



**Committee:** Directly to Council  
**Committee Review:** N/A  
**Staff:** Glenn Orlin, Senior Analyst  
**Purpose:** Receive briefing and have discussion – no vote expected  
**Keywords:** #VisionZero

AGENDA ITEM #4  
September 20, 2022  
**Discussion**

## SUBJECT

Vision Zero Program - Update

## EXPECTED ATTENDEES

Earl Stoddard, Assistant Chief Administrative Officer, Office of the County Executive  
Wade Holland, Vision Zero Coordinator, Office of the County Executive  
Chris Conklin, Director, Department of Transportation (DOT)  
Michael Paylor, Division Chief, Division of Traffic Engineering and Operations, DOT  
Tim Cupples, Acting Deputy Director for Transportation Policy, DOT  
Marc Yamada, Assistant Chief of Police, Field Services Bureau, Police Department  
Captain Brian Dillman, Director of Traffic Operations Division, Police Department  
Derek Gunn, Acting District 3 Engineer, State Highway Administration (SHA) (or his designee)  
Jesse Cohn McGowan, Transportation Planner Coordinator, Planning Department  
Kristy Daphnis, Chair, Pedestrian, Bicycle, and Transportation Safety Advisory Committee

## SUMMARY OF KEY DISCUSSION POINTS

This comprehensive update is the first since June 29, 2021. The worksession will begin with a PowerPoint presentation from the County Government (led by Wade Holland, the County's Vision Zero Coordinator), followed by comments from the State Highway Administration, Jesse Cohn McGowan of the Planning Department, and Kristy Daphnis, the Chair of the Pedestrian, Bicycle, and Traffic Safety Advisory Committee. The balance of time will be reserved for questions and comments from Councilmembers.

### This report contains:

County Government presentation  
Planning Department presentation

©1-47  
©48-56

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VISION  ZERO

ZERO TRAFFIC DEATHS IN MoCo

# VISION ZERO IMPLEMENTATION

UPDATE TO COUNTY COUNCIL || SEPTEMBER 20, 2022





# Roadway Safety Since COVID-19

# Increased Fatality Rates Since COVID-19

← NEWS

## 2020 Fatality Data Show Increased Traffic Fatalities During Pandemic

Risky Driving Behaviors Including Failure to Wear a Seatbelt, Speeding, and Drinking While Driving Identified as Contributing Factors

## Map: Pedestrian fatalities in the U.S. reach four-decade high. See which states had the most.

More than 7,000 people were killed nationwide in 2021.

← NEWS

## Newly Released Estimates Show Traffic Fatalities Reached a 16-Year High in 2021

HEALTH

## 'Tragic': Driving Was Down In 2020, But Traffic Fatality Rates Surged

March 5, 2021 · 3:30 PM ET

 CAMILA DOMONOSKE

## Killed while walking: Pedestrian death rate surged during pandemic

Neal Augenstein | [naugenstein@wtop.com](mailto:naugenstein@wtop.com)  
May 20, 2021, 8:15 AM

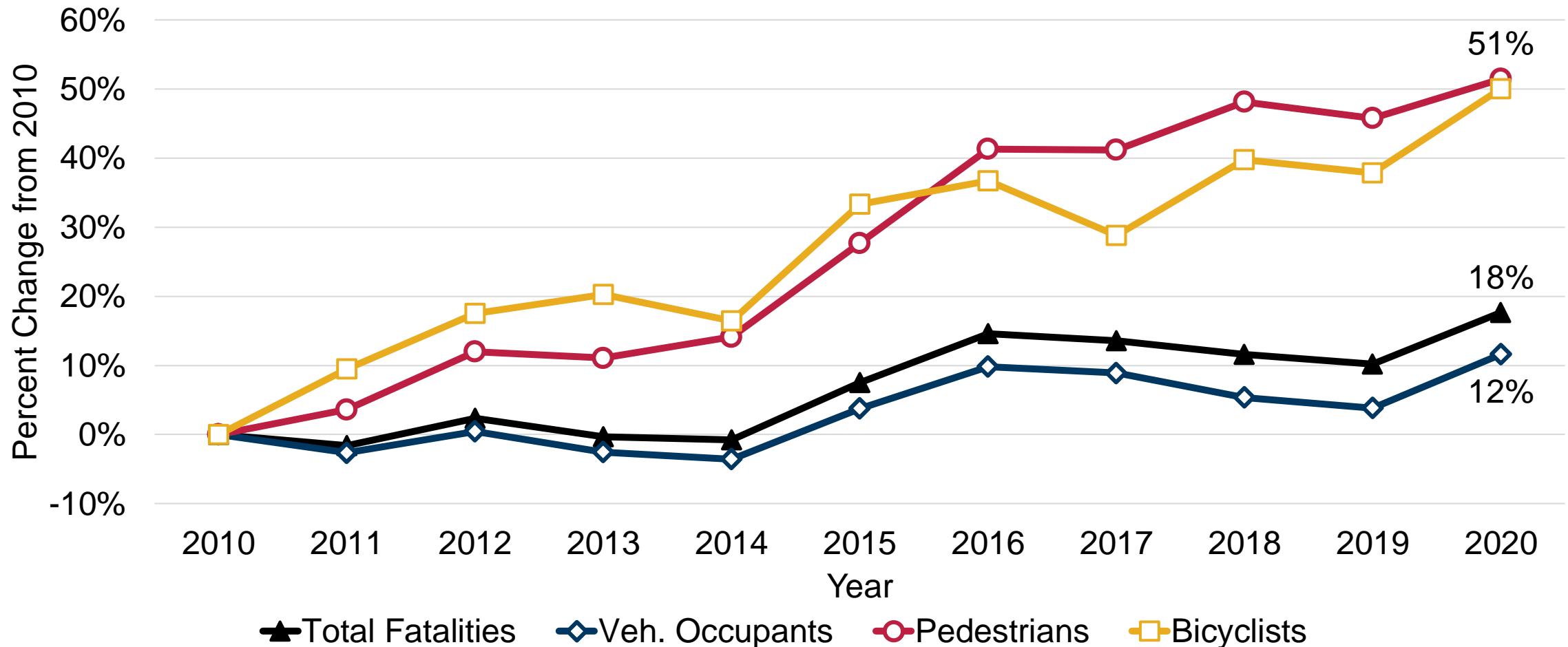
## U.S. traffic deaths hit 20-year high in early 2022

"The overall numbers are still moving in the wrong direction. Now is the time for all states to double down on traffic safety," said Steven Cliff, administrator of the National Highway Traffic Safety Administration.



# Increasing Roadway Deaths across the US after Years of Progress

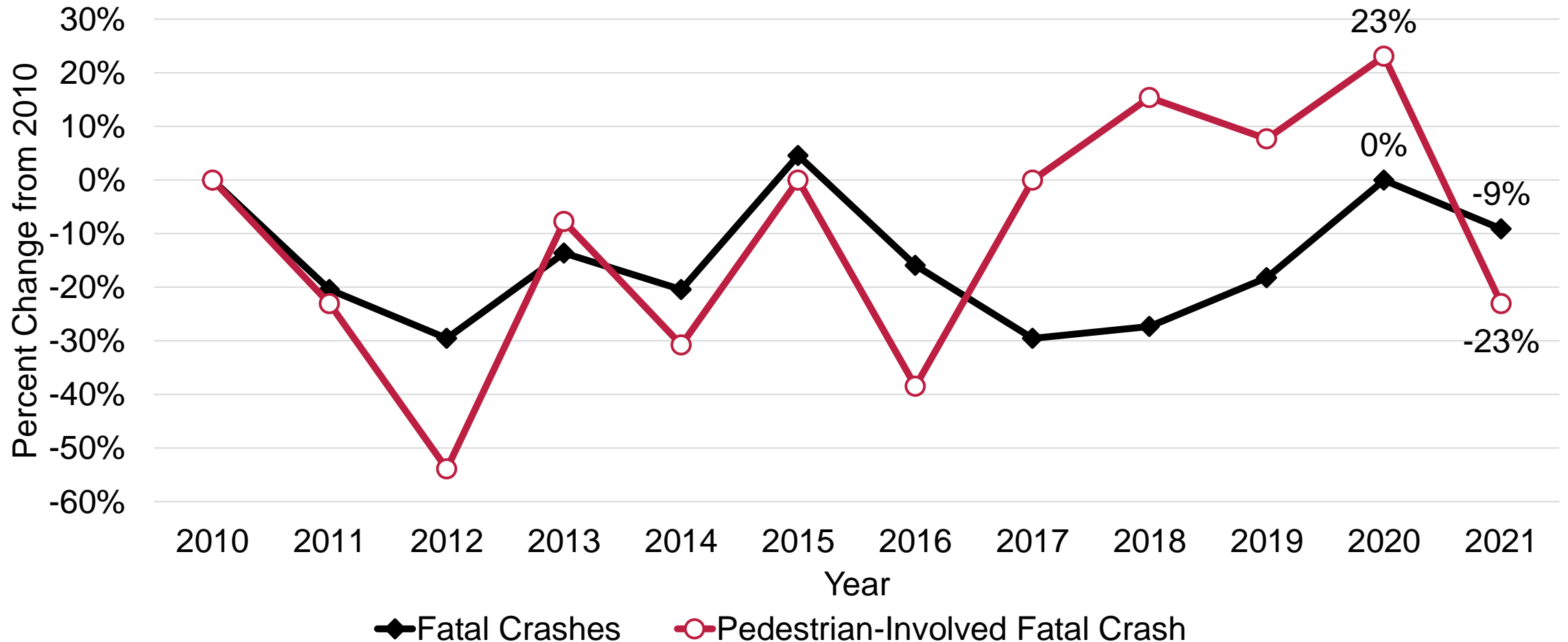
**US fatal crashes involving pedestrians and cyclists increasing faster than for those in vehicles.**



SOURCE: NHTSA Fatality Analysis and Reporting System (FARS). 2021 data not yet available.

# County Roadway Fatalities Down Compared to 2010

**Montgomery County did not experience the large uptick seen in rest of US between 2010 and 2020, but fatal crashes have been trending up in the past five years after recent record low in 2017.**

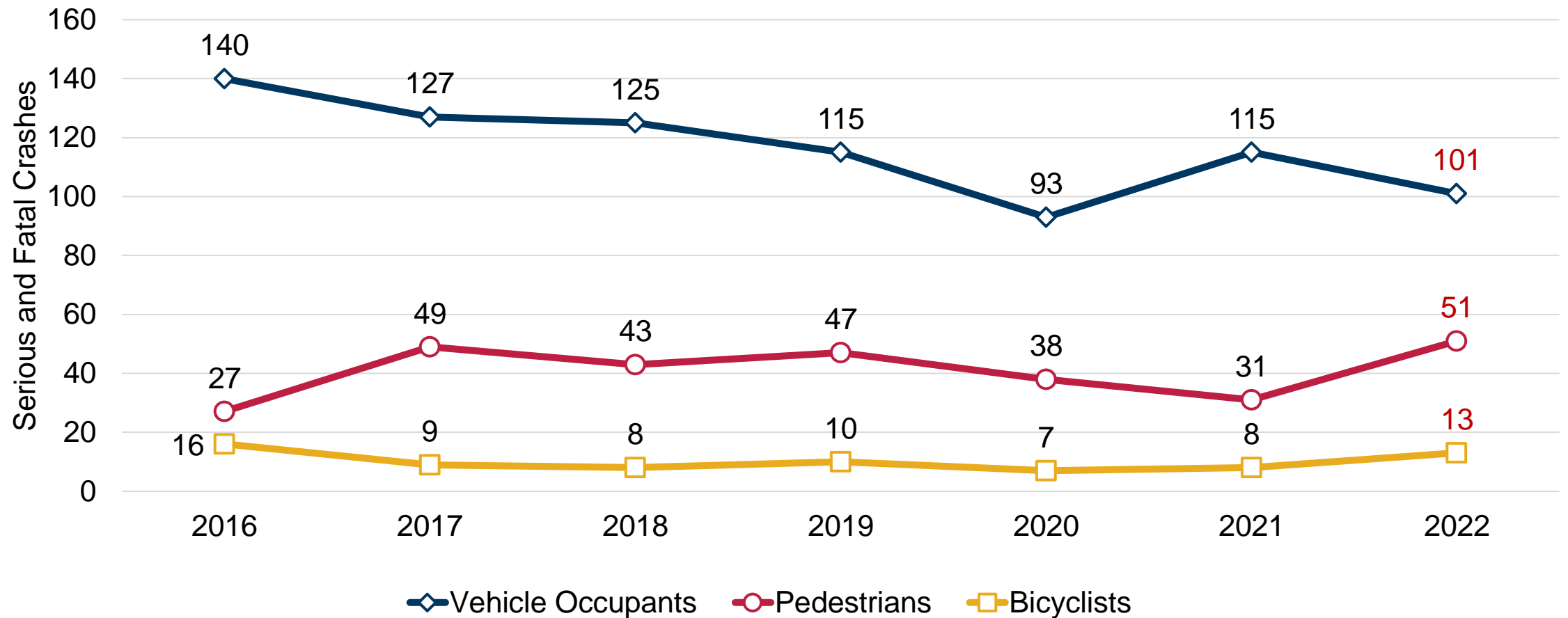


SOURCES: 2010-2020:NHTSA Fatality Analysis and Reporting System (FARS). 2021 Maryland Highway Safety Office.

\*NOTE: Bicyclist fatalities excluded from chart. Averaged 1 bicyclist fatality per year.

# Serious and Fatal Crashes

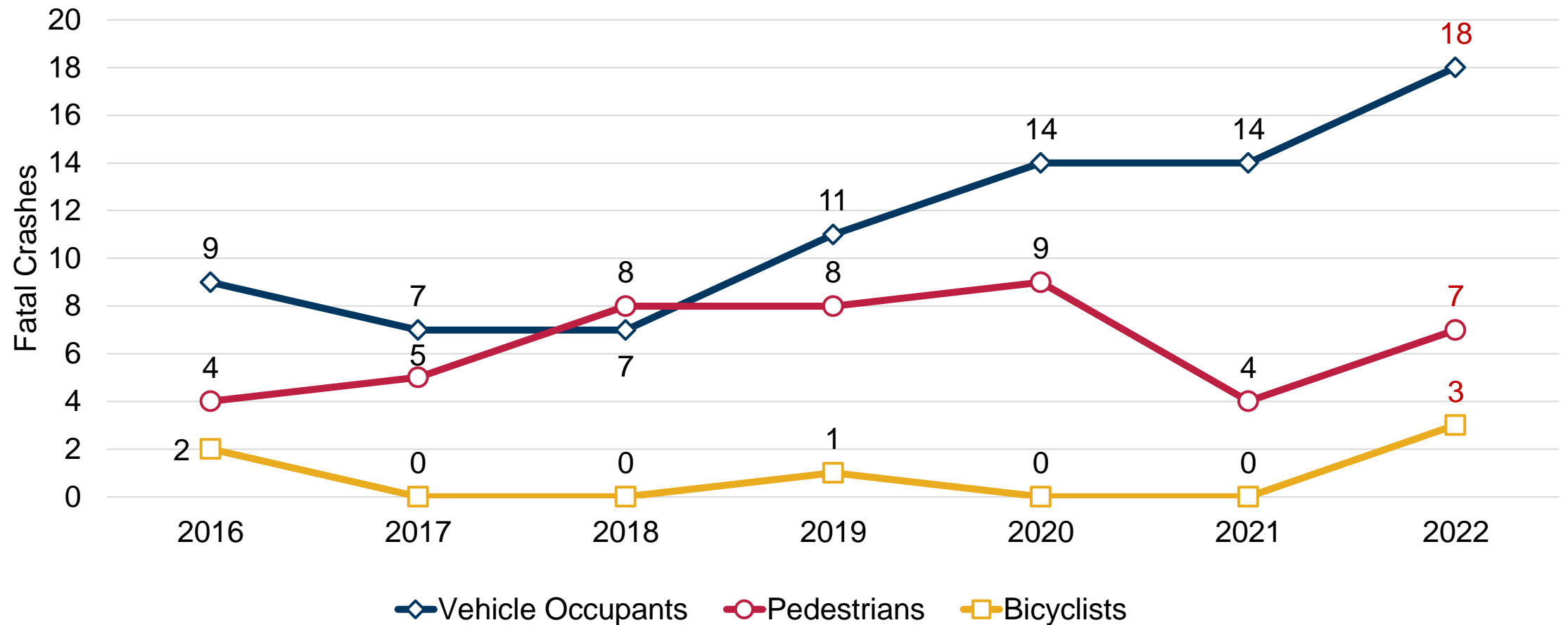
Comparing January 1 – August 31 for each year



Source: MCPD. Includes MCPD, RPD, TPPD, GPD, and M-NCPPC MC reports. Data retrieved 09/08/22.  
Includes crashes where at least one party suffered serious or fatal injuries. **2022 data are preliminary.**

# Fatal Crashes

Comparing January 1 – August 31 for each year



Source: MCPD CRU. Data retrieved 09/08/22.

Includes crashes where at least one party suffered fatal injuries. 2022 data are preliminary.



# What's happening and what can be done?

## During and Post-COVID

- Increase in “triple-threat” fatal crashes involving speeding, impairment, and unrestrained occupants ejected from the vehicle.
- Increase in proportion killed or seriously injured testing positive for opioids and marijuana for all road users.
- Increase in impromptu and planned speed contests.
- Lower traffic volumes and spread out through the day more than pre-COVID.
- For 2022, more daylight fatalities (72%) compared to prior 6 years (40%) in the county.

## Addressing Increasing Fatal Crashes

- Continued focus on the High Injury Network using evidence-based safety treatments.
- Addressing substance abuse and preparing for possible legalization of recreational marijuana use.
- Focused law enforcement on known dangerous driving behaviors integrated with automated enforcement.
- National effort to address increasing distractions from vehicle “infotainment systems” and vehicle design.



# **2030 Action Plan & FY22 Work Plan**

# ACTION PLAN & WORK PLAN

How the long-term and short-term plans relate

2030 Plan	Vision Zero						
Plan Pillars	Complete Streets		Multimodal Future			Culture of Safety	
Safe System Alignment	Safe Streets	Safe Speeds	Safe Transportation	Safe & Sustainable Communities	Safe Vehicles	Safe People	Safe Post-Crash Emergency Response and Care
Actions	17 Actions	3 Actions	10 Actions	1 Action	2 Actions	10 Actions	2 Actions
FY22 Work Plan	63 Tasks*	5 Tasks	16 Tasks	2 Tasks	2 Tasks	24 Tasks	2 Tasks

\*There are 66 total tasks under Safe Streets, but 3 are also listed under Safe Transportation, so removed from chart above to avoid double counting.





# Projects Underway In FY22



# Securing Outside Funding

**Working collaboratively to build competitive proposals for grants and technical assistance.**

**Over \$1 million secured for FY22.**



## **HSIP, SRTS, & TAP Grants**

\$720,000 for four pedestrian hybrid beacons. Our proposal represented 8/10 dollars distributed for FY22.

TAP grant for MD 187 & Cordell and a SRTS grant for MD 188 & Cordell for ped safety design / construction, respectively.

\$52,000 Kim Lamphier Bikeways grant for advancing Bethesda Trolley Trail connection to Twinbrook Metro.

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## **Other MDOT Grants**

\$218,000 from MHSO for Police overtime focused on aggressive, impaired, and distracted driving law enforcement in FFY21.

\$360,000 from MDOT Secretary for MD 355 & MD 187 intersection safety.

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## **MWCOG Tech. Asst.**

Advancing study and design projects through the Transportation-Land Use and Roadway Safety Programs.

MCDOT secured an inaugural Regional Roadway Safety technical assistance to advance safety audit of MD 650. MCDOT also received \$85k for improving ped/bike connections to Germantown MARC station.



## **New Federal Support**

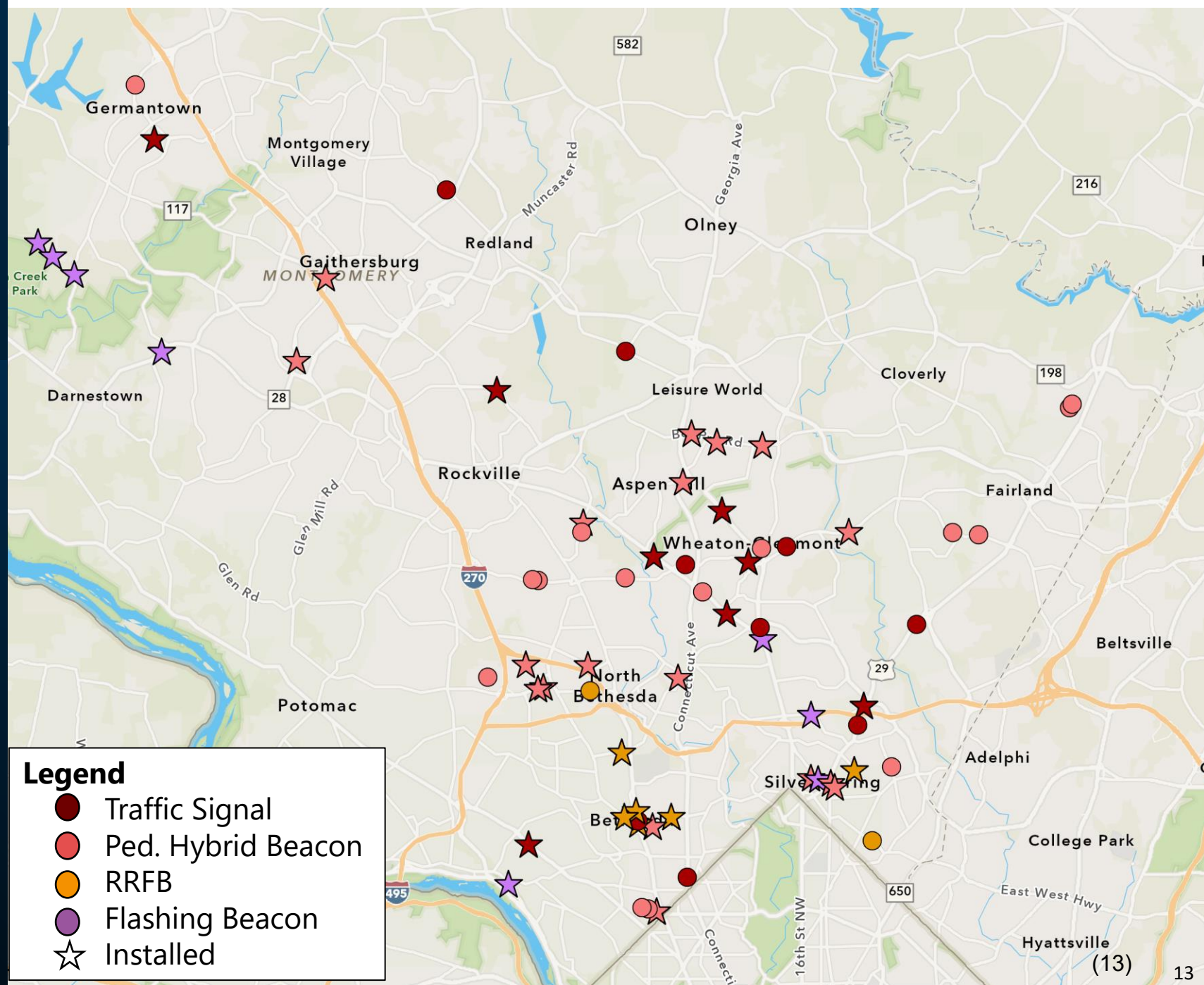
Applied for \$8 million for Germantown Safe Streets project as part of the new \$6 billion Safe Streets and Roads for All program for local governments and MPOs.

[This Photo](#) from Wikimedia Commons is licensed under [CC BY-SA](#).

39 new installations  
since onset of Vision  
Zero Initiative

26 additional devices  
scheduled

## NEW SIGNAL AND BEACON INSTALLATIONS







# Outreach for Ped. Hybrid Beacons

## PHBs for People Walking

- PHB's function similarly for pedestrians and motor vehicles as a traffic signal functions with yellow and red lights.
- Pedestrians must activate the beacon by pressing the button, then waiting for the walk signal (less than 30 seconds).
- All PHBs have accessible pedestrian signals (APS) and countdown pedestrian signals (CPS).

## PHBs for People Driving

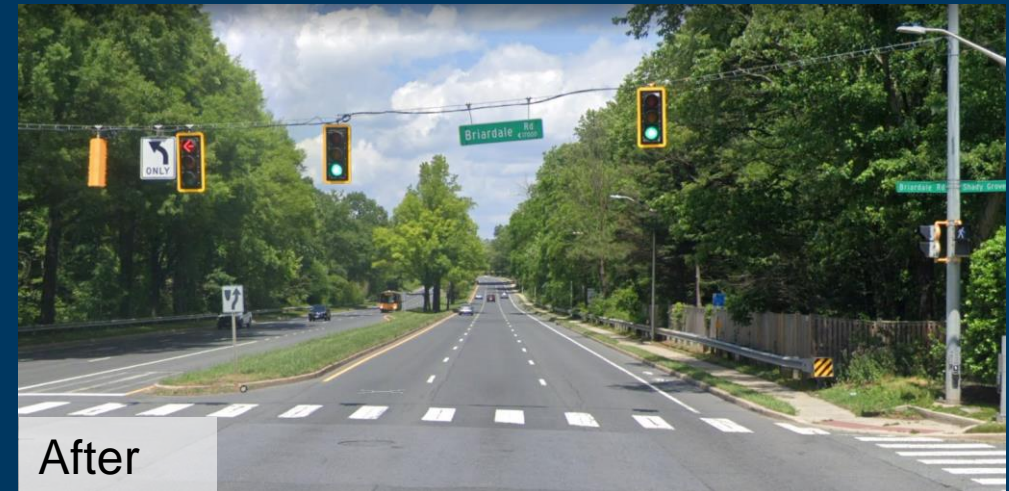
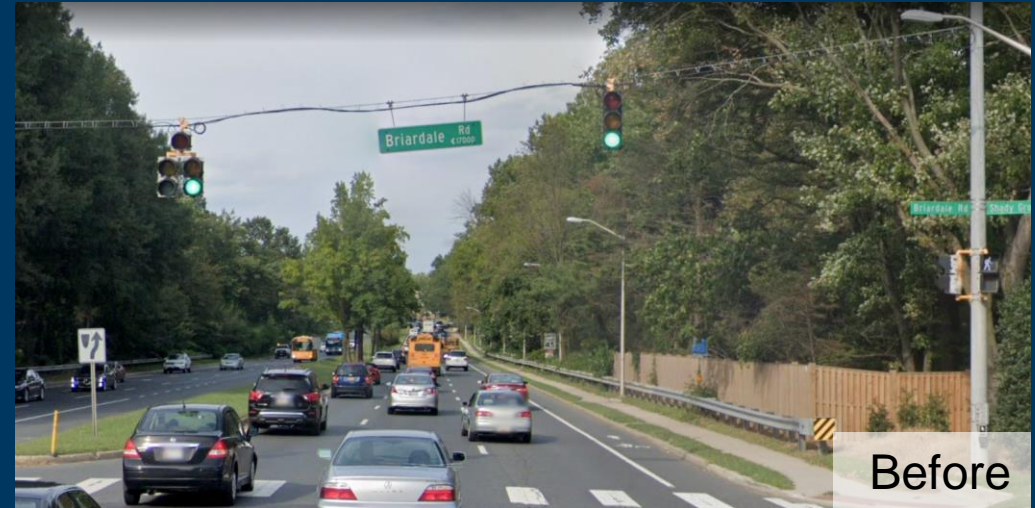
- Same rules of the road – yellow means “Exercise Caution” and “Prepare to Stop” and red means “Stop”.
- Nuance is the beacon goes dark, which allows drivers to proceed at speed.
- Continued media and on-street outreach is progressing to build awareness of these new devices.



# High Injury Network Projects

**Advancing study, design, and construction on County and State roadways based on crash risk**

- Study
  - New Hampshire Ave (MD 650) in conjunction with Prince George's County between Piney Branch Rd and the Beltway.
  - Aspen Hill – Bel Pre Rd, Georgia Ave, & Connecticut Ave.
  - Snouffer School Rd
- Design
  - Crabbs Branch Way (underway)
  - Randolph Rd (underway)
  - Sam Eig Hwy (underway)
- Construction
  - Shady Grove Rd (signal modifications)



Signal changes at Shady Grove Rd & Briardale Rd with exclusive red turn phasing and backplates to address failure to yield crashes.

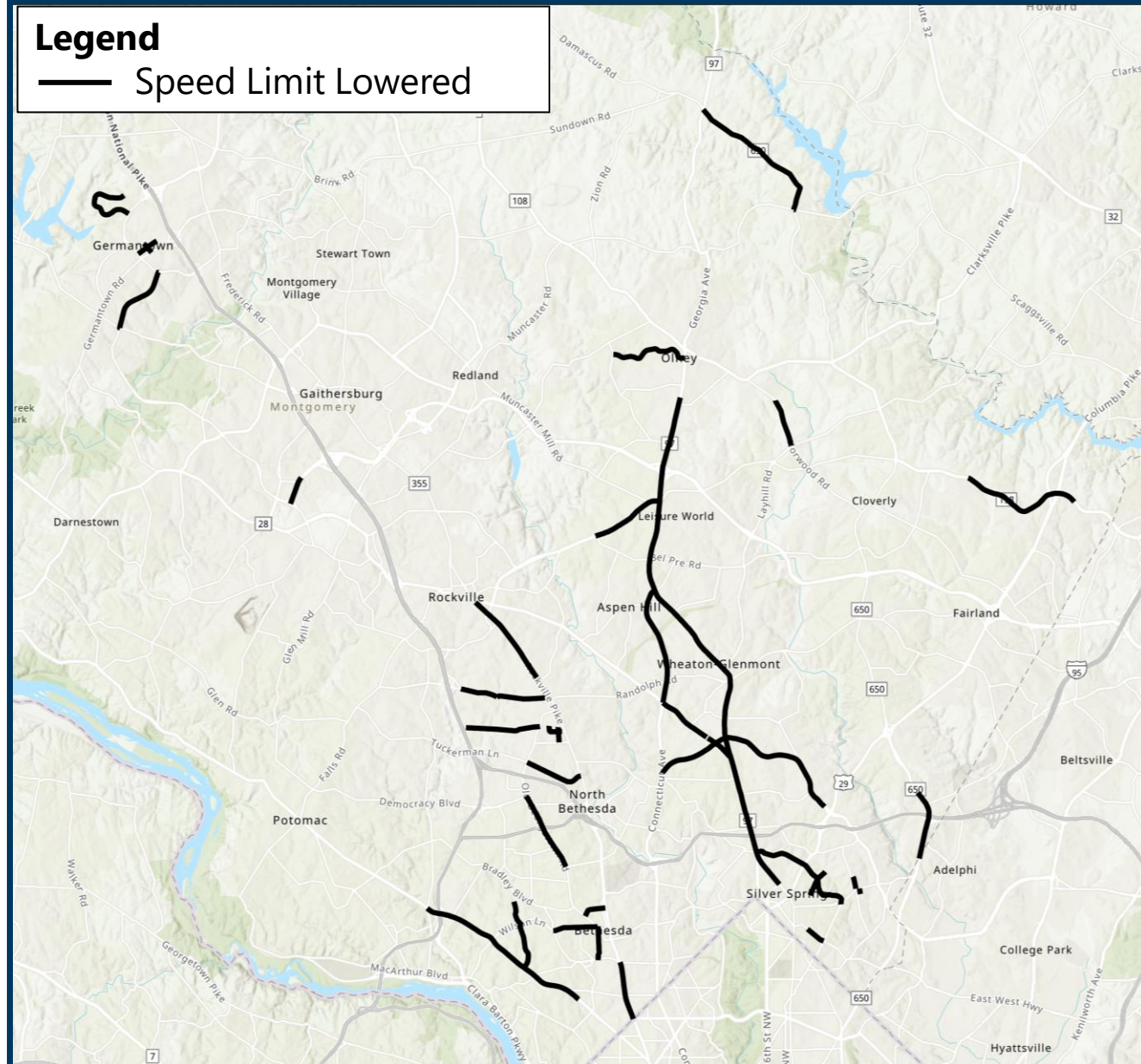


# Speed Limit Reductions

## Matching Posted Speeds to Surrounding Context

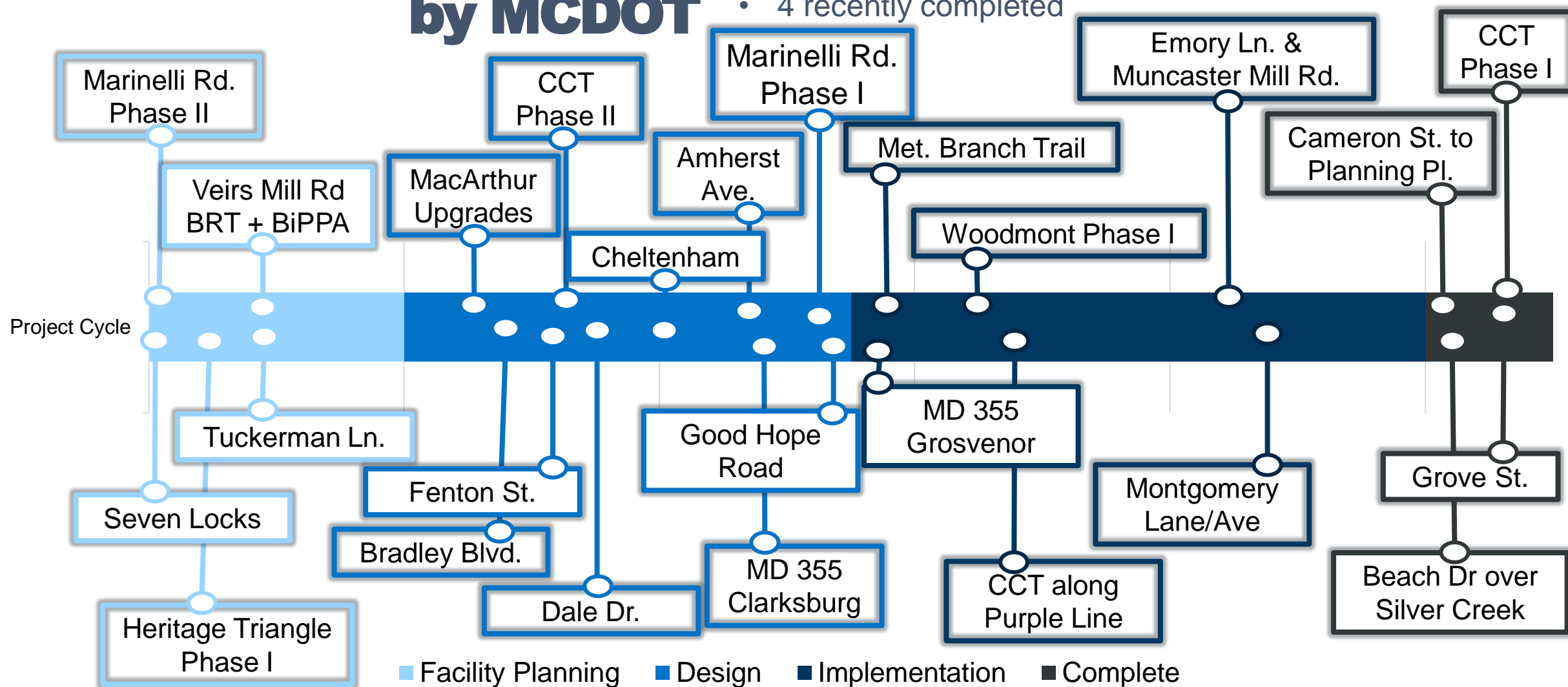
MCDOT and MDOT SHA have lowered posted speed limits across the county to better match the posted speed limit with the surrounding community. Most speed limits lowered by MDOT SHA are along the high injury network.

The speed limit reductions are supported by design changes and law enforcement. Portions of Georgia Ave were narrowed during a repaving project to slow driver speed. Automated speed enforcement has been added to sections of Georgia Ave and Norbeck Rd after travel speeds remained elevated a year after the speed limit change.



# Bikeway and Shared Use Path Projects Led by MCDOT

- 15 projects under design
- 6 ready for or under construction
- 4 recently completed



**Note:** Placement of project does not indicate percent completion, but the current phase of the project.



# Sidewalk Installation

## Requests far outpacing ability to supply

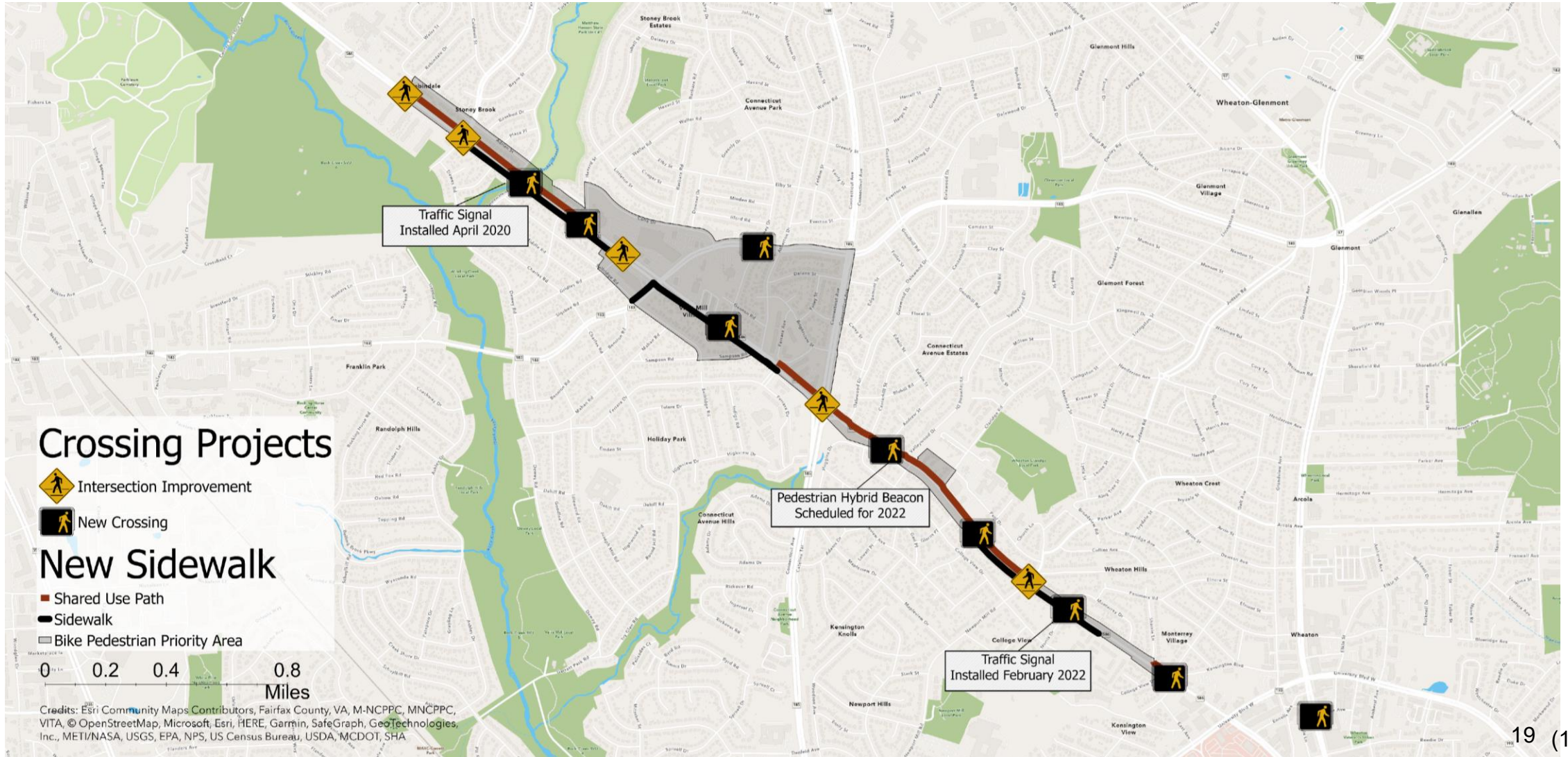
- 30,352 linear feet (5.75 miles) of sidewalk were constructed during FY22. Exceeded the 24,000 feet goal for the year.
- Program fills in gaps in neighborhoods and major roads. This year, major sidewalk construction along Oak Drive in Damascus and Rockville Pike in White Flint.
- Under the minor sidewalks program, 200-300 requests are received each year. Current funding allows about 10-15 projects to be completed per year.
- MCDOT was funded this year to complete a one-time study of sidewalk gaps and needs around County public schools.





# Advancing BRT & Safety Projects

Combining safety and mobility projects to create multi-modal boulevards





# Safety for People with Disabilities

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## Planning and Designing Streets to be Safer and More Accessible for People with Vision Disabilities

A Toolkit for Montgomery County and the Metropolitan  
Washington Region

*First Edition  
October 2021*

Contract No. 21-024

Submitted by Toole Design



# Safe Road Users

Outreach and Law Enforcement





## Community Events

Residents were engaged throughout the year at 90 different events. A broad cross-section of Montgomery County's population had the opportunity to learn more, and ask questions about, pedestrian safety.

400+  
at Greenfest



1,000+  
at Hometown Holidays



9,000+  
at the MC Agricultural Fair



500+  
at HalloWheaton



600+  
at the Taste of Wheaton



This outreach program educated residents at events, festivals, farmer's markets, and block parties across the county

## YOUTH OUTREACH

MCDOT engaged school-age residents to help them understand the importance of traffic safety. MCDOT connected with students through in-person and virtual events and programs, online contests and content.

- 17 events reaching nearly 7,000 people



### Walktober

- Connected with nearly 3,000 students on Walk to School Day
- 2,000 commuters at Metro transit stations and shopping areas
- Held 4 Walking Wednesday events



- 100+ applications
- 30 Vision Zero Youth Ambassadors chosen to engage in real world traffic safety projects

### Vision Zero Youth Ambassadors



- 170 contest entries ...more than four times the number for past contests
- 7,000+ webpage views

### Heads Up Phones Down Video Contest

- 406 views of Bus Safety Tips on YouTube channel [youtube.com/watch?v=PaN0cXZWYA](https://www.youtube.com/watch?v=PaN0cXZWYA)

### Bus Safety Week 2021



- 10 Bike Rodeos reaching 300+ kids!



### Bike Rodeo Tour



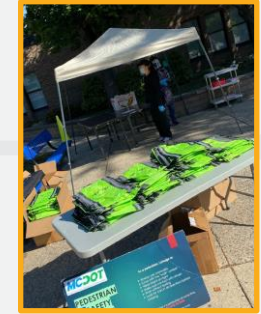
- Received 700+ contest entries
- Visited 17 schools
- Nearly 6,000 webpage views

### 2nd Annual Art Contest

## ADULT OUTREACH

MCDOT engaged with adults in the community through in person events, providing education about specific areas throughout the county, and mitigation strategies to help curb unsafe behaviors and ultimately decrease traffic incidents.

- Engaged with 1,000 shoppers
- Street Smart Testimonial Wall
- Mailer sent to 4,000 homes
- HIN Outreach



- 200 registered to attend The Ped Safety pit stop
- Bike to Work Day

- 250 resident interactions
- 2 events

### HAWK Outreach

# Central Traffic Unit (CTU)

CTU started 7/4/21 to focus resources on areas of need while having some capacity for responding to community complaints.



Distracted Driving



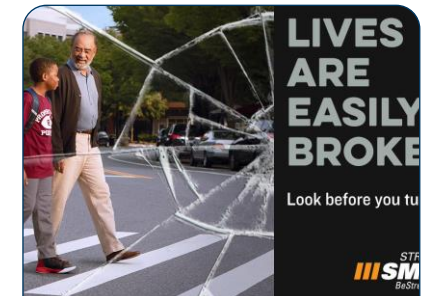
Seatbelt Use



Impairment



Speeding

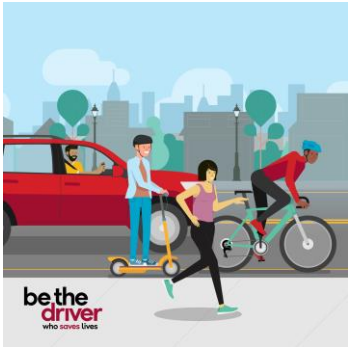


Pedestrian Safety





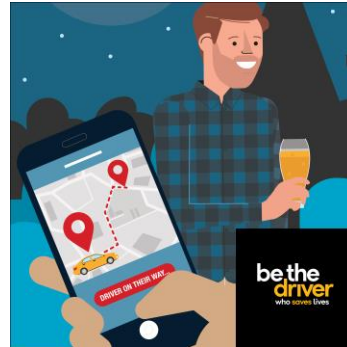
# Purposeful, Evidence-Based Policing Practices



## Driver Yielding to Non-Motorists

Targeted Driver Enforcement at Crosswalks

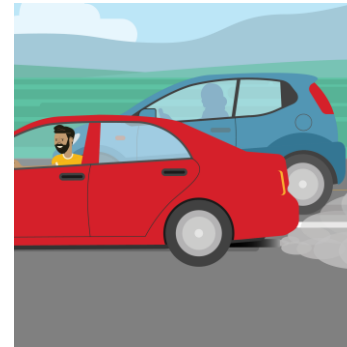
↑ Increased Driver Yield Rates



## Impaired Driving

Publicized Sobriety Checkpoints

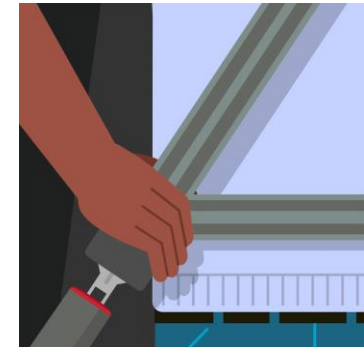
↓ 17% Decrease Alcohol-Related Crashes



## Speeding

Automated Speed Enforcement

↓ 19% Reduction in Severe Collisions



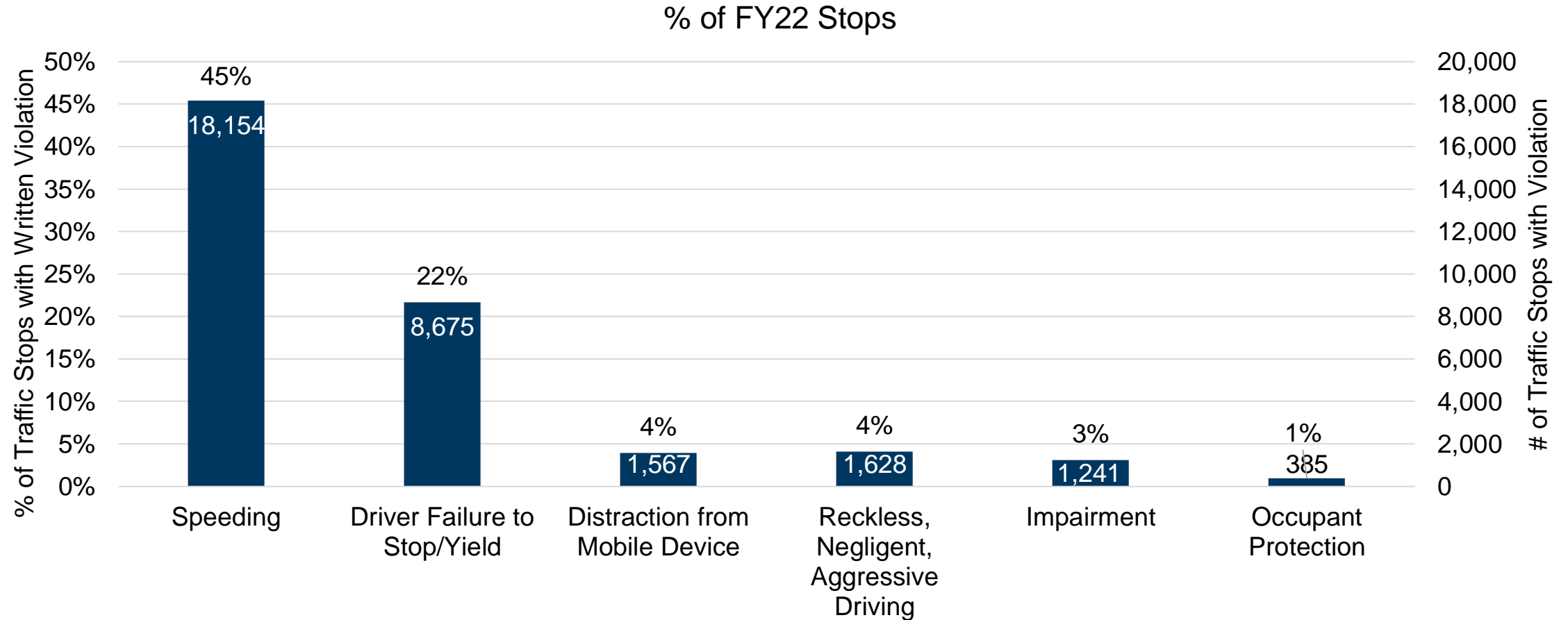
## Unrestrained Occupants

Short Term, High-Visibility Seat Belt Law Enforcement

↑ 16% Increase in Seatbelt Use

# Focused Enforcement Efforts

**45% of 40,214 stops by MCPD officers in FY22 involved a warning or citation for speeding. 57% of all violations were issued as warnings.**



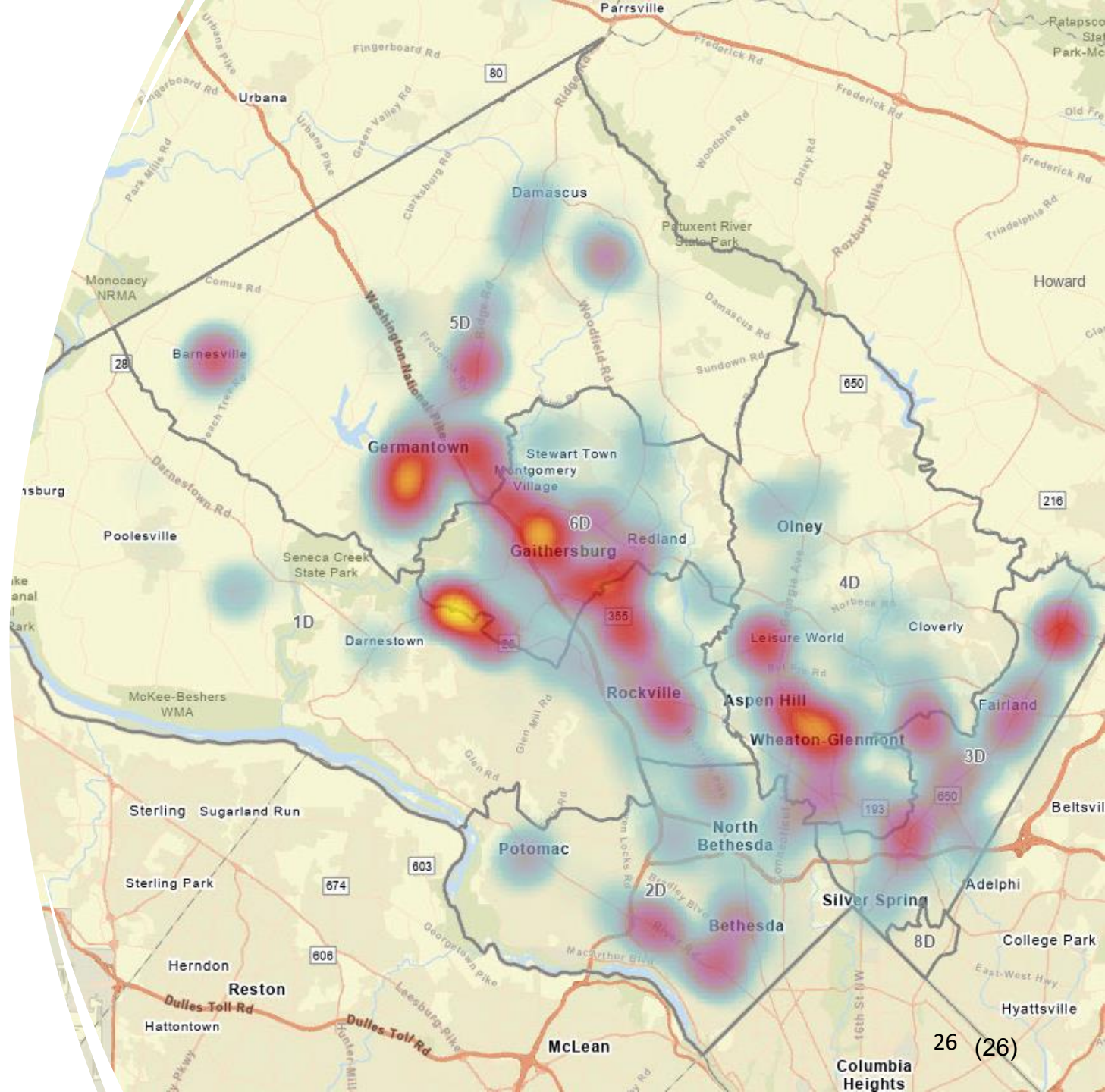
NOTE: A traffic stop can have multiple violations. In FY22, MCPD wrote 1.8 violations per traffic stop.



# FY22 CTU Stops Hotspots

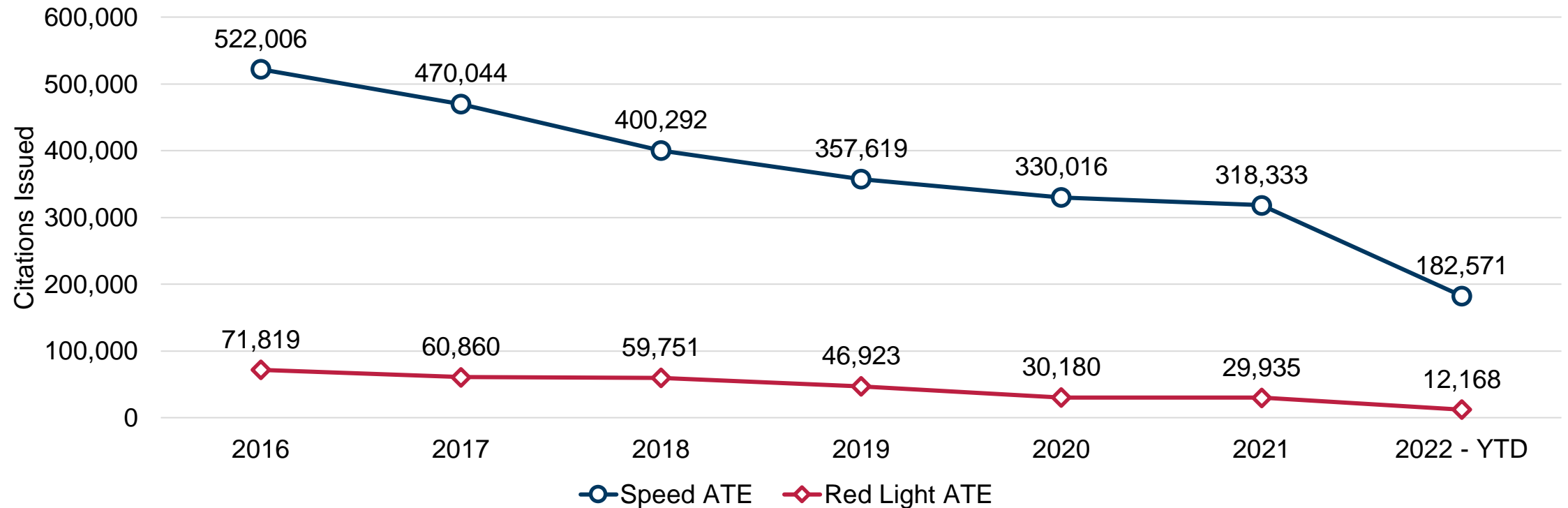
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CTU focused on speeding  
along arterials based on  
crash risk.



# Automated Speed and Red Light Enforcement

## Expansion of Sites and Cameras with New Contract

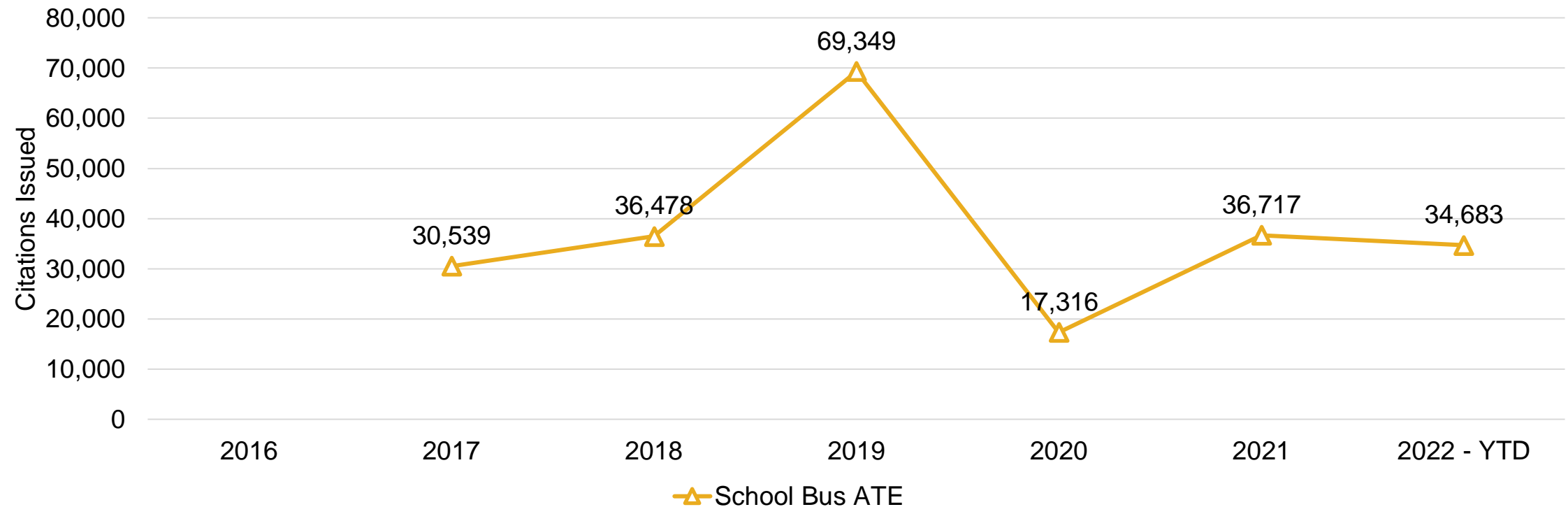


MCPD executed a new automated enforcement contract on March 31, 2022. The new contract will not disrupt current operations and will allow the number of cameras to expand by 10 speed and 5 red light cameras a year for the life of the 5-year contract.



# Automated Stopped Bus Enforcement

All MCPS buses equipped with safety cameras starting in 2019



Automated enforcement for illegally passing a stopped school bus was implemented for the 2016-2017 school year. Between 2016 and 2019, MCPS equipped all school buses with cameras, leading to year-over-year increases. School closures in 2020 due to the COVID-19 pandemic resulted in fewer citations.





**THANK YOU!**





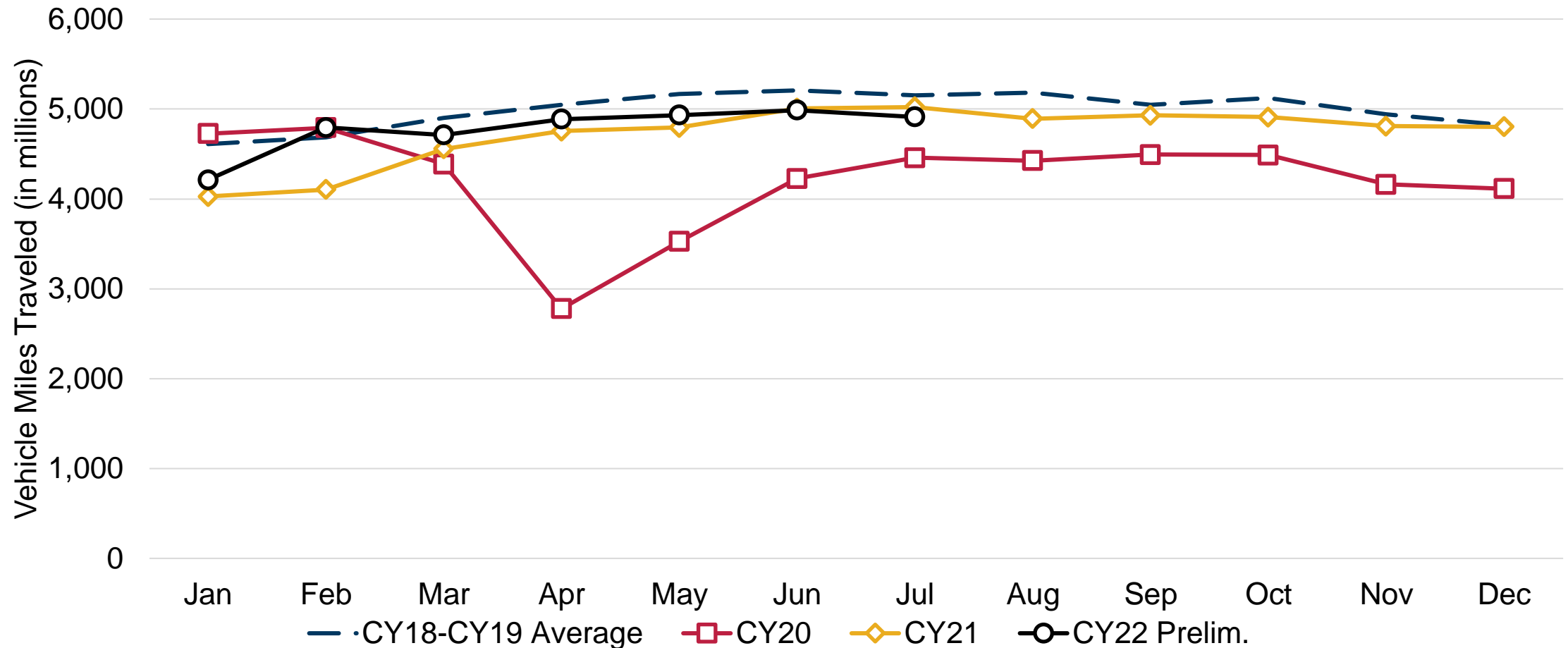
# Appendix: Additional Crash Data

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Preliminary 2022 Crash and  
Traffic Volume Data

# Maryland Traffic Volume

**2022 through July is 4% below 2019 levels.**

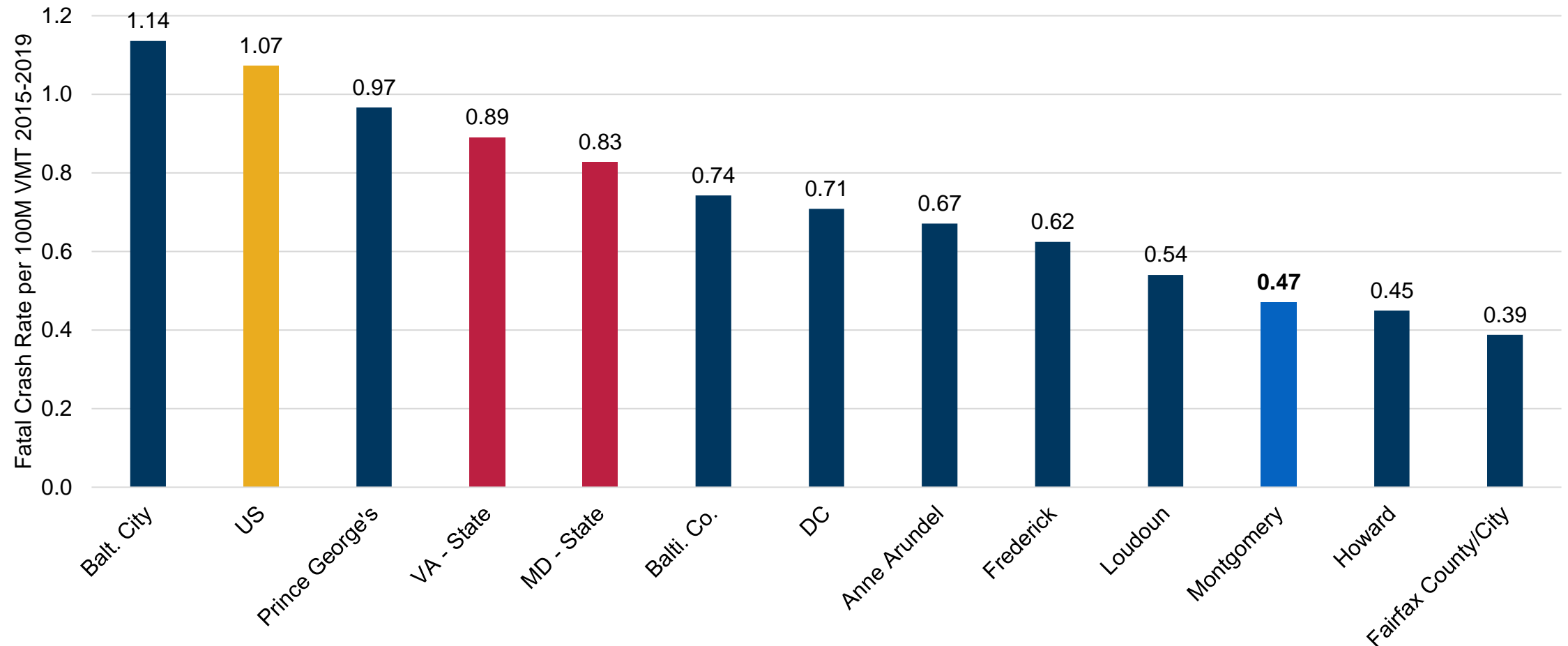


NOTE: This chart displays estimated monthly Vehicle Miles of Travel compared with the previous year based on data collected at approximately 51 continuous count stations throughout the State of Maryland. 31 (31)



# Fatal Crash Benchmark

Compared to 9 peer cities and counties, Montgomery County had the 3<sup>rd</sup> lowest fatal crash rate.



# Preliminary 2022 Jan – Aug Crash Totals

<u>ALL CRASHES</u>	2022 Jan-Aug	2021 Jan-Aug	% Change from 2021 Jan-Aug	2016 – 2019 Jan-Aug Avg.	% Change from 2016-2019 Avg.
Cyclists	77	84	-8%	89	-13%
Drivers / Passengers	5,874	5,383	+9%	7,241	-19%
Pedestrians	285	178	+60%	292	-2%
<b>TOTAL</b>	<b>6,236</b>	<b>5,645</b>	<b>+10%</b>	<b>7,622</b>	<b>-18%</b>

<u>FATAL CRASHES</u>	2022 Jan-Aug	2021 Jan-Aug	% Change from 2021 Jan-Aug	2016 – 2019 Jan-Aug Avg.	% Change from 2016-2019 Avg.
Cyclists	3	0	--	1	+200%
Drivers / Passengers	18	14	+29%	9	+100%
Pedestrians	7	4	+75%	6	+17%
<b>TOTAL</b>	<b>28</b>	<b>18</b>	<b>+56%</b>	<b>16</b>	<b>+75%</b>

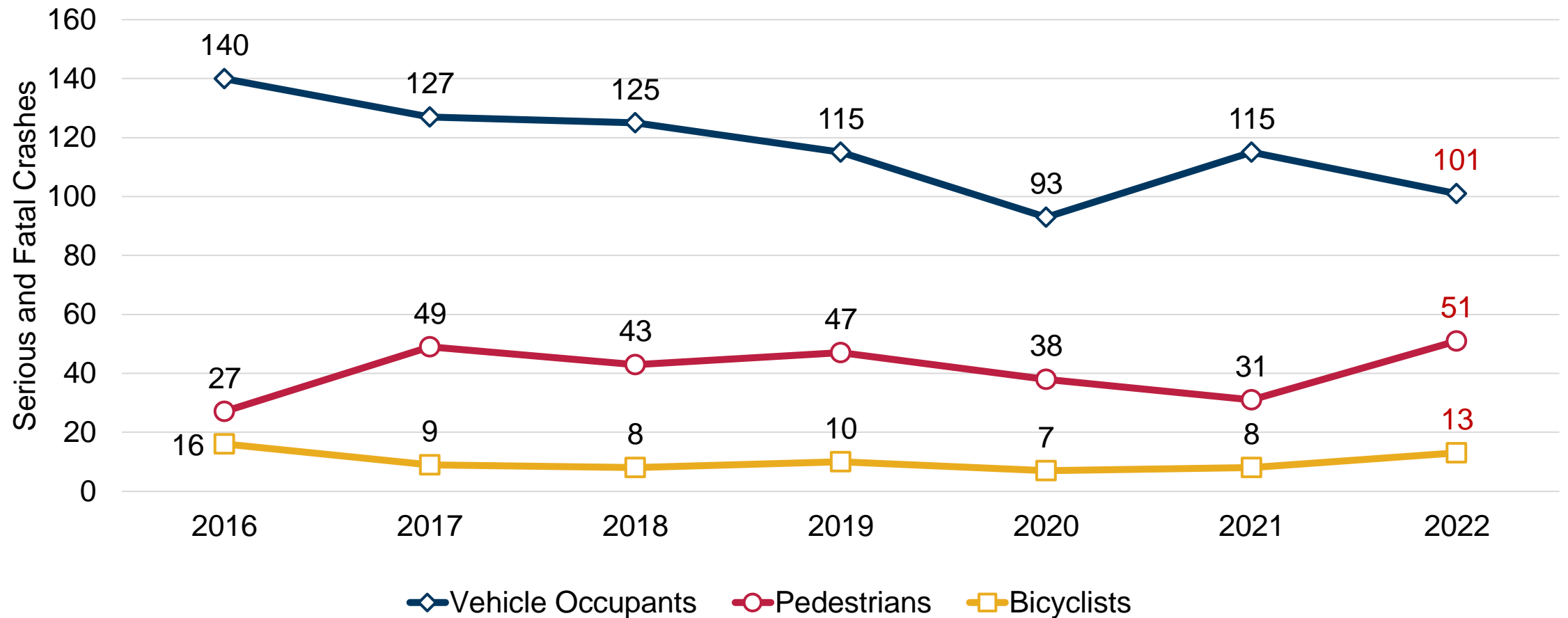
## NOTES:

- **Red Text** = The number is preliminary and subject to change. Data as of 9/8/22.
- Includes reports from MCPD, RCPD, GCPD, M-NCPPC Police, and TPPD.



# Serious and Fatal Crashes

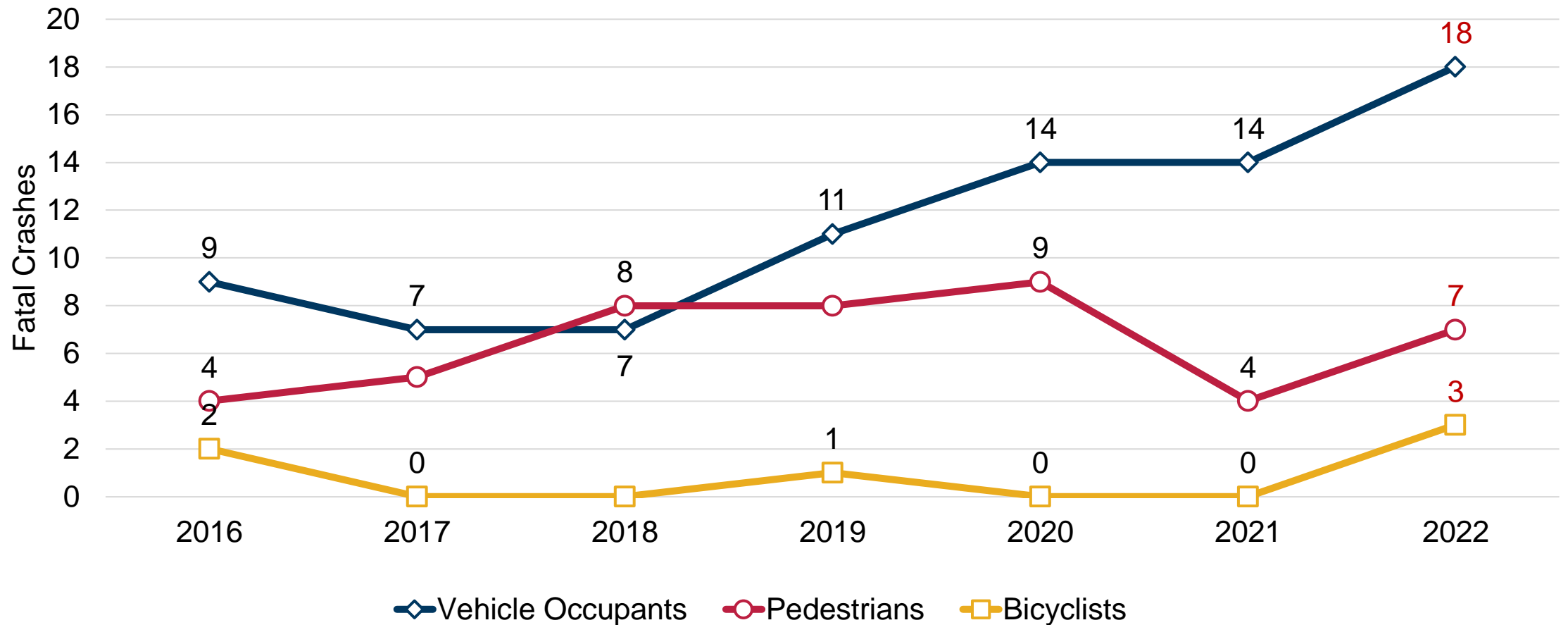
Comparing **January 1 – August 31** for each year



Source: MCPD. Includes MCPD, RPD, TPPD, GPD, and M-NCPPC MC reports. Data retrieved 09/08/22.  
Includes crashes where at least one party suffered serious or fatal injuries. **2022 data are preliminary.**

# Fatal Crashes

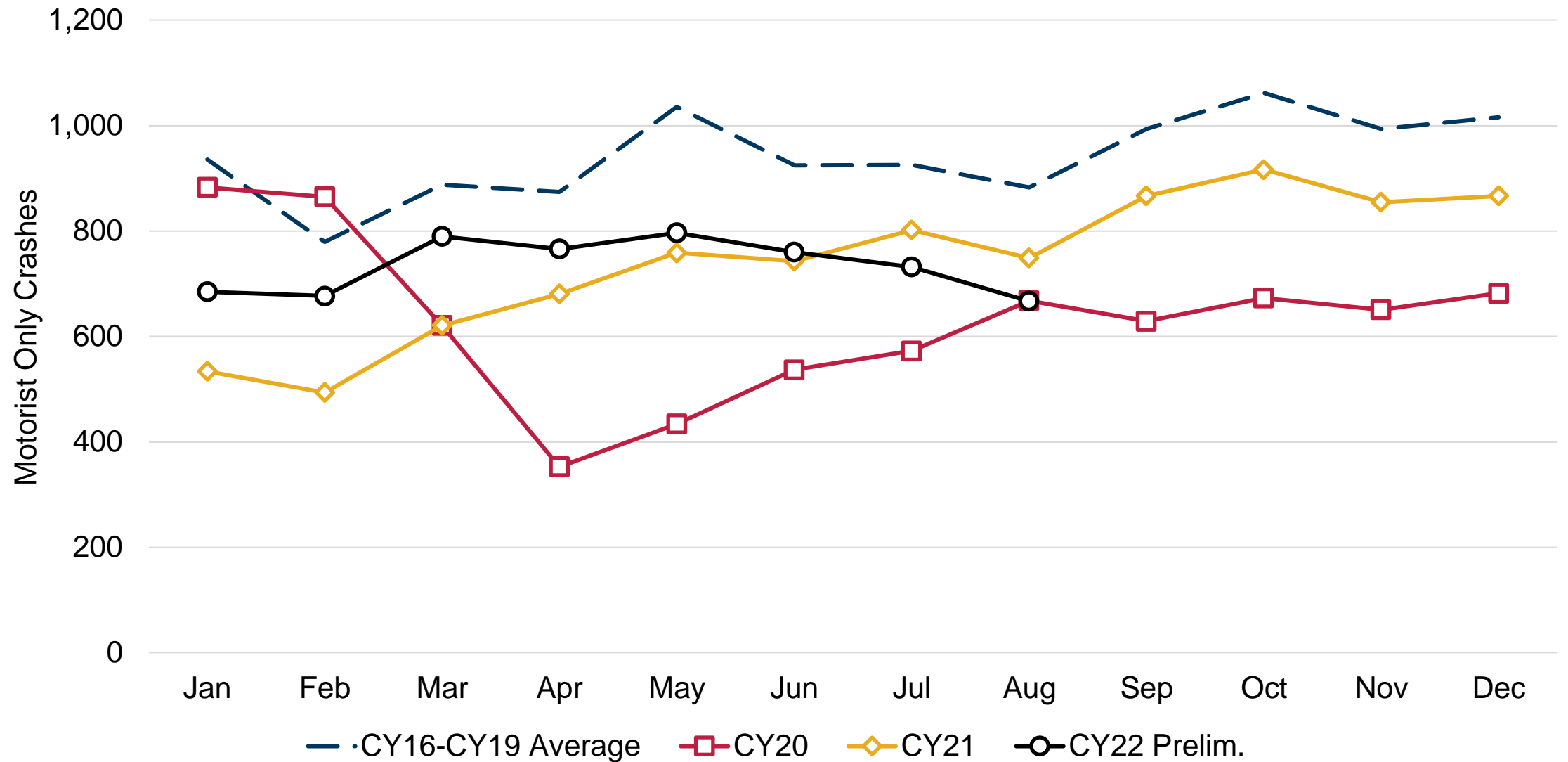
Comparing **January 1 – August 31** for each year



Source: MCPD CRU. Data retrieved 09/08/22.

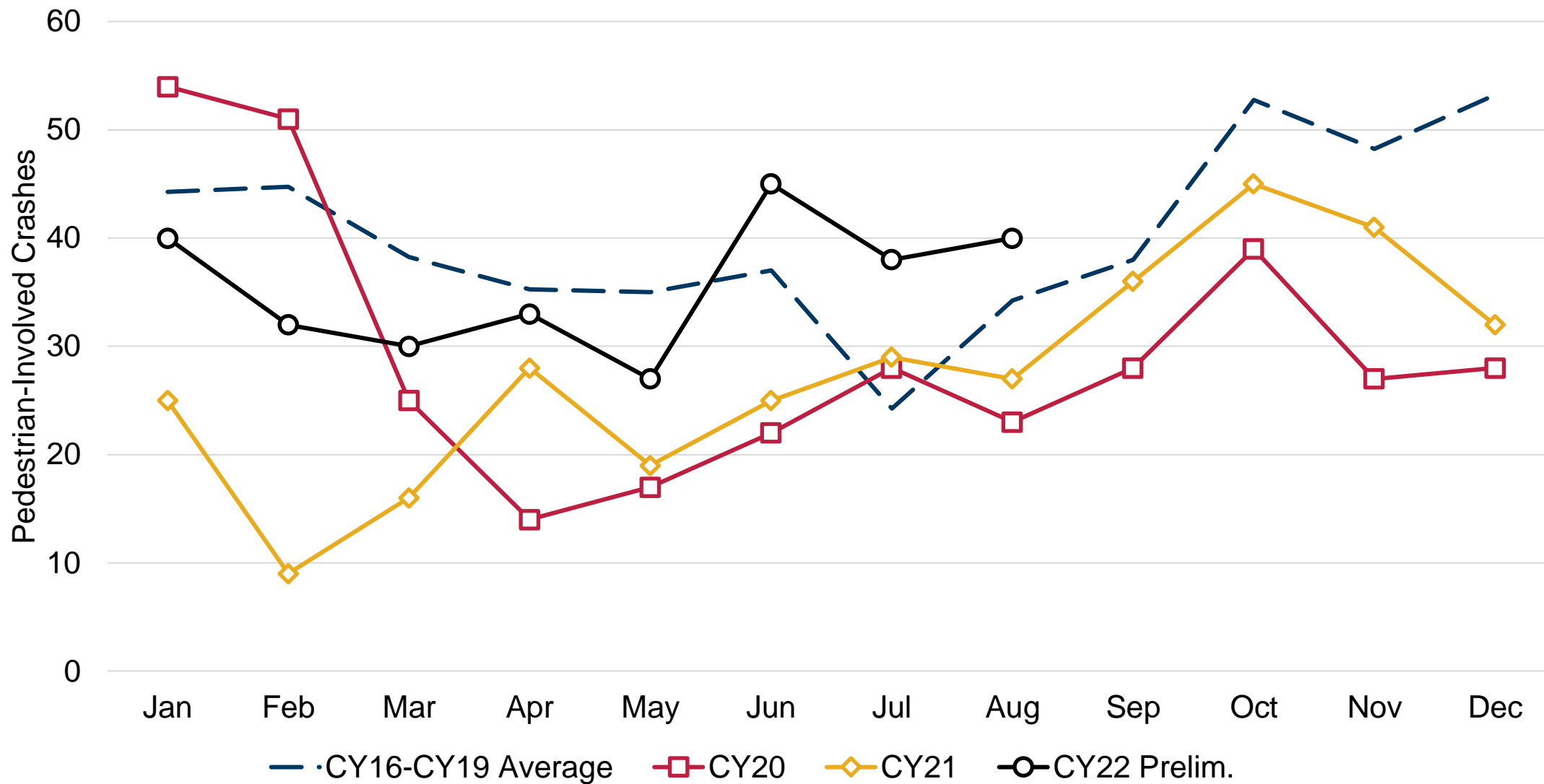
Includes crashes where at least one party suffered fatal injuries. 2022 data are preliminary.

# Motorist Only Collisions by Month

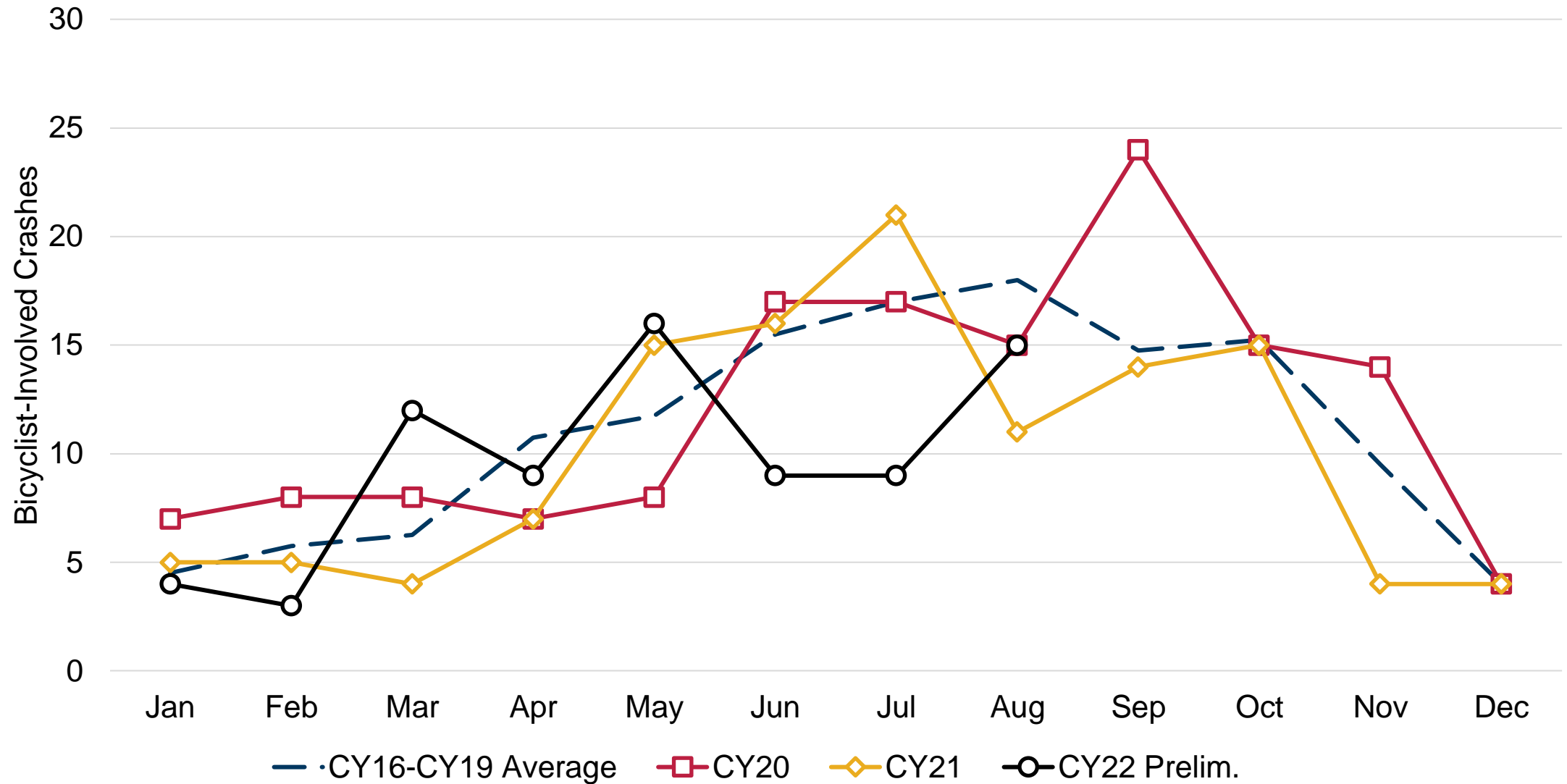




# Pedestrian Collisions by Month

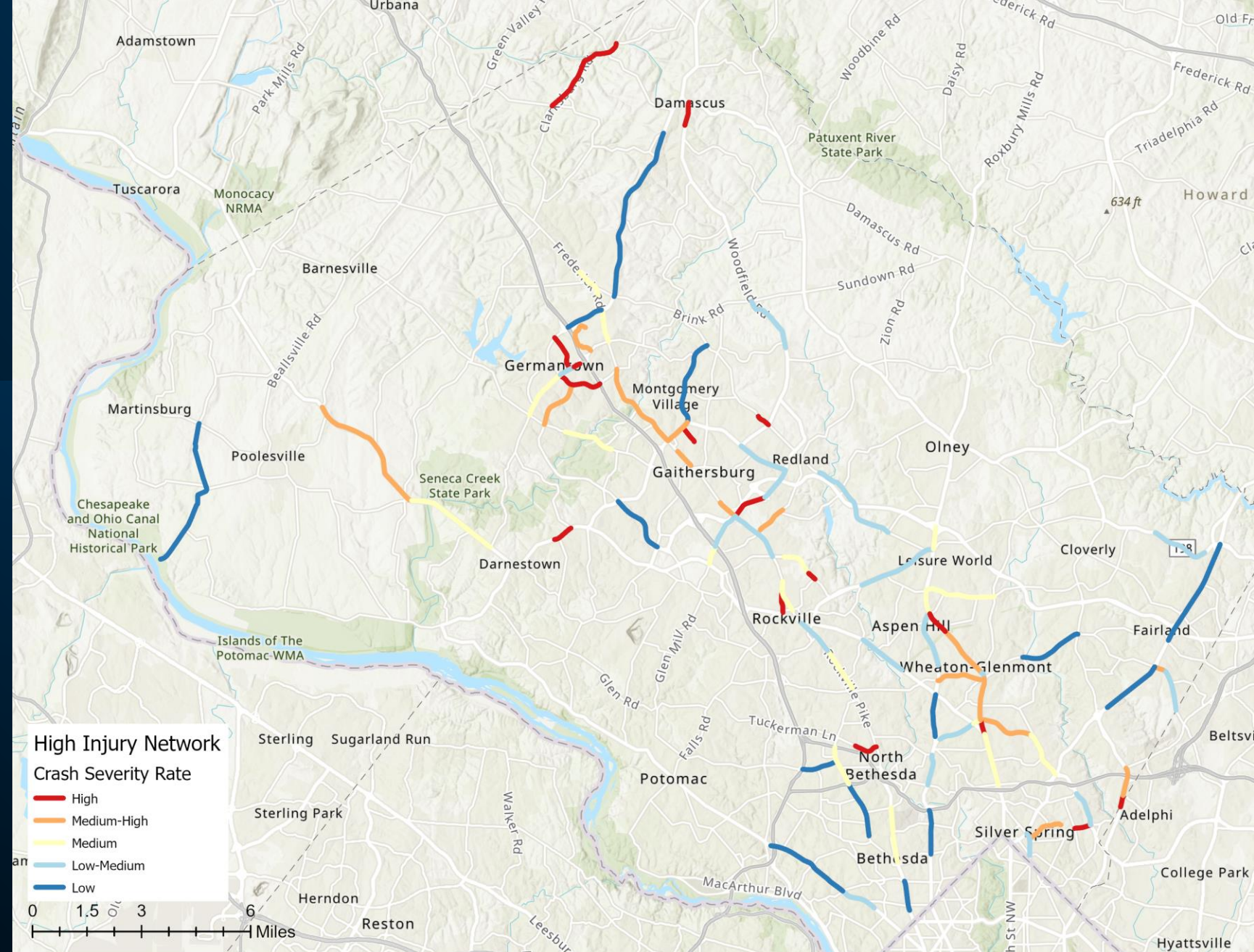


# Bicyclist Collisions by Month



HIN roadways account for 40% of serious and fatal injury crashes, 3% of road network.

# High Injury Network



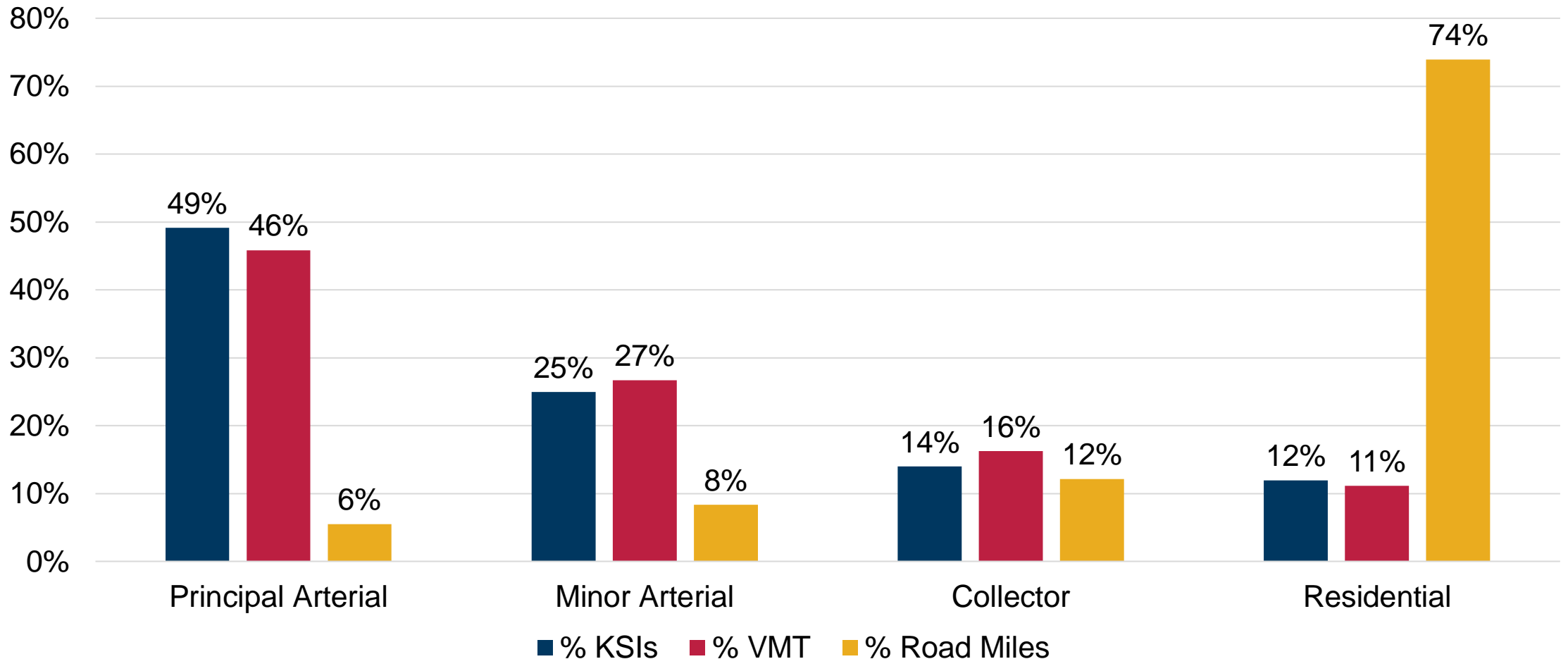
# High Injury Network

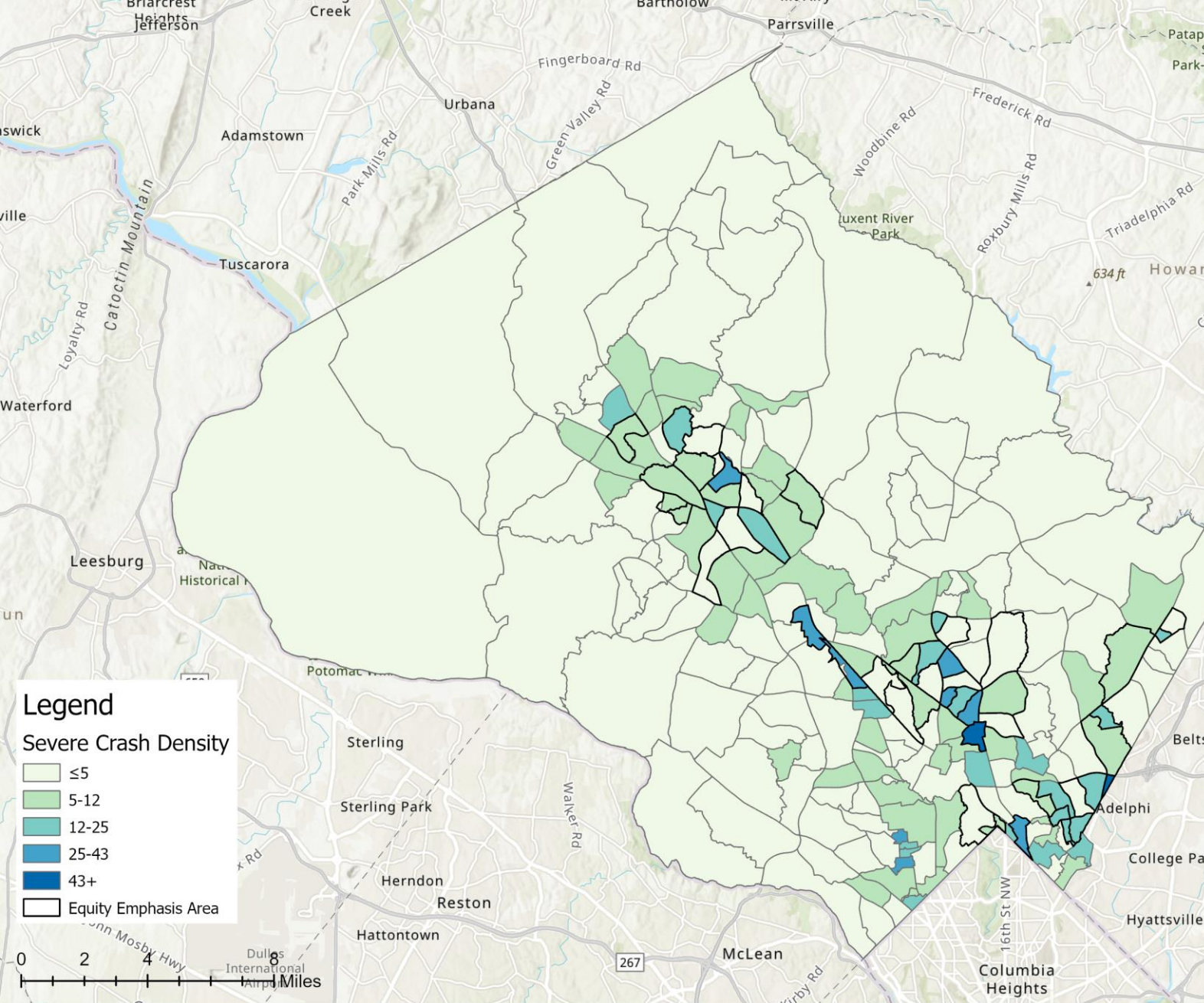
Service Credits: Esri, NASA, NGA, USGS, City of Gaithersburg, MNCPPC, VGIN, Esri, HERE, Garmin, SafeGraph, METI/NASA,



# Serious and Fatal Crashes by Road Classification

**Arterials were 14% of road miles, 73% of non-interstate VMT, and 74% of severe crashes.**





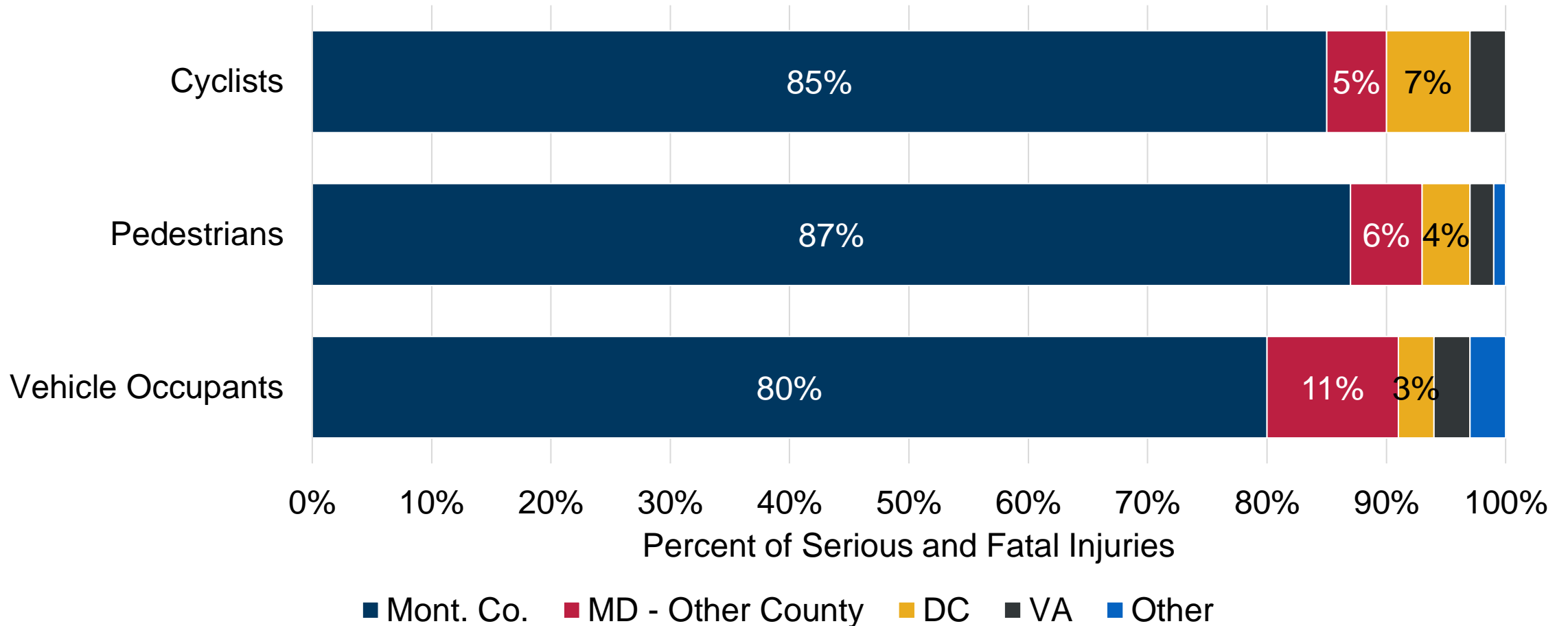
# Serious and Fatal Crashes in Equity Emphasis Areas

EEAs represent 7% of land, 14% of roadway mileage, 25% of the population, and 30% of serious and fatal roadway crashes.

Severe Crash Density

# Residency of Person Seriously Injured or Killed in Motor Vehicle Crash

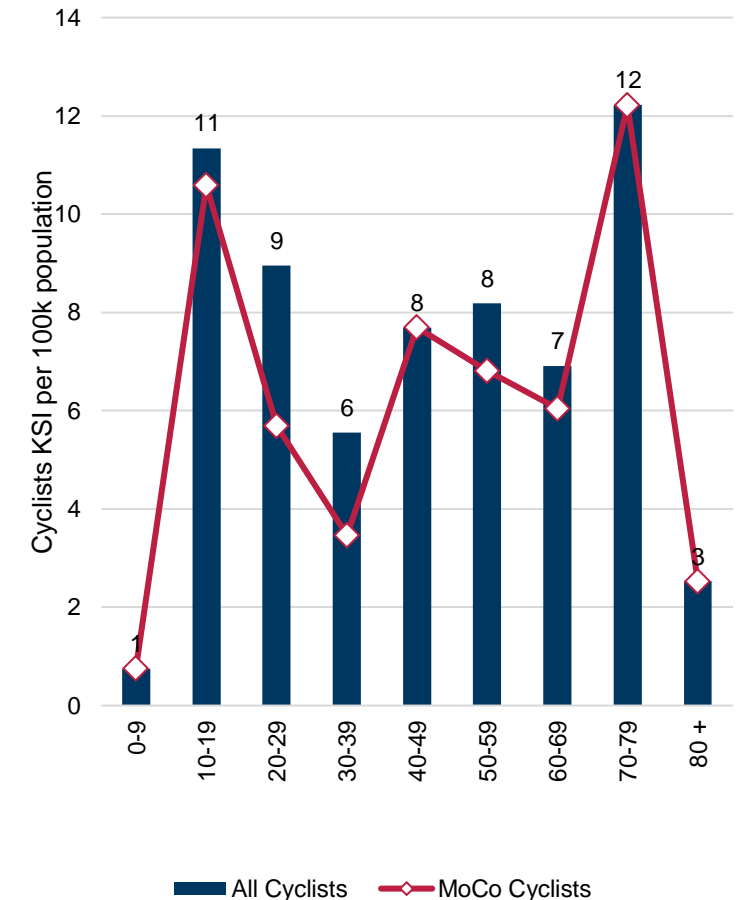
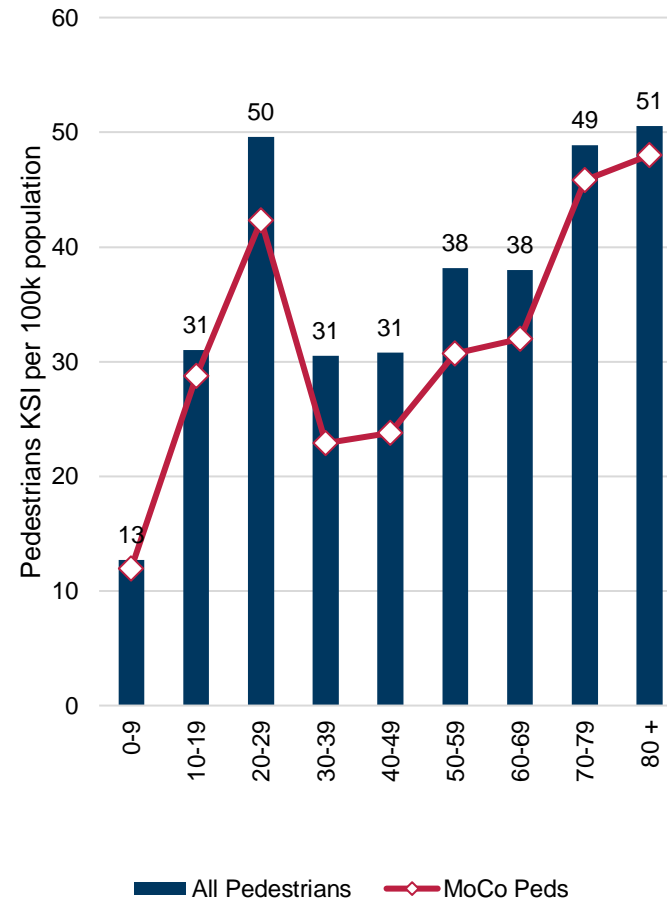
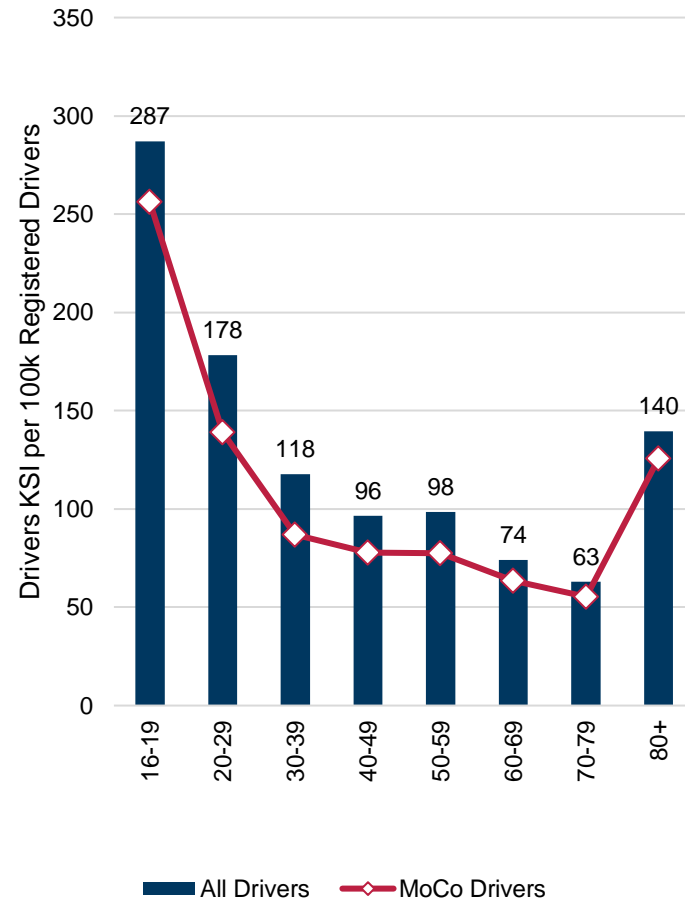
**82% were Montgomery County residents.**





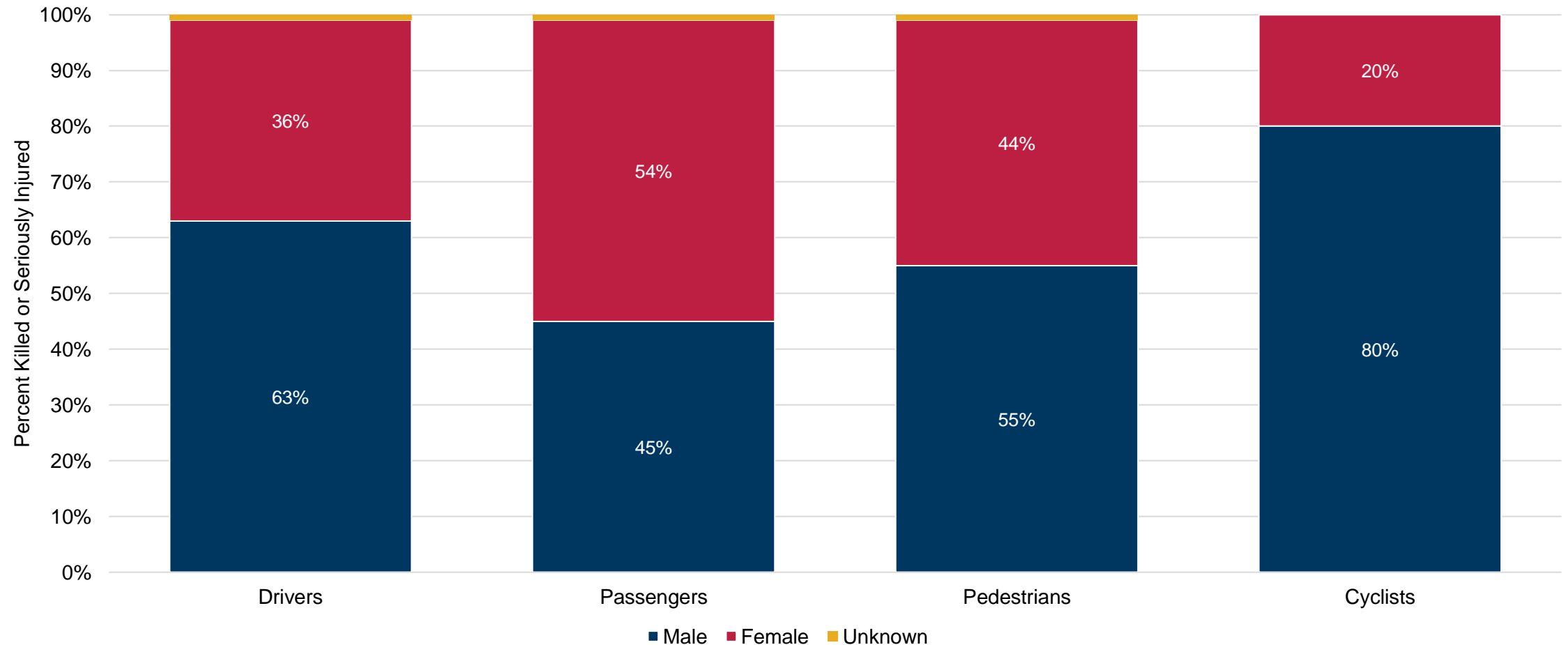
# Age and Serious/Fatal Injury

Youngest and oldest residents at most risk for serious and fatal injuries.



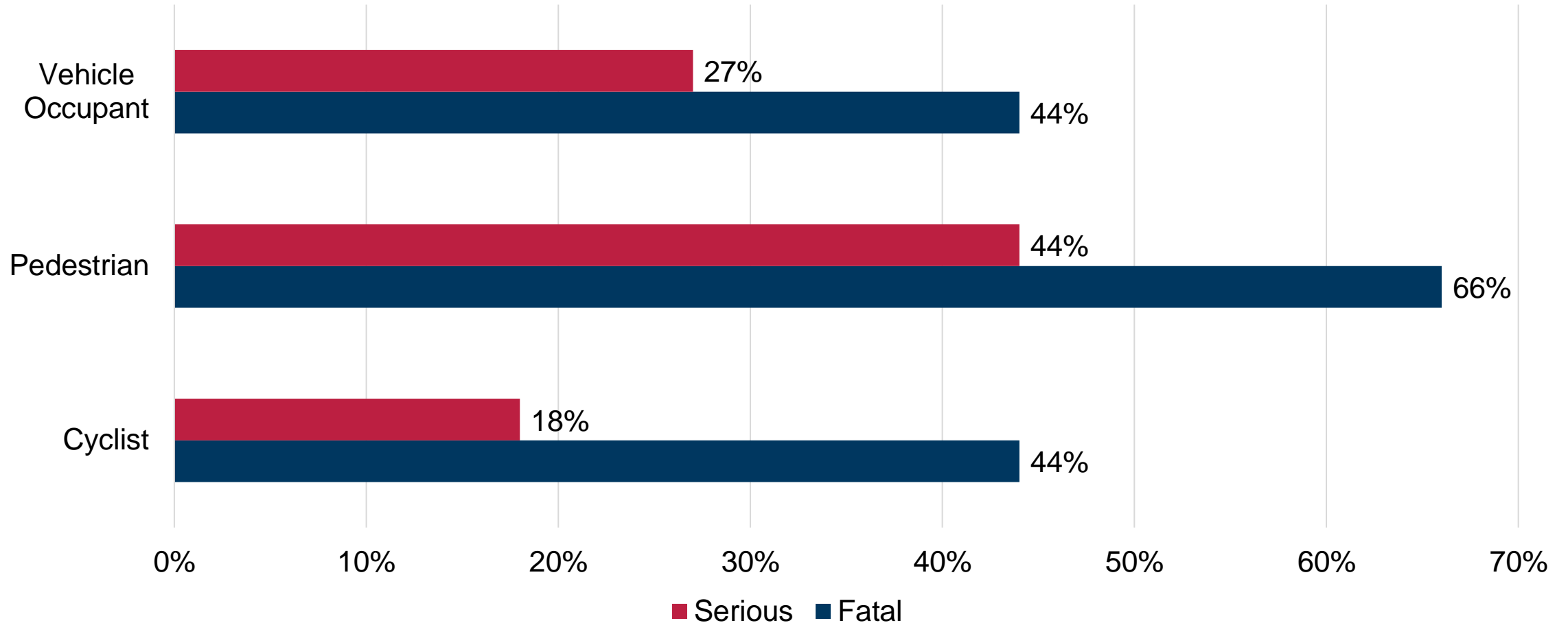
# Sex of Person Seriously Injured or Killed in Motor Vehicle Crash

**Males were the majority (62%) of those seriously injured or killed.**



# Serious/Fatal Crashes Between Dusk and Dawn

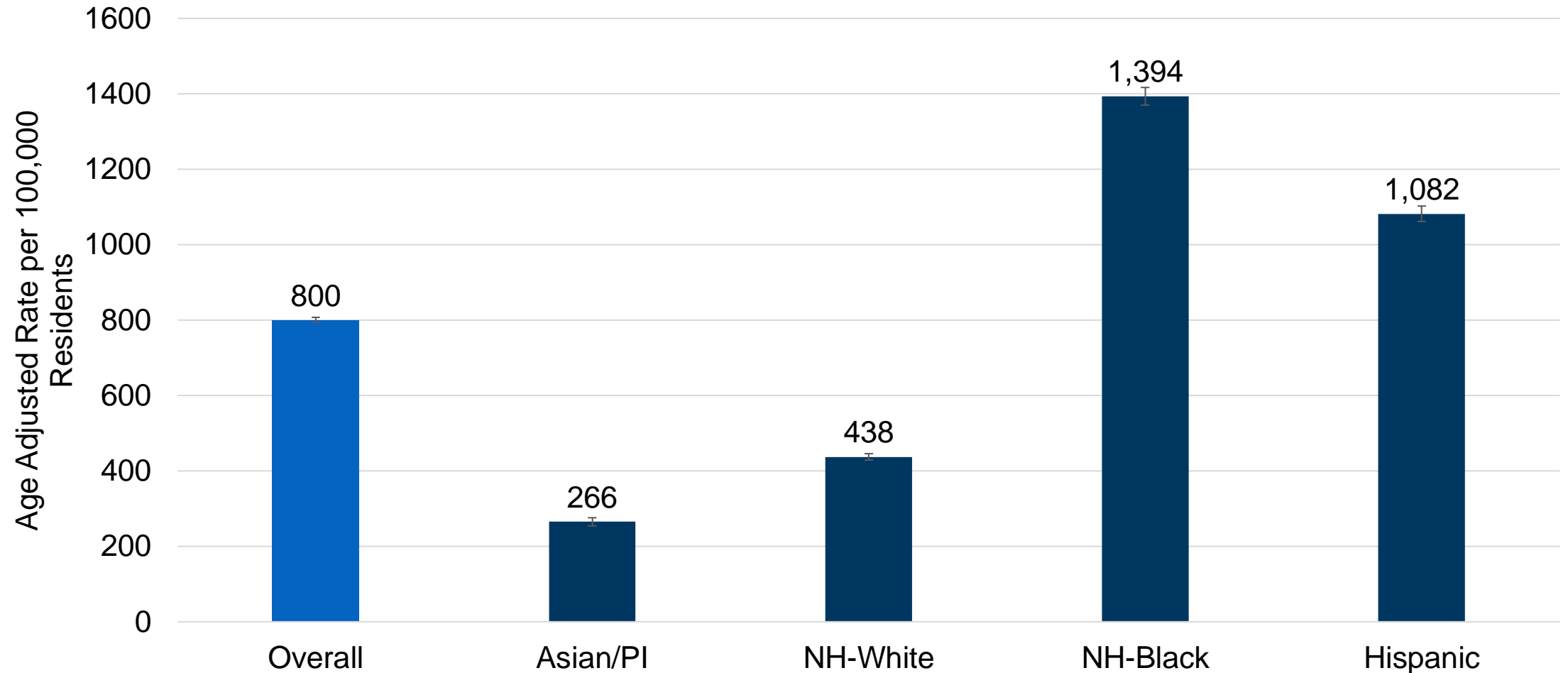
**66% of fatal pedestrian crashes occurred at night.**





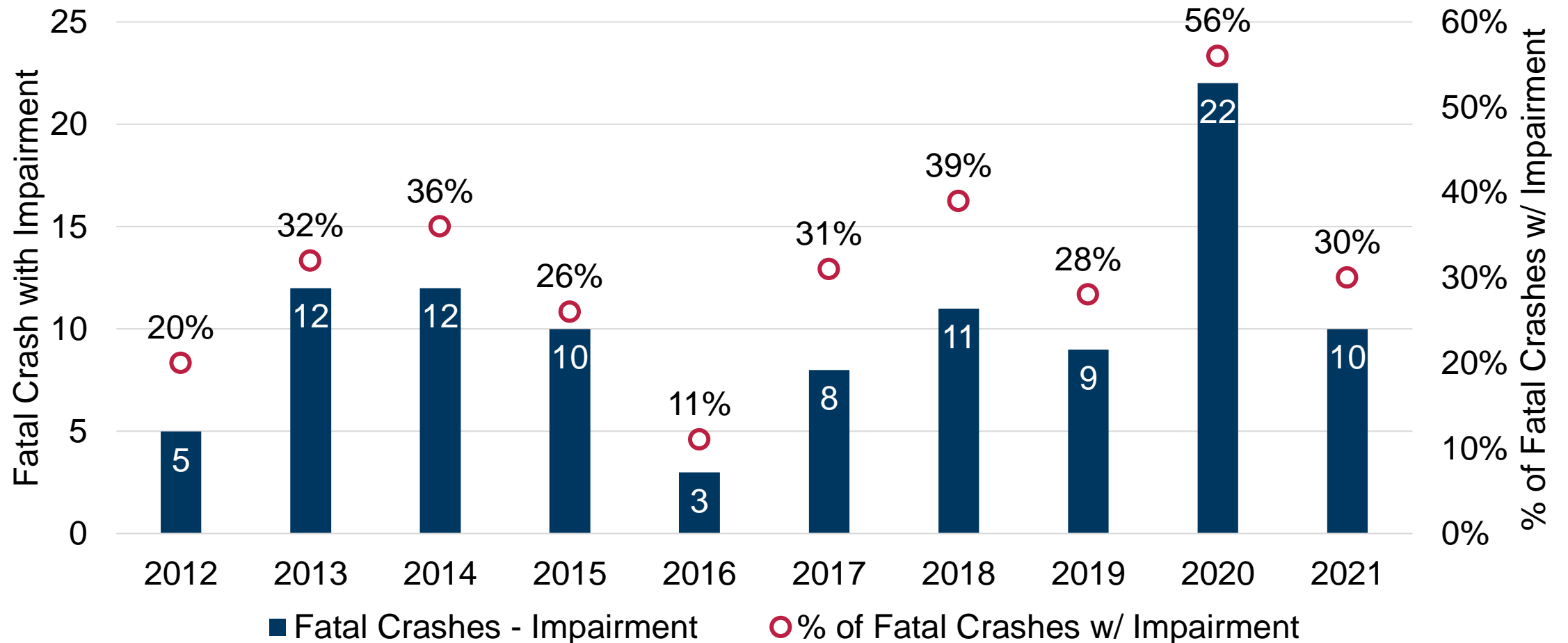
# ER Visits for Motor Vehicle Crashes by Ethnicity/Race 2015-2019

Black and African American Montgomery County residents had an emergency room admission rate for motor vehicle crashes 136% higher than Asian/Pacific Islander residents and 104% higher than White, Non-Hispanic residents.



# Impairment-Related Fatal Crashes

Significant increase in 2020 with return to “normal” in 2021.







# Vision Zero at the Planning Department

Montgomery Planning

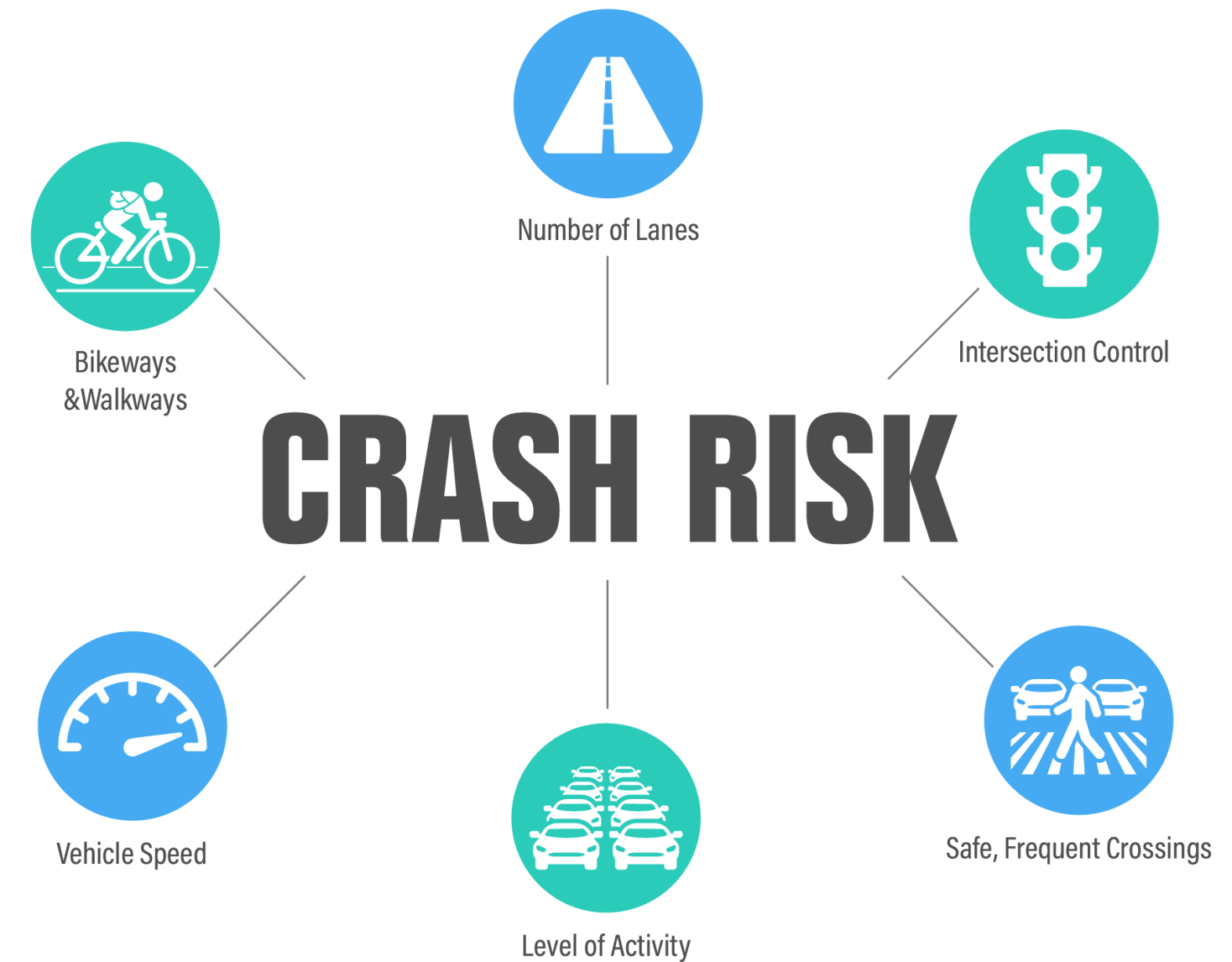




# Predictive Safety Analysis

*A proactive approach to identifying safety challenges and solutions*

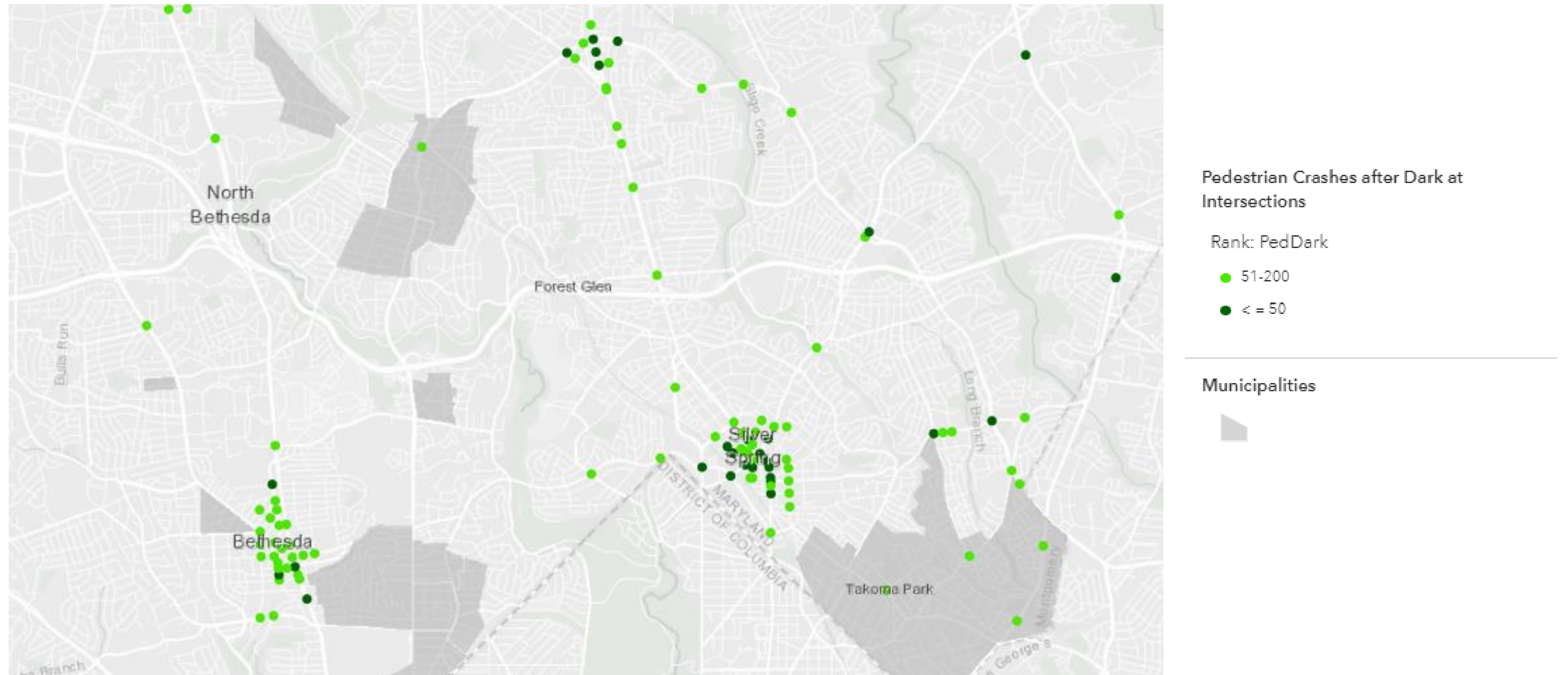
- Estimates the expected number of crashes at intersections and segments for key crash types
- Identifies safety priorities and effective mitigations
- Worked with UNC Highway Safety Research Center



# Key Takeaways

- **We need to be proactive.** As we shift from a reactive to a proactive approach to Vision Zero, prioritization should look beyond crash history to crash risk.
- **We need to center equity.** More than half of the worst locations for pedestrian crash types are located within Equity Emphasis Areas (even though only 16% of county is in Equity Emphasis Areas).
- **Both urban & suburban areas warrant investment.** While most of the county is suburban, urban areas have some of the worst locations.
- **We need a systemic approach.** Just fixing the worst locations will not achieve Vision Zero. We need to make improvements at 100s of locations countywide.

# Web Map of Top 200 Locations



<https://mcplanning.maps.arcgis.com/apps/instant/basic/index.html?appid=e098e5d417744973aee13cf3c97fa3b1>



# Systemic Countermeasure Tool

**Dynamic tools to evaluate different countermeasure scenarios through the following metrics:**

- Potential Crash Reduction
- Cost per Crash Reduced
- Percent of Locations in Equity Emphasis Area

**Print a list of top-ranked location for each scenario.**

# Example Use of Tool

## Determining which Countermeasures to Implement

### Example Scenarios for Reducing Angle Crashes with \$350,000 (10-Year Impact)

Scenarios	Increase All Red Clearance*	All-Way Stop	Traffic Signal
Number of Locations	116	70	1
Total Estimated Cost	\$348,000	\$350,000	\$350,000
Predicted Crash Reduction	2,557	311	47
Crash Reduction per Location	22.0	4.4	47.4
Cost per Crashes Reduced	\$140	\$1,130	\$7,380
% of Locations in Equity Emphasis Areas	47%	21%	0%

\* on Boulevards, Downtown Boulevards, Town Center Boulevards, Major Highways

# Applying our Findings

The Predictive Safety Analysis is the **first step** towards implementing a proactive approach to safety. Can be used to apply a **data-driven** approach to **recommendations, mitigation, and prioritization**, and can be incorporated into:

- CIP Project Funding
- Systemic Projects Prioritization
- Master Planning
- Regulatory Review
- Grant Applications



# Other Recent & Ongoing Projects

- Pedestrian Master Plan
- Access Management Study
- Complete Streets Design Guide
- Bicycle Master Plan Monitoring Report
- Vision Zero Community Toolkit



# Questions?

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<https://montgomeryplanning.org/planning/transportation/vision-zero/>