



# Stakeholder Engagement

June 28, 2021



# Meeting Agenda



- Welcome & Introduction
- Project Background Information
- Crash Data Analysis Findings & Discussion
- Road User Analysis Findings & Discussion
- Next Steps: Formative Research
- Partner Engagement



# Florida Strategic Highway Safety Plan



## VITAL FEW



LANE DEPARTURES



PEDESTRIANS  
AND BICYCLISTS



INTERSECTIONS

# Intersection Crashes: What Behaviors West Florida (2015 and 2020)



**34%** of intersection crashes involved  
**A FAILURE TO YIELD RIGHT-OF-WAY**



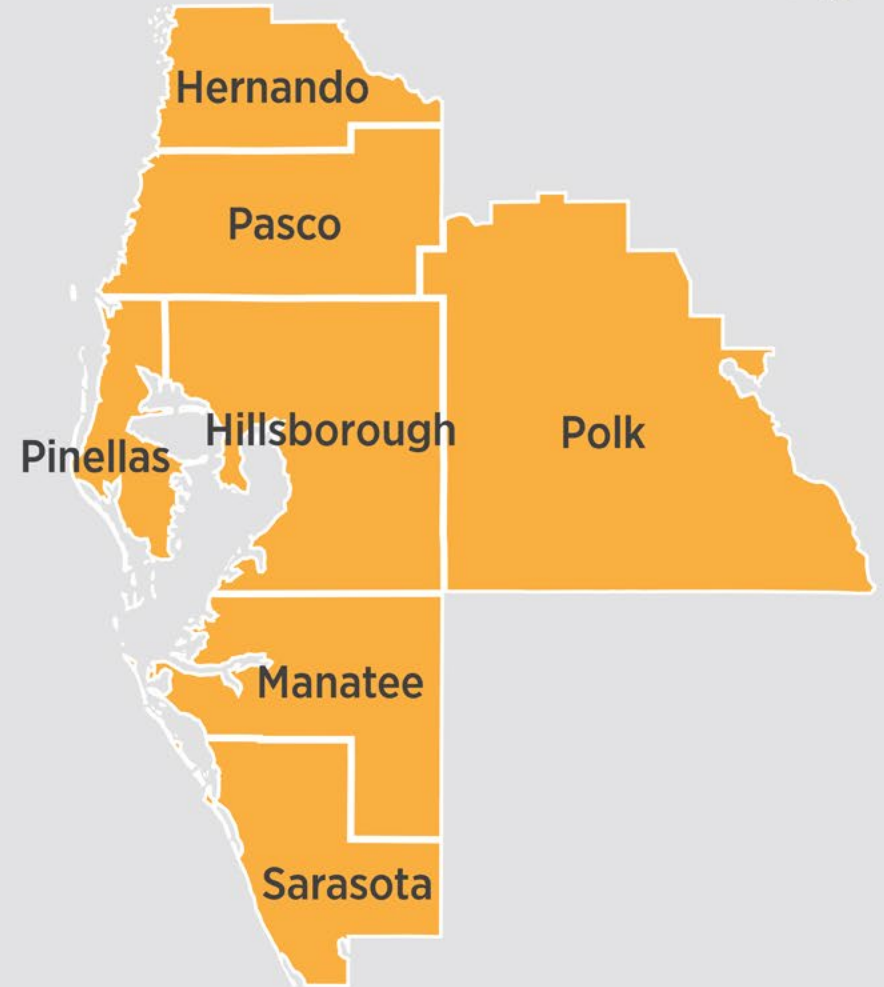
**25%** of intersection crashes involved  
**CARELESS OR NEGLIGENT DRIVING**



**14%** of intersection crashes involved  
**RUNNING A RED LIGHT OR STOP SIGN**



**14%** of drivers  
**WERE DISTRACTED**



# Statewide Crash Statistics (2015 and 2020)



VITAL FEW



Total Crashes

**15,666** **94,373**

FATALITIES

SERIOUS  
INJURIES

Statewide Intersection Crashes

**4,995** **38,667**

FATALITIES

SERIOUS  
INJURIES

## West Florida

7 OF THE TOP 20 COUNTIES FOR INTERSECTION  
CRASHES ARE IN THE WEST FLORIDA REGION



**1,206**

FATALITIES  
(**22%** OF INTERSECTION  
CRASHES)

**12,624**

SERIOUS INJURIES  
(**34%** OF INTERSECTION  
CRASHES)

# Intersection Crashes: Who, Where and When West Florida (2015 and 2020)



**38%** involved drivers  
**BETWEEN 18 AND 34 YEARS OLD**



## Up & Coming Families

New families in new housing subdivisions.

**58%** involved  
**MALE DRIVERS**



## Down the Road

Family market, primarily married couples or single-parent households.

**46%** occurred in **SUBURBAN COMMERCIAL  
OR SUBURBAN RESIDENTIAL AREAS**



## American Dreamers

Married couples with children of all ages or single parents; multigenerational homes.

**80%** occurred on  
**4- AND 6-LANE ROADS**



## Rustbelt Traditions

Married-couple families, most without children; high proportion of singles.

**29%** occurred during  
**EVENING RUSH HOUR (3-7PM)**





## Modest Income Homes

Single person or single parent; multigenerational families are also present.


# Influencing Safe Behavior

The 2021 Strategic Highway Safety Plan (SHSP) acknowledges **crashes rarely have a single contributing factor**. The plan outlines strategies to address high-priority issues facing the transportation system, including:

## Roadways:

- Lane departures; and 
- Intersections. 

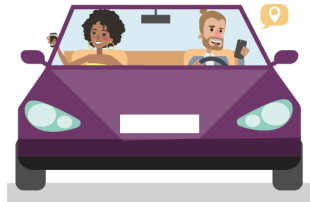
## Road Users:

- Pedestrian and bicyclist safety; 
- Aging road users;
- Motorcyclists and motor scooter riders;
- Commercial motor vehicle operators; and
- Teen drivers.

## User Behavior:

- Impaired driving;
- Occupant protection;
- Speeding and aggressive driving; and
- Distracted driving.

## On Florida Roads ...



**94%**

of crashes nationally involve driver behavior as a contributing factor



Daily Serious Injuries

... but even one life lost is too many.



# FDOT's Vital Few safety focus areas include:



**LANE  
DEPARTURE**



**PEDESTRIAN/  
BICYCLIST**



**INTERSECTION  
CRASHES**

---

which represent:

**9 out of 10**  
FATAL CRASHES

**3 out of 4**  
INJURY CRASHES IN FLORIDA

Identify behaviors **contributing to**  
serious and fatal crashes,  
and the **reasons for those behaviors.**

Influence safe behavior.

# Intersection Crashes: Behaviors and Traffic Stops



- Top driver behaviors in **crashes**
  - Failure to yield right of way
  - Operated a motor vehicle in a careless or negligent manner
- Top vehicular movements preceding a **crash**
  - Straight ahead
  - Left turn
- Top related **traffic stop** causes
  - Speed
  - Violation of traffic control device
  - Following too closely
  - Violation of right of way
  - Careless driving



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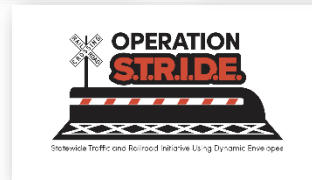
What behaviors by roadway user contribute to crashes in the  
Vital Few focus areas?

 Start presenting to display the poll results on this slide.

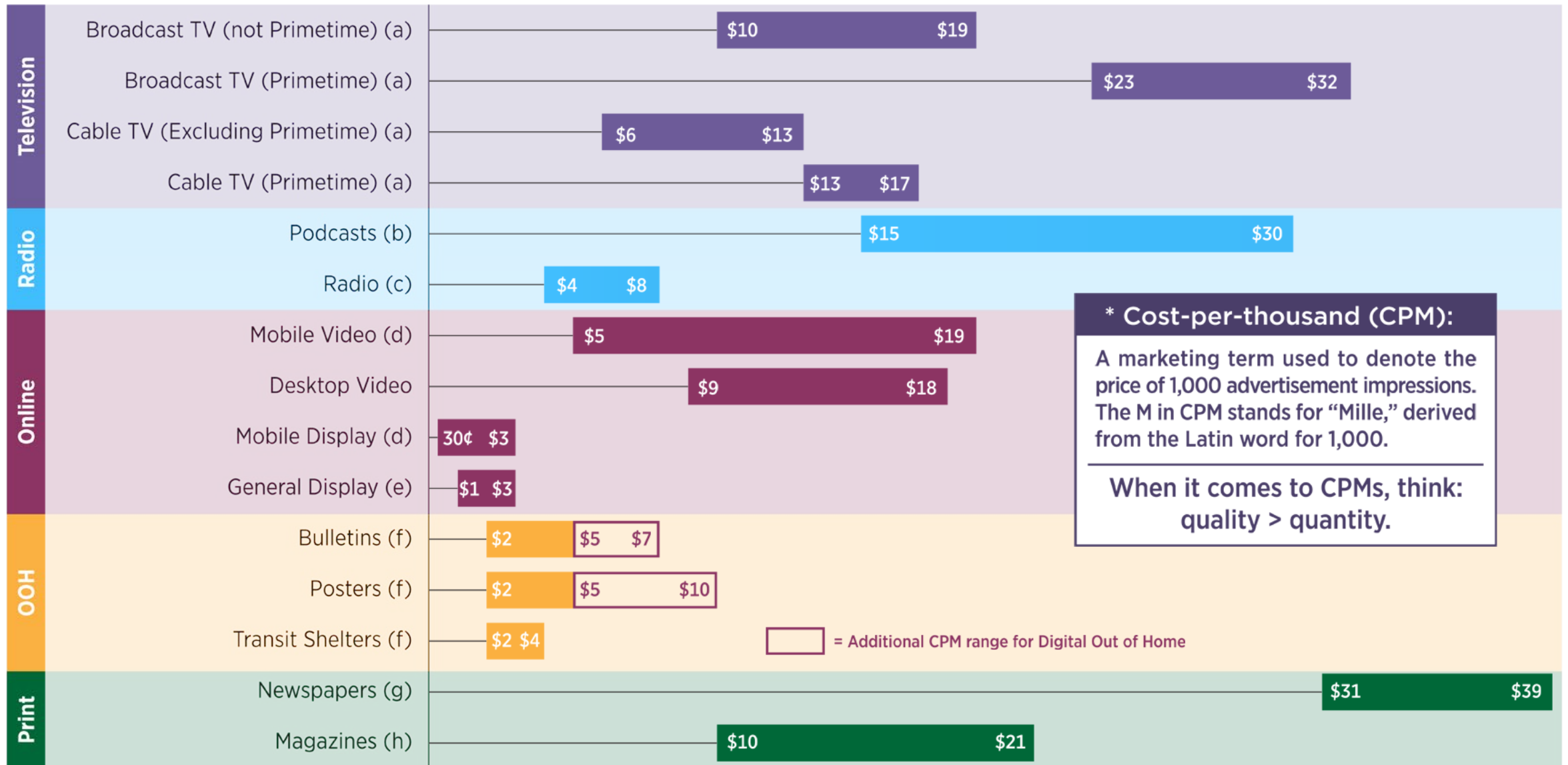


# Background Information

# Evaluation of Existing Florida Safety Campaigns



# US MAJOR MEDIA CPM\* COMPARISON

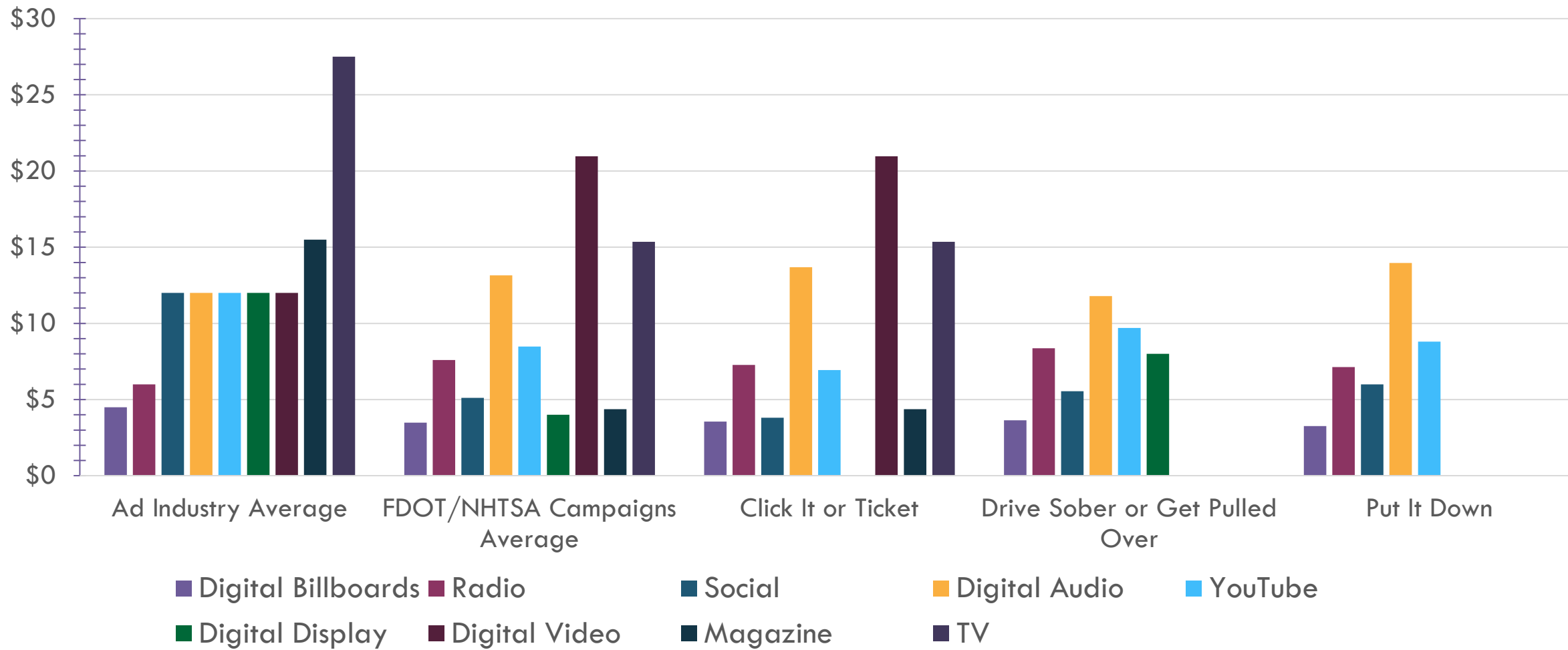


Source: Estimates as of November 2020 based on SEC filings, news, research and other industry sources.

- (a) 30-second advertisement.
- (b) 10- to 60-second advertisements. Includes both pre-roll and mid-roll advertising.
- (c) 30-second advertisement. Includes both spot and network.
- (d) Dataset includes mobile web, phone and tablet for both Android and iPhone.

- (e) 300x250 banner ads.
- (f) Calculated using SQAD reporting from OOH media companies.
- (g) 1/2 page ad pre-discount. Calculated using estimated readership.
- (h) Full-page color ad. Calculated using estimated readership.

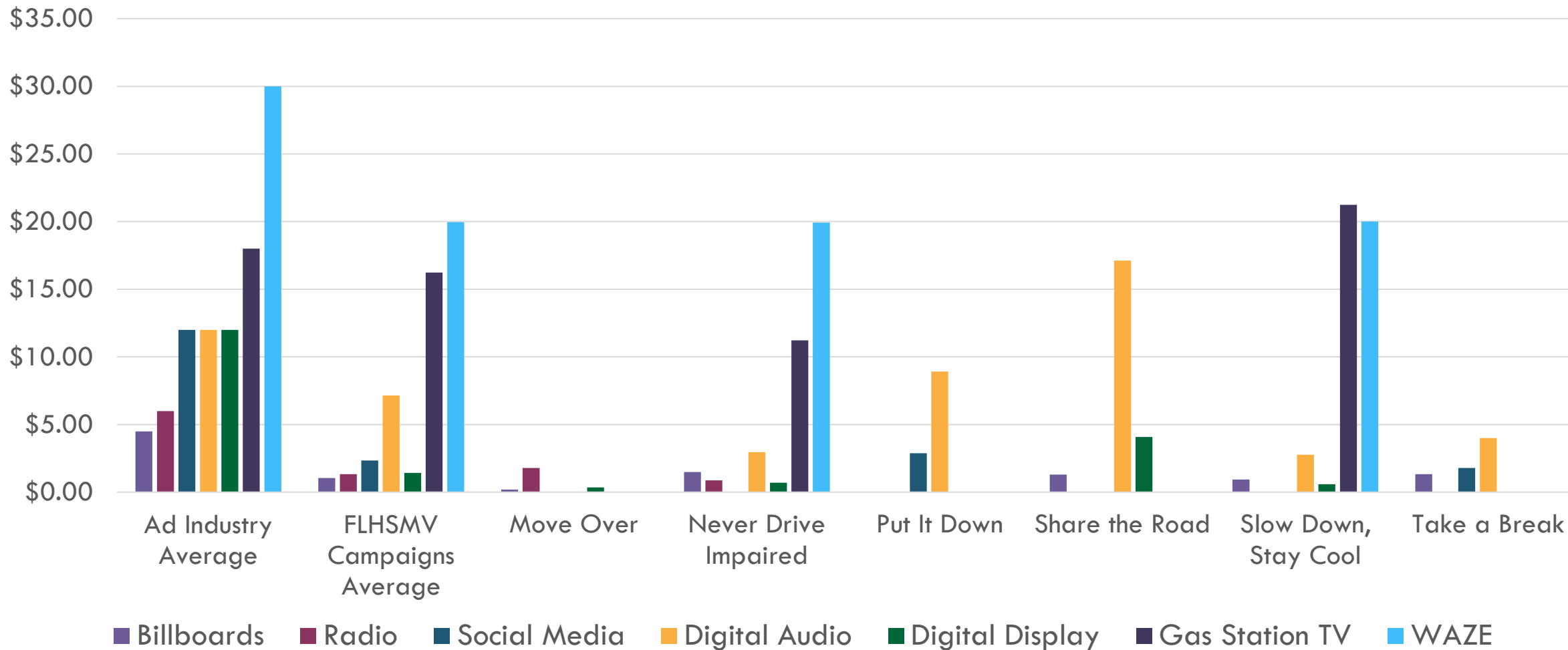
# FDOT/NHTSA Safety Campaign Cost of Impressions (Output)



\* Based on an average of 2019 and 2020 paid media buys



# FLHSMV Safety Campaign Cost of Impressions (Output)



\* Based on an average of 2018 and 2019 paid media buys

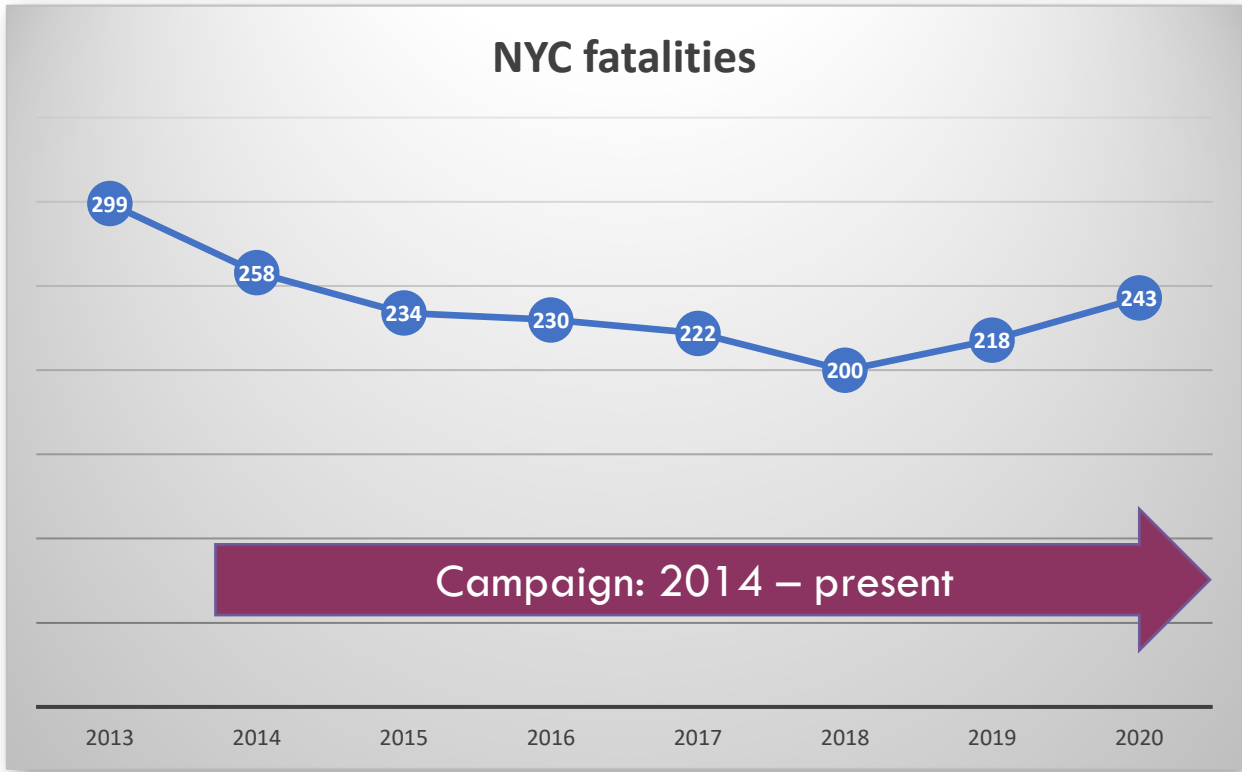
# Industry Scan: Measure of Effectiveness (Outcome)



Minnesota fatalities



# Industry Scan: Measure of Effectiveness (Outcome)



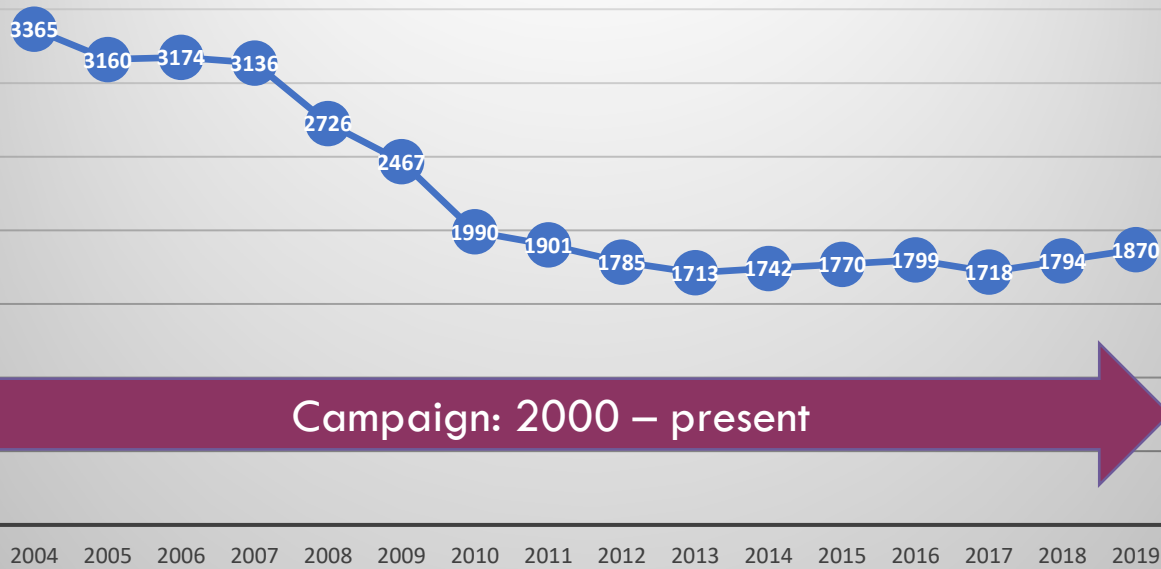
## VISION ZERO



# Industry Scan: Measure of Effectiveness (Outcome)

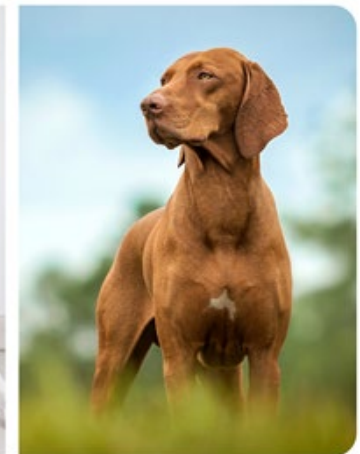


### Great Britain fatalities



Drivers who rush when they're 10 minutes late for their shift

Drivers who stay in control and watch their speed



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What strategies have you used to successfully change road user behavior?

 Start presenting to display the poll results on this slide.

# Literature Review Methodology



- Two literature reviews
  - Market segment techniques to identify risk behaviors and audiences
  - Campaign performance metrics and evaluation
- Inclusion criteria
  - Material from last five years
  - U.S.-based and international studies
  - Methodological approaches that establish causality
- Databases searched
  - TRB's Transport Research International Documentation (TRID)
  - United States National Library of Medicine's PubMed and MEDLINE
  - Cumulative Index to Nursing & Allied Health Literature (CINAHL)
  - American Psychological Association's PsycINFO
- Posted inquiries to professional listservs

# Literature Review Search Terms



# Literature Review: Key Findings



1. The best information for narrowing down target audiences comes from a combination of:
  - Age range
  - Driver trips
  - Driver experience and confidence
  - Emotional state
  - Motivations
  - Situational factors
  - Environmental factors
  - Social factors
2. For studies that focus on the driver's ability or skill, demographic and geographic data are more relevant for segmenting audiences.
3. For studies that focus on driver behavior, behavioral data and psychographic data are more relevant for segmenting audiences.





# Literature Review: Key Findings

4. Studies which rely on data variables to understand driving risk generally control for bias and analyze data across multiple factors:
  - Gender
  - Age
  - Income
  - Education
  - ZIP code, etc.
5. Papers that looked at age and gender as a determinant found that drivers from different ages or genders can have the same risk of crash on similar factors, but not by their gender or age alone. For example, regardless of age, drivers with low confidence drive more cautiously.



# Young Drivers

- When targeting young drivers or teen drivers, many studies have broken down the age groups further because of cognitive growth or changes among and rapid increase in experience.
- All drivers, but more so young drivers, decreased their risk to crash when exposed to relaxing positive affect.
- Young drivers who felt positively (positive affect) about driving were at an increased risk of driving dangerously.
- All drivers exposed to negative affect increased their risk to crash.

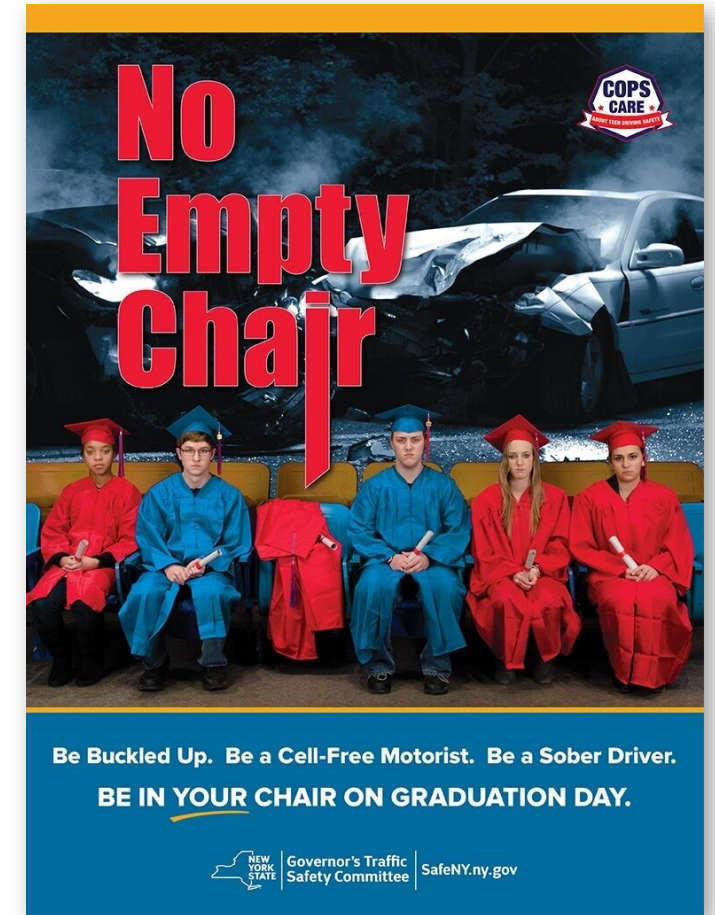


Figure 3 — No Empty Chair campaign, New York, 2021

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What area of the state has the most crashes in the Vital Few focus areas?

 Start presenting to display the poll results on this slide.



# Crash Data Analysis Findings

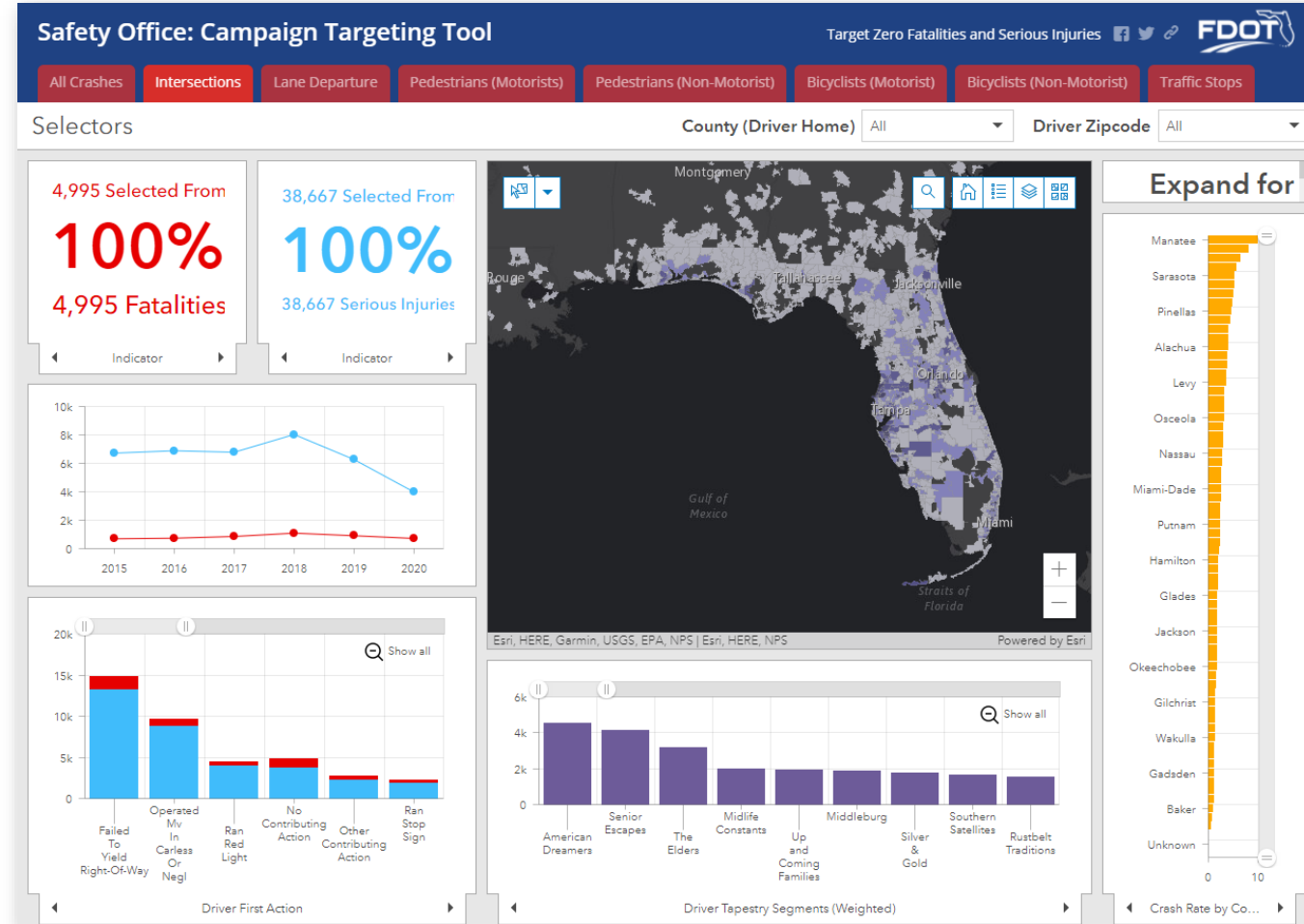
Statistics shown in the following slides are for fatalities and serious injuries that resulted from traffic crashes.

Weighted severity (2 x fatalities + serious injuries) is used to emphasize fatalities as more severe than serious injuries.

# Analysis Process


## Identifying the audience

- Analyzing source data
  - Signal Four database
  - CARS database
  - SSOGIS database
- Narrowing down the target audience
  - Area of the state
  - Demographics
    - Age
    - Gender
    - Home ZIP Code
- Roadway user behaviors and traffic stops



# Fatalities and Serious Injuries by Crash Type (2015 – 2020)

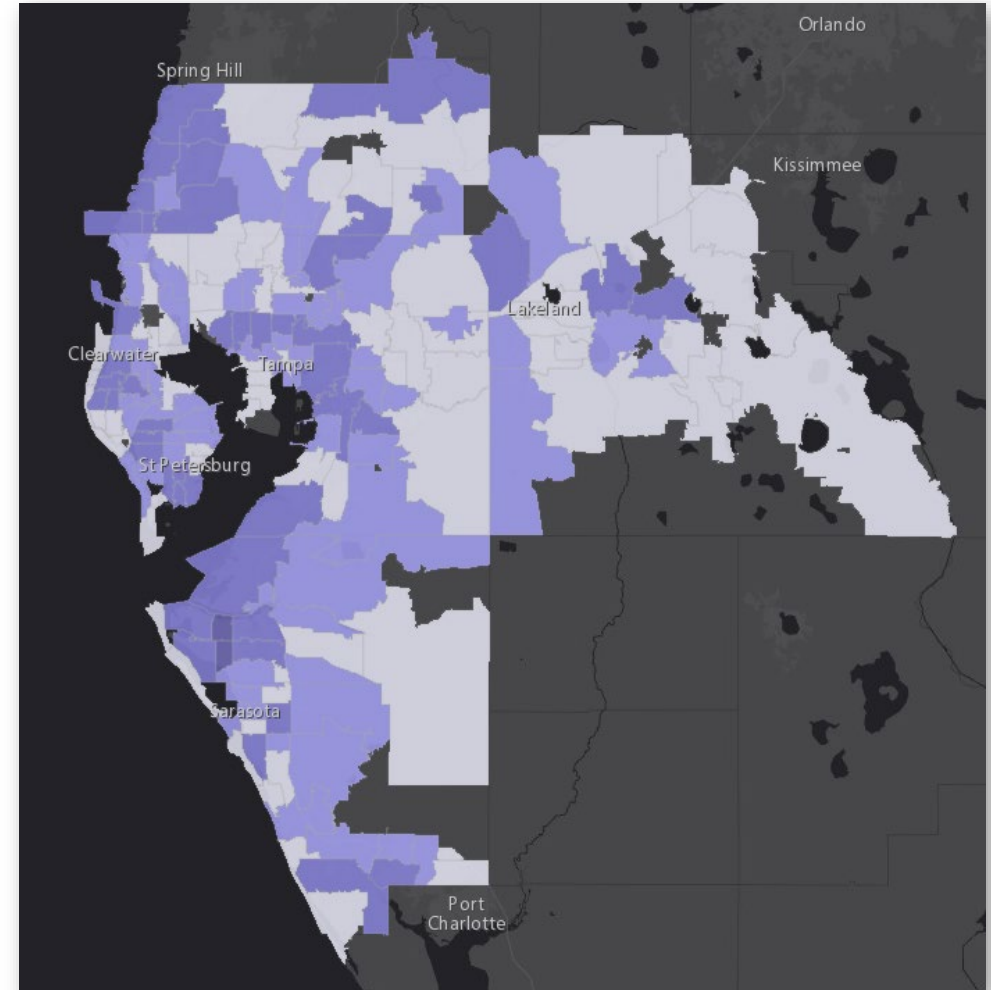


Crash Type		# Fatalities	# Serious Injuries	Total
All Crash Types		15,666	94,373	<b>110,039</b>
 <b>VITAL FEW</b>	Intersection	4,995	38,667	<b>43,662</b>
	Lane Departure	6,847	30,101	<b>36,948</b>
	Pedestrian	3,533	6,533	<b>10,066</b>
	Bicyclist	748	3,997	<b>4,745</b>

# Bicyclist (Motorist Action) Target Market



- Tampa Bay market area
  - Pinellas
  - Hillsborough
  - Pasco
  - Manatee
  - Sarasota
  - Polk
- 1,420 *weighted severity*
  - 2 x *Fatal + Serious Injuries*

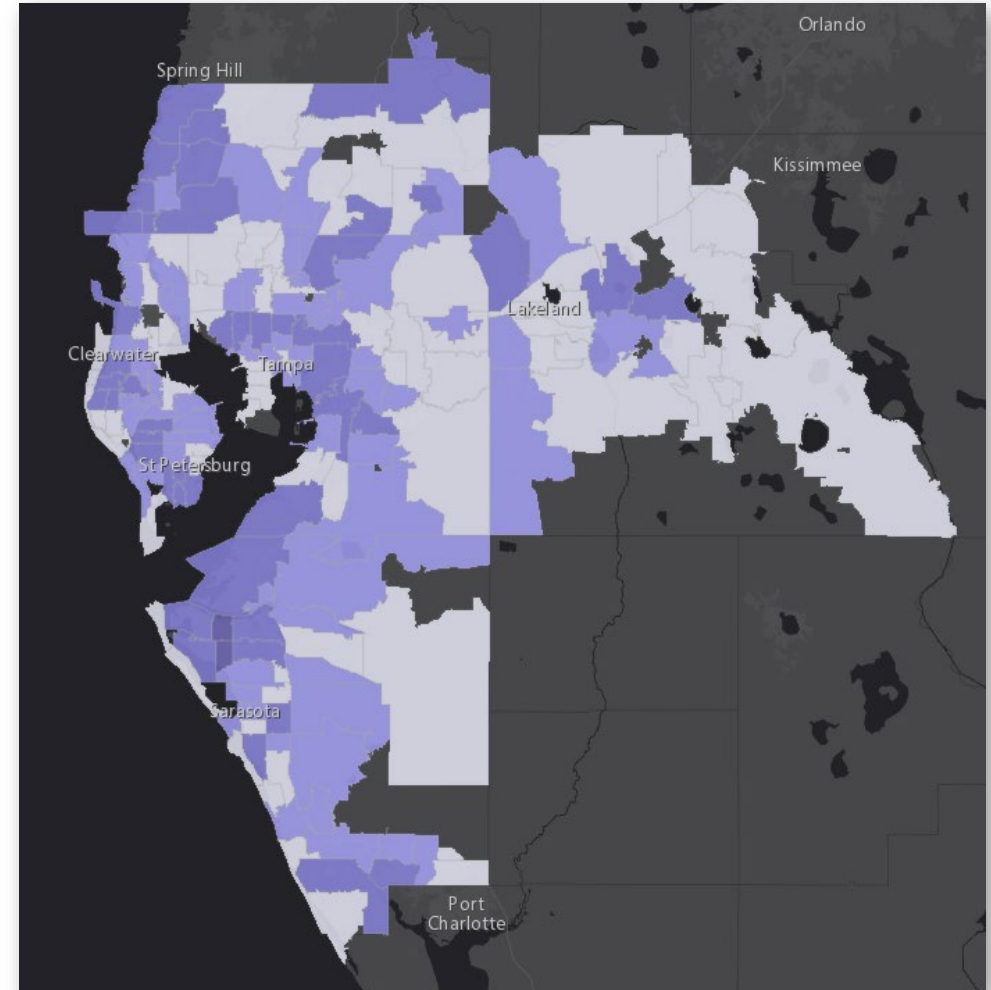




# Bicyclist Target Market



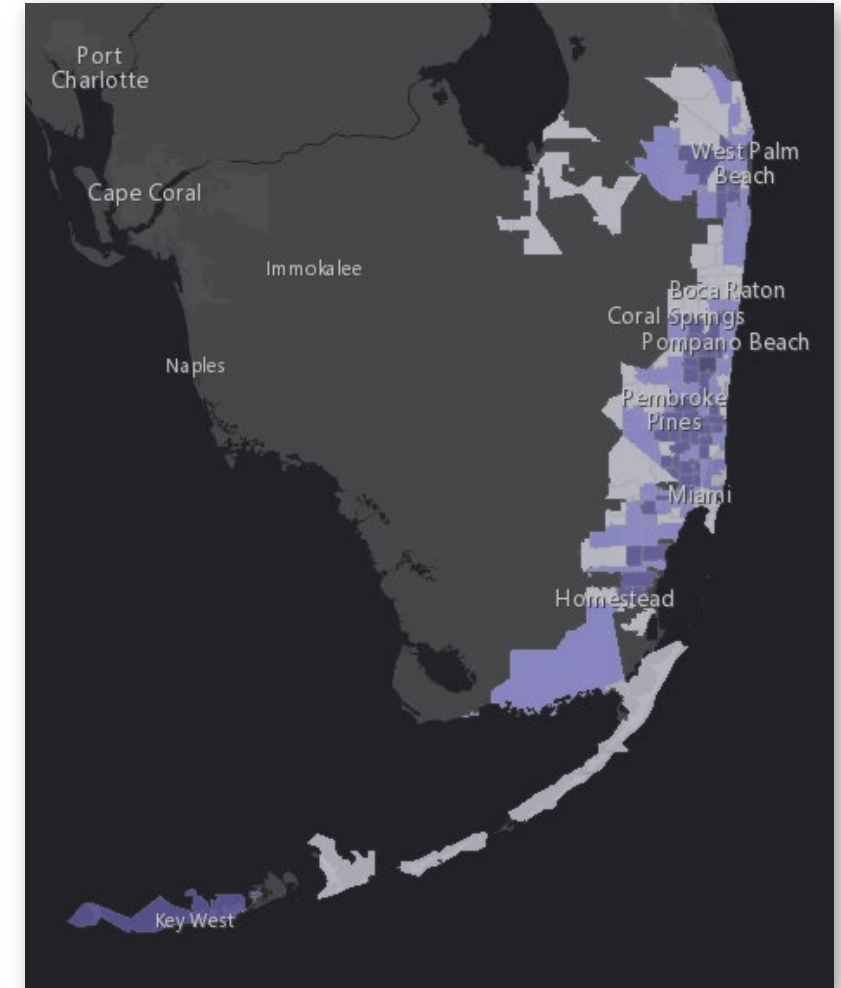
- Tampa Bay market area
  - Pinellas
  - Hillsborough
  - Pasco
  - Manatee
  - Sarasota
  - Polk
- 1,570 *weighted severity*
  - 2 x *Fatal + Serious Injuries*
- 38 bicycle violation traffic stops, 2015 – 2020



# Pedestrian (Motorist Action) Target Market



- South Florida area
  - Miami-Dade
  - Broward
  - Palm Beach
  - Monroe\*
- 3,446 weighted severity
  - 2 x *Fatal + Serious Injuries*

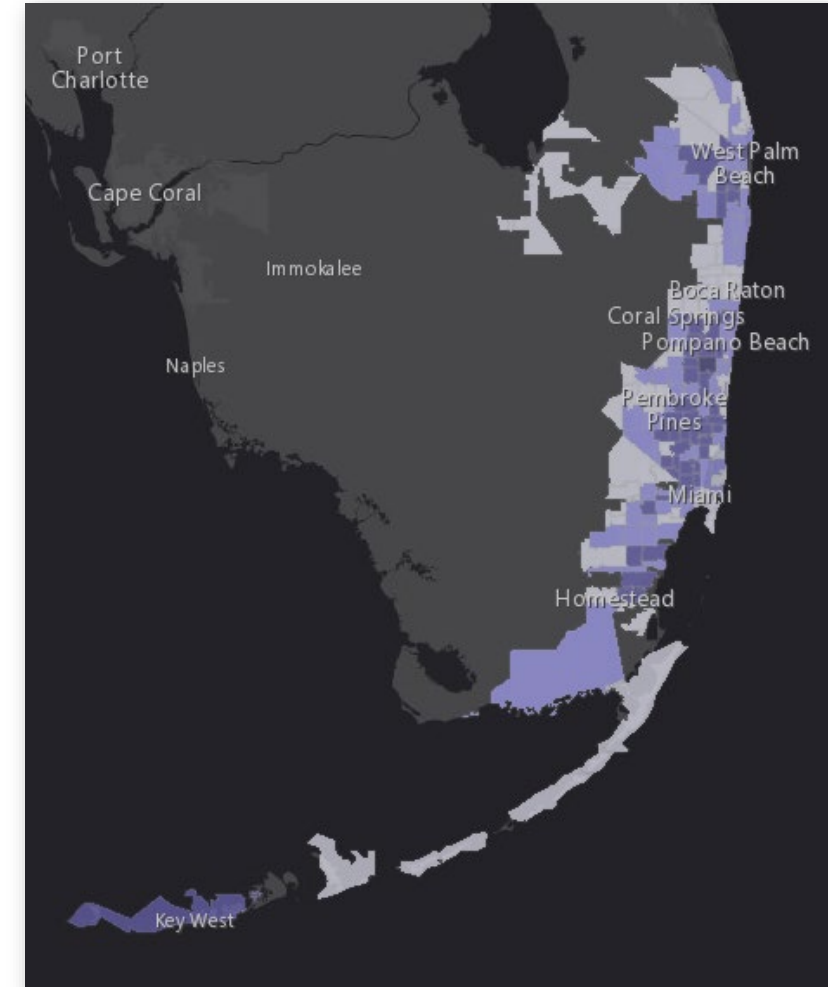


\*Added due to number of crashes in Key West and proximity to South Florida markets.

# Pedestrian Target Market



- South Florida area
  - Miami-Dade
  - Broward
  - Palm Beach
  - Monroe\*
- 3,719 weighted severity
  - 2 x *Fatal + Serious Injuries*

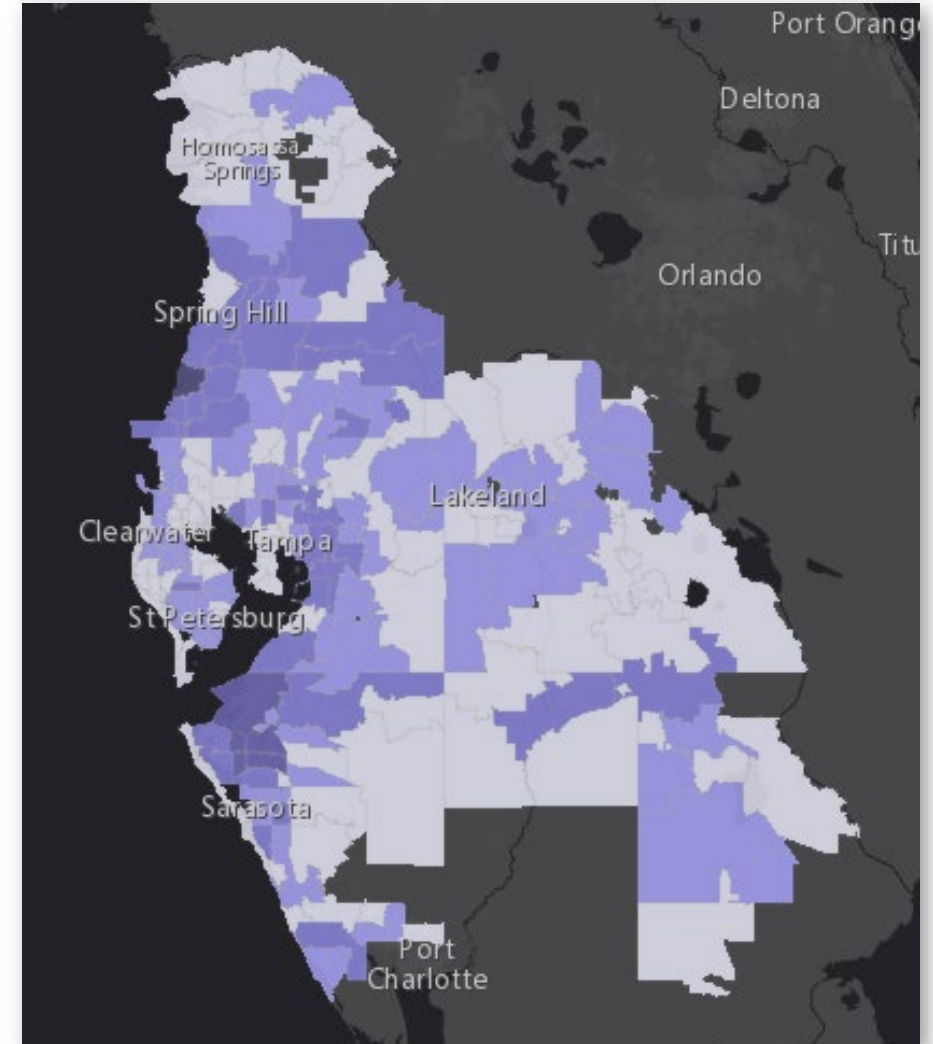


\*Added due to number of crashes in Key West and proximity to South Florida markets

# Lane Departure Target Market



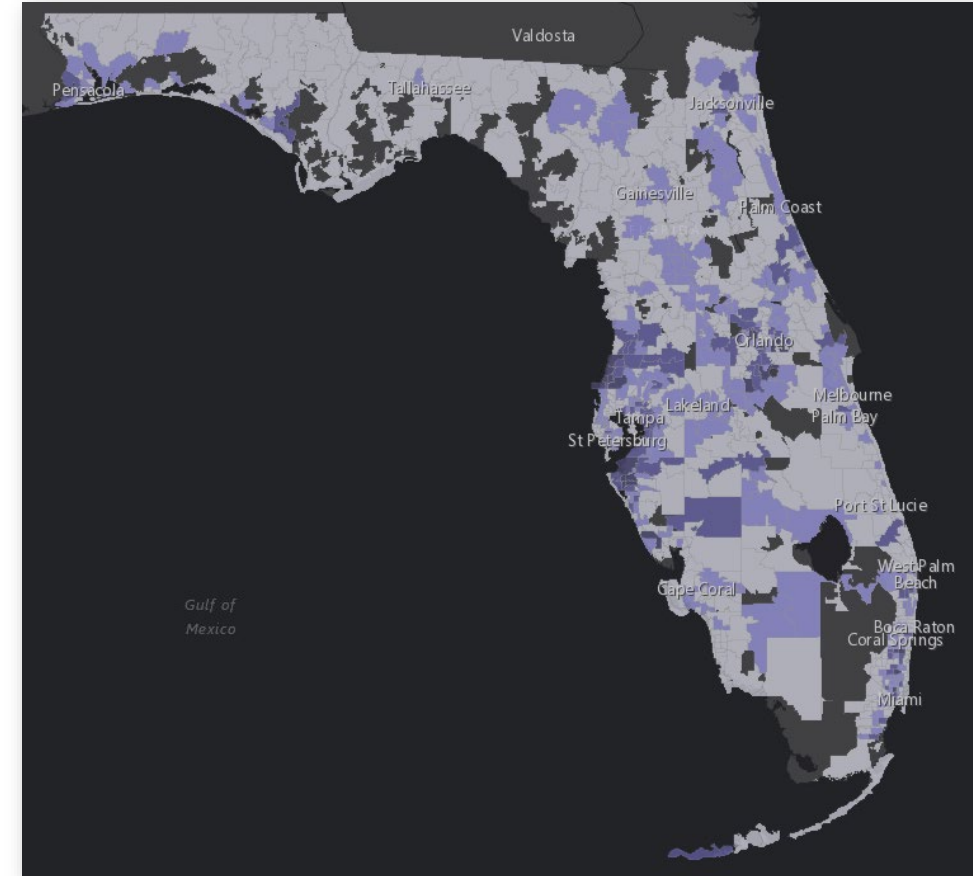
- Tampa Bay market area
  - Hillsborough
  - Pasco
  - Pinellas
  - Manatee
  - Polk
  - Sarasota
  - Hernando
  - Citrus
- 10,440 *weighted severity*
  - 2 x *Fatal + Serious Injuries*
- 1,598 improper lane change traffic stops
  - 2<sup>nd</sup> highest in the state, behind South Florida



# Intersection Crash Type Top 20 Counties by Region



Region	Counties	Weighted Severity
West Florida	Hillsborough, Pasco, Pinellas, Manatee, Sarasota, Polk, Hernando	15,036
South Florida	Miami-Dade, Broward, Palm Beach	9,569
Central Florida	Orange, Volusia, Brevard, Osceola, Lake	7,915
Big Bend	Marion, Alachua	1,740
Northeast Florida	Duval	1,546
Southwest Florida	Lee	1,330
Panhandle	Escambia	742

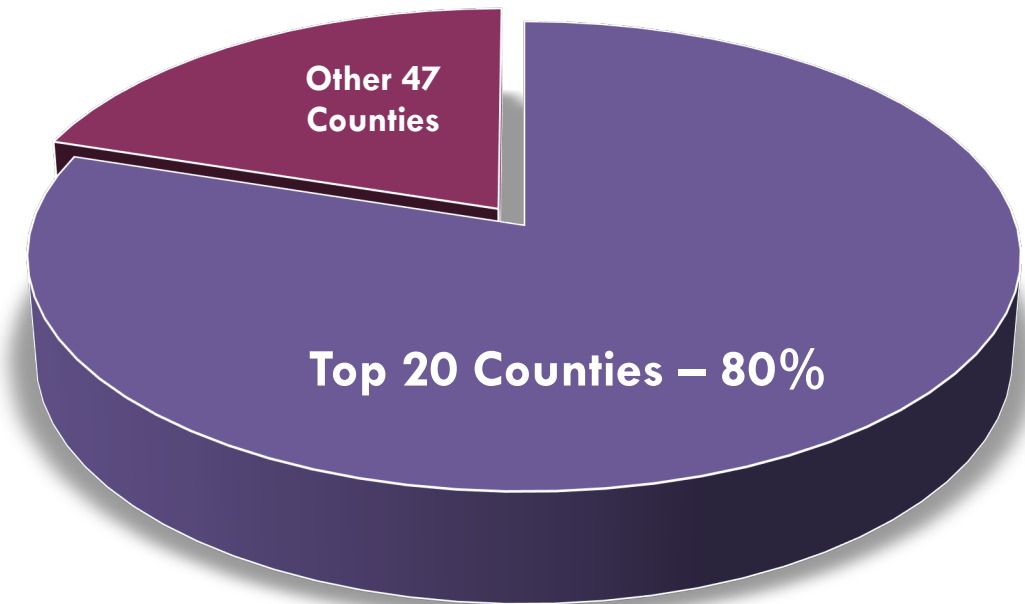


# Target Market for Intersection Crashes



Target market was determined by:

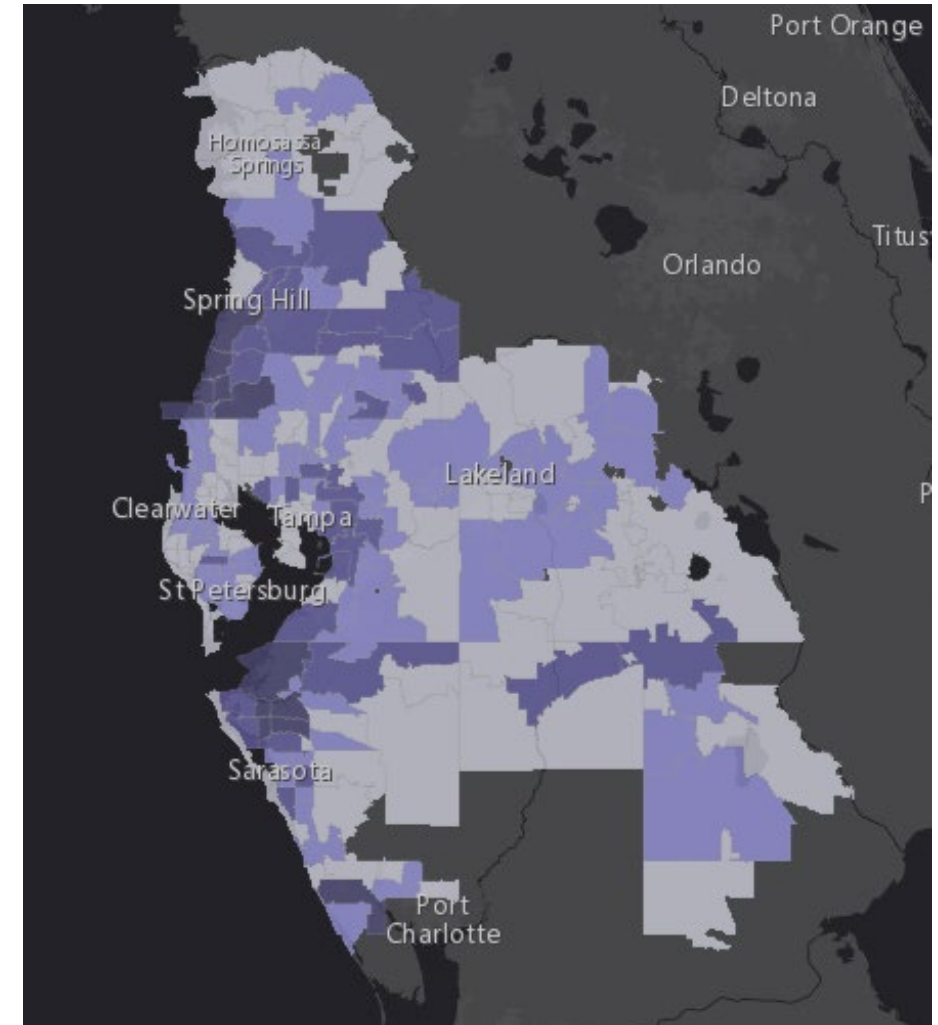
- Top 20 counties with the highest severity.
- Region with the most Top 20 counties and highest severity.
- **Note:** *Counties are where crash participants live, not necessarily where the crash happened. 33% of crashes happen outside the participant's home county.*



# Crash Location and Time

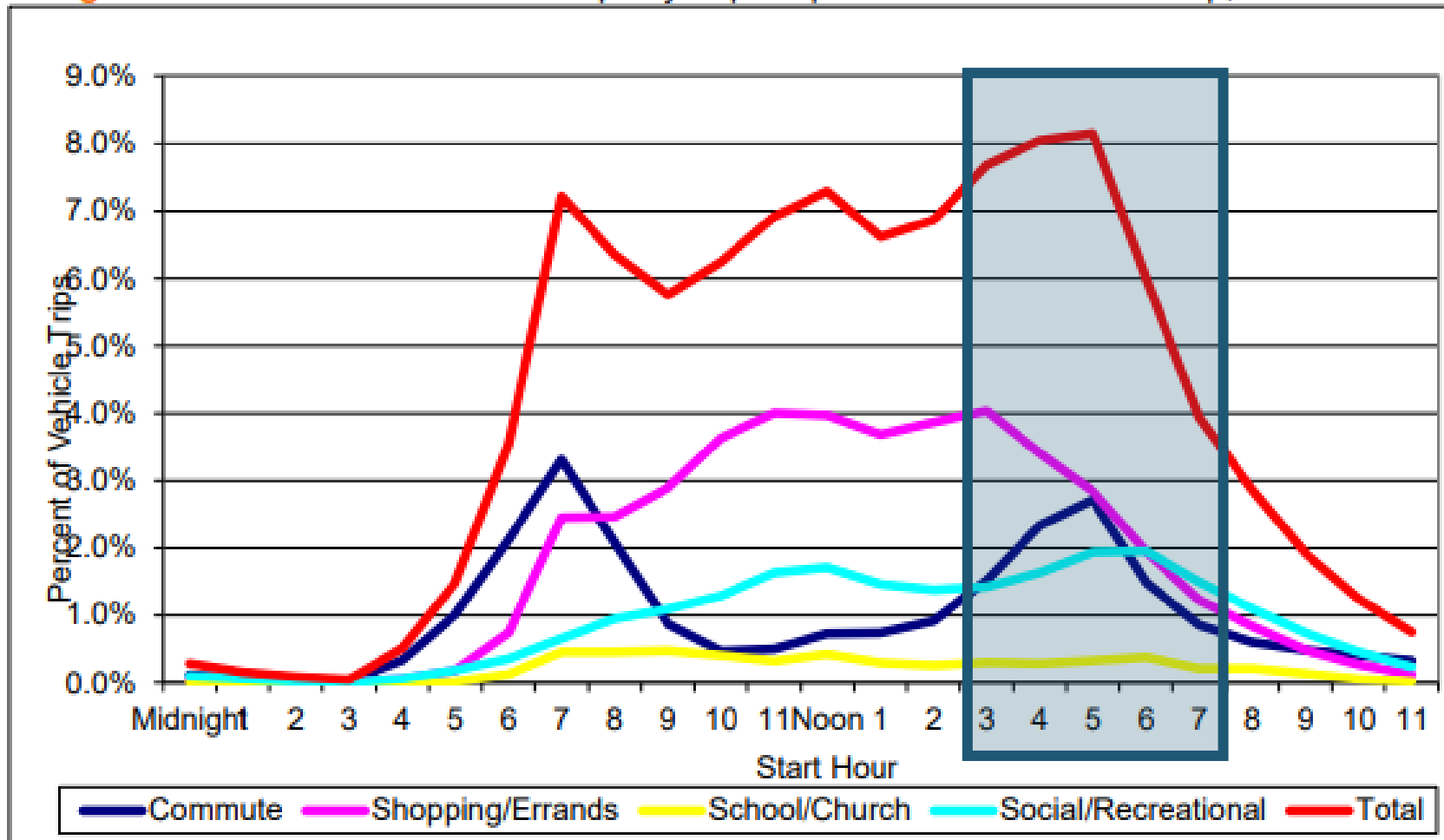


- 23% of fatalities and 19% of serious injuries happen outside driver's home county.
- 46% of fatalities and serious injuries occur in suburban commercial and suburban residential districts.
- 32% of fatalities and serious injuries occur during evening rush hour (3 – 7 p.m.).



# Trip Types: 3 – 7 p.m.

**Figure 15.** Distribution of Vehicle Trips by Trip Purpose and Start Time of Trip, 2017 NHTS





# Roadway User Behavior Discussion



The data presented so far shows a limited view of the serious injury and fatal crashes, especially in West Florida.

What is the data **not** telling us about those crashes?

- What does “careless and negligent driving” really mean?
- Why are crashes happening more often on 4- and 6-lane suburban commercial roads?
- Why are crashes happening more during afternoon rush hour than in the morning?
- Why are crashes happening more during snowbird season?
- What behavior would you change to reduce the number of severe intersection crashes?

# Listening Sessions



- Community Traffic Safety Teams (CTST)
  - Hillsborough County (suburban/urban)
  - Pasco County (suburban/rural)
- Florida Highway Patrol

# Behavioral Observations



- Increased traffic volumes during the afternoon rush hour and during the peak snowbird months makes drivers very frustrated.
- In the afternoons and during the holiday season, drivers are more distracted and are rushing to complete extra errands.
- **COVID effect:** Drivers could speed when there was less congestion on the roads. They are still speeding at very high rates despite increased traffic.
- Frustrated drivers tend to speed, tailgate, weave in and out of traffic lanes, are more likely to pull out in front of other drivers while turning, drive aggressively, and take more risks.
- Some drivers demonstrate a sense of entitlement on the roads and a lack of respect toward others.



# Road User Analysis

# Demographic Segments



## Up & Coming Families

- Careful shoppers, aware of prices, willing to shop around for the best deals and influenced by others' opinions
- Seek the latest and best in technology
- Drive late model SUVs or compact cars
- Busy with family and work
- Participate in leisure family activities, movies at home, and visits to theme parks, zoo and sports games

## Down the Road

- Family-oriented and outgoing consumers.
- Place a premium on convenience
- Used vehicles, self maintenance
- Enjoy ID, CMT, Hallmark
- Favor fast food burgers and pizza
- Frequent Walmart Supercenters, Walgreens, Dollar Stores, K-Mart and Big Lots for all shopping needs
- Listen to the radio at work

# Demographic Segments



## American Dreamers

- Spend money carefully, focusing on necessities
- Enjoy new technology and prefer cell phones over land lines
- Use internet for socializing and convenience
- Eat at fast food and family-friendly restaurants
- Watch Animal Planet, MTV, ABC Family Channel, Bravo and Nick Jr.

## Rustbelt Traditions

- Family oriented and enjoy time at home
- Budget shoppers favoring American made
- Read newspapers
- Watch TV as pastime including ABC Family Channel, A&E, TNT and children's networks
- Eat at Applebee's, Arby's and Texas Roadhouse
- Listen to classic rock radio stations

## Modest Income Homes

- Most households have one car (or no vehicle); nearly a third rely on car pooling, walking, biking or public transportation.
- This market lives for today, choosing to save only for a specific purpose.
- They favor TV as their media of choice and will purchase a product with a celebrity endorsement.
- Shop at warehouse clubs and low-cost retailers
- Unlikely to own credit card, pay bills in person

# Persona



- Name: Landon
- Age: 24
- Gender: Male
- Location: Brandon
- Income: \$28,000 annually
- Education: A.A. degree, general studies
- Housing: 2-bedroom apartment with roommate
- Career
  - Amazon driver
  - Ambitious and goal-oriented, working his way up
  - Considering being a YouTuber
- Activities and interests
  - Friend- and fun-oriented
  - Lives for today, not a big saver
  - Fast food and takeout/GrubHub
  - Recreational choice is basketball
  - Wants to meet girls
  - Beach, theme parks, clubs
- Media Consumption
  - Owns a smartphone
  - Multiple televisions, video games
  - YouTube and Hulu TV consumer, watches Twitch for hours
  - Music streamer, likes Kid Cudi, Lil Nas X, Masked Wolf
  - Social media user
  - Online shopper



# Partner Engagement & Discussion

# Partner Engagement



- **Vital Few focus area:** Intersection crashes
- **Target market:** West Florida
- **Target audience:** Males, 18 – 34
- **Primary roadway user behavior:** Careless or negligent driving, frustrated driving
- **Time of day:** 3 – 7 p.m.
- **Time of year:** October – April
- **Top Tapestry segment:** Up & Coming Families  
*New families in new housing subdivisions.*



# Next Steps

# Formative and Market Research



- Obtain more data from the target audience
  - Reasons for behaviors
  - Attitudes toward driving
  - Motivations to change behavior
  - Influencers
  - Risk acceptance/aversion
  - Decision making processes
- Focus Groups & Individual Interviews — in-person and virtual
  - Hold in counties with the highest number of road users involved in crashes
- Match demographics for English-speaking audience
- Bi-lingual focus groups for Hispanic population
- Surveys
  - Pre- and post-campaign to measure changes in attitude
  - Field surveys to observe any changes in driver behavior

# Focus Groups

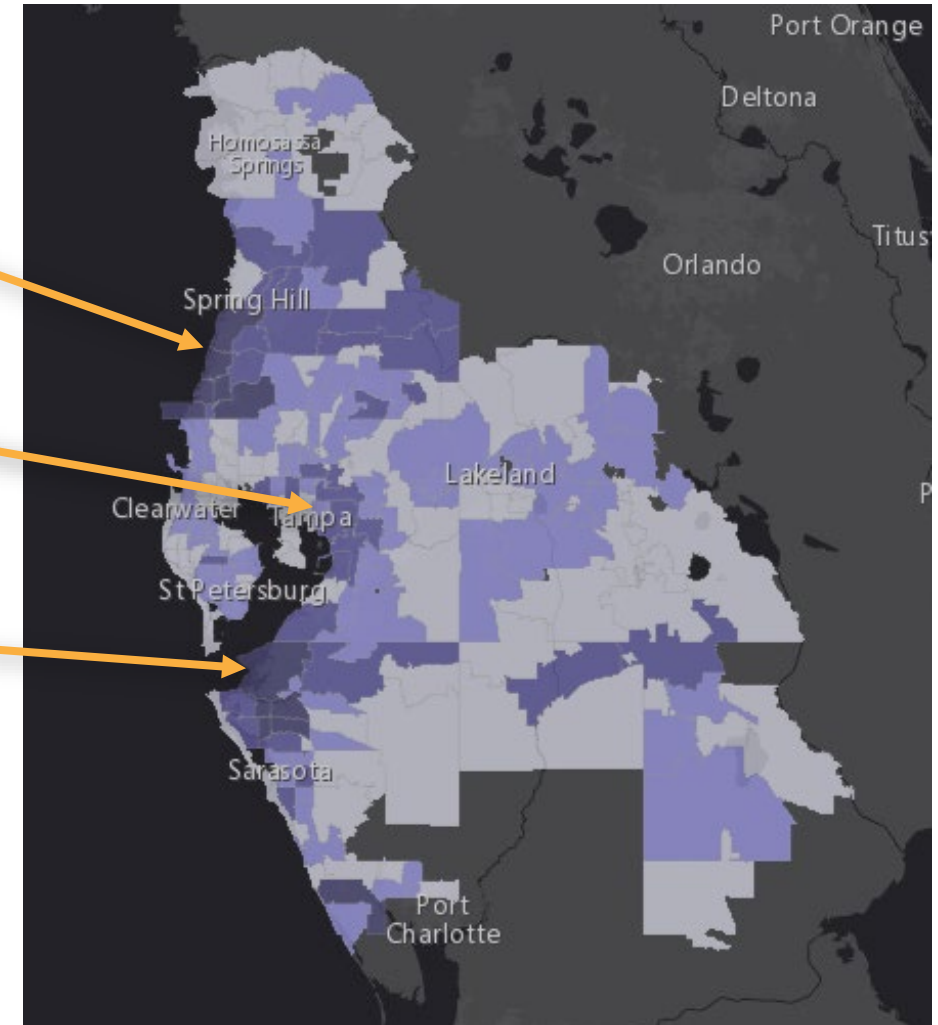


- Recruit members of the target audience
  - Age: 18 – 34
  - Gender: Male
  - ZIP codes with the densest population of crash-involved road users
  - Tapestry segments
- Done in-person or virtually
  - In-person: up to 10 people
  - Virtual: up to 7 people
- Qualitative research — seeks to answer “why?” and “how?”
  - Why do participants behavior certain ways?
  - How do we motivate you to change that behavior?
- Open-ended questions based on
  - Crash data analysis
  - Listening sessions
  - Tapestry data
  - Literature review

# Focus Group Planning



- Pasco County
  - Two English focus groups — virtual
- Hillsborough County
  - Two English focus groups — in-person
  - Two Spanish focus group — virtual
- Manatee County
  - Two English focus groups — in-person



# Potential Topics to Explore in Formative Research



1. How to make drivers consider the risks inherent in their behavior *while* they are driving
2. How to influence drivers' perception of risk
3. How much of a person's identity is captured as a driver, cyclist or pedestrian?
4. How do people feel about driving?
5. Does driving help a person relieve stress or is it an outlet for stress?
6. I see driving as:
  - A means to get around.
  - A mode of transportation.
  - A way to connect with friends.
7. How is culture influencing the target audience?

# Beyond Intersection Crashes



- In-depth analysis of pedestrian and bicyclist crashes
  - South Florida area: Palm Beach, Broward, Miami-Dade and Monroe counties
  - Includes target audience research
  - Deploy pedestrian and bicyclist campaign
  - Measure the output and outcomes of the campaign
- In-depth analysis of lane departure crashes
  - West Florida area
  - Includes target audience research
  - Deploy lane departure campaign
  - Measure the output and outcomes of the campaign

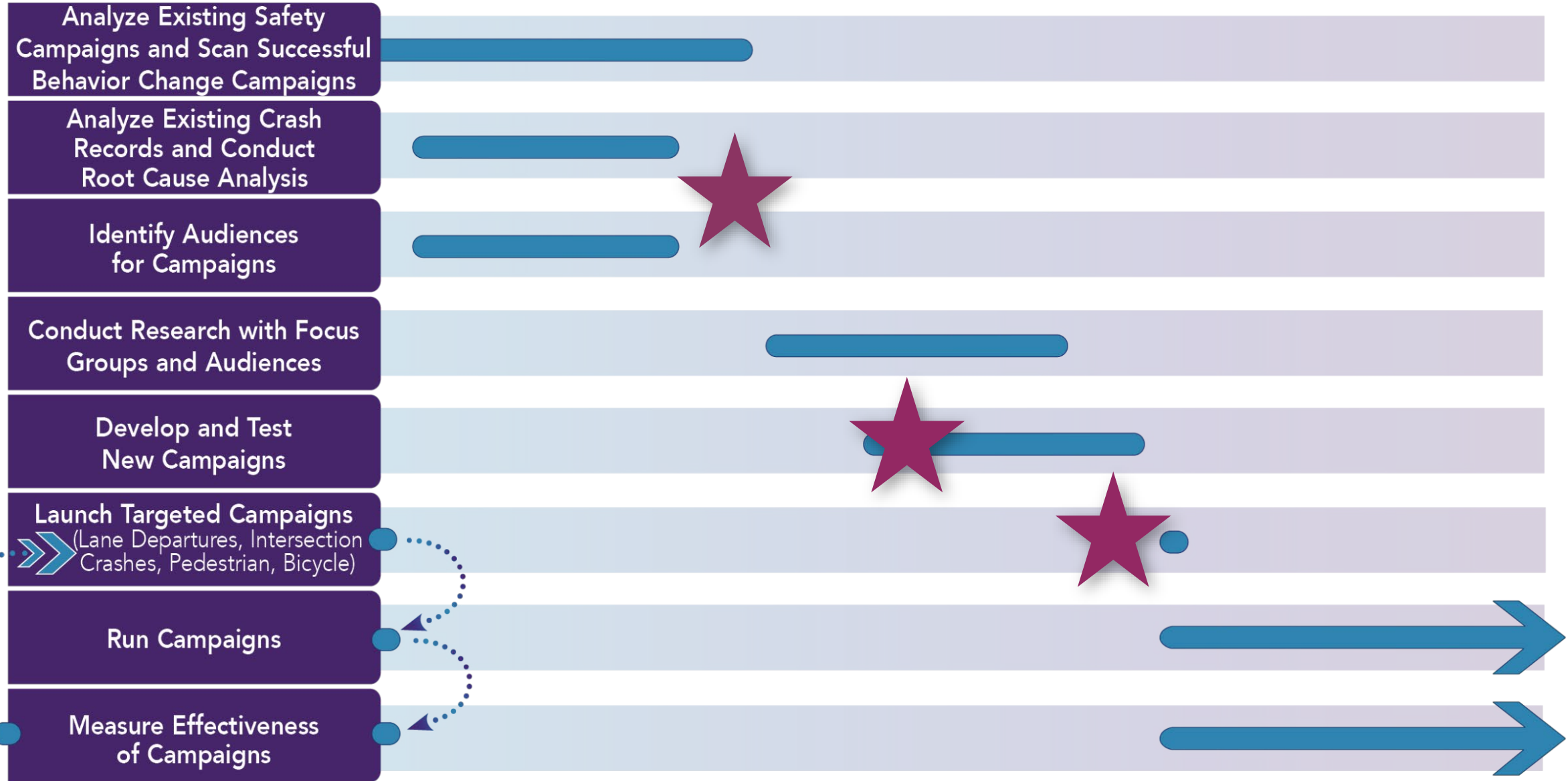


# SCHEDULE

2021

2022

MAR APR MAY JUN JUL AUG SEP OCT NOV DEC JAN →



# Slow Down, Stay Cool — Safe Summer Travel



## If you observe aggressive driving:

- Don't engage with the driver;
- Dial \*FHP (\*347) from your cell phone or 911 for local law enforcement;
- If possible, get the license plate and/or a brief description of the vehicle (color, type, doors, etc.); and
- Remember, there is nothing wrong with safely pulling over and allowing distance between you and the aggressive driver ... but think safety first always.



# FLHSMV

FLORIDA HIGHWAY SAFETY AND MOTOR VEHICLES

# Thank You!



**Brenda Young, P.E., CPM**

State Safety Engineer

Florida Department of Transportation

**Email:** [brenda.young@dot.state.fl.us](mailto:brenda.young@dot.state.fl.us)

*How May We Support You?*



<https://www.fdot.gov/safety/safetyengineering/safetyengineering.shtm>

