

TRANSPORTATION SYMPOSIUM

2019

Florida Strategic Highway Safety Plan

Joe Santos

Presentation

- Setting the stage
- Florida's Strategic Highway Safety Plan (SHSP) 2016 Update
 - What is the SHSP?
 - The SHSP Update
 - Crash Data for the SHSP
 - Implementation Efforts

Presentation

- **Setting the stage**
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Setting the stage

- Florida has had in place an SHSP since 2006. (2006, 2012, and 2016)
- Required as part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was signed into law on August 10, 2005, (Public Law 105-99) established the Highway Safety Improvement Program (HSIP) as a core Federal-aid program.
- The overall purpose of this program is to achieve a **significant reduction in traffic fatalities and serious injuries on all public roads** through the implementation of infrastructure-related highway safety improvements. SAFETEA-LU established extensive new resources and opportunities to advance highway safety throughout the country in a comprehensive, strategic manner.

Setting the stage

- The specific provisions pertaining to the HSIP, are defined in Section 1401 of SAFETEA-LU, which amended Section 148 of Title 23, *United States Code* (23 USC 148) to incorporate these provisions. These requirements include the development of **Strategic Highway Safety Plans (SHSPs)**, in consultation with other key State and local highway safety stakeholders, and a number of reporting requirements. Additional information on the HSIP can be found on the HSIP Fact Sheet at http://safety.fhwa.dot.gov/safetealu/fact_sheets/ftsht1401.cfm.

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Florida Transportation Plan Contents



Vision Element *(August 2015)*

Trends, uncertainties, and themes that will shape the future of transportation in Florida (50 years)



Policy Element *(December 2015)*

Goals and objectives to guide the Florida Department of Transportation and partners toward the vision (25 years)



Implementation Element *(2016)*

Emphasis areas with key actions (5-25 years)

available online at

FloridaTransportationPlan.org

FTP Goal Areas

Over the next 50 years, we want...

Safety and
Security for residents,
visitors, businesses

Transportation solutions that support Florida's global
Economic Competitiveness

Agile, Resilient, and
Quality transportation infrastructure

Transportation solutions that support
Quality Places
to live, learn, work, and play

Efficient and Reliable Mobility
for people and freight

Transportation solutions that enhance
Florida's **Environment** and
Conserve Energy

More Transportation Choices
for people and freight

SHSP Vision and Goal



SHSP Vision:

**A Fatality-Free
Roadway System**

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SHSP Background

- Statewide document laying out the strategic approach for improving safety on Florida's roadways
- Approved and signed by major agencies and partners
- Works with other strategic plans for Florida, specifically in support of the Florida Transportation Plan
- Provides overall direction for area-specific coalitions

Presentation

Florida's Strategic Highway Safety Plan (SHSP) 2016 Update

- What is the SHSP?
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What Does the Update Process Include?

- Analysis of crash data and other trends affecting fatalities and serious injuries
- Selection of emphasis areas, strategies and actions based on data and proven, effective approaches
- Review of public and partner input received from FTP update process
- Coordination with strategic safety coalitions
- Coordination with Metropolitan Planning Organizations and other regional and local partners
- Review and approval by Signing Partners

Signing Partners



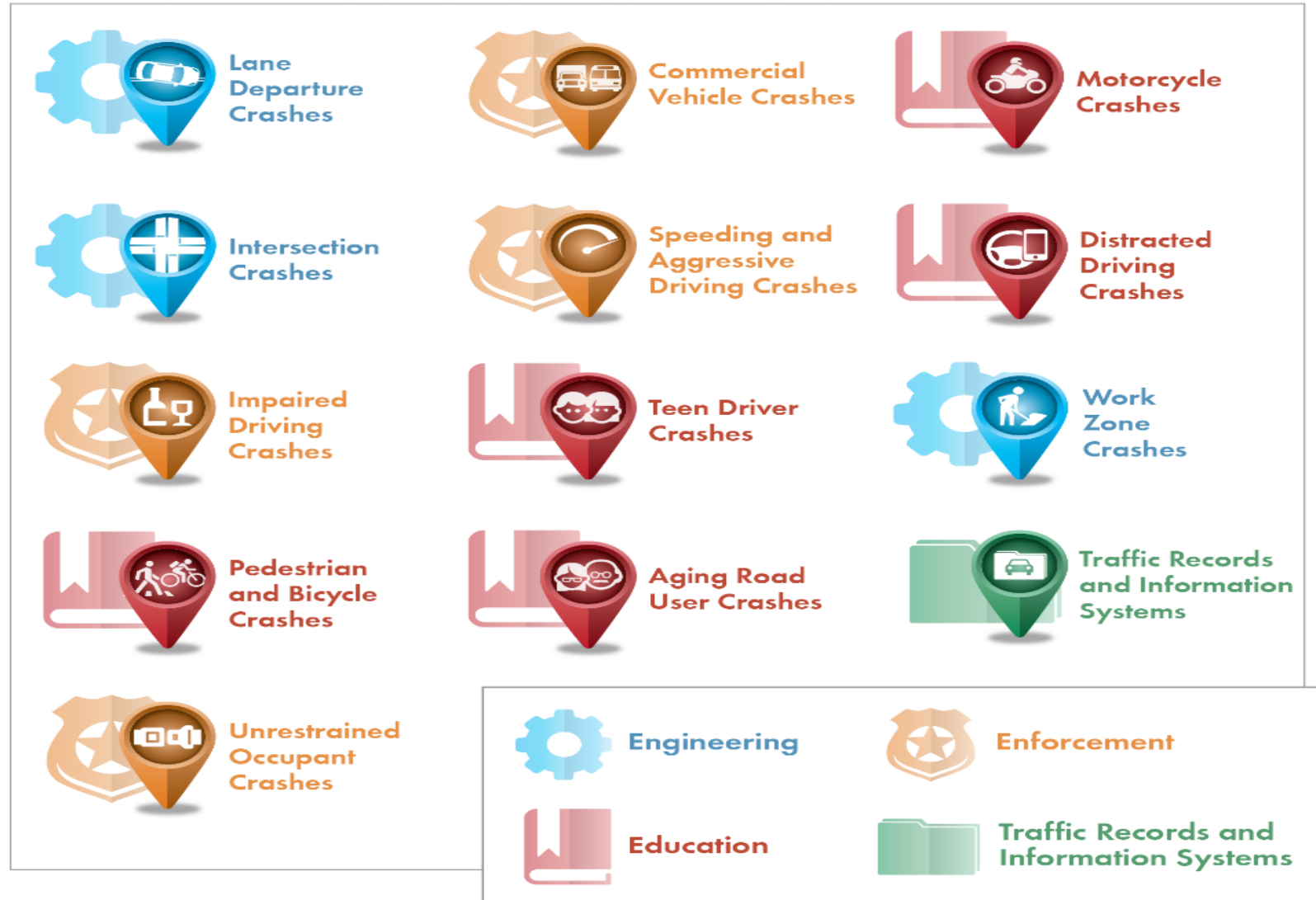
Florida Sheriff's
Association



Florida Rail Enterprise



The SHSP Update: Emphasis Areas



Presentation

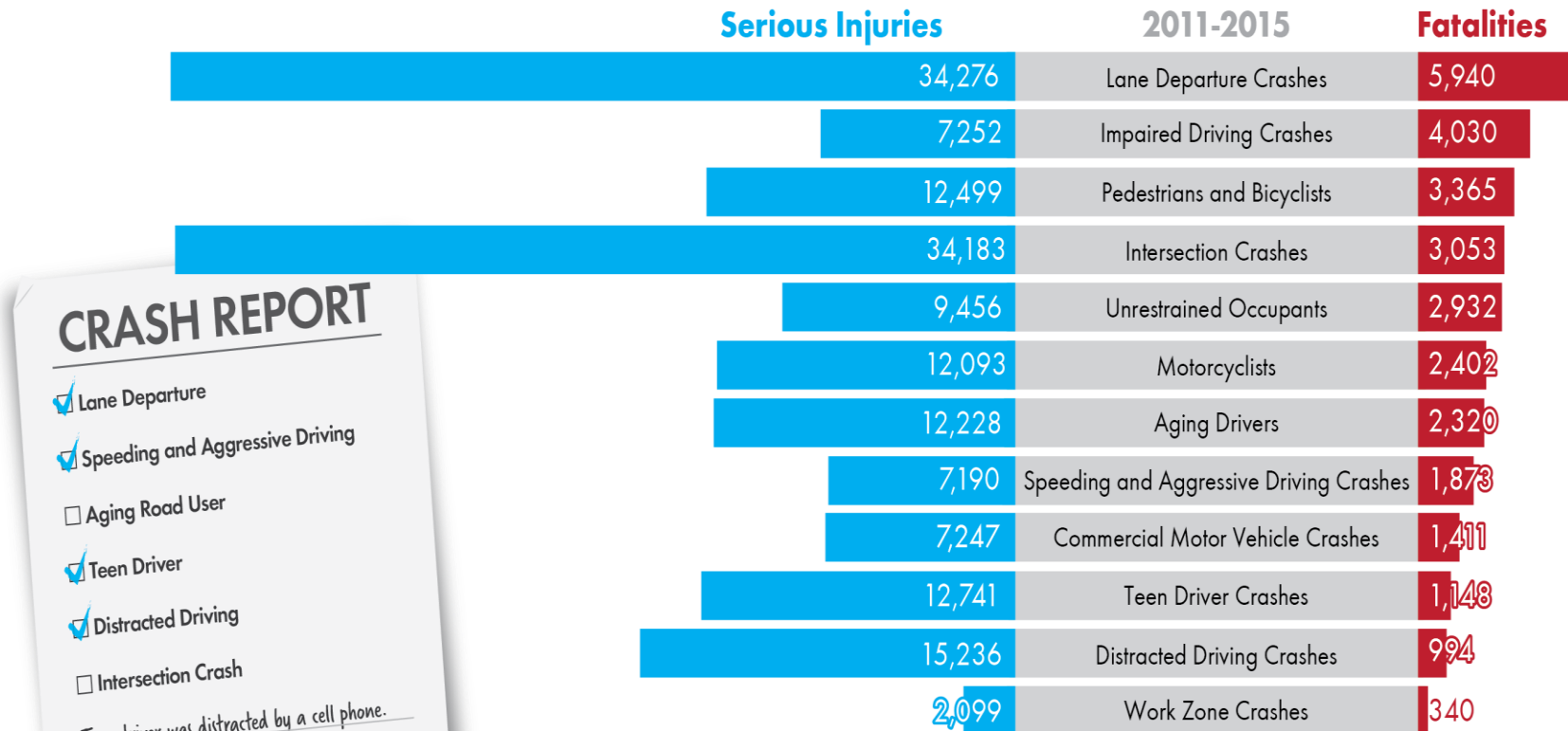
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Crash Data for the SHSP

Relation of SHSP emphasis areas to federal measures

- Measurement of success in the SHSP is based on crash data, specifically the incidence of traffic fatalities and serious injuries
- Florida is driving down fatalities by focusing on specific actions and opportunities
- Coalitions and agencies work towards addressing the specifics in their areas of concern, all in support of the overarching plan

Florida Fatalities and Serious Injuries by SHSP Emphasis Area



CRASH REPORT

☒ Lane Departure

☒ Speeding and Aggressive Driving

☐ Aging Road User

☒ Teen Driver

☒ Distracted Driving

☐ Intersection Crash

Teen driver was distracted by a cell phone.
He was speeding around a curve and
departed the roadway colliding with a tree.

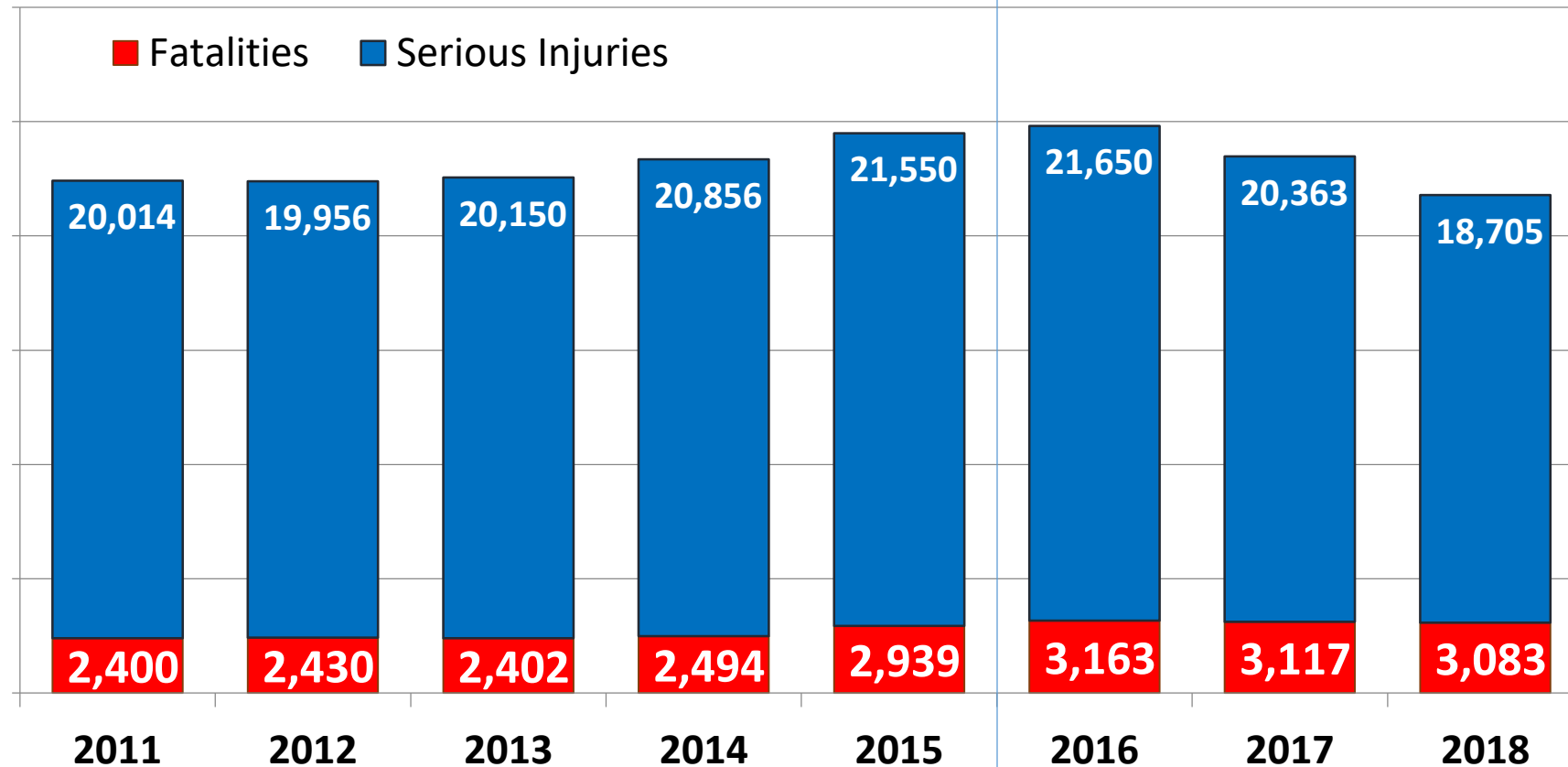
Note: Multiple factors are involved in almost every crash.

Source: Department of Highway Safety and Motor Vehicles (2016).

This graphic is from the Florida Strategic Highway Safety Plan
October 2016, page 8.

Serious Injuries and Fatalities

Florida Annual Serious Injuries and Fatalities Statewide for 2011 through 2018



Counts from FDOT State Safety Office Crash Analysis and Reporting (CAR) system

Crash Data for the SHSP

Federal Measures Mandated for the Highway Safety Improvement Program (HSIP)

- HSIP must align with the SHSP
- 5 measures to be reported under the HSIP

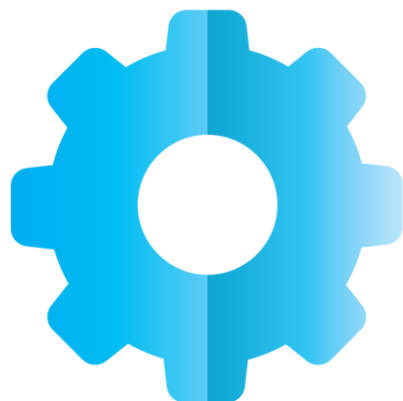
Crash Data for the SHSP

5 measures are required to be reported under the HSIP:

- 1) 5-year Rolling Average Number of Traffic Fatalities
- 2) 5-year Rolling Average Number of Serious Injuries
- 3) 5-year Average Rate of Traffic Fatalities per 100 Million Vehicle-Miles
- 4) 5-year Average Rate of Serious Injuries per 100 Million Vehicle-Miles
- 5) 5-year Average Combined Number of Traffic Fatalities and Serious Injuries for Non-Motorists

Definition of Serious Injury is now established as the “A” in the KABCO scale, which corresponds to the Injury Severity value “4” – Incapacitating Injury – on the Florida Traffic Crash Report form. This is officer-reported.

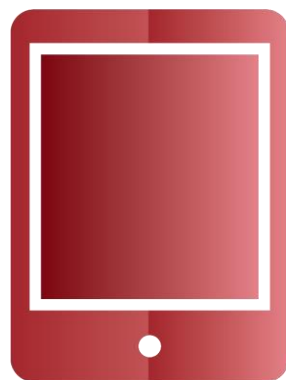
4 “E”s of Safety



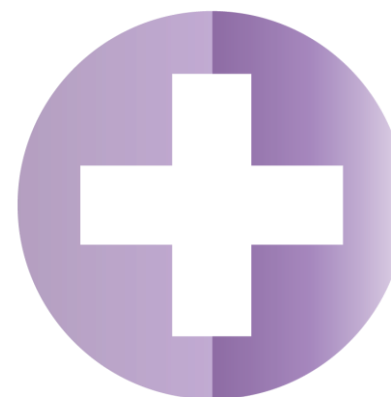
Engineering



Enforcement



Education



**Emergency
Response**

Crash Data for the SHSP

Emphasis Area Types

- 4 “E”s: Actions to prevent crashes and to reduce crash severity are focused in four different disciplines
- Different areas take the lead, depending on the problem, but all of the disciplines work together to make Florida’s roadways safer

SHSP Overarching Strategies

Engineering

Identify, develop, and deploy **engineering solutions** and best practices that encourage safe driving behavior and reduce roadway fatalities and serious injuries.

Incorporate policies and practices into **roadway design, traffic control, construction, operation, and maintenance** that make Florida's transportation system safer for all users.

Ensure infrastructure design allows for **efficient access of first responders**.

Education

Increase **training and educational opportunities** for first responders and other safety professionals focused on reducing roadway-related fatalities and serious injuries.

Educate all road users on **sharing the road**.

Develop and implement communication strategies for all road users and **improve public awareness** of highway safety needs.

Increase motorists' **understanding of engineering solutions and best practices**, and vehicle technologies that can reduce the number and injury severity of crashes.

Enforcement

Increase **targeted enforcement activities** in high-crash locations.

Increase enforcement of **high-risk driving behaviors**.

Coordinate with prosecutors and the courts to **improve prosecution and adjudication** of traffic safety-related cases.

Emergency Response

Improve **emergency response time**.

Provide training to first responders to **improve trauma management**.

Facilitate the **quick clearance of traffic crashes**.

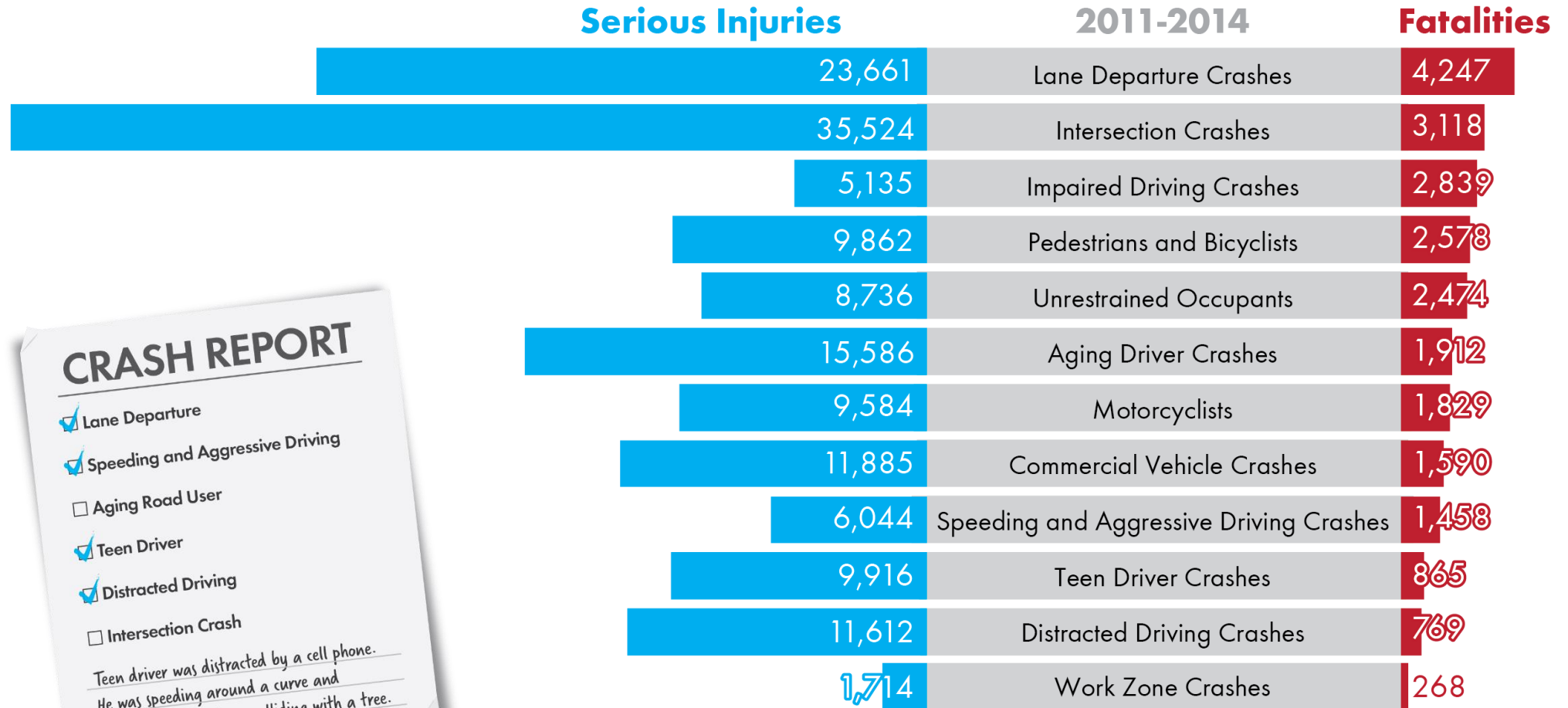
Traffic Records Information Systems

Develop, maintain, and enhance **quality traffic records** data by ensuring it is timely, accurate, complete, uniform, integrated, and accessible traffic records data.

Develop a systematic approach for identifying locations and behaviors related to fatal and serious injury crashes.

Promote the **collection, analysis, and distribution** of quality crash data so state, regional, and local stakeholders can make appropriate and timely decisions on reducing and responding to crashes.

Fatalities and Serious Injuries by Emphasis Area



CRASH REPORT

- ☒ Lane Departure
- ☒ Speeding and Aggressive Driving
- ☐ Aging Road User
- ☒ Teen Driver
- ☒ Distracted Driving
- ☐ Intersection Crash

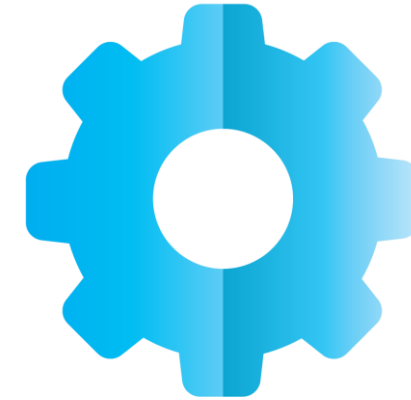
Teen driver was distracted by a cell phone.
He was speeding around a curve and departed the roadway colliding with a tree.

Source: FDOT Safety Office (2016).

Crash Data for the SHSP

By Lead “E”

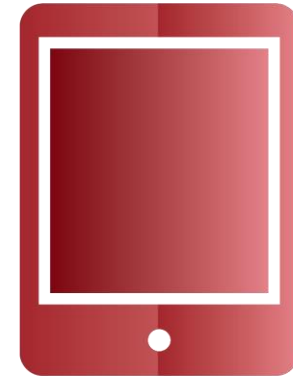
- Engineering Lead Areas
 - Lane Departure any crash not at or influenced by an intersection for which the reporting officer has indicated that the vehicle has left the roadway or crossed the centerline. **This includes wrong way driving incidents.**
 - Work Zone any crash that the reporting officer has indicated is work zone related or involved a roadway work zone
 - Intersection any crash at or influenced by an intersection



Crash Data for the SHSP

By Lead “E”

- Education Lead Areas
 - Pedestrian and Bicycle any person reported as a non-motorist in any of the pedestrian or cyclist categories
 - Teen Driver any crash in which any driver involved was between the ages of 15 and 19 at the time of the crash
 - Aging Road User any crash in which any person involved was age 65 or older at the time of the crash
 - Motorcycle any driver or passenger of a motorcycle
 - Distracted Driving any crash in which any driver involved was distracted (as reported by the officer)



Crash Data for the SHSP

By Lead “E”

- Enforcement Lead Areas
 - Impaired Driving any crash in which any driver involved has refused an alcohol or drug test or has a blood alcohol level of 0.08 g/dL or greater or has tested positive for drugs
 - Unrestrained Occupant any person, including a child, in a seat-belt equipped vehicle who was not wearing a seat belt or not in a child safety seat at the time of the crash
 - Commercial Vehicle any crash in which any commercial motor vehicle was involved, as defined in Florida Statutes section 316.003
 - Speeding and Aggressive any crash in which any driver is cited once for speeding or aggressive driving or is cited twice in any of the areas grouped under aggressive driving as described in Florida Statutes chapter 316.1923 or has drivers actions coded by the reporting officer in any of those areas



Crash Data for the SHSP

Overlaps: Lane Departure and Intersection

- Lane Departure and Intersection are mutually exclusive, but they overlap with each of the other crash or user categories

Crash Data for the SHSP

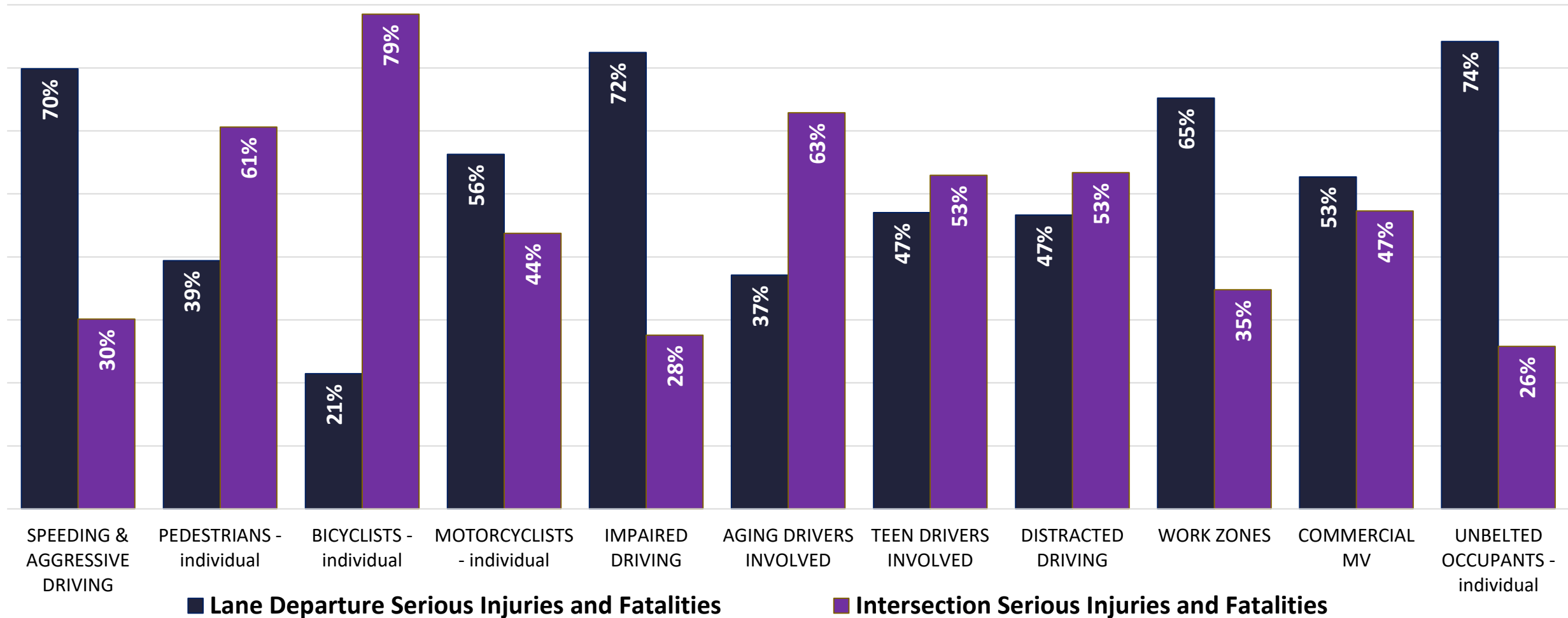
Overlaps: Local versus State versus non-public roadways

- Most fatalities and serious injuries occur on public roadways
- A small percentage occur in parking lots, on private roadways or otherwise on private property

Fatalities and Serious Injuries by SHSP Category

2011-2015 Percentage of Category Overlaps

*from FDOT Crash Analysis Reporting database as of April 12, 2019



Trends Shaping Florida's Roadway Safety

Florida's Transportation System

State Highways

12,099 Centerline Miles

11% of All Intersections



Local Roads

107,674 Centerline Miles

89% of All Intersections



Rail-Highway Crossings

3,549 Public At-Grade Crossings

954 Private At-Grade Crossings



Bicycle/Pedestrian

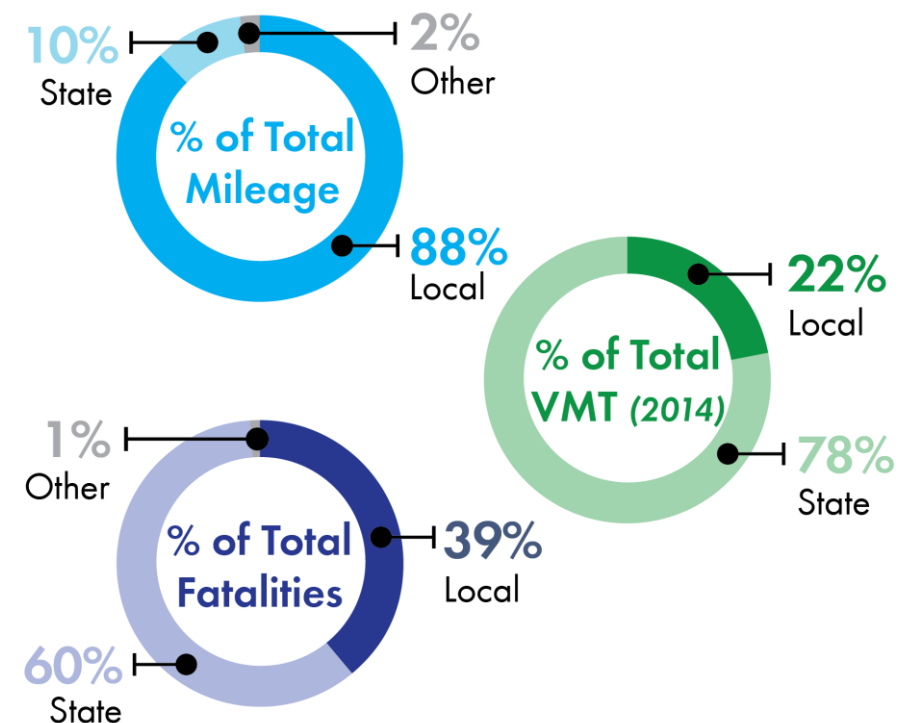
7,282 Miles of Bicycle Facilities

3,276 Miles of Pedestrian Facilities



Source: Florida Department of Transportation.

State v.s. Local Roadway (Centerline Miles)



Crash Data for the SHSP

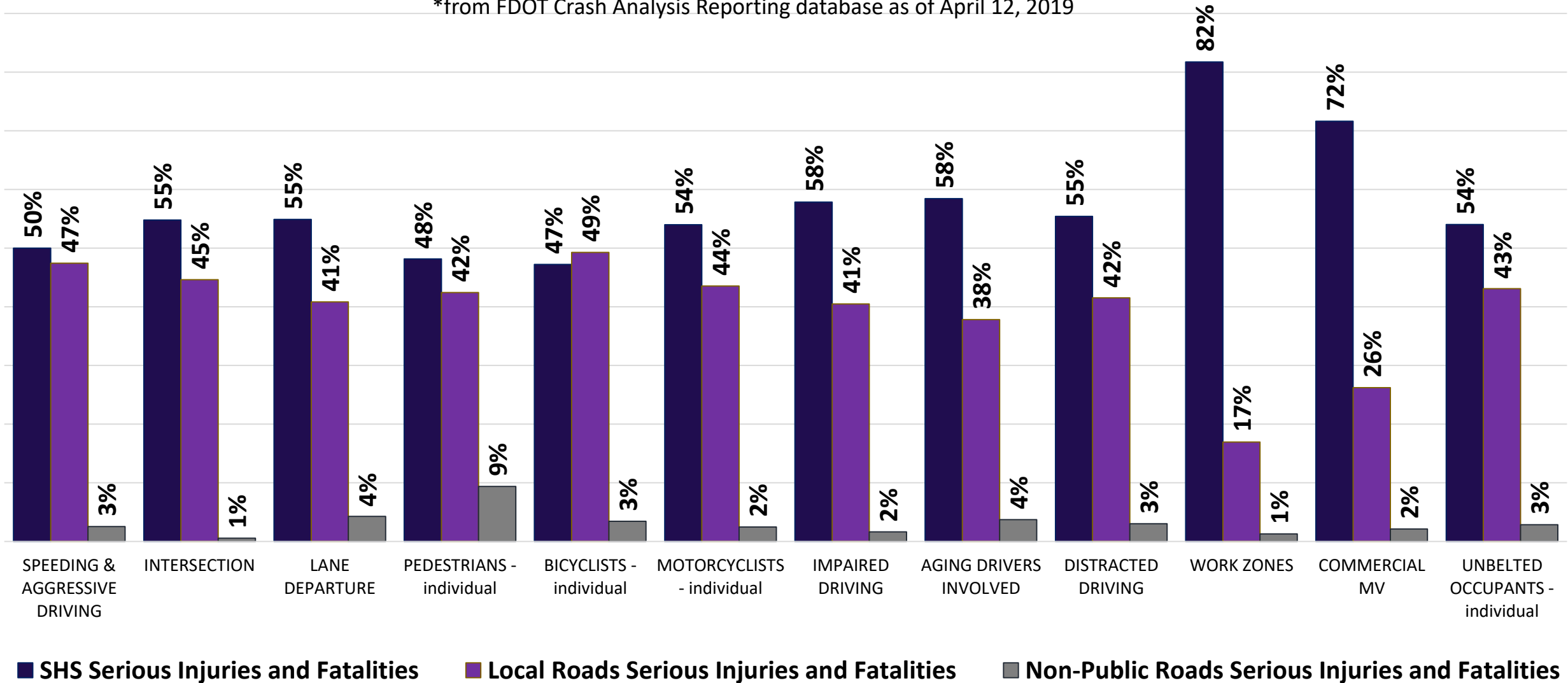
Overlaps: Non-Public Roadways

- A small percentage of crashes happen in parking lots: these crashes are more significant for pedestrians and for aging road users than for users in other categories

Fatalities and Serious Injuries by SHSP Category

2011-2015 Percentage of Local versus State

*from FDOT Crash Analysis Reporting database as of April 12, 2019



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Implementation Efforts

- SHSP Emphasis Areas

Emphasis area coalitions are charged with implementing the strategies of the SHSP. These coalitions represent a variety of federal, state, regional, local, and advocacy organizations whose expertise and interests include multiple modes of transportation, as well as engineering, education, enforcement, and emergency response. The coalitions meet regularly, and develop and track progress on detailed data-driven strategic plans that focus on proven strategies and activities to drive down fatalities and serious injuries.

Florida's Highway Safety Coalitions

Lane Departure and Intersection Coalition

Florida Impaired Driving Coalition

Florida Pedestrian and Bicycle Safety Coalition

Safe Mobility for Life Coalition

Florida Motorcycle Safety Coalition

Teen Safe Driving Coalition

Florida Traffic Records Coordinating Committee

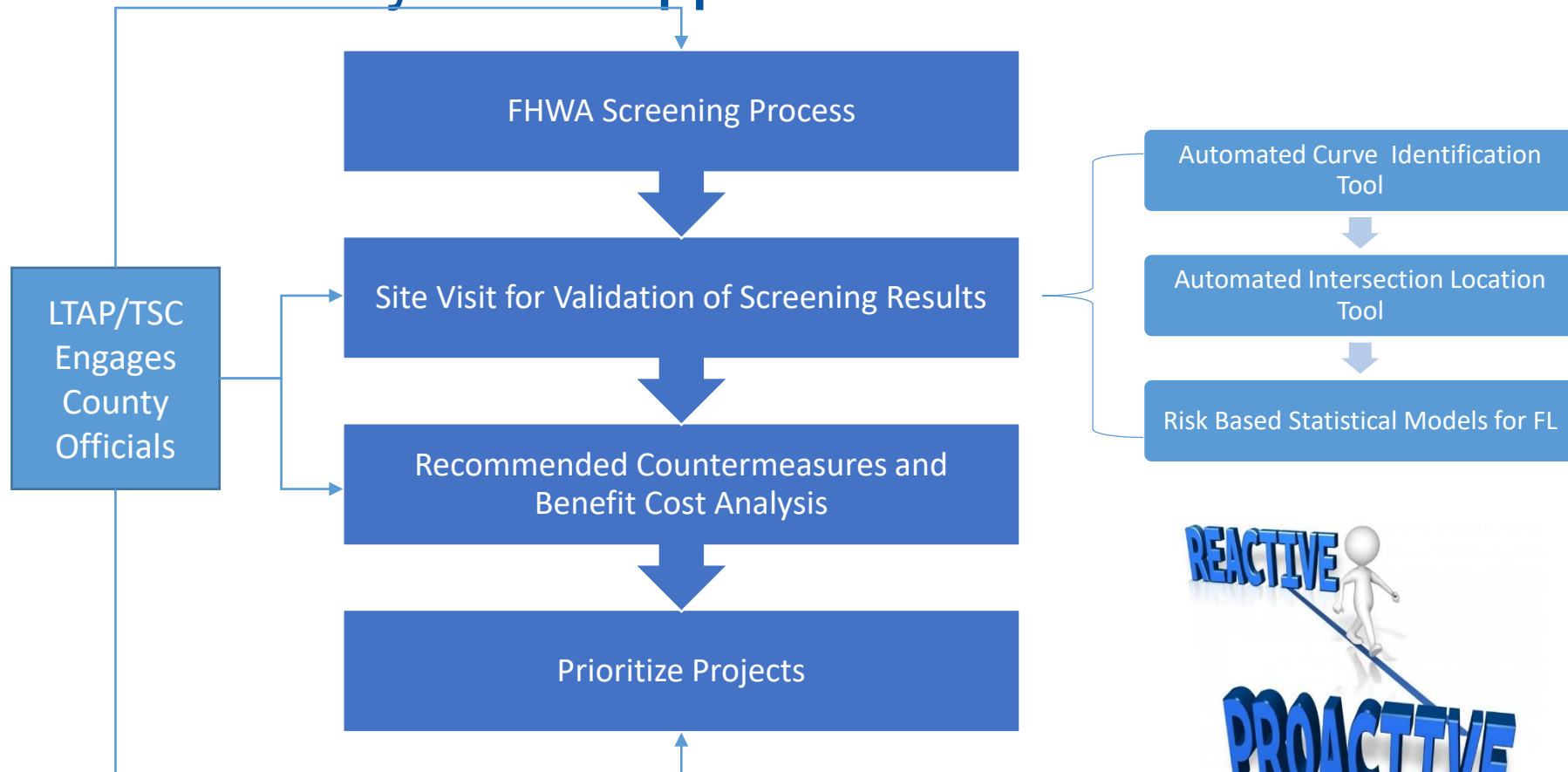
Work Zone Safety Coalition

(review plans at <http://www.fdot.gov/safety>)

Local Technical Assistance Program (LTAP) and the Transportation Safety Center (TSC)

- **Partnership** with FDOT, LTAP and TSC to assist locals
- **Technical assistance** to small communities with limited resources
- Primary efforts:
 - Perform **safety studies**
 - Provide **training** for local agency staff
 - **Liaison** between agencies and FDOT
 - Offer **continuing assistance** before, during and after the study
- Develop **Local Road Safety Plans**
- 3 counties completed till date
- 5 counties over the next 2 years:
 - 2018: Columbia, Jackson
 - 2019: Levy, Holmes, Washington

Customized FHWA Systemic Approach for FL



Other Resources for Locals

- Improving Safety on Rural, Local, and Tribal Roads
- Intersection Safety: a manual for local rural road owners
- Unsignalized Intersection Improvement Guide (UIIG)
- NCHRP Report 672: Roundabouts: An Informational Guide
- Signalized Intersections Informational Guide
- Low Cost Improvements and Countermeasures
- Proven Safety Countermeasures
- Free Equipment Loan Program

Call To Action

- To successfully implement the SHSP, all stakeholders should commit to:
- **Update** their safety plans, including other state, coalition, MPO, and local government plans, to align with the FTP and SHSP zero fatality vision.
- **Demonstrate** support and promote the SHSP vision of zero fatalities by implementing SHSP strategies on state, regional, and local transportation safety agency and organization websites.
- **Promote** initiatives that increase roadway users' understanding of the state's most significant traffic safety problems and their role in reducing fatalities and serious injuries.
- **Support** national, state, and local initiatives, policies, and safety projects that promote highway safety

Call To Action

To successfully implement the SHSP, all stakeholders should commit to:

- **Get Involved** with the SHSP “Refresh”
- **Update** their safety plans, including other state, coalition, MPO, and local government plans, to align with the FTP and SHSP zero fatality vision.
- **Demonstrate** support and promote the SHSP vision of zero fatalities by implementing SHSP strategies on state, regional, and local transportation safety agency and organization websites.
- **Promote** initiatives that increase roadway users’ understanding of the state’s most significant traffic safety problems and their role in reducing fatalities and serious injuries.
- **Support** national, state, and local initiatives, policies, and safety projects that promote highway safety

Resources (FDOT)

- FDOT State Safety Office - <https://www.fdot.gov/safety/default.shtm>
- **FDOT SSO Safety Engineering -**
<https://www.fdot.gov/safety/11A-SafetyEngineering/SafetyEngineering1.shtm>
- **FDOT SSO Crash Data Request On Line Form -**
<https://www.fdot.gov/safety/11A-SafetyEngineering/crash-data/crash-data.shtm>
- FDOT Traffic Safety Web Portal -
<http://www2.dot.state.fl.us/trafficsafetywebportal/index.aspx>
- **State Safety Office GIS Query Tool -**
<https://fdotewp1.dot.state.fl.us/SSOGis/Home.aspx>

Resources (FDOT)

- FDOT Community Traffic Safety Team
 - Community Traffic Safety Teams (CTSTs) are locally based groups of highway safety advocates that are committed to a common goal of improving traffic safety in their communities.
 - <https://www.fdot.gov/safety/7b-yourcommunity/yourcommunity.shtm>
- Safe Routes To School (SRTS)
 - <http://www.srtsfl.org/>
- Florida Highway Safety Improvement Program (HSIP)
 - FHWA funded program supporting the Emphasis Areas of the SHSP. Implemented through district staff.
 - [http://www.fdot.gov/safety/11A-SafetyEngineering/SafetyEngineering1.shtm#Safety Engineering Contacts](http://www.fdot.gov/safety/11A-SafetyEngineering/SafetyEngineering1.shtm#Safety%20Engineering%20Contacts)

Resources (DHSMV & Signal 4)

- Florida Department of Highway Safety and Motor Vehicles Crash Reports – <http://www.flhsmv.gov/courts/crash/>
- Florida's Integrated Report Exchange System (FIRES) Portal - <https://firesportal.com/Pages/Public/Home.aspx>
- Signal 4 Analytics - <https://s4.geoplan.ufl.edu/>

Recorded FDOT Webinars

Crash Data Academy

The Crash Data Academy is an ongoing series of webinars to help practitioners and the public understand and use Florida crash data. The webinars focus on topics in the engineering, enforcement, education and EMS / health disciplines. The webinars generally occur on the last Thursday of the month from 2:30 p.m. to 3:30 p.m.

Upcoming Webinars

Thursday, May 25, 2017	Vulnerable Road Users Part 3: Crossing Guard and Safe Routes to School Programs	Register Here
Thursday, June 29, 2017	Commercial Vehicle Enforcement	Register Here
Thursday, July 27, 2017	The National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS)	Register Here

2017 Crash Data Academy

Presentations

Vulnerable Road Users Part 2: Motorcycle Data
(April 27, 2017)
High Crash Location Analysis on the State Highway System (March 2, 2017)

Recordings

Vulnerable Road Users Part 2: Motorcycle Data
High Crash Location Analysis on the State Highway System

<http://www.fdot.gov/safety/11A-SafetyEngineering/crash%20data%20academy/academy.shtm>

Florida Strategic Highway Safety Plan

Questions?

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