



2022 CITY OF MINNEAPOLIS

VISION ZERO CRASH STUDY

Department of Public Works



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Introduction

On September 20, 2017 the City Council passed a [resolution](#) that provides for a Vision Zero policy to eliminate fatalities and severe injuries that are a result of crashes on Minneapolis streets by 2027. The [2018 Vision Zero Crash Study](#) and [2017 Pedestrian Crash Study](#) identified trends, contributing factors, and characteristics of pedestrian, bicycle, and vehicle crashes in Minneapolis between 2007 to 2016. These studies were used to shape the Vision Zero strategies used in recent years.

Purpose

This study builds off the 2018 Vision Zero Crash Study to provide the most up to date information on crashes happening in Minneapolis to help inform the update the Vision Zero Action Plan for 2023-2025. This study looks at vehicle, bicycle, and pedestrian crashes between 2017 and 2021 with extra focus on severe and fatal crashes. This study is intended to provide a deeper analysis of non-freeway crashes over the last 5 years by reviewing a variety of crash factors and characteristics, and will serve to guide next steps of the Vision Zero Action Plan in the future.

Methodology

Where the Data Comes From

The data used in this study comes from the Minnesota Department of Transportation (MnDOT) Crash Mapping and Analysis Tool (MnCMAT). It includes all crashes on streets in Minneapolis reported by any law enforcement agency, including the Minneapolis Police Department (MPD), Minnesota State Patrol, Hennepin County Sheriff Department, University of Minnesota Police, and Metro Transit Police. Some crash characteristics, such as the race and ethnicity, are not included in Minnesota crash reports. As such, additional data was sourced from the National Highway Traffic Safety Administration (NHTSA) via the Fatality and Injury Reporting System Tool (FIRST) and the Fatality Analysis Reporting System (FARS). FARS is a nationwide dataset gathered from police accident reports, medical service reports, and state administrative records.

Reporting Process

When a crash occurs, there is a process by which the numerous details and factors of the event are documented, organized, and recorded.

- Per Minnesota State Statute 169.09, an individual involved in a traffic crash that immediately results in property damage or bodily injury is required to remain at the scene of the crash until contact information is exchanged with all parties involved. The involved parties then have up to 72 hours to notify the relevant law enforcement official.
- If the law enforcement agency is notified at the time of the crash, an officer joins the involved parties at the scene of the crash, gathers all necessary details of the crash and completes a Minnesota Department of Public Safety (DPS) motor vehicle crash report (required for incidents involving at least \$1,000 in property damage, injury, or death). Attributes such as location, time, personal information, weather, and road surface conditions are recorded using a standardized coding system. A crash narrative and diagram are also included in the report.
- The Minnesota Department of Public Safety (DPS) is the centralized reporting agency for all crashes that occur in Minnesota. Law enforcement officers are required to submit reports on crashes they investigate within 10

days. DPS also collects crash reports submitted by an individual involved in the crash. The crash data from all law enforcement agencies and individuals are then aggregated and imported into the MnCMAT system, which is maintained by the Minnesota Department of Transportation. MnCMAT makes the crash data available to engineers and planners for study and analysis.

Minnesota changed its crash reporting system starting in 2016. Because of this change, some aspects of crash reports are not directly comparable for before and after 2016. This is most noticeable in the number of serious injury crashes (referred to as “severe injury” in this report); under the new guidance, more crashes are labeled as serious injury since 2016.

Crash severity is typically identified by an officer at the scene based on the information they have available at that time. Minnesota crash reports are aligned with the national [Model Minimum Uniform Crash Criteria](#).

Limitations of the Data

While the process outlined above is the best available source to gather crash data, and has provided valuable information for this analysis, it has limitations which arise from conflicting witness accounts, innate challenges of reducing complex events to a set of data codes, and the crash interpretation by law enforcement and engineering staff.

Some of the crash attributes that may be reported with the least consistency:

- **Nonmotorist position within intersection prior to the crash** – This data is largely dependent on the statements of the bicyclists/pedestrians and the reporting officer’s depiction in the crash report, and some crash reports are more robust than others in their description, while some reports are missing this information.
- **Contributing factors** – Factors that require the person at fault to admit wrong-doing are likely to go underreported. Distracted driving is particularly challenging without witnesses or a search warrant to access cell phone records.
- **Traffic control status** – The specific signal phase or operational status of the traffic control device at the time of the crash relies on the statements of those involved in the crash or witnesses and is usually not directly observed by those completing the crash report. Therefore, in cases of conflicting statements, it is not always possible to determine who had the right-of-way at the time of the crash.

Crash Analysis Exclusions

Once receiving the data from MnCMAT, Public Works staff looked through each severe and fatal crash report to clean and organize the data. This included verifying the information given and removing certain crashes:

- Homicides, suicides, or intentional injury crashes (there were 13 cases like these excluded from the database);
- Crashes occurring on private property or in a parking lot (there were 20 cases like these excluded from the database);
- Crashes that occurred due to a medical issue or because the driver was shot (there were 20 cases like these excluded from the database); and
- Crashes on freeways, which are not the focus of Vision Zero work (there were 83 cases like these excluded from the database).

Study Findings

Crash Overview

Traffic deaths increasing across the country, especially pedestrian deaths

An estimated 42,915 people died in traffic crashes in the United States in 2021¹. This is a 31% increase from traffic deaths in 2014. Traffic deaths have especially spiked since 2020, with an increase of 18% experienced in just 1 year.

Nationwide pedestrian deaths have risen 54% over the last decade, while all other traffic deaths have increased 13%². That meant that pedestrian fatalities rose to 17% of all traffic deaths nationally in 2020 compared to 13% of all traffic deaths in 2010.

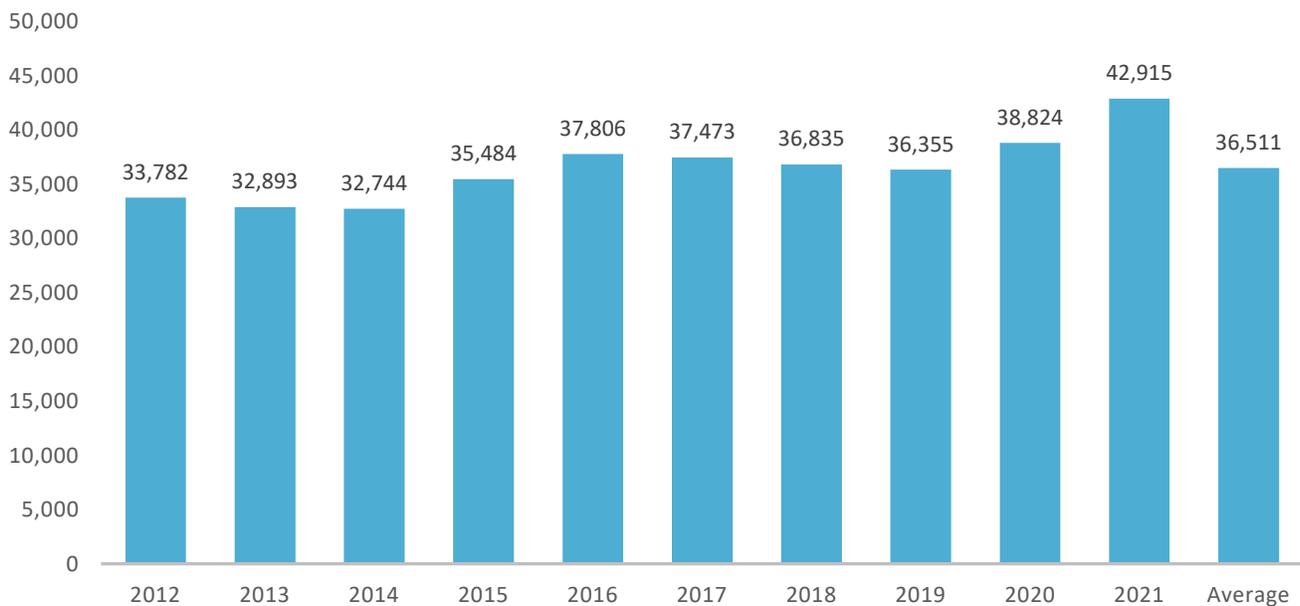


Figure 1: National Traffic Fatalities per Year, 2012-2021

Fatal crashes spiked in Minneapolis in 2020 and 2021

Similar to national trends, fatal crashes in Minneapolis generally declined until 2014 and then have increased since before spiking in 2020 and 2021. There were 23 fatal crashes in 2021, the highest number since 2007. The number of pedestrians killed has generally been increase over the last decade as well; 11 people were killed while walking or rolling in 2021, which was the highest number in Minneapolis since 1998.

¹ Source: [National Highway Traffic Safety Administration](#). September 2022.

² Source: [Governors Highway Safety Association](#). May 2022.

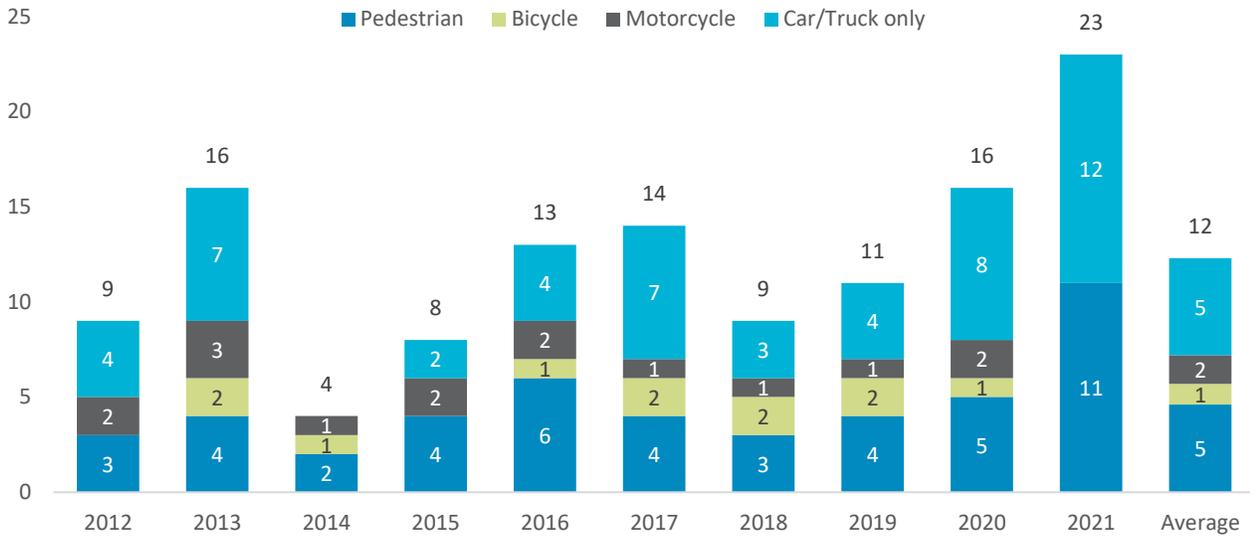


Figure 2: Number of People Killed Each Year, by Mode

Severe and fatal crashes by mode

2021 had the most fatal and severe injury crashes since 2017 with 168 crashes. Between 2017 and 2021, an average of 150 people were killed or severely injured in traffic crashes on city streets.

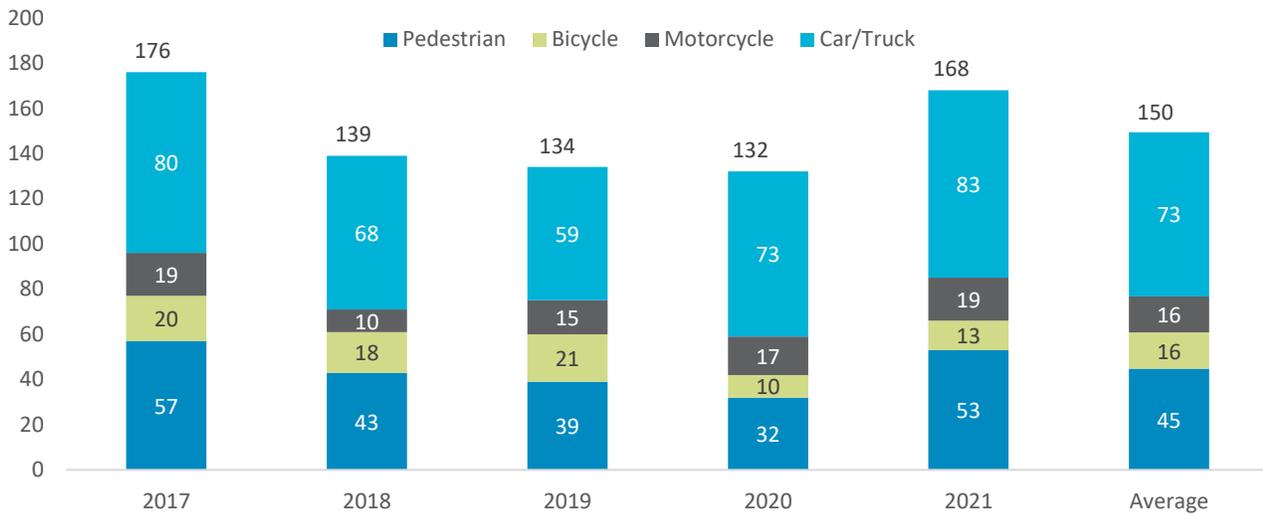


Figure 3: Number of People Killed or Severely Injured Each Year, Minneapolis

It is not possible to directly compare severe injury crashes before and after 2016 because the reporting standards for severe injury crashes changed in 2016. This change increased the reportable number of these crashes (an average of 95 people were killed or severely injured each year from 2007-2015 with the old methodology). People in cars or trucks make up the largest portion of fatal and severe injury crashes, accounting on average for 48%. Pedestrians on average make up one 30% of fatal and severe injury crashes. These proportions differed the most in 2020, in which pedestrians made up 24% of fatal and severe injury crashes while people in cars or trucks rose to 55%.

Total crashes down in 2020 and 2021

While fatal crashes spiked in 2020 and 2021, all other traffic crashes were down more than 40% compared to previous years.

Crash Severity	2017	2018	2019	2020	2021	Average 2017- 2021	Total 2017- 2021	Mode %
Fatal	14	9	11	16	23	14	73	
<i>Pedestrian</i>	4	3	4	5	11	5	27	37%
<i>Bicycle</i>	2	2	2	1	0	1	7	10%
<i>Motorcycle</i>	1	1	1	2	0	1	5	7%
<i>Auto only</i>	7	3	4	8	12	7	34	47%
Severe injury	162	131	123	116	145	135	677	
<i>Pedestrian</i>	53	40	35	27	42	41	197	29%
<i>Bicycle</i>	18	16	19	9	13	15	75	11%
<i>Motorcycle</i>	18	10	14	15	19	19	76	11%
<i>Auto only</i>	73	65	55	65	71	60	329	49%
Severe and fatal	176	140	134	132	168	149	750	
<i>Pedestrian</i>	57	43	39	32	53	45	224	30%
<i>Bicycle</i>	20	18	21	10	13	16	82	11%
<i>Motorcycle</i>	19	10	15	17	19	16	80	11%
<i>Auto only</i>	80	68	59	73	83	73	363	48%
Minor injury	992	764	829	576	572	747	3733	
<i>Pedestrian</i>	155	120	164	88	67	119	594	16%
<i>Bicycle</i>	122	90	96	40	39	77	387	10%
<i>Motorcycle</i>	52	43	26	26	32	36	179	5%
<i>Auto only</i>	663	511	543	422	434	515	2573	69%
Possible injury	1342	1365	1216	889	944	1151	5756	
<i>Pedestrian</i>	142	149	128	94	57	114	570	10%
<i>Bicycle</i>	80	82	79	27	30	60	298	5%
<i>Motorcycle</i>	19	21	18	22	19	20	99	2%
<i>Auto only</i>	1101	1113	991	746	838	958	4789	83%
Property damage only	6526	6569	6139	3849	2948	5206	26031	
Unknown	0	0	0	1	271	54	272	
Total	9036	8836	8318	5447	4903	7308	36540	

Table 1: Crash Overview

Source: MnDOT MnCMAT and Minneapolis Public Works.

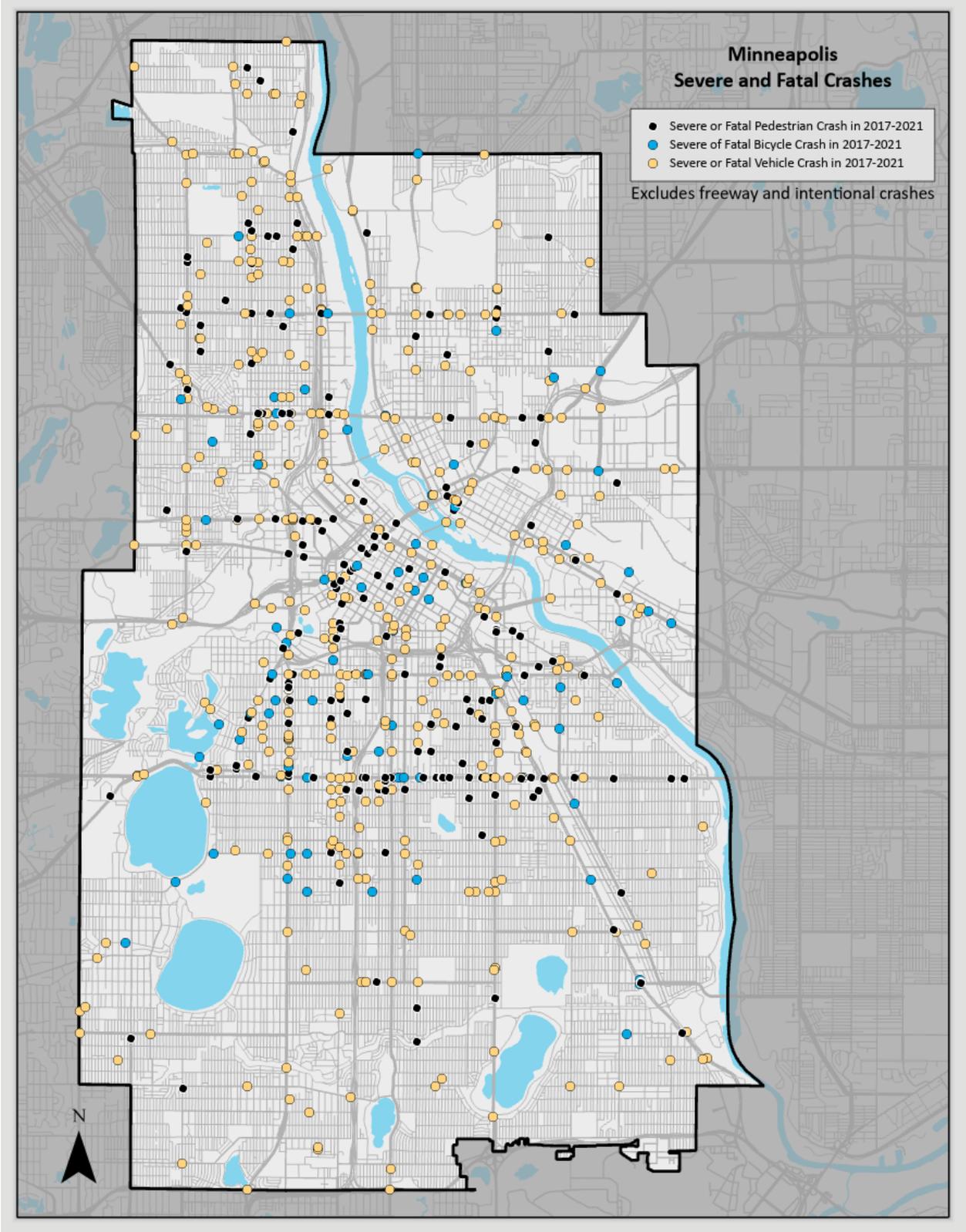
Excludes freeway crashes, intentional crashes, and medical emergency crashes.

Motorcycle includes moped or motor scooter. Motorized foot scooters are generally included in pedestrian.

Data for severe and fatal crashes was reviewed by Minneapolis Public Works staff and includes some small adjustments from MnCMAT data.

Where and When Crashes Are Happening

Location of traffic deaths and severe injuries



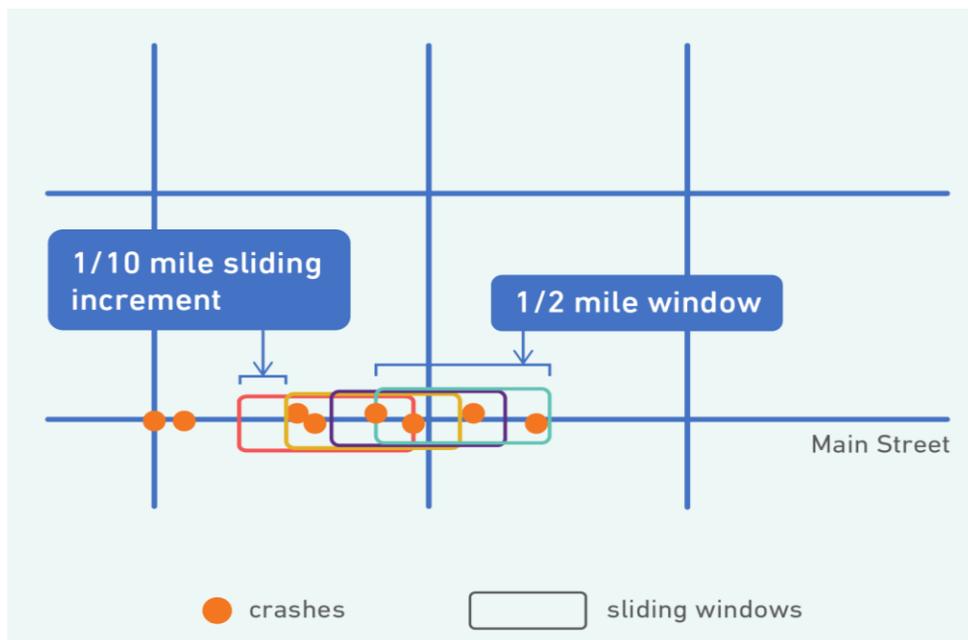
High Injury Streets

Severe crashes are concentrated on relatively few streets, identified as High Injury Streets. These streets are 9% of all streets in Minneapolis but had 66% of severe and fatal crashes from 2017-2021. High Injury Intersections are also identified, which are the 26 highest risk intersections.

Methodology

High Injury Streets were determined based on analysis by Toole Design Group and account for where crashes are grouped along corridors. They analyzed fatal and injury crashes for all modes from 2017 to 2021. All fatal and severe injury crashes were counted as 3 severity points in their analysis while other injury crashes counted as 1 point. The consultant determined relative injury crash concentration for each segment of roadway working with a “sliding window” analysis that used a ½-mile window and 1/10th-mile increment across all streets (see Figure 4). Figures 5-8 show the sliding window injury concentrations for all modes combined and for pedestrians, bicyclists, and motorists.

Figure 4: Segmenting for sliding window analysis



The main High Injury Street map (Figure 9, page 13) is based on analysis of all crashes for all modes combined. After the sliding window analysis was complete, Toole Design determined a threshold for inclusion targeted to include about 9% of streets in Minneapolis. City and Toole Design staff made minor tweaks to the map to have logical end points, connect across short gaps, and remove a few local streets where injury crashes were overwhelming concentrated at intersections with collector or arterial High Injury Streets and there was not a concentration outside of those intersections. There are 33 miles of streets identified as High Injury Streets previously that did not reach that threshold in analysis of the most recent crash data.

High Injury Street maps were also created for pedestrian, bicyclist, and motorist-specific crashes, which are Figures 10-12.

Figure 5: All modes injury crash concentration map

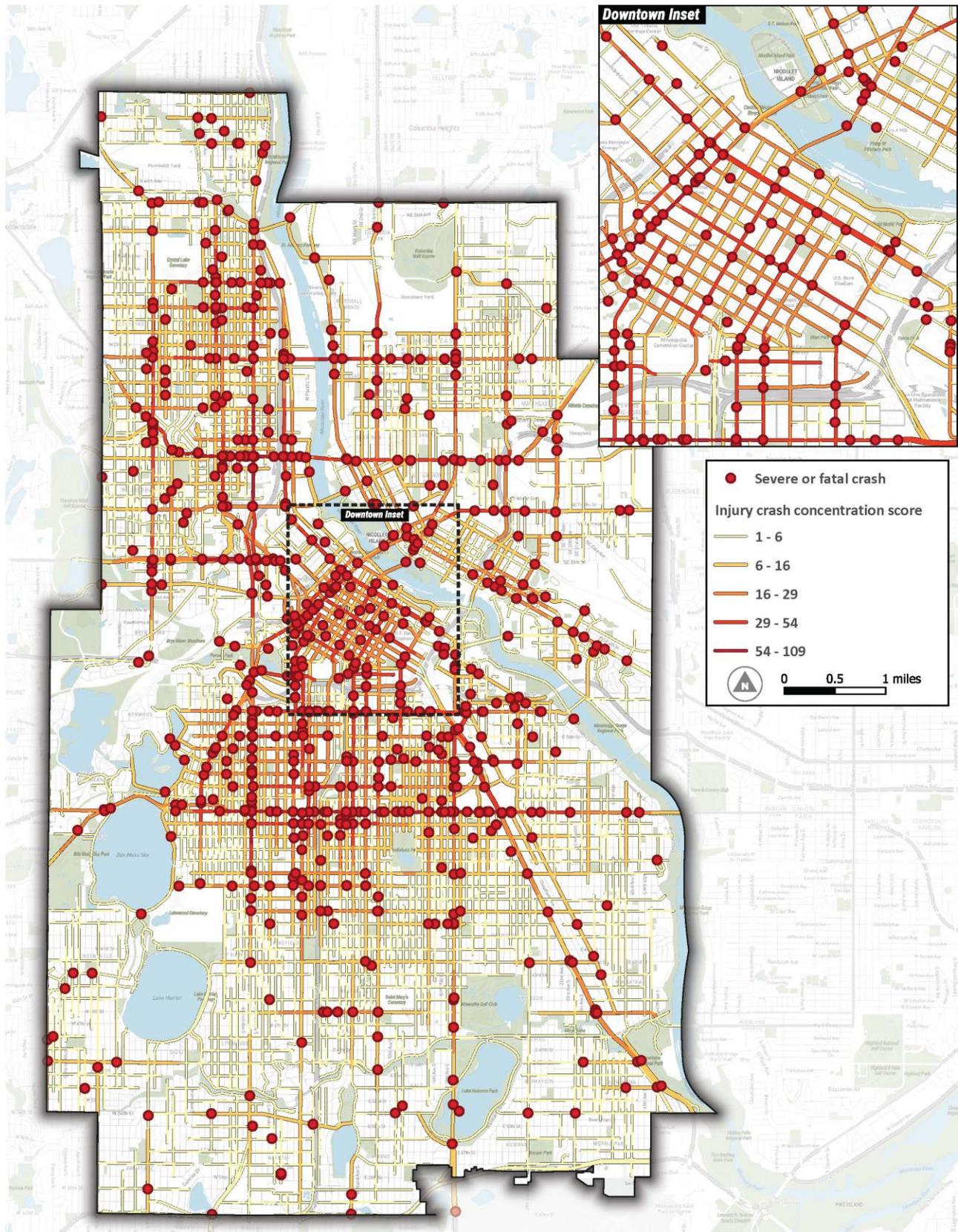


Figure 6: Pedestrian injury crash concentration map

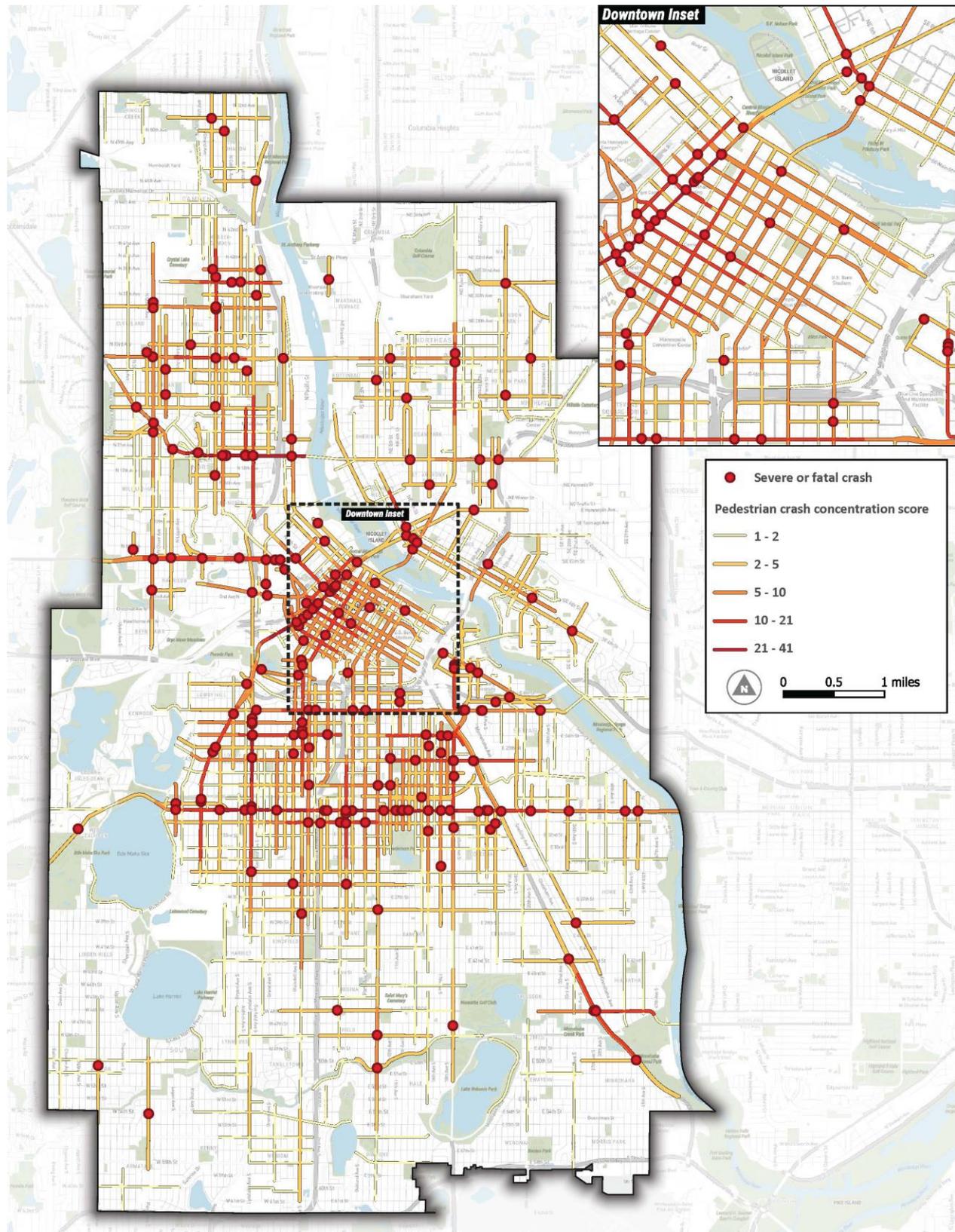


Figure 7: Bicyclist injury crash concentration map

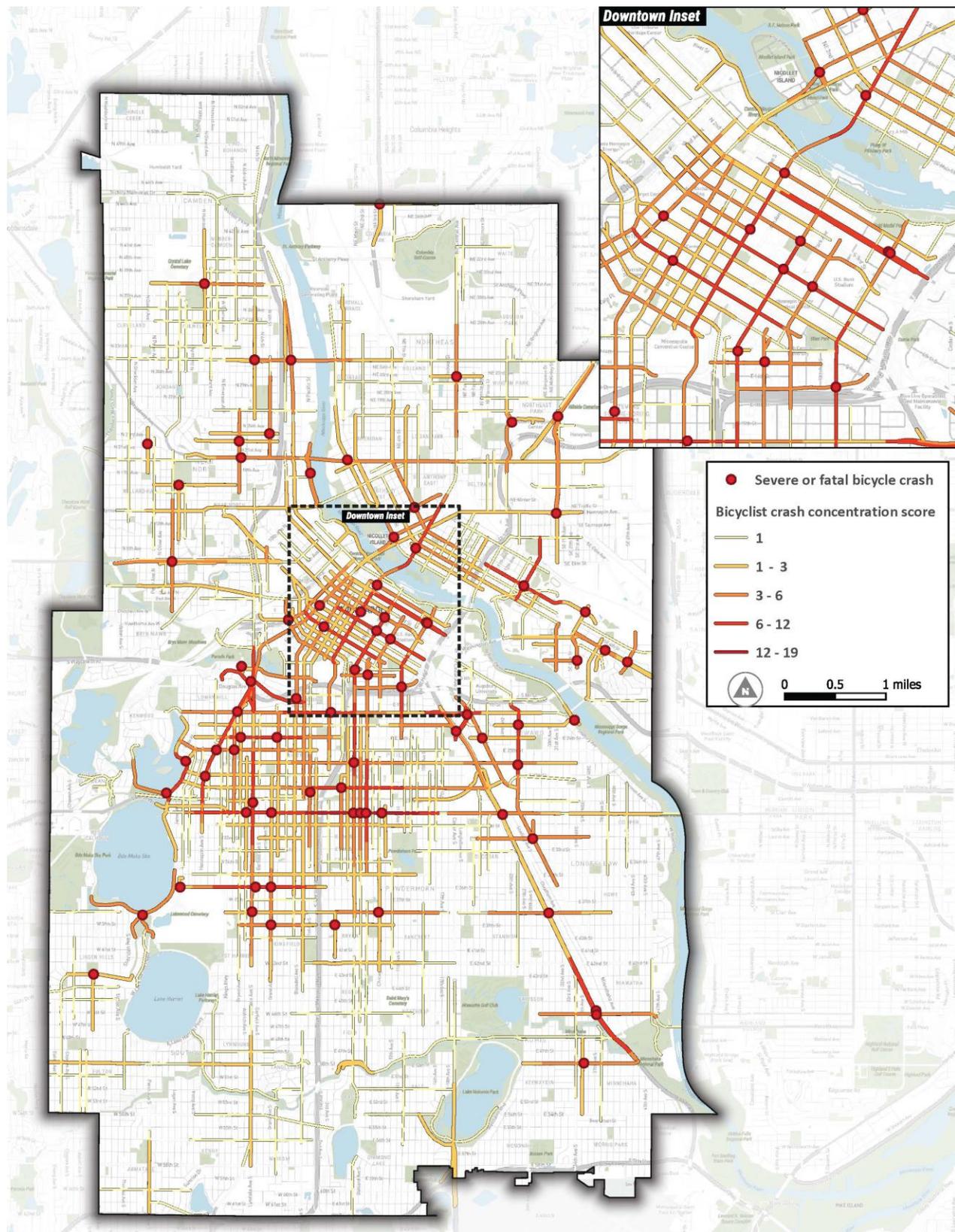


Figure 8: Motorist injury crash concentration map

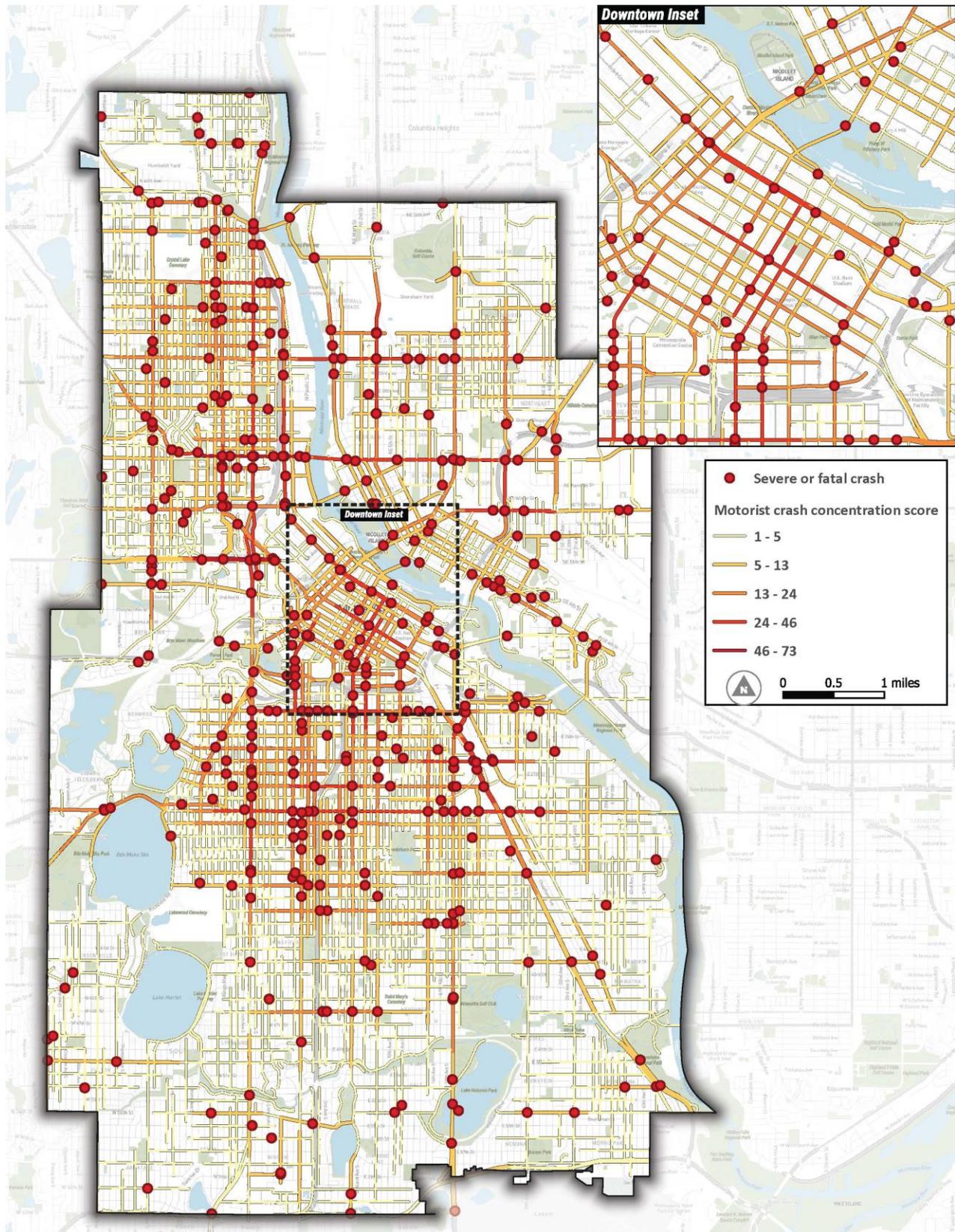


Figure 9: High Injury Street map

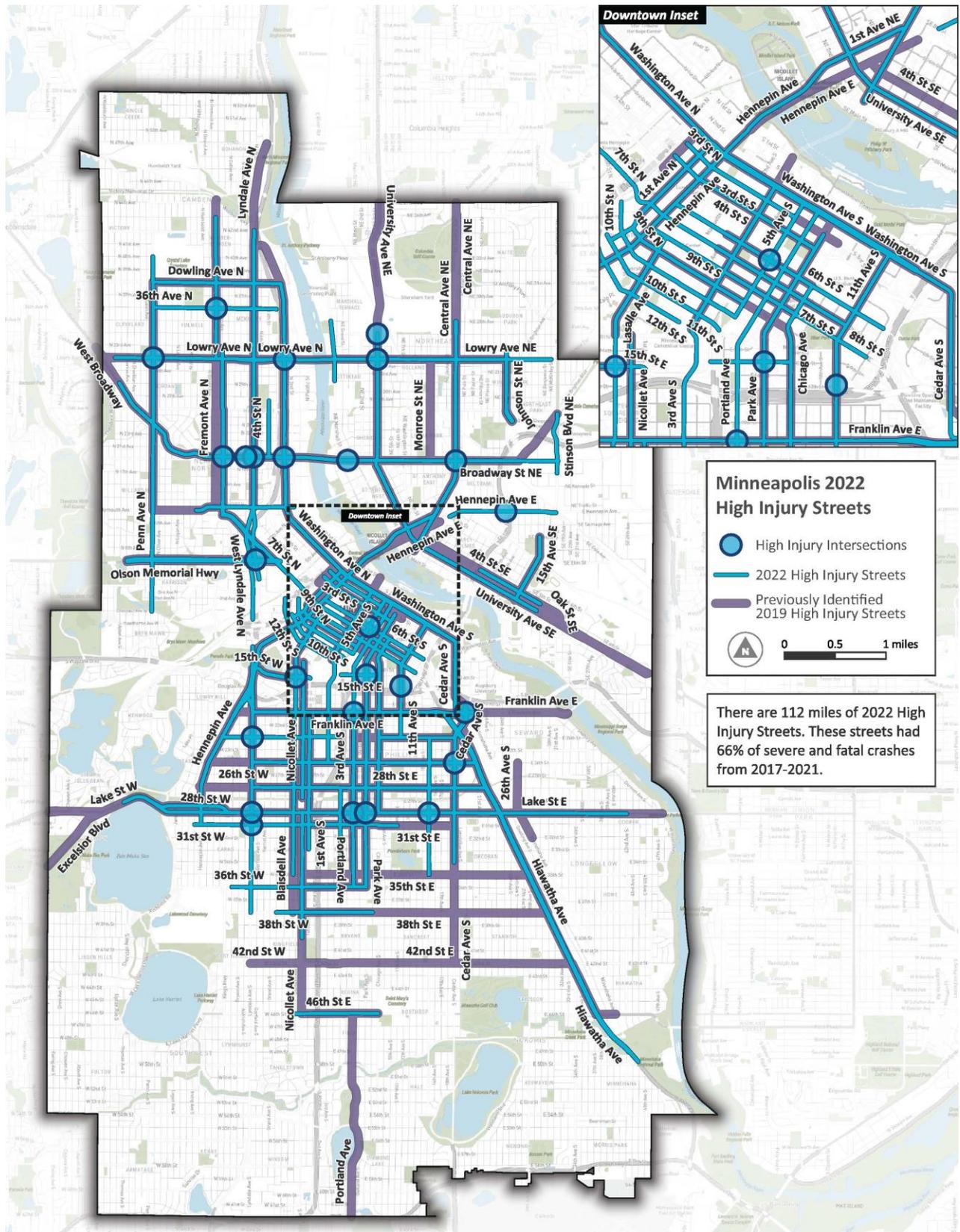


Figure 10: Pedestrian High Injury Street map

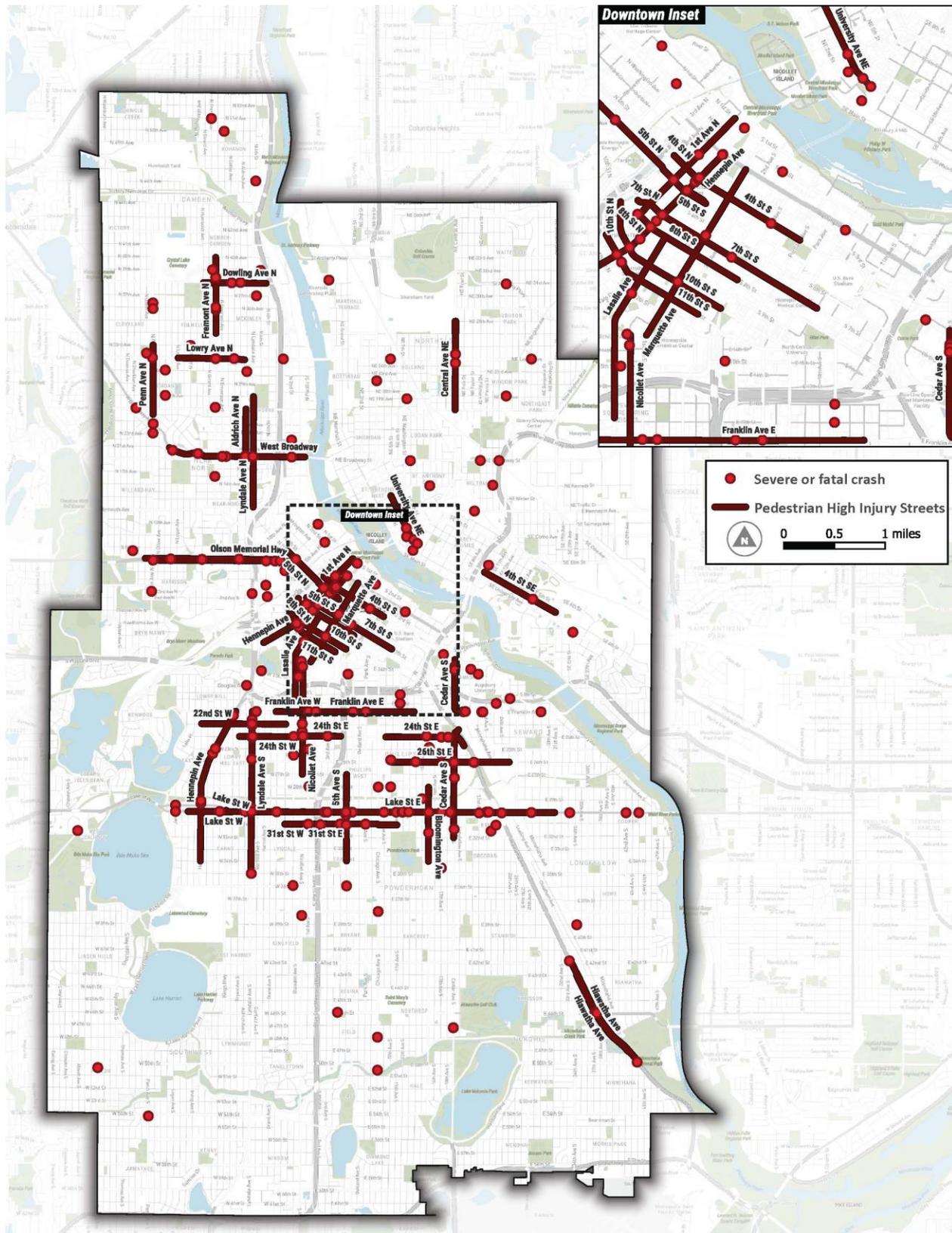


Figure 11: Bicyclist High Injury Street map

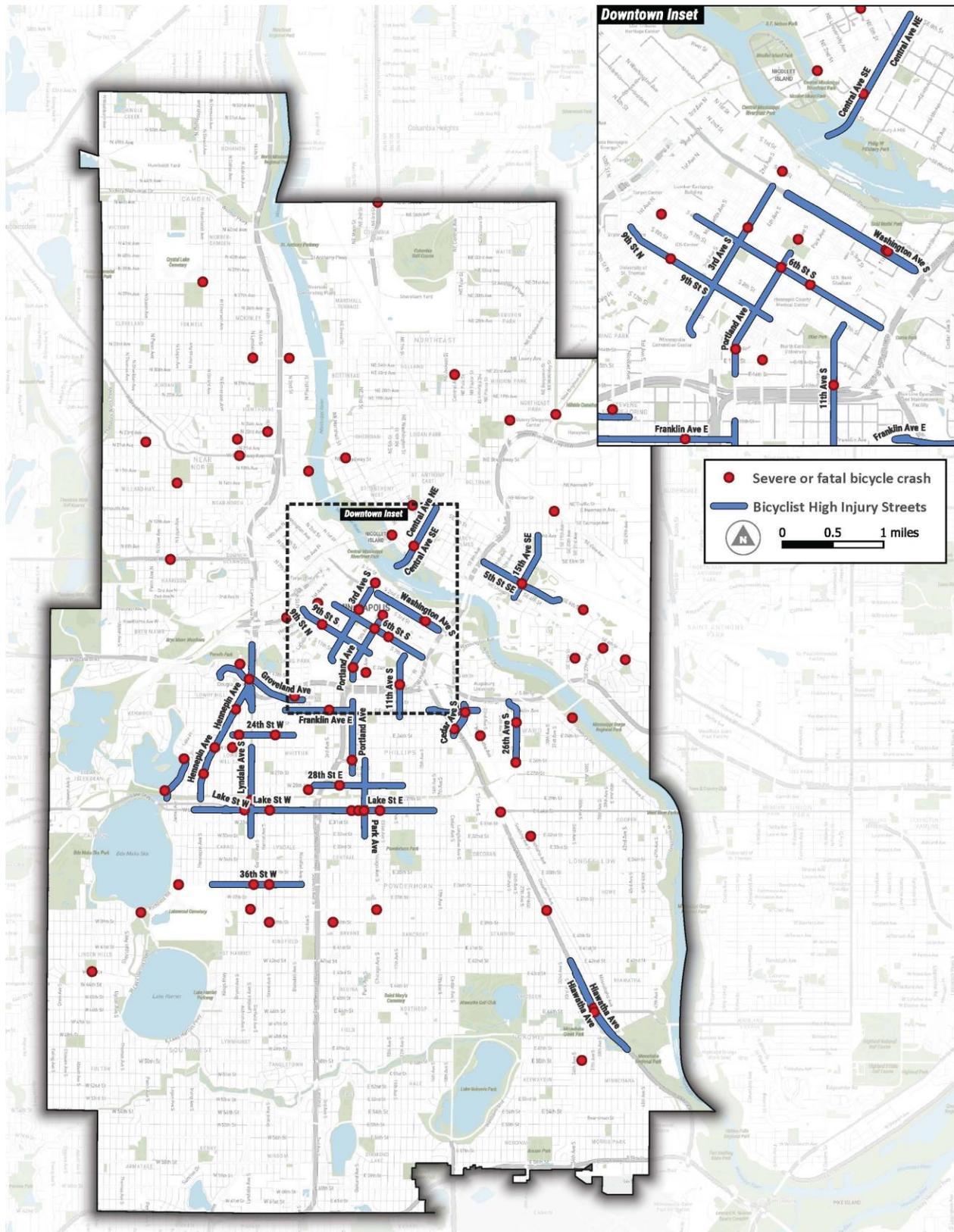
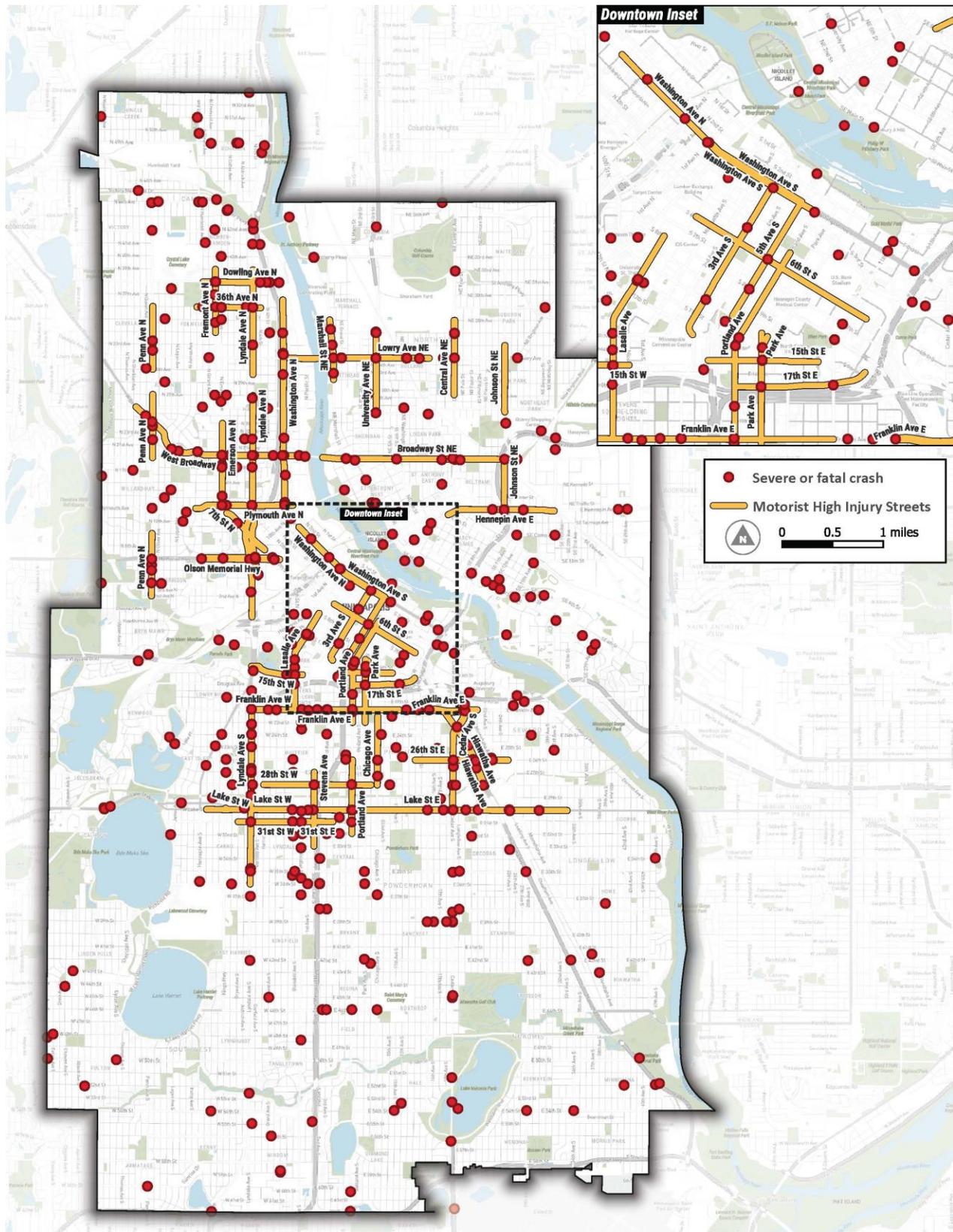


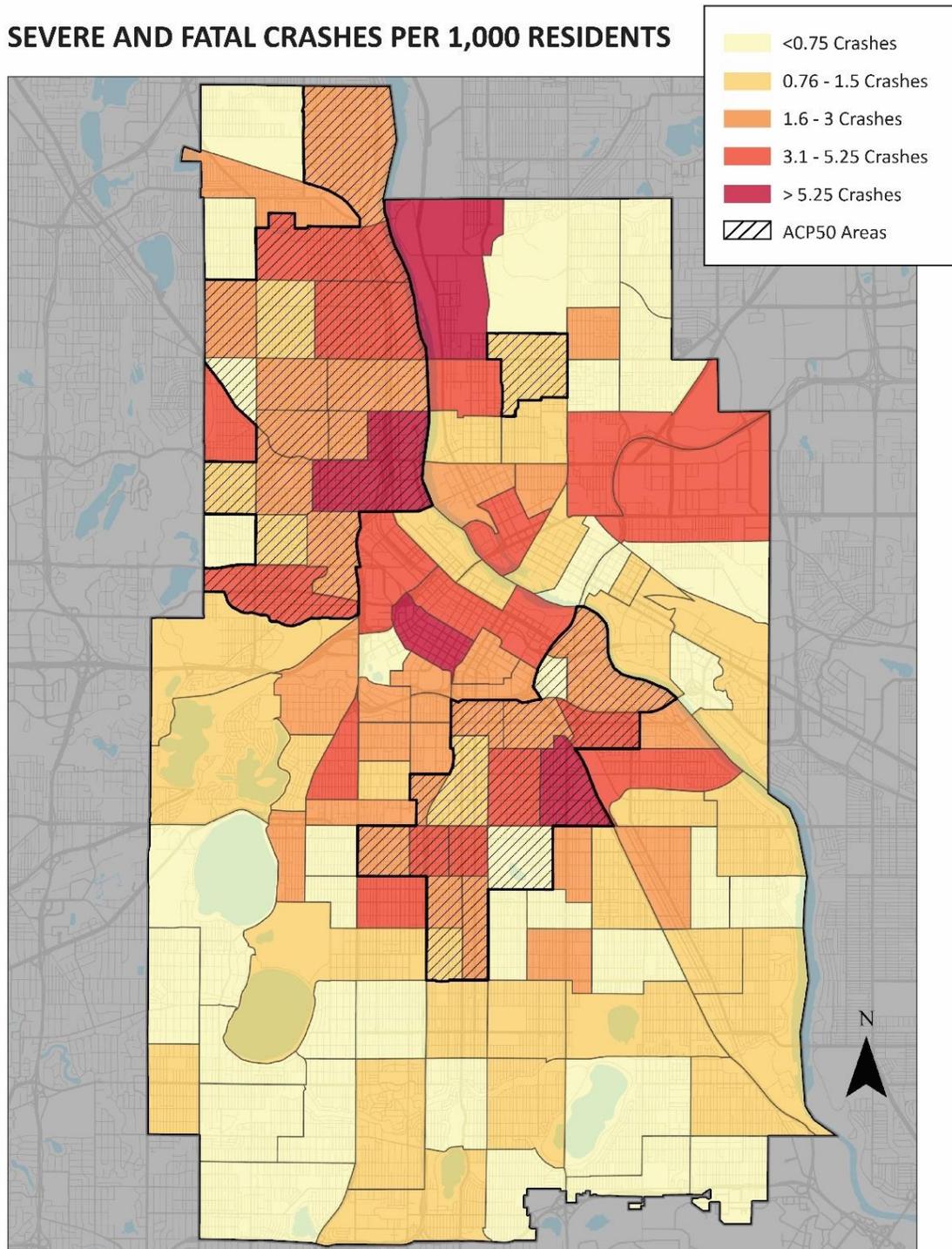
Figure 12: Motorist High Injury Street map



Crashes are more concentrated in neighborhoods with more people with lower incomes

While 26% of Minneapolitans live in census tracts in areas of concentrated poverty where over half of residents are people of color (called “ACP50 areas”), 40% of severe and fatal crashes occurred in these neighborhoods from 2017 to 2021.

Figure 13: Severe and fatal crashes per 1,000 residents



Relationship to Intersections

Over two-thirds of fatal and severe injury crashes occurred at intersections. This is not surprising in an urban environment given the number of actions that occur at intersections that can lead to crashes and given that this is where different modes interact the most. The 2018 Vision Zero Crash Study found that more than 80% of all crashes in Minneapolis happen at intersections, so severe and fatal crashes are slightly more likely to happen midblock than other types of crashes.

Almost half of fatal and severe injury crashes occur at signalized intersections, despite only 12% of intersections in Minneapolis being controlled by signals. A similar percentage of severe and fatal crashes occurred at a signalized intersection in this study compared to the 2018 Vision Zero Crash Study (46% in this study vs. 51% in the previous study).

Crashes occurring at unsignalized intersections make up only 12% of fatal and severe injury crashes, despite most intersections being controlled this way. This is lower than what was found in the 2018 study, in which an average of 30% of fatal and severe injury crashes occurred at intersections controlled by stop signs. While there are more unsignalized intersections in the city, the majority of activity and travel occurs on locations with traffic signals.

The 9% of crashes that occurred at an unknown intersection type happened at an intersection, but for this analysis we were not able to identify whether they were at a signalized or unsignalized intersection.

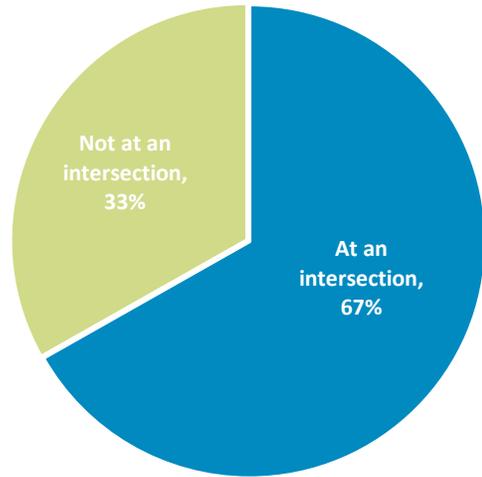


Figure 14: Percentage of Fatal and Severe Injury Crashes Happening at Intersections vs Other Locations, 2017-2021

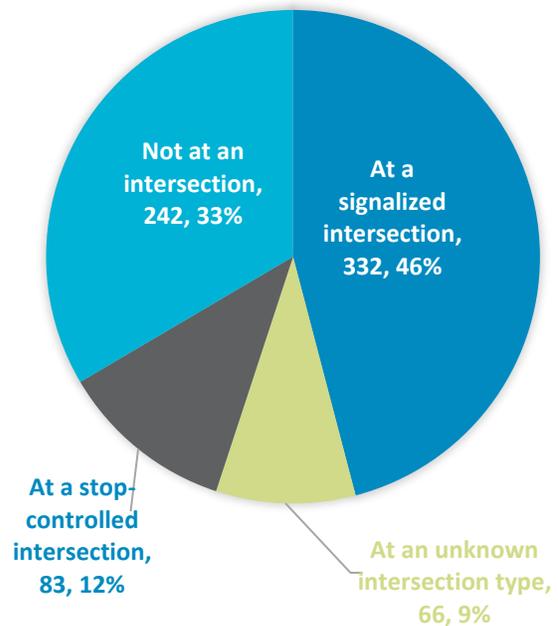


Figure 15: Percentage of Fatal and Severe Injury Crashes Happening at Intersections vs Other Locations

Timing

Time of Day

The highest amount of severe and fatal crashes occurred between 6-9PM. This is slightly later than in the 2018 Vision Zero Crash Study where the most crashes occurred between 3-6PM.

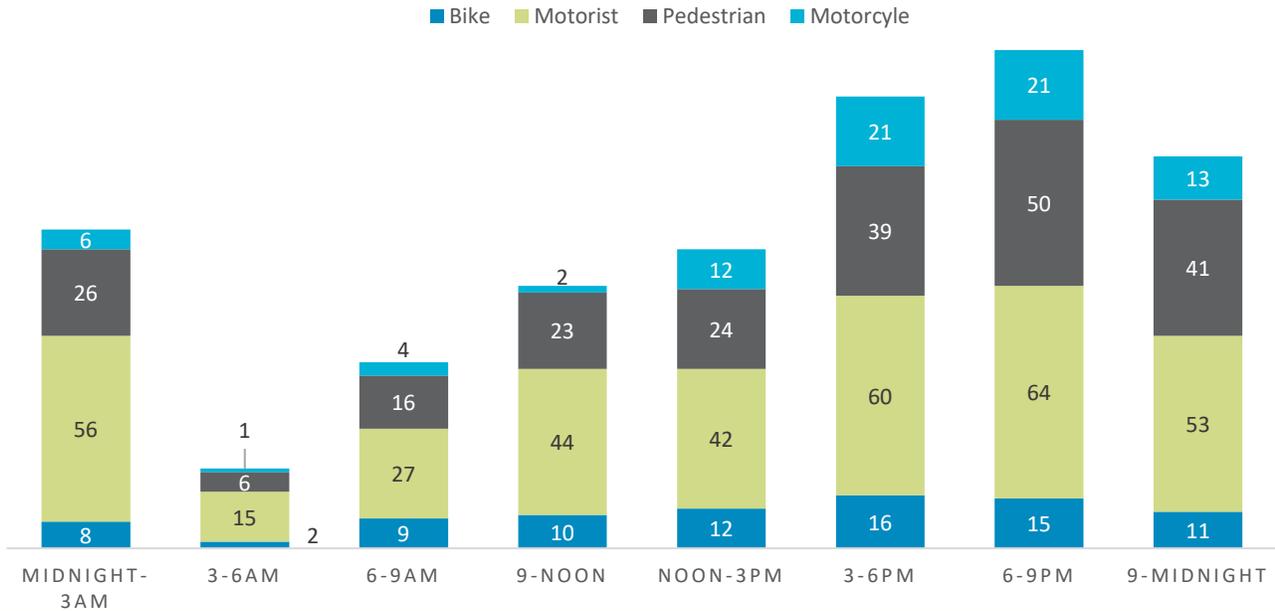


Figure 16: Time of Fatal and Severe Injury Crashes by Mode

Late night severe and fatal crashes continue to be much higher than traffic volumes. Crashes from 9 PM to 3 AM also increased in 2020 and 2021.

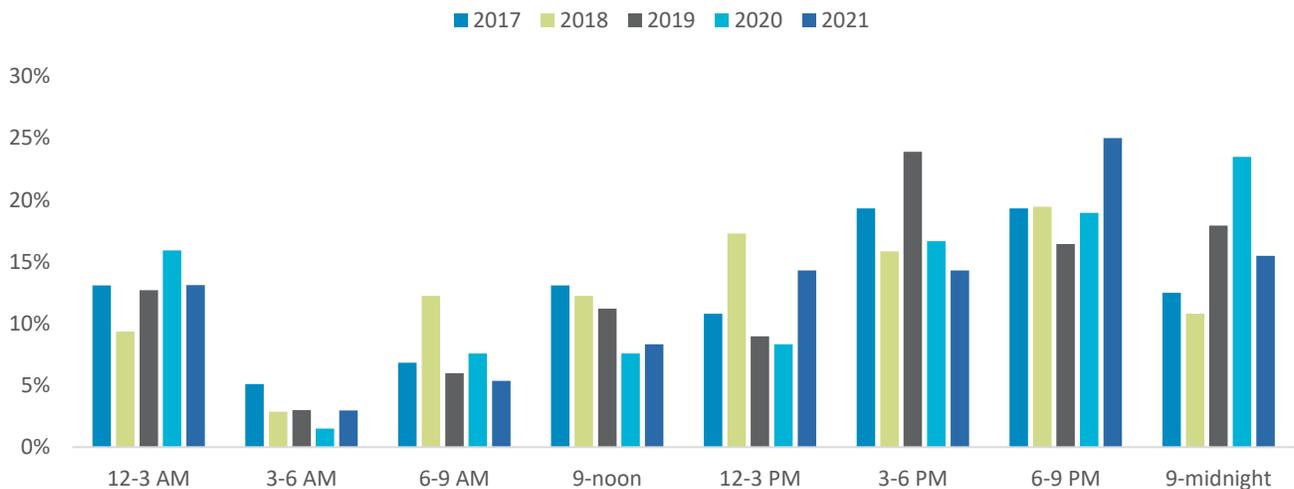


Figure 17: Time of Fatal and Severe Injury Crashes by Year

Time of year

Severe and fatal crashes are more concentrated in the summer. A similar trend exists across the country³ and was also seen in the 2018 Vision Zero Crash Study; however, severe and fatal crashes are more concentrated in the summer than was seen in the previous Minneapolis crash study or is seen across the country.

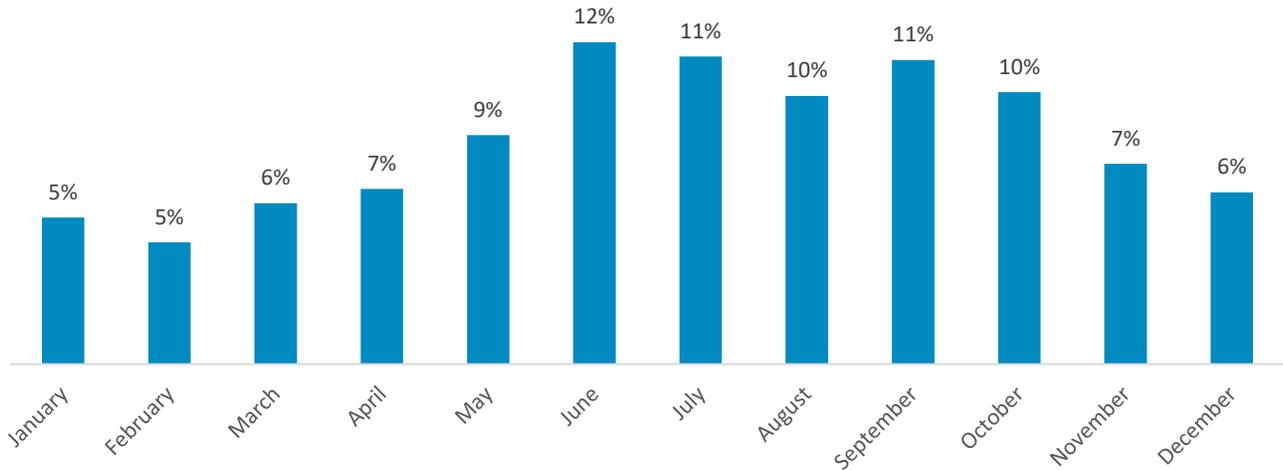


Figure 18: Percentage of Fatal and Severe Injury Crashes By Month

How Crashes Are Occurring

Mode of Travel

Figure 19 shows the percentage of people killed or severely injured by mode from 2017 to 2021. The share of severe and fatal crashes that involved bicyclists declined from 16% in the 2018 Vision Zero Crash Study to 11%. Vehicle crashes (car, truck, and motorcycle) were a slightly larger share during this time period (59% combined vs. 55% in the 2018 study). The pedestrian share remained the same between the two studies at about 28%.

Motorized foot scooters do not have a standardized definition in these reports, but in this analysis refer to electric/motor kick scooters such as Lime or Bird scooters. Mopeds are counted as motorcycles. Of the 5 scooter crashes identified, 4 were severe injury and 1 was fatal.

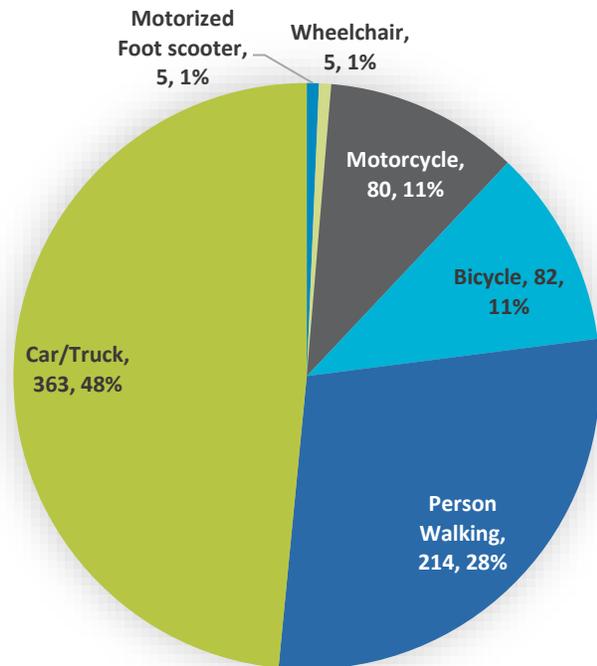


Figure 19: Mode of People Killed and Severely Injured

³ Source: [National Highway Traffic Safety Administration](#). 2022.

Figure 20 shows all motorized units involved in fatal and severe injury crashes. There were 18 medium/heavy trucks⁴ and 16 buses involved in severe and fatal crashes; no drivers of these units were killed or injured. Nationally, 8.9% of all vehicles involved in fatal crashes were large trucks and in Minnesota, it was 10.8%⁵.

People bicycling, walking, and rolling are overrepresented in severe and fatal crashes (see Figure 21). People in Minneapolis make 16% of their trips on foot, but pedestrians were 31% of severe traffic injuries and deaths from 2017 to 2021. People in Minneapolis make 3% of their trips by bicycle, but bicyclists were 11% of severe traffic injuries and deaths. The share of traffic-related severe injuries and deaths borne by people walking has increased in recent years while bicycling has gotten relatively safer (although disparities remain).

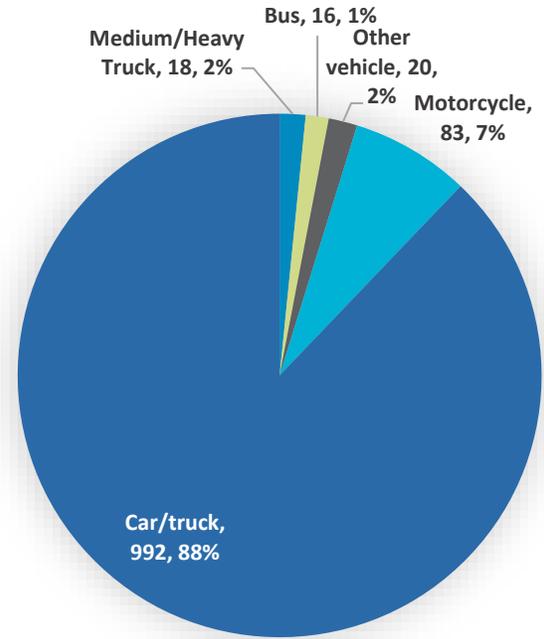
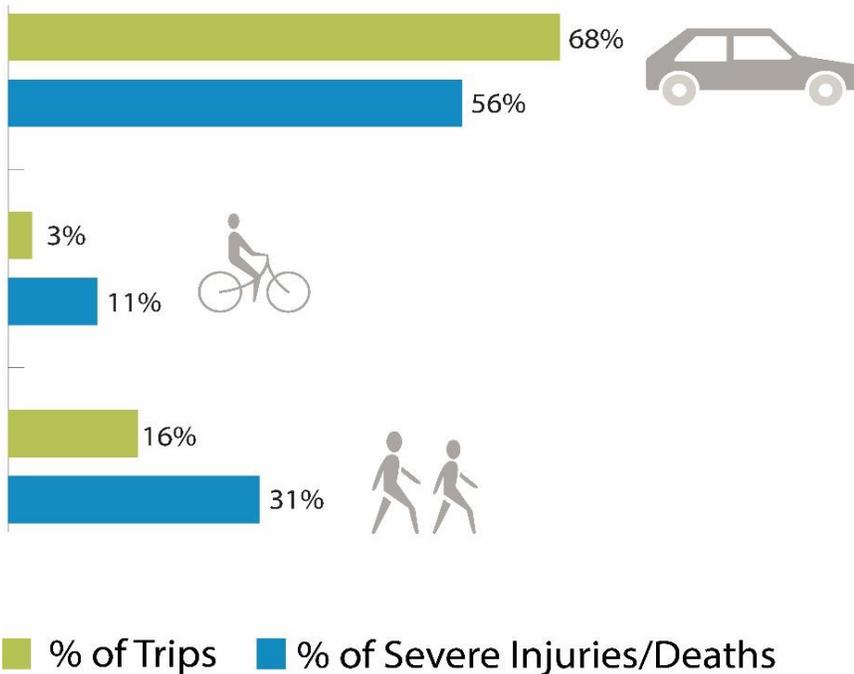


Figure 20: Motorists Involved in Fatal and Severe Injury Crashes

Figure 21: Severe injuries and deaths by mode compared to trips



⁴ The definition of “Medium/Heavy Trucks” in this analysis are vehicles that weigh over 10,000 lbs. Delivery and cargo vans, or smaller trucks, are counted as “car/truck.”

⁵ Source: [National Highway Traffic Safety Administration](#). 2022.

Pre-Crash Maneuvers

Pre-Crash maneuvers describe what a unit involved in a crash was doing as they entered a crash. These numbers involve all units involved and are not direct indications of what caused the crash.

Figure 22 shows what drivers were doing in the lead up to all severe and fatal crashes. The majority of motorists involved in fatal and severe injury crashes were moving forward, which can include crashes that involved a rear end, side swipe, running off the road, crashing with a non-motorist, and other situations. The second most common maneuver was turning left, making up for 12% of pre-crash maneuvers among motorists. This maneuver is more common among crashes involving motorists and pedestrians or bicyclists.

9% of motorists were parked or were entering or leaving a parked position. Many of these are units who were hit after another unit ran off the road, or in crashes involving multiple cars.

The “Other” category covers 1) motorists driving the wrong way into opposing traffic; 2) motorists swerving or attempting to avoid an object in the roadway; 3) motorists making a U turn; 4) motorists negotiating a curve in the road; 5) motorists changing lanes; 6) motorists entering or leaving a traffic lane; and 7) motorists backing.

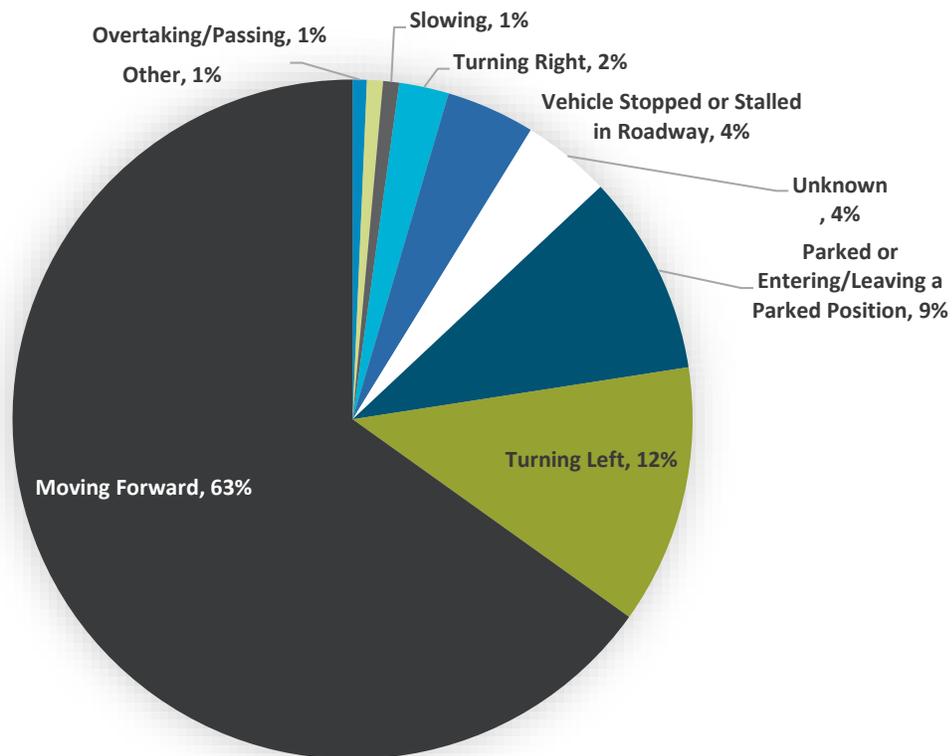


Figure 22: Pre-Crash Maneuvers of Motorists in Fatal and Severe Injury Crashes

Bicycle Crashes

Figure 23 describes pre-crash maneuvers of motorists in fatal and severe injury bicycle crashes.

- **68%** of motorists were moving forward right before the crash.
- **17%** of motorists were turning left, while 7% were turning right.
- **3%** of motorists were parked or entering or leaving a parked position.

These findings are similar to the 2018 Vision Zero Crash Study. The 2018 study also found that turning vehicles were a majority of all crashes, but vehicle moving forward crashes were more likely to be severe or fatal, which is logical given the likelihood of higher speeds.

Figure 24 shows pre-crash maneuvers of bicyclists in fatal and severe injury crashes.

- **42%** of cyclists were crossing the roadway, which can include crossing at intersections or at other locations.
- **27%** of cyclists were cycling with traffic, meaning they were going the same direction as motorists. This does not indicate whether they were in an area with bicycle infrastructure in place.
- **10%** of cyclists were in the roadway, which may include standing in an area not designated for bicyclists.

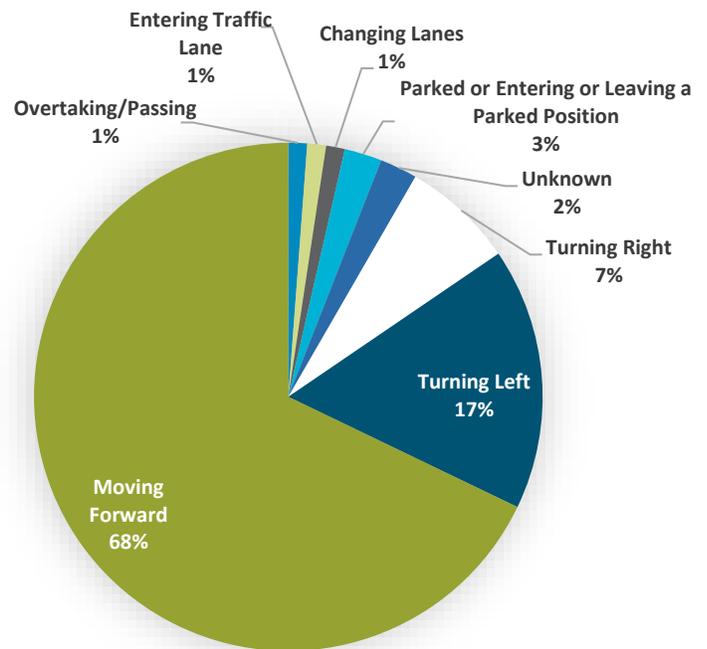


Figure 23: Pre-Crash Maneuvers of Motorists in Fatal and Severe Injury Bicycle Crashes

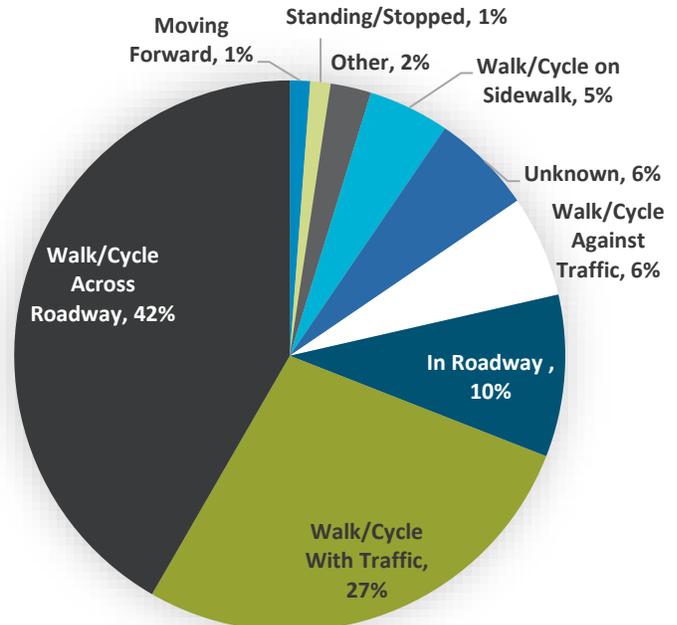


Figure 24: Pre-Crash Maneuvers of Bicyclists in Fatal and Severe Injury Crashes

Pedestrian Crashes

Pedestrian pre-crash maneuvers among motorists (Figure 25) and pedestrians (Figure 26) show similar findings to bicycle crashes. Vehicles turning left pose even extra threat to pedestrians. These crashes typically occur when both units are moving on a green light before the vehicle turns left into the pathway of the pedestrian crossing. Vehicles turning left were 19% of pedestrian crashes. While this is a significant factor, it is less than for all pedestrian crashes where over one-third involve left-turning vehicles (from the 2017 Pedestrian Crash Study, which included detailed analysis of all pedestrian crashes).

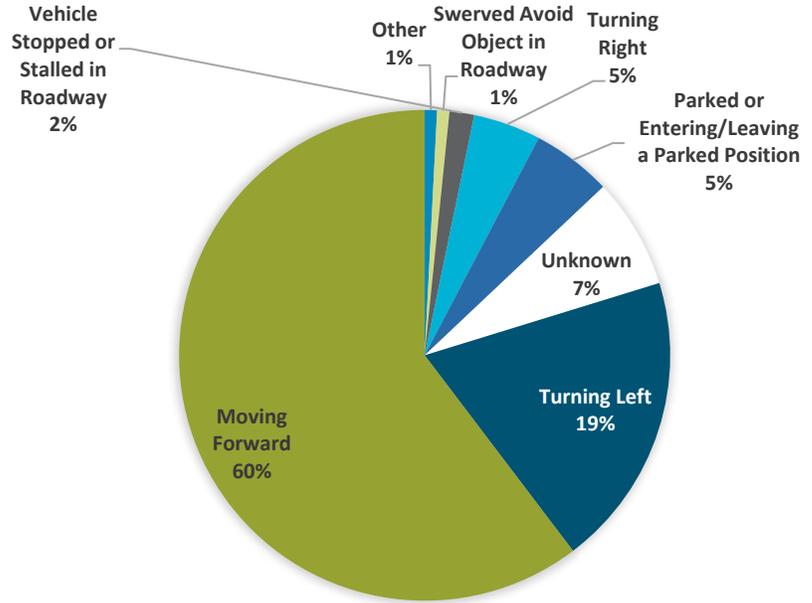


Figure 25: Pre-Crash Maneuvers of Motorists in Fatal and Severe Injury Pedestrian Crashes

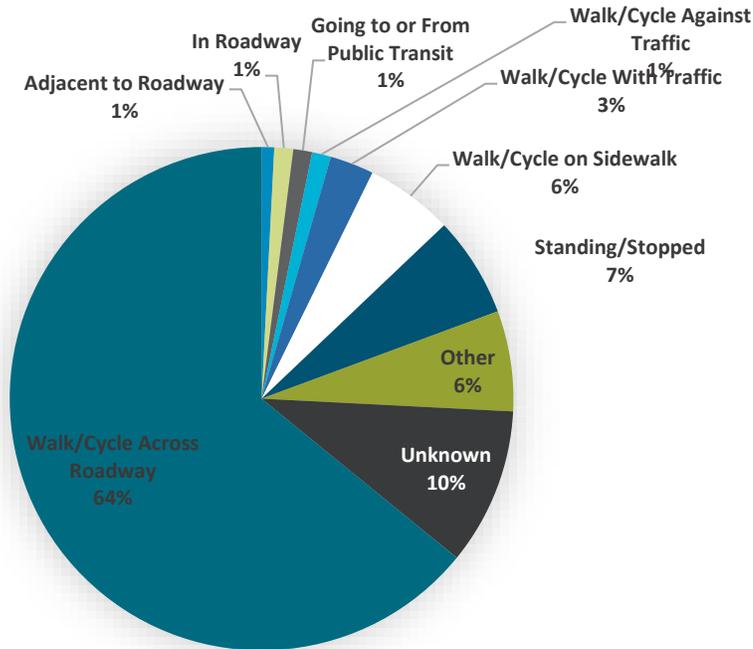


Figure 26: Pre-Crash Maneuvers of Pedestrians in Fatal and Severe Injury Crashes

Contributing Factors

Contributing factors are actions present in the crash. They are not an analysis of who is at fault. There can be many factors present in a single crash, including situations in which both a motorist and non-motorist have one or more contributing factors.

This analysis does not include chemically impaired or distracted driving. MnDOT's MnCMAT crash database does not include impairment and distracted driving is hard to know in most cases. From previous analysis, we know impaired driving and distracted driving are two leading factors in fatal and severe injury crashes.

This analysis is based on staff review of the information in the crash reports. In some cases, it can be challenging to tell all contributing factors, especially for hit and run crashes.

The leading contributing factors in fatal and severe injury crashes are drivers speeding, drivers failing to yield when turning, and drivers running off the road (see Figure 27). Speeding is the top factor in fatal crashes (see Figure 28) and 2nd highest for severe injury crashes (see Figure 29). Failure to yield while turning is the top factor in severe injury crashes, but less common in fatal crashes.

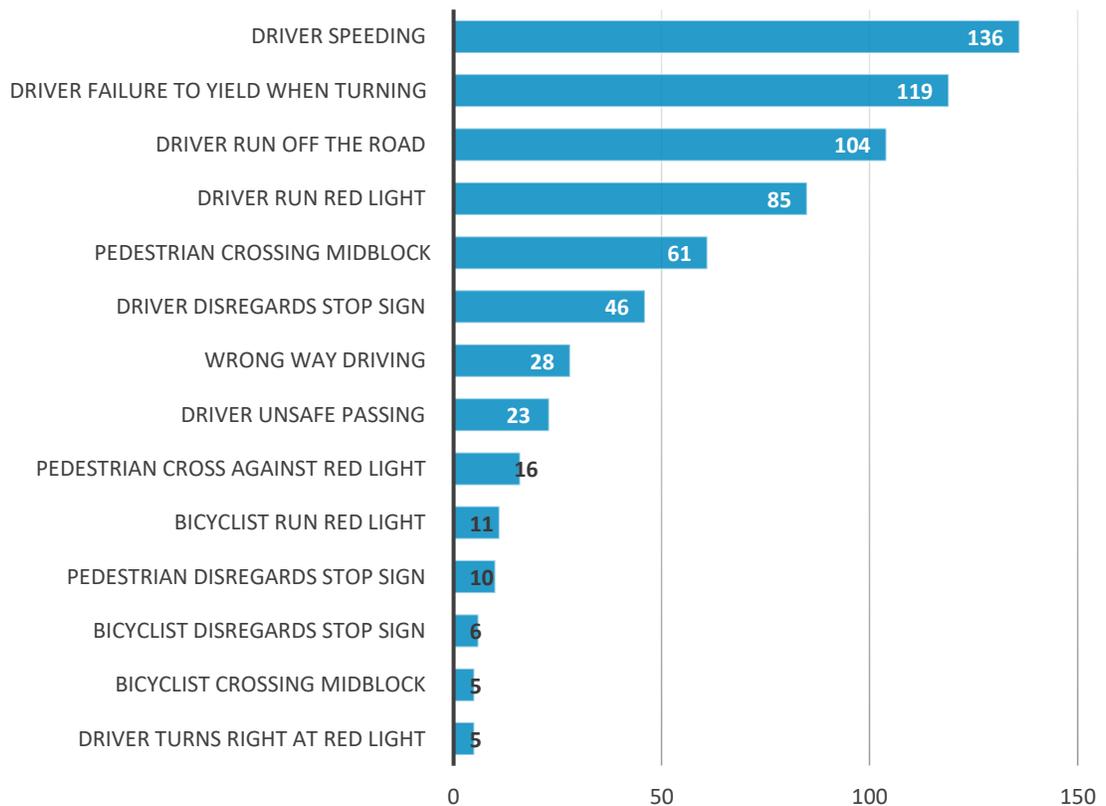


Figure 27: Select Contributing Factors in Fatal and Severe Injury Crashes (of 750 total crashes)

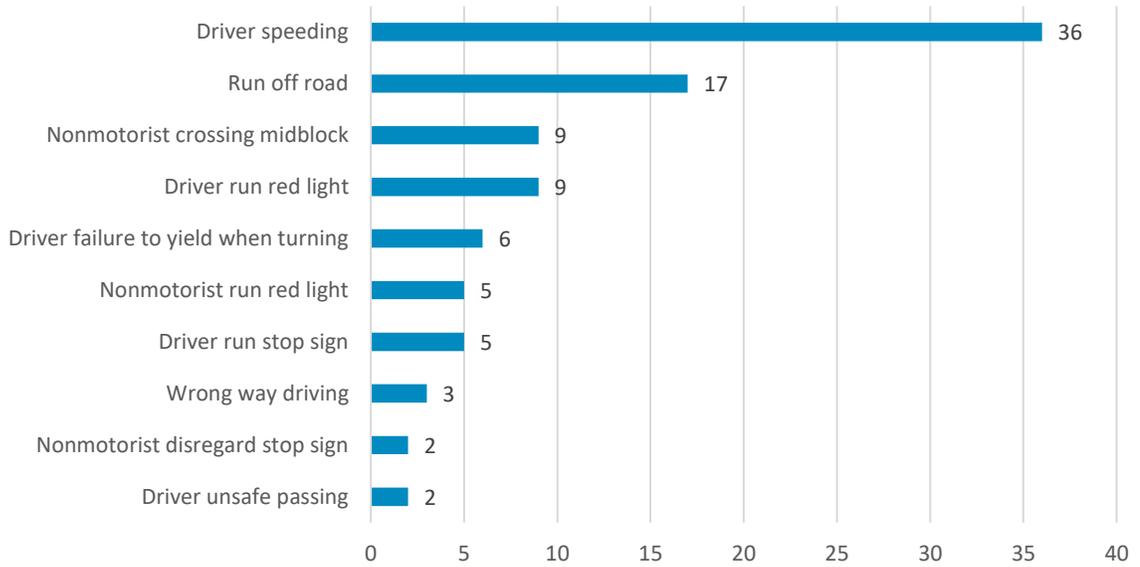


Figure 28: Select Contributing Factors in Fatal Crashes (of 72 fatal crashes)

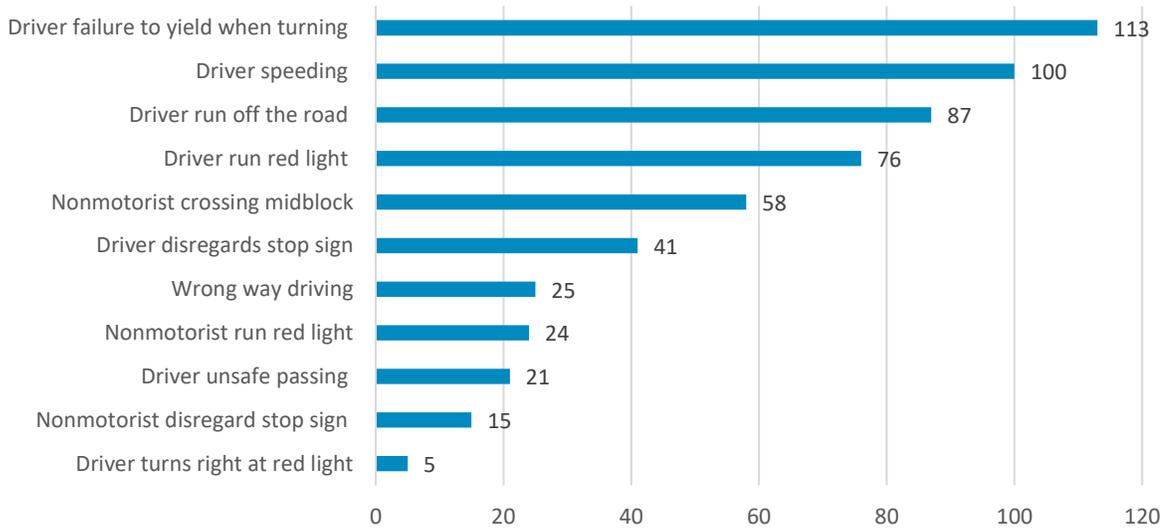


Figure 29: Select Contributing Factors in Severe Crashes (of 677 severe crashes)

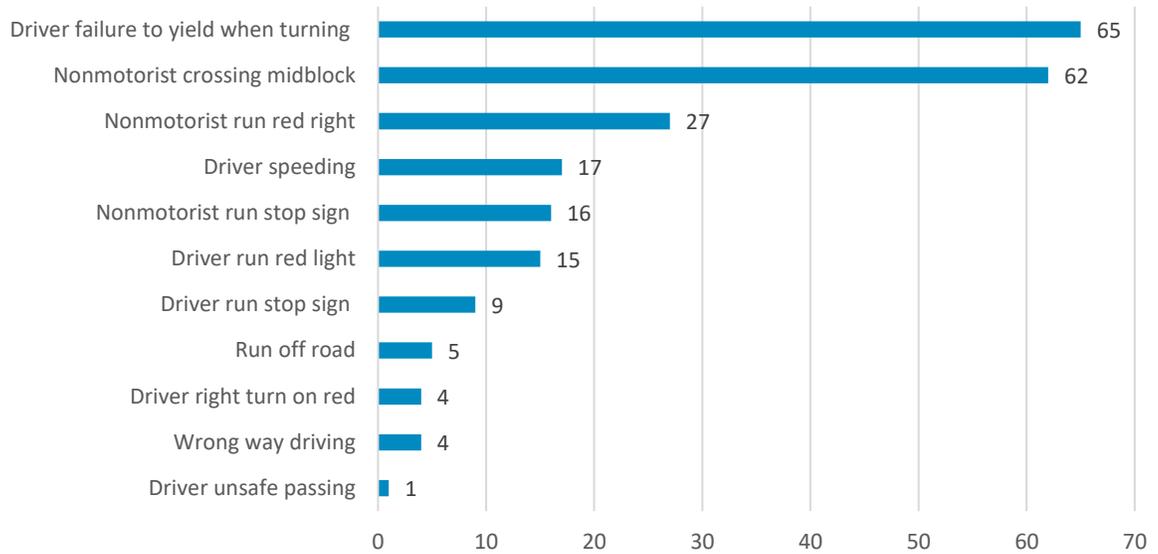


Figure 30: Select Contributing Factors in Fatal and Severe Injury Nonmotorist Crashes (of 306 crashes)

Reckless driving

There has been a significant rise in reckless driving in fatal and severe injury crashes since 2020. We define very reckless driving as a hit and run crash or a crash combining two of the most unsafe activities (speeding, running a red light or stop sign, driving under the influence, driving off the road, and distracted driving). About 45% of severe and fatal crashes involved very reckless driving in 2020 and 2021 compared to 31% for 2017-2019. While directly comparable figures are not available at the national level, there has been an increase in reckless driving around the country since 2020.

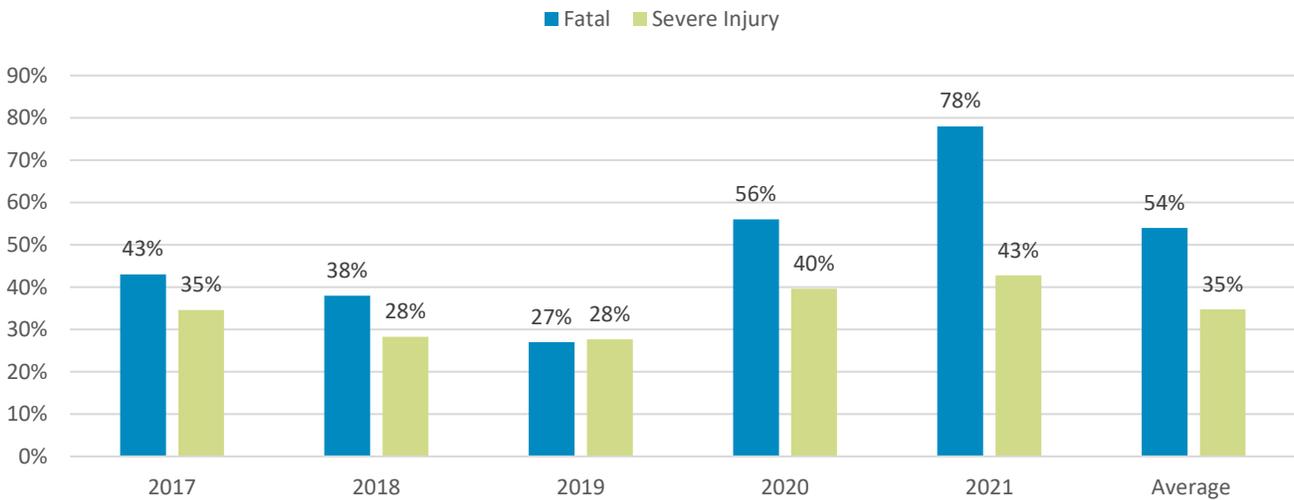


Figure 31: Very reckless driving in fatal and severe injury crashes

Speeding

Nationally, speeding was a contributing factor in 29% of all traffic fatalities in 2020⁶. In Minneapolis, speeding was a contributing factor in 50% of fatal crashes in 2020, and 65% of fatal crashes in 2021⁷. The involvement of speeding in both fatal and severe injury crashes has increased overall since 2020.

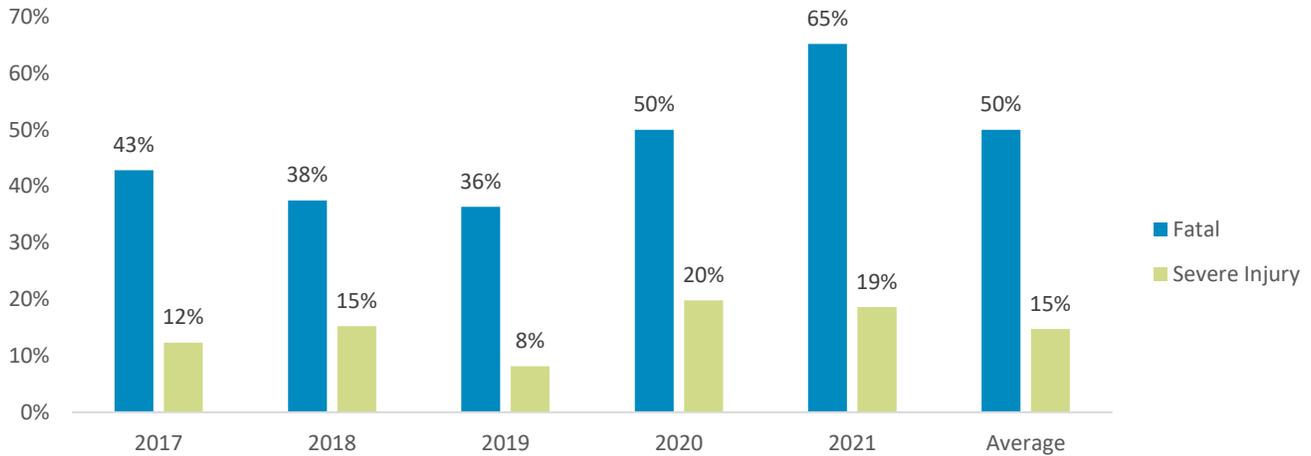


Figure 32: Involvement of Speeding in Fatal and Severe Injury Crashes

Failure to yield when turning

The prevalence of drivers failing to yield when turning did not have a clear trend over the study period. Drivers failing to yield when turning is one of the highest contributing factors in pedestrian and bicycle crashes. When looking only at non-motorist crashes, the involvement of drivers failing to yield was 27% in 2021.

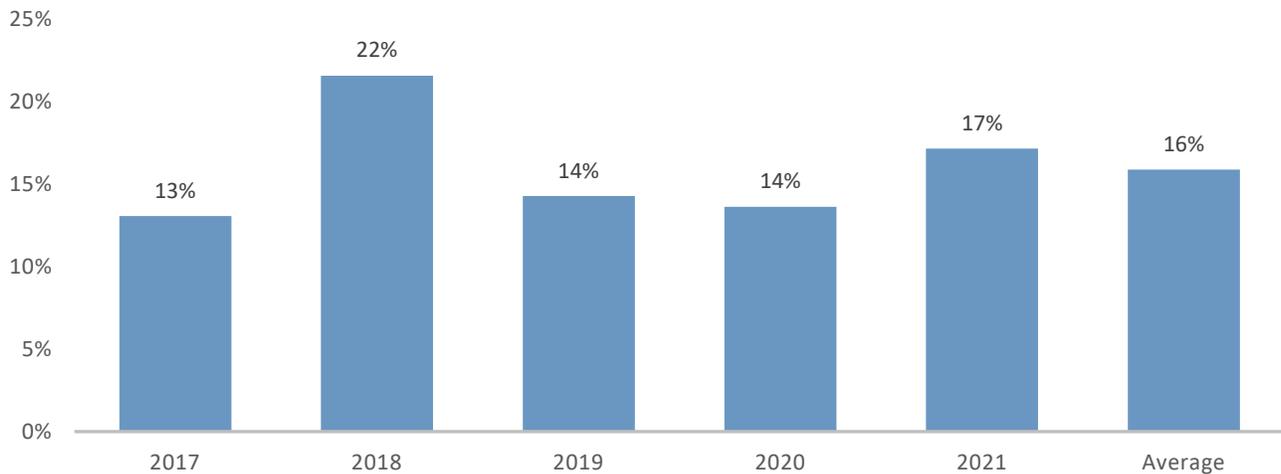


Figure 33: Involvement of Drivers Failing to Yield When Turning in Fatal and Severe Injury Crashes

⁶ Source: [National Highway Traffic Safety Administration](#)

⁷ Minneapolis speeding numbers are not comparable to national numbers because this study includes additional analysis that identifies cases of likely speeding that were not coded as such in the crash report.

Run off the road

The involvement of drivers running off the road did not have a clear trend over the study period.

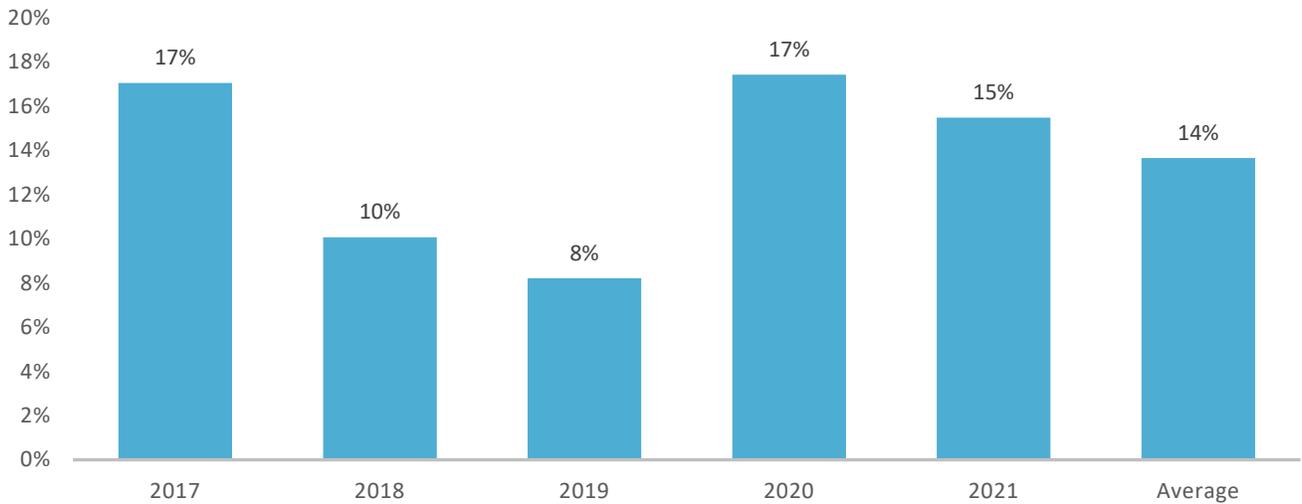


Figure 34: Involvement of Drivers Running Off the Road in Fatal and Severe Injury Crashes

Hit and runs

The involvement of hit and runs increased significantly in 2020 and 2021.

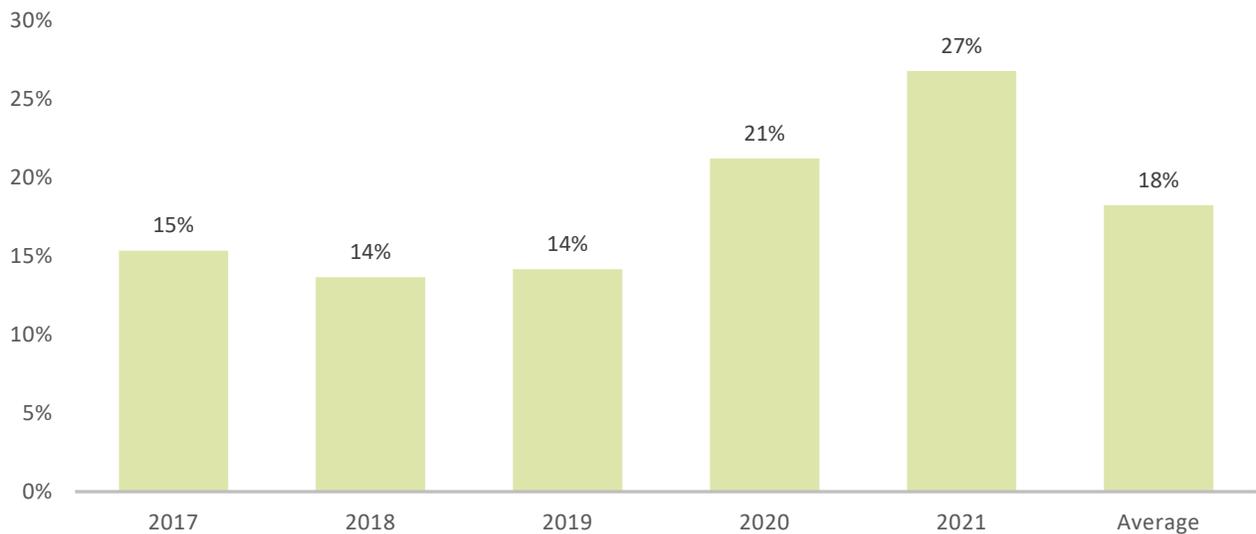


Figure 35: Involvement of Hit and Runs in Fatal and Severe Injury Crashes

Who is Involved in Crashes

Race

Data on race and ethnicity are only available for fatal traffic crashes. Figure 36 shows the percentage of traffic deaths by race compared to Minneapolis population for 2011 to 2019, which is the latest data available. Note that the sample size for this is low.

- **Native American residents** were disproportionately impacted by traffic deaths. 1% of residents are Native American, but Native residents suffered 4% of fatal vehicle crashes and 5% of fatal pedestrian and bicycle crashes. This gap is less severe than what was found in the 2018 study, in which they made up 8% of fatal vehicle crashes and 9% of fatal pedestrian and bicycle crashes.
- **Black residents** were disproportionately impacted by vehicle traffic deaths, making up 19% of the Minneapolis population but 26% of fatal vehicle crashes. Black residents are slightly less likely to die in pedestrian and bicycle crashes. This is similar to what was found in the 2019 study.

White, Latino, and Asian residents are slightly less likely to die in a traffic crash.

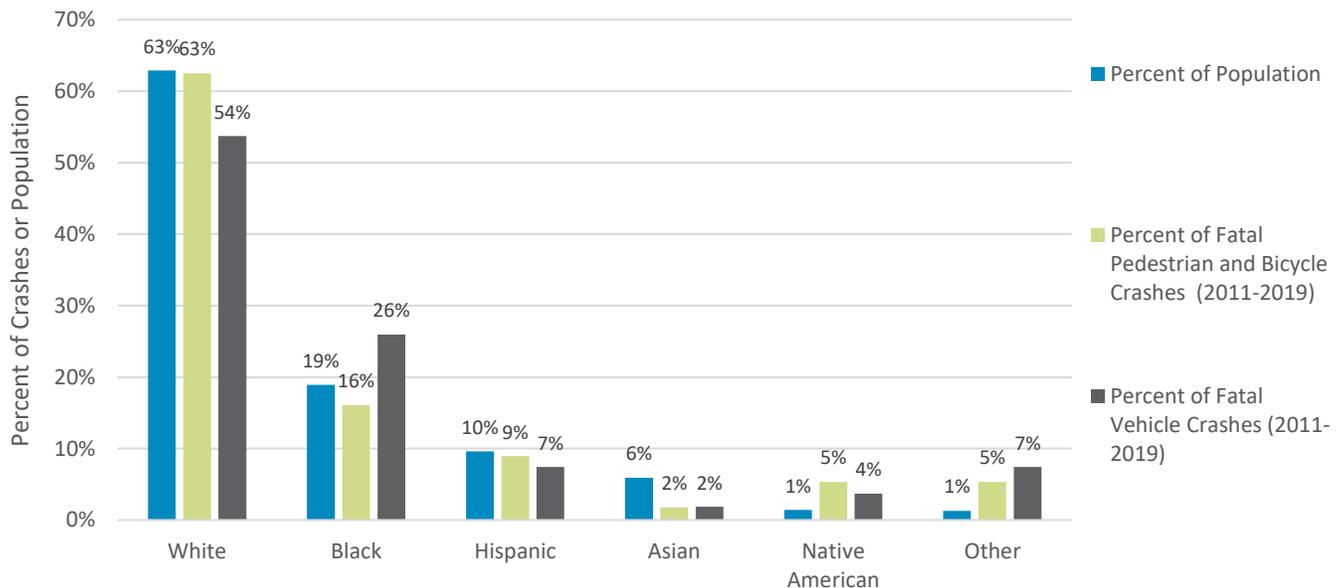


Figure 36: Fatal Bicycle, Pedestrian and Vehicle Crashes (2011-2019) by Race

SOURCE FOR CRASH AND RACE DATA: FATALITY ANALYSIS REPORTING SYSTEM (FARS)

Gender

Men are disproportionately represented in all types of fatal and severe injury crashes, with the largest gaps being apparent in bicycle and motorcycle crashes.

- Men were found to make up 81% of bicycle crashes, which is slightly smaller than the 84% found in the 2018 Vision Zero Study.
- Men were found to make up 77% of motorcycle crashes.

These disparities are similar in national trends, where 72% of all motor vehicle crash fatalities in 2020 were male⁸. Men on average drive vehicles, motorcycles, and use bicycles more than women, and are also more likely to be in a fatal crash that involves driving under the influence and speeding.

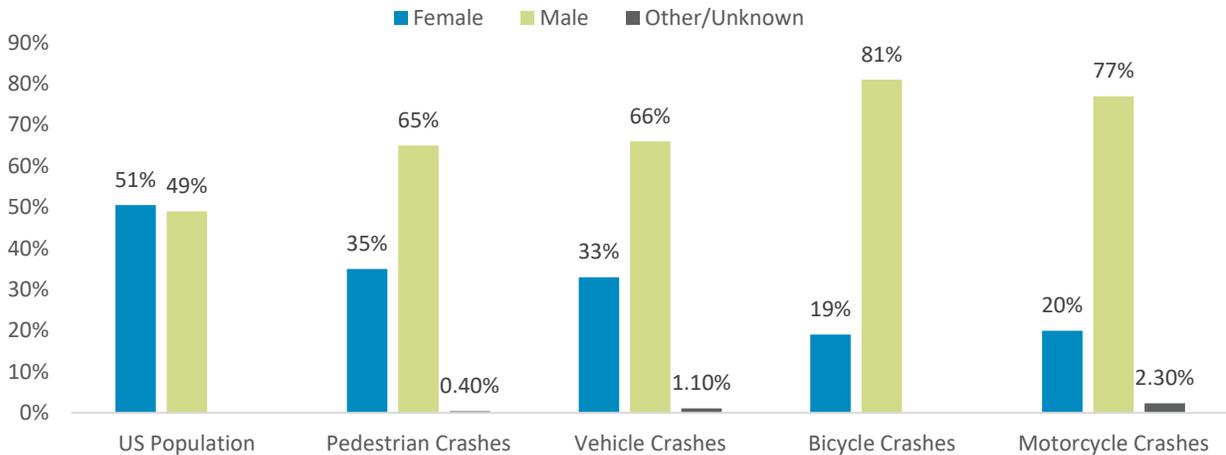


Figure 37: Gender Composition of Fatal and Severe Crashes

Age

People between the ages of 16 and 40 were most likely to be involved in fatal and severe injury crashes. This is very similar to the national trend⁹.

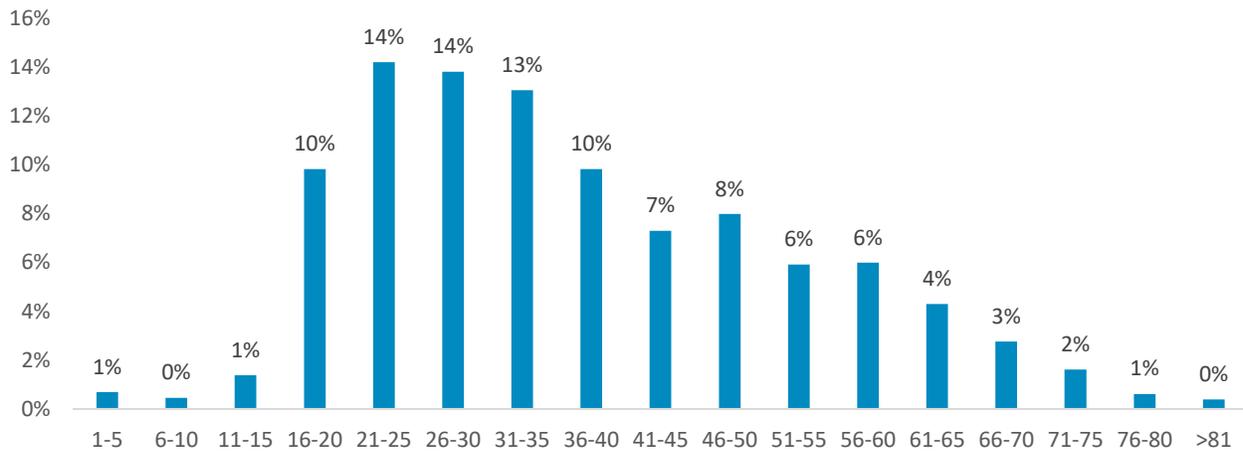


Figure 38: Ages of People Involved in Fatal and Severe Crashes, 2017-2021

⁸ Source: <https://www.ihs.org/topics/fatality-statistics/detail/males-and-females>

⁹ Source: National Highway Traffic Safety Administration [2020 Traffic Safety Facts](#)