

COUNTY OF YORK

MEMORANDUM

DATE: May 22, 2024

TO: York County Board of Supervisors

FROM: Mark L. Bellamy, Jr., County Administrator



SUBJECT: Hampton Roads Regional Safety Study and Crash Fatality Increase Factors Study

The presentation at the Hampton Roads Transportation Planning Organization Meeting on May 16 highlighted significant findings from the Hampton Roads Regional Safety Study and Crash Fatality Increase Factors Study. Key points included a marked increase in traffic fatalities in recent years, largely attributed to reckless speeding, distracted driving, alcohol use, and reduced enforcement of speeding violations. The study revealed that traffic fatalities have risen sharply since the pandemic, with reckless driving being a major contributing factor. I have included the PowerPoint as an attachment for your informational purposes.

Schott/3326

Attachment:

- Hampton Roads Regional Safety Study and Crash Fatality Increase Factors Study

**HAMPTON ROADS REGIONAL SAFETY STUDY
AND
CRASH FATALITY INCREASE FACTORS STUDY**



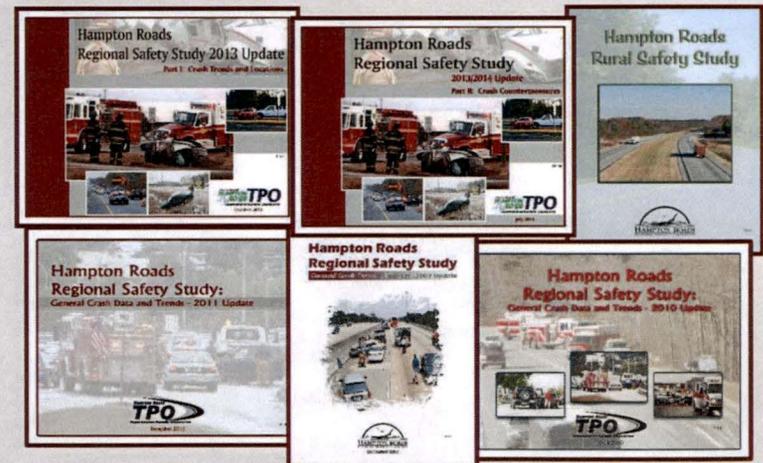
PRESENTED BY:

**DR. ROBERT CASE, CHIEF TRANSPORTATION ENGINEER
KEITH NICHOLS, PRINCIPAL TRANSPORTATION ENGINEER**

**HAMPTON ROADS CHIEF ADMINISTRATIVE OFFICERS MEETING
MAY 1, 2024**

INTRODUCTION

- Because of the impacts of crashes on the residents and visitors of Hampton Roads, roadway safety has been a priority in the HRTPO regional transportation planning process.
- Hampton Roads Regional Safety Study
- Crash Fatality Increase Factors Study



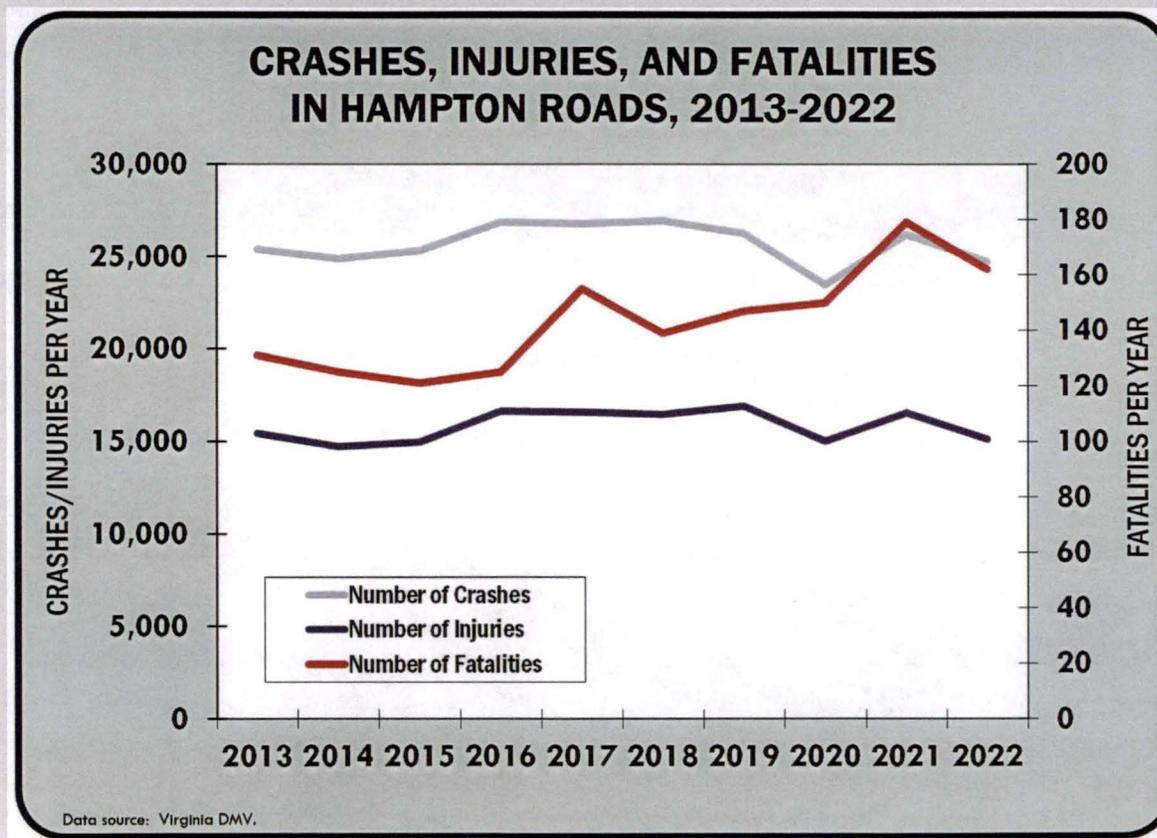
REGIONAL SAFETY STUDY

- HRTPO staff has recently completed the **draft** of the ***Hampton Roads Regional Safety Study*** update.
- The objective is to produce a plan that will comply with the new federal Safe Streets and Roads for All (SS4A) Discretionary Grant Program in order to bring additional funding to the region.

REGIONAL SAFETY STUDY SECTIONS

- Introduction
- Vision, Mission, and Goals
- Regional Safety Trends
- Crash Characteristics
- Crash Locations
- Efforts to Improve Roadway Safety
- Equity Analysis
- General Crash Countermeasures
- High Crash Locations Analysis
- Safety Survey
- Next Steps

REGIONAL SAFETY TRENDS



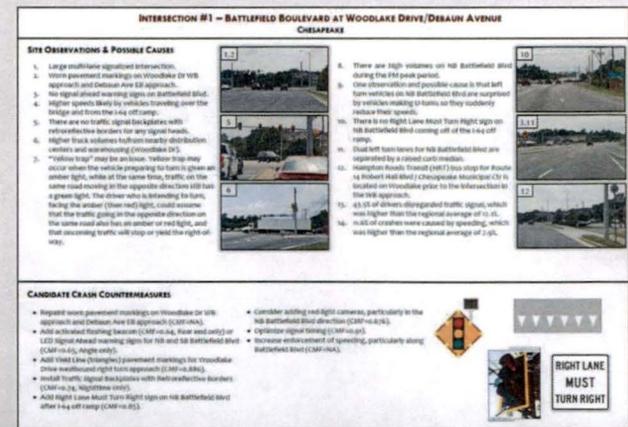
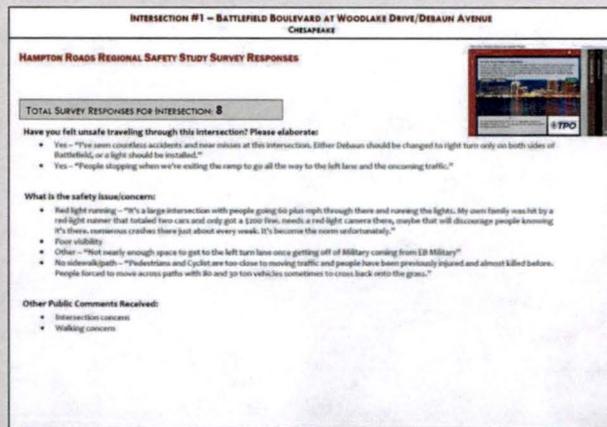
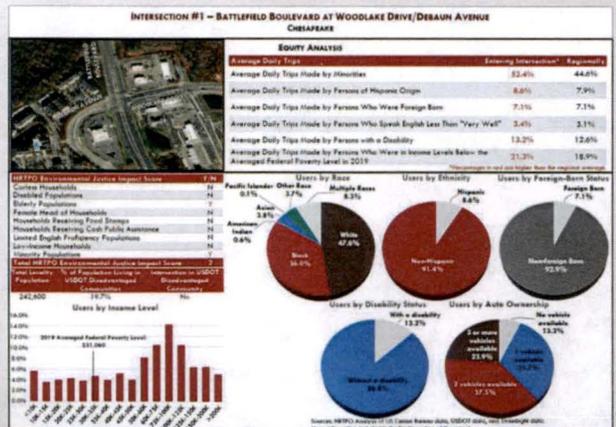
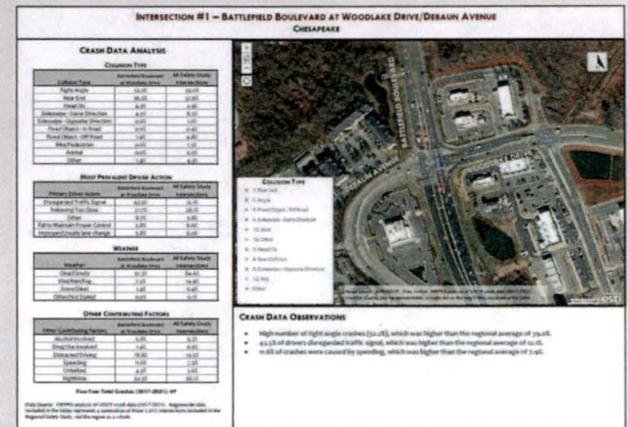
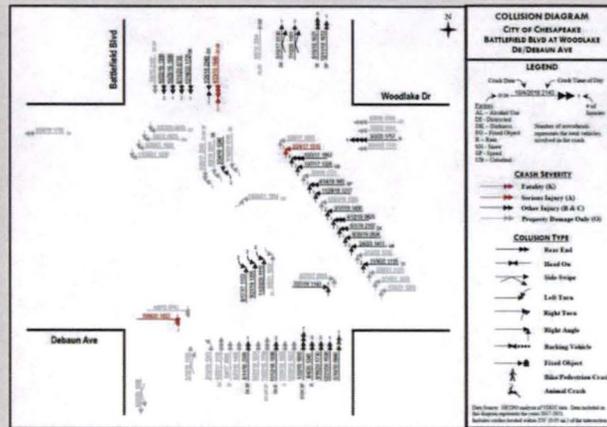
CRASH LOCATIONS

- Analyzed crash data for the entire freeway system and over 1,000 intersections throughout the region
 - Number of crashes
 - Crash rate
 - Number of fatal & serious injury crashes
 - Fatal & serious injury crash rate
 - Potential for safety improvement (PSI)
- Locality staff were asked to identify one high crash location based on the crash analysis for further study by HRTPO staff.

JURISDICTION	LOCATION
CHESAPEAKE	Battlefield Boulevard at Woodlake Drive/Debaun Avenue
FRANKLIN	Armory Drive at College Drive
GLOUCESTER	Route 198 at Route 606 (Harcum Road)
HAMPTON	N Armistead Avenue at LaSalle Avenue
ISLE OF WIGHT	Route 17 (Carrollton Boulevard) at Smiths Neck Road
JAMES CITY	Route 199 at Quarterpath Road/Mounts Bay Road
NEWPORT NEWS	39th Street at Roanoke Avenue
NORFOLK	Colley Avenue at 26th Street and 27th Street
POQUOSON	Wythe Creek Road at Victory Boulevard/Little Florida Road
PORTSMOUTH	High Street at Peninsula Avenue
SOUTHAMPTON	Route 58 at Route 308 (Three Creeks Road)
SUFFOLK	Portsmouth Boulevard at Nansemond Parkway/E. Washington Street
SURRY	Route 10 at Hog Island Road/Mount Ray Drive
VIRGINIA BEACH	Rosemont Road at Holland Road
WILLIAMSBURG	Route 132 (Henry Street) at Route 132Y/Visitor Center Drive
YORK	Hampton Highway at Yorktown Road/Theatre Road

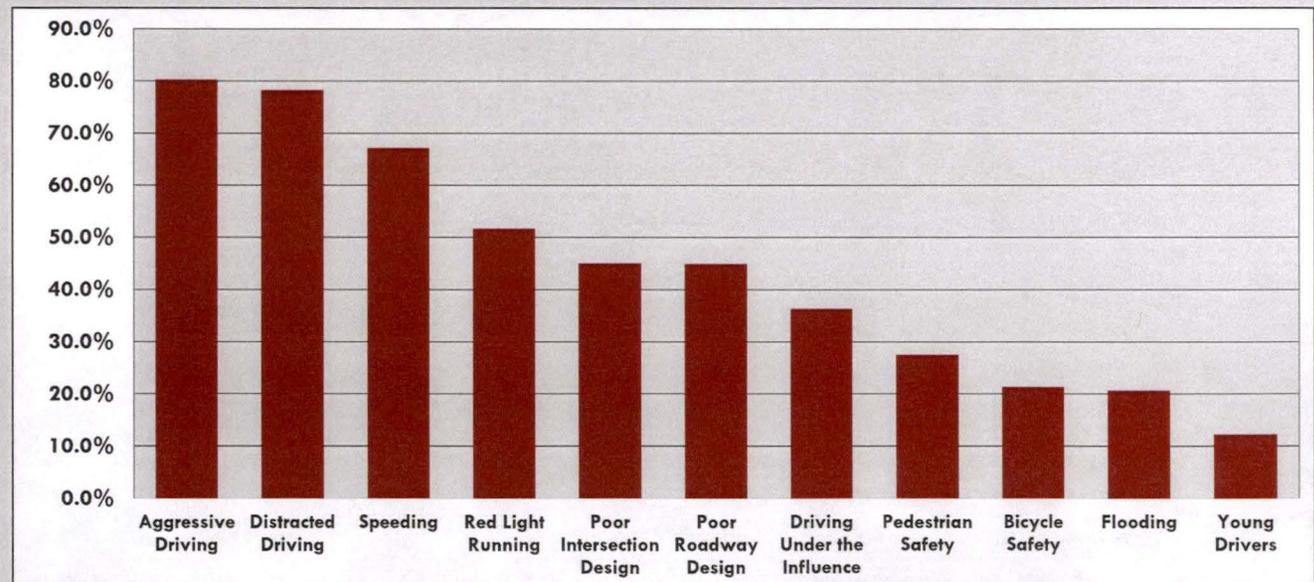
INTERSECTIONS ANALYZED IN REGIONAL SAFETY STUDY

HIGH CRASH LOCATIONS ANALYSIS



REGIONAL SAFETY STUDY SURVEY

- In order to gather feedback on roadway safety concerns, HRTPO prepared a public survey
 - Safety Concerns/
Priority Ranking
 - Crash Locations/
Map Markers
 - Strategies
- 1,485 responses
- 2,596 locations



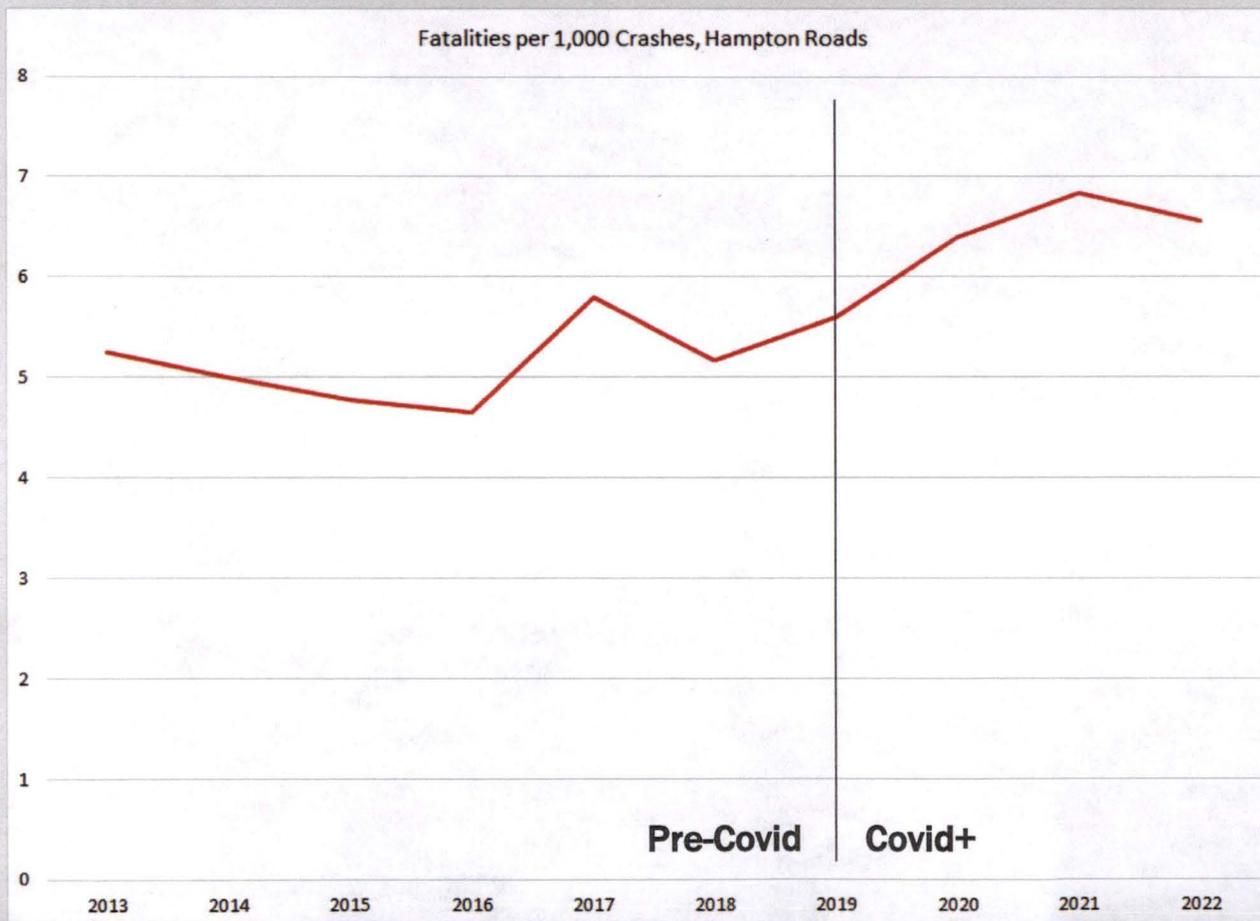
PERCENTAGE OF SURVEY RESPONSES WITH EACH SAFETY CONCERN IN THE TOP 5

Source: HRTPO.

CRASH FATALITY INCREASE FACTORS STUDY

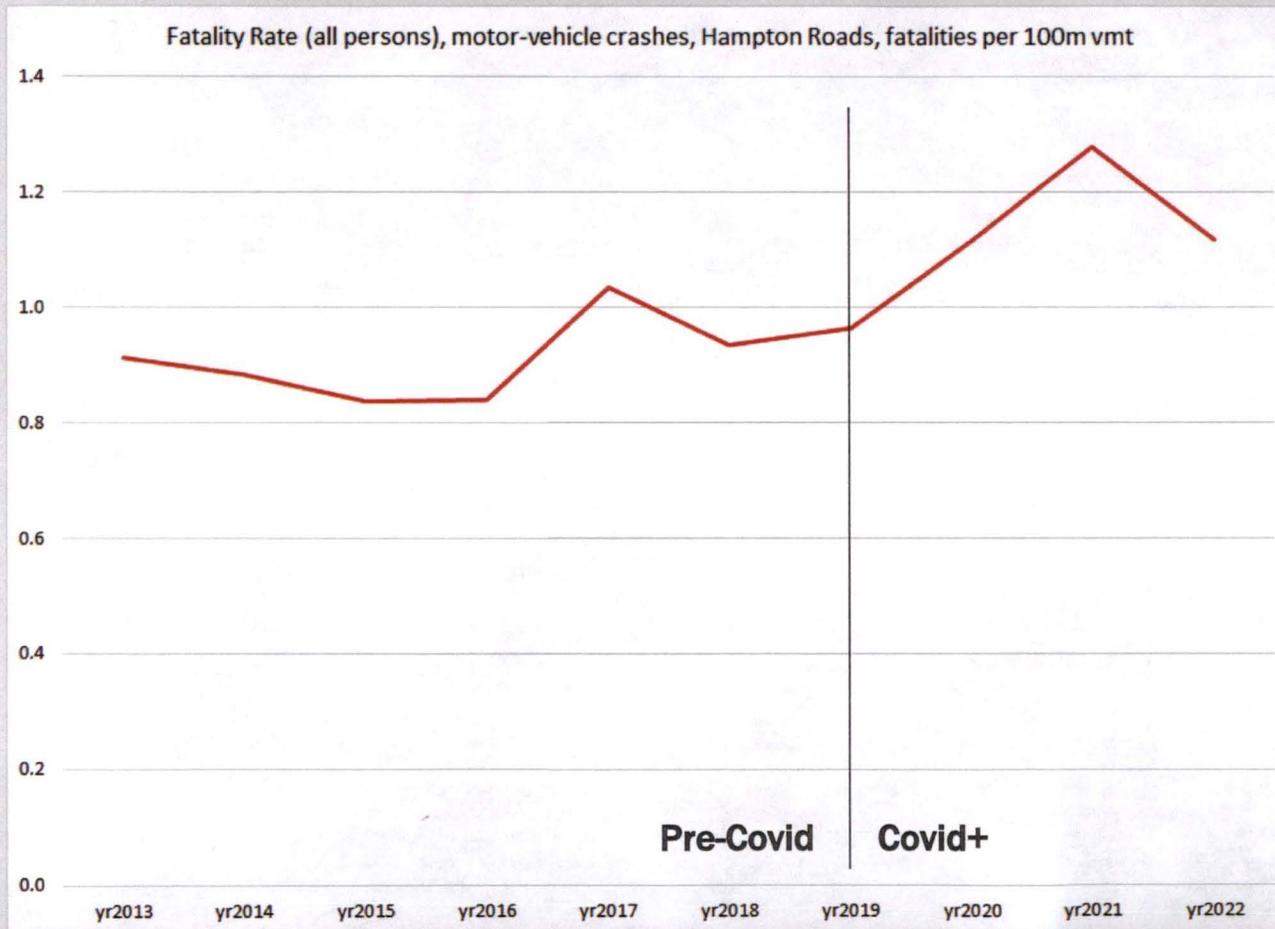
Dr. Robert Case – rcase@hrtpo.org

FATALITIES PER CRASH



Individual crashes have become **more fatal** (more fatalities per crash), particularly since the start of Covid...

FATALITY RATE



...so the **fatality rate** (fatalities per mile traveled) has increased significantly, particularly since the start of Covid.

COMPONENTS OF THE PROBLEM

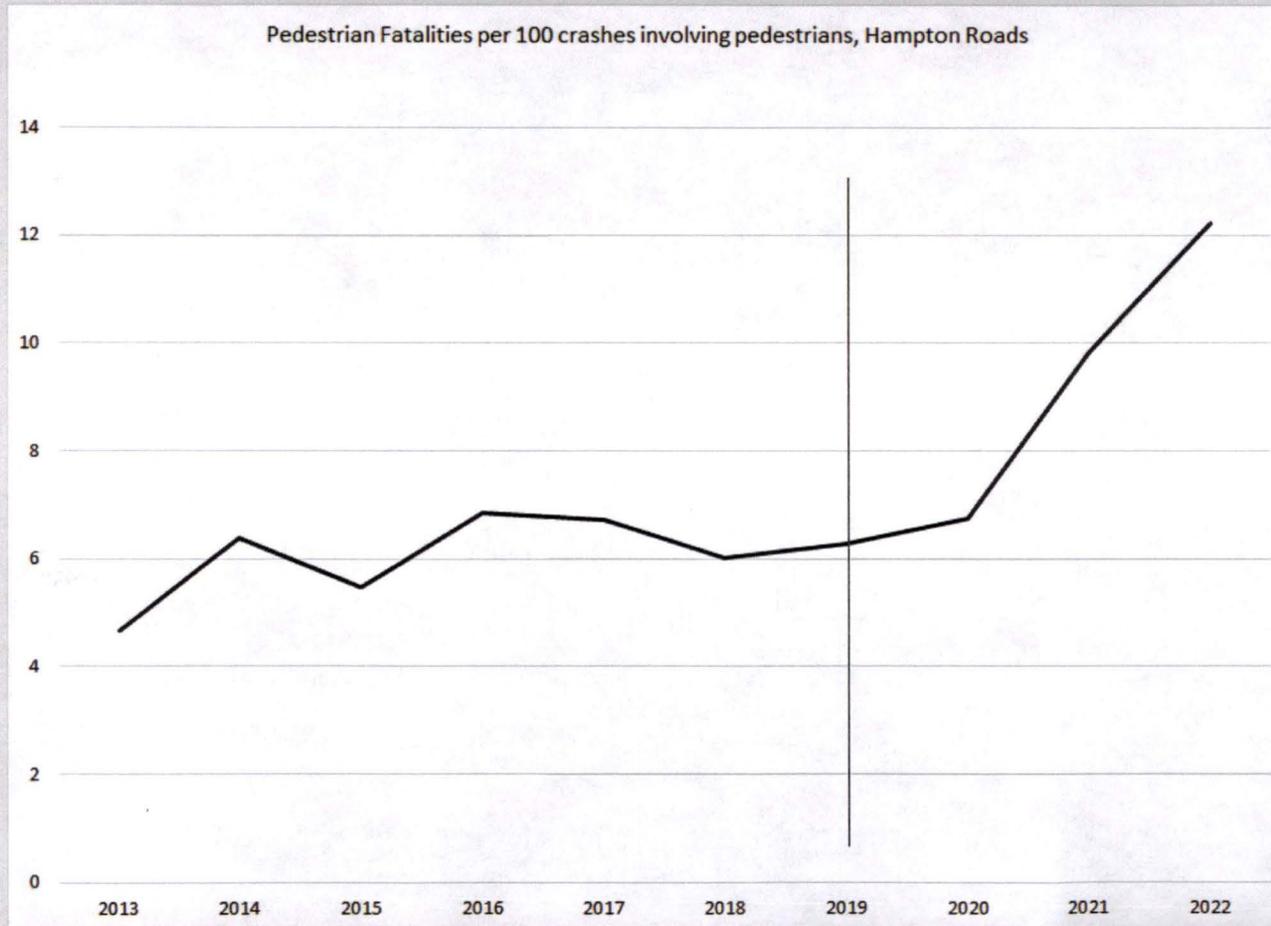
Motor-vehicles have become *more fatal per crash and per mile*, particularly during the Covid era.

So we examined the vulnerability of each type of traveler:

- automobile occupants
- motorcyclists
- bicyclists
- pedestrians

- [to save time, today I'm showing only the most significant one: pedestrians]

PEDESTRIAN FATALITIES PER CRASH



When a pedestrian and automobile collide, pedestrians are very vulnerable, now dying in **12%** of these crashes.

Notice that these collisions have become **twice as fatal since the start of Covid.**

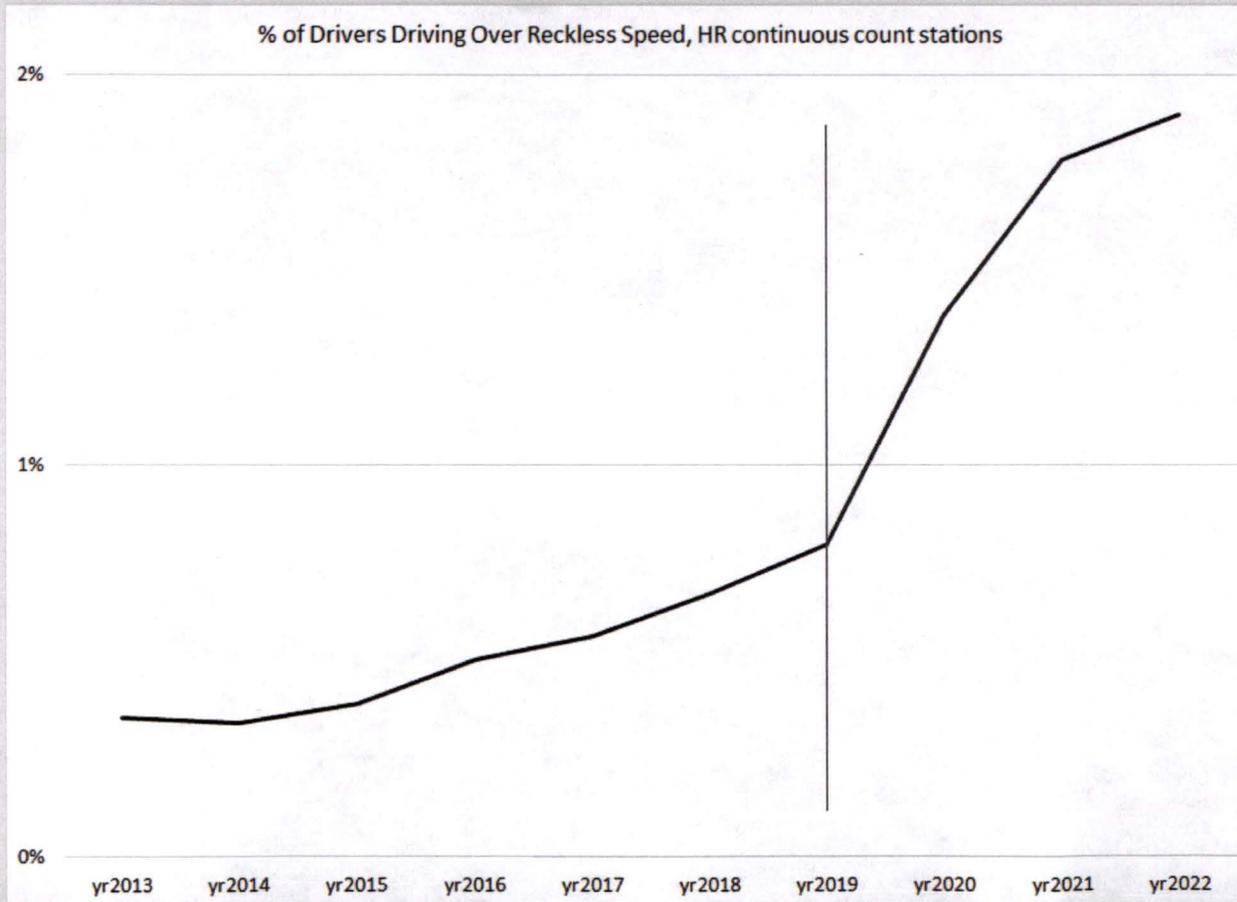
Perhaps drivers are driving at **higher speeds**, particularly since the start of Covid.

FINDING THE CAUSE OF THE PROBLEM

Method: Examine changes in these **crash-causing factors** over time—particularly over the Covid era—to determine whether they may explain the increase in fatality rates:

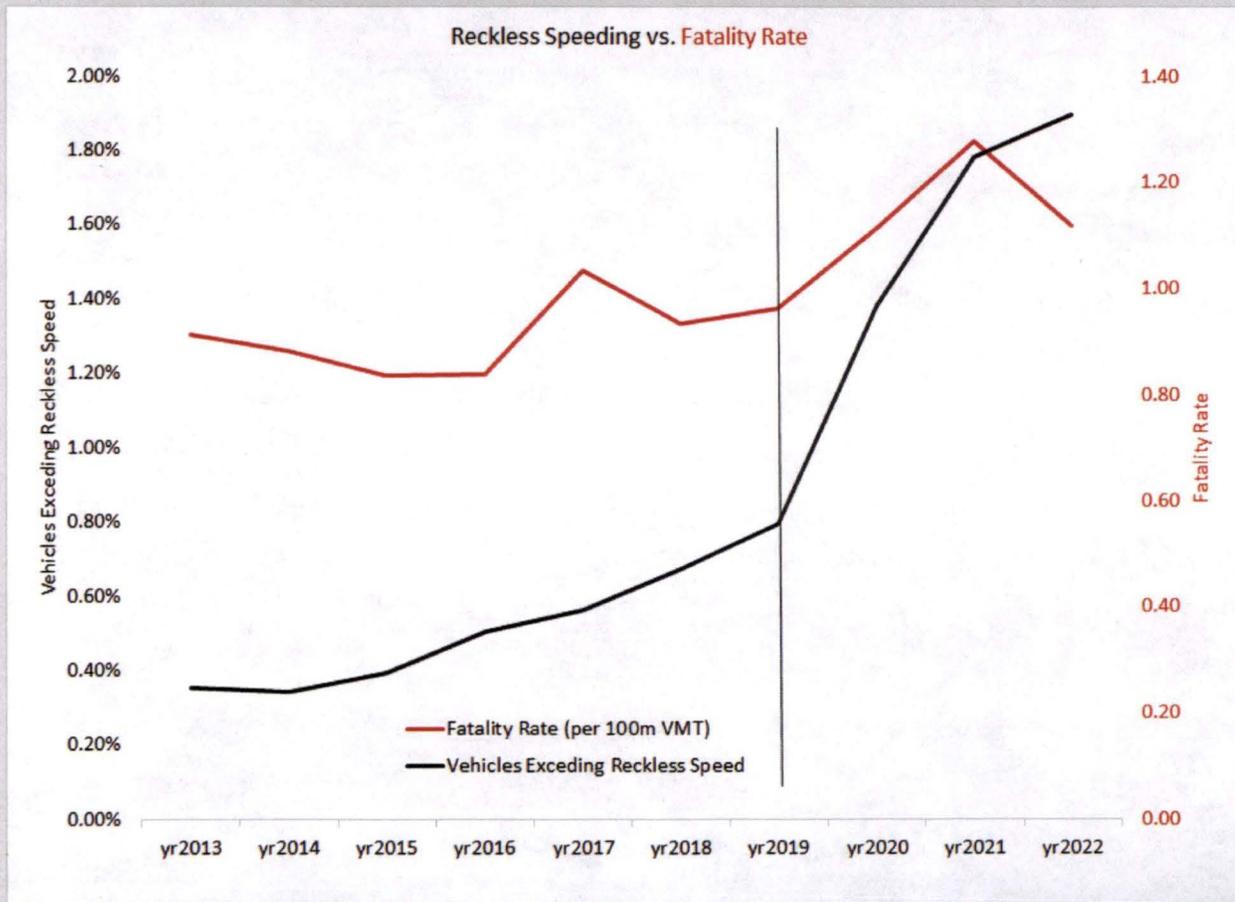
- Alcohol
- Distracted driving
- Seat belt usage
- Speed
 - [Again, to save time, today I'm showing only the most significant: speed]

RECKLESS SPEEDING



Reckless speeding (basically driving 20+ mph over speed limit) increased five-fold over the study period, **dramatically since Covid.**

RECKLESS SPEEDING VS FATALITY RATE

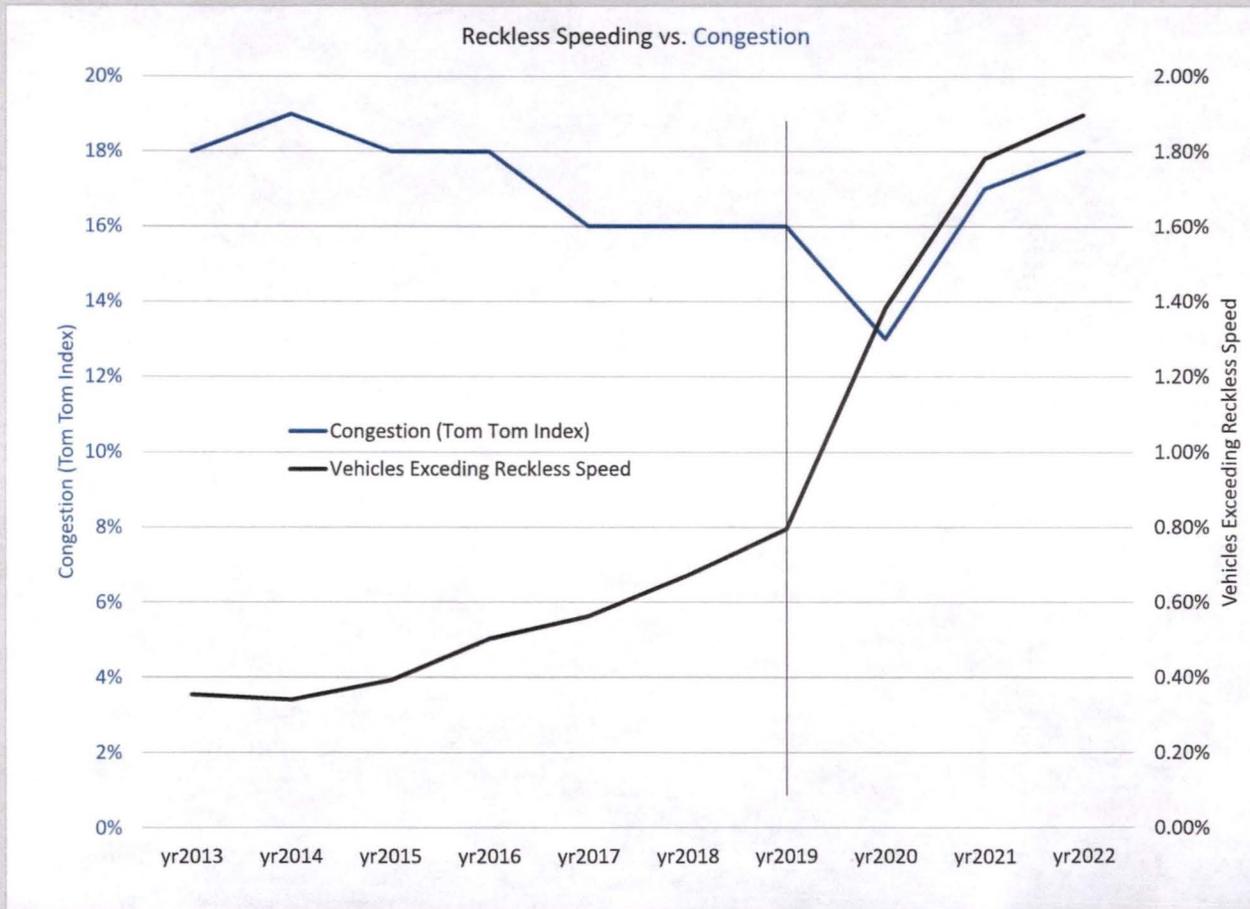


The increase in **speeding** may explain the increase in **fatality rate**.

What caused speeding to increase?

RECKLESS SPEEDING VS. CONGESTION

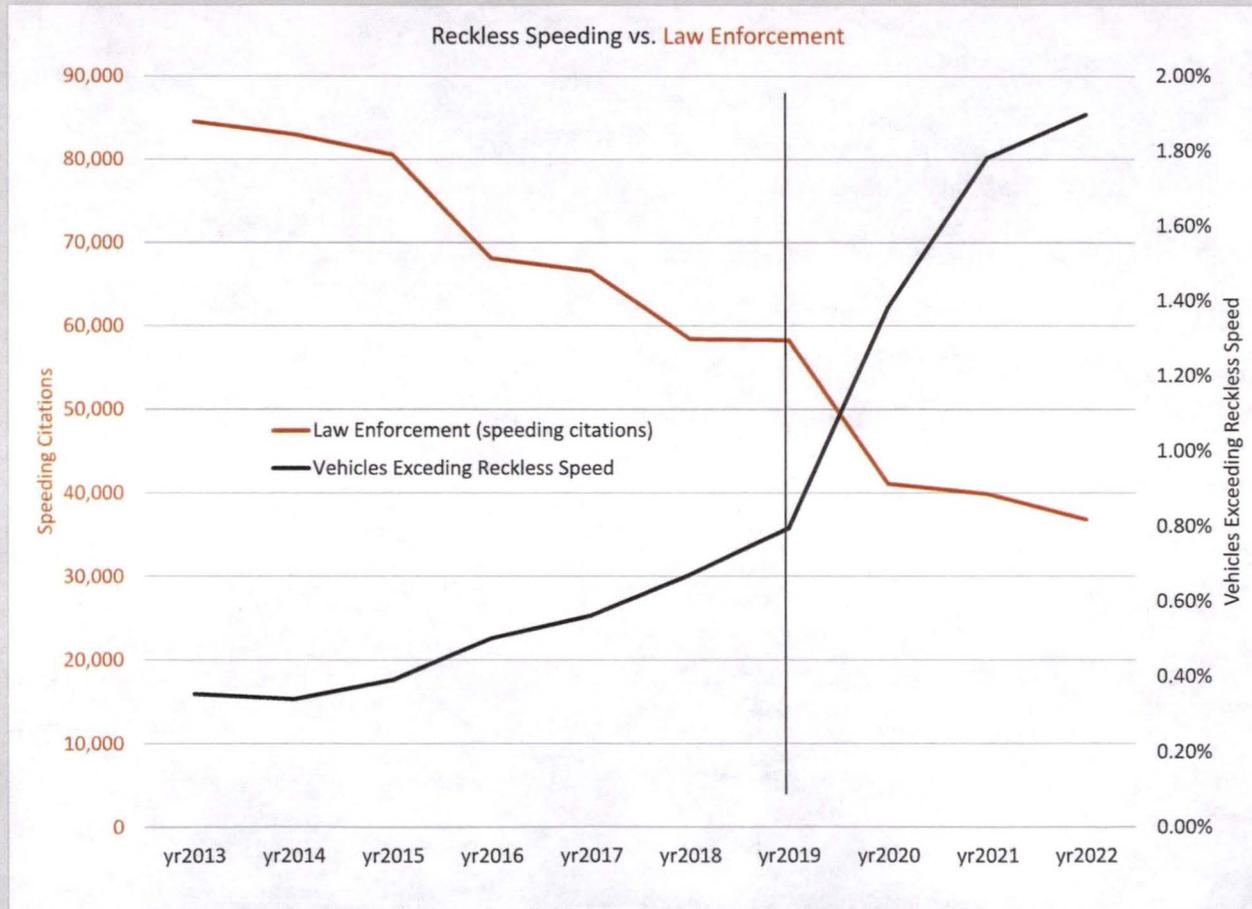
Some have postulated that speeds increased during COVID due to **lower congestion...**



...**but** reckless speeding increased in 2021 and 2022 as congestion returned to normal.

So reduced congestion **does not** appear to explain the increase in reckless speeding.

RECKLESS SPEEDING VS. LAW ENFORCEMENT



As speed enforcement was halved, reckless speeding increased five-fold.

Both logic and the mirror-like nature of the data indicate that the decrease in **enforcement** is likely the **primary cause** of the increase in reckless speeding.

FATALITY INCREASE FACTORS SUMMARY

- In Hampton Roads, the motor-vehicle-related fatality rate has increased over the past 10 years.
- Having examine several possible causal factors, it appears that an increase in speeding is the main factor in the increased fatality rate.
- In turn, it appears that a decrease in speeding enforcement explains the increase in speeding.
- Therefore, it appears that the decrease in speeding enforcement caused some of the increase in motor-vehicle-related fatality rates.

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REGIONAL SAFETY STUDY
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