 0 | 0 | 0 | 1 |
| Changing Lanes | 55 | 1.7 | 58 | 1.6 | 1 | 18 | 20 | 5 | 9 |
| Backing | 2 | 0.1 | 2 | 0.1 | 0 | 0 | 0 | 1 | 1 |
| Slowing/Stopping on Roadway | 140 | 4.3 | 153 | 4.3 | 3 | 20 | 61 | 22 | 46 |
| Slowing/Stopping Other Area | 1 | 0.0 | 1 | 0.0 | 0 | 0 | 0 | 0 | 1 |
| Starting Up on Roadway | 22 | 0.7 | 23 | 0.6 | 0 | 1 | 10 | 4 | 8 |
| Starting Up in Other Area | 2 | 0.1 | 3 | 0.1 | 0 | 1 | 1 | 1 | 0 |
| Entering Parking | 1 | 0.0 | 1 | 0.0 | 0 | 0 | 0 | 0 | 1 |
| Leaving Parking | 4 | 0.1 | 4 | 0.1 | 0 | 0 | 1 | 2 | 1 |
| Entering Roadway | 17 | 0.5 | 17 | 0.5 | 0 | 3 | 7 | 3 | 4 |
| Leaving Roadway | 4 | 0.1 | 6 | 0.2 | 0 | 0 | 1 | 3 | 2 |
| Making U-Turn | 8 | 0.2 | 9 | 0.3 | 0 | 3 | 3 | 0 | 3 |
| Overtaking or Passing | 70 | 2.1 | 75 | 2.1 | 9 | 17 | 29 | 5 | 11 |
| Avoiding Object | 11 | 0.3 | 12 | 0.3 | 1 | 3 | 7 | 0 | 1 |
| Avoiding Animal | 8 | 0.2 | 10 | 0.3 | 0 | 4 | 5 | 0 | 1 |
| Avoiding Pedestrian | 2 | 0.1 | 3 | 0.1 | 0 | 0 | 1 | 2 | 0 |
| Avoiding Vehicle (front/back) | 57 | 1.7 | 60 | 1.7 | 0 | 9 | 17 | 17 | 14 |
| Avoiding Vehicle (angle) | 32 | 1.0 | 36 | 1.0 | 0 | 5 | 13 | 7 | 11 |
| Driverless Moving | 1 | 0.0 | 1 | 0.0 | 0 | 0 | 1 | 0 | 0 |
| Parked | 37 | 1.1 | 37 | 1.0 | 0 | 3 | 1 | 1 | 4 |
| Crossing at Intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Crossing Not at Intersection | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Getting On/Off Vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In Roadway With Traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In Roadway Against Traffic | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Standing/Lying in Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Pushing/Working on Vehicle | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other Work in Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Playing in Roadway | 1 | 0.0 | 1 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| In Roadway Other Reason | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Not in Roadway | 0 | 0.0 | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Negotiating a Curve | 168 | 5.1 | 189 | 5.3 | 15 | 60 | 60 | 26 | 23 |
| Other | 7 | 0.2 | 7 | 0.2 | 0 | 4 | 1 | 0 | 0 |
| Unknown | 22 | 0.7 | 23 | 0.6 | 3 | 2 | 3 | 4 | 2 |
| TOTAL | 3,271 | 100.0 | 3,571 | 100.0 | 166 | 838 | 1,135 | 553 | 751 |

*This table includes 128 motorcyclists (drivers and passengers) with unknown injury severity

ACTION PRIOR TO CRASH (CONTINUED)

| BICYCLIST ACTION | BICYCLISTS* | | FATALITY | INJURY | | | NO INJURY |
|--|----------------------|--------------|-----------|------------|------------|------------|------------|
| | Number of Bicyclists | % of Total | | A | B | C | |
| Going Straight Ahead | 760 | 60.3 | 9 | 78 | 276 | 231 | 135 |
| Turning Left | 34 | 2.7 | 1 | 7 | 7 | 11 | 6 |
| Turning Right | 14 | 1.1 | 0 | 2 | 6 | 6 | 0 |
| Stopped on Roadway | 8 | 0.6 | 0 | 1 | 3 | 1 | 2 |
| Involved in Prior Crash at Same Location | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Changing Lanes | 10 | 0.8 | 1 | 0 | 5 | 3 | 0 |
| Backing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Slowing/Stopping on Roadway | 5 | 0.4 | 0 | 0 | 3 | 2 | 0 |
| Slowing/Stopping Other Area | 2 | 0.2 | 0 | 1 | 0 | 1 | 0 |
| Starting Up on Roadway | 4 | 0.3 | 0 | 0 | 2 | 2 | 0 |
| Starting Up in Other Area | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Entering Parking | 1 | 0.1 | 0 | 0 | 1 | 0 | 0 |
| Leaving Parking | 1 | 0.1 | 0 | 0 | 1 | 0 | 0 |
| Entering Roadway | 45 | 3.6 | 3 | 2 | 13 | 19 | 5 |
| Leaving Roadway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Making U-Turn | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Overtaking or Passing | 4 | 0.3 | 0 | 0 | 2 | 2 | 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) | 3 | 0.2 | 1 | 0 | 1 | 0 | 1 |
| Avoiding Vehicle (angle) | 2 | 0.2 | 0 | 0 | 0 | 1 | 1 |
| Driverless Moving | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Parked | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Crossing at Intersection | 239 | 19.0 | 4 | 22 | 96 | 74 | 39 |
| Crossing Not at Intersection | 55 | 4.4 | 5 | 6 | 18 | 14 | 9 |
| Getting On/Off Vehicle | 1 | 0.1 | 0 | 0 | 0 | 1 | 0 |
| In Roadway With Traffic | 8 | 0.6 | 1 | 0 | 6 | 0 | 1 |
| In Roadway Against Traffic | 13 | 1.0 | 0 | 2 | 3 | 5 | 3 |
| Standing/Lying in Roadway | 1 | 0.1 | 0 | 0 | 0 | 0 | 1 |
| Pushing/Working on Vehicle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other Work in Roadway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Playing in Roadway | 2 | 0.2 | 0 | 1 | 1 | 0 | 0 |
| In Roadway Other Reason | 8 | 0.6 | 0 | 1 | 1 | 2 | 2 |
| Not in Roadway | 10 | 0.8 | 1 | 2 | 3 | 3 | 1 |
| Negotiating a Curve | 1 | 0.1 | 0 | 0 | 0 | 1 | 0 |
| Other | 14 | 1.1 | 1 | 1 | 5 | 5 | 2 |
| Unknown | 15 | 1.2 | 2 | 2 | 1 | 5 | 0 |
| TOTAL | 1,260 | 100.0 | 29 | 128 | 454 | 389 | 208 |

*Includes 52 bicyclists with unknown injury severity

ACTION PRIOR TO CRASH (CONTINUED)

| PEDESTRIAN ACTION | PEDESTRIANS* | | FATALITY | INJURY | | | NO INJURY |
|--|-----------------------|--------------|------------|------------|------------|------------|------------|
| | Number of Pedestrians | % of Total | | A | B | C | |
| Going Straight Ahead | 31 | 1.6 | 0 | 8 | 9 | 7 | 5 |
| Turning Left | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Turning Right | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Stopped on Roadway | 2 | 0.1 | 0 | 0 | 1 | 1 | 0 |
| Involved in Prior Crash at Same Location | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Changing Lanes | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Backing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Slowing/Stopping on Roadway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Slowing/Stopping Other Area | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Starting Up on Roadway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Starting Up in Other Area | 1 | 0.1 | 0 | 0 | 1 | 0 | 0 |
| Entering Parking | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Leaving Parking | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Entering Roadway | 9 | 0.5 | 0 | 2 | 7 | 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 | 1 | 0.1 | 0 | 0 | 0 | 1 | 0 |
| Avoiding Animal | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Avoiding Pedestrian | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Avoiding Vehicle (front/back) | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Avoiding Vehicle (angle) | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Driverless Moving | 9 | 0.5 | 0 | 2 | 6 | 0 | 1 |
| Parked | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Crossing at Intersection | 634 | 33.5 | 41 | 89 | 207 | 216 | 69 |
| Crossing Not at Intersection | 377 | 19.9 | 58 | 71 | 116 | 93 | 28 |
| Getting On/Off Vehicle | 18 | 1.0 | 1 | 8 | 2 | 5 | 1 |
| In Roadway With Traffic | 164 | 8.7 | 24 | 33 | 34 | 41 | 28 |
| In Roadway Against Traffic | 31 | 1.6 | 7 | 4 | 9 | 5 | 6 |
| Standing/Lying in Roadway | 145 | 7.7 | 21 | 32 | 47 | 31 | 8 |
| Pushing/Working on Vehicle | 9 | 0.5 | 1 | 1 | 3 | 3 | 1 |
| Other Work in Roadway | 24 | 1.3 | 2 | 5 | 8 | 7 | 2 |
| Playing in Roadway | 23 | 1.2 | 1 | 1 | 8 | 8 | 5 |
| In Roadway Other Reason | 193 | 10.2 | 13 | 49 | 61 | 35 | 25 |
| Not in Roadway | 104 | 5.5 | 6 | 23 | 31 | 33 | 7 |
| Negotiating a Curve | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other | 82 | 4.3 | 3 | 13 | 22 | 30 | 11 |
| Unknown | 34 | 1.8 | 5 | 6 | 11 | 7 | 1 |
| TOTAL | 1,891 | 100.0 | 183 | 347 | 583 | 523 | 198 |

*Includes 57 pedestrians with unknown injury severity

MOST HARMFUL EVENT

| NONCOLLISION | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|--------------------|------------|-------------|--------------|--------------|--------------|----------------------|
| | Number of Vehicles | % of Total | | A | B | C | |
| Loss of Control | 3,804 | 0.8 | 7 | 177 | 407 | 566 | 2,647 |
| Ran Off Roadway Left | 1,325 | 0.3 | 4 | 43 | 116 | 153 | 1,009 |
| Ran Off Roadway Right | 2,143 | 0.5 | 4 | 42 | 179 | 236 | 1,682 |
| Re-Enter Roadway | 189 | 0.0 | 1 | 10 | 12 | 19 | 147 |
| Overturn | 5,433 | 1.1 | 106 | 404 | 1,119 | 1,128 | 2,676 |
| Separation of Units | 509 | 0.1 | 4 | 12 | 30 | 72 | 391 |
| Fire/Explosion | 450 | 0.1 | 14 | 18 | 19 | 23 | 376 |
| Immersion | 170 | 0.0 | 3 | 2 | 8 | 11 | 146 |
| Jackknife | 215 | 0.0 | 0 | 1 | 3 | 12 | 199 |
| Downhill Runaway | 13 | 0.0 | 0 | 0 | 1 | 1 | 11 |
| Cargo Loss/Shift | 386 | 0.1 | 1 | 1 | 5 | 6 | 373 |
| Individual Fell from Vehicle | 334 | 0.1 | 13 | 108 | 159 | 31 | 23 |
| Other Noncollision | 891 | 0.2 | 1 | 30 | 69 | 69 | 722 |
| Equipment Failure (blown tire, brake failure, etc.) | 571 | 0.1 | 0 | 6 | 20 | 29 | 516 |
| Cross Centerline | 918 | 0.2 | 3 | 41 | 78 | 111 | 685 |
| Cross Median | 132 | 0.0 | 0 | 3 | 11 | 23 | 95 |
| SUBTOTAL | 17,483 | 3.7 | 161 | 898 | 2,236 | 2,490 | 11,698 |

| COLLISION WITH A NONFIXED OBJECT | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--|--------------------|-------------|--------------|--------------|---------------|---------------|----------------------|
| | Number of Vehicles | % of Total | | A | B | C | |
| Pedestrian | 1,602 | 0.3 | 178 | 312 | 502 | 427 | 183 |
| Bicyclist | 1,160 | 0.2 | 30 | 116 | 422 | 355 | 237 |
| Motor Vehicle in Transport (in motion or on roadway) | 344,198 | 72.3 | 1,025 | 5,463 | 22,105 | 48,290 | 267,315 |
| Parked Motor Vehicle | 17,141 | 3.6 | 17 | 191 | 541 | 1,013 | 15,379 |
| Railroad Train | 48 | 0.0 | 3 | 6 | 7 | 4 | 28 |
| Animal | 53,090 | 11.2 | 5 | 83 | 347 | 642 | 52,013 |
| Other Nonfixed Object | 3,600 | 0.8 | 7 | 34 | 111 | 144 | 3,304 |
| Work Zone/Maintenance Equipment | 148 | 0.0 | 2 | 2 | 6 | 18 | 120 |
| Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle | 651 | 0.1 | 0 | 6 | 14 | 36 | 595 |
| SUBTOTAL | 421,638 | 88.6 | 1,267 | 6,213 | 24,055 | 50,929 | 339,174 |

MOST HARMFUL EVENT (CONTINUED)

| COLLISION WITH A FIXED OBJECT | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|-----------------------------------|-----------------------|------------|-------------|--------------|-------|-------|----------------------------|
| | Number of Vehicles | % of Total | | A | B | C | |
| Bridge Pier/Abutment/Support | 202 | 0.0 | 8 | 8 | 22 | 24 | 140 |
| Bridge Rail | 278 | 0.1 | 1 | 8 | 19 | 33 | 217 |
| Guardrail Face | 2,348 | 0.5 | 8 | 36 | 139 | 284 | 1,881 |
| Guardrail End | 482 | 0.1 | 3 | 9 | 48 | 72 | 350 |
| Other Post/Pole/Support | 1,093 | 0.2 | 5 | 24 | 75 | 95 | 894 |
| Culvert | 376 | 0.1 | 3 | 18 | 51 | 53 | 251 |
| Curb | 1,627 | 0.3 | 4 | 27 | 89 | 102 | 1,405 |
| Ditch | 5,485 | 1.2 | 13 | 160 | 432 | 589 | 4,291 |
| Embankment | 779 | 0.2 | 7 | 32 | 78 | 124 | 538 |
| Fence | 743 | 0.2 | 1 | 10 | 37 | 55 | 640 |
| Mailbox | 1,282 | 0.3 | 2 | 6 | 18 | 28 | 1,228 |
| Tree | 8,068 | 1.7 | 147 | 459 | 933 | 1,069 | 5,460 |
| Railroad Crossing Signal | 65 | 0.0 | 0 | 2 | 4 | 1 | 58 |
| Building | 567 | 0.1 | 9 | 49 | 68 | 92 | 349 |
| Traffic Island | 34 | 0.0 | 0 | 1 | 2 | 3 | 28 |
| Fire Hydrant | 440 | 0.1 | 1 | 5 | 27 | 27 | 380 |
| Impact Attenuator (crash cushion) | 181 | 0.0 | 0 | 13 | 16 | 30 | 122 |
| Other Fixed Object | 1,534 | 0.3 | 6 | 49 | 120 | 128 | 1,231 |
| Bridge Overhead Structure | 44 | 0.0 | 1 | 2 | 1 | 2 | 38 |
| Cable Barrier | 923 | 0.2 | 1 | 5 | 32 | 86 | 799 |
| Concrete Barrier | 4,158 | 0.9 | 9 | 91 | 393 | 791 | 2,874 |
| Traffic Sign/Post | 2,540 | 0.5 | 5 | 23 | 58 | 111 | 2,343 |
| Traffic Signal Equipment | 237 | 0.0 | 0 | 2 | 16 | 27 | 192 |
| Utility Pole/Light Support | 3,503 | 0.7 | 26 | 113 | 341 | 476 | 2,547 |
| SUBTOTAL | 36,989 | 7.8 | 260 | 1,152 | 3,019 | 4,302 | 28,256 |

| | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--------------------------------|-----------------------|------------|-------------|--------------|--------|--------|----------------------------|
| | Number of Vehicles | % of Total | | A | B | C | |
| Uncoded & Errors | 10 | 0.0 | 0 | 0 | 1 | 2 | 7 |
| No Event Coded as Most Harmful | 9 | 0.0 | 0 | 0 | 0 | 0 | 9 |
| MOST HARMFUL EVENT TOTAL | 476,129 | 100.0 | 1,688 | 8,263 | 29,311 | 57,723 | 379,144 |

VEHICLE DEFECTS IN CRASH INVOLVEMENT

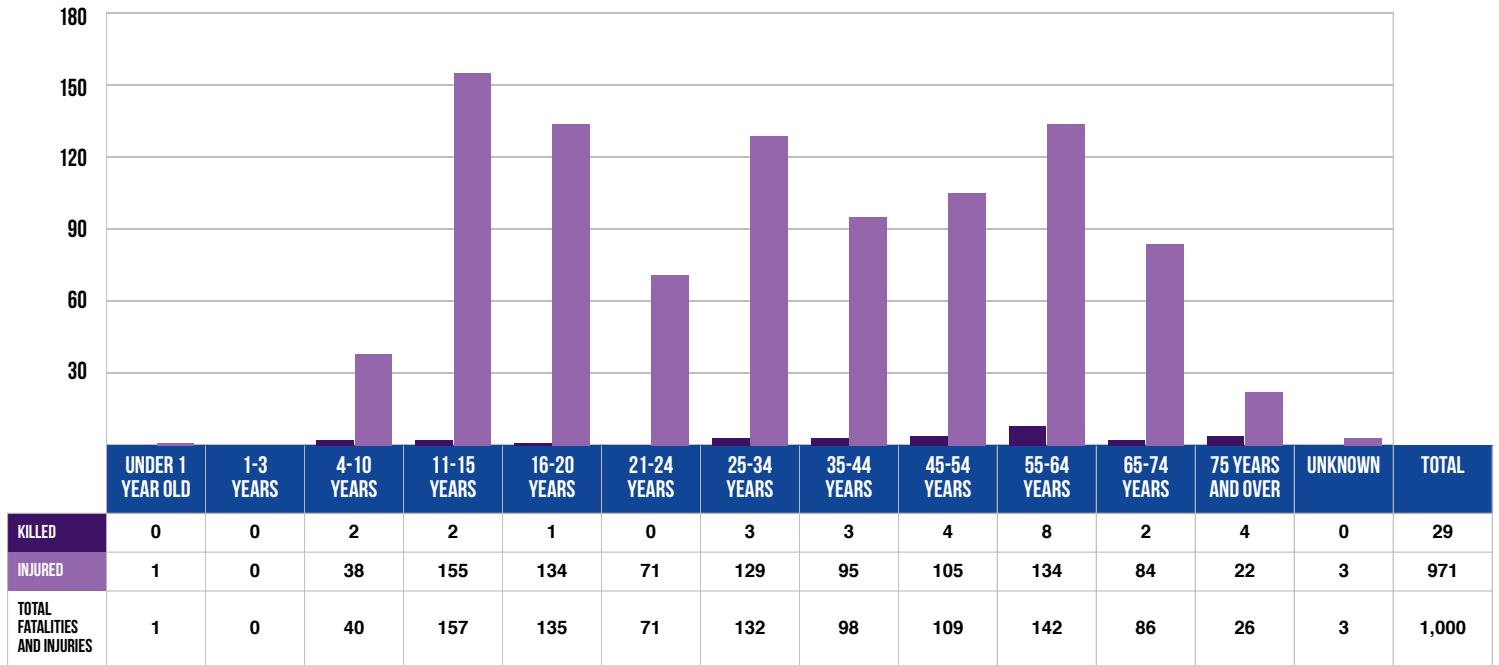
| VEHICLE DEFECTS | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|-----------------------|--------------------|------------|-------------|--------------|--------|--------|----------------------|
| | Number of Vehicles | % of Total | | A | B | C | |
| Brakes | 613 | 0.1 | 3 | 16 | 46 | 90 | 458 |
| Lights/Reflectors | 121 | 0.0 | 2 | 5 | 8 | 10 | 96 |
| Steering | 209 | 0.0 | 0 | 1 | 20 | 25 | 163 |
| Tires/Wheels/Rims | 643 | 0.1 | 5 | 14 | 46 | 68 | 510 |
| Windows/Windshield | 23 | 0.0 | 0 | 1 | 2 | 1 | 19 |
| Coupling/Hitch/Chains | 85 | 0.0 | 0 | 0 | 1 | 6 | 78 |
| Other | 983 | 0.2 | 7 | 26 | 46 | 105 | 799 |
| Uncoded & Errors | 473,452 | 99.4 | 1,671 | 8,200 | 29,142 | 57,418 | 377,021 |
| TOTAL | 476,129 | 100.0 | 1,688 | 8,263 | 29,311 | 57,723 | 379,144 |

DRIVER HAZARDOUS ACTION

| HAZARDOUS ACTION | MOTOR VEHICLES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--|--------------------|------------|-------------|--------------|--------|--------|----------------------|
| | Number of Vehicles | % of Total | | A | B | C | |
| None | 242,324 | 50.9 | 638 | 3,445 | 13,463 | 27,375 | 197,403 |
| Speed Too Fast | 24,721 | 5.2 | 215 | 772 | 1,915 | 3,238 | 18,581 |
| Speed Too Slow | 148 | 0.0 | 1 | 8 | 14 | 24 | 101 |
| Failed to Yield | 43,048 | 9.0 | 116 | 914 | 3,874 | 6,630 | 31,514 |
| Disregard Traffic Control | 11,081 | 2.3 | 63 | 429 | 1,549 | 2,666 | 6,374 |
| Drove Wrong Way | 421 | 0.1 | 7 | 26 | 52 | 77 | 259 |
| Drove Left of Center | 2,457 | 0.5 | 53 | 140 | 327 | 334 | 1,603 |
| Improper Passing | 2,988 | 0.6 | 12 | 45 | 122 | 239 | 2,570 |
| Improper Lane Use | 13,211 | 2.8 | 19 | 120 | 456 | 1,041 | 11,575 |
| Improper Turn | 5,125 | 1.1 | 5 | 46 | 256 | 557 | 4,261 |
| Improper/No Signal | 383 | 0.1 | 1 | 5 | 10 | 31 | 336 |
| Improper Backing | 6,309 | 1.3 | 1 | 7 | 24 | 108 | 6,169 |
| Unable to Stop in Assured Clear Distance | 56,146 | 11.8 | 50 | 408 | 2,656 | 8,214 | 44,818 |
| Reckless Driving | 2,692 | 0.6 | 103 | 251 | 346 | 411 | 1,581 |
| Careless/Negligent Driving | 10,977 | 2.3 | 83 | 519 | 1,226 | 1,502 | 7,647 |
| Other | 15,305 | 3.2 | 91 | 475 | 1,333 | 1,775 | 11,631 |
| Unknown | 38,793 | 8.1 | 230 | 653 | 1,688 | 3,501 | 32,721 |
| TOTAL | 476,129 | 100.0 | 1,688 | 8,263 | 29,311 | 57,723 | 379,144 |

MICHIGAN BICYCLE CRASHES

2021 BICYCLIST FATALITIES AND INJURIES



In 2021, there were 1,260 bicyclists involved in motor vehicle crashes, with 29 bicyclists killed and 971 injured. The top age group for bicyclist fatalities was the 55-64 age group with eight fatalities (27.6%). The 11-15 age group had the greatest percentage of injuries (16.0%) and the greatest percentage of total fatalities and injuries (15.7%).

BICYCLE HELMET USE AND INJURY SEVERITY

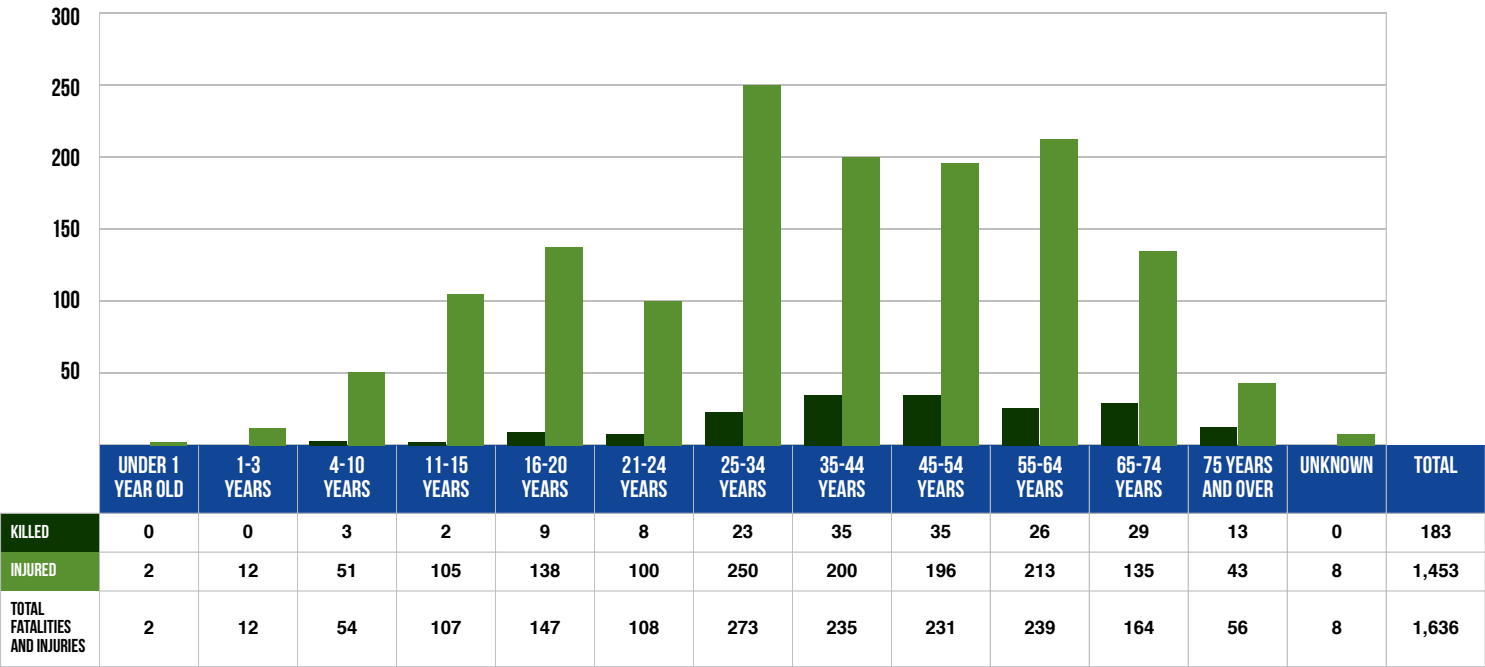
| HELMET USE | FATALITY | INJURY | | | NO INJURY | UNKNOWN | TOTAL |
|--------------|-----------|------------|------------|------------|------------|-----------|--------------|
| | | A | B | C | | | |
| Worn | 1 | 23 | 93 | 58 | 31 | 2 | 208 |
| Not Worn | 12 | 59 | 201 | 154 | 85 | 21 | 532 |
| Unknown | 16 | 46 | 160 | 177 | 92 | 29 | 520 |
| TOTAL | 29 | 128 | 454 | 389 | 208 | 52 | 1,260 |

Note: The data does not include helmet use for all bicyclists. There were 520 bicyclists with unknown helmet use.

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

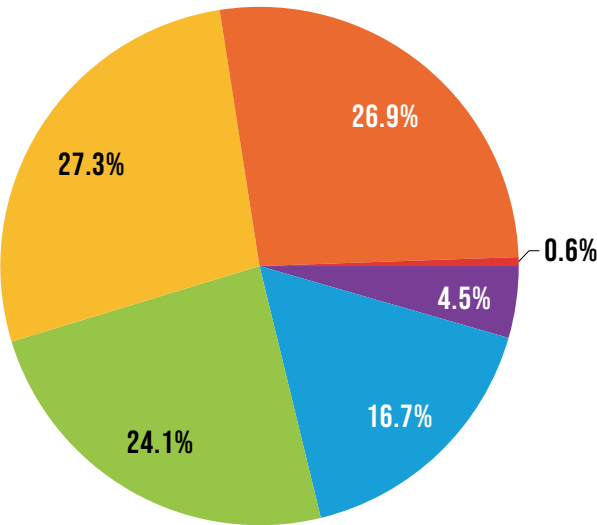
MICHIGAN PEDESTRIAN CRASHES

2021 PEDESTRIAN FATALITIES AND INJURIES

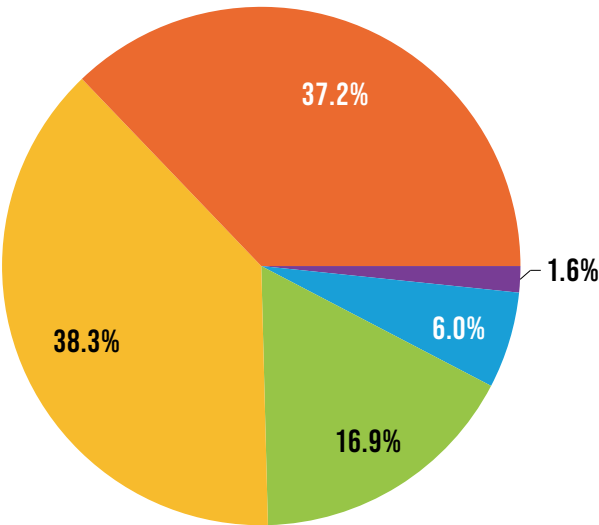


In 2021, there were 1,891 pedestrians involved in motor vehicle crashes, with 183 pedestrians killed and 1,453 injured. The top age groups for pedestrian fatalities were the 35-44 and 45-54 age groups with 35 fatalities each (19.1%). The 25-34 age group had the greatest percentage of injuries (17.2%) and the greatest percentage of total fatalities and injuries (16.7%).

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



PEDESTRIANS INJURED



PEDESTRIANS KILLED

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS - MOST HARMFUL EVENT

| NONCOLLISION | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|-----------------------|------------|-------------|--------------|----|---|----------------------|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| Loss of Control | 10 | 9.8 | 0 | 3 | 5 | 0 | 2 |
| Ran Off Roadway Left | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Ran Off Roadway Right | 1 | 1.0 | 0 | 0 | 0 | 0 | 1 |
| Re-Enter Roadway | 2 | 2.0 | 0 | 1 | 0 | 0 | 1 |
| Overturn | 7 | 6.9 | 0 | 3 | 4 | 0 | 0 |
| Separation of Units | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Fire/Explosion | 6 | 5.9 | 0 | 0 | 0 | 0 | 6 |
| Immersion | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Jackknife | 1 | 1.0 | 0 | 0 | 0 | 0 | 1 |
| Downhill Runaway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cargo Loss/Shift | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Individual Fell from Vehicle | 11 | 10.8 | 0 | 5 | 3 | 1 | 2 |
| Other Noncollision | 1 | 1.0 | 0 | 1 | 0 | 0 | 0 |
| Equipment Failure (blown tire, brake failure, etc.) | 1 | 1.0 | 0 | 0 | 1 | 0 | 0 |
| Cross Centerline | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cross Median | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL | 40 | 39.2 | 0 | 13 | 13 | 1 | 13 |

| COLLISION WITH A NONFIXED OBJECT | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--|-----------------------|------------|-------------|--------------|---|---|----------------------|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| Pedestrian | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Bicyclist | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Motor Vehicle in Transport (in motion or on roadway) | 28 | 27.5 | 1 | 8 | 6 | 3 | 10 |
| Parked Motor Vehicle | 1 | 1.0 | 0 | 0 | 0 | 0 | 1 |
| Railroad Train | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Animal | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other Nonfixed Object | 1 | 1.0 | 0 | 0 | 0 | 0 | 1 |
| Work Zone/Maintenance Equipment | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL | 30 | 29.4 | 1 | 8 | 6 | 3 | 12 |

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

| COLLISION WITH A FIXED OBJECT | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|-----------------------------------|--------------------------|-------------|-------------|--------------|----------|----------|----------------------------|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| Bridge Pier/Abutment/Support | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Bridge Rail | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Guardrail Face | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Guardrail End | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other Post/Pole/Support | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Culvert | 2 | 2.0 | 0 | 0 | 0 | 2 | 0 |
| Curb | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Ditch | 4 | 3.9 | 0 | 3 | 1 | 0 | 0 |
| Embankment | 1 | 1.0 | 0 | 0 | 1 | 0 | 0 |
| Fence | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Mailbox | 1 | 1.0 | 0 | 0 | 0 | 0 | 1 |
| Tree | 18 | 17.6 | 3 | 8 | 1 | 2 | 4 |
| Railroad Crossing Signal | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Building | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Traffic Island | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Fire Hydrant | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Impact Attenuator (crash cushion) | 1 | 1.0 | 0 | 1 | 0 | 0 | 0 |
| Other Fixed Object | 3 | 2.9 | 0 | 0 | 0 | 2 | 1 |
| Bridge Overhead Structure | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cable Barrier | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Concrete Barrier | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Traffic Sign/Post | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Traffic Signal Equipment | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Utility Pole/Light Support | 2 | 2.0 | 1 | 0 | 0 | 0 | 1 |
| SUBTOTAL | 32 | 31.4 | 4 | 12 | 3 | 6 | 7 |

| | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---------------------------------|--------------------------|--------------|-------------|--------------|-----------|-----------|----------------------------|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| Uncoded & Errors | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| No Event Coded as Most Harmful | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| MOST HARMFUL EVENT TOTAL | 102 | 100.0 | 5 | 33 | 22 | 10 | 32 |

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 102 snowmobiles were reported in crashes on Michigan public roadways during 2021, resulting in five fatal crashes.

A total of 65 snowmobiles were involved in 61 injury crashes.

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

| NONCOLLISION | ORV/ATV | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---|--------------------|------------|-------------|--------------|----|----|----------------------|
| | Number of ORV/ATVs | % of Total | | A | B | C | |
| Loss of Control | 28 | 6.2 | 0 | 9 | 11 | 5 | 3 |
| Ran Off Roadway Left | 5 | 1.1 | 0 | 0 | 3 | 1 | 1 |
| Ran Off Roadway Right | 6 | 1.3 | 0 | 1 | 2 | 2 | 1 |
| Re-Enter Roadway | 2 | 0.4 | 0 | 0 | 1 | 0 | 1 |
| Overturn | 77 | 17.0 | 4 | 30 | 24 | 10 | 9 |
| Separation of Units | 2 | 0.4 | 0 | 2 | 0 | 0 | 0 |
| Fire/Explosion | 2 | 0.4 | 0 | 0 | 0 | 0 | 2 |
| Immersion | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Jackknife | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Downhill Runaway | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cargo Loss/Shift | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Individual Fell from Vehicle | 37 | 8.2 | 2 | 18 | 12 | 5 | 0 |
| Other Noncollision | 3 | 0.7 | 0 | 1 | 1 | 0 | 1 |
| Equipment Failure (blown tire, brake failure, etc.) | 3 | 0.7 | 0 | 2 | 1 | 0 | 0 |
| Cross Centerline | 3 | 0.7 | 0 | 1 | 0 | 1 | 1 |
| Cross Median | 1 | 0.2 | 0 | 0 | 0 | 0 | 1 |
| SUBTOTAL | 169 | 37.4 | 6 | 64 | 55 | 24 | 20 |

| COLLISION WITH A NONFIXED OBJECT | ORV/ATV | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--|--------------------|------------|-------------|--------------|----|----|----------------------|
| | Number of ORV/ATVs | % of Total | | A | B | C | |
| Pedestrian | 6 | 1.3 | 0 | 3 | 2 | 1 | 0 |
| Bicyclist | 1 | 0.2 | 0 | 0 | 0 | 1 | 0 |
| Motor Vehicle in Transport (in motion or on roadway) | 181 | 40.0 | 9 | 31 | 32 | 27 | 82 |
| Parked Motor Vehicle | 22 | 4.9 | 2 | 2 | 3 | 0 | 15 |
| Railroad Train | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Animal | 11 | 2.4 | 0 | 1 | 2 | 3 | 5 |
| Other Nonfixed Object | 2 | 0.4 | 0 | 0 | 0 | 0 | 2 |
| Work Zone/Maintenance Equipment | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cargo Falling/Shifting/Anything Set in Motion by a Motor Vehicle | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| SUBTOTAL | 223 | 49.3 | 11 | 37 | 39 | 32 | 104 |

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

| COLLISION WITH A FIXED OBJECT | ORV/ATV | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|-----------------------------------|------------------------|-------------|-------------|--------------|-----------|----------|----------------------------|
| | Number of ORV/ ATVs | % of Total | | A | B | C | |
| Bridge Pier/Abutment/Support | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Bridge Rail | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Guardrail Face | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Guardrail End | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Other Post/Pole/Support | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Culvert | 1 | 0.2 | 0 | 1 | 0 | 0 | 0 |
| Curb | 3 | 0.7 | 0 | 0 | 3 | 0 | 0 |
| Ditch | 13 | 2.9 | 0 | 6 | 6 | 1 | 0 |
| Embankment | 5 | 1.1 | 1 | 1 | 3 | 0 | 0 |
| Fence | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Mailbox | 2 | 0.4 | 0 | 0 | 0 | 0 | 2 |
| Tree | 25 | 5.5 | 2 | 12 | 3 | 6 | 2 |
| Railroad Crossing Signal | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Building | 1 | 0.2 | 0 | 1 | 0 | 0 | 0 |
| Traffic Island | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Fire Hydrant | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Impact Attenuator (crash cushion) | 1 | 0.2 | 0 | 0 | 0 | 1 | 0 |
| Other Fixed Object | 5 | 1.1 | 0 | 1 | 2 | 0 | 2 |
| Bridge Overhead Structure | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Cable Barrier | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Concrete Barrier | 1 | 0.2 | 1 | 0 | 0 | 0 | 0 |
| Traffic Sign/Post | 1 | 0.2 | 0 | 1 | 0 | 0 | 0 |
| Traffic Signal Equipment | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Utility Pole/Light Support | 2 | 0.4 | 0 | 0 | 0 | 0 | 2 |
| SUBTOTAL | 60 | 13.3 | 4 | 23 | 17 | 8 | 8 |

| | ORV/ATV | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|---------------------------------|------------------------|--------------|-------------|--------------|------------|-----------|----------------------------|
| | Number of ORV/ ATVs | % of Total | | A | B | C | |
| Uncoded & Errors | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| No Event Coded as Most Harmful | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| MOST HARMFUL EVENT TOTAL | 452 | 100.0 | 21 | 124 | 111 | 64 | 132 |

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 452 off-road/all-terrain vehicles were reported in crashes on Michigan public roadways during 2021, resulting in 21 fatal crashes. An additional 299 ORV/ATVs were involved in 287 injury crashes.

MICHIGAN SNOWMOBILE CRASHES ON PUBLIC ROADWAYS - HAZARDOUS ACTION

| HAZARDOUS ACTION | SNOWMOBILES | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--|-----------------------|--------------|-------------|--------------|-----------|-----------|----------------------|
| | Number of Snowmobiles | % of Total | | A | B | C | |
| None | 29 | 28.4 | 0 | 6 | 8 | 2 | 13 |
| Speed Too Fast | 21 | 20.6 | 1 | 7 | 5 | 3 | 5 |
| Speed Too Slow | 2 | 2.0 | 0 | 2 | 0 | 0 | 0 |
| Failed to Yield | 11 | 10.8 | 1 | 4 | 3 | 1 | 2 |
| Disregard Traffic Control | 3 | 2.9 | 0 | 2 | 0 | 1 | 0 |
| Drove Wrong Way | 1 | 1.0 | 0 | 0 | 0 | 0 | 1 |
| Drove Left of Center | 1 | 1.0 | 0 | 0 | 0 | 0 | 1 |
| Improper Passing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper Lane Use | 1 | 1.0 | 0 | 0 | 1 | 0 | 0 |
| Improper Turn | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper/No Signal | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper Backing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Unable to Stop in Assured Clear Distance | 2 | 2.0 | 0 | 0 | 2 | 0 | 0 |
| Reckless Driving | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Careless/Negligent Driving | 8 | 7.8 | 0 | 4 | 1 | 1 | 2 |
| Other | 7 | 6.9 | 2 | 1 | 1 | 0 | 3 |
| Unknown | 16 | 15.7 | 1 | 7 | 1 | 2 | 5 |
| TOTAL | 102 | 100.0 | 5 | 33 | 22 | 10 | 32 |

MICHIGAN ORV/ATV CRASHES ON PUBLIC ROADWAYS - HAZARDOUS ACTION

| HAZARDOUS ACTION | ORV/ATV | | FATAL CRASH | INJURY CRASH | | | PROPERTY DAMAGE ONLY |
|--|--------------------|--------------|-------------|--------------|------------|-----------|----------------------|
| | Number of ORV/ATVs | % of Total | | A | B | C | |
| None | 91 | 20.1 | 1 | 18 | 18 | 15 | 39 |
| Speed Too Fast | 113 | 25.0 | 4 | 43 | 32 | 20 | 14 |
| Speed Too Slow | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Failed to Yield | 34 | 7.5 | 2 | 6 | 3 | 2 | 21 |
| Disregard Traffic Control | 7 | 1.5 | 1 | 1 | 2 | 2 | 1 |
| Drove Wrong Way | 2 | 0.4 | 0 | 1 | 1 | 0 | 0 |
| Drove Left of Center | 5 | 1.1 | 1 | 1 | 1 | 0 | 2 |
| Improper Passing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Improper Lane Use | 10 | 2.2 | 0 | 2 | 2 | 2 | 4 |
| Improper Turn | 12 | 2.7 | 0 | 0 | 3 | 3 | 6 |
| Improper/No Signal | 8 | 1.8 | 0 | 0 | 1 | 2 | 5 |
| Improper Backing | 0 | 0.0 | 0 | 0 | 0 | 0 | 0 |
| Unable to Stop in Assured Clear Distance | 17 | 3.8 | 1 | 1 | 5 | 1 | 9 |
| Reckless Driving | 22 | 4.9 | 4 | 7 | 4 | 2 | 5 |
| Careless/Negligent Driving | 48 | 10.6 | 1 | 21 | 14 | 6 | 6 |
| Other | 44 | 9.7 | 1 | 16 | 12 | 3 | 12 |
| Unknown | 39 | 8.6 | 5 | 7 | 13 | 6 | 8 |
| TOTAL | 452 | 100.0 | 21 | 124 | 111 | 64 | 132 |

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.

MICHIGAN FARM EQUIPMENT CRASHES

| FARM EQUIPMENT CRASHES | 2020 | 2021 | % CHANGE |
|------------------------|------|------|----------|
| Crashes | 181 | 195 | 7.7% |
| Fatalities | 5 | 5 | 0.0% |
| Injuries | 66 | 66 | 0.0% |

A total of 195 crashes involving farm equipment were reported on Michigan roadways during 2021. Of those crashes, five were fatal with five people killed.

MICHIGAN VEHICLE-TRAIN CRASHES

| VEHICLE TRAIN CRASHES | 2020 | 2021 | % CHANGE |
|-----------------------|------|------|----------|
| Crashes | 35 | 56 | 60.0% |
| Fatalities | 0 | 3 | --- |
| Injuries | 13 | 24 | 84.6% |

A total of 56 crashes involving trains were reported in Michigan during 2021. There were three fatal crashes involving trains with three people killed in 2021.

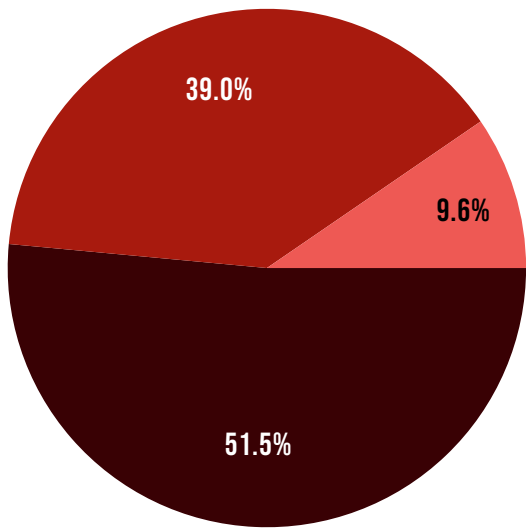
MICHIGAN MOTORCYCLE CRASHES

| MOTORCYCLE DATA | 2020 | 2021 | % CHANGE |
|---|-------------|-------------|----------|
| Motorcycle Registrations | 237,481 | 255,832 | 7.7% |
| Motorcycles in Crashes | 3,092 | 3,271 | 5.8% |
| Motorcyclist Deaths | 152 | 166 | 9.2% |
| Motorcyclists Injured | 2,429 | 2,526 | 4.0% |
| Death Rate based on 10,000 motorcycle registrations | 6.40 | 6.49 | 1.4% |
| Estimated Mileage based on 3,000 miles per motorcycle | 712,443,000 | 767,496,000 | 7.7% |
| Death Rate based on deaths per 100 million vehicle miles traveled | 21.34 | 21.63 | 1.4% |

Motorcycles were involved in 1.1 percent of all traffic crashes in Michigan in 2021. Injuries were proportionately more severe to motorcyclists than to persons in motor vehicles.

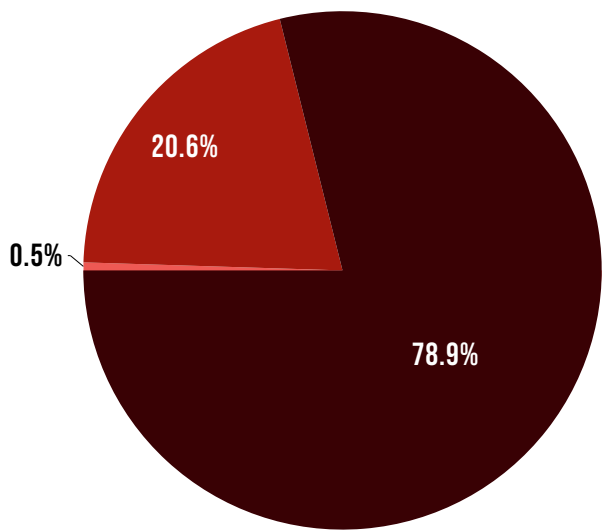
DRIVER GENDER INFORMATION

MALES FEMALES UNKNOWN

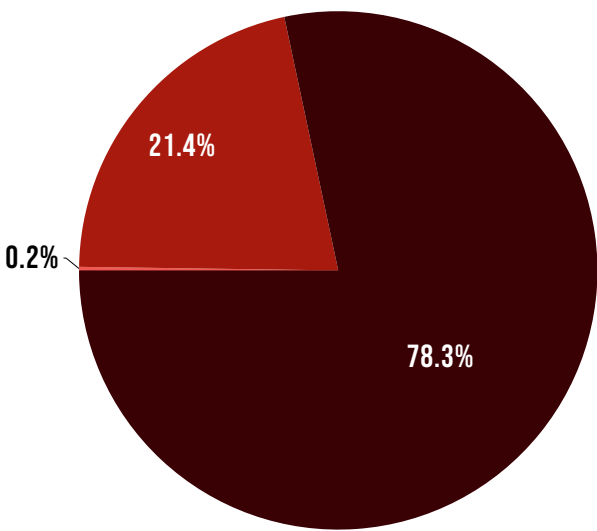


ALL DRIVERS

FATAL INJURY PROPERTY DAMAGE ONLY



MALE CRASH SEVERITY



FEMALE CRASH SEVERITY

A higher proportion of drivers in crashes are male than female. 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%).

PERSON AGE - DEMOGRAPHICS AND CRASH INVOLVEMENTS

| AGE | LICENSED DRIVERS | POPULATION | TOTAL DRIVERS IN CRASHES | DRIVERS IN FATAL CRASHES | OCCUPANTS KILLED | OCCUPANTS INJURED | TOTAL BICYCLISTS IN CRASHES | BICYCLISTS IN FATAL CRASHES | TOTAL PEDESTRIANS IN CRASHES | PEDESTRIANS IN FATAL CRASHES |
|---------|------------------|------------|--------------------------|--------------------------|------------------|-------------------|-----------------------------|-----------------------------|------------------------------|------------------------------|
| 0-15 | 46,708 | 1,892,821 | 884 | 3 | 22 | 4,220 | 243 | 5 | 212 | 6 |
| 16 | 72,601 | 129,116 | 6,492 | 14 | 6 | 1,152 | 43 | 1 | 36 | 0 |
| 17 | 85,505 | 131,442 | 9,239 | 27 | 16 | 1,396 | 35 | 0 | 34 | 2 |
| 18 | 84,581 | 131,482 | 11,314 | 35 | 19 | 1,919 | 33 | 0 | 35 | 2 |
| 19 | 94,695 | 126,914 | 11,614 | 43 | 24 | 1,965 | 43 | 0 | 34 | 4 |
| 20 | 102,599 | 133,849 | 11,623 | 41 | 25 | 1,927 | 20 | 0 | 32 | 1 |
| 21-24 | 449,816 | 537,500 | 43,732 | 146 | 80 | 7,191 | 87 | 0 | 133 | 9 |
| 25-29 | 609,913 | 662,063 | 48,826 | 193 | 104 | 7,564 | 85 | 2 | 171 | 12 |
| 30-34 | 659,108 | 654,675 | 43,885 | 174 | 94 | 6,702 | 83 | 1 | 150 | 12 |
| 35-39 | 620,993 | 611,457 | 37,150 | 146 | 70 | 5,286 | 65 | 1 | 126 | 21 |
| 40-44 | 610,103 | 596,977 | 33,049 | 137 | 75 | 4,604 | 52 | 2 | 139 | 16 |
| 45-49 | 593,271 | 576,745 | 30,498 | 126 | 61 | 4,226 | 40 | 2 | 123 | 16 |
| 50-54 | 690,664 | 648,901 | 31,411 | 103 | 59 | 4,463 | 91 | 2 | 125 | 22 |
| 55-59 | 736,472 | 689,928 | 29,835 | 114 | 64 | 4,259 | 80 | 1 | 125 | 13 |
| 60-64 | 773,321 | 704,159 | 26,497 | 81 | 47 | 3,703 | 89 | 7 | 138 | 15 |
| 65-69 | 689,288 | 617,312 | 19,475 | 76 | 39 | 2,917 | 60 | 1 | 102 | 17 |
| 70-74 | 536,314 | 500,766 | 14,089 | 54 | 34 | 2,241 | 43 | 1 | 78 | 12 |
| 75-79 | 350,550 | 317,552 | 8,847 | 51 | 35 | 1,504 | 17 | 2 | 29 | 8 |
| 80-84 | 203,960 | 199,644 | 4,867 | 28 | 22 | 899 | 4 | 1 | 24 | 4 |
| 85+ | 153,326 | 187,508 | 3,120 | 19 | 23 | 656 | 5 | 1 | 6 | 1 |
| Unknown | --- | --- | 49,682 | 77 | 0 | 27 | 42 | 0 | 39 | 0 |
| TOTAL | 8,163,788 | 10,050,811 | 476,129 | 1,688 | 919 | 68,821 | 1,260 | 30 | 1,891 | 193 |

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

| AGE | LICENSED DRIVERS | TOTAL DRIVERS IN CRASHES* | CRASH RATE |
|-------|------------------|---------------------------|------------|
| 0-15 | 46,708 | 884 | 0.019 |
| 16 | 72,601 | 6,492 | 0.089 |
| 17 | 85,505 | 9,239 | 0.108 |
| 18 | 84,581 | 11,314 | 0.134 |
| 19 | 94,695 | 11,614 | 0.123 |
| 20 | 102,599 | 11,623 | 0.113 |
| 21-24 | 449,816 | 43,732 | 0.097 |
| 25-29 | 609,913 | 48,826 | 0.080 |
| 30-34 | 659,108 | 43,885 | 0.067 |
| 35-39 | 620,993 | 37,150 | 0.060 |
| 40-44 | 610,103 | 33,049 | 0.054 |
| 45-49 | 593,271 | 30,498 | 0.051 |
| 50-54 | 690,664 | 31,411 | 0.045 |
| 55-59 | 736,472 | 29,835 | 0.041 |
| 60-64 | 773,321 | 26,497 | 0.034 |
| 65-69 | 689,288 | 19,475 | 0.028 |
| 70-74 | 536,314 | 14,089 | 0.026 |
| 75-79 | 350,550 | 8,847 | 0.025 |
| 80-84 | 203,960 | 4,867 | 0.024 |
| 85-89 | 103,449 | 2,291 | 0.022 |
| 90-94 | 41,251 | 681 | 0.017 |
| 95-99 | 8,054 | 147 | 0.018 |
| 100+ | 572 | 1 | 0.002 |
| TOTAL | 8,163,788 | 426,447 | 0.052 |

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

*Excludes 49,682 drivers with unknown age

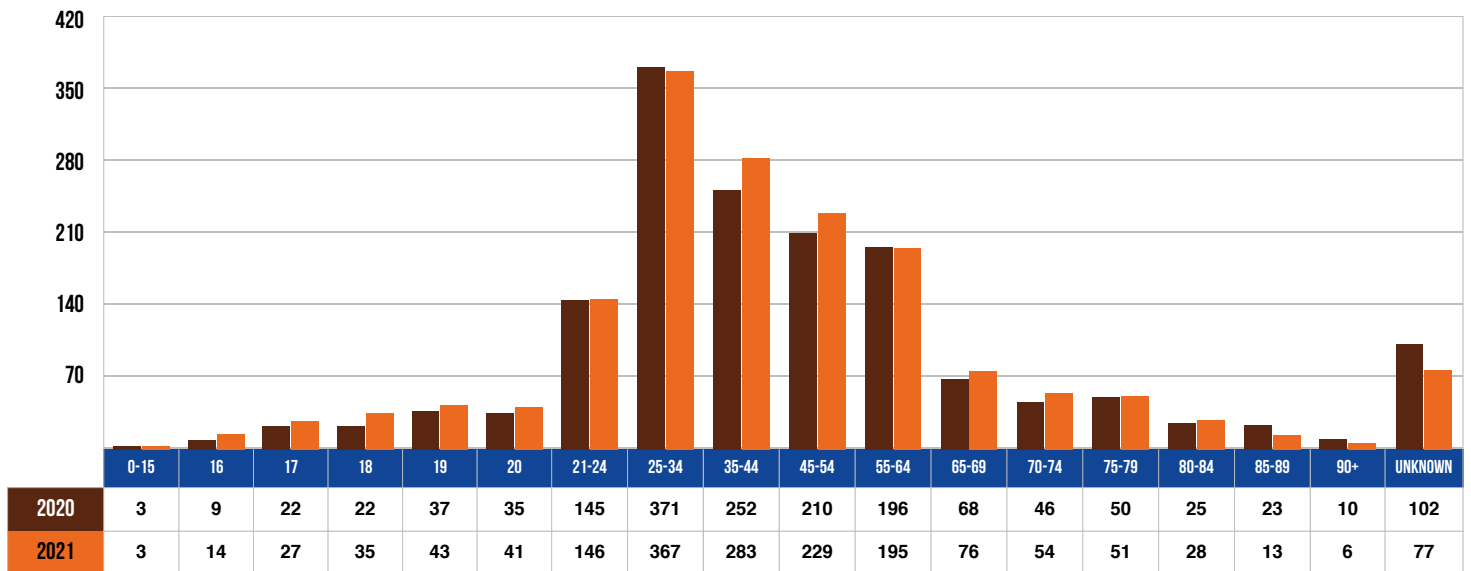
Licensed drivers age 18 have the highest crash rate at 0.134 (total crash involvements in age group divided by total number of licensed drivers in age group). The lower crash rates of the older groups (per licensed driver) may reflect reduced driving and exposure to the risk of a crash.

DRIVER AGE

| AGE OF DRIVERS IN FATAL CRASHES | 2020 | 2021 | PERCENT CHANGE | PERCENT 2021 FATAL CRASH INVOLVEMENT | PERCENT ACTIVE DRIVING POPULATION* |
|------------------------------------|-------|-------|----------------|---|---------------------------------------|
| 15 years and under | 3 | 3 | 0.0 | 0.2 | 0.6 |
| 16 years | 9 | 14 | 55.6 | 0.8 | 0.9 |
| 17 years | 22 | 27 | 22.7 | 1.6 | 1.0 |
| 18 years | 22 | 35 | 59.1 | 2.1 | 1.0 |
| 19 years | 37 | 43 | 16.2 | 2.5 | 1.2 |
| 20 years | 35 | 41 | 17.1 | 2.4 | 1.3 |
| 21 - 24 years | 145 | 146 | 0.7 | 8.6 | 5.5 |
| 25 - 34 years | 371 | 367 | -1.1 | 21.7 | 15.5 |
| 35 - 44 years | 252 | 283 | 12.3 | 16.8 | 15.1 |
| 45 - 54 years | 210 | 229 | 9.0 | 13.6 | 15.7 |
| 55 - 64 years | 196 | 195 | -0.5 | 11.6 | 18.5 |
| 65 - 69 years | 68 | 76 | 11.8 | 4.5 | 8.4 |
| 70 - 74 years | 46 | 54 | 17.4 | 3.2 | 6.6 |
| 75 - 79 years | 50 | 51 | 2.0 | 3.0 | 4.3 |
| 80 - 84 years | 25 | 28 | 12.0 | 1.7 | 2.5 |
| 85 - 89 years | 23 | 13 | -43.5 | 0.8 | 1.3 |
| 90 years and over | 10 | 6 | -40.0 | 0.4 | 0.6 |
| Unknown | 102 | 77 | -24.5 | 4.6 | --- |
| TOTAL | 1,626 | 1,688 | 3.8 | 100.0 | 100.0 |

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

DRIVER AGE IN FATAL CRASHES



DRIVER CONDITION

| POSSIBLE CONDITIONS OF DRIVER | CONDITIONS (CODED BY POLICE) | FATAL CRASHES | INJURY CRASHES | | | PROPERTY DAMAGE ONLY |
|-------------------------------|------------------------------------|---------------|----------------|--------|--------|----------------------------|
| | | | A | B | C | |
| Normal | 367,584 | 660 | 4,947 | 22,442 | 45,431 | 294,104 |
| Fatigued or Asleep | 2,401 | 8 | 105 | 368 | 511 | 1,409 |
| Sick | 845 | 6 | 46 | 134 | 235 | 424 |
| Medicated | 449 | 3 | 25 | 86 | 100 | 235 |
| Emotional | 5,581 | 61 | 321 | 1,011 | 1,591 | 2,597 |
| Physically Disabled | 1,237 | 80 | 484 | 268 | 205 | 200 |
| Unknown | 39,506 | 567 | 1,173 | 2,037 | 4,253 | 31,476 |
| Other | 8,404 | 226 | 789 | 1,532 | 1,783 | 4,074 |

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

DRIVER INJURY SEVERITY BY RESTRAINT, ALCOHOL, AND DRUG USE

| RESTRAINT USAGE | DRIVERS | | FATALITY | | INJURY | | | NO INJURY | UNKNOWN |
|-----------------------------------|---------|------------|----------|------------|--------|--------|--------|-----------|---------|
| | Number | % of Total | Number | % of Total | A | B | C | | |
| ALL DRIVERS | | | | | | | | | |
| Restraint Used* | 393,646 | 82.7 | 340 | 44.9 | 2,863 | 13,625 | 29,085 | 347,730 | 3 |
| Restraint Not Used | 5,512 | 1.2 | 287 | 37.9 | 942 | 1,149 | 837 | 2,297 | 0 |
| Unknown | 76,971 | 16.2 | 131 | 17.3 | 532 | 1,057 | 2,389 | 21,789 | 51,073 |
| TOTAL | 476,129 | 100.0 | 758 | 100.0 | 4,337 | 15,831 | 32,311 | 371,816 | 51,076 |
| DRINKING DRIVERS ONLY | | | | | | | | | |
| Restraint Used* | 5,973 | 73.2 | 41 | 31.8 | 236 | 709 | 753 | 4,234 | 0 |
| Restraint Not Used | 688 | 8.4 | 72 | 55.8 | 205 | 144 | 105 | 162 | 0 |
| Unknown | 1,497 | 18.4 | 16 | 12.4 | 85 | 172 | 165 | 1,059 | 0 |
| TOTAL | 8,158 | 100.0 | 129 | 100.0 | 526 | 1,025 | 1,023 | 5,455 | 0 |
| DRUGGED DRIVERS ONLY | | | | | | | | | |
| Restraint Used* | 1,164 | 69.9 | 31 | 37.8 | 83 | 153 | 206 | 691 | 0 |
| Restraint Not Used | 173 | 10.4 | 37 | 45.1 | 46 | 36 | 19 | 35 | 0 |
| Unknown | 328 | 19.7 | 14 | 17.1 | 33 | 44 | 59 | 178 | 0 |
| TOTAL | 1,665 | 100.0 | 82 | 100.0 | 162 | 233 | 284 | 904 | 0 |
| DRINKING AND DRUGGED DRIVERS ONLY | | | | | | | | | |
| Restraint Used* | 804 | 61.3 | 22 | 29.3 | 62 | 134 | 130 | 456 | 0 |
| Restraint Not Used | 167 | 12.7 | 39 | 52.0 | 51 | 30 | 20 | 27 | 0 |
| Unknown | 340 | 25.9 | 14 | 18.7 | 34 | 54 | 43 | 195 | 0 |
| TOTAL | 1,311 | 100.0 | 75 | 100.0 | 147 | 218 | 193 | 678 | 0 |

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