Office of Traffic Safety

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Alcohol and Gambling Enforcement

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Office of Traffic Safety

State Fire Marshal

Aug. 6, 2025

"Minnesota Motor Vehicle Crash Facts 2023" is the latest research and analytical report to detail the state of road safety in our state. In 2023, there were 402 traffic fatalities in Minnesota. As a result of these deaths, hundreds of families mourn the loss of a loved one, and their lives are forever changed by a preventable event. The term "preventable" is not used lightly in this context. Every one of these deaths was not an inevitable fact of life. They all were preventable.

Four behavioral factors continue to be responsible for the vast majority of traffic fatalities: speeding, distraction, impaired driving and failure to use a seat belt. All our efforts have been designed and intended to change these behaviors and make our roads safer. In 2023, there was a reduction in the number of lives lost from crashes, but that is simply not good enough. Each death marked the worst day any family can experience. We must remember that while this document is a data workbook, each of these numbers represents a real person taken from a family in a violent and preventable traffic crash.

"Minnesota Motor Vehicle Crash Facts 2023" contains statistics and information that will be used by our traffic safety partners, legislators, media and the motoring public. It is derived from law enforcement reports and investigations that describe how and why crashes happened, where they occurred in our state and who was involved. Our law enforcement partners and the detailed investigations they conduct allow us to build a robust and strong database that helps us develop the projects, programs and messaging that contribute to preventing future crashes.

Making good and smart decisions behind the wheel is essential to coming home at the end of the day. Together, we can save lives by paying attention to the road, buckling up, driving the speed limit and always lining up a safe ride home.

Sincerely,
Director Mike Hanson

2023

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Introduction

Legislative requirement

Minnesota Motor Vehicle Crash Facts is produced annually by the Minnesota Department of Public Safety's (DPS) Office of Traffic Safety (OTS), in accordance with state law. Minnesota Statutes, Section 169.10, requires that traffic crashes be reported to the department. Section 169.10 then requires DPS to "…tabulate all crash reports and publish annually statistical information based thereon as to the number and circumstances of traffic crashes."

Crash facts reporting

This 2023 crash facts report is based on OTS analytics of roadway safety events and related outcomes during the year. The report evaluates outcomes during the year as compared with previous years to provide perspective of roadway performance over time. The analysis includes a wide range of factors that contribute to crashes on the roadway. The categories in this report include:

- Human behavior
- Vehicle factors
- Safety equipment
- Event timing
- Population and demographics
- Roadway and environment circumstances

The data used for analytics and the development of this report aligns with the National Highway Traffic Safety Administration (NHTSA) requirements. Data for this report comes from a wide range of OTS partners in traffic and safety, including but not limited to, the Minnesota Department of Transportation (MnDOT), Driver and Vehicle Services (DVS), Bureau of Criminal Apprehension (BCA), NHTSA and the State Demographer.

State loss attributed to traffic crashes

The ultimate losses from traffic crash events are human lives and injuries that permanently impair or require rehabilitation care. As shown in Table 1, viewed economically, caring for people and replacing personal and public property has a significant economic impact on the state of Minnesota.

While fatal crashes represent less than 1 percent of the total number of crashes in 2023, the economic loss from fatal crashes represents 33 percent of the economic loss for all crash types. Property Damage Only (PDO) crashes represent most crashes and the second highest economic loss at 22 percent of total costs. Together Fatal and PDO economic loss equals 55 percent of loss.

Table 1 - Crash produced economic Loss

Count	Severity	Cost	Economic Loss
402	Killed	$1,946,002	$782,292,804
8,061	Minor Injuries	$43,730	$352,507,530
47,138	PDO Crashes	$6,351	$514,672,338
13,698	Possible Injuries	$27,071	$370,818,558
2,012	Serious Injuries	$168,674	$339,372,088
71,311		**$2,191,828**	**$2,359,663,318**

Introduction

Historical performance

The state of Minnesota has historically ranked with the top best states in the nation for the lowest traffic fatality rate. In 2022, Minnesota had a fatality rate of .77 out of 100 million vehicle miles traveled (VMT). The states of Rhode Island (.69) and Massachusetts (.76) ranked first and second best respectively. Figure 1 depicts the Minnesota fatality rate since 1980. In 2023 the rate fell to .69 while drivers and miles traveled increased. Figure 2 depicts the total number of deaths that occurred since 1980. From 1980 through 2023, the state has reduced fatalities by 53 percent on average. The fatality rate per VMT which takes into account increased driving rates has been reduced by 77 percent.

Figure 1: Vehicles, drivers, and fatality rate

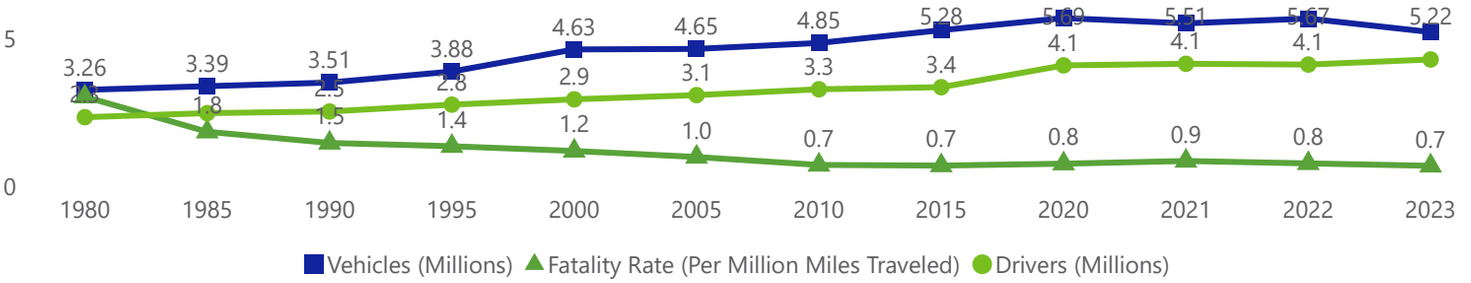
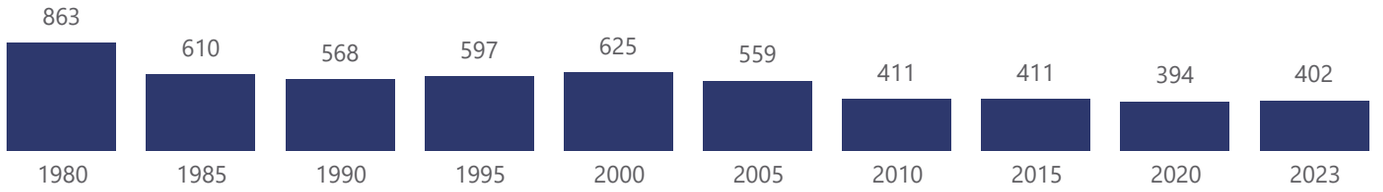


Figure 2: Minnesota traffic fatalities



Overview

Overview of traffic crashes

DPS uses the term “crash” instead of “accident.” This is because a traffic crash and the associated fatalities and injuries are predictable and preventable through changes in enforcement, education, engineering, emergency trauma solutions and driver behaviors.

In 2023, there were 64,744 traffic crashes reported by law enforcement in Minnesota using the OTS MNCrash system. The following facts help to put these crashes into context there were:

4.3M	5.2M	58.2bn
licensed drivers	registered veh…	miles driven

Crashes and fatalities decrease from 2022

These crash totals are a reduction from 70,340 crashes reported in 2022. The remainder of this report further breaks down these numbers to show where there are areas of opportunities to further reduce crashes in coming years.

The 64,744 traffic crashes reported to DPS represent a year over year decrease of approximately 8 percent. There was also a reduction in the number of fatalities during this same period. In 2022, there were 444 deaths on Minnesota roads as compared with 402 fatalities in 2023. This represents a 9 percent decrease from the previous year.

Overall, injury crashes declined from 17,387 in 2022 to 17,242 in 2023; however, serious injury crashes increased from 1,641 to 1,723. The number of people that sustained serious injuries rose from 1,916 to 2,012. When considering all injury severities (i.e. serious, minor, possible) there were 23,727 injuries in 2022 compared with 23,771 in 2023 which was less than a 1 percent increase.

Minnesota roads continue to be relatively safe as DPS and partners make data driven improvements. Traffic deaths in Minnesota have decreased dramatically over the decades. Minnesota has a multidisciplinary approach to traffic safety called the Toward Zero Deaths (TZD) initiative, which focuses on five key areas referred to as the 5 E's (Engineering, Enforcement, Education, Emergency services and Everyone else). This helps with public awareness and involvement, strengthens traffic safety laws, enhances enforcement, addresses education and outreach, creates safer roadways, and addresses emergency trauma care when a crash does occur.

Executive summary crash facts

The following statistics use the standard crash reporting methods outlined by the Federal Highway Administration. This allows for a direct comparison to boarding states and to the rest of the country.

When considering the 64,744 traffic crashes and 402 fatalities in 2023, the following statistics helps put them into perspective.

The following statistics put these crashes and fatalities into rates relative to the number of vehicles, the driving population size and the total number of miles driven.

1,116	1,245	111
crashes per 100K population	crashes per 100K vehicles	crashes per 100M VMT
6.9	5.7	0.69
fatality rate per 100k population	fatality rate per 100k vehicles	fatality per 100m vmt

In the last year, DPS took a bold new step to advance the goals of saving lives on Minnesota roads. The year saw the establishment of the Minnesota Traffic Safety Council and investments in data and data analytics platforms to further discovery of improvements and to jointly make decisions on priority implementations.

Injury Statistics

Traffic injury analysis compared with the United States

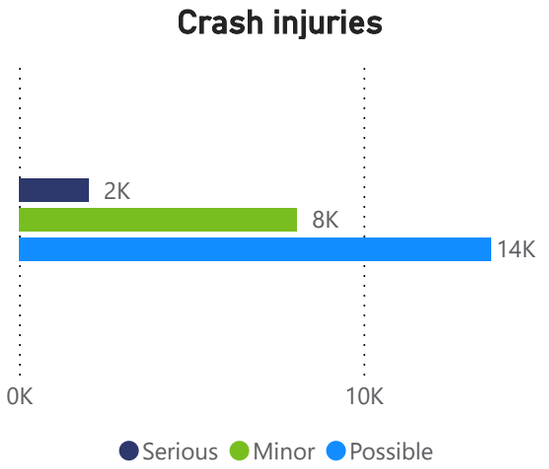
The most severe injury is death; 402 people died in 2023. A detailed analysis of fatalities is included in later chapters.

As outlined in the Overview section of the report, overall Injury crashes declined from 17,387 in 2022 to 17,242 in 2023; however, serious injury crashes increased from 1,641 to 1,723. The number of people that sustained serious injuries rose from 1,916 to 2,012. When considering all injury severities (i.e. serious, minor, possible) there were 23,727 injuries in 2022 compared with 23,771 in 2023 which was less than a 1 percent increase.

402
people died

23,771
people were injured

Figure 1 - Crash Injuries shows the total of 23,771 in 2023 into injury severity. There were 2,012 serious injuries, 8,061 minor injuries and 13,698 potential injuries during the year.



The Minnesota Department of Transportation (MnDOT) describes a serious injury as any injury that "prevents the injured person from walking, driving, or normally continuing the activities they were capable of performing before the injury occurred." In other words, it is incapacitating.

The serious injury definition and criteria are taken from the KABCO Injury Classification Scale (see "Definitions" for full explanation) which is a system used to categorize the severity of injuries in traffic crashes ranging from:

- K - Killed: A fatal injury, meaning the individual involved in the crash has died as a result of their Injury
- A - (Incapacitating Injury): Prevents the person from walking, driving, or continuing normal activities.
- B (Non-Incapacitating Injury): Does not prevent person from walking or continuing normal activities.
- C (Possible Injury): Injuries that are suspected but not confirmed, such as aches, pains, or bruises.
- O (No Injury): This means that the individual involved in the crash did not sustain any injuries

Table 1.01 shows injury and fatality trends over the last six years in Minnesota. Serious injuries increased by 5 percent from 2022 to 2023, while the fatalities dropped by 9 percent.

Table 1.01: Traffic crash trends

	2018	2019	2020	2021	2022	2023	Record high	
Fatal Crashes	349	333	369	451	418	364	878	1973
Serious Injury Crashes	1,344	1,303	1,304	1,453	1,641	1,723	33,868	1978
Minor Injury Crashes	7,332	7,255	5,939	6,845	6,337	6,282	5,109	1984
Possible Injury Crashes	11,579	11,342	7,828	9,200	9,409	9,237	12,326	1985
Total Injury Crashes	20,255	19,900	15,071	17,498	17,387	17,242	18,578	1996
PDO Crashes	58,642	60,385	41,719	45,846	52,535	47,138	94,810	1975
Total Crashes	79,246	80,618	57,159	63,795	70,340	64,744	123,106	1975
Serious Injuries	1,664	1,526	1,559	1,726	1,916	2,012	50,332	1978
Minor Injuries	9,435	9,340	7,651	8,916	8,056	8,061	6,573	1984
Possible Injuries	16,791	16,393	11,314	13,463	13,755	13,698	17,670	1985
Total Injuries	27,890	27,259	20,524	24,105	23,727	23,771	28,631	1996
Total Fatalities	381	364	394	488	444	402	1,060	1968
MN Fatality Rate	0.63	0.60	0.76	0.85	0.77	0.69		

Drivers in crashes

This chapter will look at the specifics of crashes in Minnesota in the past year. The contributing circumstances, or why the crash occurred, will be examined in the Contributing Factors chapter.
Who was involved in crashes?

Among drivers, young people and males are over-represented in traffic crashes in Minnesota. Generally, younger people represent higher portions of crash-involved drivers than their portion of licensed drivers. Drivers ages 15-24 are the worst from this perspective. In 2023, they represented just 14 percent of the licensed drivers, but 23 percent of all crash-involved drivers. By contrast, drivers aged 65 and older made up 23 percent of the driving population, but accounted for just 12 percent of the crash-involved drivers. Figure 1.01 graph compares the portions of licensed and crash-involved drivers within age groups. Crash-involved drivers are also more likely to be males: 75 percent of drivers in fatal crashes were male; 59 percent of drivers in all crashes were male.

Figure 1.01: Licensed vs crash-involved drivers by age

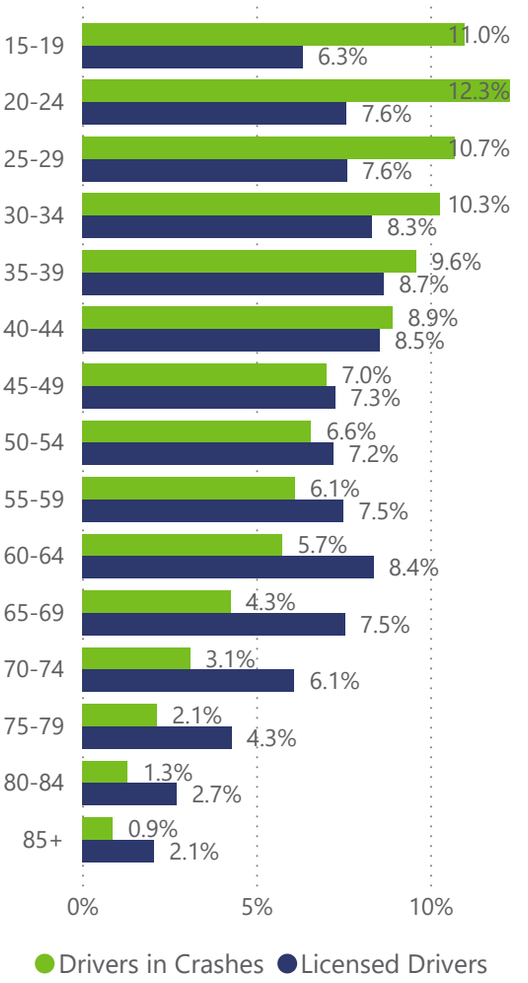


Table 1.02 details driver counts in fatal and all crashes. As previously mentioned, young persons and males are involved in crashes more frequently but the disparity between male and female crash-involvement actually increases with age.

Figure 1.02 below examines the percentage of gap between male and female crash–involvement at different age groups.

Table 1.02B: Age and gender of drivers in fatal crashes

Age Group	Female	Male	Unk	Total
<15	0	0	0	0
15-19	10	32	0	42
20-24	5	38	0	43
25-29	15	60	0	75
30-34	13	33	0	46
35-39	9	40	0	49
40-44	9	27	1	37
45-49	12	28	1	41
50-54	10	30	0	40
55-59	10	33	0	43
60-64	12	36	0	48
65-69	5	26	0	31
70-74	6	11	0	17
75-79	8	13	0	21
80-84	7	20	0	27
85+	8	7	0	15
Unknown	0	0	0	0
Total	**139**	**434**	**2**	**575**

Table 1.02A: Age and gender of drivers in all crashes

Age Group	Female	Male	Unk	Total
<15	31	94	10	135
15-19	5,153	6,467	82	11,702
20-24	5,350	7,538	233	13,121
25-29	4,592	6,692	143	11,427
30-34	4,506	6,340	123	10,969
35-39	4,013	6,123	97	10,233
40-44	3,773	5,675	64	9,512
45-49	2,849	4,588	44	7,481
50-54	2,584	4,395	29	7,008
55-59	2,327	4,154	24	6,505
60-64	2,226	3,878	18	6,122
65-69	1,720	2,815	7	4,542
70-74	1,300	1,993	6	3,299
75-79	985	1,297	2	2,284
80-84	618	766	2	1,386
85+	382	541	10	933
Unknown	1	6	50	57
Total	**42,410**	**63,362**	**944**	**106,716**

Figure 1.02: Crash-involvement gender gap

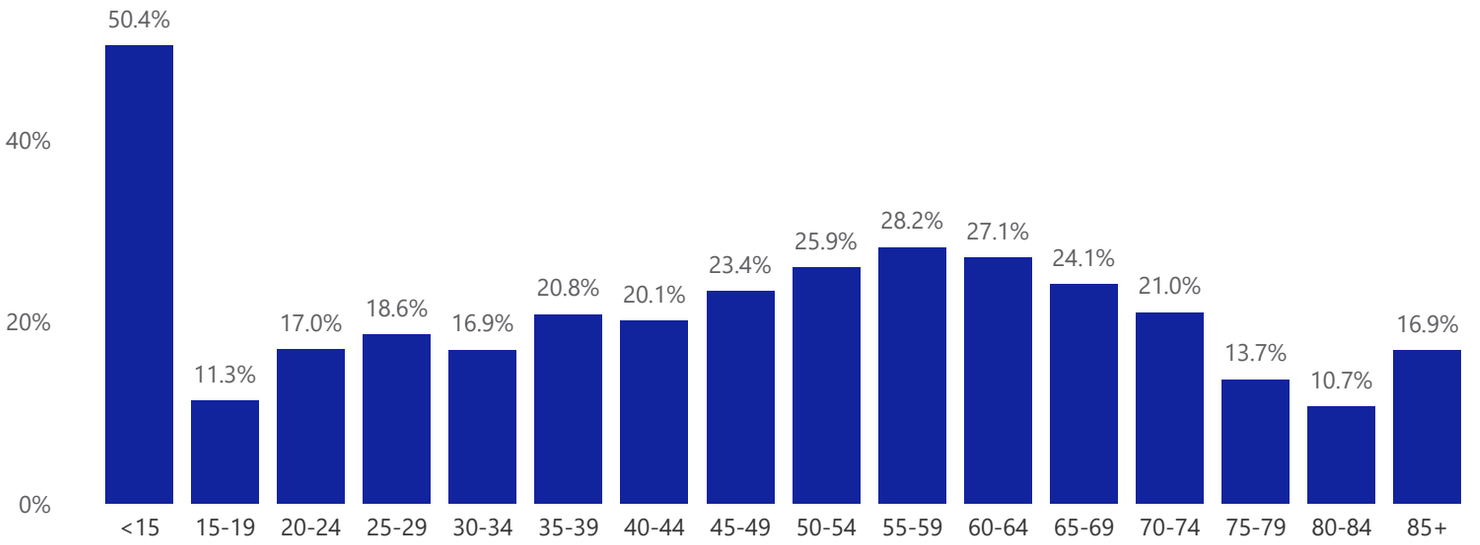


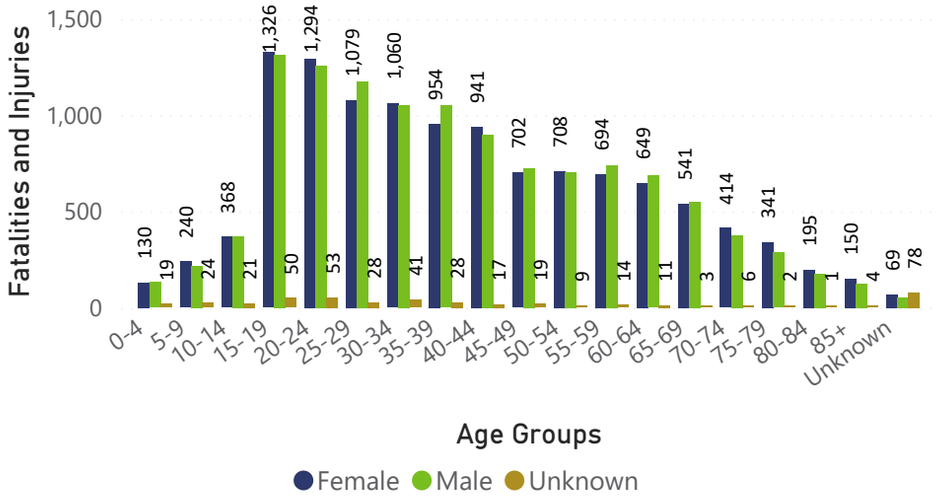
Table 1.03: Driver physical condition* in crashes

Driver Physical Condition	Conditions in Fatal Crashes	Conditions in Injury Crashes	Conditions in PDO Crashes	All Crashes
Physical Disability	4	69	58	131
Has Been Taking Medications	3	78	90	171
Emotional	5	191	189	385
Other	15	218	234	467
Has Been Taking Illicit Drugs	11	224	205	440
Asleep or Fatigued	9	336	593	938
Medical Issue	15	400	242	657
Has Been Drinking Alcohol	45	1,244	1,683	2,972
Apparently Normal	356	26,682	71,558	98,596
Unknown	781	30,232	77,662	108,675
Total	**1,244**	**59,674**	**152,514**	**213,432**

*Note - As noted by police officer on crash report. Officers are allowed to enter up to two physical conditions for each driver. Totals are the total number of driver physical conditions.

Figure 1.04 shows that 68 percent of fatalities were male out of the 402 fatalities.

Figure 1.03: Age and gender of person killed or injured



Driver physical condition

When law enforcement arrives on the scene at a crash their first actions are to keep people safe, to get care for those who need it and to clear the roadways avoiding secondary crashes. Once these core activities are done, officer's investigate and document details about the crash. During the investigation the law enforcement officer captures their assessment of drivers physical conditions that could have been a factor in the crash. Table 1.03 captures the law enforcement assessment of the driver mental and physical conditions in 2023 crashes.

Age and gender of drivers killed or injured

Analyzing the age of drivers is important given development of the human brain. Brain development research suggests that part of the brain which is responsible for decision-making, impulse control and reasoning continues to mature into the mid-20s. This period often represents the transition from adolescence to adulthood, where individuals may start understanding the consequences of their actions and taking responsibility for them. Figure 1.03 provides facts regarding the ages and genders of drivers killed or injured in crashes in 2023.

Maturity through experience is another factor in drivers. People can start driving at age 16. This means people driving at age 25 have 9 years of experience. However, by age 35 these same people have almost 20 years of driving experience.

Figure 1.04: Fatalities by gender

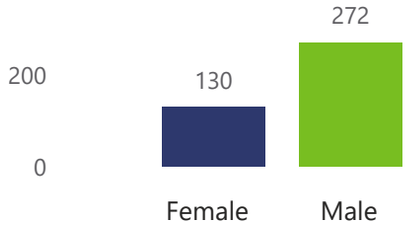
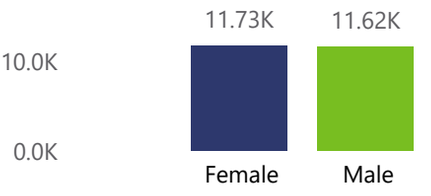


Figure 1.05: Injury by gender



1) Casey, Giedd, and Thomas work, Jay Giedd work at National Institute of Mental Health (NIMH). The American Psychological Association (APA) have supported these findings.

Injuries By Vehicle Type

Vehicle relationship to crash fatalities and injuries

Vehicle types are in important factor to understand their potential impact or relationship to crashes and the seriousness of the injuries in those crashes. Certain vehicle types tend to be involved in more fatal traffic crashes due to factors like size, weight and the way they behave in collisions.

Table 1.04 shows vehicles by type. Cars and sport utility vehicles represent 72 percent of the fatalities and injuries in 2023. It is important to know that these injuries were not on the trail systems but were involved in crashes that were reportable for National Highway Transportation Safety Administration (NHTSA) reporting.

Table 1.04: Persons involved by type of vehicle occupied and injury severity

Vehicle Type	Killed	Serious Injuries	Minor Injuries	Possible Injuries	Total Injuries ▼	Total Persons	No Injuries
Car	138	616	3,245	6,292	10,153	58,286	47,995
Sport Utility Vehicle	67	409	2,143	4,494	7,046	42,397	35,284
Pickup Truck	34	157	834	1,222	2,213	17,212	14,965
Van	21	64	321	558	943	6,231	5,267
Motorcycle	67	290	452	186	928	1,131	136
Pedestrian	38	141	317	214	672	800	90
Bicycle	6	77	255	179	511	588	71
All-Terrain Vehicle	8	95	108	50	253	385	124
Other Vehicle	0	27	62	70	159	1,322	1,163
Unknown Vehicle Type	0	27	67	33	127	291	164
Truck Semi Trailer	5	10	50	39	99	1,874	1,770
Snowmobile	3	43	25	22	90	124	31
Taxi Cab	2	5	18	58	81	335	252
Other/Unknown Truck Type	0	7	22	39	68	1,385	1,317
Other Bus	0	3	14	50	67	468	401
Police Vehicle	0	3	27	36	66	788	722
Truck with Trailer	4	4	17	43	64	1,002	934
Moped/Motor Scooter	2	18	31	10	59	66	5
School Bus	0	0	15	35	50	1,359	1,309
Single Truck (3+ axles)	3	2	12	19	33	320	284
Single Truck (2-axle, 6 tire)	2	0	10	14	24	415	389
Farm Tractor or Equipment	0	8	5	6	19	133	114
Ambulance	0	0	5	9	14	166	152
Motorhome/Camper	0	2	3	6	11	80	69
Truck No Trailer	0	1	2	4	7	73	66
Truck Double Trailer	0	0	1	5	6	51	45
Military Vehicle	0	1	0	3	4	10	6
Other Personal Conveyance	2	2	0	0	2	4	0
Limousine	0	0	0	1	1	8	7
Truck Triple Trailer	0	0	0	1	1	3	2
Fire Department Vehicle	0	0	0	0	0	103	103
Total	**402**	**2,012**	**8,061**	**13,698**	**23,771**	**137,410**	**113,237**

Crash Roadway Statistics

Table 1.09: Crashes by road surface condition

Road Surface	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Dry	294	12,863	32,116	45,273	325	17,953
Wet	26	1,751	4,651	6,428	29	2,440
Snow	8	963	4,591	5,562	10	1,217
Ice/Frost	20	1,267	4,983	6,270	22	1,656
Sand	0	11	5	16	0	14
Ruts, Holes, Bumps	0	13	7	20	0	14
Other	12	290	286	588	12	373
Unknown	4	84	499	587	4	104
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

15 percent of fatal crashes occurred on wet, snowy or icy roads

Table 1.10: Crashes by road design

Roadway Design	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Two-Way, Not Divided	202	7,742	19,776	27,720	223	10,882
Two-Way, Divided, Median Barrier	57	4,587	16,772	21,416	67	6,392
Two-Way, Divided, Unprotected Median	34	1,988	4,704	6,726	36	2,928
Unknown	53	1,548	1,049	2,650	54	1,725
One Way Trafficway	11	644	2,707	3,362	15	828
Other	4	406	1,250	1,660	4	550
Two-Way, Not Divided, Left Turn Lane	3	327	880	1,210	3	466
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

56 percent of fatalities occurred on two-way, not divided roads

Table 1.08: Crashes by traffic control device

Traffic Control Device	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
None	277	9,674	29,046	38,997	309	13,333
RR Crossing Device	0	20	54	74	0	24
Traffic Control Signal	37	4,353	9,106	13,496	42	6,289
Flashing Overhead Signal	0	39	75	114	0	59
Yield Sign	1	193	895	1,089	1	234
Stop Sign	13	1,192	2,996	4,201	13	1,575
Warning Sign	4	50	150	204	4	68
Flagger, Police, Crossing Guard	0	17	17	34	0	24
School Zone Sign	0	9	11	20	0	10
Other	2	58	179	239	2	75
Unknown	30	1,637	4,609	6,276	31	2,080
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

Most (76 percent) crashes happen where no traffic control device is located

Crash Objects Impacted

Analysis of objects impacted by Crash

Three categories of crashes exist.

Collisions with non-fixed objects: These crashes occur when a motor vehicle collides with another movable object (another motor vehicle, a non-motorist, or an animal).

Collisions with fixed objects: These crashes occur when a motor vehicle collides with a permanent object (usually a traffic sign or barrier, or something in the physical environment such as a ditch, embankment, or tree).

Non-Collisions: These occur when vehicles are hit by objects or cargo falling off another vehicle, overturns and rollovers, jack-knifed semi-trucks, car fires and explosions.

The vast majority of crashes are collisions with non-fixed objects.

Figure 1.06: Total crashes by category

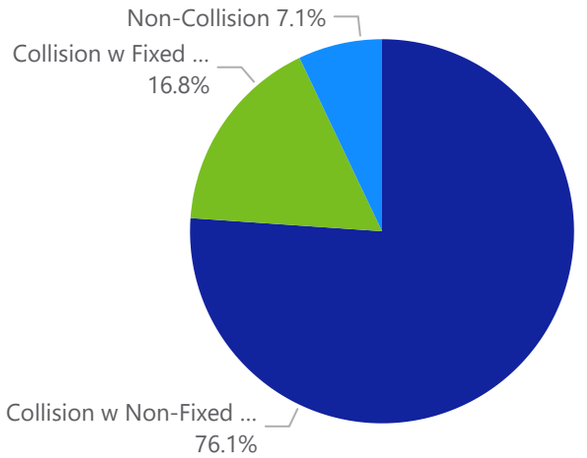


Table 1.06: Crash type counts

Crash Category	Crash Total
Collision w Fixed Object	**10,889**
Barrier	3,688
Bridge	198
Construction Equipment	28
Culvert/Curb	250
Ditch/Embankment	1,013
Fence	324
Mailbox/Hydrant	399
Other/Unknown	777
Pole/Sign/Parking Meter	3,082
Snowbank	247
Tree/Shrubbery	883
Collision w Non-Fixed Object	**49,276**
Bicycle	564
Deer/Animal	1,234
Falling Cargo	122
Motor Vehicle in Transport	43,205
Parked Motor Vehicle	3,459
Pedestrian	657
Train	35
Non-Collision	**4,579**
Fire/Explosion	43
Object Set in Motion By MV	219
Other Non-Collision	1,009
Overturn/Rollover	3,279
Submersion	29
Total	**64,744**

Table 1.05: Crash type and crash severity

Category	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes
Collision w Fixed Object	72	2,459	8,358	10,889
Collision w Non-Fixed Object	228	12,944	36,104	49,276
Non-Collision	64	1,839	2,676	4,579
Total	**364**	**17,242**	**47,138**	**64,744**

Weather and Crashes

Table 1.07: Crashes by weather condition

Weather Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Blowing Sand/Soil/Dirt	2	198	858	1,058	3	276
Clear	266	12,381	31,187	43,834	293	17,037
Cloudy	64	2,551	7,059	9,674	69	3,591
Fog/Smog/Smoke	7	122	261	390	7	170
Other Weather	0	14	38	52	0	17
Rain	14	865	2,311	3,190	17	1,210
Severe Crosswinds	1	14	49	64	1	19
Sleet/Hail	2	214	920	1,136	3	278
Snow	3	797	3,885	4,685	4	1,069
Unknown	5	86	570	661	5	104
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

73 percent of fatal crashes occurred during clear weather

The majority of crashes occur in **good driving conditions** – daylight hours, clear weather, good roads.

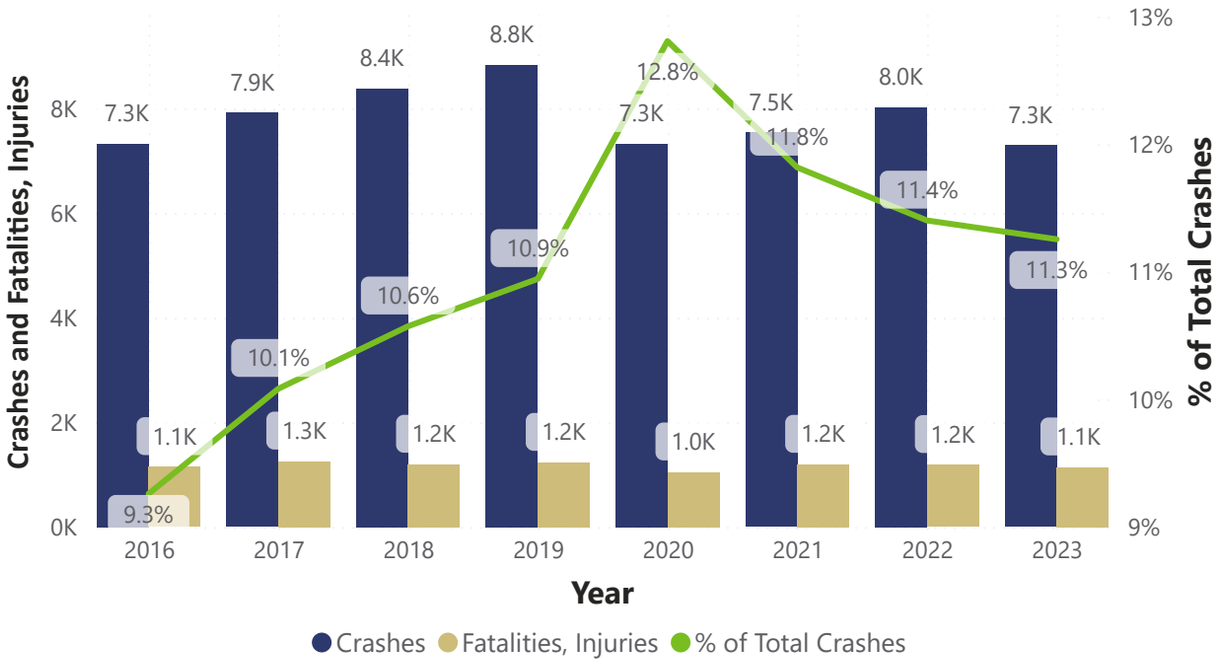
Hit-and-run crashes

In 2023, there were 7,289 crashes classified as Hit-and-Run. This represents 11% of all crashes in the state. Figure 1.07 examines the increases in Hit-and-Run crashes in the past decade.

Table 1.11: Hit-and-run crashes

Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
11	904	6,374	7,289	15	1,126

Figure 1.07: Hit-and-run crash trends



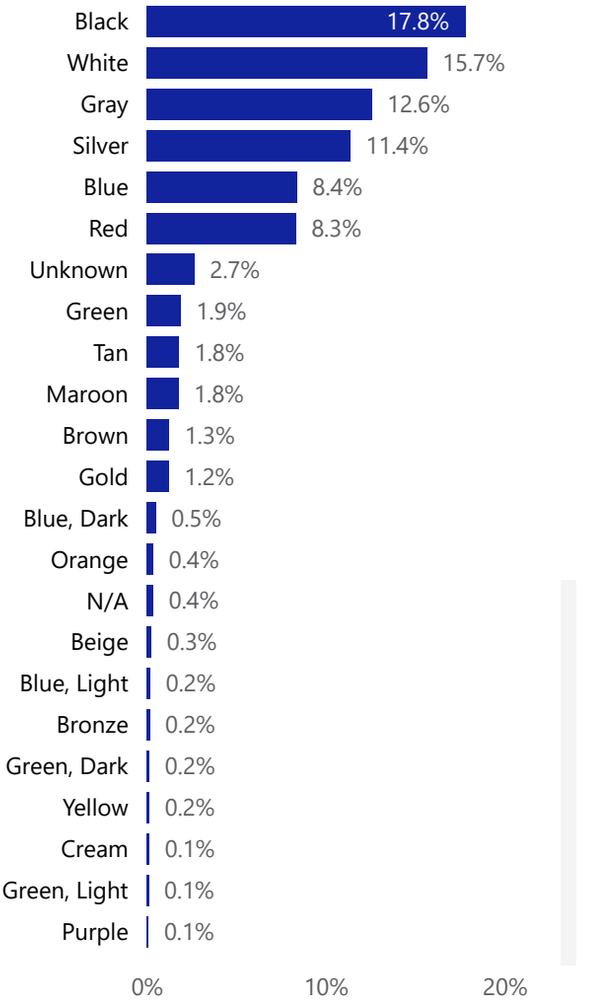
1.10 Vehicle type and colors

There are more than 5 million registered vehicles in the state during 2023 according the DPS's Driver and Vehicle Services division. These statistics will help readers understand the numbers of vehicles by vehicle color and compare that with the number of crashes by vehicle color. This may imply that certain colors are harder to see or that the buyers of certain colors tend to be safe.

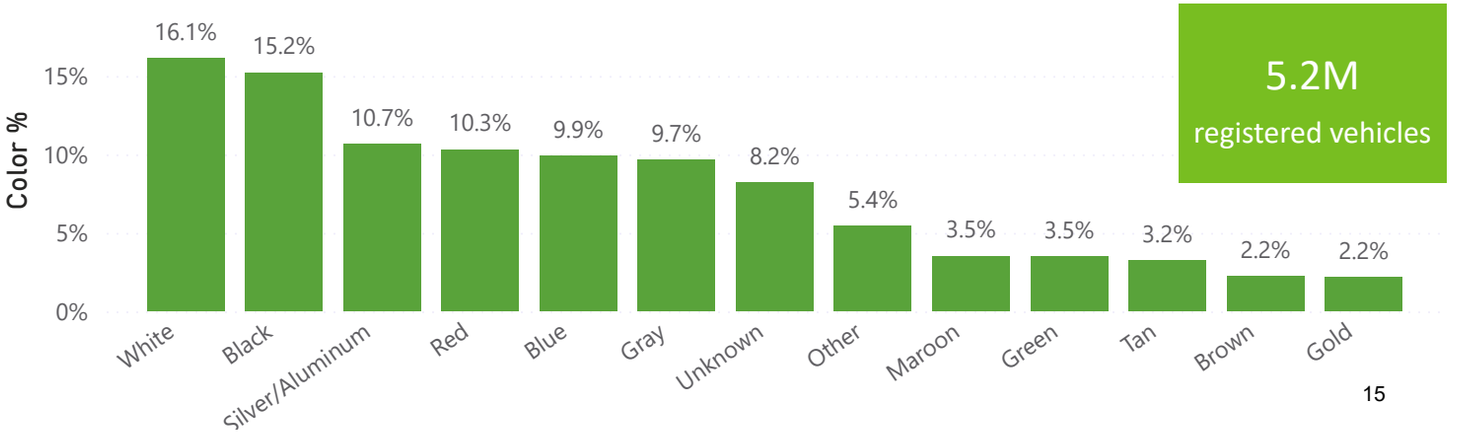
Table 1.12: Types of motor vehicles in crashes

Vehicle Type	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in PDO Crashes	Vehicles in Total Crashes
All-Terrain Vehicle	8	208	40	256
Ambulance	1	18	72	91
Bicycle	6	511	64	581
Car	192	13,448	36,760	50,400
Farm Tractor or Equipment	2	43	85	130
Fire Department Vehicle	0	3	74	77
Limousine	0	2	4	6
Military Vehicle	0	5	3	8
Moped/Motor Scooter	2	58	3	63
Motorcycle	64	868	110	1,042
Motorhome/Camper	0	16	61	77
Other Bus	1	72	237	310
Other Personal Conveyance	1	0	0	1
Other Vehicle	6	256	1,015	1,277
Other/Unknown Truck Type	6	255	1,022	1,283
Pedestrian	42	683	67	792
Pickup Truck	78	3,666	11,002	14,746
Police Vehicle	0	139	626	765
School Bus	3	80	423	506
Single Truck (2-axle, 6 tire)	9	72	306	387
Single Truck (3+ axles)	5	81	229	315
Snowmobile	3	93	19	115
Sport Utility Vehicle	126	9,421	24,794	34,341
Taxi Cab	2	84	127	213
Truck Double Trailer	1	13	37	51
Truck No Trailer	1	11	57	69
Truck Semi Trailer	23	339	1,456	1,818
Truck Triple Trailer	0	1	2	3
Truck with Trailer	16	175	764	955
Unknown Vehicle Type	7	552	3,179	3,738
Van	28	1,256	3,311	4,595
Total	**633**	**32,429**	**85,949**	**119,011**

Figure 1.08: Vehicle color of cars (passenger cars, trucks, or vans) in Minnesota crashes



North America car color popularity



When Crashes Happen

As a general rule, harsh winter weather results in more traffic crashes. In other words, there are more “fender-benders” during icy and snowy conditions. Due to our Minnesota weather, December, January and February see more crashes. Similarly, warmer weather produces fewer crashes, but more fatalities and serious injuries.

Figure 1.09: Heat map of traffic crashes by month and day

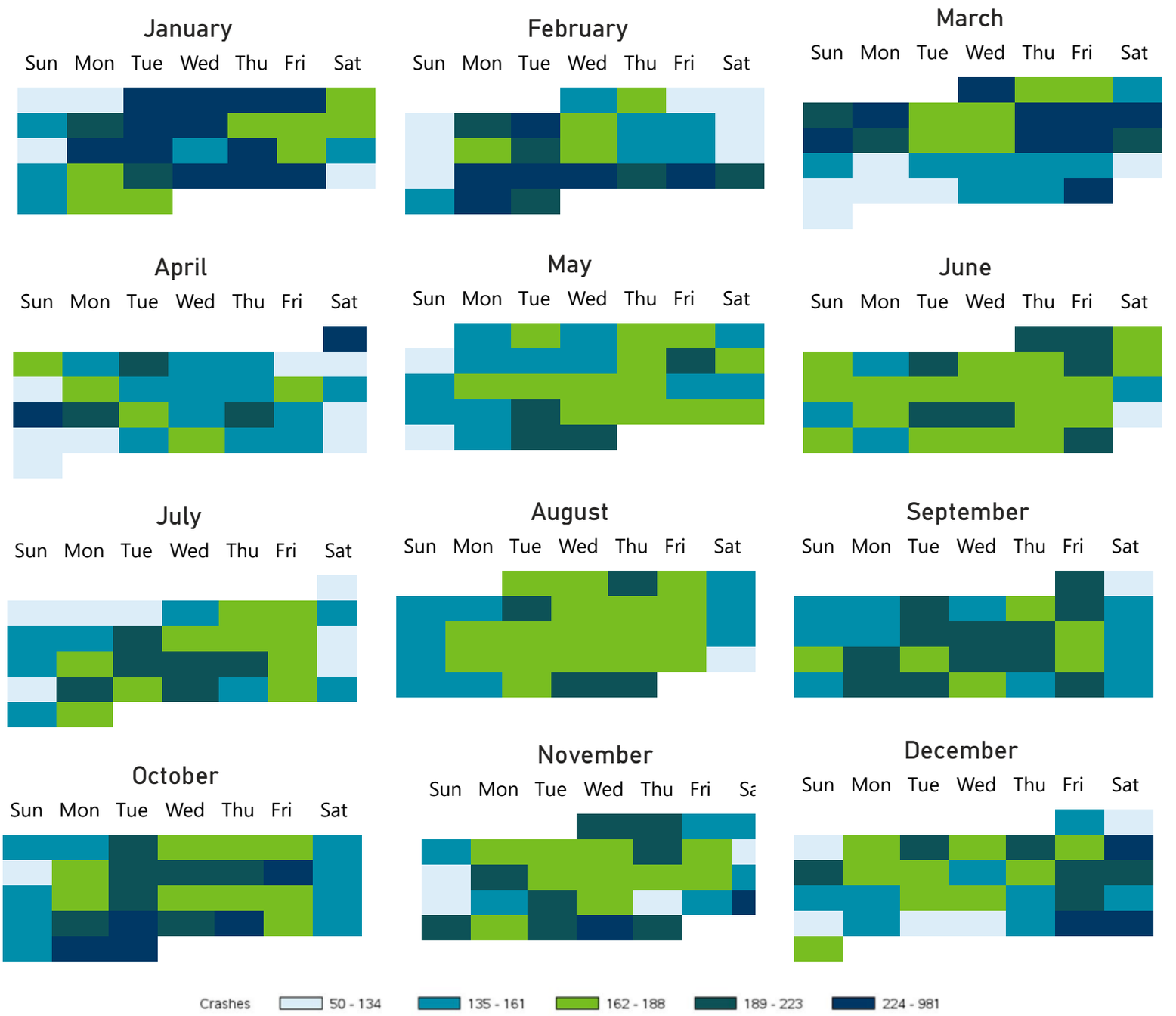
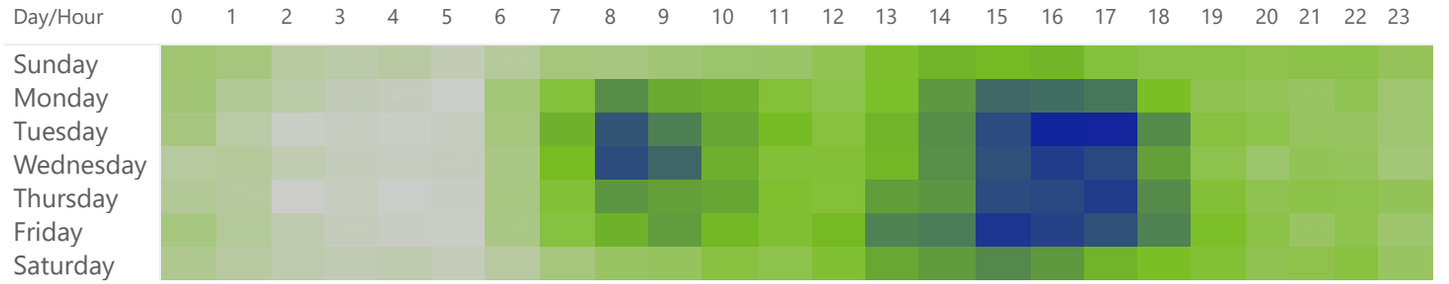


Table 1.13 shows the crash rate and severity of crashes by month. The three highest crash months are December, January and November in that order. These three months represent 33% of the total crashes for the year. When the time period is extended to include February which is the next highest month after November, 42% of all crashes for the year have occurred.

Table 1.13: Crashes, fatalities, and injuries by month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	15	1,254	5,113	6,382	15	1,690
February	15	1,214	4,069	5,298	17	1,616
March	15	1,285	4,789	6,089	16	1,738
April	20	1,182	3,453	4,655	22	1,640
May	34	1,551	3,560	5,145	36	2,192
June	44	1,604	3,496	5,144	52	2,302
July	50	1,569	3,447	5,066	50	2,227
August	39	1,636	3,450	5,125	44	2,250
September	38	1,609	3,646	5,293	44	2,203
October	27	1,547	4,240	5,814	29	2,094
November	33	1,375	3,818	5,226	39	1,896
December	34	1,416	4,057	5,507	38	1,923
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

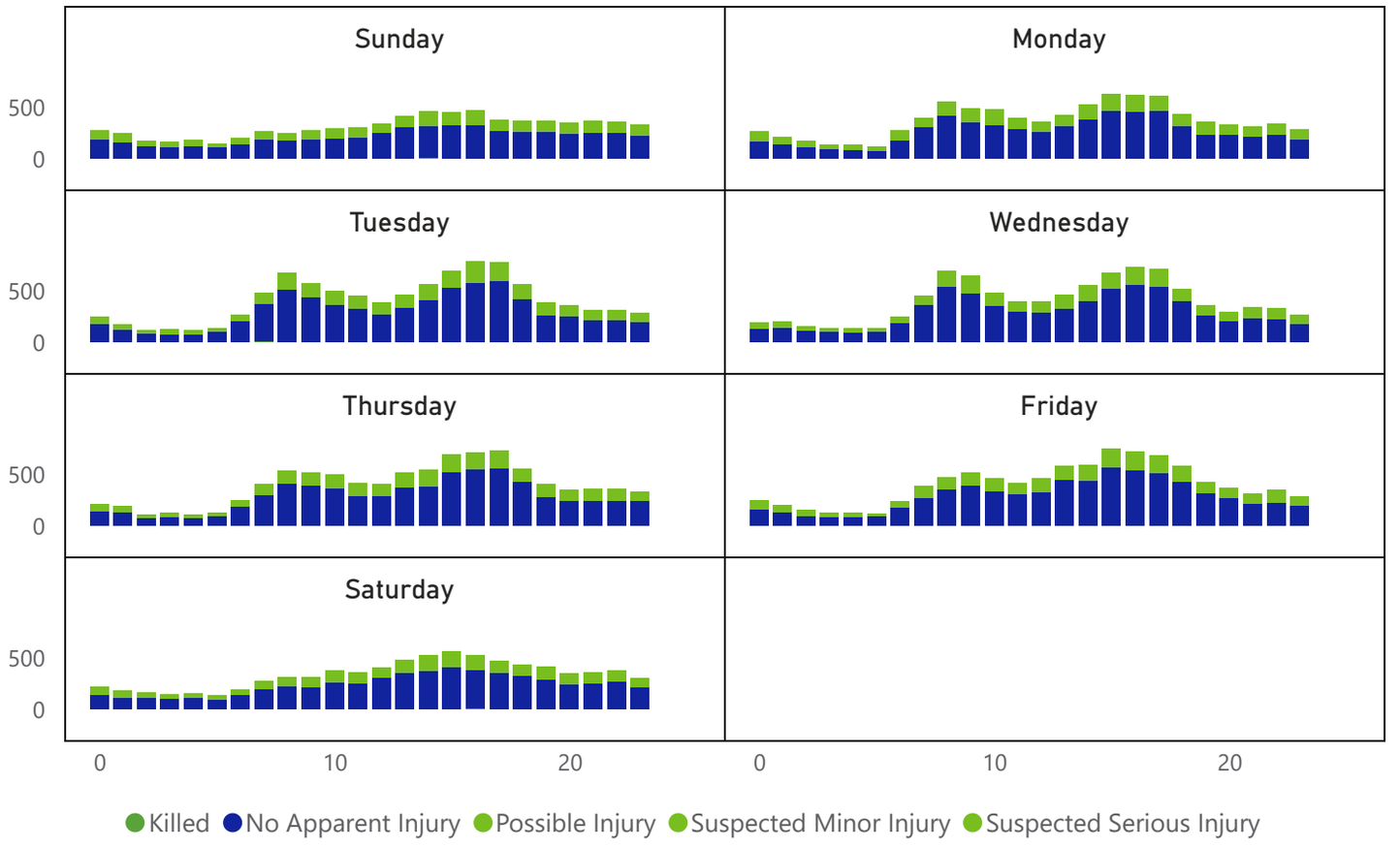
Figure 1.11: Heat map of crashes



0 = Midnight, 12 = Noon

Figure 1.11 helps analyze what times that crashes occur. In 2023, 25 percent of the crashes occurred from Monday through Friday between 7 a.m. to 9 a.m. and 3 p.m. to 6 p.m, traditional rush hours when drivers are traveling between work and home.

Figure 1.12: Daily crashes by time and crash severity



Vacations, holidays, and getting to the cabin/lake

When summer arrives, Minnesotan's get going. Many people to take vacations, travel for holidays and take advantage of cabin and lake destinations. This period of time is referred to as the "100 Deadliest Days of Summer."

The "100 Deadliest Days of Summer" refers to the period between Memorial Day and Labor Day, during which traffic fatalities, particularly those involving teen drivers, tend to increase. In Minnesota, this timeframe has historically been associated with a higher number of fatal crashes.

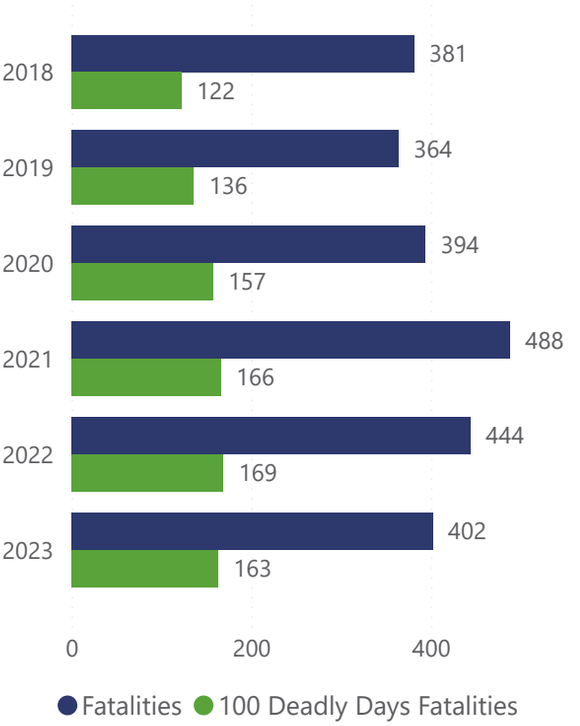
Figure 1.13 shows the fatalities for the year compared with fatalities that occurred over the 100 deadliest day period. This helps to show the consistency of these findings in a year-over-year view.

Many people drive farther and more during this time and this time period sees an increase in speeding to get between places that may be farther away. For these reasons there is an increase in fatal crashes.

The summer months also see a rise of teen driving due to school being out of session. This time can lead to teens having more time to participate in risky behavior instead of driving to school.

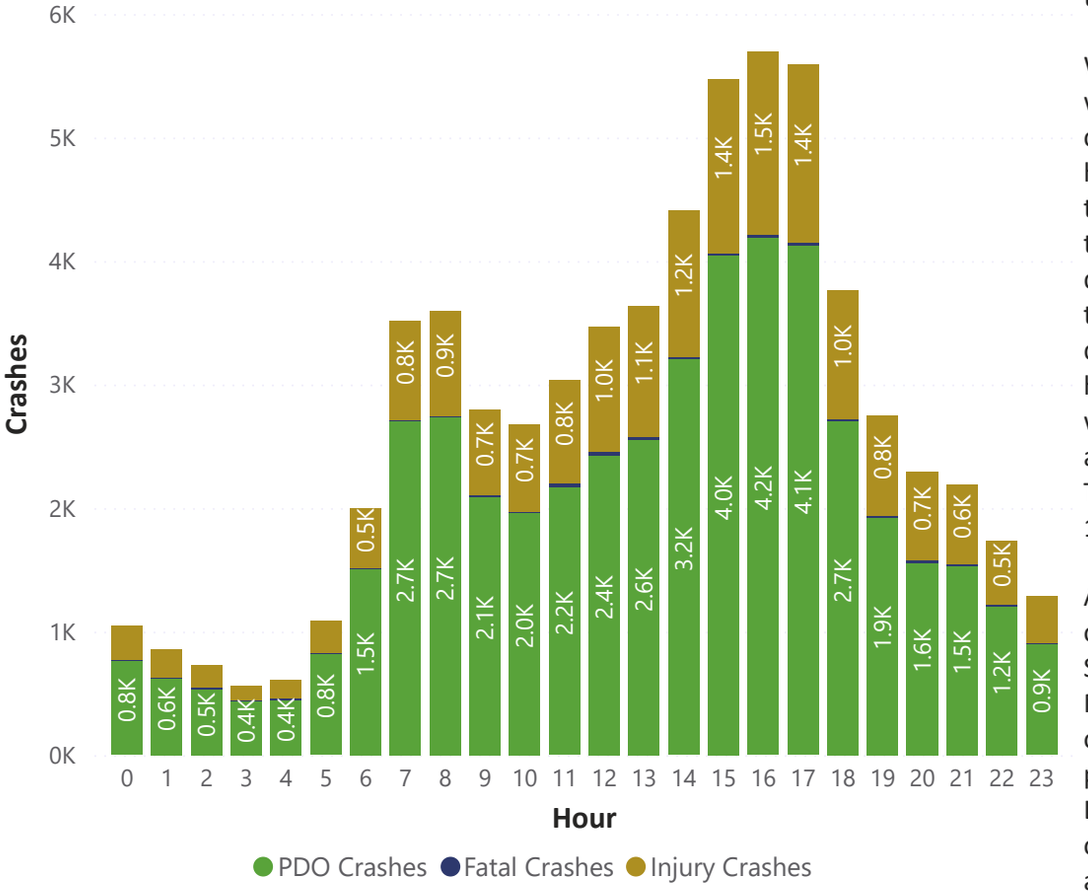
For many, summer represents a time for more free time and having fun. Driving under the influence remains a critical issue. When roads are not slippery and there is a lot of communication between parties that are traveling, distracted driving can also be a factor.

Figure 1.13: 100 deadly days of summer



41% of fatalities occurred during the 100 deadliest days period.

Figure 1.10: Crashes by time and crash severity

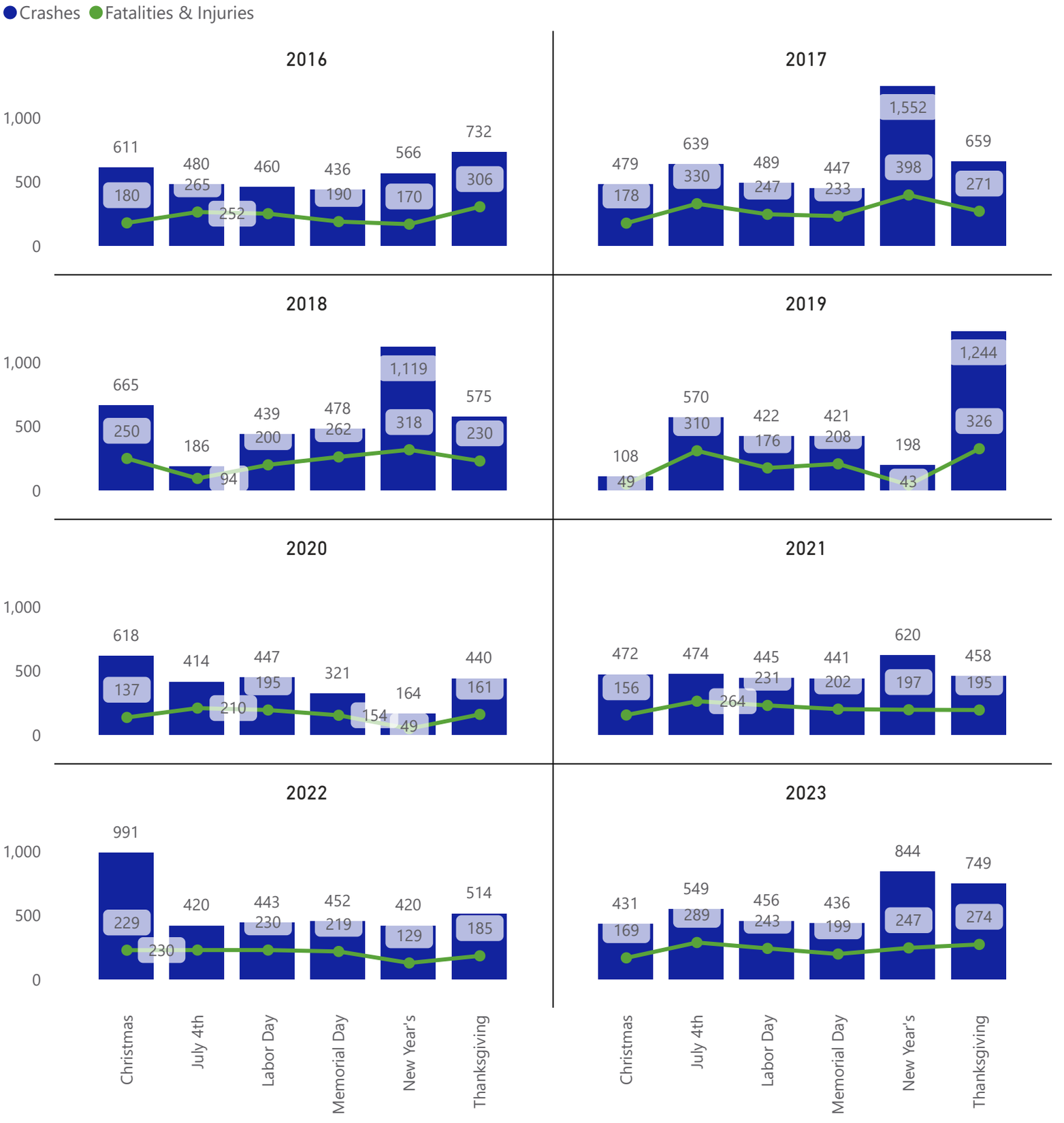


Holidays are problematic for traffic safety

While most crashes do occur during winter months or in good driving conditions, holidays generally have higher crash rates than non-holiday time periods. Celebrations, additional travel and alcohol consumption during holidays create a dangerous traffic safety environment. NHTSA defines reporting guidelines for six holidays during the calendar year with varying durations to accommodate additional travel. Those holidays are displayed in figure 1.14.

Aside from the six NHTSA holidays, other days and events, such as the Super Bowl, St. Patrick's Day, Cinco de Mayo, Halloween, hunting and fishing opening weekends, and the time period between Memorial Day and Labor Day (called the 100 Deadly Days of Summer) can have spikes in DWIs and traffic crashes.

Figure 1.14: Holiday crashes



Crash Light Conditions

In Minnesota in 2023, traffic crashes occurred under varying light conditions, and the data shows notable trends related to visibility and the time of day.

Most crashes occurred during the daylight hours (approximately 67 percent of all crashes in 2023), which is typically when driving conditions are clearer and drivers have better visibility. Despite the better visibility, this period still saw a significant number of crashes, suggesting that factors like distractions, speed or driver behavior (such as impaired driving or fatigue) still play a role in crashes even when it's easier to see.

Crashes during dark conditions with street lighting accounted for 19 percent of the total crashes in 2023. These conditions include areas where streetlights are present, but darkness still poses challenges to driver visibility. Factors like headlights, the quality of street lighting and drivers' abilities to adapt to lower light levels contribute to these incidents. These conditions are often associated with night driving, and the reduced visibility at night increases the likelihood of crashes.

The remaining 14 percent of crashes occurred under various other light conditions such as sunrise, sunset, or dawn and dusk, which can present unique driving challenges. During sunrise and sunset, the angle of the sun can reduce visibility and cause glare, leading to crashes. The transition periods between day and night can also confuse drivers, especially if they aren't adjusting their speed and attention to the changing light conditions.

Table 1.14: Crashes by light condition

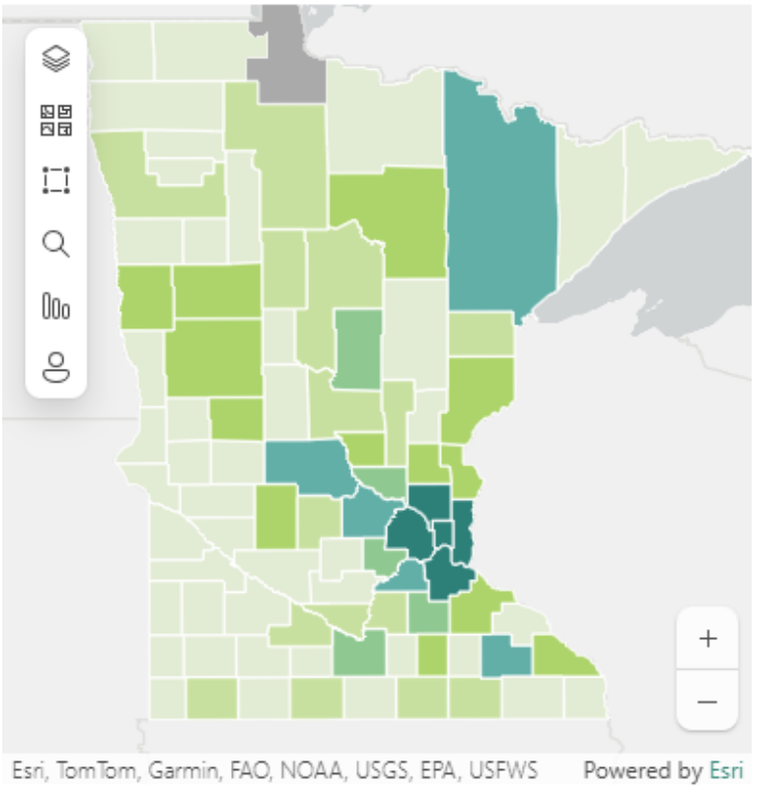
Light Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Daylight	215	11,693	31,742	43,650	235	16,201
Sunrise	8	392	1,149	1,549	8	485
Sunset	13	561	1,298	1,872	15	823
Dark/Street Lights On	62	3,263	9,101	12,426	72	4,556
Dark/No Street Lights	63	1,292	3,404	4,759	69	1,655
Other	0	11	33	44	0	19
Unknown	3	30	411	444	3	32
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

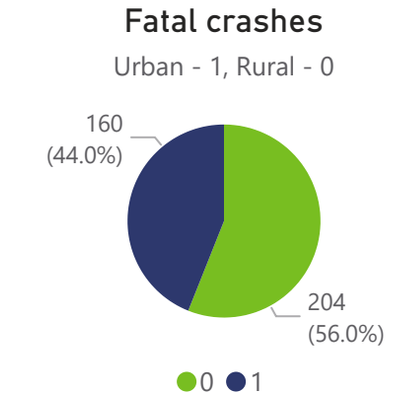
Where Crashes Occurred

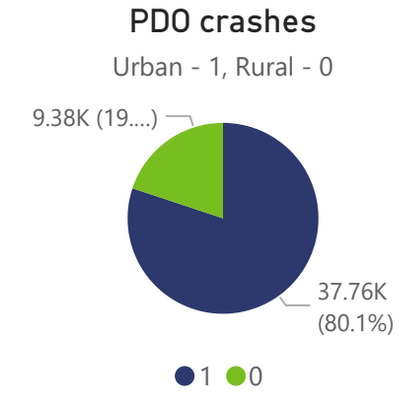
Where did crashes happen?

The seven-county metro area is home to over half of the state's population, and the majority of traffic crashes occur there. Over three-fourths of all crashes happened inside cities of 5,000 or more population; these areas are defined as urban cities. Fatal crashes, however, tend to occur on roads in rural areas that permit high speeds and do not have interstate-type safety designs.

Figure 1.15: Fatal and jnjury crashes plotted by county







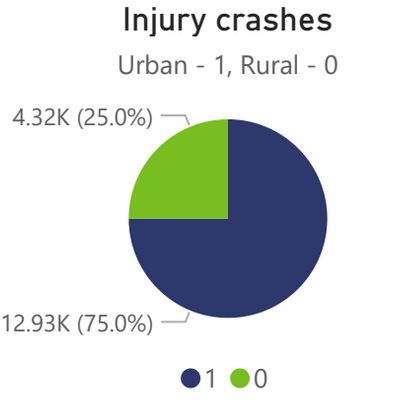


Table 1.15: County crash report

County	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Aitkin	3	54	84	141	3	77
Anoka	22	987	2,778	3,787	22	1,343
Becker	6	119	161	286	6	163
Beltrami	7	78	98	183	7	108
Benton	4	130	308	442	4	190
Big Stone	0	7	35	42	0	11
Blue Earth	3	247	855	1,105	3	340
Brown	3	84	186	273	4	113
Carlton	3	82	273	358	3	120
Carver	5	283	817	1,105	5	408
Cass	1	105	201	307	1	148
Chippewa	4	30	75	109	4	51
Chisago	3	150	363	516	3	228
Clay	6	117	300	423	6	151
Clearwater	1	16	26	43	1	21
Cook	0	19	38	57	0	28
Cottonwood	0	32	71	103	0	55
Crow Wing	2	231	564	797	2	328
Dakota	16	1,467	4,588	6,071	16	2,064
Dodge	2	43	108	153	2	59
Douglas	3	150	297	450	4	197
Faribault	4	48	73	125	5	81
Fillmore	4	47	84	135	5	68
Freeborn	5	91	302	398	5	124
Goodhue	3	145	568	716	3	202
Grant	2	14	78	94	2	14
Hennepin	47	4,744	13,097	17,888	53	6,524
Houston	4	35	61	100	4	61
Hubbard	1	63	94	158	1	94
Isanti	1	135	289	425	1	188
Itasca	7	129	299	435	7	172
Jackson	1	36	105	142	1	46
Kanabec	1	37	83	121	1	47
Kandiyohi	9	153	415	577	13	227
Kittson	1	7	7	15	1	8
Koochiching	1	18	12	31	1	27
Lac qui Parle	1	15	16	32	1	25
Lake	2	36	73	111	2	52
Lake of the Woods	1	1	4	6	1	2
Le Sueur	2	76	165	243	3	100
Lincoln	0	13	27	40	0	16
Lyon	2	58	222	282	2	83
Mahnomen	1	9	18	28	1	10
Marshall	2	56	133	191	2	65
Martin	5	107	314	426	6	146
McLeod	1	8	20	29	2	11
Total	**202**	**10,512**	**28,785**	**39,499**	**219**	**14,596**

Table 1.15: County crash report

County	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Meeker	1	67	127	195	1	91
Mille Lacs	3	92	179	274	3	133
Morrison	6	93	177	276	6	130
Mower	2	98	389	489	3	128
Murray	0	17	26	43	0	26
Nicollet	1	87	392	480	2	113
Nobles	2	64	280	346	2	96
Norman	1	10	16	27	1	11
Olmsted	5	502	1,171	1,678	5	697
Otter Tail	3	160	413	576	3	218
Pennington	1	16	14	31	1	26
Pine	4	115	291	410	4	152
Pipestone	0	26	41	67	0	30
Polk	1	64	161	226	1	86
Pope	1	35	51	87	1	43
Ramsey	20	1,601	5,316	6,937	22	2,122
Red Lake	0	8	5	13	0	11
Redwood	3	47	90	140	4	66
Renville	3	41	85	129	4	69
Rice	10	225	536	771	12	316
Rock	0	37	116	153	0	45
Roseau	0	23	28	51	0	36
Scott	4	402	928	1,334	4	593
Sherburne	13	299	721	1,033	16	436
Sibley	1	44	89	134	1	61
St. Louis	22	471	1,100	1,593	26	627
Stearns	14	462	1,269	1,745	16	637
Steele	1	123	419	543	1	167
Stevens	0	9	47	56	0	15
Swift	1	23	33	57	1	35
Todd	1	61	138	200	1	74
Traverse	0	6	17	23	0	7
Wabasha	3	38	91	132	3	45
Wadena	1	30	48	79	1	36
Waseca	1	44	159	204	1	60
Washington	15	650	1,777	2,442	18	879
Watonwan	2	35	94	131	2	49
Wilkin	0	28	80	108	0	40
Winona	3	137	244	384	3	177
Wright	13	417	1,154	1,584	14	560
Yellow Medicine	0	23	41	64	0	32
Total	**162**	**6,730**	**18,353**	**25,245**	**183**	**9,175**

Crashes by Population Centers

38 percent of all crashes occurred in population areas of 50,000 people or more.

Table 1.16 - All Crashes

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	35	2,770	7,962	10,767	42	3,777
100,000-249,999	1	374	830	1,205	1	524
50,000-99,999	37	3,219	9,100	12,356	39	4,513
25,000-49,999	15	1,988	5,887	7,890	18	2,681
10,000-24,999	36	2,892	9,197	12,125	38	3,895
5,000-9,999	14	991	2,596	3,601	14	1,323
2,500-4,999	16	620	1,787	2,423	17	864
1,000-2,499	25	600	1,602	2,227	28	820
Townships/Rural	185	3,788	8,177	12,150	205	5,374
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

In areas considered to be Urban:

33 percent of all crashes occurred on state or county highways/roads.

22 percent of all crashes occurred on streets or other roadways.

Table 1.17: Crashes by type of roadway - urban

Type of Roadway	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Interstate	21	1,329	6,259	7,609	24	1,785
US Trunk Hwy	12	950	3,103	4,065	16	1,354
MN Trunk Hwy	25	1,476	4,519	6,020	27	2,127
County State Aid Hwy	49	3,310	7,138	10,497	50	4,609
County Road	5	105	242	352	5	134
Township Road	1	36	81	118	1	55
Municipal State Aid Hwy	19	2,993	7,050	10,062	20	4,079
Municipal Street	14	1,661	5,552	7,227	18	2,171
Other Road	12	845	3,072	3,929	12	1,074
Unknown	3	223	741	967	3	279
Total	**161**	**12,928**	**37,757**	**50,846**	**176**	**17,667**

Crashes by Population Centers

In areas considered to be Rural:

53 percent of all crashes occurred on state or county highways/roads.

9 percent of all crashes occurred on municipal highways, streets or other roads.

Table 1.17: Crashes by type of roadway - rural

Type of Roadway	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Interstate	11	324	1,472	1,807	13	435
US Trunk Hwy	29	691	1,545	2,265	31	1,026
MN Trunk Hwy	46	1,071	2,118	3,235	51	1,621
County State Aid Hwy	78	1,277	2,310	3,665	90	1,718
County Road	7	150	273	430	7	227
Township Road	19	358	492	869	20	475
Municipal State Aid Hwy	0	5	27	32	0	5
Municipal Street	3	157	668	828	3	213
Other Road	4	135	238	377	4	195
Unknown	6	146	238	390	7	189
Total	**203**	**4,314**	**9,381**	**13,898**	**226**	**6,104**

Crashes across the entire state and local roadways:

39 percent of all crashes occurred on Interstate, U.S. highways or state highways.

23 percent of all crashes occurred on county highways/roads.

Table 1.17: Crashes by type of roadway - all roadways

Type of Roadway	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Interstate	32	1,653	7,731	9,416	37	2,220
US Trunk Hwy	41	1,641	4,648	6,330	47	2,380
MN Trunk Hwy	71	2,547	6,637	9,255	78	3,748
County State Aid Hwy	127	4,587	9,448	14,162	140	6,327
County Road	12	255	515	782	12	361
Township Road	20	394	573	987	21	530
Municipal State Aid Hwy	19	2,998	7,077	10,094	20	4,084
Municipal Street	17	1,818	6,220	8,055	21	2,384
Other Road	16	980	3,310	4,306	16	1,269
Unknown	9	369	979	1,357	10	468
Total	**364**	**17,242**	**47,138**	**64,744**	**402**	**23,771**

Alcohol Overview

Impaired driving incidents
As used here, an "impaired driving incident" is an incident where there was an arrest for driving while under the influence of alcohol or drugs and a violation from that incident was later entered on the person's driving record. "DWI" is an older term that usually connotes intoxication by alcohol. "Impaired driving" is a broader and thus more descriptive term, and it conforms better to current Minnesota law. Law enforcement agencies and courts report violations to Driver Licensing Services, making driver license records the most complete centralized source of data for statistics on impaired driving. Since it is almost impossible for a person, once arrested, to evade all of the criminal charges and administrative actions the laws call for, the number of impaired driving incidents on record is almost the same as the number of arrests.

Alcohol-related crashes
While the term "impaired driving" covers many possible types of impairment, the term "alcohol-related" is restrictive: only alcohol-related crashes are counted. For example, if a driver tests positive for cocaine, but negative for alcohol, the crash will not be counted in this section. A crash is classified as "alcohol-related" if any driver, pedestrian or bicyclist is shown by a chemical test to be positive for alcohol. Thus, alcohol at the .01-or-higher level makes the crash alcohol-related.

In the absence of test data, if the officer reports that he or she believes the person had been drinking, or was under the influence, the crash is also classified as alcohol-related. Once a crash is so classified, no matter whether it was a driver, pedestrian or bicyclist that was drinking, then every fatality and injury in the crash is classified as alcohol-related.

The term "drunk driving-related" is a more restrictive term than "alcohol-related." A crash is classified as "drunk driving-related" if a motor vehicle driver in a fatal crash tested positive for alcohol at the .08 percent level or above. Pedestrians, bicyclists and officer perception are not included. Once a crash is so classified, every fatality in the crash is classified as drunk-driving related.

26.9K	3,979	101
DWI arrests	Alcohol-related crashes	Alcohol-related fatalities

Perceptions and reporting of alcohol-related crashes
Officers are generally cautious in reporting alcohol involvement in crashes. While thorough testing is conducted in fatal crashes, less severe incidents often rely on officer judgment, leading to an underreporting of alcohol-related non-fatal crashes.

Important caveats:
Not all alcohol-related traffic fatalities involve a drinking driver. For example, fatalities involving drinking pedestrians or cyclists are counted as alcohol-related, even if the driver was sober. Additionally, while alcohol often plays a significant role in fatal crashes, there are exceptions due to limited data, such as when a drunk driver's intoxication cannot be tested.

Known vs. estimated alcohol-related deaths:
Minnesota has a strong track record of testing for alcohol in crashes, but not all drivers are tested. NHTSA uses statistical methods to estimate alcohol-related fatalities. These estimates closely align with Minnesota's known data, reflecting the state's thorough testing efforts.

Impact of alcohol-related crashes:
Drinking and driving remains a major problem in Minnesota. In 2022, the National Safety Council estimated the cost of alcohol-related crashes at $408 million. There is a clear link between alcohol use and crash severity, with alcohol involvement increasing as crash severity rises, as shown in the accompanying graph.

Alcohol Related Injuries

As seen in Figure 2.01, in 2023, there were 91 alcohol-related fatal crashes.

Figure 2.01: Percentage of alcohol-related crashes by crash severity

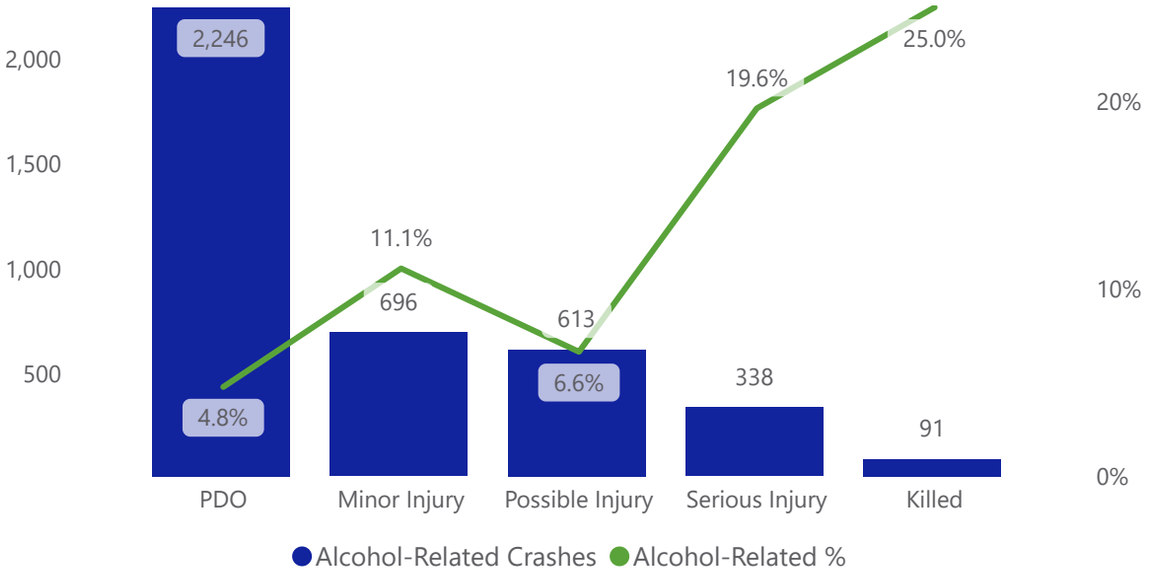
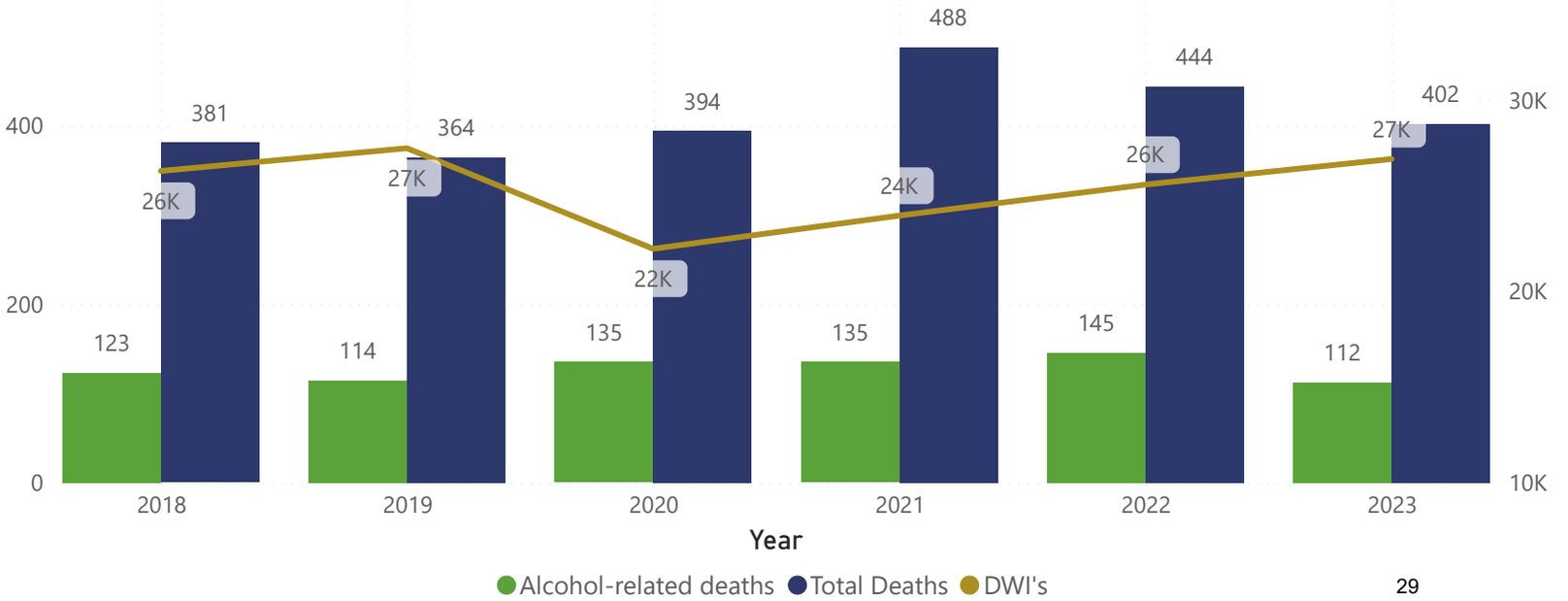


Table 2.01: Overview of traffic safety and alcohol statistics

Year	Total Deaths	DWI Arrests	Deaths with any alcohol	% Deaths any Alcohol	Deaths .08+ Alcohol	% of Total all deaths .08+ Alcohol	Driver Deaths .08+ Alcohol	% of Driver Deaths .08+ Alcohol
2018	381	26,287	123	32.3%	96	25.2%	84	22.0%
2019	364	27,474	114	31.3%	107	29.4%	89	24.5%
2020	394	22,217	135	34.3%	89	22.6%	79	20.1%
2021	488	23,952	135	27.7%	83	17.0%	74	15.2%
2022	444	25,574	145	32.7%	96	21.6%	86	19.4%
2023	402	26,909	112	27.9%	64	15.9%	54	13.4%

Figure 2.02: Portion of total deaths and alcohol-related deaths to DWIs



Alcohol Crashes By Age

In 2023, impaired driving remained a significant issue among young adults in Minnesota, with notable differences across age groups.

Table 2.02A: Persons under 21 killed and injured in all crashes and alcohol-related crashes

Age Group	Killed	Alcohol-Related Killed	All Serious Injuries	Alcohol-Related Serious Injuries	All Minor Injuries	Alcohol-Related Minor Injuries	All Possible Injuries	Alcohol-Related Possible Injuries	All Total Injuries	Total Alcohol-Related Injuries
0-4	2	1	10	3	70	8	199	10	279	21
5-9	4	1	25	3	135	8	317	18	477	29
10-14	3	1	68	9	271	13	419	18	758	40
15-19	29	9	197	30	989	89	1,476	88	2,662	207
20	8	2	41	6	205	29	322	22	568	57
Total	**46**	**14**	**341**	**51**	**1,670**	**147**	**2,733**	**156**	**4,744**	**354**

Table 2.02B: Age of persons killed and injured in all crashes and alcohol-related crashes

Age Group	All Killed	Alcohol-Related Killed	All Serious Injuries	Alcohol-Related Serious Injuries	All Minor Injuries	Alcohol-Related Minor Injuries	All Possible Injuries	Alcohol-Related Possible Injuries	All Total Injuries	Total Alcohol-Related Injuries
<15	9	3	103	15	476	29	935	46	1,514	90
15-19	29	9	197	30	989	89	1,476	88	2,662	207
20-24	28	12	212	44	881	137	1,482	130	2,575	311
25-29	37	13	197	58	793	127	1,256	121	2,246	306
30-34	24	9	182	43	690	108	1,256	105	2,128	256
35-39	30	8	172	49	667	96	1,162	88	2,001	233
40-44	23	5	171	40	568	63	1,095	74	1,834	177
45-49	23	7	115	27	474	62	834	66	1,423	155
50-54	24	6	126	23	463	50	808	68	1,397	141
55-59	35	6	142	22	464	44	807	49	1,413	115
60-64	36	10	118	24	445	42	747	44	1,310	110
65-69	20	5	113	14	371	30	590	28	1,074	72
70-74	14	4	56	9	283	13	442	12	781	34
75-79	18	1	59	3	202	6	350	8	611	17
80-84	29	3	22	2	141	5	181	3	344	10
85+	16	0	20	2	101	0	143	2	264	4
Unknown	7	0	7	0	53	3	134	5	194	8
Total	**402**	**101**	**2,012**	**405**	**8,061**	**904**	**13,698**	**937**	**23,771**	**2,246**

Alcohol-related crashes by month

Alcohol related crashes tend to follow the same pattern as crashes overall. Table 2.03 shows that September and December represented the most alcohol-related crashes during the year.

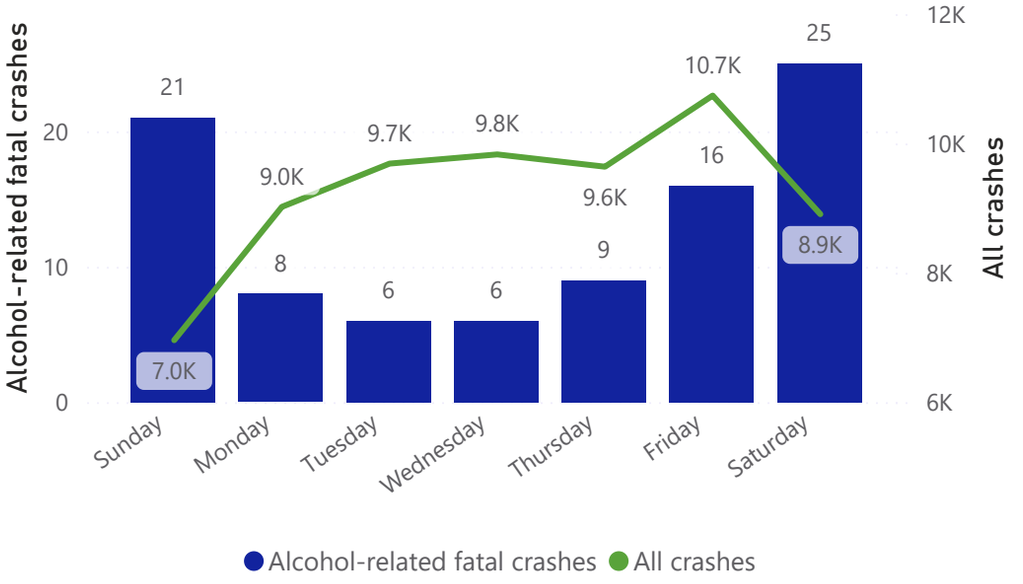
Table 2.03: Alcohol-related crashes by month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Injured	Killed
January	2	87	189	278	117	2
February	4	95	146	245	119	5
March	2	115	169	286	149	2
April	5	125	188	318	153	6
May	8	155	172	335	204	8
June	11	162	180	353	246	15
July	12	154	209	375	225	12
August	12	164	161	337	226	12
September	13	164	203	380	217	16
October	8	145	213	366	204	8
November	3	139	184	326	192	3
December	11	142	227	380	194	12
Total	**91**	**1,647**	**2,241**	**3,979**	**2,246**	**101**

Alcohol-related crashes by day of week

Figure 2.05 clearly shows that the majority of single-day crashes occur on Saturdays and Sundays.

Figure 2.05: Alcohol-related fatal crashes by day of week



When Alcohol Crashes Happen

Alcohol-related crashes by time of day

If everyone would drive like they do between 7 a.m. and noon, the state would be much closer to reaching the goal of zero deaths on Minnesota roads. The majority of alcohol-related crashes corelate to after the 8 a.m. - 5 p.m. workday ends and the closing of bar time (2 a.m.) and the hours following closing times.

Minnesota statewide law permits bars and restaurants to serve alcohol until 2 a.m. on all days. However, local municipalities have the authority to set more restrictive hours. For example, the city of Minneapolis allows alcohol service until 2 a.m. for establishments that have obtained a specific permit only.

Figure 2.06: Alcohol-related crashes by time of day

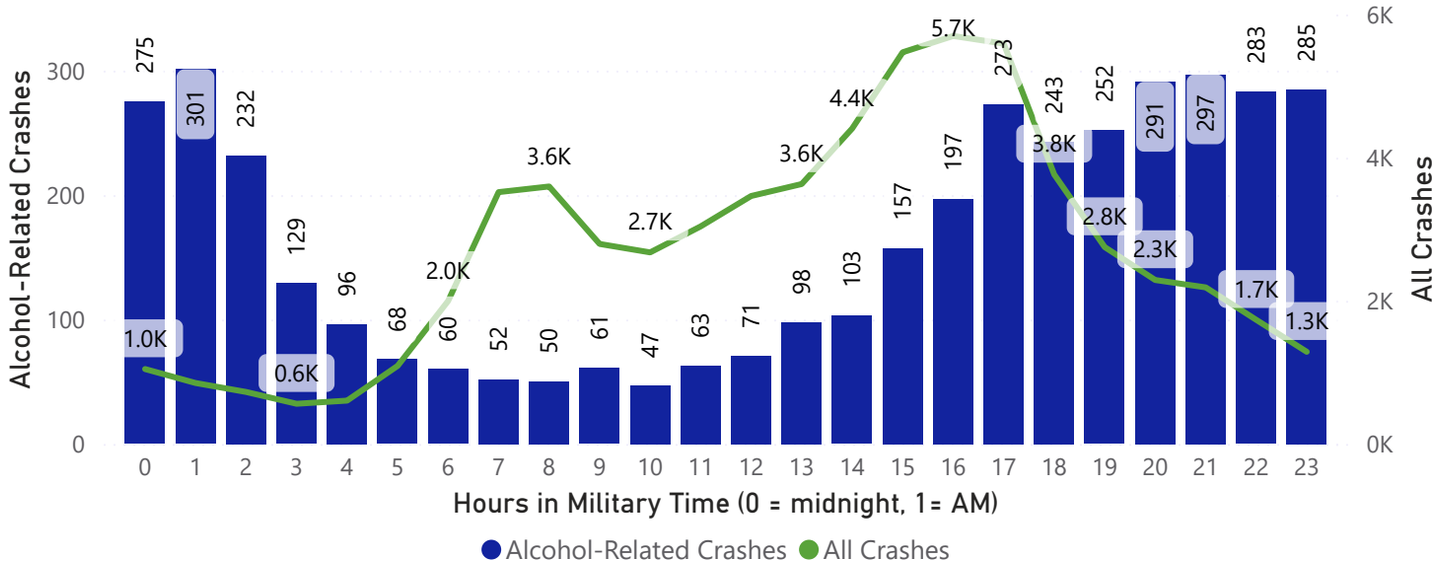


Figure 2.04: DWI arrests with alcohol-related crashes by month

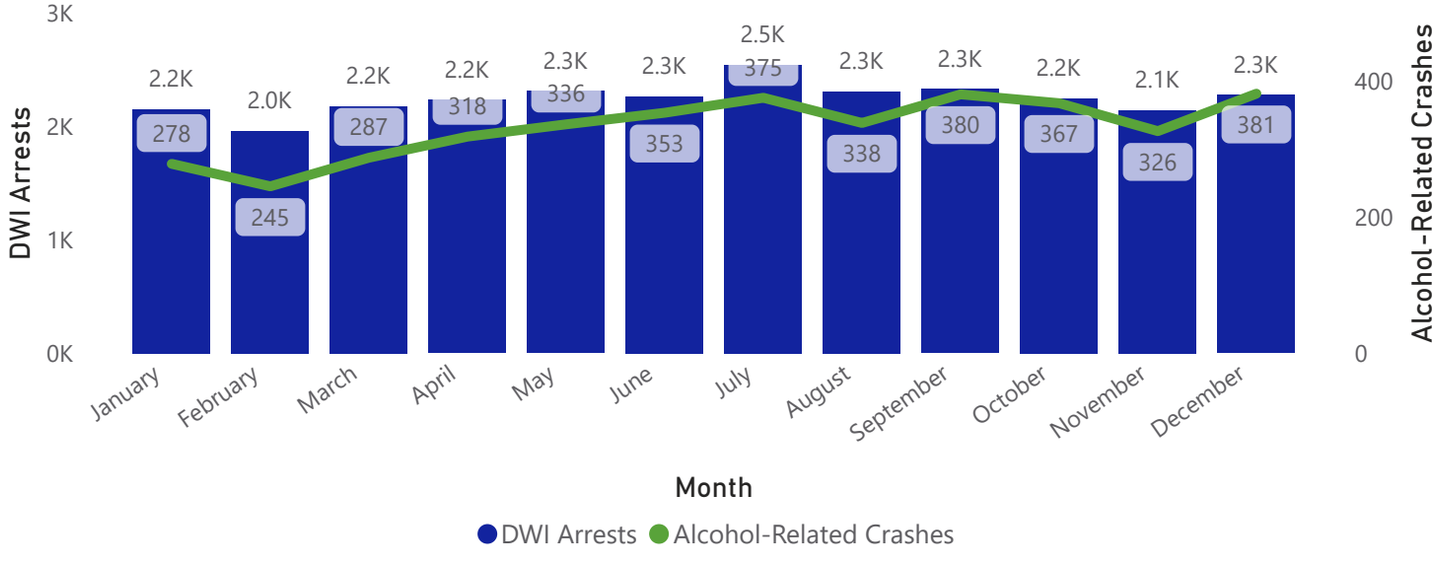


Table 2.05 First harmful event

The phrase "first harmful event" refers to the initial object struck or the first physical event that causes harm or damage in the sequence of a crash, rather than the initial behavior of the driver.

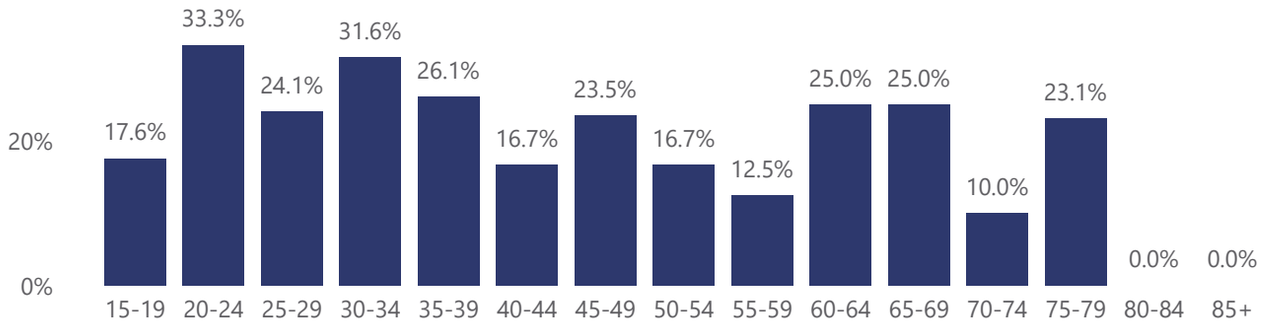
This typically means the first point of contact or interaction that results in injury, damage, or a change in the state of the vehicles or persons involved in the crash. For example, if a vehicle first strikes a guardrail, that event would be classified as the "first harmful event" in the crash. Similarly, if a vehicle swerves to avoid hitting a pedestrian and then crashes into another vehicle, the "first harmful event" might be classified as the vehicle hitting the other vehicle, even if the driver's swerving action was the cause of the initial disturbance.

Minnesota consistently ranks near the top of drivers tested for alcohol in fatal crashes. In 2023, there were 364 motor vehicle crashes that resulted in either a fatality to the driver, its occupants, to occupants of another vehicle, or to persons not in vehicles that were struck in some way as a result of the crash.

Table 2.05 - Alcohol vs. non-alcohol first harmful event comparison

First Harmful Event	All Fatal Crashes	All Fatal Crashes %	Alcohol-Related Fatal Crashes	Alcohol-Related Fatal Crashes %
Another Motor Vehicle	177	48.6%	29	31.9%
Bicycle	6	1.6%	1	1.1%
Deer/Animal	4	1.1%	0	0.0%
Fixed Object	72	19.8%	24	26.4%
Other Non-Collision	11	3.0%	3	3.3%
Overturn/Rollover	52	14.3%	19	20.9%
Parked Motor Vehicle	0	0.0%	0	0.0%
Pedestrian	38	10.4%	13	14.3%
Submersion	1	0.3%	1	1.1%
Train	2	0.5%	1	1.1%
Unknown Collision w Fixed Object	1	0.3%	0	0.0%
Total	**364**	**100.0%**	**91**	**100.0%**

Figure 2.08: Percent of drivers killed who had been drinking, by age



Alcohol Crash Fatality Summary

Table 2.06-2.07 Fatal crashes BAC analysis

This data reveals important trends regarding alcohol involvement in fatal crashes over the past eight years, offering insight into how alcohol affects driver fatalities. The table tracks the total number of drivers killed, the number tested for alcohol and the results of those tests, providing a comprehensive view of alcohol-related fatalities.

From 2016 to 2023, the percentage of drivers tested for alcohol varied widely, ranging from 27 percent in 2020 to 85 percent in 2019. While the overall alcohol involvement percentage shows some variation across the years, the known drunk driving-related fatalities consistently make up around 13 to 25 percent of the total fatalities.

Overall, the data points to a persistent challenge in addressing alcohol-related crashes. While the percentage of alcohol-impaired fatalities fluctuates, alcohol remains a significant factor in fatal crashes, accounting for a large portion of the total fatalities year after year. Continuing efforts to address impaired driving through education, law enforcement and prevention strategies are critical to reducing these fatalities moving forward.

Table 2.06: Alcohol-related fatal crash summary

Year	Total drivers killed	Killed drivers tested for alc	Killed drivers tested for alc %	No alc found # tested	No alc found % of tested	.01 - .07 #	.01 - .07 %	.08 - .09 #	.08 - .09 %	.10+ #	.10+ %	Total Killed	Known drunk driving-related fatals #	Known drunk driving-related fatal %	Est. drunk driving-related fatal #	Est. drunk driving-related fatal %
2016	263	209	79.5%	139	66.5%	12	5.7%	2	1.0%	56	26.8%	392	73	18.6%	94	24.0%
2017	252	207	82.1%	144	69.6%	11	5.3%	2	1.0%	50	24.2%	358	72	20.1%	104	29.1%
2018	265	222	83.8%	139	62.6%	13	5.9%	11	5.0%	59	26.6%	381	84	22.0%	110	28.9%
2019	237	202	85.2%	137	67.8%	3	1.5%	4	2.0%	58	28.7%	364	89	24.5%	102	28.0%
2020	277	75	27.1%	12	16.0%	3	4.0%	4	5.3%	56	74.7%	394	79	20.1%	118	29.9%
2021	351	171	48.7%	108	63.2%	11	6.4%	0	0.0%	52	30.4%	488	74	15.2%	134	27.5%
2022	332	192	57.8%	119	62.0%	13	6.8%	4	2.1%	56	29.2%	444	86	19.4%	130	29.3%
2023	279	165	59.1%	110	66.7%	12	7.3%	1	0.6%	42	25.5%	402	54	13.4%	100	24.0%

Table 2.07: Driver fatalities level of alcohol concentration by age

Age	Killed	Tested	0.00 #	0.00 %	.01 - .07 #	.01 - .07 %	.08 - .09 #	.08 - .09 %	.10 - .14 #	.10 - .14 %	.15 - .19 #	.15 - .19 %	.20 - .24 #	.20 - .24 %	.25+ #	.25+ %
15-19	17	11	8	47.1%	0	0.0%	0	0.0%	1	0.0%	2	11.8%	0	0.0%	0	0.0%
20-24	18	10	4	22.2%	0	0.0%	0	0.0%	1	5.6%	4	22.2%	1	5.6%	0	0.0%
25-29	29	15	8	27.6%	2	6.9%	0	0.0%	1	3.4%	2	6.9%	2	6.9%	0	0.0%
30-34	19	13	7	36.8%	1	5.3%	0	0.0%	1	5.3%	2	10.5%	1	0.0%	1	5.3%
35-39	23	17	11	47.8%	1	4.3%	0	0.0%	1	4.3%	1	4.3%	1	4.3%	2	8.7%
40-44	18	12	9	50.0%	0	0.0%	0	0.0%	1	5.6%	1	5.6%	1	5.6%	0	0.0%
45-49	17	12	8	47.1%	1	5.9%	0	0.0%	1	5.9%	1	5.9%	0	0.0%	1	5.9%
50-54	18	10	7	38.9%	0	0.0%	0	0.0%	1	5.6%	0	0.0%	2	11.1%	0	0.0%
55-59	24	13	10	41.7%	0	0.0%	0	0.0%	0	0.0%	1	0.0%	1	0.0%	1	4.2%
60-64	28	20	13	46.4%	2	3.6%	1	3.6%	0	0.0%	1	3.6%	2	3.6%	1	3.6%
65-69	12	8	5	41.7%	2	16.7%	0	0.0%	0	0.0%	0	0.0%	1	8.3%	0	0.0%
70-74	10	3	2	20.0%	1	10.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
75-79	13	8	5	38.5%	2	7.7%	0	0.0%	0	0.0%	1	7.7%	0	0.0%	0	0.0%
80-84	21	9	9	42.9%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
85+	12	4	4	33.3%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**279**	**165**	**110**		**12**		**1**		**8**		**16**		**12**		**6**	

Where Alcohol Crashes by Roadway

Table 2.04 analyzes the combination of all roads by what entity owns and maintains the road. This analysis does not classify them as urban or rural.

38 percent of all alcohol-related crashes occurred on a state or county road.

35 percent of all alcohol-related crashes occurred on streets and roads of municipalities and other.

Table 2.04: Alcohol-related crashes by roadway type

Roadway Type	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Injured	Killed
County State Aid Hwy	31	444	425	900	606	36
MN Trunk Hwy	16	225	319	560	305	17
US Trunk Hwy	10	142	192	344	209	11
Township Road	9	92	50	151	123	10
County Road	6	31	33	70	36	6
Municipal Street	5	204	359	568	271	5
Other Road	5	98	174	277	127	5
Interstate	4	151	291	446	210	6
Municipal State Aid Hwy	3	216	333	552	308	3
Unknown	2	44	65	111	51	2
Total	**91**	**1,647**	**2,241**	**3,979**	**2,246**	**101**

Occupant Protection

The last significant law change regarding seat belt and occupant safety restraint systems occurred in 2009. In 2009 the law was updated to 'Primary' which allowed officers to issue citations for not being properly seat belted or restrained. The current state law requires all drivers and passengers to wear seat belts or be in the correct child restraint. This law applies to all occupants, regardless of their seating position in the vehicle.

Restraint use studies

The data in this section of the report is obtained through observational surveys of safety belt and restraint system use. The observational studies are conducted annually at random sites. In 2023, this study was performed by a company called, "Corona Insights".

This study is the 2023 implementation of the National Highway Traffic Safety Administration's (NHTSA) Uniform Criteria for State Observational Surveys of Seat Belt Use (reported in Title 23: Highways, Part 1340 of the Code of Federal Regulations).

The study design and sample sites were accepted by NHTSA in 2022 and will remain in effect until 2026, though proposed updates may be submitted as needed. In line with the federal requirements, new sites were selected in 2022, and other minor changes in approach were included in the updated 2022 plan. However, the same general methodological framework has been used in past studies, so year over year comparability is high.

Figure 3.01: Seat belt usage percentage trends

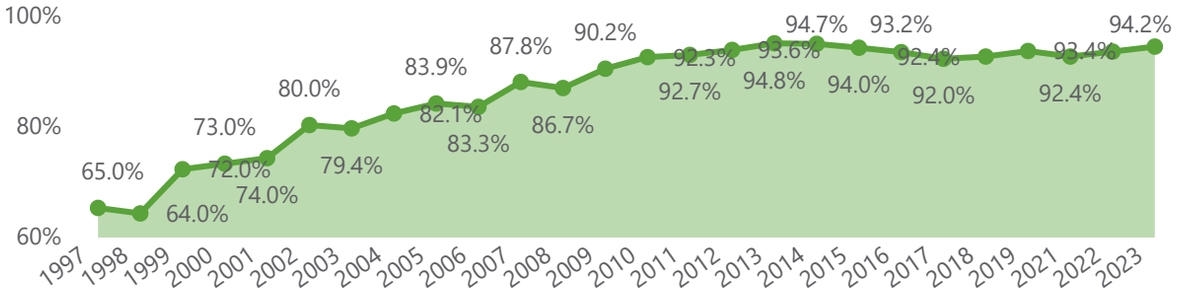
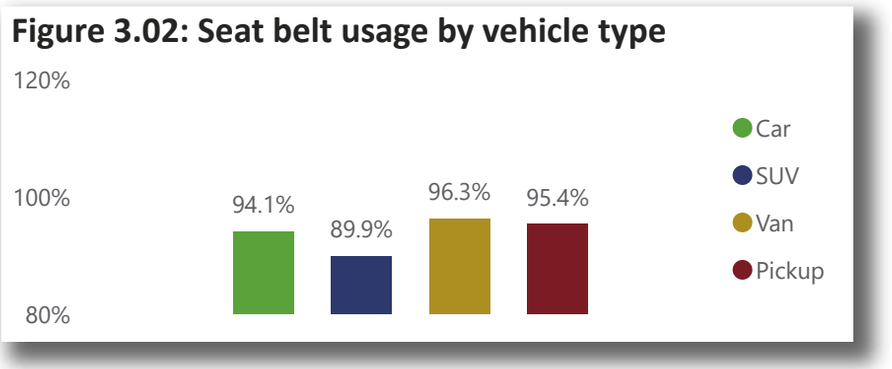


Figure 3.02: Seat belt usage by vehicle type



Occupant Protection

2023 Seat belt performance

The overall seat belt use rate increased in 2023 to 94.2 percent.

The rate of seat belt use increased in 2023 by 0.9 percentage points over seat belt usage rates in 2022 (94.2 percent vs. 93.3 percent). This represents the highest statewide seat belt use rate in Minnesota since 2014 and is 2.2 percentage points higher than the lowest recent rate of 92.0 percent in 2017.

Seat belt use increased in 2023 for every age group except those ages 65 or older, where a 1.0 percentage point decrease was observed. Even so, these older adults have an above-average use rate of 94.4 percent.

The statewide use rate among women did not change from 2022, while the use rate among men rose 1.6 percentage points. This produced the second-smallest gender gap of the past ten years, as women outpaced men by 3.5 percentage points.

Table 3.01 uses officer reported data from crash reports. 97 percent of occupants were not ejected during the crash.

Future of occupant safety

In 2024, Minnesota enacted significant updates to its Child Passenger Safety Law, effective Aug. 1, 2024, to enhance the safety of young passengers. The revised law aligns with the American Academy of Pediatrics' recommendations and introduces specific age-based guidelines for child restraint systems that provides hope for improvement in future reporting periods.

Table 3.01: Motor vehicle occupants killed or injured by ejection status

Ejection Status	Killed	Serious Injuries	Minor Injuries	Possible Injuries	Total Killed or Injured
Not Ejected	216	1,160	6,577	12,654	20,607
Unknown	7	46	116	183	352
Ejected	42	59	23	8	132
Partially Ejected	10	17	14	26	67
Total	**275**	**1,282**	**6,730**	**12,871**	**21,158**

94.2
overall use rate (%)

92.6
male use rate (%)

96.1
female use rate (%)

Occupant Protection Injuries

This data is from officer written crash reports. For more specific information regarding occupant protection data refer to: Occupant Protection.

OTS follows criteria set by NHTSA for reporting serious injuries in crashes. OTS adopts NHTSA's Fatality Analysis Reporting System (FARS) standards, which define a serious injury as one that:

- Requires hospitalization.
- Causes significant impairment in functioning.
- Results in conditions such as severe fractures, loss of limb, or other serious medical outcomes.

It is important to understand what it means to be restrained (wearing a seatbelt or in appropriate car seat). In Minnesota and per NHTSA, restrained means "properly restrained." Here are some of the highlights but not a full list.

For adults: A person is considered properly restrained if they are wearing a seatbelt that is correctly adjusted across the lap and chest. The seatbelt should be snug, with the lap portion lying across the pelvis and the shoulder belt crossing the chest.

Infants and toddlers should be placed in rear-facing child safety seats until they outgrow the seat's height or weight limit (typically at least age 2).

Children who are too large for rear-facing seats but too small for seat belts alone should use forward-facing child seats with a harness until they outgrow the seat.

Figure 3.03: Safety equipment use by motor vehicle occupants killed or injured

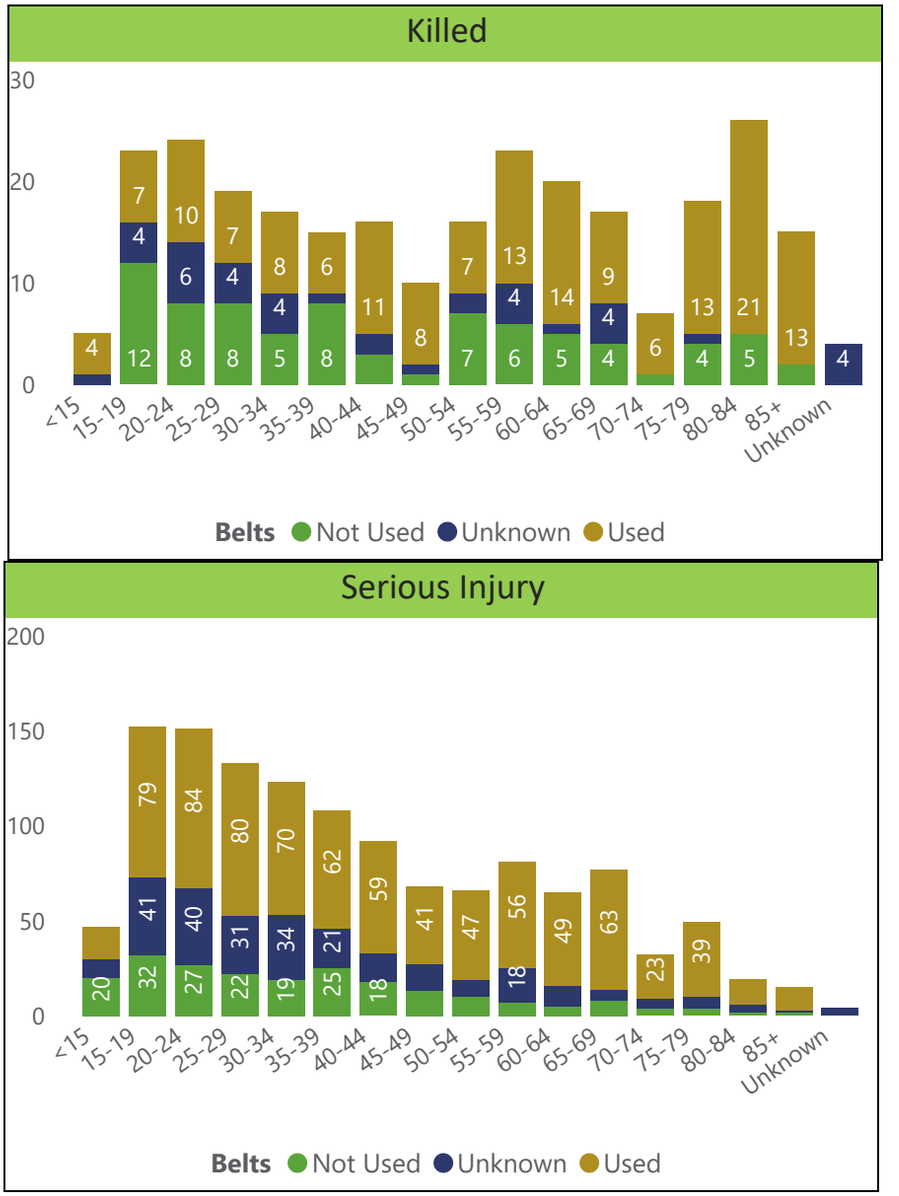
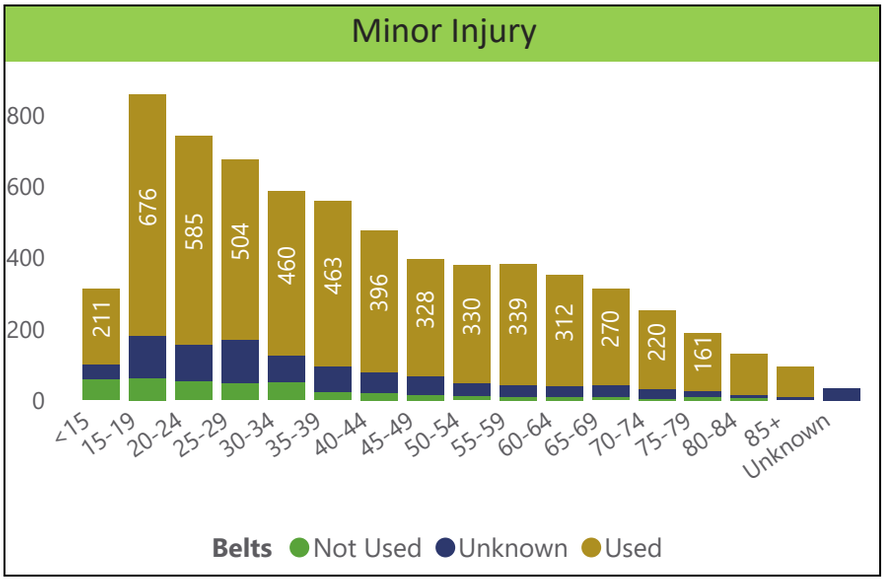
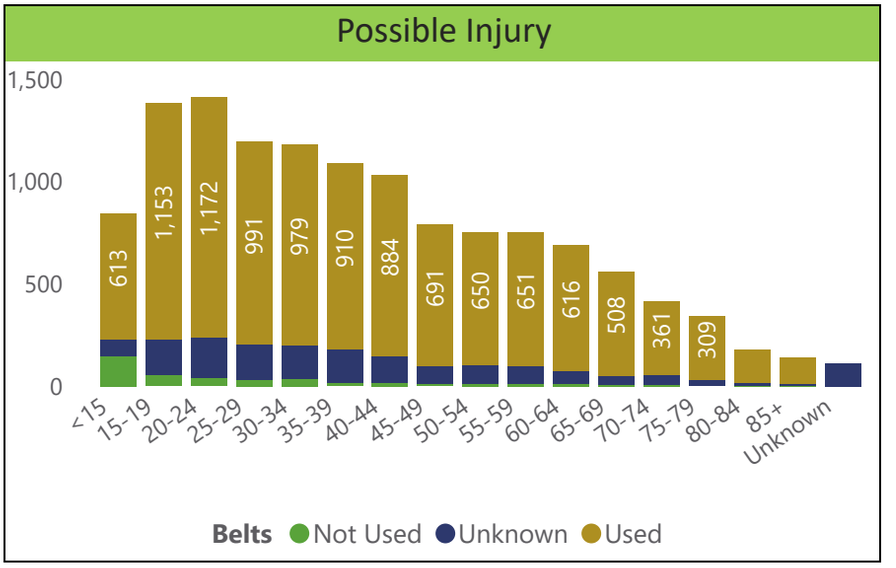


Figure 3.03 Safety equipment use by injury level
There was a total of 157 fatalities reported as properly restrained on crash reports. Fifty-seven percent of people were properly restrained. Twenty-four percent (66) of the people who died were 70-85+ years of age. Twenty-nine percent of people who died were not properly restrained.

There was a total of 1,282 serious injuries reported on crash reports where restraint data was available. Sixty-two percent (794) of these people were properly restrained. Seventeen percent were not. Seven percent of people properly restrained but seriously injured were 70-85+ years of age.

Figure 3.03: Safety equipment use by motor vehicle occupants killed or injured





Occupant Protection by Gender

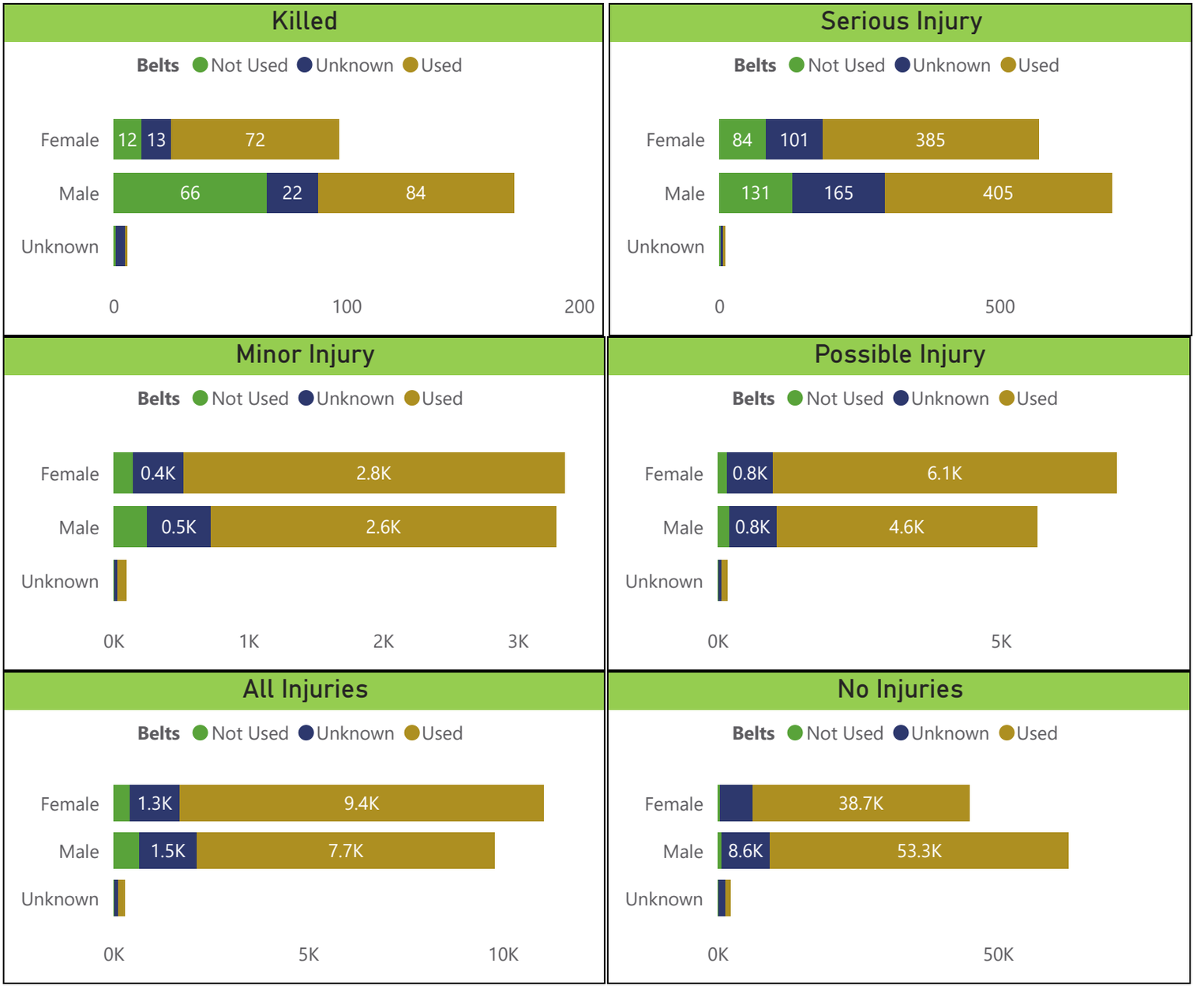
This data is from officer written crash reports. For more general information refer to: Occupant Protection or Occupant Protection Injuries.

Figure 3.04 Safety equipment use by gender

There were a total of 84 male fatalities (49 percent) reported as properly restrained on crash reports. Thirty-eight percent (66) were not properly restrained. By contrast, 74 percent (72) of the females were properly restrained and 12 percent (12) were not.

Men suffering serious injuries that were properly restrained represented 58 percent. Sixty-eight percent of women were seriously injured and properly restrained by contrast.

Figure 3.04: Safety equipment use counts by motor vehicle occupants by gender



Occupant Protection by Age

This data is from officer written crash reports. For more general information refer to: Occupant Protection or Occupant Protection Injuries.

Table 3.04 Safety equipment use by age group

This analysis shows that the top three serious injury age categories when proper restraint was not used were: 0-7, 8-14, and 35-39, in that order.

By contrast, the analysis shows that the top three killed categories when proper restraint was not used were: 35-39, 15-19 and 50-54, in that order.

Table 3.04: Safety equipment occupant use - killed or injured, by age and injury severity

Age Group	Restraint Use	Killed	Killed %	Serious Injuries	Serious Injuries %	Minor Injuries	Minor Injuries %	Possible Injuries	Possible Injuries %	Total Killed or Injured	Total Killed or Injured %
0-7	Not Used	0	0.0%	13	56.5%	42	36.2%	124	33.0%	179	34.5%
0-7	Unknown	1	25.0%	3	13.0%	15	12.9%	33	8.8%	52	10.0%
0-7	Used	3	75.0%	7	30.4%	59	50.9%	219	58.2%	288	55.5%
08-14	Not Used	0	0.0%	7	29.2%	18	9.1%	22	4.7%	47	6.8%
08-14	Unknown	0	0.0%	7	29.2%	27	13.7%	53	11.3%	87	12.6%
08-14	Used	1	100.0%	10	41.7%	152	77.2%	394	84.0%	557	80.6%
15-19	Not Used	12	52.2%	32	21.1%	61	7.1%	53	3.8%	158	6.5%
15-19	Unknown	4	17.4%	41	27.0%	121	14.1%	178	12.9%	344	14.2%
15-19	Used	7	30.4%	79	52.0%	676	78.8%	1,153	83.3%	1,915	79.2%
20-24	Not Used	8	33.3%	27	17.9%	55	7.4%	42	3.0%	132	5.7%
20-24	Unknown	6	25.0%	40	26.5%	102	13.7%	199	14.1%	347	14.9%
20-24	Used	10	41.7%	84	55.6%	585	78.8%	1,172	82.9%	1,851	79.4%
25-29	Not Used	8	42.1%	22	16.5%	47	7.0%	32	2.7%	109	5.4%
25-29	Unknown	4	21.1%	31	23.3%	124	18.4%	171	14.3%	330	16.3%
25-29	Used	7	36.8%	80	60.2%	504	74.7%	991	83.0%	1,582	78.3%
30-34	Not Used	5	29.4%	19	15.4%	52	8.9%	35	3.0%	111	5.8%
30-34	Unknown	4	23.5%	34	27.6%	75	12.8%	167	14.1%	280	14.7%
30-34	Used	8	47.1%	70	56.9%	460	78.4%	979	82.9%	1,517	79.5%
35-39	Not Used	8	53.3%	25	23.1%	24	4.3%	19	1.7%	76	4.3%
35-39	Unknown	1	6.7%	21	19.4%	72	12.9%	161	14.8%	255	14.4%
35-39	Used	6	40.0%	62	57.4%	463	82.8%	910	83.5%	1,441	81.3%
40-44	Not Used	3	18.8%	18	19.6%	20	4.2%	16	1.5%	57	3.5%
40-44	Unknown	2	12.5%	15	16.3%	60	12.6%	133	12.9%	210	13.0%
40-44	Used	11	68.8%	59	64.1%	396	83.2%	884	85.6%	1,350	83.5%
45-49	Not Used	1	10.0%	13	19.1%	14	3.5%	14	1.8%	42	3.3%
45-49	Unknown	1	10.0%	14	20.6%	55	13.9%	84	10.6%	154	12.2%
45-49	Used	8	80.0%	41	60.3%	328	82.6%	691	87.6%	1,068	84.5%
Total		**129**		**874**		**4,607**		**8,929**		**14,539**	

Occupant Protection by Age

This data is from officer written crash reports. For more general information refer to: Occupant Protection or Occupant Protection Injuries.

Table 3.04 Safety equipment use by age group

50-54	Not Used	7	43.8%	10	15.2%	13	3.4%	10	1.3%	40	3.3%
50-54	Unknown	2	12.5%	9	13.6%	35	9.3%	91	12.1%	137	11.3%
50-54	Used	7	43.8%	47	71.2%	330	87.3%	650	86.6%	1,034	85.4%
55-59	Not Used	6	26.1%	7	8.6%	10	2.6%	10	1.3%	33	2.7%
55-59	Unknown	4	17.4%	18	22.2%	33	8.6%	91	12.1%	146	11.8%
55-59	Used	13	56.5%	56	69.1%	339	88.7%	651	86.6%	1,059	85.5%
60-64	Not Used	5	25.0%	5	7.7%	10	2.8%	10	1.4%	30	2.7%
60-64	Unknown	1	5.0%	11	16.9%	30	8.5%	66	9.5%	108	9.6%
60-64	Used	14	70.0%	49	75.4%	312	88.6%	616	89.0%	991	87.8%
65-69	Not Used	4	23.5%	8	10.4%	11	3.5%	5	0.9%	28	2.9%
65-69	Unknown	4	23.5%	6	7.8%	32	10.2%	47	8.4%	89	9.2%
65-69	Used	9	52.9%	63	81.8%	270	86.3%	508	90.7%	850	87.9%
70-74	Not Used	1	14.3%	4	12.5%	6	2.4%	7	1.7%	18	2.6%
70-74	Unknown	0	0.0%	5	15.6%	25	10.0%	47	11.3%	77	10.9%
70-74	Used	6	85.7%	23	71.9%	220	87.6%	361	87.0%	610	86.5%
75-79	Not Used	4	22.2%	4	8.2%	10	5.3%	4	1.2%	22	3.7%
75-79	Unknown	1	5.6%	6	12.2%	18	9.5%	30	8.7%	55	9.2%
75-79	Used	13	72.2%	39	79.6%	161	85.2%	309	90.1%	522	87.1%
80-84	Not Used	5	19.2%	2	10.5%	6	4.6%	2	1.1%	15	4.3%
80-84	Unknown	0	0.0%	4	21.1%	10	7.7%	15	8.5%	29	8.2%
80-84	Used	21	80.8%	13	68.4%	114	87.7%	160	90.4%	308	87.5%
85+	Not Used	2	13.3%	2	13.3%	2	2.2%	1	0.7%	7	2.7%
85+	Unknown	0	0.0%	1	6.7%	7	7.5%	11	7.9%	19	7.3%
85+	Used	13	86.7%	12	80.0%	84	90.3%	127	91.4%	236	90.1%
Unknown	Unknown	4	100.0%	4	100.0%	35	100.0%	113	100.0%	156	100.0%
Total		**146**		**408**		**2,123**		**3,942**		**6,619**	

Occupant Protection by Region and Road

Restraints are reported to be used equally across the regions. The number of fatalities and injuries in the Twin Cities Metro Area appears to be more a factor of the population and the congestion of people, vehicles and traffic activities.

Reported restraint use tends to be lower in township and county roads.

Table 3.02: Motor vehicle occupants killed or injured by seat belt usage

Seat Belt Usage	Fatalities	Fatalities %	Serious Injuries	Serious Injuries %	Total All Injuries	Total All Injuries %
Not Used	79	28.7%	218	17.0%	1,025	4.9%
Unknown	39	14.2%	270	21.1%	2,836	13.6%
Used	157	57.1%	794	61.9%	17,022	81.5%
Total	**275**	**100.0%**	**1,282**	**100.0%**	**20,883**	**100.0%**

Occupant Protection by Region and Road

Table 3.02 provides an overview of restraint use and injury outcomes based on crash data reported by law enforcement.

Table 3.03: Safety equipment use by occupant injuries by region

Region	Used	Not Used	Unknown	Killed or Injured
Metropolitan	79.9%	3.5%	16.6%	12,329
Central	86.1%	6.1%	7.7%	2,508
Southeast	84.0%	6.5%	9.5%	1,803
South Central	83.0%	7.6%	9.4%	1,360
Northeast	82.7%	6.8%	10.5%	953
Southwest	74.9%	12.3%	12.8%	936
West Central	81.2%	9.9%	8.9%	729
Northwest	81.5%	9.1%	9.4%	540
Total				**21,158**

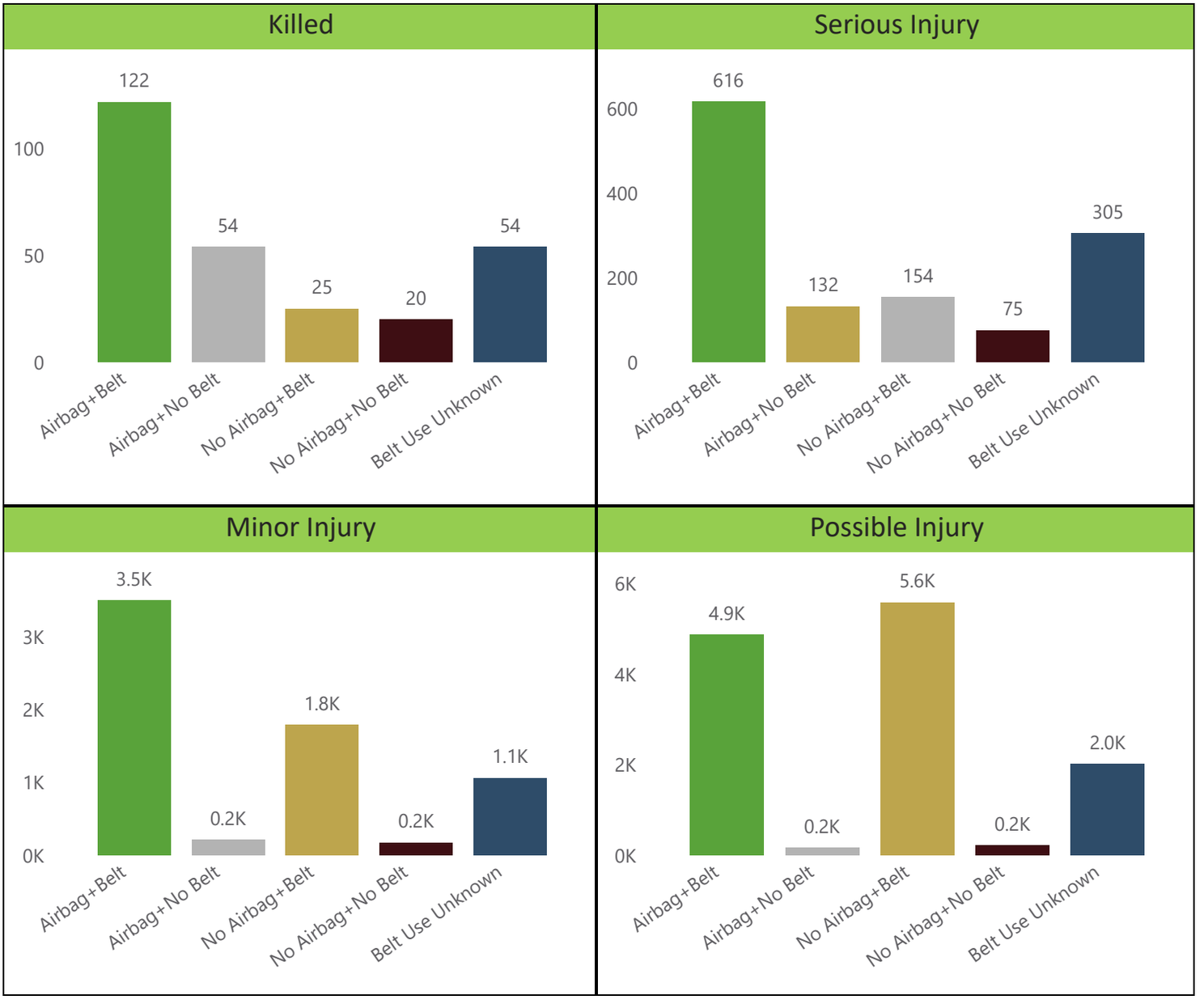
Table 3.05: Safety equipment use by occupants injuries by roadway type

Type of Roadway	Used	Used %	Not Used	Not Used %	Unknown	Unknown %	Total Killed or Injured
Interstate	1,976	91.1%	99	4.6%	95	4.4%	2,170
US Trunk Hwy	1,996	87.3%	168	7.3%	122	5.3%	2,286
MN Trunk Hwy	3,038	86.7%	206	5.9%	259	7.4%	3,503
County State Aid Hwy	4,461	79.3%	255	4.5%	909	16.2%	5,625
County Road	247	78.7%	23	7.3%	44	14.0%	314
Township Road	286	67.5%	64	15.1%	74	17.5%	424
Municipal State Aid Hwy	2,665	76.9%	99	2.9%	701	20.2%	3,465
Municipal Street	1,358	69.4%	115	5.9%	485	24.8%	1,958
Other Road	891	84.5%	40	3.8%	124	11.8%	1,055
Unknown	261	72.9%	35	9.8%	62	17.3%	358
Total	**17,179**		**1,104**		**2,875**		**21,158**

Occupant Protection with Airbags

The data in figure 3.05 is derived from crash data reported by law enforcement in their crash reports when it is available.

Figure 3.05 Airbag deployment by injury severity



Motorcycle Summary

Motorcycle crash summary

Overview of motorcycle crashes and fatalities (2016-2023)

The state of Minnesota witnessed a range of trends in motorcycle crashes and fatalities from 2016 to 2023. A detailed analysis of motorcycle crashes and fatalities reveals both areas of concern and potential progress in addressing motorcycle safety across the state. The following report summarizes the data for the calendar year 2023, as well as an overview of long-term trends in the years leading up to it.

Trends in motorcycle crashes and fatalities

In 2023, Minnesota recorded a total of 1,018 motorcycle crashes, slightly lower than the 1,038 crashes reported in 2022. Despite the small decline in the number of crashes, the number of motorcycle fatalities in 2023 remained significant, with 67 fatalities. This marks a reduction from the previous year, when 80 fatalities were reported, but still reflects a concerning trend when compared to the pre-pandemic years.

Fatality analysis (2016-2023)

The past eight years have seen fluctuations in both the number of motorcycle crashes and fatalities. In 2016, Minnesota recorded 1,270 crashes and 54 fatalities, with a clear downward trend in both categories until 2019, when there was a noticeable drop to 929 crashes and 44 fatalities. However, the COVID-19 pandemic and subsequent disruptions in 2020 saw a significant spike in motorcycle crashes and fatalities, with 1,001 crashes and 64 fatalities.

Post-pandemic years have demonstrated varying trends, with 2021 and 2022 seeing higher fatalities (69 and 80, respectively). The year 2023 saw a slight decrease in fatalities, down by 13 compared to 2022, signaling potential improvements in certain aspects of motorcycle safety, but the reduction is not substantial enough to indicate a significant long-term trend.

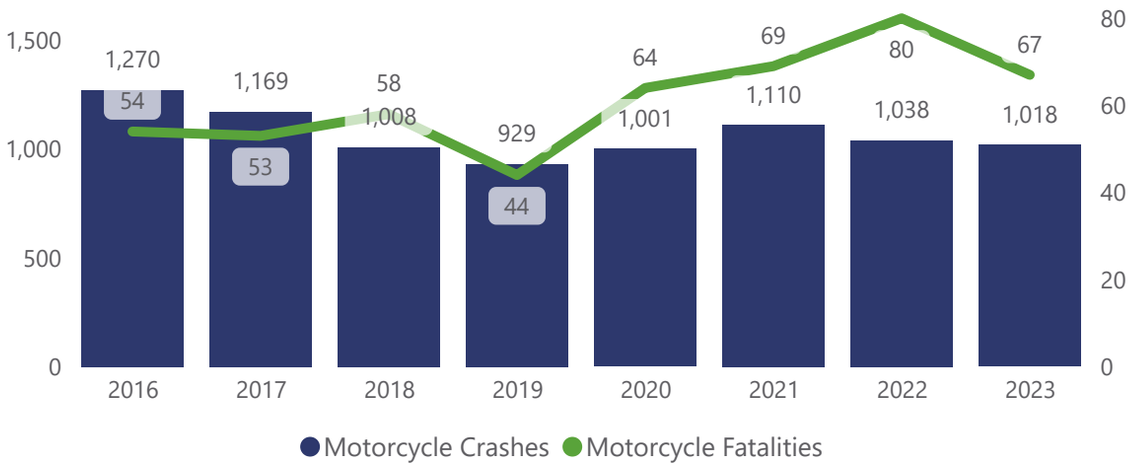
Motorcycle Summary

Motorcycle safety future analysis

In 2023, Minnesota passed legislation (HF 4955) permitting motorcycles to be equipped with ground lights to enhance visibility at night. The intent was to make motorcyclists more visible to other drivers, thereby reducing nighttime crashes. However, the direct impact of this law on motorcycle fatalities and injuries in 2023 is not yet available.

In 2023, Minnesota introduced regulations (SF 5174) specifying how motorcycles should be operated, including requirements for seating, passenger restrictions and lane usage. These rules aimed to standardize motorcycle operation and enhance safety. However, the direct impact of these regulations on motorcycle fatalities and injuries in 2023 is not yet available.

Figure 4.01: Motorcycle crash trends



As shown in figure 4.02, males dominate involvement in motorcycle crashes that involved either a fatality or injury across all age groups. Females show much lower involvement in crashes, especially in the younger and older age groups. Males represented 86 percent of the crashes compared with females of 14 percent.

The three highest age categories involved in motorcycle crashes with a fatality or injury with males and females combined and ranking them from lowest to highest, the number of combined crashes are:

1. 35-39 (108)
2. 20-24 (102)
3. 25-29 (101)

The twenty-something group (20-29) represents 21 percent of the injury crashes while the 50-59 group represents 17 percent. This analysis also considers what was the first thing impacted by the motorcycle and what was the first thing to cause harm to the riders. The No. 1 cause was the motorcycle striking another moving motor vehicle. These crashes represented 45 percent of the injuries. The second highest cause of harm based on the first harmful event was overturned/rollover events at 14 percent.

Table 4.01: Motorcycle crash summary

Year	Fatal Mcy Crashes	Injury Mcy Crashes	PDO Mcy Crashes	Total Mcy Crashes	Killed Mcy	Killed Other	Injured Mcy	Injured Other	Licensed Operators	Registered Motor-cycles	Mcy Deaths per 10k Reg. Mcy	Fatal Crash Rate per 100 Mcy Crashes	Fatal Crash Rate per 100 Total Crashes
2016	54	1,041	175	1,270	54	6	1,152	80	416,967	227,746	2.7	4.3	0.5
2017	52	948	169	1,169	53	1	1,050	64	416,693	223,443	2.5	4.4	0.4
2018	57	822	130	1,009	58	1	917	38	414,580	223,849	2.6	5.6	0.4
2019	43	762	125	930	44	0	839	49	412,104	216,773	2.0	4.5	0.4
2020	64	831	105	1,000	64	3	926	33	412,104	216,773	3.2	6.5	0.6
2021	68	893	149	1,110	69	0	1,000	26	397,023	245,799	2.9	6.1	0.7
2022	78	815	145	1,038	80	2	885	44	278,644	275,946	3.0	7.5	0.6
2023	64	846	108	1,018	67	0	929	33	396,713	304,433	2.2	6.3	0.6

Table 4.02: Motorcycle crashes by first harmful event

First Harmful Event	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Another Motor Vehicle	29	356	72	457	31	418
Bicycle	0	1	0	1	0	2
Deer/Animal	4	92	4	100	4	112
Fixed Object	14	122	8	144	15	128
Other Non-Collision	5	142	9	156	5	158
Overturn/Rollover	12	124	7	143	12	134
Parked Motor Vehicle	0	8	8	16	0	9
Unknown Collision w Fixed Object	0	1	0	1	0	1
Total	**64**	**846**	**108**	**1,018**	**67**	**962**

Figure 4.02: Motorcyclists killed or injured by age and gender

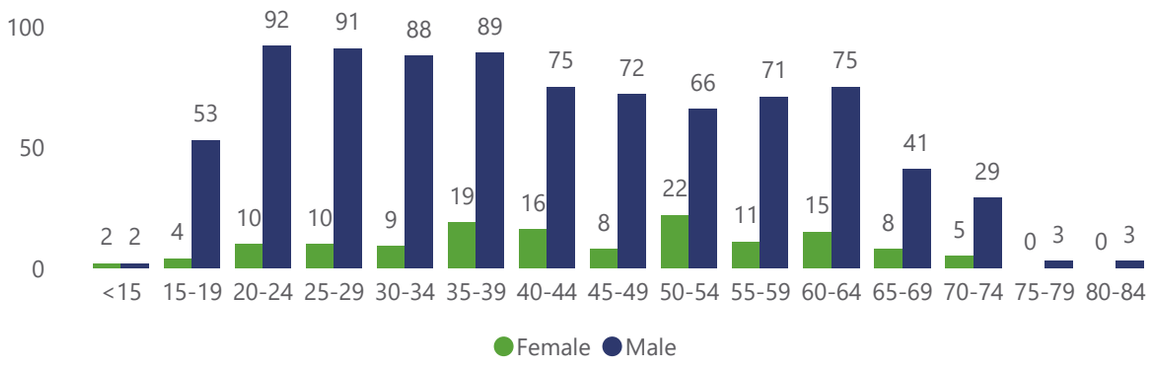


Table 4.06 shows helmet use for motorcyclists killed or injured.

Table 4.06: Helmet use by motorcyclists killed or injured

Injury Severity	Helmet Used	Helmet Used %	Helmet Not Used	Helmet Not Used %	Unknown	Unknown %	Total
Injured	421	45.3%	441	47.5%	67	7.2%	929
Killed	20	29.9%	43	64.2%	4	6.0%	67

Table 4.07: Endorsement status of motorcycle drivers in fatal crashes

Valid Endorse	Valid %	Permit Only	Permit %	Canceled / Revoked	Cancel %	No Endorse	No Endorse %	Total for Year
48	63.2%	0	0.0%	8	10.5%	20	26.3%	76

Motorcycle Crash - When

The data on motorcycle crashes as reported on the law enforcement crash reports for 2023 provides a detailed picture of the trends, severity, and outcomes associated with motorcycle incidents throughout the year.

Early months (January to March) - The year began with minimal activity, reflecting winter weather conditions. In January and February, there were no crashes. March saw a slight increase, with one PDO crash, as weather conditions improved.

Spring (April to June) - April saw 44 total crashes, including two fatal crashes and 31 injuries. The start of the peak season in May saw a significant increase, with 163 crashes, 12 fatalities, and 151 injuries. June maintained high crash levels with 181 crashes, 12 fatalities, and 177 injuries.

Summer (July to August): July saw 186 total crashes, 13 fatalities and 179 injuries. August was the most dangerous month with 15 fatalities and 189 injuries in 193 crashes.

Fall (September to November): Crash activity stabilized in September, with 4 fatalities and 135 injuries. October saw a significant decrease to 69 crashes, with 4 fatalities and 65 injuries. November recorded 31 crashes, including two fatal crashes and 29 injuries.

Winter (December): The cold weather led to a sharp drop in crashes, with eight crashes, two fatalities and 6 injuries.

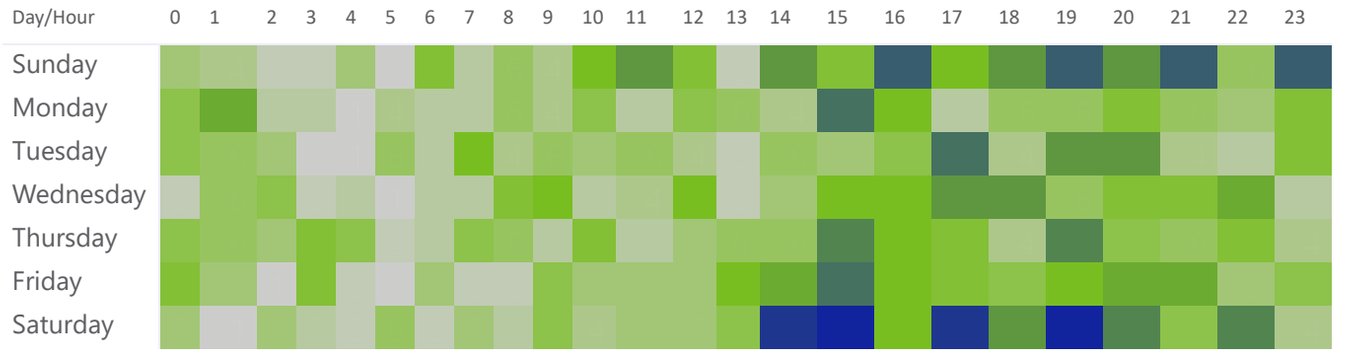
Table 4.05: Motorcycle crashes by month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
March	0	0	1	1	0	0
April	2	29	13	44	2	31
May	11	133	19	163	12	151
June	12	151	18	181	12	177
July	13	155	18	186	13	179
August	14	166	13	193	15	189
September	4	124	14	142	4	135
October	4	56	9	69	4	65
November	2	27	2	31	3	29
December	2	5	1	8	2	6
Total	**64**	**846**	**108**	**1,018**	**67**	**962**

Motorcycle Crash - When

Figure 4.03 depicts the concentration of crashes based on day of week and time of day patterns. The data highlights that motorcycle crashes are more frequent during peak commuting and recreational riding hours, particularly in the afternoon and evening. Saturdays and Sundays saw a higher number of crashes, especially in the evening, likely due to increased recreational riding.

Figure 4.03: Heat map of motorcycle crashes



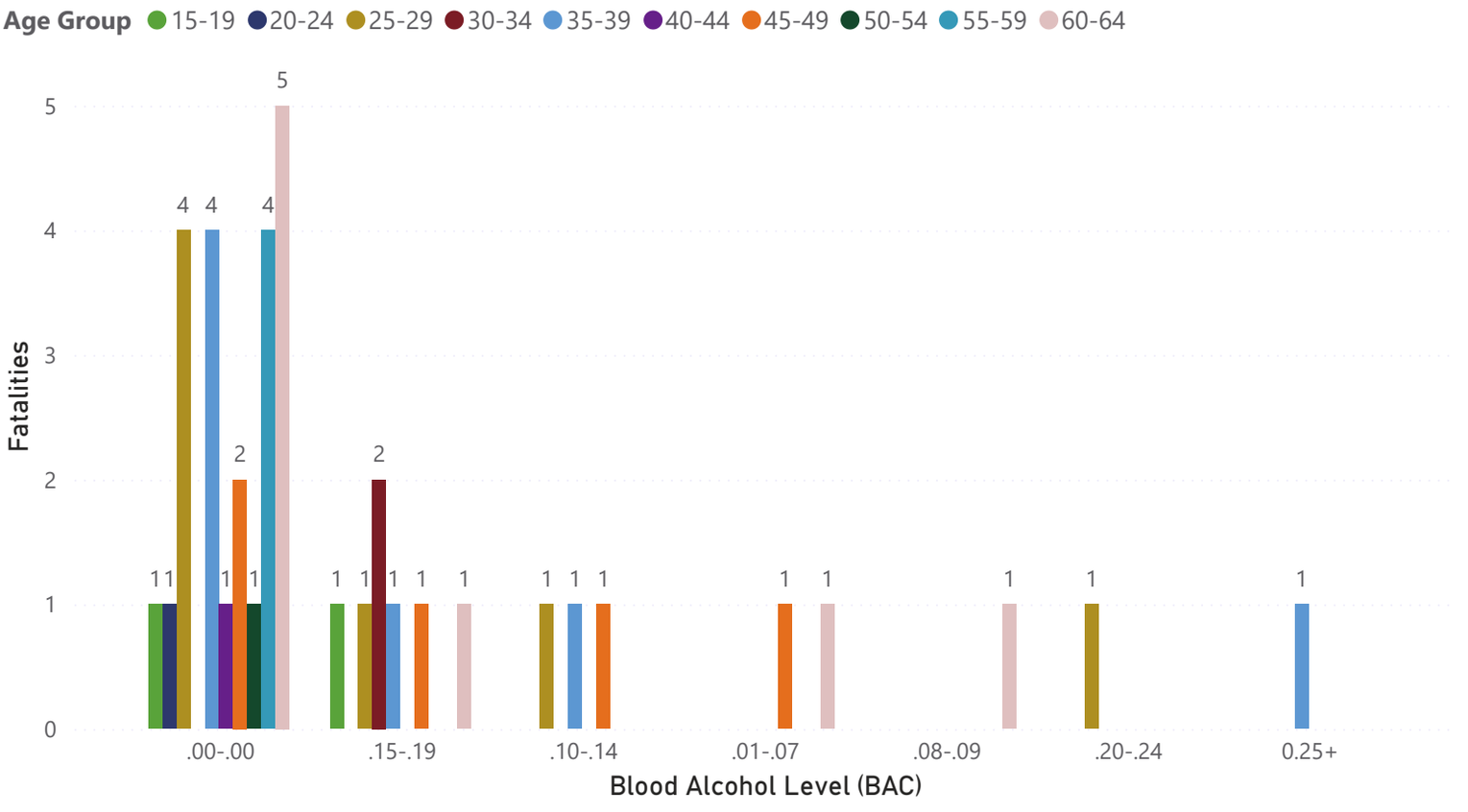
Motorcycle and Alcohol

Thirty-four percent of the 38 motorcyclists tested were driving legally impaired above .08 BAC.

Table 4.08: Alcohol use by killed motorcyclists

Killed	Tested	0	.01-.07	.08-.09	.10-.14	.15-.19	.20-.24	0.25+
67	38	23	2	1	3	7	1	1

Figure 4.04 motorcycle fatalities' by blood alcohol concentration by age group



1) Based on Office of Traffic and Safety (OTS) fatality reporting data

Motorcycles - Where

The higher percentage of motorcycle crashes happen in predominantly two primary areas of seemingly very different circumstances. As shown in Table 4.04, 34 percent of crashes occur in population areas of 25,000 people or more.

Specifically, 39 percent of crashes happen on county roads, 26 percent happen on trunk highways and 21 percent happen on municipal streets or highways.

Table 4.04 - Motorcycle Crashes

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	7	84	15	106	7	97
100,000-249,999	0	11	1	12	0	12
50,000-99,999	7	115	13	135	7	128
25,000-49,999	3	81	12	96	3	90
10,000-24,999	4	142	22	168	4	153
5,000-9,999	4	48	6	58	4	53
2,500-4,999	4	47	7	58	4	55
1,000-2,499	3	35	11	49	3	40
Townships/Rural	32	283	21	336	35	334
Total	**64**	**846**	**108**	**1,018**	**67**	**962**

Table 4.03: Motorcycle crashes by roadway type

Type of Roadway	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
County State Aid Hwy	33	301	40	374	35	351
MN Trunk Hwy	11	145	17	173	12	175
US Trunk Hwy	5	72	13	90	5	81
Municipal State Aid Hwy	5	110	5	120	5	120
Interstate	4	56	11	71	4	60
Other Road	4	41	3	48	4	42
County Road	1	20	1	22	1	26
Municipal Street	1	73	16	90	1	78
Township Road	0	19	2	21	0	20
Unknown	0	9	0	9	0	9
Total	**64**	**846**	**108**	**1,018**	**67**	**962**

Truck Crash Summary

Truck crash summary

This section summarizes data on crashes involving trucks, identified as any of the following nine types:

1. Two-axle, six-tire single unit truck or step van
2. Three-or-more-axle single unit truck
3. Single-unit truck with trailer
4. Truck tractor with no trailer
5. Truck tractor with semi-trailer
6. Truck tractor with double trailers
7. Truck tractor with triple trailers
8. Heavy truck of other or unknown type
9. Or other single-unit truck

A crash involving a vehicle classified as a commercial motor vehicle (CMV) on the police crash report with any of these vehicle configurations is classified as a truck crash. Pickup trucks, buses and vans are not counted as trucks in in this section.

Fatalities and injuries are mostly in other vehicles

In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only nine of the 62 people killed in truck-involved multiple vehicle crashes were in trucks.

Driving conditions considered

Driving conditions can vary from day to day in Minnesota, but most truck crashes occur on dry roads in clear weather. However, operating large trucks on surfaces reported to be wet, covered with snow, slush, ice or packed snow provide additional challenges for truck drivers.

2023 Truck crash stats:

Figure 5.01: Truck crash trends

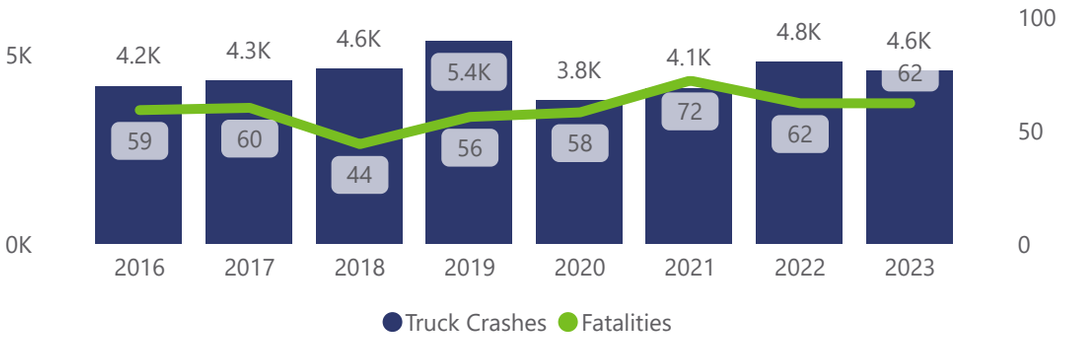


Table 5.08: Persons injured in truck crashes by vehicle occupied

Vehicle Type	Fatalities	Serious Injuries	Minor Injuries	Possible Injuries	Total Fatalities & Injuries
All-Terrain Vehicle	0	0	2	0	2
Ambulance	0	0	1	4	5
Bicycle	1	1	0	1	3
Car	23	38	155	211	427
Farm Tractor or Equipment	0	1	1	2	4
Fire Department Vehicle	0	0	0	0	0
Military Vehicle	0	1	0	1	2
Motorcycle	0	0	5	0	5
Motorhome/Camper	0	0	2	0	2
Other Bus	0	0	1	1	2
Other Vehicle	0	1	0	1	2
Other/Unknown Truck Type	0	7	21	38	66
Pedestrian	2	9	3	1	15
Pickup Truck	5	8	53	69	135
Police Vehicle	0	1	1	5	7
School Bus	0	0	0	1	1
Single Truck (2-axle, 6 tire)	2	0	10	14	26
Single Truck (3+ axles)	3	2	12	19	36
Snowmobile	1	0	0	0	1
Sport Utility Vehicle	14	35	94	158	301
Taxi Cab	0	1	0	1	2
Truck Double Trailer	0	0	1	5	6
Truck No Trailer	0	1	2	4	7
Truck Semi Trailer	5	10	50	39	104
Truck Triple Trailer	0	0	0	1	1
Truck with Trailer	4	4	17	43	68
Unknown Vehicle Type	0	0	0	0	0
Van	2	8	26	26	62
Total	**62**	**128**	**457**	**645**	**1,292**

Truck statistics

This section analyzes what are the first objects that a truck impacts that causes the fatality or injury. This is not the first thing that the truck impacts, it is the first thing that is impacted that causes harm.

Overall, while motor vehicle crashes in transport dominate the data, it's critical to address higher-risk categories like rollovers and pedestrian crashes to further improve road safety and reduce fatalities and injuries.

The data on crash events across various truck crash categories reveals several important insights about the causes and severity of crashes in the region. The most frequent type of crash involved hitting another moving vehicle (motor vehicles in transport). This first harmful event accounts for 77 percent of the fatalities in truck crashes. Eighty-two percent of all injuries also occur in these crashes.

The second highest cause of death was due to the first harmful event of overturns/rollovers. These crashes emerge as a particularly dangerous type of crash, contributing to six fatalities and 81 injuries across 4,568 total crashes. This category, while fewer in number compared to motor vehicle crashes in transport, results in a high severity of injuries, indicating that drivers and passengers in rollover incidents are more likely to experience serious consequences.

Table 5.01: Truck crashes by first harmful event

First Harmful Event	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Another Motor Vehicle	44	694	2,453	3,191	48	1,007
Bicycle	1	1	0	2	1	1
Deer/Animal	0	0	10	10	0	0
Fixed Object	3	60	537	600	3	67
Other Non-Collision	0	20	232	252	0	22
Overturn/Rollover	6	75	146	227	6	81
Parked Motor Vehicle	0	26	215	241	0	33
Pedestrian	2	6	1	9	2	9
Train	0	3	6	9	0	3
Unknown Collision w Fixed Object	1	3	23	27	2	7
Total	**57**	**888**	**3,623**	**4,568**	**62**	**1,230**

Another noteworthy finding is the relatively low number of pedestrian crashes compared to other categories, with nine total crashes. Pedestrian incidents resulted in 2 fatalities and 9 injuries, emphasizing the vulnerability of pedestrians in traffic-related events. Twenty-two percent of total truck crashes with pedestrians results in a fatality. In contrast, truck crashes with motor vehicles in transport events resulted in a fatality rate of 1.5 percent.

Additionally, crashes involving parked motor vehicles resulted in 33 injuries and no fatalities. While the numbers are not high when compared with all crashes, it does suggest the importance of considering parking areas as part of road safety initiatives.

Table 5.06: Truck crashes by weather condition cited

Weather Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Blowing Sand/Soil/Dirt	0	24	158	182	0	32
Clear	38	574	2,174	2,786	41	802
Cloudy	18	175	676	869	20	252
Fog/Smog/Smoke	0	16	27	43	0	25
Other Weather	0	0	2	2	0	0
Rain	1	38	124	163	1	45
Severe Crosswinds	0	4	15	19	0	4
Sleet/Hail	0	12	102	114	0	12
Snow	0	44	332	376	0	57
Unknown	0	1	13	14	0	1
Total	**57**	**888**	**3,623**	**4,568**	**62**	**1,230**

1) This report includes only 1 weather condition. An officer can identify multiple weather conditions on the crash report.

Trucks - When

When do truck crashes happen the most?

The majority of truck crashes happen January through early spring. January alone represented 14 percent of truck crashes while October stood out as the highest month in the late summer and fall period with 10 percent of truck crashes.

Truck crashes tend to happen more during the middle of the week. Tuesday, Wednesday and Thursday account for 56 percent of all truck crashes.

The weekday crashes tend to happen between 8 a.m. and 10 a.m. and then again at 3 p.m. to 4 p.m.

Table 5.02: Truck crashes by month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	3	87	555	645	3	125
February	4	75	286	365	4	102
March	3	67	396	466	3	88
April	4	67	260	331	4	88
May	2	69	263	334	2	93
June	6	71	226	303	6	103
July	4	76	286	366	4	126
August	6	86	283	375	7	111
September	6	87	263	356	6	113
October	7	83	357	447	9	106
November	6	67	222	295	6	97
December	6	53	226	285	8	78
Total	**57**	**888**	**3,623**	**4,568**	**62**	**1,230**

Trucks - When

When do truck crashes happen the most?

Figure 5.02: Truck crashes by day of week

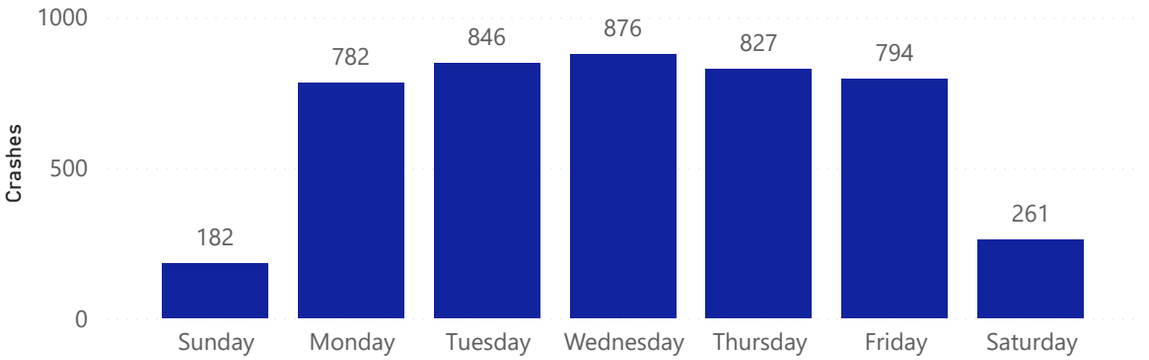
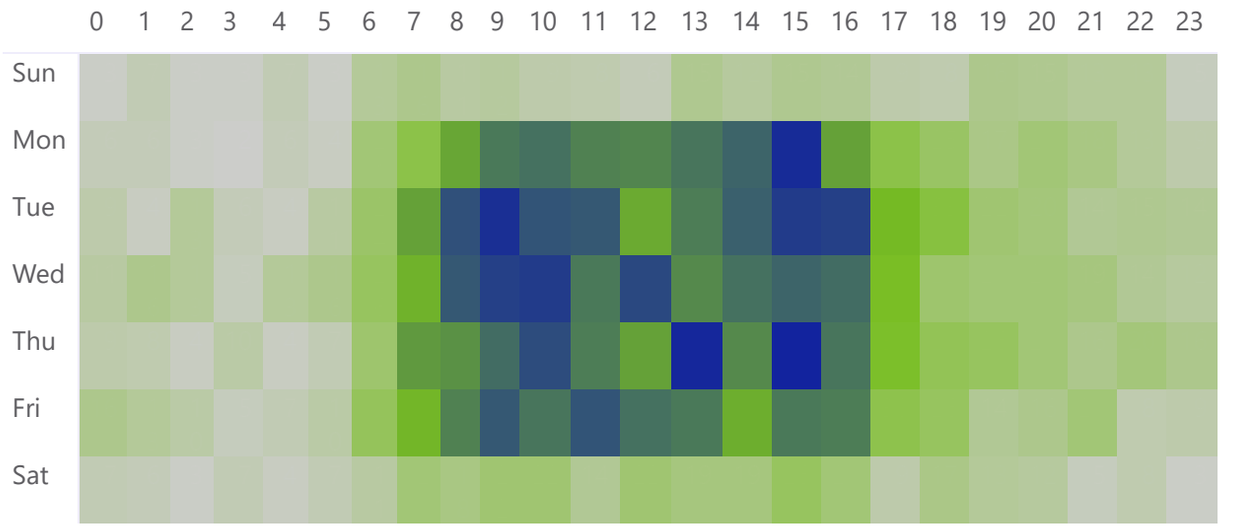


Figure 5.03: Heat map of truck crashes



Trucks - Where & Conditions

Key 2023 Road and Weather Facts

The interstate tends to be a dangerous place for trucks.
Twenty-nine percent of truck crashes occurred on the interstate.

Table 5.04: Truck crashes by type of roadway

Roadway Type	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
County Road	2	15	34	51	2	19
County State Aid Hwy	13	162	444	619	14	213
Interstate	11	193	1,101	1,305	13	262
MN Trunk Hwy	13	193	580	786	14	290
Municipal State Aid Hwy	1	50	307	358	1	58
Municipal Street	3	45	330	378	3	64
Other Road	0	29	230	259	0	37
Township Road	3	30	60	93	4	39
Unknown	1	17	84	102	1	20
US Trunk Hwy	10	154	453	617	10	228
Total	**57**	**888**	**3,623**	**4,568**	**62**	**1,230**

Most truck crashes, **66** percent, occurred on dry roads.

Table 5.05: Truck crashes by road surface condition

Road Surface	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Dry	47	643	2,319	3,009	51	908
Ice/Frost	5	74	519	598	6	95
Other	1	17	25	43	1	21
Snow	1	59	451	511	1	85
Unknown	0	0	11	11	0	0
Wet	3	95	298	396	3	121
Total	**57**	**888**	**3,623**	**4,568**	**62**	**1,230**

61 percent of truck crashes happen during clear weather.

Table 5.06: Truck crashes by weather condition cited

Weather Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Clear	38	574	2,174	2,786	41	802
Cloudy	18	175	676	869	20	252
Rain	1	38	124	163	1	45
Blowing Sand/Soil/Dirt	0	24	158	182	0	32
Fog/Smog/Smoke	0	16	27	43	0	25
Other Weather	0	0	2	2	0	0
Severe Crosswinds	0	4	15	19	0	4
Sleet/Hail	0	12	102	114	0	12
Snow	0	44	332	376	0	57
Unknown	0	1	13	14	0	1
Total	**57**	**888**	**3,623**	**4,568**	**62**	**1,230**

Key 2023 Road and Weather Facts

Table 5.07: Drivers in truck crashes by physical condition

Physical Condition	Truck Drivers	%
Apparently Normal	4,641	97.1%
Unknown	72	1.5%
Asleep or Fatigued	31	0.6%
Has Been Drinking Alcohol	14	0.3%
Medical Issue	11	0.2%
Emotional	3	0.1%
Other	3	0.1%
Has Been Taking Illicit Drugs	2	0.0%
Has Been Taking Medications	2	0.0%
Physical Disability	1	0.0%
Total	**4,780**	**100.0%**

Physical Condition	Other Drivers	%
Apparently Normal	3,214	94.2%
Unknown	74	2.2%
Has Been Drinking Alcohol	50	1.5%
Asleep or Fatigued	33	1.0%
Other	13	0.4%
Medical Issue	9	0.3%
Emotional	7	0.2%
Has Been Taking Illicit Drugs	6	0.2%
Physical Disability	4	0.1%
Has Been Taking Medications	3	0.1%
Total	**3,413**	**100.0%**

Table 5.03: Truck crashes by population of area

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
500,000+	5	353	1,598	1,956	6	471
200,000-499,999	0	1	5	6	0	1
100,000-199,999	0	19	118	137	0	19
50,000-99,999	0	4	39	43	0	5
25,000-49,999	1	6	49	56	1	9
10,000-24,999	0	31	238	269	0	42
<=9,999	0	12	71	83	0	22
Townships/Rural	51	462	1,505	2,018	55	661
Total	**57**	**888**	**3,623**	**4,568**	**62**	**1,230**

Pedestrian Crash Summary

Crashes involving pedestrians

This section focuses on crashes involving pedestrians who are injured or killed by motor vehicles. It does not include incidents involving pedestrians and trains or those involving both pedestrians and bicycles. In these cases, a motor vehicle must be directly involved in the crash.

Historically, pedestrian crashes have shown a concerning upward trend, with both fatalities and injuries increasing over time. However, since 2020, pedestrian fatalities have been declining. 2023 ranked as the lowest year out of the last 8 years for pedestrian fatalities; 2023 saw a 16 percent decrease over 2022.

The 8-year average has dropped to 834 pedestrian crashes per year. The last four years since 2020 the state has been averaging 687 pedestrian crashes per year.

As seen in Figure 6.02, the state averages 98 pedestrian crashes per day. The majority of those crashes take place during the middle of the week through Fridays. In 2023, Fridays were the most dangerous days for pedestrians representing 17 percent of the 7-day week.

Pedestrian crash stats:

Crashes involving pedestrians

Figure 6.01: Pedestrian crash trends

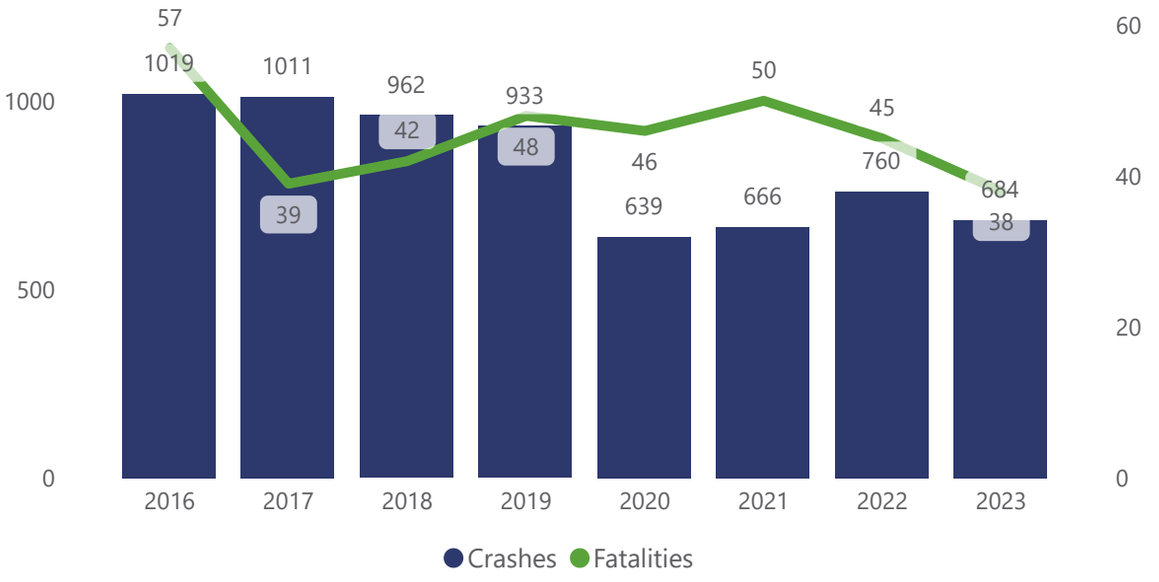
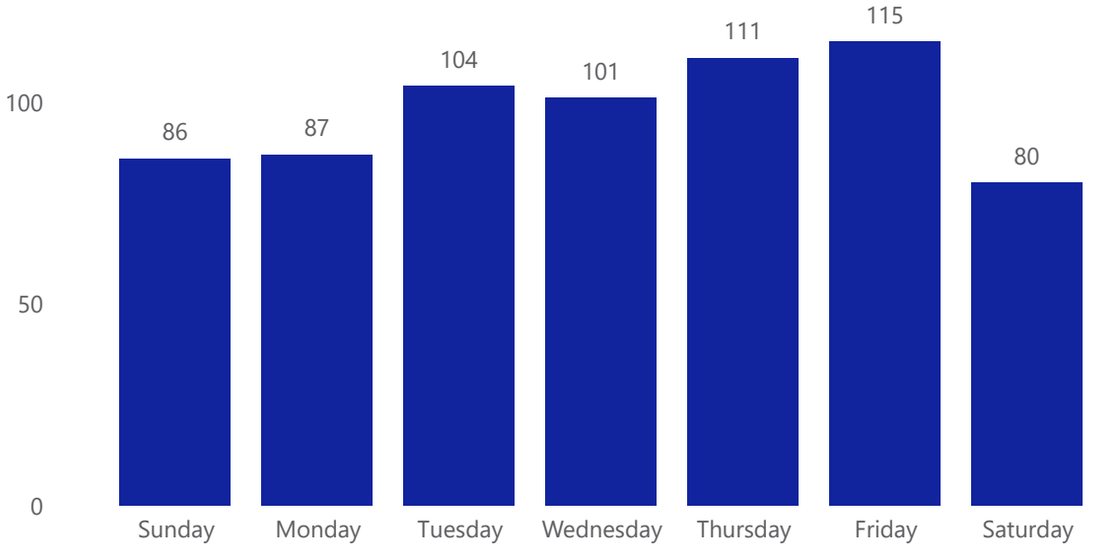


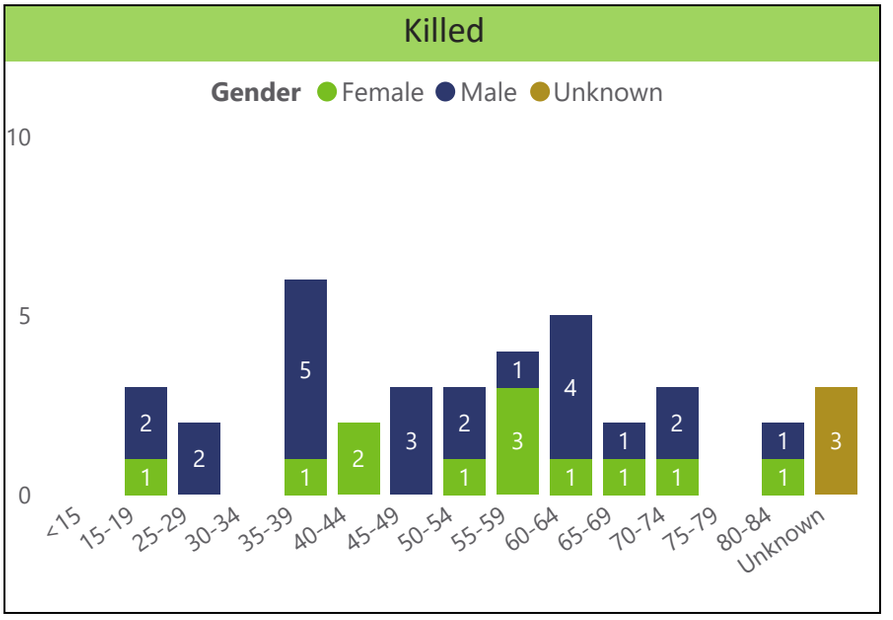
Figure 6.02: Pedestrian crashes by day of week

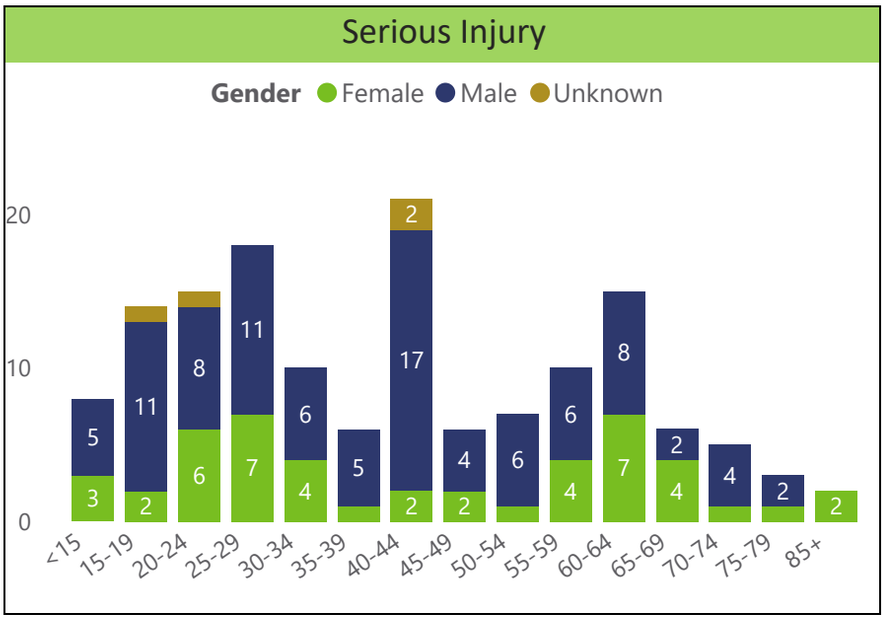


61 percent of pedestrian crash fatalities were male.

49 percent of pedestrian crash serious injuries are people younger than 40.

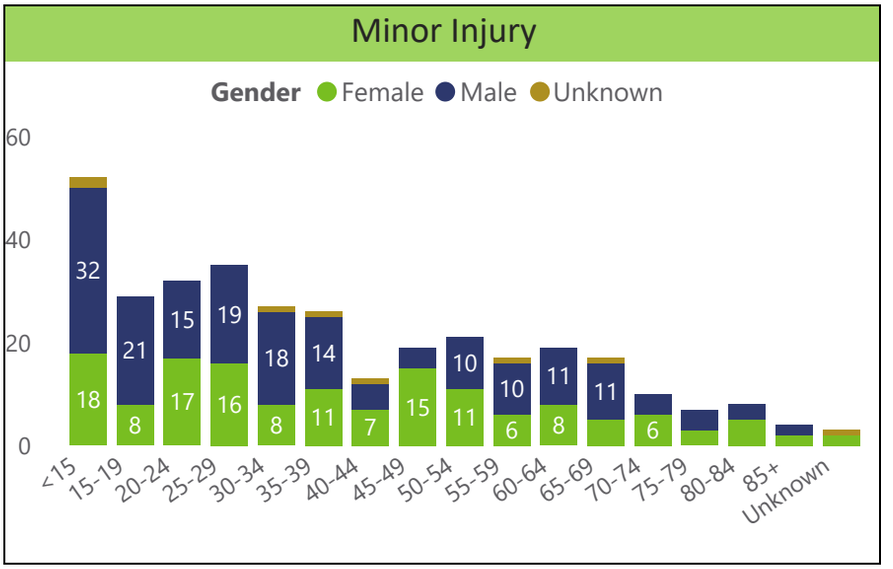
Figure 6.03: Pedestrian injuries by age and gender

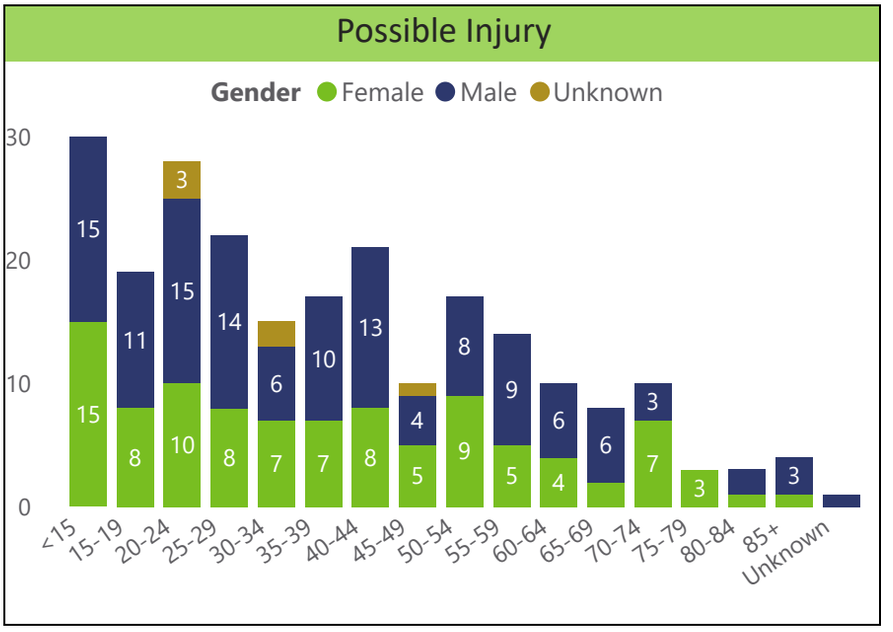




Pedestrian Statistics

44 percent of pedestrian crash minor injuries are people younger than 30.





Pedestrian Statistics

53 percent of pedestrian crash fatalities occur when people are crossing the roadway.

Table 6.02: Prior action of pedestrians killed or injured in pedestrian crashes

Action	Pedestrians Killed ▼	Pedestrians Killed %	Pedestrians Injured	Pedestrians Injured %
Walk/Cycle Across Traffic (Crossing Roadway)	20	52.6%	431	60.1%
Walk/Cycle With Traffic	6	15.8%	36	5.0%
Unknown	5	13.2%	15	2.1%
In Roadway - Other (Working, Playing, etc.)	4	10.5%	38	5.3%
Standing/Stopped	2	5.3%	66	9.2%
Walk/Cycle on Sidewalk	1	2.6%	30	4.2%
Adjacent to Roadway (e.g, Shoulder, Median)	0	0.0%	14	2.0%
Coming From School Bus	0	0.0%	2	0.3%
Going to or From Public Transit	0	0.0%	4	0.6%
Going to or From School (K-12)	0	0.0%	4	0.6%
Going to School Bus	0	0.0%	2	0.3%
Other	0	0.0%	46	6.4%
Walk/Cycle Against Traffic	0	0.0%	21	2.9%
Working in Trafficway (EMS, Enforcement)	0	0.0%	3	0.4%
Working in Trafficway (Maintenance, Construction)	0	0.0%	6	0.8%
Working in Trafficway (Utility)	0	0.0%	2	0.3%
Total	**38**	**100.0%**	**717**	**100.0%**

Table 6.01: Prior action of vehicles in pedestrian crashes

Prior Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes
Backing	0	29	29
Changing Lanes	1	0	1
Entering Traffic Lane	0	1	1
Moving Forward	38	370	408
Negotiating a Curve	0	1	1
Other	0	5	5
Overtaking/Passing	0	1	1
Parked or Entering or Leaving a Parked Position	1	29	30
Slowing	0	9	9
Swerved or Attempt to Avoid Object in Roadway (Due to Wind, Slippery Surface, Motor Vehicle, Object, Non-Motorist in Roadway, etc.)	1	14	15
Turning Left	1	144	145
Turning Right	0	63	63
Unknown	2	34	36
Vehicle Stopped or Stalled in Roadway	0	5	5
Wrong Way into Opposing Traffic	0	1	1
Total	**44**	**706**	**750**

Pedestrian - When

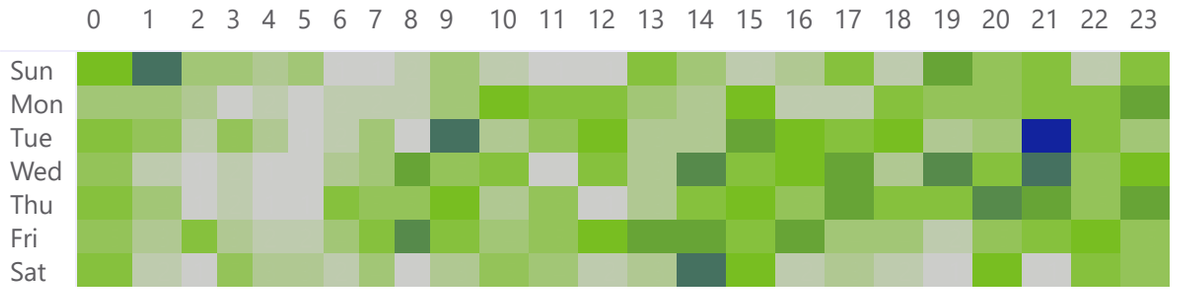
42 percent of pedestrian crash occur in September – December.

Table 6.03: Pedestrian crashes by month

Month	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
January	4	37	41	4	41
February	2	44	46	2	45
March	1	29	30	1	29
April	2	38	40	2	40
May	3	63	66	3	69
June	3	47	50	3	59
July	4	49	53	4	57
August	2	66	68	2	75
September	5	68	73	5	72
October	3	75	78	3	87
November	4	56	60	4	62
December	5	74	79	5	81
Total	**38**	**646**	**684**	**38**	**717**

The majority of pedestrian crashes occur in the afternoon - early morning hours.

Figure 6.04: Heat map of pedestrian crashes



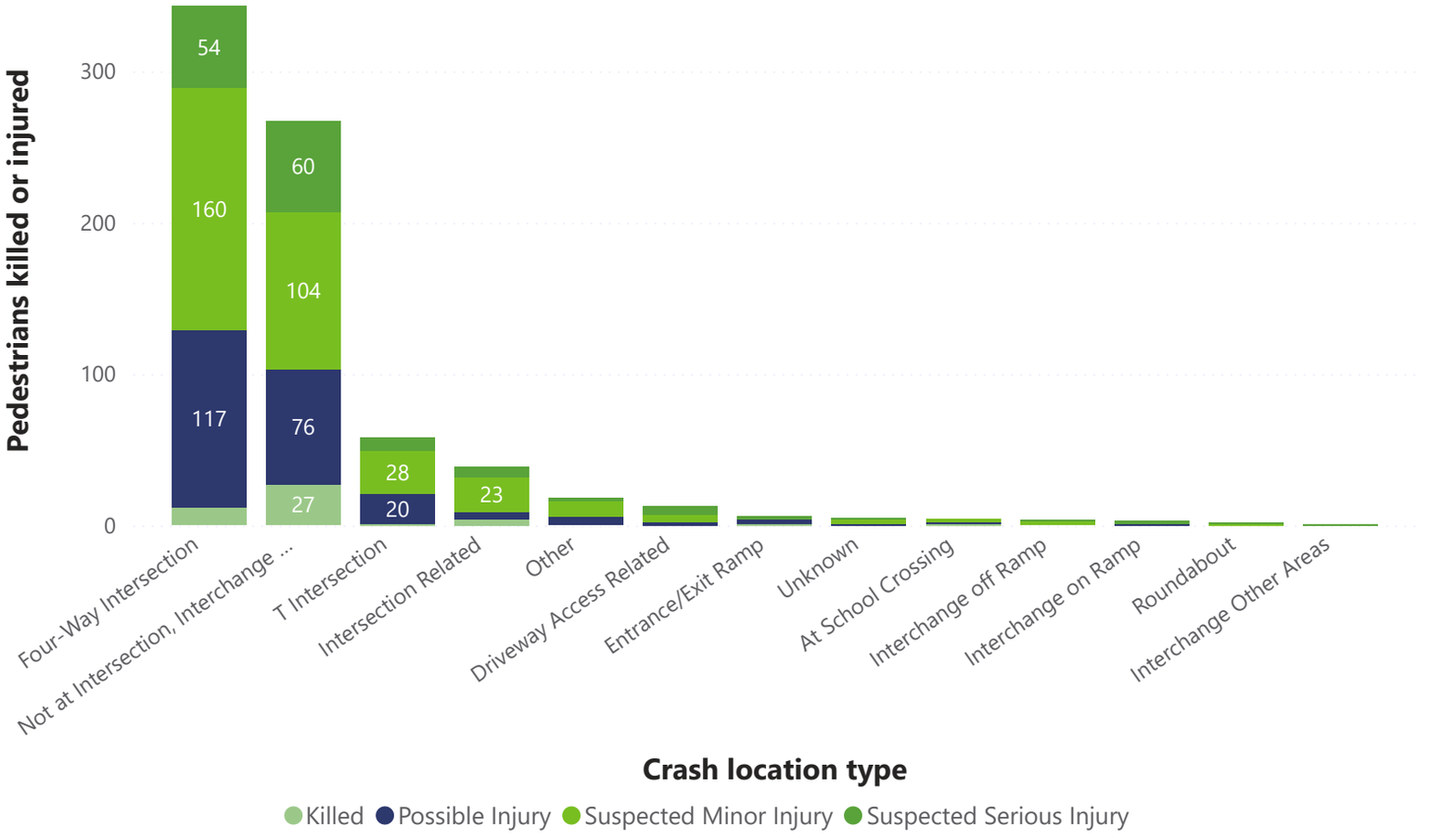
Pedestrian - Where

31 percent of pedestrian crashes occur on municipal state highways.

Table 6.05: Pedestrian crashes by type of roadway

Roadway Type	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
Interstate	2	9	11	2	10
US Trunk Hwy	1	27	28	1	31
MN Trunk Hwy	8	49	57	8	55
County State Aid Hwy	15	163	178	15	184
County Road	1	1	2	1	1
Township Road	0	1	1	0	2
Municipal State Aid Hwy	3	208	211	3	232
Municipal Street	4	128	132	4	134
Other Road	3	37	40	3	45
Unknown	1	23	24	1	23
Total	**38**	**646**	**684**	**38**	**717**

Figure 6.05: Pedestrian fatalities and injuries by crash location on the road



Pedestrian - Alcohol

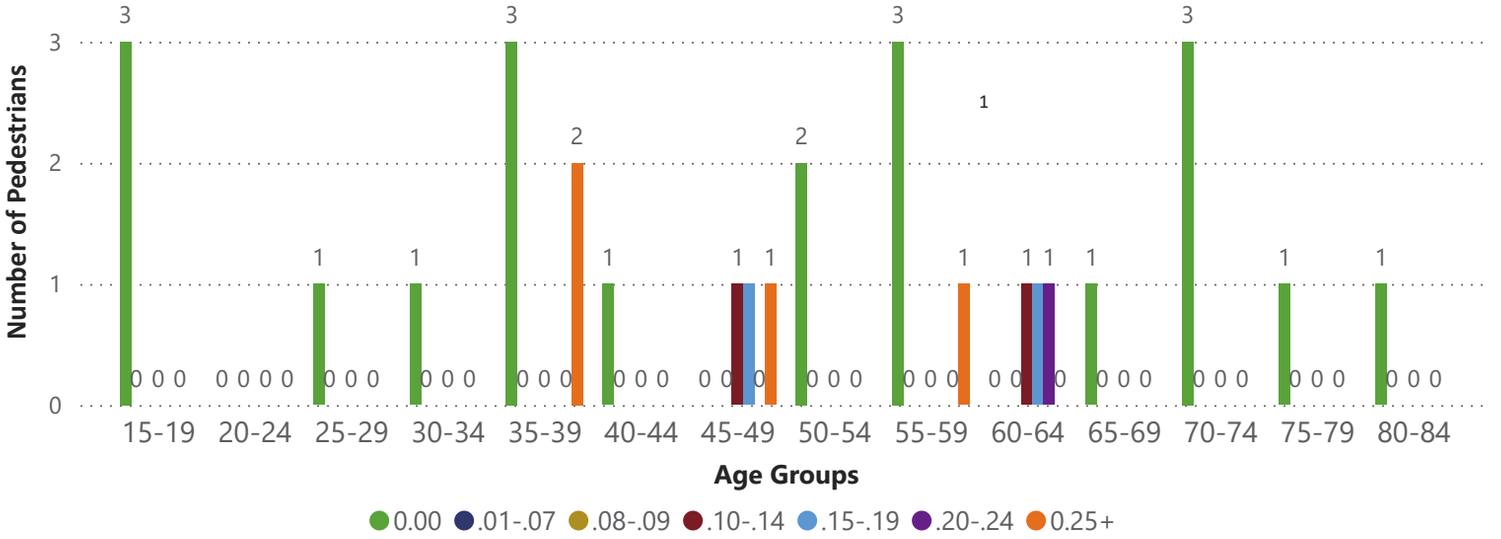
69 percent of tested pedestrians involved in a crash were not using alcohol.

Table 6.06: Pedestrian fatalities level of alcohol concentration

Killed	Tested	0.00	.01-.07	.08-.09	.10-.14	.15-.19	.20-.24	0.25+
38	29	20	0	0	2	2	1	4

Middle-aged and older pedestrians represent majority of alcohol-related crashes.

Figure 6.06: Pedestrian fatalities level of alcohol concentration



1) Based on Office of Traffic and Safety (OTS) Fatality Reporting Data

Bicycle - Crash Summary

Bicycle Involved Crashes Summary

In 2023, Minnesota recorded 580 bicycle crashes involving motor vehicles, which resulted in six fatalities and 522 injuries. While bicycles are required to follow the same traffic laws as motor vehicles, the data reported to DPS only includes crashes involving collisions with motor vehicles. As a result, these statistics represent only a portion of all bicycle-related incidents.

Trends in bicycle crashes

Over the past eight years, bicycle-related crashes have decreased from 795 in 2016 to 580 in 2023, marking a 27 percent reduction. While this long-term trend is encouraging, the number of bicycle crashes has started to rise again since 2020. In the last four years, there has been a 27 percent increase in crashes.

Where bicycle crashes occur

The majority of bicycle crashes (64 percent) took place in urban areas with populations greater than 25,000, where both cyclists and motor vehicles are more densely concentrated.

Recent bicycle safety initiatives

In 2023, Minnesota implemented a new mandate requiring all public-school students to receive age-appropriate education on safe walking and bicycling in the first few weeks of school. This initiative aims to promote safe practices among young pedestrians and cyclists, contributing to long-term improvements in safety.

Bicycle crash facts

580	6	522
Crashes	Fatalities	Injuries

Bicycle - Crash Summary

Figure 7.01: Bicycle crash trends

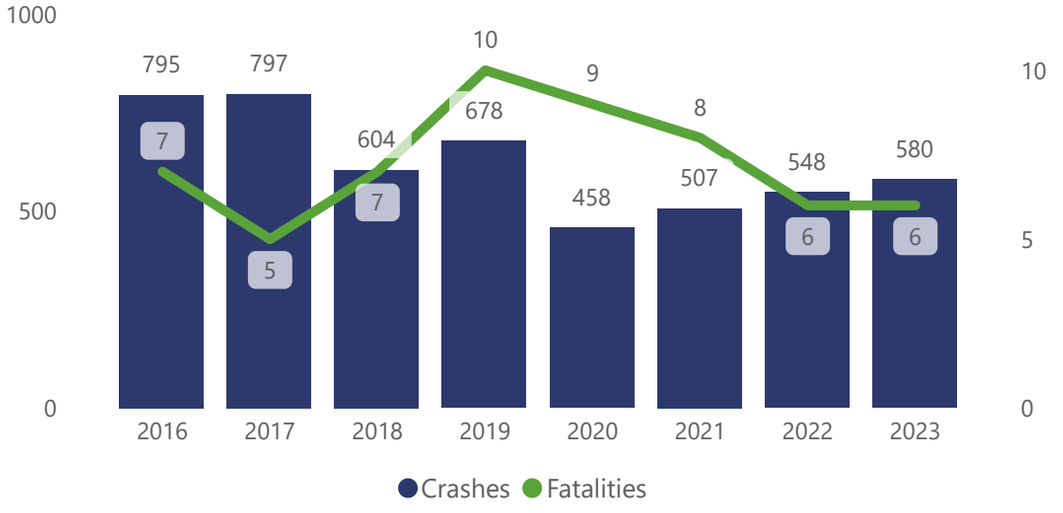


Table 7.04 - Bicycle Crashes

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	2	161	20	183	2	166
100,000-249,999	0	14	0	14	0	14
50,000-99,999	0	94	12	106	0	94
25,000-49,999	0	56	14	70	0	56
10,000-24,999	1	107	14	122	1	112
5,000-9,999	2	34	3	39	2	36
2,500-4,999	0	15	0	15	0	15
1,000-2,499	0	10	0	10	0	10
Townships/Rural	1	19	1	21	1	19
Total	**6**	**510**	**64**	**580**	**6**	**522**

Table 7.02: Prior action of bicyclists involved in crashes

Prior Action	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes
Adjacent to Roadway (e.g, Shoulder, Median)	0	11	1	12
Going to or From School (K-12)	0	1	1	2
In Roadway - Other (Working, Playing, etc.)	0	13	3	16
Other	0	10	1	11
Standing/Stopped	0	4	0	4
Unknown	0	16	1	17
Walk/Cycle Across Traffic (Crossing Roadway)	3	279	38	320
Walk/Cycle Against Traffic	0	22	1	23
Walk/Cycle on Sidewalk	0	72	7	79
Walk/Cycle With Traffic	3	84	11	98
Total	**6**	**510**	**64**	**580**

55 percent of bicyclists were cycling across traffic prior to crash.

Table 7.01: Bicyclists killed or injured by age and gender

	Fatalities				Serious Injuries				Minor Injuries				Possible Injuries				Total Injuries			
Age	M	F	U	Total	M	F	U	Total	M	F	U	Total	M	F	U	Total	M	F	U	All
<15	1	1	0	2	10	8	0	18	51	16	0	67	20	5	2	27	81	29	2	112
15-19	0	0	0	0	3	1	0	4	16	12	5	33	19	5	3	27	38	18	8	64
30-34	0	0	0	0	4	0	1	5	13	6	3	22	12	4	2	18	29	10	6	45
60-64	0	0	0	0	2	1	0	3	12	4	6	22	7	0	2	9	21	5	8	34
20-24	0	0	0	0	3	1	2	6	10	5	4	19	13	5	4	22	26	11	10	47
40-44	0	0	0	0	4	0	0	4	12	1	2	15	11	2	0	13	27	3	2	32
25-29	0	0	0	0	2	3	0	5	7	4	3	14	10	7	1	18	19	14	4	37
55-59	1	0	0	1	3	3	0	6	8	1	4	13	4	0	0	4	15	4	4	23
35-39	0	0	0	0	4	0	1	5	5	4	2	11	8	1	1	10	17	5	4	26
45-49	0	0	0	0	3	0	1	4	7	1	2	10	6	2	1	9	16	3	4	23
Unk	0	0	0	0	0	0	2	2	0	0	9	9	4	1	3	8	4	1	14	19
50-54	1	0	0	1	3	0	0	3	3	5	0	8	4	4	2	10	10	9	2	21
65-69	0	0	0	0	4	2	0	6	5	1	1	7	7	2	0	9	16	5	1	22
70-74	1	0	0	1	1	0	3	4	3	1	1	5	0	0	0	0	4	1	4	9
75-79	0	0	0	0	2	0	0	2	2	0	1	3	2	0	0	2	6	0	1	7
85+	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	1
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**4**	**1**	**1**	**6**	**48**	**19**	**10**	**77**	**155**	**61**	**43**	**259**	**127**	**38**	**21**	**186**	**330**	**118**	**74**	**522**

M = Male, F = Female, U = Unknown

Bicycle - When

46 percent of bicyclists were involved in crashes during the months of June, July and August.

88 percent of bicyclists were involved in crashes during weekdays.

36 percent of bicyclists were involved in crashes on Tuesday or Wednesday.

Bicyclists and pedestrians crash trends are similar throughout until 8 p.m. At 8 p.m., bicyclist crashes generally decline while pedestrians increase.

Table 7.03: Bicycle crashes by month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	0	4	0	4	0	5
February	0	1	1	2	0	1
March	0	7	0	7	0	7
April	0	26	4	30	0	26
May	0	56	6	62	0	57
June	0	68	14	82	0	70
July	1	89	5	95	1	89
August	2	76	9	87	2	80
September	3	85	8	96	3	89
October	0	57	6	63	0	57
November	0	25	4	29	0	25
December	0	16	7	23	0	16
Total	**6**	**510**	**64**	**580**	**6**	**522**

Figure 7.03: Bicycle crashes by day of week

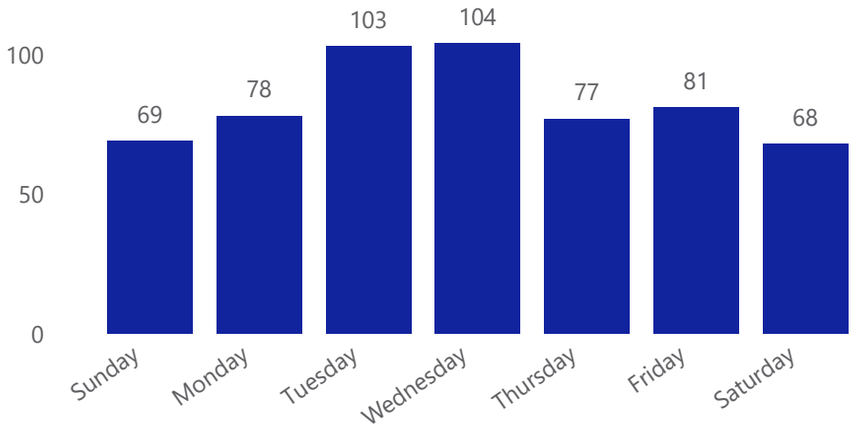
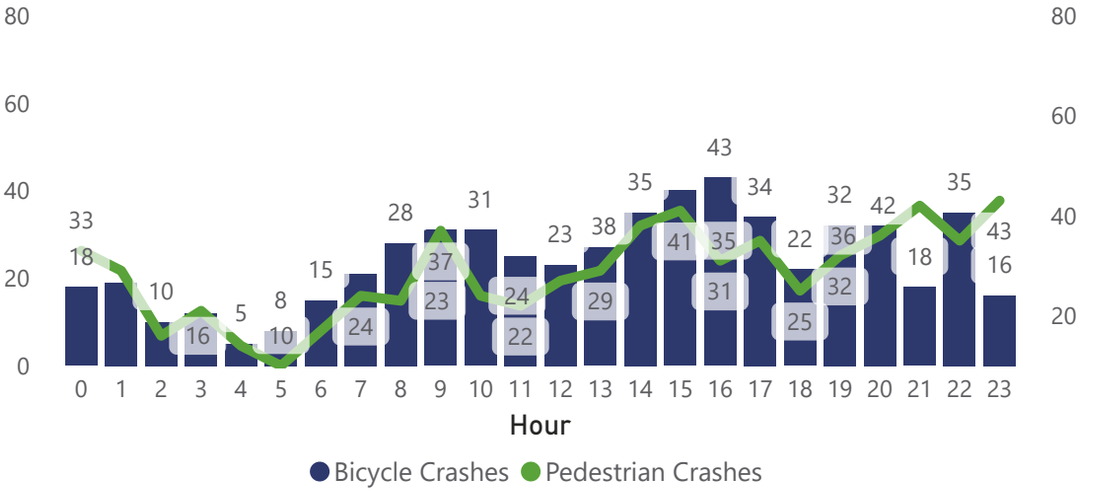


Figure 7.04: Bicycle crashes by time of day, compared to pedestrian crashes



School Bus Crash Summary

School bus crash summary overview

In 2023, there were 701 crashes resulting in four fatalities and 201 injuries in which a school bus was directly or indirectly involved.

New school bus initiative

DPS has implemented a comprehensive initiative to enhance school bus safety through the installation of stop arm cameras. This program aims to deter drivers from illegally passing stopped school buses, thereby protecting students during pick-up and drop-off times.

In 2022 and 2023, Minnesota state legislators approved a total of $14.7 million to support this initiative. The funds are allocated to reimburse schools and transportation companies for the purchase and installation of stop arm camera systems and associated software

These grants collectively aim to equip around 7,000 school buses with stop arm cameras, representing about 59 percent of all school buses in Minnesota.

Impact and enforcement

The installation of stop arm cameras serves as a deterrent against illegal passing of school buses. Law enforcement agencies collaborate with schools and transportation companies to identify and cite drivers who violate stop arm laws. From 2016 to 2024, over 8,904 drivers were cited for violations associated with statute 169.444.

2023 School bus crash stats:

School Bus Crash Summary

Figure 8.01: School bus crash trends

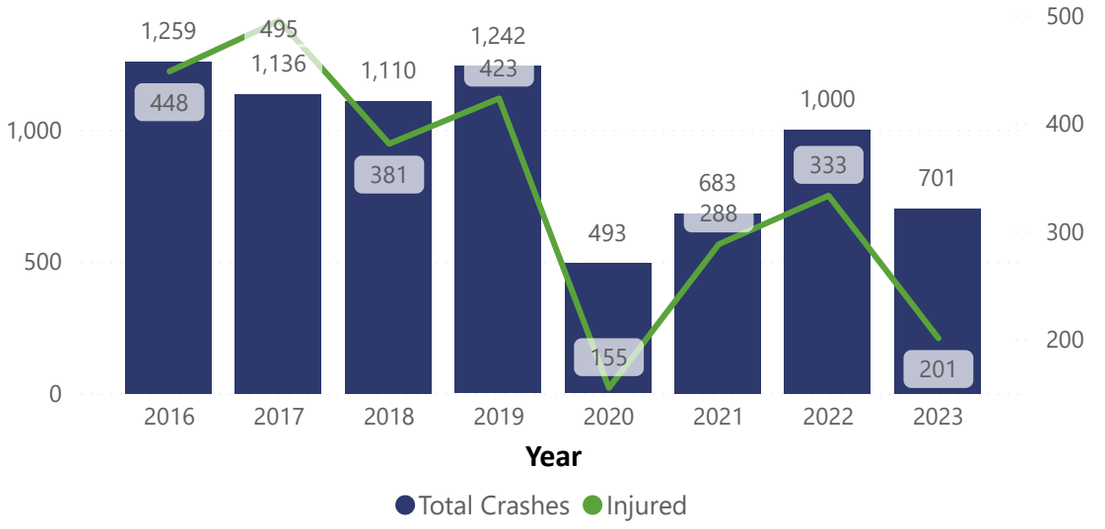
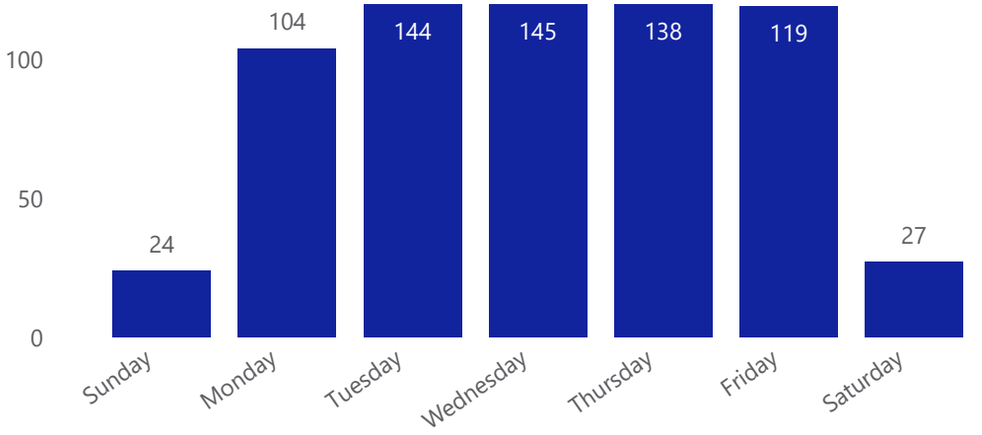


Figure 8.02: School bus crashes by day of week



78 percent of school bus crashes were with another moving vehicle.

Table 8.01: School bus crashes by first harmful event

Crash Type	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Motor Vehicle in Transport	3	107	435	545	3	175
Parked Motor Vehicle	0	3	91	94	0	3
Pedestrian	1	6	0	7	1	6
Bicycle	0	3	0	3	0	3
Deer/Animal	0	0	2	2	0	0
Pole/Sign/Parking Meter	0	0	13	13	0	0
Ditch/Embankment	0	1	2	3	0	1
Snowbank	0	0	1	1	0	0
Barrier	0	2	5	7	0	2
Mailbox/Hydrant	0	0	3	3	0	0
Tree/Shrubbery	0	3	2	5	0	4
Fence	0	0	1	1	0	0
Other/Unknown	0	0	2	2	0	0
Overturn/Rollover	0	3	6	9	0	6
Other Non-Collision	0	1	5	6	0	1
Total	**4**	**129**	**568**	**701**	**4**	**201**

68 percent of school bus crashes took place in clear weather and **66 percent** in dry conditions.

Table 8.02: School bus crashes by weather condition [1]

Weather Condition ▲	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Clear	2	95	377	474	2	144
Cloudy	2	17	96	115	2	28
Rain	0	6	24	30	0	11
Snow	0	8	46	54	0	15
Sleet/Hail	0	1	12	13	0	1
Fog/Smog/Smoke	0	1	1	2	0	1
Blowing Sand/Soil/Dirt	0	0	7	7	0	0
Severe Crosswinds	0	0	1	1	0	0
Other Weather	0	1	1	2	0	1
Unknown	0	0	3	3	0	0
Total	**4**	**129**	**568**	**701**	**4**	**201**

1) A single crash may have multiple weather conditions designated inflating the crash count

Figure 8.03: Person age & location in school bus crashes

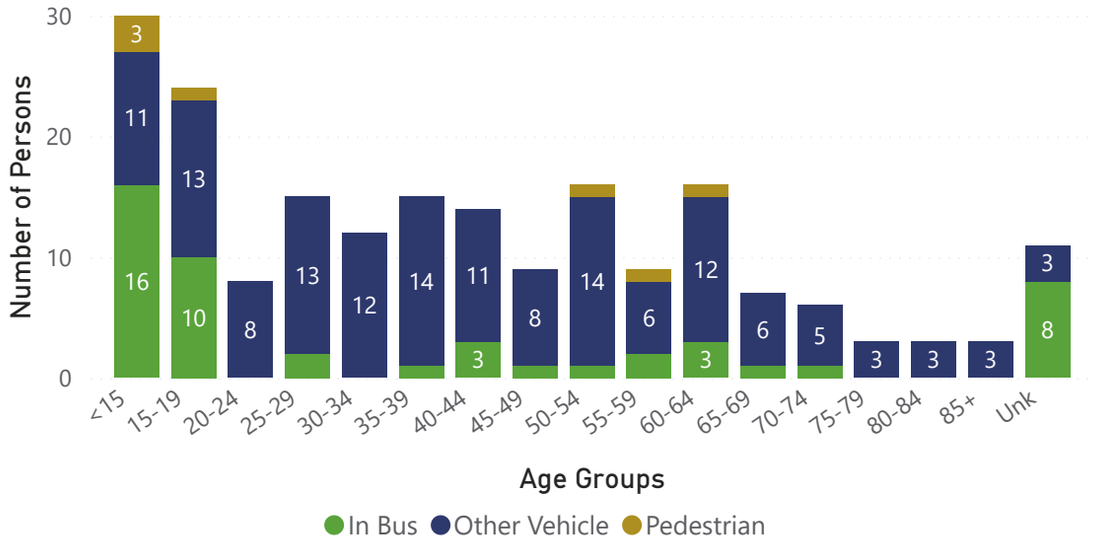


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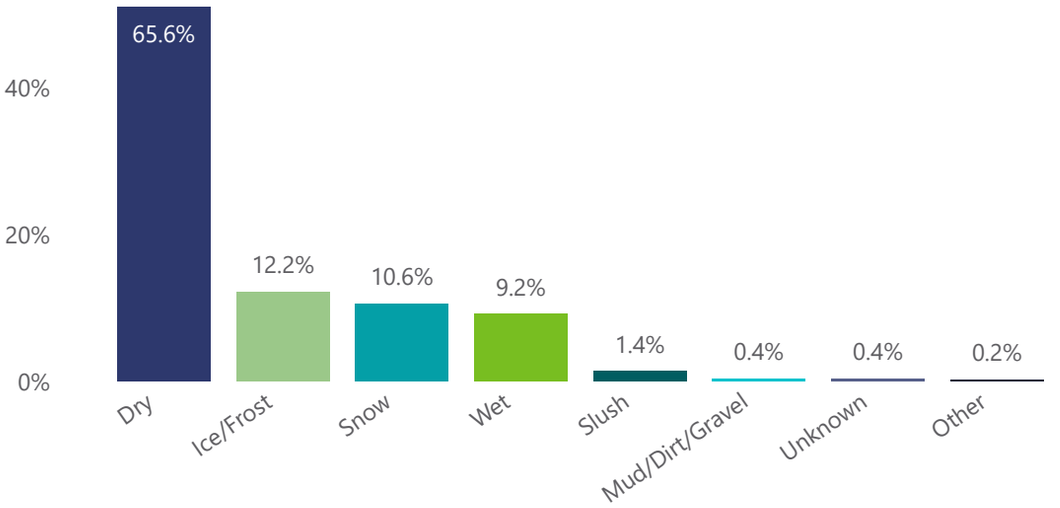
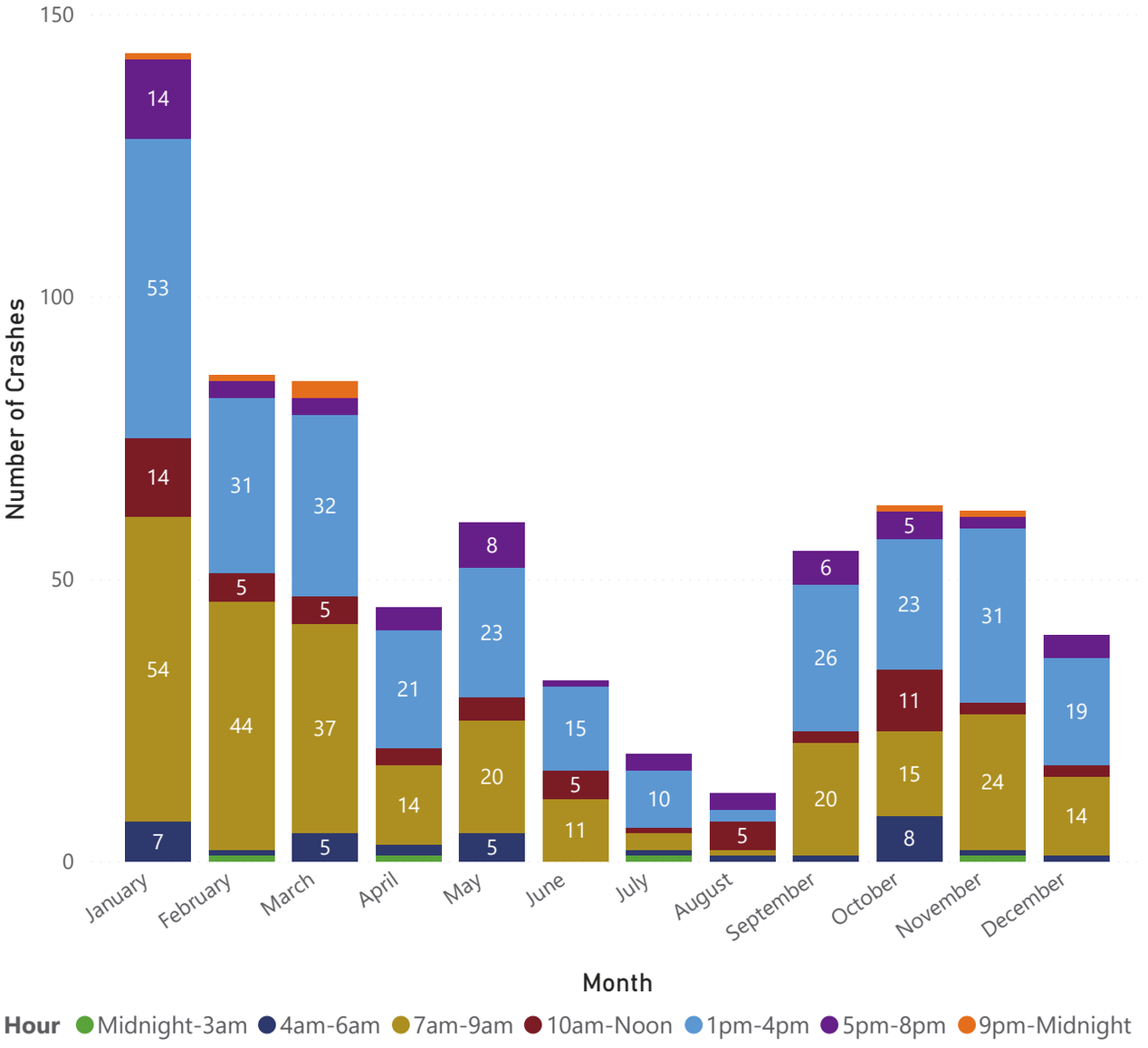
Figure 8.04: School bus crashes by road surface conditions



School Bus - When & Where

77 percent of school bus crashes happen between 7 a.m. – 9 a.m. and 1 p.m. - 4 p.m. with **41 percent** occurring in the afternoon.

Figure 8.05: School bus crashes by month and time of day



Crashes are counted in the hour they occurred ignoring minutes. For example, 6:59am is included in the 4am-6am time group.

School Bus - When & Where

56 percent of school bus crashes happen in populations areas of 25,000 or more.

Table 8.03 - School Bus Crashes

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	1	23	130	154	1	29
100,000-249,999	0	1	12	13	0	1
50,000-99,999	0	25	109	134	0	40
25,000-49,999	0	20	70	90	0	34
10,000-24,999	0	25	130	155	0	43
5,000-9,999	0	8	24	32	0	9
2,500-4,999	0	6	19	25	0	8
1,000-2,499	0	3	13	16	0	3
Townships/Rural	3	18	61	82	3	34
Total	**4**	**129**	**568**	**701**	**4**	**201**

MV/Train Crash Summary

Motor vehicle and train crashes in Minnesota

This section focuses on crashes involving motor vehicles and trains. It does not include collisions between trains and pedestrians or trains and bicyclists.

Trends in vehicle-train crashes

Over the past eight years, vehicle-train crashes have remained relatively stable, with the exception of two years. Notably, 2023 marked the lowest number of vehicle-train crashes in this period, with just 35 crashes reported. This represents a 24 percent decrease compared to 2022. Tragically, there were two fatalities and 13 injuries resulting from these crashes.

Recent enhancements to improve safety

Several initiatives have contributed to the reduction in vehicle-train crashes. DPS introduced a new crash reporting system, which improves data collection and reporting. This enhanced system supports better law enforcement, education, and public awareness efforts.

Additionally, MnDOT has made significant investments in infrastructure. MnDOT has upgraded crossing signals and barriers, including the installation of gates and improvements to crossing visibility. These measures have played a key role in reducing both the frequency of crashes and the severity of injuries. MnDOT has also focused on increasing public education and awareness about train crossing safety.

2023 Motor vehicle/train crash stats:

35	2	13
Crashes	Fatalities	Injuries

MV/Train Crash Summary

Figure 9.01: Motor vehicle/train crash trends

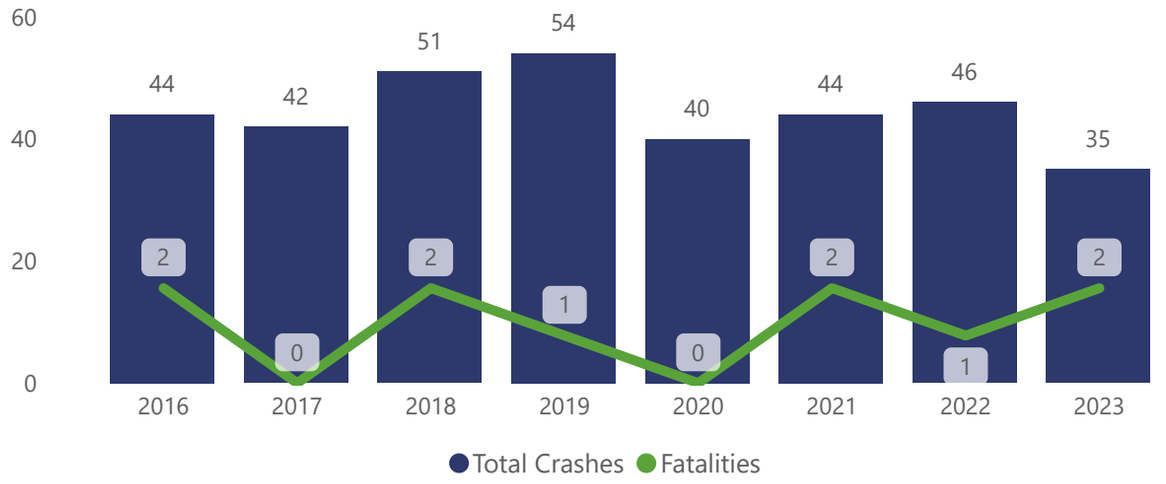


Figure 9.02: Motor vehicle/train crashes by traffic control device

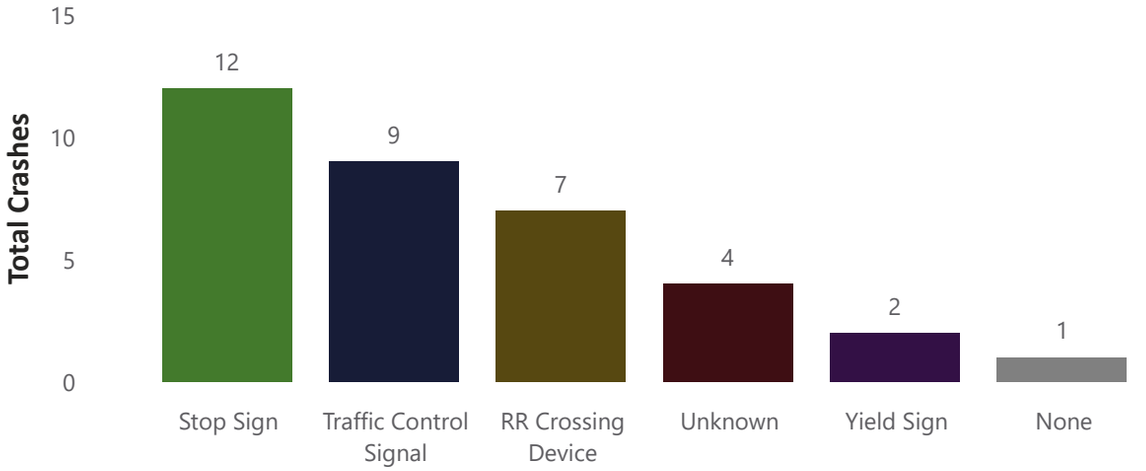
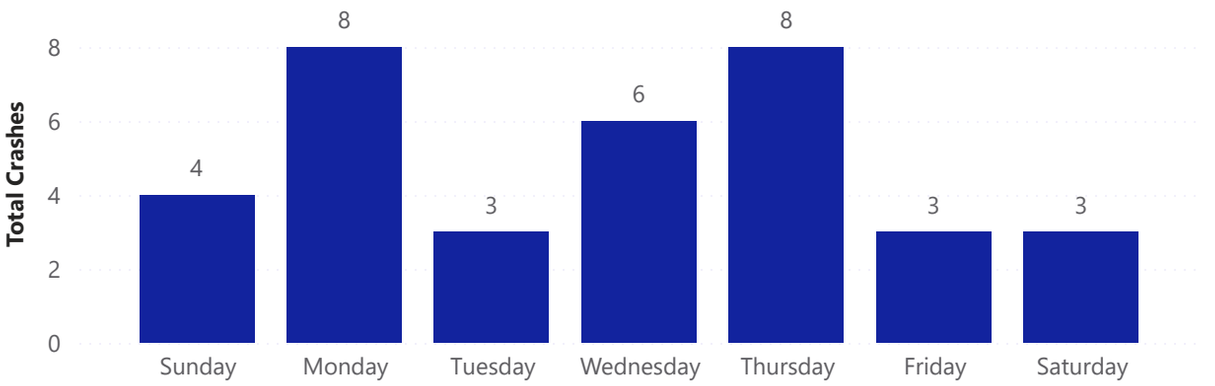


Figure 9.03: Motor vehicle/train crashes by day of the week



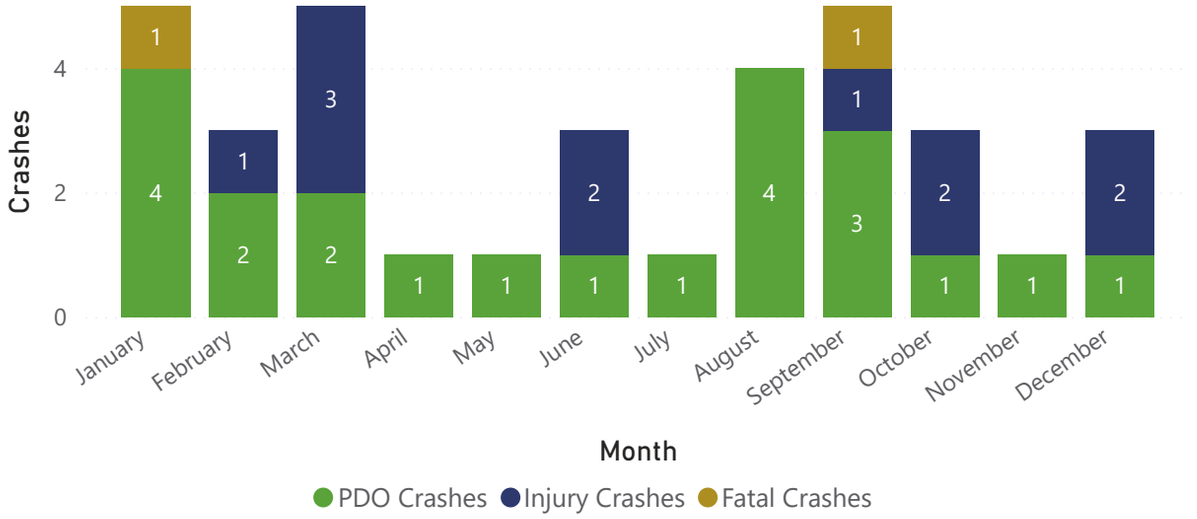
MV/Train Crash Statistics

63 percent of train crashes were Property Damage Only.

Table 9.01 - Motor Vehicle/Train Crashes

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	0	6	5	11	0	7
10,000-24,999	0	0	3	3	0	0
5,000-9,999	0	1	0	1	0	2
2,500-4,999	0	0	3	3	0	0
1,000-2,499	0	0	5	5	0	0
Townships/Rural	2	4	6	12	2	4
Total	**2**	**11**	**22**	**35**	**2**	**13**

Figure 9.05: Motor vehicle/train crashes by month and crash severity



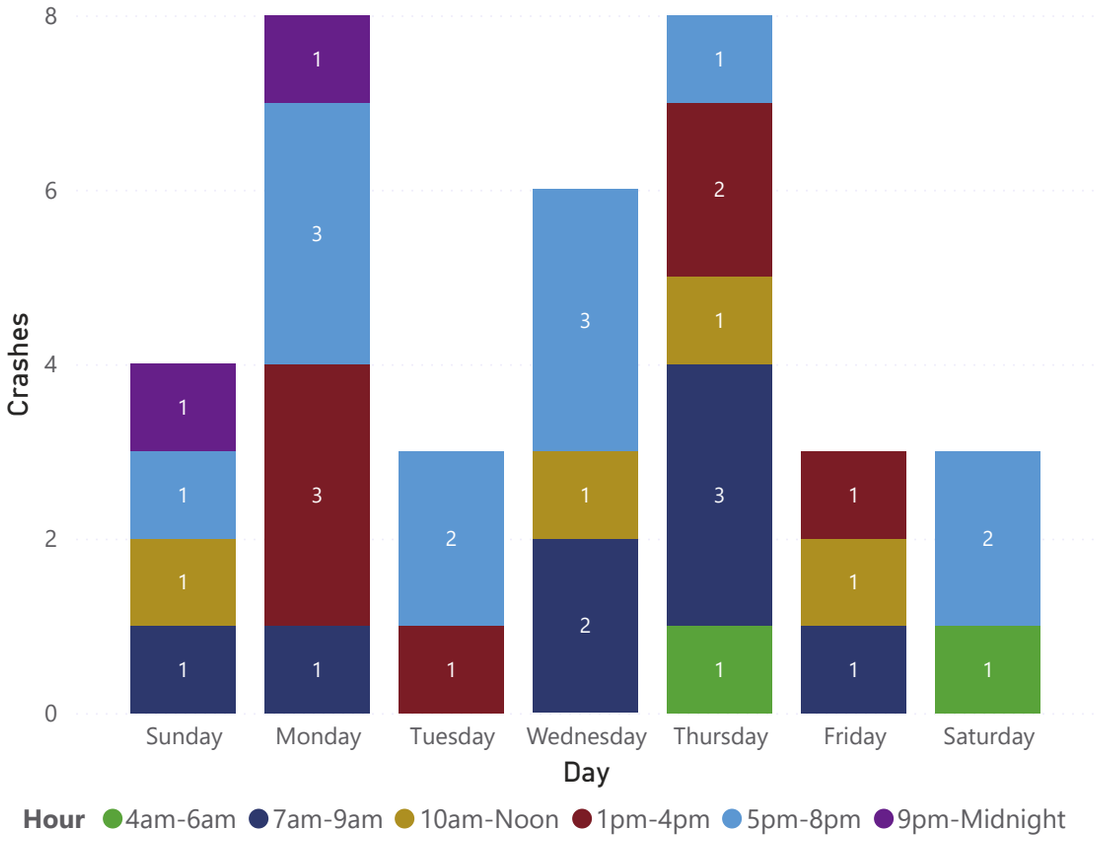
MV/Train Crash Statistics

54 percent of train crashes occurred between 1 p.m. – 8 p.m.

80 percent occurred during a weekday.

23 percent on Monday.

Figure 9.04: Motor vehicle/train crashes by day and time



Crashes are counted in the hour they occurred ignoring minutes. For example, 6:59am is included in the 4am-6am time group.

Teen Driver Summary

Teen driver crash summary overview

Teen drivers in Minnesota continue to be a focus as this group continues to be overrepresented in traffic crashes. The definition of a teen-involved crash used in this report is any crash with at least one teen driver (ages 15-19) of any motor vehicle involved. Teen pedestrians or bicyclists are not included. Data for this section of the report is derived from analytics from law enforcement crash reports.

In 2023, there were 49 teen fatalities and 4,440 injuries to teen drivers during the year. These occurred in a total of 11,040 crashes. Most of these crashes occurred during weekdays.

Overall, Minnesota has worked to strengthen its approach to reduce teen driving crashes, fatalities and injuries through public awareness, education and enforcement, with a focus on preventing impaired driving, especially for young drivers. More strict laws were implemented in 1996 with the introduction of the Minnesota's Graduated Driver Licensing (GDL) System. The following are some examples of legal enhancements that have recently been made to these laws:

- 2020 - Passenger limitations were strengthened with more stringent limits on teen passengers. The revised restrictions for passengers were revisions to limit passengers to no more than one passenger under 20 during the first six months.
- 2020 - Nighttime driving restrictions changes for teens with provisional licenses, those who have had their license for less than six months, were restricted from driving between midnight and 5 a.m., unless they were driving to or from work or a school-related event or were accompanied by a parent or guardian.

Minnesota continues to support the not-a-drop (NAD) Zero Tolerance law for drivers under 21. This law prohibits teens from driving with any amount of alcohol in their system, regardless of their BAC. DPS offers resources and information to help parents and teens understand and adhere to existing teen driver laws. There are many programs outside DPS targeting teens. A couple notable programs to mention include Mothers Against Drunk Driving (MADD), Driver Sober or Get Pulled Over (NHTSA national campaign), Point of Impact: Teen Driver Safety Parent Awareness Program and many more.

Teen driver stats:

11,040	49	4,440
Crashes	Fatalities	Injuries

Teen Driver Summary

Figure 10.01: Teen driver crash trends

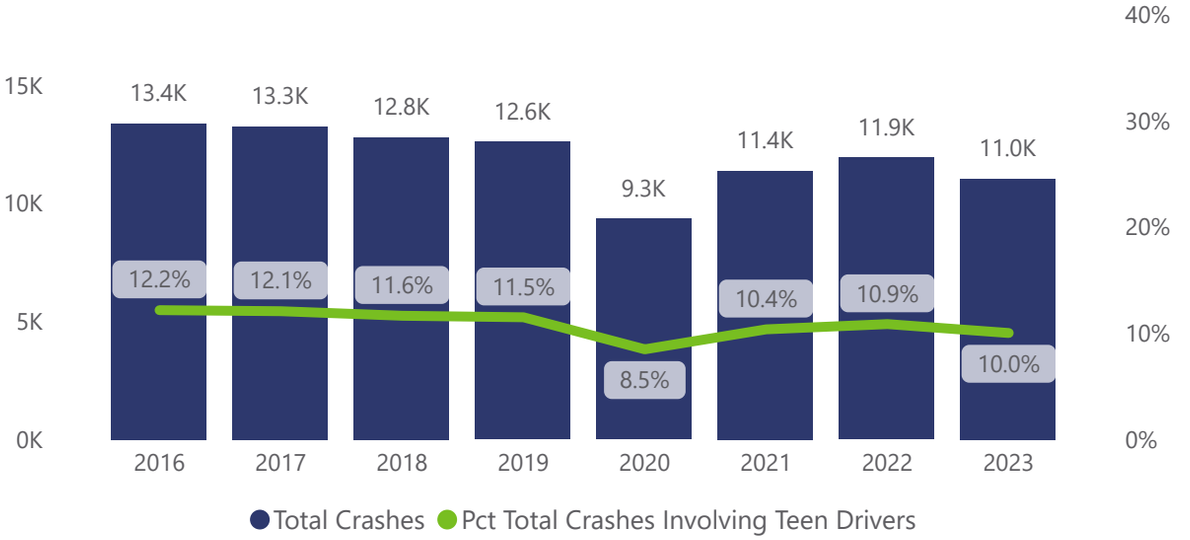
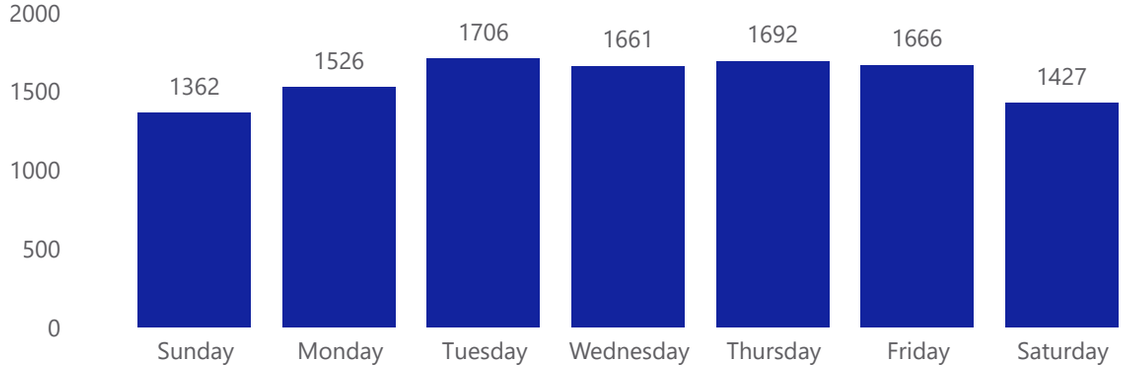


Figure 10.02: Teen driver crashes by day of week



Teen Driver Statistics

There was an average of **920 teen crashes** per month.

Table 10.01: Teen driver crashes by month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	4	207	817	1,028	4	301
February	3	211	684	898	4	318
March	3	222	758	983	3	300
April	2	182	528	712	3	274
May	3	277	597	877	4	407
June	6	308	701	1,015	7	501
July	4	294	582	880	4	438
August	3	275	600	878	4	420
September	2	276	633	911	3	407
October	4	283	693	980	4	395
November	5	223	684	912	5	324
December	3	248	715	966	4	355
Total	**42**	**3,006**	**7,992**	**11,040**	**49**	**4,440**

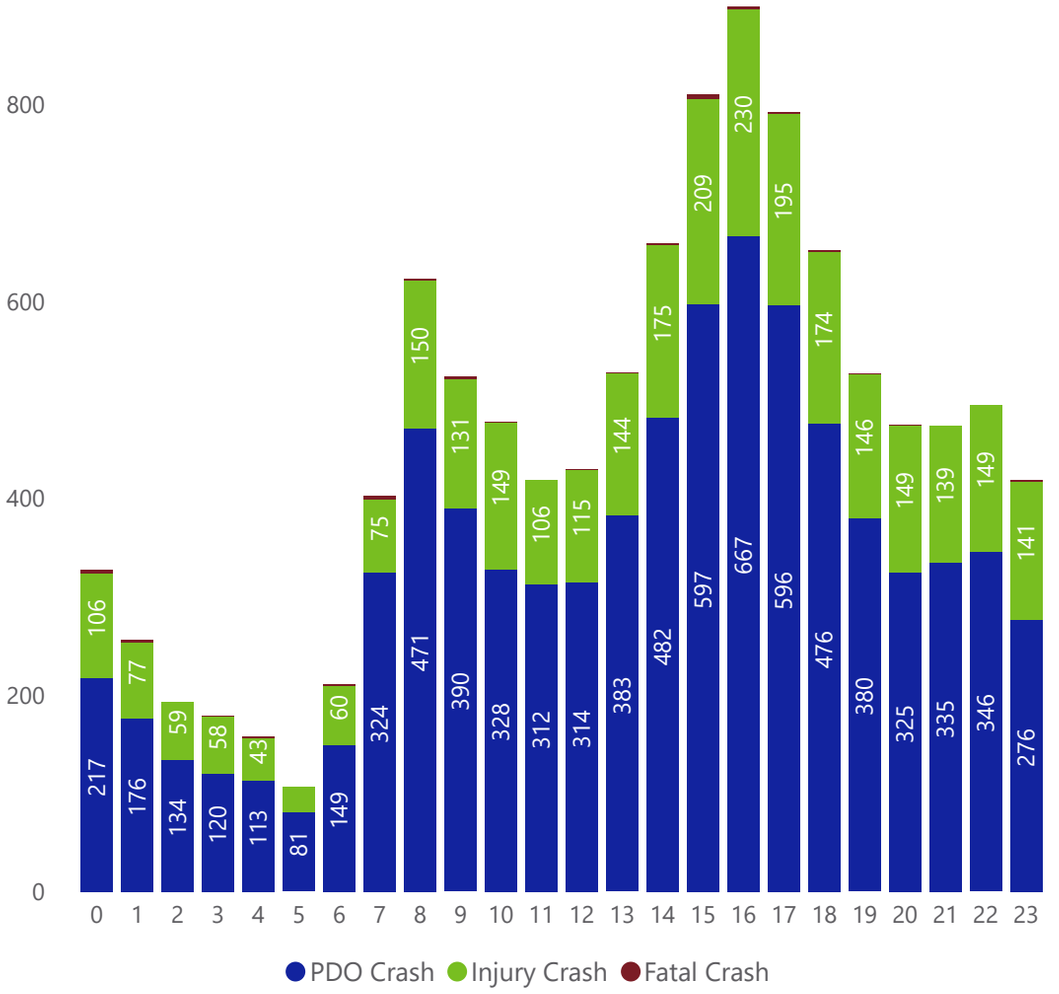
Midweek (Tuesday - Thursday) represented **46 percent** of teen crashes.

Table 10.02: Teen driver crashes by day of week

Day Name	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Sunday	4	389	969	1,362	4	585
Monday	5	450	1,071	1,526	5	664
Tuesday	4	456	1,246	1,706	6	649
Wednesday	12	436	1,213	1,661	12	627
Thursday	3	463	1,226	1,692	4	660
Friday	6	431	1,229	1,666	8	654
Saturday	8	381	1,038	1,427	10	601
Total	**42**	**3,006**	**7,992**	**11,040**	**49**	**4,440**

Teen drivers tend to have the most of their crashes between 2 p.m. - 6 p.m. This 5-hour time period represented **35 percent** of the teen crashes.

Figure 10.04: Teen driver crashes by crash severity and time of day



Senior Driver Summary

Senior drivers summary

The definition of a senior-involved crash used here is any crash with at least one senior driver (ages 65 and above) of any motor vehicle involved in the crash. Senior pedestrian or bicyclist crashes are not included. Analytics for this section of the report uses data from law enforcement crash reports.

National research indicates a significant increase in the number of older drivers and associated traffic incidents. Between 2013 and 2022, the population of individuals aged 65 and older grew by 30 percent, reaching 57.8 million in 2022.

Senior driver crash stats:

11,543	109	5,184
Crashes	Fatalities	Injuries

Forty-eight percent of senior crashes and related injuries occur midweek (Tuesday - Thursday). Friday next highest single day at **16 percent.**

Figure 11.01: Senior driver crash trends

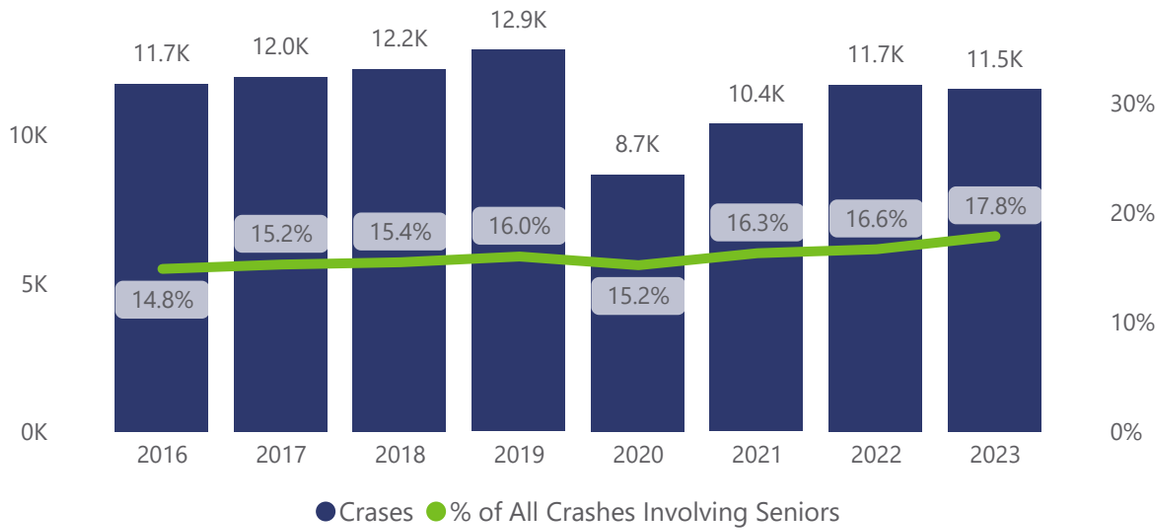
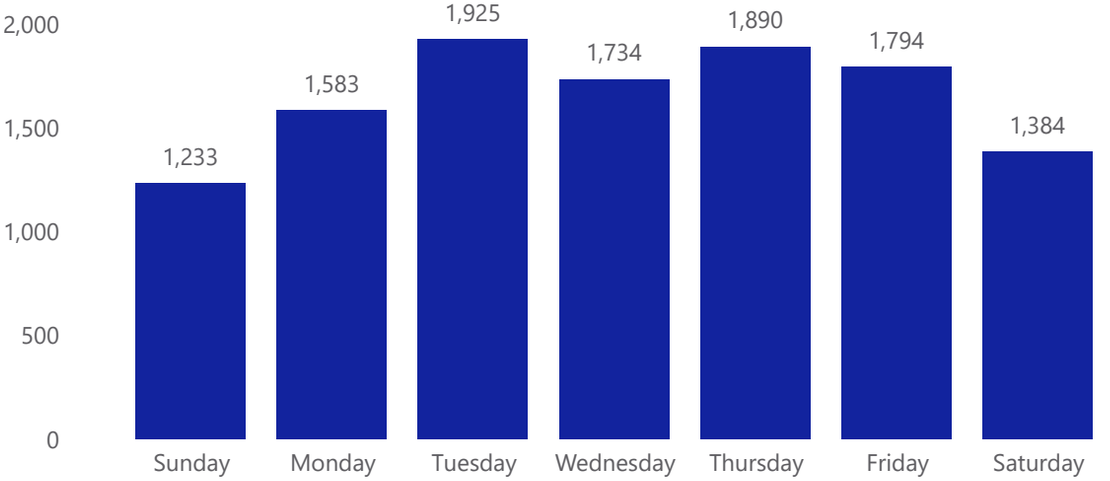


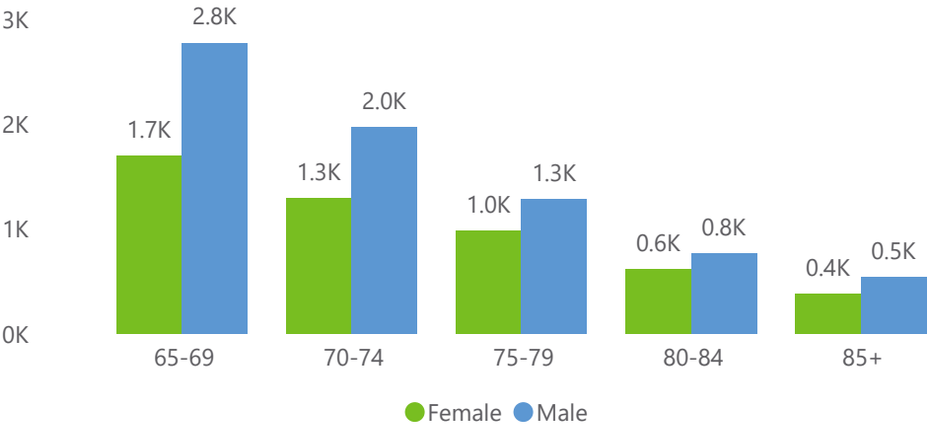
Figure 11.02: Senior driver crashes by day of week



Senior Driver Statistics

Sixty-three percent of senior driver crashes (7,726) were attributed to the 65-74 age group.

Figure 11.03: Senior drivers in crashes by age and gender



Forty-four percent of senior driver crashes (5,064) occurred from May through September.

Table 11.01: Senior driver crashes by month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injuries
January	4	217	693	914	4	294
February	6	230	584	820	7	315
March	5	241	585	831	5	362
April	8	244	545	797	9	358
May	8	355	657	1,020	8	531
June	17	359	647	1,023	20	533
July	8	338	630	976	8	500
August	11	375	664	1,050	13	543
September	8	300	687	995	8	425
October	5	330	749	1,084	5	455
November	8	307	727	1,042	13	436
December	7	299	685	991	9	432
Total	**95**	**3,595**	**7,853**	**11,543**	**109**	**5,184**

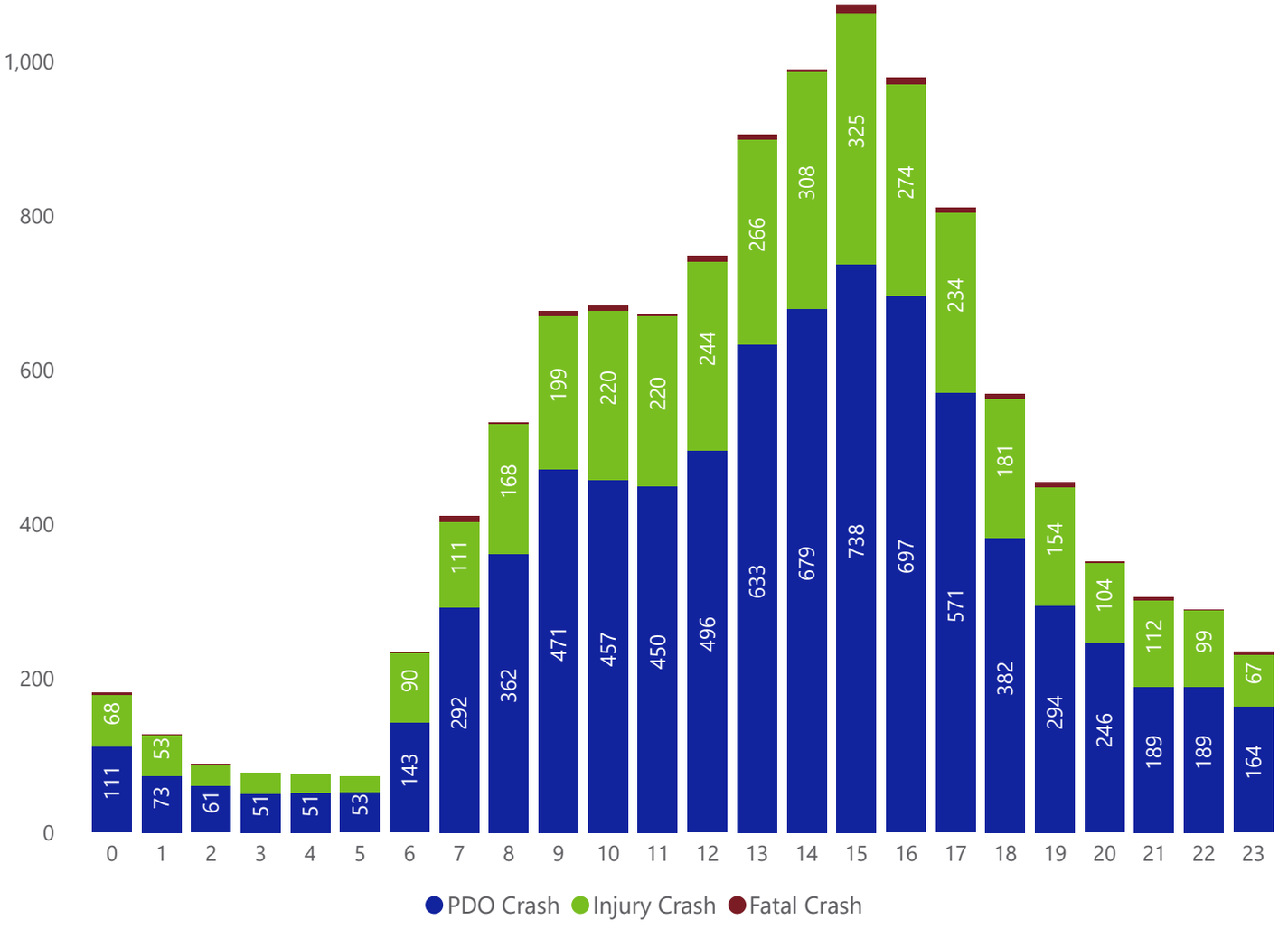
Senior Driver Statistics

Seniors follow teen crash day patterns. Senior driver crashes (5,519) occurred mid-week (Tuesday - Thursday) **48 percent of the time.**

Table 11.02: Senior driver crashes by day of week

Day	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injuries
Sunday	11	322	676	1,009	14	505
Monday	17	533	1,106	1,656	23	747
Tuesday	7	540	1,310	1,857	7	756
Wednesday	16	559	1,249	1,824	18	770
Thursday	11	586	1,241	1,838	12	834
Friday	16	593	1,351	1,960	16	862
Saturday	17	462	920	1,399	19	710
Total	**95**	**3,595**	**7,853**	**11,543**	**109**	**5,184**

Figure 11.04: Senior driver crashes by crash severity and time of day



Contributing Factors - Single-Vehicle By Driver Age

Crash contributing factors summary

Contributing factor analysis in this report is based on data from law enforcement crash reports. Officers use their best judgment to capture the contributing factors of each crash; they can record up to eight factors per incident.

In traffic safety analysis, contributing factors refer to conditions or behaviors that, when combined with other elements, increase the likelihood of a traffic crash. These factors are typically grouped into three main categories:

- Human factors - These involve driver behaviors and decisions that can lead to crashes. Common human factors include, distracted driving, impaired driving, speeding, reckless or aggressive driving, and/or fatigue.
- Roadway factors - environment factors referring to physical conditions of the road and the surrounding environment that can contribute to crashes. Examples include, poor road conditions, weather conditions and lighting.
- Road design factors - Sharp curves, blind spots or poorly marked lanes that can confuse drivers.
- Vehicle - factors - These involve the condition and maintenance of the vehicle involved in the crash. Contributing vehicle factors include things like, mechanical failures, vehicle defects, and maintenance of the vehicle.

Understanding these contributing factors is essential for developing effective traffic safety strategies and interventions. Both DPS and NHTSA utilize this framework to analyze crash data and implement safety measures.

Table 12.01: Single-vehicle crashes: contributing factors, by driver age groups

Contributing Factor	Type	15-19	20-24	25-29	30-34	35-64	65-79	80+
Careless, Negligent, or Erratic Driving	Human	278	300	207	184	516	63	6
Congestion Bkp, Non-recurring Incident	Misc	2	2	3	2	8	0	0
Congestion Bkp, Other	Misc	0	1	1	2	9	1	0
Congestion Bkp, Prior Crash	Misc	4	6	4	1	5	2	1
Debris	Misc	2	4	6	11	17	6	1
Defective Equipment	Vehicle	94	82	51	58	201	39	5
Disregard Traffic Signs / Road Markings	Human	26	28	25	29	94	30	15
Driver Distracted	Human	143	95	43	82	223	39	7
Driver Speeding	Human	335	278	177	140	372	47	4
Driver Swerved	Human	266	282	226	199	701	106	9
Failed to Keep in Proper Lane	Human	300	417	312	300	934	191	41
Failure to Yield Right-of-Way	Human	4	7	1	4	17	3	2
Following Too Closely	Human	14	15	7	11	27	5	0
Improper Backing	Human	3	9	4	6	31	5	1
Improper Passing	Human	10	6	5	8	14	5	0
Improper Turn/Merge	Human	41	26	15	16	76	27	7
Obstruction in Roadway	Misc	9	9	7	5	23	7	0
Other Human Factor	Human	267	305	237	203	786	170	49
Other Miscellaneous Factor	Misc	56	42	37	33	129	39	12
Other Vehicular Factor	Vehicle	107	88	56	56	261	40	11
Over-correcting / Over Steering	Human	356	256	223	186	537	95	13
Ran Off Road	Human	402	447	297	257	999	240	65
Ran Red Light / Stop Sign	Human	18	35	9	13	42	22	4
Road Surface Conditions	Misc	907	1,056	750	684	2,177	304	43
Traffic Control Device Inoperative/Missing/Obscured	Misc	2	0	0	0	2	1	0
Vision Obscured	Vehicle	10	17	14	17	38	8	6
Worn/Travel-Polished Surface	Misc	1	1	0	0	1	0	0
Wrong Side or Wrong Way	Human	7	5	6	6	23	7	5
Total		**3,664**	**3,819**	**2,723**	**2,513**	**8,263**	**1,502**	**307**

Contributing Factors - Multiple-Vehicle By Driver Age

Table 12.02: Multiple-vehicle crashes: contributing factors by driver age

Contributing Factor	Type	15-19	20-24	25-29	30-34	35-64	65-79	80+
Careless, Negligent, or Erratic Driving	Human	392	480	431	355	1,103	170	39
Congestion Bkp, Non-recurring Incident	Misc	147	215	197	171	678	110	18
Congestion Bkp, Other	Misc	136	178	175	156	594	104	10
Congestion Bkp, Prior Crash	Misc	36	52	60	47	228	34	8
Debris	Misc	3	13	14	7	31	8	2
Defective Equipment	Vehicle	121	115	88	69	252	34	8
Disregard Traffic Signs / Road Markings	Human	188	165	154	124	515	158	49
Driver Distracted	Human	589	522	402	356	1,103	219	36
Driver Speeding	Human	224	230	200	118	386	45	11
Driver Swerved	Human	197	233	201	186	701	108	15
Failed to Keep in Proper Lane	Human	286	340	272	267	1,053	277	109
Failure to Yield Right-of-Way	Human	1,346	943	699	740	3,036	1,250	500
Following Too Closely	Human	1,325	1,406	1,099	835	2,818	537	110
Improper Backing	Human	67	53	51	47	286	86	25
Improper Passing	Human	59	74	61	74	287	55	14
Improper Turn/Merge	Human	342	319	266	302	1,208	376	101
Obstruction in Roadway	Misc	6	12	16	13	65	15	1
Other Human Factor	Human	482	483	428	405	1,652	366	89
Other Miscellaneous Factor	Misc	123	137	105	110	483	111	34
Other Vehicular Factor	Vehicle	198	157	147	142	583	122	33
Over-correcting / Over Steering	Human	81	79	55	67	191	27	12
Ran Off Road	Human	27	45	27	28	98	20	7
Ran Red Light / Stop Sign	Human	281	272	248	209	869	258	87
Road Surface Conditions	Misc	1,187	1,330	1,203	1,204	5,127	774	129
Traffic Control Device Inoperative/Missing/Obscured	Misc	5	7	6	4	49	10	1
Vision Obscured	Vehicle	169	153	103	116	432	134	44
Worn/Travel-Polished Surface	Misc	0	0	0	0	9	1	0
Wrong Side or Wrong Way	Human	26	41	33	23	108	39	7
Total		**8,043**	**8,054**	**6,741**	**6,175**	**23,945**	**5,448**	**1,499**

Contributing Factors - Crash Severity

Table 12.03: Contributing factors in crashes by crash severity

Contributing Factor	Type	Fatal Crashes	Fatal Crash %	Injury Crashes	Injury Crash %	PDO Crashes	PDO Crash %
Careless, Negligent, or Erratic Driving	Human	67	12.5%	1,593	6.9%	2,860	4.8%
Disregard Traffic Signs / Road Markings	Human	18	3.4%	590	2.6%	991	1.7%
Driver Distracted	Human	16	3.0%	1,237	5.4%	2,607	4.4%
Driver Speeding	Human	60	11.2%	959	4.2%	1,546	2.6%
Driver Swerved	Human	12	2.2%	827	3.6%	2,591	4.4%
Failed to Keep in Proper Lane	Human	65	12.1%	1,172	5.1%	3,860	6.5%
Failure to Yield Right-of-Way	Human	43	8.0%	3,111	13.5%	5,396	9.1%
Following Too Closely	Human	5	0.9%	1,673	7.3%	6,531	11.0%
Improper Backing	Human	0	0.0%	36	0.2%	639	1.1%
Improper Passing	Human	9	1.7%	158	0.7%	505	0.9%
Improper Turn/Merge	Human	9	1.7%	533	2.3%	2,580	4.4%
Other Human Factor	Human	27	5.0%	1,684	7.3%	4,200	7.1%
Over-correcting / Over Steering	Human	13	2.4%	680	3.0%	1,485	2.5%
Ran Off Road	Human	49	9.2%	927	4.0%	1,980	3.3%
Ran Red Light / Stop Sign	Human	35	6.5%	1,136	4.9%	1,194	2.0%
Wrong Side or Wrong Way	Human	19	3.6%	142	0.6%	173	0.3%
Congestion Bkp, Non-recurring Incident	Misc	2	0.4%	403	1.8%	1,148	1.9%
Congestion Bkp, Other	Misc	4	0.7%	406	1.8%	957	1.6%
Congestion Bkp, Prior Crash	Misc	0	0.0%	126	0.5%	362	0.6%
Debris	Misc	0	0.0%	54	0.2%	71	0.1%
Obstruction in Roadway	Misc	0	0.0%	48	0.2%	140	0.2%
Other Miscellaneous Factor	Misc	6	1.1%	514	2.2%	929	1.6%
Road Surface Conditions	Misc	51	9.5%	3,615	15.7%	13,212	22.3%
Traffic Control Device Inoperative/Missing/Obscured	Misc	2	0.4%	44	0.2%	41	0.1%
Worn/Travel-Polished Surface	Misc	0	0.0%	2	0.0%	11	0.0%
Defective Equipment	Vehicle	7	1.3%	330	1.4%	880	1.5%
Other Vehicular Factor	Vehicle	13	2.4%	629	2.7%	1,362	2.3%
Vision Obscured	Vehicle	3	0.6%	332	1.4%	926	1.6%
Total		**535**	**100.0%**	**22,961**	**100.0%**	**59,177**	**100.0%**

Contributing Factors - Motorcycle Crashes

Table 12.04: Contributing factors in motorcycle (MC) crashes

Contributing Factor	Type	Single Vehicle Caused by MC	Single-Vehicle MC %	Multiple Vehicle Caused by Other	Multi - Vehicle Other %	Multiple Vehicle Caused by MC	Multi-Vehicle MC %
Careless, Negligent, or Erratic Driving	Human	54	10.8%	21	6.9%	32	12.3%
Congestion Bkp, Non-recurring Incident	Misc	1	0.2%	5	1.7%	5	1.9%
Congestion Bkp, Other	Misc	4	0.8%	2	0.7%	2	0.8%
Debris	Misc	12	2.4%	0	0.0%	2	0.8%
Defective Equipment	Vehicle	22	4.4%	4	1.3%	5	1.9%
Disregard Traffic Signs / Road Markings	Human	6	1.2%	12	4.0%	2	0.8%
Driver Distracted	Human	2	0.4%	9	3.0%	9	3.4%
Driver Speeding	Human	70	14.0%	1	0.3%	29	11.1%
Driver Swerved	Human	50	10.0%	8	2.6%	21	8.0%
Failed to Keep in Proper Lane	Human	42	8.4%	8	2.6%	13	5.0%
Failure to Yield Right-of-Way	Human	1	0.2%	130	42.9%	16	6.1%
Following Too Closely	Human	7	1.4%	13	4.3%	40	15.3%
Improper Passing	Human	8	1.6%	1	0.3%	17	6.5%
Improper Turn/Merge	Human	8	1.6%	23	7.6%	9	3.4%
Obstruction in Roadway	Misc	6	1.2%	1	0.3%	1	0.4%
Other Human Factor	Human	44	8.8%	15	5.0%	12	4.6%
Other Miscellaneous Factor	Misc	24	4.8%	7	2.3%	8	3.1%
Other Vehicular Factor	Vehicle	23	4.6%	10	3.3%	10	3.8%
Over-correcting / Over Steering	Human	33	6.6%	1	0.3%	4	1.5%
Ran Off Road	Human	55	11.0%	0	0.0%	1	0.4%
Ran Red Light / Stop Sign	Human	3	0.6%	10	3.3%	9	3.4%
Road Surface Conditions	Misc	22	4.4%	5	1.7%	5	1.9%
Traffic Control Device Inoperative/Missing/Obscured	Misc	1	0.2%	1	0.3%	1	0.4%
Vision Obscured	Vehicle	2	0.4%	15	5.0%	5	1.9%
Wrong Side or Wrong Way	Human	1	0.2%	1	0.3%	3	1.1%
Total		**501**	**100.0%**	**303**	**100.0%**	**261**	**100.0%**

Contributing Factors - Truck Crashes

Table 12.05: Contributing factors in truck crashes

Contributing Factor	Type	Truck Crash Factors	Truck %	Non-Truck Factors	Non-Truck %
Careless, Negligent, or Erratic Driving	Human	113	2.6%	140	4.7%
Congestion Bkp, Non-recurring Incident	Misc	77	1.8%	93	3.1%
Congestion Bkp, Other	Misc	48	1.1%	57	1.9%
Congestion Bkp, Prior Crash	Human	0	0.0%	12	0.4%
Congestion Bkp, Prior Crash	Misc	37	0.8%	25	0.8%
Dart/Dash	Human	0	0.0%	2	0.1%
Debris	Misc	11	0.3%	4	0.1%
Defective Equipment	Vehicle	76	1.7%	27	0.9%
Disregard Other Traffic Signs	Human	0	0.0%	2	0.1%
Disregard Traffic Signs / Road Markings	Human	76	1.7%	63	2.1%
Driver Distracted	Human	101	2.3%	112	3.8%
Driver Speeding	Human	101	2.3%	76	2.5%
Driver Swerved	Human	205	4.7%	118	4.0%
Failed to Keep in Proper Lane	Human	401	9.2%	286	9.6%
Failure to Yield Right-of-Way	Human	247	5.7%	360	12.1%
Following Too Closely	Human	276	6.3%	189	6.3%
Improper Backing	Human	91	2.1%	9	0.3%
Improper Passing	Human	32	0.7%	83	2.8%
Improper Turn/Merge	Human	247	5.7%	241	8.1%
Obstruction in Roadway	Misc	10	0.2%	6	0.2%
Other Human Factor	Human	347	8.0%	188	6.3%
Other Miscellaneous Factor	Misc	99	2.3%	79	2.7%
Other Vehicular Factor	Vehicle	129	3.0%	38	1.3%
Over-correcting / Over Steering	Human	117	2.7%	61	2.0%
Ran Off Road	Human	221	5.1%	18	0.6%
Ran Red Light / Stop Sign	Human	52	1.2%	69	2.3%
Road Surface Conditions	Misc	1,138	26.1%	550	18.5%
Traffic Control Device Inoperative/Missing/Obscured	Misc	3	0.1%	5	0.2%
Vision Obscured	Vehicle	90	2.1%	35	1.2%
Worn/Travel-Polished Surface	Misc	1	0.0%	0	0.0%
Wrong Side or Wrong Way	Human	8	0.2%	33	1.1%
Total		**4,354**	**100.0%**	**2,981**	**100.0%**

Contributing Factors - Pedestrian Crashes

Table 12.06: Contributing factors in pedestrian crashes

Contributing Factor	Type	Caused by Pedestrian	Ped %	Caused by Driver	Driver %
Other Human Factor	Human	156	37.5%	30	8.0%
Dart/Dash	Human	89	21.4%	0	0.0%
Road Surface Conditions	Misc	53	12.7%	43	11.4%
Disregard Other Traffic Signs	Human	50	12.0%	0	0.0%
Failure to Yield Right-of-Way	Human	34	8.2%	91	24.2%
Other Miscellaneous Factor	Misc	13	3.1%	11	2.9%
Inattentive/Distraction	Human	12	2.9%	0	0.0%
Improper Passing	Human	5	1.2%	3	0.8%
Congestion Bkp, Other	Misc	2	0.5%	2	0.5%
Congestion Bkp, Non-recurring Incident	Misc	1	0.2%	1	0.3%
Debris	Misc	1	0.2%	1	0.3%
Careless, Negligent, or Erratic Driving	Human	0	0.0%	37	9.8%
Defective Equipment	Vehicle	0	0.0%	1	0.3%
Disregard Traffic Signs / Road Markings	Human	0	0.0%	13	3.5%
Driver Distracted	Human	0	0.0%	28	7.4%
Driver Speeding	Human	0	0.0%	7	1.9%
Driver Swerved	Human	0	0.0%	15	4.0%
Failed to Keep in Proper Lane	Human	0	0.0%	13	3.5%
Following Too Closely	Human	0	0.0%	1	0.3%
Improper Backing	Human	0	0.0%	8	2.1%
Improper Turn/Merge	Human	0	0.0%	11	2.9%
Other Vehicular Factor	Vehicle	0	0.0%	13	3.5%
Over-correcting / Over Steering	Human	0	0.0%	2	0.5%
Ran Off Road	Human	0	0.0%	7	1.9%
Ran Red Light / Stop Sign	Human	0	0.0%	8	2.1%
Vision Obscured	Vehicle	0	0.0%	28	7.4%
Wrong Side or Wrong Way	Human	0	0.0%	2	0.5%
Total		**416**	**100.0%**	**376**	**100.0%**

Contributing Factors - Bicycle Crashes

Table 12.07: Contributing factors in bicycle crashes

Contributing Factor	Type	Biker Caused Crashes	Biker Caused %	Driver Caused Crashes	Driver Caused %
Other Human Factor	Human	144	28.9%	25	11.4%
Disregard Other Traffic Signs	Human	120	24.0%	0	0.0%
Failure to Yield Right-of-Way	Human	89	17.8%	103	47.0%
Dart/Dash	Human	85	17.0%	0	0.0%
Road Surface Conditions	Misc	22	4.4%	10	4.6%
Inattentive/Distraction	Human	15	3.0%	0	0.0%
Improper Turn/Merge	Human	12	2.4%	7	3.2%
Other Miscellaneous Factor	Misc	8	1.6%	3	1.4%
Congestion Bkp, Other	Misc	2	0.4%	1	0.5%
Debris	Misc	2	0.4%	1	0.5%
Careless, Negligent, or Erratic Driving	Human	0	0.0%	9	4.1%
Disregard Traffic Signs / Road Markings	Human	0	0.0%	5	2.3%
Driver Distracted	Human	0	0.0%	10	4.6%
Driver Speeding	Human	0	0.0%	3	1.4%
Driver Swerved	Human	0	0.0%	2	0.9%
Failed to Keep in Proper Lane	Human	0	0.0%	2	0.9%
Other Vehicular Factor	Vehicle	0	0.0%	8	3.7%
Over-correcting / Over Steering	Human	0	0.0%	1	0.5%
Ran Off Road	Human	0	0.0%	2	0.9%
Ran Red Light / Stop Sign	Human	0	0.0%	5	2.3%
Vision Obscured	Vehicle	0	0.0%	21	9.6%
Wrong Side or Wrong Way	Human	0	0.0%	1	0.5%
Total		**499**	**100.0%**	**219**	**100.0%**

Contributing Factors - School Bus Crashes

Table 12.08: Contributing factors in school bus crashes

Contributing Factor	Type ▲	Caused by Bus Driver	Bus Driver %	Caused by Other Driver	Other Driver %
Careless, Negligent, or Erratic Driving	Human	6	1.9%	22	3.6%
Disregard Traffic Signs / Road Markings	Human	4	1.3%	7	1.2%
Driver Distracted	Human	9	2.8%	33	5.5%
Driver Speeding	Human	0	0.0%	17	2.8%
Driver Swerved	Human	9	2.8%	30	5.0%
Failed to Keep in Proper Lane	Human	14	4.4%	24	4.0%
Failure to Yield Right-of-Way	Human	32	10.0%	79	13.1%
Following Too Closely	Human	17	5.3%	53	8.8%
Improper Backing	Human	8	2.5%	6	1.0%
Improper Passing	Human	6	1.9%	14	2.3%
Improper Turn/Merge	Human	22	6.9%	22	3.6%
Other Human Factor	Human	27	8.4%	35	5.8%
Over-correcting / Over Steering	Human	5	1.6%	12	2.0%
Ran Off Road	Human	1	0.0%	4	0.0%
Ran Red Light / Stop Sign	Human	9	2.8%	19	3.1%
Wrong Side or Wrong Way	Human	0	0.0%	2	0.0%
Congestion Bkp, Non-recurring Incident	Misc	6	1.9%	6	1.0%
Congestion Bkp, Other	Misc	6	1.9%	10	1.7%
Obstruction in Roadway	Misc	3	0.9%	2	0.0%
Other Miscellaneous Factor	Misc	9	2.8%	7	1.2%
Road Surface Conditions	Misc	97	30.3%	162	26.8%
Defective Equipment	Vehicle	1	0.0%	5	0.0%
Other Vehicular Factor	Vehicle	16	5.0%	21	3.5%
Vision Obscured	Vehicle	13	4.1%	12	2.0%
Total		**320**	**100.0%**	**604**	**100.0%**

Contributing Factors - Train Crashes

Table 12.09: Contributing factors in train crashes

Contributing Factor	Type	Vehicle / Train Crashes	Train Vehicle %
Disregard Traffic Signs / Road Markings	Human	10	21.3%
Driver Distracted	Human	3	6.4%
Driver Speeding	Human	1	2.1%
Driver Swerved	Human	1	2.1%
Failure to Yield Right-of-Way	Human	6	12.8%
Improper Passing	Human	1	2.1%
Improper Turn/Merge	Human	3	6.4%
Other Human Factor	Human	2	4.3%
Ran Off Road	Human	1	2.1%
Ran Red Light / Stop Sign	Human	4	8.5%
Other Miscellaneous Factor	Misc	1	2.1%
Road Surface Conditions	Misc	7	14.9%
Other Vehicular Factor	Vehicle	2	4.3%
Vision Obscured	Vehicle	5	10.6%
Total		**47**	**100.0%**

Contributing Factors - Teen Crashes

Table 12.10: Contributing factors teen crashes

Contributing Factor	Type	Caused by Teen Driver	Teen Caused %	Caused by Other Driver	Other Caused %
Careless, Negligent, or Erratic Driving	Human	670	5.7%	149	3.6%
Disregard Traffic Signs / Road Markings	Human	214	1.8%	94	2.3%
Driver Distracted	Human	732	6.3%	163	3.9%
Driver Speeding	Human	559	4.8%	63	1.5%
Driver Swerved	Human	463	4.0%	108	2.6%
Failed to Keep in Proper Lane	Human	586	5.0%	97	2.3%
Failure to Yield Right-of-Way	Human	1,350	11.5%	621	14.9%
Following Too Closely	Human	1,339	11.4%	505	12.1%
Improper Backing	Human	70	0.6%	23	0.6%
Improper Passing	Human	69	0.6%	25	0.6%
Improper Turn/Merge	Human	383	3.3%	153	3.7%
Other Human Factor	Human	749	6.4%	228	5.5%
Over-correcting / Over Steering	Human	437	3.7%	16	0.4%
Ran Off Road	Human	429	3.7%	9	0.2%
Ran Red Light / Stop Sign	Human	299	2.6%	148	3.6%
Wrong Side or Wrong Way	Human	33	0.3%	13	0.3%
Congestion Bkp, Non-recurring Incident	Misc	149	1.3%	159	3.8%
Congestion Bkp, Other	Misc	136	1.2%	148	3.6%
Congestion Bkp, Prior Crash	Misc	40	0.3%	41	1.0%
Debris	Misc	5	0.0%	2	0.0%
Obstruction in Roadway	Misc	15	0.1%	8	0.2%
Other Miscellaneous Factor	Misc	179	1.5%	108	2.6%
Road Surface Conditions	Misc	2,094	17.9%	1,065	25.6%
Traffic Control Device Inoperative/Missing/Obscured	Misc	7	0.0%	5	0.1%
Worn/Travel-Polished Surface	Misc	1	0.0%	0	0.0%
Defective Equipment	Vehicle	215	1.8%	35	0.8%
Other Vehicular Factor	Vehicle	305	2.6%	88	2.1%
Vision Obscured	Vehicle	179	1.5%	84	2.0%
Total		**11,707**	**100.0%**	**4,158**	**100.0%**

Contributing Factors - Senior Crashes

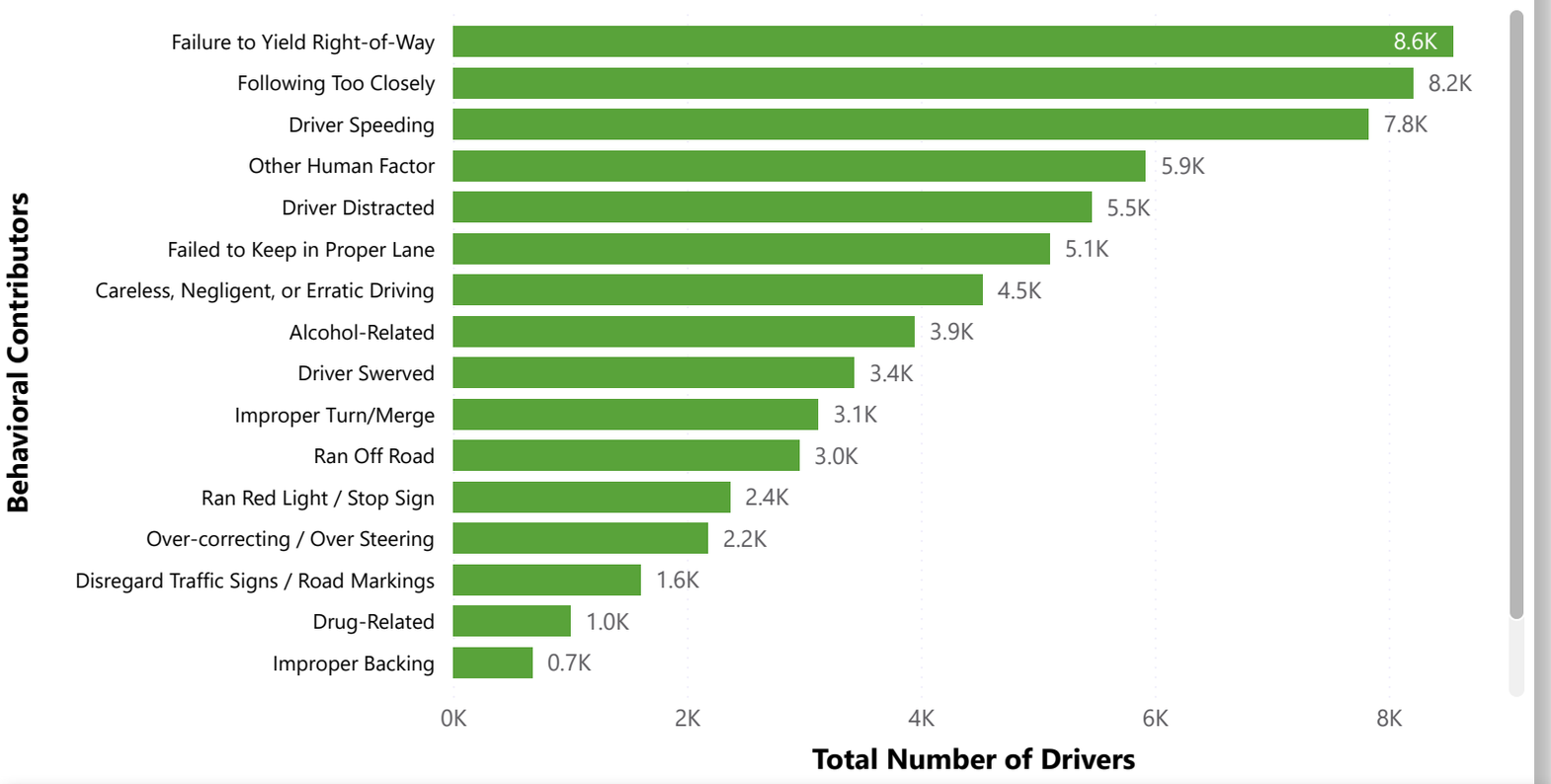
Table 12.11: Contributing factors senior crashes

Contributing Factor	Type	Caused by Senior Driver	Senior Caused %	Caused by Other Driver	Other Driver Caused %
Careless, Negligent, or Erratic Driving	Human	278	3.2%	243	4.2%
Congestion Bkp, Non-recurring Incident	Misc	128	1.5%	151	2.6%
Congestion Bkp, Other	Misc	115	1.3%	136	2.3%
Congestion Bkp, Prior Crash	Misc	45	0.5%	52	0.9%
Debris	Misc	17	0.2%	11	0.2%
Defective Equipment	Vehicle	86	1.0%	94	1.6%
Disregard Traffic Signs / Road Markings	Human	252	2.9%	123	2.1%
Driver Distracted	Human	301	3.4%	385	6.6%
Driver Speeding	Human	107	1.2%	153	2.6%
Driver Swerved	Human	238	2.7%	149	2.6%
Failed to Keep in Proper Lane	Human	618	7.1%	221	3.8%
Failure to Yield Right-of-Way	Human	1,755	20.0%	866	14.9%
Following Too Closely	Human	652	7.4%	828	14.2%
Improper Backing	Human	117	1.3%	38	0.7%
Improper Passing	Human	74	0.8%	70	1.2%
Improper Turn/Merge	Human	511	5.8%	266	4.6%
Obstruction in Roadway	Misc	23	0.3%	13	0.2%
Other Human Factor	Human	674	7.7%	383	6.6%
Other Miscellaneous Factor	Misc	196	2.2%	109	1.9%
Other Vehicular Factor	Vehicle	206	2.4%	134	2.3%
Over-correcting / Over Steering	Human	147	1.7%	54	0.9%
Ran Off Road	Human	332	3.8%	26	0.4%
Ran Red Light / Stop Sign	Human	371	4.2%	280	4.8%
Road Surface Conditions	Misc	1,250	14.3%	882	15.2%
Traffic Control Device Inoperative/Missing/Obscured	Misc	12	0.1%	11	0.2%
Vision Obscured	Vehicle	192	2.2%	114	2.0%
Worn/Travel-Polished Surface	Misc	1	0.0%	1	0.0%
Wrong Side or Wrong Way	Human	58	0.7%	26	0.4%
Total		**8,756**	**100.0%**	**5,819**	**100.0%**

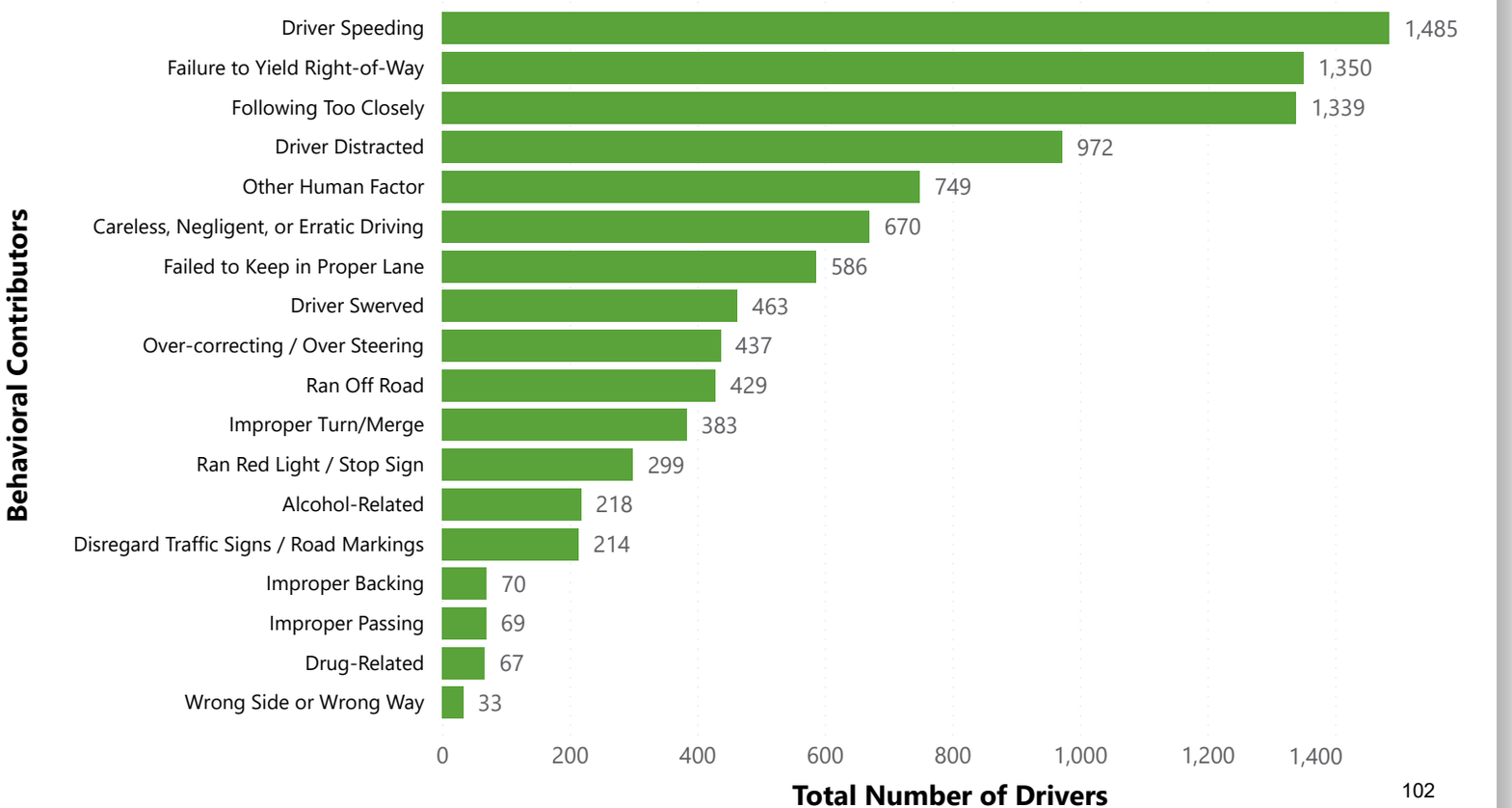
Contributing Factors - Driver Behaviors by Age

Behavior statistics are an important part of the analysis of crashes with the goal of understanding what behaviors contribute to crashes by behavior and age group. This helps focus on specific potential remedies that could save lives. These statistics clearly show that the primary reasons for crashes change by age group. There can be multiple contributing factors attributed to each crash. All these factors are aggregated and provided. These charts show the number of contributing factors in crashes not crashes.

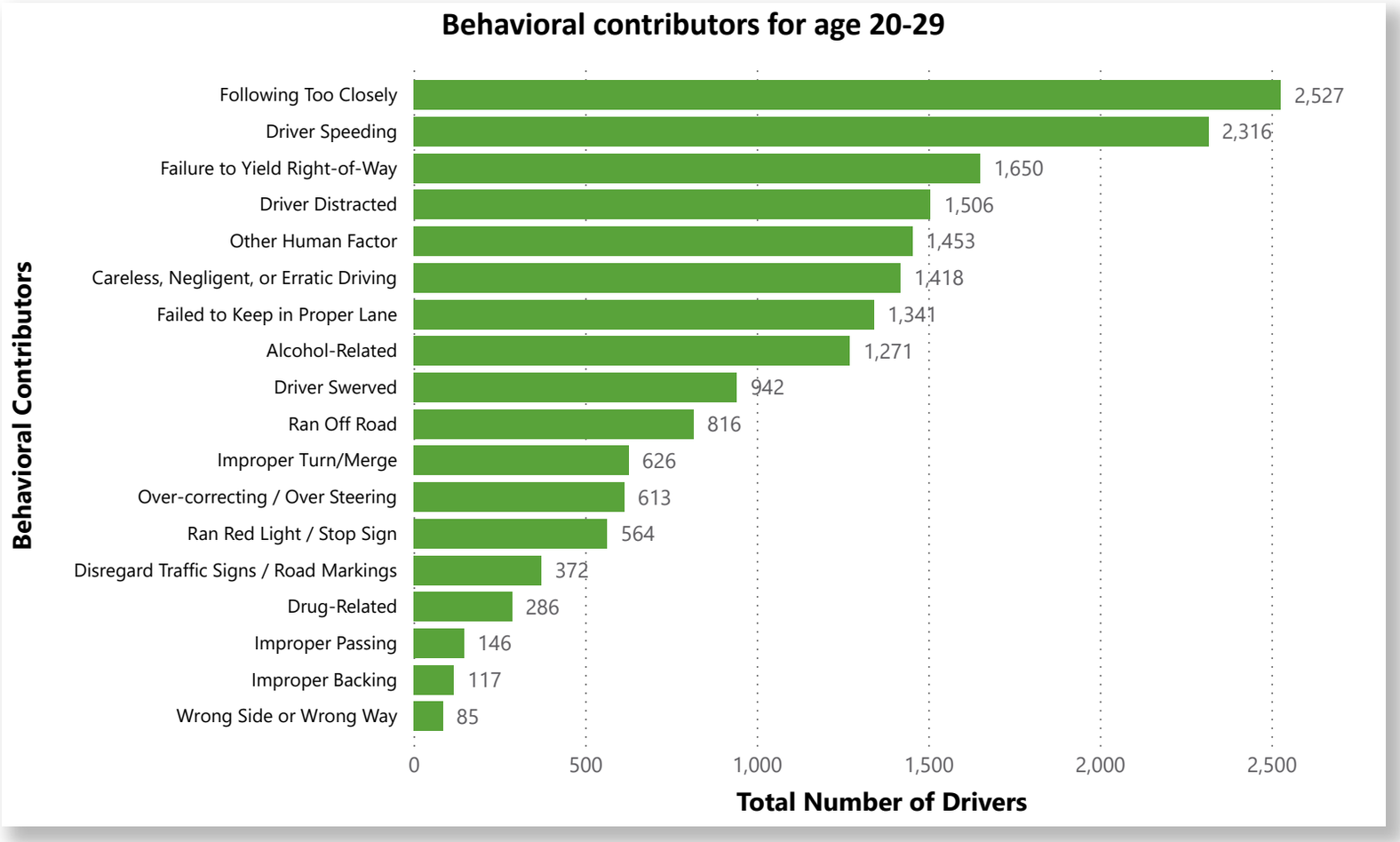
Behavior contributors for all ages

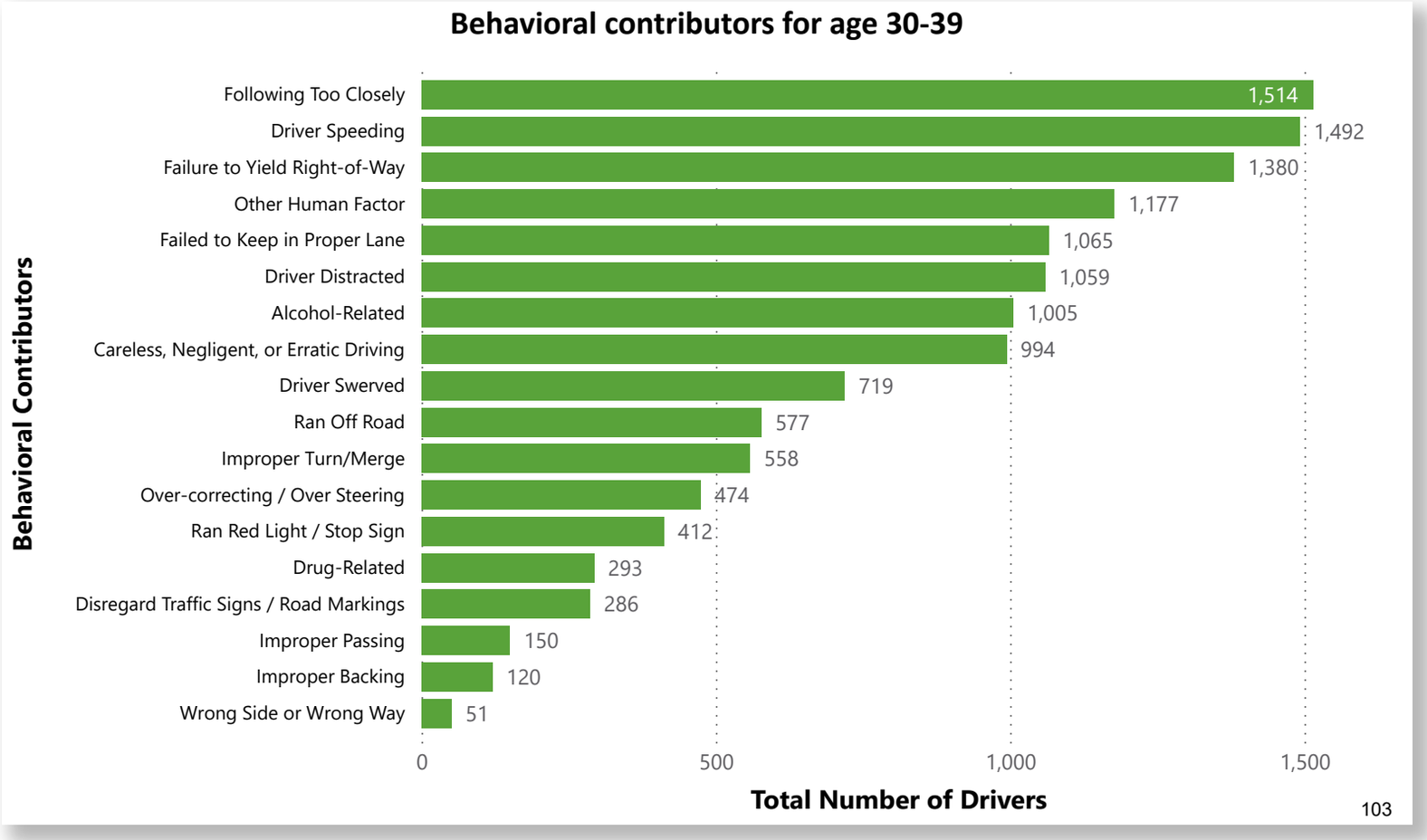


Behavioral contributors for age 15-19

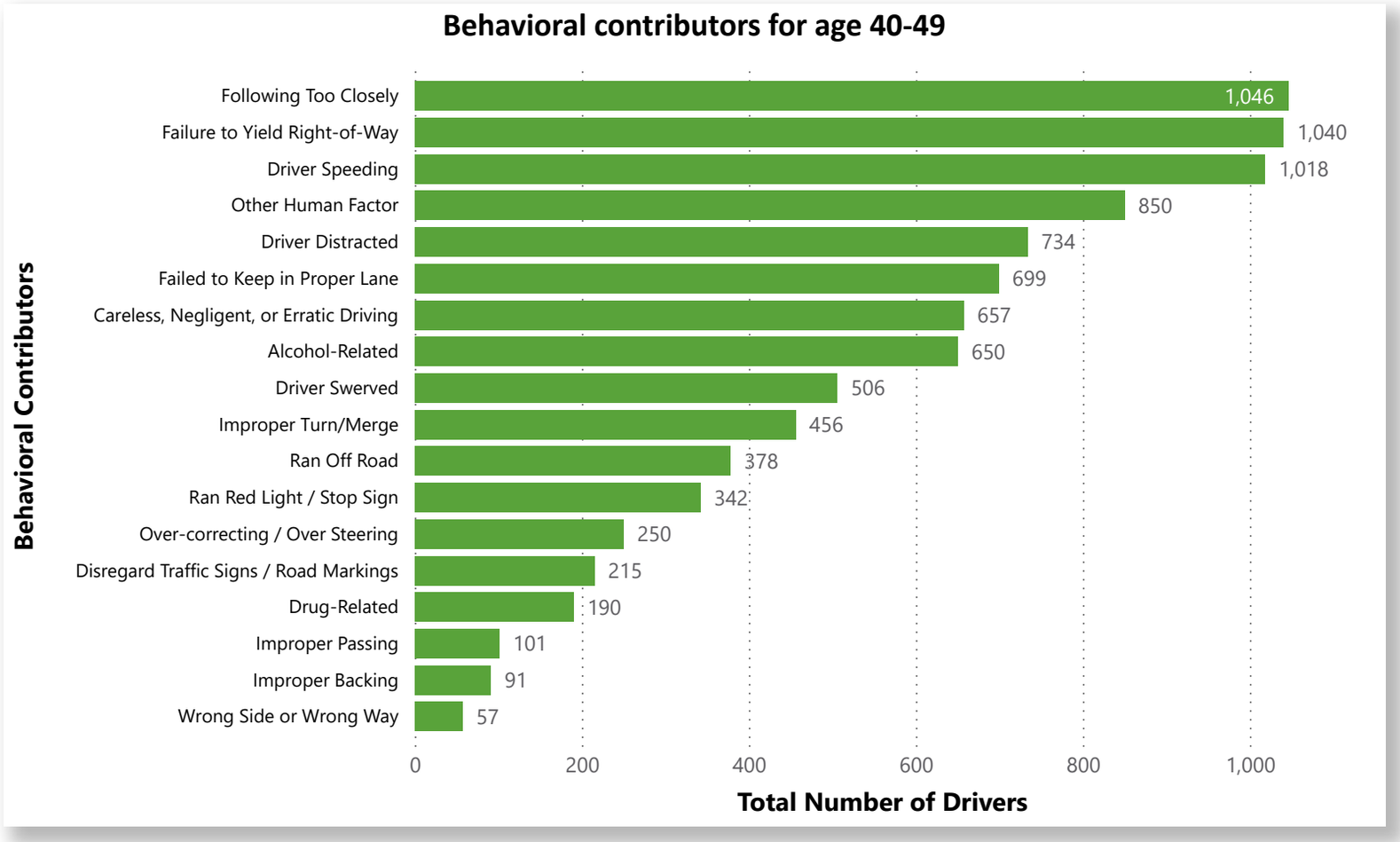


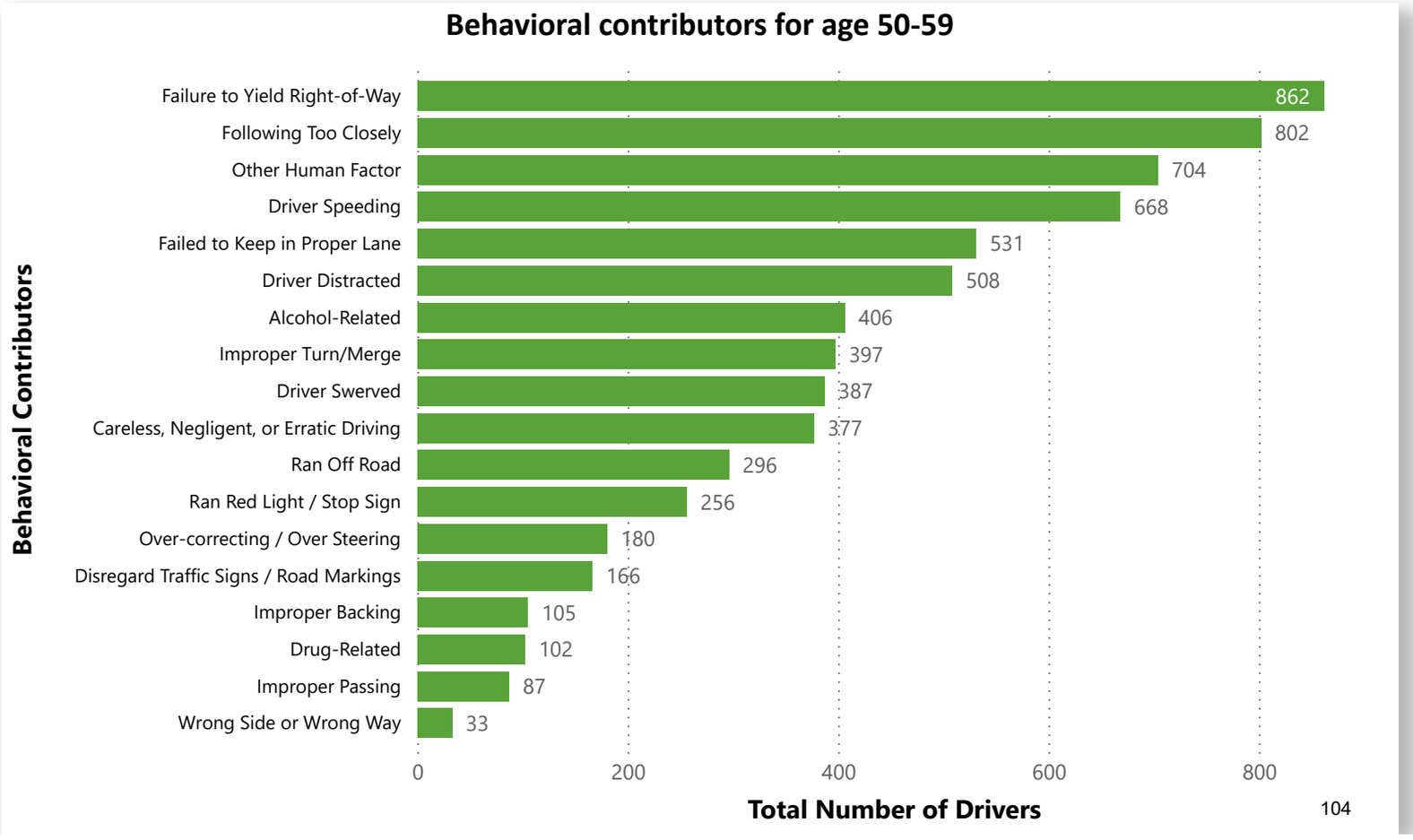
Contributing Factors - Driver Behaviors by Age



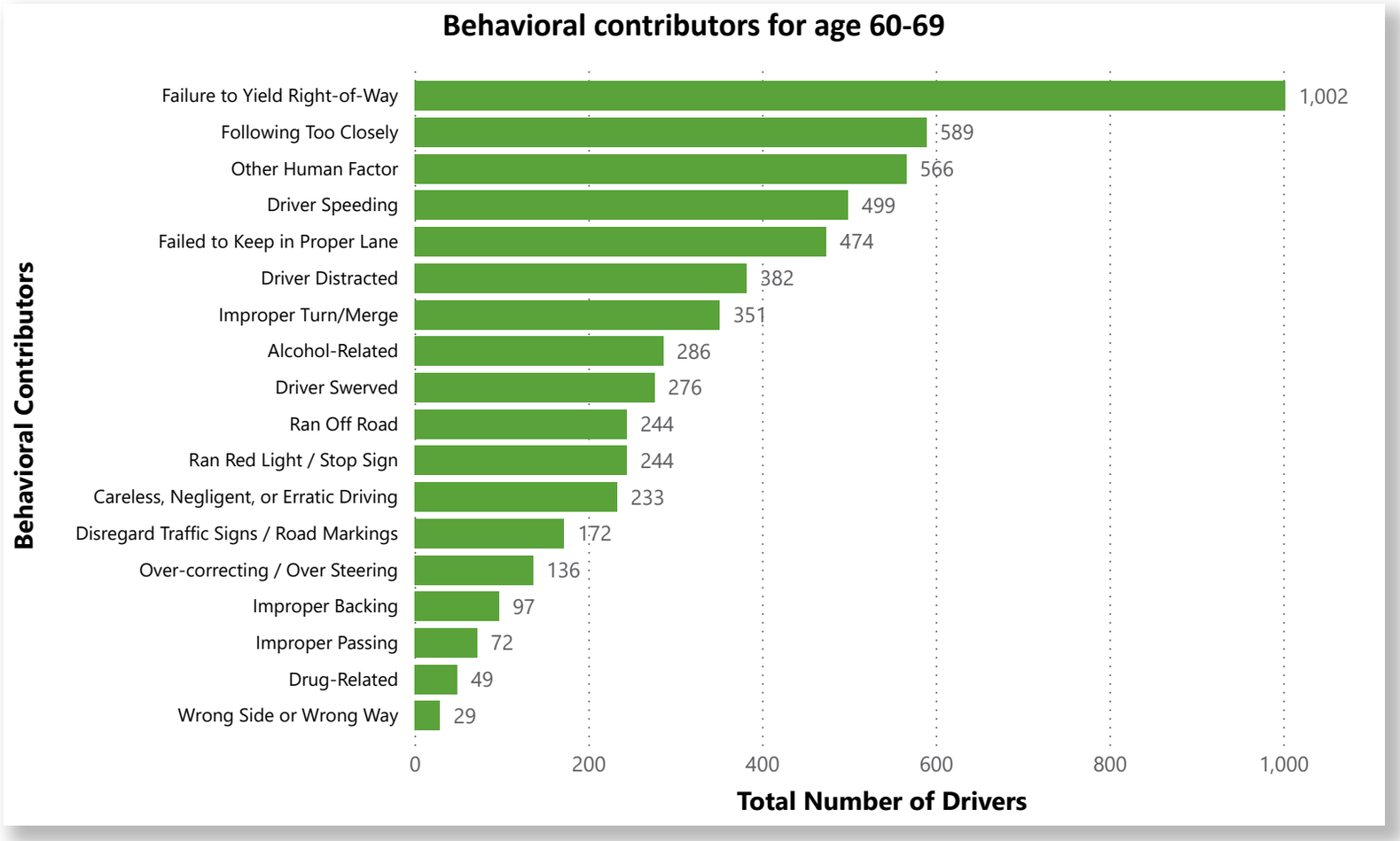


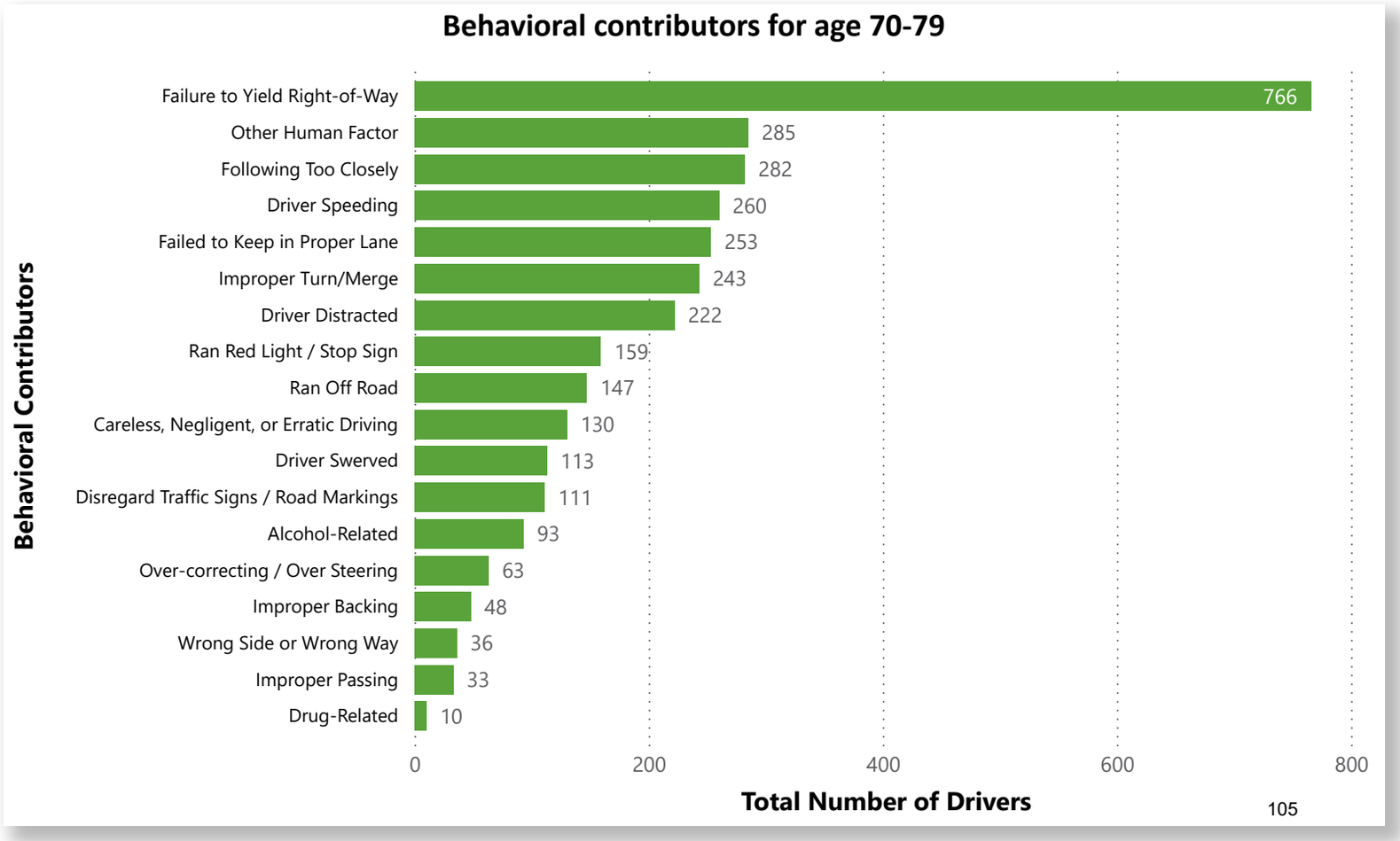
Contributing Factors - Driver Behaviors by Age



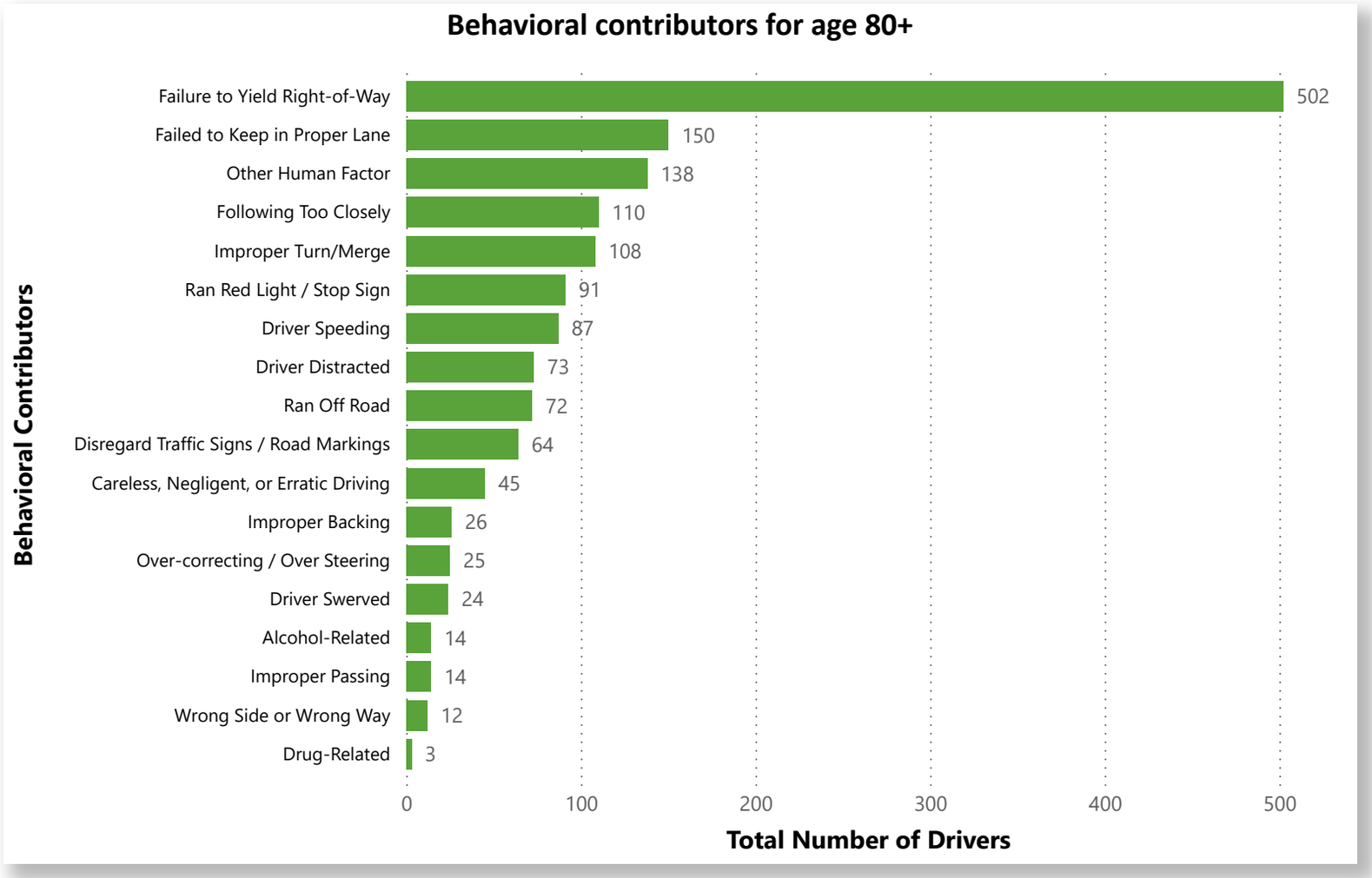


Contributing Factors - Driver Behaviors by Age





Contributing Factors - Driver Behaviors by Age



Contributing Factors - Driver Behaviors by Gender

Table 12.12: Contributing factors male drivers (15-59)

Contributing Factor	15-19	20-29	30-39	40-49	50-59
Alcohol-Related	139	892	689	483	286
Careless, Negligent, or Erratic Driving	448	996	671	461	264
Disregard Traffic Signs / Road Markings	120	220	178	129	93
Driver Distracted	533	881	638	455	333
Driver Speeding	910	1,458	933	647	456
Driver Swerved	275	580	445	329	253
Drug-Related	53	208	199	129	63
Failed to Keep in Proper Lane	346	862	703	486	375
Failure to Yield Right-of-Way	713	923	736	567	482
Following Too Closely	737	1,495	937	655	544
Improper Backing	44	79	78	65	76
Improper Passing	39	96	98	71	65
Improper Turn/Merge	213	373	341	285	267
Other Human Factor	434	966	739	580	488
Over-correcting / Over Steering	274	374	309	153	114
Ran Off Road	264	556	412	268	200
Ran Red Light / Stop Sign	185	338	237	206	167
Wrong Side or Wrong Way	23	51	35	38	19
Total	**5,750**	**11,348**	**8,378**	**6,007**	**4,545**

Table 12.12: Contributing factors male drivers (60-80+)

Contributing Factor	60-69	70-79	80+	Age Unk	All Male Drivers
Following Too Closely	394	181	75	0	5,018
Driver Speeding	310	150	53	0	4,917
Failure to Yield Right-of-Way	573	375	257	0	4,626
Other Human Factor	390	185	87	0	3,869
Failed to Keep in Proper Lane	311	159	93	1	3,336
Driver Distracted	222	127	45	0	3,234
Careless, Negligent, or Erratic Driving	174	92	25	2	3,133
Alcohol-Related	221	80	10	0	2,800
Driver Swerved	193	89	16	0	2,180
Ran Off Road	178	101	52	0	2,031
Improper Turn/Merge	235	122	53	0	1,889
Ran Red Light / Stop Sign	142	81	43	0	1,399
Over-correcting / Over Steering	90	48	16	0	1,378
Disregard Traffic Signs / Road Markings	96	65	39	0	940
Drug-Related	33	10	1	0	696
Improper Backing	76	33	16	0	467
Improper Passing	55	25	5	0	454
Wrong Side or Wrong Way	15	22	9	0	212
Total	**3,708**	**1,945**	**895**	**3**	**42,579**

Contributing Factors - Driver Behaviors by Gender

Table 12.13: Contributing factors female drivers (15-59)

Contributing Factor	15-19	20-29	30-39	40-49	50-59
Alcohol-Related	71	342	287	154	113
Careless, Negligent, or Erratic Driving	208	391	304	182	110
Disregard Traffic Signs / Road Markings	93	144	105	82	72
Driver Distracted	435	613	410	276	172
Driver Speeding	562	825	539	363	208
Driver Swerved	184	350	268	170	132
Drug-Related	13	70	92	55	39
Failed to Keep in Proper Lane	237	457	347	205	154
Failure to Yield Right-of-Way	630	709	630	468	377
Following Too Closely	596	1,005	558	382	256
Improper Backing	25	35	38	26	28
Improper Passing	28	47	51	29	22
Improper Turn/Merge	166	244	213	168	128
Other Human Factor	309	464	419	263	211
Over-correcting / Over Steering	158	227	158	96	62
Ran Off Road	160	243	156	104	93
Ran Red Light / Stop Sign	110	218	167	134	88
Wrong Side or Wrong Way	10	30	14	17	14
Total	**3,995**	**6,414**	**4,756**	**3,174**	**2,279**

Table 12.13: Contributing factors female drivers (60-80+)

Contributing Factor	60-69	70-79	80+	Age Unk	All Female Drivers
Alcohol-Related	64	13	4	0	1,048
Careless, Negligent, or Erratic Driving	59	38	18	0	1,310
Disregard Traffic Signs / Road Markings	75	46	25	0	642
Driver Distracted	160	95	28	0	2,189
Driver Speeding	188	110	33	0	2,828
Driver Swerved	82	24	8	0	1,218
Drug-Related	15	0	2	0	286
Failed to Keep in Proper Lane	161	94	57	0	1,712
Failure to Yield Right-of-Way	426	390	244	0	3,874
Following Too Closely	194	100	35	0	3,126
Improper Backing	21	15	10	0	198
Improper Passing	17	8	8	0	210
Improper Turn/Merge	116	121	54	0	1,210
Other Human Factor	175	100	50	0	1,991
Over-correcting / Over Steering	46	15	9	0	771
Ran Off Road	66	45	20	0	887
Ran Red Light / Stop Sign	102	78	48	0	945
Wrong Side or Wrong Way	14	14	3	0	116
Total	**1,981**	**1,306**	**656**	**0**	**24,561**

Definitions

Accident - See motor vehicle crash.

Alcohol concentration - Level of alcohol in a person's body as measured by blood, breath or urine.

Alcohol-related fatal crash - Crash that results in one or more deaths and in which the investigating officer suspected alcohol involvement or in which the results of an alcohol concentration test were positive for any driver, pedestrian or bicyclist involved in the crash.

Alcohol-related fatality - Death resulting from an alcohol-related crash.

Alcohol-related injury - Non-fatal injury resulting from an alcohol-related crash.

Alcohol-related injury crash - Non-fatal crash in which one or more persons are injured and in which the investigating officer suspected alcohol involvement for any driver, pedestrian or bicyclist involved in the crash.

Alcohol-related property damage crash - Crash in which no one is killed or injured and the investigating officer suspected alcohol involvement for any driver, pedestrian or bicyclist involved in the crash.

BAC - Blood alcohol content

BCA - Minnesota Bureau of Criminal Apprehension

Bicycle crash - Motor vehicle crash involving one or more bicycles.

Child safety seats - Safety devices designed to fit in motor vehicles that keep children securely in place. The seats are required by law for children less than four years of age.

CMV - Commercial Motor Vehicle - Any vehicle can be used commercially, but for the purposes of this report, a large truck used for transporting goods.

Crash - See motor vehicle crash.

CSAH - County State Aid Highway

Driver - Occupant of a motor vehicle who is in actual physical control of the vehicle in transit or, for an out-of-control vehicle, the occupant who was in control before control was lost.

DPS - Department of Public Safety

Drunk driving – Considered drunk driving when a motor vehicle driver tests at or above .08 percent blood alcohol concentration (BAC) level or above for adults. Commercial drivers must not be at or exceed .04 BAC and drivers under the age of 21 must not have any alcohol.

Definitions

Economic loss - Approximation of the costs associated with crashes, based upon current National Safety Council estimates of the loss to society for each fatality, injury and property damage crash.

Fatal crash - Motor vehicle crash on a public trafficway in which at least one person dies unintentionally as a result of the crash. The death must occur within 30 days of the crash.

Fatal injury - Injury that results in an unintentional death within 30 days of the crash.

First harmful event - First event during a crash that caused injury or property damage.

GHSA - Governors Highway Safety Association

KABCO Injury classification scale - This is a MnDOT injury categorization as follows:
- K - Killed: A fatal injury, meaning the individual involved in the crash has died as a result of their Injury
- A - (Incapacitating Injury): Prevents the person from walking, driving, or continuing normal activities. It may require significant medical treatment, and the individual is typically unable to leave the crash scene without assistance.
- B (No - Incapacitating Injury): Injuries that are not severe enough to prevent the person from walking or continuing normal activities but require medical attention. Examples include sprains, minor fractures, or cuts.
- C (Possible injury): Injuries that are suspected but not confirmed, such as aches, pains, or bruises.
- O (No Injury): This means that the individual involved in the crash did not sustain any injuries

MC or MCY – Motorcycle

Metro - The Twin Cities metropolitan area of the state.

Minor injury - Injury not in capacitating but evident to observers at the scene of the crash in which the injury occurred.

MMUCC - Model Minimum Uniform Crash Criteria. Federal standards and guidelines for crash reporting.

MN - Minnesota

MnDOT - Minnesota Department of Transportation

Motor vehicle - Self-propelled vehicle, including attached trailers and semi-trailers designed for use with such vehicles.

Motor vehicle crash - A crash that involves a motor vehicle in transport on a public traffic-way in Minnesota and results in injury, death or at least $1,000.00 in property damage.

MVO – Motor Vehicle Occupant

Motorcycle - Two-wheeled or three-wheeled motor vehicle having one or more riding saddles and having an engine of more than 50 cc, more than 2 brake horsepower, or the capability of speeds over 30 mph on a flat surface. Otherwise, it is classified as a motorized bicycle or motor scooter/ motorbike.

Motorcycle crash - Motor vehicle crash involving one or more motorcycles.

MSAH – Municipal State Aid Highway

Definitions

NHTSA - National Highway Traffic and Safety Administration

Occupant - Person who is in or on a vehicle, including the driver, passenger and persons riding on the outside of the vehicle.

Occupant restraints - Protective devices used in motor vehicles to keep the driver and passengers in their seats and prevent them from being ejected from the motor vehicle in a crash. Restraint devices include lap belts, lap/shoulder harness combinations, air bags and child safety seats.

Passenger - Occupant of a motor vehicle other than the driver.

PDO crash – Crash where only property is damaged. No injuries result from the crash.

Pedestrian - Person not in or on a motor vehicle or other vehicle (e.g., bicycle).

Pedestrian crash - A motor vehicle crash involving one or more pedestrians.

Possible injury - Injury reported or claimed that is not a fatal injury, incapacitating injury or non-incapacitating injury.

Restraint usage - Occupant's use of available vehicle restraints including lap belt , lap / shoulder combination harness or child safety seats.

Rural - An area having a population of fewer than 5,000.

School bus crash - Crash involving one or more school buses. The school bus must collide with another vehicle, or pedestrian or object, for the crash to be classified as a school bus crash.

Serious injury - Any injury, other than a fatal injury, preventing the injured person from walking, driving or normally continuing the activities the person was capable of performing before the injury occurred.

Trafficway - Any land way open to the public as a matter of right or custom for moving persons or property from one place to another.

Train/Motor Vehicle Crash - Motor vehicle crash involving a motor vehicle in transport and a railway train. Presently, the only crashes classified as train crashes are those in which the first harmful event is collision with a train.

Truck crash - A motor vehicle crash involving one or more vehicles of the following types: (1) 2-axle, 6-tire single unit truck or step van, (2) 3-or-more-axle single unit truck,(3) single-unit truck with trailer, (4) truck tractor with no trailer, (5) truck tractor with semi-trailer, (6) truck tractor with double trailers, (7) truck tractor with triple trailers, (8) heavy truck of other or unknown type. Pickup trucks and vans are not counted as trucks. See also CMV.

TZD - Toward Zero Deaths is a statewide traffic safety initiative aimed at reducing the number of traffic fatalities to zero.

Urban - An area having a population of 5,000 or more.

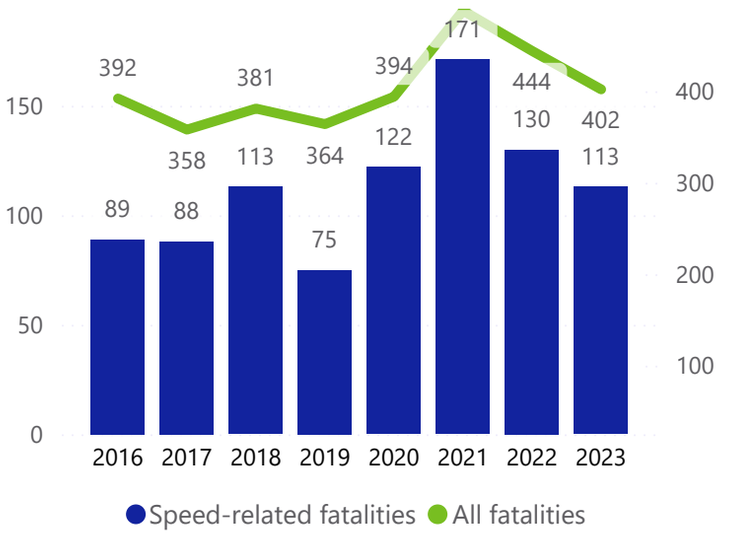
Big 4 Trends

Speeding, occupant restraints, impaired driving and distraction

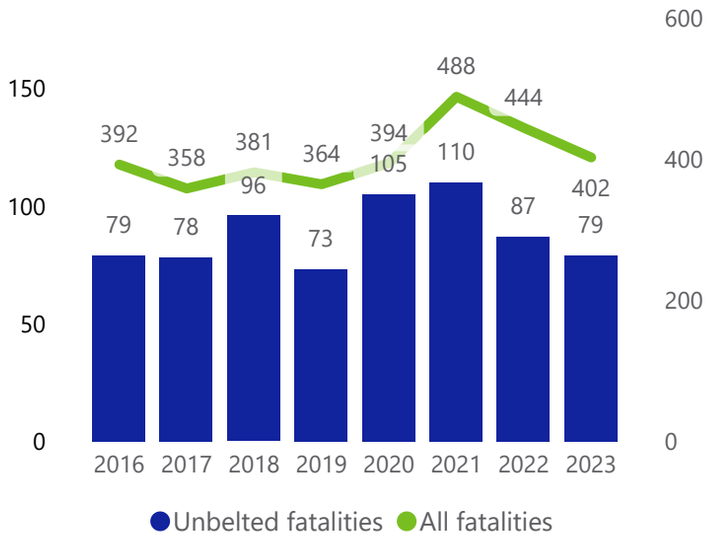
Minnesota Department of Public Safety (MN DPS), in conjunction with partners like National Highway Traffic Safety Administration (NHTSA) and the Department of Transportation (DOT) have identified several key trends in traffic safety. The most frequently seen behaviors are speeding, occupant restraints, impaired driving, and distracted driving. These primary trends are referred to as “The Big 4” behaviors most frequently cited factors in fatal traffic crashes.

This section shows performance statistics for each of these areas that traffic safety professionals work to address in order to save lives and reduce injuries from traffic crashes. These professionals follow the 5 Es. These were traditionally the 4 Es, which were a focus on Enforcement, Education, EMS and Engineering. The 5th E now stands for everyone else. Traffic safety professionals understand that all people that use the roads need to help reach traffic safety goals.

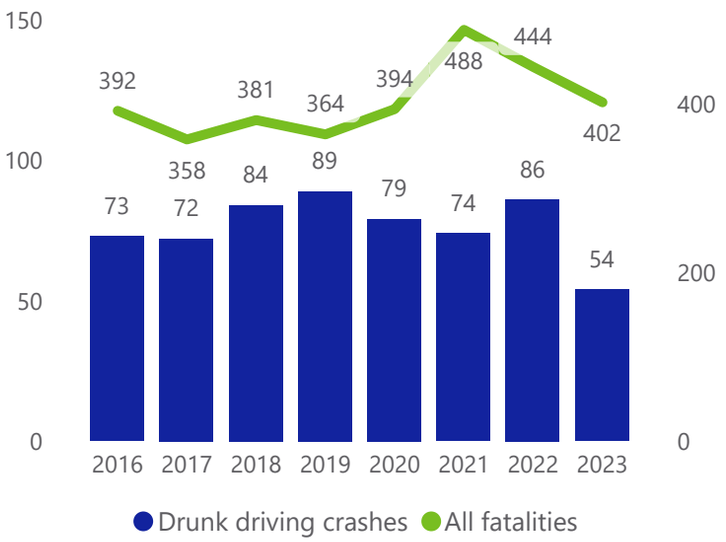
Speed-related fatality trends



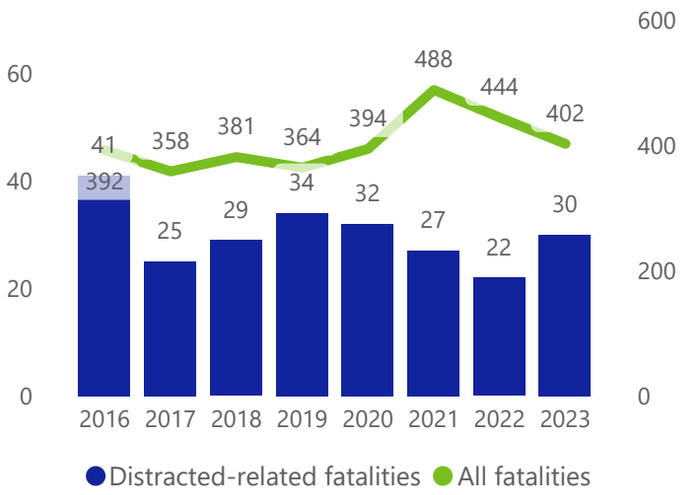
Unbelted fatality trends



Drunk driving-related fatality trends



Distraction-related fatality trends



Impaired Driving Facts Summary

In Minnesota, the state categorizes DWI convictions into three distinct groups, each with specific rules and consequences and impairment levels as follows:

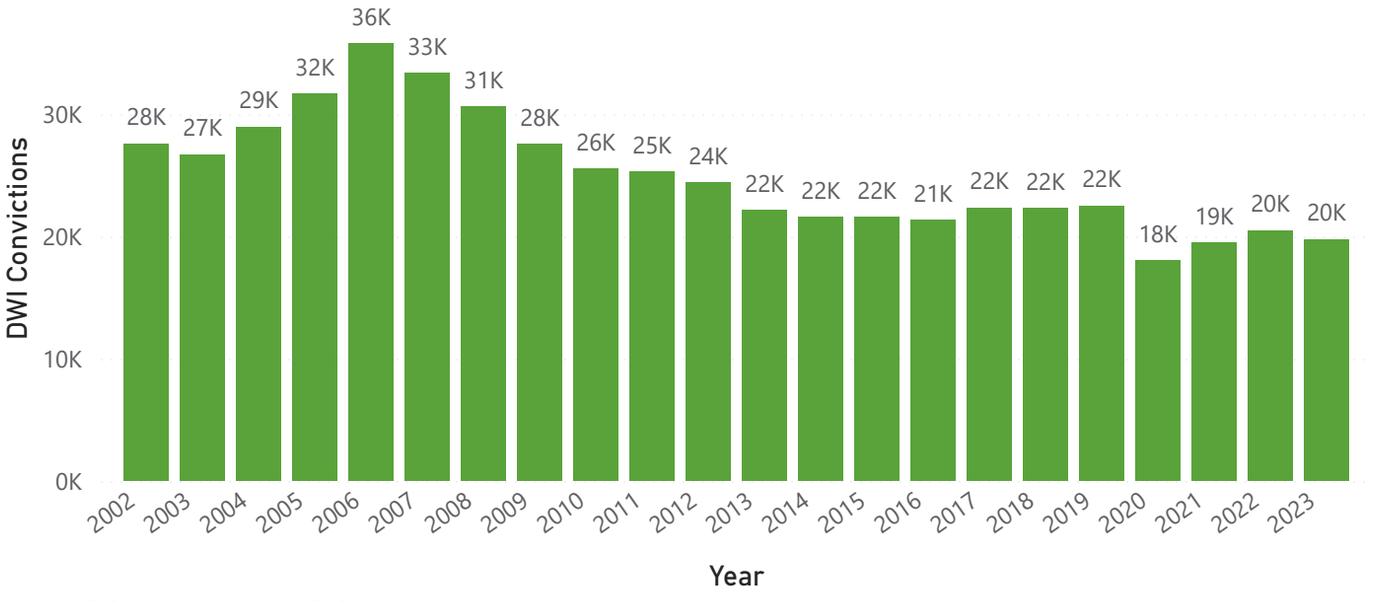
• Standard group: This applies to most drivers who are convicted of a DWI offense. These are everyday drivers that are not in the commercial or NAD groups. In this group, a driver's blood alcohol concentration (BAC) is measured at 0.08 percent or higher, or they are impaired due to alcohol or drugs. Penalties can include fines, license suspension, mandatory alcohol education, and possibly jail time, depending on the severity of the offense.

• Commercial group: Commercial drivers, such as truck drivers or bus drivers, are held to stricter standards when it comes to DWI offenses. For commercial drivers, the legal limit for BAC is lower, at 0.04 percent. Even a small amount of alcohol can result in a DWI conviction. Commercial drivers can lose their commercial driver's license (CDL) if convicted, affecting their ability to work in certain jobs.

• Not-A-Drop (NAD) group: This applies to drivers under the age of 21 or those who have a previous alcohol-related conviction on their record. Under this group, the law states that drivers cannot have any measurable amount of alcohol in their system while operating a vehicle. A BAC reading of 0.00 percent or greater is considered a violation, and a conviction may result in serious penalties, such as license suspension and mandatory participation in education programs.

Unless otherwise stated or explicitly shown in each statistical analysis (visual) throughout this chapter, all visual show the standard group of drivers that represent the largest category of every day drivers.

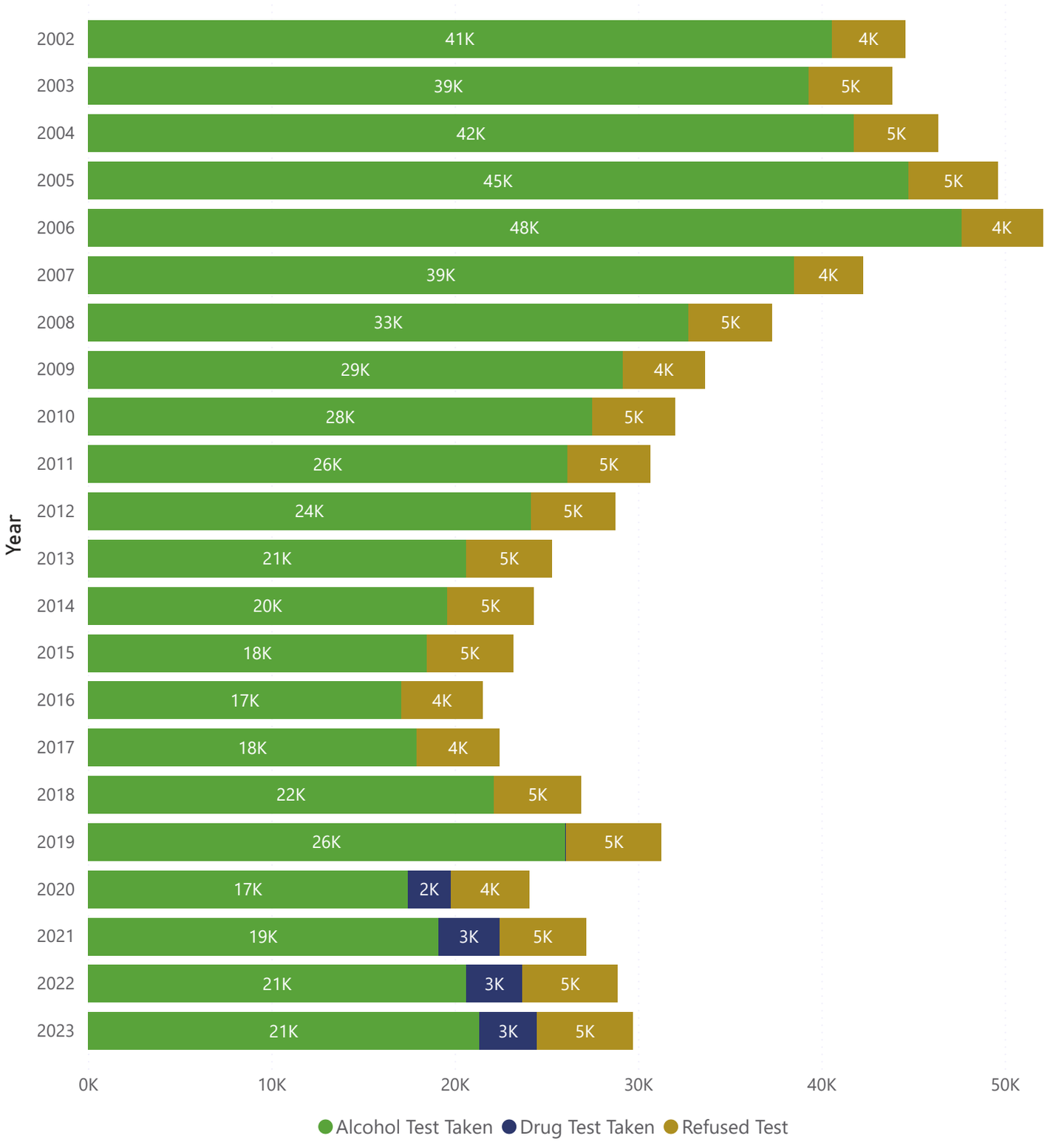
IDF Figure 1: Number of DWI convictions by year



IDF Table 1: Impaired driving overview

Year	DWI Arrests	Implied Consent Convict-ions	DWI Convict-ions	Total Tests Taken	Total Tests Refused	CVO Fatalities	CVO Injuries	Drug Convicti-ons	Not A Drop Convict-ions	Com-mercial Convict-ions
2018	26,287	25,304	22,314	6,348	1,003	33	324	4,578	419	10
2019	27,474	26,195	22,497	22,267	3,928	40	286	5,392	326	8
2020	22,217	21,103	18,040	17,938	3,164	45	273	6,702	324	6
2021	23,952	22,863	19,484	19,353	3,510	65	325	6,563	249	5
2022	25,574	24,454	20,484	20,543	3,911	47	291	5,964	274	3
2023	26,909	25,510	19,769	21,437	4,073	23	231	5,783	250	6
Total	**152,413**	**145,429**	**122,588**	**107,886**	**19,589**	**253**	**1,730**	**34,982**	**1,842**	**38**

IDF Figure 2: Impaired driving convictions under three violation scenarios



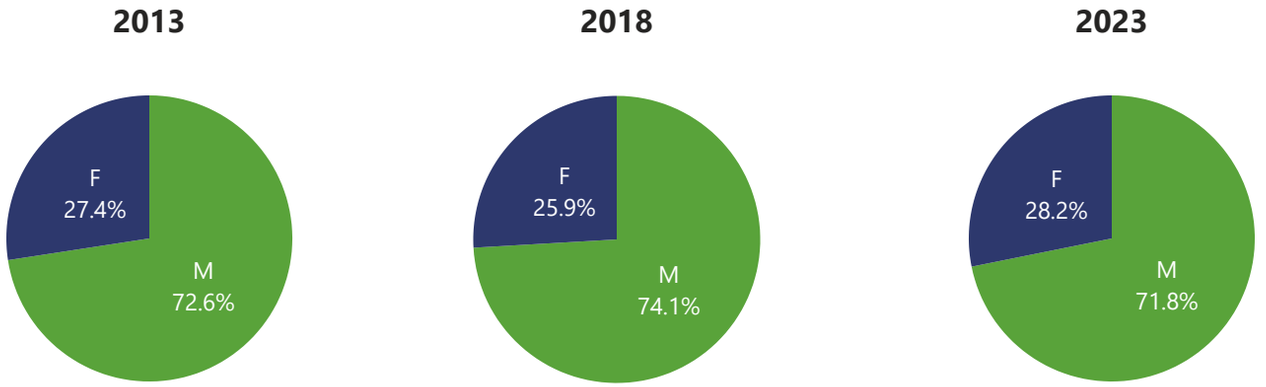
Impaired Driving Facts - Who

Who are impaired driving violators?

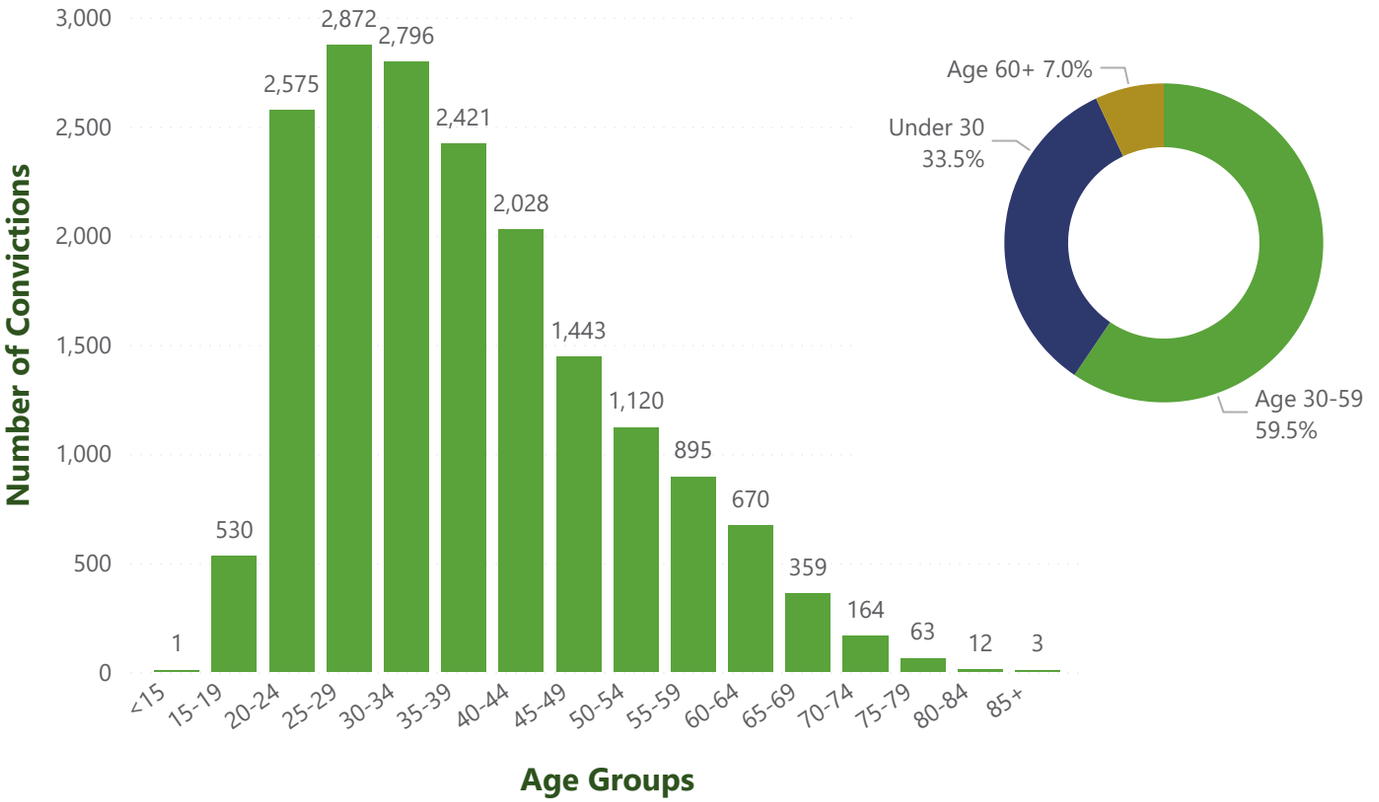
Impaired driving convictions stay on a driver's record permanently. The data used for the analytics in this section is based on convictions of impaired driving as of the end of 2023.

Woman have seen an increase of 0.8 percentage points since 2013 and Men have seen a decrease of 0.8 percentage points over that same time period. Men still represent the majority of impaired drivers on the road.

IDF Figure 3: Gender in impaired driving convictions

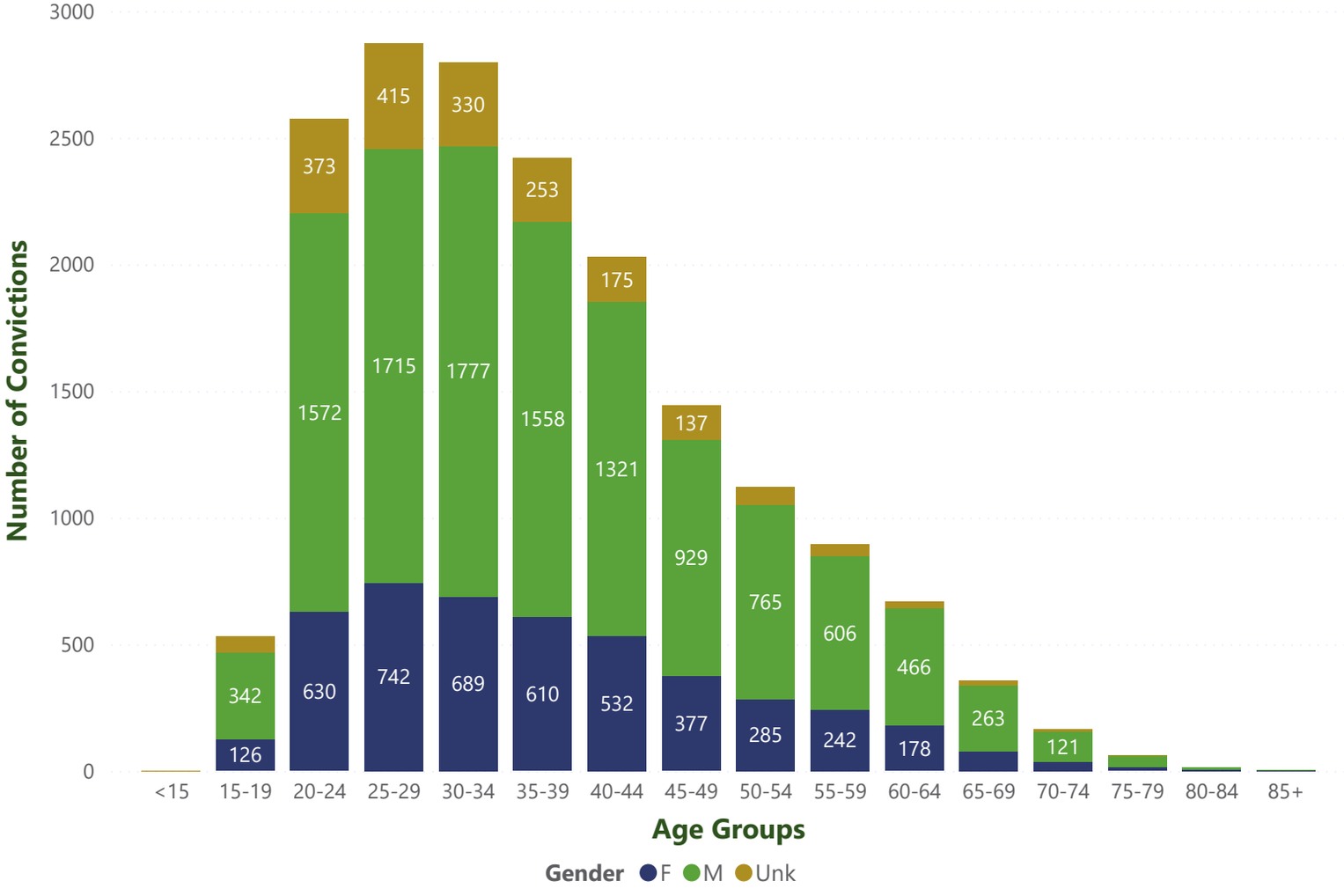


IDF Figure 4: Age of offenders in DWI convictions



Gender and age in DWI convictions

IDF Figure 5: Gender and age group in DWI convictions



IDF Table 2 helps to show how many drivers under the age of 21 are incurring a DWI conviction which is a blood alcohol concentration (BAC) of .08+ vs. drivers under the age of 21 that have violated the not-a-drop (NAD) statute of a BAC greater than than 0.00 but less than .08.

IDF Table 2: Under age 21 DWI vs. NAD convictions

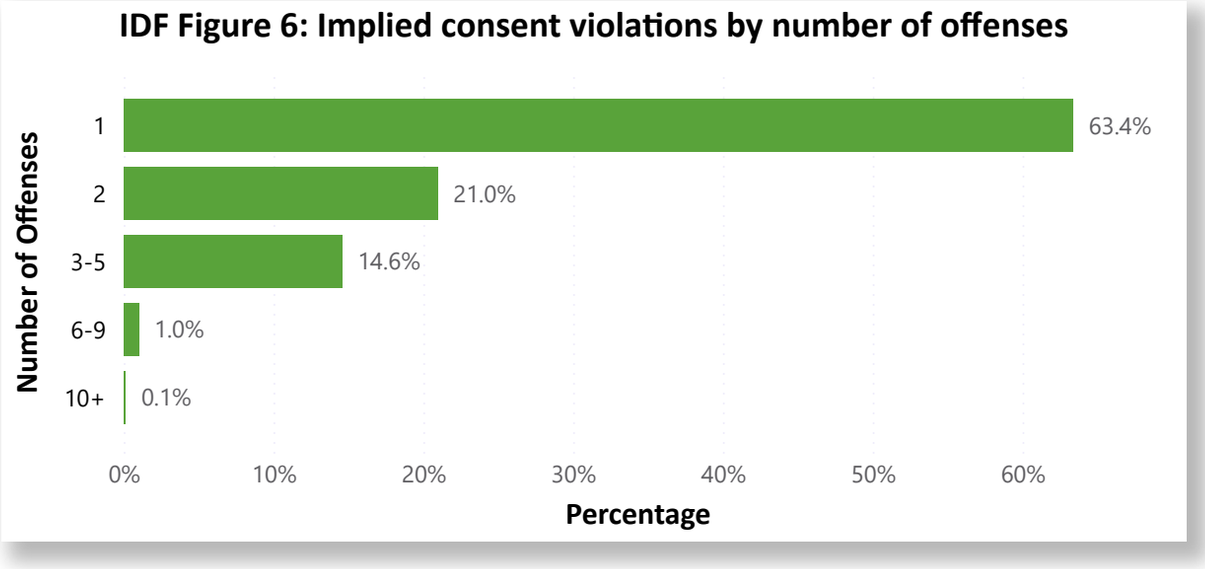
Year	<15 DWI %	15 DWI %	16 DWI %	17 DWI %	18 DWI %	19 DWI %	20 DWI %	Total DWI	<15 NAD %	15 NAD %	16 NAD %	17 NAD %	18 NAD %	19 NAD %	20 NAD %	Total NAD
2022	0.5%	0.5%	3.0%	8.8%	18.5%	31.2%	37.5%	1,917	0.7%	0.7%	7.3%	10.2%	29.2%	24.8%	27.0%	274
2021	0.3%	0.5%	2.4%	8.4%	20.3%	31.6%	36.6%	1,998	0.4%	0.0%	8.4%	12.9%	29.7%	24.1%	24.5%	249
2019	0.4%	0.3%	2.1%	8.3%	18.4%	29.5%	40.9%	1,898	0.0%	0.9%	2.8%	12.9%	20.6%	28.2%	34.7%	326
2020	0.1%	0.2%	2.9%	8.3%	22.8%	28.7%	37.0%	2,024	0.3%	3.4%	5.9%	14.2%	22.8%	30.6%	22.8%	324
2023	0.3%	0.5%	3.1%	7.1%	19.8%	30.4%	38.9%	1,963	0.4%	1.2%	8.0%	14.4%	23.6%	28.4%	24.0%	250

How much of Impaired driving are reoffenders

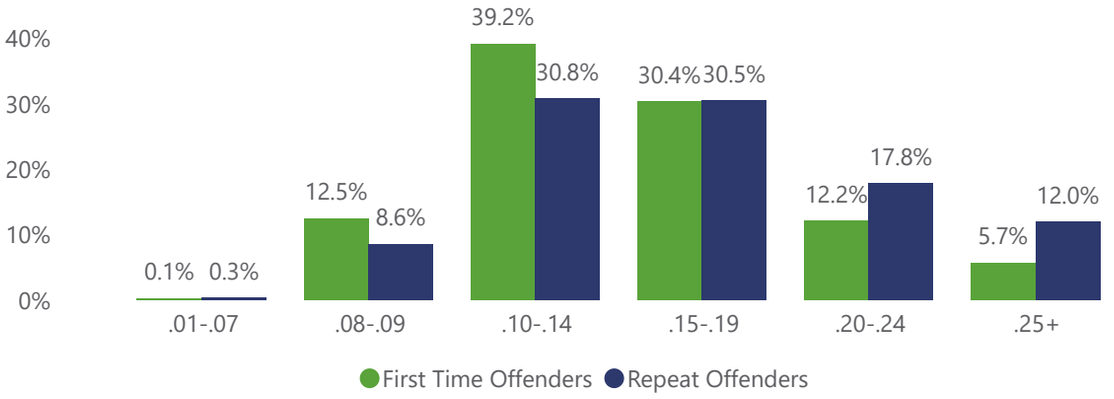
In addition to factors like age, gender, and demographics, this section focuses on identifying the groups that could most effectively reduce impaired driving and, as a result, have the greatest potential to decrease fatalities and serious injuries on Minnesota roadways. Specifically, it examines recidivism and whether there is a correlation between repeat offenses and BAC levels.

As shown in Figure 6, 63 percent of impaired driving offenses are committed by first-time offenders. Interestingly, first-time offenders generally have higher BAC levels, except when BAC levels reach 0.20-0.24 or higher.

IDF Figure 6: Implied consent violations by number of offenses



IDF Figure 7: BAC first time vs. repeat implied consent offenders



Impaired Driving Facts - When

When does impaired driving occur

Using law enforcement DWI arrest data, this section of the report analyzes when impaired driving was taking place in Minnesota for 2023.

Alcohol consumption often follows the rhythm of people's work and social lives, with patterns emerging around specific times of the year, days of the week and hours of the day. These trends are clearly reflected in impaired driving arrest data, where, despite relatively consistent monthly totals shown in Figure 8, a deeper look reveals a sharp spike in arrests on Saturdays and Sundays as shown in Figure 9. This underscores a direct link between alcohol consumption and weekend driving behavior.

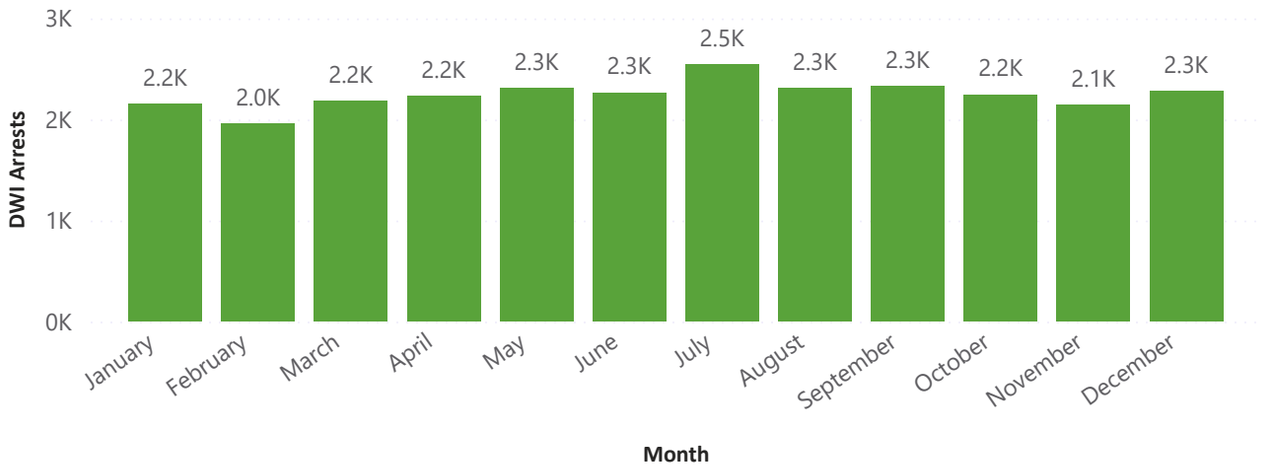
61 percent of DWI arrests take place from Friday through Sunday.

With the exception of New Years Day which was the single highest day of DWI arrests, Saturday represented 9 of the highest DWI arrest days through the remainder of year as shown in Table 4.

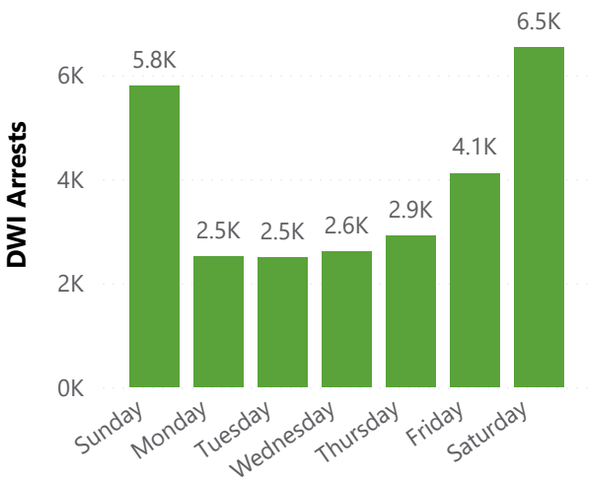
Figure 11 shows what time of the day across all days of the week that have the most DWI Arrest activity. The data reveals clear a clear pattern of rising DWI arrests between 9 p.m. and 2 a.m., with a noticeable peak at 1 a.m. Conversely, the early morning hours, especially between 5 a.m. and 8 a.m., report the fewest arrests.

Saturdays have the most DWI arrests

IDF Figure 8: DWI arrests by month



IDF Figure 9: DWI arrests by day of week



IDF Table 4: DWI arrests - top 10 days

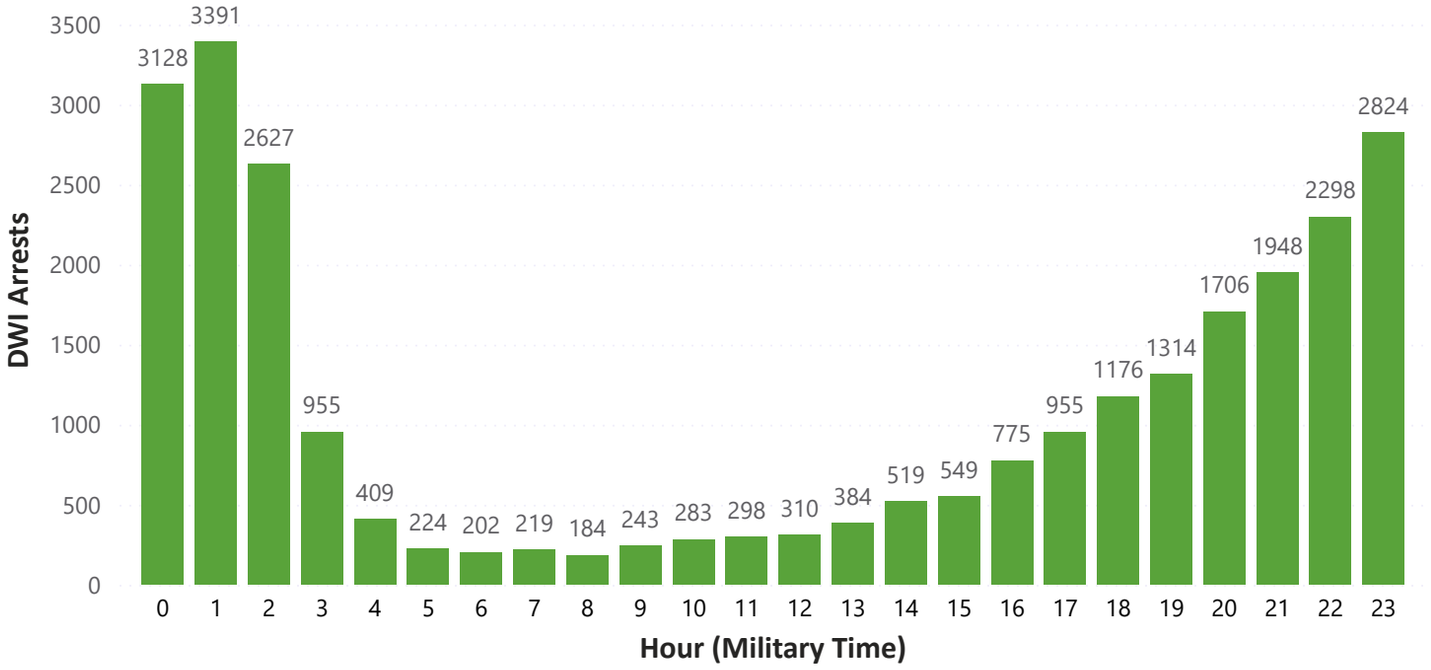
Day of Week	Month	Day	DWI Arrests
Sunday	January	1	168
Saturday	May	27	161
Saturday	March	18	160
Saturday	September	16	153
Saturday	July	8	147
Saturday	September	2	147
Saturday	June	24	145
Saturday	December	2	142
Saturday	June	17	141
Saturday	July	1	141

Impaired Driving Facts - When

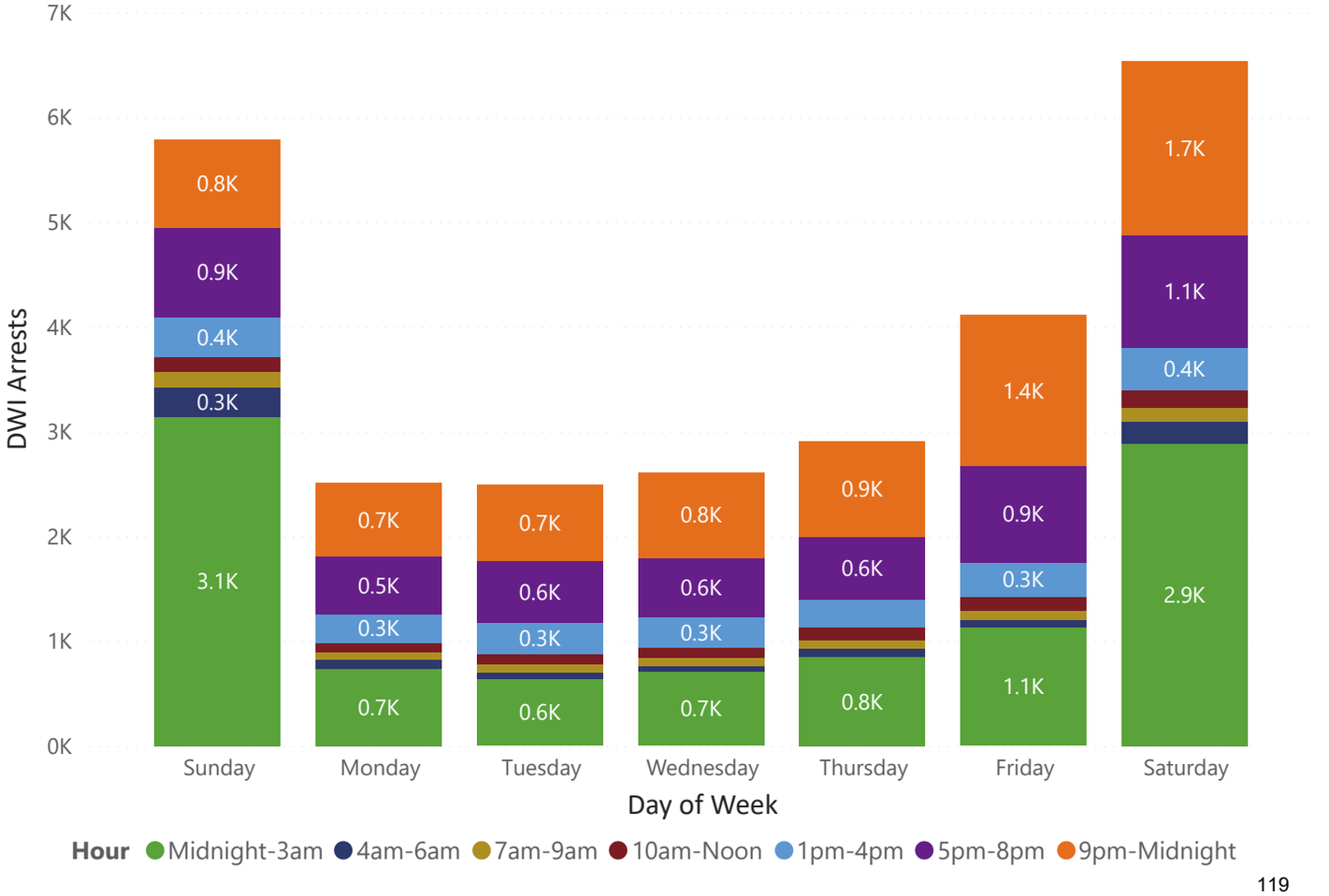
When does impaired driving occur?

This section uses 2023 DWI arrest data to explore when impaired driving is most likely to occur in Minnesota.

IDF Figure 11: DWI arrests by hour of day



IDF Figure 12: DWI arrests by day of week and time of day



Impaired Driving Facts - When

When does impaired driving occur

This section uses 2023 DWI arrest data to examine when impaired driving takes place across Minnesota.

Crashes are counted in the hour they occurred ignoring minutes. For example, 6:59am is included in the 4am-6am time group.

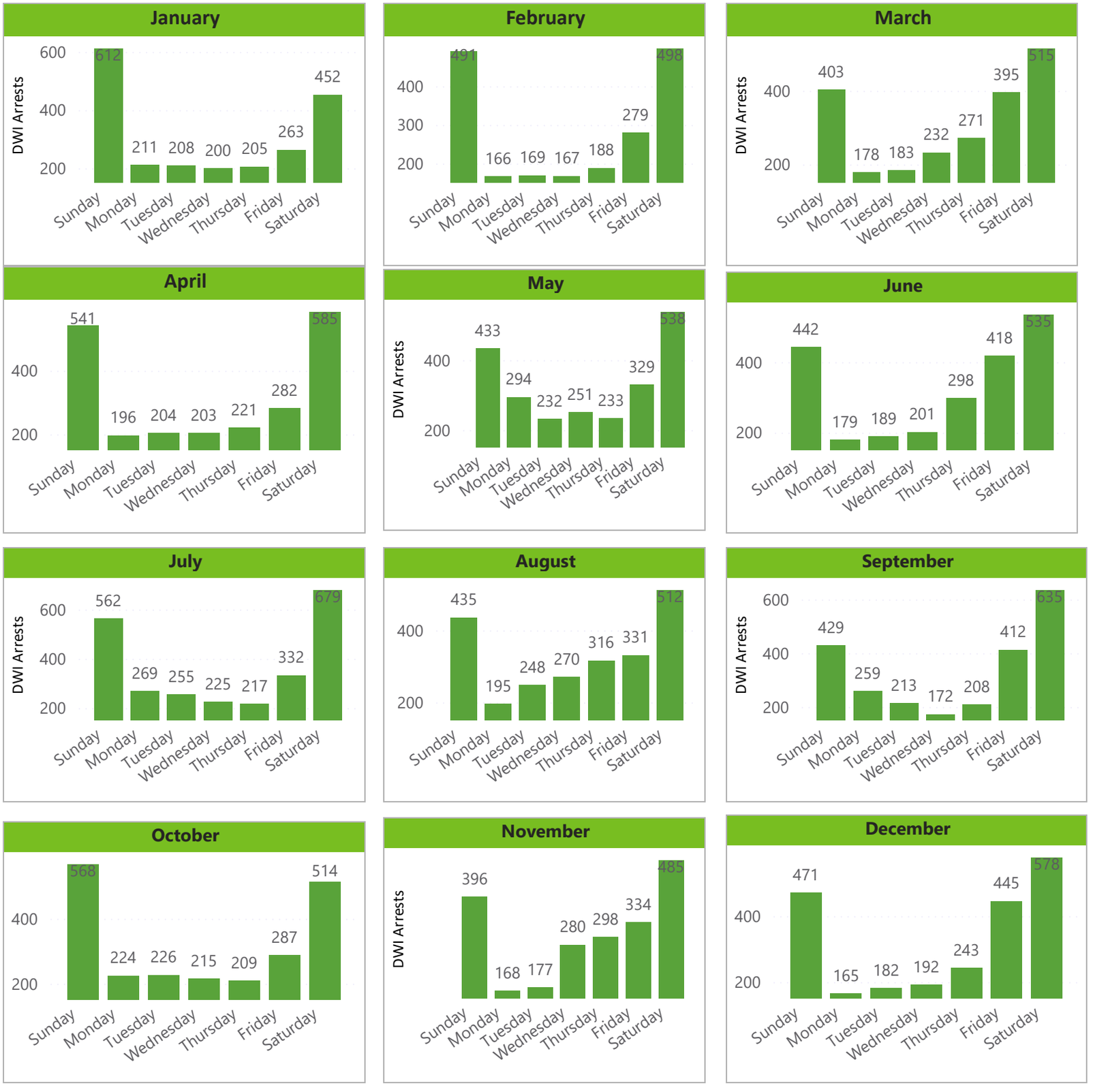
IDF Table 6: Monthly DWI arrests by time of day

Month	DWI Arrests	12am-3am	4am-6am	7am-9am	10am-12pm	1pm-4pm	5pm-8pm	9pm-11pm
April	2,232	39.1%	3.2%	2.7%	3.0%	8.8%	19.0%	24.3%
May	2,310	38.8%	2.9%	2.0%	2.9%	8.1%	18.6%	26.7%
February	1,958	38.3%	3.2%	2.3%	3.5%	8.6%	18.0%	26.0%
October	2,243	38.2%	3.3%	2.2%	3.4%	9.3%	18.9%	24.7%
March	2,177	38.1%	3.6%	2.7%	3.2%	7.4%	18.8%	26.2%
January	2,151	37.9%	3.8%	2.6%	3.5%	8.2%	18.0%	26.0%
November	2,138	37.7%	2.7%	1.6%	3.5%	8.7%	18.3%	27.4%
December	2,276	37.5%	2.7%	2.5%	3.6%	7.4%	19.0%	27.3%
July	2,539	37.4%	3.1%	2.9%	3.3%	8.3%	19.4%	25.6%
September	2,328	36.1%	2.8%	2.4%	3.7%	8.0%	20.5%	26.4%
August	2,307	36.0%	3.0%	2.5%	2.6%	8.1%	20.2%	27.7%
June	2,262	35.3%	2.9%	2.3%	3.6%	8.4%	20.5%	26.9%

Impaired Driving Facts - When

Figure 10 shows how the differences and similarities of each month and day of week regarding when DWI arrests took place in 2023. The data shows that the month and weekend day pattern remains the same.

IDF Figure 10: DWI arrests by month and day of week



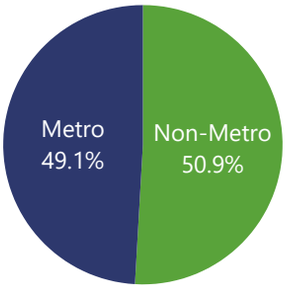
Impaired Driving Facts - Where

Where does Impaired driving happen?

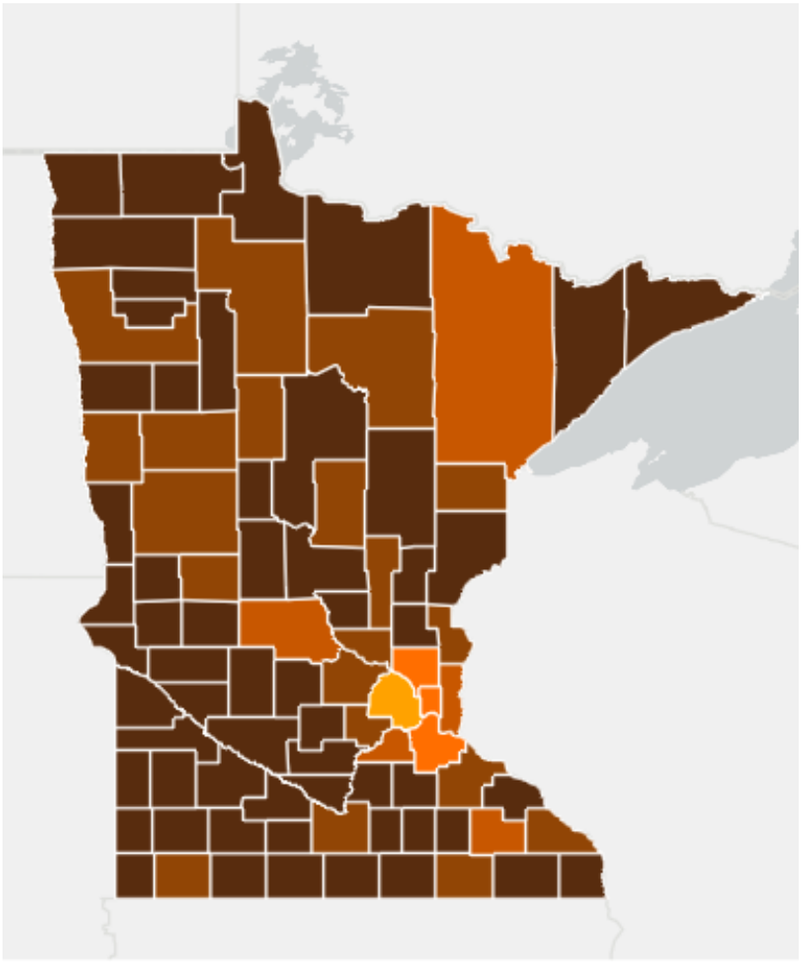
Fifty-one percent of impaired driving happens within the Twin Cities metro area as shown in the pie chart to the right.

Figure 14 depicts a statewide map of DWI convictions by county. The lighter the color, the higher the rate of convictions. Table 8 below provides a ranking by county. Table 7 provides a breakdown of the number of implied consent driving violations by county. For the last 5 years, the same 5 counties, Hennepin, Ramsey, Anoka, Dakota, and St. Louis counties have remined in the top 5 highest violations.

Standard convictions



IDF Figure 14: DWI convictions by county



Impaired Driving Facts - Where

Where does Impaired driving happen?

IDF Table 7: Implied consent driving violations by county of incident

County	2019	2020	2021	2022	2023	Last 5 Years	Last 5 Year Avg	Last 5 Year Rank
Aitkin	129	117	122	91	82	541	108	43
Anoka	1,301	1,049	1,277	1,166	1,707	6,500	1,300	4
Becker	251	194	196	259	284	1,184	236	26
Beltrami	535	672	600	606	512	2,925	585	10
Benton	162	159	215	176	223	935	187	31
Big Stone	21	25	37	34	40	157	31	74
Blue Earth	465	360	480	413	395	2,113	422	13
Brown	56	56	62	75	84	333	66	57
Carlton	183	218	282	256	357	1,296	259	22
Carver	228	230	196	226	278	1,158	231	27
Cass	236	192	217	268	135	1,048	209	28
Chippewa	58	61	39	37	43	238	47	67
Chisago	247	212	230	249	247	1,185	237	25
Clay	364	229	270	271	271	1,405	281	18
Clearwater	62	45	74	113	87	381	76	52
Cook	42	19	19	20	19	119	23	80
Cottonwood	52	69	61	56	39	277	55	63
Crow Wing	453	314	467	416	484	2,134	426	12
Dakota	1,704	1,196	1,389	1,397	1,518	7,204	1,440	3
Dodge	94	89	74	53	45	355	71	54
Douglas	181	227	283	331	285	1,307	261	21
Faribault	76	59	69	55	55	314	62	59
Fillmore	33	38	35	40	53	199	39	70
Freeborn	201	157	150	136	163	807	161	34
Goodhue	249	210	254	271	230	1,214	242	24
Grant	28	20	38	27	10	123	24	79
Hennepin	5,689	3,888	3,998	4,789	4,956	23,320	4,664	1
Houston	100	60	71	89	74	394	78	50
Hubbard	159	226	252	439	257	1,333	266	20
Isanti	106	92	127	105	137	567	113	41
Itasca	301	295	314	287	292	1,489	297	15
Jackson	53	56	56	44	45	254	50	65
Kanabec	32	22	45	52	67	218	43	69
Kandiyohi	181	134	163	147	182	807	161	35
Kittson	22	7	14	5	19	67	13	86
Koochiching	70	46	50	61	48	275	55	64
Total	**14,124**	**11,043**	**12,226**	**13,060**	**13,723**	**64,176**	**12,819**	**1,442**

Where does impaired driving happen?

IDF Table 7: Implied consent driving violations by county of incident

County	2019	2020	2021	2022	2023	Last 5 Years	Last 5 Year Avg	Last 5 Year Rank
Lac qui Parle	33	27	24	29	23	136	27	76
Lake	55	10	34	32	29	160	32	73
Lake of the Woods	36	31	26	18	16	127	25	77
Le Sueur	93	90	68	93	116	460	92	48
Lincoln	29	14	16	14	14	87	17	84
Lyon	109	86	82	109	99	485	97	47
Mahnomen	98	84	109	144	73	508	101	44
Marshall	42	27	20	18	18	125	25	78
Martin	89	73	100	73	56	391	78	51
McLeod	160	138	129	134	169	730	146	36
Meeker	110	82	100	74	90	456	91	49
Mille Lacs	166	155	174	197	197	889	177	32
Morrison	119	87	111	182	187	686	137	38
Mower	326	266	203	240	374	1,409	281	17
Murray	19	14	10	18	19	80	16	85
Nicollet	124	91	107	122	141	585	117	40
Nobles	158	165	149	248	253	973	194	30
Norman	22	18	22	16	20	98	19	83
Olmsted	544	552	515	715	672	2,998	599	8
Otter Tail	281	270	289	311	278	1,429	285	16
Pennington	127	88	129	90	126	560	112	42
Pine	114	106	187	168	155	730	146	37
Pipestone	78	56	68	77	65	344	68	56
Polk	234	235	186	207	183	1,045	209	29
Pope	49	39	48	42	52	230	46	68
Ramsey	2,593	1,929	1,845	2,023	2,267	10,657	2,131	2
Red Lake	16	27	19	18	25	105	21	81
Redwood	81	68	52	47	67	315	63	58
Renville	88	86	98	94	126	492	98	45
Rice	267	231	282	336	218	1,334	266	19
Rock	35	32	29	23	46	165	33	72
Roseau	67	64	78	77	81	367	73	53
Scott	644	469	547	597	728	2,985	597	9
Sherburne	400	319	426	373	316	1,834	366	14
Sibley	86	71	57	59	74	347	69	55
St. Louis	1,232	948	1,162	1,158	1,077	5,577	1,115	5
Stearns	740	675	645	809	794	3,663	732	7
Steele	142	169	152	213	172	848	169	33
Stevens	35	10	13	21	26	105	21	82
Swift	34	37	31	24	27	153	30	75
Total	**12,047**	**9,929**	**10,506**	**11,370**	**11,770**	**55,622**	**11,107**	**2,386**

Impaired Driving Facts - Where

Where do DWI convictions occur within the court system?

Minnesota is divided into 10 judicial districts, each aligned with specific counties based on geography and population. These districts ensure court services are accessible across the state while balancing case volume and resources.

IDF Table 9: Criminal conviction rates by judicial district as of end of 2023

Judicial District	All DWI Arrests	All DWI Convic-tions	DWI Conviction Rate	Alcohol Only Convic-tions	1st Time Alc Offense	1st Time Alc %	2nd Time Alc Offense	2nd Time Alc %	3rd Time Alc Offense	3rd Time Alc %
1st Judicial District	**3,290**	**2,513**	**76.4%**	**2,348**	**689**	**29.3%**	**412**	**17.5%**	**1,247**	**53.1%**
Carver	299	220	73.6%	200	63	31.5%	37	18.5%	100	50.0%
Dakota	1,583	1,186	74.9%	1,139	340	29.9%	196	17.2%	603	52.9%
Goodhue	239	170	71.1%	161	48	29.8%	25	15.5%	88	54.7%
Le Sueur	122	91	74.6%	84	29	34.5%	10	11.9%	45	53.6%
McLeod	201	142	70.6%	120	29	24.2%	18	15.0%	73	60.8%
Scott	748	634	84.8%	590	173	29.3%	109	18.5%	308	52.2%
Sibley	98	70	71.4%	54	7	13.0%	17	31.5%	30	55.6%
2nd Judicial District	**2,361**	**1,573**	**66.6%**	**1,455**	**416**	**28.6%**	**247**	**17.0%**	**792**	**54.4%**
Ramsey	2,361	1,573	66.6%	1,455	416	28.6%	247	17.0%	792	54.4%
3rd Judicial District	**2,378**	**1,709**	**71.9%**	**1,461**	**480**	**32.9%**	**246**	**16.8%**	**735**	**50.3%**
Dodge	50	37	74.0%	32	8	25.0%	6	18.8%	18	56.3%
Fillmore	61	41	67.2%	37	13	35.1%	6	16.2%	18	48.6%
Freeborn	176	91	51.7%	80	21	26.3%	15	18.8%	44	55.0%
Houston	80	55	68.8%	49	22	44.9%	10	20.4%	17	34.7%
Mower	409	311	76.0%	242	87	36.0%	42	17.4%	113	46.7%
Olmsted	716	550	76.8%	461	120	26.0%	69	15.0%	272	59.0%
Rice	233	156	67.0%	142	37	26.1%	24	16.9%	81	57.0%
Steele	197	139	70.6%	118	45	38.1%	13	11.0%	60	50.8%
Wabasha	81	72	88.9%	64	28	43.8%	17	26.6%	19	29.7%
Waseca	35	35	100.0%	34	10	29.4%	9	26.5%	15	44.1%
Winona	340	222	65.3%	202	89	44.1%	35	17.3%	78	38.6%
4th Judicial District	**5,055**	**3,442**	**68.1%**	**3,289**	**940**	**28.6%**	**600**	**18.2%**	**1,749**	**53.2%**
Hennepin	5,055	3,442	68.1%	3,289	940	28.6%	600	18.2%	1,749	53.2%
Total	**13,084**	**9,237**	**70.6%**	**8,553**	**2,525**	**29.5%**	**1,505**	**17.6%**	**4,523**	**52.9%**

Impaired Driving Facts - Where

Where does impaired driving happen, and how does it vary across judicial districts?

IDF Table 9: Criminal conviction rates by judicial district as of end of 2023

Judicial District	All DWI Arrests	All DWI Convic-tions	DWI Conviction Rate	Alcohol Only Convic-tions	1st Time Alc Offense	1st Time Alc %	2nd Time Alc Offense	2nd Time Alc %	3rd Time Alc Offense	3rd Time Alc %
⊟ **5th Judicial District**	**1,505**	**1,214**	**80.7%**	**1,096**	**377**	**34.4%**	**206**	**18.8%**	**513**	**46.8%**
Watonwan	74	72	97.3%	60	20	33.3%	10	16.7%	30	50.0%
Rock	46	35	76.1%	35	20	57.1%	7	20.0%	8	22.9%
Redwood	74	62	83.8%	53	10	18.9%	9	17.0%	34	64.2%
Pipestone	71	52	73.2%	47	20	42.6%	8	17.0%	19	40.4%
Nobles	241	216	89.6%	193	85	44.0%	37	19.2%	71	36.8%
Nicollet	149	101	67.8%	94	29	30.9%	17	18.1%	48	51.1%
Murray	19	15	78.9%	14	4	28.6%	5	35.7%	5	35.7%
Martin	61	56	91.8%	48	18	37.5%	10	20.8%	20	41.7%
Lyon	102	92	90.2%	78	23	29.5%	14	17.9%	41	52.6%
Lincoln	14	7	50.0%	7	2	28.6%	3	42.9%	2	28.6%
Jackson	46	43	93.5%	37	17	45.9%	10	27.0%	10	27.0%
Faribault	56	38	67.9%	37	13	35.1%	4	10.8%	20	54.1%
Cottonwood	45	27	60.0%	26	7	26.9%	10	38.5%	9	34.6%
Brown	91	72	79.1%	69	23	33.3%	12	17.4%	34	49.3%
Blue Earth	416	326	78.4%	298	86	28.9%	50	16.8%	162	54.4%
⊟ **6th Judicial District**	**1,609**	**1,156**	**71.8%**	**963**	**308**	**32.0%**	**177**	**18.4%**	**478**	**49.6%**
St. Louis	1,178	840	71.3%	702	231	32.9%	125	17.8%	346	49.3%
Lake	32	25	78.1%	24	7	29.2%	6	25.0%	11	45.8%
Cook	20	16	80.0%	14	6	42.9%	5	35.7%	3	21.4%
Carlton	379	275	72.6%	223	64	28.7%	41	18.4%	118	52.9%
Total	**3,114**	**2,370**	**76.1%**	**2,059**	**685**	**33.3%**	**383**	**18.6%**	**991**	**48.1%**

Impaired Driving Facts - Where

Where does impaired driving happen, and how is it reflected in the court system?

IDF Table 9: Criminal conviction rates by judicial district as of end of 2023

Judicial District	All DWI Arrests	All DWI Convic-tions	DWI Conviction Rate	Alcohol Only Convic-tions	1st Time Alc Offense	1st Time Alc %	2nd Time Alc Offense	2nd Time Alc %	3rd Time Alc Offense	3rd Time Alc %
7th Judicial District	**2,817**	**2,137**	**75.9%**	**1,815**	**529**	**29.1%**	**361**	**19.9%**	**925**	**51.0%**
Becker	300	229	76.3%	158	47	29.7%	39	24.7%	72	45.6%
Benton	233	138	59.2%	125	27	21.6%	22	17.6%	76	60.8%
Clay	287	236	82.2%	217	93	42.9%	47	21.7%	77	35.5%
Douglas	302	187	61.9%	136	45	33.1%	24	17.6%	67	49.3%
Mille Lacs	209	176	84.2%	161	35	21.7%	27	16.8%	99	61.5%
Morrison	213	147	69.0%	104	23	22.1%	21	20.2%	60	57.7%
Otter Tail	293	245	83.6%	203	71	35.0%	42	20.7%	90	44.3%
Stearns	834	670	80.3%	612	163	26.6%	121	19.8%	328	53.6%
Todd	98	63	64.3%	57	14	24.6%	11	19.3%	32	56.1%
Wadena	48	46	95.8%	42	11	26.2%	7	16.7%	24	57.1%
8th Judicial District	**783**	**607**	**77.5%**	**524**	**151**	**28.8%**	**129**	**24.6%**	**244**	**46.6%**
Big Stone	49	38	77.6%	28	7	25.0%	14	50.0%	7	25.0%
Chippewa	43	38	88.4%	32	11	34.4%	6	18.8%	15	46.9%
Grant	14	9	64.3%	7	1	14.3%	2	28.6%	4	57.1%
Kandiyohi	185	145	78.4%	140	38	27.1%	36	25.7%	66	47.1%
Lac qui Parle	24	21	87.5%	15	3	20.0%	2	13.3%	10	66.7%
Meeker	99	80	80.8%	66	18	27.3%	10	15.2%	38	57.6%
Pope	55	44	80.0%	39	18	46.2%	7	17.9%	14	35.9%
Renville	154	109	70.8%	81	16	19.8%	19	23.5%	46	56.8%
Stevens	28	19	67.9%	18	9	50.0%	4	22.2%	5	27.8%
Swift	30	17	56.7%	17	3	17.6%	4	23.5%	10	58.8%
Traverse	12	11	91.7%	9	3	33.3%	2	22.2%	4	44.4%
Wilkin	57	48	84.2%	47	18	38.3%	17	36.2%	12	25.5%
Yellow Medicine	33	28	84.8%	25	6	24.0%	6	24.0%	13	52.0%
Total	**3,600**	**2,744**	**76.2%**	**2,339**	**680**	**29.1%**	**490**	**20.9%**	**1,169**	**50.0%**

Impaired Driving Facts - Where

Where does impaired driving happen, and how is it addressed in the courts?

IDF Table 9: Criminal conviction rates by judicial district as of end of 2023

Judicial District	All DWI Arrests	All DWI Convic-tions	DWI Conviction Rate	Alcohol Only Convic-tions	1st Time Alc Offense	1st Time Alc %	2nd Time Alc Offense	2nd Time Alc %	3rd Time Alc Offense	3rd Time Alc %
9th Judicial District	**2,626**	**2,093**	**79.7%**	**1,566**	**441**	**28.2%**	**256**	**16.3%**	**869**	**55.5%**
Aitkin	87	75	86.2%	69	17	24.6%	8	11.6%	44	63.8%
Beltrami	550	403	73.3%	272	61	22.4%	45	16.5%	166	61.0%
Cass	149	109	73.2%	88	18	20.5%	16	18.2%	54	61.4%
Clearwater	104	80	76.9%	43	8	18.6%	5	11.6%	30	69.8%
Crow Wing	497	397	79.9%	325	81	24.9%	68	20.9%	176	54.2%
Hubbard	279	214	76.7%	125	33	26.4%	21	16.8%	71	56.8%
Itasca	308	247	80.2%	186	57	30.6%	36	19.4%	93	50.0%
Kittson	19	18	94.7%	17	9	52.9%	4	23.5%	4	23.5%
Koochiching	51	45	88.2%	45	10	22.2%	7	15.6%	28	62.2%
Lake of the Woods	15	14	93.3%	12	4	33.3%	0	0.0%	8	66.7%
Mahnomen	76	42	55.3%	37	12	32.4%	2	5.4%	23	62.2%
Marshall	21	19	90.5%	18	6	33.3%	1	5.6%	11	61.1%
Norman	25	20	80.0%	18	6	33.3%	2	11.1%	10	55.6%
Pennington	136	108	79.4%	95	33	34.7%	13	13.7%	49	51.6%
Polk	198	214	108.1%	136	56	41.2%	19	14.0%	61	44.9%
Red Lake	27	24	88.9%	19	8	42.1%	2	10.5%	9	47.4%
Roseau	84	64	76.2%	61	22	36.1%	7	11.5%	32	52.5%
10th Judicial District	**4,493**	**3,331**	**74.1%**	**3,070**	**851**	**27.7%**	**579**	**18.9%**	**1,640**	**53.4%**
Anoka	1,794	1,394	77.7%	1,257	329	26.2%	238	18.9%	690	54.9%
Chisago	260	181	69.6%	181	54	29.8%	42	23.2%	85	47.0%
Isanti	149	118	79.2%	117	35	29.9%	17	14.5%	65	55.6%
Kanabec	70	45	64.3%	41	8	19.5%	9	22.0%	24	58.5%
Pine	166	119	71.7%	110	37	33.6%	15	13.6%	58	52.7%
Sherburne	351	273	77.8%	247	53	21.5%	42	17.0%	152	61.5%
Washington	1,126	776	68.9%	740	233	31.5%	160	21.6%	347	46.9%
Wright	577	425	73.7%	377	102	27.1%	56	14.9%	219	58.1%
Total	**7,119**	**5,424**	**76.2%**	**4,636**	**1,292**	**27.9%**	**835**	**18.0%**	**2,509**	**54.1%**

Impaired Driving Facts - Where

Where does impaired driving happen live?

IDF Table 8 shows the number of drivers in each county with a DWI conviction on record.

IDF Table 8: Percentage of residents with DWI convictions on record

County	Population	Convictions	Drivers with Convictions	Driver Conviction %	County Rank
Aitkin	16,614	4,988	2,646	15.9%	14
Anoka	368,280	69,241	40,103	10.9%	73
Becker	35,738	11,718	6,065	17.0%	7
Beltrami	47,522	14,245	7,482	15.7%	16
Benton	40,164	9,469	5,400	13.4%	39
Big Stone	5,315	1,033	613	11.5%	67
Blue Earth	71,053	13,244	7,713	10.9%	74
Brown	25,756	5,325	3,188	12.4%	57
Carlton	37,389	9,876	5,413	14.5%	25
Carver	110,136	14,974	9,426	8.6%	86
Cass	30,821	11,350	5,936	19.3%	2
Chippewa	12,751	2,666	1,558	12.2%	60
Chisago	59,055	13,148	7,779	13.2%	44
Clay	67,814	14,153	8,482	12.5%	56
Clearwater	8,721	3,186	1,586	18.2%	3
Cook	5,629	1,296	743	13.2%	43
Cottonwood	11,915	2,278	1,374	11.5%	68
Crow Wing	69,276	17,245	9,702	14.0%	31
Dakota	444,985	69,668	42,561	9.6%	83
Dodge	21,342	4,382	2,532	11.9%	63
Douglas	40,625	9,089	5,152	12.7%	52
Faribault	13,681	3,549	2,025	14.8%	19
Fillmore	21,605	4,322	2,571	11.9%	61
Freeborn	30,904	7,742	4,472	14.5%	26
Goodhue	48,910	10,985	6,405	13.1%	47
Grant	6,173	1,616	918	14.9%	18
Hennepin	1,293,651	202,539	121,740	9.4%	84
Houston	19,253	4,334	2,637	13.7%	34
Hubbard	22,431	5,765	3,161	14.1%	29
Isanti	42,807	10,115	5,791	13.5%	37
Itasca	45,584	14,281	7,640	16.8%	11
Total	**3,075,900**	**567,822**	**332,814**		

Impaired Driving Facts - Where

Where does Impaired driving happen?

IDF Table 8: Percentage of residents with DWI convictions on record

County	Population	Convictions	Drivers with Convictions	Driver Conviction %	County Rank
Jackson	10,067	2,022	1,281	12.7%	50
Kanabec	16,329	5,313	2,821	17.3%	5
Kandiyohi	45,232	9,190	5,347	11.8%	65
Kittson	4,300	1,041	575	13.4%	41
Koochiching	12,163	3,670	2,078	17.1%	6
Lac qui Parle	6,675	1,560	916	13.7%	33
Lake	11,303	2,401	1,456	12.9%	48
Lake of the Woods	3,901	1,275	662	17.0%	8
Le Sueur	29,518	6,739	3,867	13.1%	45
Lincoln	5,511	1,047	635	11.5%	69
Lyon	25,379	5,213	3,128	12.3%	59
Mahnomen	5,400	2,730	1,224	22.7%	1
Marshall	9,221	2,424	1,336	14.5%	24
Martin	20,153	4,870	2,825	14.0%	30
McLeod	37,607	7,992	4,649	12.4%	58
Mille Lacs	27,483	9,796	4,941	18.0%	4
Morrison	34,326	8,393	4,658	13.6%	36
Mower	40,605	9,617	5,472	13.5%	38
Murray	8,243	1,498	900	10.9%	72
Nicollet	35,826	6,352	3,874	10.8%	75
Nobles	22,473	3,992	2,569	11.4%	70
Norman	6,527	1,731	980	15.0%	17
Olmsted	168,055	27,494	16,181	9.6%	81
Otter Tail	60,555	14,865	8,233	13.6%	35
Total	**646,852**	**141,225**	**80,608**		

Impaired Driving Facts - Where

Where does Impaired driving happen?

IDF Table 8: Percentage of residents with DWI convictions on record

County	Population	Convictions	Drivers with Convictions	Driver Conviction %	County Rank
Pennington	14,266	4,282	2,251	15.8%	15
Pine	30,271	9,231	4,858	16.0%	13
Pipestone	9,219	1,841	1,091	11.8%	64
Polk	31,192	9,748	5,265	16.9%	10
Pope	11,654	2,612	1,471	12.6%	54
Ramsey	551,195	89,245	52,823	9.6%	82
Red Lake	3,998	1,114	588	14.7%	20
Redwood	15,348	3,580	2,055	13.4%	40
Renville	14,721	3,794	2,154	14.6%	21
Rice	68,525	12,879	7,319	10.7%	76
Rock	9,853	1,628	1,032	10.5%	78
Roseau	15,694	3,971	2,225	14.2%	28
Scott	154,395	24,032	14,977	9.7%	80
Sherburne	102,275	18,916	11,363	11.1%	71
Sibley	15,307	3,640	2,104	13.7%	32
St. Louis	200,916	51,486	29,170	14.5%	23
Stearns	162,016	29,138	16,979	10.5%	77
Steele	38,775	7,983	4,582	11.8%	66
Stevens	9,401	1,302	798	8.5%	87
Swift	10,054	2,328	1,284	12.8%	49
Todd	25,617	5,794	3,249	12.7%	51
Traverse	3,346	828	482	14.4%	27
Wabasha	21,895	4,855	2,892	13.2%	42
Wadena	14,119	3,761	2,061	14.6%	22
Waseca	19,236	4,289	2,520	13.1%	46
Washington	274,589	40,073	25,198	9.2%	85
Watonwan	11,253	2,352	1,416	12.6%	55
Wilkin	6,327	1,847	1,071	16.9%	9
Winona	49,764	9,904	5,911	11.9%	62
Wright	150,727	25,599	15,217	10.1%	79
Yellow Medicine	9,159	2,555	1,475	16.1%	12
Total	**2,055,107**	**384,607**	**225,881**		

Impaired Driving Facts - Ignition Interlock

What is the ignition interlock program

In response to the higher number of impaired drivers and the rate of recidivism in the state, in 2011 Minnesota implemented a statewide ignition interlock system in addition to supporting DWI courts to reduce recidivism.

The Ignition Interlock Program in Minnesota requires drivers convicted of DWI offenses to install a breath alcohol testing device in their vehicle. This device prevents the car from starting if the driver's BAC is above a set limit. The program is designed to allow individuals to drive legally while ensuring they are not driving under the influence, helping to reduce the likelihood of repeat offenses. It is often used as part of a broader strategy to improve road safety and reduce impaired driving.

Evaluations of these programs have shown promising results. For instance, a study by Alcohol Countermeasure Systems found that participants in Minnesota's ignition interlock program (and other support programs) had a 39 percent reduction in the long-term risk of recidivism.

Minnesota additionally continues to support DWI courts that have demonstrated to be effective at reducing repeat offenses. Some court programs have reported recidivism rates as low as 15 percent.

Table 10 shows information about the ignition interlock program in the State of Minnesota at the end of 2023.

IDF Table 10: Ignition interlock program participation

End Of Year Participation Categories	2019	2020	2021	2022	2023
Device Installations	10,333	8,113	10,043	11,301	11,681
Drivers required to have Ignition Interlock	3,445	5,542	5,542	9,217	9,659
Eligible Participants	29,274	22,858	25,526	29,010	33,445
Enrolled Participants	11,828	10,463	11,987	14,104	15,768