ANN ARBOR
MOVING TOGETHER
TOWARDS VISION ZERO

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2012 – 2021 Crash Trends

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Introduction

The City's comprehensive transportation plan, *Ann Arbor Moving Together Towards Vision Zero*, commits staff to annually reporting on the progress made on the City's Vision Zero program. Reporting crash data and trends is an important component to understanding the City's progress. City staff have created interactive crash dashboards and maps that are available to the public through www.a2gov.org/crashreporting. This document provides interpretation of the data and will be incorporated into the annual Vision Zero progress report when it is developed.

The data presented in this report are from the Michigan certified data set. These data are available to the public through a variety of avenues. The charts presented in this document are taken from the City's crash data web tool and can be accessed via www.a2gov.org/crashreporting. You may also find the crash data tools at www.michgiantrafficcrashfacts.org or www.semcog.org.

Some statewide crash trends are referenced in the following sections. Visit www.michigantrafficcrashfacts.org to find comprehensive statewide crash trend reports.

Overall Crash Trends

The most significant changes in recent overall crash trends occurred during 2020 and 2021. The City experienced 52% fewer overall crashes during 2020. The dramatic reduction in crashes coincides with the significantly lower amount of vehicular travel that occurred during the first year of the COVID-19 pandemic. Vehicular travel increased during 2021 and stabilized to the new-normal travel patterns by the latter half of the year. Along with the travel increases 2021 saw a higher number of crashes. These crashes still represent a 34% reduction from 2019 crash levels. These changes in overall crash totals have significantly reduced the five-year rolling average, as shown below.
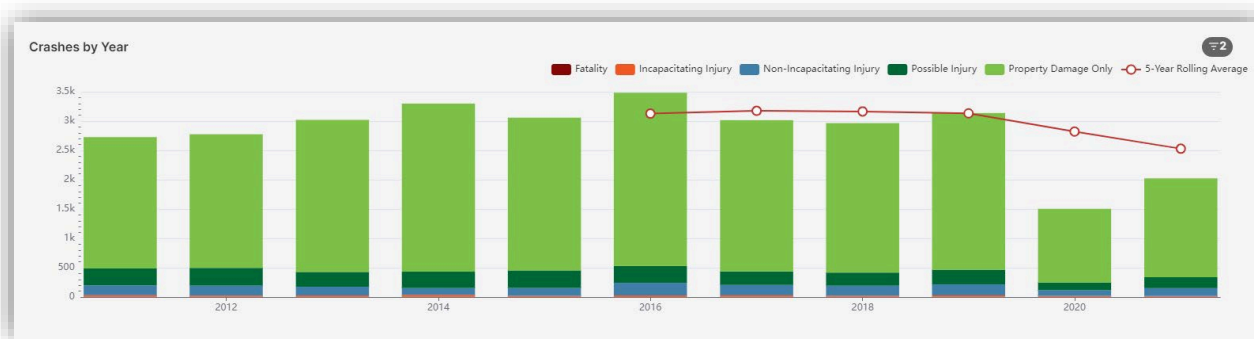

Figure 1 - All Crashes, Annual by Severity

The top five overall crash types (2017-2021 Annual Average) include:

1. Rear End, traveling straight
2. Side-Swipe, same direction travel
3. Angle Straight
4. Angle Turn
5. Fixed Object

The substantial percentage reduction in overall crashes within the City exceed those experienced statewide, as can be seen in the following figure taken from the *Historical 10 Year Statewide Summary*, www.michigantrafficcrashfacts.org, Ann Arbor's trend of a stable number of annual severe injury crashes outperforms the state.
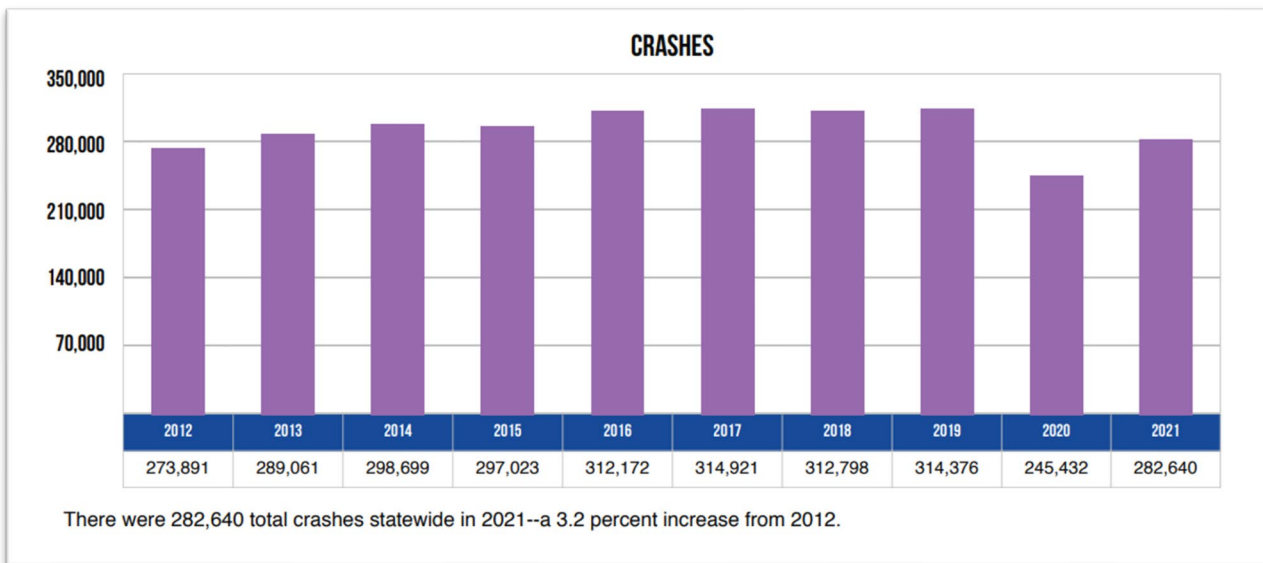

Figure 2 - UMTRI 10 Year Crash History, All Crashes

The significant reductions in overall crashes during 2020 and 2021 were not realized in severe injury crashes. The minor reductions in fatal and serious injury crashes by 26% and 15% in 2020 and 2021, respectively, have led to a small reduction, 7%, in the rolling five-year average trendline. These results, as shown below, indicate that the most dangerous driving behaviors were not significantly reduced during the pandemic.
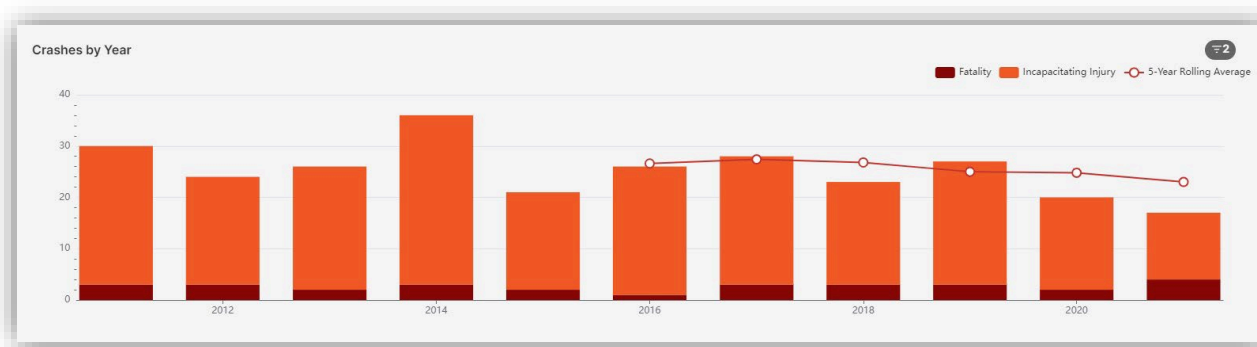

Figure 3 - Fatal and Serious Injury Crashes, Annual by Severity

The top five overall crash types (2017-2021 Annual Average) include:

1. Pedestrian
2. Fixed Object
3. Bicycle

4. Angle Straight
5. Rear End, traveling straight; Misc. Single Vehicle

While it may seem disappointing to not see more dramatic reductions in severe injury crashes, the progress made since 2017 is important to recognize. This progress is especially important when considered within the context of the statewide fatal crash trend.
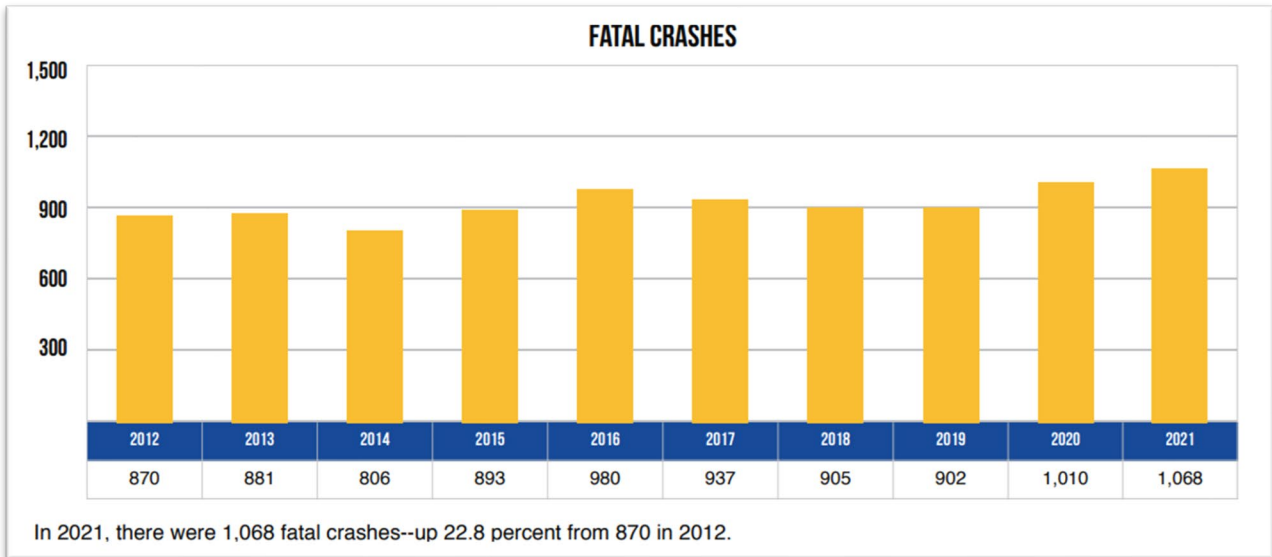

FATAL CRASHES

2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
870	881	806	893	980	937	905	902	1,010	1,068

In 2021, there were 1,068 fatal crashes--up 22.8 percent from 870 in 2012.

Figure 4 - UMTRI 10 Year Crash History, Fatal Crashes

Vulnerable Road User Crashes

Ann Arbor Moving Together places special emphasis on pedestrians and cyclists, known as vulnerable road users, due to their over-representation in higher severity crashes. The following sections display crash trends for these road user groups.

Pedestrian Crashes

Overall pedestrian crashes followed a trend consistent with the trends seen in the overall crashes. However, the increases experienced in 2021 were not as significant. Staff are evaluating the correlation between these decreases in crashes and the system-wide implementation of leading pedestrian intervals in our signalized intersection.
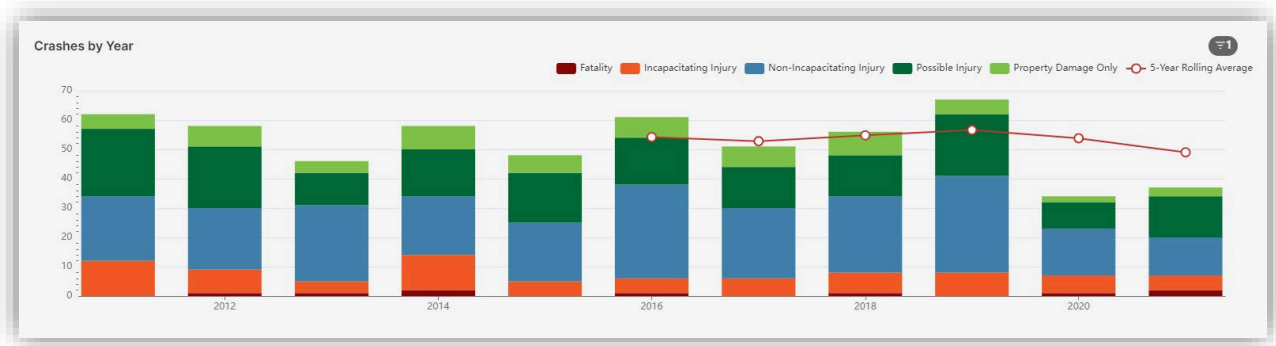

Figure 5 - All Pedestrian Crashes, Annual by Severity

The following chart shows the trend for serious injury pedestrian crashes. Severe injury pedestrian crash performance has not significantly changed over the course of the past five years. The rolling average trend to hover around 7 crashes per year.
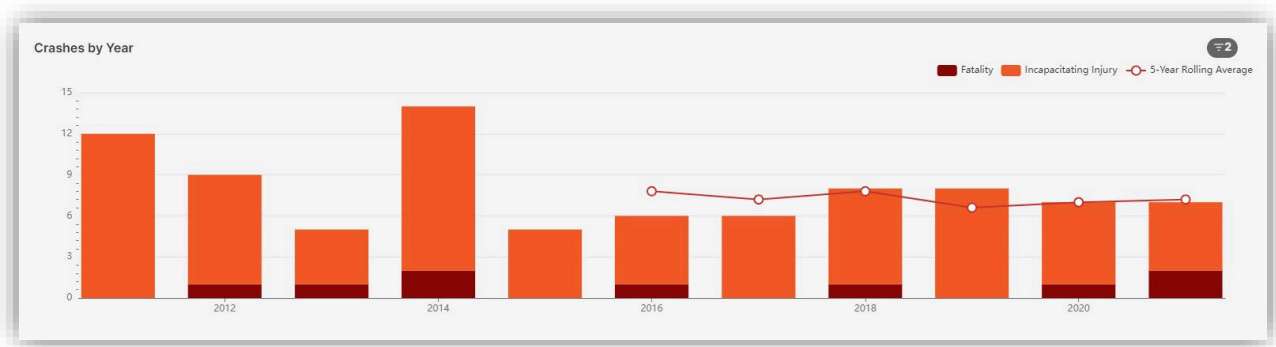

Figure 6 - Pedestrian Fatal and Serious Injury Crashes, Annual by Severity

Consideration of our performance in the context of statewide performance provides better information about how the City's policies are impacting crash patterns. As can be seen from the following chart, taken from the *Historical 10 Year Statewide Summary*, www.michigantrafficcrashfacts.org, Ann Arbor's trend of a stable number of annual severe injury crashes outperforms the state.
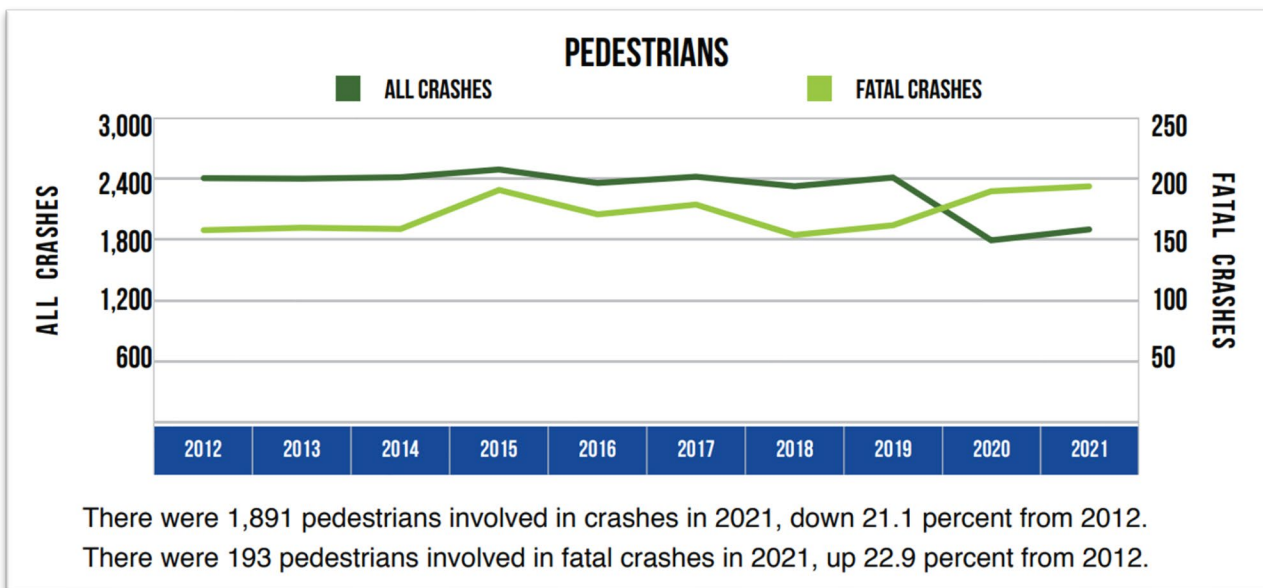
Figure 7 – UMTRI 10 Year Crash History, Pedestrian Trends

Cyclist Crashes

Overall cyclist crashes are trending down in a more consistent manner than the with the trends seen in overall crashes. Throughout the duration of this trend the City has continued to add more miles of bike lanes to overall network as well as provide more facilities with higher levels of comfort.
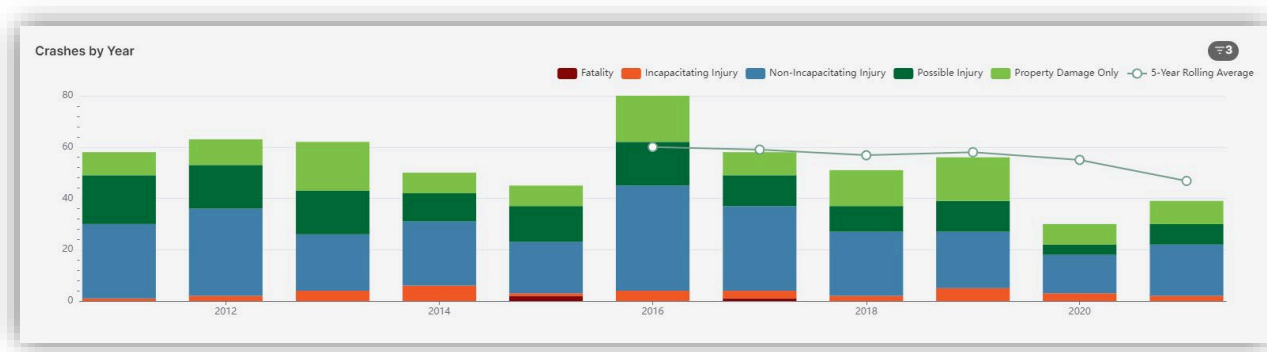

Figure 8 - All Bicycle Crashes, Annual by Severity

The advances made in reducing the overall number of cycling crashes resulting is also trending downwards, although the change is happening at a more gradual rate. The five-year average trendline over the past five years had a high value of 4.2 crashes per year in 2017 and has decreased to 3.2 crashes per year in 2021. This progress can be compared to statewide trends, shown below, which indicate statewide bicycle fatalities are rising.
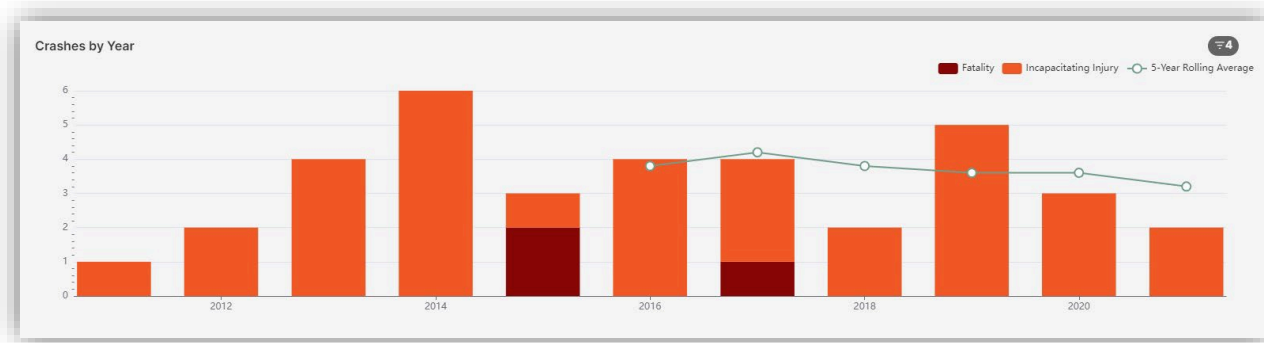
Figure 9 - Bicycle Fatal and Severe Injury Crashes, Annual by Severity
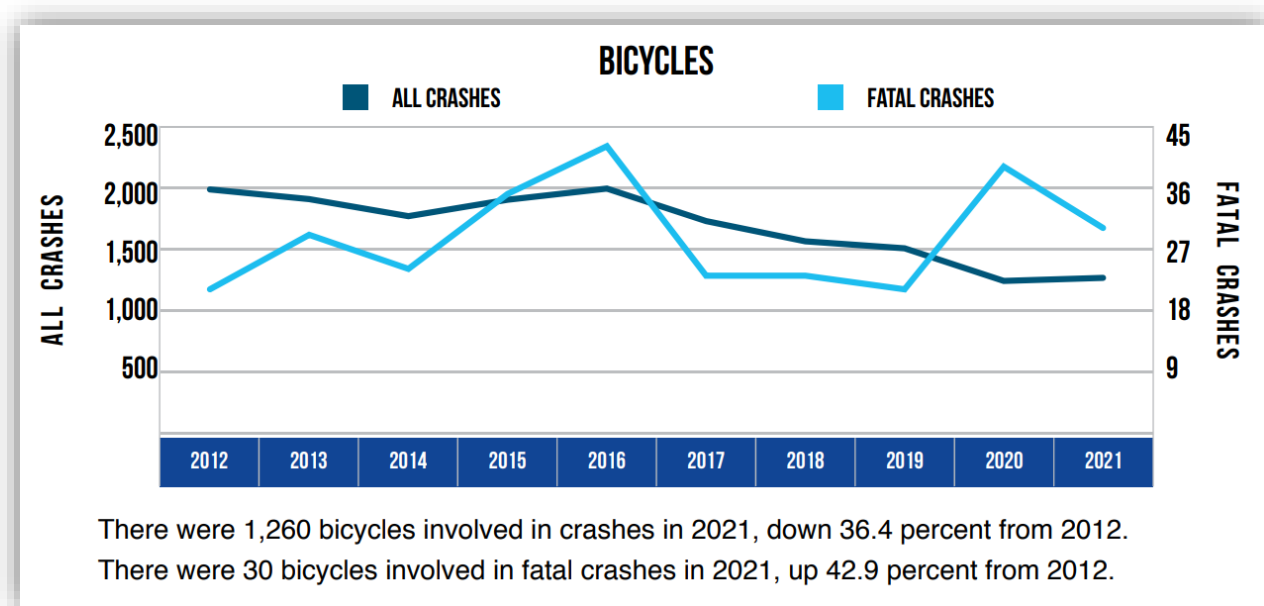

Figure 10 - UMTRI 10 Year Crash History, Bicycle Trends

Ann Arbor Moving Together Dangerous Behaviors

The following sections review crash trends for the five dangerous behaviors identified in Ann Arbor Moving Together as important focus areas to address through design solutions, policy changes, and education efforts. You can find more information about these behaviors on pages 31-48 of the plan.

Many of the following sections refer to information obtained through police officers from the official crash report. Michigan's crash report form, the UD-10, is standard across the state. More information about the form, it's fields, and how the form is filled out can be found in the UD-10 Instruction Manual.

Speed

Speed of travel is one of the most significant factors to determine the severity of any crash. The UD-10 report includes a section for the speed limit of a street but does not provide the speed individuals involved in a crash were traveling. However, as reported in Ann Arbor Moving Together, the majority of serious injury crashes occur on streets with speed limits of 35 miles per hour or higher. Staff are working towards speed management program implementation in the next fiscal year and look forward to reporting on speed management projects as they are implemented.

Failure to Yield

Failure to yield crashes include crashes marked by police as "Failed to Yield" in the official crash report. As can be seen below, the crash pattern follows that of the overall crashes experienced within the City. Reductions over time have resulted in fewer overall crashes as well as fewer severe injury crashes involving this behavior.

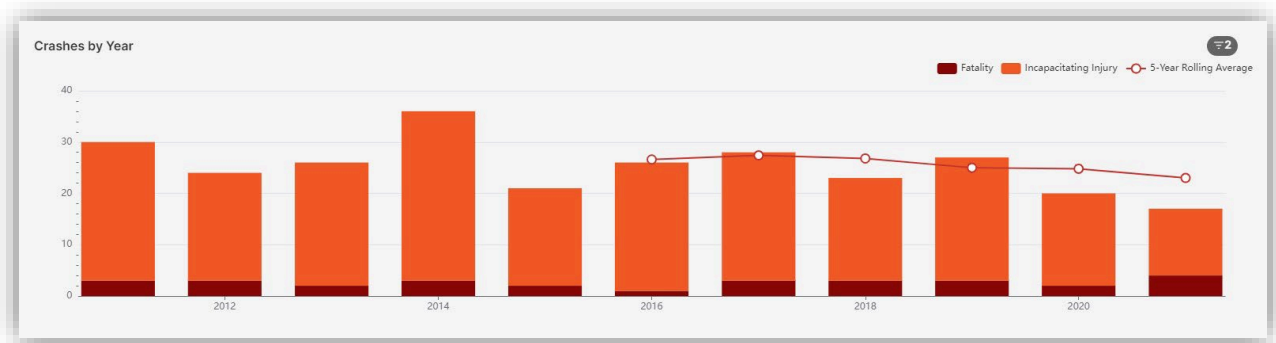*Figure 11 - Failure to Yield, Annual by Severity*

Figure 12 - Serious Injury and Fatal Failure to Yield, Annual by Severity

Impaired Driving

Impaired driving crashes include crashes marked by police as drinking suspected or drug use suspected. These decisions are made on the basis of driver admission, responder observation, or medical

determination. The following charts show that the involvement of impaired driving varies widely between years. This behavior should continue to be a focus given the increases of this behavior in recent years.
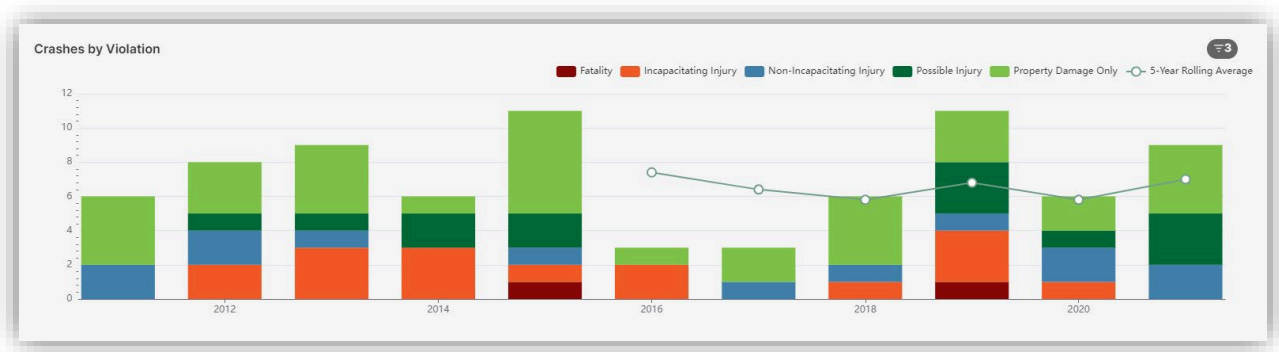

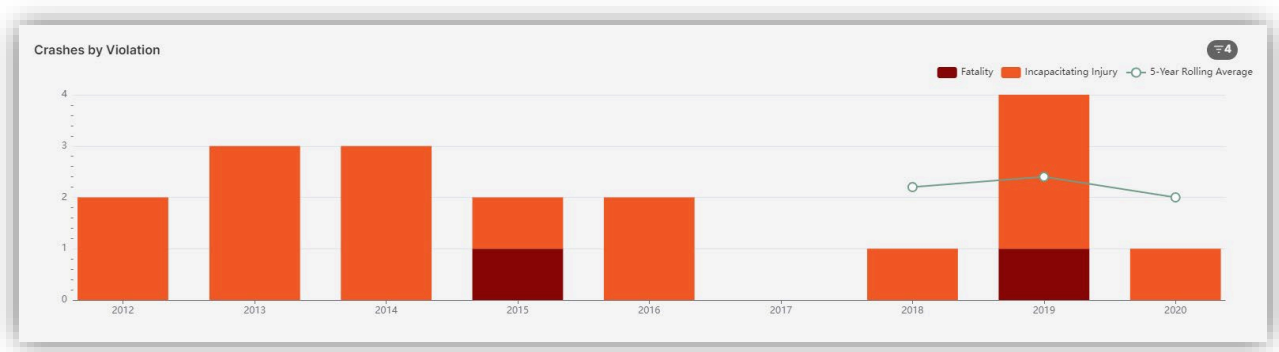*Figure 13 - All Impaired Driving, Annual by Severity*

Figure 14 - Serious Injury and Fatal Impaired Driving, Annual by Severity

Disregarded Traffic Signs/Signals

Disregarded traffic signs/signals crashes include crashes marked by police as "Disobeyed TCD" (Traffic Control Device). Crashes involving this behavior type generally follow the overall crash trend while involvement in serious injury crashes is inconsistent.

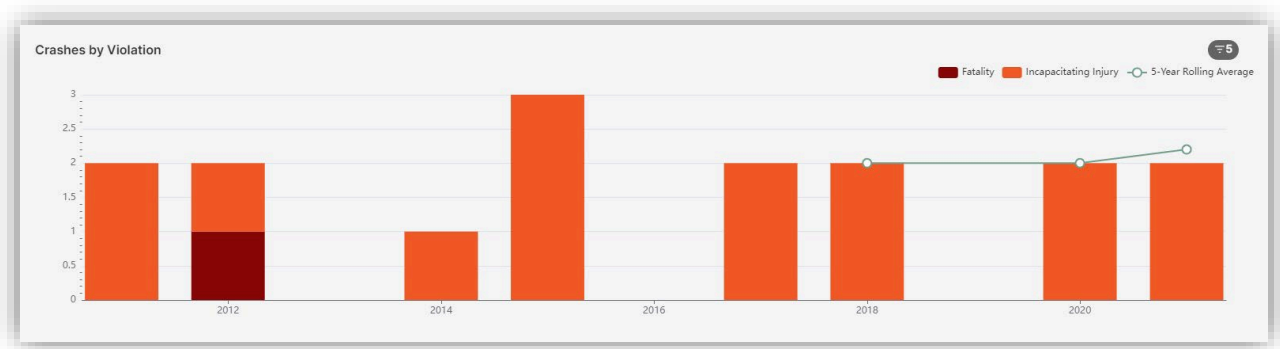*Figure 15 - Disregard Sign/Signal, Annual by Severity*

Figure 16 - Serious Injury and Fatal Disregard Sign/Signal, Annual by Severity

Reckless/Careless Driving

Reckless/careless driving crashes include crashes marked by police as "Reckless Driving" or "Careless Driving". Overall crashes involving this behavior type have reduced over the past 10 years while involvement in serious injury crashes is inconsistent year over year with a stable trend of 2-3 crashes per year.
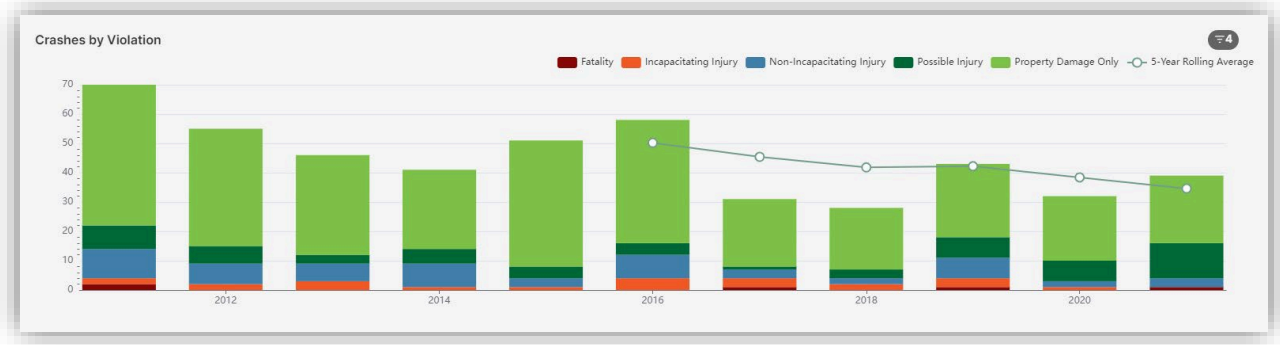
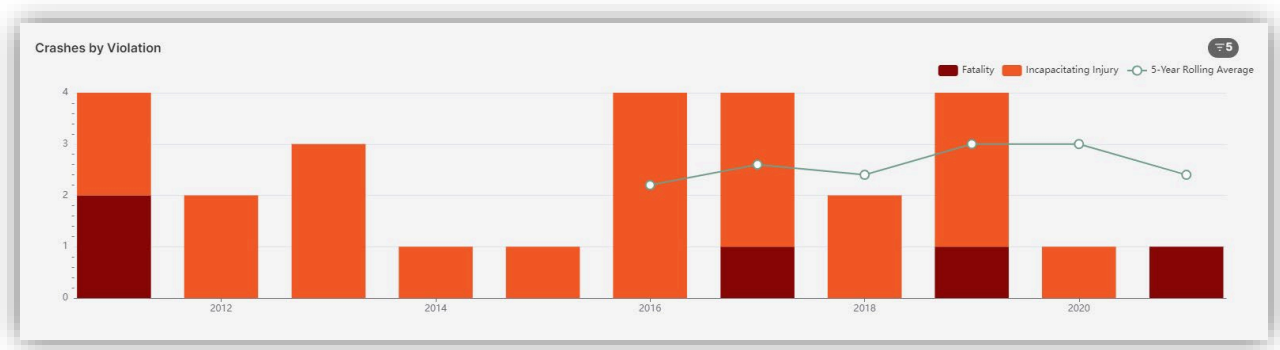*Figure 17 - Reckless/Careless, Annual by Severity*

Figure 18 - Serious Injury and Fatal Reckless/Careless, Annual by Severity