Office of the Commissioner

445 Minnesota Street • Suite 1000 • Saint Paul, Minnesota 55101-5100
Phone: 651.201.7160 • Fax: 651.297.5728 • TTY: 651.282.6555
www.dps.mn.gov

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State Fire Marshal

June 30, 2021

Despite far fewer vehicles on the road in 2020, the 394 traffic fatalities last year proved to be the most since 2015. In an already difficult year of challenges and heartache, these tragedies caused even more pain and sorrow and have forever changed the lives of hundreds of families.

The tragedies included a motorcyclist who, after hitting a deer and lying in the road, was struck and killed by a passing motorist. Three generations of a single family died when the 79-year-old driver suffered a medical event and crashed. A 23-year-old mother lost control of her vehicle on a gravel road, killing her 2-year-old child who was not properly buckled into a car seat.

Minnesota Motor Vehicle Crash Facts 2020 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 describes how and why crashes happened, where they occurred in our state and who was involved.

The COVID-19 pandemic kept many people home in 2020. While there were fewer number of crashes, the number of fatal crashes increased due to an increase in speeding, unbelted motorists and alcohol-related fatalities.

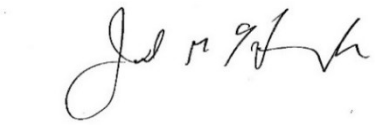
The top four contributing factors in Minnesota 2020 traffic fatalities continue to be:

- Speed: 122 deaths compared with 75 in 2019.
- Unbuckled motorists: 105 deaths compared with 73 in 2019.
- Drunk Driving: 79 deaths compared with 89 in 2019.
- Distractions: 32 deaths compared with 34 in 2019.

The Minnesota Department of Public Safety uses this information to determine future traffic safety initiatives that will lead to safer roads, more efficient safety programs and changed driver behavior.

Driving smart 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 sober ride.

Sincerely,



Commissioner John Harrington
Department of Public Safety

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Introduction

At the end of the 2020 calendar year, 4,741,730 people held Minnesota driver licenses and 5,430,848 motor vehicles were registered in the state. Vehicles traveled over 51.4 billion miles on public roadways. There were 57,127 traffic crashes; 394 people died and 20,529 people were injured in those crashes. This report provides a statistical summary of those crashes.

The purpose of Crash Facts is to provide summary statistical information about the crashes reported to the state each year. The term "crash" is used in preference to "accident." The latter term suggests there is a random, unavoidable quality about the events in question. In fact, the experience of the last three decades strongly demonstrates that advances in engineering and technology, coupled with changes in public policy and individual human behavior, can dramatically reduce the number and severity of traffic crashes.

Cost of traffic crashes

The use of motor vehicles for getting from one place to another results in significant costs to society. The National Safety Council reports that crashes (from all causes) are the leading cause of death among persons aged 1 to 24, the second leading cause of unintentional injury-related death for all ages combined and the fifth leading cause of death among all persons (Injury Facts, 2016 Edition, p. 14-15,18).

It is possible to estimate economic costs of traffic crashes, although the results can vary depending on definitions and estimating procedures. Many states use cost figures released by the National Safety Council, the most recent of which use 2019 data. Based upon those, the total economic loss from 2020 traffic crashes in Minnesota was $1,642,062,600, a figure that is calculated as follows:

Count	Severity	@ Cost	= Economic Loss
394	Deaths	@ $1,704,000	= $671,376,000
1,569	Serious Injuries	@ $98,400	= $154,389,600
7,656	Minor Injuries	@ $28,500	= $218,196,000
11,304	Possible Injuries	@ $23,400	= $264,513,600
72,519	PDO Crashes	@ $4,600	= $333,587,400
Total:			**$1,642,062,600**

Legislative requirement

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

Factors affecting traffic crashes

Any single crash may have many contributing factors associated with the crash event. There are several factors that affect the majority of traffic crashes and these factors can be categorized into these areas:

- **Behavioral Factors**
- **Vehicle Factors**
- **Roadway Characteristics**
- **Environmental Factors**

The Contributing Factors section of this report will delve into the frequency of these circumstances affecting crashes.

Historical perspective

In 1966, there were 53,041 traffic fatalities in the country, or 5.7 for every hundred million miles of travel. In Minnesota in 1968, there were 1,060 traffic fatalities, or 5.3 per hundred million miles of travel.

Since the 1960s, both the rate and the number of fatalities have declined in a fairly steady pattern. In 2020, there were 42,060 traffic fatalities throughout the country (according to preliminary data from National Safety Council) and 394 in Minnesota. The respective fatality rates per hundred million miles of travel were 1.37 and 0.76.

These declines are the result of conscious decision-making on traffic safety issues. The National Highway Traffic Safety Administration (originally called the National Highway Safety Bureau) was established in the US Department of Transportation in 1967. Since then, it has promoted and Congress has passed legislation mandating the manufacture of safer cars. At the same time, the federal interstate highway system has expanded, contributing to a safer roadway environment.

Simultaneously there has been an effort to change human behavior factors. Minnesota was a leader among the states in the development of innovative drunk driving countermeasures. The Legislature made significant amendments to the DWI law in 1971, 1976, 1978, and in almost every year of the 1980s. It also passed the child passenger protection law in 1981 and the secondary seat belt law in 1986. In 2009 the law was updated to 'Primary.' It subsequently amended those laws, closing loopholes, broadening their scope and strengthening penalties.

The benefits of action in these areas are clear and shown in the graphs below. Figure 1 shows a steady increase in the number of drivers and vehicles, but a steady decrease in the fatality rate per hundred million miles of travel. Figure 2 shows Minnesota traffic fatalities are trending downward.

Figure 1: Vehicles, Drivers, and Fatality Rate

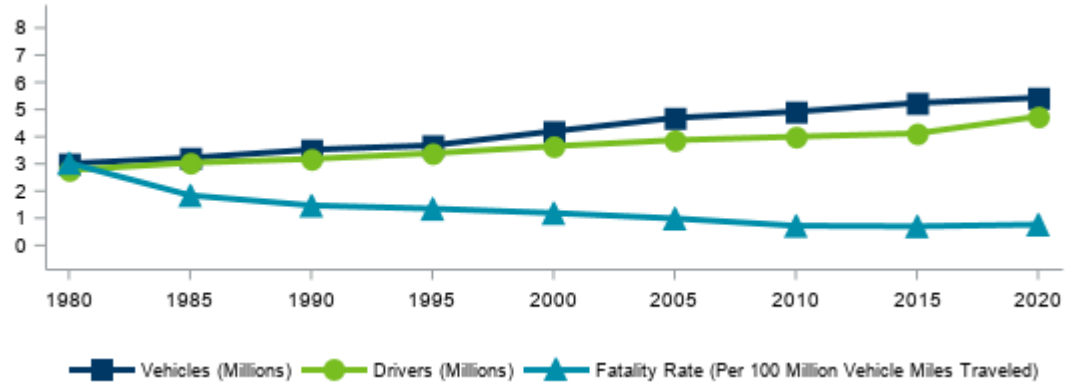
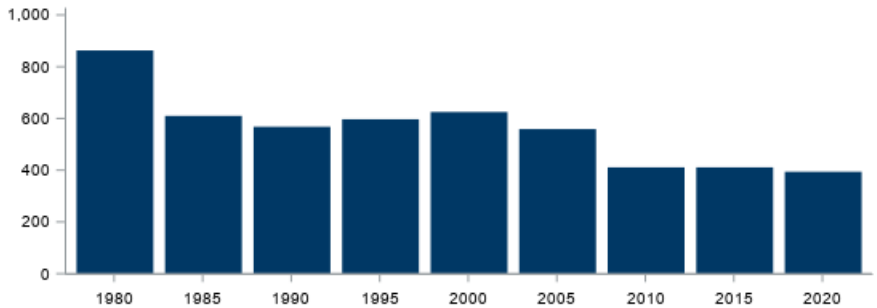


Figure 2: Minnesota Traffic Fatalities



All Crashes

Overview of Traffic Crashes
In 2020, 57,127 traffic crashes were reported. Reducing the number of traffic crashes remains a challenge each year for public safety officials. With a population of 5.70 million, Minnesota has:

4.7 million licensed drivers	**5.4 million registered vehicles**	**51.4 billion miles driven**

As these numbers steadily increase, the citizens of Minnesota face an extreme challenge in reducing the number and severity of traffic crashes.

Crashes decrease and fatalities increase in 2020. The 57,127 traffic crashes reported to the Department of Public Safety represent a decrease of 29% from 2019. There were 394 deaths on Minnesota roads, an 8% increase from the previous year. These drastic changes are atypical and a byproduct of the COVID-19 pandemic. Our roads are relatively safe. Traffic deaths in Minnesota have decreased dramatically in the past decades. There are many factors for the continued improvement in traffic safety, but much can be credited to strengthened traffic safety laws, enhanced enforcement, education and outreach, engineering and emergency trauma care. These elements are all part of the state's *Toward Zero Deaths* (*TZD*) initiative — a multidisciplinary program addressing traffic issues at the local level.

Traffic Crashes in 2020
The following facts give an overall picture of 2020 traffic crashes.

117,377
people involved in crashes

101,914
motor vehicles involved in crashes

Minnesota crash rates for 2020 were:

1,000 crashes per 100K population	**845 crashes per 100K vehicles**	**110 crashes per 100M VMT**

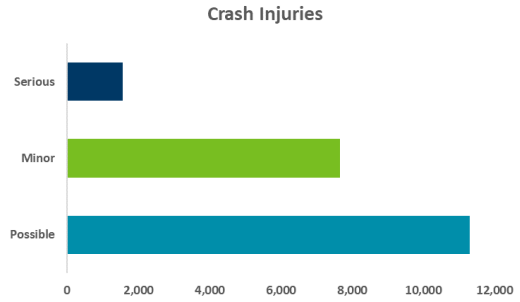
Minnesota fatality rates for 2020 were:

6.9 fatalities per 100K population	**5.8 fatalities per 100K vehicles**	**0.76 fatalities per 100M VMT**

$1.6 billion
economic loss to Minnesota

394
people died

20,529
people were injured



7,307
crashes classified as "hit-and-run"

37%
of crashes involved only one vehicle

Crash severity vs injury severity
When crashes occur, vehicles and property get damaged, and people get injured. Frequently, the number of crashes differs from the number of injuries. The highest level of injury suffered by a person involved in a crash is what defines the crash severity.

Can traffic crashes be prevented?
On average over the past decade, about 400 people have been killed and 30,500 injured every year on our roadways. Minnesota's traffic crashes are cause for concern. In a public health sense, epidemics that kill and injure fewer people are often attacked vigorously until they are no longer a threat to public safety.

The Department of Public Safety (DPS) uses the term "crash" instead of "accident." This is because a traffic crash can be predicted and prevented. Coupled with enforcement, education, engineering and emergency trauma solutions, changes in the behavior of all drivers will help attack the public threat of tragic roadway fatalities and injuries.

The message is simple:
Driving is a privilege;
aggressive driving is not.
Buckle up.
Drive at safe speeds.
Pay attention.
Never drive impaired.

Table 1.01: Traffic Crash Trends

	2016	2017	2018	2019	2020	Record High	
Fatal Crashes	**357**	**341**	**349**	**333**	**369**	**878**	**1973**
Injury Crashes	**21,734**	**21,272**	**20,244**	**19,902**	**15,071**	**33,868**	**1978**
Serious	1,702	1,561	1,341	1,297	1,310	5,109	1984
Minor	8,642	8,199	7,327	7,260	5,940	12,326	1985
Possible	11,390	11,512	11,576	11,345	7,821	18,578	1996
PDO Crashes	**56,978**	**56,852**	**58,622**	**60,401**	**41,687**	**94,810**	**1975**
Total Crashes	**79,069**	**78,465**	**79,215**	**80,636**	**57,127**	**123,106**	**1975**
Total Injuries	**29,825**	**29,412**	**27,877**	**27,260**	**20,529**	**50,332**	**1978**
Serious	1,992	1,849	1,660	1,520	1,569	6,573	1984
Minor	11,097	10,539	9,429	9,346	7,656	17,670	1985
Possible	16,736	17,024	16,788	16,394	11,304	28,631	1996
Total Fatalities	**392**	**358**	**381**	**364**	**394**	**1,060**	**1968**
MN Fatality Rate	0.67	0.63	0.63	0.60	0.76	24	1934
U.S. Fatality Rate	1.18	1.25	1.25	1.1	1.37	18	1925
MN Economic Loss (billions)	$1.87	$1.79	$1.79	$1.87	$1.87	$1.87	2016

Who, what, when, where?
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 aged 25-29 are the worst from this perspective. In 2020, they represented just 9% of the licensed drivers, but 12% of all crash-involved drivers. By contrast, drivers over 65 made up 20% of the driving population, but accounted for just 10% 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% of drivers in fatal crashes were male; 60% of drivers in all crashes were male.

Traffic crashes are a leading cause of death in young people. In the state last year, 122 people under age 30 died in crashes, representing 31% of all traffic deaths. As noted, the National Safety Council reports that crashes are the leading cause of death among persons aged 1 to 24.

Among people injured, young people especially pay the price. There were 8,514 people under age 30 who were injured, representing 41% of the total number of people injured.

Figure 1.01: Licensed vs Crash-Involved Drivers by Age

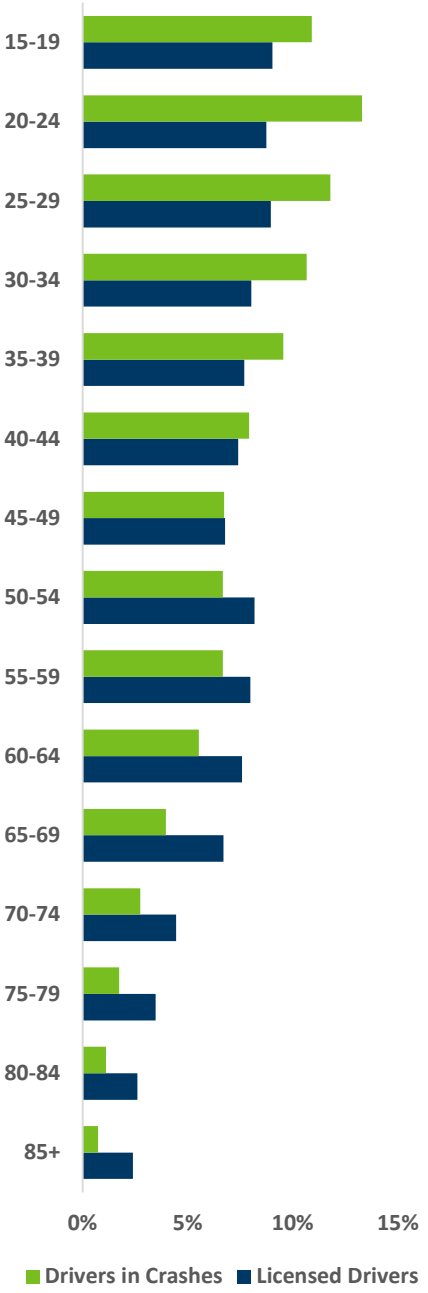


Table 1.02: Age and Gender of Drivers in Crashes

Age Group	Male Drivers in Fatal Crashes	Female Drivers in Fatal Crashes	Unk Gender Drivers in Fatal Crashes	Total in Fatal Crashes	Male Drivers in All Crashes	Female Drivers in All Crashes	Unk Gender Drivers in All Crashes	Total in All Crashes
<15	0	0	0	0	47	17	1	65
15-19	30	14	1	45	5,435	4,292	58	9,785
20-24	32	17	0	49	6,815	4,990	124	11,929
25-29	45	13	1	59	6,317	4,175	97	10,589
30-34	39	13	0	52	5,822	3,666	77	9,565
35-39	28	12	1	41	5,186	3,343	45	8,574
40-44	31	10	0	41	4,374	2,700	35	7,109
45-49	33	21	0	54	3,741	2,273	28	6,042
50-54	34	7	0	41	3,837	2,133	19	5,989
55-59	46	6	0	52	3,829	2,140	16	5,985
60-64	32	8	0	40	3,195	1,764	12	4,971
65-69	23	4	0	27	2,247	1,302	6	3,555
70-74	13	4	0	17	1,503	952	7	2,462
75-79	14	1	0	15	968	597	1	1,566
80-84	8	2	0	10	555	438	4	997
85+	7	1	0	8	399	256	7	662
Unk	0	0	0	0	21	6	31	58
Total	**415**	**133**	**3**	**551**	**54,291**	**35,044**	**568**	**89,903**

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

Figure 1.02: Crash-Involvement Gender Gap

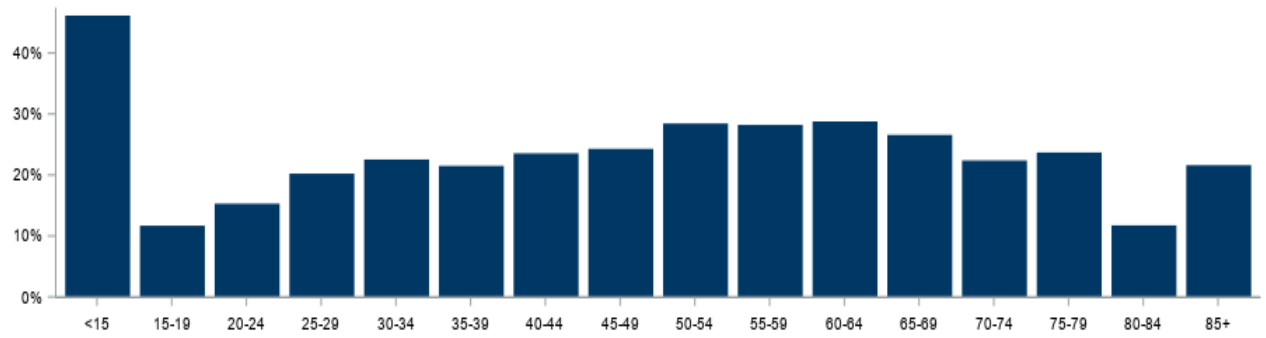


Table 1.03: Driver Physical Condition* in Crashes

Driver Physical Condition	Fatal Crashes	Injury Crashes	PDO Crashes	All Crashes
Apparently Normal	289	22,295	58,988	81,572
Physical Disability	3	46	37	86
Medical Issue	8	326	193	527
Emotional	3	78	110	191
Asleep or Fatigued	8	308	552	868
Had Been Drinking Alcohol	58	1,138	1,625	2,821
Had Been Taking Illicit Drugs	16	262	343	621
Had Been Taking Medications	1	63	86	150
Other	6	95	77	178
Unknown	710	26,401	65,681	92,792
Total	**1,102**	**51,012**	**127,692**	**179,806**

*As noted by police officer on crash report. Officers are allowed to enter up to two physical conditions for each driver. Due to this, totals will not match the total number of drivers.

Figure 1.03: Age and Gender of Persons Killed or Injured

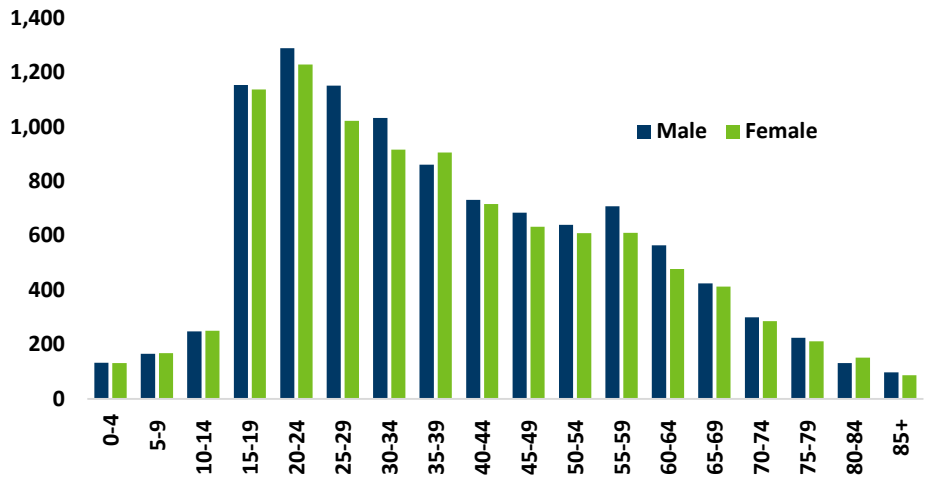


Figure 1.04: Fatalities by Gender

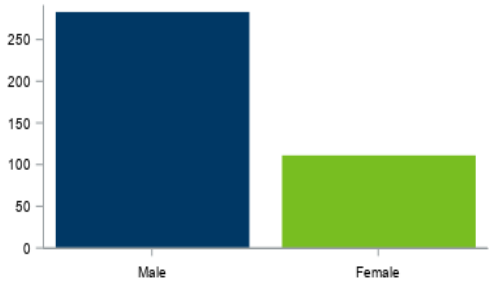
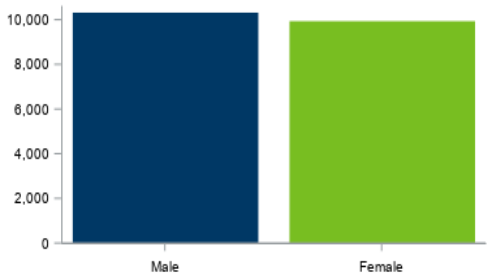


Figure 1.05: Injuries by Gender



72%

male fatalities

51%

male injuries

Table 1.04, Persons Involved by Type of Vehicle Occupied and Injury Severity

Vehicle Type	Killed	Serious Injuries	Minor Injuries	Possible Injuries	Total Injuries	No Injuries	Total Persons
Car	125	576	3,456	5,711	9,743	46,344	56,212
Pickup Truck	42	157	758	1,046	1,961	12,892	14,895
Sport Utility Vehicle	66	250	1,849	3,191	5,290	25,945	31,301
Van	11	42	286	516	844	4,113	4,968
Motorhome/Camper	0	0	0	5	5	63	68
Limousine	0	0	3	0	3	10	13
Taxi Cab	0	0	1	1	2	3	5
Police Vehicle	0	0	1	0	1	18	19
Fire Department Vehicle	0	0	0	1	1	36	37
School Bus	0	0	5	13	18	726	744
Other Bus	0	2	20	30	52	325	377
Ambulance	0	0	6	9	15	106	121
Military Vehicle	0	0	0	0	0	3	3
Snowmobile	2	2	2	0	4	6	12
All-Terrain Vehicle	13	28	38	11	77	28	118
Farm Tractor or Equipment	0	1	8	4	13	93	106
Motorcycle	64	267	469	190	926	122	1,112
Moped/Motor Scooter	2	10	32	10	52	7	61
Single Truck (2-axle, 6 tire)	1	0	11	14	25	358	384
Single Truck (3+ axles)	2	1	14	12	27	290	319
Truck with Trailer	1	2	21	15	38	660	699
Truck No Trailer	0	1	0	1	2	53	55
Truck Semi Trailer	4	7	65	40	112	1,559	1,675
Truck Double Trailer	0	0	1	0	1	33	34
Truck Triple Trailer	0	0	0	0	0	2	2
Other Truck Type	1	0	19	27	46	848	895
Bicycle	10	59	226	144	429	52	491
Pedestrian	45	146	292	214	652	97	794
Unknown Vehicle Type	5	18	73	99	190	1,662	1,857
Total	**394**	**1,569**	**7,656**	**11,304**	**20,529**	**96,454**	**117,377**

What were the conditions?

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: Crash Types

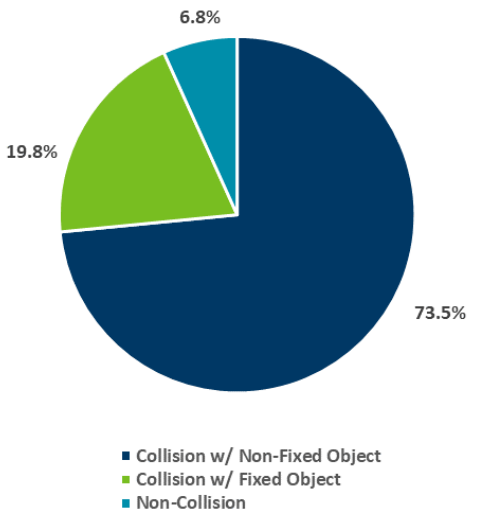


Table 1.05: Crash Type and Crash Severity

Crash Type	Fatal	Injury	PDO	Total Crashes
Non-Fixed Object	206	11,025	30,736	41,967
Fixed Object	88	2,458	8,750	11,296
Non-Collision	75	1,588	2,201	3,864
Total	**369**	**15,071**	**41,687**	**57,127**

Table 1.06: Crash Type Counts

Collision w/ Non-Fixed Object	
Motor Vehicle in Transport	35,810
Parked Motor Vehicle	3,598
Falling Cargo	98
Pedestrian	569
Bicycle	419
Deer/Animal	1,432
Train	41
Collision w/ Fixed Object	
Pole/Sign/Parking Meter	3,229
Construction Equipment	24
Bridge	187
Culvert/Curb	253
Ditch/Embankment	1,064
Snowbank	140
Barrier	3,647
Mailbox/Hydrant	361
Tree/Shrubbery	1,084
Fence	386
Other/Unknown	921
Non-Collision	
Object Set in Motion By MV	168
Overturn/Rollover	2,788
Submersion	41
Fire/Explosion	35
Other Non-Collision	832

According to crash reports, the majority of crashes occur in good driving conditions – daylight hours, clear weather, good roads.

Table 1.07: Crashes by Weather Condition

Weather Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Clear	268	10,609	27,167	38,044	288	14,476
Cloudy	55	2,683	7,116	9,854	59	3,707
Rain	17	461	1,379	1,857	18	623
Snow	11	860	4,001	4,872	11	1,126
Sleet/Hail	1	106	444	551	1	141
Fog/Smog/Smoke	5	68	143	216	5	91
Blowing Sand/Soil/Dirt	5	162	685	852	5	214
Severe Crosswinds	1	11	48	60	1	12
Other Weather	0	19	57	76	0	23
Unknown	6	92	647	745	6	116
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

73%

fatal crashes occurred during clear weather

Most

crashes happen where no traffic control device is located

Table 1.08: Crashes by Traffic Control Device

Traffic Control Device	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
None	253	7,771	24,393	32,417	244	10,555
RR Crossing Device	2	18	58	78	2	20
Traffic Control Signal	27	3,795	8,360	12,182	17	5,134
Flashing Overhead Signal	0	26	50	76	0	28
Yield Sign	0	218	779	997	0	245
Stop Sign	42	1,922	4,110	6,074	38	2,029
Warning Sign	2	40	110	152	2	52
Flagger, Police, Crossing Guard	1	7	26	34	1	19
School Zone Sign	0	1	8	9	0	2
Other	3	48	147	198	3	51
Not Applicable	31	965	2,982	3,978	30	1,187
Unknown	8	260	664	932	57	1,207
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

Table 1.09: Crashes by Road Surface Condition

Road Surface	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Dry	282	11,337	27,492	39,111	301	15,563
Wet	32	1,279	3,629	4,940	34	1,764
Snow	12	1,070	5,237	6,319	12	1,397
Ice/Frost	18	1,070	4,438	5,526	19	1,384
Sand	1	14	10	25	0	0
Ruts, Holes, Bumps	0	4	3	7	0	0
Other	20	219	326	565	24	334
Unknown	4	78	552	634	4	87
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

Table 1.10: Crashes by Road Design

Road Design	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
One Way Trafficway	5	728	2,597	3,330	5	925
Two-Way, Not Divided	269	8,045	20,142	28,456	254	10,347
Two-Way, Not Divided, Left Turn Lane	2	309	740	1,051	1	403
Two-Way, Divided, Unprotected Median	28	1,544	3,669	5,241	26	2,181
Two-Way, Divided, Median Barrier	49	3,819	12,750	16,618	43	5,032
Other	8	378	1,259	1,645	8	425
Unknown	8	248	530	786	57	1,216
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

Only 17%

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

Over half

of fatalities occurred on two-way, not divided roads

Hit-and-Run Crashes

In 2020, there were 7,307 crashes classified as Hit-and-Run. This represents 13% 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	847	6,449	7,307	11	1,035

Figure 1.07: Hit-and-Run Crash Trends

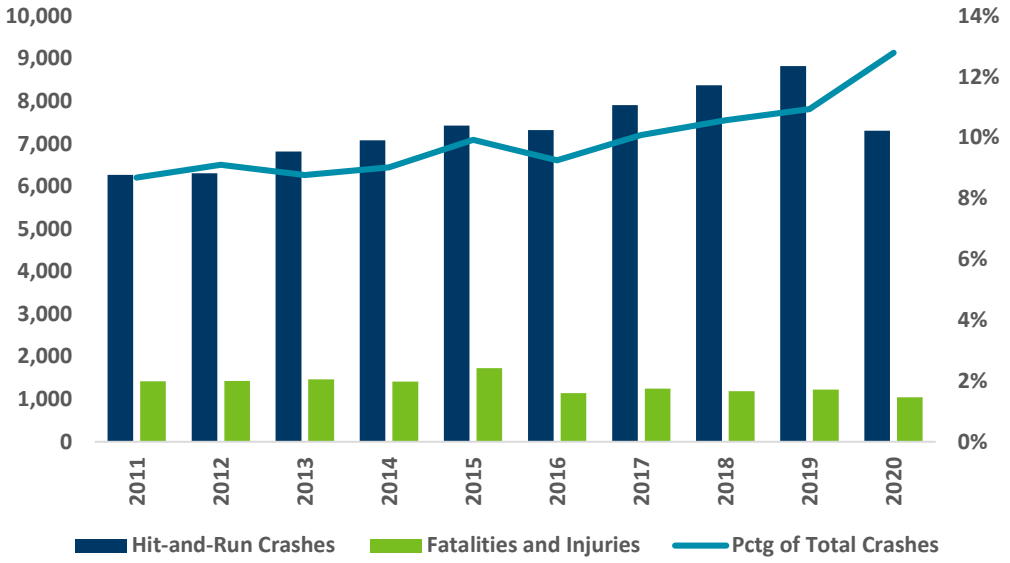
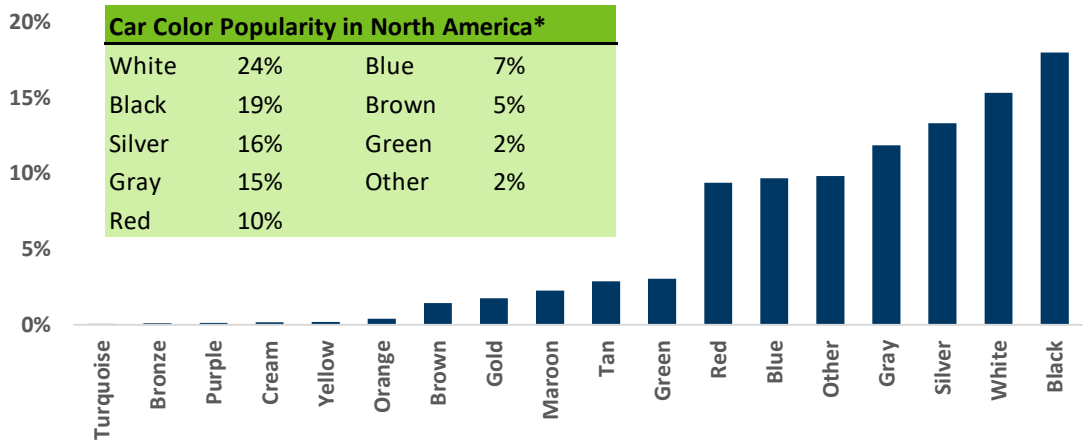


Figure 1.08: Vehicle Color (Passenger Cars, Trucks, or Vans) of Cars in Minnesota Crashes



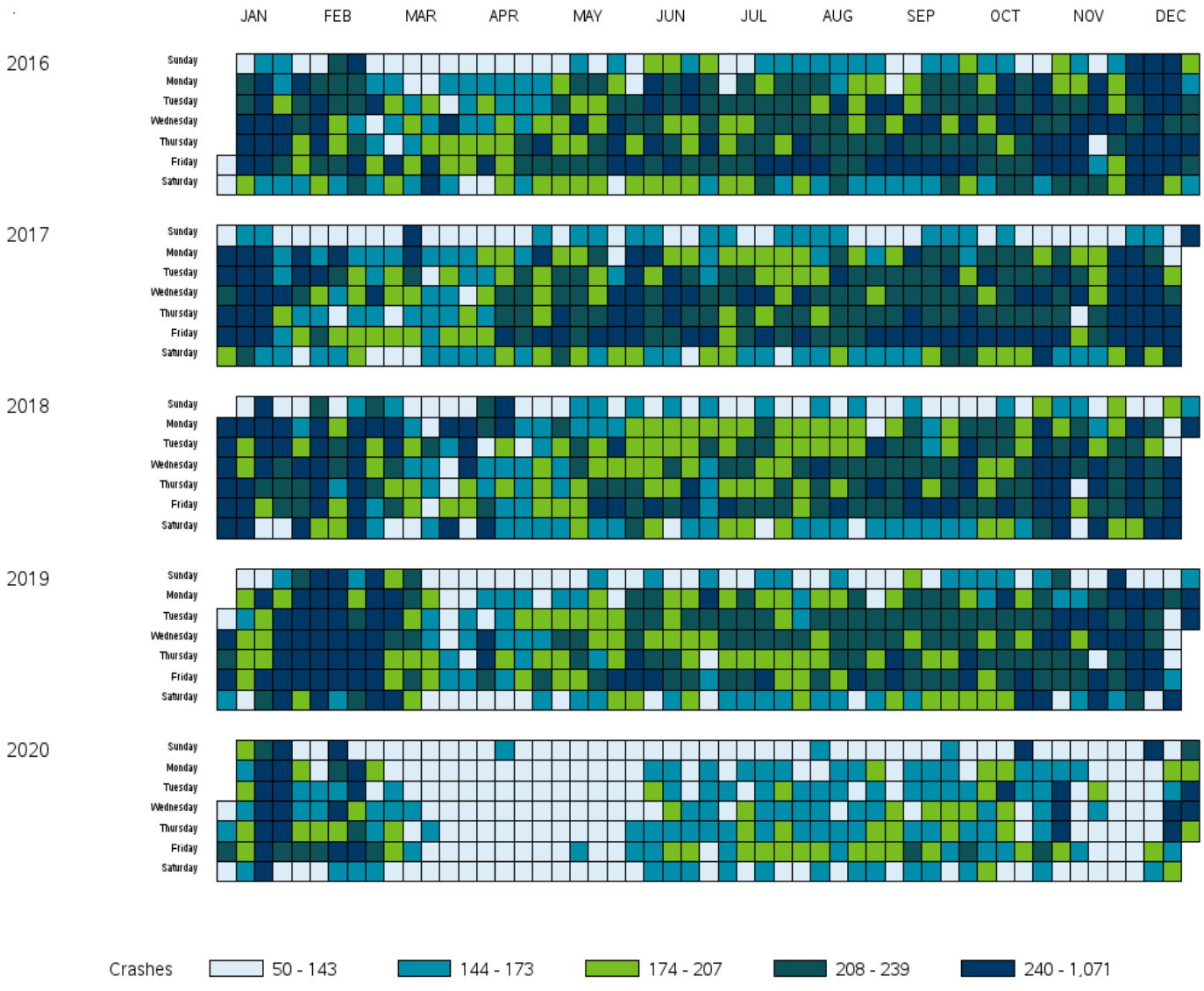
*According to Wikipedia and DuPont Paint – Car Color Popularity in North America

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 All Crashes
Car	192	13,115	36,474	49,781
Pickup Truck	92	3,160	9,515	12,767
Sport Utility Vehicle	120	7,011	18,600	25,731
Van	19	1,004	2,525	3,548
Motorhome/Camper	0	8	46	54
Limousine	0	2	10	12
Taxi Cab	0	2	0	2
Police Vehicle	0	1	19	20
Fire Department Vehicle	0	6	21	27
School Bus	1	38	205	244
Other Bus	0	62	196	258
Ambulance	0	14	47	61
Military Vehicle	0	1	1	2
Snowmobile	2	4	7	13
All-Terrain Vehicle	13	62	16	91
Farm Tractor or Equipment	0	25	78	103
Motorcycle	64	854	105	1,023
Moped/Motor Scooter	2	49	9	60
Single Truck (2-axle, 6 tire)	3	73	279	355
Single Truck (3+ axles)	11	74	217	302
Truck with Trailer	10	138	530	678
Truck No Trailer	0	10	42	52
Truck Semi Trailer	25	333	1,279	1,637
Truck Double Trailer	0	4	28	32
Truck Triple Trailer	0	0	2	2
Other/Unknown Truck Type	6	181	647	834
Unknown Vehicle Type	8	659	3,558	4,225
Total	**568**	**26,890**	**74,456**	**101,914**

When did crashes occur?

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. As a general rule, warmer weather produces fewer crashes, but more fatalities and serious injuries. Examining the days of the week, the fewest crashes occur on Sundays.



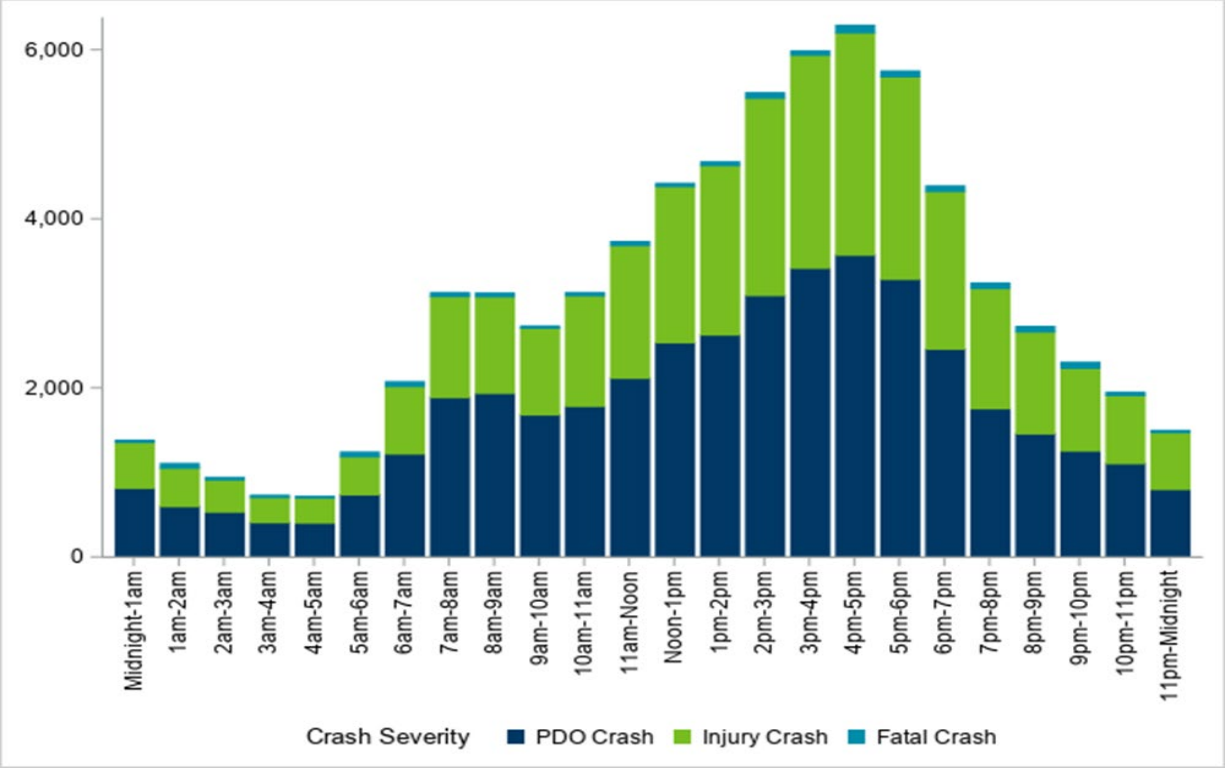
Most crashes occur on Fridays

Winter means lots of crashes

Table 1.13: Crashes, Fatalities, and Injuries by Month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	16	1,475	5,813	7,304	18	2,019
February	20	1,276	4,451	5,747	22	1,698
March	24	842	2,464	3,330	24	1,132
April	19	660	1,862	2,541	20	883
May	25	963	2,151	3,139	27	1,315
June	34	1,413	2,951	4,398	37	1,959
July	50	1,562	3,222	4,834	54	2,193
August	46	1,434	3,214	4,694	47	1,969
September	45	1,452	3,315	4,812	47	2,006
October	28	1,519	4,355	5,902	35	2,044
November	33	1,220	3,486	4,739	34	1,611
December	29	1,255	4,403	5,687	29	1,700
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

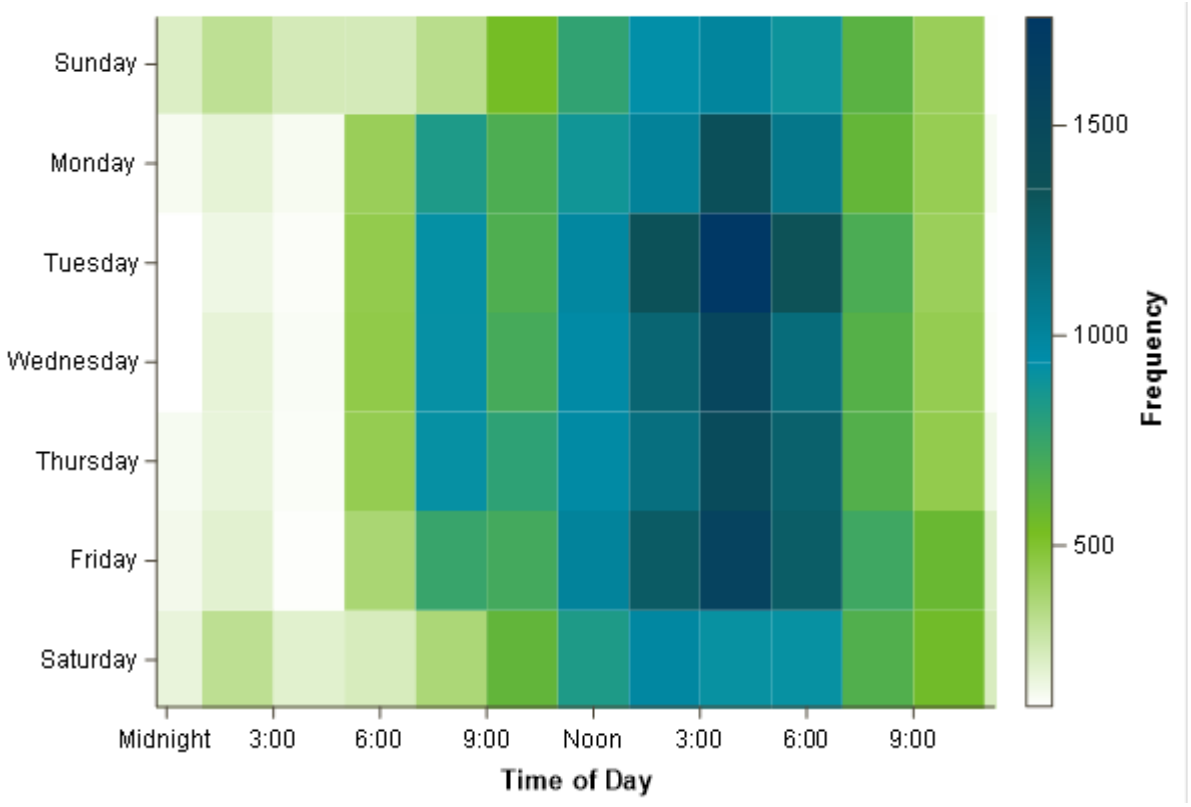
Figure 1.10: Crashes by Time and Crash Severity



When do most crashes occur?

It's not surprising that most crashes occur at peak driving times. Weekdays see higher traffic volume as people are out and about more commuting to and from work and school, particularly during the morning and afternoon rush hour periods (6am-9am and 3pm-6pm). The frequency of crashes during these times is evidenced by the dark blue in the heat map. Minnesota roads see less traffic on Saturdays and Sundays, and therefore fewer crashes; this is shown by the lighter blues and greens in the heat map.

Figure 1.11: Heat Map of Crashes



Lots of crashes on

Friday afternoons

Early mornings

see the fewest crashes

Figure 1.12: Daily Crashes by Time and Crash Severity

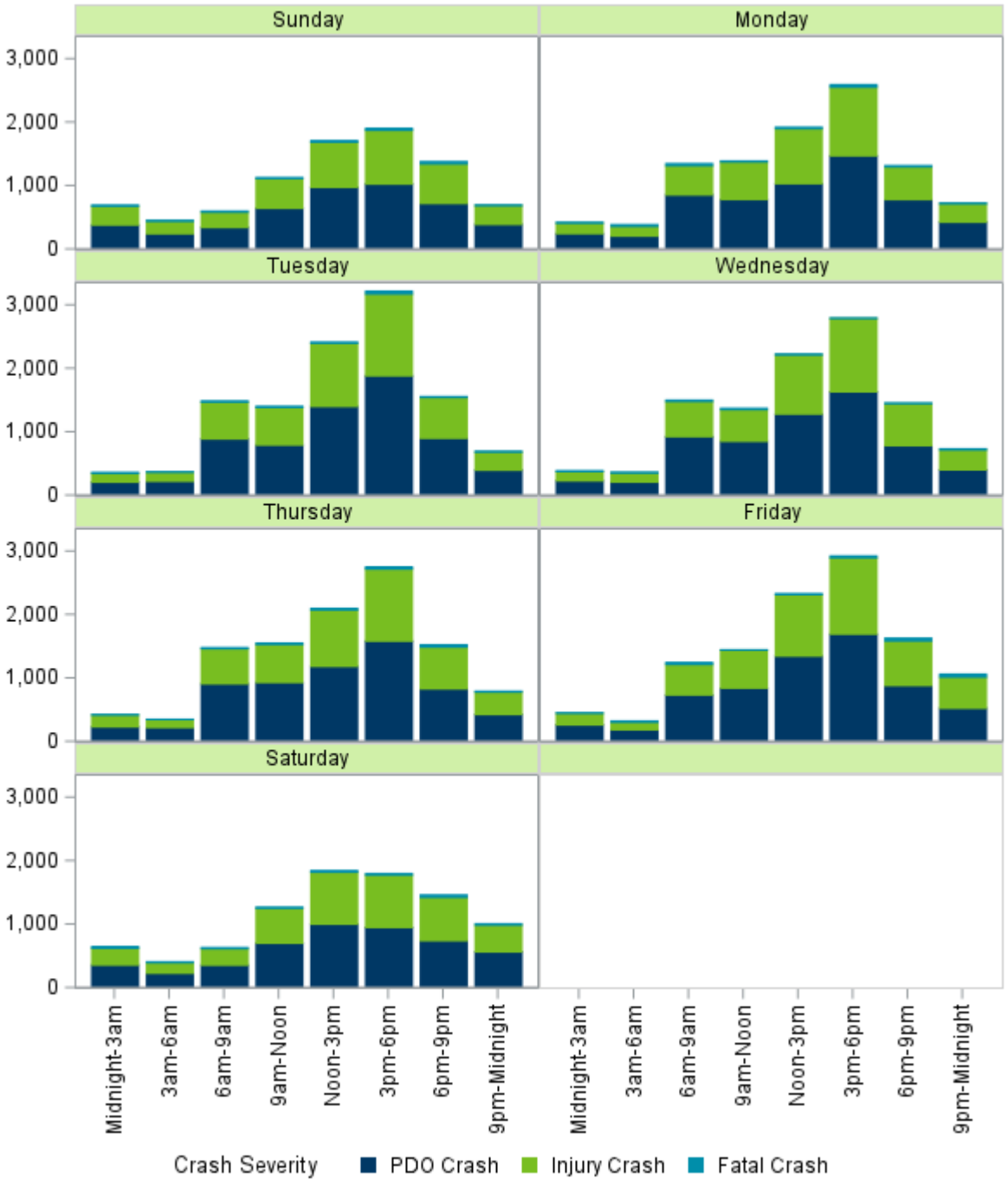


Table 1.14: Crashes by Light Condition

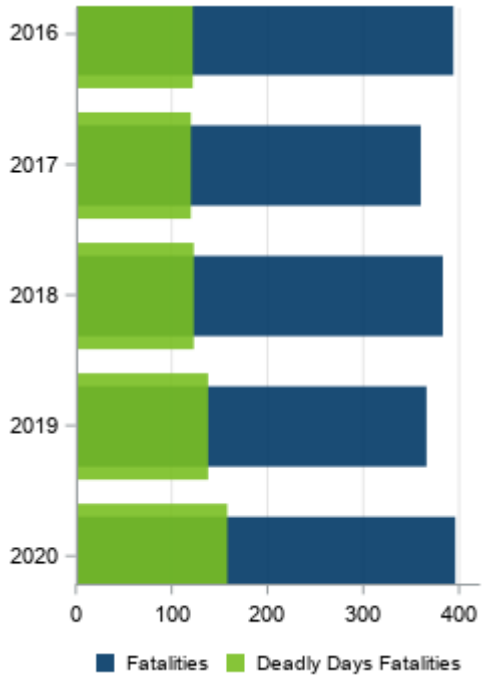
Light Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Daylight	184	10,294	27,411	37,889	195	14,113
Sunrise	10	326	971	1,307	11	389
Sunset	18	463	1,177	1,658	21	622
Dark/Street Lights On	51	2,728	8,180	10,959	57	3,723
Dark/No Street Lights	101	1,222	3,393	4,716	105	1,633
Other	5	38	555	598	5	49
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

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.

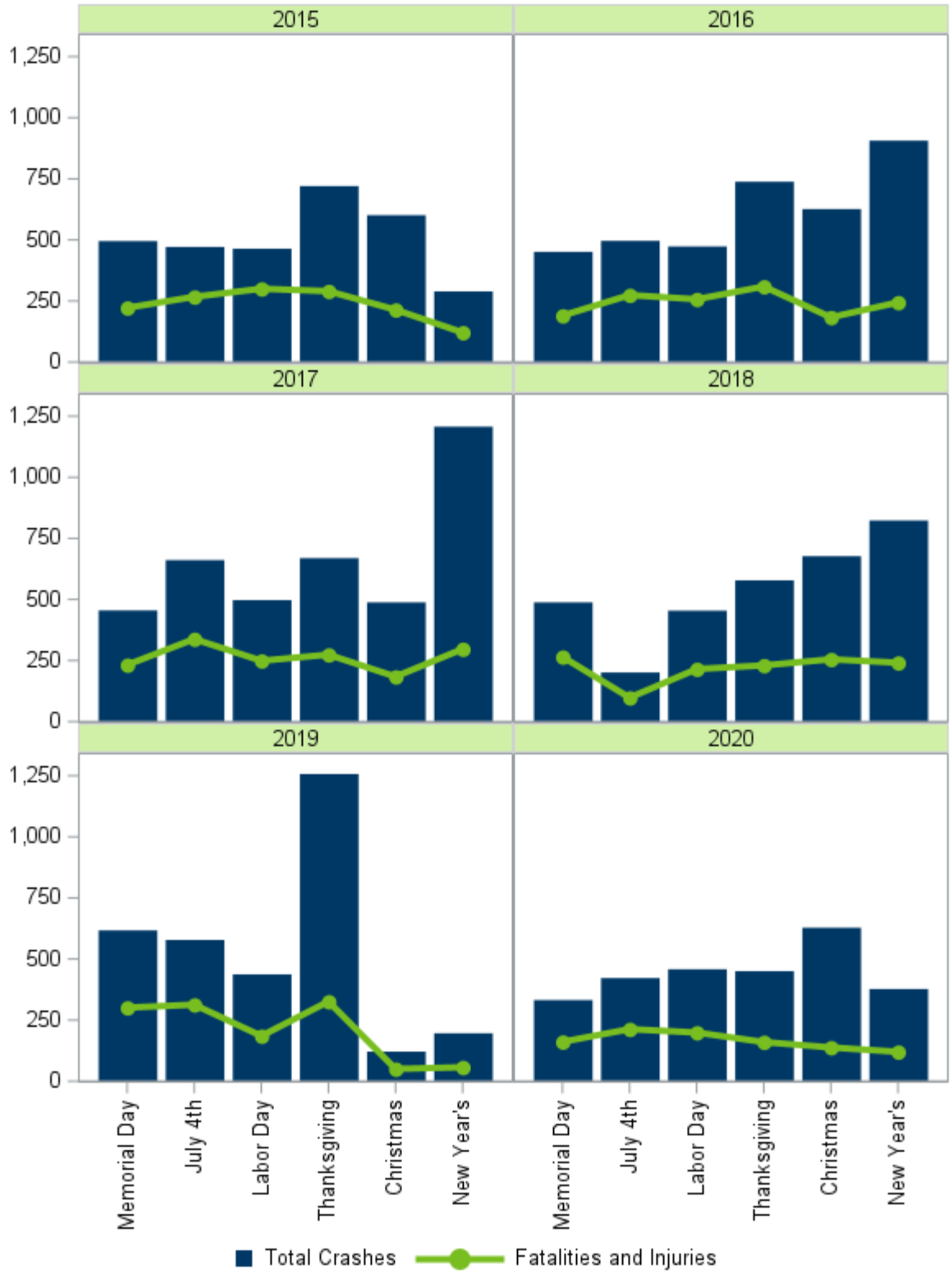
Figure 1.13: 100 Deadly Days of Summer



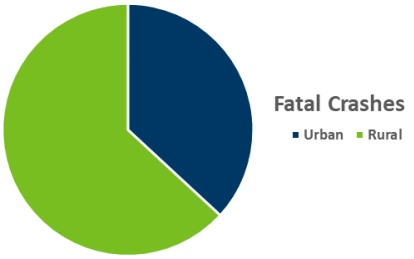
40%

of fatalities occurred during the 100 deadly days in 2020

Figure 1.14: Holiday Crashes



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.



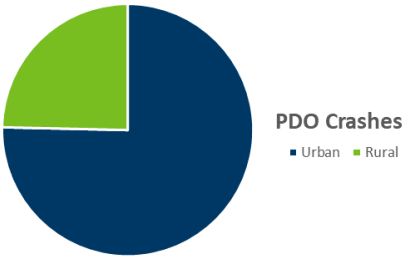
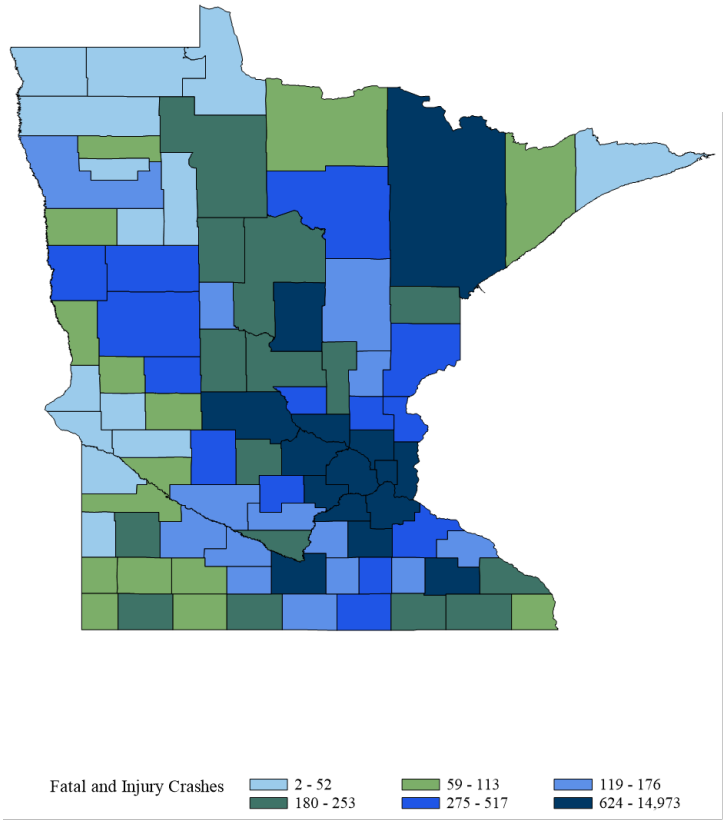


Figure 1.15: Fatal and Injury Crashes Plotted By County



63%

fatal crashes occur in rural areas

In urban and rural areas,

Speed

is frequently a factor in fatal crashes

Table 1.15: County Crash Report

County	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Aitkin	3	49	94	146	3	66
Anoka	17	811	2,243	3,071	17	1,104
Becker	7	90	154	251	8	132
Beltrami	5	64	143	212	5	93
Benton	3	119	413	535	3	169
Big Stone	2	12	23	37	2	17
Blue Earth	4	205	646	855	4	280
Brown	0	45	134	179	0	61
Carlton	3	70	222	295	3	98
Carver	5	252	566	823	5	340
Cass	7	76	157	240	7	116
Chippewa	0	23	73	96	0	31
Chisago	5	124	365	494	6	183
Clay	6	104	357	467	7	142
Clearwater	1	15	33	49	1	23
Cook	2	14	49	65	2	20
Cottonwood	2	22	70	94	3	32
Crow Wing	6	194	492	692	6	267
Dakota	14	1,104	3,387	4,505	15	1,500
Dodge	3	40	89	132	3	54
Douglas	5	101	239	345	5	156
Faribault	4	42	68	114	4	58
Fillmore	1	59	86	146	2	76
Freeborn	4	100	312	416	4	133
Goodhue	4	151	521	676	4	231
Grant	1	23	50	74	1	37
Hennepin	41	4,231	11,296	15,568	46	5,760
Houston	1	33	83	117	1	42
Hubbard	2	76	94	172	2	97
Isanti	7	125	234	366	8	192
Itasca	6	113	247	366	8	157
Jackson	0	29	81	110	0	39
Kanabec	4	37	51	92	4	51
Kandiyohi	3	150	375	528	3	210
Kittson	0	7	6	13	0	7

Table 1.15: County Crash Report, Continued

County	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Koochiching	3	19	25	47	3	25
Lac Qui Parle	1	13	20	34	1	18
Lake	2	25	70	97	2	34
Lake of Woods	0	1	4	5	0	1
Le Sueur	2	49	158	209	2	59
Lincoln	1	11	27	39	1	14
Lyon	1	62	151	214	1	82
Mahnomen	0	13	19	32	0	27
Marshall	2	12	23	37	2	22
Martin	3	54	163	220	3	79
Mcleod	3	110	254	367	3	161
Meeker	2	61	151	214	2	83
Mille Lacs	2	80	145	227	2	112
Morrison	4	53	149	206	5	68
Mower	1	73	285	359	2	102
Murray	0	23	43	66	0	29
Nicollet	5	60	271	336	5	86
Nobles	3	60	236	299	3	88
Norman	2	17	24	43	2	24
Olmsted	12	450	1,157	1,619	13	613
Otter Tail	8	144	378	530	9	193
Pennington	2	27	38	67	2	35
Pine	3	81	229	313	4	108
Pipestone	0	24	16	40	0	30
Polk	2	56	156	214	2	71
Pope	1	24	56	81	1	32
Ramsey	19	1,466	4,808	6,293	19	1,917
Red Lake	0	1	4	5	0	1
Redwood	1	39	68	108	1	54
Renville	3	43	61	107	3	63
Rice	9	181	525	715	10	253
Rock	0	26	85	111	0	33
Roseau	1	16	24	41	1	21
Scott	6	326	762	1,094	7	449
Sherburne	14	269	709	992	15	374

Table 1.15: County Crash Report, continued

County	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Sibley	1	51	84	136	1	61
St. Louis	19	444	1,598	2,061	20	584
Stearns	12	513	1,731	2,256	12	688
Steele	4	91	414	509	4	112
Stevens	1	14	40	55	1	19
Swift	4	14	26	44	4	18
Todd	4	68	110	182	4	82
Traverse	0	6	15	21	0	7
Wabasha	5	54	100	159	5	70
Wadena	0	45	73	118	0	60
Waseca	0	50	121	171	0	64
Washington	6	504	1,327	1,837	7	672
Watonwan	2	35	56	93	3	46
Wilkin	2	24	77	103	2	34
Winona	2	74	186	262	2	107
Wright	8	387	941	1,336	8	542
Yellow Medicine	3	18	41	62	3	28
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

Table 1.16: Crashes By Population of Area

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	28	2,705	8,126	10,859	30	3,676
100,000-249,999	5	336	856	1,197	5	457
50,000-99,999	29	2,785	8,048	10,862	30	3,730
25,000-49,999	25	1,603	4,580	6,208	28	2,141
10,000-24,999	32	2,384	7,407	9,823	33	3,211
5,000-9,999	17	832	2,399	3,248	17	1,139
2,500-4,999	18	507	1,570	2,095	20	677
1,000-2,499	17	537	1,328	1,882	17	742
Townships/Rural	198	3,382	7,373	10,953	214	4,756
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

Table 1.17: Crashes by Type of Roadway

Type of Roadway	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Urban						
Interstate	17	1,038	4,224	5,279	20	1,328
US Trunk Hwy	8	701	2,271	2,980	8	993
MN Trunk Hwy	21	1,115	3,239	4,375	21	1,604
County State Aid Hwy	33	2,558	5,900	8,491	33	3,521
County Road	2	120	258	380	2	163
Township Road	0	4	12	16	0	5
Municipal State Aid Hw	27	2,593	6,835	9,455	31	3,519
Municipal Street	23	1,795	6,273	8,091	23	2,312
Other Road	5	721	2,404	3,130	5	909
Urban Total	**136**	**10,645**	**31,416**	**42,197**	**143**	**14,354**
Rural						
Interstate	12	330	1,561	1,903	13	467
US Trunk Hwy	39	696	1,730	2,465	44	985
MN Trunk Hwy	59	1,029	2,076	3,164	64	1,508
County State Aid Hwy	86	1,394	2,648	4,128	91	1,904
County Road	13	245	354	612	15	341
Township Road	16	388	656	1,060	16	533
Municipal State Aid Hw	0	8	19	27	0	11
Municipal Street	0	205	845	1,050	0	250
Other Road	8	131	382	521	8	176
Rural Total	**233**	**4,426**	**10,271**	**14,930**	**251**	**6,175**
All Roadways						
Interstate	29	1,368	5,785	7,182	33	1,795
US Trunk Hwy	47	1,397	4,001	5,445	52	1,978
MN Trunk Hwy	80	2,144	5,315	7,539	85	3,112
County State Aid Hwy	119	3,952	8,548	12,619	124	5,425
County Road	15	365	612	992	17	504
Township Road	16	392	668	1,076	16	538
Municipal State Aid Hw	27	2,601	6,854	9,482	31	3,530
Municipal Street	23	2,000	7,118	9,141	23	2,562
Other Road	13	852	2,786	3,651	13	1,085
Total	**369**	**15,071**	**41,687**	**57,127**	**394**	**20,529**

Alcohol-Related Crashes

Impaired driving incidents

As used here, an "impaired driving incident" is one where there was an arrest for driving while under the influence of alcohol or drugs and a violation from that incident was subsequently 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. Additionally, 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.

Drunk driving-related crashes

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% 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.

22,653 DWI arrests	3,357 alcohol-related crashes	131 alcohol-related deaths

Reported perceptions are conservative

Officers are conservative in reporting drinking and driving. Officer cautiousness is less a factor in fatal crashes because every effort is made to obtain alcohol test results. For less severe crashes, the officer's judgment is often all that is available. Therefore, alcohol-related non-fatal crashes are considerably underestimated.

Important caveats to the definition

Not all alcohol-related traffic fatalities are involve a drinking driver. If a drinking pedestrian or bicyclist is in a crash and then he or she (or anyone in the crash) dies, the death is an alcohol-related traffic death. For example, one year, ten drinking pedestrians in separate incidents died after colliding with a vehicle driven by a non-drinking driver. Additionally, the definition given above makes an assumption that the person drinking caused, or contributed significantly to the crash. Experts who study fatal traffic crashes in detail confirm that this is almost always true, but it is important to recognize that the assumption is not invariably true. There will be exceptions to the rule. Sometimes a crash is alcohol-related, but is not classified as such due to inadequate data. For example, a drunk driver may die in a crash wherein the circumstance render it impossible to test the remains for intoxicants.

"Known" versus "estimated" alcohol-related deaths

Testing drivers for alcohol is the key to accurately classifying crashes. Minnesota is much better at testing than most states. Because many drivers are still not tested, the National Highway Traffic Safety Administration (NHTSA) developed a sophisticated statistical procedure that estimates how many fatalities really were alcohol-related. The idea that a computerized statistical procedure can accurately make such estimates initially invites skepticism. However, NHTSA developed the procedure with the greatest care over many years. Tests of the procedure, performed by having it make estimates for datasets from which critical data was removed and then comparing the estimates against the true parameters (putting back in the data that has been removed), show that the procedure is accurate to within about plus or minus one percentage point. Table 2.06 shows alcohol-related fatalities for Minnesota using the two procedures (NHTSA's estimating procedure and the state's procedure based on known data). NHTSA's estimate of the true percentage of alcohol-related fatalities is always higher than, but very close to, the state's numbers. The reason the two numbers are so close is that Minnesota does a good job of collecting test results on drivers, pedestrians and bicyclists in fatal crashes.

Alcohol-related crashes in Minnesota

Drinking and driving remains a serious problem in Minnesota and across the nation. For 2019, the National Safety Council has made a conservative estimate of $279 million as the cost of alcohol-related crashes in Minnesota. Predictably, there is a strong positive relationship between alcohol use and crash severity. That is, as crash severity increases, alcohol is more likely to have been a factor in the crash. This connection can be seen in the Figure 2.01 graph.

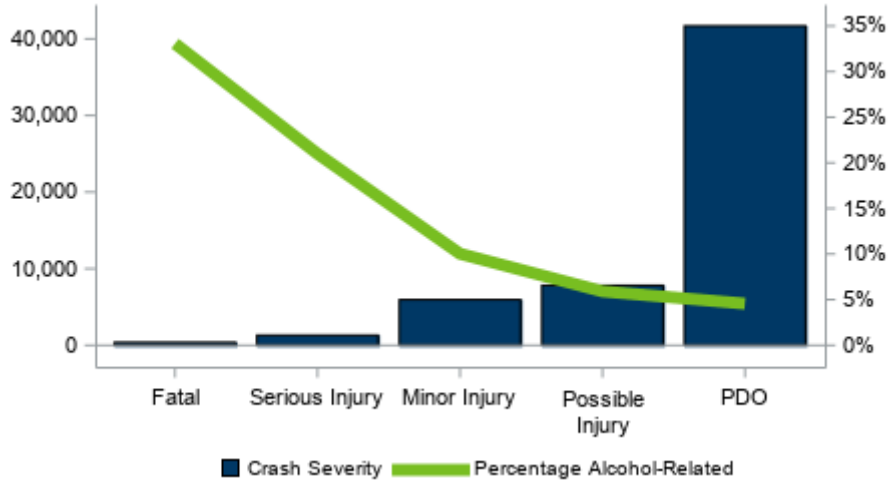
1 in 7

Minnesota drivers has a DWI on record

Half

of those drivers will re-offend

Figure 2.01: Percentage of Alcohol-Related Crashes by Crash Severity



Drinking drivers themselves pay the price

Young people may have better reflexes than their elders, but as drivers they take more risks and have less experience than older people. They pay a clear price for this. Drivers aged 15-34 accounted for 33% of all traffic deaths and for 10% of the alcohol-related deaths. It is also the drinkers themselves who are more likely to pay the price for their dangerous behavior. In 2020, 73 (54%) of the 135 people who died in alcohol-related crashes were themselves the people whose drinking behavior was a main factor which lead to the crash to be classified as alcohol-related. In short, drinking drivers, pedestrians and bicyclists mostly kill and injure themselves.

Majority

of alcohol-related fatalities test above the legal limit

.21 BAC

is the average BAC in fatal alcohol-related crashes

Success story in Minnesota

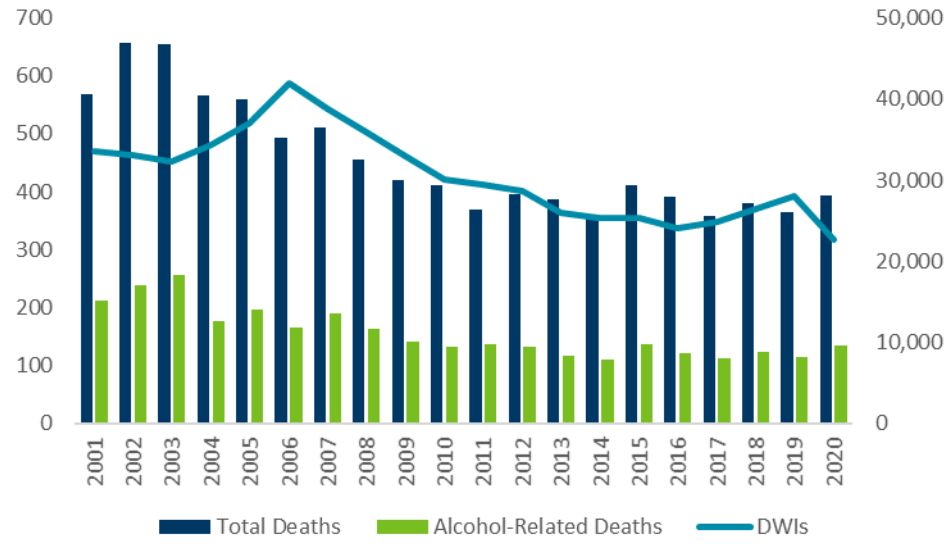
In reality, the percentage of alcohol-related traffic fatalities in Minnesota has steadily decreased in the past half-century. In the 1960s, around 60% of all traffic deaths per year were alcohol-related. Today, this percentage hovers around 33%. This is a great success story for Minnesota and the nation as a whole. As drivers change their behavior less tragedy occurs on our roadways.

Changes in drinking and driving behaviors are evidenced by reductions in alcohol-related crashes and the percentage of total deaths that are alcohol-related. In 1998, 42% of all traffic fatalities were alcohol-related; this number has decreased 10% in the past decade.

Table 2.01: Overview of Traffic Safety and Alcohol Statistics

Year	Total Deaths	DWI Arrests	Deaths (Any) Alcohol	% of Total Deaths	Deaths .08%+ Alcohol	% of Total Deaths	Deaths Drunk Driving (.08%+ Alcohol)	% of Total Deaths
2011	368	29,476	136	37%	111	30%	103	28%
2012	395	28,642	131	33%	104	26%	95	24%
2013	387	26,012	117	30%	95	25%	81	21%
2014	361	25,389	111	31%	91	25%	88	24%
2015	411	25,371	137	33%	107	26%	95	23%
2016	392	24,103	121	31%	90	23%	73	19%
2017	358	25,128	113	32%	84	23%	72	20%
2018	381	26,414	123	32%	96	25%	84	22%
2019	364	27,378	114	31%	107	29%	89	24%
2020	394	22,653	135	34%	89	23%	79	20%

Figure 2.02: Portion of Total Deaths and Alcohol-Related Deaths to DWIs



Minnesota's legal limit was lowered from .10 to .08 in 2005.

A look at age and gender

In Minnesota, a person can legally buy alcohol at age 21 and drinking and driving too often follows that. Impaired driving is essentially a problem among young adults and males. When gender was stated, males made up 72% of the DWI offenders in 2020. Those age 20 to 34 years old incurred 50% of the DWI incidents in 2020. Regarding alcohol-related crashes, those age 20 to 34 years old suffered 43% of the fatalities and 50% of the serious injuries.

Figure 2.03: Impaired Driving Incidents ("DWIs") by Age Group

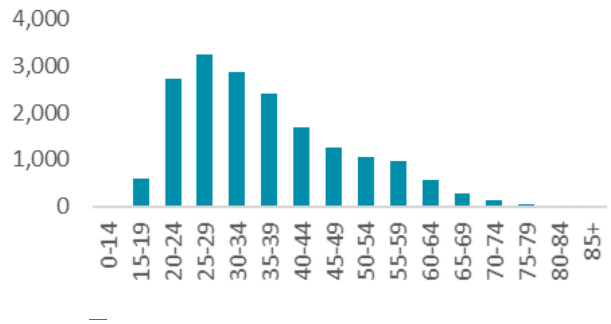


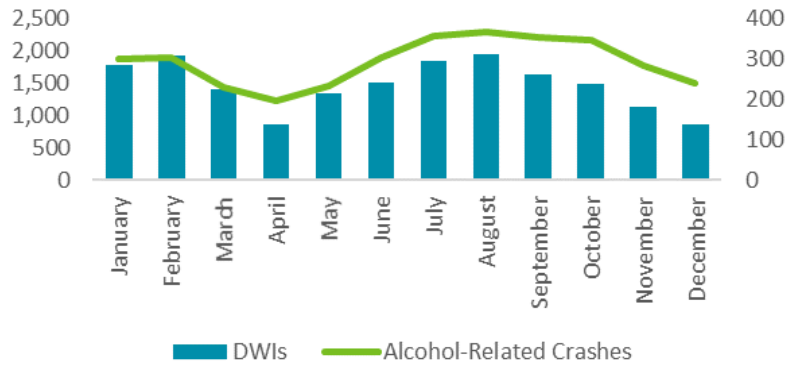
Table 2.02: Age of Persons Killed and Injured in All Crashes and Alcohol-Related Crashes

Age Group	Killed	Alcohol Related	Serious Injuries	Alcohol Related	Minor Injuries	Alcohol Related	Possible Injuries	Alcohol Related	Total Injuries	Alcohol Related
00-04	4	1	12	0	66	3	194	14	272	17
05-09	0	0	16	2	106	11	224	4	346	17
10-14	5	3	34	0	188	14	286	11	508	25
15	6	2	22	3	66	3	100	4	188	10
16	11	4	34	5	191	9	239	14	464	28
17	9	2	30	3	188	15	296	9	514	27
18	5	2	37	4	215	18	307	12	559	34
19	5	3	40	12	226	25	288	18	554	55
20	8	2	40	18	215	33	304	19	559	70
<21	**53**	**19**	**265**	**47**	**1,461**	**131**	**2,238**	**105**	**3,964**	**283**
00-14	9	4	62	2	360	28	704	29	1,126	59
15-19	36	13	163	27	886	70	1,230	57	2,279	154
20-24	31	14	210	65	1,001	169	1,310	111	2,521	345
25-29	36	20	177	54	805	122	1,185	102	2,167	278
30-34	31	11	167	54	692	87	1,082	90	1,941	231
35-39	22	8	132	33	650	68	984	76	1,766	177
40-44	28	8	94	30	504	55	827	52	1,425	137
45-49	35	16	95	23	475	56	723	43	1,293	122
50-54	29	10	107	22	467	41	656	27	1,230	90
55-59	39	10	103	16	488	41	701	51	1,292	108
60-64	27	10	86	8	381	31	554	19	1,021	58
65-69	23	4	49	6	285	18	482	19	816	43
70-74	13	1	42	3	237	10	295	7	574	20
75-79	13	4	30	3	181	7	214	4	425	14
80-84	13	1	20	0	119	3	131	2	270	5
85+	8	1	17	1	79	2	81	1	177	4
Unk	1	0	15	3	46	5	145	2	206	10
Total	**394**	**135**	**1,569**	**350**	**7,656**	**813**	**11,304**	**692**	**20,529**	**1,855**

Table 2.03: Alcohol-Related Crashes by Month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	6	89	205	300	7	108
February	7	98	197	302	7	134
March	10	77	142	229	10	103
April	9	83	103	195	10	111
May	11	110	112	233	11	141
June	12	132	158	302	15	199
July	15	163	179	357	17	219
August	12	157	199	368	12	207
September	19	131	204	354	20	175
October	5	147	197	349	7	190
November	7	112	163	282	8	140
December	11	92	136	239	11	128
Total	**124**	**1,391**	**1,995**	**3,510**	**135**	**1,855**

Figure 2.04: Impaired Driving Incidents ("DWIs") with Alcohol-Related Crashes by Month



29%

DWIs in summertime

August

had the most DWIs

When the alcohol-related crashes occur: weekends, late night

Most alcohol-related crashes occur on Fridays, Saturdays and Sundays. Combined, these three days accounted for 40% of all traffic crashes, but 56% of the alcohol-related crashes.

The late night hours 9pm to 3am accounted for 14% of all crashes, but 46% of the alcohol-related crashes.

Figure 2.05: Alcohol-Related Crashes by Day of Week

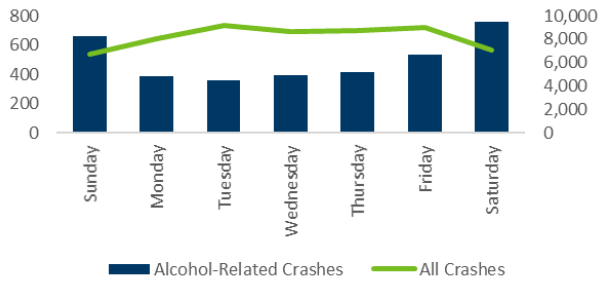


Figure 2.06: Alcohol-Related Crashes by Time of Day

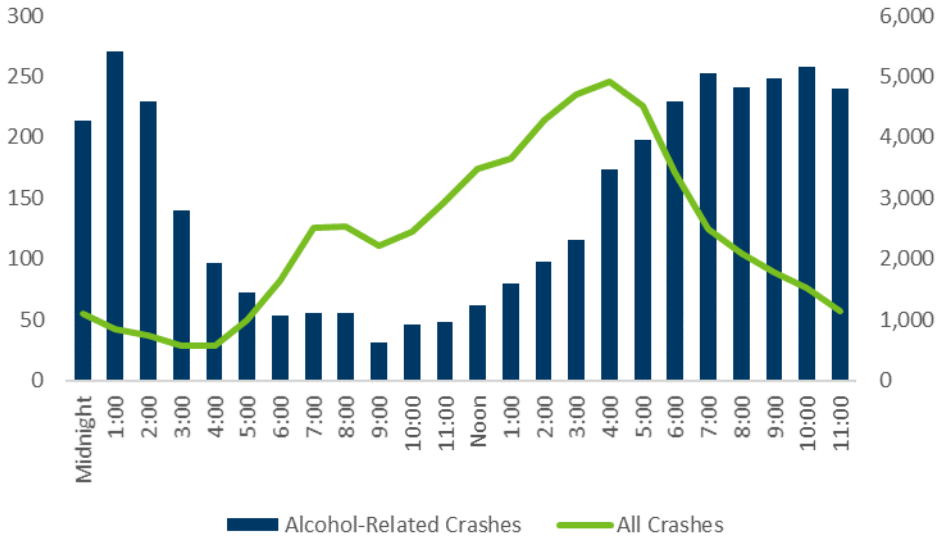


Figure 2.07: Heat Map of Alcohol-Related Crashes

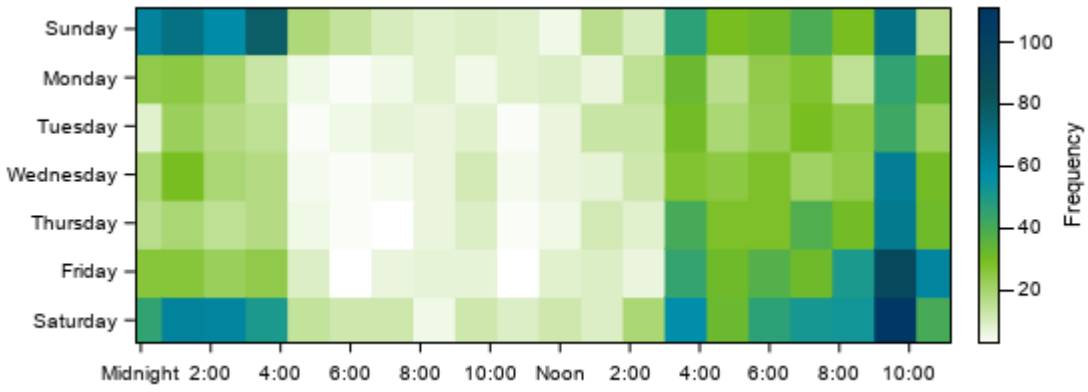


Table 2.04: Alcohol-Related Crashes by Roadway Type

Roadway Type	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Interstate	7	131	274	412	10	173
US Trunk Hwy	15	117	160	292	16	162
MN Trunk Hwy	25	191	223	439	25	270
County State Aid Hwy	44	347	386	777	47	477
County Road	5	64	47	116	7	92
Township Road	9	64	65	138	9	83
Municipal State Aid Hwy	8	174	277	459	10	212
Municipal Street	6	218	389	613	6	277
Other Road	5	85	174	264	5	109
Total	**124**	**1,391**	**1,995**	**3,510**	**135**	**1,855**

Table 2.05: First Harmful Event in Fatal Alcohol-Related Crashes and All Fatal Crashes

First Harmful Event	Number of Fatal Crashes	% of Fatal Crashes	Number of Alcohol-Related Fatal Crashes	% of Alcohol-Related Fatal Crashes
Collision with:				
Another Motor Vehicle	143	38.80%	33	26.60%
Fixed Object	88	23.80%	41	33.10%
Pedestrian	45	12.20%	14	11.30%
Bicycle	10	2.71%	1	0.81%
Parked Motor Vehicle	3	0.81%	1	0.81%
Deer/Other Animal	4	1.08%	1	0.81%
Railroad Train	1	0.27%	0	0%
Non-Collision:				
Overturn/Rollover	65	17.60%	30	24.20%
Submersion	1	0.27%	0	0%
Other Non-Collision	9	2.44%	3	2.42%
Total	**369**	**100%**	**124**	**100%**

Test results for killed drivers

Minnesota is consistently at or near the top among the states in the proportion of drivers in fatal crashes who are tested for alcohol. Also, NHTSA developed a procedure (explained on page 28) that compensates for missing data. In 2020, there were 277 motor vehicle drivers who were killed. Of the 277 killed drivers, the Department of Public Safety was able to obtain alcohol test results for 75 (27%). Of the 75 tested, 12 (16%) tested negative, 3 (4%) tested between .01 and .07, 4 (5%) tested between .08 and .09 and 56 (75%) tested .10 or greater.

Figure 2.08: Percent of Drivers Killed Who Had Been Drinking, by Age

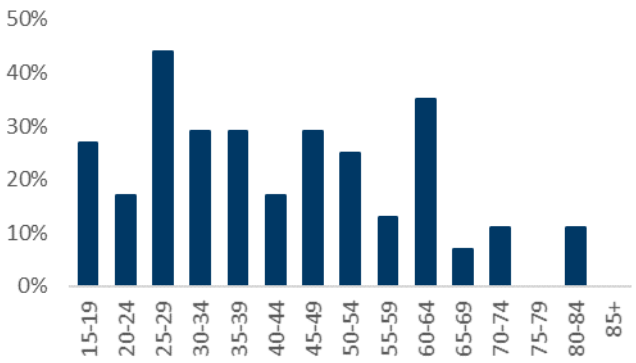


Table 2.06: Alcohol-Related Fatal Crash Summary, 2013-2020

	Alcohol Test Results on Killed Drivers										All Traffic Fatalities				
	Drivers Killed			Results on Drivers Tested							Drunk Driving-Related Fatalities**				
		Tested for Alcohol		Negative for Alcohol		.01 to .07 Alcohol		.08 to .09 Alcohol		.10 or Higher Alcohol		Known*		Estimated**	
Year	Total	N	% of Tested	N	% of Tested	N	% of Tested	N	% of Tested	N	% of Tested	Total Killed	N	% of Total	N	% of Total
2013	259	219	85%	151	69%	10	5%	3	1%	55	25%	387	81	21%	112	29%
2014	248	200	81%	129	65%	8	4%	3	2%	60	30%	361	88	24%	119	33%
2015	289	239	83%	139	58%	22	9%	6	3%	72	30%	411	95	23%	115	28%
2016	263	209	79%	139	67%	12	6%	2	1%	56	27%	392	73	19%	94	24%
2017	252	207	82%	144	70%	11	5%	2	1%	50	24%	358	72	20%	104	29%
2018	265	222	84%	139	63%	13	6%	11	5%	59	27%	381	84	22%	110	29%
2019	237	202	85%	137	68%	3	1%	4	2%	58	29%	364	89	24%	102	28%
2020	277	75	27%	12	16%	3	4%	4	5%	56	75%	394	79	20%	***	***

* For explanation of the difference between “known” and “estimated” alcohol-related fatalities, see page 29.

** Starting in 2013, NHTSA improved its method of estimating the true percentage of alcohol-related fatalities for each year. This percentage is based on impaired-related fatalities and excludes pedestrians and bicyclists.

*** Data not available at time of printing.

Table 2.07: Driver Fatalities' Level of Alcohol Concentration by Age

			Alcohol Concentration													
			0.00		.01 - .07		.08 - .09		.10 - .14		.15 - .19		.20 - .24		.25+	
Age	Killed	Tested	#	%	#	%	#	%	#	%	#	%	#	%	#	%
00-14	0	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
15-19	15	4	0	0.0%	0	0.0%	1	25.0%	0	0.0%	2	50.0%	2	50.0%	1	25.0%
20-24	23	7	3	42.9%	0	0.0%	1	14.3%	0	0.0%	1	14.3%	1	14.3%	0	0.0%
25-29	25	11	0	0.0%	0	0.0%	1	9.1%	1	9.1%	5	45.5%	5	45.5%	3	27.3%
30-34	24	10	3	30.0%	0	0.0%	0	0.0%	0	0.0%	1	10.0%	1	10.0%	3	30.0%
35-39	17	6	1	16.7%	1	16.7%	0	0.0%	0	0.0%	1	16.7%	1	16.7%	3	50.0%
40-44	23	4	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	3	75.0%
45-49	31	11	2	18.2%	2	18.2%	0	0.0%	1	9.1%	1	9.1%	1	9.1%	2	18.2%
50-54	20	6	1	16.7%	0	0.0%	0	0.0%	1	16.7%	1	16.7%	1	16.7%	2	33.3%
55-59	31	5	1	20.0%	0	0.0%	1	20.0%	0	0.0%	0	0.0%	0	0.0%	1	20.0%
60-64	20	8	1	12.5%	0	0.0%	0	0.0%	1	12.5%	2	25.0%	2	25.0%	2	25.0%
65-69	14	1	0	0.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
70-74	9	1	0	0.0%	0	0.0%	0	0.0%	0	0.0%	1	100.0%	1	100.0%	0	0.0%
75-79	10	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
80-84	9	1	0	0.0%	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%	0	0.0%
85+	6	0	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total	**277**	**75**	**12**	**16.0%**	**3**	**4.0%**	**4**	**5.3%**	**6**	**8.0%**	**15**	**20.0%**	**15**	**20.0%**	**20**	**26.7%**

Table 2.08: Drunk Driving-Related Fatalities and Alcohol-Related Injuries by Gender and Traffic Role

	Male Killed	Female Killed	Total Killed	Male Serious Injuries	Female Serious Injuries	Male Minor Injuries	Female Minor Injuries	Male Possible Injuries	Female Possible Injuries	Total Injuries
Driver	16	52	68	59	176	181	411	174	339	1,360
Passenger	1	9	10	45	39	85	84	72	76	411
Pedestrian	0	1	1	5	15	7	18	7	12	65
Bicyclist	0	0	0	0	3	0	11	1	3	19
Total	**17**	**62**	**79**	**109**	**233**	**273**	**524**	**254**	**430**	**1,855**

Note: Sometimes gender is not reported on the crash report. This causes the total to be greater than the sum of serious, minor and possible injury columns. The term drunk driving-related pertains to fatal motor vehicle crashes in which a driver tests positive for alcohol at the .08% level or above.

Occupant Protection

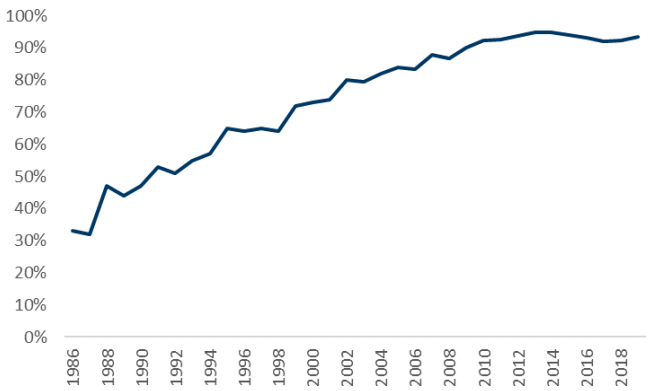
A brief history of restraint legislation
Over the years, the Minnesota Legislature enacted laws mandating safety equipment use. The Child Passenger Protection Act took effect in 1982 requiring children under age four to be properly restrained in a federally approved child car seat. The state's safety belt law went into effect in 1986 requiring all front seat occupants (and children ages four through ten, regardless of seating position) to be restrained. The 1986 belt law was 'Secondary' in nature. Thus, an officer could not issue a citation for non-belt use unless there was another moving violation. In 2009 the law was updated to 'Primary'. In addition, passengers in all seating positions must wear a seat belt or be in the correct child restraint (including children aged four through seven, who must be in a 'booster seat').

Restraint use studies
Observational surveys of safety belt use conducted annually at random sites show that legislation affects safety belt wearing behavior, thus, saving lives and preventing injuries. In June 1986, just 20% of front seat occupants used seat belts. Since then, the usage rate has increased, as seen in Figure 3.01. No study was conducted in 2020.

Minnesota usage rates for 2019 were:

93.4% overall use rate	92% male use rate	95% female use rate

Figure 3.01: Seat Belt Usage Trends



Seatbelts save over
15,000
lives every year

Figure 3.02: Seat Belt Usage by Vehicle Type

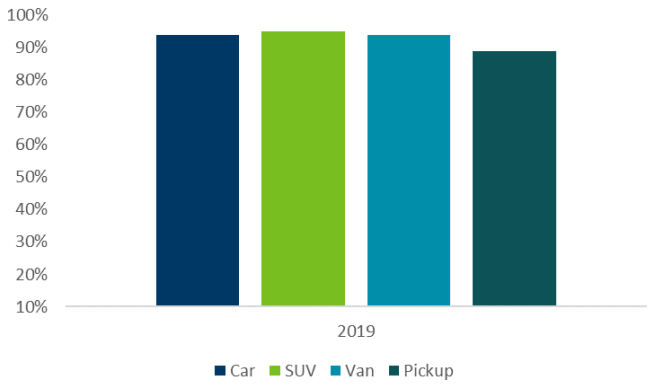


Table 3.01: Motor Vehicle Occupants Killed or Injured by Ejection Status

Ejection Status	Killed	Serious Injuries	Minor Injuries	Possible Injuries	Total Killed or Injured
Ejected	62	99	28	17	206
Not Ejected	177	877	6,393	10,472	17,919
Not Stated	6	54	103	160	323
Partially Ejected	11	18	18	17	64
Total	**256**	**1,048**	**6,542**	**10,666**	**18,512**

Figure 3.03: Safety Equipment Use by Motor Vehicle Occupants Killed or Injured

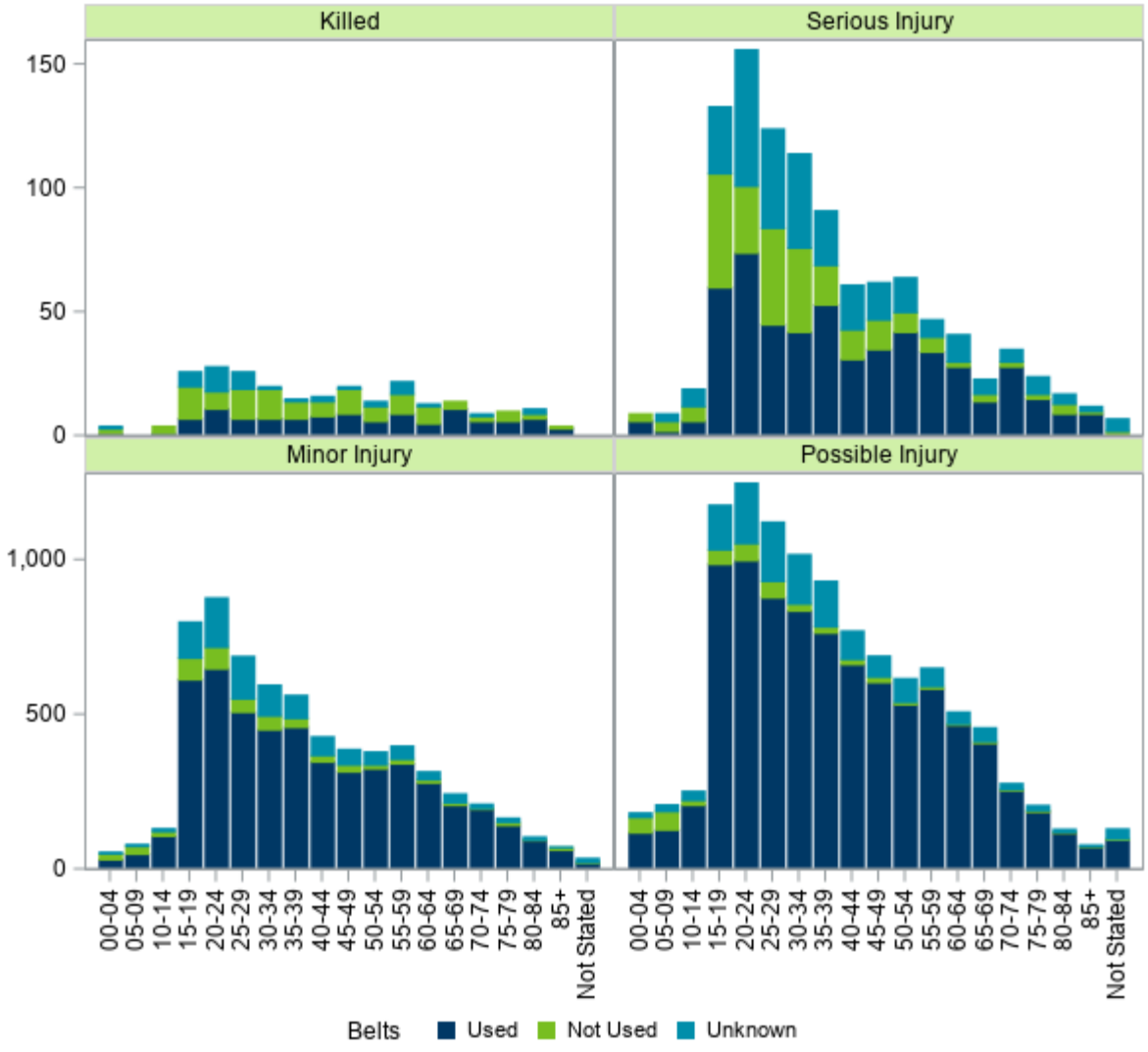


Figure 3.04: Safety Equipment Use Counts by Motor Vehicle Occupants Where Gender and Injury Severity is Known

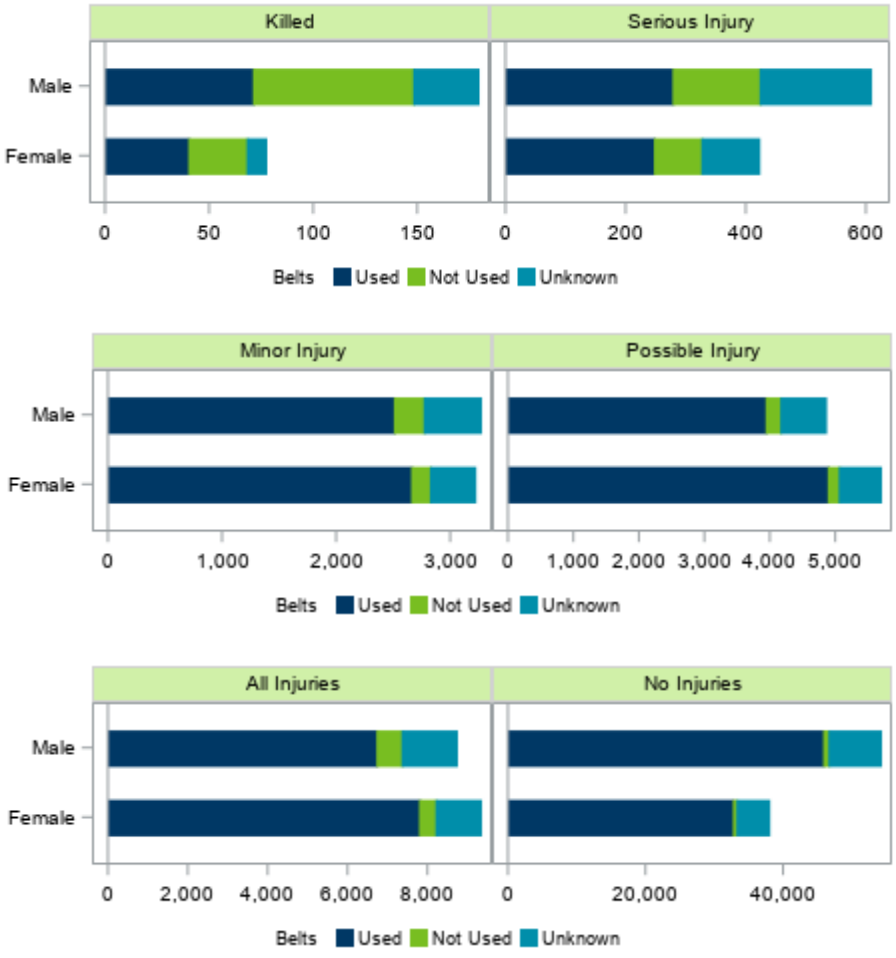


Table 3.02: Motor Vehicle Occupants Killed or Injured by Seat Belt Usage

	Fatalities		Serious Injuries		Total Injuries	
Seat Belt Usage	#	%	#	%	#	%
Not Used	105	41.0%	229	21.9%	1,064	5.8%
Unknown	40	15.6%	286	27.3%	2,541	13.9%
Used	111	43.4%	533	50.9%	14,651	80.3%

Regional differences in seat belt usage rates

While it is true that Minnesota has a high seat belt compliance rate, a marked difference exists in different regions across the state. The annual statewide seat belt observational study and localized observational studies conducted by TZD experts, attitudinal surveys and crash reports have all documented these regional differences. Notably, the Northwest region of the state has the lowest seat belt usage rate.

Table 3.03: Safety Equipment Use by Motor Vehicle Occupants Killed or Injured by Region of the State

Region	Used	Not Used	Unknown	Killed or Injured
Metropolitan	77.8%	4.5%	17.7%	10,458
Central	85.3%	6.3%	8.3%	2,746
Northeast	80.4%	8.1%	11.5%	877
Northwest	69.3%	14.8%	16.0%	400
South Central	81.5%	7.5%	11.0%	720
Southeast	84.6%	8.2%	7.2%	1,640
Southwest	79.9%	12.3%	7.9%	968
West Central	79.1%	12.5%	8.4%	703
Statewide	**79.7%**	**6.3%**	**13.9%**	**18,512**

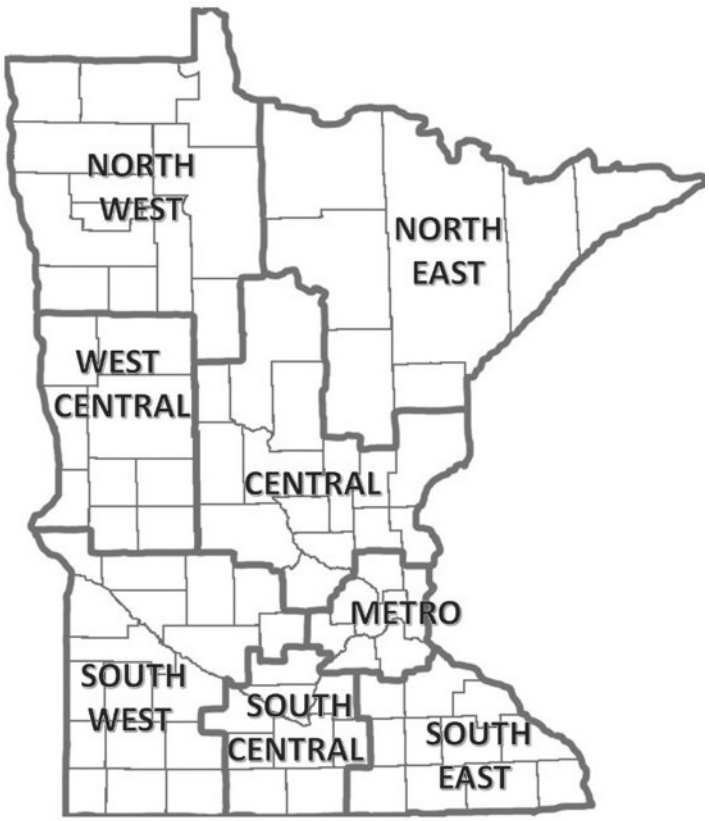


Table 3.04: Safety Equipment Use by Motor Vehicle Occupants Killed or Injured, by Age and Injury Severity

		Fatalities		Serious		Minor		Possible		Total Injuries	
Group	**Use**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
0-3 Years	Not Used	2	50.0%	2	13.3%	17	16.8%	40	13.5%	59	14.3%
	Unknown	1	25.0%	0	0.0%	2	2.0%	13	4.4%	15	3.6%
	Used	1	25.0%	2	13.3%	21	20.8%	96	32.4%	119	28.9%
Subtotal		**4**	**100.0%**	**4**	**26.7%**	**40**	**39.6%**	**149**	**50.3%**	**193**	**46.8%**
4-7 Years	Not Used	0	0.0%	5	33.3%	23	22.8%	68	23.0%	96	23.3%
	Unknown	0	0.0%	1	6.7%	7	6.9%	13	4.4%	21	5.1%
	Used	0	0.0%	5	33.3%	31	30.7%	66	22.3%	102	24.8%
Subtotal		**0**	**0.0%**	**11**	**73.3%**	**61**	**60.4%**	**147**	**49.7%**	**219**	**53.2%**
Total 0-7 Years	Not Used	2	50.0%	7	46.7%	40	39.6%	108	36.5%	155	37.6%
	Unknown	1	25.0%	1	6.7%	9	8.9%	26	8.8%	36	8.7%
	Used	1	25.0%	7	46.7%	52	51.5%	162	54.7%	221	53.6%
Total		**4**	**100.0%**	**15**	**100.0%**	**101**	**100.0%**	**296**	**100.0%**	**412**	**100.0%**
00-04 Years	Not Used	2	0.8%	3	0.3%	19	0.3%	50	0.5%	72	0.4%
	Unknown	1	0.4%	0	0.0%	5	0.1%	14	0.1%	19	0.1%
	Used	1	0.4%	6	0.6%	32	0.5%	119	1.1%	157	0.9%
Subtotal		**4**	**1.6%**	**9**	**0.9%**	**56**	**0.9%**	**183**	**1.7%**	**248**	**1.4%**
05-09 Years	Not Used	0	0.0%	4	0.4%	25	0.4%	60	0.6%	89	0.5%
	Unknown	0	0.0%	3	0.3%	6	0.1%	21	0.2%	30	0.2%
	Used	0	0.0%	2	0.2%	50	0.8%	128	1.2%	180	1.0%
Subtotal		**0**	**0.0%**	**9**	**0.9%**	**81**	**1.2%**	**209**	**2.0%**	**299**	**1.6%**
10-14 Years	Not Used	3	1.2%	6	0.6%	15	0.2%	16	0.2%	37	0.2%
	Unknown	0	0.0%	7	0.7%	9	0.1%	29	0.3%	45	0.2%
	Used	1	0.4%	6	0.6%	108	1.7%	208	2.0%	322	1.8%
Subtotal		**4**	**1.6%**	**19**	**1.8%**	**132**	**2.0%**	**253**	**2.4%**	**404**	**2.2%**
15-19 Years	Not Used	13	5.1%	46	4.4%	70	1.1%	47	0.4%	163	0.9%
	Unknown	6	2.3%	27	2.6%	116	1.8%	144	1.4%	287	1.6%
	Used	7	2.7%	60	5.7%	614	9.4%	987	9.3%	1,661	9.1%
Subtotal		**26**	**10.2%**	**133**	**12.7%**	**800**	**12.2%**	**1,178**	**11.0%**	**2,111**	**11.6%**
20-24 Years	Not Used	7	2.7%	27	2.6%	70	1.1%	55	0.5%	152	0.8%
	Unknown	10	3.9%	55	5.2%	159	2.4%	195	1.8%	409	2.2%
	Used	11	4.3%	74	7.1%	649	9.9%	999	9.4%	1,722	9.4%
Subtotal		**28**	**10.9%**	**156**	**14.9%**	**878**	**13.4%**	**1,249**	**11.7%**	**2,283**	**12.5%**
25-29 Years	Not Used	12	4.7%	39	3.7%	43	0.7%	53	0.5%	135	0.7%
	Unknown	7	2.7%	40	3.8%	137	2.1%	191	1.8%	368	2.0%
	Used	7	2.7%	45	4.3%	509	7.8%	879	8.2%	1,433	7.8%
Subtotal		**26**	**10.2%**	**124**	**11.8%**	**689**	**10.5%**	**1,123**	**10.5%**	**1,936**	**10.6%**
30-34 Years	Not Used	12	4.7%	34	3.2%	45	0.7%	23	0.2%	102	0.6%
	Unknown	1	0.4%	38	3.6%	99	1.5%	159	1.5%	296	1.6%
	Used	7	2.7%	42	4.0%	452	6.9%	836	7.8%	1,330	7.3%
Subtotal		**20**	**7.8%**	**114**	**10.9%**	**596**	**9.1%**	**1,018**	**9.5%**	**1,728**	**9.5%**
35-39 Years	Not Used	7	2.7%	16	1.5%	29	0.4%	20	0.2%	65	0.4%
	Unknown	1	0.4%	22	2.1%	74	1.1%	147	1.4%	243	1.3%
	Used	7	2.7%	53	5.1%	460	7.0%	765	7.2%	1,278	7.0%
Subtotal		**15**	**5.9%**	**91**	**8.7%**	**563**	**8.6%**	**932**	**8.7%**	**1,586**	**8.7%**

Table 3.04: Safety Equipment Use by Motor Vehicle Occupants Killed or Injured, by Age and Injury Severity, Continued

		Fatalities		Serious		Minor		Possible		Total Injuries	
Group	**Use**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**	**N**	**%**
40-44 Years	Not Used	6	2.3%	12	1.1%	21	0.3%	17	0.2%	50	0.3%
	Unknown	2	0.8%	18	1.7%	60	0.9%	91	0.9%	169	0.9%
	Used	8	3.1%	31	3.0%	348	5.3%	663	6.2%	1,042	5.7%
Subtotal		**16**	**6.3%**	**61**	**5.8%**	**429**	**6.6%**	**771**	**7.2%**	**1,261**	**6.9%**
45-49 Years	Not Used	10	3.9%	12	1.1%	23	0.4%	18	0.2%	53	0.3%
	Unknown	1	0.4%	15	1.4%	49	0.7%	67	0.6%	131	0.7%
	Used	9	3.5%	35	3.3%	316	4.8%	605	5.7%	956	5.2%
Subtotal		**20**	**7.8%**	**62**	**5.9%**	**388**	**5.9%**	**690**	**6.5%**	**1,140**	**6.2%**
50-54 Years	Not Used	6	2.3%	8	0.8%	13	0.2%	8	0.1%	29	0.2%
	Unknown	2	0.8%	14	1.3%	41	0.6%	76	0.7%	131	0.7%
	Used	6	2.3%	42	4.0%	326	5.0%	533	5.0%	901	4.9%
Subtotal		**14**	**5.5%**	**64**	**6.1%**	**380**	**5.8%**	**617**	**5.8%**	**1,061**	**5.8%**
55-59 Years	Not Used	8	3.1%	6	0.6%	15	0.2%	8	0.1%	29	0.2%
	Unknown	5	2.0%	7	0.7%	42	0.6%	59	0.6%	108	0.6%
	Used	9	3.5%	34	3.2%	342	5.2%	584	5.5%	960	5.3%
Subtotal		**22**	**8.6%**	**47**	**4.5%**	**399**	**6.1%**	**651**	**6.1%**	**1,097**	**6.0%**
60-64 Years	Not Used	7	2.7%	2	0.2%	11	0.2%	4	0.0%	17	0.1%
	Unknown	1	0.4%	11	1.0%	25	0.4%	38	0.4%	74	0.4%
	Used	5	2.0%	28	2.7%	280	4.3%	467	4.4%	775	4.2%
Subtotal		**13**	**5.1%**	**41**	**3.9%**	**316**	**4.8%**	**509**	**4.8%**	**866**	**4.7%**
65-69 Years	Not Used	3	1.2%	3	0.3%	8	0.1%	6	0.1%	17	0.1%
	Unknown	0	0.0%	6	0.6%	28	0.4%	44	0.4%	78	0.4%
	Used	11	4.3%	14	1.3%	208	3.2%	408	3.8%	630	3.5%
Subtotal		**14**	**5.5%**	**23**	**2.2%**	**244**	**3.7%**	**458**	**4.3%**	**725**	**4.0%**
70-74 Years	Not Used	2	0.8%	2	0.2%	3	0.0%	4	0.0%	9	0.0%
	Unknown	1	0.4%	5	0.5%	13	0.2%	19	0.2%	37	0.2%
	Used	6	2.3%	28	2.7%	195	3.0%	255	2.4%	478	2.6%
Subtotal		**9**	**3.5%**	**35**	**3.3%**	**211**	**3.2%**	**278**	**2.6%**	**524**	**2.9%**
75+ Years	Not Used	7	2.7%	7	0.7%	20	0.3%	10	0.1%	37	0.2%
	Unknown	2	0.8%	13	1.2%	24	0.4%	29	0.3%	66	0.4%
	Used	16	6.3%	33	3.1%	300	4.6%	377	3.5%	710	3.9%
Subtotal		**25**	**9.8%**	**53**	**5.1%**	**344**	**5.3%**	**416**	**3.9%**	**813**	**4.5%**
Age Not Stated	Not Used	0	0.0%	2	0.2%	2	0.0%	4	0.0%	8	0.0%
	Unknown	0	0.0%	5	0.5%	13	0.2%	32	0.3%	50	0.3%
	Used	0	0.0%	0	0.0%	21	0.3%	95	0.9%	116	0.6%
Subtotal		**0**	**0.0%**	**7**	**0.7%**	**36**	**0.6%**	**131**	**1.2%**	**174**	**1.0%**
All Ages	**Not Used**	105	41.0%	229	21.9%	432	6.6%	403	3.8%	1,064	5.8%
	Unknown	40	15.6%	286	27.3%	900	13.8%	1,355	12.7%	2,541	13.9%
	Used	111	43.4%	533	50.9%	5,210	79.6%	8,908	83.5%	14,651	80.3%
Total		**256**	**100.0%**	**1,048**	**100.0%**	**6,542**	**100.0%**	**10,666**	**100.0%**	**18,256**	**100.0%**

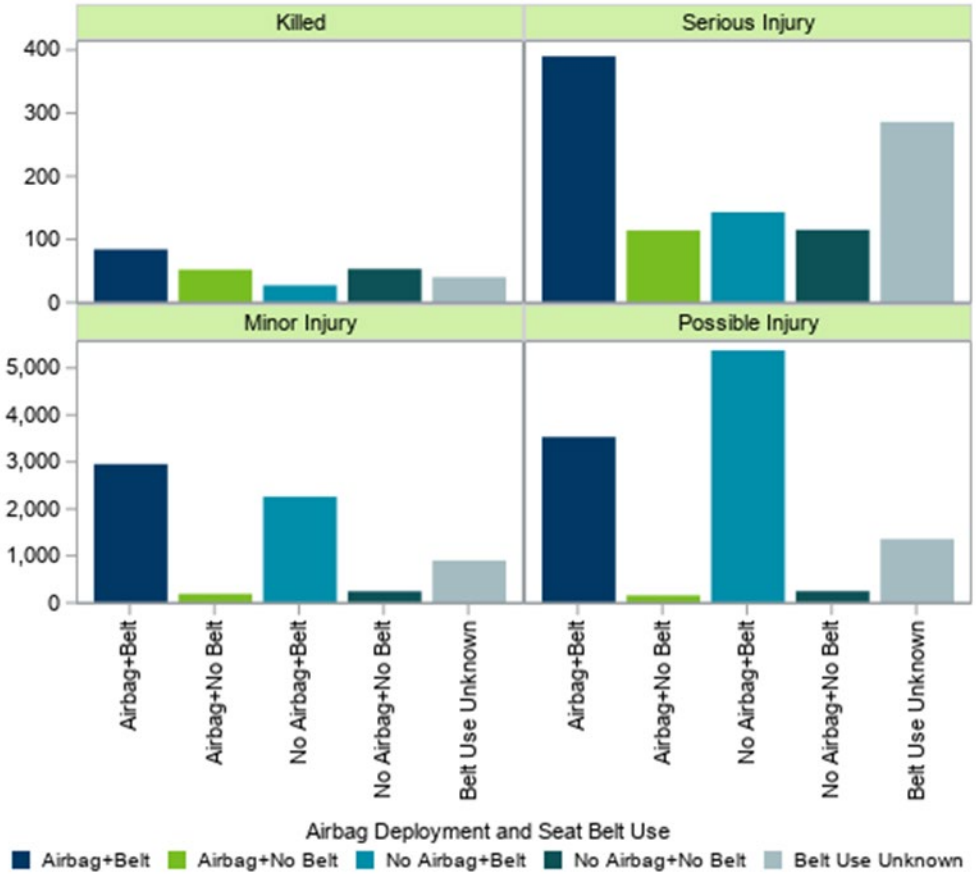
Percentages may not sum to 100% due to rounding. Persons aged 0 through 3 and 4 through 7 years old are categorized separately because Minnesota law makes special provisions for these age groups.

Table 3.05: Safety Equipment Use by Motor Vehicle Occupants Killed or Injured by Roadway Type

	Used		Not Used		Unknown		Total	
Roadway Type	**#**	**%**	**#**	**%**	**#**	**%**	**#**	**%**
CSAH	3,804	78.0%	305	6.3%	766	15.7%	4,875	100.0%
County Road	334	75.2%	32	7.2%	78	17.6%	444	100.0%
Interstate	1,565	89.7%	102	5.8%	78	4.5%	1,745	100.0%
MN Trunk Hwy	2,499	85.5%	206	7.0%	219	7.5%	2,924	100.0%
MSAH	2,373	76.3%	125	4.0%	613	19.7%	3,111	100.0%
Municipal Street	1,431	69.3%	126	6.1%	507	24.6%	2,064	100.0%
Other Road	751	78.3%	60	6.3%	148	15.4%	959	100.0%
Township Road	336	69.7%	72	14.9%	74	15.4%	482	100.0%
US Trunk Hwy	1,669	87.5%	141	7.4%	98	5.1%	1,908	100.0%
Total	**14,762**	**79.7%**	**1,169**	**6.3%**	**2,581**	**13.9%**	**18,512**	**100.0%**

CSAH = County State Aid Highway MSAH = Municipal State Aid Highway

Figure 3.05: Airbag Deployment by Injury Severity

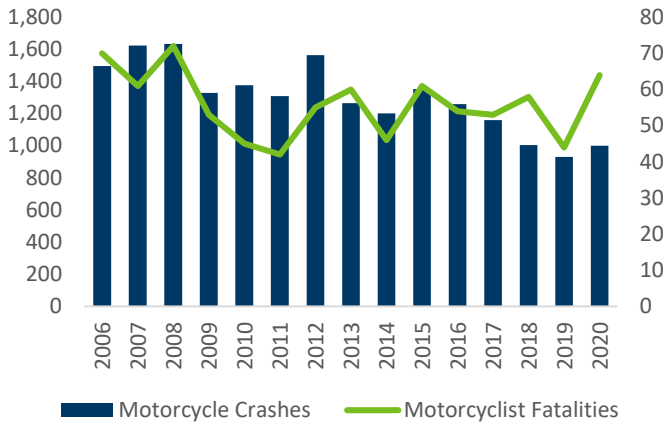


Motorcycle Crashes

Motorcycle crash summary

After decades of increasing motorcycle registrations and licenses, Minnesota started seeing declining registrations in 2015 and operator licenses in 2016. Motorcycle crashes have decreased over the decades as well, but counts do fluctuate due to Minnesota weather determining the length of the riding season each year. Nevertheless, motorcyclist crash involvement remains very worrisome to traffic safety officials. When a motorcycle is involved in a crash, the chances for a fatality are greatly increased.

Figure 4.01: Motorcycle Crash Trends



2020 Motorcycle Stats:

64 motor-cyclists killed	926 motor-cyclists injured	6.4 fatal crash rate (per 100)

Helmet use

Minnesota does not have a mandatory helmet use law for motorcyclists 18 or older. Laws may be debated, but the benefits helmets offer are clear; they protect the head in the event of a crash. In 2020, only 24 (36%) of the 64 motorcycle riders killed were known to be wearing a helmet. Of the 926 motorcyclists injured, only 384 (35%) were known to be wearing a helmet.

Operator training is essential

In addition to the newly endorsed younger drivers each year, a large number of middle-aged people are returning to motorcycling. The crash data indicates the importance of proper operator training. In 2020, 32% of motorcycle operators that were involved in a fatal crash did not have a valid endorsement to drive a motorcycle. Further training is needed for a large segment of the motorcycle driver population.

84%

motorcyclist fatalities and injuries are males

Table 4.01: Motorcycle Crash Summary

	Motorcycle Crashes				Killed		Injured					Fatal Crash Rate Per 100 Crashes	
Year	Fatal	Injury	PDO	Total	Mcy	Other	Mcy	Other	Licensed Operators	Registered Motorcycles	Mcy Deaths per 10K Reg. Mcy	Mcy Crashes	All Crashes
2011	43	1,130	136	1,309	42	2	1,248	45	398,092	232,274	1.8	3.3	0.5
2012	51	1,320	192	1,563	55	0	1,454	68	404,967	237,278	2.3	3.3	0.5
2013	59	1,047	160	1,266	60	2	1,143	52	409,943	235,909	2.5	4.7	0.5
2014	44	1,005	152	1,201	46	1	1,117	44	414,346	236,040	1.9	3.7	0.4
2015	58	1,103	191	1,352	61	1	1,232	81	414,782	238,243	2.6	4.3	0.5
2016	54	1,042	164	1,260	54	6	1,153	78	416,967	227,746	2.4	4.3	0.5
2017	52	944	163	1,159	53	1	1,046	63	416,693	223,443	2.4	4.5	0.4
2018	57	819	128	1,004	58	1	913	39	414,580	223,849	2.6	5.7	0.4
2019	43	762	125	930	44	0	840	49	412,104	216,773	2.6	4.6	0.4
2020	64	831	105	1,000	64	3	926	33	412,104	216,773	2.9	6.4	0.6
Record High* (year)	112 (1980)	2,728 (1980)	537 (1976)	3,308 (1980)	121 (1980)	9 (1975)	3,359 (1980)	207 (1984)	416,967 (2016)	238,243 (2015)	7.7 (1980)	5.7 (2018)	0.8 (1970)

PDO stands for "property damage only" – a crash in which no one is killed or injured. MCY stands for "motorcyclist" or "motorcycle".
*The record high shown is for the period of time back to year 1970.

Figure 4.02: Motorcyclists Killed or Injured by Age and Gender

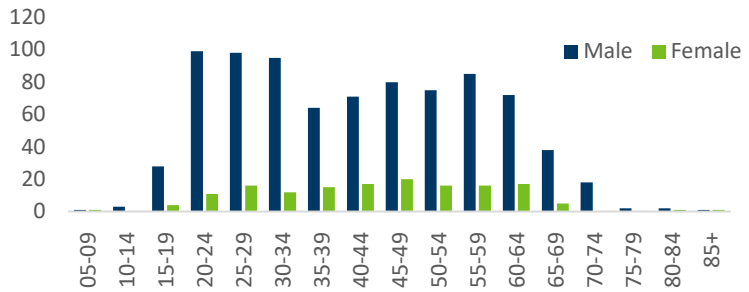


Figure 4.03: Heat Map of Motorcycle Crashes

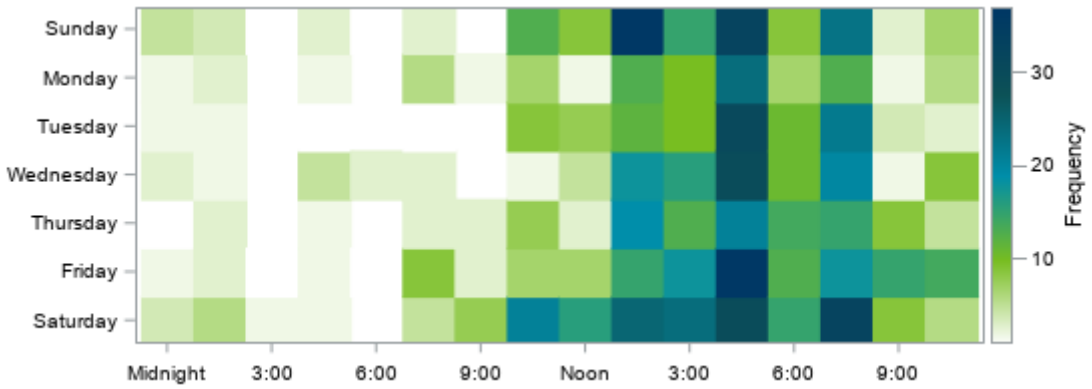


Table 4.02: Motorcycle Crashes by First Harmful Event

First Harmful Event	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	24	335	67	426	26	378
Parked Motor Vehicle	0	11	8	19	0	10
Bicycle	1	2	0	3	0	3
Pedestrian	1	2	0	3	0	2
Deer	4	60	1	65	4	74
Other Animal	0	22	0	22	0	28
Railroad Train	0	0	1	1	0	0
Anything Set in Motion by MV	0	0	1	1	0	0
Fixed Object	23	126	12	161	23	137
Non-Collision:						
Overturn/Rollover	8	127	5	140	8	136
Unknown Collision with Fixed Object	0	3	0	3	0	3
Other Non-Collision	3	143	10	156	3	155
Total	**64**	**831**	**105**	**1,000**	**64**	**926**

Table 4.03: Motorcycle Crashes by Roadway Type

Roadway Type	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Interstate	3	58	11	72	3	62
US Trunk Hwy	6	62	6	74	6	69
MN Trunk Hwy	14	136	18	168	14	159
County State Aid Hwy	25	256	30	311	26	293
County Road	1	44	1	46	1	46
Township Road	1	19	1	21	1	22
Municipal State Aid Hwy	6	98	16	120	6	105
Municipal Street	5	106	15	126	4	117
Other Road	3	52	7	62	3	53
Total	**64**	**831**	**105**	**1,000**	**64**	**926**

Table 4.04: Motorcycle Crashes by Population of Area

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	6	106	21	133	5	114
100,000-249,999	0	18	0	18	0	19
50,000-99,999	5	110	24	139	5	117
25,000-49,999	4	65	7	76	3	67
10,000-24,999	7	120	23	150	7	132
5,000-9,999	4	48	6	58	4	52
2,500-4,999	3	41	3	47	3	46
1,000-2,499	2	43	4	49	2	50
Townships/Rural	33	280	17	330	35	329
Total	**64**	**831**	**105**	**1,000**	**64**	**926**

Table 4.05: Motorcycle Crashes by Month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	0	0	0	0	0	0
February	0	1	0	1	0	1
March	1	13	1	15	1	13
April	5	57	8	70	5	62
May	5	100	9	114	5	111
June	8	140	12	160	8	160
July	12	166	21	199	12	180
August	15	123	16	154	15	139
September	10	143	24	177	10	162
October	4	53	6	63	4	61
November	4	34	8	46	4	36
December	0	1	0	1	0	1
Total	**64**	**831**	**105**	**1,000**	**64**	**926**

Table 4.06: Helmet Use by Motorcyclists Killed or Injured

Injury Severity	Helmet Used #	Helmet Used %	Helmet Not Used #	Helmet Not Used %	Unknown Helmet #	Unknown Helmet %	Total #	Total %
Killed	24	37.5%	39	60.9%	1	1.6%	64	100.0%
Injured	384	41.5%	472	51.0%	69	7.5%	926	100.0%

Table 4.07: Endorsement Status of Motorcycle Drivers Involved in Fatal Crashes

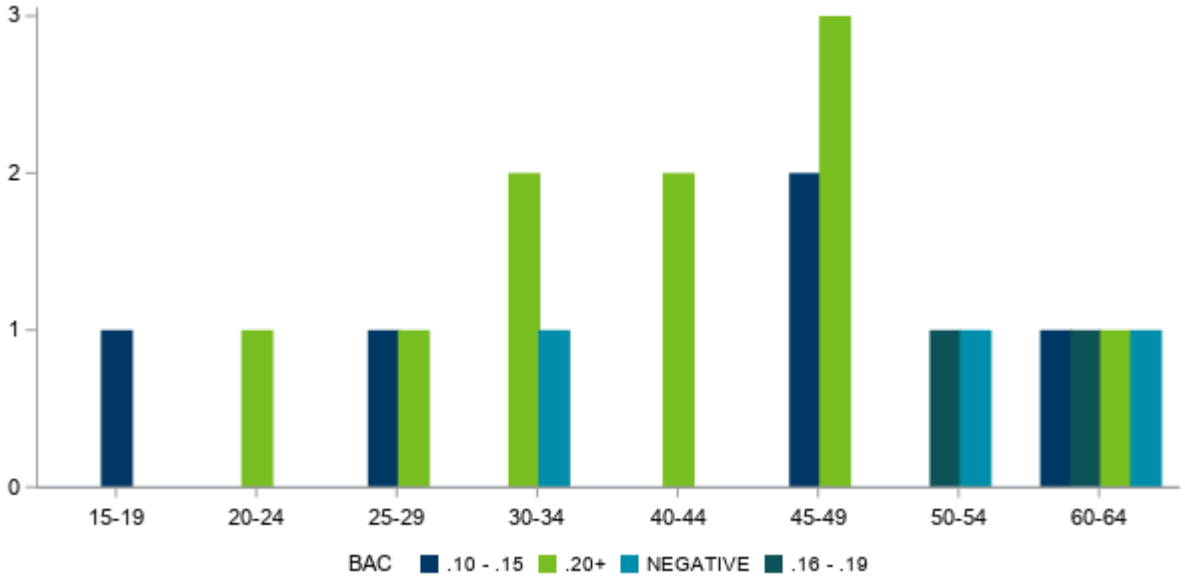
Valid Endorsement #	Valid Endorsement %	Permit Only #	Permit Only %	Canceled, Suspended, Revoked #	Canceled, Suspended, Revoked %	No Endorsement #	No Endorsement %	Total for Year #	Total for Year %
43	68.3%	0	0	10	15.9%	18	28.6%	63	100.0%

A valid endorsement means that the driver's license has been "endorsed" to permit operation of a motorcycle.
** Row may not add up to total due to the unknown status of some motorcycle operators.

Table 4.08: Alcohol Use by Killed Motorcycle Drivers

Killed	Tested	Negative	.01 - .07	.08 - .09	.10 - .15	.16 - .19	.20+
58	20	3	0	0	5	2	10

Figure 4.04: Motorcycle Driver Fatalities' Level of Alcohol Concentration by Age



Truck Crashes

Truck crash summary

This section summarizes data on crashes involving trucks, also known as commercial motor vehicles (CMVs). On the crash report form, commercial motor vehicles are identified as any of the following eight types of trucks: (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 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 this section.

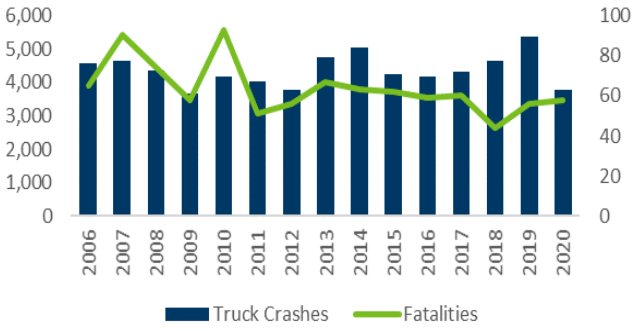
2020 Truck Crash Stats:

3,786 truck crashes	58 fatalities resulted	1,033 people injured

Fatalities and injuries are mostly in other vehicles

In two-vehicle collisions, heavier vehicles have the clear safety advantage. Only 6 of the 50 people killed in truck-involved multiple vehicle crashes were in trucks. Of the 823 people injured in multi-vehicle collisions, only 107 (13%) were truck occupants.

Figure 5.01: Truck Crash Trends



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.

Rural

areas see more truck crashes

Figure 5.02: Truck Crashes by Day of Week

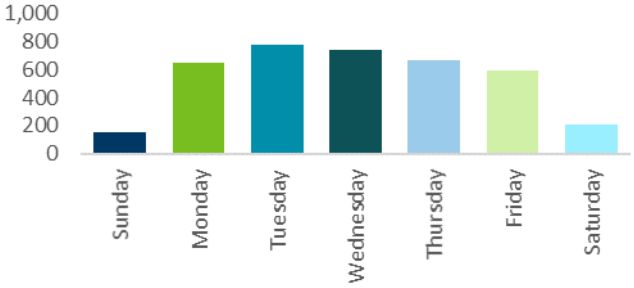


Table 5.01: Truck Crashes by First Harmful Event

First Harmful Event	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	44	585	2,050	2,679	50	823
Parked Motor Vehicle	1	14	162	177	1	17
Bicycle	0	5	0	5	0	5
Pedestrian	2	8	0	10	2	9
Deer	0	0	8	8	0	0
Other Animal	0	1	7	8	0	1
Railroad Train	0	3	5	8	0	3
Set in Motion by MV	0	0	20	20	0	0
Fixed Object	0	47	432	479	0	49
Non-Collision:						
Overturn/Rollover	4	103	135	242	4	114
Submersion	0	0	2	2	0	0
Fire/Explosion	0	0	3	3	0	0
Other Non-Collision	1	12	132	145	1	12
Total	**52**	**778**	**2,956**	**3,786**	**58**	**1,033**

Table 5.02: Truck Crashes by Month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	5	84	394	483	6	120
February	3	41	261	305	3	52
March	3	48	169	220	3	62
April	5	35	168	208	6	52
May	2	47	147	196	2	59
June	3	57	213	273	3	84
July	8	77	237	322	9	102
August	6	77	258	341	6	97
September	5	76	264	345	5	102
October	7	91	320	418	10	112
November	4	74	257	335	4	98
December	1	71	268	340	1	93
Total	**52**	**778**	**2,956**	**3,786**	**58**	**1,033**

Figure 5.03: Heat Map of Truck Crashes

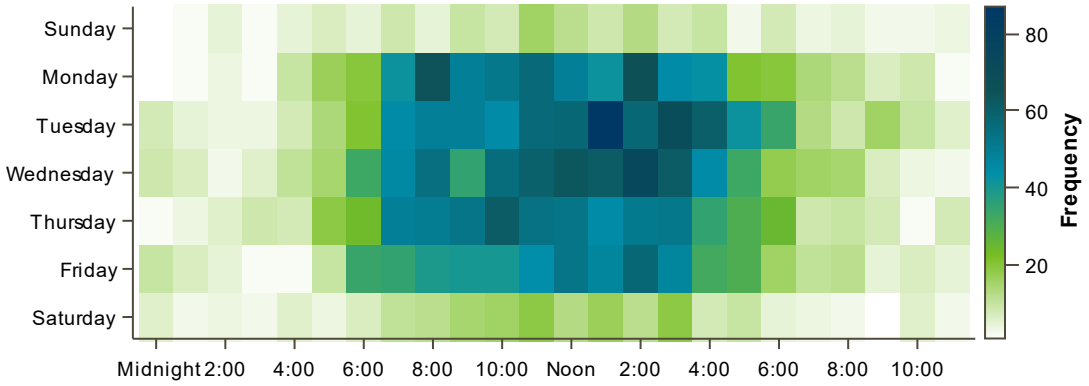


Table 5.03: Truck Crashes by Population of Area

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	0	56	332	388	0	84
100,000-249,000	1	9	39	49	1	13
50,000-99,999	6	107	520	633	6	126
25,000-49,999	1	55	285	341	1	70
10,000-24,999	2	118	522	642	2	157
5,000-9,999	4	51	140	195	4	67
2,500-4,999	3	31	144	178	5	42
1,000-2,499	3	50	124	177	3	78
Township/Rural	32	301	850	1,183	36	396
Total	**52**	**778**	**2,956**	**3,786**	**58**	**1,033**

Table 5.04: Truck Crashes by Type of Roadway

Type of Roadway	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Interstate	7	145	820	972	7	200
US Trunk Hwy	14	114	393	521	16	166
MN Trunk Hwy	15	147	443	605	18	188
County State Aid Hwy	12	180	423	615	13	242
County Road	0	19	42	61	0	21
Township Road	0	25	41	66	0	28
Municipal State Aid Hwy	2	57	278	337	2	76
Municipal Street	1	38	317	356	1	44
Other Road	1	53	199	253	1	68
Total	**52**	**778**	**2,956**	**3,786**	**58**	**1,033**

Table 5.05: Truck Crashes by Road Surface Condition

Road Surface Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Dry	38	563	1,974	2,575	43	749
Wet	7	62	227	296	8	87
Snow	2	62	340	404	2	80
Slush	1	7	51	59	1	9
Ice/Frost	4	70	330	404	4	92
Water - Standing/Moving	0	0	1	1	0	0
Mud, Dirt, Gravel	0	10	14	24	0	11
Debris	0	0	1	1	0	0
Ruts, Holes, Bumps	0	0	2	2	0	0
Other	0	1	4	5	0	2
Unknown	0	3	12	15	0	3
Total	**52**	**778**	**2,956**	**3,786**	**58**	**1,033**

Table 5.06: Truck Crashes by Weather Condition Cited*

Weather Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Clear	31	501	1,797	2,329	36	667
Cloudy	15	178	627	820	16	238
Rain	3	22	103	128	4	33
Snow	4	76	345	425	4	99
Sleet/Hail	1	11	62	74	1	14
Fog/Smog/Smoke	2	10	17	29	2	11
Blowing Sand/Soil/Dirt	2	27	162	191	2	34
Severe Crosswinds	0	6	34	40	0	6
Other Weather	0	2	9	11	0	3
Unknown	0	3	16	19	0	3
Total	**58**	**836**	**3,172**	**4,066**	**65**	**1,108**

* Officers may report up to two weather conditions so the totals listed may differ than the number of crashes, injuries and fatalities.

Most truck crashes occur on

dry roads

Usually

clear weather

for truck crashes

Table 5.07: Drivers in Truck Crashes by Physical Condition*

Physical Condition	Truck Drivers	%	Other Drivers	%
Normal	3,823	96.8%	2,672	93.2%
Disability	1	0.0%	3	0.1%
Medical	6	0.2%	15	0.5%
Emotional	2	0.1%	7	0.2%
Asleep	31	0.8%	23	0.8%
Drinking	11	0.3%	52	1.8%
Drugs	4	0.1%	12	0.4%
Other	0	0.0%	7	0.2%
Unknown	70	1.8%	75	2.6%
Total**	**3,948**	**100.0%**	**2,866**	**100.0%**

*As noted by police officer on crash report.
**This table tabulates the apparent physical condition of drivers where it was possible to identify a driver. Officers may document up to two physical condition factors for drivers, so total counts may differ than the number of drivers.

Table 5.08: Persons Killed or Injured in Truck Crashes by Vehicle Occupied

Vehicle Type	Fatalities	Serious Injuries	Minor Injuries	Possible Injuries	Total Fatalities & Injuries
Passenger Car	27	29	150	213	419
Pickup	5	16	35	43	99
Sport Utility Vehicle	7	9	77	116	209
Passenger Van	2	3	10	27	42
Cargo Van	0	0	5	2	7
Transit Bus	0	0	1	4	5
ATV	0	3	2	0	5
Motorcycle	6	2	5	3	16
Light Trucks <10,000 lbs.	0	1	3	3	7
Medium/Heavy Trucks <10,000 lbs.	9	11	127	106	253
Farm Vehicle (Tractor, Combine)	0	0	5	1	6
Pedestrian	2	4	1	3	10
Bicycle	0	2	3	2	7
Other	0	0	3	3	6
Total	**58**	**80**	**427**	**526**	**1,091**

Pedestrian Crashes

This section deals with motor vehicle crashes that injure or kill pedestrians. Crashes involving pedestrians and trains or pedestrians and bicycles are not included in this section. A motor vehicle must be involved in the crash.

An historical look at pedestrian crashes reveals an increasing trend of crashes, fatalities, and injuries for pedestrians. This is cause for alarm for traffic safety professionals as pedestrians represent the most vulnerable of road users.

Recent years have had about one thousand pedestrian crashes per year, (most of which include fatalities or injuries to the pedestrian), with the vast majority occurring in urban areas. In 2020, 85% of pedestrian crashes occurred in urban areas with populations of over 5,000.

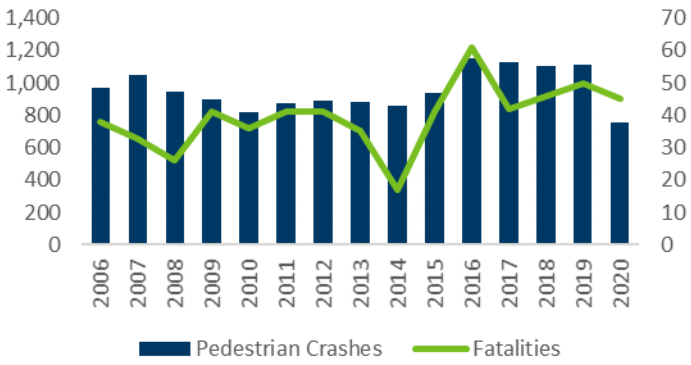
2020 Pedestrian Crash Stats:

753 crashes	45 fatalities	654 injuries

When pedestrian crashes occur

In 2020, 29% of pedestrian crashes occurred during the weekday rush hour time period (defined as Monday-Friday 6am-9am and 3pm-6pm). This makes sense as 30% of all traffic crashes and 28% of all fatal and injury crashes occurred during this same driving time frame.

Figure 6.01: Pedestrian Crash Trends



Pedestrian and vehicle behavior

Forty-seven percent (47%) of pedestrians killed and 59% of pedestrians injured were walking across traffic in the roadway. Vehicles involved in pedestrian crashes usually were moving forwards prior to the crash. Minnesota law states pedestrians have the right-of-way at crosswalks. Motorists are expected to treat every corner and intersection as a crosswalk (whether marked or not), but pedestrian safety is a two-way street. Motorists need to see pedestrians, and pedestrians need to be seen. High visibility garments help drivers see pedestrians.

Figure 6.02: Pedestrian Crashes by Day of Week

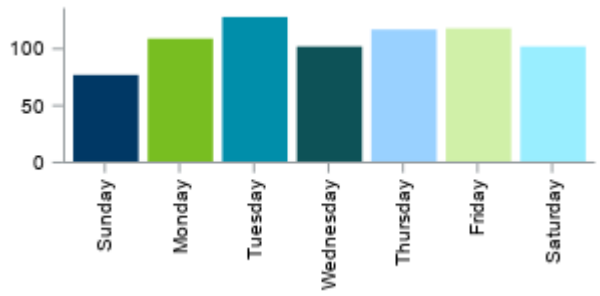
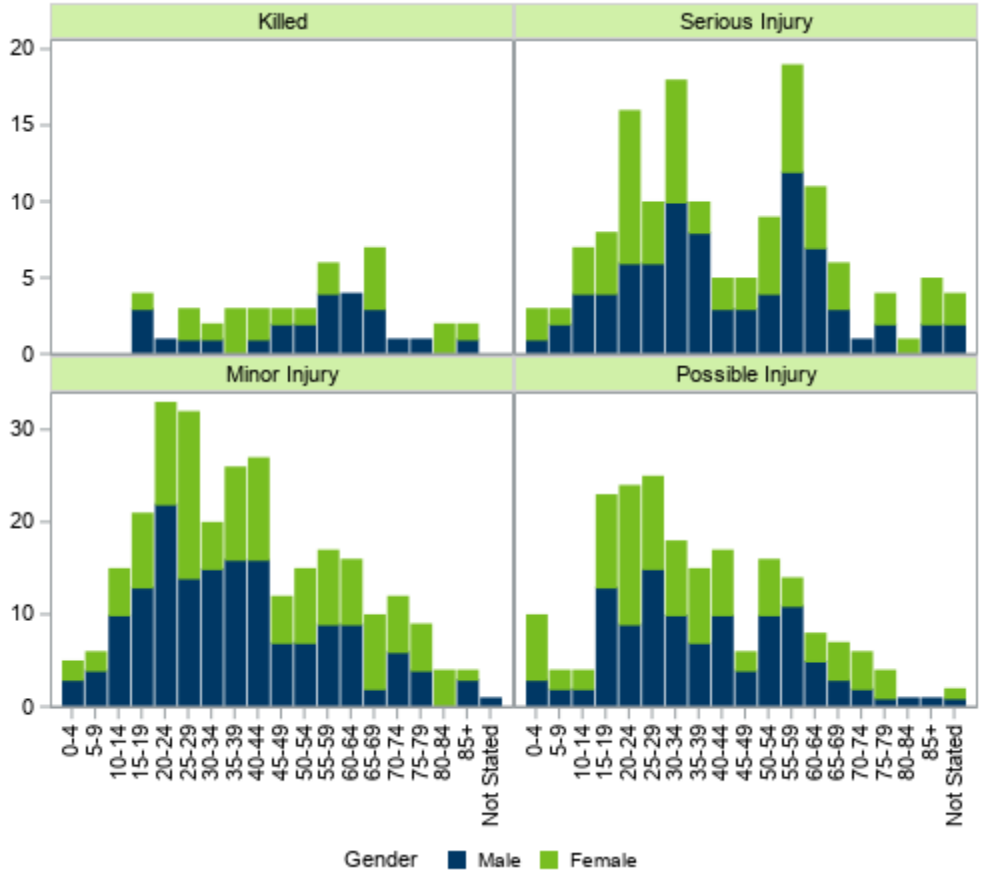


Figure 6.03: Pedestrian Injuries by Age and Gender



Vehicles are usually

moving forward

prior to collisions with pedestrians

56%

of pedestrian crashes occur in

daylight

Contributing factor data in pedestrian crashes shows

59% attributed to drivers and **41%** attributed to pedestrians

Table 6.01: Prior Action of Vehicles in Pedestrian Crashes

Prior Action	Vehicles in Fatal Crashes	Vehicles in Injury Crashes	Vehicles in All Crashes
Entering/Leaving Parked Position	1	40	41
Moving Forward	44	368	412
Wrong Way into Opposing Traffic	1	2	3
Turning Right	1	64	65
Turning Left	3	127	130
Making a U Turn	0	3	3
Slowing	0	7	7
Swerved/Attempted to Avoid Object	2	10	12
Overtaking/Passing	0	4	4
Leaving Traffic Lane	0	1	1
Entering Traffic Lane	0	1	1
Negotiating a Curve	0	1	1
Backing	1	32	33
Vehicle Stopped/Stalled in Roadway	2	12	14
Other	1	5	6
Unknown	2	37	39
Total	**58**	**714**	**772**

Table 6.02: Prior Action of Pedestrians Killed or Injured in Pedestrian Crashes

Action	Pedestrians Killed	%	Pedestrians Injured	%
Walking Across Traffic/Roadway	21	46.7%	385	59.0%
Standing/Stopped	5	11.1%	46	7.1%
Walking With Traffic	5	11.1%	28	4.3%
Walking Against Traffic	2	4.4%	20	3.1%
Walking on Sidewalk	0	0.0%	24	3.7%
In Roadway (Working, Playing)	9	20.0%	31	4.8%
Adjacent to Roadway (Shoulder, Median)	0	0.0%	12	1.8%
Going to or From School	0	0.0%	1	0.2%
Going to or From School Bus	0	0.0%	1	0.2%
Working in Traffic/Roadway	0	0.0%	12	1.8%
Going to or From Public Transit	0	0.0%	2	0.3%
Other Pedestrian Action	1	2.2%	60	9.2%
Unknown	2	4.4%	30	4.6%
Total	**45**	**100.0%**	**652**	**100.0%**

Table 6.03: Pedestrian Crashes by Month

Month	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
January	2	49	51	2	49
February	6	71	77	6	72
March	3	50	53	3	51
April	2	37	39	2	38
May	1	46	47	1	48
June	6	47	53	6	44
July	2	71	73	2	73
August	5	51	56	5	51
September	6	71	77	6	70
October	3	46	49	3	46
November	5	57	62	5	63
December	4	49	53	4	47
Total	**45**	**645**	**690**	**45**	**652**

October

(early sunsets and shorter daylight hours) usually has most pedestrian crashes. Not so in 2020.

Pedestrian crashes frequently occur in the

afternoon

Figure 6.04: Heat Map of Pedestrian Crashes

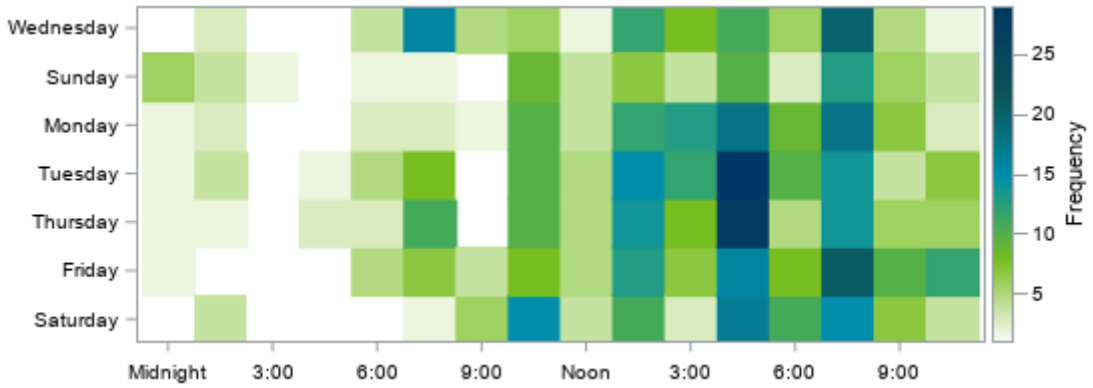


Table 6.04: Pedestrian Crashes by Population of Area

Population of Area	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
250,000+	7	291	298	7	298
100,000-249,999	2	11	13	2	10
50,000-99,999	6	82	88	6	83
25,000-49,999	5	67	72	5	68
10,000-24,999	7	92	99	7	96
5,000-9,999	1	33	34	1	33
2,500-4,999	2	16	18	2	16
1,000-2,499	4	10	14	4	10
Townships/Rural	11	43	54	11	38
Total	**45**	**645**	**690**	**45**	**652**

Table 6.05: Pedestrian Crashes by Type of Roadway

Type of Roadway	Fatal Crashes	Injury Crashes	Total Crashes	Killed	Injured
Interstate	4	7	11	4	7
US Trunk Hwy	4	20	24	4	22
MN Trunk Hwy	13	40	53	13	40
County State Aid Hwy	13	159	172	13	161
County Road	1	8	9	1	6
Township Road	0	7	7	0	6
Municipal State Aid Hwy	7	160	167	7	163
Municipal Street	3	197	200	3	201
Other Road	0	47	47	0	46
Total	**45**	**645**	**690**	**45**	**652**

85%

pedestrian crashes occur in urban areas

Rural areas had 15% of pedestrian crashes, but

38%

of the fatalities

Figure 6.05: Pedestrian Fatalities and Injuries by Crash Location on the Road

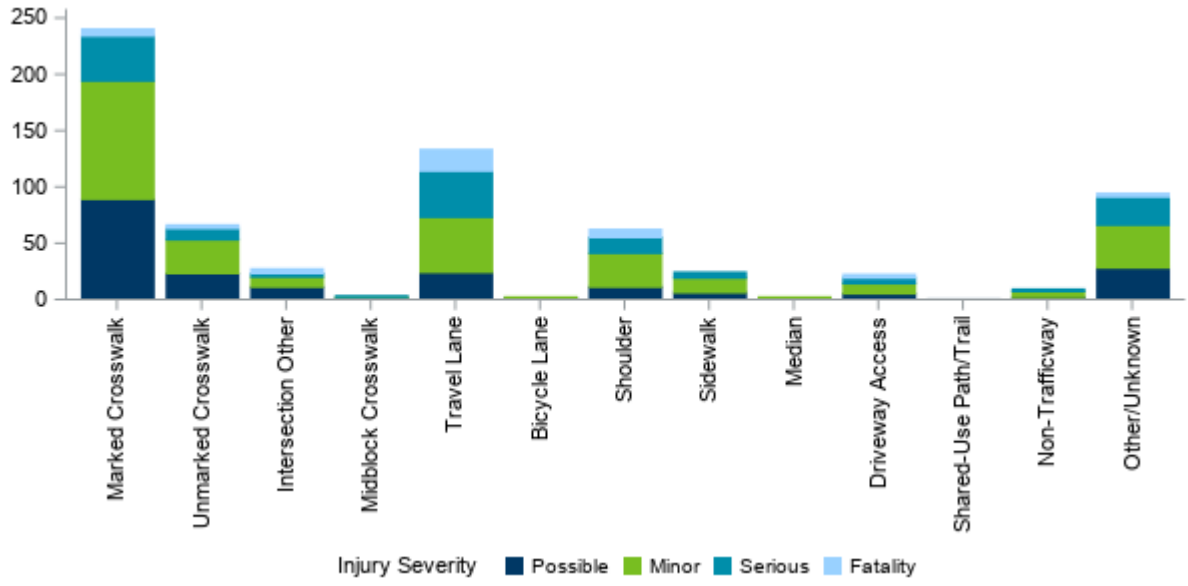
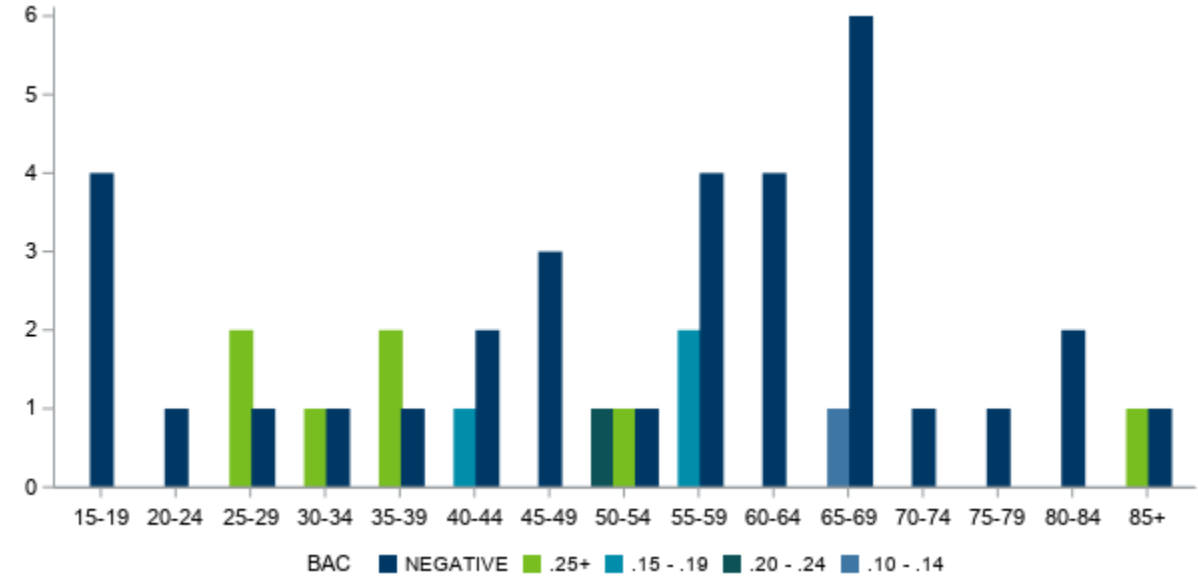


Table 6.06: Pedestrian Fatalities' Level of Alcohol Concentration

Killed	Tested	0.00	.01-.07	.08-.09	.10-.14	.15-.19	.20-.24	.25+
45	12	33	0	0	1	3	1	5

Figure 6.06: Pedestrian Fatalities' Level of Alcohol Concentration by Age



Bicycle Crashes

Bicycles are subject to the same traffic laws as motor vehicles, but bicycle crashes are reported to the Minnesota Department of Public Safety only if they involve collision with a motor vehicle. Therefore, this section represents only a portion of the total number of bicycle crashes.

2020 Bicycle Crash Stats:

471 crashes	10 fatalities	429 injuries

When bicycle crashes occur

Bicycle crashes are mostly a warm weather occurrence. However, in 2020, there were bicycle crashes during each month of the year. The bulk of bicycle crashes occur during the timeframe of 3pm-6pm during the week, Monday-Friday and on weekends. In 2020, 46% of all bicycle crashes happened at that time.

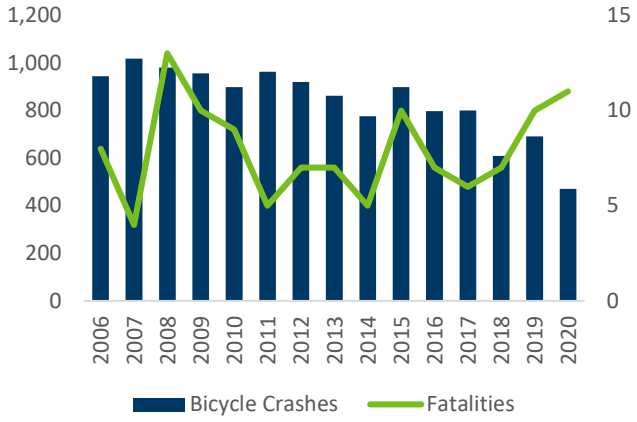
Where bicycle crashes occur

Traffic crashes involving a bicycle and a motor vehicle tend to occur in areas with larger populations where the bicycle is used frequently for transportation instead of recreation. Over nine out of ten (92%) bicycle crashes occurred in cities where the population was over 5,000 people.

Bicyclist age and gender

Males were three times more likely than females to be injured in a bicycle crash. Fifty-eight percent (58%) of injured bicyclists were over the age of 25. See Table 7.01.

Figure 7.01: Bicycle Crash Trends



52%

bicyclists were cycling across traffic prior to crash

Figure 7.02: Bicycle Crashes by Day of Week

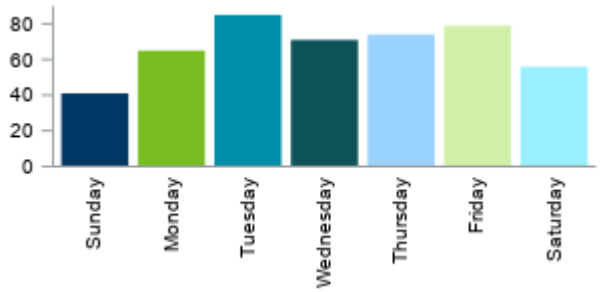


Table 7.01: Bicyclists Killed or Injured by Age and Gender

	Fatalities			Serious Injuries			Minor Injuries			Possible Injuries			Total Injuries		
Age Group	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
00-04	0	0	0	0	0	0	1	1	2	1	0	1	2	1	3
05-09	0	0	0	2	1	3	15	3	18	4	3	7	21	7	28
10-14	1	0	1	2	3	5	23	10	35	13	9	22	38	22	62
15-19	2	0	2	9	0	9	25	8	33	10	5	15	44	13	57
20-24	0	0	0	2	1	3	8	2	13	6	4	10	16	7	26
25-29	0	1	1	3	0	3	11	2	15	9	3	12	23	5	30
30-34	1	0	1	4	0	4	10	4	14	9	4	13	23	8	31
35-39	0	0	0	3	1	4	9	2	12	6	3	10	18	6	26
40-44	0	0	0	2	0	2	7	1	8	7	2	9	16	3	19
45-49	0	0	0	0	0	0	10	2	13	4	2	6	14	4	19
50-54	2	0	2	2	3	5	11	5	17	3	1	4	16	9	26
55-59	0	0	0	4	3	7	10	2	14	10	1	12	24	6	33
60-64	0	0	0	3	1	5	7	0	8	7	1	10	17	2	23
65-69	1	0	1	1	1	3	6	2	9	5	1	6	12	4	18
70-74	0	1	1	1	0	1	3	0	3	3	0	3	7	0	7
75+	1	0	1	2	0	2	5	3	8	1	0	1	8	3	11
Not Stated	0	0	0	0	0	3	1	0	4	0	1	3	1	1	10
Total	**8**	**2**	**10**	**40**	**14**	**59**	**162**	**47**	**226**	**98**	**40**	**144**	**300**	**101**	**429**

Table 7.02: Prior Action of Bicyclists Involved in Crashes

Prior Action	Bicyclists In Fatal Crashes	Bicyclists In Injury Crashes	Bicyclists In PDO Crashes	Bicyclists In All Crashes*
Cycling Across Traffic	4	223	24	251
Cycling with Traffic	3	85	13	101
Cycling Against Traffic	0	17	3	20
Cycling on Sidewalk	0	52	6	58
Standing/Stopped	0	4	2	6
In Roadway - Other	0	17	1	18
Adjacent to Roadway	0	6	0	6
Other/Unknown	3	25	3	31
Total	**10**	**429**	**52**	**491**

* The total number of bicyclist actions may exceed the number of bicycle crashes because some crashes may involve more than one bicycle.

Table 7.03: Bicycle Crashes by Month

Month	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
January	0	10	5	15	0	10
February	0	7	1	8	0	7
March	2	9	3	14	2	9
April	0	23	0	23	0	23
May	0	34	6	40	0	34
June	2	86	0	88	1	88
July	1	72	8	81	1	76
August	2	67	7	76	2	68
September	4	54	8	66	4	57
October	0	32	3	35	0	33
November	0	12	0	12	0	12
December	0	12	1	13	0	12
Total	**11**	**418**	**42**	**471**	**10**	**429**

Summertime

sees most bicycle crashes

Weekdays had

79%

of bicycle crashes

Figure 7.03: Bicycle Crashes by Day of Week and Time of Day

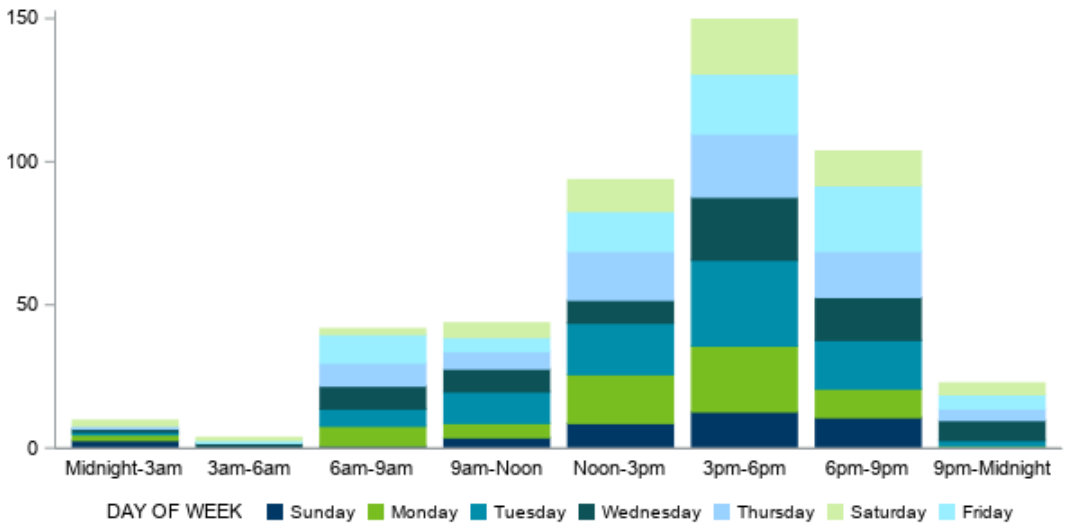


Figure 7.04: Bicycle Crashes by Time of Day, Compared to Pedestrian Crashes

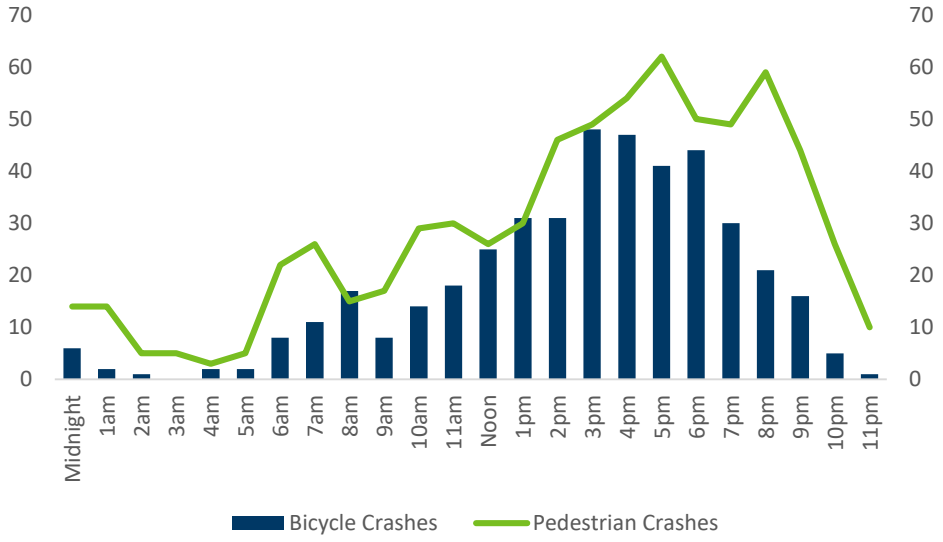


Table 7.04: Bicycle Crashes by Population of Area

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	2	116	23	141	1	120
100,000-249,000	0	9	1	10	0	9
50,000-99,999	2	102	7	111	2	105
25,000-49,999	2	48	3	53	2	50
10,000-24,999	1	81	5	87	1	82
5,000-9,999	0	30	2	32	0	30
2,500-4,999	0	14	0	14	0	14
1,000-2,499	0	4	1	5	0	4
Townships/Rural	4	14	0	18	4	15
Total	**11**	**418**	**42**	**471**	**10**	**429**

School Bus Crashes

Crashes included in this section are those in which at least one school bus was physically involved. In some cases, a crash could be seen as involving a school bus (albeit indirectly), yet not be counted as a school bus crash. One such case would be a crash in which a person gets off the bus, crosses a street and is struck by another vehicle. Such a case could be called an indirect school bus crash; indirect school bus crashes are tracked in the crash reporting system. In 2020, there were 35 crashes resulting in 21 injuries in which a school bus was indirectly involved.

School bus travel is a very safe method of travel. The school bus is a large and heavy vehicle that provides good protection for its occupants. Frequently, injuries resulting from school bus crashes are pedestrians or occupants of other vehicles instead of school bus passengers.

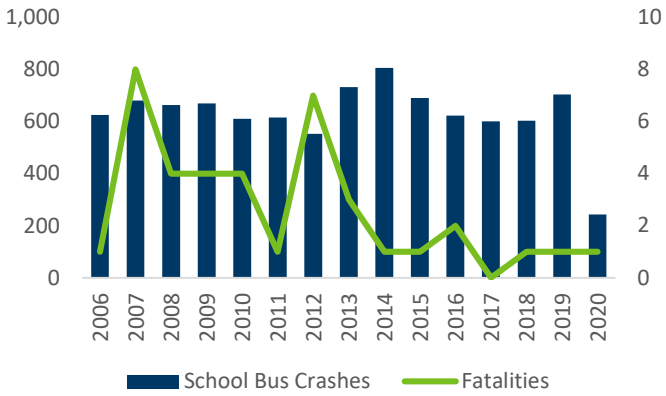
2020 School Bus Crash Stats:

243 crashes	1 fatality	51 injuries

When school bus crashes occur

Not surprising, but school bus crashes occur when school buses are in use. The morning and afternoon time periods of 6am-9am and 3pm-6pm see the majority of school bus crashes. Almost all school bus crashes occur Monday-Friday and during the months of September-June. Daylight hours and clear weather conditions exist during most school bus crashes.

Figure 8.01: School Bus Crash Trends



Road conditions contribute to many school bus crashes

Figure 8.02: School Bus Crashes by Day of Week

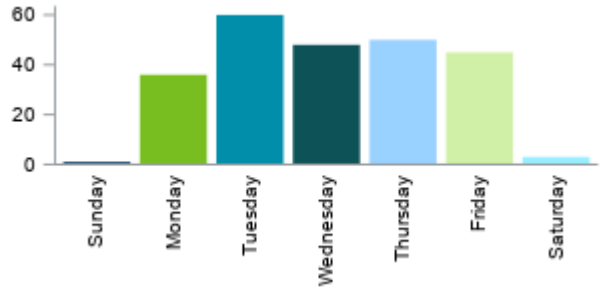


Figure 8.03: Age of Persons Injured in School Bus Crashes, by Their Location

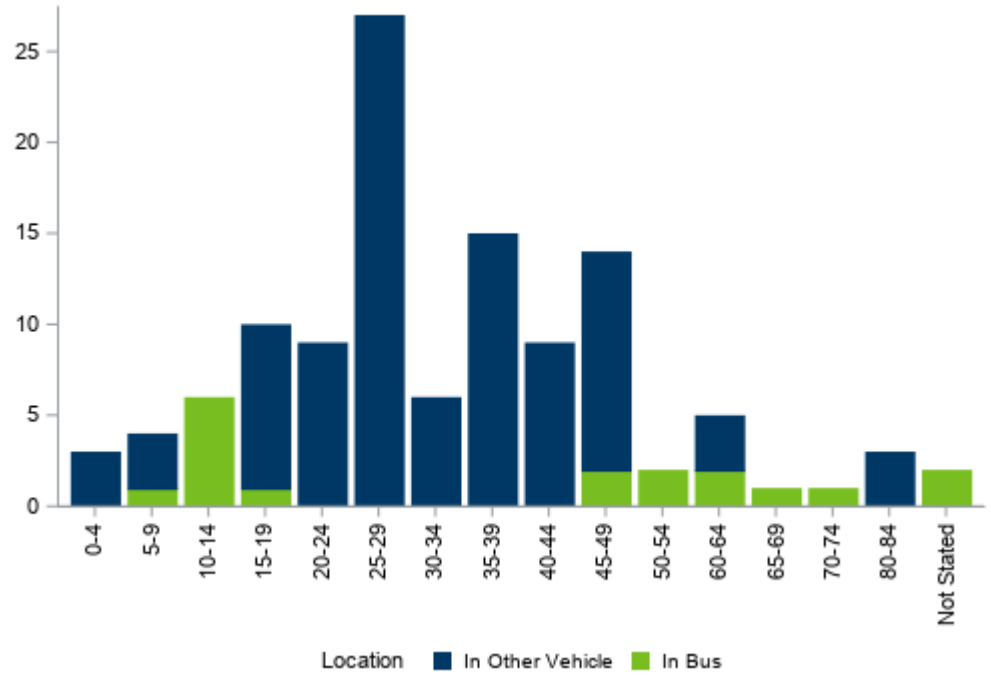


Table 8.01: School Bus Crashes by First Harmful Event

First Harmful Event	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Collision With:						
Other Motor Vehicle	0	34	159	193	0	45
Parked Motor Vehicle	0	2	38	40	0	4
Pedestrian	1	0	0	1	1	0
Deer	0	0	1	1	0	0
Other Animal	0	0	1	1	0	0
Fixed Object	0	2	4	6	0	2
Non-Collision:						
Overturn/Rollover	0	0	0	0	0	0
Other Non-Collision	0	0	1	1	0	0
Total	**1**	**38**	**204**	**243**	**1**	**51**

Table 8.02: School Bus Crashes by Weather Condition

Weather Condition	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
Clear	1	26	128	155	1	36
Cloudy	0	7	50	57	0	9
Rain	0	0	4	4	0	0
Snow	0	4	19	23	0	5
Sleet/Hail	0	0	0	0	0	0
Fog/Smog/Smoke	0	0	1	1	0	0
Blowing Sand/Soil/Dirt	0	1	2	3	0	1
Other Weather	0	0	0	0	0	0
Unknown	0	0	0	0	0	0
Total	**1**	**38**	**204**	**243**	**1**	**51**

School bus crashes happen when skies are clear, but roads are not

Wet, snowy, icy roads contribute to over half of school bus crashes

Figure 8.04: School Bus Crashes by Road Surface Conditions

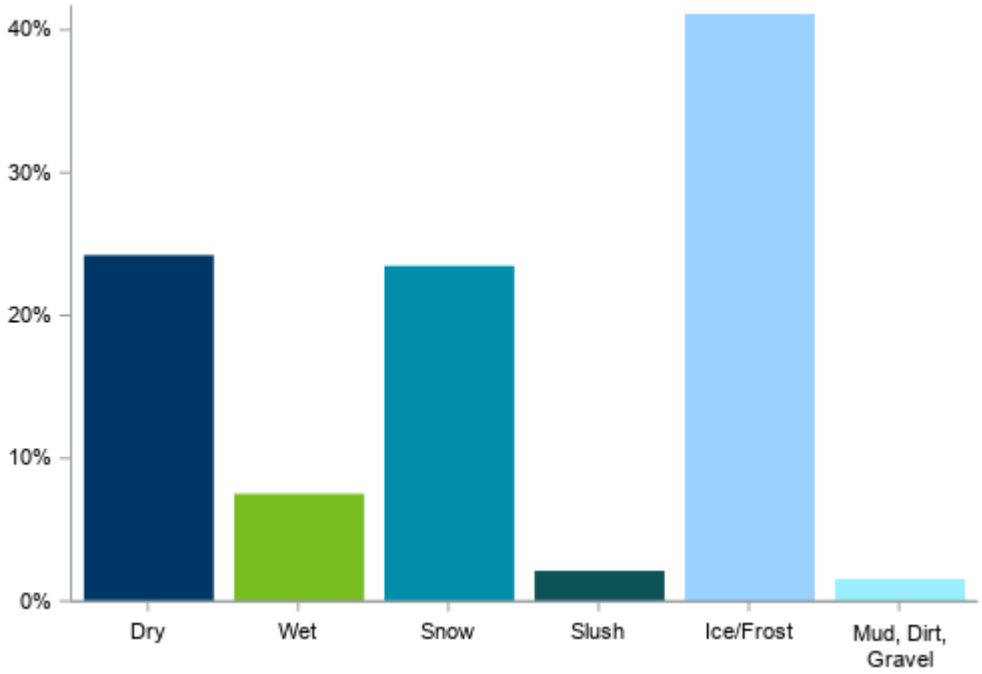


Figure 8.05: School Bus Crashes by Month and Time of Day

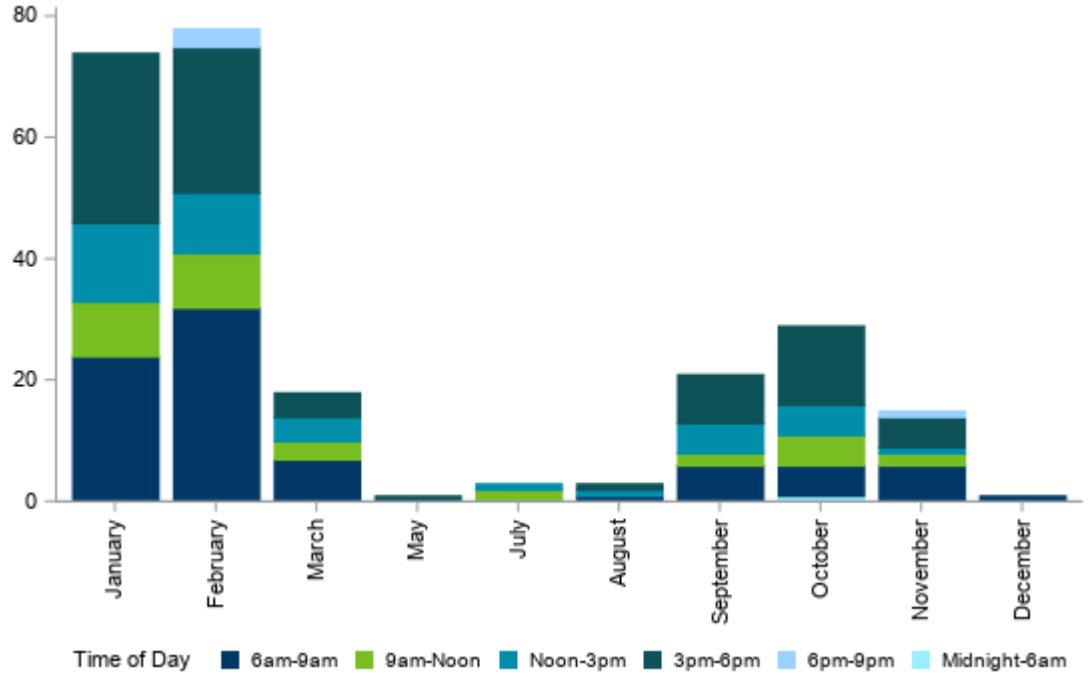


Table 8.03: School Bus Crashes by Population of Area

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	0	11	38	49	0	16
100,000-249,999	0	1	7	8	0	1
50,000-99,999	1	4	31	36	1	7
25,000-49,999	0	6	27	33	0	8
10,000-24,999	0	9	49	58	0	12
5,000-9,999	0	1	14	15	0	1
2,500-4,999	0	1	13	14	0	1
1,000-2,499	0	0	5	5	0	0
Townships/Rural	0	5	20	25	0	5
Total	**1**	**38**	**204**	**243**	**1**	**51**

MV/Train Crashes

Crashes reported in this section involve motor vehicles and trains. Collisions with trains and pedestrians or trains and bicyclists are not counted as traffic crashes in this publication.

In the past decade or so, Minnesota has made progress related to train crashes. In the 1990s, there were around one hundred motor vehicle/train crashes per year with about ten fatalities each year. These numbers have dropped and the state currently hovers around fifty motor vehicle/train crashes with one or two fatalities a year. That success can be attributed to improvements in traffic control signals, including flashing lights and gates, which make railroad crossings more visible.

2020 Motor Vehicle/Train Crash Stats:

41 crashes	1 fatality	17 injuries

43%

motor vehicle/train crashes occurred in rural areas in 2020

Figure 9.01: Motor Vehicle/Train Crash Trends

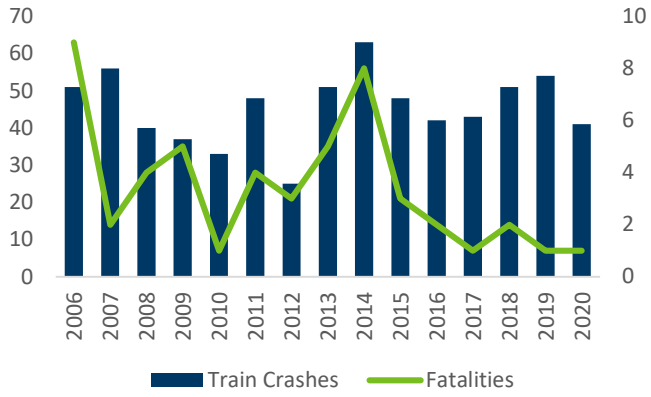


Figure 9.02: Motor Vehicle/Train Crashes by Traffic Control Device

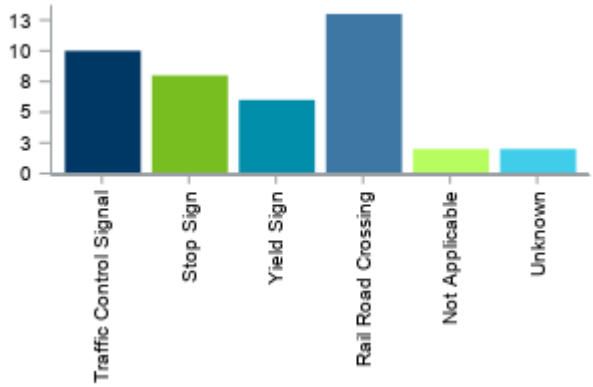


Figure 9.03: Motor Vehicle/Train Crashes by Day of Week

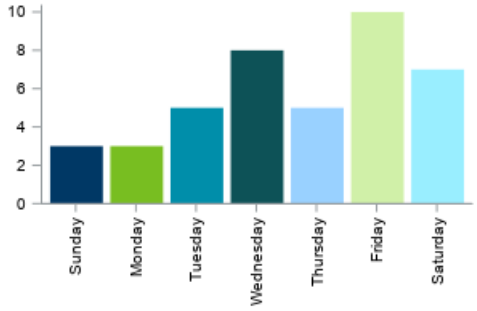


Figure 9.04: Motor Vehicle/Train Crashes by Day of Week and Time of Day

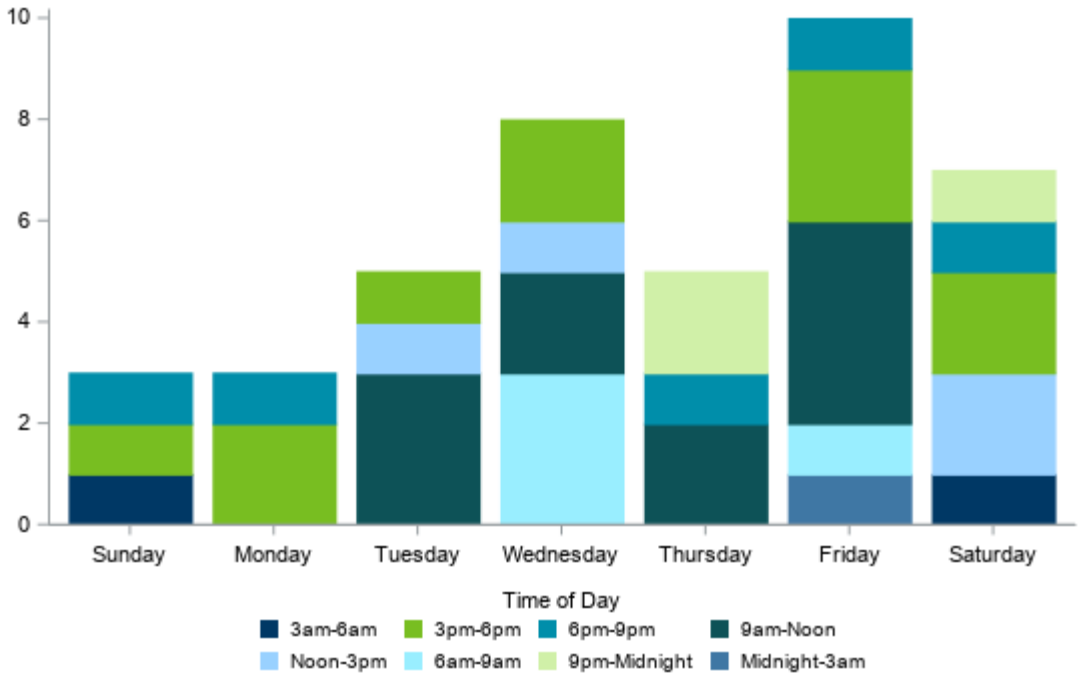


Figure 9.05: Motor Vehicle/Train Crashes by Month and Crash Severity

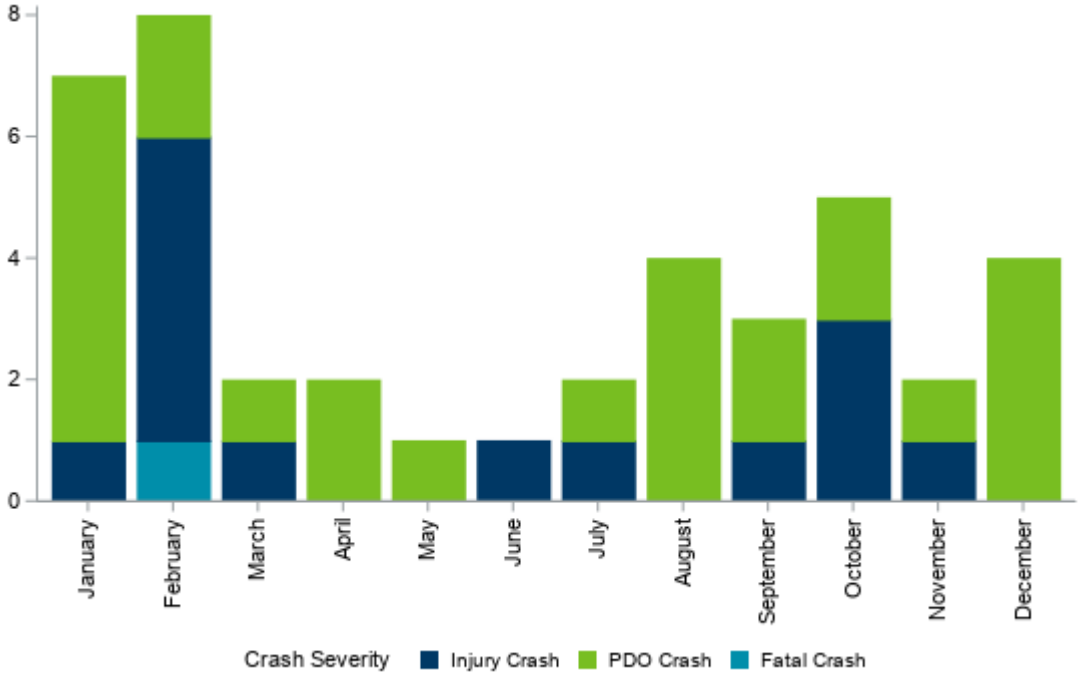


Table 9.01: Motor Vehicle/Train Crashes by Population of Area

Population of Area	Fatal Crashes	Injury Crashes	PDO Crashes	Total Crashes	Killed	Injured
250,000+	0	6	6	12	0	7
50,000-99,999	0	0	2	2	0	0
25,000-49,999	1	0	1	2	1	0
10,000-24,999	0	1	2	3	0	1
5,000-9,999	0	0	2	2	0	0
2,500-4,999	0	1	2	3	0	1
1,000-2,499	0	0	2	2	0	0
Townships/Rural	0	6	9	15	0	8
Total	**1**	**14**	**26**	**41**	**1**	**17**

Teen Driver Crashes

Teen drivers in Minnesota continue to be overrepresented in traffic crashes due to driver inexperience, distractions, speeding/risk-taking and seat belt non-use. The greatest crash risk occurs during the first months of independent driving. To combat this problem, laws such as no cell phone use, no texting, primary seat belt and nighttime and passenger limitations have helped reduce teen traffic deaths and injuries.

Parents play a vital role in developing safe teen drivers. Teens need to gain experience in a variety of road types and environments — day, night, city, rural, rain, snow — while supervised by an experienced licensed driver. Even after a teen is licensed, they continue to need training and monitoring. Programming is available through driver educators to assist parents in learning more about graduated driver licensing, as well as tips for helping their teens become safer drivers.

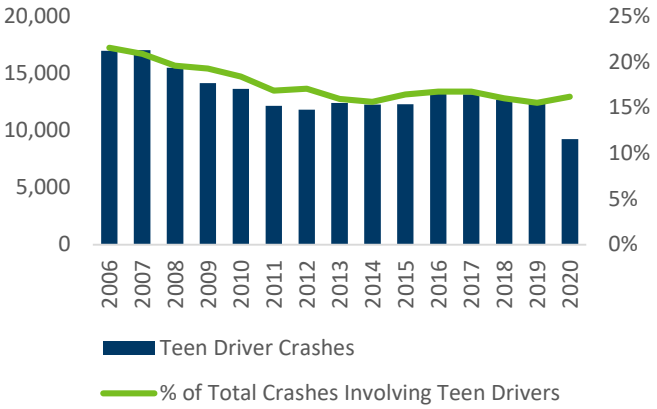
2020 Teen Driver Crash Stats:

9,236 crashes with teen drivers	50 fatalities in teen driver crashes	3,673 injuries in teen driver crashes

Teen driver crashes defined

The definition of a teen-involved crash used here is any crash with at least one teen driver (ages 15-19) of any motor vehicle involved. Teen pedestrians or bicyclists are not included.

Figure 10.01: Teen Driver Crash Trends



Teens represent

6% of drivers,

but account for

16% of crashes

Figure 10.02: Teen Driver Crashes by Day of Week

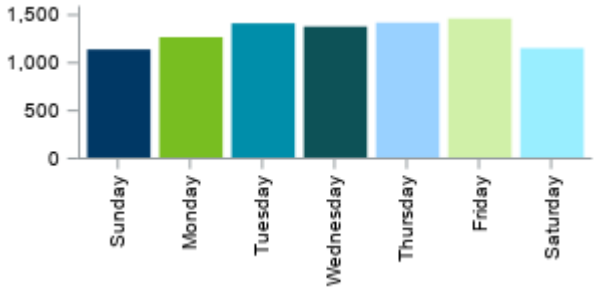


Figure 10.03: Teen Driver Crashes by Age and Gender

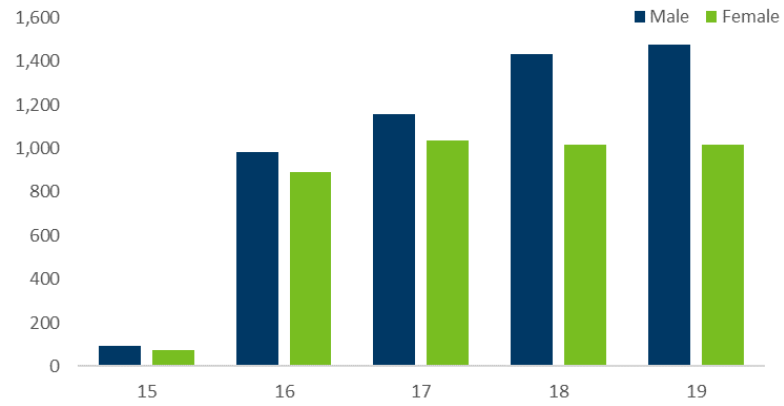


Table 10.01: Teen Driver Crashes by Month

Month	Fatal Crashes	Serious Injury Crashes	Minor Injury Crashes	Possible Injury Crashes	PDO Crashes	Total Crashes
January	2	7	88	160	925	1,182
February	3	8	63	139	686	899
March	0	10	56	78	373	517
April	1	14	31	42	243	331
May	2	11	70	71	319	473
June	4	16	114	113	483	730
July	7	21	114	155	583	880
August	5	18	100	132	559	814
September	6	23	98	119	595	841
October	4	13	86	138	667	908
November	5	15	85	101	563	769
December	5	17	72	128	670	892
Total	**44**	**173**	**977**	**1,376**	**6,666**	**9,236**

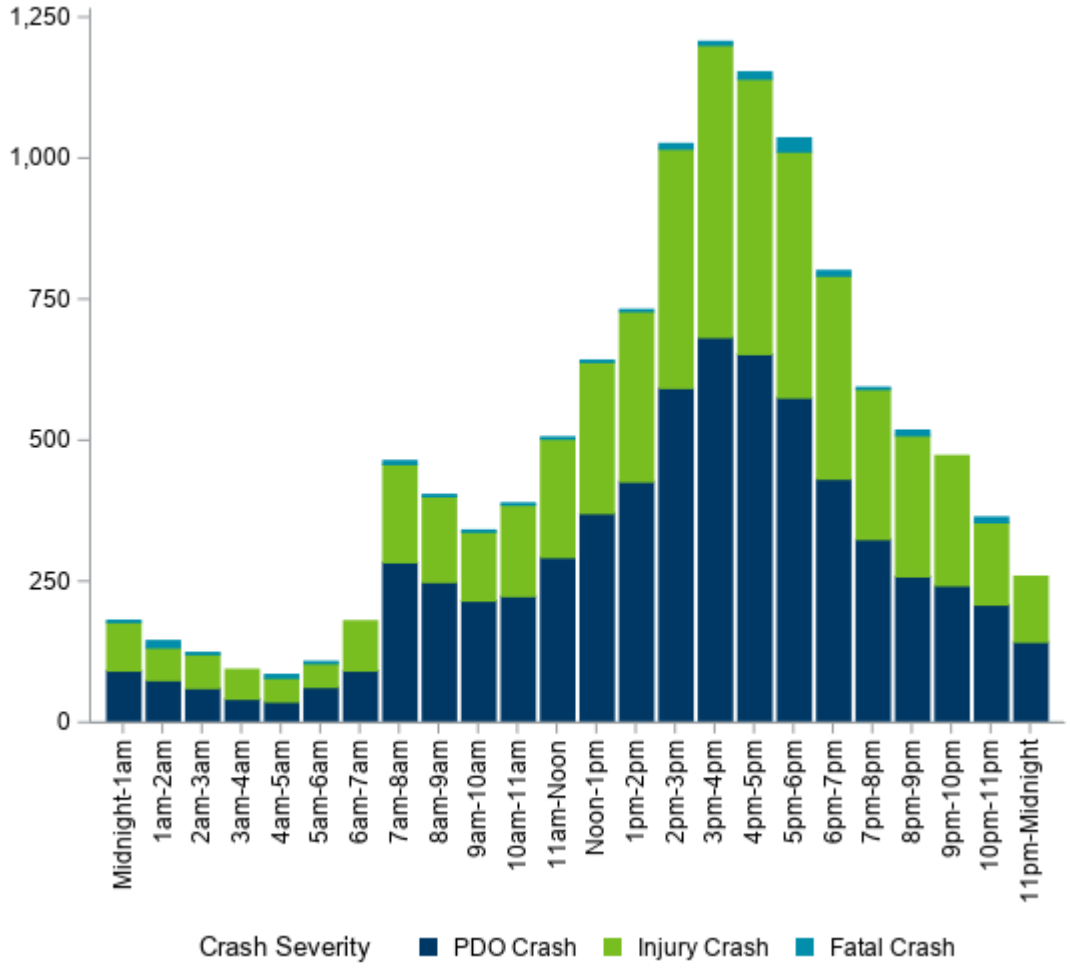
Teen driver crashes follow the same crash severity proportions as all other crashes

Mornings and afternoons have most teen driver crashes

Table 10.02: Teen Driver Crashes by Day of Week

Day	Fatal Crashes	Serious Injury Crashes	Minor Injury Crashes	Possible Injury Crashes	PDO Crashes	Total Crashes
Sunday	10	29	126	170	805	1,140
Monday	10	20	137	185	916	1,268
Tuesday	5	18	139	197	1,054	1,413
Wednesday	4	18	139	215	1,003	1,379
Thursday	7	31	142	215	1,025	1,420
Friday	5	26	162	215	1,055	1,463
Saturday	3	31	132	179	808	1,153
Total	**44**	**173**	**977**	**1,376**	**6,666**	**9,236**

Figure 10.04: Teen Driver Crashes by Crash Severity and Time of Day



Senior Driver Crashes

Age alone does not determine a person's ability to drive safely; each of us ages differently. There are safe and unsafe drivers at every age. National research suggests that crash rates for older drivers are actually decreasing due to better health, vehicles with helpful technologies, more driving experience and safer roadways. As people get older, their driving schedules change due to retirement, different activities and fewer required trips. Older drivers generally drive fewer miles than younger ones. In addition, many older drivers self-regulate by avoiding driving at night or on particularly challenging roadways. While the average driver is older than in the past, this has not caused the large increase in crashes and deaths on our roadways that was initially predicted.

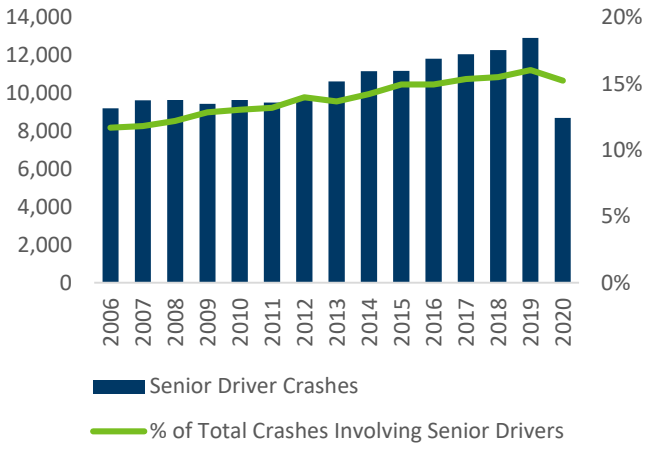
2020 Senior Driver Crash Stats:

8,708 crashes with senior drivers	**81 fatalities in senior driver crashes**	**3,739 injuries in senior driver crashes**

Senior driver crashes defined

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. Senior pedestrians or bicyclists are not included.

Figure 11.01: Senior Driver Crash Trends



Seniors represent

20% of drivers,

but account for

16% of crashes

Figure 11.02: Senior Driver Crashes by Day of Week

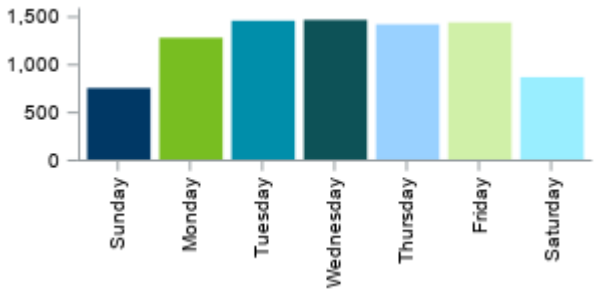


Figure 11.03: Senior Driver Crashes by Age and Gender

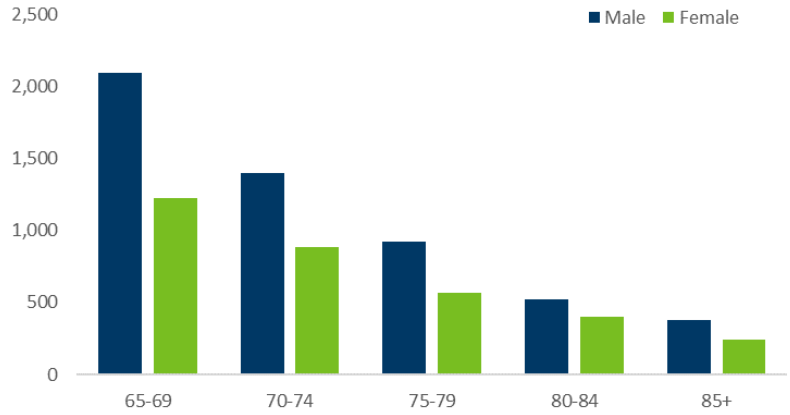


Table 11.01: Senior Driver Crashes by Month

Month	Fatal Crashes	Serious Injury Crashes	Minor Injury Crashes	Possible Injury Crashes	PDO Crashes	Total Crashes
January	3	10	94	148	751	1,006
February	8	7	85	131	644	875
March	4	7	54	80	357	502
April	6	13	37	51	214	321
May	5	17	74	76	327	499
June	2	25	92	115	424	658
July	15	33	121	135	480	784
August	4	26	109	111	475	725
September	6	22	124	150	562	864
October	7	23	98	120	668	916
November	7	11	95	112	481	706
December	6	13	82	112	587	800
Total	**73**	**207**	**1,065**	**1,341**	**5,970**	**8,656**

Senior drivers are disproportionately involved in fatal and injury crashes compared to the total driving population

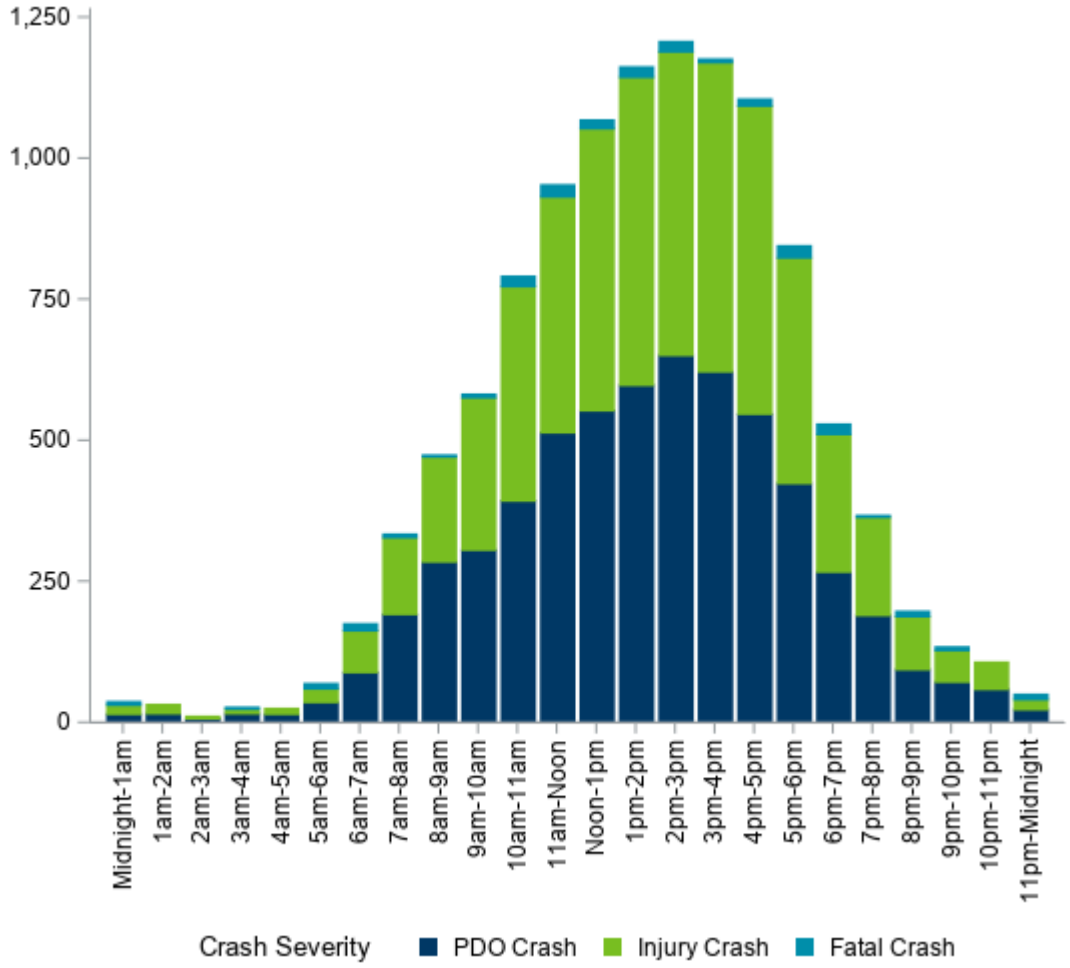
No spike in morning

crashes for senior drivers

Table 11.02: Senior Driver Crashes by Day of Week

Day of Week	Fatal Crashes	Serious Injury Crashes	Minor Injury Crashes	Possible Injury Crashes	PDO Crashes	Total Crashes
Sunday	9	24	105	119	494	751
Monday	10	32	175	182	879	1,278
Tuesday	10	29	184	229	1,003	1,455
Wednesday	10	33	173	238	1,013	1,467
Thursday	10	22	154	198	1,029	1,413
Friday	14	38	172	216	990	1,430
Saturday	10	29	102	159	562	862
Total	**73**	**207**	**1,065**	**1,341**	**5,970**	**8,656**

Figure 11.04: Senior Driver Crashes by Crash Severity and Time of Day



Contributing Factors

Why do crashes occur?
There are many factors which may contribute to traffic crashes. Any one crash could have multiple factors which led to the crash occurring. Circumstances relating to the working condition of the vehicle could contribute to a crash. Circumstances relating to the driving environment could also contribute to a crash. Sometimes roadway characteristics contribute to a crash. However, the vast majority of factors contributing to crashes are the human factors. In short, people cause most crashes.

This chapter will examine the 'why' crashes occur by looking into the factors that contribute to crashes.

Reporting of contributing factors
Contributing factors for crashes, vehicles, and drivers are documented on the crash report. Law enforcement officers are able to associate up to eight contributing factors for each driver involved in a single crash.

Aside from contributing factors, other behavioral elements are also documented on the crash report. Use of alcohol and drugs, driver distraction and driver speeding are reported as well. These data provide a picture of why the crash occurred.

Crash Facts historically included tables for contributing factors within the topic chapters. While that seems to be an appropriate place for that data, the bigger picture is missed when looking only at contributing factors for a specific type of crash. In crashes involving multiple vehicles and crashes involving motor vehicles and non-motorists, the data reveals that the same factors contribute to those crashes. It is true in crashes involving specific vehicle types (motorcycles, large trucks, or school buses) that certain factors tend to be more prevalent. For example, road conditions are more important to motorcycle operation and following too closely is common in crashes with large heavy vehicles due to greater distances needed for stopping or reducing speeds.

Failure to Yield Right of Way

is the most frequent contributing factor

The most common contributing factor in single-vehicle crashes is:

Careless/ Negligent/ Erratic Driving

Combining behavioral elements from the crash report with the human factor contributing data revealed the most common behavior leading to crashes was:

Speeding

Table 12.01: Single-Vehicle Crashes: Contributing Factors, by Driver Age Groups

Contributing Factors	Type	15-19	20-24	25-29	30-34	35-64	65-79	80+	All Ages
Road Surface Conditions	Misc.	24.4%	25.0%	24.6%	23.4%	26.1%	24.8%	20.3%	24.9%
Ran Off Road	Human	11.2%	11.4%	10.3%	11.6%	11.7%	14.8%	15.2%	11.5%
Other Human Factor	Human	7.7%	8.2%	8.6%	9.2%	10.8%	12.9%	13.5%	9.5%
Failed to Keep in Proper Lane	Human	7.2%	8.9%	10.4%	9.5%	8.8%	10.1%	14.3%	9.0%
Careless, Negligent, or Erratic Driving	Human	8.4%	8.6%	9.7%	9.4%	7.3%	5.8%	4.2%	8.2%
Overcorrecting/Oversteering	Human	10.1%	8.0%	7.7%	7.6%	6.5%	5.1%	5.1%	7.6%
Driver Speeding	Human	9.3%	8.9%	7.7%	7.5%	6.0%	4.0%	2.1%	7.4%
Driver Swerved	Human	5.7%	5.8%	6.3%	6.3%	6.5%	5.8%	3.8%	6.1%
Driver Distracted	Human	4.3%	3.5%	3.2%	3.1%	3.4%	3.1%	2.5%	3.5%
Other Vehicular Factor	Vehicle	2.3%	2.1%	1.6%	2.0%	2.0%	2.9%	3.4%	2.1%
Defective Brakes	Vehicle	1.6%	1.4%	1.7%	1.8%	1.9%	1.8%	0.0%	1.7%
Reckless or Aggressive Driving	Human	1.6%	1.6%	2.0%	1.3%	0.8%	0.2%	0.4%	1.3%
Improper Turn/Merge	Human	1.1%	0.9%	0.7%	0.8%	1.0%	1.5%	2.1%	1.0%
Disregard Other Traffic Signs	Human	0.5%	0.6%	0.7%	0.8%	0.8%	1.0%	3.0%	0.7%
Ran Stop Sign	Human	0.5%	0.6%	0.6%	0.4%	0.6%	0.8%	0.0%	0.6%
Other Miscellaneous Factor	Misc.	0.5%	0.4%	0.6%	0.3%	0.6%	0.5%	1.3%	0.5%
Vision Obscured	Vehicle	0.3%	0.4%	0.3%	0.5%	0.5%	1.3%	3.0%	0.5%
Defective Steering	Vehicle	0.4%	0.4%	0.5%	0.5%	0.3%	0.1%	0.0%	0.4%
Disregard Other Road Markings	Human	0.3%	0.3%	0.3%	0.2%	0.4%	0.5%	0.8%	0.4%
Work Zone	Misc.	0.1%	0.4%	0.3%	0.5%	0.4%	0.3%	1.7%	0.3%
Following Too Closely	Human	0.2%	0.2%	0.4%	0.5%	0.3%	0.1%	0.0%	0.3%
Shoulders (Non,Low,Soft,High)	Misc.	0.5%	0.2%	0.2%	0.3%	0.3%	0.4%	0.0%	0.3%
Wrong Side/Wrong Way	Human	0.2%	0.3%	0.2%	0.4%	0.1%	0.3%	0.4%	0.2%
Improper Backing	Human	0.1%	0.1%	0.1%	0.2%	0.3%	0.3%	0.8%	0.2%
Debris	Misc.	0.1%	0.3%	0.2%	0.3%	0.2%	0.0%	0.0%	0.2%
Ruts/Holes/Bumps	Misc.	0.2%	0.2%	0.1%	0.4%	0.2%	0.0%	1.3%	0.2%
Defective Wheels	Vehicle	0.2%	0.2%	0.1%	0.3%	0.3%	0.0%	0.4%	0.2%
Obstruction in Roadway	Misc.	0.1%	0.2%	0.2%	0.1%	0.2%	0.2%	0.4%	0.2%
Failure to Yield Right-of-Way	Human	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%	0.0%	0.1%
Improper Passing	Human	0.1%	0.2%	0.2%	0.0%	0.1%	0.0%	0.0%	0.1%
Defective Suspension	Vehicle	0.1%	0.2%	0.1%	0.1%	0.1%	0.3%	0.0%	0.1%

Only factors cited >25 listed.

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.02: Multiple-Vehicle Crashes: Contributing Factors, by Driver Age Groups

Contributing Factors	Type	15-19	20-24	25-29	30-34	35-64	65-79	80+	All Ages
Road Surface Conditions	Misc.	17.6%	20.9%	22.4%	23.1%	27.0%	21.1%	11.8%	23.1%
Failure to Yield Right-of-Way	Human	17.6%	12.1%	11.5%	11.2%	12.0%	22.1%	33.3%	13.8%
Following Too Closely	Human	12.3%	13.1%	11.7%	9.9%	9.6%	6.7%	5.8%	10.4%
Other Human Factor	Human	6.8%	7.0%	7.7%	7.4%	7.3%	7.0%	6.8%	7.2%
Careless, Negligent, or Erratic Driving	Human	5.6%	6.3%	6.4%	6.5%	5.1%	3.3%	2.9%	5.5%
Driver Distracted	Human	8.2%	6.3%	6.1%	5.6%	4.2%	3.8%	3.5%	5.3%
Failed to Keep in Proper Lane	Human	3.4%	4.2%	4.8%	4.4%	4.2%	4.3%	4.2%	4.2%
Improper Turn/Merge	Human	3.6%	3.5%	3.0%	3.3%	3.9%	6.4%	6.9%	3.9%
Ran Red Light	Human	2.6%	2.4%	2.4%	2.8%	2.7%	3.7%	3.6%	2.7%
Driver Swerved	Human	2.2%	2.7%	2.3%	2.7%	2.4%	1.8%	0.9%	2.4%
Driver Speeding	Human	2.7%	3.1%	2.8%	3.0%	1.7%	0.8%	1.0%	2.2%
Congestion Backup, Other	Misc.	1.7%	1.7%	1.9%	1.7%	2.2%	1.7%	1.3%	1.9%
Other Vehicular Factor	Vehicle	1.9%	1.9%	1.6%	1.6%	1.8%	1.6%	2.0%	1.8%
Disregard Other Traffic Signs	Human	1.9%	1.6%	1.6%	2.0%	1.6%	2.1%	3.0%	1.7%
Vision Obscured	Vehicle	1.6%	1.2%	1.1%	1.4%	1.7%	2.2%	2.9%	1.6%
Congestion Backup, Non-Recurring Incident	Misc.	0.7%	1.4%	1.9%	1.8%	1.7%	1.3%	0.5%	1.5%
Ran Stop Sign	Human	1.6%	1.2%	1.5%	1.5%	1.1%	1.7%	2.4%	1.4%
Work Zone	Misc.	0.7%	0.8%	1.0%	0.7%	1.4%	1.3%	1.0%	1.1%
Defective Brakes	Vehicle	1.4%	1.1%	1.1%	0.9%	0.8%	0.5%	0.8%	1.0%
Reckless or Aggressive Driving	Human	0.9%	1.2%	1.4%	1.5%	0.7%	0.2%	0.1%	0.9%
Improper Passing	Human	0.5%	1.1%	0.8%	1.0%	1.0%	1.0%	0.7%	0.9%
Overcorrecting/Oversteering	Human	0.9%	1.3%	0.9%	1.1%	0.8%	0.4%	0.4%	0.9%
Congestion Backup, Prior Crash	Misc.	0.6%	0.7%	0.7%	1.0%	1.1%	0.4%	0.3%	0.9%
Improper Backing	Human	0.5%	0.7%	0.7%	0.4%	0.9%	1.1%	1.0%	0.8%
Other Miscellaneous Factor	Misc.	0.5%	0.6%	0.6%	0.8%	0.8%	0.8%	1.0%	0.7%
Wrong Side/Wrong Way	Human	0.3%	0.3%	0.6%	0.8%	0.4%	0.7%	0.5%	0.5%
Disregard Other Road Markings	Human	0.3%	0.4%	0.4%	0.3%	0.4%	0.6%	0.6%	0.4%
Ran Off Road	Human	0.4%	0.5%	0.4%	0.4%	0.4%	0.3%	0.2%	0.4%
Obstruction in Roadway	Misc.	0.2%	0.1%	0.2%	0.2%	0.2%	0.3%	0.5%	0.2%
Passing on Shoulder	Human	0.1%	0.1%	0.3%	0.2%	0.1%	0.1%	0.0%	0.1%
Debris	Misc.	0.1%	0.1%	0.0%	0.2%	0.1%	0.1%	0.3%	0.1%
Shoulders (Non,Low,Soft,High)	Misc.	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%
Defective Steering	Vehicle	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.1%
Traffic Control Device Inoperative/Missing/Obscured	Misc.	0.0%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%
Defective Power Train	Vehicle	0.0%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%

Only factors cited >25 listed.

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.03: Contributing Factors in Crashes, by Crash Severity

		Factors Cited Fatal Crashes		Factors Cited Injury Crashes		Factors Cited PDO Crashes	
Contributing Factor	**Type**	**#**	**%**	**#**	**%**	**#**	**%**
Other Human Factor	Human	135	17.5%	4,652	17.6%	9,614	15.2%
Other Vehicular Factor	Vehicle	78	10.1%	1,834	6.9%	3,835	6.0%
Driver Speeding	Human	70	9.1%	1,010	3.8%	1,726	2.7%
Ran Off Road	Human	63	8.2%	862	3.2%	1,839	2.9%
Failed to Keep in Proper Lane	Human	57	7.4%	1,035	3.9%	3,215	5.1%
Road Surface Condition	Misc.	50	6.5%	3,779	14.3%	13,663	21.6%
Non-motorist Error	Human	43	5.5%	277	1.0%	19	0.0%
Failure to Yield Right-of-Way	Human	42	5.4%	2,591	9.8%	4,621	7.3%
Careless, Negligent, or Erratic Driving	Human	41	5.3%	1,628	6.1%	3,237	5.1%
Other Roadway Factor	Misc.	41	5.3%	1,669	6.3%	4,197	6.6%
Wrong Side or Wrong Way	Human	25	3.2%	139	0.5%	160	0.2%
Over-correcting / Over Steering	Human	22	2.8%	681	2.5%	1,445	2.2%
Disregard Traffic Control Device	Human	21	2.7%	987	3.7%	1,156	1.8%
Driver Distracted	Human	20	2.6%	1,253	4.7%	2,442	3.8%
Reckless or Aggressive Driving	Human	14	1.8%	334	1.2%	484	0.7%
Swerved or Avoided	Human	12	1.5%	632	2.3%	1,982	3.1%
Disregard Other Traffic Signs	Human	9	1.1%	448	1.6%	588	0.9%
Improper Passing	Human	6	0.7%	119	0.4%	382	0.6%
Vision Obscured	Vehicle	6	0.7%	268	1.0%	748	1.1%
Defective Equipment	Vehicle	4	0.5%	360	1.3%	922	1.4%
Disregard Other Road Markings	Human	4	0.5%	94	0.3%	197	0.3%
Following Too Closely	Human	3	0.3%	1,201	4.5%	4,009	6.3%
Improper Turn/Merge	Human	2	0.2%	441	1.6%	1,790	2.8%
Improper Backing	Human	0	0.0%	42	0.1%	621	0.9%
Oversize/Overweight Trucks	Vehicle	0	0.0%	6	0.0%	22	0.0%
Passing on Shoulder	Human	0	0.0%	20	0.0%	65	0.1%

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.04: Contributing Factors in Motorcycle Crashes

		Single Vehicle Attributed to MC Drivers		Multiple Vehicle Crashes Attributed to Other Drivers		Multiple Vehicle Crashes Attributed to MC Drivers	
Contributing Factors	**Type**	**#**	**%**	**#**	**%**	**#**	**%**
Other Human Factor	Human	87	14.3%	19	6.6%	26	9.8%
Driver Speeding	Human	81	13.3%	3	1.0%	31	11.7%
Ran Off Road	Human	77	12.7%	1	0.3%	10	3.8%
Careless, Negligent, or Erratic Driving	Human	60	9.9%	10	3.5%	19	7.2%
Driver Swerved	Human	41	6.7%	5	1.7%	10	3.8%
Overcorrecting/Oversteering	Human	35	5.8%	0	0.0%	10	3.8%
Road Surface Conditions	Misc.	33	5.4%	2	0.7%	4	1.5%
Failed to Keep in Proper Lane	Human	25	4.1%	10	3.5%	16	6.1%
Other Vehicular Factor	Vehicle	25	4.1%	7	2.4%	4	1.5%
Reckless or Aggressive Driving	Human	16	2.6%	2	0.7%	10	3.8%
Other Miscellaneous Factor	Misc.	14	2.3%	1	0.3%	2	0.8%
Defective Tire/Tire Failure	Vehicle	12	2.0%	1	0.3%	1	0.4%
Failure to Yield Right-of-Way	Human	11	1.8%	109	38.1%	12	4.5%
Ruts/Holes/Bumps	Misc.	10	1.6%	0	0.0%	0	0.0%
Improper Turn/Merge	Human	10	1.6%	21	7.3%	10	3.8%
Following Too Closely	Human	8	1.3%	13	4.5%	30	11.4%
Driver Distracted	Human	7	1.2%	24	8.4%	12	4.5%
Congestion Backup, Other	Misc.	5	0.8%	10	3.5%	10	3.8%
Work Zone	Misc.	4	0.7%	3	1.0%	4	1.5%
Vision Obscured	Vehicle	4	0.7%	13	4.5%	0	0.0%
Disregard Other Traffic Signs	Human	3	0.5%	5	1.7%	2	0.8%
Congestion Backup, Non-Recurring Incident	Misc.	2	0.3%	6	2.1%	5	1.9%
Improper Passing	Human	1	0.2%	1	0.3%	12	4.5%
Ran Red Light	Human	0	0.0%	6	2.1%	5	1.9%
Passing on Shoulder	Human	0	0.0%	0	0.0%	1	0.4%

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.05: Contributing Factors in Truck Crashes

		Attributed to Vehicles		Attributed to Truck* Vehicles	
Contributing Factors	**Type**	**#**	**%**	**#**	**%**
Road Surface Conditions	Misc.	998	26.2%	776	23.4%
Other Human Factor	Human	374	9.8%	283	8.5%
Failed to Keep in Proper Lane	Human	285	7.5%	266	8.0%
Failure to Yield Right-of-Way	Human	235	6.2%	373	11.2%
Improper Turn/Merge	Human	196	5.1%	184	5.5%
Following Too Closely	Human	193	5.1%	198	6.0%
Ran Off Road	Human	150	3.9%	22	0.7%
Driver Swerved	Human	147	3.9%	130	3.9%
Careless, Negligent, or Erratic Driving	Human	144	3.8%	182	5.5%
Driver Speeding	Human	98	2.6%	98	3.0%
Improper Backing	Human	96	2.5%	11	0.3%
Vision Obscured	Vehicle	86	2.3%	29	0.9%
Overcorrecting/Oversteering	Human	86	2.3%	62	1.9%
Driver Distracted	Human	85	2.2%	109	3.3%
Work Zone	Misc.	84	2.2%	73	2.2%
Other Vehicular Factor	Vehicle	79	2.1%	48	1.4%
Defective Brakes	Vehicle	68	1.8%	32	1.0%
Disregard Other Traffic Signs	Human	47	1.2%	38	1.1%
Improper Passing	Human	39	1.0%	96	2.9%
Congestion Backup, Prior Crash	Misc.	34	0.9%	37	1.1%
Congestion Backup, Non-Recurring Incident	Misc.	34	0.9%	42	1.3%
Ran Red Light	Human	32	0.8%	40	1.2%
Congestion Backup, Other	Misc.	30	0.8%	39	1.2%
Other Miscellaneous Factor	Misc.	29	0.8%	12	0.4%
Oversize/Overweight Trucks	Vehicle	23	0.6%	0	0.0%
Ran Stop Sign	Human	23	0.6%	29	0.9%
Disregard Other Road Markings	Human	19	0.5%	16	0.5%
Shoulders (Non,Low,Soft,High)	Misc.	17	0.4%	1	0.0%
Debris	Misc.	12	0.3%	7	0.2%
Reckless or Aggressive Driving	Human	10	0.3%	22	0.7%
Defective Wheels	Vehicle	9	0.2%	3	0.1%
Wrong Side/Wrong Way	Human	8	0.2%	22	0.7%

Only factors cited >10 listed.

* Pedestrians and Bicyclists are included in Non-Trucks.

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.06: Contributing Factors in Pedestrian Crashes

		Attributed to Pedestrians		Attributed to MV Drivers	
Contributing Factors	**Type**	**#**	**%**	**#**	**%**
Failure to Yield Right-of-Way	Human	63	15.7%	98	18.7%
In Roadway Improperly	Human	58	14.5%	0	0.0%
Other Human Factor	Human	57	14.2%	59	11.3%
Road Surface Conditions	Misc.	54	13.5%	69	13.2%
Not Visible	Human	51	12.7%	0	0.0%
Dart/Dash	Human	45	11.2%	0	0.0%
Failure to Obey Traffic Signs/Signals/Officer	Human	24	6.0%	0	0.0%
Inattentive/Distraction	Human	11	2.7%	0	0.0%
Disabled Vehicle Related	Human	8	2.0%	0	0.0%
Wrong Way Riding or Walking	Human	7	1.7%	0	0.0%
Entering/Exiting Parked/Standing Vehicle	Human	7	1.7%	0	0.0%
Work Zone	Misc.	3	0.7%	3	0.6%
Improper Passing	Human	3	0.7%	4	0.8%
Improper Turn/Merge	Human	3	0.7%	9	1.7%
Congestion Backup, Other	Misc.	3	0.7%	4	0.8%
Obstruction in Roadway	Misc.	2	0.5%	2	0.4%
Other Miscellaneous Factor	Misc.	2	0.5%	2	0.4%
Following Too Closely	Human	0	0.0%	6	1.1%
Defective Brakes	Vehicle	0	0.0%	10	1.9%
Improper Backing	Human	0	0.0%	12	2.3%
Vision Obscured	Vehicle	0	0.0%	32	6.1%
Defective Power Train	Vehicle	0	0.0%	1	0.2%
Ran Off Road	Human	0	0.0%	8	1.5%
Ran Red Light	Human	0	0.0%	2	0.4%
Ran Stop Sign	Human	0	0.0%	4	0.8%
Disregard Other Traffic Signs	Human	0	0.0%	16	3.1%
Disregard Other Road Markings	Human	0	0.0%	10	1.9%
Wrong Side/Wrong Way	Human	0	0.0%	4	0.8%
Failed to Keep in Proper Lane	Human	0	0.0%	17	3.3%
Reckless or Aggressive Driving	Human	0	0.0%	19	3.6%
Careless, Negligent, or Erratic Driving	Human	0	0.0%	38	7.3%
Driver Swerved	Human	0	0.0%	17	3.3%
Overcorrecting/Oversteering	Human	0	0.0%	7	1.3%
Driver Distracted	Human	0	0.0%	41	7.8%
Driver Speeding	Human	0	0.0%	8	1.5%
Other Vehicular Factor	Vehicle	0	0.0%	21	4.0%

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.07: Contributing Factors in Bicycle Crashes

		Attributed to Bicyclists		Attributed to MV Drivers	
Contributing Factors	**Type**	**#**	**%**	**#**	**%**
Failure to Yield Right-of-Way	Human	73	28.0%	94	36.9%
Failure to Obey Traffic Signs/Signals/Officer	Human	49	18.8%	0	0.0%
Other Human Factor	Human	32	12.3%	31	12.2%
Dart/Dash	Human	29	11.1%	0	0.0%
Wrong Way Riding or Walking	Human	19	7.3%	0	0.0%
Road Surface Conditions	Misc.	14	5.4%	16	6.3%
Not Visible	Human	13	5.0%	0	0.0%
Improper Turn/Merge	Human	8	3.1%	6	2.4%
Inattentive/Distraction	Human	6	2.3%	0	0.0%
In Roadway Improperly	Human	6	2.3%	0	0.0%
Work Zone	Misc.	4	1.5%	4	1.6%
Congestion Backup, Non-Recurring Incident	Misc.	2	0.8%	4	1.6%
Other Miscellaneous Factor	Misc.	2	0.8%	2	0.8%
Debris	Misc.	1	0.4%	2	0.8%
Improper Passing	Human	1	0.4%	2	0.8%
Shoulders (Non,Low,Soft,High)	Misc.	1	0.4%	0	0.0%
Congestion Backup, Other	Misc.	1	0.4%	1	0.4%
Following Too Closely	Human	0	0.0%	1	0.4%
Improper Backing	Human	0	0.0%	1	0.4%
Vision Obscured	Vehicle	0	0.0%	22	8.6%
Ran Off Road	Human	0	0.0%	3	1.2%
Ran Red Light	Human	0	0.0%	4	1.6%
Ran Stop Sign	Human	0	0.0%	2	0.8%
Disregard Other Traffic Signs	Human	0	0.0%	5	2.0%
Disregard Other Road Markings	Human	0	0.0%	4	1.6%
Wrong Side/Wrong Way	Human	0	0.0%	1	0.4%
Failed to Keep in Proper Lane	Human	0	0.0%	3	1.2%
Reckless or Aggressive Driving	Human	0	0.0%	6	2.4%
Careless, Negligent, or Erratic Driving	Human	0	0.0%	15	5.9%
Driver Swerved	Human	0	0.0%	2	0.8%
Driver Distracted	Human	0	0.0%	18	7.1%
Driver Speeding	Human	0	0.0%	4	1.6%
Other Vehicular Factor	Vehicle	0	0.0%	2	0.8%

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.08: Contributing Factors in School Bus Crashes

		Attributed to School Bus Drivers		Attributed to Drivers of Other%Vehicles	
Contributing Factors	**Type**	**#**	**%**	**#**	**%**
Failure to Yield Right-of-Way	Human	73	28.0%	94	36.9%
Failure to Obey Traffic Signs/Signals/Officer	Human	49	18.8%	0	0.0%
Other Human Factor	Human	32	12.3%	31	12.2%
Dart/Dash	Human	29	11.1%	0	0.0%
Wrong Way Riding or Walking	Human	19	7.3%	0	0.0%
Road Surface Conditions	Misc.	14	5.4%	16	6.3%
Not Visible	Human	13	5.0%	0	0.0%
Improper Turn/Merge	Human	8	3.1%	6	2.4%
Inattentive/Distraction	Human	6	2.3%	0	0.0%
In Roadway Improperly	Human	6	2.3%	0	0.0%
Work Zone	Misc.	4	1.5%	4	1.6%
Congestion Backup, Non-Recurring Incident	Misc.	2	0.8%	4	1.6%
Other Miscellaneous Factor	Misc.	2	0.8%	2	0.8%
Debris	Misc.	1	0.4%	2	0.8%
Improper Passing	Human	1	0.4%	2	0.8%
Shoulders (Non,Low,Soft,High)	Misc.	1	0.4%	0	0.0%
Congestion Backup, Other	Misc.	1	0.4%	1	0.4%
Following Too Closely	Human	0	0.0%	1	0.4%
Improper Backing	Human	0	0.0%	1	0.4%
Vision Obscured	Vehicle	0	0.0%	22	8.6%
Ran Off Road	Human	0	0.0%	3	1.2%
Ran Red Light	Human	0	0.0%	4	1.6%
Ran Stop Sign	Human	0	0.0%	2	0.8%
Disregard Other Traffic Signs	Human	0	0.0%	5	2.0%
Disregard Other Road Markings	Human	0	0.0%	4	1.6%
Wrong Side/Wrong Way	Human	0	0.0%	1	0.4%
Failed to Keep in Proper Lane	Human	0	0.0%	3	1.2%
Reckless or Aggressive Driving	Human	0	0.0%	6	2.4%
Careless, Negligent, or Erratic Driving	Human	0	0.0%	15	5.9%
Driver Swerved	Human	0	0.0%	2	0.8%
Driver Distracted	Human	0	0.0%	18	7.1%
Driver Speeding	Human	0	0.0%	4	1.6%
Other Vehicular Factor	Vehicle	0	0.0%	2	0.8%

Human Factor • **Vehicular Factor** • **Miscellaneous Factor**

Table 12.09: Contributing Factors in Motor Vehicle/Train Crashes

Contributing Factors	Type	#	%
Failure to Yield Right-of-Way	Human	12	21.4%
Disregard Other Traffic Signs	Human	11	19.6%
Road Surface Conditions	Misc.	9	16.1%
Ran Red Light	Human	5	8.9%
Other Vehicular Factor	Vehicle	5	8.9%
Other Human Factor	Human	4	7.1%
Ran Stop Sign	Human	3	5.4%
Improper Turn/Merge	Human	2	3.6%
Disregard Other Road Markings	Human	2	3.6%
Driver Distracted	Human	2	3.6%
Defective Brakes	Vehicle	1	1.8%

Human Factor • Vehicular Factor • Miscellaneous Factor

Table 12.10: Contributing Factors in Teen-Involved Crashes

		Attributed to Teen Drivers		Attributed to Other Vehicle	
Contributing Factors	**Type**	**#**	**%**	**#**	**%**
Failure to Yield Right-of-Way	Human	1,161	14.5%	521	24.0%
Following Too Closely	Human	803	10.0%	297	13.7%
Other Human Factor	Human	760	9.5%	216	10.0%
Driver Distracted	Human	733	9.1%	138	6.4%
Careless, Negligent, or Erratic Driving	Human	707	8.8%	142	6.6%
Driver Speeding	Human	528	6.6%	57	2.6%
Failed to Keep in Proper Lane	Human	510	6.4%	87	4.0%
Ran Off Road	Human	427	5.3%	13	0.6%
Overcorrecting/Oversteering	Human	425	5.3%	30	1.4%
Driver Swerved	Human	363	4.5%	65	3.0%
Improper Turn/Merge	Human	281	3.5%	133	6.1%
Other Vehicular Factor	Vehicle	229	2.9%	76	3.5%
Ran Red Light	Human	171	2.1%	71	3.3%
Defective Brakes	Vehicle	158	2.0%	31	1.4%
Disregard Other Traffic Signs	Human	148	1.8%	55	2.5%
Vision Obscured	Vehicle	140	1.7%	54	2.5%
Reckless or Aggressive Driving	Human	130	1.6%	21	1.0%
Ran Stop Sign	Human	126	1.6%	51	2.4%
Improper Backing	Human	53	0.7%	26	1.2%
Improper Passing	Human	37	0.5%	21	1.0%
Disregard Other Road Markings	Human	33	0.4%	13	0.6%
Wrong Side/Wrong Way	Human	30	0.4%	14	0.6%
Defective Steering	Vehicle	25	0.3%	1	0.0%
Defective Wheels	Vehicle	12	0.1%	0	0.0%
Defective Power Train	Vehicle	8	0.1%	1	0.0%
Passing on Shoulder	Human	6	0.1%	7	0.3%
In Roadway Improperly	Human	0	0.0%	7	0.3%

Only factors cited >5 listed.

Human Factor • **Vehicular Factor** • **Miscellaneous Factor**

The term 'Drivers' refers to a driver of any motor vehicle. Contributing factor data for the 'Other Vehicle Drivers' includes pedestrians and bicyclists. Pedestrians and bicyclists are not included in the 'Teen Driver' data.

Table 12.11: Contributing Factors in Senior-Involved Crashes

		Attributed to Senior Drivers		Attributed to Other Vehicle	
Contributing Factors	**Type**	**#**	**%**	**#**	**%**
Failure to Yield Right-of-Way	Human	1,260	24.6%	687	19.0%
Other Human Factor	Human	615	12.0%	394	10.9%
Failed to Keep in Proper Lane	Human	396	7.7%	181	5.0%
Improper Turn/Merge	Human	359	7.0%	166	4.6%
Following Too Closely	Human	327	6.4%	531	14.7%
Careless, Negligent, or Erratic Driving	Human	265	5.2%	253	7.0%
Driver Distracted	Human	255	5.0%	309	8.5%
Ran Off Road	Human	225	4.4%	22	0.6%
Ran Red Light	Human	183	3.6%	156	4.3%
Vision Obscured	Vehicle	168	3.3%	100	2.8%
Driver Swerved	Human	167	3.3%	111	3.1%
Other Vehicular Factor	Vehicle	148	2.9%	90	2.5%
Disregard Other Traffic Signs	Human	137	2.7%	82	2.3%
Improper Backing	Human	104	2.0%	38	1.1%
Ran Stop Sign	Human	102	2.0%	87	2.4%
Driver Speeding	Human	97	1.9%	106	2.9%
Overcorrecting/Oversteering	Human	93	1.8%	43	1.2%
Defective Brakes	Vehicle	56	1.1%	68	1.9%
Improper Passing	Human	47	0.9%	43	1.2%
Wrong Side/Wrong Way	Human	42	0.8%	22	0.6%
Disregard Other Road Markings	Human	38	0.7%	23	0.6%
Reckless or Aggressive Driving	Human	12	0.2%	38	1.1%
Passing on Shoulder	Human	6	0.1%	11	0.3%
Defective Steering	Vehicle	5	0.1%	5	0.1%
Truck Coupling/Trailer Hitch/Safety Chains	Vehicle	5	0.1%	1	0.0%
Defective Suspension	Vehicle	4	0.1%	2	0.1%
Defective Wheels	Vehicle	3	0.1%	4	0.1%
Dart/Dash	Human	0	0.0%	11	0.3%
In Roadway Improperly	Human	0	0.0%	11	0.3%
Not Visible	Human	0	0.0%	7	0.2%

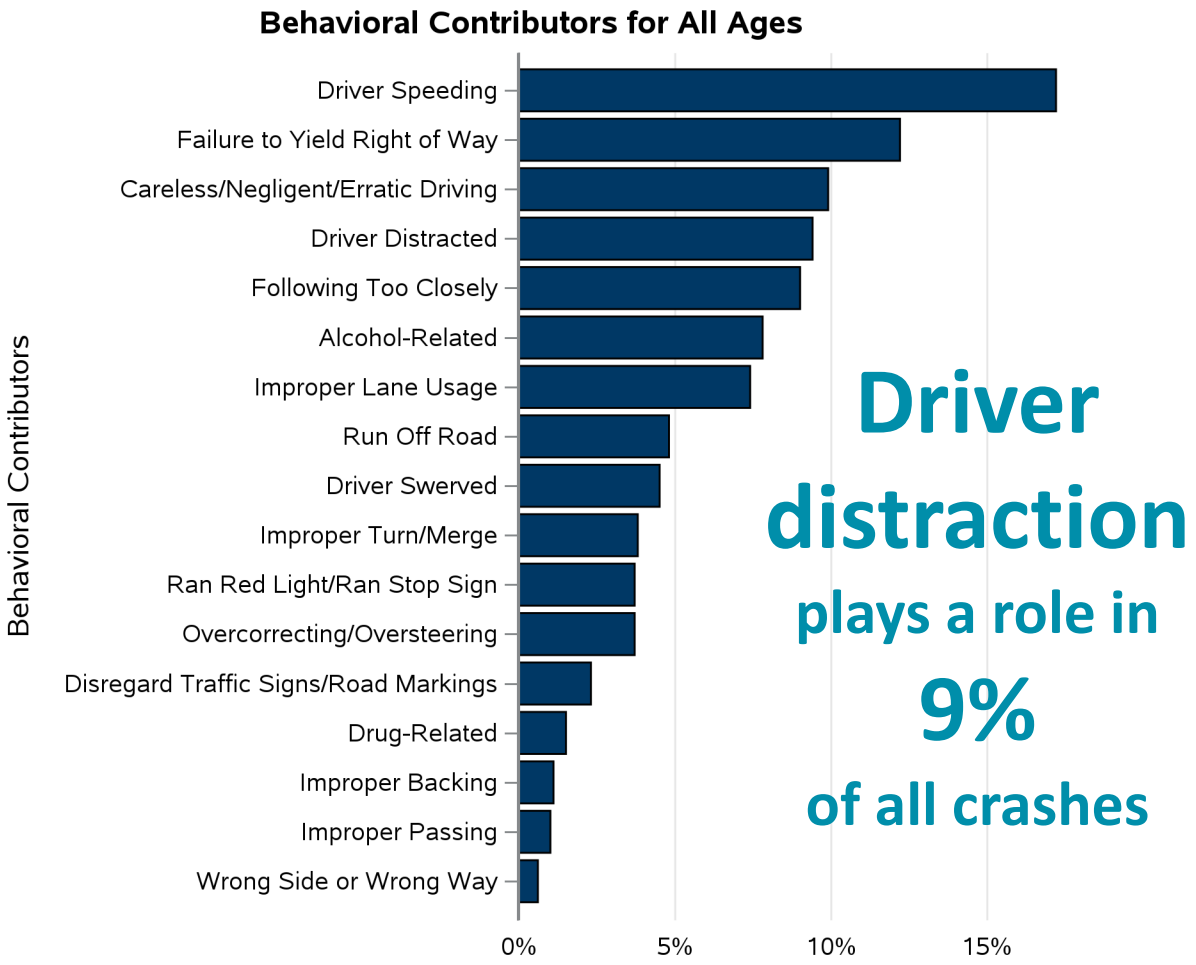
Only factors cited >5 listed.

Human Factor • Vehicular Factor • Miscellaneous Factor

The term 'Drivers' refers to a driver of any motor vehicle. Contributing factor data for the 'Other Vehicle Drivers' includes pedestrians and bicyclists. Pedestrians and bicyclists are not included in the 'Senior Driver' data.

Figure 12.01: Driver Behaviors by Age Groups

The graphs on the following pages combine data from the behavioral elements in the crash report with the human factors data from the contributing factor section of the crash report. The graphs examine which behaviors drivers exhibit most by different age groups. This provides a complete picture of what drivers are doing that is resulting in crashes on Minnesota roads.



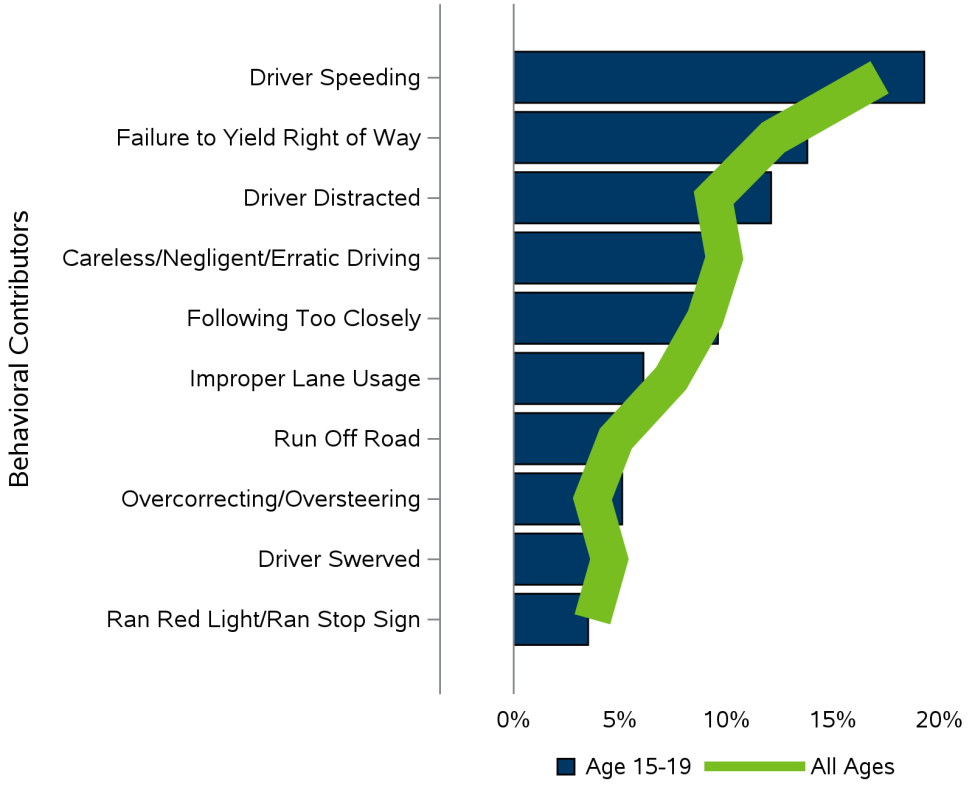
Driver speeding

is the most frequent behavior contributing to a crash

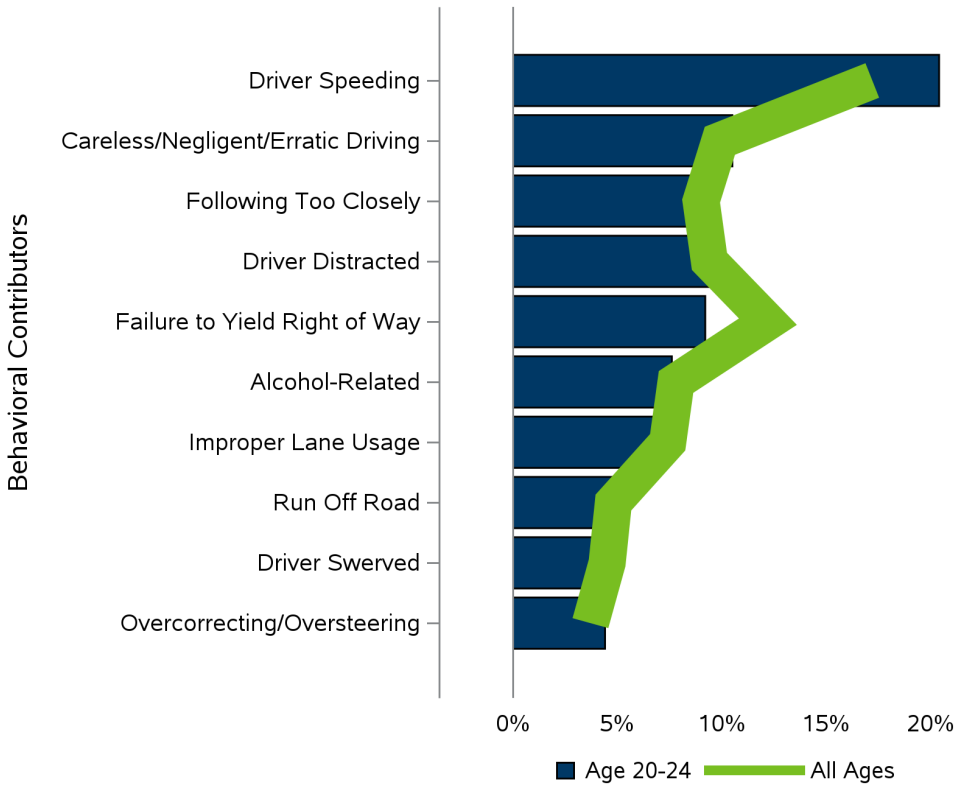
9%

related to alcohol or drug use

Top 10 Behavioral Contributors for Age 15-19



Top 10 Behavioral Contributors for Age 20-24



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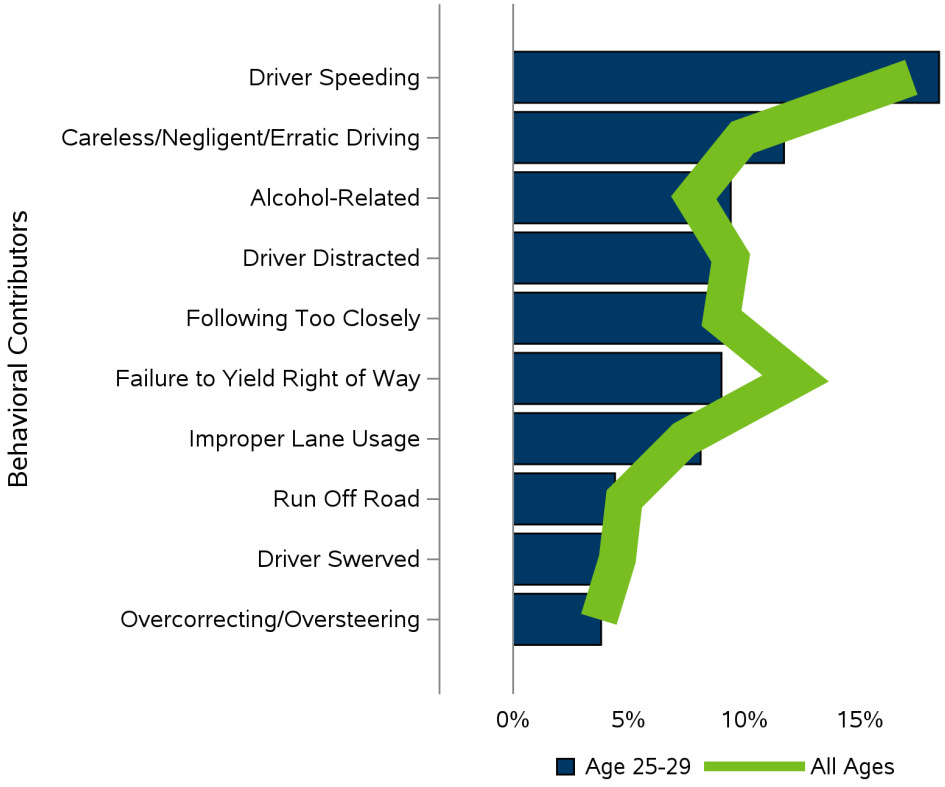
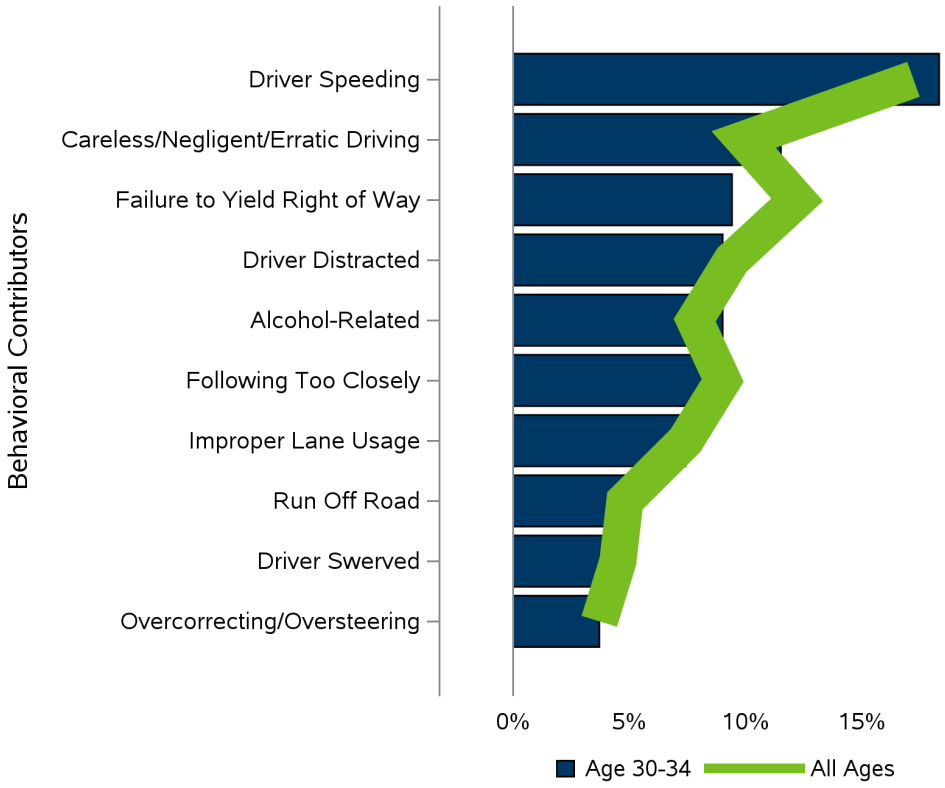


Top 10 Behavioral Contributors for Age 30-34



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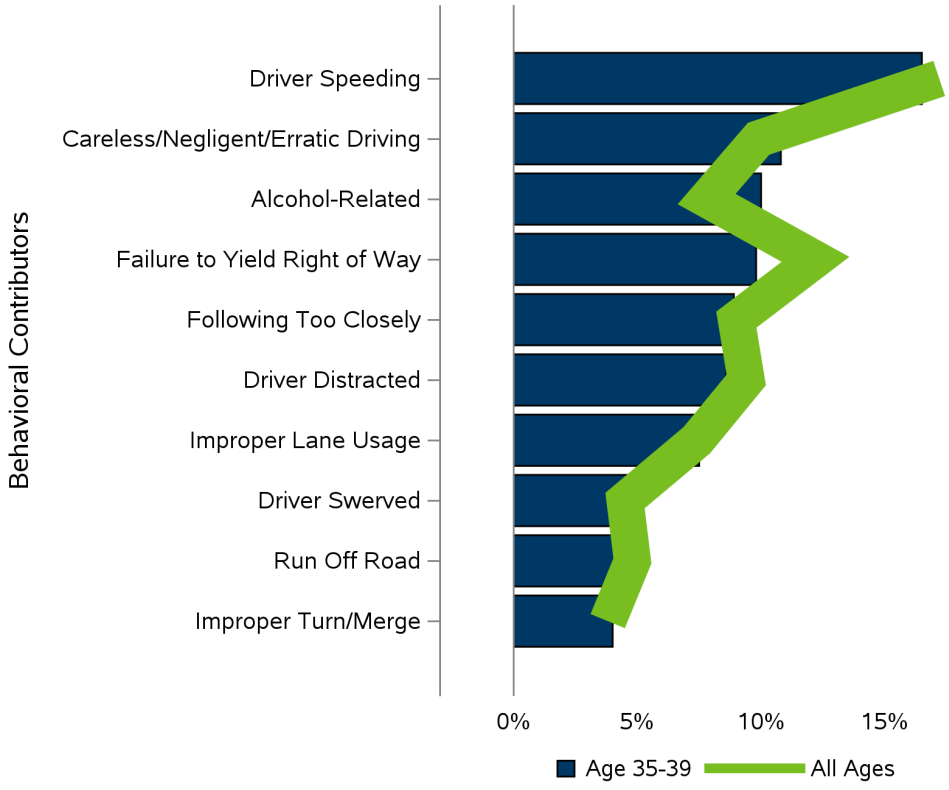

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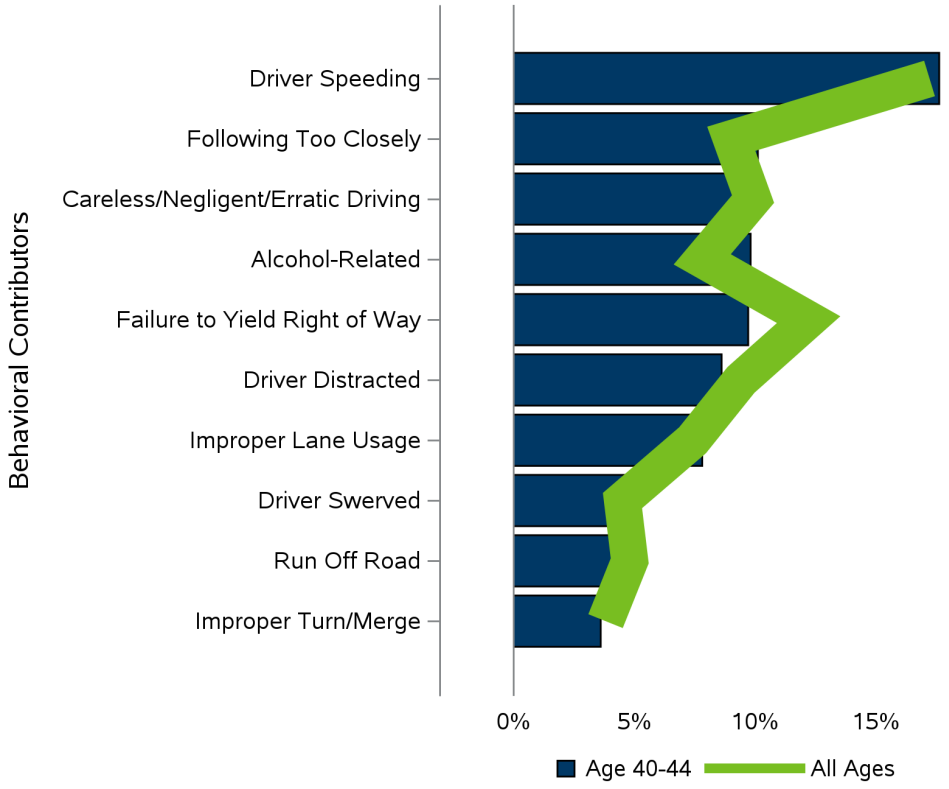

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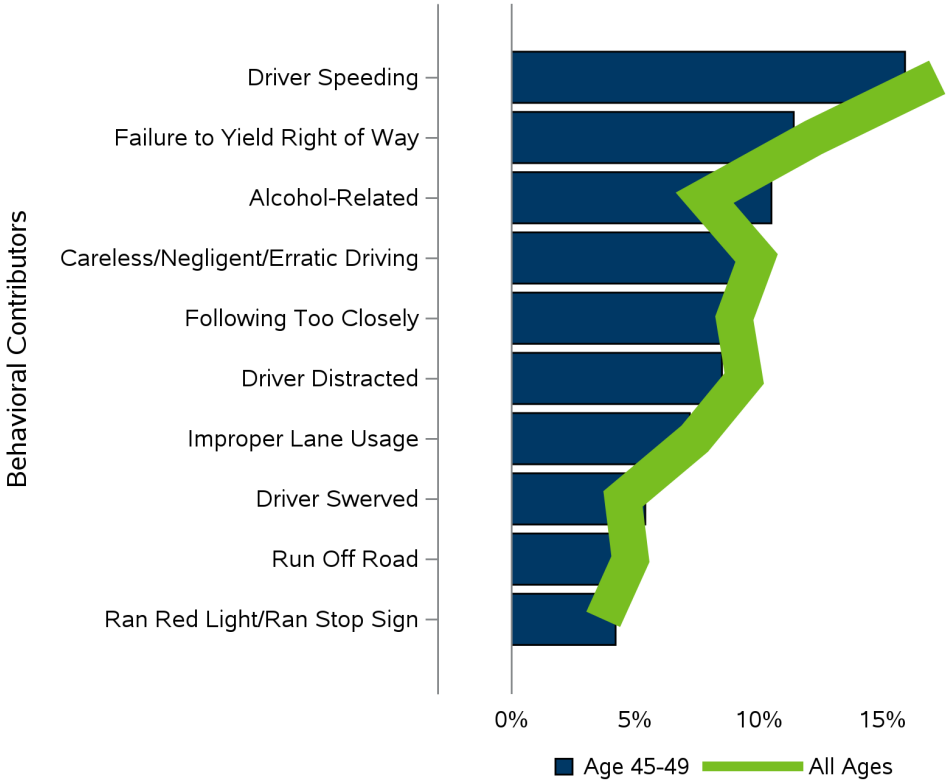
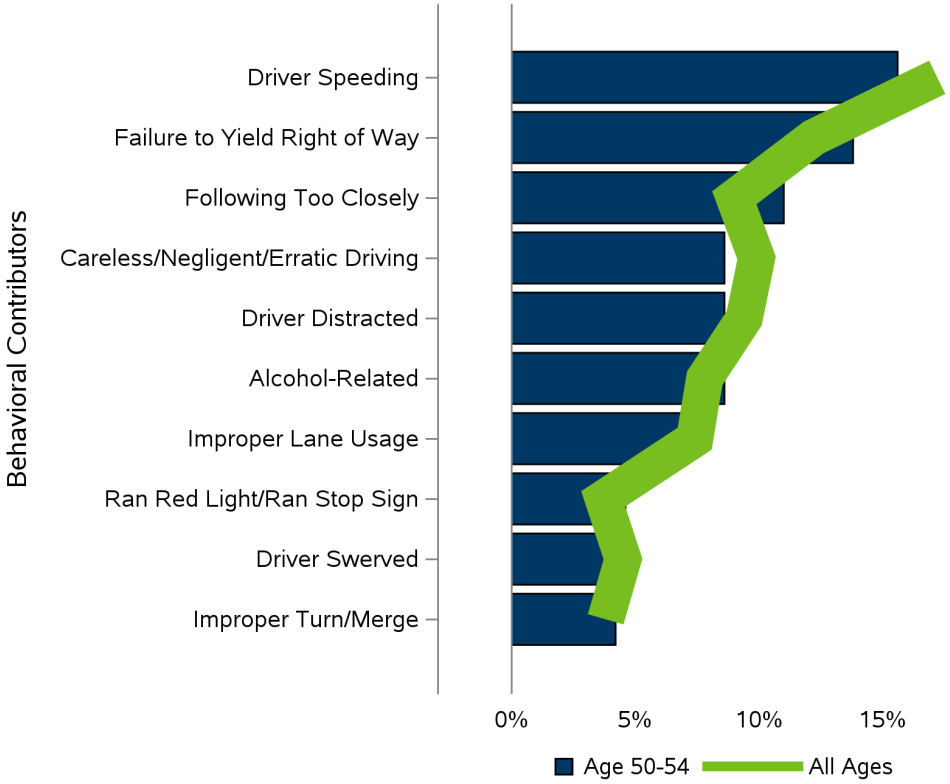
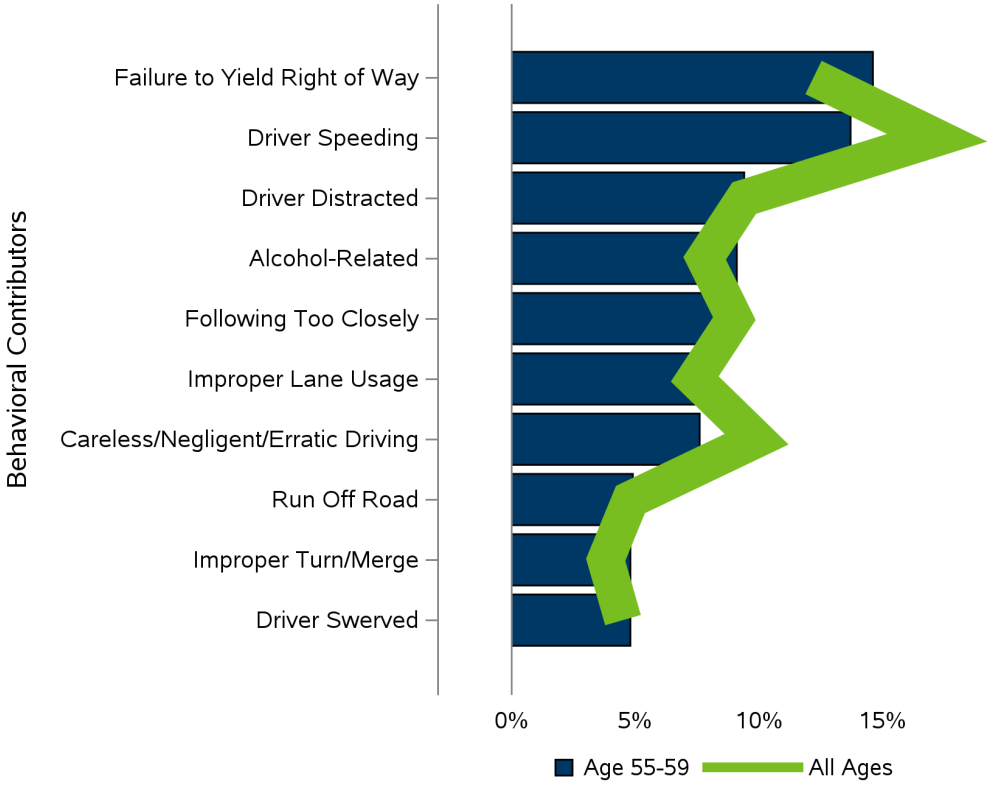


Top 10 Behavioral Contributors for Age 50-54



Top 10 Behavioral Contributors for Age 55-59



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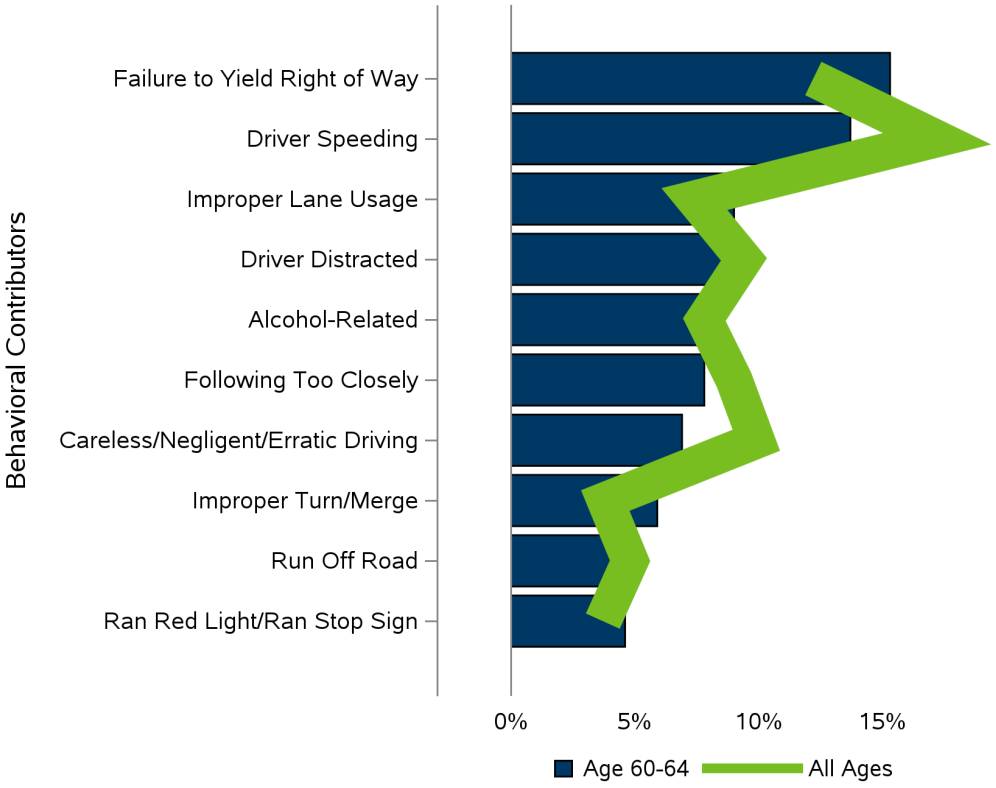
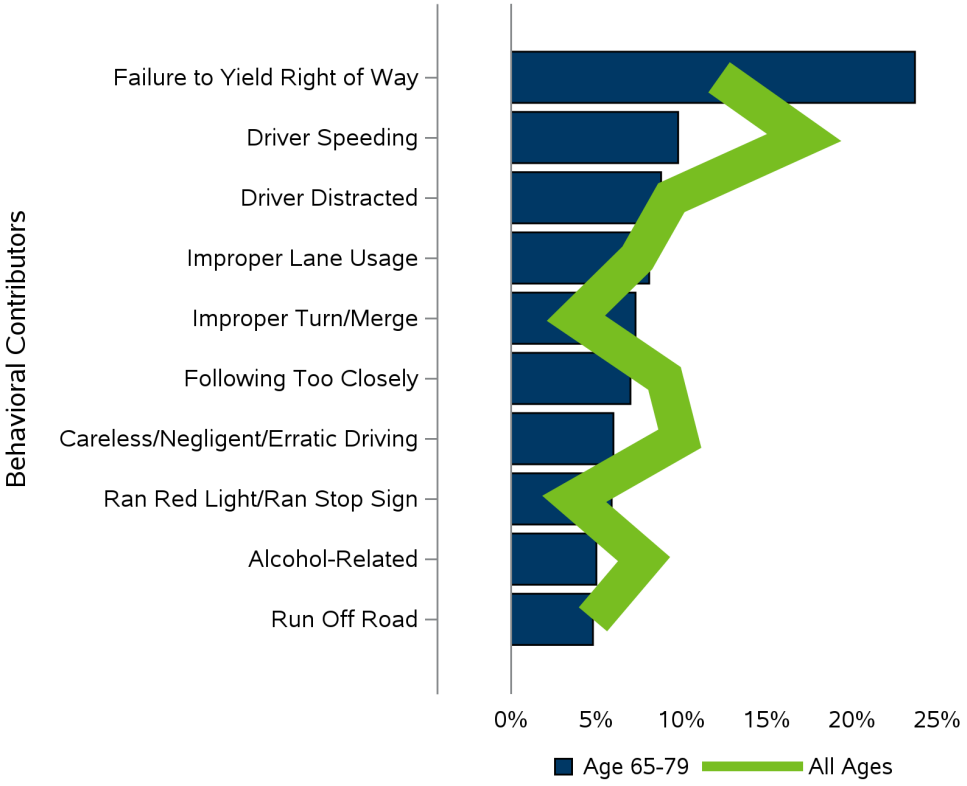
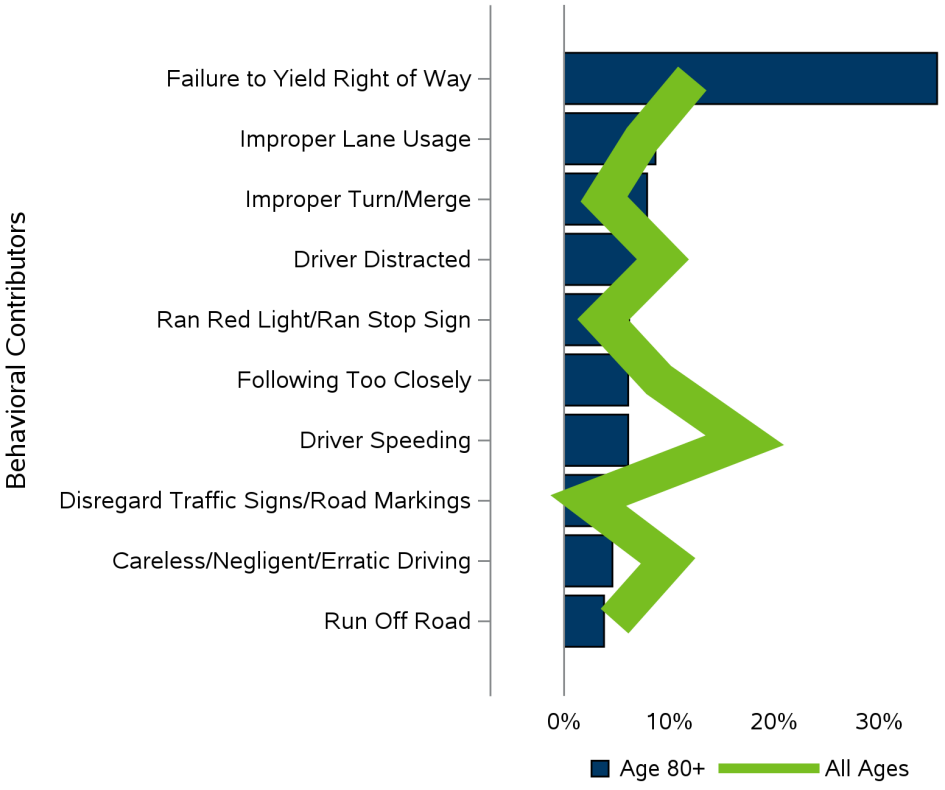


Top 10 Behavioral Contributors for Age 65-79



Top 10 Behavioral Contributors for Age 80+



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

DPS - Department of Public Safety

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.

Drunk Driving – Considered drunk driving when a motor vehicle driver tests above .08% level or above.

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

MC or MCY – Motorcycle

Metro - The Twin Cities metropolitan area of the state.

Minor Injury - Injury not incapacitating 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

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., a 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.

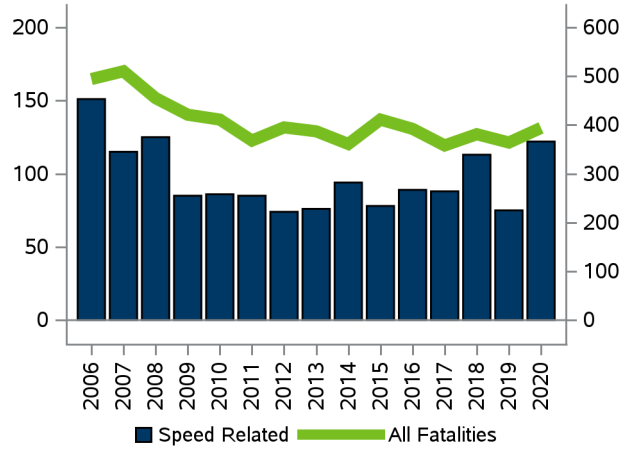
Urban - An area having a population of 5,000 or more.

Big 4 Trends

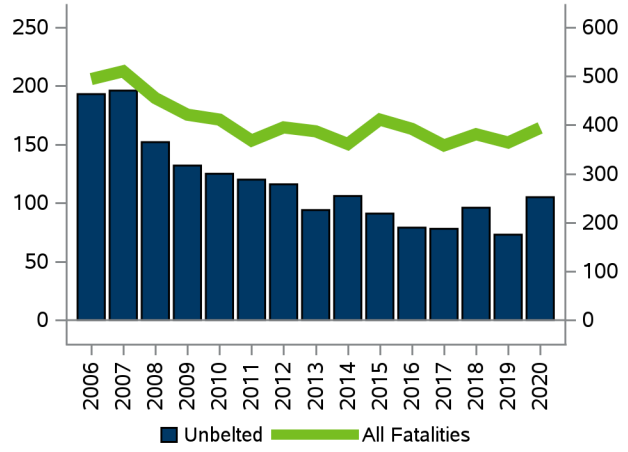
Speed, belts, booze, distraction

Known as 'The Big 4', these behaviors are frequently cited factors in fatal traffic crashes. Traffic safety professionals have long understood the inherent risks of these dangerous driving behaviors, and have therefore emphasized the importance of implementing countermeasure strategies that help reduce their prevalence. Over the past 15 years, Minnesota has made strides in reducing crashes attributable to these 'Big 4' behaviors, but they are still major contributors to traffic fatalities and injuries.

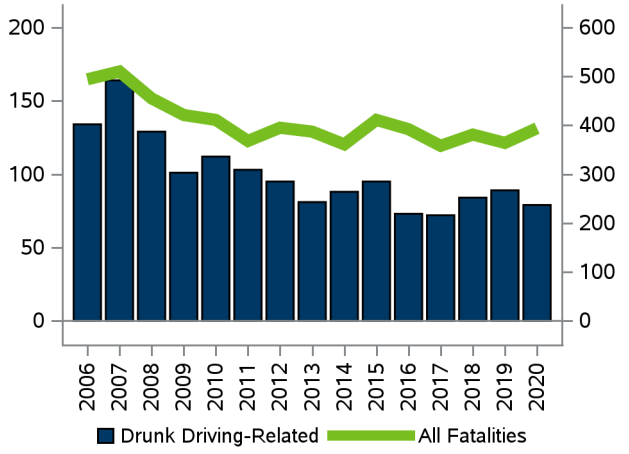
Speed-Related Fatality Trends



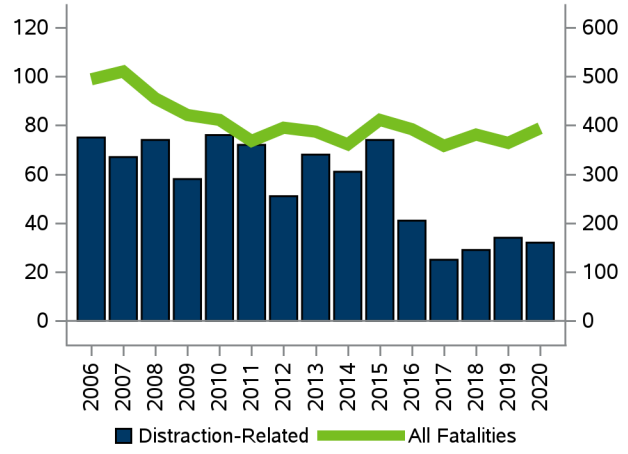
Unbelted Fatality Trends



Drunk Driving-Related Fatality Trends



Distraction-Related Fatality Trends



Impaired Driving Facts

Summary

Alcohol and drug impairment is one of the most dangerous driving behaviors seen on our roads. Chapter 2 of this report examined alcohol-related crashes. While impaired driving may result in a traffic crash, the majority of impaired driving incidents (frequently called "DWIs") do not result in traffic crashes. The next several pages will look into key factors pertaining to impaired driving in Minnesota.

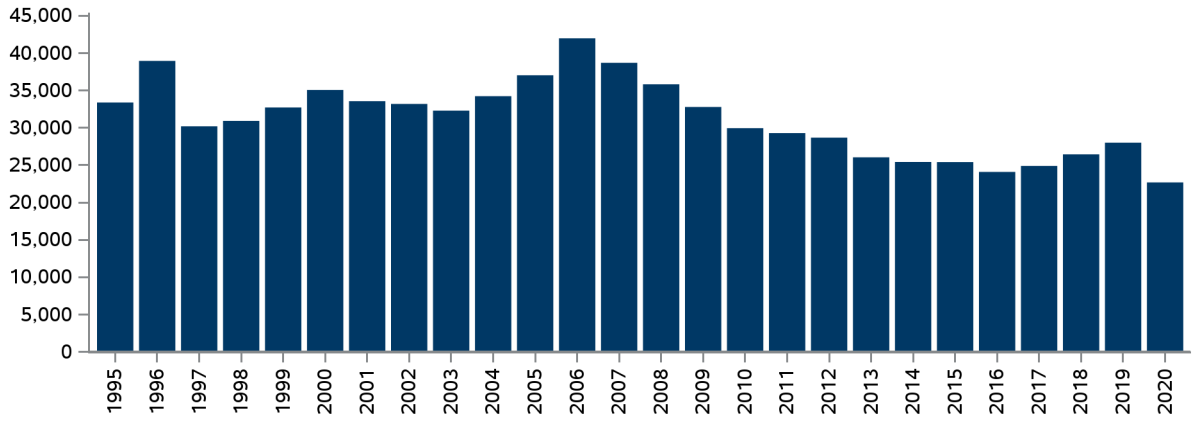
An Historical Look

The graph below displays DWIs on record showing yearly counts are trending downwards. For example: 2000 had 35,034 DWI arrests, 2010 had 29,918 DWI arrests, and 2020 had 22,653 DWI arrests.

Coinciding with the reductions in DWI counts, there has been a decrease in public acceptance for drinking and driving. Stiffer legal penalties exist now for drivers facing impaired driving charges. The introduction of rideshare services, such as Uber and Lyft and community programs like JOYRIDE, which have been implemented across the state, provide options for impaired drivers that did not exist decades ago. Yet, with all the available options and potential consequences, some drivers still opt to drive impaired and the state sees an average of:

62 DWIs per day

IDF Figure 1: DWIs on Record



IDF Table 1: Impaired Driving Overview

	Arrests & Incidents			Tests			CVO		Related Incidents		
Year	DWI Arrests	IC Violations	Convictions	Taken	Refused	Taken & Refused	Fatalities	Injuries	Drugs	Not A Drop	Commercial
2000	35,013	34,082	34,196	30,323	1,715	2,158	39	246	321	11	32
2001	33,541	32,739	32,820	29,181	1,199	2,440	26	218	380	10	37
2002	33,159	32,279	32,410	28,822	1,108	2,480	39	282	383	10	24
2003	32,352	31,457	31,620	28,032	1,661	1,927	38	314	518	7	40
2004	34,351	33,348	33,499	29,953	1,625	1,921	22	278	669	6	22
2005	37,073	35,960	36,137	32,437	1,857	1,843	34	293	809	9	40
2006	42,000	40,719	40,884	37,158	1,304	2,422	24	296	682	9	40
2007	38,760	37,578	37,736	34,414	990	2,332	40	261	637	9	38
2008	35,864	34,687	34,800	31,434	1,737	1,629	34	233	614	6	65
2009	32,994	31,813	31,949	28,629	1,680	1,640	36	264	776	7	192
2010	30,084	28,998	29,134	25,723	1,527	1,884	39	253	870	6	297
2011	29,479	28,325	28,465	25,054	1,509	1,902	29	241	948	12	818
2012	28,649	27,491	27,615	24,048	1,501	2,066	21	228	1,043	6	777
2013	26,014	24,895	25,046	21,355	1,430	2,261	35	196	1,172	5	592
2014	25,392	24,349	24,484	20,757	1,457	2,270	18	201	1,373	8	472
2015	25,374	24,342	24,470	20,678	1,603	2,189	15	177	1,694	10	475
2016	24,059	23,244	23,404	19,883	1,451	2,070	16	187	1,541	5	432
2017	24,862	24,243	24,366	20,934	1,661	1,771	24	178	2,249	3	435
2018	26,414	22,849	22,939	19,721	1,671	1,547	8	191	2,656	15	357
2019	27,975	24,981	25,064	21,426	2,160	1,478	13	171	3,142	8	284
2020	22,653	19,784	19,867	16,932	2,066	869	5	87	3,524	8	230

DWI Arrests - Prior to 2017, DVS impaired driving incidents are listed. Since 2018, DWI arrests from eCharging are listed.

IC Violations - Implied Consent Violations includes incidents where individuals either took or failed tests for alcohol or controlled substances, or refused to take the test.

Convictions – As judicial outcomes are decided these numbers change. The State expects to see approximately 85% of driving while impaired cases resulting in criminal convictions.

Tests – Incidents may involve scenarios of taking tests, refusing to take tests, or refusing and taking tests for controlled substances.

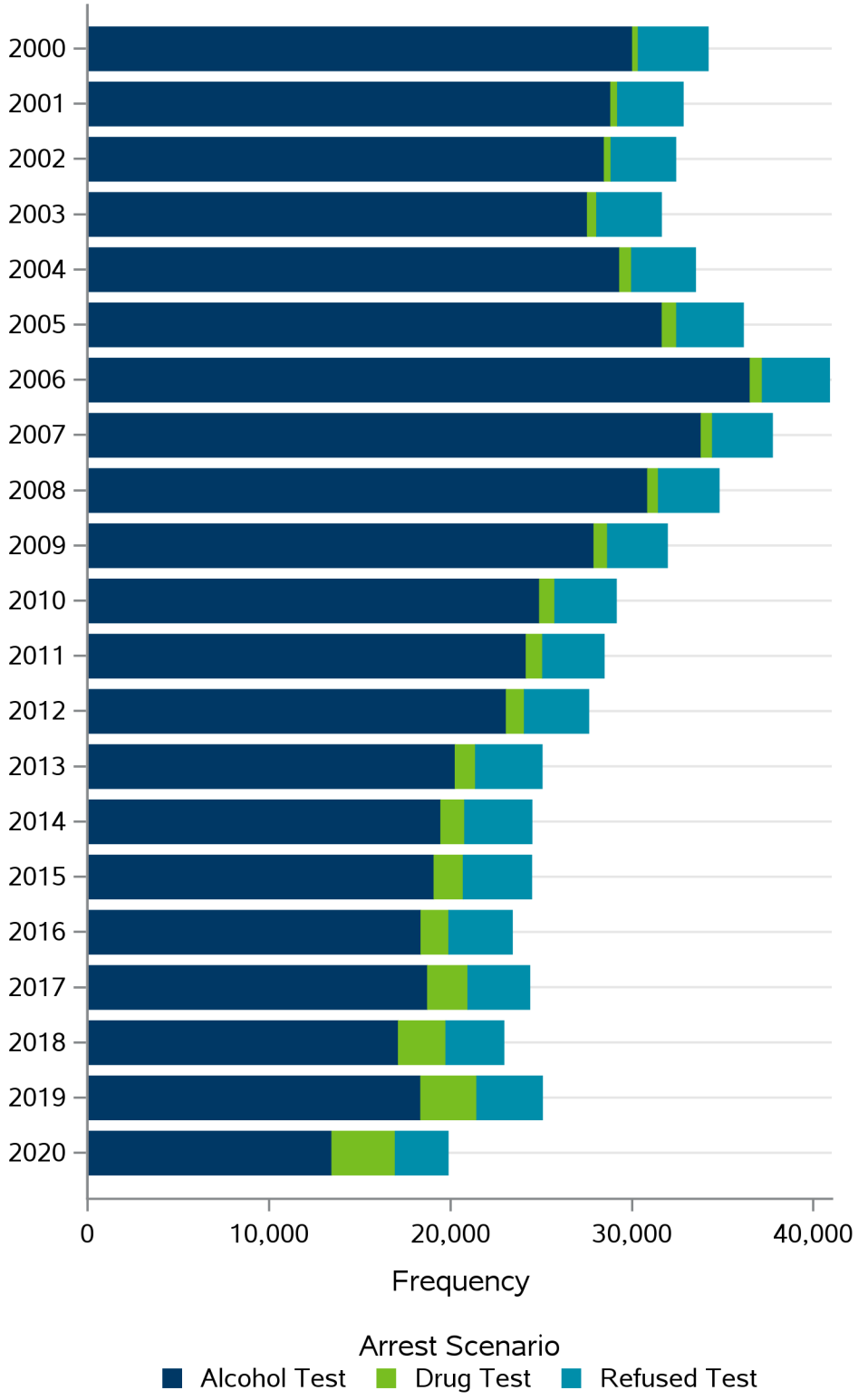
CVO – Criminal Vehicular Operation of a motor vehicle may result in fatalities or injuries. Those counts are detailed in the fatalities and injuries columns.

Drugs – Counts of implied consent violations or criminal convictions, or both, for driving while impaired by a controlled substance ("drugs").

Not A Drop – The 'not a drop" law took effect June 1, 1993 and made it illegal for persons under age 21 to drive while having any amount of alcohol whatsoever (as opposed to being over the per-se illegal level of alcohol). Not a Drop violations are not included in impaired driving counts in other parts of this report.

Commercial – Commercial vehicle drivers found to have an alcohol concentration of 0.04% or higher, but less than the per se illegal level, are disqualified from operating a commercial vehicle. These commercial incidents are not included with the impaired driving counts.

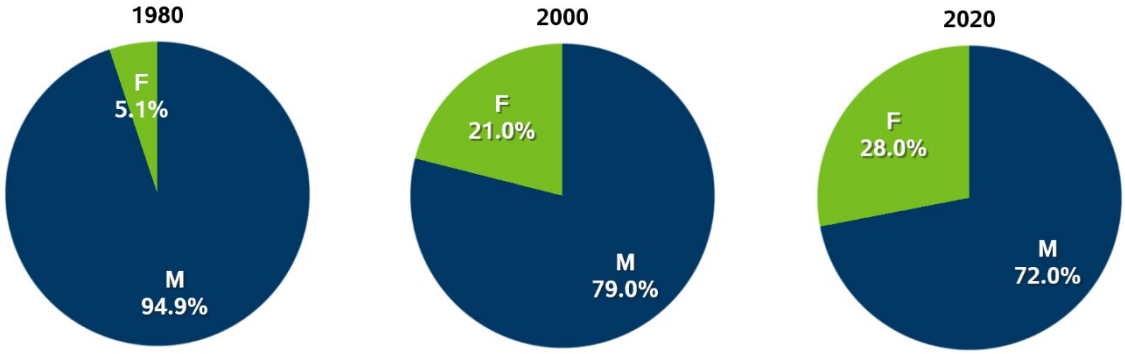
IDF Figure 2: Impaired Driving Incidents Under Three Arrest Scenarios



Who are impaired driving violators?

As current law dictates, an impaired driving incident stays on a driver's record permanently. Driver's license records provide limited demographic data on impaired drivers, but a strong relationship exists between impaired driving with gender and age.

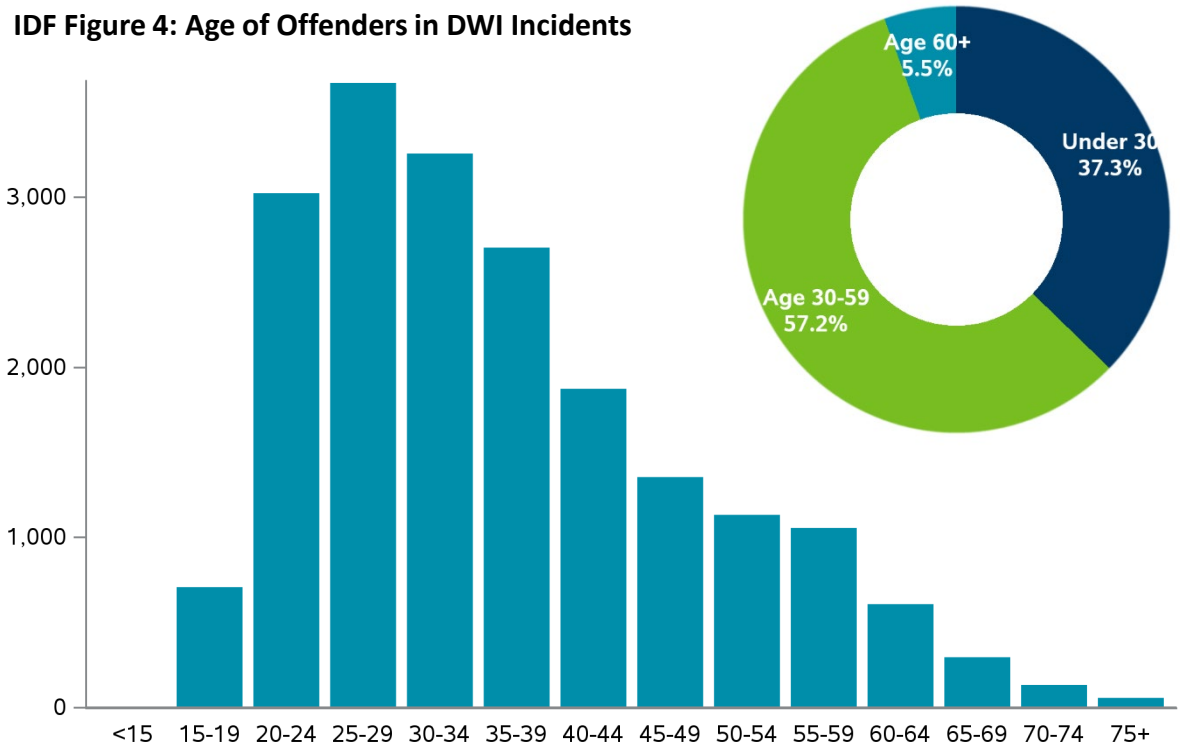
IDF Figure 3: Gender in Impaired Driving Incidents



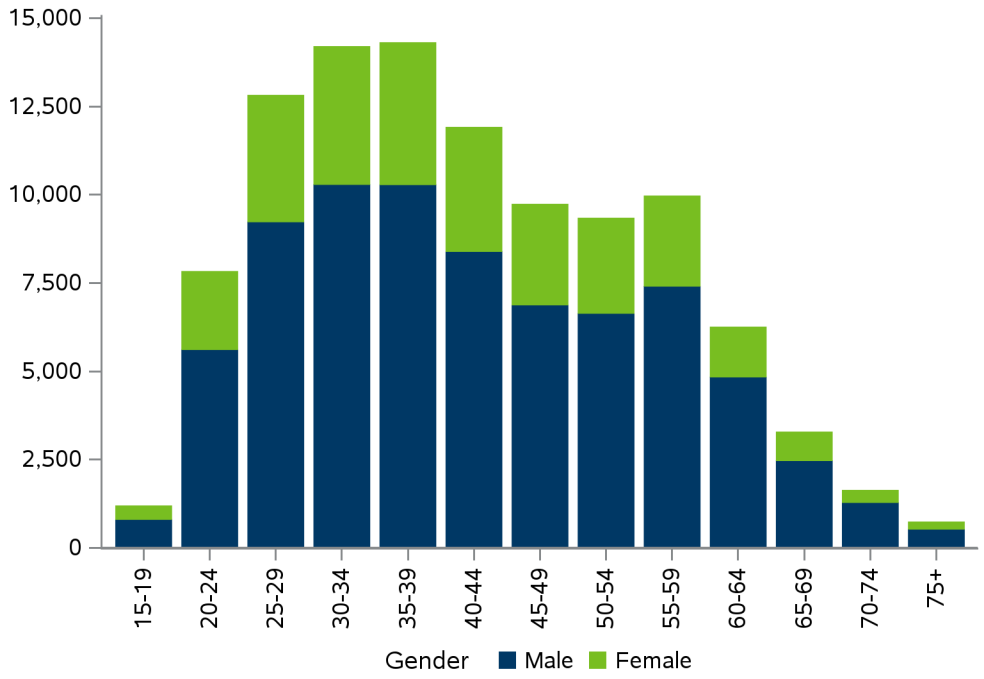
Female DWIs increasing, but predominately a male issue

70% + Male

IDF Figure 4: Age of Offenders in DWI Incidents



IDF Figure 5: Gender and Age Group in DWI Incidents



IDF Table 2: Under Age 21 Impaired Driving

	DWI Incidents								Not A Drop Violations							
Year	<15	15	16	17	18	19	20	Total	<15	15	16	17	18	19	20	Total
2016	0%	0%	3%	7%	19%	33%	38%	1,209	0%	1%	4%	10%	23%	33%	29%	431
2017	0%	0%	3%	7%	21%	31%	38%	1,234	0%	1%	6%	12%	24%	30%	27%	435
2018	0%	0%	3%	8%	20%	29%	40%	1,147	1%	2%	6%	12%	17%	33%	28%	356
2019	1%	0%	2%	9%	19%	28%	40%	1,131	0%	1%	2%	14%	18%	29%	36%	283
2020	0%	0%	3%	9%	22%	29%	36%	1,115	0%	2%	8%	16%	24%	27%	23%	230

DWI average BAC is 0.139 for <21

NAD average BAC is 0.058 for <21

Recidivism and impaired driving

A perception exists that impaired driving is a problem caused by a small subset of the population who are chemically dependent individuals that drink and drive all the time. While recidivism is an key component in the impaired driving discussion, the majority of impaired driving violators are first time offenders and a small numbers of offenders have many incidents on record.

58%

first time DWI offenders

623,474

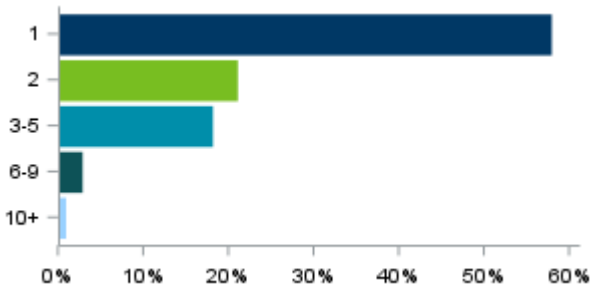
Minnesotans have an impaired driving incident on their driving record

Average BAC for DWI offenders is

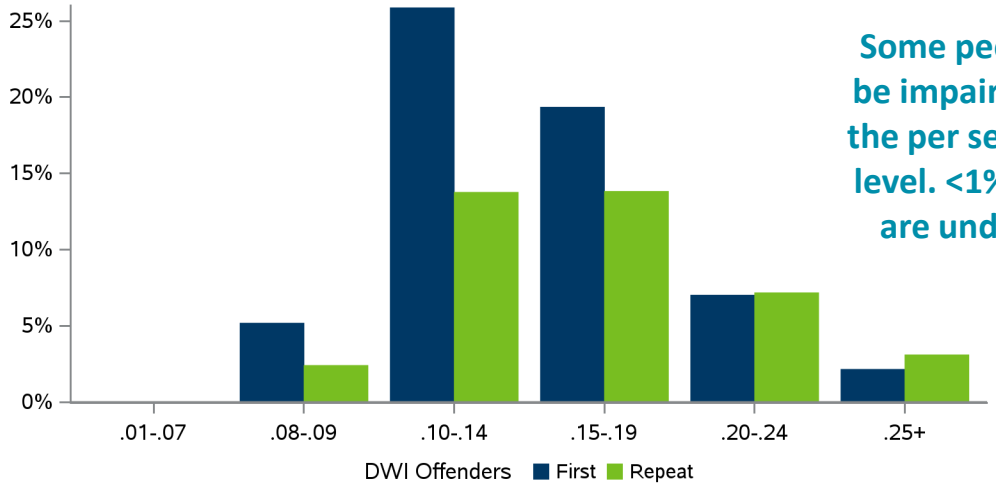
0.155

nearly twice the 0.08 legal limit

IDF Figure 6: Percentage of Impaired Driving Offenders By Number of Incidents



IDF Figure 7: BAC Among First Time Offenders and Repeat Offenders



Some people may be impaired below the per se 0.08 BAC level. <1% of DWIs are under 0.08.

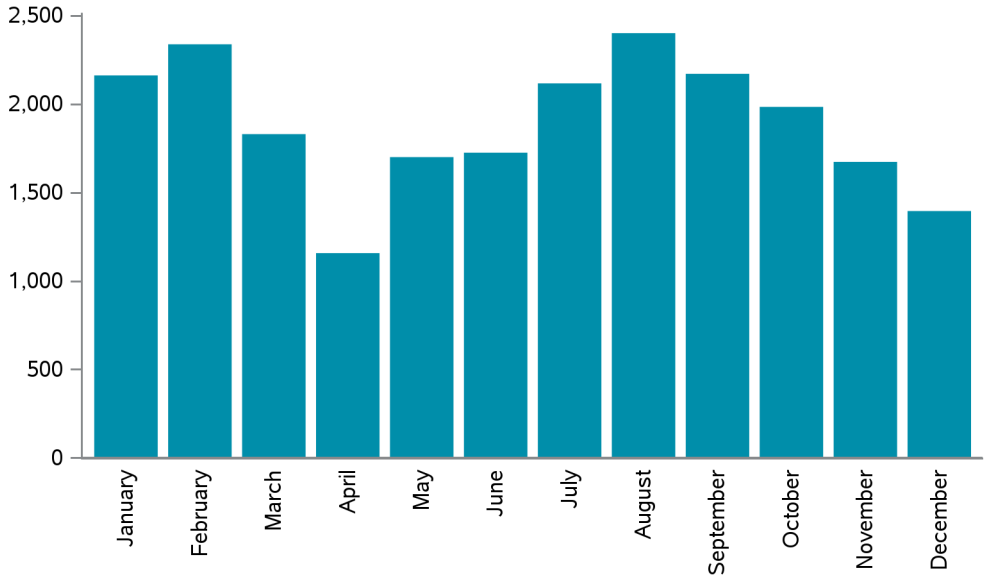
IDF Table 3: Minnesota Residents With Impaired Driving Incidents on Record, By Total Number on Record and Age

Total Incidents on Record	Age 00-19	Age 20-29	Age 30-39	Age 40-49	Age 50-59	Age 60-69	Age 70-79	Age 80+	Total
1	776	30,830	79,523	79,518	77,909	54,412	22,537	14,496	360,001
2	10	4,339	24,330	29,083	34,228	24,264	9,010	4,992	130,256
3	35	2,806	10,999	14,296	18,819	14,110	5,213	2,792	69,070
4	0	378	2,207	4,333	8,224	7,300	2,636	1,370	26,448
5	5	509	1,928	2,736	4,887	4,242	1,538	691	16,536
6	0	88	535	896	2,071	2,074	748	375	6,787
7	0	88	552	836	1,566	1,422	525	241	5,230
8	0	36	166	289	774	835	337	150	2,587
9	0	14	135	283	693	606	198	103	2,032
10	0	5	62	130	325	421	149	70	1,162
11	0	2	28	88	345	353	97	44	957
12	0	2	19	41	193	212	78	41	586
13	0	0	4	39	157	188	65	29	482
14	0	0	3	15	110	112	41	25	306
15	0	0	1	15	97	84	36	21	254
16	0	0	0	11	62	74	17	12	176
17	0	0	0	12	35	52	17	9	125
18	0	0	1	3	30	42	14	5	95
19	0	0	0	6	36	31	15	3	91
20	0	0	0	0	27	31	7	7	72
21	0	0	0	1	17	12	9	5	44
22	0	0	0	1	8	11	5	0	25
23	0	0	0	1	6	6	12	2	27
24	0	0	0	0	4	13	8	4	29
25	0	0	0	0	4	6	4	0	14
26	0	0	0	0	5	17	4	1	27
27	0	0	0	0	5	2	3	0	10
28	0	0	0	0	2	8	1	0	11
29	0	0	0	1	2	2	2	0	7
30	0	0	0	0	4	5	2	0	11
31	0	0	0	0	1	2	1	1	5
32	0	0	0	1	0	1	0	0	2
33	0	0	0	0	1	1	0	0	2
34	0	0	0	0	0	1	0	0	1
35	0	0	0	0	0	0	1	0	1
41	0	0	0	0	1	1	0	0	2
43	0	0	0	0	1	0	0	0	1
45	0	0	0	0	1	0	0	0	1
53	0	0	0	0	0	0	0	1	1
Total Persons	**826**	**39,097**	**120,493**	**132,635**	**150,650**	**110,953**	**43,330**	**25,490**	**623,474**

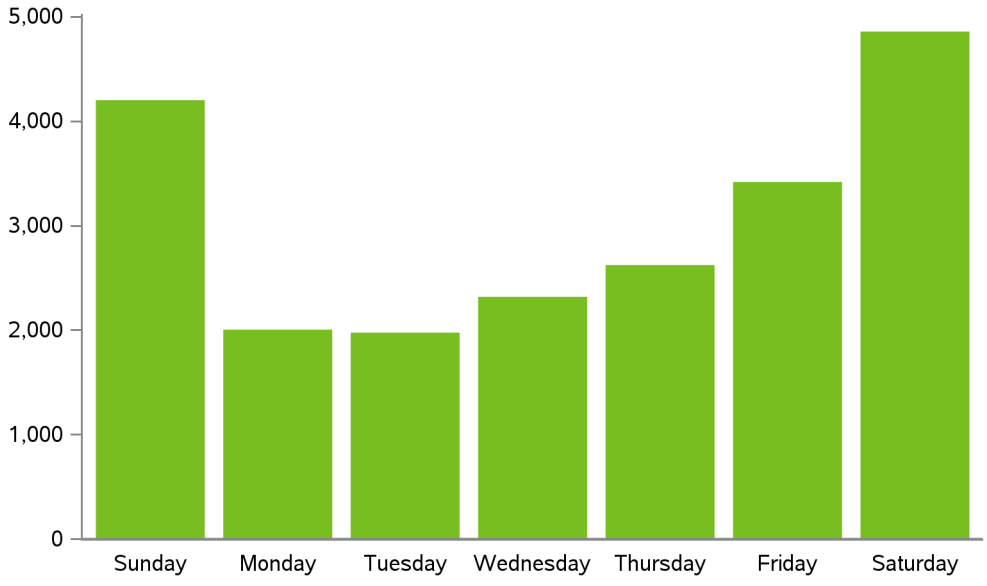
When does impaired driving occur?

For many people alcohol consumption is determined by work and social schedules and the events and activities that fill up their calendar. As a result, alcohol consumption increases at specific times of the year, specific days of the week, and specific hours of the day. These patterns are reflected in monthly, daily, and hourly impaired driving arrest data.

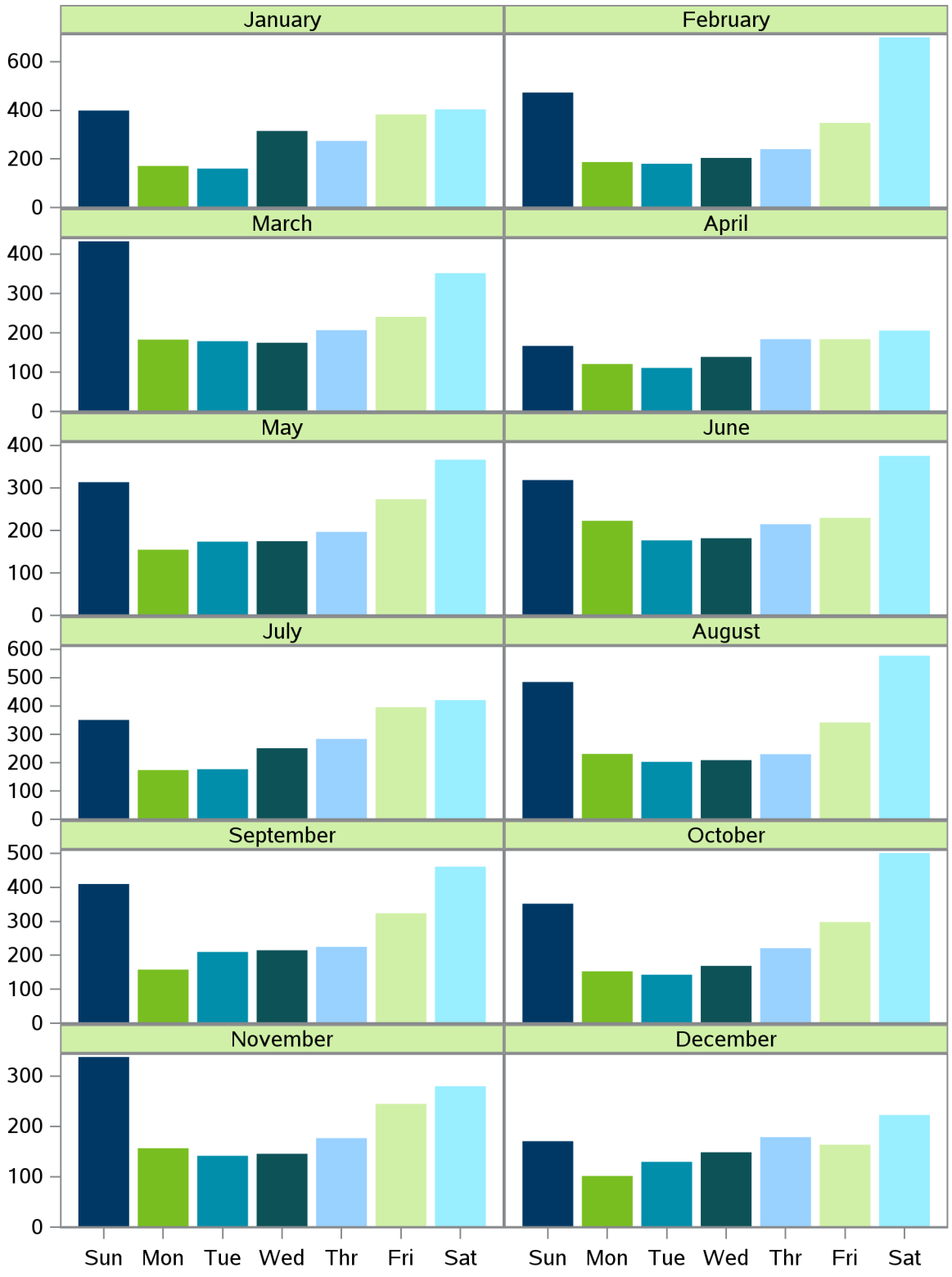
IDF Figure 8: DWI Arrests by Month



IDF Figure 9: DWI Incidents by Day of Week



IDF Figure 10: Impaired Driving Incidents by Month and Day of Week



IDF Table 4: DWI Arrests – Top 10 Days

Date	Weekday	DWI Arrests
2/29/2020	Saturday	146
2/8/2020	Saturday	143
3/14/2020	Saturday	141
2/1/2020	Saturday	139
1/25/2020	Saturday	137
9/5/2020	Saturday	136
1/1/2020	Wednesday	135
8/15/2020	Saturday	135
8/29/2020	Saturday	134
2/23/2020	Sunday	133
3/1/2020	Sunday	133

IDF Table 5: DWI Incidents – Holidays

Holiday	DWI Incidents	DWIs Per Hour
New Year's	218	1.82
Super Bowl	158	3.29
Valentine's Day	193	4.02
St. Patrick's Day	78	1.63
Cinco de Mayo	99	1.38
Memorial Day	302	2.52
July 4th	362	3.02
Labor Day	393	3.28
Halloween	318	3.31
Thanksgiving	251	1.74
Christmas	141	1.18

Weekend days

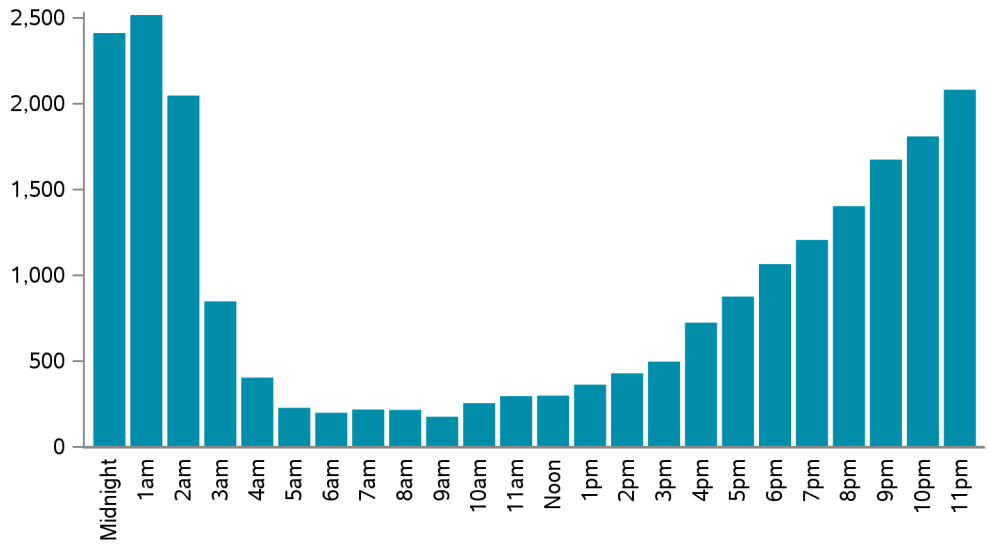
have the most DWI arrests

Usually July 4th or Halloween have highest DWIs per hour, but in 2020,

Valentine's Day

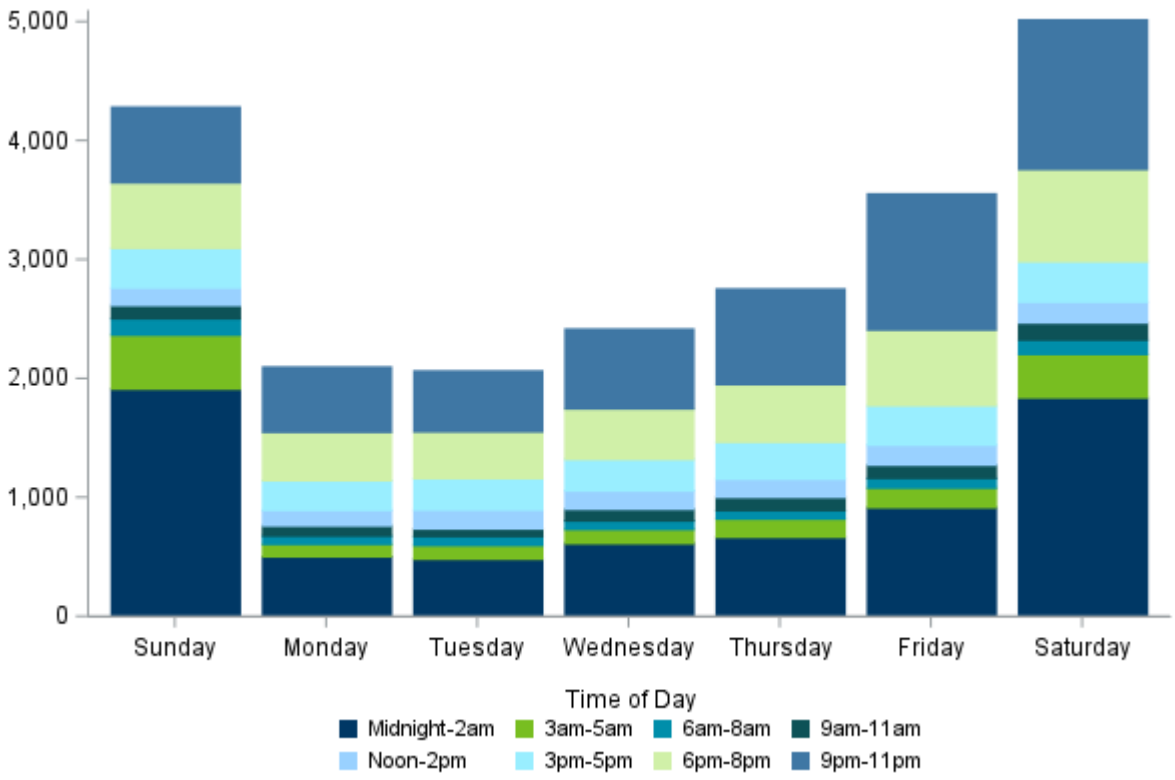
was highest

IDF Figure 11: DWI Arrests By Hour of Day



Source: eCharging

IDF Figure 12: DWI Arrests By Day of Week and Time of Day

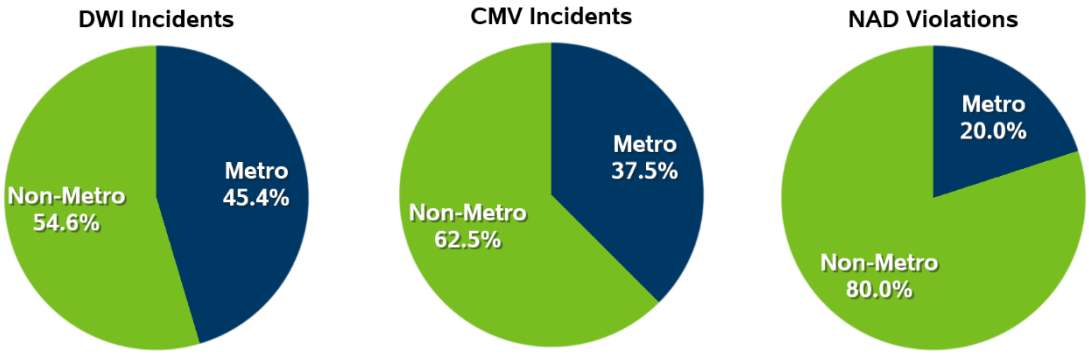


IDF Table 6: Monthly DWI Arrests By Time of Day

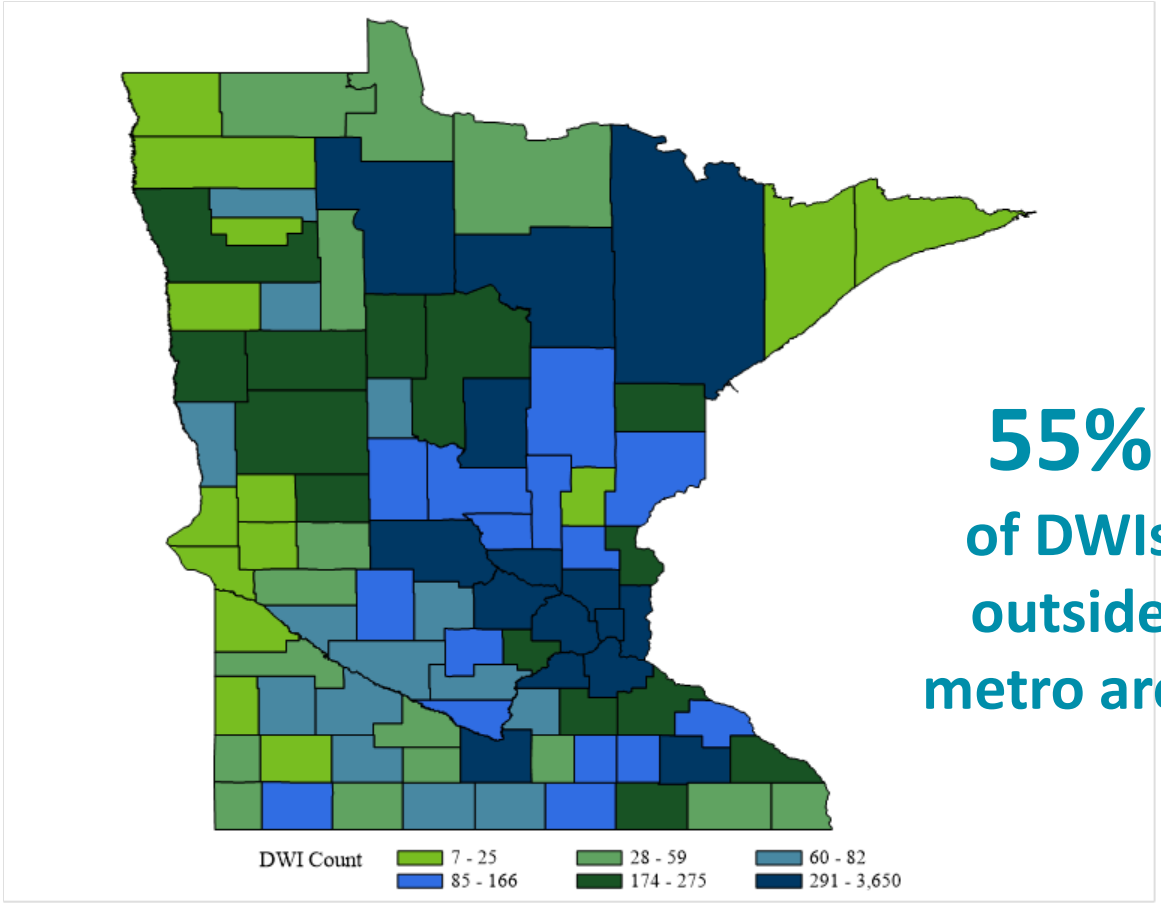
		Percentage Per Month							
Month	DWI Arrests	12am-2am	3am-5am	6am-8am	9am-11am	12pm-2pm	3pm-5pm	6pm-8pm	9pm-11pm
January	2,133	37.2%	6.9%	2.2%	3.7%	3.4%	8.4%	15.0%	23.2%
February	2,312	40.0%	6.1%	1.8%	1.9%	3.8%	7.4%	15.3%	23.7%
March	1,791	35.0%	6.8%	3.0%	3.6%	4.5%	9.3%	14.4%	23.5%
April	1,116	19.9%	6.9%	3.5%	4.5%	8.0%	12.5%	20.0%	24.8%
May	1,662	21.8%	6.5%	4.7%	4.3%	6.6%	11.3%	19.3%	25.5%
June	1,711	29.0%	6.8%	3.0%	3.3%	5.1%	10.6%	17.3%	24.7%
July	2,095	31.4%	6.3%	2.9%	2.7%	3.9%	9.8%	16.4%	26.5%
August	2,347	32.6%	7.4%	3.2%	2.9%	5.0%	8.3%	16.2%	24.4%
September	2,129	32.6%	5.6%	2.3%	2.4%	3.9%	9.3%	17.2%	26.7%
October	1,948	32.9%	7.4%	2.8%	2.6%	4.6%	8.4%	14.4%	27.0%
November	1,625	29.5%	6.3%	2.1%	4.4%	5.8%	9.9%	17.5%	24.5%
December	1,347	22.9%	7.1%	3.4%	4.3%	7.1%	10.8%	18.2%	26.2%

Where does impaired driving occur?

While over half of the state's population resides in the seven county metro area and the majority of traffic crash occur there, the majority of impaired driving incidents happen outside of the metro area. See IDF Figure 13 below. Impaired driving incidents involving commercial vehicles (0.04% or higher BAC) and 'Not A Drop' violations (for those under age 21) occur mostly outside of the metro area.



IDF Figure 14: DWI Incidents Plotted By County



IDF Table 7: Impaired Driving By County of Incident

County	2016	2017	2018	2019	2020	Last 5 Years	Avg	Rank
Aitkin	130	156	169	139	128	722	144	35 of 87
Anoka	1,241	1,294	1,385	1,374	1,092	6,386	1,277	4 of 87
Becker	231	235	257	250	196	1,169	234	24 of 87
Beltrami	308	384	443	560	669	2,364	473	11 of 87
Benton	150	153	173	169	164	809	162	31 of 87
Big Stone	17	21	17	23	28	106	21	82 of 87
Blue Earth	402	383	479	479	372	2,115	423	12 of 87
Brown	87	80	65	60	60	352	70	58 of 87
Carlton	144	155	147	188	216	850	170	29 of 87
Carver	272	299	255	236	240	1,302	260	20 of 87
Cass	186	202	195	238	186	1,007	201	26 of 87
Chippewa	43	59	64	57	63	286	57	64 of 87
Chisago	247	239	245	251	218	1,200	240	22 of 87
Clay	447	407	433	365	220	1,872	374	14 of 87
Clearwater	42	56	80	66	45	289	58	63 of 87
Cook	34	27	36	40	19	156	31	78 of 87
Cottonwood	59	55	61	55	65	295	59	62 of 87
Crow Wing	353	394	421	461	327	1,956	391	13 of 87
Dakota	1,381	1,537	1,818	1,792	1,252	7,780	1,556	3 of 87
Dodge	53	77	74	106	97	407	81	51 of 87
Douglas	148	164	184	183	230	909	182	28 of 87
Faribault	53	67	78	73	67	338	68	59 of 87
Fillmore	55	51	50	34	40	230	46	69 of 87
Freeborn	131	143	111	213	164	762	152	32 of 87
Goodhue	233	188	253	253	216	1,143	229	25 of 87
Grant	25	20	19	26	19	109	22	81 of 87
Hennepin	5,658	5,858	6,052	5,838	4,043	27,449	5,490	1 of 87
Houston	90	75	87	99	66	417	83	49 of 87
Hubbard	128	96	116	162	227	729	146	34 of 87
Isanti	142	124	116	105	97	584	117	39 of 87
Itasca	285	278	340	315	291	1,509	302	16 of 87
Jackson	51	36	36	58	56	237	47	68 of 87
Kanabec	52	46	31	34	27	190	38	75 of 87
Kandiyohi	208	192	186	190	138	914	183	27 of 87
Kittson	9	12	13	22	7	63	13	86 of 87

IDF Table 7: Impaired Driving By County of Incident, Continued

County	2016	2017	2018	2019	2020	Last 5 Years	Avg	Rank
Koochiching	76	76	77	73	59	361	72	56 of 87
Lac Qui Parle	12	17	17	38	30	114	23	80 of 87
Lake	50	49	58	61	8	226	45	71 of 87
Lake of the Woods	34	26	28	37	32	157	31	77 of 87
Le Sueur	68	87	73	93	93	414	83	50 of 87
Lincoln	18	13	24	29	15	99	20	83 of 87
Lyon	123	118	111	104	86	542	108	41 of 87
McLeod	153	185	192	167	145	842	168	30 of 87
Mahnomen	75	88	81	92	82	418	84	48 of 87
Marshall	46	37	37	45	26	191	38	74 of 87
Martin	68	75	66	87	79	375	75	53 of 87
McLeod	153	185	192	167	145	842	168	30 of 87
Meeker	64	76	86	113	91	430	86	47 of 87
Mille Lacs	101	113	148	176	148	686	137	37 of 87
Morrison	100	99	94	116	88	497	99	43 of 87
Mower	232	286	302	353	286	1,459	292	17 of 87
Murray	18	16	17	20	14	85	17	85 of 87
Nicollet	110	142	151	136	110	649	130	38 of 87
Nobles	117	127	150	155	148	697	139	36 of 87
Norman	25	15	16	21	19	96	19	84 of 87
Olmsted	755	743	848	563	595	3,504	701	8 of 87
Otter Tail	264	305	253	281	275	1,378	276	18 of 87
Pennington	91	100	105	129	92	517	103	42 of 87
Pine	115	120	116	110	111	572	114	40 of 87
Pipestone	59	68	73	87	71	358	72	57 of 87
Polk	284	322	191	250	236	1,283	257	21 of 87
Pope	63	51	53	49	38	254	51	66 of 87
Ramsey	2,124	2,121	2,455	2,729	2,011	11,440	2,288	2 of 87
Red Lake	27	35	16	17	31	126	25	79 of 87
Redwood	82	91	59	85	64	381	76	52 of 87
Renville	80	102	77	104	92	455	91	46 of 87
Rice	198	239	245	268	233	1,183	237	23 of 87
Rock	57	51	41	38	39	226	45	71 of 87
Roseau	90	76	66	69	64	365	73	55 of 87
Scott	682	591	425	421	331	2,450	490	9 of 87

IDF Table 7: Impaired Driving By County of Incident, Continued

County	2016	2017	2018	2019	2020	Last 5 Years	Avg	Rank
Sherburne	319	373	425	421	331	1,869	374	15 of 87
Sibley	78	68	50	93	80	369	74	54 of 87
St. Louis	1,096	1,037	1,103	1,280	952	5,468	1,094	5 of 87
Stearns	829	717	702	770	696	3,714	743	7 of 87
Steele	129	151	126	160	177	743	149	33 of 87
Stevens	40	50	39	37	11	177	35	76 of 87
Swift	41	38	40	36	41	196	39	73 of 87
Todd	61	83	96	108	122	470	94	44 of 87
Traverse	12	12	8	13	9	54	11	87 of 87
Wabasha	80	99	87	102	96	464	93	45 of 87
Wadena	45	66	75	76	72	334	67	60 of 87
Waseca	63	63	71	61	55	313	63	61 of 87
Washington	963	941	1,036	1,096	837	4,873	975	6 of 87
Watonwan	40	37	45	48	57	227	45	70 of 87
Wilkin	33	38	47	71	62	251	50	67 of 87
Winona	265	317	300	281	184	1,347	269	19 of 87
Wright	353	492	518	571	486	2,420	484	10 of 87
Yellow Medicine	56	57	60	49	37	259	52	65 of 87
MN Total	**24,059**	**24,862**	**26,414**	**27,975**	**22,653**	**125,963**	**25,193**	

24%

of drivers

were drinking at an on-sale retailer prior to their DWI according to the Place of Last Drink (POLD) database

11%

of population has impaired driving incident on record

IDF Table 8: Percentage of Residents with Impaired Driving Incidents on Record

County	Pop	% w DWI	Rank	County	Pop	% w DWI	Rank
Aitkin	15,697	18.7%	7 of 87	Marshall	9,040	8.7%	79 of 87
Anoka	363,887	8.8%	76 of 87	Martin	20,025	12.2%	45 of 87
Becker	35,183	17.8%	9 of 87	Meeker	23,400	10.6%	65 of 87
Beltrami	46,228	15.9%	16 of 87	Mille Lacs	26,459	16.2%	14 of 87
Benton	41,379	10.3%	67 of 87	Morrison	34,010	10.9%	58 of 87
Big Stone	5,166	10.5%	66 of 87	Mower	40,029	14.3%	29 of 87
Blue Earth	69,112	13.9%	30 of 87	Murray	8,179	8.7%	80 of 87
Brown	25,912	10.8%	60 of 87	Nicollet	34,454	10.8%	61 of 87
Carlton	36,207	13.4%	36 of 87	Nobles	22,290	16.3%	13 of 87
Carver	106,922	6.1%	86 of 87	Norman	6,441	11.2%	54 of 87
Cass	30,066	13.6%	33 of 87	Olmsted	162,847	9.1%	75 of 87
Chippewa	12,598	10.8%	59 of 87	Otter Tail	60,081	11.3%	53 of 87
Chisago	56,621	10.3%	68 of 87	Pennington	13,992	14.7%	24 of 87
Clay	65,318	18.1%	8 of 87	Pine	28,876	13.5%	34 of 87
Clearwater	8,524	14.6%	26 of 87	Pipestone	9,424	15.1%	22 of 87
Cook	5,600	18.9%	6 of 87	Polk	31,192	20.2%	4 of 87
Cottonwood	11,517	10.7%	62 of 87	Pope	11,308	12.0%	46 of 87
Crow Wing	66,123	13.3%	37 of 87	Ramsey	552,352	9.3%	74 of 87
Dakota	439,882	9.5%	72 of 87	Red Lake	3,935	15.6%	19 of 87
Dodge	20,867	8.8%	78 of 87	Redwood	15,425	12.2%	44 of 87
Douglas	39,006	16.3%	12 of 87	Renville	14,723	15.2%	21 of 87
Faribault	13,921	12.6%	40 of 87	Rice	67,097	10.6%	64 of 87
Fillmore	21,228	11.9%	47 of 87	Rock	9,704	9.8%	71 of 87
Freeborn	30,895	15.7%	18 of 87	Roseau	15,331	14.5%	27 of 87
Goodhue	47,582	13.7%	31 of 87	Scott	150,928	17.2%	10 of 87
Grant	6,074	10.2%	70 of 87	Sherburne	97,183	14.7%	25 of 87
Hennepin	1,281,565	10.7%	63 of 87	Sibley	14,836	61.7%	1 of 87
Houston	18,843	15.3%	20 of 87	St. Louis	200,231	8.0%	87 of 87
Hubbard	21,344	11.7%	49 of 87	Stearns	158,292	11.8%	48 of 87
Isanti	41,135	8.6%	82 of 87	Steele	37,406	11.0%	57 of 87
Itasca	45,014	15.7%	17 of 87	Stevens	9,671	9.5%	73 of 87
Jackson	9,989	14.8%	23 of 87	Swift	9,838	11.5%	50 of 87
Kanabec	16,032	13.2%	38 of 87	Todd	25,262	11.4%	51 of 87
Kandiyohi	43,732	12.3%	43 of 87	Traverse	3,360	13.2%	39 of 87
Kittson	4,207	11.1%	56 of 87	Wabasha	21,387	13.5%	35 of 87
Koochiching	12,062	16.6%	11 of 87	Wadena	14,065	11.1%	55 of 87
Lac qui Parle	6,719	8.1%	84 of 87	Waseca	18,968	11.4%	52 of 87
Lake	10,905	10.3%	69 of 87	Washington	267,568	8.8%	77 of 87
Lake of the Woods	3,763	22.9%	3 of 87	Watonwan	11,253	12.6%	41 of 87
Le Sueur	28,674	8.6%	81 of 87	Wilkin	6,506	19.5%	5 of 87
Lincoln	5,640	8.2%	83 of 87	Winona	49,671	14.3%	28 of 87
Lyon	25,269	13.7%	32 of 87	Wright	141,337	7.5%	85 of 87
McLeod	36,771	12.3%	42 of 87	Yellow Medicine	9,528	16.0%	15 of 87
Mahnomen	5,411	29.7%	2 of 87	**MN Total**	**5,706,494**	**10.9%**	

Top 15 Ranking

IDF Table 9: Criminal Conviction Rates By Judicial District (2016-2020)

District and County	All Violators			1st-Time Violators			2nd-Time Violators			3rd/More Violators		
	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate
Judicial Dist 1												
Carver	2,104	1,220	58.0%	709	708	99.9%	661	225	34.0%	734	287	39.1%
Dakota	12,620	7,136	56.5%	4,141	4,134	99.8%	3,999	1,207	30.2%	4,480	1,795	40.1%
Goodhue	1,879	1,033	55.0%	549	549	100%	554	176	31.8%	776	308	39.7%
Le Sueur	665	373	56.1%	201	201	100%	204	72	35.3%	260	100	38.5%
McLeod	1,337	769	57.5%	424	423	99.8%	423	154	36.4%	490	192	39.2%
Scott	5,097	2,877	56.4%	1,653	1,650	99.8%	1,640	524	32.0%	1,804	703	39.0%
Sibley	578	329	56.9%	163	163	100%	171	60	35.1%	244	106	43.4%
Subtotal:	**24,280**	**13,737**	**56.6%**	**7,840**	**7,828**	**99.8%**	**7,652**	**2,418**	**31.6%**	**8,788**	**3,491**	**39.7%**
Judicial Dist 2												
Ramsey	**18,527**	**10,403**	**56.2%**	**6,311**	**6,303**	**99.9%**	**5,923**	**1,491**	**25.2%**	**6,293**	**2,609**	**41.5%**
Judicial Dist 3												
Dodge	659	364	55.2%	193	193	100%	196	65	33.2%	270	106	39.3%
Fillmore	376	211	56.1%	108	107	99.1%	108	40	37.0%	160	64	40.0%
Freeborn	1,250	692	55.4%	393	393	100%	390	108	27.7%	467	191	40.9%
Houston	721	392	54.4%	234	234	100%	240	61	25.4%	247	97	39.3%
Mower	2,360	1,330	56.4%	705	703	99.7%	667	188	28.2%	988	439	44.4%
Olmsted	5,713	3,247	56.8%	1,918	1,914	99.8%	1,797	519	28.9%	1,998	814	40.7%
Rice	2,009	1,108	55.2%	609	609	100%	605	168	27.8%	795	331	41.6%
Steele	1,273	691	54.3%	384	384	100%	400	112	28.0%	489	195	39.9%
Wabasha	811	458	56.5%	268	268	100%	272	84	30.9%	271	106	39.1%
Waseca	512	282	55.1%	167	167	100%	158	42	26.6%	187	73	39.0%
Winona	2,196	1,250	56.9%	832	830	99.8%	742	167	22.5%	622	253	40.7%
Subtotal:	**17,880**	**10,025**	**56.1%**	**5,811**	**5,802**	**99.8%**	**5,575**	**1,554**	**27.9%**	**6,494**	**2,669**	**41.1%**
Judicial Dist 4												
Hennepin	**44,427**	**25,430**	**57.2%**	**15,382**	**15,367**	**99.9%**	**14,212**	**4,016**	**28.3%**	**14,833**	**6,047**	**40.8%**
Judicial Dist 5												
Blue Earth	3,474	1,978	56.9%	1,273	1,273	100%	1,153	282	24.5%	1,048	423	40.4%
Brown	575	337	58.6%	199	199	100%	207	78	37.7%	169	60	35.5%
Cottonwood	515	298	57.9%	190	190	100%	167	37	22.2%	158	71	44.9%
Faribault	591	323	54.7%	168	168	100%	179	59	33.0%	244	96	39.3%
Jackson	391	215	55.0%	130	130	100%	143	38	26.6%	118	47	39.8%
Lincoln	149	84	56.4%	55	55	100%	59	15	25.4%	35	14	40.0%
Lyon	882	517	58.6%	326	326	100%	289	75	26.0%	267	116	43.4%
Martin	642	353	55.0%	195	194	99.5%	201	63	31.3%	246	96	39.0%
Murray	153	84	54.9%	30	30	100%	41	20	48.8%	82	34	41.5%
Nicollet	1,015	575	56.7%	324	324	100%	327	107	32.7%	364	144	39.6%
Nobles	1,272	688	54.1%	462	462	100%	447	68	15.2%	363	158	43.5%
Pipestone	545	309	56.7%	204	202	99.0%	185	41	22.2%	156	66	42.3%
Redwood	635	367	57.8%	190	190	100%	170	57	33.5%	275	120	43.6%
Rock	351	208	59.3%	135	135	100%	130	37	28.5%	86	36	41.9%
Watonwan	376	207	55.1%	128	128	100%	121	30	24.8%	127	49	38.6%
Subtotal:	**11,566**	**6,543**	**56.6%**	**4,009**	**4,006**	**99.9%**	**3,819**	**1,007**	**26.4%**	**3,738**	**1,530**	**40.9%**

IDF Table 9: Criminal Conviction Rates By Judicial District (2016-2020), Continued

District and County	All Violators			1st-Time Violators			2nd-Time Violators			3rd/More Violators		
	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate
Judicial Dist 6												
Carlton	1,390	780	56.1%	413	413	100%	389	104	26.7%	588	263	44.7%
Cook	259	147	56.8%	78	78	100%	89	36	40.4%	92	33	35.9%
Lake	372	221	59.4%	118	118	100%	108	42	38.9%	146	61	41.8%
St. Louis	8,903	5,090	57.2%	3,012	3,009	99.9%	2,865	843	29.4%	3,026	1,238	40.9%
Subtotal:	**10,924**	**6,238**	**57.1%**	**3,621**	**3,618**	**99.9%**	**3,451**	**1,025**	**29.7%**	**3,852**	**1,595**	**41.4%**
Judicial Dist 7												
Becker	2,005	1,123	56.0%	590	590	100%	586	166	28.3%	829	367	44.3%
Benton	1,303	745	57.2%	409	409	100%	374	122	32.6%	520	214	41.2%
Clay	3,207	1,784	55.6%	1,063	1,063	100%	1,088	264	24.3%	1,056	457	43.3%
Douglas	1,525	858	56.3%	475	475	100%	464	140	30.2%	586	243	41.5%
Mille Lacs	1,175	647	55.1%	301	301	100%	328	115	35.1%	546	231	42.3%
Morrison	877	481	54.8%	240	239	99.6%	256	86	33.6%	381	156	40.9%
Otter Tail	2,394	1,356	56.6%	761	760	99.9%	763	242	31.7%	870	354	40.7%
Stearns	6,124	3,504	57.2%	2,121	2,116	99.8%	1,894	508	26.8%	2,109	880	41.7%
Todd	829	449	54.2%	266	265	99.6%	273	67	24.5%	290	117	40.3%
Wadena	556	307	55.2%	152	152	100%	150	50	33.3%	254	105	41.3%
Subtotal:	**19,995**	**11,254**	**56.3%**	**6,378**	**6,370**	**99.9%**	**6,176**	**1,760**	**28.5%**	**7,441**	**3,124**	**42.0%**
Judicial Dist 8												
Big Stone	181	102	56.4%	59	59	100%	56	18	32.1%	66	25	37.9%
Chippewa	489	264	54.0%	146	146	100%	148	41	27.7%	195	77	39.5%
Grant	195	114	58.5%	65	65	100%	56	18	32.1%	74	31	41.9%
Kandiyohi	1,517	873	57.5%	529	529	100%	497	155	31.2%	491	189	38.5%
Lac Qui Parle	184	100	54.3%	64	64	100%	61	14	23.0%	59	22	37.3%
Meeker	746	405	54.3%	209	209	100%	231	79	34.2%	306	117	38.2%
Pope	413	243	58.8%	132	132	100%	131	52	39.7%	150	59	39.3%
Renville	742	419	56.5%	204	204	100%	211	69	32.7%	327	146	44.6%
Stevens	279	167	59.9%	113	113	100%	87	21	24.1%	79	33	41.8%
Swift	318	186	58.5%	101	101	100%	85	28	32.9%	132	57	43.2%
Traverse	96	54	56.3%	27	26	96.3%	25	9	36.0%	44	19	43.2%
Wilkin	431	242	56.1%	166	166	100%	162	30	18.5%	103	46	44.7%
Yellow Medicine	434	247	56.9%	125	125	100%	125	38	30.4%	184	84	45.7%
Subtotal:	**6,025**	**3,416**	**56.7%**	**1,940**	**1,939**	**99.9%**	**1,875**	**572**	**30.5%**	**2,210**	**905**	**41.0%**

IDF Table 9: Criminal Conviction Rates By Judicial District (2016-2020), Continued

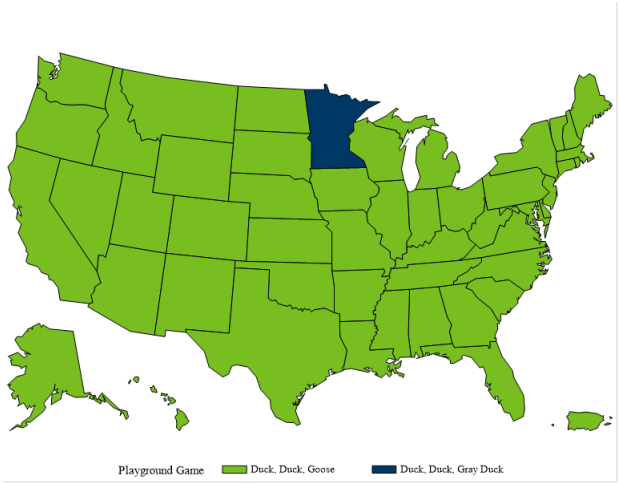
District and County	All Violators			1st-Time Violators			2nd-Time Violators			3rd/More Violators		
	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate	All Incidents	Convictions	Conviction Rate
Judicial Dist 9												
Aitkin	1,198	682	56.9%	345	345	100%	335	123	36.7%	518	214	41.3%
Beltrami	3,986	2,246	56.3%	1,128	1,128	100%	1,038	253	24.4%	1,820	865	47.5%
Cass	1,732	981	56.6%	498	498	100%	471	142	30.1%	763	341	44.7%
Clearwater	490	268	54.7%	123	123	100%	130	40	30.8%	237	105	44.3%
Crow Wing	3,224	1,822	56.5%	975	975	100%	922	299	32.4%	1,327	548	41.3%
Hubbard	1,296	722	55.7%	343	343	100%	336	88	26.2%	617	291	47.2%
Itasca	2,602	1,470	56.5%	674	672	99.7%	677	243	35.9%	1,251	555	44.4%
Kittson	125	65	52.0%	34	34	100%	36	8	22.2%	55	23	41.8%
Koochiching	607	338	55.7%	206	206	100%	206	65	31.6%	195	67	34.4%
Lake of Woods	266	150	56.4%	78	78	100%	79	26	32.9%	109	46	42.2%
Mahnomen	781	421	53.9%	209	209	100%	207	38	18.4%	365	174	47.7%
Marshall	311	174	55.9%	83	83	100%	86	33	38.4%	142	58	40.8%
Norman	183	103	56.3%	48	48	100%	54	19	35.2%	81	36	44.4%
Pennington	852	476	55.9%	275	274	99.6%	279	78	28.0%	298	124	41.6%
Polk	2,524	1,508	59.7%	836	835	99.9%	743	220	29.6%	945	453	47.9%
Red Lake	180	104	57.8%	52	52	100%	50	19	38.0%	78	33	42.3%
Roseau	622	346	55.6%	179	179	100%	172	57	33.1%	271	110	40.6%
Subtotal:	**20,979**	**11,876**	**56.6%**	**6,086**	**6,082**	**99.9%**	**5,821**	**1,751**	**30.1%**	**9,072**	**4,043**	**44.6%**
Judicial Dist 10												
Anoka	10,385	5,871	56.5%	3,277	3,275	99.9%	3,268	1,101	33.7%	3,840	1,495	38.9%
Chisago	1,977	1,140	57.7%	612	611	99.8%	587	208	35.4%	778	321	41.3%
Isanti	970	558	57.5%	263	263	100%	265	114	43.0%	442	181	41.0%
Kanabec	333	202	60.7%	99	99	100%	98	40	40.8%	136	63	46.3%
Pine	1,005	573	57.0%	296	295	99.7%	274	89	32.5%	435	189	43.4%
Sherburne	2,945	1,686	57.2%	975	975	100%	926	304	32.8%	1,044	407	39.0%
Washington	7,914	4,516	57.1%	2,665	2,661	99.8%	2,593	806	31.1%	2,656	1,049	39.5%
Wright	3,960	2,180	55.1%	1,187	1,186	99.9%	1,211	402	33.2%	1,562	592	37.9%
Subtotal:	**29,489**	**16,726**	**56.7%**	**9,374**	**9,365**	**99.9%**	**9,222**	**3,064**	**33.2%**	**10,893**	**4,297**	**39.4%**

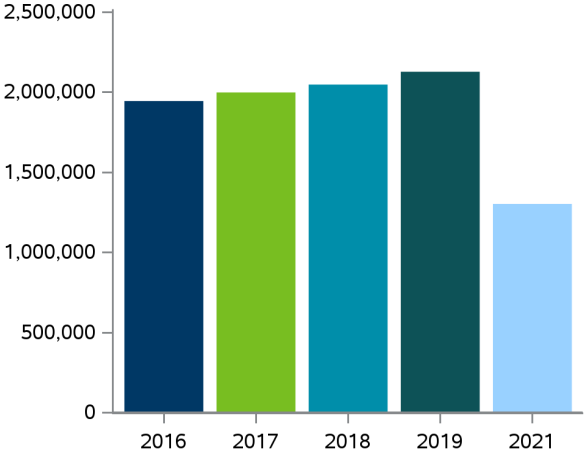
Minnesota Facts

Did you know?
The great state of Minnesota became the 32nd U.S. state on May 11, 1858. The name Minnesota is derived from two Native American Indian words, “minni” (meaning water) and “sotah” (meaning sky-tinted or cloudy). Covering 86,943 square miles it is the 12th largest state in area and the 22nd most populous state. Minnesota is filled with lakes (actually more than 10,000 of them), forests, rivers, wild life, parks, camping grounds, and bike trails. Minnesota is home to the Mall of America in Bloomington, which is the largest shopping center in the United States (9.5 million square feet). The city of Minneapolis has the largest continuous skyway system in the world; it connects 80 downtown blocks.

Nicknames for Minnesota include the Gopher State, the Land of 10,000 Lakes, the North Star State, and the Bread and Butter State.

Minnesotans are known for being kind (Minnesota Nice), nature lovers (outdoor activities are popular), hearty (can withstand extreme cold weather), unable to quickly exit a family gathering (the long Minnesota goodbye), and enjoying an annual get-together where any type of food imaginable is served on a stick (the Minnesota State Fair).





Prince is the most famous Minnesotan, and in his honor, purple is the official state color.

MN Inventions:

Masking and Scotch Tape
Wheaties and Cheerios cereals
Bisquick
Honeycrisp and Sweet Tango apples
bundt pans
automatic pop-up toasters
staplers
snowmobiles
in-line roller skates

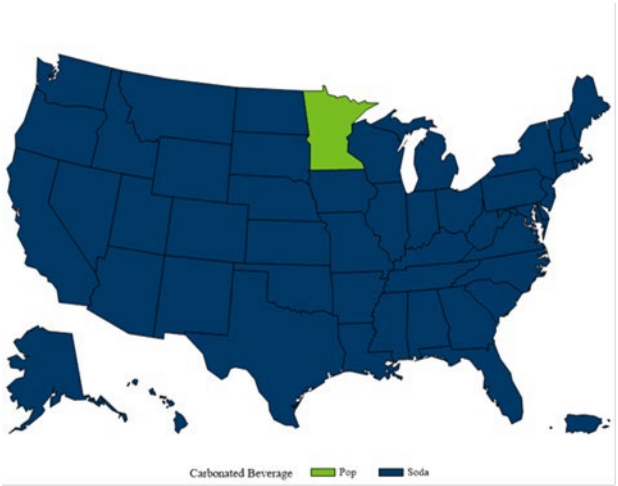
Minnesota is filled with tourist attractions and landmarks that showcase the state's natural and seasonal beauty. Some of the top-rated attractions include: Boundary Waters Canoe Area, Lake Itasca (the humble beginning of the mighty Mississippi River), the Cathedral of St. Paul, the North Shore Scenic Drive of Lake Superior, and Split Rock Lighthouse. Tourism provides $15 billion to Minnesota's economy.

Unlike many states, all major professional sports leagues (MLB, NFL, NBA, WNBA and NHL) are represented with Minnesota teams. Hockey at all levels is appreciated by Minnesotans, and the United States Hockey Hall of Fame is located in Eveleth, Minnesota.
Vikings football fans celebrate with a SKOL chant; the word 'skol' is Icelandic and means 'cheers'.

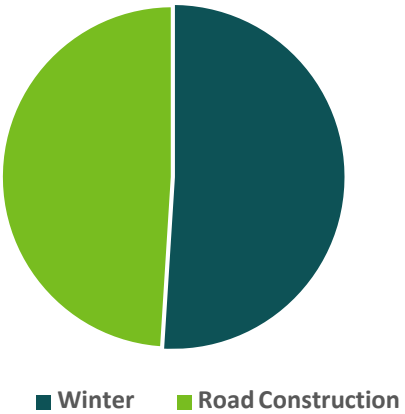
Minnesotans are known across the nation for their "accent" or how they pronounce words by elongating "a" and "o" vowel sounds. Several distinctly "Minnesotan" sayings exist as well. To the right are some translations for these sayings.

Saying	Meaning
"You betcha!"	Agreement
Have a "little lunch"	Lunch - regardless of meal size
"Oh, for cute"	Used when something is adorable
"Up North"	Referring to the cabin, lake, or woods regardless of direction
Eat some "bars"	Any dessert (brownies, cookies, cereal treats) cut into squares or rectangles
"Uff-da"	An exclamation used for a variety of emotions
"and that"	Punctuation
"Hot Dish"	A casserole

In 'sota, we call it "pop"



Winter, spring, summer, and fall provide wildly different weather across the state, but true Minnesotans knows there are really only two seasons.



Minnesota is home to more than **50 different** mosquito species