



TRANSPORTATION  
PUBLIC WORKS

**VISION**  **N**  **ZERO** 

# Vision Zero Update

## BAC / PAC

December 4, 2023

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11/30/2023

Vision Zero update



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**2,449**  
Years of Life Lost  
Through 10/31/2023

**CITY OF AUSTIN**  
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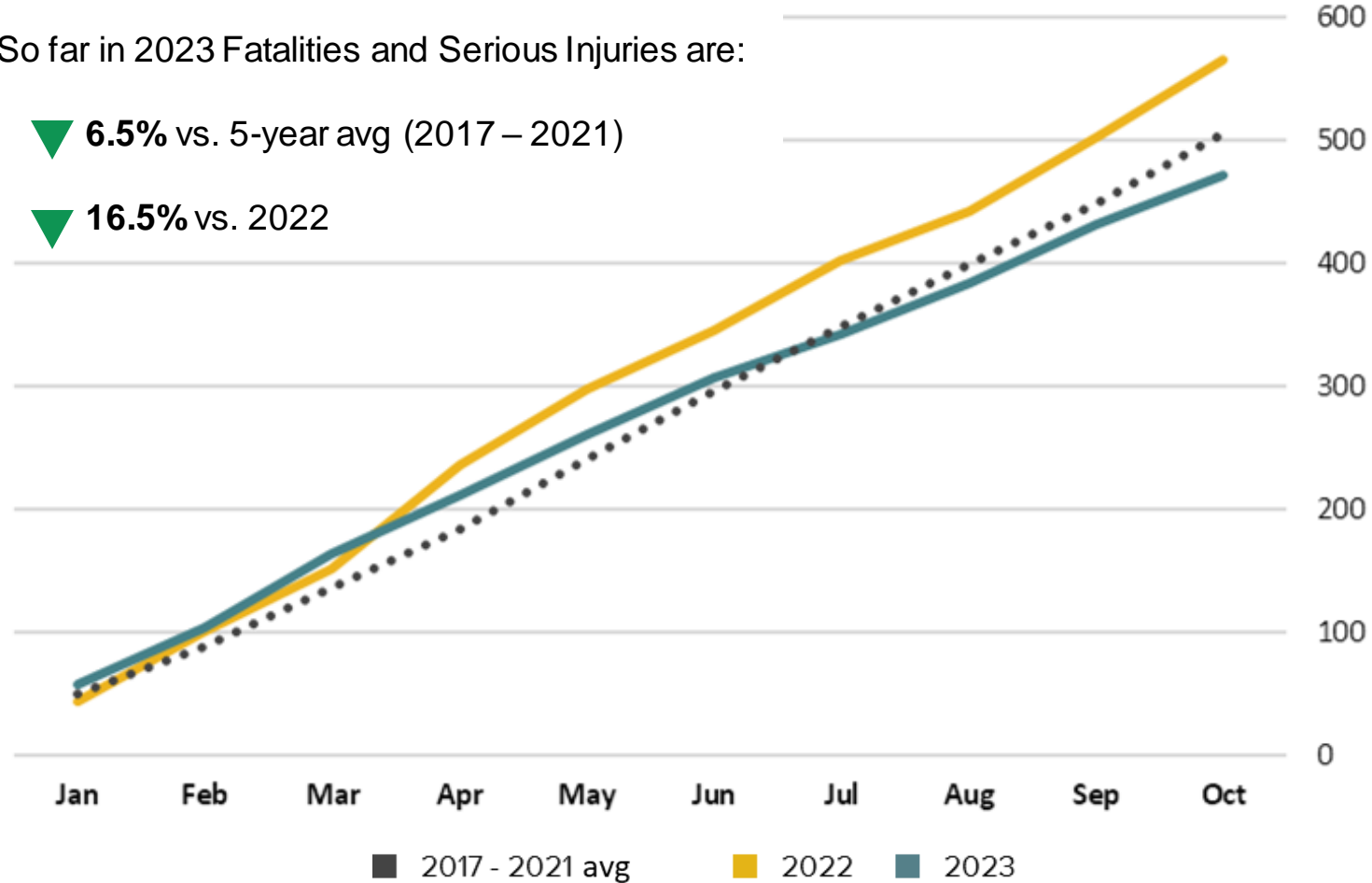
# Fatality and Serious Injury Trends

## *Cumulative Fatalities and Serious Injuries Year to Date through October 31*

So far in 2023 Fatalities and Serious Injuries are:

▼ **6.5%** vs. 5-year avg (2017 – 2021)

▼ **16.5%** vs. 2022



\* Data disclaimer: Data accessed on 11/15/2023. There may be additional reports filed or changes which may impact these numbers before they are final.

3  
11/30/2023

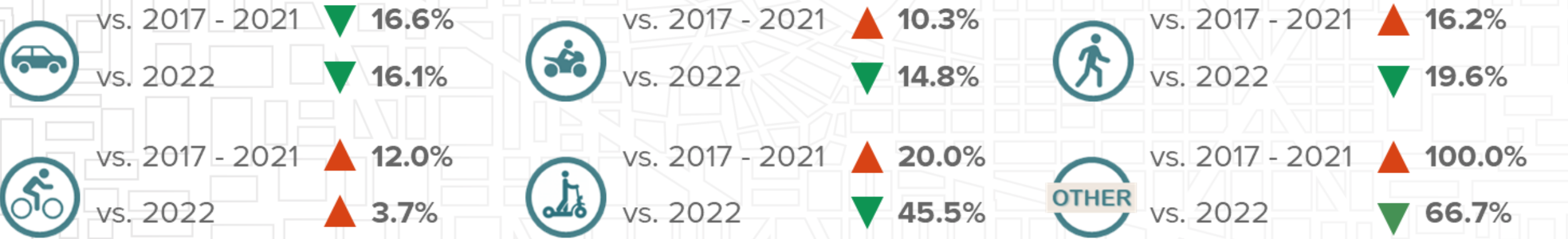
Vision Zero update



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# Fatality and Serious Injury Trends

## Fatalities and Serious Injuries by Mode Year to Date through October 31



Year	MOTOR VEHICLE	MOTORCYCLE	PEDESTRIAN	PEDALCYCLIST	E-SCOOTER	OTHER
2017-2021 5-year average	331	68	74	25	5	0
2022	329	88	107	27	11	3
2023	276	75	86	28	6	1

11/30/2023

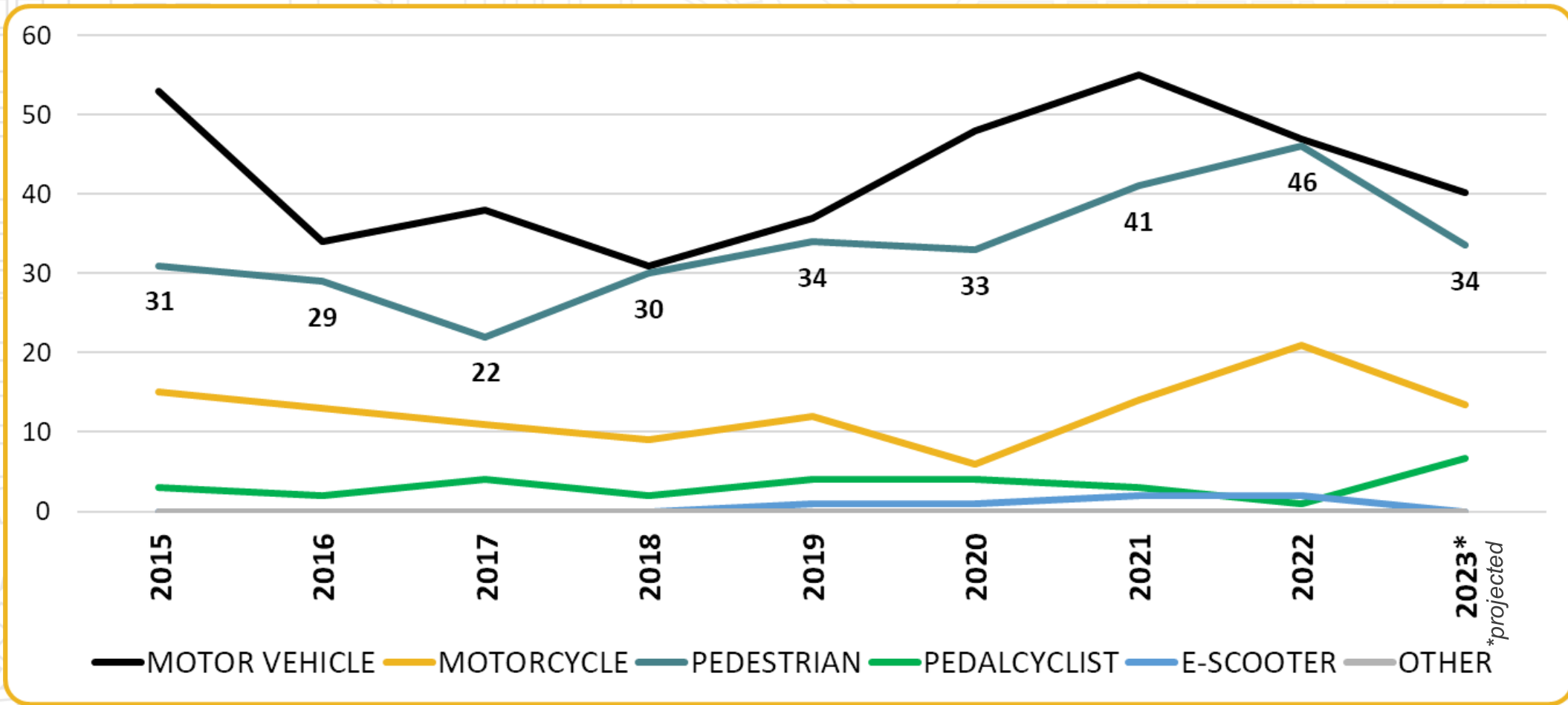
Vision Zero update

\* Data disclaimer: Data accessed on 11/15/2023. There may be additional reports filed or changes which may impact these numbers before they are final.

# Fatality and Serious Injury Trends

## Fatalities Only, by Mode

Year to Date through October 31



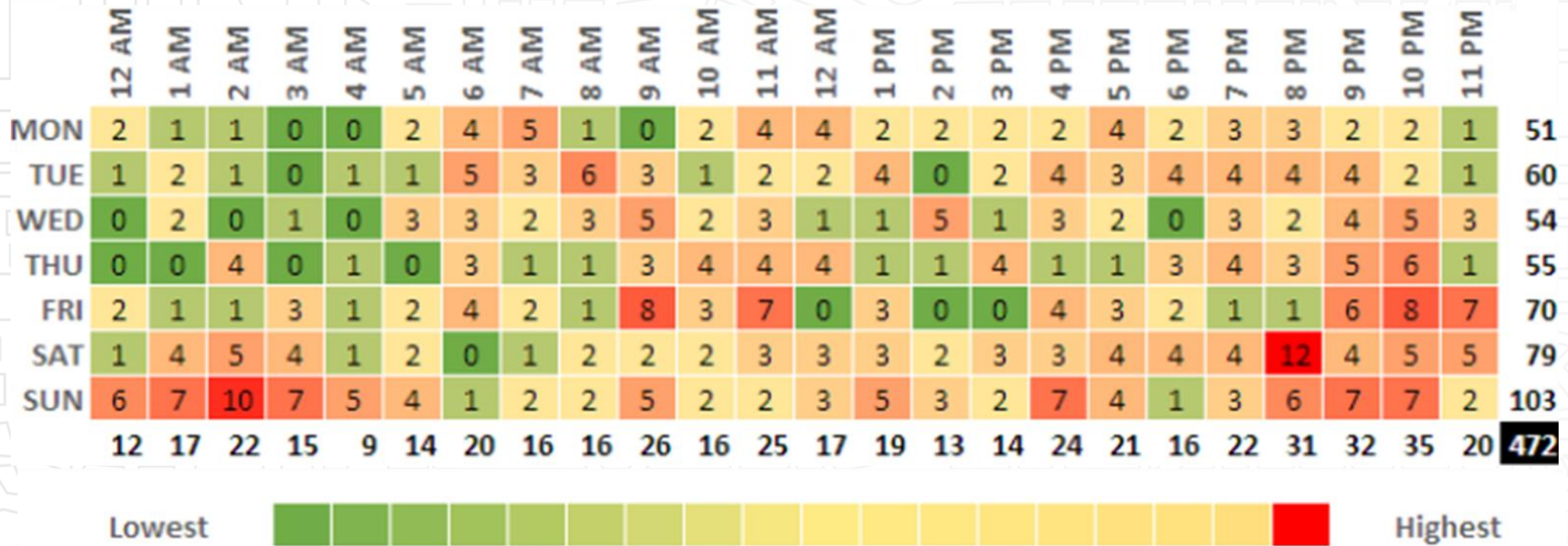
Vision Zero update



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# Fatality and Serious Injury Trends

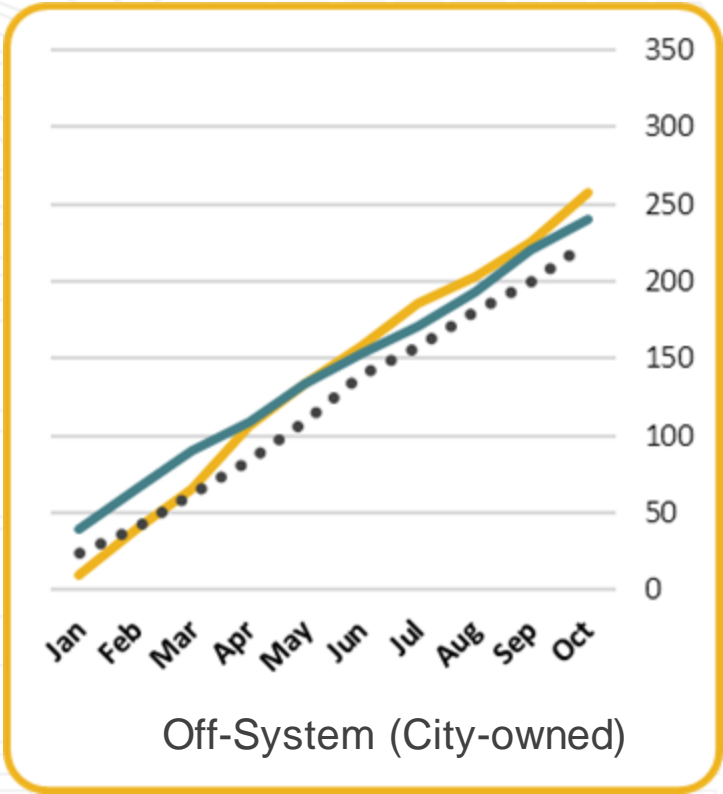
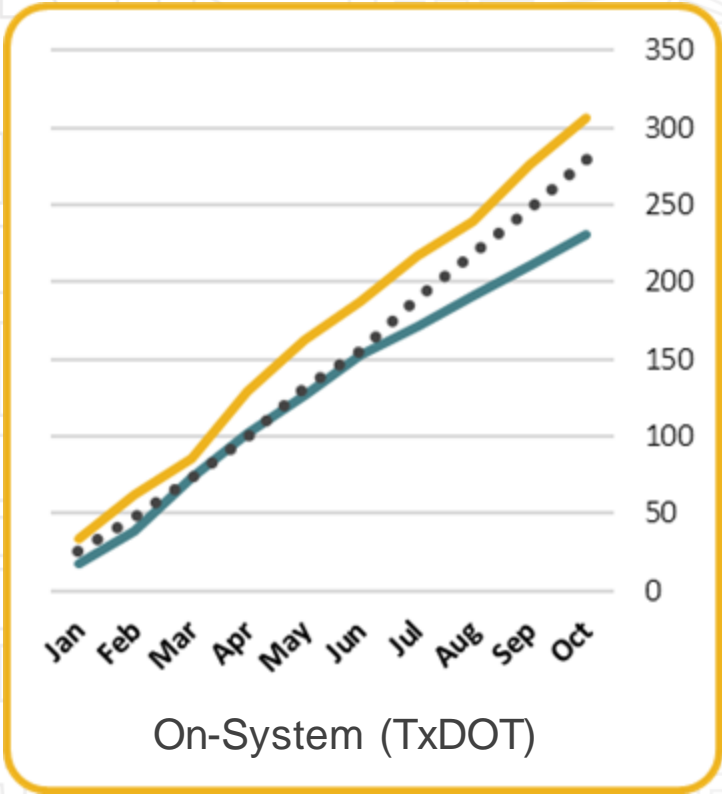
*By Time of Day / Day of Week  
Year to Date through October 31*





# Fatality and Serious Injury Trends

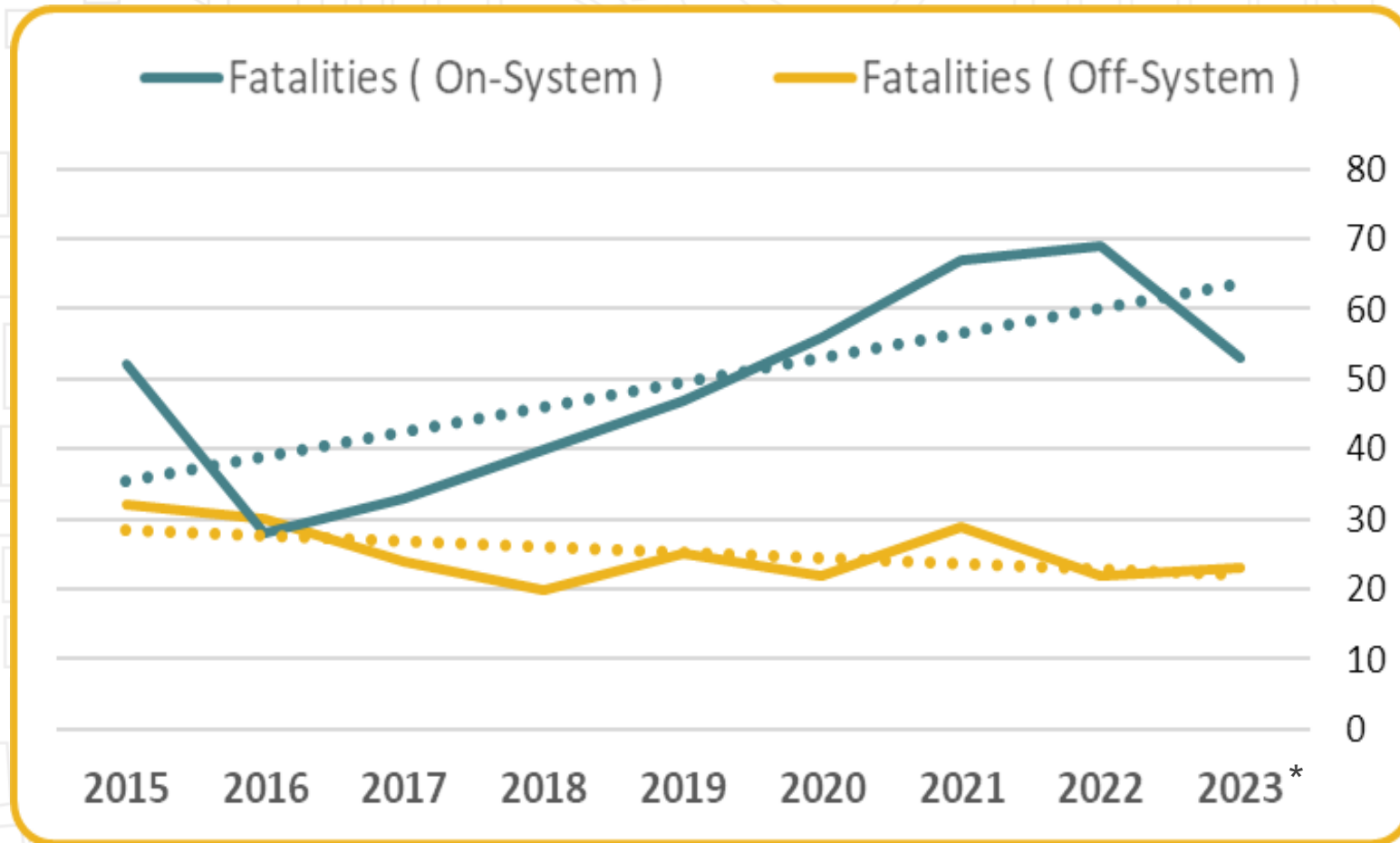
*Fatalities and Serious Injuries by Roadway Ownership*  
*Year to Date through October 31*



■ 2017 - 2021 (avg.)    ■ 2022    ■ 2023

# Fatality and Serious Injury Trends

*Fatalities Only, By Roadway Ownership*  
*Year to Date through October 31*



\*projected

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11/30/2023

Vision Zero update

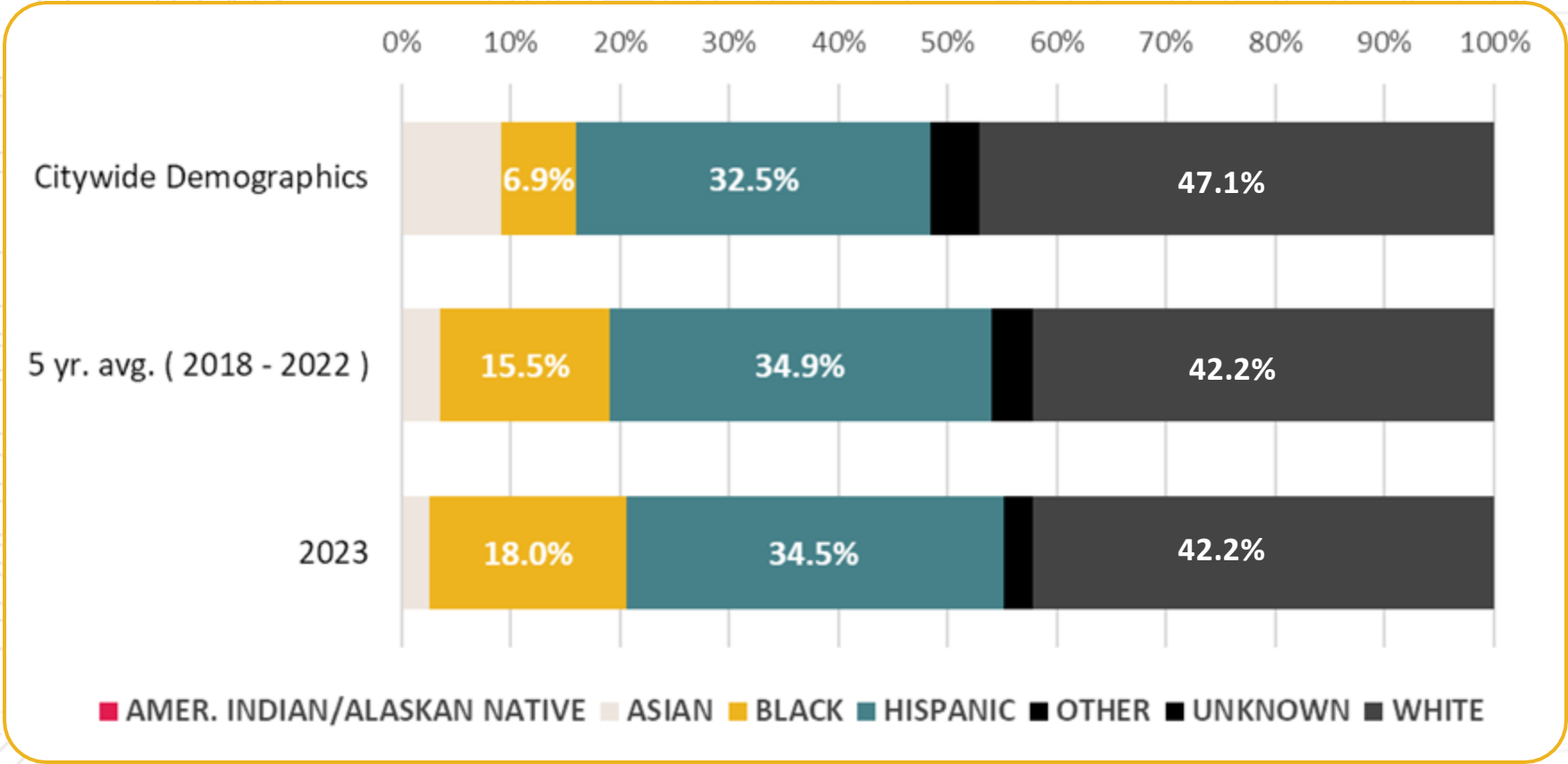


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# Fatality and Serious Injury Trends

*Fatalities and Serious Injuries by Race/Ethnicity (YTD through September)*



\* Data disclaimer: Data accessed on 11/15/2023. There may be additional reports filed or changes w hich may impact these numbers before they are final.

# Vision Zero Program Updates

## Daylight Saving / Darker Evening Commute campaign



Pedestrian-involved fatal and injury (KAB) crashes by month, 2018-2022												
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Avg. Crashes per Month	15.8	17	19.8	21.2	19.2	16.2	18	19	23.8	25.4	21.8	24.6

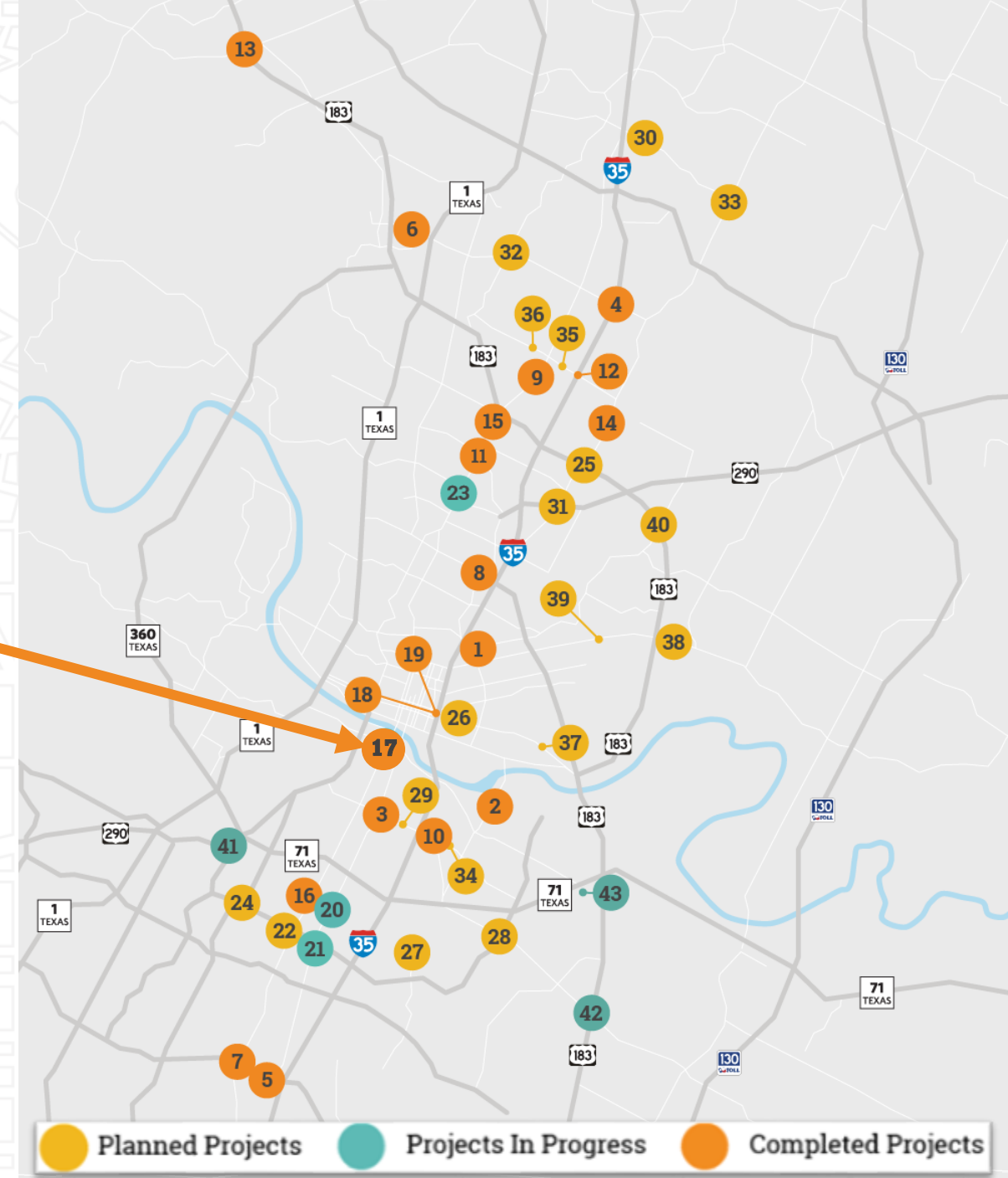


# Vision Zero Program Updates

## 2016 / 2018 / 2020 Mobility Bond

### Major Intersections

- 7 major intersection projects completed in 2023
- 2 locations currently in construction
- 11 more expected to be complete in 2024





# Vision Zero Program Updates

*2016 / 2018 / 2020 Mobility Bond*

## Systemic Safety projects

- Low-cost, high-impact treatments to address safety risks
  - Curve warning treatments
  - Signal timing changes
  - Access management
  - Street lighting improvements
  - Pedestrian crossings
  - Left turn calming



Burton / Mariposa crossing island



Left turn calming pilot



# Vision Zero Program Updates

*2016 / 2018 / 2020 Mobility Bond*



Barton Springs Road Safety Pilot



Bluff Springs Road project



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CITY OF AUSTIN | #DOT-SS4A-FY22-01

## SAFE AND EQUITABLE MOBILITY FOR AUSTIN

SAFE STREETS AND ROADS FOR ALL

# Vision Zero Program Updates

## *Safe Streets and Roads for All grant*

- Austin awarded \$22.9 million (+ \$5.7 million local match)
  - Major intersection projects
  - Low-cost, high-impact systemic treatments
  - 10 pedestrian hybrid beacons
  - **Citywide Lighting Plan** w/ Austin Energy
  - Video analytics
  - Roundabout education
- At least 50% of funds will go to Historically Underserved Communities

### Next steps

- Project refinement and development
- Procurement of engineering services
- SS4A 2023 award to be announced this month

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# Beyond crash data

*Incorporating other data sources in Vision Zero*

# Where do we get information about traffic crashes?

Crashes responded to by law enforcement (C.R.I.S.)

Fatalities

↔ Toxicology reports

Crashes responded to by EMS or Fire

*not to scale*

Crashes where victim goes directly to medical facility

Unreported crashes

Near-misses and dangerous behaviors

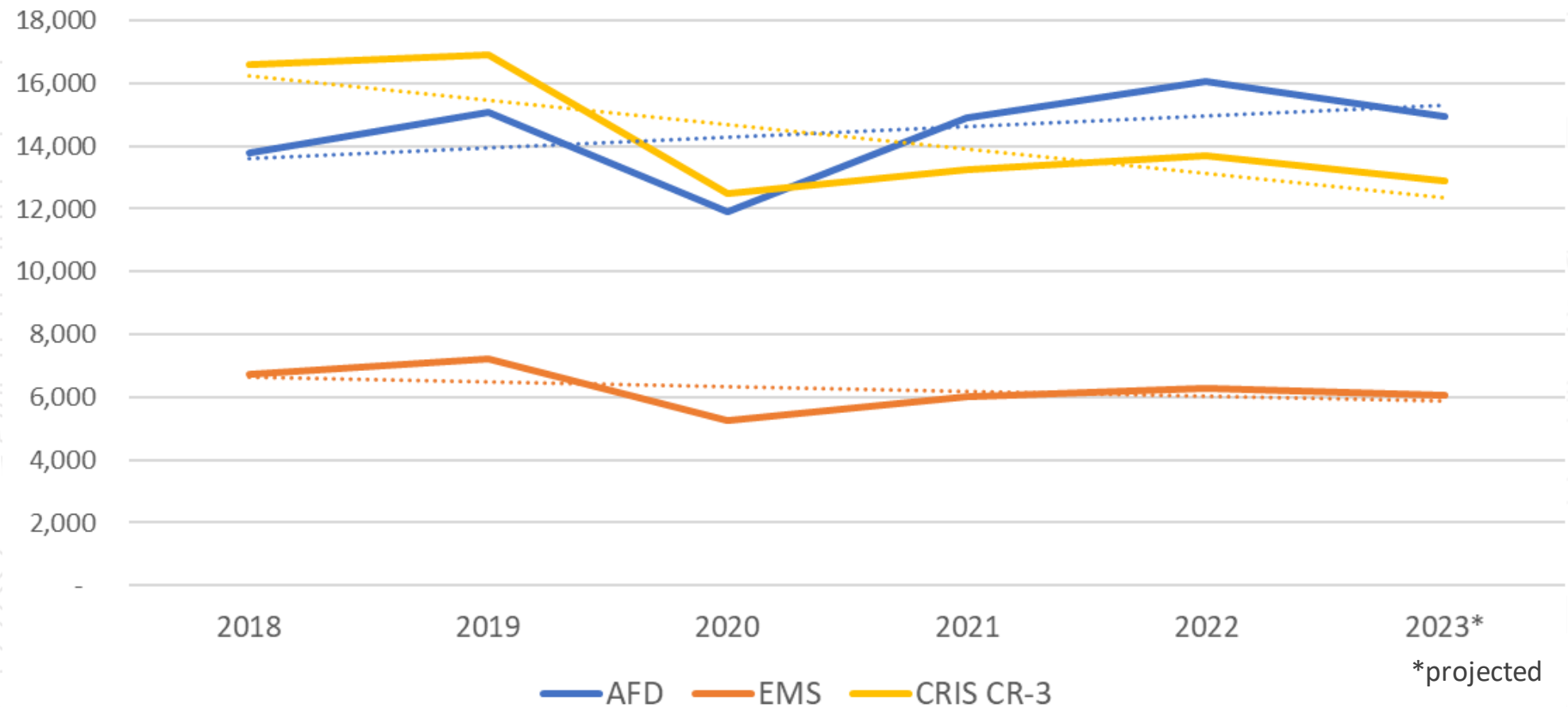


# Beyond crash data

*Incorporating external data sources*

## Crashes and traffic-related responses

CRIS CR-3 reports vs AFD vs ATC-EMS



Vision Zero update



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# Beyond crash data

## *Incorporating external data sources*

### ATC-EMS data

#### Value add

- Potentially includes traffic incidents that police and/or fire didn't respond to
- Information on acuity level and transport status

#### Challenges

- Limited information on contributing factors to the crash
- Multiple emergency response providers
- Labor-intensive: manual record matching required

#### Status

- Analysis of 6-month sample complete
- Vision Zero has set up process for ingesting ATC-EMS reports; exploring record-matching techniques

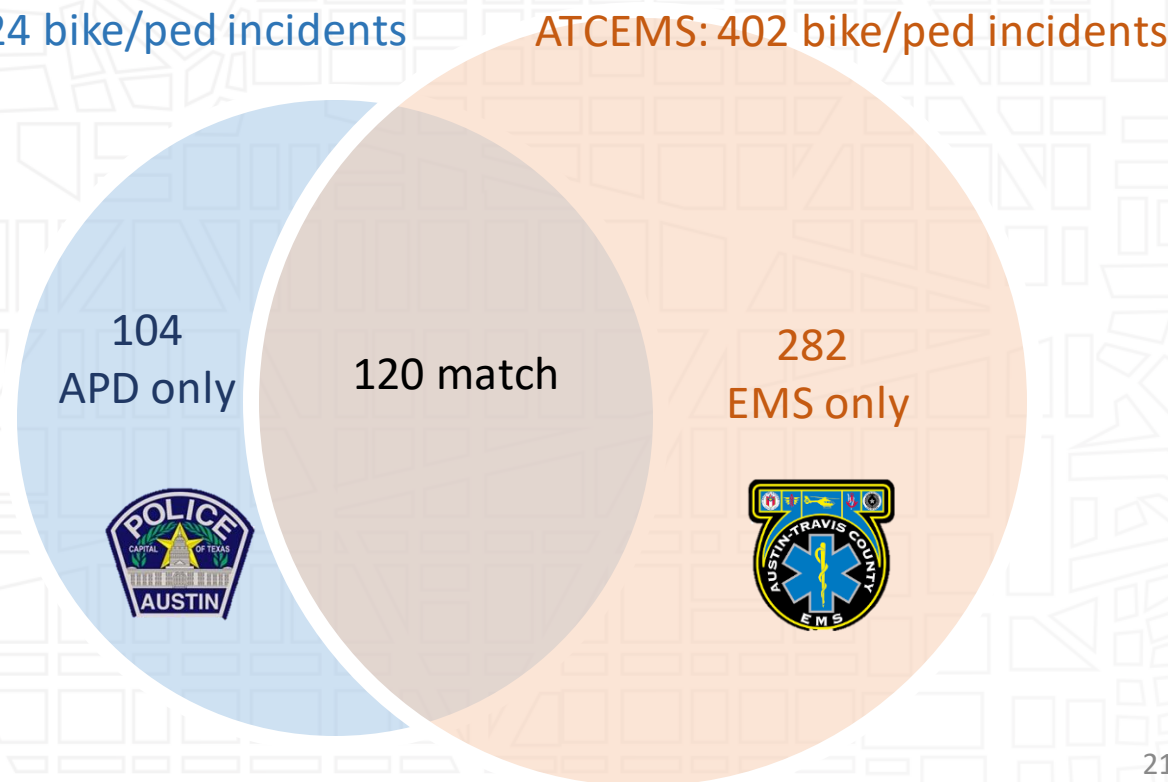
### PRELIMINARY ANALYSIS

6-month analysis of APD vs ATC-EMS bike/ped incidents\*

January 1st, 2021 to June 30th, 2021

APD: 224 bike/ped incidents

ATCEMS: 402 bike/ped incidents



\*APD data: includes Ped & Bike - Fatal, Serious, and Non-Incapacitating Injury crashes

\*EMS data: includes Ped & Bike related incidents (regardless of severity)

21  
11/30/2023

# Beyond crash data

## *Incorporating external data sources*

### Fire Department data

#### Value add

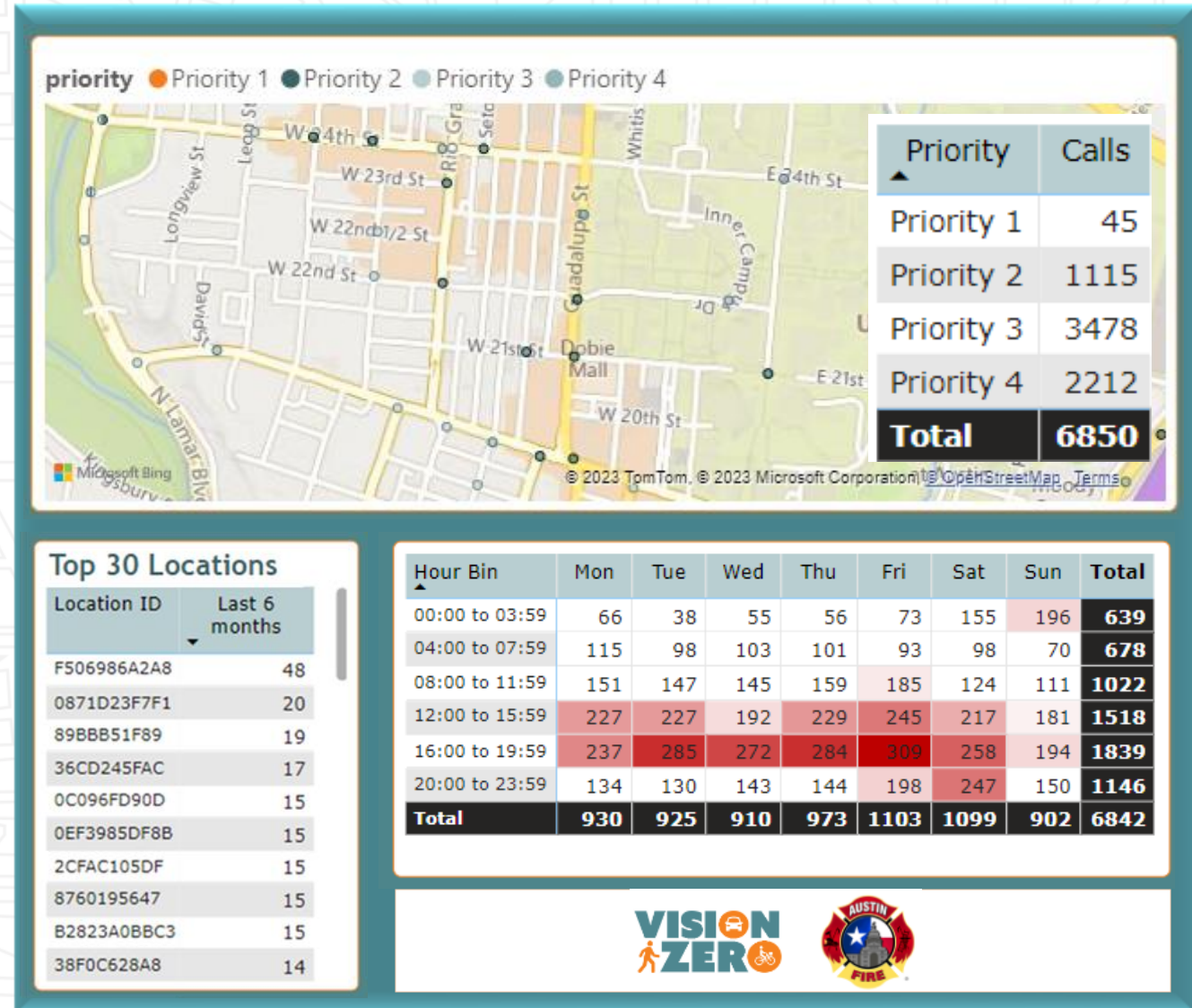
- Potentially includes traffic incidents that police and/or EMS didn't respond to

#### Challenges

- Very limited information on the crash
- Labor-intensive: manual record matching required

#### Status

- Vision Zero currently receiving AFD data and has produced a PowerBI dashboard



# Beyond crash data

## *Incorporating external data sources*

### Hospital/medical facility data

(e.g. scooter-related incidents)

#### Value add

- Potentially Includes injuries from incidents that police, fire or EMS didn't respond to.
- Very detailed injury severity information (i.e. Injury Severity Score)

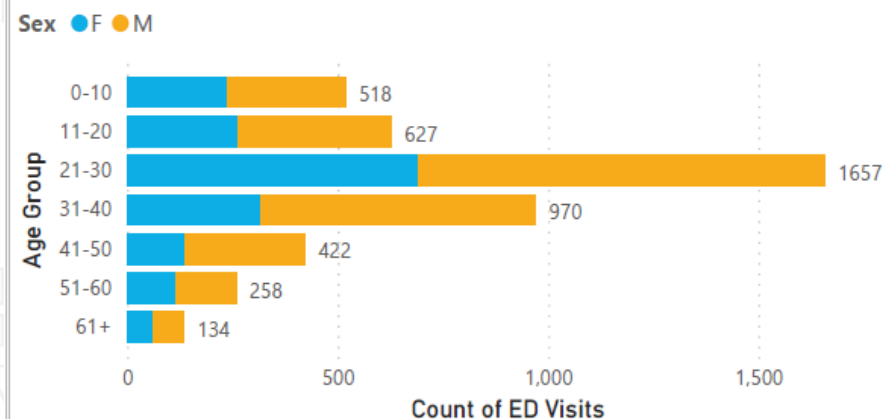
#### Challenges

- Numerous sources of data
- Privacy concerns; data difficult to access
- Labor-intensive: manual record matching required

#### Status

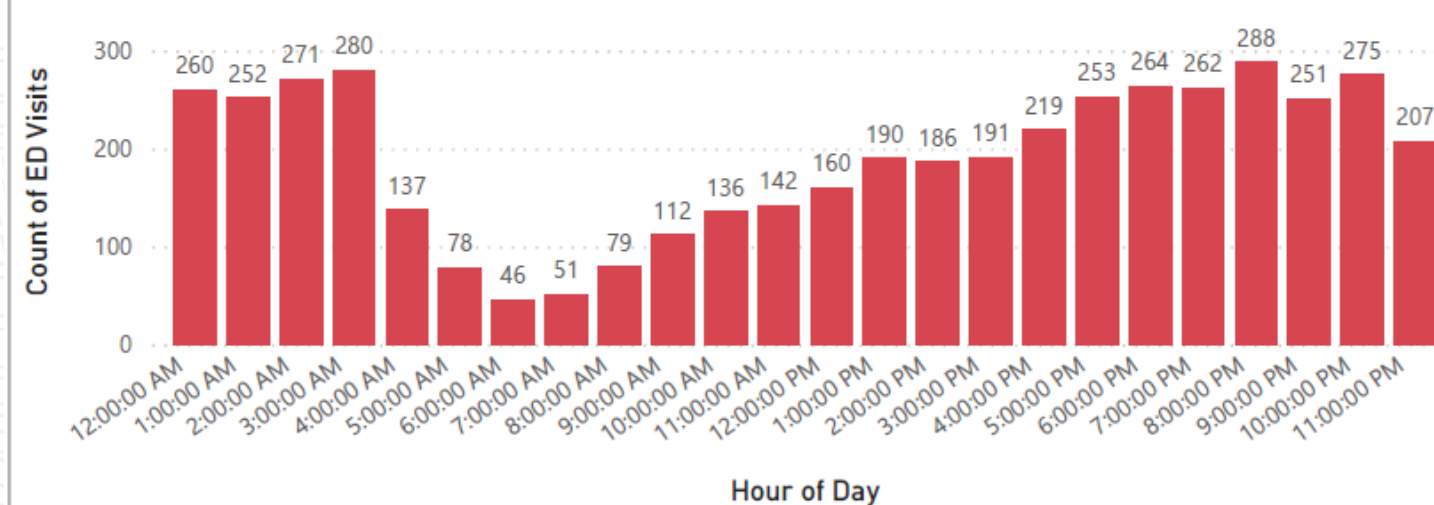
- Receiving occasional summary-level reports from DSMC and Austin Public Health
- Open to partnerships

Count of ED Visits by Age Group and Sex



Hospital Name	Count of ED Visits
DELL SETON MEDICAL CENTER	2131
ST DAVIDS SOUTH AUSTIN MEDICAL CENTER	611
DELL CHILDRENS MEDICAL CENTER	494
ST DAVIDS MEDICAL CENTER	438
SETON MEDICAL CENTER AUSTIN	402
NORTH AUSTIN MEDICAL CENTER	221
SETON NORTHWEST HOSPITAL	119
SETON SOUTHWEST HOSPITAL	112
HEART HOSPITAL OF AUSTIN	35
THE HOSPITAL AT WESTLAKE MEDICAL CENTER	13
BAYLOR SCOTT & WHITE - PFLUGERVILLE	4
BAYLOR SCOTT & WHITE MEDICAL CENTER - LAKEWAY	4
BAYLOR SCOTT & WHITE MEDICAL CENTER - AUSTIN	3
Total	4590

Count of Scooter-Related ED Visits by Hour of Day



Source: Austin Public Health



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# Beyond crash data

*Incorporating external data sources*

## Travis Co. Medical Examiner's Office Toxicology reports

### Value add

- Authoritative information on presence of drugs or alcohol among fatal crash victims

### Challenges

- Labor-intensive: manual record matching required
- Doesn't establish causal relationship (i.e. who is at fault)

### Status

- 5-year analysis complete
- Vision Zero working with TCME to acquire quarterly data updates
- Vision Zero exploring record-matching techniques to reduce manual labor

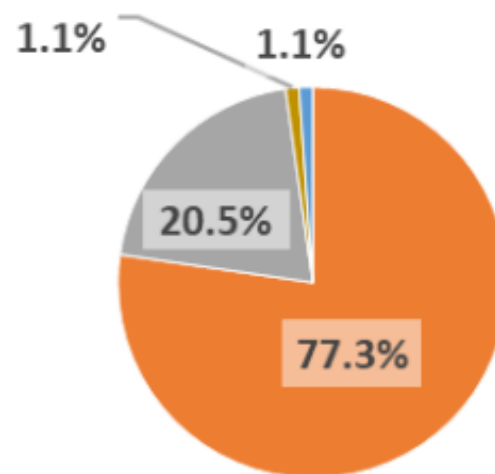


## DRUGS & ALCOHOL AMONG FATAL CRASH VICTIMS

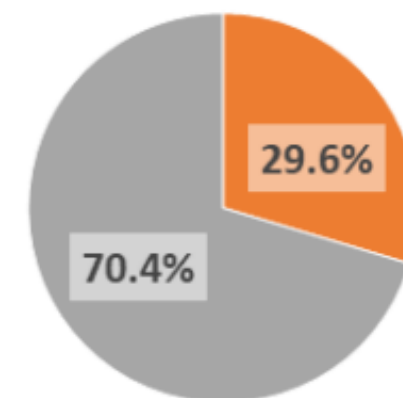
A Comparative Analysis of Toxicology Results and Crash Reports

October 2023

### TCME Drug & Alcohol Results in Travis County Subset



### CR-3 Drug & Alcohol Results in Travis County Subset



● Drugs/Alcohol Noted ● No Drugs/Alcohol Noted ● BAC < 0.08 ● Missing Data

# Beyond crash data

## *Incorporating external data sources*

### Near-misses and other dangerous behaviors

(e.g. video analytics)

#### Value add

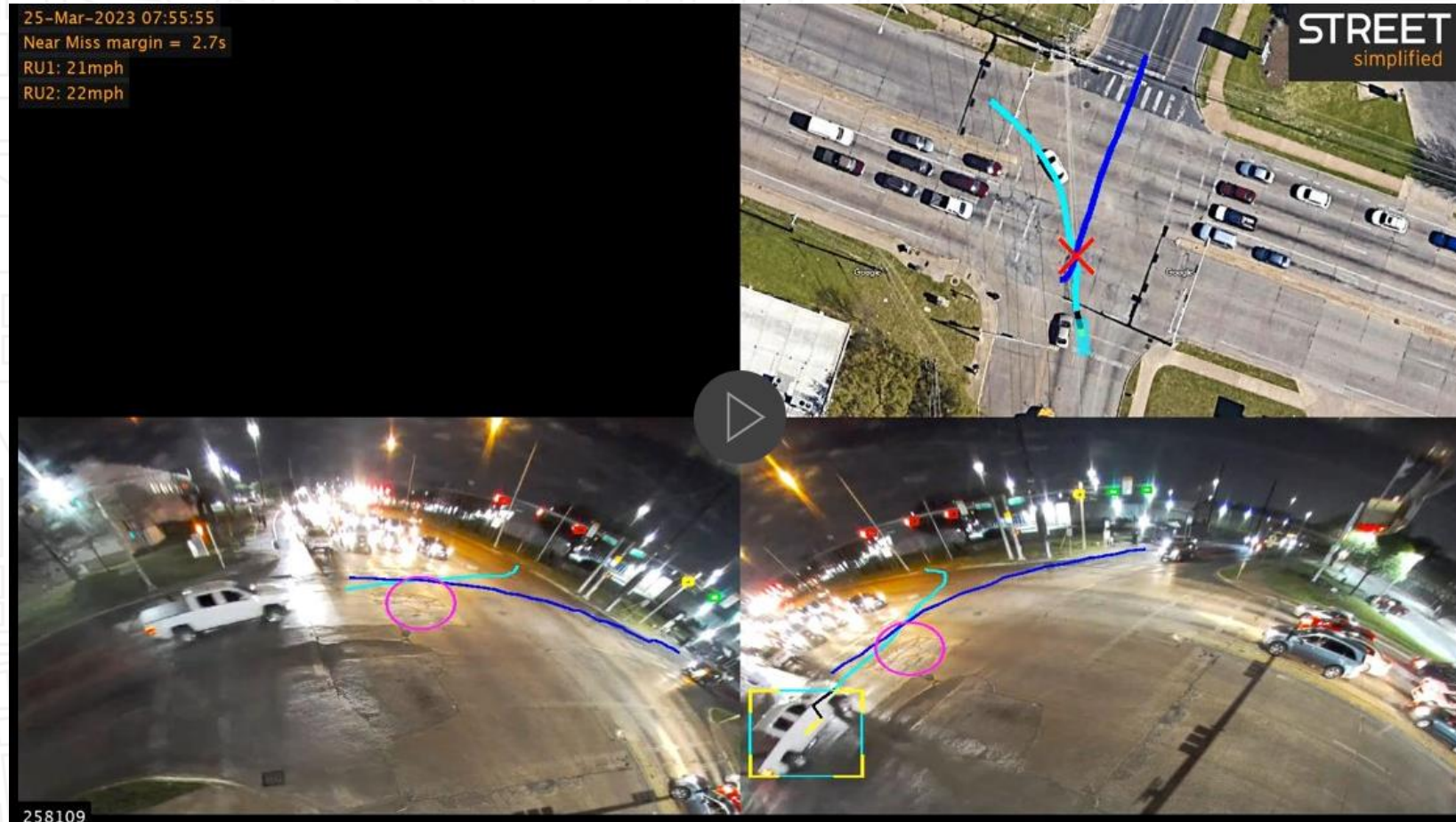
- Proactive safety diagnostics
  - Near misses
  - Red light running
  - Speeding
  - Detailed multimodal counts / movements
  - More
- Becoming more cost effective

#### Challenges

- Mixed levels of accuracy
- Varying definitions of a “near miss”
- Limited timeframe for observations

#### Status

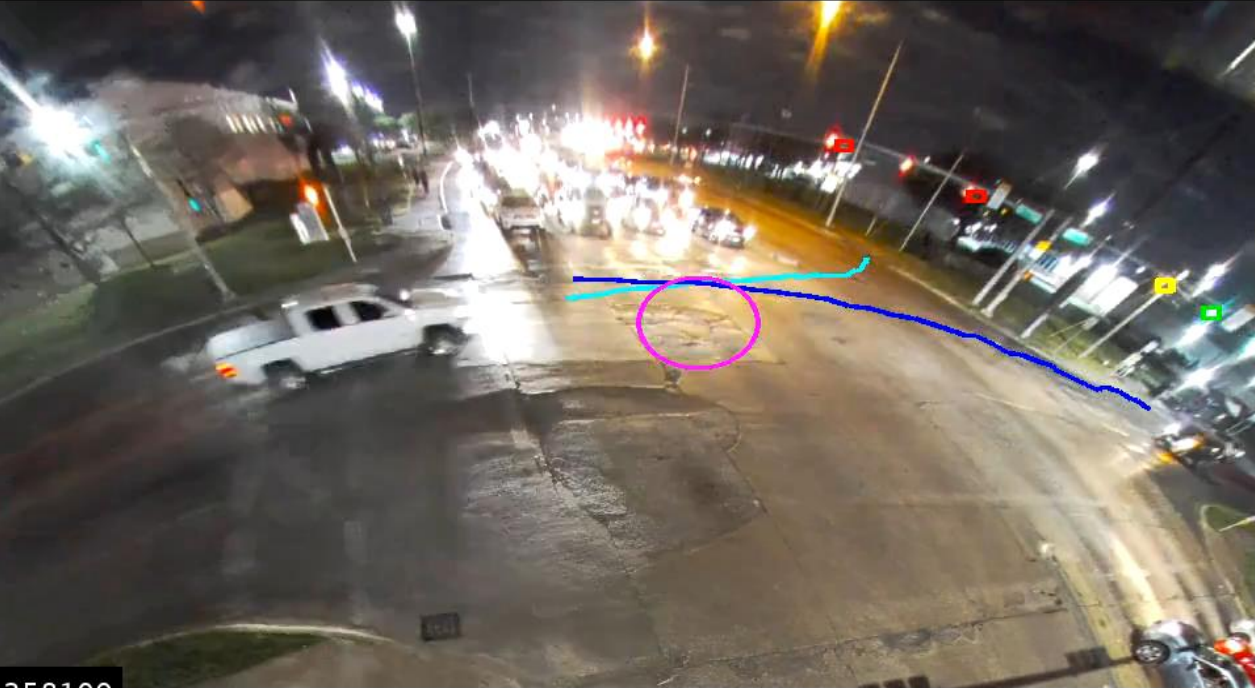
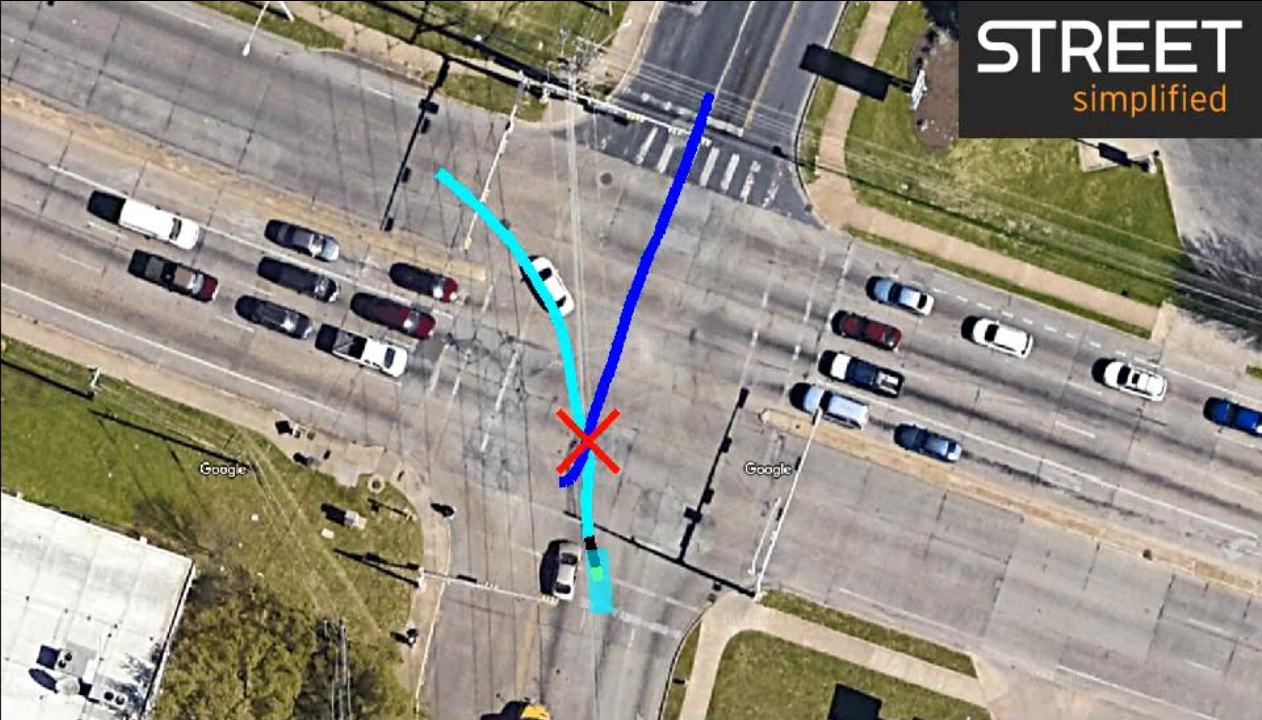
- Vision Zero currently using several video analytics solutions





25-Mar-2023 07:55:55  
Near Miss margin = 2.7s  
RU1: 21mph  
RU2: 22mph

STREET  
simplified

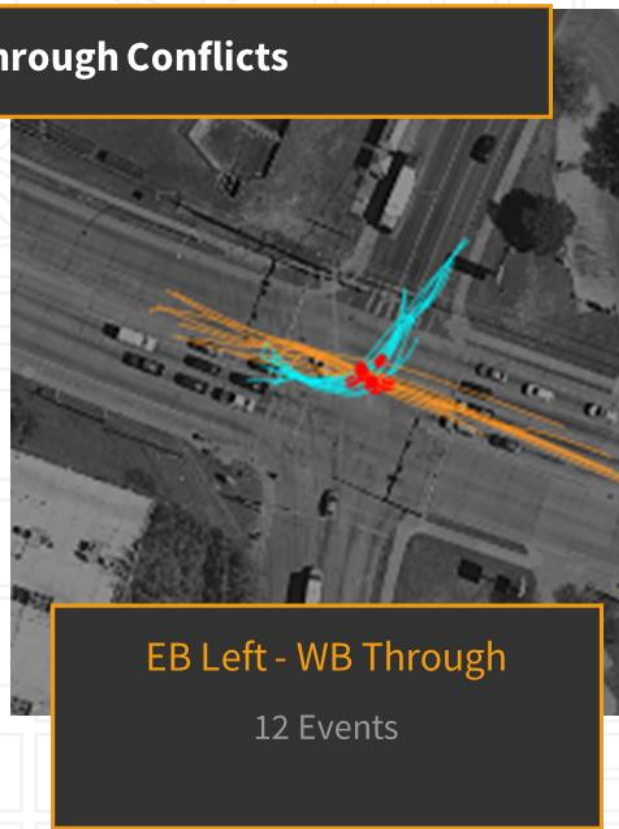
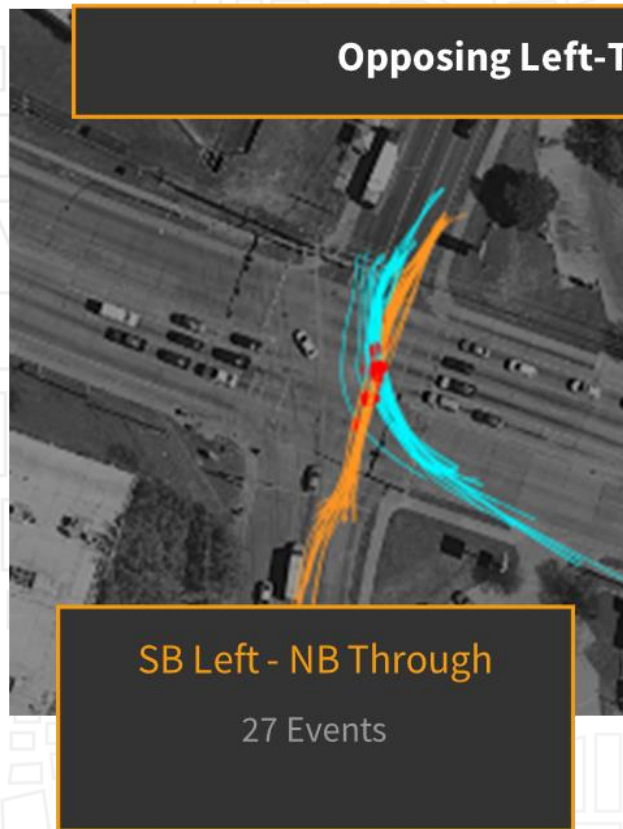




# Beyond crash data

*Incorporating external data sources*

**STREET**  
simplified









Opposing Left-Through Conflicts - **BEFORE**

NB Left - SB Through

43 Events - **BEFORE**  
5 Events - **AFTER**

SB Left - NB Through

27 Events - **BEFORE**  
2 Events - **AFTER**

EB Left - WB Through

12 Events - **BEFORE**  
3 Events - **AFTER**

WB Left - EB Through

1 Event - **BEFORE**  
12 Events - **AFTER**

Opposing Left-Through Conflicts - **AFTER**





## TRANSPORTATION PUBLIC WORKS

# VISION ZERO

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Austin Transportation and Public Works Department

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