2011-2020 Draft Crash Data

Sampling of Data for the Annual Crash Report

Presented to: Transportation Commission, 8/18/2021

Presented by: Cynthia Redinger, PE, PTOE, RSP_1

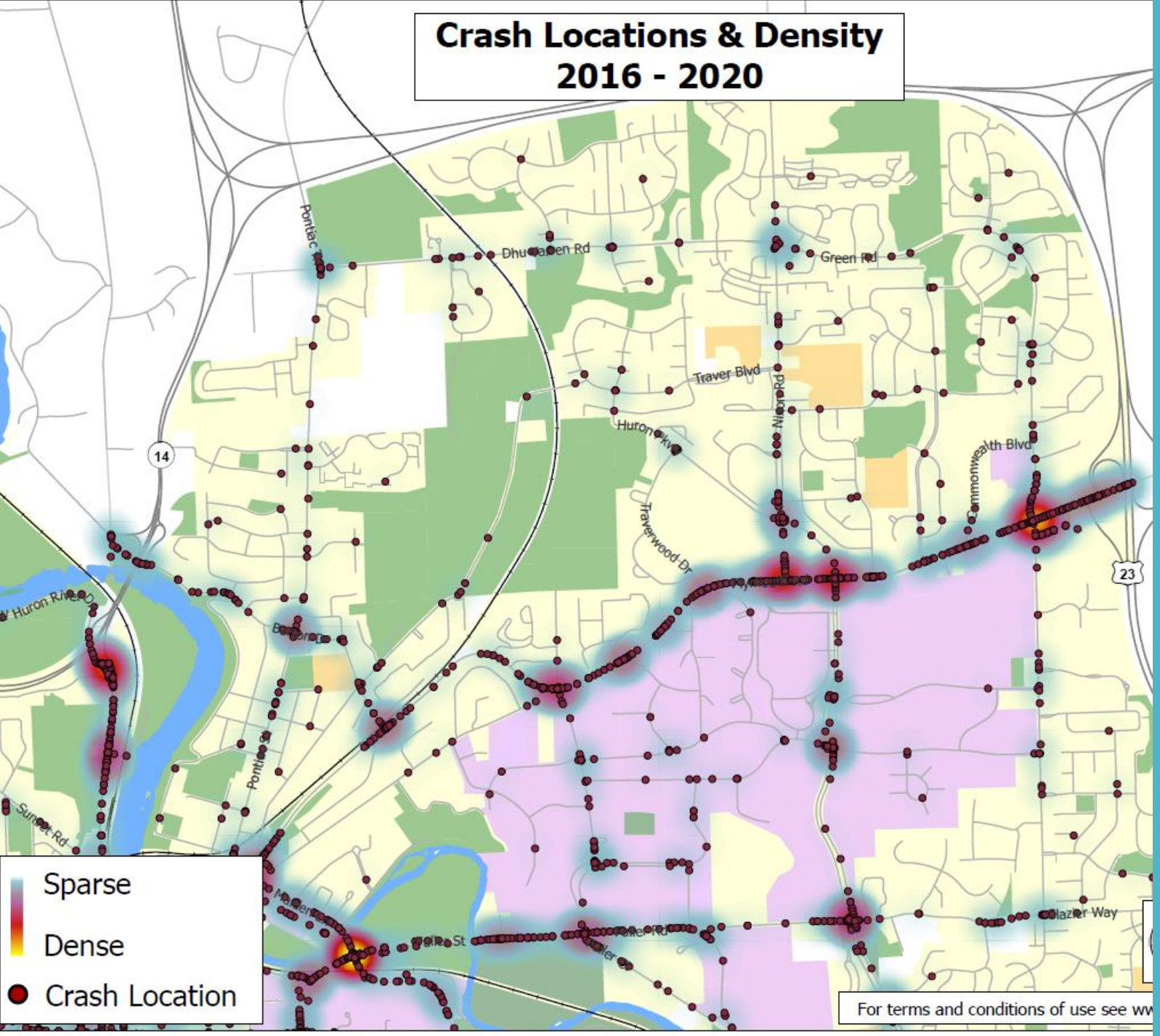
Topics

Purpose of the Annual Report

Sources of data and use of information

Overview of crash data and trends for years 2011-2020

Discussion and questions



Purpose of Annual Report

The Annual Crash Report provides an opportunity for the Transportation Commission to review ongoing crash trends that Transportation tracks annually.

Transportation anticipates the annual report being completed for the October Transportation Commission meeting.

Data Source

The data used in this report comes from the Michigan Certified Crash Data access via RoadSoft or msp.numetric.com

This data are available for viewing by the public through:

- The Office of Highway Safety Planning's (OHSP) online data tool, www.michigantrafficcrashfacts.org
- The Southeast Michigan Council of Governments (SEMCOG) Traffic Crash maps, https://semcog.org/map-gallery
- The City of Ann Arbor's crash map: https://a2-mi.maps.arcgis.com/apps/dashboards/0450e2b5c1c5417eb9d9d9ccaa96c85f

Data were filtered to:

- Remove crashes that occurred on the freeway system or private property
- Remove animal crashes from all charts except the Animal Crash charts

A Note on Vision Zero Engineering

What?

- Engineering practice that acknowledges human error and strives to prevent death and serious injury (KSI) crashes instead of reacting to specific events.

How?

- Use data to identify trends
- Apply proven design elements
- Address known high crash locations

A Note on 5 Year Averages

Why focus on a rolling average for trends?

From FHWA:

> *"A rolling average is commonly used to smooth out short-term fluctuations in the data and highlight longer-term trends."*

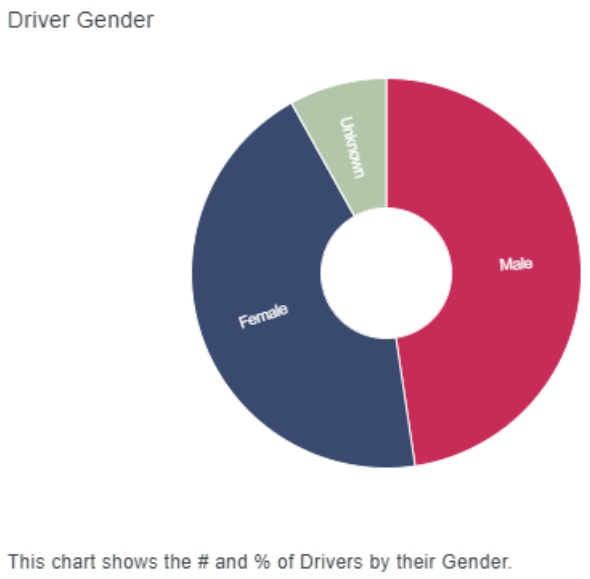
Who crashed?

2011-2020 Data

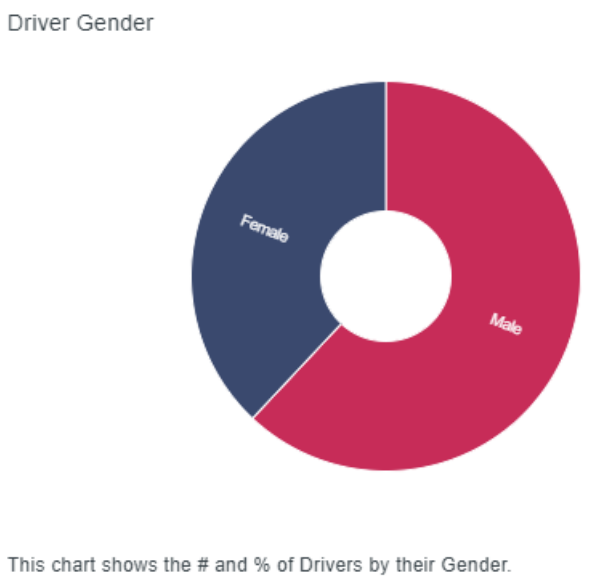
Driver Gender

Note:
Gender in this case is as identified by the Office of Highway Safety Planning and the Michigan State Police through the State's UD-10 Crash Report

All Crashes

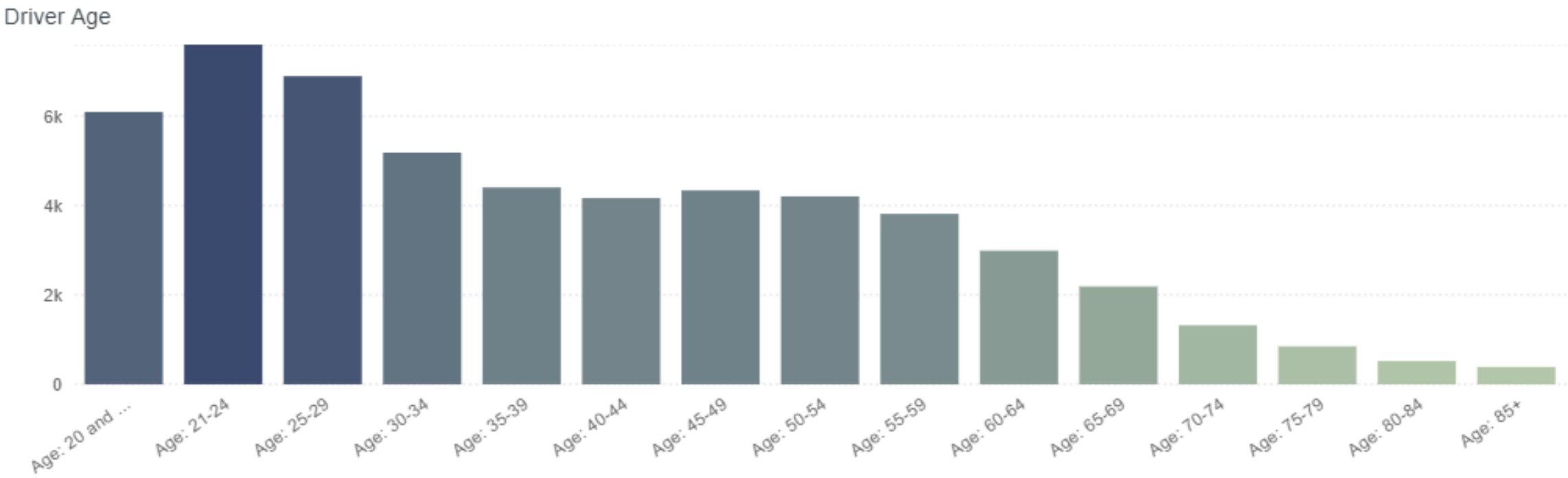


KSI Crashes



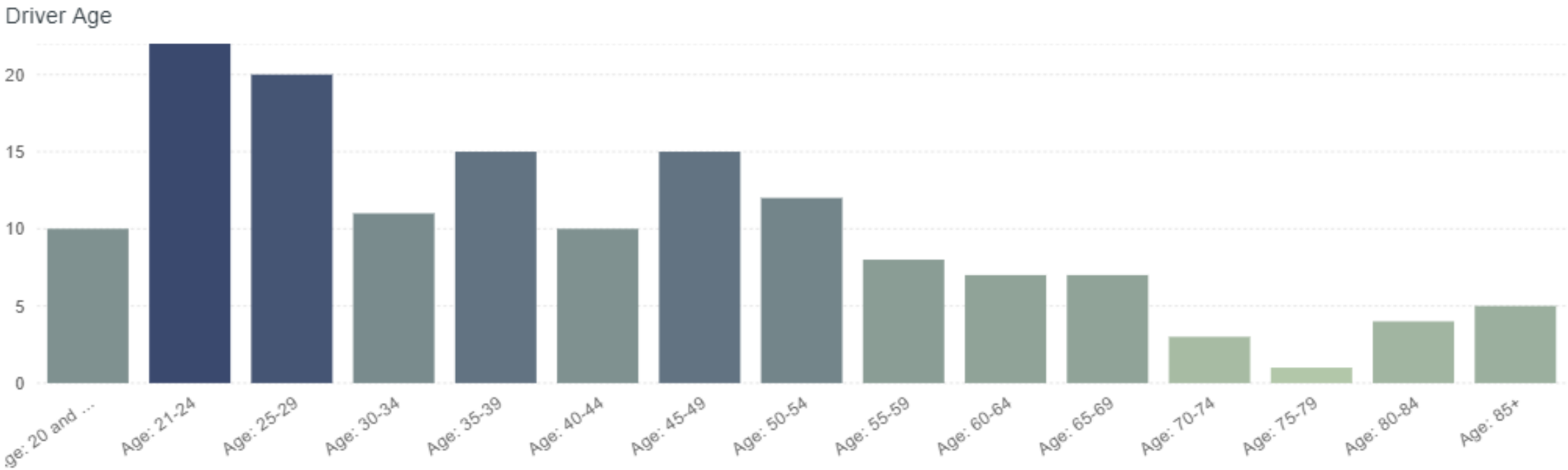
Source: msp.numetric.com

Driver Age: All Crashes



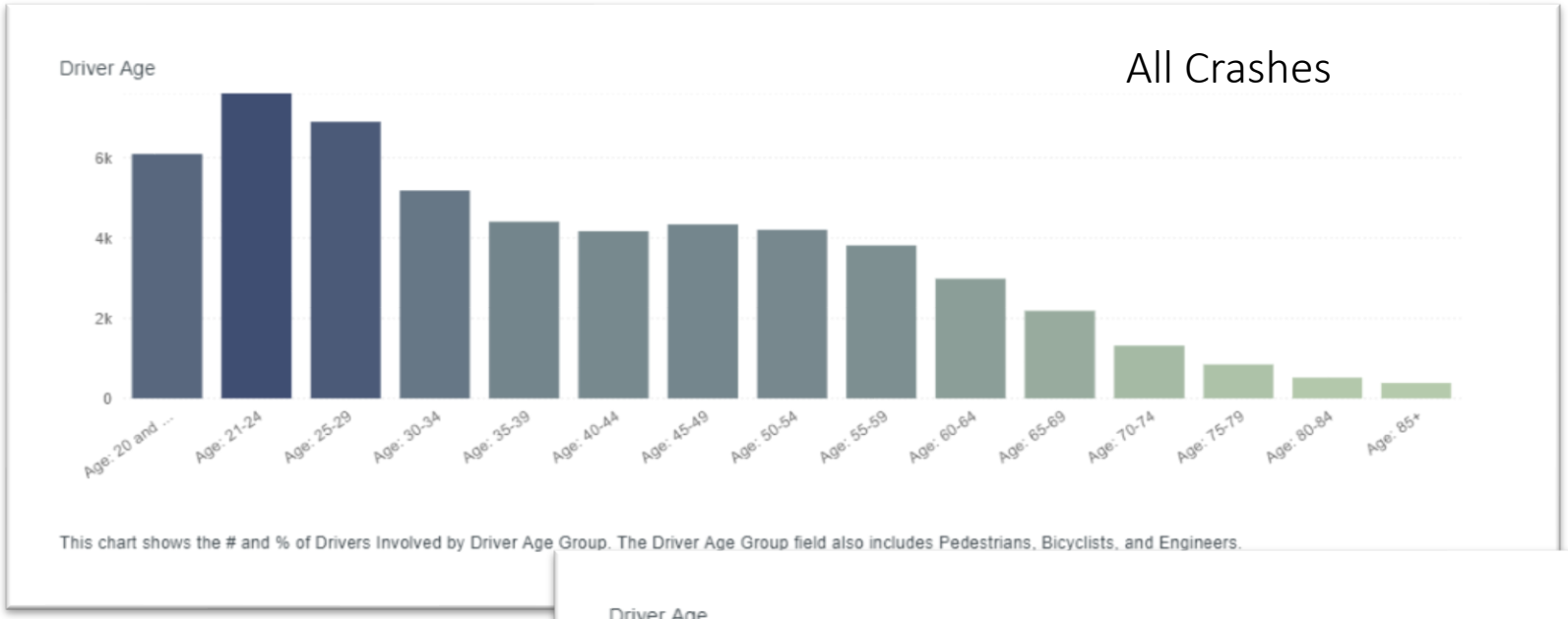
This chart shows the # and % of Drivers Involved by Driver Age Group. The Driver Age Group field also includes Pedestrians, Bicyclists, and Engineers.

Driver Age: KSI Crashes



This chart shows the # and % of Drivers Involved by Driver Age Group. The Driver Age Group field also includes Pedestrians, Bicyclists, and Engineers.

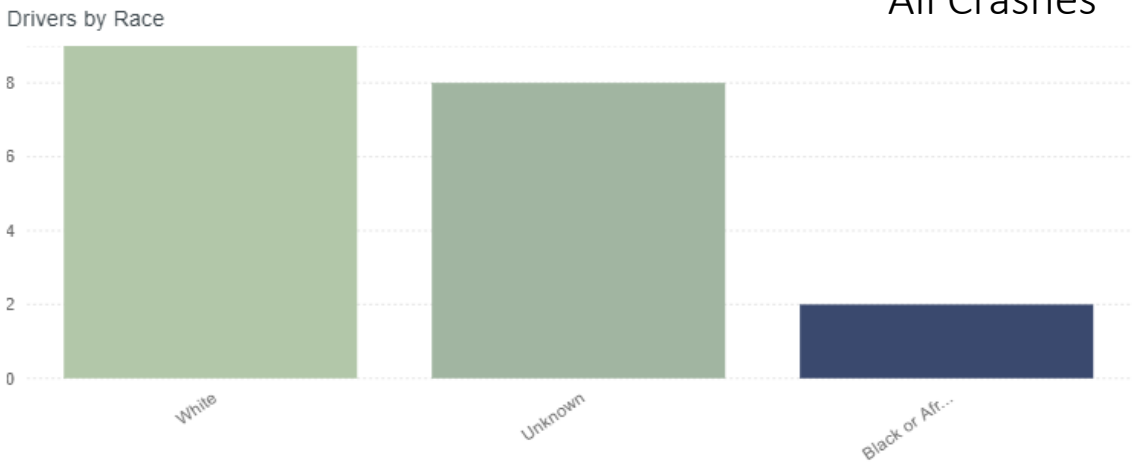
Driver Age: Comparison



Source: msp.numetric.com

Drivers by Race

All Crashes



This chart shows the # of Drivers by Race.

Note:
Race in this case is as identified by the Office of Highway Safety Planning and the Michigan State Police through the State's UD-10 Crash Report.

The data set is too limited to be representative.

KSI Crashes

This chart shows the # of Drivers by Race.

Source: msp.numetric.com

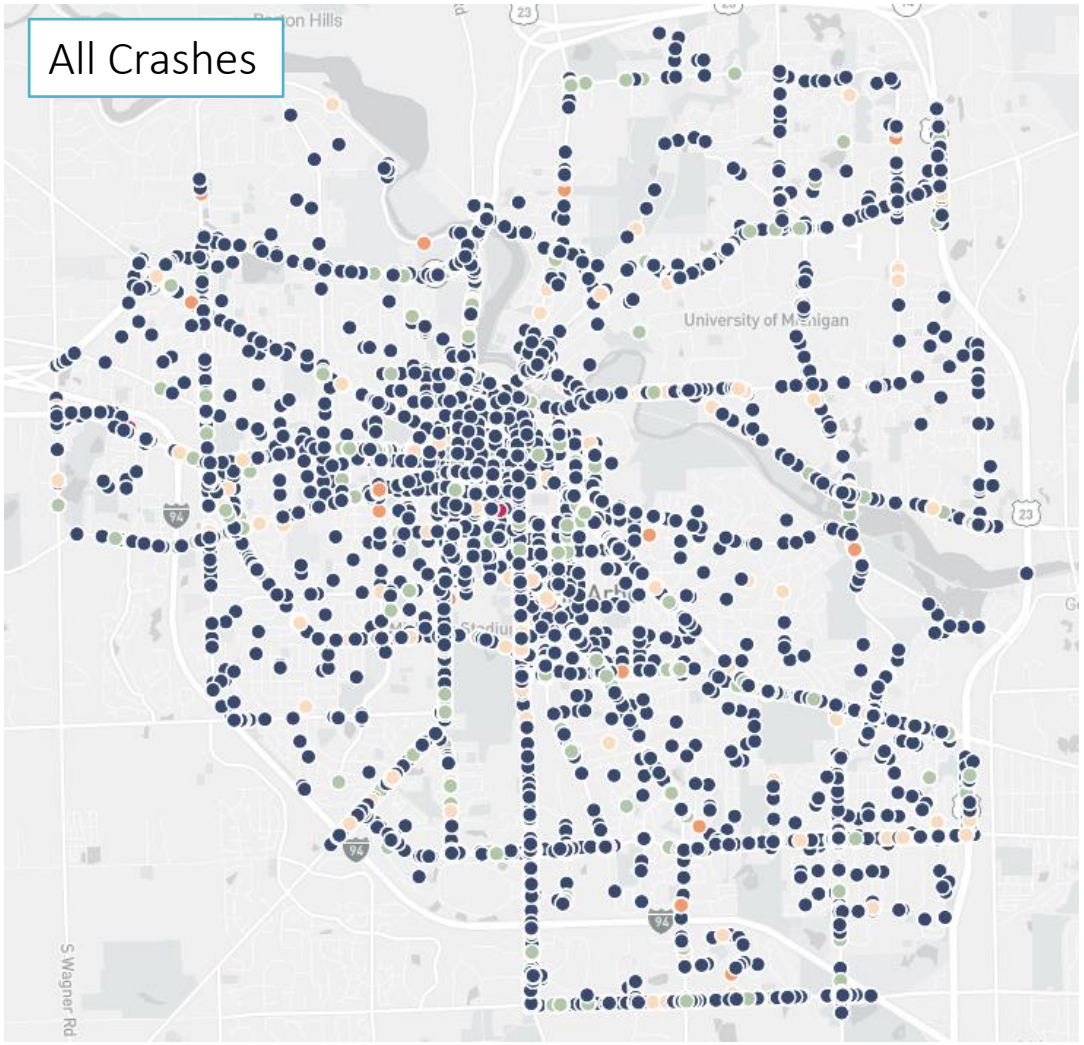
Where did they crash?

2011-2020 Data

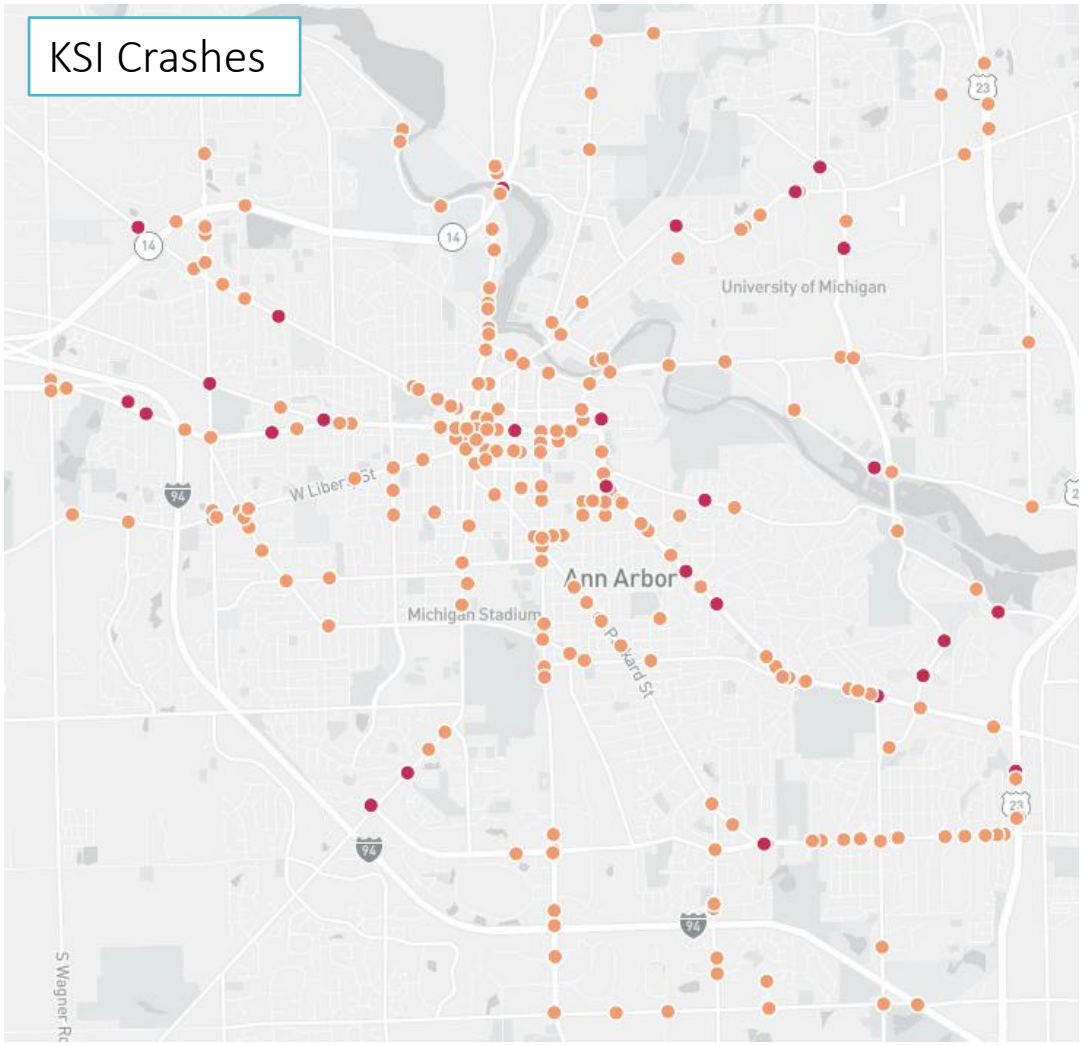
Crash Location Maps: 2011-2020

Source: msp.numetric.com

All Crashes

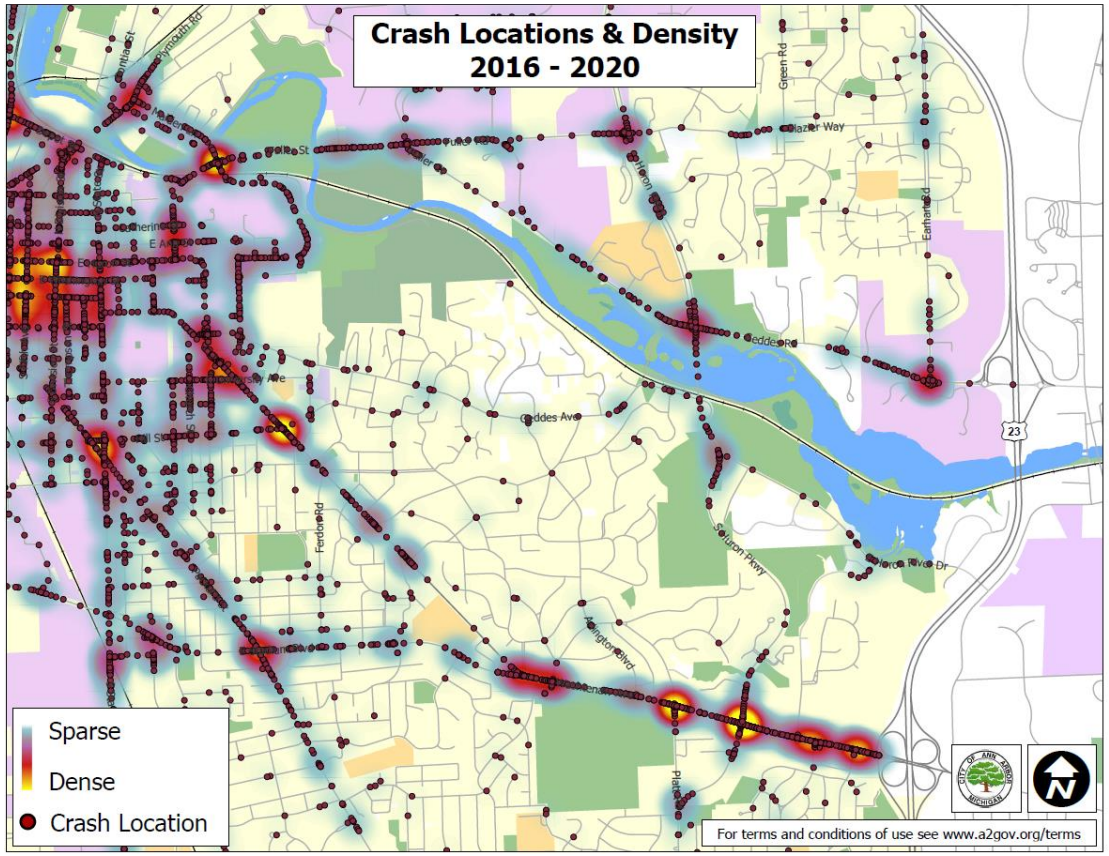


KSI Crashes

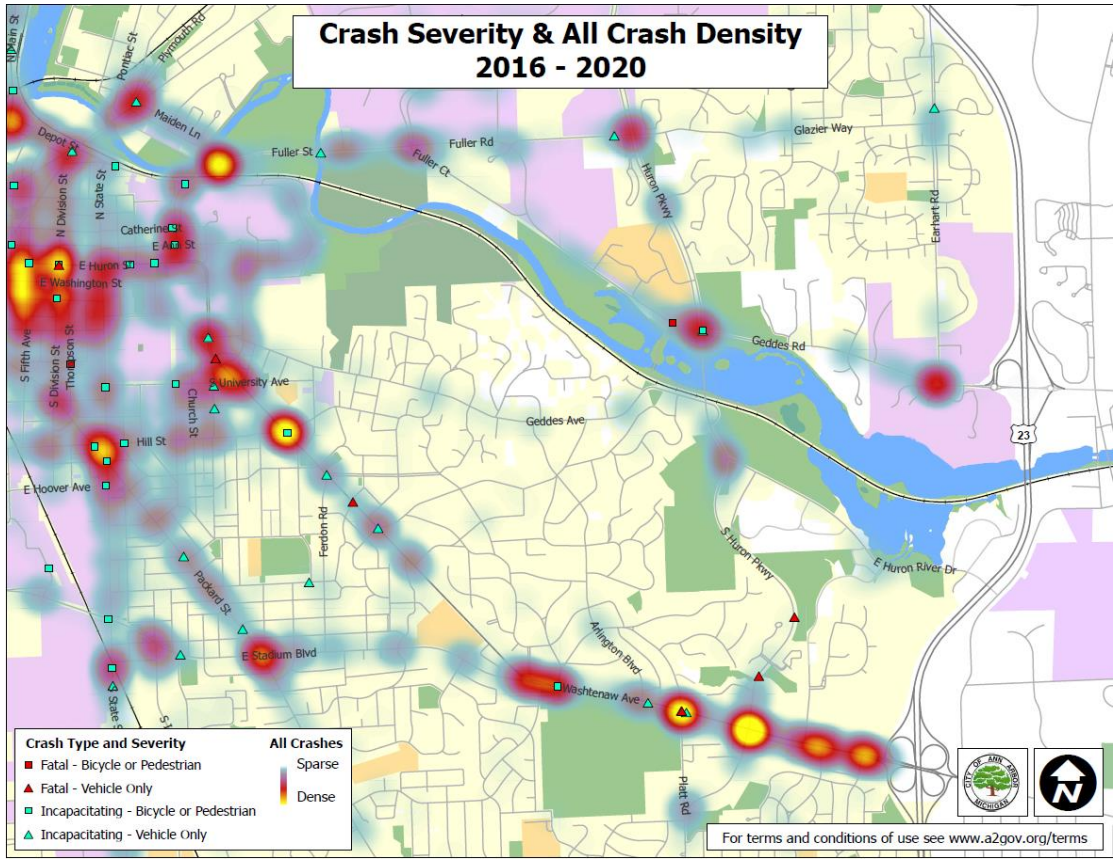


Crash Location Maps: 2016-2020

All Crashes



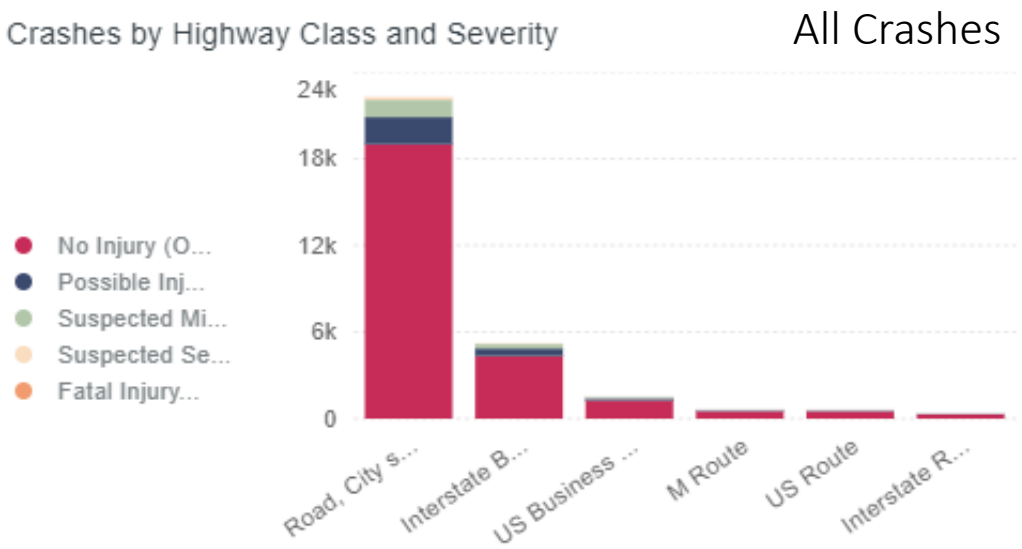
KSI Crashes



Source: A2 GIS Staff

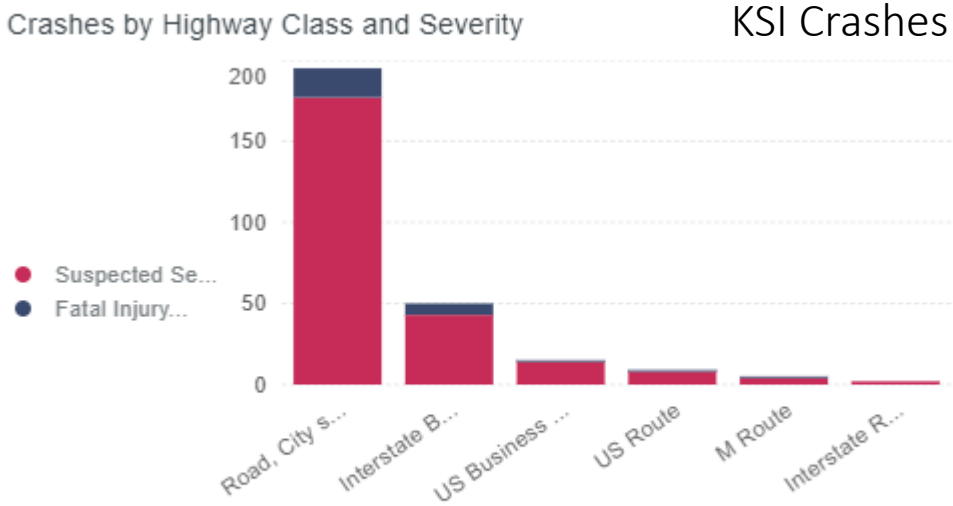
Crashes by Street Type

All Crashes



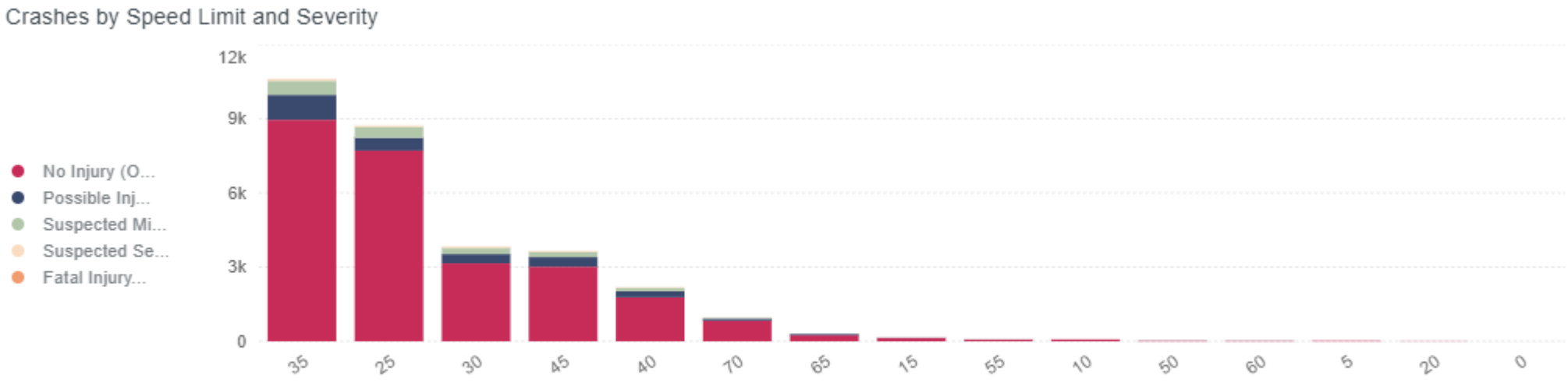
This chart shows the # of crashes by Highway Class and Severity.

KSI Crashes



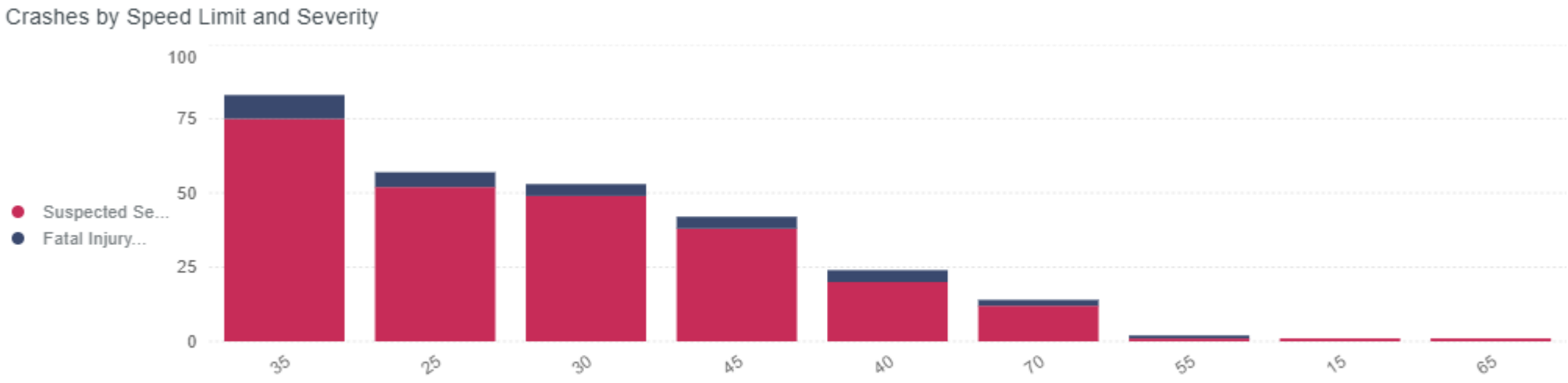
This chart shows the # of crashes by Highway Class and Severity.

Crashes by Speed Limit: All Crashes



This chart shows the # of crashes by Speed Limit and Severity.

Crashes by Speed Limit: KSI Crashes

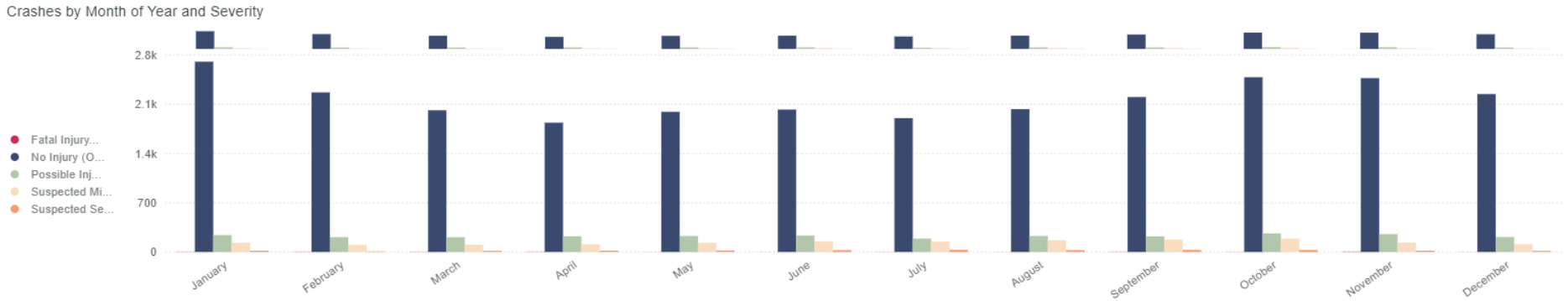


This chart shows the # of crashes by Speed Limit and Severity.

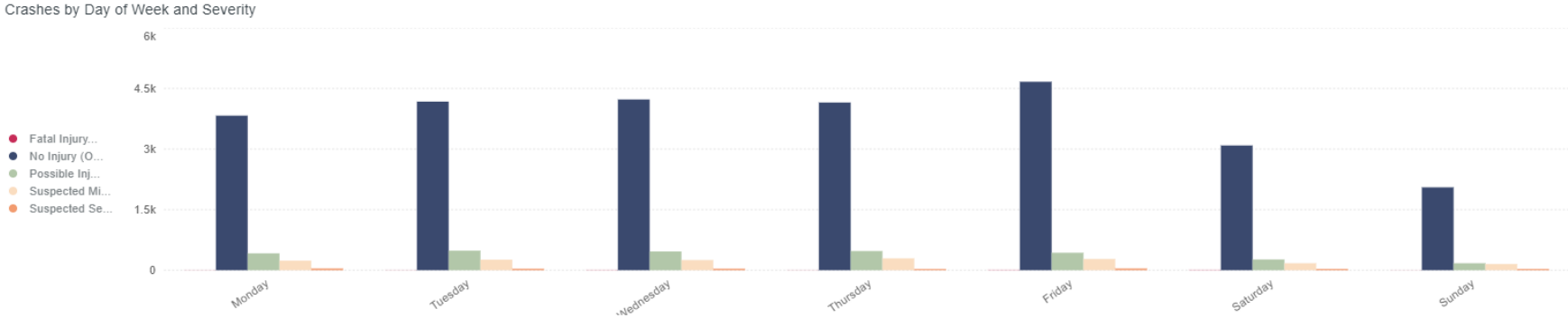
When did they crash?

2011-2020 Data

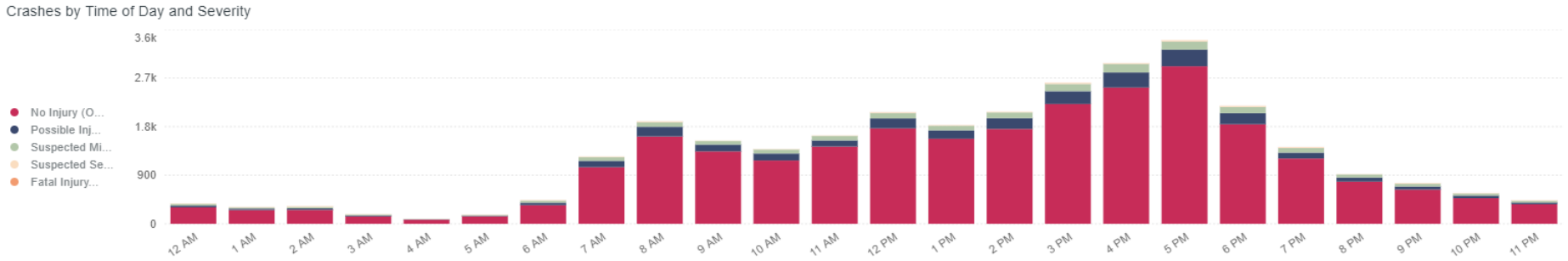
Temporal Factors: All Crashes



This chart shows the # of crashes by the Month of Year and Severity.



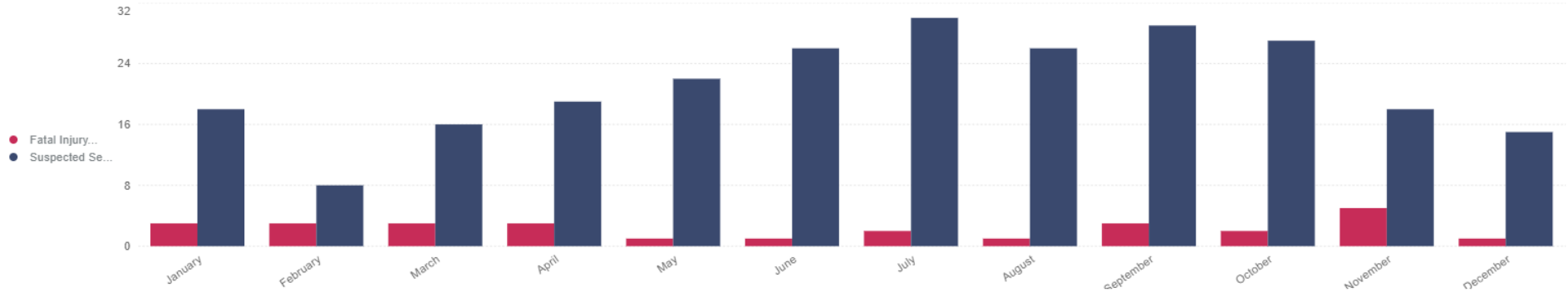
This chart shows the # of crashes by the Day of Week and Severity.



This chart shows the # of crashes by the Time of Day and Severity.

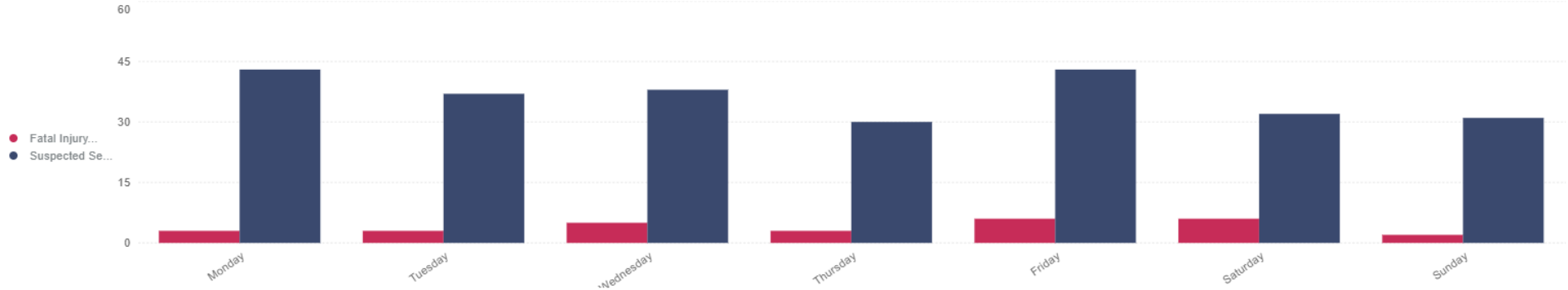
Temporal Factors: KSI Crashes

Crashes by Month of Year and Severity



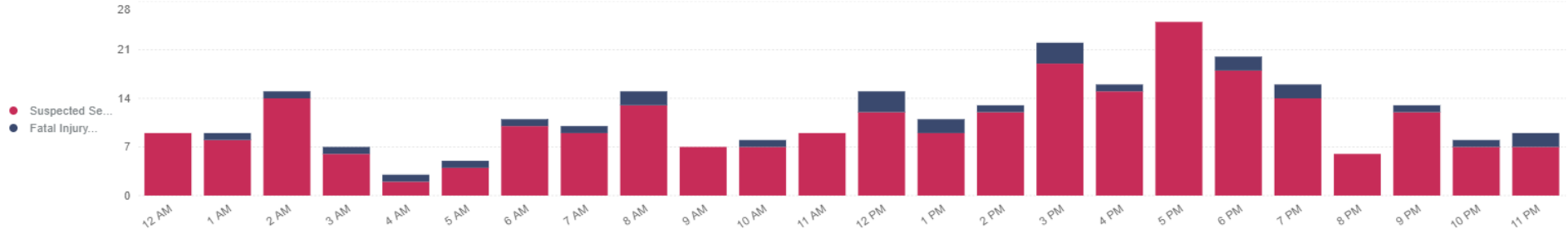
This chart shows the # of crashes by the Month of Year and Severity.

Crashes by Day of Week and Severity



This chart shows the # of crashes by the Day of Week and Severity.

Crashes by Time of Day and Severity

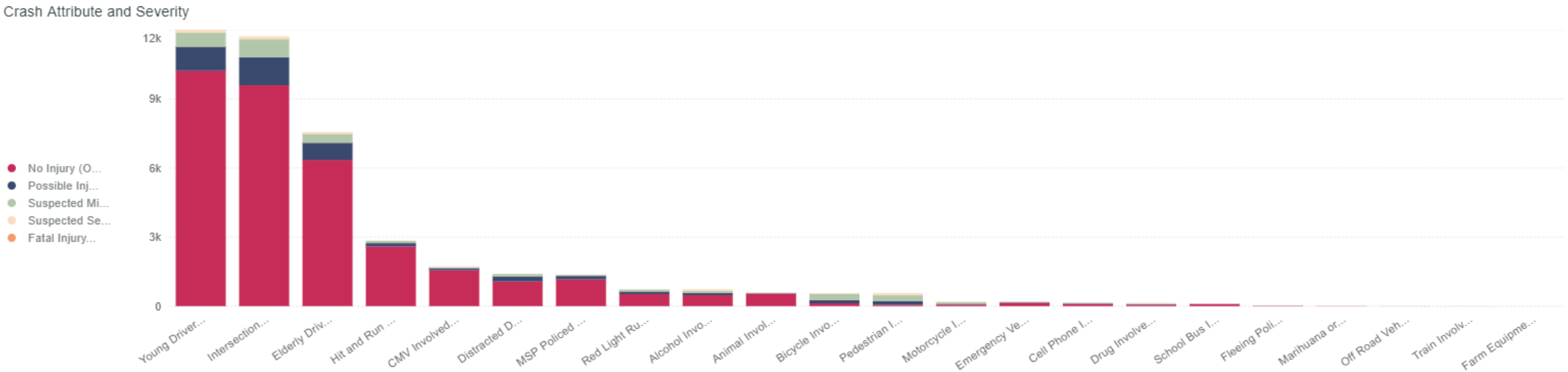


This chart shows the # of crashes by the Time of Day and Severity.

Why did they crash?

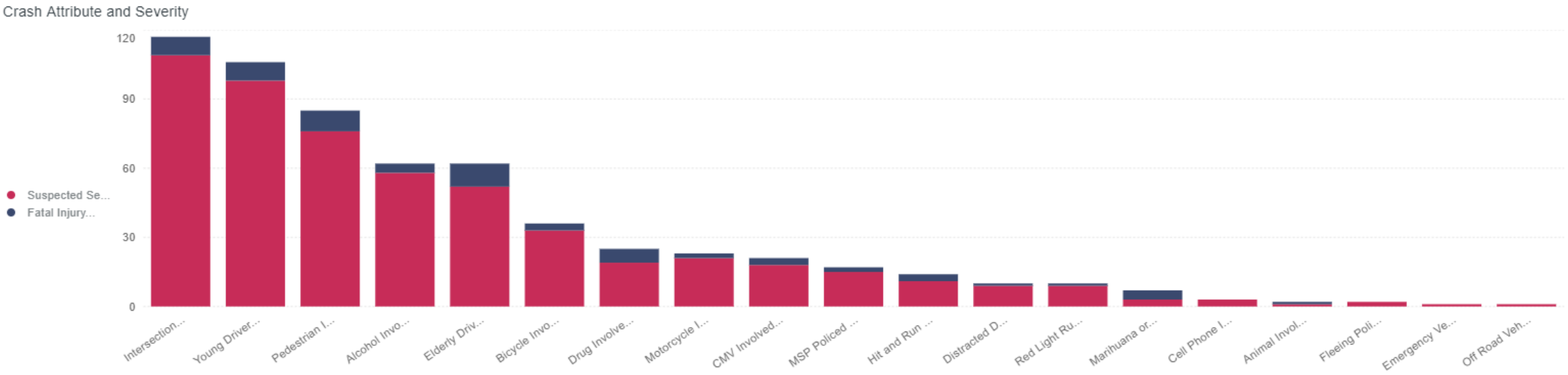
2011-2020 Data

Attributes & Severity: All Crashes



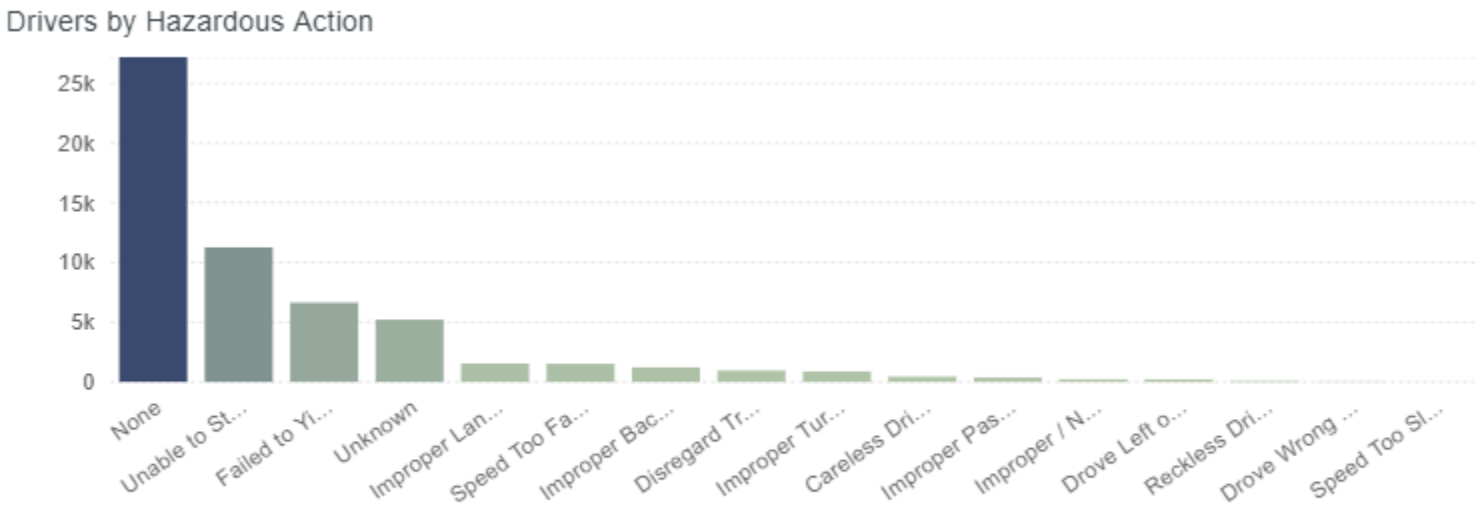
This chart shows the # of crashes by Crash Attribute and Severity.

Attributes & Severity: KSI Crashes



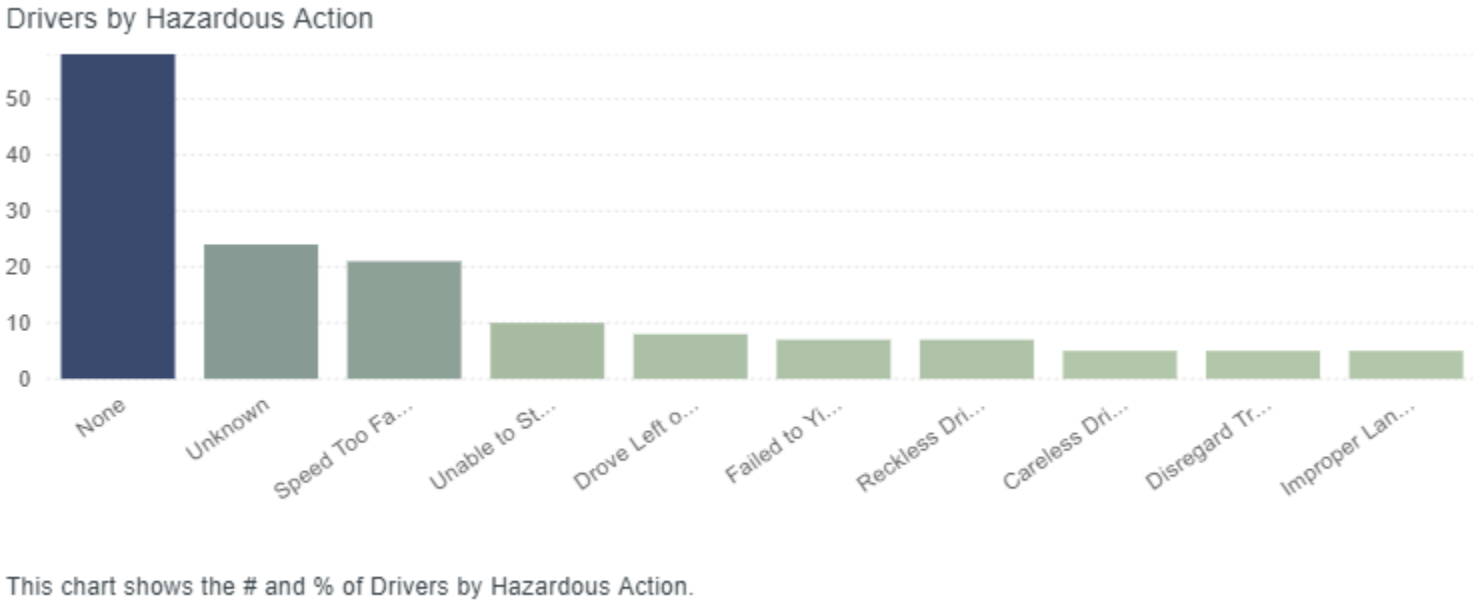
This chart shows the # of crashes by Crash Attribute and Severity.

Hazardous Action: All Crashes



This chart shows the # and % of Drivers by Hazardous Action.

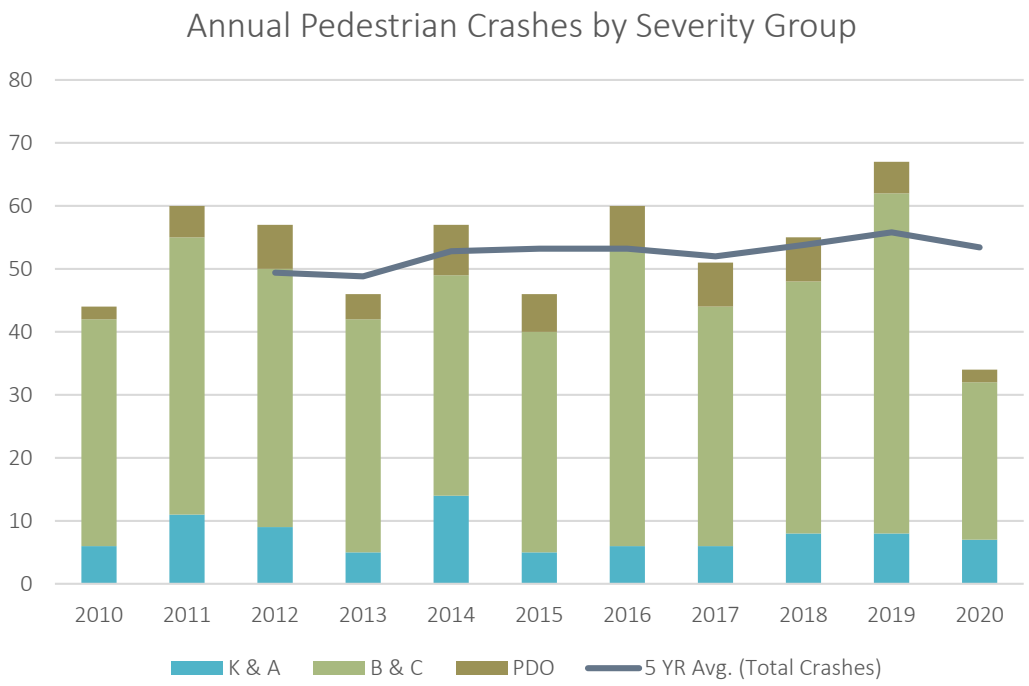
Hazardous Action: KSI Crashes

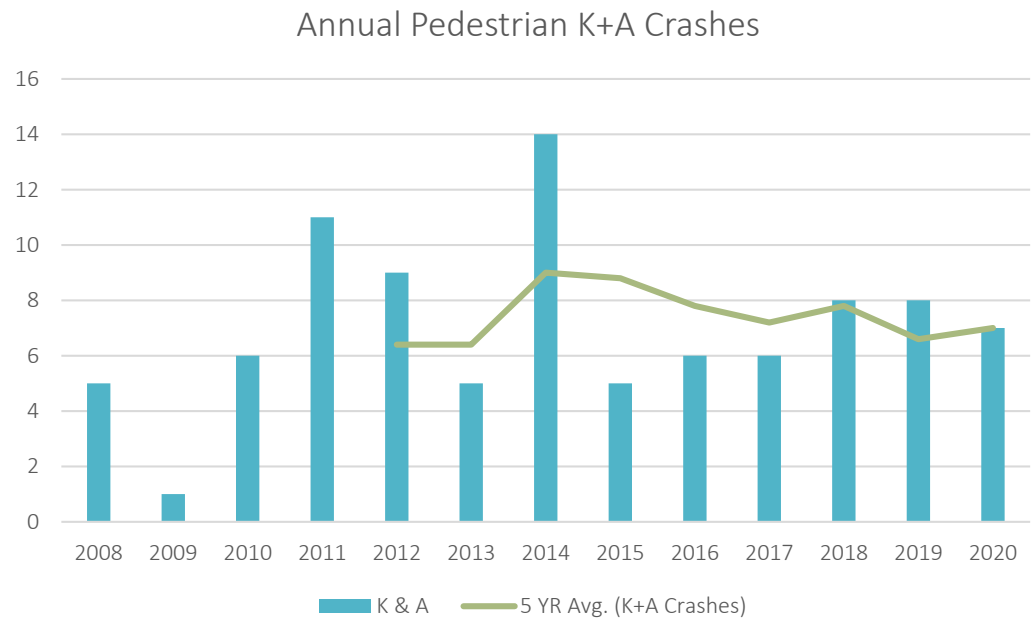


This chart shows the # and % of Drivers by Hazardous Action.

Deeper Dive: Pedestrians

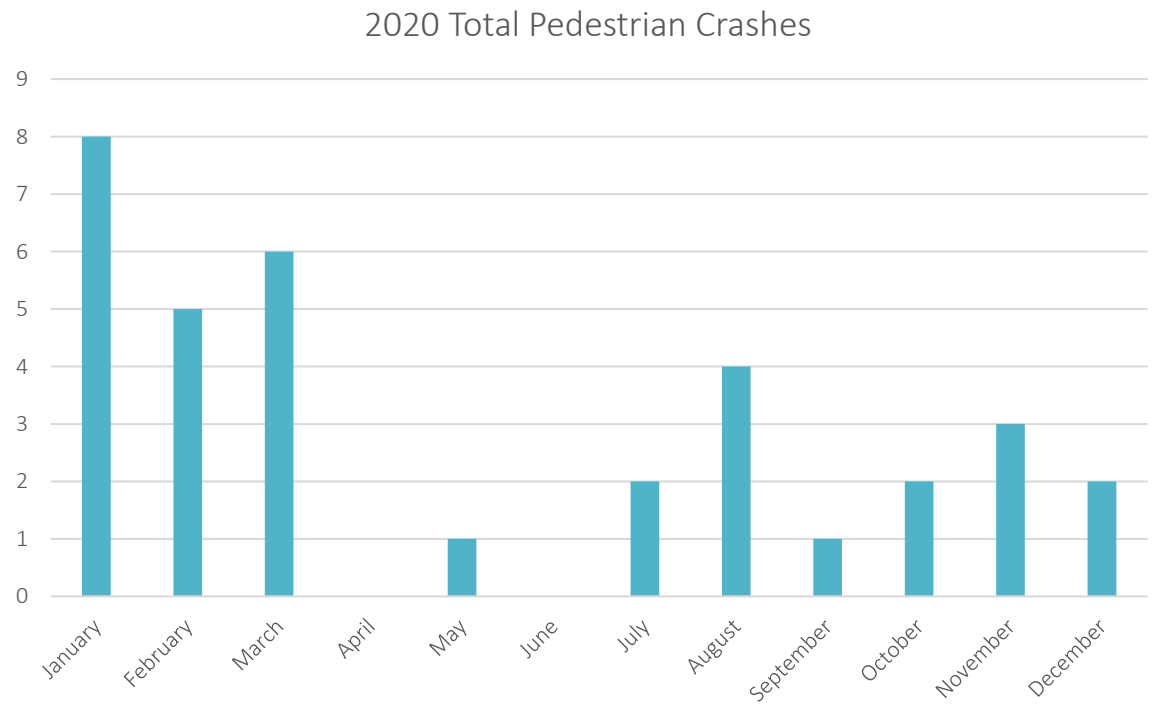
Annual Pedestrian Crashes





2020 Pedestrian Crashes

Crashes by Month	KSI	Other	Total
January	0	8	8
February	1	4	5
March	0	6	6
April	0	0	0
May	1	0	1
Leading Pedestrian Intervals (LPIs) installed at all City signals.			
June	0	0	0
July	2	0	2
August	1	3	4
September	1	0	1
October	0	2	2
November	1	2	3
December	0	2	2



Questions?