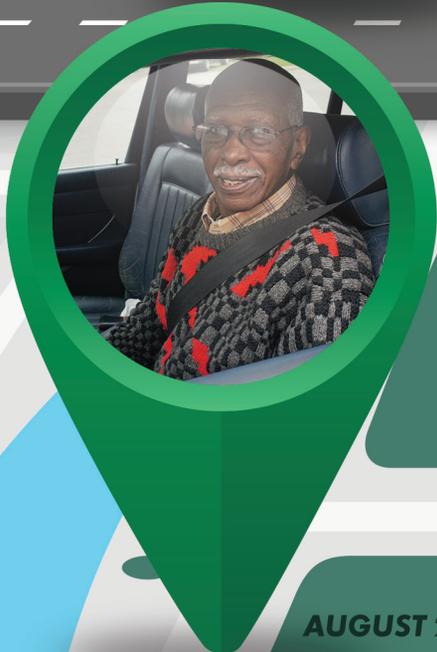


DRAFT 07/27/16

FLORIDA STRATEGIC HIGHWAY

SAFETY PLAN



AUGUST 2016

FATALITIES

**DRIVING
DOWN
FATALITIES**



Florida Transportation Plan Policy Element

December 2015

The Florida Transportation Plan (FTP) is the single overarching statewide plan guiding Florida's transportation future. It is a plan for all of Florida, created by, and providing direction to, the Florida Department of Transportation (FDOT) and all organizations that are involved in planning and managing Florida's transportation system, including statewide, regional, and local partners. The FTP includes a 50-year Vision Element, a 25-year Policy Element, and a five-year Implementation Element.

www.floridatransportationplan.com



Florida Strategic Highway Safety Plan

July 2016

The Strategic Highway Safety Plan (SHSP) was developed as a part of the FTP Implementation Element to address highway safety and aligns with the FTP Vision Element and FTP Policy Element. The SHSP is a statewide, data-driven safety plan for all of Florida's road users. The plan is the state's five-year comprehensive roadway safety plan for achieving Florida's vision of zero traffic-related fatalities. The SHSP includes 13 Emphasis Areas that guide Florida's safety efforts.



For more information regarding the Strategic Highway Safety Plan please contact:

FDOT Safety Office
(850) 414-3100

www.dot.state.fl.us/

For more information on the Florida Transportation Plan please contact:

FDOT Office of Policy Planning
(850) 414-4800



Letter From the FDOT Secretary

Dear Traffic Safety Partner:

Thank you for being a part of Florida's transportation and traffic safety team and making the Florida Strategic Highway Safety Plan (SHSP) a reality. Safety is our top priority.

Florida's safety belt use is at 89.4%, almost three percent higher than the national average. In recent years we have strengthened our traffic safety laws by requiring booster seats for children up to six years old and by prohibiting texting while driving. We have increased awareness about traffic safety, especially in the area of bicycle and pedestrian safety. We have safer roads and bridges and the condition of our state roads and bridges is among the best in the nation. However, our collective vision of a fatality-free transportation system will continue to require a united emphasis on traffic safety, using all the tools we each have in our toolboxes.

The four Es of traffic safety – engineering, education, enforcement, and emergency services – working together will ultimately bring us to a fatality-free transportation system. **Toward Zero Deaths** is not only an initiative – it should absolutely be our traffic safety vision. One life lost is too many. Continuous collaboration with federal, state, regional, and local governments, advocacy groups, law enforcement, and emergency responders across the state makes us all more effective in reducing fatalities.

Florida continues to rank among the top travel destinations in the world and our beautiful climate and strong economy make us a sought-after place to live. We recognize, however, that being a great place to live, learn, work, and play also requires a safe and reliable transportation system. As technology moves forward with new and exciting ways to travel, Florida will remain a leader in embracing innovations while also ensuring the safety and security of the people who use our roadways. To that end, we thank each and every one of our traffic safety partners for your tireless work.

Sincerely,

Jim Boxold, Secretary

FDOT is working diligently with its partners to incorporate fatality and serious injury data from 2015 in the Strategic Highway Safety Plan (SHSP). In this draft of the SHSP, the only data available is from 2011 to 2014. Preliminary data suggests that fatalities increased in 2015 and this factor was considered as the plan was drafted. Please understand that when the 2015 fatality and serious injury data is available it will be incorporated in the SHSP. The inclusion of 2015 data may slightly adjust the content of the plan but is not expected to dramatically change the Overarching Strategies the strategies identified in each of the Emphasis Area Sections.



Traffic Safety Partner Pledge

Vision: **A Fatality Free Transportation System**

We are committed to Florida's vision of
"Toward Zero Deaths"

We share the vision of a
fatality-free roadway system

We serve as **ambassadors of traffic safety**,
including the promotion of the SHSP and its goals

Secretary James Boxold

Florida Department of Transportation

Terry Rhodes, Executive Director

Florida Department of Highway Safety and Motor Vehicles

Colonel Gene Spaulding, Director

Florida Highway Patrol

Sheriff Jerry Demings, President

Florida Sheriff's Association

Chief Albert "Butch" Arenal, President

Florida Police Chief's Association

Mayor Susan Haynie, Chair

Metropolitan Planning Organization Advisory Council

Tom Byron, P.E., Executive Director

Florida Rail Enterprise

Ramon Gavaratte, P.E., County Engineer

FACERS past-president; NACE past president

James Christian, Division Administrator

Federal Highway Administration

Carmen Hayes, Regional Administrator

National Highway Traffic Safety Administration

Jeff Sanderson, Division Administrator

Federal Motor Carrier Safety Administration



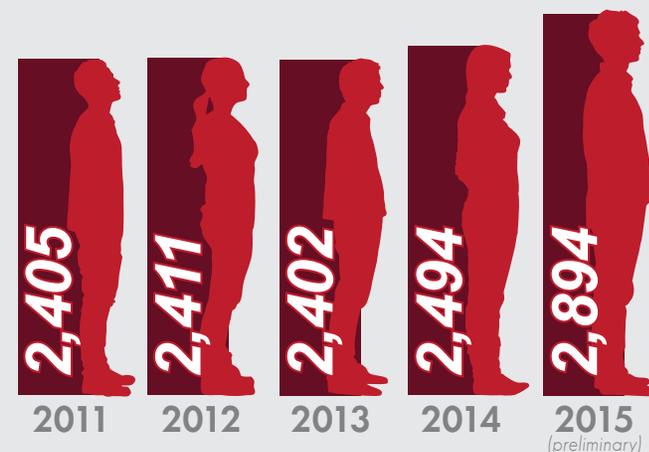
Introduction

Florida shares the national vision, “Toward Zero Deaths”, and formally adopted our own version of the national vision, “Driving Down Fatalities,” in 2012. Between 2011 and 2015, 10,112 people died on Florida’s roadways and an additional ??? were seriously injured. The Florida Department of Transportation (FDOT) and its partners are committed to eliminating fatalities and reducing serious injuries with the understanding that the death of any person is unacceptable.

The Strategic Highway Safety Plan (SHSP) is the statewide plan focusing on how to accomplish the vision of eliminating fatalities and reducing serious injuries on all public roads. The SHSP is updated at least every five years by FDOT in coordination with statewide, regional, and local safety partners. This plan is aligned not only with the Florida Transportation Plan (FTP) but also with national programs funded by the Federal Highway Administration (FHWA) and the national Highway Traffic Safety Administration (NHTSA).

The data-driven SHSP focuses on 13 Emphasis Areas, which reflect ongoing and emerging highway safety issues in Florida. Key strategies related to each Emphasis Area are identified, as well as overarching strategies that apply across Emphasis Areas. These strategies align with the “4 Es” – engineering, education, enforcement, and emergency response. The SHSP also defines a framework for implementation activities to be carried out through strategic safety coalitions and specific activities by FDOT, other state agencies, metropolitan planning organizations, local governments, and other partners.

Number of People Killed on Florida’s Roadways (2011-2015)



Vision: ZERO DEATHS

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

What’s Inside...

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How Was the Strategic Highway Safety Plan Developed?

The 2016 SHSP was updated through collaboration with Florida's safety partners. It is aligned with and builds on the recently adopted Florida Transportation Plan (FTP), the state's long-range transportation plan. Both the FTP and the SHSP share the vision of a fatality-free roadway system to protect Florida's 20 million residents and more than 105 million annual visitors.

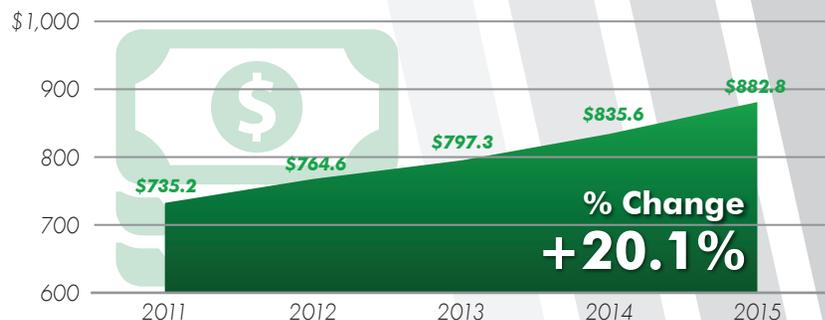
The SHSP update process included:

- Analysis of safety data collected by FDOT, the Florida Department of Highway Safety and Motor Vehicles (DHSMV), and other sources to identify trends in the number of fatalities and serious injuries and factors often associated with these events. All data presented in the SHSP is from DHSVM from between 2011 and 2015 unless otherwise noted.
- Consideration of extensive partner and public input gathered through the FTP update process in 2015. This process engaged more than 15,000 participants through a 35-member Steering Committee, 4 advisory groups, 3 statewide events, 13 regional forums and workshops, and more than 350 partner briefings. This input reaffirmed the state's commitment to maintaining a safe and secure transportation system for residents, visitors, and businesses. The process also highlighted several safety issues of concern to the public, including bicycle and pedestrian safety, commercial vehicles, the impacts of changing technologies, and the role of design and operational decisions in creating a safe environment.
- Coordination with eight strategic safety coalitions representing statewide, regional, and local partners from both the public and private sectors. These coalitions provided targeted input on the emphasis areas specifically related to their current strategic plans, and defining key strategies for the next five years.
- Coordination with Florida's 27 metropolitan planning organizations (MPOs), including review of safety-related goals, objectives, and strategies in MPO plans and targeted outreach sessions through Florida's Metropolitan Planning Organization Advisory Council.
- Review and approval by:



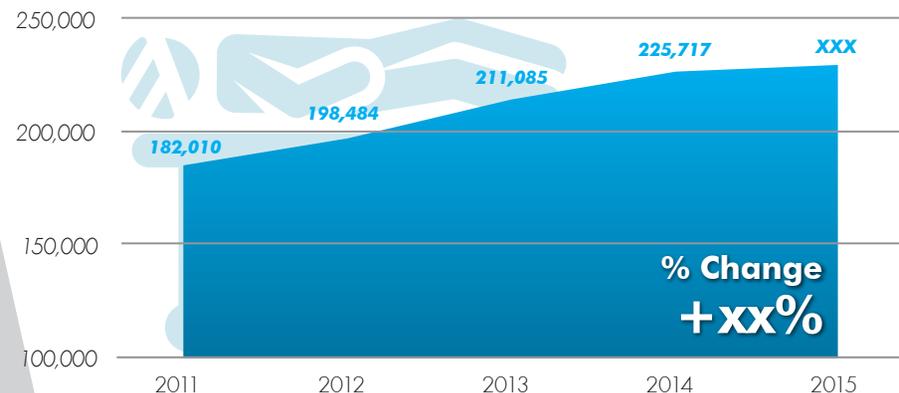
What Factors Influence Fatalities?

Florida Gross Domestic Product (in billions)



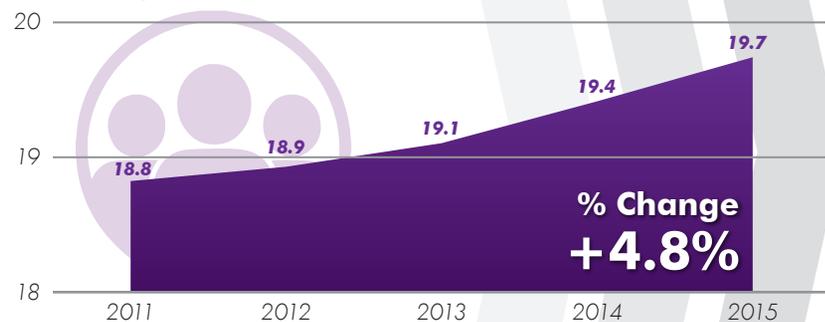
Source: .

Florida Serious Injuries



Source: Florida's Integrated Report Exchange System (FIRES) (2016).

Florida Population (in millions)

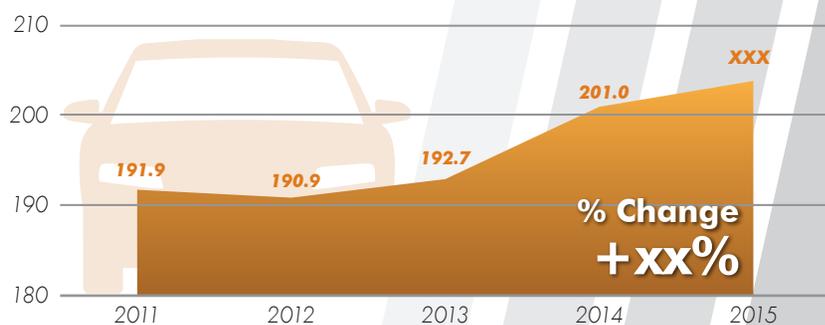


Source: Bureau of Economic and Business Research (2016).

Florida Fatality Rate

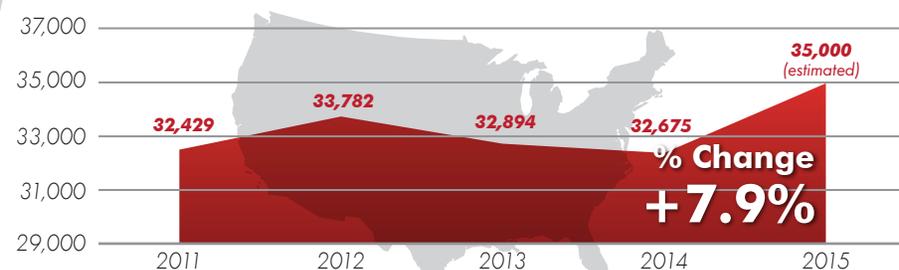
Fatality rate of
1.XX per
100 Million
Vehicle Miles Traveled

Florida Vehicle Miles Traveled (in billions)



Source: Florida Department of Transportation (2016).

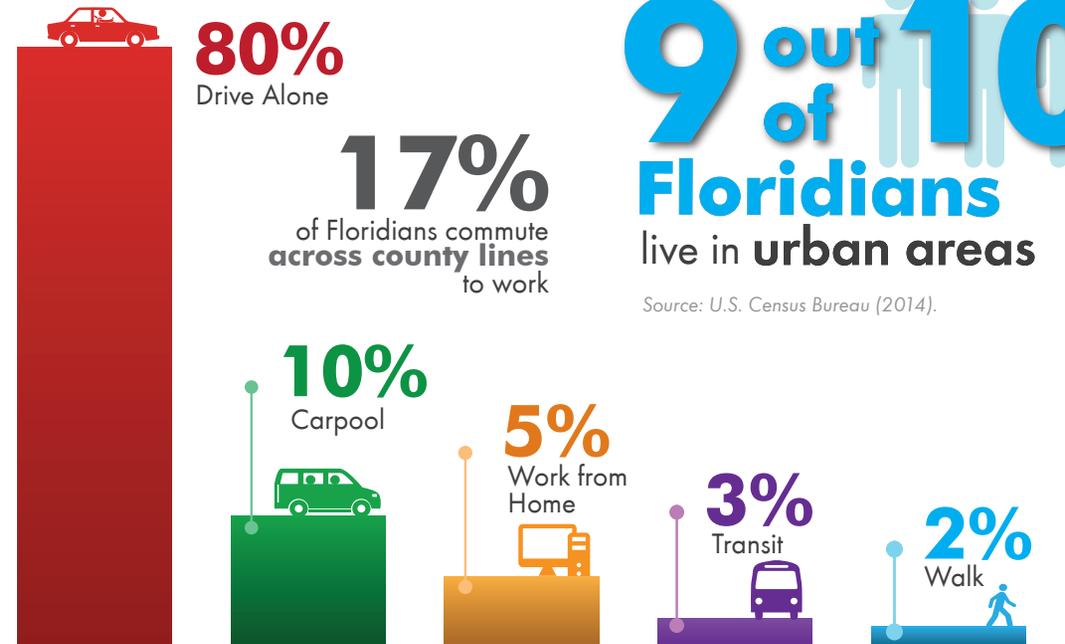
Total Fatalities Nationwide



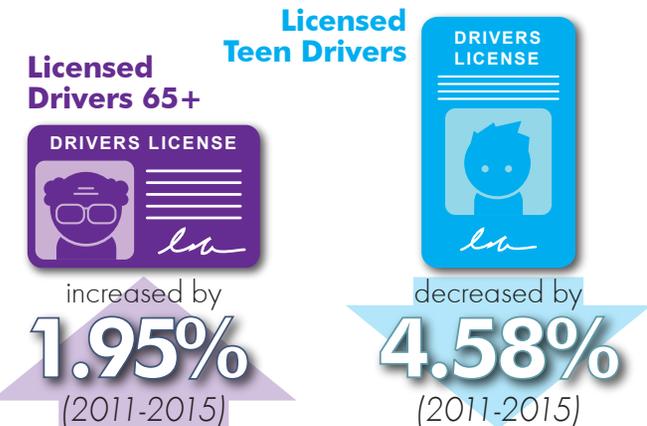
Source: National Highway Traffic Safety Administration (2016).

What Key Trends Are Shaping Florida's Transportation System?

Floridians' Commuting Habits



Source: U.S. Census Bureau (2013).

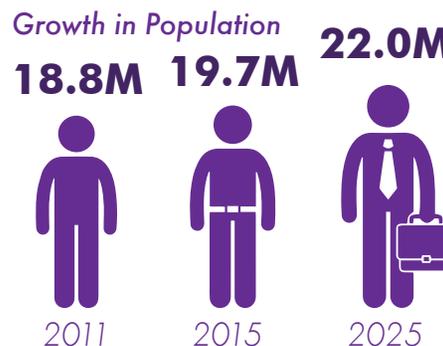


Source: Florida Department of Highway Safety and Motor Vehicles, (2016).

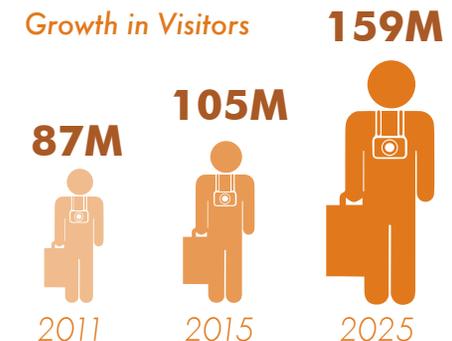


More aging road users are on Florida's roadways. These users tend to have a harder time seeing, reacting to, and recovering from events that cause crashes.

Source: Bureau of Economic and Business Research (2014).



Source: Bureau of Economic and Business Research (2016).



Source: Florida Office of Economic and Demographic Research (2015).

Technology is changing how we move.

28% of Americans **18-29** have used on-demand ride sharing services
 Frequent users are **less likely** to **own a car and more likely** to take **transit, walk, or ride their bike**

Source: Pew Research Center (2015).



Google has autonomously driven more than **1.5 Million Miles Nationally**

Source: Google Self-Driving Car Project (2016).

Floridians are choosing non-automobile modes more often.

Transit Boardings

↑6% between 2011 and 2014
 Source: FDOT (2015).

Walking to Work

↑2% between 2011 and 2014
 Source: Bureau of Economic and Business Research (2016).

Motorcycle Endorsements

↑13% between 2011 and 2015
 Source: Florida Department of Highway Safety and Motor Vehicles (2016).

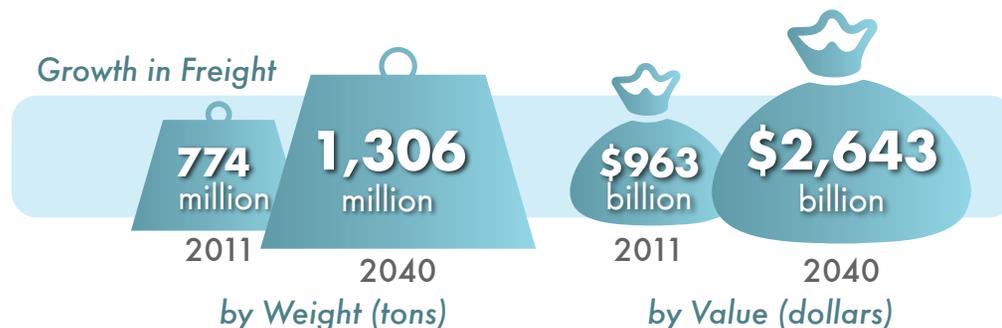
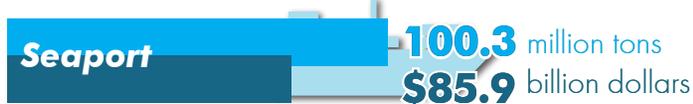
Bicycling to Work

↑39% between 2011 and 2014
 Source: Bureau of Economic and Business Research (2016).

90% of the U.S. Population owns a cellphone and **20%** use their phone for real time traffic or transit information

Source: Gartner, Inc., "Predicts 2015: The Internet of Things" (2014).

Freight growth is putting more trucks on Florida's roadways.



Source: Federal Highway Administration, Freight Analysis Framework 3.4 (2011).

Sources: Truck and Rail - FHWA Freight Analysis Framework 3.4 (2011); Aviation - FAA Air Carrier Activity Information System (2011); Seaport - Florida Ports Council Five Year Seaport Mission Plan (2011).

How Can We Improve Safety On Both State and Local Roads?

Florida's transportation system is large, multimodal, and owned by a number of entities including the state government, local governments (cities and counties), the federal government, and the private sector. When someone travels on a roadway, they rarely think about who owns it. Roadway ownership, however, matters because improvements and maintenance are the responsibility of the owner.

Florida's SHSP is aimed at all public roads. In developing the SHSP, efforts are made to reach out to local engineers and planners, and the state's 27 metropolitan planning organizations (MPO) to provide information on ways to improve safety. Local roads account for about 40 percent of roadway fatalities. That is why coordination and collaboration through the SHSP is important as it helps achieve a shared vision for safety.

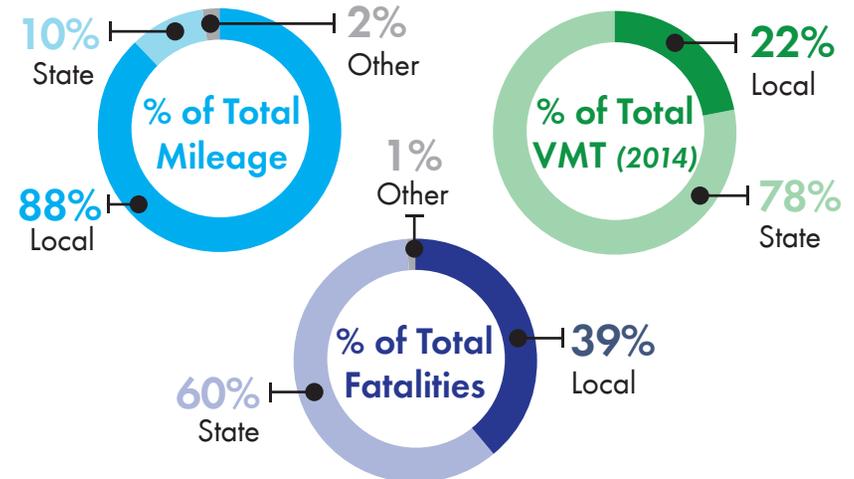
Florida has some of the largest urbanized areas in the country as well as many rural areas. Strategies for improving safety on urban roadways are different than the strategies used for improving safety on rural roads and each have their own set of challenges. Rural areas, for instance, often have more narrow, two-lane roadways and can lack of shoulders alongside the roadway.

High Risk Rural Roads

Florida has:

107,674 miles of **local roadways**
&
12,099 miles of **state roadways**

State v.s. Local Roadway (Centerline Miles)



There are

67 counties
411 cities
&
27 MPOs
 in Florida

Florida's Transportation System

State Highways

12,099 Centerline Miles
10% of All Intersections
60% of Total Fatalities

Local Roads

107,674 Centerline Miles
88% of All Intersections
39% of Total Fatalities

Rail-Highway Crossings

3,549 Public At-Grade Crossings
954 Private At-Grade Crossings

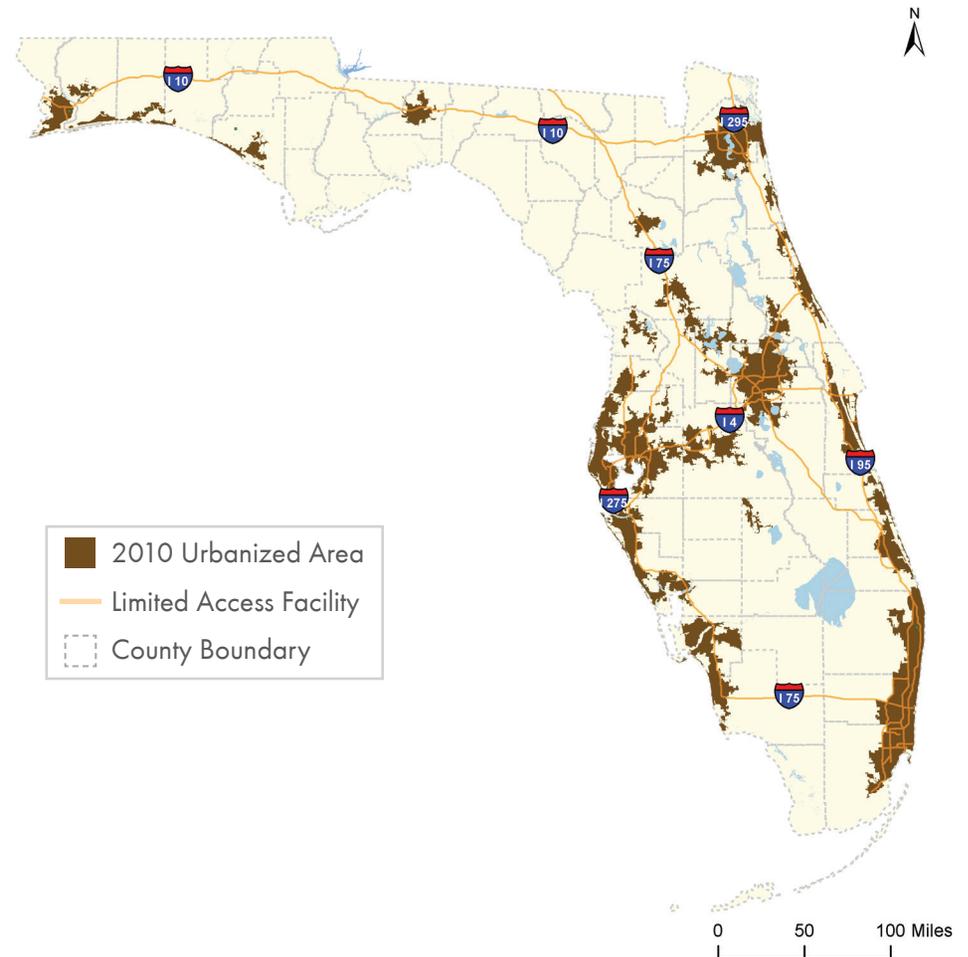
Bicycle/Pedestrian

7,282 Miles of Bicycle Facilities
on State Highway System
3,276 Miles of Pedestrian Facilities
on State Highway System

Source: Florida Department of Transportation.

The SHSP guides state and local governments in addressing safety as one of the required eight planning factors, helps them coordinate the safety performance measures required for states and MPOs, and addresses federal funding through the Highway Safety Improvement Program (HSIP). To qualify for HSIP funding, a project must be reflected in SHSP.

Involvement and coordination with the SHSP serves local constituencies by improving the transportation system and the quality of life for residents and visitors. Most importantly, it saves lives.



What Are the Emphasis Areas?

Thirteen Emphasis Areas are the primary focus for Florida's traffic safety improvement efforts. The Emphasis Areas were identified through a collaborative process that included:

- Review of fatality and serious injury data from 2011 to 2015 to identify and set priorities among Florida's most serious crash problems;
- Input from the existing strategic safety coalitions, metropolitan planning organizations, and other partners; and
- Consideration of public input from the FTP process.

Safety coalitions oversee many emphasis areas and develop detailed strategic plans that identify targeted strategies and actions to reduce fatalities and serious injuries for each Emphasis Area. Florida relies on the "4 Es" – engineering, education, enforcement, and emergency response – as a tool to guide decision-making for improving roadway safety. The "4 Es" are used to help identify and organize overarching strategies that help guide the safety coalitions and other partners.

A Leading E is identified for each Emphasis Area to help focus implementation activities. The Leading E reflects the most common and most effective safety solutions related to each Emphasis Area. Identification of the Leading E does not limit the types of actions that can be undertaken to improve safety for that Emphasis Area. For example, while Enforcement is



identified as the Leading E for Speeding and Aggressive Driving, many Education and Engineering actions also can be taken to reduce fatalities and serious injuries caused by these types of crashes.

Emergency Response is a unique “E” because it is not directly related to preventing crashes, but rather supports the other “Es” to help reduce fatalities or serious injuries by improving the response to crashes after they occur. For

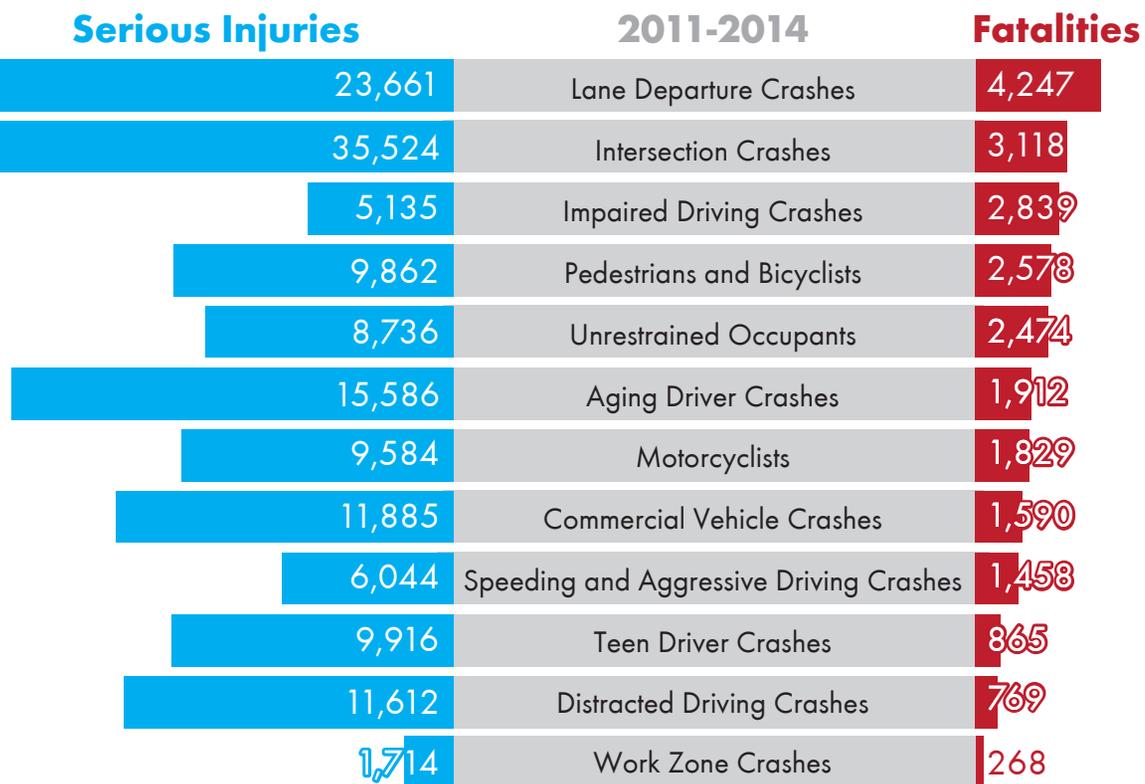
this reason Emergency Response is not identified as a Leading E for any of the Emphasis Areas.

Like the SHSP, each coalition’s strategic plan is data driven, increasing the importance of high quality traffic records and information systems. Overarching strategies are identified for traffic records and information systems even though it is not considered one of the “4 Es.”

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: When added together, the total number of fatalities and serious injuries related to each of the 13 Emphasis Areas will exceed the total number of fatalities and serious injuries that occurred on Florida's roadway system because multiple factors are involved in almost every crash.



What Are the Overarching SHSP Strategies?

Safety coalitions oversee many emphasis areas and develop detailed strategic plans that identify how, where, when, and who will implement the strategies. Like the SHSP, each coalition's strategic plan is data driven, increasing the importance of high quality traffic records and information systems. Florida relies on the "4 Es" – engineering, education, enforcement, and emergency response. Overarching strategies were identified for traffic records and information systems even though it is not considered one of the "4 Es."

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 for first responders**.

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.

Education

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

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

Emergency Response

Improve emergency response time.

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

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

Traffic Records and 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.

How Is Each Emphasis Area Organized?

The main body of the SHSP presents the 13 emphasis areas ordered from the highest number of 2011 to 2015 fatalities to the least. Each emphasis area narrative addresses:

Fatalities and Serious Injuries related to each Emphasis Area.

Coalition Highlights that reports on the work being done by Florida's strategic safety coalitions.

Key Data Points supporting the focus on each Emphasis Area.

Key Strategies that guide Florida's efforts to reduce fatalities and serious injuries related to each Emphasis Area.

Key Data Points

Fatalities and Serious Injuries

Lane Departures

When a vehicle leaves the travel lane by improperly passing, crossing the median into oncoming traffic, failing to keep in the lane, running off the road, overcorrecting, or swerving – the result is often deadly. More people are killed in lane departure crashes than any other type of crash both in Florida and nationally.

About one third of lane departure crashes result in a collision with another moving vehicle, possibly head-on, and two thirds involve hitting a tree or another fixed object. A little more than half of fatal lane departure crashes happen in rural areas where there are more two lane roadways, narrow shoulders and long stretches of relatively empty roadway.

Lane Departures... represent 35% of all crashes

yet result in 44% of all deaths

Strategies

- Use the Highway Safety Manual and other tools to identify the most prevalent crash types and contributing factors, and match the most effective countermeasure to reduce crashes where lane departures are a current problem and where there is future crash potential.
- Investigate and implement new and innovative countermeasures including best practices used by other jurisdictions.
- Focus enforcement and education efforts on driver risk factors that can cause a lane departure crash such as speeding, distracted, or impaired driving.
- Support efforts by MPOs and local governments to address the safety of local and regional roads.

Intersection Crashes

No other location in the transportation system poses greater risks than an intersection. An intersection is the one place where all road users and vehicle types may come together.

An intersection is a potential point of conflict that relies on signage, traffic control devices, roadway design, lighting, the good behavior of users, and other factors to ensure everyone navigates through or safely turns from one roadway to another.

Pedestrians and bicyclists are involved in less than five percent of all intersection crashes, yet account for more than 20 percent of the fatalities. Intersections create risks for aging road users because as people age, there are declines in visual, thinking, and physical abilities. This creates difficulties for aging road users in some situations such as making left turns, changing lanes, and navigating through intersections. Sixty percent of aging road user fatal crashes involved a failure to yield the right of way. The traffic safety problem at intersections is evidenced by the 27 percent increase in fatalities and the 12 percent increase in serious injuries.

One intersection where there are special circumstances are railway-highway crossings. Florida has over 3700 public railroad crossings and the majority (80 percent) are equipped with active warning devices such as flashing lights and gates. This is higher than the nation percentage where only 50 percent have these devices. In the last five years, 23 people died and 86 were seriously injured in railway-highway crossing crashes in Florida. The good news is Florida's rail crossing fatalities have decreased 44 percent over the past decade, which is noteworthy given increased highway traffic and changes in the railroad industry that have resulted in more trains on fewer rail lines.

Florida uses Complete Streets and context sensitive design strategies that consider the needs of all users and the context of local communities when planning roadway improvements. Improvements such as signal upgrades, turning restrictions at multi-lane intersections, traffic detection control systems, and roadway lighting at intersections are being implemented. Roundabouts have been proven to reduce the number of fatal and severe injury crashes by 82 percent over a stop-controlled intersection and 78 percent over a signalized intersection. Because such new design features can sometimes be confusing, education and information on how to safely navigate around them is necessary. These solutions can be integrated into almost any intersection to help reduce crashes that result in fatalities and serious injuries. While some improvements, such as roundabouts are high cost, there is an equally high benefit.

Fatalities and Serious Injuries

Year	Fatalities	Serious Injuries
2011	8,305	9,029
2012	8,574	9,266
2013	9,047	9,894
2014	9,538	10,453

Strategies

- Reduce the frequency and severity of crashes at intersections by limiting conflicts through geometric, traffic control, and lighting improvements.
- Institute and promote Highway Safety Manual analyses and road safety audits/assessments using multi-disciplinary teams to review the operations and safety for all intersection users.
- Use traditional and alternative designs and technologies to reduce conflict risks such as innovative interchange designs, access management, and roundabouts.
- Improve the awareness and visibility of traffic control devices so all users can safely navigate an intersection.

Key Strategies

Coalition Highlights

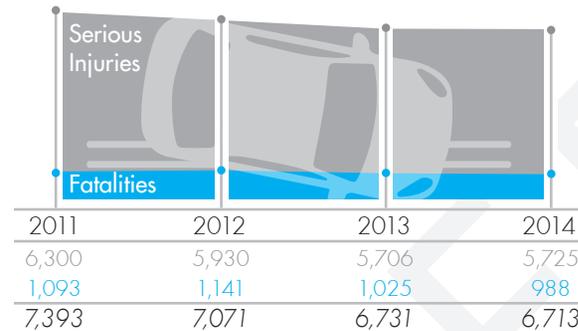
Lane Departures

When a vehicle leaves the travel lane by improperly passing, crossing the median into oncoming traffic, failing to keep in the lane, running off the road, over correcting, or swerving – the result is often deadly. More people are killed in lane departure crashes than any other type of crash both in Florida and nationally.

About one third of lane departure crashes result in a collision with another moving vehicle, possibly head-on, and two thirds involve hitting a tree or another fixed object. A little more than half of fatal lane departure crashes happen in rural areas where there are more two lane roadways, narrow shoulders, and long stretches of relatively empty roadway.

Lane Departures...
represent **35%**
of all crashes
yet result in **44%**
of all deaths

Fatalities and Serious Injuries



Both driver behavior and roadway design play a role in the number and severity of lane departure crashes. A driver who is speeding, distracted, drowsy, or impaired is likely to have difficulty staying in the lane. A roadway that is slick and wet, an object too close to the road, or a shoulder or curve that does not allow for any error can also contribute to a lane departure crash.

A Lane Departure and Intersection Coalition, made up of state and local transportation engineers and planners, is focusing on implementing best practices to make the roadway as safe as possible. More information on the Lane Departure and Intersection Coalition can be found on page 13. There is good news to report. Lane departure fatalities and serious injuries decreased 10 percent since 2011.

Wrong Way Crashes

A wrong way crash is an extreme example of a lane departure. In Florida 336 people died and 1,181 people were seriously injured in wrong way crashes on Florida roadways. A Highway Special Investigation Report from the National Transportation Safety Board suggested that a driver is 27 times more likely to be killed in a head-on collision on a limited-access highway than any other type of crash.

FDOT conducted a study on wrong way crashes and found this type of hazard was greater on freeways and in certain areas of the state, including the Tampa Bay region. To address the issue, FDOT used Do Not Enter and Wrong Way signage and installed vehicle-alerting technology to warn drivers. The study also found that the drivers' use of alcohol was a factor in a significant number of these crashes. The coalition created an educational campaign and worked closely with the Florida Highway Patrol, which did have a positive effect on reducing wrong way crashes. Engineers are also working to reduce wrong way crashes through infrastructure design and retrofit.

Strategies

- Use the Highway Safety Manual and other tools to identify the most prevalent crash types and contributing factors, and match the most effective countermeasure to reduce crashes where lane departures are a current problem and where there is future crash potential.
- Investigate and implement new and innovative countermeasures including best practices used by other jurisdictions.
- Focus enforcement and education efforts on driver risk factors that can cause a lane departure crash such as speeding, distracted, or impaired driving.
- Support efforts by MPOs and local governments to address the safety of local and regional roads.

Intersection Crashes

No other location in the transportation system poses greater risks than an intersection. An intersection is the one place where all road users and vehicle types may come together.

An intersection is a potential point of conflict that relies on signage, traffic control devices, roadway design, lighting, the good behavior of users, and other factors to ensure everyone navigates through or safely turns from one roadway to another.

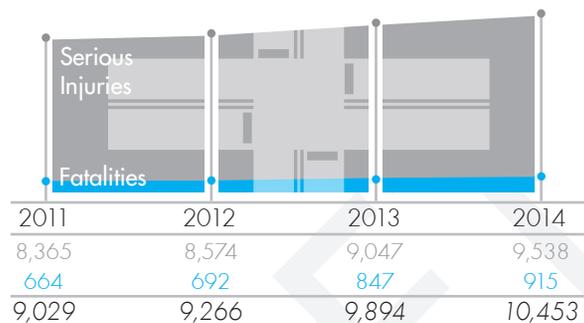
Pedestrians and bicyclists are involved in less than five percent of all intersection crashes, yet account for more than 20 percent of the fatalities. Intersections create risks for aging road users because as people age, there are declines in visual, thinking, and physical abilities. This creates difficulties for aging road users in some situations such as making left turns, changing lanes, and navigating through intersections.¹ Sixty percent of aging road user fatal crashes involved a failure to yield the right

¹ National Institute of Health, Senior Health.

LANE DEPARTURE AND INTERSECTION COALITION

The mission of the Lane Departure and Intersection Coalition is to analyze data, develop strategies, and implement improvements to eliminate fatal and serious injury crashes for both intersections and lane departures. With assistance from the Federal Highway Administration (FHWA), the Coalition has developed a Lane Departure Implementation Plan and is working on developing a similar plan for Intersections. In putting the plan together, the Coalition also relied on the progress made by other statewide coalitions such as Safe Mobility for Life Coalition and the Florida Impaired Driving Coalition.

Fatalities and Serious Injuries



of way. The traffic safety problem at intersections is evidenced by the 27 percent increase in fatalities and the 12 percent increase in serious injuries.

One intersection where there are special circumstances are railway-highway crossings. Florida has over 3700 public railroad crossings and the majority (80 percent) are equipped with active warning devices such as flashing lights and gates. This is higher than the national percentage where only 50 percent have these devices. In the last five years, 23 people died and 86 were seriously injured in railway-highway crossing crashes in Florida. The

good news is Florida's rail crossing fatalities have decreased 44 percent over the past decade, which is noteworthy given increased highway traffic and changes in the railroad industry that have resulted in more trains on fewer rail lines.

Florida uses Complete Streets and context sensitive design strategies that consider the needs of all users and the context of local communities when planning roadway improvements. Improvements such as signal upgrades, turning restrictions at multi-lane intersections, traffic detection control systems, and roadway lighting at intersections are being implemented. Roundabouts have been proven to reduce the number of fatal and severe injury crashes by 82 percent over a stop-controlled intersection and 78 percent over a signalized intersection. Because such new design features can sometimes be confusing, education and information on how to safely navigate through them is necessary. These solutions can be integrated into almost any intersection to help reduce crashes that result in fatalities and serious injuries. While some improvements, such as roundabouts are high cost, there is an equally high benefit.

Strategies

- Reduce the frequency and severity of crashes at intersections by limiting conflicts through geometric, traffic control, and lighting improvements.
- Institute and promote Highway Safety Manual analyses and road safety audits/assessments using multi-disciplinary teams to review the operations and safety for all intersection users.
- Use traditional and alternative designs and technologies to reduce conflict risks such as innovative interchange designs, access management, and roundabouts.
- Improve the awareness and visibility of traffic control devices so all users can safely navigate an intersection.

Impaired Driving Crashes

Impaired driving is involved in about one quarter of all motor vehicle deaths in Florida. Defined as driving under the influence of alcohol and/or legal (prescription and over-the-counter) and/or illegal drugs, impaired driving is a complex social issue that involves all areas of the criminal justice, health care, and education systems.

Alcohol impairment is measured by the amount of alcohol in the blood or blood alcohol concentration (BAC). As the BAC increases, the effects include a decline in visual functions and multitasking, reduced concentration, impaired perception, and an inability to respond quickly to emergencies.

The problem is complicated by the growing number of impaired driving incidents that involve legal (prescription and over-the-counter) and illegal drugs. For Florida, 39 percent of impaired driving crashes involved drivers under the influence of alcohol only, 12 percent involved drivers under the influence of drugs only, and 18 percent involved drivers that were under the influence of both alcohol and drugs. It is easier for officers to test and arrest for alcohol impairment because drugs require a blood or urine test. The frequency of impaired driving crashes is highest between the hours of midnight and 2 a.m., and on weekends. The use of safety belts is also lower among impaired drivers (66.0 percent use as compared to 89.4 percent for all drivers).

Impaired driving crashes disproportionately lead to fatalities, ranking third in total number of fatalities, behind lane departure and intersection. The good news is that the numbers are decreasing. Fatalities are down 10 percent and serious injuries by 25 percent.

Reducing the number of drug or alcohol test refusals is a top priority of the Florida Impaired Driving Coalition (FIDC). Florida's test refusal rate is approximately 25 percent, which means that a quarter of the people stopped for suspected impaired driving are not being tested. This means the State is not capturing the true rate of impairment. To address the problem of impaired driving, Florida is promoting training for law enforcement officers to help them better detect, investigate, and process impaired drivers along with a push for more officers who are trained in drug recognition.



Fatalities and Serious Injuries



FLORIDA IMPAIRED DRIVING COALITION (FIDC)

The FIDC was formed in 2009 to identify and prioritize the state's most pressing impaired driving issues and develop a plan to maximize the state's ability to reduce these crashes.

FIDC members include representatives from more than 30 agencies and organizations which work with some part of Florida's impaired driving system.

The Florida Impaired Driving Strategic Plan (IDSP) identifies several key areas where efforts will be focused in the future including prevention; criminal justice system; communication; screening, assessment, treatment and rehabilitation; and program evaluation and data.

Impaired Driving Fatalities

- 0.15+ BAC: **19%**
- 0.08-0.14 BAC: **27%**
- Below 0.08 BAC: **XX%**
- Positive for Drugs: **XX%**
- Refusals: **25%**

Strategies

- **Combine high-visibility enforcement with increased public awareness of the dangers, costs, and consequences of impaired driving, with emphasis on high-risk populations and locations.**
- **Reduce repeat impaired driving behavior through targeted enforcement, effective and efficient prosecution, enhanced penalties for subsequent offenses, and improved evaluation, intervention, and treatment of substance abuse.**
- **Identify opportunities to prevent or counteract impaired driving through training of law enforcement, court, and substance abuse treatment personnel, recognition of emerging trends and new best practices, and use of tools such as ignition interlock devices, and revision of laws and rules.**

Pedestrians and Bicyclists

Walking and biking are popular in Florida given the year-round moderate climate. Given the vulnerability of a pedestrian or bicyclist, however, these activities can result in death and serious injury when they come into conflict with a motor vehicle. Since 2011, pedestrian and bicyclist fatalities increased 16 percent and serious injuries increased 14 percent. Florida began a pedestrian assessment in January 2012 and began specifically addressing key bicycle concerns in 2014.

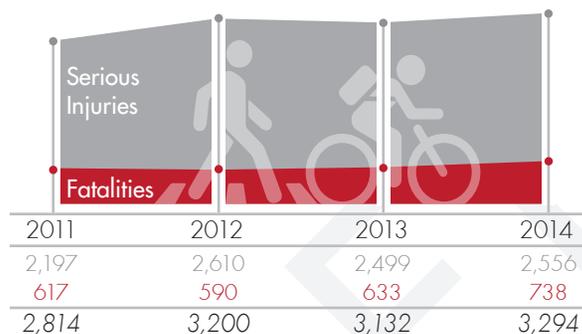
There are several factors involved in these crashes. Approximately two thirds of pedestrian and bicyclist-related fatal crashes occur outside of a marked crosswalk or bicycle lane. A major factor in these crashes is failure to yield to the right-of-way on the part of motorists, pedestrians, and bicyclists. More than 40 percent of bicyclist fatalities are related to traumatic brain injury involving a cyclist who was not wearing a helmet, or who wore a helmet improperly.

Florida represents **6%** of the U.S. population

but accounts for **17% & 11%** of bicyclist fatalities and of pedestrian fatalities

Source: National Highway Traffic Safety Administration (NHTSA).

Fatalities and Serious Injuries



Florida seeks to be a quality place for people to live, learn, work, and play, and is working to ensure everyone has convenient and safe choices for transportation, including walking, biking, and transit. The state is implementing engineering, education, enforcement, and emergency response strategies that reduce crash risk and increase the safety, accessibility, and mobility of these vulnerable road users. Florida's focused initiative to improve pedestrian and bicyclist safety has resulted in a statewide Complete Streets Policy and Implementation Plan, an intersection lighting plan, updated design guidance, a comprehensive communication plan, high visibility enforcement efforts, a strong emphasis on pedestrian and bicyclist safety in driver education, revisions

of Florida's Driver Handbook and driver license exam, and improved emergency response to victims of traffic crashes.



Engineering solutions such as the addition of pedestrian hybrid beacon traffic signals at marked mid-block crosswalks and protected bike lanes have been added to support pedestrian and bicyclist safety. Florida has also made improvements in the traffic data that allows more accurate assessment of pedestrian and bicycle related issues including the development of a geographic information systems (GIS) tool that allows Florida to map crashes, identify areas with an over representation of crashes, and conduct a comprehensive analysis of the context of each priority area to ensure the appropriate countermeasures are selected to resolve specific challenges.

FLORIDA PEDESTRIAN AND BICYCLE SAFETY COALITION

Florida's Pedestrian and Bicycle Safety Coalition, a diverse group of national, state, and local partners and safety advocates, prioritizes and implements the strategies identified in the statewide Pedestrian and Bicycle Strategic Safety Plan (PBSSP) to reduce pedestrian and bicycle related fatalities and serious injuries as a result of traffic crash involvement on Florida's roadways.

The PBSSP was finalized in 2013 in response to a pedestrian fatality rate that was nearly double the national average and a bicyclist rate that was nearly triple. The Coalition meets regularly to discuss and update the progress of the PBSSP implementation.

Strategies

- Increase awareness and understanding of safety issues and compliance with traffic laws and regulations related to pedestrians and bicyclists.
- Develop and use a systematic approach to identify locations and behaviors prone to pedestrian and bicycle crashes and implement multidisciplinary countermeasures.
- Create urban and rural built environments to support and encourage safe bicycling and walking.
- Support national, state, and local initiatives and policies that promote bicycle and pedestrian safety.

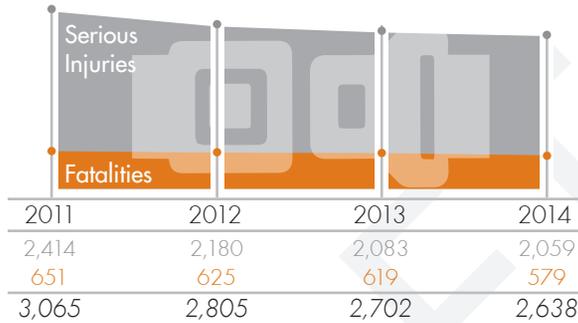
Unrestrained Occupants

NHTSA estimates that safety belts saved nearly 13,000 lives in the United States in 2014. Safety belts and age-appropriate child safety seats, when used properly, keep motorists in their seats during a crash and spread the crash forces across the stronger parts of the upper body, which helps to prevent deaths and serious injuries.

In Florida, unrestrained occupants represent nearly 26 percent of all fatalities and 11 percent of serious injuries. Nearly 72 percent of lane departure and almost 40 percent of intersection fatalities and serious injuries involved a person who was unrestrained. Often, the individuals who were killed or seriously injured in unrestrained crashes exhibited other risk taking behaviors such as driving impaired (22 percent), speeding (17 percent), and being distracted (13 percent).

Successful occupant protection involves education, communication, and enforcement necessary to achieve significant, lasting increases in safety belt and child safety seat usage. In Florida, efforts focus on regulation, policy, and education, including safety belt and child safety seat awareness

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and enforcement. These efforts include programs targeting specific demographic groups with low compliance rates, such as teen and minority populations, and other activities aimed at child passenger safety, such as expansion of inspection stations, awareness training, school bus safety, and special needs training.



Each spring around Memorial Day, Florida, along with all 50 states and the District of Columbia,

participate in NHTSA's nationwide *Click It or Ticket* high visibility enforcement campaign. These efforts have helped Florida reduce unrestrained occupant fatalities by 11 percent and serious injuries by 15 percent.

Safety belts **reduce the risk of fatal injury** to front seat occupants by

45%

and the **risk of moderate-to-critical injury** by

50%

Source: Centers for Disease Control.

Florida's safety belt use rate is

89.4%

National average is

87.0%

Source: National Highway Traffic Safety Administration (NHTSA).

Strategies

- Enforce occupant protection use laws, regulations, and policies to provide clear guidance to the public concerning motor vehicle occupant protection systems including those aimed at children.
- Determine which population groups are at highest risk for not wearing safety belts, and develop culturally relevant public education and outreach to increase awareness of the benefits of safety belt use among these groups.
- Develop and implement programs that use the media, including social media, to improve public awareness of the importance of safety belts.



Aging Road Users

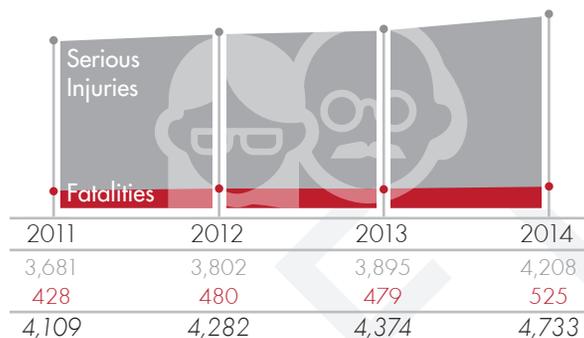
Florida has the largest number of aging road users in the nation. Since today's older adults are expected to live longer and continue to drive longer than any previous generation, their impact on traffic safety can be substantial.

As drivers age, their traffic risks increase. An 80-year old woman driver is seven times more likely to be killed as a 45-year old woman in trips that are the same distance.⁵ Aging impacts vision, memory, physical strength, reaction time, and flexibility - all necessary for safe driving. Fortunately, the majority of aging drivers voluntarily limit their driving when their skills begin to decrease. They make choices to not drive at night, stay on familiar roadways, and drive more during the mid-day hours when traffic is not as heavy (10 a.m. to 2 p.m.).

Whether it is an increase in the overall number of individuals age 65 or older, an increase in the number of vehicle miles they are traveling, or other causes, fatalities involving aging drivers have increased by 18 percent and serious injuries by 13 percent. To address the needs of aging road users, Florida's Safe Mobility for Life program provides a one-stop web site for information on aging issues; the *Florida Guide for Aging Drivers*; the nation's

⁵ The Pepper Institute on Aging and Public Policy, Florida State University.

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largest CarFit program helping drivers be safe and comfortable by improving the "fit" between drivers and their vehicles; a Find-a-Ride database that provides direct access to over 800 local transportation options; and roadway improvements such as larger lettering on signs and advance warning signs.

Additional activities include helping people transition more easily from driving to other modes of transportation; developing and distributing resources and tools to support safe driving skills; educating and promoting driving evaluation strategies to prevent crashes; and supporting implementation of community design features that meet the mobility needs of an aging population. Pedestrian and bicyclist safety for aging road users also will be addressed as more seniors decide to walk or ride rather than drive.



SAFE MOBILITY FOR LIFE COALITION

The mission of the Safe Mobility for Life Coalition is to improve the safety, access, and mobility of Florida's aging road users by implementing an Aging Road User Strategic Safety Plan to eliminate fatalities and reduce serious injuries. The Coalition consists of almost 30 member organizations who work together to develop, distribute, and evaluate transportation safety and mobility resources to benefit not only older adults but families/caregivers, engineers and planners, communities, law enforcement, aging service providers, and health care professionals.

The Coalition takes a positive and innovative approach to help aging Floridians improve their safety, mobility, independence, and connection to the community.

Strategies

- Promote and educate on comprehensive driving evaluations and safety strategies to prevent crashes.
- Expand transportation choices and promote community design features to meet the mobility needs of an aging population.
- Develop and distribute resources and tools to support safe driving skills and encourage early planning to safely transition from driving.

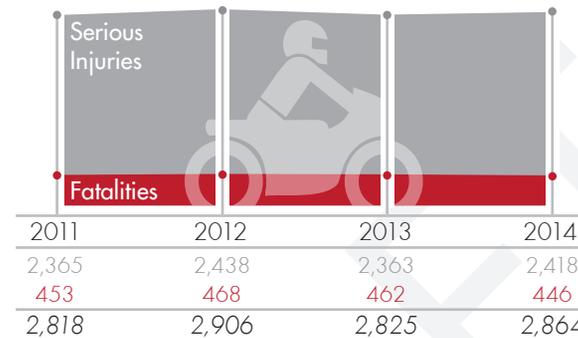
Motorcyclists

More Floridians ride motorcycles than ever before, with riders coming from every age and demographic group. Florida's sunny weather, beautiful beaches, and scenic highways make it a popular place for motorcycle enthusiasts, and the downturn in the economy and higher gas prices earlier in this decade made motorcycles and scooters a more attractive transportation choice.

Motorcyclists, including motor scooter riders, represent seven percent of licensed drivers, three percent of registered motor vehicles, and less than one percent of traffic on Florida's roadways, yet represent 19 percent of Florida's traffic fatalities and 12 percent of serious injuries. During the past five years, motorcycle-related fatalities increased by 17 percent, perhaps reflecting the 17 percent increase in motorcycle endorsements and 10 percent increase in motorcycle registrations over the same period. Whatever the reason, an increase that large indicates there is a serious problem involving motorcycles in Florida.

Florida's efforts to improve motorcyclist safety involve educating riders about riding skills and

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how to be seen by other vehicles, protective equipment, impaired riding, and proper licensure. Florida also educates other motor vehicle drivers about sharing the roadway and educates engineers and highway maintenance personnel about roadway hazards specific to motorcyclists.

In 2008, Florida adopted a law requiring motorcyclists who want to obtain a motorcycle endorsement or motorcycle-only license to complete a mandatory 15-hour basic training course provided by the Florida Rider Training Program.

Florida law also requires that all riders younger than 21 years wear a helmet. Motorcyclists 21 years and older may ride without helmets only if they show proof of coverage by a medical insurance policy. The state is focused on educating all riders about the value of wearing protective gear including helmets, eye protection, jackets, gloves, long-legged pants, and sturdy footwear.

FLORIDA MOTORCYCLE SAFETY COALITION

The Florida Motorcycle Safety Coalition was formed in 2008, and includes representatives from more than 25 public and private agencies and organizations who developed and now implement the Motorcycle Strategic Safety Plan (MSSP).

It is focused on promoting "Ride S.M.A.R.T.," which stands for: Say no to drinking and riding, Make yourself visible to motorists, Always wear a helmet, Ride in control, and Train regularly. The coalition, a winner of a 2011 National Roadway Safety Award, collects and analyzes data, conducts surveys, and implements and evaluates the state's motorcycle safety program.



Strategies

- Improve the skill levels of motorcyclists through increased participation in rider education programs and proper license endorsements.
- Promote the safe operation of motorcycles, including sharing the road, responsible riding, and the use of personal safety gear.
- Consider the unique vulnerabilities and characteristics of motorcyclists when designing and improving transportation infrastructure.

Commercial Motor Vehicle Crashes

"If you bought it, a truck brought it," is as true today as it was several years ago when it was first introduced as an advertising campaign. Projections suggest that truck tonnage will increase by 74 percent by 2040 due to continued globalization in trade and significant changes in the nation's shopping patterns, increasing the demand for trucks on Florida's roadways.² As one of the top tourist destinations in the world, Florida also has a high number of motor coaches on the road, a trend that is expected to continue.

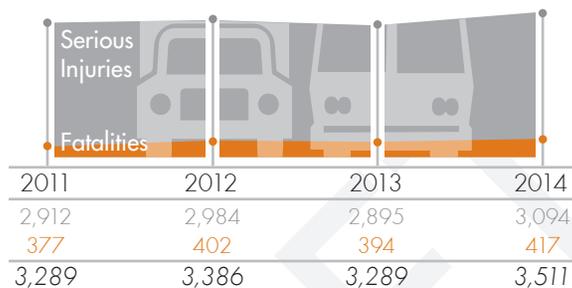
Nearly 600,000 Floridians hold a commercial driver license - about one in every 10 nationwide. Out of the 350,000 commercial motor vehicles registered in Florida, almost 72,000 are truck tractors (semi-trucks). Growth in commercial vehicle traffic has resulted in a 10 percent increase in commercial vehicle-related fatalities and a six percent increase in serious injuries.³

The Florida Highway Patrol's Office of Commercial Vehicle Enforcement (CVE) conducts safety inspections of commercial trucks and buses and enforces

² Federal Highway Administration, Freight Analysis Framework 3.4.

³ National Highway Traffic Safety Administration.

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safety requirements. CVE has a comprehensive commercial motor vehicle safety enforcement program that includes traffic enforcement focused on moving infractions, distracted driving, fatigued driving, and impaired driving. CVE concentrates enforcement efforts on these violations in specific high crash locations such as speeding and following too closely on Interstate highways.

Florida's shortage of available truck parking often results in trucks parking along the shoulders of interstates, which creates a safety hazard for motorists. Roadside pull-off areas along interstates in highly urbanized areas increase safety during traffic stops. Expanded parking areas at rest stops helps reduce driver fatigue. Public awareness programs

are conducted throughout the state. Outreach efforts include public speaking, media interviews, public service ads, billboards, dynamic message boards, and electronic social networking to educate the public about the value of the trucking industry and motorist safety in relation to commercial motor vehicle operations. Other efforts under consideration include truck-only lanes, more truck lane restrictions, and separate entrances particularly at busy port locations.

Nationally in 2014, **73%** of the **fatalities** in commercial vehicle crashes were **occupants of other vehicles**

10% were **pedestrians, bicyclists, or motorcyclists**

Source: National Highway Traffic Safety Administration (NHTSA).

Strategies

- Conduct targeted enforcement for violations in high crash locations associated with commercial vehicles.
- Use public awareness program, outreach efforts, and social media to increase motorist awareness of safe driving around commercial vehicles.
- Collaborate with the trucking and bus industry on programs and initiatives to improve safety and reduce crashes.

Speeding and Aggressive Driving Crashes

Chances of dying in a crash doubles for every 10 miles per hour (mph) a car travels above 50 mph. Speeding reduces the time a driver has to react to a dangerous situation, and increases the impact energy and risk of death in the event of a crash. According to the National Safety Council, if a car is traveling at 30 mph and accelerates to 60 mph, the amount of energy upon impact is four times greater. That impact ripples across the three types of collisions that are part of a crash: the vehicle collision when the car hits another car or object; the human collision when the people in the car hit the interior of the vehicle or another occupant; and the internal collision when organs in the body collide with the body's skeleton or other organs.

A crash is considered to be speed-related when a driver is driving too fast for conditions or exceeding the posted speed limit. Speeding is part of the overall problem of aggressive driving, which can also involve following too closely, refusing to yield the right-of-way, running red lights, weaving in and out of traffic, and passing improperly. In addition to the effects on reaction time and impact, speeding reduces a driver's ability to steer safely around other vehicles, curves, or objects in the

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roadway; extends the distance necessary to stop a vehicle; and increases the distance a vehicle travels before a hazard is noticed. While quieter, better designed cars and smoother and wider roadways can contribute to the speed problem, driver attitude and cultural norms are ultimately the major factor in decisions to speed.

Speeding or aggressive driving is involved in nearly 65 percent of all fatalities and serious injuries involving lane departure and nearly 42 percent involving intersections. Individuals involved in speeding and aggressive driving

crashes often exhibit other risk-taking behavior such as not wearing a safety belt (32 percent) or driving impaired (25 percent). The good news is that, since 2011, speeding and aggressive driving fatalities have decreased by 11 percent and serious injuries have declined six percent.

Speeding and aggressive driving are complex issues that can be addressed through engineering, enforcement, and education solutions. Engineering solutions include managing speed by setting appropriate speed limits; using variable speed limits that change based on road, traffic, and weather conditions; or implementing traffic calming measures that slow drivers down. Local law enforcement agencies can also target problems with high visibility speeding and aggressive driving initiatives that educate the public about the problem and cite individuals who violate the law.

Strategies

- Enforce speeding and aggressive driving laws by focusing on high-risk locations.
- Incorporate technology and other innovations including speed cameras at high risk locations.
- Evaluate crash hotspots and implement appropriate engineering countermeasures to control speed and reduce aggressive driving behavior.
- Conduct community-based public awareness and education regarding speeding and aggressive driving.



Source: AAA Foundation for Traffic Safety.

Teen Driver Crashes

As any parent knows, handing the car keys to a new driver is a proud yet terrifying experience. Florida has over 400,000 registered teen drivers, age 15 to 19. Teen drivers are involved in approximately 40,000 crashes resulting in 200 fatalities and 2,500 serious injuries each year. Nationally, drivers aged 16 and 17 have the highest crash rates of any age group.

Teen drivers do not have years of experience to recognize and avoid dangerous situations. According to the Centers for Disease Control and Prevention (CDC) finds that teens often engage in risky behaviors. In one third of the deaths and serious injuries involving teen drivers, safety belts were not worn. Teens are more likely to

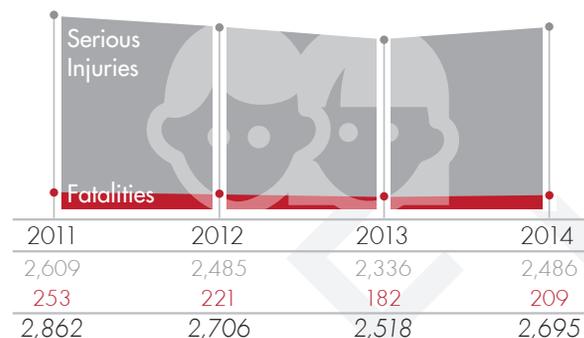
Motor vehicle crashes are the
**LEADING CAUSE
 OF DEATH**
for U.S. teens

Source: Centers for Disease Control and Prevention (CDC).

Strategies

- Educate stakeholders about the potential safety benefits of improving Florida's Graduated Driver Licensing Law to include passenger and cell phone restrictions.
- Educate parents, caregivers, and role models on the dangers of impaired driving for teen drivers including the prohibition on providing alcohol or drugs to anyone under the age of 21.
- Work with law enforcement agencies to increase enforcement of GDL and other traffic safety laws including safety belt use and impaired driving.

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underestimate dangerous situations, speed, and allow shorter distances between vehicles.⁴

For most adults, driving is almost automatic; in reality, it is a complex task requiring the driver to pay attention to a multitude of factors simultaneously, including other cars, pedestrians, obstructions, signs, and signals. Almost half of all Florida teen fatalities and serious injuries happen at intersections where the mix of traffic, pedestrians, signs, and signals can be overwhelming, especially for someone who is inexperienced.

⁴ Centers for Disease Control and Prevention (CDC)

The teen years are a time to gain new knowledge and skills, one of which is driving. That is why Graduated Driver Licensing (GDL) laws allow new drivers to gain necessary experience and skills before being allowed full driving privileges. GDL has been very effective in reducing fatalities and serious injuries among this age group, according to the National Highway Traffic Safety Administration (NHTSA). In Florida, teen driver fatalities declined 17 percent since 2011, and serious injuries decreased by five percent.



TEEN SAFE DRIVING COALITION

Leading the charge in Florida to improve traffic safety among teens is the Teen Safe Driving Coalition, which is focusing on reducing the alarming number of teen drivers being killed or seriously injured in traffic crashes.

The Coalition is working to expand the network of individuals and partners who are involved in the teen safe driving effort and is conducting extensive outreach and education.

Each year, the Coalition works with Students Against Destructive Decisions (SADD) on a Leadership Academy, which helps Florida teens plan and conduct peer-to-peer safety campaigns in their schools and communities.

Distracted Driving

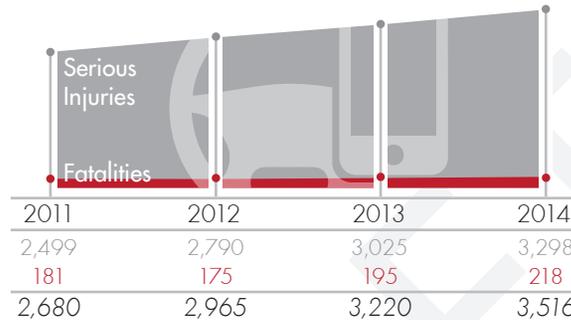
At 55 miles per hour, a driver can travel the distance of a football field (with his or her eyes off the road) in the amount of time it takes to send a text.⁶ Distracted driving includes anything that takes the driver's attention away from the vital task of driving.

There are three types of distraction: manual, which is taking hands off the wheel; visual, or taking eyes off the road; and cognitive, which involves taking one's mind off driving. Discussions about distracted driving often center on cell phone use and texting but other activities such as eating, talking to passengers, reading, adjusting the radio or climate controls, dealing with children, and being fatigued or drowsy can be equally as distracting.

Fatalities involving distracted driving increased 17 percent while serious injuries increased 24 percent. The relatively low numbers of fatalities and serious injuries, given what people suspect is the extent of the problem, may be due to the difficulty

⁶ Centers for Disease Control and Prevention (CDC)

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in obtaining distracted driving data. Law enforcement officers often have trouble determining if a person was distracted and cannot confiscate a cell phone to verify if a driver was texting without a warrant.

Activities to address distracted driving include a "Just Put It Down" campaign with a sample proclamation and a pledge for people to sign and a partnership with GEICO Insurance to offer "Safe Phone Zones" at 64 Florida rest areas, welcome centers, and turnpike service plazas.



At any given daylight moment across America,

660,000 DRIVERS are USING CELL PHONES

or manipulating electronic devices while driving.

Source: NHTSA, One Text or Call Could Wreck It All, Traffic Safety Marketing.

Strategies

- Implement effective roadway design and operation practices such as rumble strips and stripes and flashing beacons with warning signs to mitigate lane departures, speeding, and other symptoms of distracted driving and to reduce congestion and improve mobility.
- Change societal attitudes about distracted driving through intensive public education activities.
- Collaborate with other public and private organizations to offer innovative solutions, such as public and private sector policies that prohibit distracted driving when using company or organization vehicles.

Work Zones

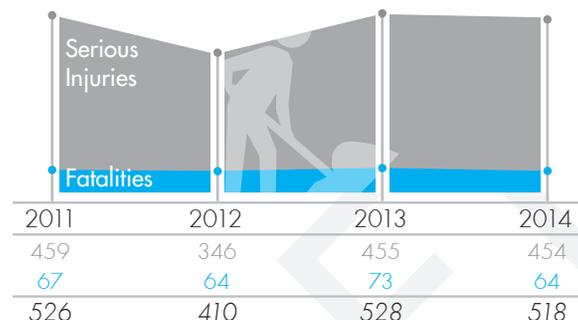
While work zones may be frustrating to many drivers, they are essential to ensure Florida's roadways, bridges, medians, and shoulders are properly constructed and maintained. A work zone is an area set up by state and local departments of transportation or utility companies to allow highway construction, maintenance, or utility-work activities. Work zones are usually marked by signs, channeling devices, barriers, pavement markings, and/or work vehicles, and may be monitored by state or local law enforcement.

The length of time a work zone is in operation depends on the type of construction or maintenance project as well as the type of roadway, weather conditions, and traffic volume. A work zone involves workers, vehicles, trucks, and

In 2014, Florida had the **3rd** highest number of **Fatal Traffic Crashes** in **Work Zones** in the Nation with a total of **60 Crashes**

Source: National Work Zone Information Clearinghouse.

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equipment that can necessitate lane closures, detours, and moving equipment, and can last from a few days to years. While work zone fatalities make up only three percent of overall fatalities and two percent of serious injuries, the safe and efficient flow of traffic through work zones is an ongoing priority for Florida's transportation and safety partners. A focus on work zone safety is critical because plans for investment in maintaining existing roads and bridges and building or expanding roadways to meet the growing capacity needs of the state's transportation system will result in more work zones across the state.

Workers were present in the work zone in 33 percent of the fatal crashes and 40 percent of the crashes involving serious injuries. The majority of the fatalities and serious injuries happened in work zones located on shoulders or in the median area of the roadway, and for most, law enforcement officers were not present. A major cause of these crashes is distraction, with 21 percent of work zone related fatalities and serious injuries involving distracted driving.

Efforts to improve safety in and around work zones include traffic training for workers and contractors, rumble strips to alert drivers that the work zone is near, and law enforcement presence to ensure traffic slows down.

FLORIDA WORK ZONE SAFETY COALITION

The Florida Work Zone Safety Coalition is an industry initiated coalition that was established in 2016. This coalition is new and does not currently have a strategic safety plan. FDOT participates as a member of this coalition and will encourage the coalition to adopt the strategies identified in the SHSP.

Strategies

- Apply advanced technology to improve work zone safety such as automated work zone information systems, simplified dynamic lane merge systems, portable changeable message signs, and queue warning systems.
- Educate road users about work zone safety and provide timely and accurate information regarding active work zones.
- Determine the feasibility and effectiveness of other improvements including installing reflectors on barrier walls, spacing on curves, changes in the penalties and fines to contractors for getting out of the roadway late, using of crash cushions, and correcting pavement marking errors.
- Work with law enforcement, contractors, and DOT personnel to reduce speeds in and around work zones with reduced speed limits through a comprehensive approach of increased fines and increased law enforcement contacts.



Traffic Records and Information Systems

Data are the foundation of any effort to improve traffic safety and critical for the development and implementation of the SHSP. Using data to identify safety problems creates an evidence-based safety planning process, and results in better decision-making.

A traffic records system consists of data about a state's roadway network and the people and vehicles that use it. The six traffic records systems are: crash, vehicle, driver, roadway, citation/adjudication, and emergency medical services/injury surveillance. The data from these systems are used to understand driver demographics, licensure, behavior, and sanctions; vehicle types, configurations, and usage; engineering, education, and enforcement measures; crash-related medical issues and actions; and how all of these factors affect highway safety. Decision makers and safety stakeholders at the state, regional, and local level analyze the various data to understand their highway safety problems, set priorities, and develop and evaluate projects and programs that save lives.

Connecting quality data from all of the traffic records systems can provide a detailed and clear picture of traffic safety issues. The analysis of a single crash or aggregated crashes statewide, in a region, or a specific corridor, can help inform the type of engineering, education, or enforcement strategy to implement by targeting specific safety problems, road user populations, or training needs. Additionally, quality data allow for performance monitoring so that resources and investments are used most effectively and efficiently.

FLORIDA TRAFFIC RECORDS COORDINATING COMMITTEE

Florida's Traffic Records Coordinating Committee (TRCC) was created to bring together agencies interested in reducing traffic fatalities and serious injuries by improving the timeliness, accuracy, completeness, uniformity, integration, and accessibility of traffic records data. The TRCC facilitates planning, coordinating, and implementing projects to accomplish common goals and improve the quality of the state's traffic records information systems.

Currently the TRCC is working on integrating with the national emergency medical services information system; expanding a crash geo-location system; and providing grants to local law enforcement agencies and courts to improve their traffic records systems.



Strategies

- Develop and maintain complete, accurate, uniform, and timely traffic records data.
- Promote the use of traffic records data for decision-making purposes and ensure its accessibility.
- Facilitate collaboration of multiagency initiatives and projects that improve traffic records information systems.
- Create the same key data fields and definitions among Florida's six data systems to allow end users to link traffic records data.



Transition to Implementation

The Strategic Highway Safety Plan focuses on persistent problems and new or trending areas that most significantly affect Florida's highway fatalities and serious injuries. The state's network of highway safety professionals and advocates are working to drive down fatalities and serious injuries with an ultimate vision of zero. The SHSP identifies proven strategies, programs, and initiatives, as well as new approaches that will be used to accomplish this vision.

The SHSP is an overarching plan that provides direction to state, regional, and local transportation, law enforcement, education, emergency management, and other entities. The SHSP will be implemented through multiple activities. The SHSP will:

- Provide a framework for the updates of Florida's Highway Safety Improvement Plan (HSIP) and Highway Safety Plan (HSP), which identify specific projects as priorities for use of dedicated safety improvement funding available through the Federal Highway Administration and the National Highway Transportation Safety Administration, respectively, along with the Commercial Vehicle Safety Plan through funding from the Federal Motor Carrier Safety Administration.
- Inform the updates of strategic or action plans developed and maintained by established or new coalitions of safety professionals focused on specific emphasis areas.
- Guide FDOT in incorporating safety improvement strategies as appropriate into the full range of maintenance, operations, and capacity projects in its work program and future plans, recognizing that every transportation investment also represents an opportunity to improve the safety of travelers. A key focus will be on improving the safety of travel on Florida's Strategic Intermodal System, the state's high priority network of facilities important for statewide and interregional travel.
- Guide Florida's 27 metropolitan planning organizations (MPO), 67 counties, and 411 cities in updating safety action plans and safety elements of their long-range transportation plans, as well as implementing specific projects.

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.dot.state.fl.us/safety>)



The Florida Transportation Plan identifies implementation guiding principles related to collaboration, innovation, customer service, and data and performance. The transition of the SHSP from planning to implementation will require a focus on these same areas.

How do we collaborate across jurisdictions, modes, and disciplines?

- Continue to support Florida's existing safety coalitions to coordinate with stakeholders to drive down fatalities in specific emphasis areas.
- Establish ad hoc committees or additional coalitions for the commercial motor vehicle, distracted driving, occupant protection, and speeding/aggressive driving emphasis areas that do not presently have established coalitions.
- Coordinate with Florida's MPOs and local governments on SHSP emphasis area implementation and future updates of their safety plans and programs.
- Continue to encourage multi-disciplinary approaches to safety improvements that consider engineering, education, enforcement, and emergency response solutions.
- Coordinate with land use, public health, and other partners to ensure safety considerations are a top priority in planning decisions related to transportation.

How do we embrace innovation in all aspects of highway safety?

- Invest in research and evaluation of new technologies and practices that can reduce highway fatalities and serious injuries.
- Plan to use technology to improve communication across modes and design "smart streets" that provide information to all travelers to reduce conflicts.
- Monitor and evaluate innovations that may change travel behavior and demand for potential impact to safety.
- Update state and local safety plans and regulations to consider technologies and innovation that may reduce fatalities and serious injuries.

How do we better serve our customers?

- Communicate clear and consistent safety messages using a variety of mediums and venues that engage roadway users in their role in Driving Down Fatalities.
- Create transportation environments that are accommodating and safe for all roadway users.
- Educate roadway users on how to use new infrastructure and technologies, such as roundabouts and signalized crosswalks.
- Understand how changes in travel demand, preferences, and options impact highway safety.

How do we improve data and performance?

- Commit to ongoing improvements in the quality, integration, and analysis of various traffic records data, including innovative uses of new and emerging data sources.
- Create a long-term strategy for managing traffic records data as a critical resource for highway safety agencies' and partners' decision-making and research, including data storage, sharing, privacy, and quality issues.
- Commit to ongoing highway safety research to identify proven strategies, programs, and initiatives that can be replicated across the state to realize further reductions in highway fatalities and serious injuries.
- Implement innovative techniques to measure progress and guide investment decisions to continuously improve traffic safety.
- Work with MPOs to coordinate target setting and performance measures between the state and local plans, consistent with federal requirements.



Call to Action

Improving safety on our roadways involves all of us working together to reduce fatalities and serious injuries. Implementing the SHSP strategies, through the efforts of engineering, education, enforcement, and emergency response, while increasing roadway users' awareness and understanding of their role improving safety on our roadways, is our best opportunity to Drive Down Fatalities.

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

- Update their safety plans, including other state, coalition, MPO, and local government plans, to reflect alignment with the FTP and SHSP zero fatality vision.
- Demonstrate support and promote the SHSP vision of zero fatalities by incorporating SHSP strategies and links to the SHSP document 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.
- Document and report progress in each emphasis area toward achieving Florida's vision of zero roadway fatalities.
- Support national, state, and local initiatives and policies that promote highway safety.

Safety for Florida's residents and visitors is a top priority for the state that cannot be achieved without the help of safety partners. Florida's traffic safety community must continue to work together to identify and implement innovative solutions that help to reduce fatalities and serious injuries on Florida's roadway system. As we continue to work together, engage new partners, and follow through with the strategies outlined in the SHSP, we are confident that we can drive down roadway fatalities and serious injuries.

For more information please visit:

www.dot.state.fl.us/safety/



Glossary

Aging Road User –

Autonomous Vehicle Technology – Technology installed on a motor vehicle that has the capability to drive the vehicle on which the technology is installed without the active control or monitoring by a human operator.

Bicyclist –

Collaboration – When parties work together to produce or create something.

Commercial Motor Vehicle –

Context Sensitive Solutions – A collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility. CSS is an approach that considers the total context within which a transportation improvement project will exist.

Cooperation – When parties involved work together to achieve a common goal or objective.

Coordination – The comparison of plans, programs and schedules of one agency with related plans, programs and schedules of other agencies or entities with legal standing, and adjustment of plans, programs and schedules to achieve general consistency.

Department of Highway Safety and Motor Vehicles –

Destination – The point in a trip where travel ends.

Distracted Driving –

Economic Competitiveness – A state or region's ability to compete in global markets, as evidenced in the attraction of new businesses and the expansion of existing businesses.

Economic Development – Sustained increase in the economic standard of living of the population of a country (or any other defined geographic region), normally accomplished by increasing its stocks of physical and human capital and improving its technology.

Emergency Preparedness, Management, and Response – Actions taken to prepare for, respond to, and recover from an incident threatening life, property, operations, or the environment (natural and man made hazards).

Emphasis Area –

Facility – The infrastructure (such as a roadway, railway, or waterway) that supports the transportation of people and goods.

Fatality –

Fatality Rate – The number of fatalities per 100 million vehicle miles traveled.

Federal Highway Administration –

Florida Department of Transportation –

Florida Teen Safe Driving Coalition (FTSDC) –

Florida Transportation Plan – A statewide plan that defines Florida's long range transportation goals and objectives for at least the next 20-50 years.

Freight – Any commodity being transported.

Geographic Information System (GIS) –

Graduated Driver's License (GDL) –

High-Risk Populations –

Highway – A general term for denoting a public way for purposes of vehicular and people travel, including the entire area with the right-of-way.

Highway Fatalities – All deaths in which a motor vehicle was the cause of the fatality. This includes pedestrians and bicyclists killed by motor vehicles as well as vehicle occupants.

Highway Modes – Automobile, Bicycle, Bus, Pedestrian.

Impaired Driver –

Incident – An event that causes a temporary, significant disruption in transportation services.

Intelligent Transportation Systems – A wide range of advanced technologies and ideas, which, in combination, can improve mobility and transportation productivity, enhance safety, maximize the use of existing transportation facilities, conserve energy resources and reduce adverse environmental effects.

Intersection –

Lane Departure –

Livable Community – A neighborhood, community or region with compact, multidimensional land use patterns that ensure a mix of uses, minimize the impact of cars, and promote walking, bicycling and transit access to employment,

education, recreation, entertainment, shopping and services.

Long Range Goal – A long-term (20-50 years) desired result toward which programs and activities are ultimately directed.

Long Range Objective – A long-term (20-50 years) general outcome that is achievable, measurable, and marks progress toward a goal.

Maintenance – Activities undertaken to keep the state's transportation infrastructure and equipment operating as intended, to eliminate deficiencies, and to extend or achieve the expected life of facilities before reconstruction is needed. These include routine or day-to-day activities (e.g., pothole patching, mowing, litter removal, guardrail repair and striping, routine bus inspection and maintenance, and periodic dredging of channels) and periodic major projects (e.g., resurfacing roadways and runways, and rehabilitating bridges and bulkheads at seaports).

Managed Lane – Highway facilities or a set of lanes where operational strategies are proactively implemented and managed in response to changing conditions.

Mode – Any one of the following means of moving people or goods: aviation, bicycle, highway, paratransit, pedestrian, pipeline, rail (commuter, intercity passenger and freight), transit, space and water.

Motorcycle –

Motorcycle Rider –

Multimodal – More than one travel mode potentially including auto, bicycle, bus, pedestrian, aviation, rail, seaports, and transit.

National Highway Traffic Safety Administration (NHTSA) –

Natural Environment – The surroundings not made by humans within which the transportation system operates. This includes both physical and ecological aspects, including traditional cultural resources.

Non-Highway Modes – Modes of transportation that do not utilize highway right-of-way. Examples include fixed guideway transit, air, rail and water modes.

Origin – The point in a trip where travel begins.

Partners, Transportation – Those parties with interests in



transportation facilities and services including the public, local governments, metropolitan planning organizations, public and private sector users and providers, Native American Nations, the Florida Department of Transportation, and other federal and state agencies.

Pedestrian –

Quality of Life – All of the characteristics of an area’s living conditions, including such things as housing, education, transportation infrastructure, leisure time offerings, climate, employment opportunities, medical and health care infrastructure and environmental resources.

Quality Place – An area where people experience quality of life.

Rail Road Crash –

Region – An area of distinctive communities, cities, and counties where residents share: a geographic identity and are socially, economically, and culturally interdependent; a capacity for planning and function; and a capacity to create competitive advantage.

Resilience – The ability for the transportation system to absorb the consequences of disruptions, to reduce the impacts of disruptions and maintain mobility.

Retroreflectivity –

Routine Maintenance – Operations that may be predicted and planned in advance. These operations (e.g., cleaning and debris removals, regular inspections, mowing, preventive maintenance, etc.), which may be preventive or corrective in nature, should be conducted on a regularly scheduled basis using standard procedures. Proper scheduling of these operations should be utilized to provide minimum disruptions and hazards to the driving public.

Safe Mobility For Life Coalition (SMFLC) –

Safety Management System – A systematic process that has the goal of reducing the number and severity of traffic crashes by ensuring that all opportunities to improve highway safety are identified, considered, implemented as appropriate and evaluated in all phases of highway planning, design, construction, maintenance and operation; and by providing information for selecting and implementing effective highway safety strategies and projects.

Safety Program – Projects designed to improve vehicle and pedestrian safety on the city, county and state highway systems. The program is divided into three subprograms – rail/highway crossings, highway safety and traffic safety grants.

Serious Injury –

Short Range Objective – One or more statements of the specific, measurable, intermediate end that is achievable and marks progress toward a goal and long range objective. Specific objectives may be associated with more than one goal or long range objective.

Speed and Aggressive Driving –

Stakeholders – Individuals and groups with an interest in the outcomes of policy decisions and actions.

State Highway System – A network of approximately 12,000 miles of highways owned and maintained by the State of Florida or state-created authorities. Major elements include Interstate highways, Florida’s Turnpike and other toll facilities operated by transportation authorities and arterial highways.

Strategic – Important or essential to Florida’s statewide economic competitiveness.

Strategic Highway Network – A network of highways which are important to U.S. strategic defense policy and which provide defense access, continuity and emergency capabilities for defense purposes.

Strategic Intermodal System – Florida’s transportation system composed of facilities and services of statewide and interregional significance, including appropriate components of all modes.

Strategy – A specific activity that is designed to help achieve an objective.

Students Against Destructive Decisions (SADD) –

Sustainability – Meeting the needs of the present without compromising the ability to meet the needs of the future.

System – A combination of facilities or services forming a network or being selected for analysis.

System Maintenance – Actions taken to preserve the state’s transportation infrastructure investment (e.g., resurfacing pavements of roadways and airport runways, repairing and replacing bridges, maintaining existing transit routes and frequencies) to eliminate deficiencies and to extend/achieve the expected life of facilities before, for example, reconstruction is needed.

Target – A quantifiable point in time at which an organization achieves all or a portion of its goals.

Teen Driver –

Truck – A heavy vehicle engaged primarily in the transport

of goods and materials (notes, [1] trucks are included in the definition of Highway Capacity Manual definition of automobile, [2] commonly within FDOT use of the term “truck” for traffic purposes is more accurately termed “heavy vehicle”).

Unrestrained Occupant –

Vehicle Miles Traveled – The total number of miles traveled by vehicles using a roadway system.

Vehicle Occupancy – The number of persons, including driver and passenger(s) in a vehicle; also includes persons who did not complete a whole trip. Nationwide Personal Transportation Survey vehicle occupancy rates are calculated as person miles divided by vehicle miles.

Vulnerable Populations –

Work Zone –

Work Zone Crash –

Wrong Way Crash –



**DRIVING
DOWN
FATALITIES**

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