



**A Report on the  
State of  
Traffic Safety in  
Minnesota in 2024**

**Advisory Council on Traffic Safety  
January 2025**



Alcohol  
and Gambling  
Enforcement

Bureau of  
Criminal  
Apprehension

Driver  
and Vehicle  
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## Minnesota Department of Public Safety

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The Minnesota Department of Public Safety (DPS) Office of Traffic Safety (OTS) prepared this report documenting the status of traffic safety in 2024. Minnesota continues to work tirelessly to prevent serious and fatal motor vehicle crashes on its roads, and 2024 was a challenging year that also provided us with opportunities for positive change. In federal fiscal year 2024, preliminary statistics indicate that Minnesota will experience an approximate 12 percent increase in fatalities compared to 2023.

Fortunately for Minnesota, the highly professional and passionate members of OTS are committed to providing a high performance and exhibiting excellence in our state. This extends to our many partners in the Toward Zero Deaths program as well. The state of Minnesota undertook multiple initiatives in 2024 to increase traffic safety, such as: Partnering with Avel eCare for rural EMS services, creating safe road zones, enacting speed reduction projects and offering a tribal traffic safety summit. Another major initiative was the continued evolution of a Data Analytics and Innovation Center within OTS. These initiatives will lead to great success, lives saved and improved program development and delivery.

We acknowledge that we have much work to do in many areas to improve safety for all Minnesotans who use our roads. The staff and leadership of OTS are proud of our work and the accomplishments we have made with our traffic safety partners working toward a common goal: Zero deaths. We look forward to continuing this work in the upcoming years.

Respectfully submitted by,

Michael Hanson, Minnesota Department of Public Safety  
Chair, A.C.T.S.

Catherine Diamond, Minnesota Department of Health  
Vice Chair, A.C.T.S.

Brian Sorenson, Minnesota Department of Transportation  
Vice Chair, A.C.T.S.

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# Report requirements

## **2024 Minnesota Statutes, Section 299A.01, Subd. 8:**

Traffic safety report. Annually by January 15, the commissioner of public safety must submit a traffic safety report to the governor and the chairs and ranking minority members of the legislative committees with jurisdiction over traffic safety and enforcement. In preparing the report, the commissioner must seek advice and comments from the Advisory Council on Traffic Safety under section 4.076. The report must analyze the safety of Minnesota's roads and transportation system, including but not limited to:

- (1) injuries and fatalities that occur on or near a roadway or other transportation system facility;
- (2) factors that caused crashes resulting in injuries and fatalities;
- (3) roadway and system improvements broadly and at specific locations that could reduce injuries and fatalities;
- (4) enforcement and education efforts that could reduce injuries and fatalities;
- (5) other safety improvements or programs to improve the quality of the roadway and transportation use experience; and
- (6) existing resources and resource gaps for roadway and transportation system safety improvements.

# About the council

The Advisory Council on Traffic Safety was established during the 2023 state legislative session to improve traffic safety for all users on all Minnesota roads. The Advisory Council consists of 3 staff and 36 council members, each representing a different segment related to traffic safety. To see the full list of members and their representation, please see Appendix C at the end of this document.

## The Advisory Council:

- Advises the governor and Minnesota commissioners of public safety, transportation, and health on policies, programs, and services affecting traffic safety.
- Advises the appropriate state departments on TZD program activities.
- Encourages state agencies to conduct research in the field of traffic safety.
- Reviews all grants dealing with traffic safety and state and local traffic safety plans.
- Reviews recommendations of the council's subcommittees and working groups.
- Makes recommendations on safe road zone measures under Sec. 43 [169.065] of House File 2887.

## **Vision Statement**

Minnesota envisions a future where all roadway users are safe from fatal and life-changing injuries.

## **Mission Statement**

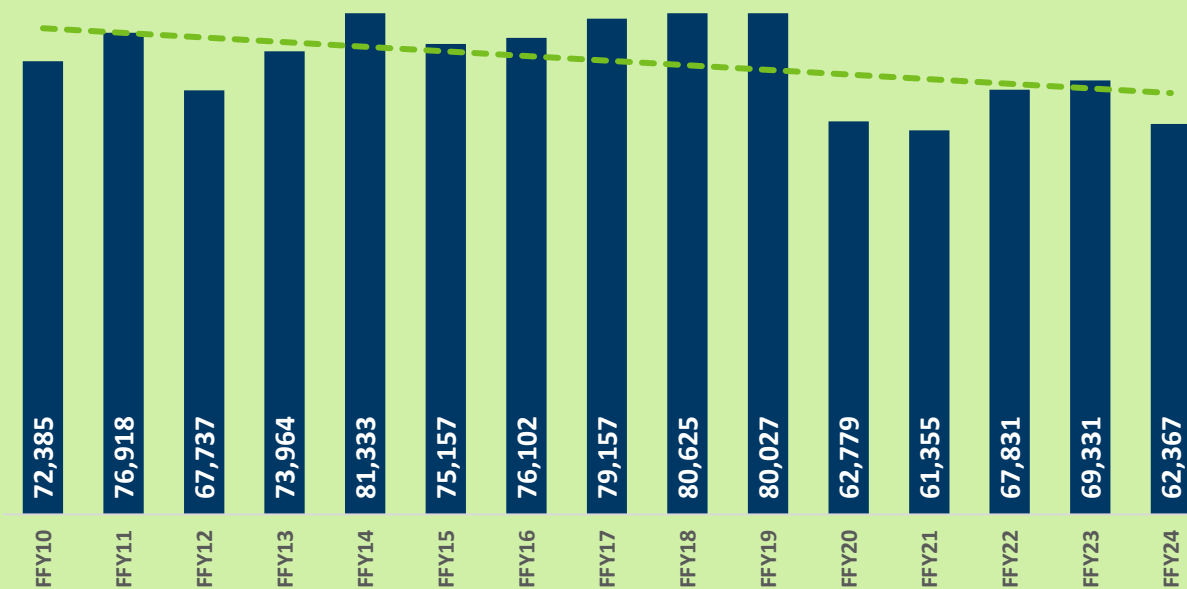
The Advisory Council on Traffic Safety is committed to guiding Minnesota toward zero fatal and serious injury crashes by fostering collaboration among stakeholders and promoting innovative safety solutions, best practices, and shared expertise.

We offer expert advice to agency commissioners and support communities, practitioners, and policymakers in building an equitable and safe roadway system for all, while leading the state's Toward Zero Deaths program.

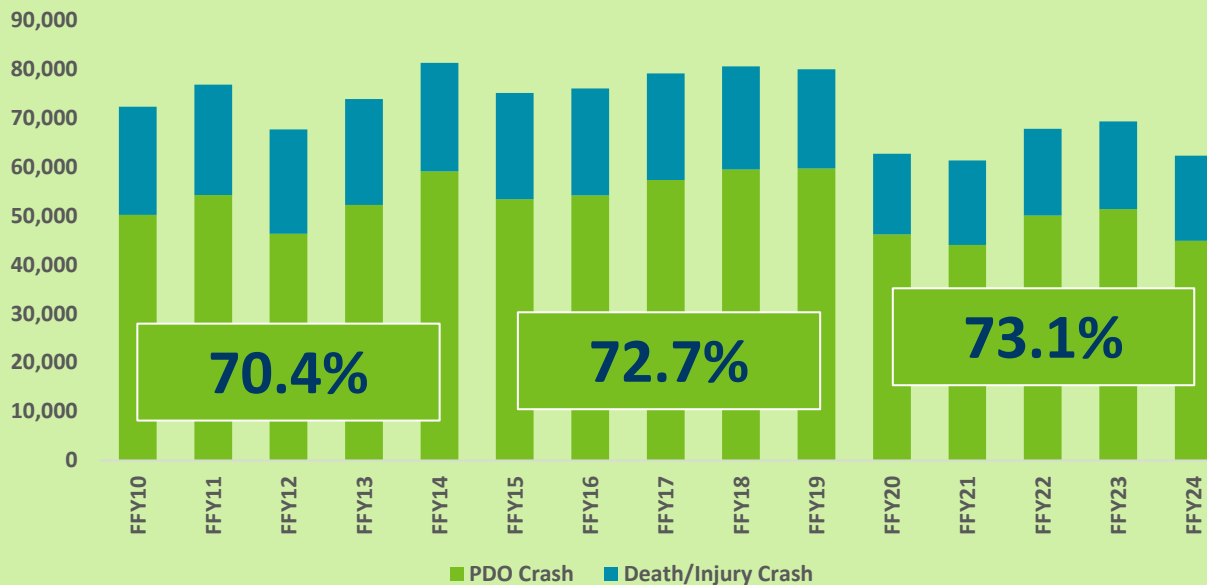
# Crashes, fatalities and serious injuries

The following graphs depict reported crashes for federal fiscal years 2010 through 2024. Over these 15 years, the total number of crashes has decreased slightly and is trending downwards. Most crashes do not involve deaths or injuries to persons involved, but the vehicles in the collision or other property are damaged. These crashes are called property damage only (PDO). Historically, the proportion of crashes categorized as PDO is around 70 percent. However, this proportion is increasing, which means progress has been made in traffic safety in Minnesota. The economic cost of all crashes in Minnesota for fiscal year 2024 is valued at \$4.66 billion.

Crash Trends



PDO portion is increasing

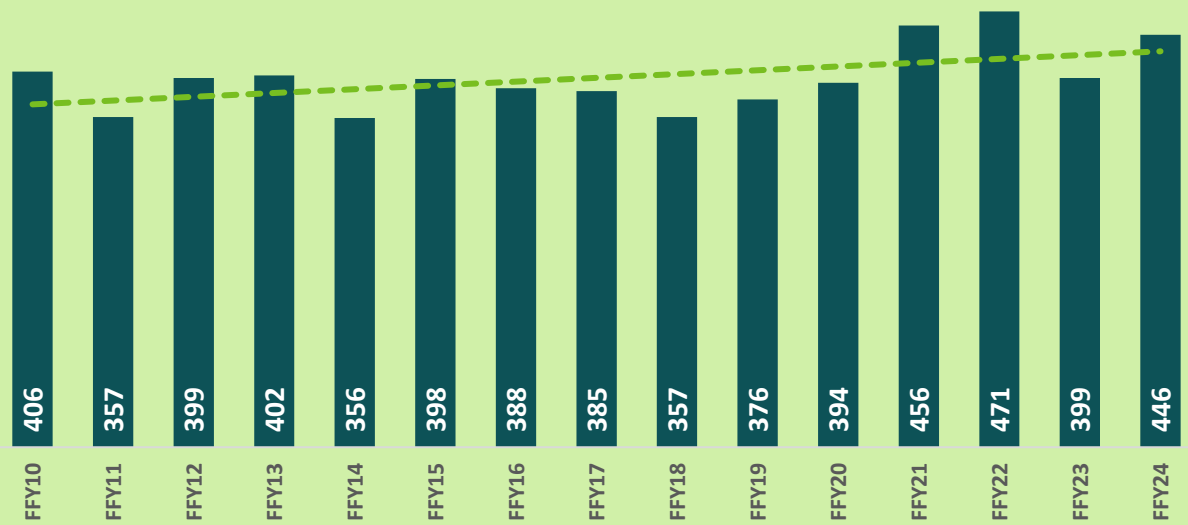


Traffic safety initiatives tend to focus on the prevention of severe crashes resulting in fatalities and serious injuries. Fatal and serious injury crashes represent a small proportion of the total crashes, but these crashes are the most devastating and unfortunately, almost always preventable.

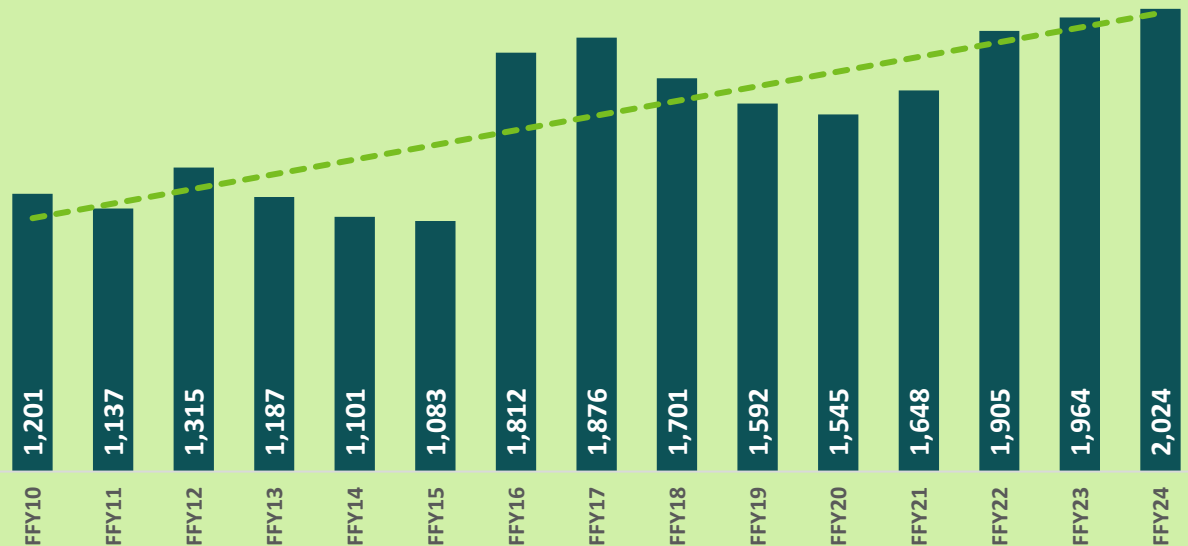
Trends for the past 15 fiscal years show that fatalities are slightly increasing. Much progress had been made prior to the COVID-19 years. For example, the FFY18 saw 357 fatalities. However, the COVID-19 pandemic proved troublesome for Minnesota roads. As a result, the state is currently trying to recover and get back to pre-pandemic numbers.

On Jan 1, 2016, DPS launched MNCrash, an improved crash reporting system. This platform allowed Minnesota to move closer in line with federally standardized reporting categories. Slight wording changes to injury severity definitions within MNCrash resulted in a spike in serious injury counts. However, since calendar year 2016, the increase in serious injuries has continued, and the graph below displays an increasing trend.

### Fatality Trends



### Serious Injury Trends



# Fatality rates

Comparatively speaking, Minnesota has a low fatality rate for traffic deaths. In relation to its population, Minnesota has the seventh lowest fatality rate in the nation. In relation to the number of registered motor vehicles, Minnesota ranks second in the nation, with only Rhode Island having a lower fatality rate in 2022. Relative to the miles traveled on its roads, Minnesota touts the third lowest fatality rate, at 0.77, in 2022. Only Rhode Island and Massachusetts had lower fatality rates per vehicle miles traveled (VMT).

The following table examines fatality rates per population, registered motor vehicles (MV) and vehicle miles traveled for each state in the nation. Data provided in this table is derived from the National Safety Council's Injury Facts.

**Fatality Rates, by NHTSA Region (2022)**

NHTSA Region	State	Fatalities	Fatality Rate		Fatality Rate per 10K MV		Fatality Rate per 100M VMT	
			per 100K Population	Rank	Rate per 10K MV	Rank	Rate per 100M VMT	Rank
1	Connecticut	359	10.7	10	1.29	23	1.21	20
	Massachusetts	434	6.9	1	0.84	3	0.76	2
	Maine	182	14.5	26	1.41	26	1.24	23
	New Hampshire	146	11	13	1.02	10	1.10	13
	Rhode Island	52	7	2	0.65	1	0.69	1
	Vermont	76	12.5	18	1.21	20	1.07	11
2	New Jersey	685	7.7	4	1.14	15	0.91	5
	New York	1,175	7	2	1.29	24	1.02	9
3	Delaware	162	15.2	29	3.47	50	1.64	43
	Maryland	564	10.2	8	1.15	16	0.99	8
	Pennsylvania	1,179	10.3	9	1.08	13	1.18	19
	Virginia	1008	12.5	18	1.30	25	1.23	22
	West Virginia	264	16.3	33	1.60	34	1.72	47
4	Alabama	988	20.5	44	1.81	38	1.38	29
	Florida	3,530	16.7	34	1.80	36	1.55	38
	Georgia	1,797	17.5	37	1.96	42	1.39	30
	Kentucky	744	17.4	36	1.73	35	1.55	37
	Mississippi	703	26	50	3.06	49	1.76	49
	North Carolina	1,630	17.3	35	1.81	39	1.37	28
	South Carolina	1,094	21.6	48	2.09	45	1.85	50
	Tennessee	1,314	19	42	1.92	41	1.58	40
5	Illinois	1,268	10.7	10	1.23	21	1.22	21
	Indiana	949	14.8	28	1.52	31	0.99	7
	Michigan	1,124	12.2	17	1.20	18	1.17	18
	Minnesota	444	9.7	7	0.78	2	0.77	3
	Ohio	1,275	11.9	15	1.16	17	1.15	17
	Wisconsin	596	11.2	14	1.05	11	0.90	4



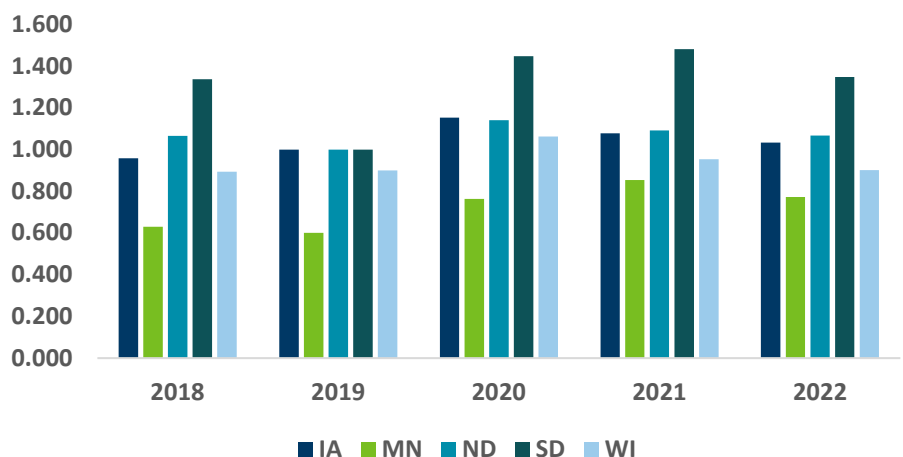
Fatality Rates, by NHTSA Region (2022), continued

NHTSA Region	State	Fatalities	Fatality Rate		Fatality		Fatality	
			per 100K Population	Rank	Rate per 10K MV	Rank	Rate per 100M VMT	Rank
6	Arkansas	643	21.4	47	1.80	37	1.67	45
	Louisiana	906	20.7	46	1.97	44	1.60	42
	New Mexico	466	23	49	2.49	48	1.74	48
	Oklahoma	710	19.3	43	2.12	46	1.59	41
	Texas	4,408	15.3	30	1.89	40	1.52	36
7	Iowa	338	12	16	0.89	4	1.03	10
	Kansas	410	15.6	31	1.58	33	1.31	25
	Missouri	1,057	18	38	1.97	43	1.33	26
	Nebraska	244	14.2	24	1.24	22	1.15	16
8	Colorado	764	14.3	25	1.49	29	1.42	32
	Montana	213	20.6	45	0.95	8	1.58	39
	North Dakota	98	13.9	22	0.90	5	1.07	12
	South Dakota	137	18.4	39	1.00	9	1.35	27
	Utah	319	9.6	6	1.11	14	0.93	6
	Wyoming	134	18.9	41	1.51	30	1.44	33
9	Arizona	1,302	18.6	40	2.14	47	1.71	46
	California	4,428	12.9	20	1.42	27	1.40	31
	Hawaii	116	7.8	5	0.93	6	1.13	15
	Nevada	416	13.8	21	1.56	32	1.50	35
10	Alaska	82	15.9	32	1.21	19	1.50	34
	Idaho	215	14	23	1.06	12	1.12	14
	Oregon	601	14.5	26	1.45	28	1.64	44
	Washington	733	10.8	12	0.94	7	1.25	24
	<b>U.S. Total</b>	<b>42,514</b>	<b>13.8</b>		<b>1.50</b>		<b>1.33</b>	

### Bordering states

One theory used to explain Minnesota’s low fatality rate relates to weather. Winter months in Minnesota produce more crashes, but those crashes are less severe and result in fewer deaths than crashes occurring during summer months. Using the weather theory, bordering states should exhibit similar fatality rates. However, this is not true. Minnesota’s fatality rate per 100 million vehicle miles traveled has been consistently lower than fatality rates for Iowa, North Dakota, South Dakota, and Wisconsin.

Minnesota vs. Border States (Fatality Rate per 100M VMT)



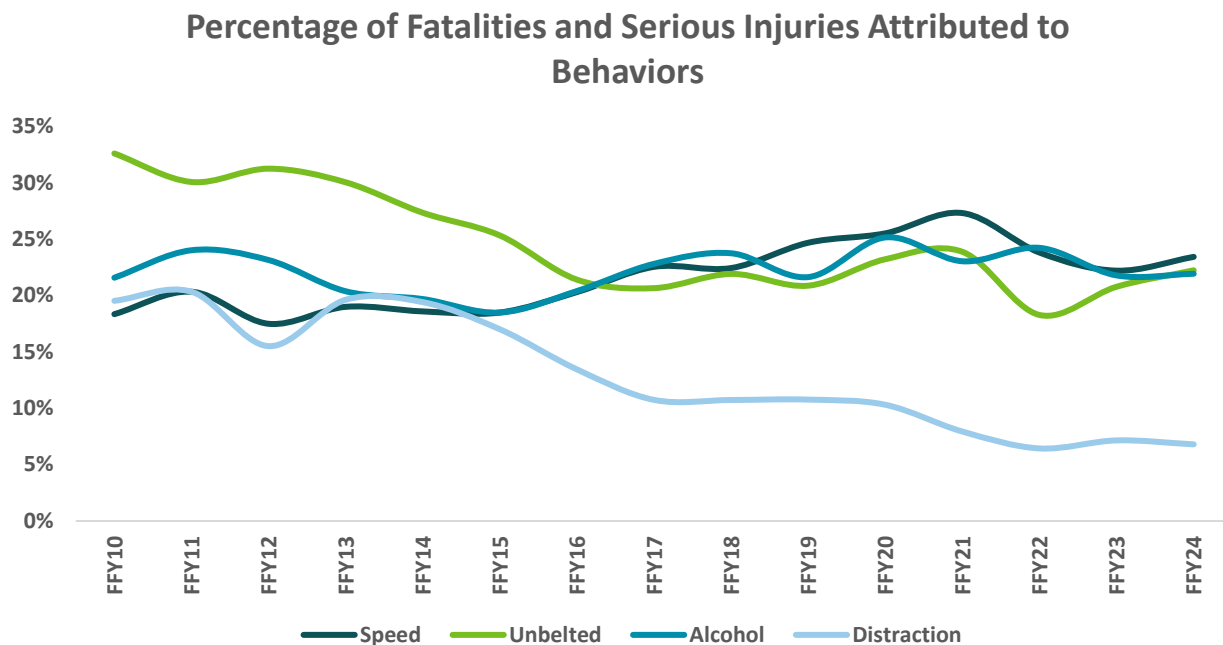
# Driver behavioral issues

Government agencies, academic institutions and private businesses have all conducted research into the causes of traffic crashes. Regardless of the researching entity, collectively, these studies have determined that driver errors cause at least 94 percent of traffic collisions. Common driver errors include speeding, distraction, and alcohol or drug impairment. These behaviors are bad decisions made by drivers and may result in crashes.

Another bad decision a driver -or passenger- can make is the error to not wear a seatbelt. While this behavior does not cause a traffic crash, it greatly increases the odds of injury or fatality resulting from a collision. A seatbelt protects the vehicle's occupants by reducing the likelihood of ejection.

**Driver errors  
cause  
94 percent  
of crashes.**

Driver behaviors and motor vehicle occupant seatbelt usage are tracked on the crash report. These are important pieces of information for trend analysis and measuring changes in behaviors. They are known as the "Big Four Behaviors." The graph below examines how speeding, seatbelt non-use, alcohol and distraction have changed since Federal Fiscal Year (FFY) 2010. Speeding and alcohol impairment have increased. Unbelted and distraction trends show declines. Each of these behaviors will be examined more closely on the following pages.



**Speeding is the most common driver error.**

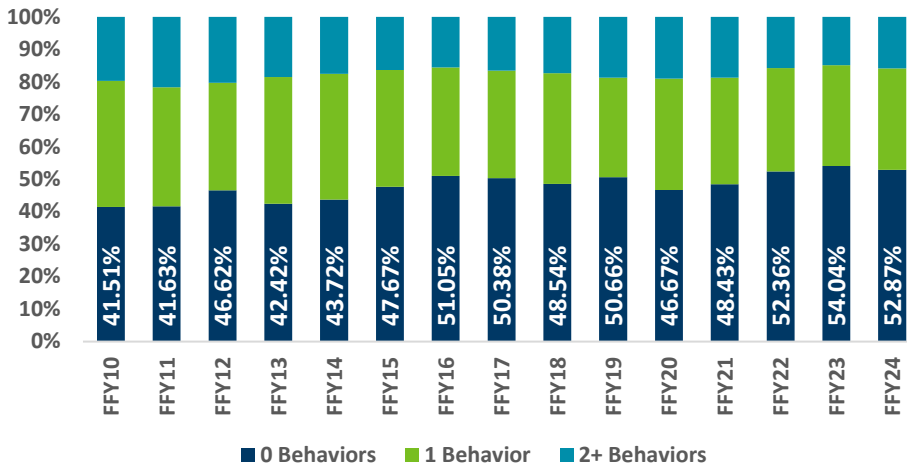
# “Big 4” behaviors

Since FFY 2010, 52.1 percent of Minnesota crashes had at least one of the Big 4 behaviors attributed to it. Just under 18 percent of crashes had two or more behaviors involved. With 94 percent of crashes involving driver error, reducing driver errors related to speed, alcohol use, distraction and seatbelt non-use is key to traffic safety.

The graph below examines the proportions of zero behaviors, one behavior, or two plus behaviors documented on crash reports over the years. The increase in the proportion of crashes with zero behaviors (the dark blue section in the bar graph) shows that efforts to educate drivers can reduce bad driver behaviors and driver errors.

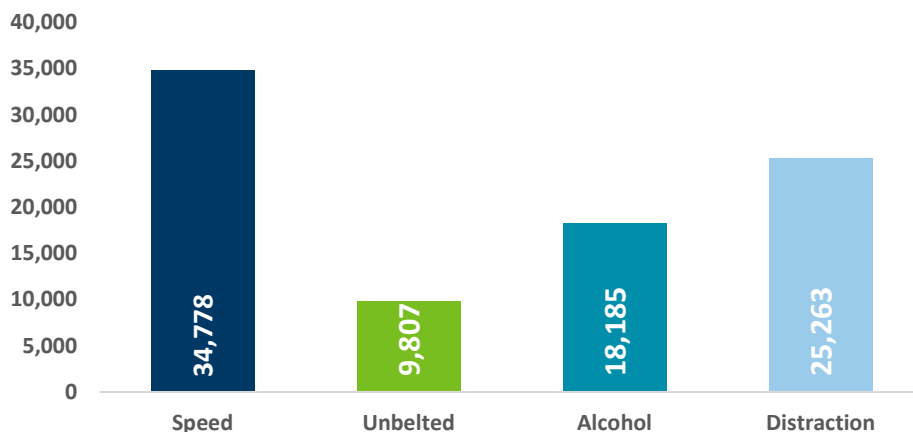
Another potential caveat for the increase in the proportion of zero behavior crashes is the reporting of distraction in crashes. Distraction reported in crashes has decreased since the 2016 release of MNCrash. This decrease in reporting could be swaying the increase in proportion of zero behavior crashes. Distraction and its reporting discrepancy will be discussed later.

Number of Big 4 Behaviors Attributed



Speeding + Alcohol and Unbelted + Alcohol are the most frequent combinations.

Killed or Injured by Attributed Behavior (Since FFY 2017)



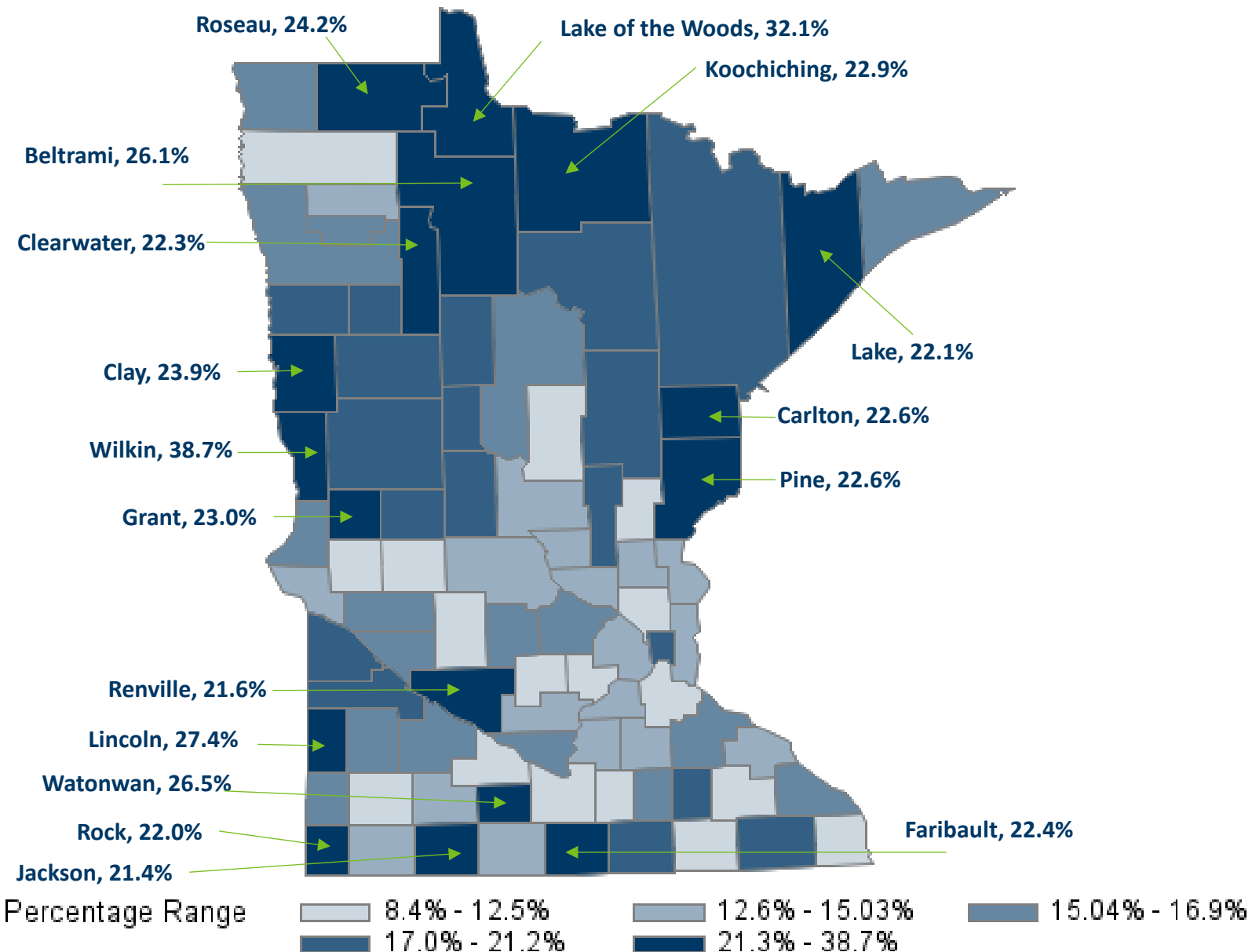
83,033 have been killed or injured since 2017.

On average, 11,004 people are killed or injured due to Big four behaviors every year.

# Speeding

Speeding is by far the most common dangerous driving behavior. Since 2020, 15.1 percent of all crashes in Minnesota were attributed to driver speeding. While speeding-related crashes occur throughout the state, counties in the northern and southernmost areas of the state have higher percentages of their total crashes attributed to speeding. Combined data for the metro counties (Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington) shows just 13.5 percent of crashes resulting from speeding. The map below displays the percentage of speed-related crashes for each county. Of all 87 counties, Wilkin County had the highest percentage, at 38.7 percent.

## Percentage of Speed-Related Crashes (2020-2024)



# Speeding

The graph to the right examines injury severity in speed-related and non speed-related crashes. Resulting injuries are more severe when speed is involved in a crash. Since 2020, nearly one-third (30.9 percent) of all fatalities, and 23 percent of all serious injuries resulted from speed-related crashes.

Even more so, increases in speed greatly increase the risk of injury. It is estimated for every 10 mph of increased speed, the risk of fatality doubles.

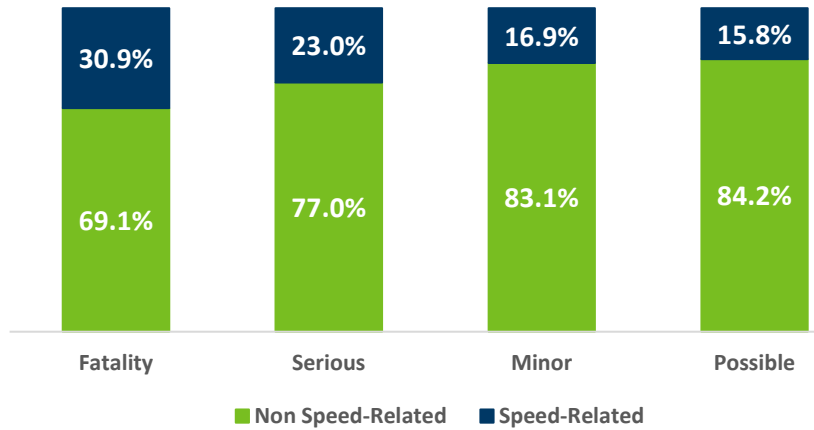
**60.53 mph is the average speed in fatal crashes.**

Adding speed into a crash scenario increases the extent of vehicle damage resulting from the crash. The graph to the right shows the level of vehicle damage in speed-related crashes and non-speed-related crashes.

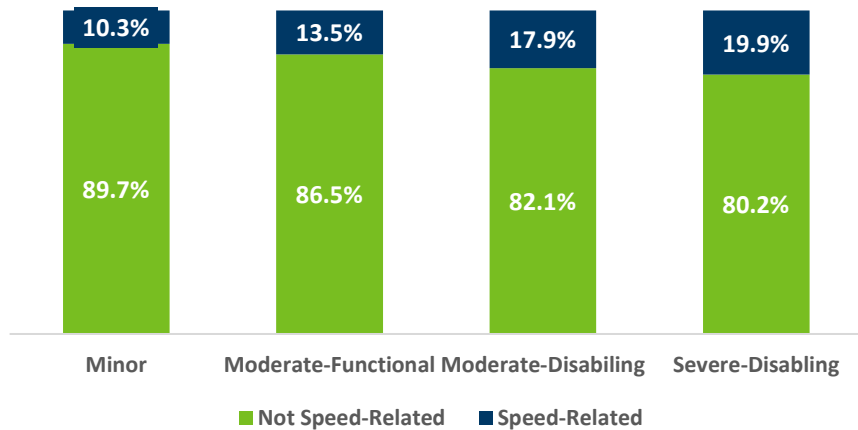
A larger portion of speed-related crashes are single vehicle crashes. Since 2020, 23.3 percent of single vehicle crashes involved speed. Most drivers are not experienced in maneuvering a vehicle at high speeds and as a result the chain reaction of events post-collision tend to be on the more severe side. The state crash report documents up to four events for a vehicle after a collision occurs. In speed-related single vehicle crashes, the most commonly occurring events for the vehicle are: Run off the road to either left or right side (23.9 percent), rollover (12.7 percent), striking a cable median barrier (7.4 percent), hitting a concrete traffic barrier (5.9 percent), or hitting a roadway sign or signal structure (5.5 percent).

The table on the next page examines the issue of speed from a county level perspective and the enforcement of speed violations. Counts for speed citations are compared to the percentage of speed-related crashes. The counties with the highest percentages of speed-related crashes are highlighted.

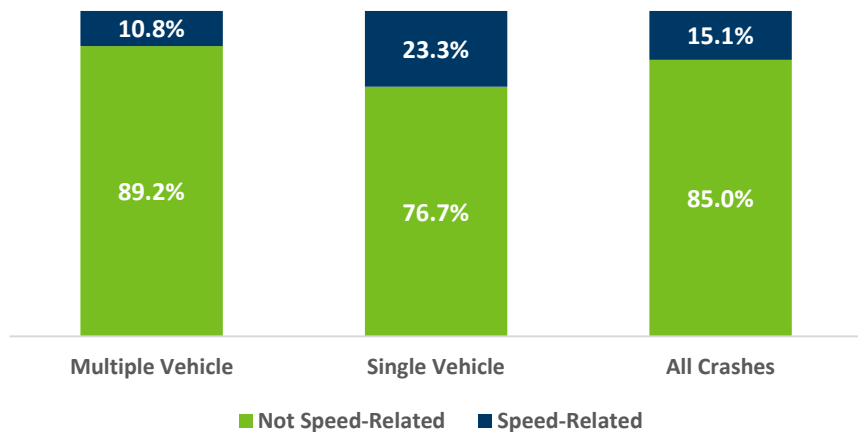
**Injury severity increases if speed is involved**



**Vehicle damage increases if speed is involved**



**Speed involved in more single vehicle crashes**



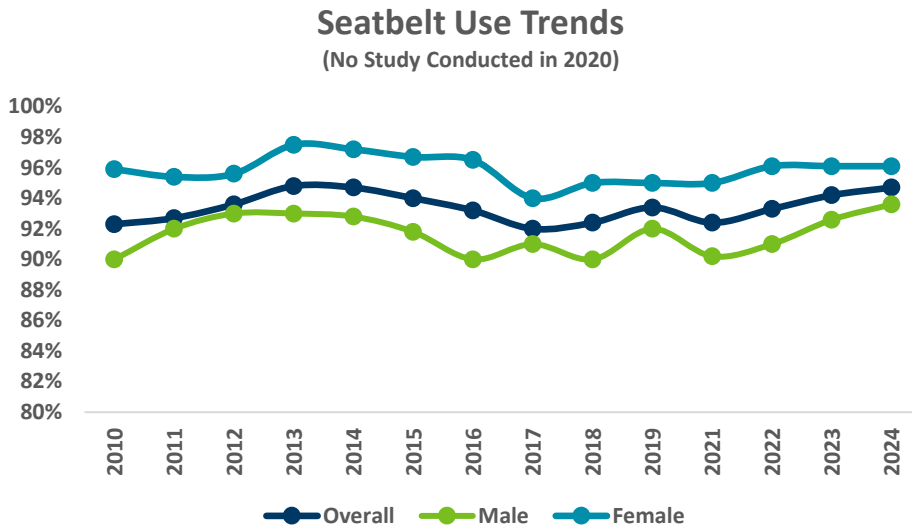
County	Citations Since 2020	Citations Trend*	% Speed Crashes	Crash Rank	Crash Trend*	County	Citations Since 2020	Citations Trend*	% Speed Crashes	Crash Rank	Crash Trend*
Aitkin	6,535	Increasing	17.2%	35 of 87	Decreasing	Marshall	1,117	Decreasing	11.0%	82 of 87	Increasing
Anoka	23,220	Increasing	10.4%	84 of 87	Increasing	Martin	3,647	Decreasing	14.6%	56 of 87	Increasing
Becker	8,071	Increasing	19.4%	23 of 87	Decreasing	Meeker	2,494	Decreasing	16.0%	44 of 87	Decreasing
Beltrami	4,031	Increasing	26.1%	5 of 87	Decreasing	Mille Lacs	5,162	Increasing	20.0%	21 of 87	Decreasing
Benton	7,203	Increasing	12.9%	68 of 87	Increasing	Morrison	7,880	Increasing	13.9%	63 of 87	Decreasing
Big Stone	1,357	Decreasing	14.6%	55 of 87	Increasing	Mower	4,203	Decreasing	11.4%	80 of 87	Increasing
Blue Earth	10,133	Decreasing	11.4%	81 of 87	Decreasing	Murray	936	Decreasing	12.2%	74 of 87	Increasing
Brown	4,004	Decreasing	8.9%	86 of 87	Decreasing	Nicollet	8,661	Decreasing	16.1%	43 of 87	Decreasing
Carlton	14,910	Decreasing	22.6%	11 of 87	Increasing	Nobles	3,157	Decreasing	15.0%	53 of 87	Decreasing
Carver	10,138	Increasing	12.4%	72 of 87	Decreasing	Norman	601	Increasing	20.9%	20 of 87	Increasing
Cass	3,733	Increasing	15.9%	45 of 87	Decreasing	Olmsted	23,476	Decreasing	11.6%	79 of 87	Decreasing
Chippewa	3,849	Decreasing	15.0%	52 of 87	Decreasing	Otter Tail	11,202	Increasing	18.4%	26 of 87	Decreasing
Chisago	10,819	Decreasing	13.7%	64 of 87	Decreasing	Pennington	1,888	Decreasing	14.3%	59 of 87	Decreasing
Clay	9,616	Increasing	23.9%	7 of 87	Decreasing	Pine	9,002	Decreasing	22.6%	10 of 87	Decreasing
Clearwater	2,003	Increasing	22.3%	13 of 87	Increasing	Pipestone	2,166	Decreasing	15.3%	50 of 87	Decreasing
Cook	2,783	Decreasing	15.3%	51 of 87	Decreasing	Polk	7,257	Increasing	16.5%	39 of 87	Decreasing
Cottonwood	4,529	Increasing	13.7%	65 of 87	Decreasing	Pope	2,141	Increasing	12.1%	75 of 87	Decreasing
Crow Wing	13,271	Increasing	8.6%	87 of 87	Decreasing	Ramsey	50,877	Increasing	17.3%	34 of 87	Increasing
Dakota	37,496	Increasing	12.0%	77 of 87	Decreasing	Red Lake	1,252	Decreasing	16.9%	37 of 87	Decreasing
Dodge	3,555	Increasing	18.6%	25 of 87	Decreasing	Redwood	3,060	Increasing	15.8%	46 of 87	Decreasing
Douglas	6,683	Decreasing	19.0%	24 of 87	Decreasing	Renville	4,382	Increasing	21.6%	16 of 87	Decreasing
Faribault	3,721	Decreasing	22.4%	12 of 87	Decreasing	Rice	7,534	Increasing	14.2%	61 of 87	Decreasing
Fillmore	1,842	Increasing	18.1%	29 of 87	Decreasing	Rock	3,235	Increasing	22.0%	15 of 87	Decreasing
Freeborn	7,704	Increasing	21.2%	18 of 87	Decreasing	Roseau	1,515	Decreasing	24.2%	6 of 87	Decreasing
Goodhue	20,537	Increasing	15.6%	48 of 87	Decreasing	St. Louis	38,679	Increasing	18.0%	30 of 87	Decreasing
Grant	1,001	Increasing	23.0%	8 of 87	Decreasing	Scott	17,299	Increasing	12.7%	69 of 87	Decreasing
Hennepin	121,718	Increasing	14.2%	60 of 87	Decreasing	Sherburne	20,452	Increasing	14.4%	58 of 87	Decreasing
Houston	2,449	Decreasing	12.2%	73 of 87	Increasing	Sibley	4,260	Increasing	14.4%	57 of 87	Decreasing
Hubbard	3,840	Increasing	17.8%	31 of 87	Increasing	Stearns	24,982	Increasing	13.4%	66 of 87	Decreasing
Isanti	6,433	Increasing	13.9%	62 of 87	Decreasing	Steele	11,407	Increasing	16.3%	42 of 87	Decreasing
Itasca	9,185	Increasing	21.2%	19 of 87	Decreasing	Stevens	1,461	Increasing	10.2%	85 of 87	Increasing
Jackson	5,774	Decreasing	21.4%	17 of 87	Decreasing	Swift	1,698	Decreasing	15.7%	47 of 87	Decreasing
Kanabec	1,323	Increasing	12.0%	76 of 87	Decreasing	Todd	4,303	Increasing	17.5%	33 of 87	Decreasing
Kandiyohi	5,176	Increasing	10.6%	83 of 87	Decreasing	Traverse	571	Increasing	16.9%	36 of 87	Decreasing
Kittson	1,004	Decreasing	16.8%	38 of 87	Decreasing	Wabasha	2,327	Increasing	12.6%	70 of 87	Decreasing
Koochiching	1,314	Increasing	22.9%	9 of 87	Increasing	Wadena	1,988	Increasing	18.4%	27 of 87	Increasing
Lac Qui Parle	2,608	Increasing	17.5%	32 of 87	Decreasing	Waseca	1,740	Increasing	11.9%	78 of 87	Decreasing
Lake	5,877	Decreasing	22.1%	14 of 87	Decreasing	Washington	22,574	Increasing	12.9%	67 of 87	Decreasing
Lake of the Woods	529	Decreasing	32.1%	2 of 87	Increasing	Watonwan	3,976	Increasing	26.5%	4 of 87	Decreasing
Le Sueur	6,854	Increasing	14.7%	54 of 87	Decreasing	Wilkin	2,458	Increasing	38.7%	1 of 87	Decreasing
Lincoln	1,539	Increasing	27.4%	3 of 87	Decreasing	Winona	8,899	Increasing	16.5%	40 of 87	Decreasing
Lyon	4,401	Decreasing	15.3%	49 of 87	Decreasing	Wright	23,941	Decreasing	16.4%	41 of 87	Decreasing
McLeod	8,245	Decreasing	12.5%	71 of 87	Decreasing	Yellow Medicine	2,938	Increasing	18.2%	28 of 87	Decreasing
Mahnomen	1,386	Increasing	19.9%	22 of 87	Decreasing	<b>Total</b>	<b>775,197</b>	<b>Increasing</b>	<b>14.5%</b>		<b>Decreasing</b>

■ Top 15 Highest Percentages of Speed-Related Crashes

\* Citation and crash trends compare the first three quarters of 2023 to the first three quarters of 2024.

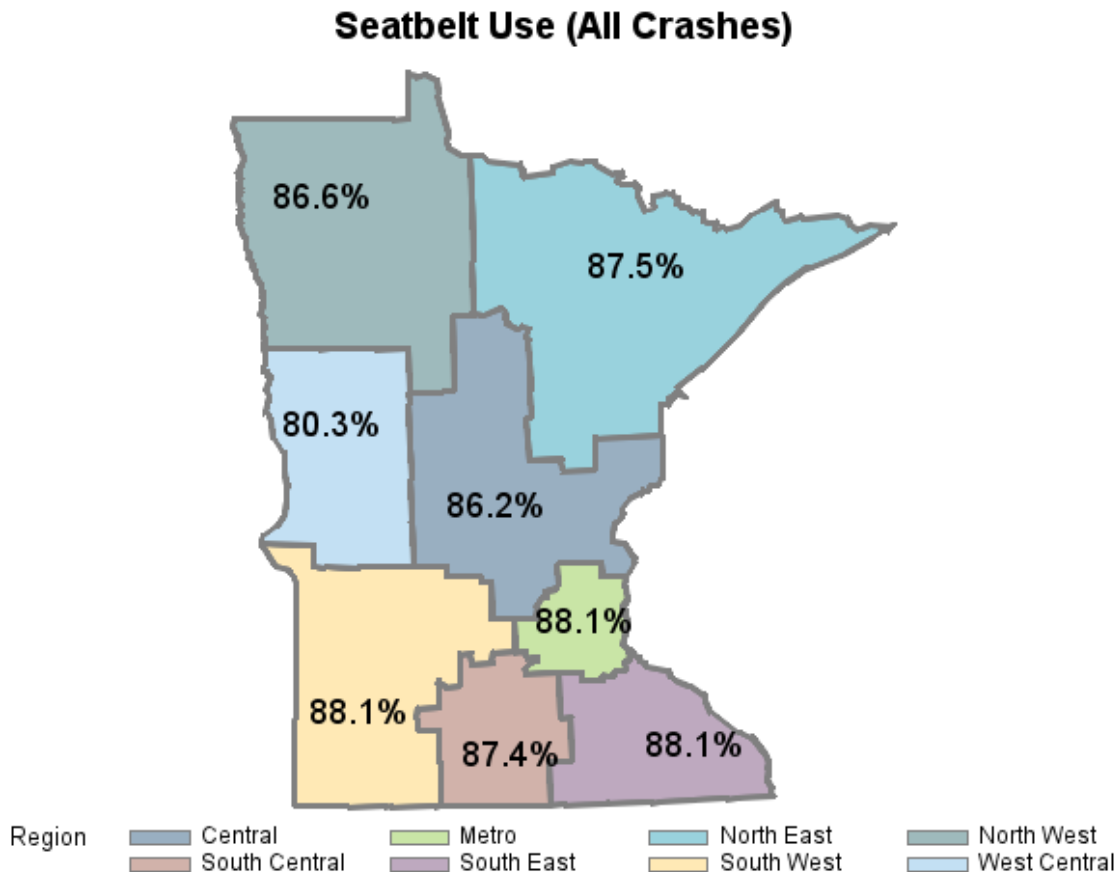
# Unbelted motorists

The use of a seatbelt provides a motor vehicle occupant (MVO) with an effective means of protection in the event of a collision. Upon impact, a seatbelt reacts to keep a vehicle occupant in their seat and inside the vehicle. Many states, including Minnesota, have mandatory seatbelt use laws, and as a result have high seatbelt usage rates. A statewide observational study in 2024 found 94.7 percent seatbelt usage on Minnesota roads.



**Female seatbelt use is consistently higher than male seatbelt use.**

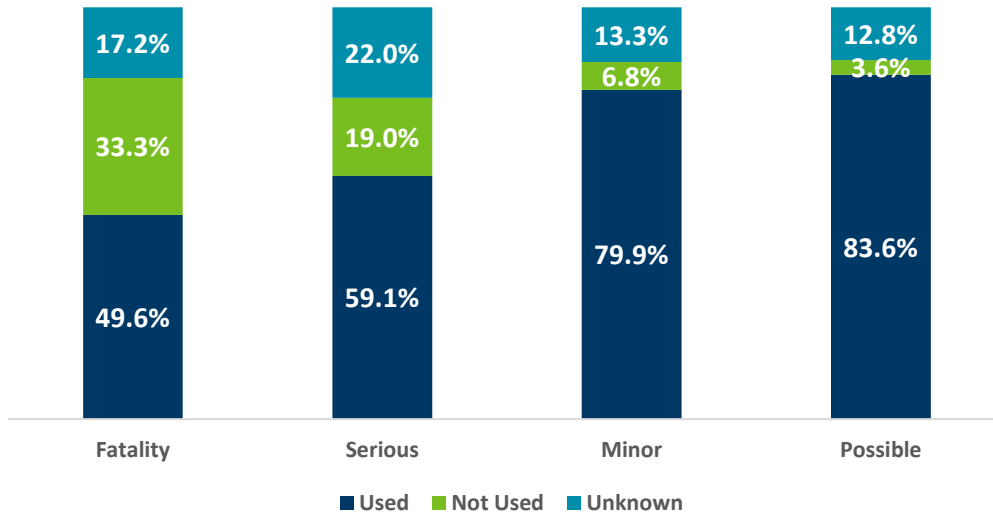
The map below shows seatbelt use in crashes (2020-2024). West Central had 17.90 percent of crashes reported with unknown seatbelt use. Counties in the West Central region also have some of the highest percentages of speed-related crashes.



# Unbelted motorists

Since seatbelts provide protection during collisions, it is no surprise that a strong correlation exists between injury severity and seatbelt usage. According to crash data (2020-2024), one-third of MVO fatalities involve seatbelt non-use. Nineteen percent of serious injuries occur to individuals who were not wearing seatbelts at the time of the crash.

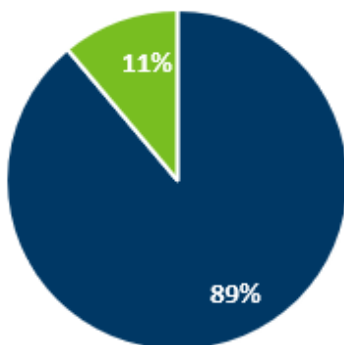
Injury Severity, by Seatbelt Usage



One-third of MVO deaths were unbelted.

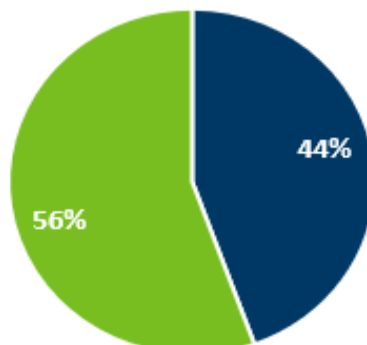
Resulting from a crash, a motor vehicle occupant may either be trapped inside the vehicle, be ejected from the vehicle, or neither trapped or ejected. The majority of occupants (98.5 percent) are neither trapped or ejected due to the crash. Whether or not a seatbelt was used directly relates to an MVO's ejection status, and ejection status directly relates to the extend of injuries an individual will suffer.

Trapped, by Seatbelt Use



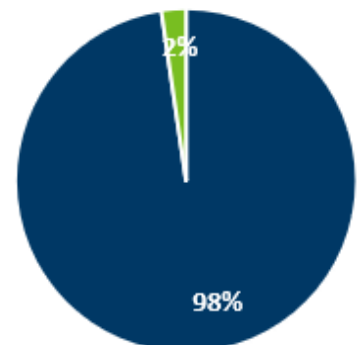
■ Used ■ Not Used

Ejected, by Seatbelt Use



■ Used ■ Not Used

Neither, by Seatbelt Use

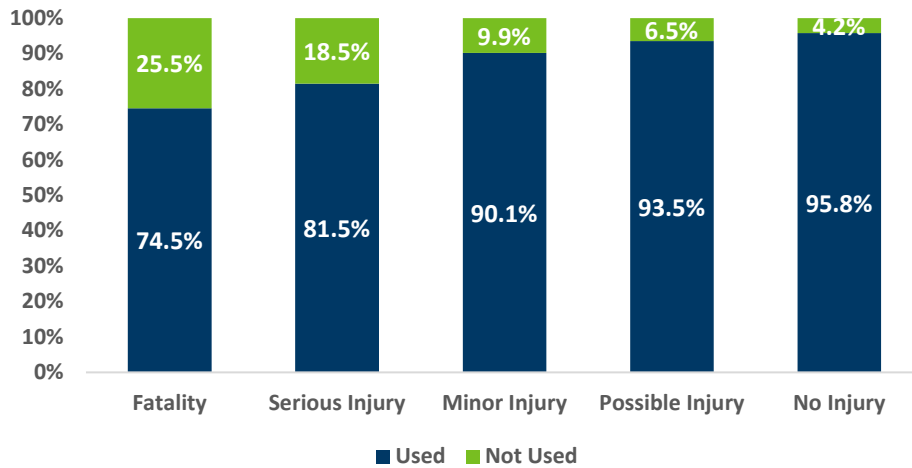


■ Used ■ Not Used

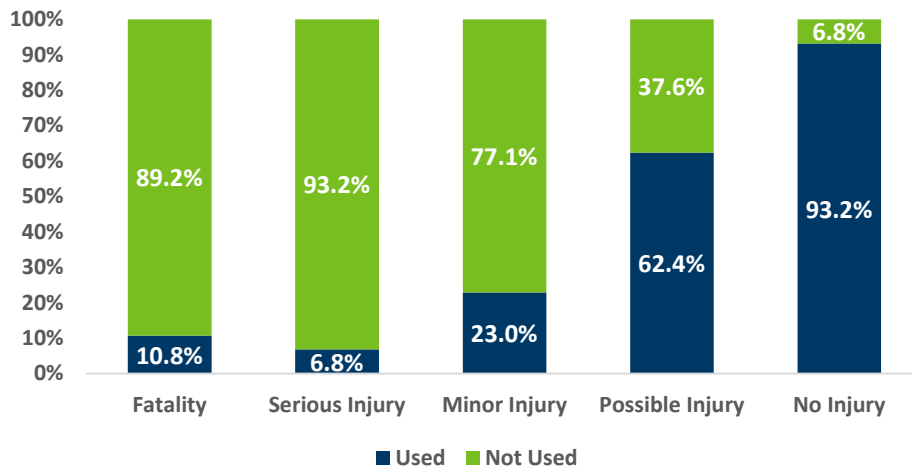


# Unbelted motorists

## Trapped

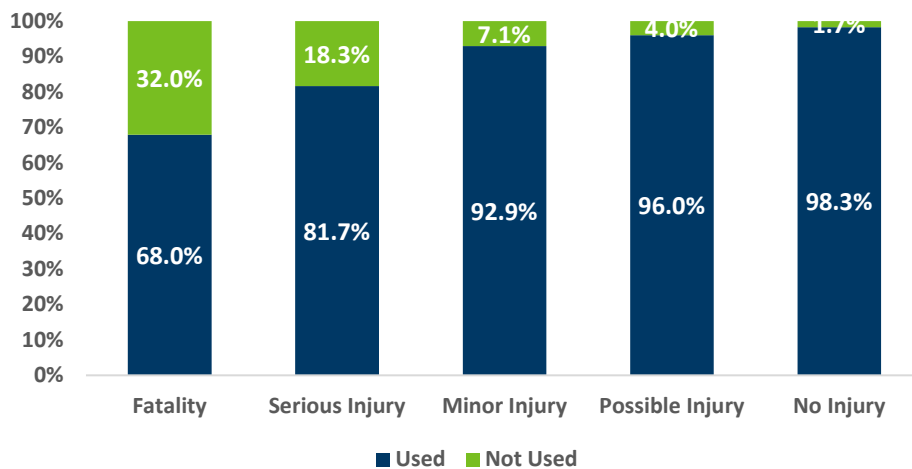


## Ejected



There have only been 26 fully ejected people who were not injured since 2020.

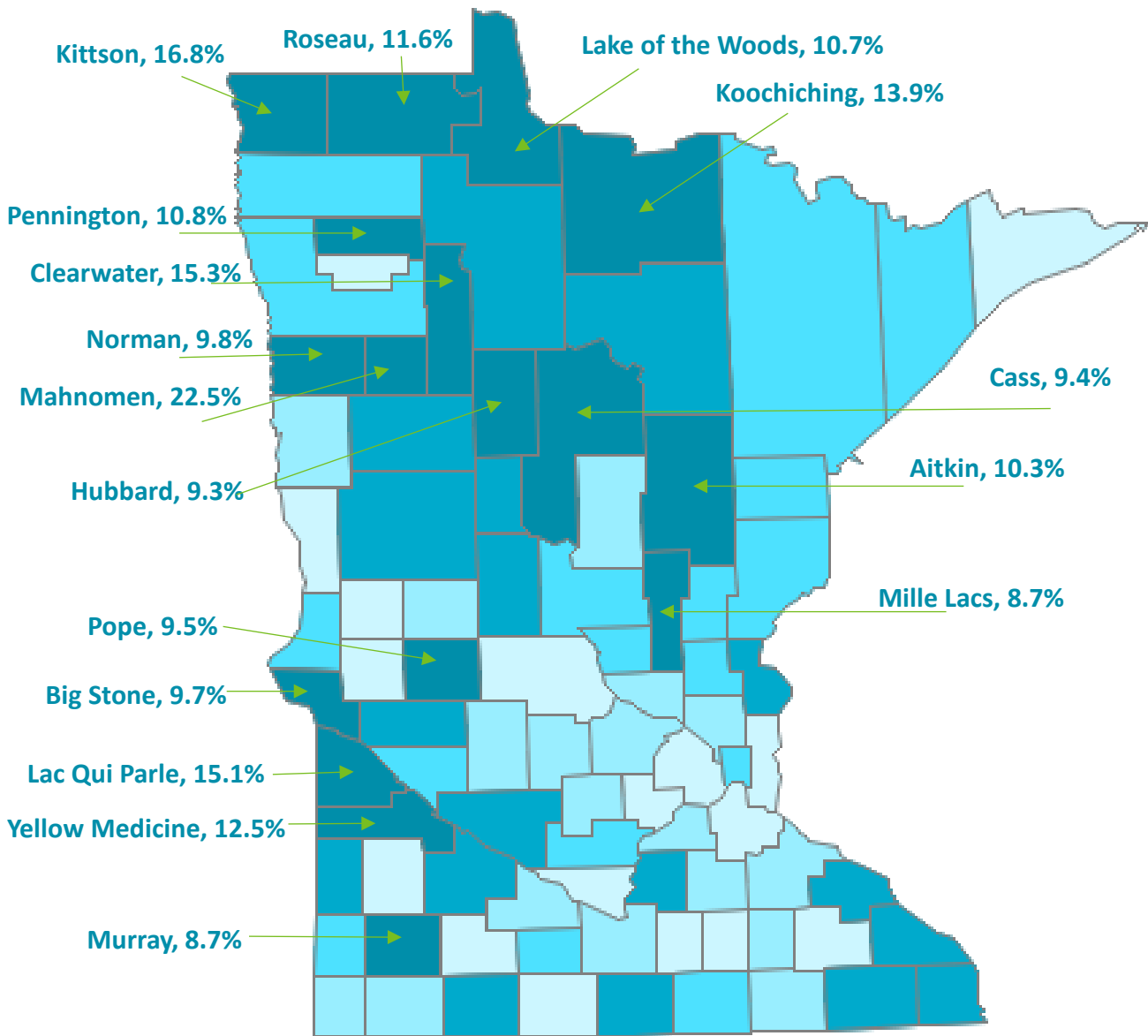
## Neither



# Alcohol impairment

Since 2020, 5.85 percent of all crashes in Minnesota were considered to be alcohol-related. This means either the law enforcement officer perceived alcohol was involved, or a person involved in the crash (driver or non-motorist) tested positively for alcohol. While alcohol-related crashes occur throughout the state, counties in the northern and western areas of the state have higher percentages of their total crashes related to alcohol consumption. The counties of Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington comprise 53.88 percent of the state's alcohol-related crashes. The map below displays the percentage of alcohol-related crashes for each county. Of all 87 counties, Mahnomen County had the highest percentage, at 22.55 percent.

## Percentage of Alcohol-Related Crashes (2020-2024)

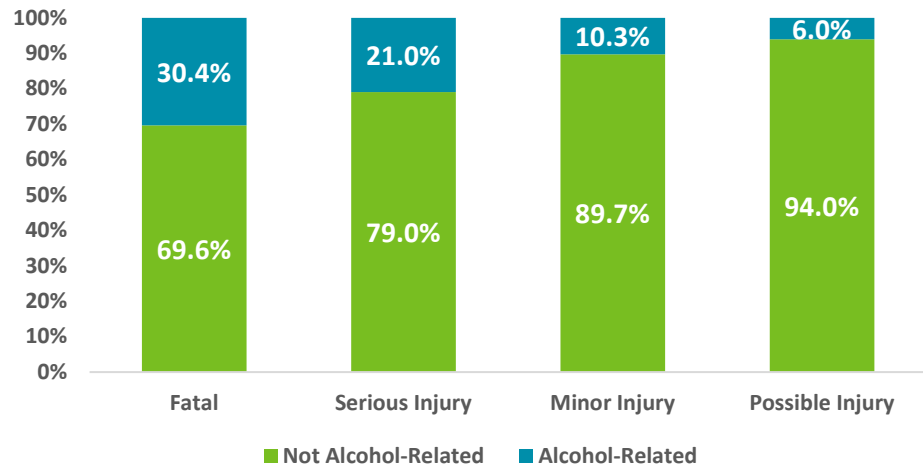


# Alcohol impairment

Since 2020, nearly one third (30.4 percent) of all fatal crashes, and 21.0 percent of all serious injury crashes were alcohol-related. Looking at data from years prior to 2020 yields similar percentages. Crashes involving alcohol tend to be more severe.

Arrests for driving while intoxicated (DWI) usually do not stem from traffic crashes, but these incidents could easily result in crashes since alcohol impairs a driver's ability to operate a motor vehicle. Minnesota averages around 25,000 DWI arrests and 4,000 alcohol-related crashes each year. Considering this connection and that almost one-third of fatalities are related to alcohol, getting alcohol impaired drivers off the roads is essential for traffic safety.

Connection between alcohol and crash severity



**Average BAC in fatal crashes**  
0.1706

**Average BAC in non-fatal crashes**  
0.1548

DWI and Alcohol-Related Crash Counts

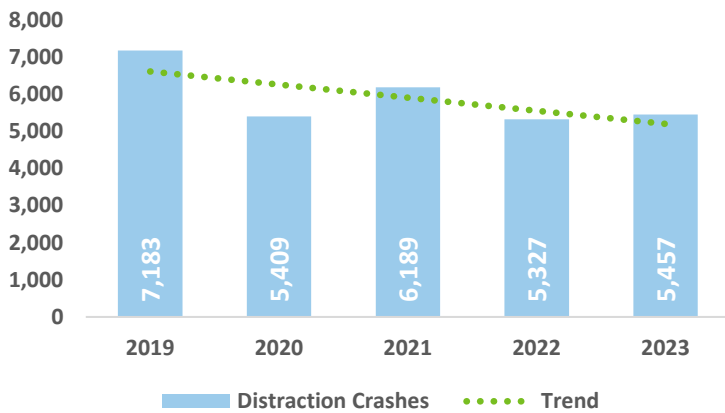


# Distraction

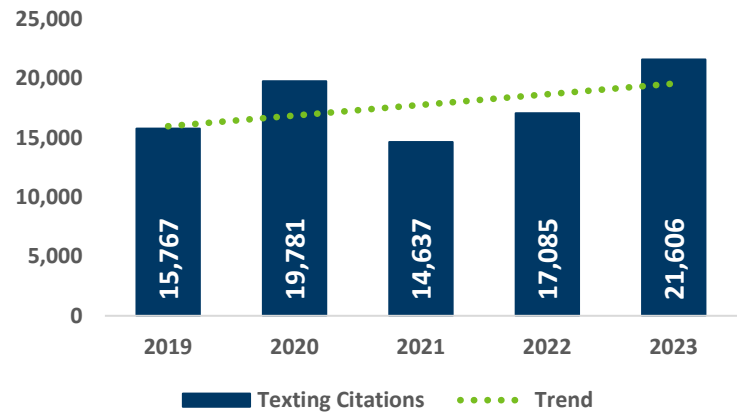
Of all the traffic safety topics, none is more challenging to analyze than distracted driving. Eating, grooming, playing with vehicle controls, using a cell phone, even conversing with passengers are all types of distraction. Because most crash reports are written after the crash occurred and a law enforcement officer did not witness the crash, officers must rely on witnesses or other people involved in a crash for information. When questioned by law enforcement regarding cell phone use during a crash many people are untruthful. This reporting data discrepancy results in an inaccurate picture of the problem of driver distraction.

Minnesota's Hands Free Law was enacted Aug. 1, 2019. Since then, multiple surveys have questioned public awareness of this law. Overwhelmingly, the public knows using a cell phone while driving is illegal. Yet, they do it anyway. Reported cell phone use in crashes is more akin to self-reported data, and citations are more akin to observational data. Distraction in crash reports and citations issued for phone handling show a different picture.

Reported distraction trending down

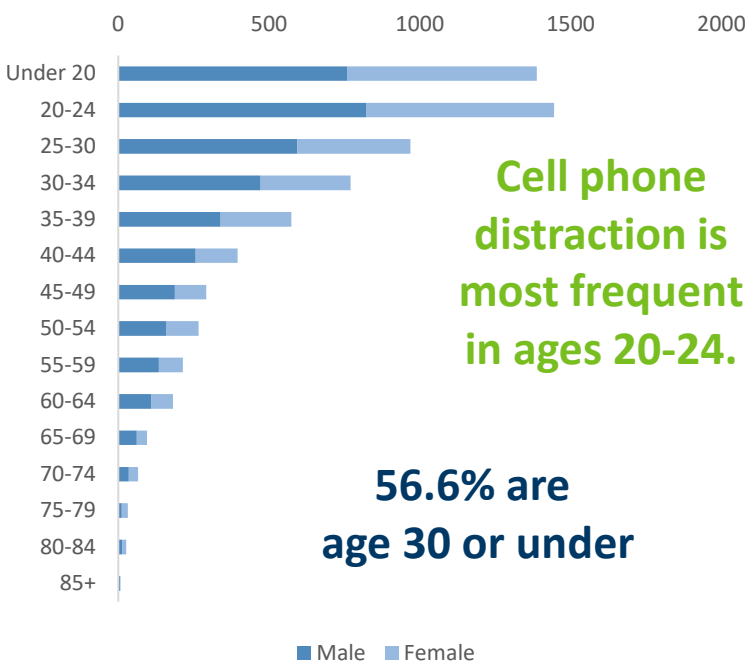


Phone handling citations trending up



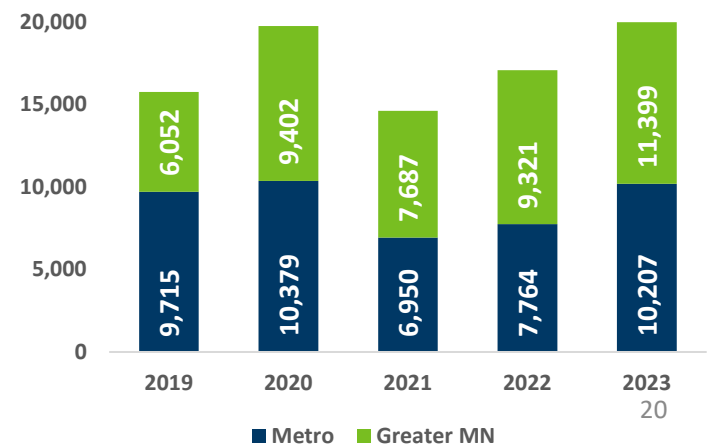
In crashes where driver distraction by cell phone was documented, most drivers were male (59 percent) and young (42.1 percent age 24 or under). Males at every age grouping outnumbered females except for age 75-79; in that age range, females had 62.5 percent of the cell phone distraction.

Drivers in Crashes Distracted by Phones



Where are phone handling citations issued?

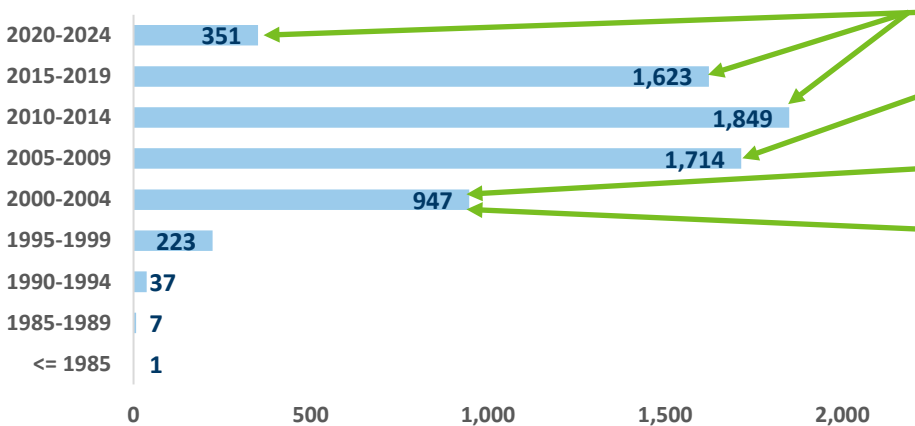
Phone handling citations tend to be concentrated in the Twin Cities metro area. Since 2019, the seven metro counties have accounted for about half the citations. In more recent years, however, a greater percentage have been issued in greater Minnesota (53 percent since 2021).



# Distraction

According to crash data from 2019-2023, drivers involved in crashes who were listed as distracted by cell phones overwhelmingly (95.9 percent) were driving passenger cars, SUVs, pickup trucks or passenger vans. Also, they were driving vehicles with “normal” use meaning that the vehicle was functioning as transportation and not incident response, or farm use, or construction, or plowing. As noted previously, these drivers tended to be male and under age 24, but what vehicle were they driving? Is there any connection between vehicle age (thus lack of technology within the vehicle) and a driver being distracted? Were younger drivers distracted because they drove older vehicles? The tables and graph below examine those questions.

**Year of Vehicle Driven by Drivers Who Were Distracted by Cell Phones**



**Timeline of Vehicle Technology Related to Cell Phones**

- 2014** – Apple CarPlay and Android Auto
- 2012** – Autonomous Cars, first license
- 2009** – Smart Phone connected cars, becomes the infotainment system
- 2001** – “Modern Infotainment” Systems (includes knobs and dials)
- 2000-2001** – Bluetooth connection
- 1996** – “Connected Car” OnStar – features GPS location tracking

Driver Age	Year Vehicle Manufactured									Total
	<= 1985	1985-1989	1990-1994	1995-1999	2000-2004	2005-2009	2010-2014	2015-2019	2020-2024	
<b>Under 20</b>	0	1	5	44	232	458	409	210	33	1,392
<b>20-24</b>	0	1	12	57	222	377	399	337	47	1,452
<b>25-29</b>	0	1	6	36	130	237	259	251	54	974
<b>30-34</b>	1	0	4	28	108	202	213	188	34	778
<b>35-39</b>	0	1	2	21	62	114	149	181	46	576
<b>40-44</b>	0	0	1	7	53	94	101	115	29	400
<b>45-49</b>	0	1	1	5	39	59	82	78	28	293
<b>50-54</b>	0	0	2	7	28	60	69	78	23	267
<b>55-59</b>	0	1	1	7	33	35	60	67	11	215
<b>60-64</b>	0	1	2	7	14	39	47	49	22	181
<b>65-69</b>	0	0	1	2	13	18	23	31	7	95
<b>70-74</b>	0	0	0	0	6	11	16	21	12	66
<b>75-79</b>	0	0	0	1	4	4	9	12	2	32
<b>80-84</b>	0	0	0	1	3	4	10	5	3	26
<b>85+</b>	0	0	0	0	0	2	3	0	0	5
<b>Total</b>	<b>1</b>	<b>7</b>	<b>37</b>	<b>223</b>	<b>947</b>	<b>1,714</b>	<b>1,849</b>	<b>1,623</b>	<b>351</b>	<b>6,752</b>

= Highest for age grouping

= Highest for vehicle year grouping

Vehicles manufactured in 2014 or later (which are equipped with Apple CarPlay or Android Auto) represented 35.3 percent of the vehicles driven. Ninety-four percent of the vehicles were manufactured after 2000 and would have included Bluetooth technology. Vehicles built in 2007, 2008, 2013 and 2014 had the most distracted drivers.

In almost every grouping of manufacture years, the under age 25 were the largest group of distracted drivers. It did not matter how old the vehicle was or the level of technology in the vehicle younger drivers were more distracted by their cell phones than older drivers.

# Contributing factors in crash data

Many factors may contribute to a crash occurring. Some factors relate to the functioning of the vehicle. Some factors relate to the driving environment on the roadway. Other factors pertain to actions of a driver or non-motorist. Frequently, there are multiple circumstances present in a scenario which lead to a crash. The MNCrash report allows officers to document the contributing factors from differing perspectives of road characteristics (crash), or behavioral actions (person), or vehicle defects or characteristics (vehicle). These factors may overlap and multiple factors can be documented per crash. The table below examines the contributing factors cited on crash reports from 2020-2024.

Contributing Factors	Type	15-19	20-29	30-39	40-49	50-59	60-69	70+	All Ages
Road Surface Conditions	Misc.	25.1%	25.8%	25.4%	25.8%	24.3%	23.2%	19.3%	24.9%
Ran Off Road	Human	11.4%	11.1%	11.6%	11.8%	12.4%	13.5%	16.6%	11.9%
Failed to Keep in Proper Lane	Human	8.3%	10.6%	11.0%	10.5%	10.9%	11.9%	13.3%	10.5%
Other Human Factor	Human	7.3%	8.6%	8.9%	9.7%	10.9%	12.1%	13.2%	9.3%
Driver Swerved	Human	7.0%	6.9%	7.1%	7.6%	7.4%	6.9%	5.7%	7.0%
Overcorrecting/Oversteering	Human	9.2%	7.1%	6.7%	6.1%	6.2%	6.1%	4.8%	7.0%
Careless, Negligent, or Erratic Driving	Human	6.3%	7.5%	7.2%	6.5%	5.5%	4.4%	3.9%	6.6%
Driver Speeding	Human	8.8%	7.5%	6.2%	5.8%	4.6%	3.7%	2.4%	6.5%
Driver Distracted	Human	3.9%	2.9%	3.0%	2.7%	3.2%	3.1%	3.8%	3.1%
Other Vehicular Factor	Vehicle	2.7%	2.2%	2.3%	2.4%	2.9%	2.9%	2.8%	2.5%
Defective Brakes	Vehicle	1.8%	1.5%	1.7%	1.7%	1.9%	1.6%	1.3%	1.7%
Reckless or Aggressive Driving	Human	1.5%	1.4%	1.3%	1.1%	0.5%	0.2%	0.2%	1.1%
Improper Turn/Merge	Human	1.0%	0.8%	0.9%	1.1%	1.4%	1.6%	1.8%	1.1%
Disregard Other Traffic Signs	Human	0.4%	0.6%	0.7%	0.7%	0.7%	0.8%	1.2%	0.7%
Following Too Closely	Human	0.5%	0.6%	0.7%	0.6%	0.6%	0.6%	0.3%	0.6%
Other Miscellaneous Factor	Misc.	0.6%	0.5%	0.4%	0.6%	0.8%	0.7%	0.8%	0.6%
Ran Stop Sign	Human	0.5%	0.6%	0.5%	0.6%	0.5%	0.6%	0.8%	0.6%
Vision Obscured	Vehicle	0.3%	0.4%	0.4%	0.4%	0.6%	1.0%	1.2%	0.5%
Disregard Other Road Markings	Human	0.3%	0.4%	0.4%	0.5%	0.4%	0.4%	0.9%	0.4%
Defective Steering	Vehicle	0.4%	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%	0.4%
Improper Backing	Human	0.1%	0.2%	0.3%	0.3%	0.3%	0.6%	0.8%	0.3%
Work Zone	Misc.	0.2%	0.2%	0.3%	0.3%	0.4%	0.4%	0.8%	0.3%
Shoulders (Non,Low,Soft,High)	Misc.	0.3%	0.2%	0.2%	0.2%	0.4%	0.4%	0.4%	0.3%
Ruts/Holes/Bumps	Misc.	0.3%	0.2%	0.2%	0.2%	0.3%	0.4%	0.4%	0.3%
Wrong Side/Wrong Way	Human	0.2%	0.2%	0.3%	0.2%	0.2%	0.2%	0.7%	0.3%
Failure to Yield Right-of-Way	Human	0.1%	0.2%	0.3%	0.3%	0.3%	0.3%	0.6%	0.2%
Debris	Misc.	0.1%	0.2%	0.3%	0.2%	0.4%	0.4%	0.2%	0.2%
Obstruction in Roadway	Misc.	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%	0.4%	0.2%
Defective Wheels	Vehicle	0.2%	0.2%	0.2%	0.2%	0.1%	0.2%	0.0%	0.2%
Improper Passing	Human	0.3%	0.2%	0.1%	0.2%	0.2%	0.1%	0.1%	0.2%
Congestion Backup, Non-Recurring Incident	Misc.	0.1%	0.1%	0.2%	0.1%	0.2%	0.1%	0.1%	0.1%
Congestion Backup, Prior Crash	Misc.	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%
Defective Suspension	Vehicle	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Truck Coupling/Trailer Hitch/Safety Chains	Vehicle	0.0%	0.0%	0.1%	0.2%	0.2%	0.1%	0.2%	0.1%
Congestion Backup, Other	Misc.	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Defective Power Train	Vehicle	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Oversize/Overweight Trucks	Vehicle	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Ran Red Light	Human	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.2%	0.1%

Human Factor • Vehicular Factor • Miscellaneous Factor

# Focus areas

As mentioned before, any one crash may exhibit several factors or behaviors which contribute to that crash. These factors can be grouped into categories, or focus areas, for analysis and planning purposes. To prioritize traffic safety projects and strategies by emphasizing the most-needed and problematic issues, these focus areas are organized into four groupings.

The Core focus areas are given the most emphasis due to the large portion of fatal and serious injury crashes falling into this area. The Strategic focus area looks into emerging problems. The Connected focus area pertains to a smaller portion of crashes are connected with other focus areas. The Support Solutions focus area represents safety techniques and systems that enhance multiple strategies. Having a strong Traffic Safety Culture will encompass these focus areas by reaching out to all groups in Minnesota, including diverse and underserved communities.

## Core

- Inattentive drivers
- Impaired roadway users
- Intersections
- Speed
- Lane departure
- Unbelted vehicle occupants

## Strategic

- Older drivers
- Pedestrians
- Younger drivers
- Work zones
- Commercial vehicles
- Motorcyclists

## Connected

- Unlicensed drivers
- Bicyclists
- Trains

## Support Solutions

- Traffic safety education and awareness
- EMS and trauma systems
- Vehicle safety enhancements
- Data management
- Management systems

# Action oriented strategies

Pages 12-26 of Minnesota’s 2020-2024 Strategic Highway Safety Plan (SHSP) details specific action oriented strategies for core and strategic focus areas. The strategies were developed cooperatively by stakeholders across Minnesota during the 2018 TZD regional workshops and later refined by traffic safety experts at the Minnesota Safety Council, MDH, DPS, MnDOT and the TZD Leadership Team. These strategies seek to reduce crashes within a specific focus area.

Below is a condensed listing of these strategies:

<b>Core Focus Areas</b>
<b>Inattentive drivers strategies</b>
<ol style="list-style-type: none"> <li>1 Improve education and awareness about inattentive driving.</li> <li>2 Provide more enforcement and legislative actions to lower inattentive driving rates.</li> <li>3 Support the advancement of technology improvements and road design to reduce the impact of inattentive</li> </ol>
<b>Impaired roadway users strategies</b>
<ol style="list-style-type: none"> <li>1 Increase public awareness to reduce impaired driving.</li> <li>2 Support community-based initiatives to keep impaired drivers off the road.</li> <li>3 Provide funding, training, and technology for impaired driving law enforcement.</li> <li>4 Improve DWI law, adjudication process, and post-conviction sanctions to deter impaired driving.</li> </ol>
<b>Intersections strategies</b>
<ol style="list-style-type: none"> <li>1 Improve safety through intersection roadway design changes and alternative intersections.</li> <li>2 Improve corridor and signalized intersection safety through intersection traffic design and signal timing.</li> <li>3 Update planning policy.</li> <li>4 Increase education and enforcement of red light running.</li> </ol>
<b>Speeding strategies</b>
<ol style="list-style-type: none"> <li>1 Increase education and awareness about safe speeds and aggressive driving.</li> <li>2 Utilize enforcement to reduce speeding.</li> <li>3 Improve road design and speed limit signing.</li> </ol>
<b>Lane departure strategies</b>
<ol style="list-style-type: none"> <li>1 Design roadways to reduce the frequency and severity of lane departure crashes.</li> <li>2 Evaluate new safety features.</li> </ol>
<b>Unbelted vehicle occupants strategies</b>
<ol style="list-style-type: none"> <li>1 Increase public awareness to improve the use of seatbelts and child restraints.</li> <li>2 Provide funding and training for seatbelt law</li> <li>3 Improve seatbelt and child passenger safety law and training programs.</li> </ol>

<b>Strategic Focus Areas</b>
<b>Older drivers strategies</b>
<ol style="list-style-type: none"> <li>1 Increase public awareness of the safety risks faced by older drivers.</li> <li>2 Evaluate fitness to drive.</li> <li>3 Improve traffic design to benefit older drivers.</li> <li>4 Improve transportation options.</li> </ol>
<b>Pedestrian strategies</b>
<ol style="list-style-type: none"> <li>1 Increase education and awareness for drivers and pedestrians.</li> <li>2 Improve design and maintenance for pedestrian safety.</li> <li>3 Promote policy changes that impact pedestrian safety.</li> </ol>
<b>Younger drivers strategies</b>
<ol style="list-style-type: none"> <li>1 Increase public awareness to improve the safety of younger drivers.</li> <li>2 Improve driver education and the graduated driver license law.</li> </ol>
<b>Work zones strategies</b>
<ol style="list-style-type: none"> <li>1 Reduce speeding within work zones.</li> <li>2 Improve work zone notifications and education.</li> <li>3 Use innovative work zone planning techniques.</li> <li>4 Design safe work zones.</li> </ol>
<b>Commercial vehicles strategies</b>
<ol style="list-style-type: none"> <li>1 Improve enforcement for commercial vehicles.</li> <li>2 Improve the network of commercial vehicle rest areas.</li> <li>3 Increase education on commercial vehicle safety.</li> <li>4 Support new vehicle technology.</li> </ol>
<b>Motorcyclists strategies</b>
<ol style="list-style-type: none"> <li>1 Increase public awareness and education to improve motorcycle safety.</li> <li>2 Improve motorcycle safety-related policies.</li> <li>3 Improve highway design and maintenance policies.</li> </ol>



# Roadway and system improvements

The 2025-2028 State Transportation Improvement Program (STIP) provides a comprehensive listing of the four-year schedule of planned transportation projects in the state for fiscal years 2025, 2026, 2027 and 2028. Over \$13 billion in federal, state and local funds have been allocated for transportation investments in state trunk highways, local roads, bridges, rail crossings, plus transit operation assistance.

Below is a link to MnDOT's STIP and listing of planned projects.

<https://www.dot.state.mn.us/planning/program/stip.html>

In addition to the comprehensive listing in the STIP, there are other initiatives targeting specific problematic areas. Targeting these problematic areas may reduce fatalities and serious injuries and put Minnesota on a path to achieving performance measure targets.

## High risk rural route systems

The definition of a high risk rural road is provided on page 32 of the SHSP. A high risk rural road is functionally classified as a rural major collector, rural minor collector or a rural local road. The road should have a fatal and serious injury crash rate above the statewide average for similarly classified roadways or a significant increase in expected traffic volumes so that the roadway could develop a fatal or serious injury crash rate above the threshold.

Rural roadways can be problematic in traffic safety due to a lack of engineered roadway safety features, an abundance of speeding drivers and the proximity of available medical facilities for crash aftercare. Determining the specific rural roadways most problematic will allow for additional law enforcement patrols and targeting educational efforts.

## Rural speed reduction project

In spring and summer of 2024, the State Patrol assigned troopers to conduct visibility patrols on problematic areas in their district. They allowed each district to formulate its own plan for when and what roads to monitor. Several types of data were analyzed to determine what roads needed the most attention, that included: Crashes, traffic volume, county population counts and speeding citation data from all 87 Minnesota counties.

## Avel eCare rural EMS services

Southwest Minnesota and Arrowhead EMS received \$14.9 million from the U.S. Department of Transportation to upgrade ambulances with telemedicine services. This service connects the EMS crew with board-certified physicians, experienced paramedics and nurses for support while in the field and during transport. This service aims to improve patient care in rural areas where hospitals and trauma centers may be dispersed.

## Safe road zones

In fiscal year 2024, \$1.75 million was appropriated to safe road zones, including traffic safety enforcement activities and the development/delivery of public awareness and education campaigns about safe road zones. In determining the designation of a safe road zone, the following traffic safety concerns for the street or highway include but are not limited to: Excessive speed, crash history, safety of pedestrians/bicyclists/or other vulnerable road users, intersection risks and roadway design.

# Roadway and system improvements

## EMS housing locations

OTS predictive analytics reveal that ambulance response times could be reduced if ambulance housing locations are repositioned.

## Project 20(24)

State Patrol relaunched this enforcement project in which troopers worked in teams to conduct high intensity patrols in specific areas focusing on the deadliest traffic violations of: Speed, distraction, lack of seat belt use and impairment.

## Traffic Incident Management (TIM)

TIM is a coordinated effort by all traffic incident responders to accommodate their safety, victims' safety, incoming traffic's safety, and overall mobility. The goals of TIM are to: Reduce responder exposure, reduce secondary crashes, reduce incident clearance time and to reduce travel delay.

## Tribal traffic safety summit

The Tribal Safety Summit was a one-day summit that brought together traffic safety professionals, invested stakeholders, and community members to provide education and raise awareness of crash-related injuries and deaths affecting Minnesota's Tribal communities. The purpose was to also identify strategies to prevent serious and fatal injury crashes from occurring on Tribal lands and impacting Tribal communities.

# Enforcement and education efforts

The Highway Safety Plan (HSP) details the program areas, projects, countermeasures and strategies which OTS operates under. The HSP is required by NHTSA and the plan must also be approved by NHTSA. It has recently switched from an annual plan over to a three year plan. Determining the projects and planned activities for the highway safety plan is a constant endeavor throughout the year as projects are considered using data-driven decisions and may involve community and public participation efforts. Much of the HSP includes enforcement and education outreach efforts targeting traffic safety behaviors with the goal of reducing traffic deaths and serious injuries.

## Police traffic services

The program area of police traffic services supports additional hours of law enforcement and resources to focus on prevention (deterrence) and education (behavior correction). A traffic stop may be viewed as an enforcement opportunity with a citation issued, or an educational opportunity with a public contact and a warning issued. The plan also provides assistance to allow officers to attend trainings and conferences to network and share best practices, as well as recognition honors for outstanding traffic safety work to inspire and motivate officers.

This support of police traffic services has enabled strong working partnerships between OTS and more than 200 local police departments, more than 70 sheriff's departments, two university police departments and all districts of the Minnesota State Patrol. Minnesotans and Minnesota roads benefit from these strong partnerships.

## Impaired driving enforcement

Alcohol and drug impaired driving constitutes a serious traffic safety problem. Impaired driving is a program area in the HSP, and many projects specifically relate to enforcement of impaired driving laws or the judicial aftermath of an impaired driving arrest. The drug recognition evaluator (DRE) program seeks to reduce drug impaired driving by providing specialized drug identification training to law enforcement officers. This provides officers with the tools needed to conduct tests and make drug-impaired driving arrests. There is also a DRE certification program available. Currently, there are more than 300 DRE officers in the state. Due to the legalization of cannabis, the DRE program will expand both in number of officers and available technology.

## Paid and earned media

Educational paid media campaigns are used in conjunction with enforcement campaigns targeting specific types of enforcement (e.g. occupant protection, speeding, impaired driving, distracted driving). These paid media campaigns follow an annual calendar and run in concert with statewide and national campaigns. Along with traditional broadcast cable TV and radio spots, other media elements are used to reach targeted groups for campaigns. Some of these other media elements include digital billboards, gas station media, restaurant restroom displays, light rail train, bus and truck wraps and clings, out-of-home advertising and social media posts. Additional earned media utilized include news releases, news conferences, media interviews, DPS blog posts, DPS videos and traffic safety partner communications materials and educational collateral.

# Enforcement and education efforts

## Other education efforts

There are several other programs within the HSP focusing on educational efforts.

In the program area of occupant protection, there are projects providing education for car seat technicians to be certified and projects to provide child and restraint system trainings to caregivers and parents. Manuals and other instructional materials are produced and offered through car seat inspections and virtual and in-person classroom education events.

There is a responsible beverage service project to train bar and wait staff on the issue of over-serving patrons.

Educating parents of teen drivers on the graduated driver license Laws is important because teenagers are more likely than any other age group to be involved in crashes. There is a project dedicated to providing educational materials and outreach activities for parents and teens to understand the laws and best practices for novice drivers.

An older driver working group has been assembled to develop educational content around the risks associated with aging drivers.

# Safety improvements and programs

The Highway Safety Improvement Program (HSIP) is a federally-funded program designed to reduce roadway fatalities and serious injuries that occur on all public roads, including non-State owned roads and roadways located on tribal lands. The funding provides an opportunity for states to address specific transportation issues within the state. MnDOT distributes this funding geographically between its districts, as well as by jurisdiction.

Federal Highway Administration (FHWA) is the agency providing guidance to MnDOT for the HSIP requirements. A data-driven strategic approach to improving highway safety is required to secure funding. The HSIP consists of three main components: The Strategic Highway Safety Plan (SHSP), the State Highway Safety Improvement Program (HSIP) and the Railway-Highway Crossing Program (RHCP).

The FHWA requires the HSIP implementation plan to:

- Identify hazardous roadway features.
- Find projects to improve highway safety based on crash history, crash potential or other data-supported means.
- Detail how HSIP funding will be utilized by projects, activities and strategies to implement.
- Describe how those projects, activities and strategies will help the State make progress toward achieving safety performance targets.
- Lay out the actions the state will undertake to achieve performance targets.

Engineers at MnDOT employ innovative processes and screening toolkits to identify roadways needing improvements. MnDOT also works with stakeholders across the state to ensure that projects from every part of the state are considered in a solicitation process. Eventually, both proactive and reactive projects get selected.

To utilize the HSIP funds, Minnesota's implementation plan includes a mix of reactive intersection projects (roundabouts), systemic intersection projects determined by crash and risk history and local identified projects (edgeline striping and rumble strips). This mix of projects intentionally provides MnDOT an opportunity to enhance locations with known problematic crash histories as well as proactively addressing areas needing improvements. Current selected HSIP projects for 2025-2028 include infrastructure projects in these areas:

- Run-off-road
- Head-on
- Intersections
- Non-motorists

Minnesota's Highway Safety Improvement Program 2023 Annual Report can be viewed at the link below.

<https://highways.dot.gov/sites/fhwa.dot.gov/files/2024-04/HSIP%28Minnesota%29%202023%20Report.pdf>

# Existing resources and resource gaps

The Advisory Council on Traffic Safety members are beginning to explore and identify the resources that would make the biggest safety difference on Minnesota's roads. This also applies to the legislative recommendations. The council has met twice focusing primarily on organizational structure and roles and responsibilities. Expect a much more robust submission in future reports.

A data-driven strategic approach to improving highway safety is the foundation for most of the work we do. In preparation for the OTS Data Analytic and Innovation Center, analysis has been conducted to determine what datasets and data systems exist and which datasets could be shared amongst our partners to maximize our efforts.

The grid on the following page is the result of initial analysis of datasets and data sources.

# Gaps in datasets and data sources

Potential Dataset	Potential Source of Data																																				
	FARS (NHTSA)	Recall Database (NHTSA)	NHTSA	MNCRASH (OTS)	ROAR (OTS)	CrashMart (MnDOT)	LIRS (MnDOT)	MNDRIIVE (DVS)	MNCICS (Courts)	eCharging (BCA)	HJIP (Henpin)	CODES (MDH)	Midas (MDH)	Billing System (MHA)	Trauma registry (MDH)	Death Registry (MDH)	State Demographer	DWI (BCA)	Out State Hospital	POLD (North)	NEXTGEN 911 (DPS)	CAD/RMS (MSP / LE)	EMSRB (BioSpatial)	Vendor (3rd party, insurance)	Google	LIMS (BCA)	CDR / AR Pro / IMS360 (MSP)	RTMC (511 & Monitoring)	Excel Report	Boarder States	Public (TBD)	MINGEO (MNIT)	TIM (DOT)	S3 (DOC)			
Automotive/Vehicle Data	●						●																	●													
Traffic Movement Data																								●													
Calls for Service																							●														
Citation Data								●	●	●	●																										
Court Disposition									●																												
Crash Data				●		●																														●	
Crash Data - Regional/National		●																																			
Crash Reconstruction Data																												●									
Dispatch Response Time Data																							●	●													
Driver Data (DL/Credential/Endorsement/History)								●	●																												
Driver testing and training data								●																													
DWI / DUI				●					●	●	●	●							●																		
DWI Probation																																					●
EMS													●		●						●																
Billing/Admission/Discharge/Transfers													●																								
EMS Injury Severity/Substance/Vital Statistics				●								●	●		●	●																					
EMS Linked Data													●																								
EMS Ambulance/Paramedic																								●													
Fatality/Death	●			●								●						●																		●	
Human Factors (Behaviors)				●		●		●	●	●	●													●													
Jurisdiction data																																					●
Public Data																																					●
Place of Last Drink																			●		●																
Population																				●						●											
Roadway Data							●																	●													
Realtime Officer Reporting					●																																
School Bus Stop Arm Violations																																					
Survey Data																																					
Toxicology																											●										
Traffic Incidents																																					●
Vehicle Regsitration								●																													
MNCRASH Reporter Training																																				●	
Weather																								●													
Warnings																																					

● Primary source of data    ● Secondary source of data

# Appendix A - Definitions, data sources and acronyms

<b>BAC</b>	Blood Alcohol Concentration	<b>HSP</b>	Highway Safety Plan (OTS' plan for projects and initiatives for a three-year span).
<b>BCA</b>	Bureau of Criminal Apprehension		
<b>Big 4</b>	Four driver behaviors (speeding, seatbelt non-use, alcohol impairment, and distraction) linked to highway deaths and injuries.	<b>MDH</b>	Minnesota Department of Health
		<b>MJB</b>	Minnesota Judicial Branch
		<b>MNCrash</b>	The state's crash reporting system used by law enforcement officers to enter data related to crashes.
<b>Calendar Year</b>	Calendar year runs January 1 through December 31st.		
		<b>MnDOT</b>	Minnesota Department of Transportation
<b>Citation Data</b>	Charges obtained from the Minnesota Judicial Branch (MJB) for speeding citations or texting violations cited by law enforcement officers.	<b>MVO</b>	Motor vehicle occupant
		<b>NHTSA</b>	National Highway Traffic Safety Administration
		<b>NSC</b>	National Safety Council
<b>Crash Data</b>	Information from crashes entered by law enforcement officials into the MNCrash reporting system. Yearly data up through 2022 has been sanitized and finalized. Data for calendar year's 2023 and 2024 are preliminary.	<b>OTS</b>	Office of Traffic Safety
		<b>PDO</b>	A traffic crash involving property damage only and no injuries to persons involved.
		<b>Seatbelt Use</b>	Data obtained from observational seatbelt use studies. MnDOT conducts an annual seatbelt use study at the regional level. DPS-OTS conducts a yearly statewide observational seatbelt use study as required by NHTSA.
<b>DPS</b>	Department of Public Safety		
<b>DWI</b>	Driving While Intoxicated		
<b>FARS Data</b>	Fatality Analysis Reporting System (FARS) is statewide fatality data collected and reported to NHTSA.	<b>Serious Injury Crash</b>	A traffic crash in which a serious (life-changing) injury has resulted.
<b>Fatal Crash</b>	A traffic crash in which a death has resulted.	<b>SHSP</b>	Strategic Highway Safety Plan (a joint plan by MnDOT, DPS-OTS, and MDH for projects and initiatives for a five-year span).
<b>Fatality Rate</b>	Rate of roadway fatalities per 100K population, 10K registered motor vehicles, and 100M vehicle miles traveled as calculated by NHTSA.	<b>STIP</b>	State Transportation Improvement Program
		<b>SUV</b>	Sport Utility Vehicle
<b>FHWA</b>	Federal Highway Administration	<b>TZD</b>	Toward Zero Deaths - a statewide program aimed at reducing traffic related deaths.
<b>Fiscal Year</b>	The state fiscal year (SFY) runs July 1 through June 30. The federal fiscal year (FFY) runs October 1 through September 30.	<b>VMT</b>	Vehicle Miles Traveled - an aggregate measure of road usage.
		<b>YTD</b>	Year-to-date
<b>HRRR</b>	High Risk Rural Road		
<b>HSIP</b>	Highway Safety Improvement Program (MnDOT's infrastructure improvements funded with money from the Federal Highway Administration).		



# Appendix B – Reference documents

**Strategic Highway Safety Plan (SHSP) 2020-2024**

<https://www.dot.state.mn.us/trafficeng/safety/shsp/>

**Triennial Highway Safety Plan (HSP) FY24-FY26**

<https://www.nhtsa.gov/document/minnesota-fy2024-2026-highway-safety-plan>

**Highway Safety Improvement Program (HSIP) 2023 Annual Report**

<https://highways.dot.gov/sites/fhwa.dot.gov/files/2024-04/HSIP%28Minnesota%29%202023%20Report.pdf>

**State Transportation Improvement Program (STIP) 2025-2028**

<https://www.dot.state.mn.us/planning/program/stip.html>

**Minnesota Motor Vehicle Crash Facts 2022**

<https://s3.us-east-2.amazonaws.com/assets.dps.mn.gov/s3fs-public/migrated-files/divisions/ots/reports-statistics/Documents/2022a-crash-facts.pdf>

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