FLORIDA DEPARTMENT OF TRANSPORTATION

2060 FLORIDA TRANSPORTATION PLAN

2013 PERFORMANCE REPORT

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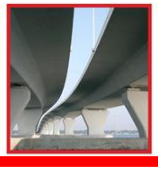


WHAT ARE PERFORMANCE MEASURES?

Performance measures are indicators that quantify progress toward attaining a goal, objective, or target (target being a desired level of future performance).

WHY DO WE USE THEM?

The Florida Department of Transportation (FDOT) uses performance measures to:

- Assess how well our multimodal transportation system is operating,
- Provide the Department with better information to support decision-making,
- Assess how effectively and efficiently transportation projects and services are being delivered,
- Determine how satisfied our customers are, and
- Demonstrate transparency and accountability for results to Florida's citizens.

HOW DOES FDOT USE PERFORMANCE MEASURES?

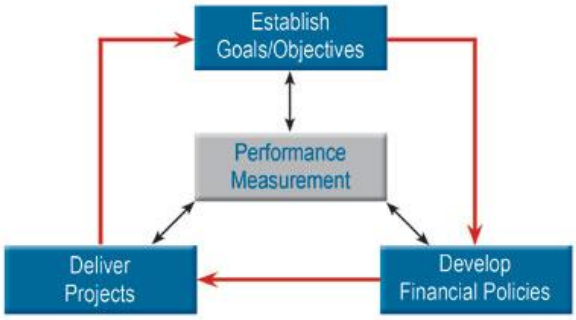
The improvement needs of Florida's transportation system exceed available funding. Resources must be used in the most strategic, effective and efficient ways possible. Performance measures provide needed "feedback" and are integrated into the Department's business practices on three levels:

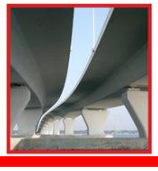
At the strategic level – Performance measures are used to **establish goals and objectives**, and to monitor progress towards achieving the State's long-range transportation goals. These long-term goals are part of the 2060 Florida Transportation Plan.

At the decision-making level – Performance measures are used to **inform the financial policies** that determine how funds are allocated across numerous programs such as highway preservation, system expansion, and public transportation in an effort to measure their effectiveness. These programs are defined in the Program and Resource Plan.

At the project delivery level – Once projects have been selected, performance measures are used to monitor the efficiency and effectiveness of projects and services in the Five Year Work Program. The measures are also used in supporting organizational and operational improvements.

This **Performance-Based Planning and Programming Process** is shown here:





WHAT DOES FDOT MEASURE?

FDOT's mission is to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities. Performance reports are prepared to evaluate results in relation to our mission and the Florida Transportation Plan. Each is listed below with examples of measures and objectives:

Safety and Security – Fatality and serious injuries related to aggressive driving, intersection crashes, vulnerable road users, lane departure crashes, impaired driving, at-risk driving, and distracted driving

Maintenance and Operations – Percent of pavement and bridges meeting condition standards, percent of maintenance activities (such as roadway striping, guardrail repair and mowing) that meet department standards

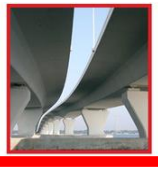
Economic Competitiveness and Mobility – Strategic Intermodal System implementation, freight and port access, transit ridership, hours of delay, facilitation of economic development opportunities, benefit-cost ratio of FDOT programs

Quality of Life & Environmental Stewardship – Community values and visions; travel experience; impacts to the physical, natural and cultural environment

HOW ARE WE PERFORMING?

As FDOT strives to improve its performance, there has been a marked increase in the number and types of performance measures. FDOT attempts to select performance measures that relate to FDOT priorities, have value to decision-making, relate to the 2060 Florida Transportation Plan and that help tell the story of the Department's performance journey. A few report highlights include:

- Since 2007, the number of fatalities on Florida roadways dropped by 17 percent; the number of serious injuries by 21 percent
- At 87 percent, the statewide seat belt usage rate remained high and is three points higher than the national average
- State Highway System pavements are in excellent condition, with 91.6 percent currently meeting Department standards
- Department maintained bridges are also in excellent condition, with 95.1 percent currently meeting Department standards



- Travel Time Reliability on the State Highway System (SHS) in 2012 was 94.6 percent, the highest in the 8 years this key measure—for both people and goods movement—has been in place
- Annual Vehicle Hours of Delay on the State Highway System (SHS) has decreased from 387 million hours in 2004 to 215 million hours in 2012
- Three out of every four Florida residents surveyed indicate that travel time between cities and towns is satisfactory— agreement went from 67 percent to 75 percent between 2000 and 2011, with strong agreement increasing from 5 percent to 12 percent
- The Department carries out its role as an environmental steward in many ways including increasing the tonnage of recycled pavement from about 570 thousand tons in 2005 to over 940 thousand tons in 2013—an approximately 65 percent increase in less than a decade

FOR MORE INFORMATION

In addition to this report, the Florida Transportation Commission reports annually on FDOT in the Performance and Production Review. For even more details on FDOT's extensive performance reporting, visit www.dot.state.fl.us/planning/performance.

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2060 FLORIDA TRANSPORTATION PLAN

SAFETY & SECURITY

2013 PERFORMANCE REPORT

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This report is part of the Performance-Based Planning and Programming Process used by the Florida Department of Transportation (FDOT). For a description of that process, updates to this report and other transportation performance reporting initiatives of FDOT, go to FDOTPerforms.org.

BY THE NUMBERS

The safety and security of Florida's highways is a paramount FDOT priority. Key performance highlights include:

- The number of fatalities and serious injuries on Florida's roadways continued to drop in 2011
- Since 2007, the number of fatalities dropped by 17 percent; the number of serious injuries by 21 percent
- Fatalities declined 25 percent and 47 percent between 2006 and 2010 for aging road users and teen drivers
- Fatalities declined 9 percent, 18 percent and 3 percent between 2006 and 2011 for pedestrians, motorcyclists and bicyclists
- At 87 percent, the statewide seat belt usage rate remained high and is three points higher than the national average
- The number of miles between safety incidents for Florida's transit agencies increased by more than 11 percent between 2004 and 2012

OUR GOAL

PROVIDE A SAFE AND SECURE TRANSPORTATION SYSTEM FOR ALL USERS

Improving the safety and security of the transportation system is among the state's highest commitments to its residents and visitors. Safety and security are important issues for every mode of transportation and it is affected by a multitude of factors ranging from individual human traits and behaviors, infrastructure design, investment levels, innovations in technology and communications, as well as commitments to enforcement and education. Safety and security are even affected by weather and the natural environment. Despite safer highway design, safer motor vehicles, increased safety belt use, increased and improved public education, vigorous enforcement of laws, and improved emergency response and trauma treatment, there is more work to do in pursuit of our long-term goal of zero deaths on Florida's roadways.

In 2012, the Department collaborated with Florida's federal, state and regional safety partners and stakeholders to update its **Strategic Highway Safety Plan** (SHSP). The goal of Florida's SHSP is to reduce fatalities and serious injuries by strategically concentrating funding and other resources on the problems with the greatest potential for improvement. The SHSP and this

report are intertwined, with the SHSP providing the foundation for this Safety chapter of the Performance Report. In most instances, this report touches on the higher level issues and measures, and the SHSP contains greater detail.

> Just as the 2060 Florida Transportation Plan is a plan for all of Florida's transportation partners, the SHSP is a plan for all of Florida's safety partners.

Just as the *2060 Florida Transportation Plan* is a plan for all of Florida's transportation partners, the SHSP is a plan for all of Florida's safety partners. The SHSP is led by a group of dedicated, public and private sector, safety partners actively involved in engineering, enforcement, education, and emergency response—all working together—to achieve successful implementation. Concurrently, achieving the safety goals and implementing the strategies contained within this Performance Report will require collaboration among FDOT and its many safety partners.

OUR OBJECTIVES

The Florida Department of Transportation (FDOT) sets objectives and strategies to implement the *2060 Florida Transportation Plan* goals. Each objective includes an array of strategies to enable the Department to meet its adopted objectives. The following objectives provide the policy framework for connecting the Department's budget and work program to the *2060 Florida Transportation Plan's* safety and security goal.

- Reduce by 5 percent annually the number of highway fatalities and serious injuries
- Update emergency response plans and readiness procedures for disaster response and conduct regular training exercises

OBJECTIVE: Reduce by 5 percent annually the number of highway fatalities and serious injuries

Although safety has improved dramatically over the past decade, too many lives are still lost on Florida's transportation system. This objective, to steadily reduce the number of highway fatalities and serious injuries by 5 percent annually, reflects a philosophy of continued improvement and recognition that one life lost is too many.

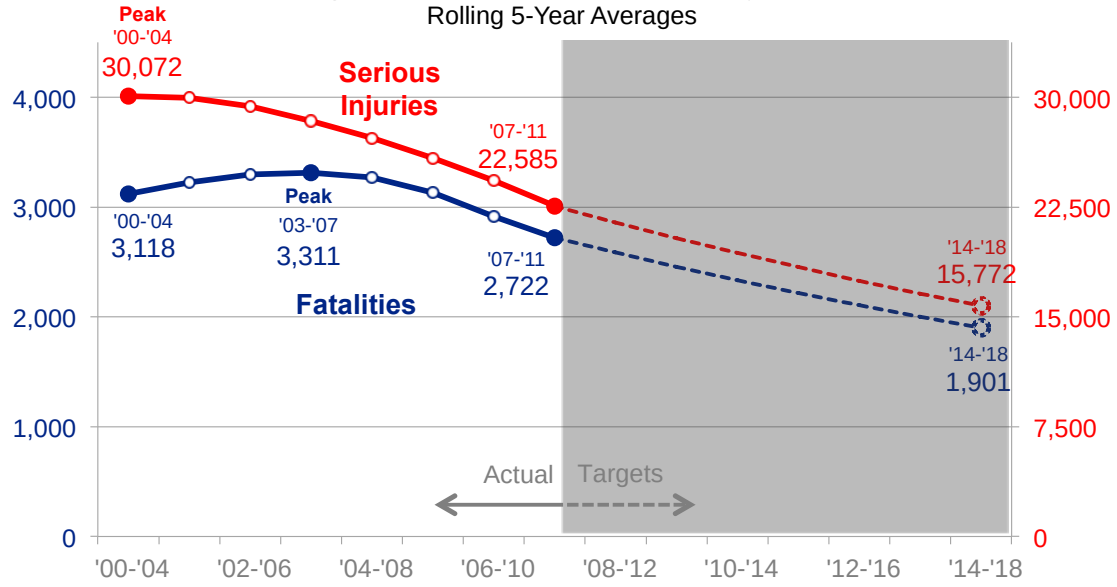
It is worth noting that fluctuations in the number and changes in variables involving traffic crashes are common. For the purposes of measuring performance, it is desirable to "smooth out" the effects of these variations and allow trends to be more clearly understood. For example, traffic safety measures are often calculated using rolling multi-year averages instead of annual counts.

Fatalities and Serious Injuries Due to Traffic Crashes

The effect of traffic crashes is best illustrated by measuring the most severe consequences – fatalities and serious injuries. Reductions in these areas can have a profound effect on the quality of life in Florida. As shown in **Figure 1**, since 2007 the five-year average for fatalities has dropped from 3,311 to 2,722, nearly an 18 percent reduction. Over the same time period, serious injuries have decreased by nearly 21 percent, from 28,371 to 22,585. If the target of a 5 percent reduction annually is achieved, the five-year averages would drop to about 1,900 for fatalities and below 16,000 for serious injuries by 2018.

> Since 2007, the five-year averages for fatalities and serious injuries have dropped by 18 and 21 percent respectively.

Figure 1: Fatalities and Serious Injuries
Rolling 5-Year Averages



The recent downward trend in fatalities and serious injuries is attributed to several safety programs and initiatives, such as the enforcement of safety belt use, crackdowns on drunk driving, increased vehicle safety and fewer vehicle miles traveled due to the national economic downturn.

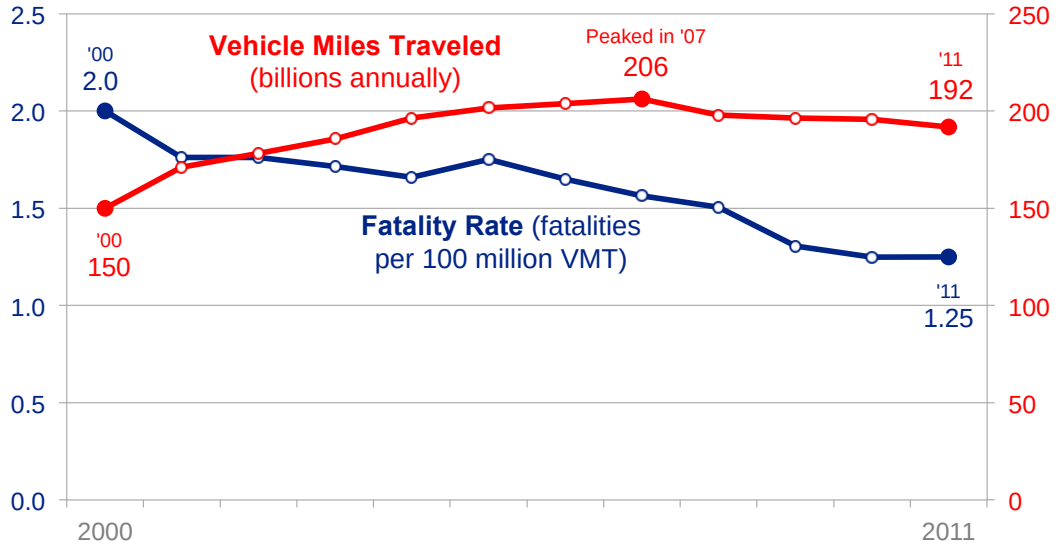
Fatality Rate

To help account for the relationship between fatalities and the number of miles driven, highway safety experts often calculate a “fatality rate” by measuring fatalities per 100 million vehicle miles traveled (VMT). The fatality rate includes motor vehicle and motorcyclist fatalities as well as bicyclist and pedestrian fatalities involving motor vehicles.

As shown in **Figure 2**, after a five-year decline, Florida's highway fatality rate per 100 million VMT leveled off at 1.25 in 2011 and remains far below the fatality rates of the early 2000s.

Florida's highway fatality rate has remained flat or declined for seven consecutive years.

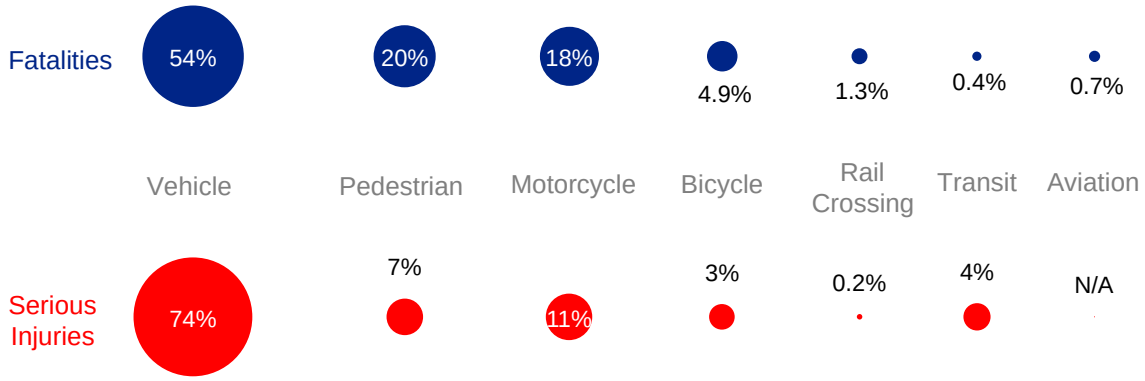
Figure 2: Fatality Rate vs. Vehicle Miles Traveled



Fatalities and Injuries by Mode

The majority of fatalities and injuries that occurred on Florida's transportation system in 2011 took place where the majority of travel occurs: on roadways and in personal vehicles. As **Figure 3** demonstrates, fatalities and injuries involving pedestrians and motorcycles were also prevalent when compared with other modes of transportation.

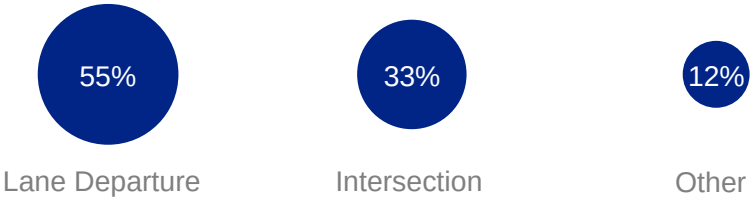
Figure 3: Florida Transportation Fatalities and Injuries by Mode, 2011



Where Roadway Crashes Occur

The majority of roadway crashes occur either at intersections or as a result of vehicles departing the road, as shown in **Figure 4**. These crash types are of particular interest because the Department strives to ensure that the design, construction, maintenance, and operation of the State Highway System meet safety standards.

Figure 4: Florida Traffic Fatalities by Crash Type, 2011



Approximately 55 percent of all traffic fatalities in 2011 involved lane departures. Lane departures include running off the road, crossing the center median into oncoming traffic and sideswipe crashes. Lane departure crashes may also involve a rollover or hitting a fixed object such as a utility pole.

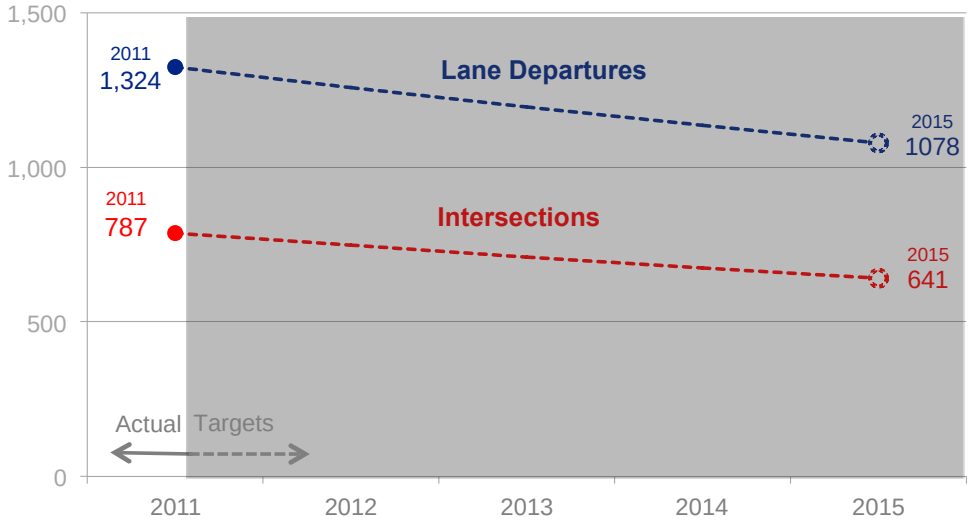
To reduce the number of serious injuries and fatalities resulting from lane departures, efforts must be made to:

- Keep vehicles from leaving the road or crossing the center median
- Reduce the likelihood of vehicles overturning or crashing into roadside objects
- Minimize the severity of an overturn

The number and severity of lane departure crashes may be reduced by installing guardrail or cable barrier, dividing highways, adding paved shoulders, using break-away sign posts, and placing crash cushions at the end of roadside obstacles. The Department ensures guardrails and other safety devices are in good condition and conducts night inspections of signs to ensure adequate visibility and reflectivity. Pavements may need to be more skid-resistant or otherwise improved in areas where crash reports indicate problems with pavement conditions. Highway construction and repair sites must be clearly marked and traffic regulated through detours. Hazards within rights-of-way are identified and removed when possible.

As shown in **Figure 5**, 1,324 lane departure fatalities occurred in 2011. Due to a change in the crash reporting form in 2010, which adjusted how lane departure and intersection related crashes are recorded, a historical trend is not yet available. If an annual 5 percent reduction is achieved, lane departure fatalities would drop below 1,100 by 2015.

Figure 5: Lane Departure and Intersection Fatalities



Nearly 33 percent of the statewide traffic fatalities in 2011 were intersection related. Identified as an emphasis area in the 2006 Strategic Highway Safety Plan (SHSP), Florida improved intersection design and operation from minimum to optimal standards through implementation of the Intersection Safety Implementation Plan developed in 2006.

In 2011, 787 people died in intersection-related crashes on Florida roads and highways. If an annual 5 percent reduction is achieved intersection-related fatalities would drop below 650 by 2015.

Strategies for Lane Departures and Intersection Crashes

To decrease the number and severity of lane departure and intersection crashes, the following strategies have been identified:

Lane Departure Crashes

- Improve engineering practices to reduce lane-departure crashes
- Improve law enforcement practices to better capture data related to lane-departure crashes
- Increase public education to reduce lane-departure crashes
- Partner with emergency responders to reduce severity of lane-departure crashes

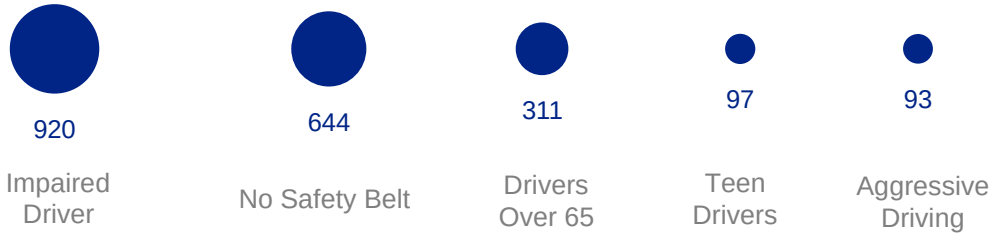
Intersection Crashes

- Increase safety of intersections for all users
- Identify systemic intersection safety improvements, update the Intersection Safety Plan and encourage implementation at the local level
- Promote improved access management at the State and local level
- Consider including safety in the planning/value engineering manual
- Update policies, guidelines, handbooks, and training based on the Highway Safety Manual (HSM)
- Increase education programs designed to provide targeted information to drivers
- Increase targeted enforcement activities at high crash locations and increase public education on intersection safety

Demographic and Behavioral Factors

Despite the best efforts of the Department to ensure that Florida roadways meet or exceed safety standards, many crashes still occur due to driver behavior, choices, and ability. **Figure 6** illustrates the number of fatalities that occurred in 2011 involving a variety of demographic and behavioral factors.

Figure 6: Fatalities involving Demographic and Behavioral Factors, 2011

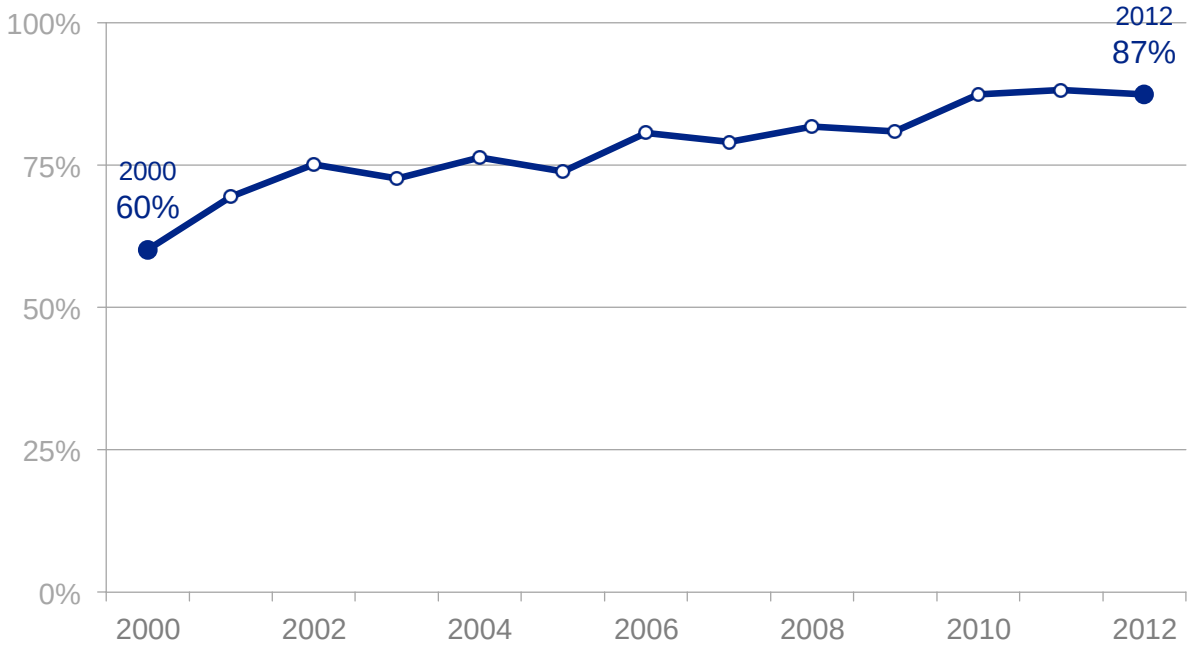


Seat Belt Usage

Wearing a safety belt is one of the most important things drivers can do for crash protection. As shown in **Figure 7**, Florida motorists have been wearing their safety belts more frequently over the last decade. The statewide safety belt usage rate (87 percent) is higher than the national average (84 percent).

Florida's statewide safety belt usage rate of 87 percent is three points higher than the national average.

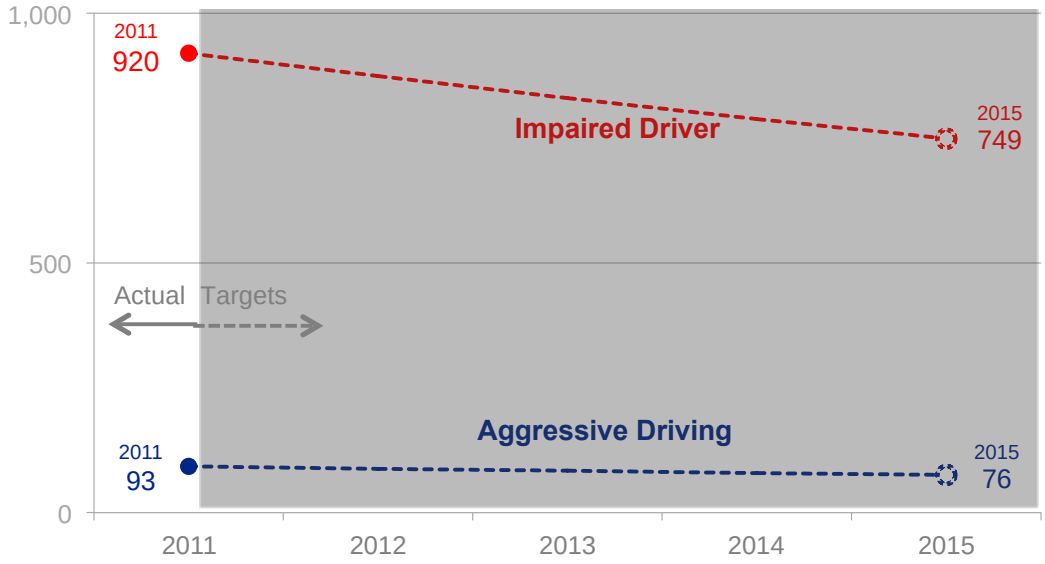
Figure 7: Statewide Seat Belt Usage Rate



Impaired Drivers, Aggressive and Distracted Driving

Impaired, aggressive, and distracted driving often plays a role in the frequency and severity of traffic crashes. **Figure 8** shows the number of fatalities involving impaired and aggressive drivers in 2011, as well as what a 5 percent annual reduction would achieve through 2015. Due to a change to the crash reporting form in 2011, historical comparisons are not available. The option to exclusively classify a crash as having involved distracted driving was also added to the crash report forms in 2011, so data related to distracted driving will be available soon.

Figure 8: Fatalities Involving Impaired Drivers and Aggressive Driving



Impaired driving continues to be one of the top contributing factors for traffic fatalities. In 2011, alcohol-related traffic fatalities accounted for over 38 percent of statewide traffic deaths.

Aggressive driving is often a combination of speeding, recklessness, and other dangerous behaviors which threaten motorists, bicyclists, and pedestrians. Aggressive driving, as defined by state Statute, requires inclusion of at least two of the following contributing causes: speeding, unsafe or improper lane change, following too closely, failure to yield right-of-way, improper passing, and failure to obey traffic control devices. Aggressive driving is not presently an enforceable offense in Florida. In 2011, 93 fatalities were related to aggressive driving.

Distracted driving occurs when a driver allows a mental or physical activity to take the driver's focus off the task of driving. There are three main types of distraction:

- Manual – taking hands off the wheel;
- Visual – taking eyes off the road; and

- Cognitive – taking mind off driving.

Distracted driving has become a pressing concern. In 2009, 5,474 people were killed on U.S. roadways and an estimated additional 448,000 were injured in motor vehicle crashes that were reported to have involved distracted driving. In 2009, the U.S. Department of Transportation launched a national campaign to counter the dangerous practices of distracted driving. These efforts have boosted public attention to the problem and built nationwide momentum for action.

A multitude of distractions can cause drivers to lose focus on the task of driving. Not only are drivers distracted because of inattentive tasks such as adjusting the radio, eating, reading, applying makeup, but new technologies have introduced GPS, direction way-finding telephone use, mobile web surfing, and texting as additional driver distractions. Vehicle passengers can be especially distracting to young inexperienced drivers. In particular, teen or peer passengers increase crash risk, with each additional passenger adding to the risk.

Strategies for Behavioral Factors

To decrease the number and severity of crashes due to these behavioral factors the following strategies have been identified:

Impaired Driving

- Improve DUI enforcement
- Improve prosecution and adjudication of impaired driving cases
- Improve the DUI administrative suspension process
- Improve prevention, public education, and training
- Improve the treatment system (i.e., DUI programs, treatment providers, and healthcare providers)
- Improve data collection and analysis
- Enhance impaired driving legislation

Aggressive Driving

- Support and promote effective law enforcement efforts to reduce aggressive driving
- Increase training and education on the problem of aggressive driving
- Identify initiatives to reduce instances of aggressive driving

Distracted Driving

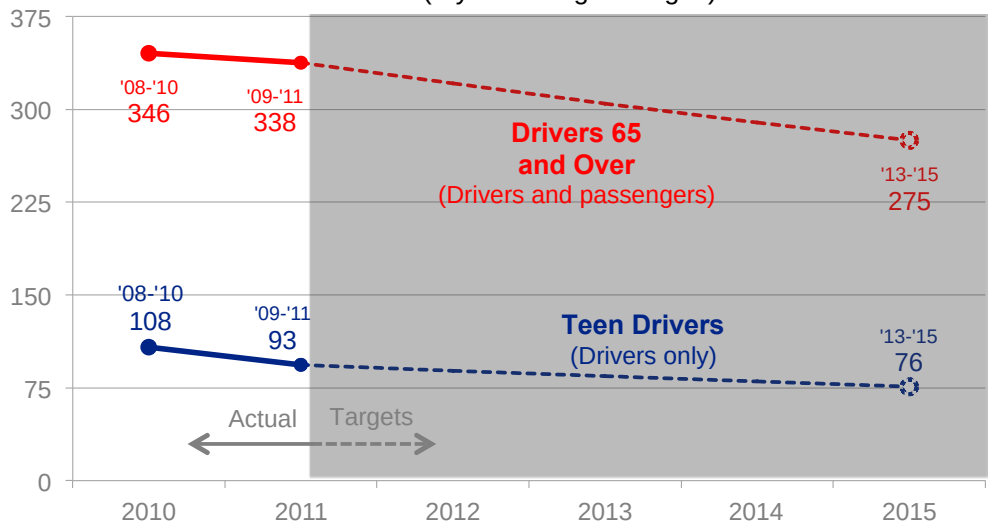
- Increase public awareness and outreach programs on distracted driving
- Encourage companies, state agencies, and local governments to adopt and enforce policies to reduce distracted driving in company and government vehicles

- Support legislative initiatives that enhance distracted driving-related traffic laws and regulations
- Support Graduated Driver's License (GDL) restrictions to reduce distracted driving behaviors in teen drivers
- Increase law enforcement officer understanding of Florida traffic crash report distracted driving data collection
- Educate law enforcement, judges, and magistrates on the existing laws that can be applied to distracted driving (careless driving)
- Deploy high-visibility enforcement mobilizations on distracted driving subject to appropriate/future legislation

At-Risk Drivers

Fatalities involving aging road users (ages 65 and older) and teen drivers (ages 15-19) have typically accounted for approximately one quarter of all Florida traffic fatalities. **Figure 9** shows the historical number of fatalities involving at-risk drivers.

Figure 9: Fatalities Involving At-Risk Drivers
(3-year rolling averages)



On one end of the age continuum, today's older drivers are driving longer and driving more miles per year. This trend is especially important considering that Florida leads the nation with 18 percent of its population age 65 and older. By 2030, over 27 percent of Floridians will be over age 65, and half of those seniors will be over 75, making this a particularly salient safety issue.

The other end of the spectrum involves the least experienced drivers—those 15 to 19. Motor vehicle crashes are the number one killer of teens and more teens die in crashes than the next three leading causes of death (homicide, suicide, and disease) combined. Motor vehicle crashes involving teen drivers (aged 15 to 19) kill an average of 11 teens per day in the United States.

Strategies for At-Risk Drivers

To decrease the number and severity of crashes involving at-risk drivers, the following strategies have been identified:

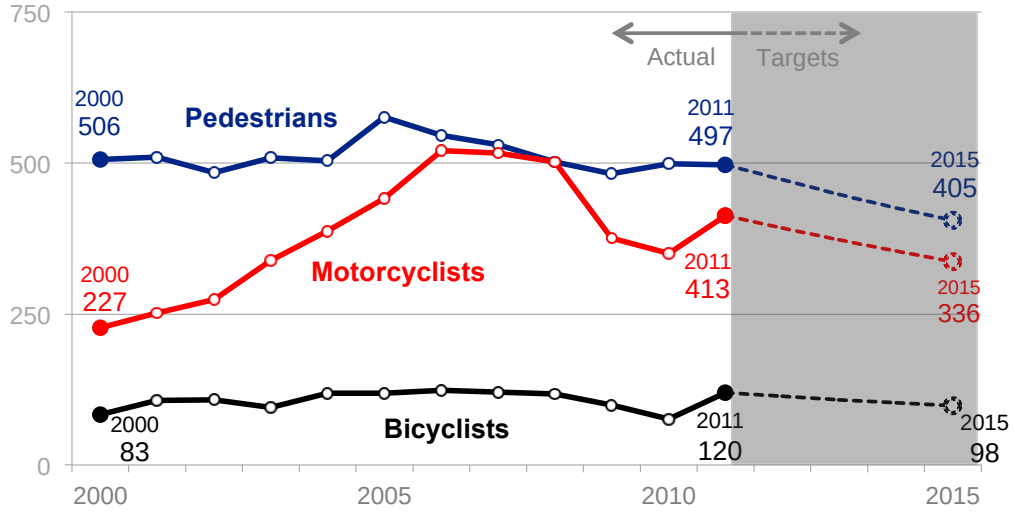
- Manage and evaluate aging road user safety, access, and mobility activities to maximize the effectiveness of programs and resources
- Provide the best available data to assist with decisions that improve aging road user safety, access, and mobility
- Provide information and resources regarding aging road user safety, access, and mobility
- Inform public officials about the importance of and need to support national, state, regional, and local policy and program initiatives which promote and sustain aging road user safety, access, and mobility
- Promote and encourage practices that support and enhance aging in place (i.e., improve the environment to better accommodate the safety, access, and mobility of aging road users)
- Enhance aging road user safety and mobility through assessment, remediation, and rehabilitation
- Promote safe driving and mobility for aging road users through licensing and enforcement
- Promote the safe mobility of aging vulnerable road users (pedestrians, transit riders, bicyclists, and other non-motorized vehicles)
- Promote the value of prevention strategies and early recognition of at-risk drivers to aging road users and stakeholders
- Bridge the gap between driving retirement and mobility independence (i.e., alternative transportation mobility options, public transportation, and dementia-friendly transportation)
- Expand the network of concerned individuals to build recognition and awareness as it relates to teen driver safety and supports the Florida Teen Safe Driving Coalition
- Create a safe driving culture for teen drivers through outreach and education
- Support initiatives that enhance safe teen driving related traffic laws and regulations

Vulnerable Road Users

The Vulnerable Road Users Emphasis Area addresses crashes involving bicyclists, pedestrians, and motorcyclists. As shown in **Figure 10**, vulnerable road user groups experienced an increase in fatalities since 2010, except for pedestrian fatalities, which decreased slightly. Florida's climate, conducive to year-round walking, cycling and motorcycling, is a significant factor for the relatively high fatality rates among these road user groups.

In addition to the strategies identified below, the Department recently elevated bicycle and pedestrian safety to a departmental focused initiative. The initiative included the appointment, in the fall of 2011, of a designated state bicycle/pedestrian safety program manager in the Safety Office to lead the initiative.

Figure 10: Fatalities Involving Vulnerable Road Users



Strategies for Vulnerable Users

To decrease the number and severity of crashes involving vulnerable users, the following strategies have been identified:

- Increase awareness and understanding of safety issues related to Vulnerable Road Users
- Increase compliance with traffic laws and regulations related to pedestrian and bicycle safety through education and enforcement
- Develop and use a systemic approach to identify locations and behaviors prone to pedestrian and bicycle crashes and implement multidisciplinary countermeasures

- Encourage adequate funding levels for effective pedestrian and bicycle safety programs and initiatives
- Promote, plan, and implement built environments (urban, suburban, and rural) which encourage safe bicycling and walking
- Support national, state, and local legislative initiatives and policies that promote bicycle and pedestrian safety
- Collect and analyze data on motorcycle crashes, injuries, and fatalities and provide local and state agencies with the best available data to make appropriate and timely decisions that improve motorcycle safety in Florida
- Manage motorcycle safety activities in Florida as part of a comprehensive plan that includes centralized program planning, implementation, coordination, and evaluation to maximize the effectiveness of programs and reduce duplication of effort
- Promote personal protective gear and its value in reducing motorcyclist injury levels
- Ensure persons operating a motorcycle on public roadways hold an endorsement specifically authorizing motorcycle operation
- Promote adequate rider training and preparation to new and experienced motorcycle riders by qualified instructors at state-approved training centers
- Reduce the number of alcohol, drug, and speed related motorcycle crashes in Florida
- Support legislative initiatives that promote motorcycle-related traffic laws and regulations
- Ensure state and local motorcycle safety programs include law enforcement and emergency services components
- Incorporate motorcycle-friendly policies and practices into roadway design, traffic control, construction, operation, and maintenance
- Increase the visibility of motorcyclists by emphasizing rider conspicuity and motorist awareness of motorcycles
- Develop and implement communications strategies that target high-risk populations and improve public awareness of motorcycle crash problems and programs

SAFETY OF SEAPORT, RAIL, PUBLIC TRANSIT AND PUBLIC AIRPORT FACILITIES

Seaports

In 2012, 13.3 million cruise passengers embarked and disembarked at Florida's ports. In addition, Florida ports handled over 100 million tons of commodities with a value of nearly $83 billion.

Since September 11, 2001, cargo and passenger safety and security have become increasingly important issues to local governments and port authorities that own and operate Florida's seaports. Port security costs, from Florida's 15 deep-water ports, were $12.3 million annually pre-9/11, and grew to $46.8 million in 2005. Seaports are required to develop, design, and deploy enhanced security systems to control and protect both landside and waterside access to meet both state and federal security requirements. Seaports work directly with the Florida Department of Law Enforcement and federal agencies such as the Coast Guard to ensure conformance with these requirements. The Department of Transportation does not track nor have incident information for seaports.

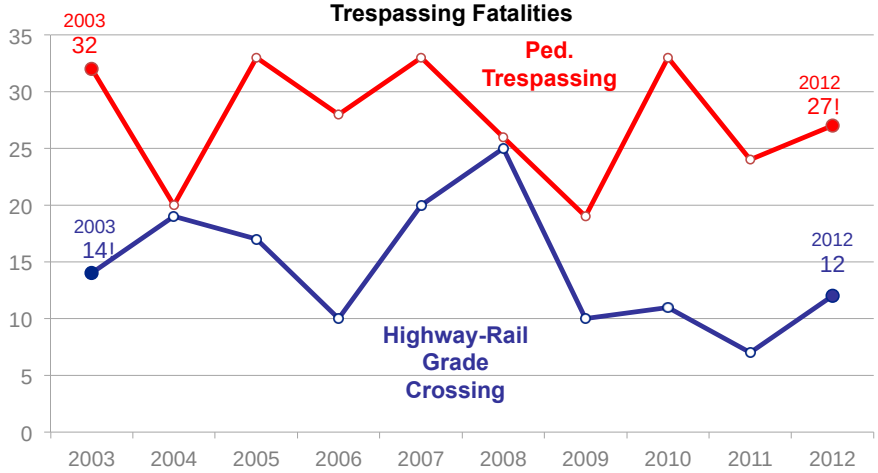
Rail

As of November 2013, Florida has a total of 4,903 at-grade crossings, of which 3,565 are public and 1,338 are private. Approximately 80 percent of Florida's public at-grade crossings are equipped with active warning devices compared to approximately 50 percent nationally. Both crashes and fatalities at crossings declined approximately 85 percent between 1977 and 2012. This occurred despite an increase in exposure due to increased highway traffic and operational changes which have resulted in more trains on fewer rail lines.

> Approximately 80 percent of Florida's public at-grade crossings are equipped with active warning devices compared to approximately 50 percent nationally.

Figure 11 shows the number of highway-rail crossing and pedestrian trespassing fatalities that occurred over the ten-year period between 2003 and 2012. Over this period there has been a fair amount of volatility in the number of fatalities from year to year, even though overall there has been a 14 percent (highway-rail crossing) and 16 percent (pedestrian trespassing) reduction.

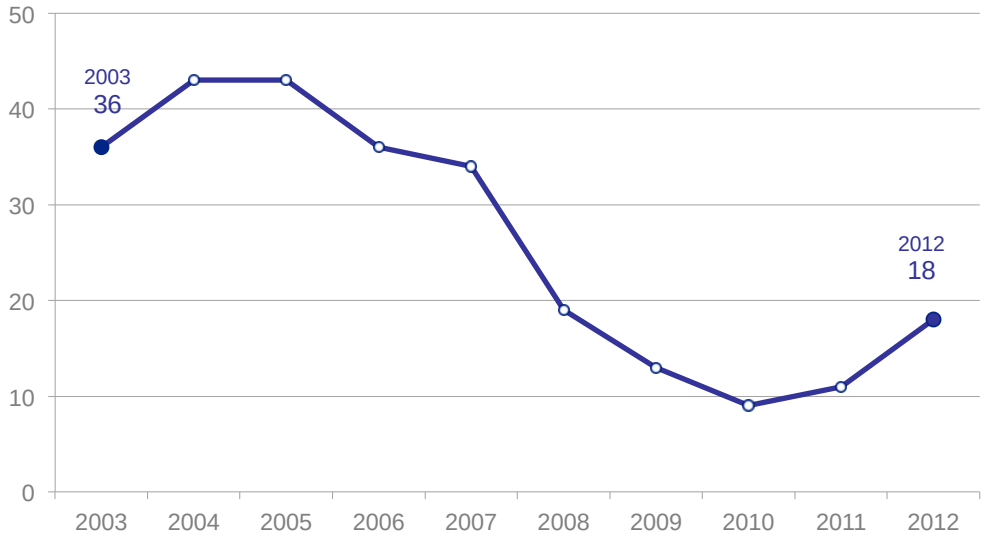
Figure 11: Highway-Rail Grade Crossing & Pedestrian Trespassing Fatalities



The Department uses the latest engineering technologies when providing grade crossing safety improvements throughout Florida. The Department also promotes implementing grade crossing consolidation where practicable to promote the overall state-wide rail safety effort. Additionally, increasing public awareness regarding railroad safety through "Public Information" outreach has proven to be a very effective method of reducing grade crossing incidents. Florida participates in Operation Lifesaver, a non-profit organization dedicated to reducing the number of collisions, deaths, and injuries at rail-highway crossings and on railroad rights-of-way through public awareness campaigns.

There were 259 train derailments in 1977, the year before the Department began its railroad safety inspection program. Derailments have declined to an average of 14 per year over the past 5 years (2008-2012), most of which occur on tracks within industrial yards and result in little damage. During the years 2003 to 2012 (last ten years), a total of 262 derailments occurred (see **Figure 12**), of which eighteen occurred in 2012. Annually, the Department performs safety inspections on over 5,000 miles of track, 3,000 turnouts, 14,000 freight cars, and 500 locomotives, observing in excess of 1,000 operating practices in the process. These inspections and practices supplement and support the safety operations conducted by individual privately owned railroad companies.

Figure 12: Railroad Derailments



Public Transit

The majority of Florida's public transportation systems operate on the roadway system. This means the performance of the roadway system can effect public transit safety and on-time

performance, just as incidents involving public transit vehicles can affect the flow of traffic. **Table 1** highlights the number of incidents, injuries and fatalities of the ten largest transit agencies in Florida for 2012.

Table 1: Florida Transit Safety Data, Top Ten Agencies in 2012

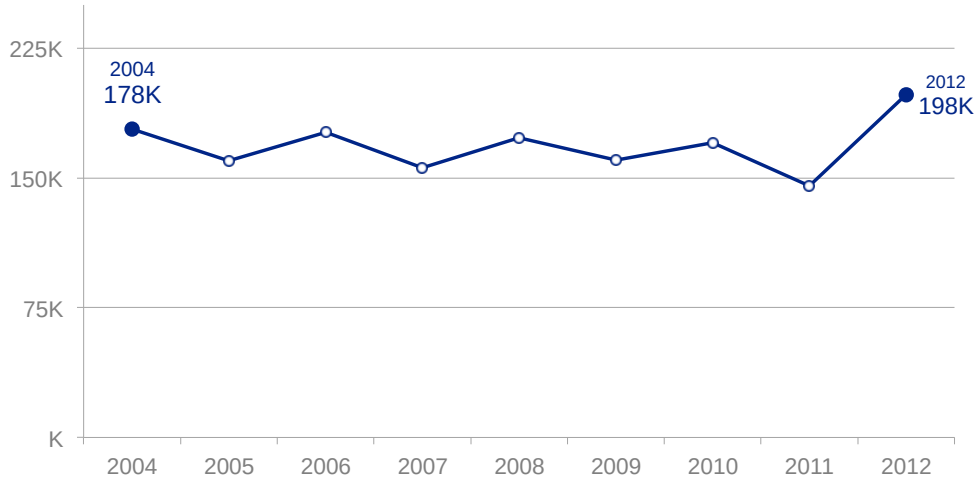
Mode	Number of Incidents	Fatalities	Injuries
Motorbus	300	9	663
Demand Response	37	0	55
Commuter Rail	0	0	0
Heavy Rail	4	3	0
Automated Guideway	0	0	0
Vanpool	1	0	3
Light Rail	0	0	0
Total	**342**	**12**	**721**

Source: National Transit Database (NTD).

Notes: (1) This table shows the 2012 major safety data reported in NTD by the top ten transit agencies in Florida (ranked by ridership). (2) This table does not include safety data for South Florida Regional Transportation Authority (SFRTA) commuter rail, only includes SFRTA motorbus safety data. (3) In 2012, Hillsborough Area Regional Transit (HART) delegated its vanpool services to The Tampa Bay Area Regional Transportation Authority (TBARTA). Incidents, fatalities and injuries reported by TBARTA are excluded from this table.

Motorbus collision incidents accounted for 87.5 percent of all transit collision incidents in Florida. This is to be expected since motorbuses served approximately 85 percent of public transit passenger trips in Florida in 2012. Since 2004 there has been an increase in revenue miles of service between transit safety incidents, as shown in **Figure 13**.

Figure 13: Revenue Miles Between Safety Incidents (thousands)



Aviation

Florida has 19 commercial service airports serving 69.8 million passengers in 2012. Between 2003 and 2013, Florida experienced 239 fatal aircraft accidents, with a high of 31 in 2005 and a low of 13 in 2013. The average number of fatal incidents was 24 per year. In 2013, 79 accidents (13 fatal) occurred in Florida, resulting in 24 fatalities. There is a downward trend in fatal aircraft incidents from year to year.

The Department, the Federal Aviation Administration (FAA), and local governments/airport authorities share complementary aviation safety responsibilities in Florida. The FAA regulates aircraft, aircraft operations, and pilots. The FAA also places specific safety requirements, such as crash, fire and rescue facilities, on airports before permitting commercial airline operations at an airport. The Department, the FAA, and local governments also share airspace safety responsibilities in Florida. The Department and local governments are responsible for permitting (the height of) structures throughout the state which may impact aviation safety, while the FAA assures aircraft flight paths stay clear of structures (trees, cellular towers, etc.).

As of December 2013, Florida had a total of 779 (public, private and military) aviation facilities. More than half (62 percent) are airports and another one-third (37 percent) are heliports. Of these, Florida has 128 public-use facilities and 1 joint-use facility (military and civilian) meeting general aviation needs and providing critical service to local communities. The Department regulates Florida's 128 public-use aviation facilities through permitting, safety inspection and licensing. Florida's 649 private-use facilities are registered on-line with the Department.

Strategies for Safety of Seaport, Rail, Public Transit and Public Airport Facilities

The Department will help ensure the objective related to reducing fatalities and serious injuries is achieved through these actions:

- Support the safety and security efforts of Florida's Seaport Operators
- Continue to conduct public education campaigns for awareness of rail-highway crossing safety and support the Operation Lifesaver program
- Conduct research into innovative highway safety devices, including those which prohibit motorists from driving around rail-highway crossing warning systems, and work with appropriate agencies to incorporate research results into program development
- Identify hazardous roadway locations and features, including those at rail-highway crossings, and establish priorities to correct them
- Provide technical assistance to transit systems on maintenance and safety matters relating to the purchase and operation of vehicles

- Develop and implement research activities related to transit vehicles, safety programs and facilities and equipment in support of district and transit agency needs
- Coordinate, develop and implement federal regulations regarding drug and alcohol testing requirements for transit agencies
- Continue to conduct annual safety inspections of public-use aviation facilities

OBJECTIVE: Update emergency response plans and readiness procedures for disaster response and conduct regular training exercises

Emergency management and transportation security involves entities outside of the transportation field and requires close coordination and effective working relationships at many levels. Emergency management, including preparedness planning, response and recovery activities, is primarily the responsibility of the Florida Division of Emergency Management within the Executive Office of the Governor. They work as a team with emergency responders and agencies at federal, state and local levels as well as private sector and volunteer organizations. FDOT assists in this are in many ways, including in preparing for and addressing the aftermath of severe storms.

The security of the transportation system also involved many outside organizations, including the U.S. Department of Homeland Security/Transportation Security Administration, other designated federal agencies, the Florida Department of Law Enforcement, the Florida Highway Patrol's (FHP) Commercial Vehicle Enforcement (CVE) and other transportation partners.

The FHP/CVE law enforcement activities directed at commercial vehicle operations in general are a crucial element of domestic security. Specialized knowledge of what constitutes normal activities related to commercial vehicle operations enables officers to recognize abnormal activities, worthy of closer scrutiny. One particularly important activity of the FHP/CVE personnel includes inspection of vehicles transporting, or suspected of transporting, hazardous materials. Enforcement activities include inspection of shipping papers, placards, markings, packaging and proper loading of hazardous materials containers. Drivers are also scrutinized to ensure they are properly licensed, qualified to drive vehicles transporting hazardous materials, and properly employed by the trucking company.

Domestic security visits to motor carriers and shippers of hazardous materials are conducted to ensure compliance with the regulations and to provide education and training to carriers on how to secure their trucks and terminals. This domestic security awareness program is designed to reduce the likelihood that such materials and vehicles would be used as a weapon. Leads on

suspected drivers and other carrier employees are also referred to the Federal Bureau of Investigation (FBI) and the Florida Department of Law Enforcement for follow up investigation.

Due to the transfer of the Office of Motor Carrier Compliance (OMCC) from the Department to FHP in July 2011, the Emergency Management Office now serves as the main conduit for Domestic Security Issues. In supporting these efforts, the Department's Domestic Security Coordinator's core responsibility focuses on conducting vulnerability assessments on Department's critical assets and assisting the Florida Fusion Center as an Intelligence Liaison Officer. The EMO Emergency Coordination Officer and Domestic Security Coordinator also serves on the Regional Domestic Security Task Force Team as well as on Florida's Domestic Security Oversight Board's Executive Committee.

Strategies for Security and Emergency Response and Readiness

The Department will help ensure the objective related to security and emergency response and readiness is achieved through these actions:

- Include a security improvement component with accountability measures in all aspects of transportation, from planning through implementation and operations
- Implement security policies and strategies to deter and respond to attacks on the transportation system and to deter use of the system to carry out attacks against domestic targets, while maintaining the intended function of the system
- Increase the use of intelligent transportation systems technology as a tool to improve transportation safety and security
- Improve compatibility of communications and other critical equipment used by the Florida Department of Transportation and federal, state, and local safety and security responders
- Support safe and efficient mobility for affected people, freight, services, and response personnel before, during, and after emergencies through appropriate connectivity among all elements of the transportation system
- Ensure national security transportation needs involving Florida's military facilities can be met during normal and elevated security periods in planning for the Strategic Intermodal System, including those which are part of the federal Strategic Highway Network (STRAHNET) or the federal Strategic Rail Corridor Network (STRACNET)
- Approve General Aviation Airport Security Plans pursuant to Chapter 330, Florida Statutes
- Provide on-line airport security training to public-use aviation facility staff members
- Conduct general aviation airport security assessments to focus funding spent on airport security infrastructure

- Conduct vulnerability assessments on the Department's critical infrastructures as mandated by F.S., 943.0311
- Participate in the Florida Fusion Center to maintain situational awareness

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2060 FLORIDA TRANSPORTATION PLAN

MAINTENANCE & OPERATIONS

2013 PERFORMANCE REPORT

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This report is part of the Performance-Based Planning and Programming Process used by the Florida Department of Transportation (FDOT). For a description of that process, updates to this report and other transportation performance reporting initiatives of FDOT, go to FDOTPerforms.org.

BY THE NUMBERS

The effective and efficient maintenance and operation of Florida's state roads and bridges is important to protecting infrastructure investment and to ensure the performance of our transportation network. Key performance highlights include:

- State Highway System pavements are in excellent condition, with 91.6 percent currently meeting Department standards
- Department maintained bridges are also in excellent condition, with 95.1 percent currently meeting Department standards
- The Department has met or exceeded its roadway maintenance standard target since 1994
- The number of miles managed by Intelligent Transportation System (ITS) technologies has dramatically increased from 170 miles in 2005 to 1,296 miles in 2013
- Over 14 million messages, calls, visits, and alerts were made to Florida's 511 program in fiscal year 2012-2013
- As of June 2013 there were 9,026 subscribers to the Department's twelve regional Twitter feeds—strengthening real time communication between FDOT and system users
- Road Ranger services are provided to over 350,000 stranded motorists each year
- The Department consistently meets its 90-minute target for clearing roadways after incidents (46 minutes on the State Highway System and 79 minutes for severe incidents handled by Rapid Incident Scene Clearance (RISC) activations)

OUR GOAL

MAINTAIN AND OPERATE FLORIDA'S TRANSPORTATION SYSTEM PROACTIVELY

Florida has invested billions of dollars in roads, rail networks, airports, transit facilities and services, seaports and other elements of the transportation system. Regular maintenance and improvements keep these assets operating efficiently, extend their useful life and can delay the substantial cost of reconstruction or replacement.

The Department will continue to make substantial investments to meet established standards for the state's routine maintenance, highway pavement, and bridges to keep them in acceptable condition. Roadways owned by local governments and other transportation facilities such as

bus systems, airports, seaports and railroads are maintained by their respective public and private owners and operators. The Department helps fund some of these facilities, but does not directly build, operate or maintain them.

Managing the transportation system also means ensuring that the existing system efficiently carries people and goods to meet the demand of population growth, an expanding economy, and ever-increasing travel. The Department will increase use of Intelligent Transportation Systems, demand management, access management, incident management and other techniques to maximize the operational efficiency and safety of the system.

The Department has primary jurisdiction over the State Highway System. Although this system consists of 12,086 (10 percent) of the 121,829 public road centerline miles in the state, it carries over half (54 percent) of the traffic. One of the Department's main responsibilities is keeping the State Highway System in acceptable physical condition. To achieve this, the Department resurfaces roads, repairs or replaces bridges and conducts routine maintenance activities such as mowing, litter removal, guardrail repair, and sign replacement.

Keeping the other facilities which are part of Florida's transportation system in acceptable physical condition is the responsibility of local governments, authorities and private sector companies which own and operate them. The Department will continue to compile available information on condition-related issues for these facilities and, where authorized, make safety-related inspections.

OUR OBJECTIVES

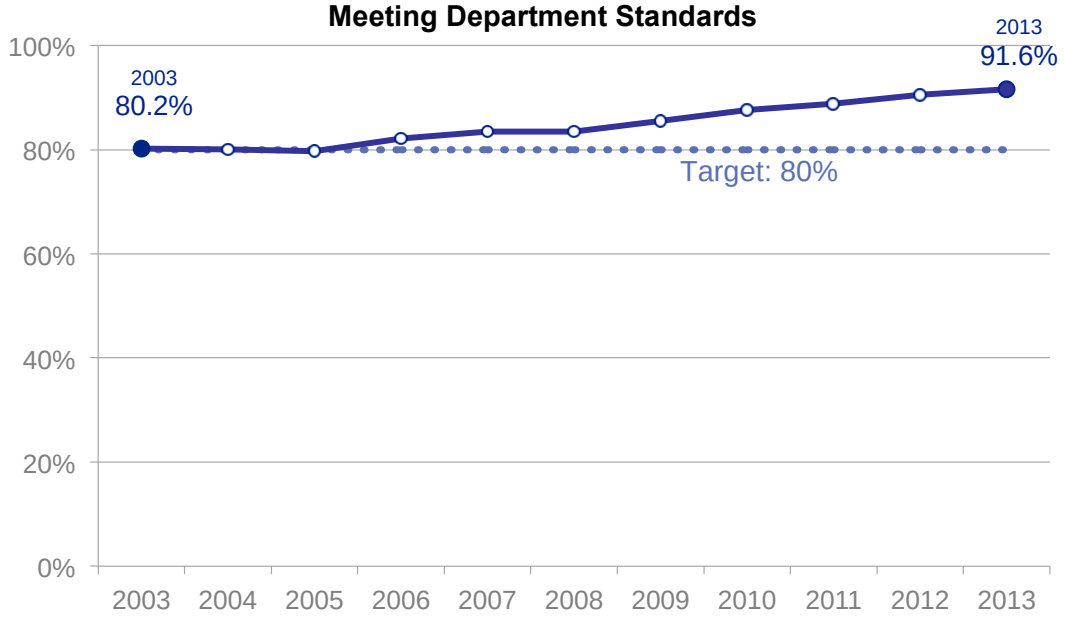
The Florida Department of Transportation sets objectives and strategies to implement the goals of the *2060 Florida Transportation Plan*. Each objective includes an array of strategies to enable the Department to meet its adopted objectives. The following objectives provide the policy framework for connecting the Department's budget and work program to the *2060 Florida Transportation Plan's* maintenance and operations goal.

- Ensure that 80 percent of pavement on the State Highway System meets Department standards
- Ensure that 90 percent of Department-maintained bridges meet standards while keeping all Department-maintained bridges open to the public safe
- Achieve 100 percent of the acceptable maintenance standard on the State Highway System
- Improve system efficiency by deploying transportation systems management and operations on state corridors

OBJECTIVE: Ensure that 80 percent of pavement on the State Highway System meets Department standards

The Department has a long-standing commitment to keeping the pavement on state highways in an acceptable condition. The State Highway System has remained at or above the target of 80 percent non-deficient throughout the last decade. Pavement on the State Highway System is in excellent condition, with 91.6 percent of the pavement currently meeting Department standards, exceeding the Department's target goal of 80 percent (**Figure 1**). This percentage is expected to remain above the 80 percent objective threshold.

Figure 1: Percent of Pavement Meeting Department Standards



The 8.4 percent of roadway miles not meeting the target goal means that 3,640 lane-miles of pavement currently need rehabilitation. While the Department has continued to find sufficient funds to meet the pavement condition objectives, the amount of funding needed for pavement rehabilitation is reevaluated annually.

> Pavement on the State Highway System is in excellent condition, with 91.6 percent of the pavement currently meeting Department standards.

State roads needing resurfacing are identified through the Department's annual pavement condition survey. This survey evaluates pavement conditions using three factors: ride quality, crack severity and average depth of wheel-path ruts.

"Ride quality" is what the motorist experiences (i.e., smoothness of the ride). It directly affects motor vehicle operating costs. Crack severity, or "cracking," refers to the structural deterioration of the pavement, which leads to loss of smoothness and deterioration of the road base by water seepage, if not corrected. Wheel-path ruts, or "rutting," are depressions in the pavement caused by heavy use. These depressions can collect water, creating a safety hazard.

Truck traffic contributes to wear on roadways, because of the force exerted on the pavement and the way pavement reacts to it. A five-axle, 80,000 pound semi-trailer truck causes pavement distress equivalent to that caused by about 9,600 cars. The Department enforces legal weight limits because increases in weight have enormous impacts on pavement wear. Even the arrangement of truck axles or a factor as simple as proper tire pressure can have a significant impact on pavement wear.

It is important to keep roadway pavement in good shape. When roadway surfaces are not maintained, the roadway must be rebuilt—literally—from the ground up. It is more economical to systematically maintain roadways to extend their life-cycle as long as feasibly possible rather than rebuilding them.

Strategies for Pavement Condition

The Department will help ensure the objective related to pavement condition is achieved through these actions:

- Resurface at least 4 percent of the State Highway System annually
- Eliminate the illegal operation of commercial motor vehicles exceeding weight limits on Florida's public roads and bridges
- Facilitate training and technical assistance, and maintain current data systems to assist local governments in conducting pavement condition surveys and ratings

OBJECTIVE: Ensure that 90 percent of Department-maintained bridges meet standards while keeping all Department-maintained bridges open to the public safe

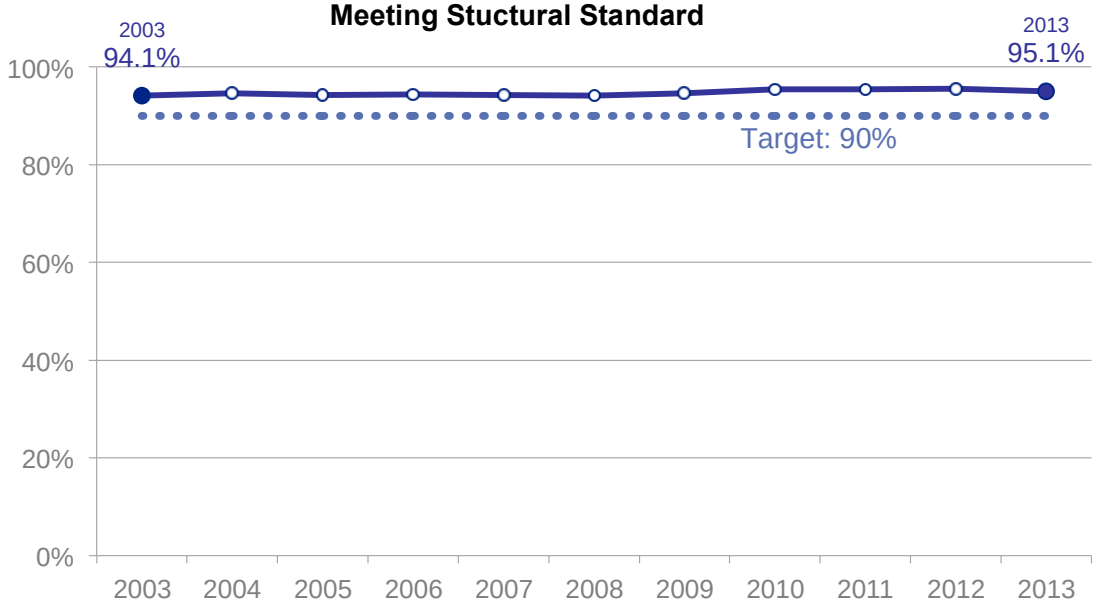
Ninety percent or more of the bridges on the State Highway System have met the Department's standard since 1996.

The Department has a long-standing commitment to keep the bridges on state highways in a good, safe condition. The Department's primary measure is to have 90 percent of its bridges achieve a National Bridge Inventory (NBI) rating of 6 or higher. The NBI is a Federal Highway Administration requirement used to evaluate the condition of bridges, based on a scale of 0 to 9 with 0 meaning a failed

condition and 9 meaning an excellent condition. An NBI rating of 6 or 7 means a bridge is in good condition. Ninety percent or more of the bridges on the State Highway System have met Department's standard since 1996.

Currently, over 95 percent of all Department-maintained bridges meet standards, exceeding the Department's target goal of 90 percent (**Figure 2**), which means Florida bridges do not show evidence of structural deterioration and are not limited by weight restrictions. The Department takes a proactive approach towards bridge maintenance, which has proven cost-effective, as preventative maintenance and repairs are performed prior to the bridge deteriorating to a level that would require a much higher cost to repair. This proactive approach ensures Department-maintained bridges meet or exceed their life expectancy, which results in a lower frequency of replacements due to bridge condition. All bridges maintained by the Department that are open to the public are safe.

Figure 2: Percent of Bridges Meeting Stuctural Standard



The Department maintains 6,700 bridges and inspected 2,581 other bridges owned by other state and local government jurisdictions in FY 2012/2013. Each bridge's current condition is compared with the condition from its previous inspection. If the structural capacity has been affected, the bridge is reevaluated through load rating tests to determine its current structural capacity. Each bridge is inspected at least once every two years to assess its condition and to identify which bridges need routine or periodic maintenance, rehabilitation, or replacement. Special inspections are conducted after major weather events, such as floods and hurricanes.

Routine maintenance and repairs help extend bridge life. However, at a certain point it becomes more cost-effective to replace a bridge than to repair it. Since the Department's bridge inspection program began in 1970, there has been a steady improvement in bridge conditions on the State Highway System due to an aggressive maintenance and construction program. The Department also administers federal programs which help fund repairs and replacements of locally maintained bridges.

Bridges are designed to tolerate a certain amount of structural deterioration and still support legal weight loads. If a bridge is unable to support all legal loads, weight limits are posted or the bridge is closed to traffic until the deficiency can be corrected. Because bridges are actually flexible, vehicles moving across a bridge cause some vertical movement in the bridge structure. Over time, this structural flexing causes deterioration. Another reason bridges wear out is stress caused by saltwater, rain, freezing temperatures and wind. Impacts from colliding motor vehicles, barges and ships also exact their toll.

Most bridge damage, though, comes simply from usage. As with roadways, heavy trucks contribute to wear-and-tear on bridges. So, like pavements, bridges must be designed to take into account how many trucks will pass over them during their design lives.

Strategies for Bridge Condition

The Department will help ensure the bridge condition objective is achieved through these actions:

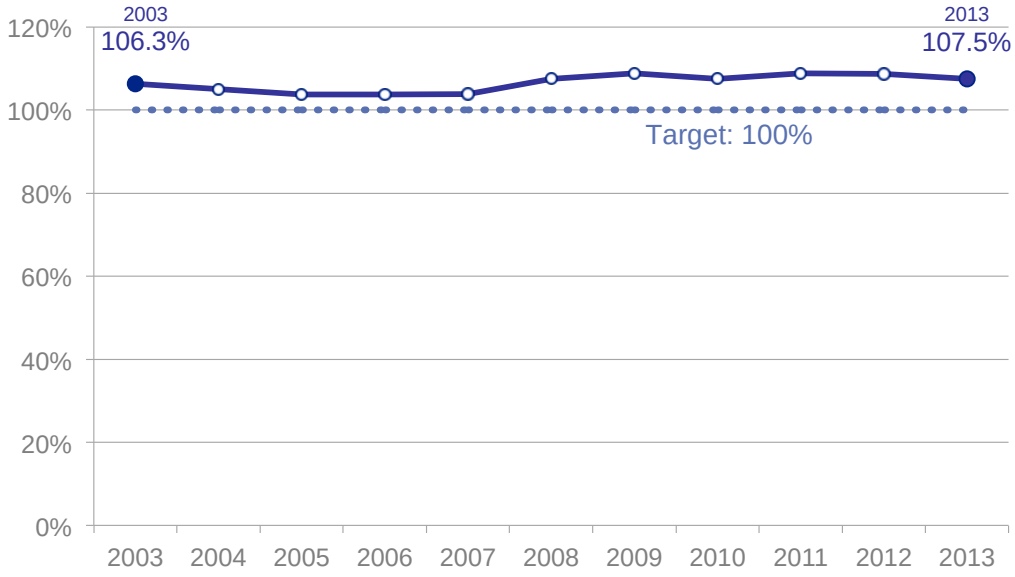
- Enter all Department-maintained bridge projects that need repair into the Work Program within 12 months of deficiency identification
- Replace or repair all structurally deficient Department-maintained bridges and those bridges posted for weight restriction within six years of the deficiency identification
- Replace all other Department-maintained bridges designated for replacement within nine years of the deficiency identification
- Reduce the illegal operation of commercial motor vehicles exceeding weight limits on Florida's public roads and bridges
- Continue to monitor bridges scheduled to be replaced and make interim repairs, as necessary, to safeguard the traveling public

OBJECTIVE: Achieve 100 percent of the acceptable maintenance standard on the State Highway System

As an integral part of preserving state highways, the Department has reconfirmed its long-standing commitment to "achieve 100 percent of the acceptable maintenance standard on the State Highway System." The Department's primary measure is to achieve a Maintenance Rating Program of at least 80 on the State Highway System. The Maintenance Rating Program is based on an evaluation of the State Highway System, which grades five maintenance elements (listed further below) and arrives at a composite score based on a scale of 1 to 100. The Department has met or exceeded its roadway maintenance target goal of 100 percent since 1994. **Figure 3** highlights this accomplishment with data from the past 10 years.

> The Department has met or exceeded its roadway maintenance standard since 1994.

Figure 3: Percent of Maintenance Standard Achieved



Field conditions are evaluated using the Maintenance Rating Program. Each part of the highway is rated and the overall maintenance condition is calculated. Conditions are compared to Department standards and a composite state score is calculated. The maintenance condition rating system looks at five parts of the highway environment:

- Roadway - potholes, pavement joints, paved shoulders and pavement distress
- Traffic services - signs, lighting, guardrails, striping, attenuators, handrail and pavement markers

- Roadside - unpaved shoulders, slopes, sidewalks, and fences
- Drainage - storm drains, ditches, roadway sweeping, inlets, and pavement edgedrain outlets
- Vegetation/aesthetics – landscaping, mowing, litter removal, turf condition, and tree trimming

It is important to maintain roads at an optimal level, both for driver safety and comfort, as well as to allow the responsible agency or local government to plan a stable program of roadway repair or resurfacing. The Department is responsible for scheduling and performing routine maintenance on the State Highway System to help preserve its condition.

Through routine maintenance, highway rest stops are kept clean and attractive, wildflowers are planted along roadsides, roadway striping is reflective for safe nighttime travel, guardrails are repaired, signs are kept clean and visible and potholes are filled. Department staff and contractors also mow grass, remove litter, perform bridge inspections, make bridge repairs, clean out ditches and storm drains and do many other jobs needed to make highway travel easier and safer.

Strategies for Roadway Maintenance

The Department will help ensure the objective related to roadway maintenance is achieved through these actions:

- Continue to identify and implement practices which reduce the time and cost of preserving the State Highway System
- Emphasize use of state-of-the-art technologies and innovative contracting methods to increase the efficiency of system maintenance
- Continue to monitor and adjust maintenance standards to preserve our investment and provide safe roadways for Florida motorists, including special population groups

OBJECTIVE: Improve system efficiency by deploying transportation systems management and operations on state corridors

Transportation professionals across the nation are responding to the challenge of getting more capacity out of the existing transportation system and improving performance. The Department recognizes additional roadway and facility improvements alone will not solve our traffic problems. The solution will be a diverse set of approaches requiring funding commitments, as well as a variety of changes in the way our transportation system is operated. Travel choices, Intelligent Transportation Systems (ITS), access management, and land use issues must be

considered, all in an effort to increase safety and to extend the useful life of our existing roadways.

Transportation Systems Management and Operations (TSM&O) are being used to improve the operation of the existing system in an effort to maximize system efficiency. The purpose of TSM&O is to manage and operate existing roadways, systems and infrastructure as efficiently and effectively as possible.

The Department routinely constructs turn lanes, adjusts median access points, improves traffic signalization and signal systems, and makes other improvements to the operation of state highways and affected local government roads. Many of these activities occur as part of rehabilitating state roads through the Resurfacing program. These kinds of improvements are known as transportation system management strategies.

Transportation demand management strategies to reduce auto travel can also help with managing the system, both by reducing the number and length of trips and by increasing vehicle occupancy. The Department works with local governments and other partners to promote the use of transportation demand management techniques such as bicycle and pedestrian programs, commuter matching and ridesharing, carpooling, park-and-ride lots, transit, commuter rail, telecommuting, alternative work hours, trip reduction ordinances, congestion pricing and other ways to reduce peak-hour demand on roadways.

The development of master plans and action plans for the Strategic Intermodal System (SIS) includes support for all modes of transport, including the provision of managed lanes by incorporating special purpose lanes with exclusive connections to park-and-ride lots and transit services. Managed lanes are facilities that are within an existing highway/corridor where operational strategies are proactively implemented and managed in response to changing conditions with a combination of tools, which may include accessibility, vehicle eligibility, or pricing. The implementation of these plans is progressing consistent with the availability of funds.

Access Management

Comprehensive access management is an effective strategy to address traffic congestion, crashes and reduction of roadway capacity. Access management addresses the location and design of restrictive medians, public street entrances and driveway connections to roadways. Access management considers all main users of the roadway system; not only cars, but the interactions between vehicle traffic, pedestrians, cyclists, as well as transit users. Because it involves both land use and transportation, access management also requires cooperation with

local government agencies responsible for transportation and land development decisions. Access management techniques can be extremely beneficial by optimizing vehicle circulation, flow, and safety.

The goal of the Department's program is to limit and separate traffic conflict points. By reducing conflicts safety can be enhanced while improving traffic operations. Florida's access management standards and procedures—developed using national standards and research undertaken or sponsored by the Department—help provide safe and efficient travel.

Virtually all of the Department's new multi-lane highway projects are designed with restrictive medians, which greatly enhance safety. A recent study conducted by Florida International University showed that adding medians to roadways reduced fatal and injury crashes by more than 30 percent[1]

Because access management can be controversial, the Department makes a significant effort to engage the public in planning these projects. Each district has a team that works with the public on access management issues.

Intelligent Transportation Systems

Today, we see that transportation performance increasingly reflects the marriage of infrastructure and information. In order to better accommodate our growth in population, tourism and commerce, the Department is committed to develop and deploy sophisticated, fully-integrated, statewide Intelligent Transportation Systems (ITS) in a cost-efficient manner. These systems represent the application of real-time information systems and advanced technologies such as transportation management tools to improve the movement of people, goods and services. Intelligent Transportation Systems use advanced technologies to remedy mobility and safety problems, which may delay or possibly eliminate having to build new roads or expanding existing roads. As ITS evolves throughout Florida, the development and reporting of operational performance measures is a priority for the Department to demonstrate and document the benefits of ITS. When the ITS Program began addressing performance in 2004, none of the districts had an automated data collection system. Performance measures were initially limited to measures of basic production and usage. The initial statewide measures were the number of 511 calls, Road Rangers assists and centerline miles of limited access highways managed by ITS.

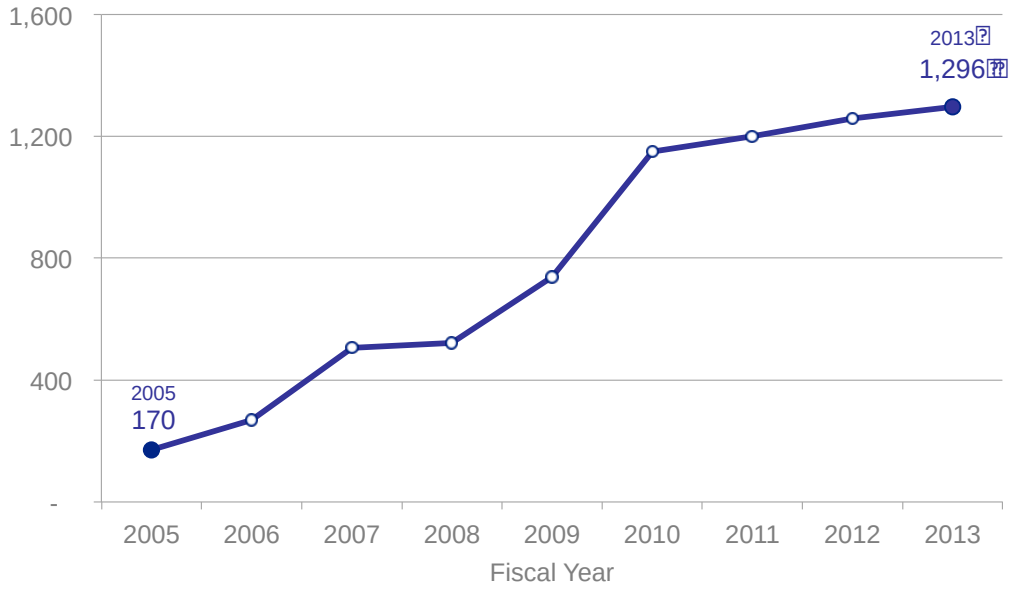
[1] Before and After Safety Study of Roadways Where New Medians Have Been Added – November 2012 Priyanka Alluri, Albert Gan, Kirolos Haleem, Stephanie Miranda, Erik Echezabal Andres Diaz, and Shanghong Ding

As ITS deployment and integration proliferate, measures of performance and resulting benefits can be more accurately documented and reported. A number of ITS performance measures have been identified: miles managed by ITS; 511 calls, messages, visits and alerts; Road Ranger service stops; incident duration (roadway clearance times); and customer satisfaction.

Miles Managed by ITS

By June 2012, 1,258 miles were managed through ITS (**Figure 4**). This represents 60 percent ITS coverage of Florida's strategic highway system. Extensive ITS deployment has taken place during the previous fiscal year throughout the State.

Figure 4: FDOT-Managed ITS Miles

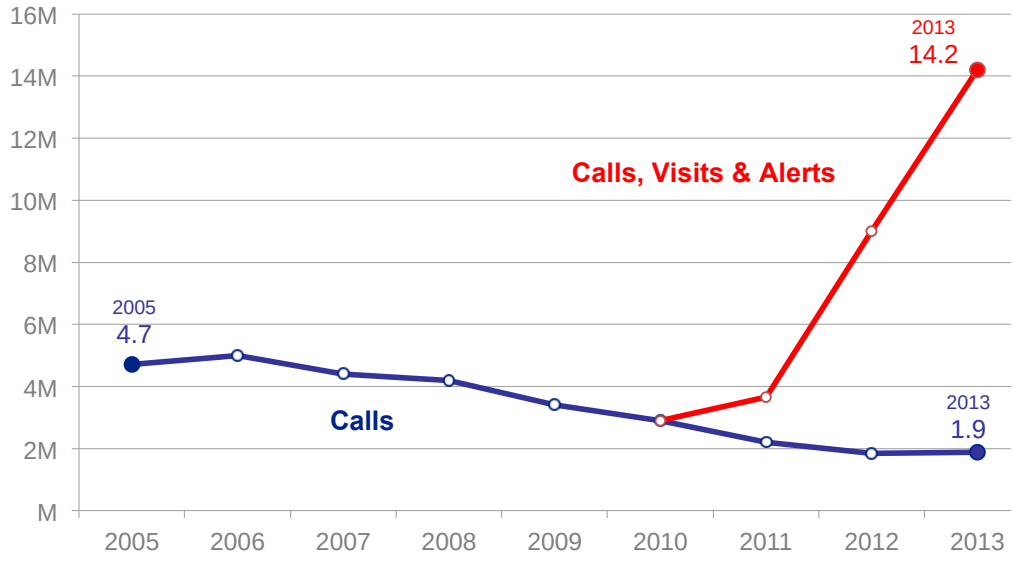


FL511

Florida's 511 program, dubbed FL511, provides accurate real-time information to travelers on traffic and road conditions, alternate route information (during incidents), construction information, weather-related problems and public transportation information/options. FL511 provides multiple platforms to allow motorists to receive traffic updates through methods that best suit their lifestyles, whether it is through a phone call, an email, a text, a web site, Twitter, or a smart phone application. With a wide variety of outlets for travelers to receive 511 traffic updates, the phone system continues to expand as a key platform for distributing traveler information.

In June 2009, Florida's statewide 511 services integrated all of the Florida regional 511 services into one statewide system creating the new Statewide Florida 511 Traveler Information System. The fully integrated, bilingual resource offers statewide roadway coverage, including the addition of more than 50 new travel partners and personalized services. System integration allows users to request customized calls or texts to inform them of incidents in areas of interest. A new option for travelers is the Florida 511 application for iPhone, iPad and iPod users, which launched in June 2011. The technology pushes traffic information out to users based on the user's predefined settings. The 511 app uses the mobile device's GPS system to provide users with information based on their location. Approximately 1.88 million 511 calls were made during the 12-month period from July 2012 through June 2013. Although tracking phone calls to Florida 511 is no longer the sole indicator of system usage as more travelers use automated and mobile applications to customize their experience. Over 14 million calls, web/app visits, and e-mail/text/phone message alerts were made in fiscal year 2012-2013 keeping travelers on Florida's highways informed (**Figure 5**).

Figure 5: FL511 Calls, Visits & Alerts (millions)



Below is additional information on the FL511 program:

- The 511 system covers all of Florida's interstates, toll roads and other major metropolitan roadways
- Florida's statewide 511 phone system has received more than 9.1 million calls since launch in June 2009 and averages 189,000 calls a month
- The 511 system provides a free Florida 511 app available for Android and Apple devices

- The Florida 511 mobile apps have been downloaded approximately 57,000 times
- The Florida 511 system provides traveler information 45,000 times per day
- Travel information also is available at FL511.com, which features hundreds of traffic cameras statewide
- 511 users can customize the information they receive through My Florida 511 personalized services
- The FL511.com website has received more than 3 million web visitors since its launch and averages approximately 58,000 visitors each month
- Users can access 511 updates on Twitter by following one of Florida's 12 FL511 regional and roadway Twitter feeds
- As of June 2013 there were 9,026 subscribers to the Department's twelve regional Twitter feeds
- Callers can transfer from 511 to Florida's major airports, seaports and transit agencies
- The most commonly requested reports are for:
  - I-95
  - I-4
  - Florida's Turnpike
  - I-75

ITS Customer Satisfaction

Florida conducts a statewide ITS customer satisfaction survey every two years, with the most recent survey (conducted in July and August 2012) reported in October 2012. Significant findings of the latest survey are:

- The days of radio and television traffic reports dominating traveler market share will eventually come to a close. This was evidenced in previous years by the generational divides in radio and television traffic information consumption. Young drivers were less dependent on traditional sources of traffic information and are more inclined to turn to the internet for traffic information. Use of traditional sources is generally down across all subgroups, and in-car navigation systems have already emerged as the second most popular alternative source of traffic information.
- Use of traditional sources is generally down across all subgroups. By far the most popular alternative source is electronic message signs, which are used by three-quarters (75 percent) of drivers. The next most popular sources for traffic information are in-car navigation systems (34 percent) and websites on a home or work computer (23 percent).

- Drivers who use 511 are passionate in their praise of it, are increasingly trusting of it, and are likely to act on the information it provides.
- There is increased interest in receiving traffic information via text message. With an increasing number of 511 users who have customized the service to meet their specific needs, drivers are less likely to call 511 and are more likely to want traffic notifications sent to them directly.
- The Road Ranger Program and the electronic sign message signs continue to receive overwhelmingly positive ratings by customers—these services are highly valued and trusted by the driving public.
- When asked what additional types of traffic information FDOT should provide, most drivers say they would find information on alternate routes useful.

Incident Duration and Emergency Management

Vehicle crashes on highways typically affect far more travelers and businesses than those directly involved in the crash. It is critical that crash victims be attended to as soon as possible to reduce the possibility of death or serious injury. It is not unusual for major highways to be partially or fully closed while vehicles and debris are removed, which creates or compounds traffic congestion and causes delay for users in the vicinity of the crash. Occasionally, hazardous materials—some of which can be life-threatening—and other commodities are spilled as a result of these crashes or as a result of crashes on other transportation modes such as the railroad network. Quickly responding to and clearing an incident allows the highway to return to normal capacity and traffic flow sooner.

In order to improve incident management, Florida developed a statewide Traffic Incident Management Program, which is comprised of four major components:

- Road Ranger Service
- Open Roads Policy
- Rapid Incident Scene Clearance (RISC) Program
- Traffic Incident Management (TIM) Teams

Road Ranger Service

The Road Rangers Program is a free motorist assistance service provided by the Florida Department of Transportation and its partners that consist of roving vehicles which patrol congested areas and high incident locations along urban freeways. The program began in December 1999 and was initially used for the management of vehicle incidents in construction

zones. The program has since been expanded to respond to all types of incidents and has become an effective tool in the Department's incident management program.

The primary focus of the Road Ranger program is to assist in the clearance of traffic crashes, in addition to continuously roving the roadways looking for stranded motorists, roadway debris, traffic crashes or other incidents. The Road Rangers assist in these situations to help motorists to keep traffic moving. Road Rangers provide direct service to motorists by quickly clearing travel lanes of minor incidents and providing assistance to motorists. Services can include: providing a limited amount of fuel, assisting with tire changes and other types of minor emergency repairs.

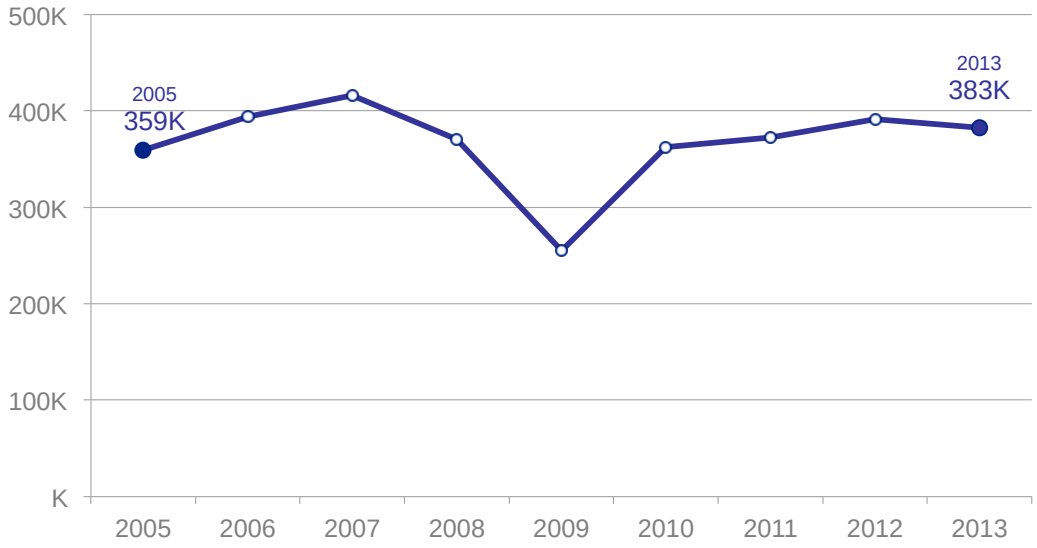
All seven Districts and the Turnpike Enterprise provide Road Rangers services covering almost 2,000 miles of state roads. Other than in 2008 when the legislature instituted a 50 percent reduction in Road Ranger funding, which it re-instated the following year, Road Rangers have consistently assisted over 350,000 motorists annually. In fiscal year 2012-13 Road Rangers services were provided to 382,570 motorists (**Figure 6**). Several of the Districts currently provide Road Ranger service on a “24/7” basis. Statewide there are 127 Road Ranger vehicles, of which 90 are equipped with automatic vehicle location (AVL). During peak hours there are up to 109 vehicles on patrol throughout the state.

Benefits of the Road Ranger program have been:

- Reduction of accidents
- Reduction of incident duration by assisting the Florida Highway Patrol
- Assistance to disabled or stranded motorists
- Removal of road debris
- Reduction of congestion produced air pollutants
- Increased safety at incident scenes

The Department is committed to expanding the service and coverage of the Road Rangers. The United States Department of Transportation estimates service patrols (such as Road Rangers) can reduce travel delays by up to 45 percent.

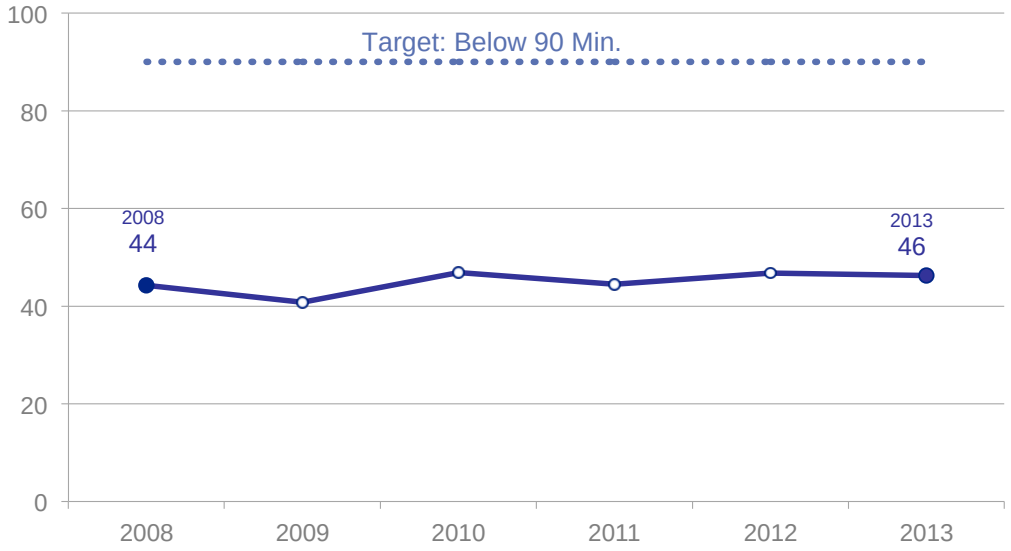
Figure 6: Number of Road Ranger Service Stops



Open Roads Policy

In an effort to provide the traveling public a cost-effective and high quality transportation infrastructure, the Department and the Florida Highway Patrol have implemented the "Open Roads Policy." The goal of the "Open Roads Policy" is to clear damaged vehicles, spilled cargo and debris as soon as it is safe to do so. It is understood damage to vehicles or cargo may occur as a result of clearing the roadway on an emergency basis. While a reasonable attempt to avoid damage is taken, the highest priority is restoring traffic to normal conditions. A combined goal of all agencies is for all incidents to be cleared from the roadway within 90 minutes of the arrival of the first responding officer with the understanding that this goal may not be obtainable with more complex scenarios, which may require additional time for complete clearance. Roadway clearance times can vary, ranging from a low of 29 minutes to a high of 64 minutes, but the average clearance time is 46 minutes, which is well below the 90-minute target goal of the Open Roads Policy (**Figure 7**).

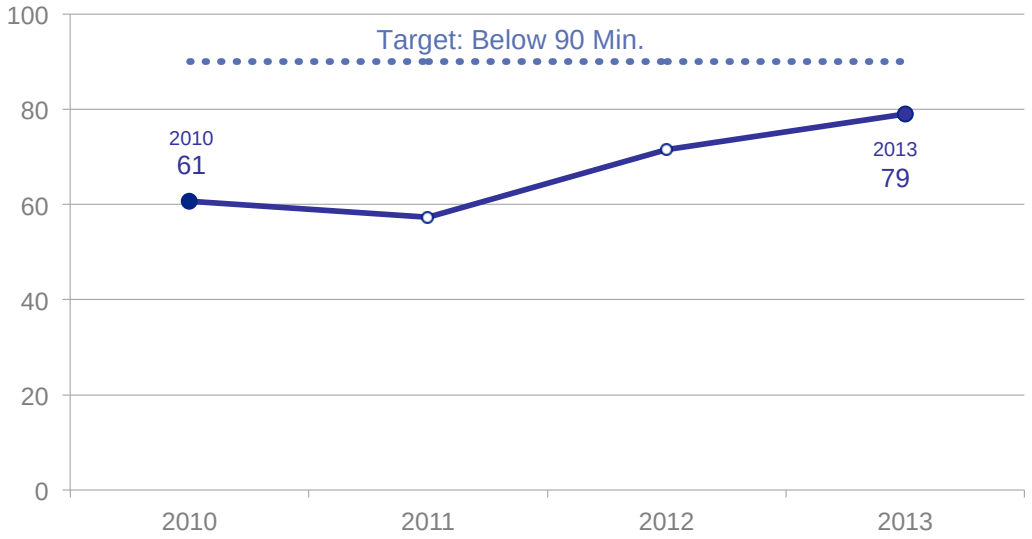
Figure 7: State Average Roadway Clearance Times (minutes)



Rapid Incident Scene Clearance (RISC) Program

The Rapid Incident Scene Clearance (RISC) Program is a highly innovative, incentive-based program to meet the goal of safely clearing major highway incidents and truck crashes. This program pays bonuses of $2,500 to wrecker operators with specialized heavy equipment for successful removal of all wreckage and roadway re-opening within 90 minutes of being given a notice-to-proceed. Incident Response Teams have been formed in all 7 districts and the Turnpike Enterprise to respond rapidly to these incidents. The teams include local emergency response services, the Florida Highway Patrol and local law enforcement officers, state and local traffic engineers, state and local maintenance personnel, and the staff and resources of other partners which may be needed. These teams work together to reduce the severity of injuries resulting from crashes and to restore transportation facilities to normal operating conditions as soon as possible. The Department is an active participant, providing traffic engineering, and maintenance personnel and resources to work with other team members. Communication between team members is a critical component. Roadway clearance times for crashes on major highways can also vary, but the average clearance time is 79 minutes, ranging from a low of 5 minutes to a high of 418 minutes (**Figure 8**), which has increased over the past few years. Although the overall average falls within the 90-minute target goal, the Department reviews all events that do not meet the 90-minute goal to ensure that responders are aware of the RISC activation criteria.

Figure 8: Statewide Average RISC Clearance Time (minutes)



The Department now requires specialized equipment and trained operators to quickly remove heavy trucks hauling larger loads after an incident. Consistent with the "Open Roads Policy," several Districts have adopted an innovative clearance strategy by implementing the Rapid Incident Scene Clearance Program in order to significantly reduce the time to clear major accidents and incidents. This program utilizes vendors who can provide specialized heavy-duty wreckers and equipment to rapidly clear the roadway on limited access facilities.

Florida also has a State Emergency Response Team composed of staff from key state agencies to ensure the state is prepared to respond to emergencies, recover from them and mitigate their impacts. The State Emergency Operations Center (SEOC) provides direction and coordination of emergency response and recovery efforts before, during and after times of impending or serious emergencies or disasters. When the magnitude of an emergency or disaster exhausts local response capabilities, the SEOC may be activated to respond.

Traffic Incident Management (TIM) Teams

Traffic Incident Management (TIM) Teams bring together all of the agencies involved in clearing an accident, including Florida Highway Patrol (FHP), local law enforcement, fire departments, emergency medical personnel, towing companies, and spill response firms, along with FDOT TMC operators, Road Rangers, and maintenance crews. TIM Teams strive to reduce the time needed to reopen travel lanes and get traffic moving again by reviewing past response actions, exploring ways to improve incident management, and coordinating upcoming planned events or

planning for unplanned events, such as hurricanes, wildfires, and floods. TIM Teams are currently active in most of FDOT's Districts and Florida's Turnpike Enterprise.

Strategies for Transportation Systems Management and Operations

The Department will help ensure the objective related to transportation systems management and operations is achieved through these actions:

- Develop TSM&O policy and procedures
- Establish TSM&O outreach and education program
- Update Department policies and procedures to incorporate TSM&O strategies in all functional areas in PD&E, Construction, Maintenance, and Production
- Continue and refine the Department's Access Management Program based on continued research and practice
- Incorporate Intelligent Transportation Systems (ITS) technologies such as traffic control systems and aggressive incident management techniques to keep traffic moving on the Strategic Intermodal System
- Increase the use of ITS technology as a tool to improve transportation safety and security
- Expand the use of the electronic toll collection system known as SunPass®
- Develop an ITS plan consistent with the Department's Ten-Year Cost Feasible Plan
- Support commuter assistance programs for sharing rides to work
- Use information from post-crash inspections of fatal crashes involving commercial vehicles to target resources in high crash locations and to identify problem carriers
- Coordinate with partners in revising regional evacuation plans

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2060 FLORIDA TRANSPORTATION PLAN

ECONOMIC COMPETITIVENESS & MOBILITY

2013 PERFORMANCE REPORT

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This report is part of the Performance-Based Planning and Programming Process used by the Florida Department of Transportation (FDOT). For a description of that process, updates to this report and other transportation performance reporting initiatives of FDOT, go to FDOTPerforms.org.

BY THE NUMBERS

Economic competitiveness and mobility are strategic FDOT priorities. The movement of people and goods supports Florida's economy in many ways. Key performance highlights include:

- Florida's share of U.S. Trade Flow increased in 2011, moving goods worth $149 billion
- The impact of transportation investments is a robust $4.92 in economic benefits for every dollar spent on transportation improvements—supporting thousands of jobs annually
- Florida is investing $9.6 billion over five years to improve the state's Strategic Intermodal System (SIS) of roads, transit facilities, airports, spaceports, seaports, and rail facilities
- Travel Time Reliability on the State Highway System (SHS) in 2012 was 94.6 percent, the highest in the 8 years this key measure—for both people and goods movement—has been in place
- Annual Vehicle Hours of Delay on the State Highway System (SHS) has decreased from 387 million hours in 2004 to 215 million hours in 2012
- In 2012, 2.2 percent of the State Highway System was severely congested—this had been as high as 3.6 percent in 2005
- Aviation tonnage at Florida public airports was 2.6 million tons in 2012—the highest volume of air cargo in the past five years
- Departure reliability at Florida airports has improved since 2009 (80.3 percent)—by 2012, on time departures stood at 83.5 percent
- Florida's commercial, general aviation and military airports generate $107.8 billion in economic activity—over 8.5 percent of Florida's Gross State Product (GSP)
- Between 2011 and 2012 pedestrian facility mileage on the SHS in urban areas increased from 59.4 percent to 62.8 percent; over the same period bike lane and shoulder mileage increased from 57.6 percent to 58.8 percent on the same system
- Florida is experiencing a steady increase in rail passengers with 1.2 million passengers in 2012—ridership has been increasing every year since 2005
- Average public transportation headway (time between buses) has been decreasing steadily—since a high of 29.2 minutes in 2003 to 20.9 minutes in 2011—helping make public transportation an increasingly attractive mobility option

- Public transit ridership continues to grow as the economy improves--ridership exceeded population growth in 2011 and 2012

OUR GOALS

INVEST IN TRANSPORTATION SYSTEMS TO SUPPORT A PROSPEROUS, GLOBALLY COMPETITIVE ECONOMY

IMPROVE MOBILITY AND CONNECTIVITY FOR PEOPLE AND FREIGHT

Our ability to move people and goods efficiently, affordably, and reliably is vital to economic prosperity. As the demand for moving both people and freight increases and changes, Florida will continue to improve the planning and management of our multimodal transportation system.

Florida travel is diverse with many varied trip purposes for moving people and goods. People use all modes of transportation for job commuting, international business, pursuing education, and accessing health care—among many other purposes. Raw materials, finished products and packages comprise a robust freight movement system that relies on air cargo, trucking, seaports, and freight railroads.

The Department strives to effectively and efficiently move people and freight between major trip origins and destinations. Mobility solutions often involve multiple state, regional and local transportation facilities as well as a combination of modes. Just as companies collaborate with partners, stakeholders, and suppliers to advance common business goals so must the Department. Our economy does not stand still. Collaboration is increasingly our way of doing business to support economic competitiveness. As we do this Florida enjoys more jobs and stronger communities.

OUR OBJECTIVES

The Florida Department of Transportation sets objectives and strategies to implement the goals of the *2060 Florida Transportation Plan*. Each objective is carried out through various Department strategies. The following objectives provide the policy framework for linking the Department's budget and work program to the *2060 Florida Transportation Plan's* economic competiveness and mobility goals. This performance report is generally organized around the following eight objectives:

- Make strategic investments that support statewide and inter-regional mobility
- Allocate up to 75 percent of new discretionary capacity funds to the Strategic Intermodal System (SIS)

- Maintain the average growth rate in vehicle-hours of delay on Florida Strategic Intermodal System (SIS) highways at or below 5 percent
- Support efforts to expand Florida's role as a hub for trade, logistics and export-oriented manufacturing
- Maximize the use of existing transportation facilities
- Transform existing and develop new statewide and interregional transportation corridors to support future mobility and help implement regional visions
- Participate in statewide and regional visioning efforts
- Increase transit ridership at twice the average rate of population growth

OBJECTIVE: Make strategic investments that support statewide and inter-regional mobility

Investments in Florida's transportation system are investments in the backbone of the State's economy. State, metropolitan, and local plans indicate the costs of needed improvements exceed available revenues. Narrowing the gap between needs and funding will require additional resources, "joint funding" of projects through public and private partnerships, along with continued efforts to reduce project costs. Funding shortfalls underscore the importance of making all investments as strategic as possible. *Engineering News Record* recently recognized Florida as one of the leading states in the nation for transportation public-private partnerships.

State legislative policy is aimed at maximizing the economic impact of transportation. The Department uses a macroeconomic model to evaluate the long-term economic benefits of the Transportation Work Program. The model quantifies the benefits of investments in highway, transit, seaports and rail projects. These benefits translate into cost savings for Florida's businesses and time savings for Florida's workers and consumers.

Every $1 invested in the Department's Work Program generates $4.92 in economic benefits (**Table 1**). This is a tremendous Return on Investment (ROI). The Department is also improving its ability to estimate the ROI for individual transportation projects. This will provide a useful level of economic analysis for the Department's Executive Board and other decision makers. A study to update this important ROI research will be completed in 2014.

Table 1: Benefit-Cost Summary of FDOT Work Program

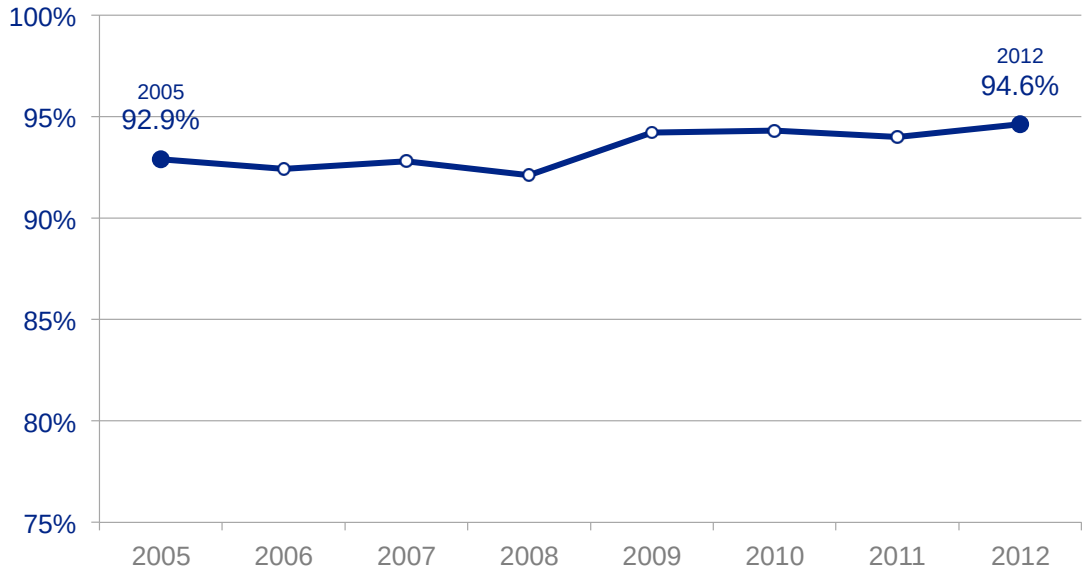
BENEFITS	
Present Value of Personal Income Change	$ 59.50
Present Value of Non-Business User Benefits	$ 79.70
Total Discounted Benefits	$ 139.20
COSTS	
Present Value of Total Costs	$ 28.30
Net Present Value (Benefits Minus Costs)	$ 110.90
Benefit-Cost Ratio	**$ 4.92**

Source: Economic Impacts of Florida's Transportation Investments: A Macroeconomic Analysis (September 2009).

Highway Travel Time Reliability

Travel time reliability is especially important to transportation system users—freight and people movement. The Department began tracking this measure in 2005 as shown in **Figure 1**. Travel Time Reliability is the percentage of travel that is greater than 45 mph on freeways. In 2012, Travel Time Reliability on the State Highway System was 94.6 percent, the highest in the 8 years the measure has been in place. Similarly, 2012 Travel Time Reliability in the 7 largest counties stood at 89.8 percent, a significant improvement since 2005 and an improvement of a full one percent over 2011.

Figure 1: Travel Time Reliability on Freeways During Peak Hour/Peak Period



Projects of Major Economic Impact

Florida transportation projects improve mobility and the economy in various ways; these are just 3 examples of the diverse investments in Florida's economy:

Port of Miami Harbor Dredging Project and Tunnel
Deepening the port by 50 feet will make it one of only three U.S. eastern seaboard ports that can accommodate the new generation of cargo vessels passing through the expanded Panama Canal

FDOT Share: $1.9 billion

Status: Scheduled completion 2014

SunRail Commuter Rail System
The 61-mile route will extend from DeLand through Orlando to Poinciana. The first phase, from DeBary to Sand Lake Road in Orlando, includes 12 rail stations, with service expected to commence in May 2014.

Port Everglades FEC Intermodal Container Transfer Facility

FDOT Share: $18 million

Status: Scheduled completion 2014

I-95 Express Transit Services

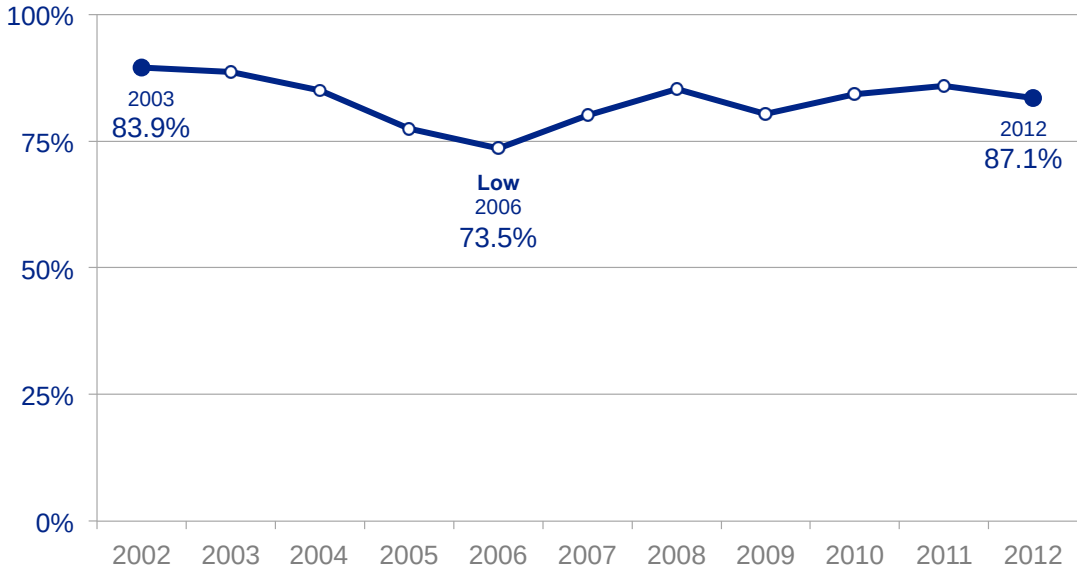
FDOT Share: $2 million per year

Status: Phase I complete, Phase II opening 2014

Aviation Departure Reliability

Florida airport users, like highway users, expect reliable travel with minimal delay. Departure reliability at Florida airports is defined as "on time" if the flight departs less than 15 minutes after the scheduled time shown in the airlines' Computerized Reservations Systems (CRS). As shown in **Figure 2**, this performance measure has been generally improving since 2009 (80.3 percent). By 2012, on time departures stood at 83.5 percent. Aviation is critical to Florida's economy. While the Department has no control over the performance associated with this measure, we recognize that on-time aviation performance is important to our business community, residents and millions of visitors.

Figure 2: Percent On-Time Departure at Airports



Performance Taking Flight

- Florida's commercial, general aviation and military airports generate $107.8 billion in economic activity--over 8.5% of the gross state product
- Public and military airports are responsible for 1.1 million jobs with a total estimated payroll of$36.5 billion
- Almost 53% of Florida tourists arrive by air; Florida's air passengers account for 10% of the nation's total passengers
- More than 8% of the nation's air cargo travels through Florida's commercial service airports
- Commercial airports accommodate more than 142 million passengers annually, ranking Florida third in the nation. Florida's airline passenger growth is more than double the national average.

Strategies for Making Sound Investments

The Department will help ensure the objective related to strategic investments is achieved through these actions:

- Focus investment on the Strategic Intermodal System (SIS) to produce the greatest impact for commerce and economic strength
- Provide options for raising sustainable local, regional, and state transportation resources and investing these resources in the projects that have the greatest need and benefit
- Promote funding flexibility to respond quickly to economic opportunities
- Provide incentives for projects of regional significance
- Identify transportation needs, revenues, and shortfalls across all modes — maintain this information on a regular basis and communicate it broadly to bolster a greater understanding of transportation challenges and needs
- Maximize the return of federal transportation funds to Florida and the flexibility to use those funds consistent with state, regional, and local priorities
- Encourage the use of tolls, user fees, and "market-based choices" such as express lanes and innovative transportation options
- Improve the "meaning" and practical utility of project cost data by identifying long-term needs at a corridor level
- Integrate estimates of long-term investment needs using consistent time-horizons and assumptions
- Continue to make use of financing tools such as public-private partnerships, joint funding, and the prudent use of debt financing (with established sources of revenue to retire debt) to implement projects which cannot be funded through traditional sources
- Update the economic analysis tool to identify projects that will have a high Return on Investment (ROI)

OBJECTIVE: Allocate up to 75 percent of new discretionary capacity funds to the Strategic Intermodal System (SIS)

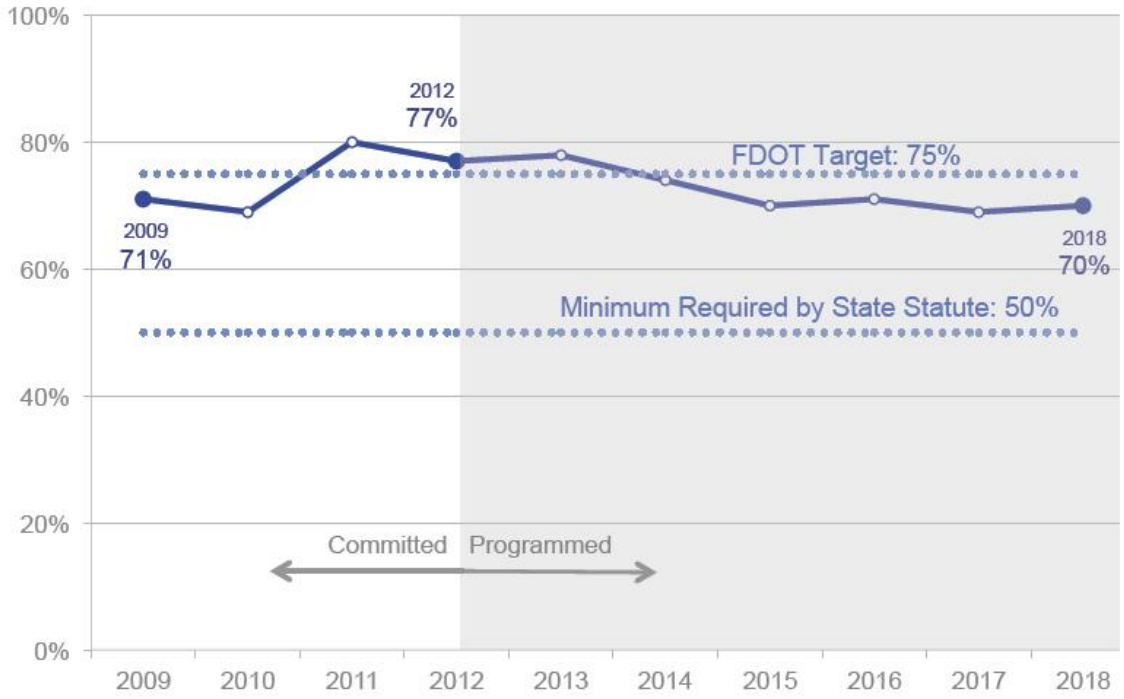
The primary focus for ensuring a strong link between economic requirements and transportation is accomplished through the designated Strategic Intermodal System (SIS). Created by Florida statute in 2003, the SIS is a statewide network of high-priority transportation facilities, including the largest and most significant commercial service and general aviation reliever airports, spaceports, deep-water seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, urban-fixed guideway transit corridors, waterways and high-volume

highways. The SIS continues to enable the Department to focus significant attention and resources on non-highway modes and facilities.

SIS facilities carry more than 99 percent of all commercial air passengers and cargo, virtually all waterborne freight and cruise passengers, all rail freight, and 89 percent of all interregional passengers. The SIS also accounts for more than 70 percent of truck traffic and 54 percent of total traffic on the State Highway System. All SIS facilities are eligible for state transportation funding, regardless of mode or ownership. The SIS includes facilities owned by the state as well as regional, local and private sector partners. The Department's funding for SIS improvements also leverages extensive private and local investment—clearly indicative of the importance of these facilities to communities and business.

The Department, pursuant to State statute (s. 339.135), is directed to allocate at least 50 percent of any new discretionary highway capacity funds to the SIS. In addition, the Department has set an objective/target to allocate 75 percent of new discretionary capacity funds for the SIS. The Department committed approximately 78 percent of its capacity funding for SIS projects for 2013 (**Figure 3**).

Figure 3: Percent of Capacity Funds for SIS Projects - FY 2009 to 2018



Of the $9.6 billion programmed for SIS capacity funding in the current Work Program covering fiscal years 2014 to 2018, $8.7 billion is programmed for highway capacity improvements, $26 million for aviation, $20 million for spaceports, $287 million for seaports, $271 million for rail, $102 million for transit, and $10 million for intermodal capacity improvements.

The Department continues to collaborate with its partners on developing SIS designation criteria, with a focus on economic competitiveness. The majority of the recent changes are a refinement of the economic connectivity criteria for Emerging SIS facilities. These criteria measure the ability of a facility to serve economic activities dependent on particular modes of long-distance transportation. The revised approach implements a quantitative methodology for measuring connectivity to key industry clusters. These additional criteria and changes listed below were adopted January 2014.

- New criteria, thresholds, and implementation guidance for designating intermodal logistics centers (ILCs)
- Revised criteria and thresholds for freight rail corridors to reflect industry standards for assessing the function of the entire freight rail system as well as available data
- Revised Emerging SIS economic connectivity criteria and thresholds using a more quantitative approach and enhanced data from prior analyses
- Revised intermodal connector criteria to provide greater flexibility for addressing the varying function of specific hubs, including new criteria for hub-to-hub connectors serving both people and freight
- Clarified implementation guidance for SIS spaceport criteria to address commercial spaceports and other industry trends

In 2014 the Department will begin the next update of the SIS Strategic Plan to further set policies to guide decisions about which facilities are designated as part of the SIS, where future SIS investments should occur and how to set priorities among these investments given limited funding.

Spaceports – A Key Florida Transportation Asset

- U.S. commercial space transportation accounts for more than $208 billion in economic activity with Florida having nine (9) launch complexes
- The Department invested approximately $15 million per year on spaceport projects in 2012 and 2013—making FDOT uniquely multimodal on land, sea, air, and space

OBJECTIVE: Maintain the average growth rate in vehicle-hours of delay on Florida Strategic Intermodal System (SIS) highways at or below 5 percent

The Department has developed measures to address the four dimensions of mobility. These measures are examined together for a complete picture of mobility:

- **Quantity of travel –** the magnitude of the use of a facility or service including measures of person miles traveled, truck miles traveled and vehicle miles traveled (VMT).
- **Quality of travel –** travel conditions and the effects of congestion on travelers including measures of average speed and delay.
- **Accessibility –** the ease of connecting people and goods to the multimodal transportation system using measures of connectivity to intermodal facilities, dwelling unit proximity, employment proximity and industrial/warehouse facility proximity.
- **Utilization –** indicates whether or not the transportation system is properly sized and has the ability to accommodate growth. The measures are: percent system heavily congested, percent travel heavily congested, vehicles per lane mile, and duration of congestion.

A key performance measure is annual vehicle-hours of delay experienced on SIS highways in millions of hours (**Figure 4**). Delay is the difference between the uncongested travel time (at a reasonable/realistic speed, including effects of signals and other road conditions) and the estimated travel time (using estimated average speed for the traffic and road conditions). By measuring SIS delay we gain invaluable insight into questions like these:

- How can we improve transportation to serve people and commerce?
- What are we getting from our investments in transportation?
- Are we investing in transportation as efficiently as possible?
- To what extent is delay or its reduction impacting economic activity?

In general, reduction in delay translates into time and cost savings for system users. The economic recession, however, has also contributed to some of the reductions in delay and VMT. Population change and economic activity directly impact the number of vehicle miles traveled by commuters, tourists and businesses. Vehicle-hours of delay is sensitive to mile-by-mile changes in both demand (vehicle miles of travel) and capacity (lane miles).

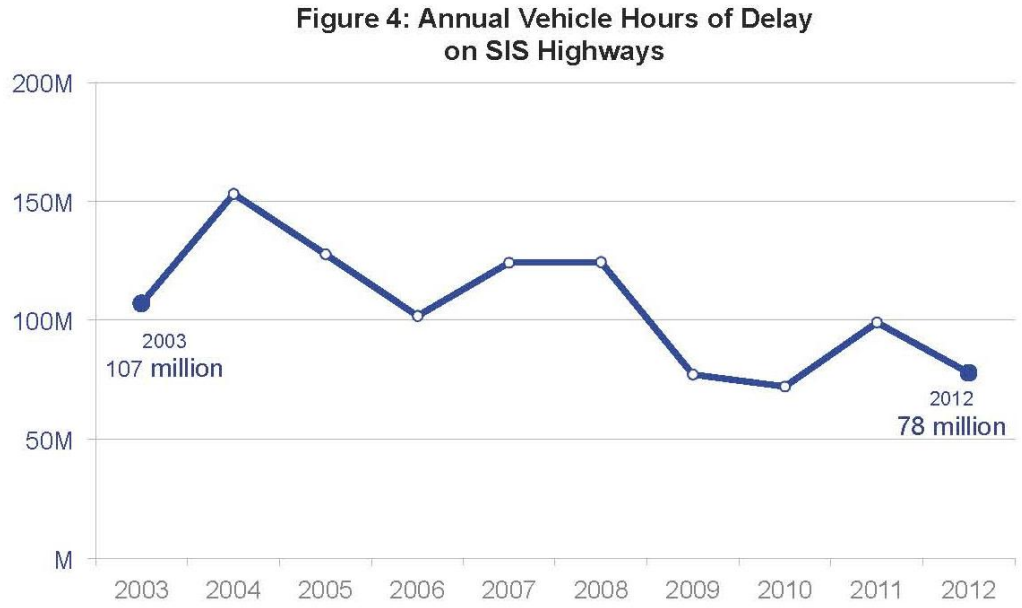
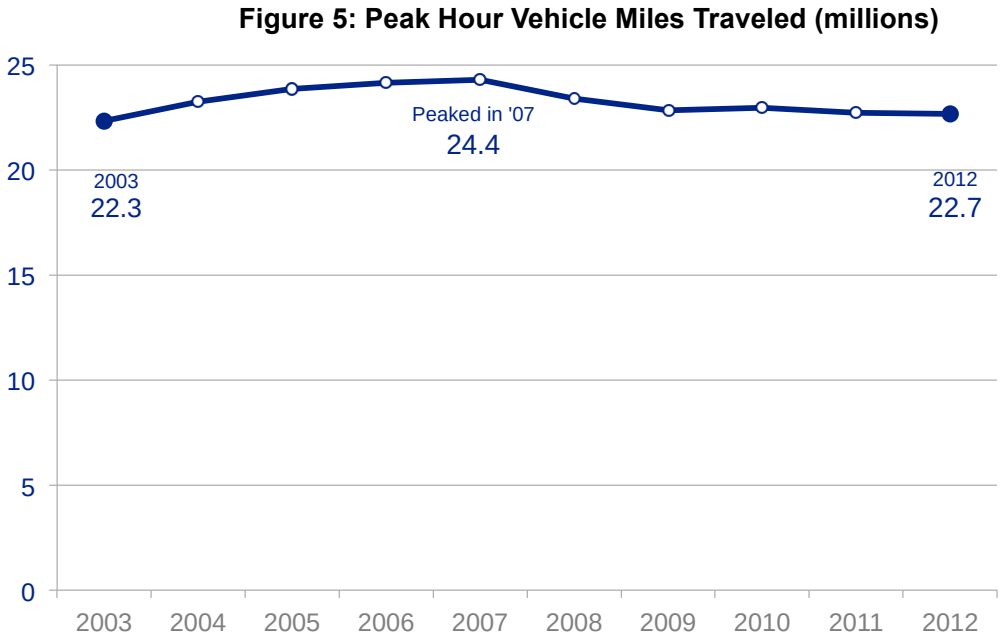


Figure 5 shows State Highway System (SHS) Vehicle Miles Traveled (VMT) in millions of miles during the peak hour of traffic over a ten year period. VMT during the peak hour provides an important indicator of system demand at the time of greatest need/use. The overall trend can be characterized as extensive, yet steady demand.



Florida's economy is highly diverse and therefore comparatively more resilient to economic downturns than other states. Florida VMT declined for only two years during a major recession far longer in duration. As the economy continues to improve, VMT can be expected to increase. Growing—and even steady—VMT underscores the importance of continued investment in system maintenance, transportation capacity improvements, and an increasing emphasis on transportation operations for greater efficiency and throughput.

Strategies for the Strategic Intermodal System (SIS)

The Department will help ensure the objective related to the Strategic Intermodal System (SIS) is achieved through these actions:

- Include economic development opportunities as a key factor in setting priorities for transportation investment on the SIS and regionally significant facilities
- Continue to prioritize investment in SIS corridors, including identifying opportunities to transform existing SIS facilities and create new SIS facilities
- Promote transportation projects needed to help advance critical economic development opportunities through targeted funding and quick response planning for SIS and other investments
- Maximize the use of existing SIS facilities, including improving the efficiency of these facilities through the use of technology and operational decisions
- Add capacity to existing SIS facilities where needed to support growth in demand and relieve congestion, or consider new SIS facilities when needed to fill major gaps in connectivity
- Ensure connectivity between the SIS and regional and local transportation facilities to support complete end-to-end trips

OBJECTIVE: Support efforts to enable Florida to expand its role as a hub for international and domestic trade

Florida is a vast consumer market and a gateway for trade between the United States and Latin American and Caribbean nations. Several trends will position Florida for an even greater future role as a trade hub:

- Florida is located in the fastest growing U.S. business and consumer market, the arc of southern states from Texas to Virginia

- Florida also is located at the crossroads of growing north-south and east-west trade lanes, with access to more than 1.1 billion consumers in the Western Hemisphere by 2035
- The widening of the Panama Canal, together with the growth in Latin American and Caribbean markets, will realign global trade lanes and increase flows through this region in the coming decades
- Over $180 million in FDOT's current work program is dedicated to port projects
- 550,000 jobs are created directly or indirectly by Florida seaports
- 60 percent of all U.S. cruise passengers embark from Florida ports

Florida Trade and Logistics Study

In 2013 the Florida Chamber Foundation, again in partnership with the Department, released a follow-on study, *Made for Trade: Florida Trade and Logistics Study 2.0.* This study highlighted progress since an earlier 2010 report, and identified three major opportunities with the potential to create at least 150,000 jobs in Florida over the next five years:

- Move more trade through Florida's sea and air gateways, with an emphasis on moving more imports directly to Florida and better balancing inbound and outbound trade flows;
- Make, grow, and refine more products for export from Florida, by expanding exports of Florida-origin manufactured goods, agricultural products, and other natural resources; and
- Multiply the impacts of global trade in Florida, by providing value-added services to trading businesses in Florida and trading partners around the world and by expanding Florida's role as a global hub for visitors, investment, and talent.

Rail Freight Bolsters Florida Economy

- 16 rail companies operate within Florida
- Florida's rail system includes 2,786 operating miles
- $438.7 million has been invested in rail capacity/upgrade projects since fiscal year 2005/2006

Florida's rail system is critical to the state's economy, moving over 83 million tons of freight annually.

Florida's rail system serves the freight community and general population with much needed relief on Florida's highways. If this freight were moved by truck, it would add 4.6 million trucks to Florida's highways every year.

FDOT Special Initiatives

The Office of Freight, Logistics, and Passenger Operations was created in 2012 to coordinate motor carrier, rail, transit, seaport, waterways, aviation, and spaceport programs and projects. The office is working with designated freight coordinators in each District, and with a wide range of external partners.

Key planning initiatives underway include the following:

- Development of a statewide Freight Mobility and Trade Plan
- Ongoing support for the Continuing Florida Aviation System Planning Process and updating Florida's Air Cargo System Plan
- In partnership with Space Florida, development of the Florida Spaceport System Plan to advance strategic infrastructure investments at the state's spaceport facilities
- Development and implementation of the Florida Rail System Plan
- Development of an in-house Motor Carrier Working Group, as well as enhanced coordination with truckers, shippers, and other modes
- Implementation of the Seaport System Plan to develop a statewide vision for Florida's seaports

Freight Performance

The safe, effective and efficient movement of goods is a key to Florida's economic strength and growth. Florida is placing greater emphasis on effective freight movement. The Department will continue to report on key measures of freight performance such as the following:

- Travel Time Reliability on the State Highway System during the peak hour of traffic has improved from 92.9 percent in 2005 to 94.6 percent in 2012 translating to time and cost savings for shippers and carriers who rely on the timely movement of finished goods and raw materials / commodities. This measure is particularly important as trucks transport approximately 83 percent of all Florida manufactured tonnage
- Aviation tonnage in Florida (all cargo landed at public airports) stood at 2.6 million tons in 2012—the highest volume of air cargo in the past five years
- Conversely, rail tonnage originated or terminated in Florida declined to 52.1 million tons in 2011—the most recent data available
- Seaport tonnage has also been trending downward, but at 100.3 million tons in 2011 still represents an important segment of our economy along with the jobs associated with seaports

Strategic Investment Initiatives

In 2012 the Legislature created or expanded several strategic investment programs to target resources at critical elements of the state's trade and transportation infrastructure. These programs augment the broader Strategic Intermodal System.

Strategic Port Investment Initiative – Starting in fiscal year 2013, the Department will annually provide at least $35 million from the State Transportation Trust Fund for this initiative. The Department will work with the 15 deep-water seaports and the Department of Economic Opportunity (DEO) to develop and maintain a priority list of strategic investment projects. The initiative will prioritize projects that meet the state's goal of becoming a hub for trade, logistics, and export-oriented activities.

Florida Seaport Transportation and Economic Development Program – This program was created to finance seaport transportation or facilities projects that will improve the movement of cargo or passengers. The Legislature in 2012 increased the minimum amount of funding FDOT must provide for this program from $8 to $15 million per year, codifying recent Department practice. The Economic Development Transportation Fund provides an important investment focus on transportation initiatives with an especially strategic economic competitive focus.

Intermodal Logistics Centers

Florida's ILCs bolsters freight mobility, create jobs, and benefits economic performance. Florida has made significant investments in the ILC Infrastructure Support program to improve our freight system and to maximize growth opportunities in diverse markets. This particular commitment to freight investment as an economic engine includes:

- Up to $5 million annually being allocated to ILC projects
- Integrating ILC criteria as part of future eligibility for Strategic Intermodal System (SIS) funding

Strategies for Expanding Florida as a Hub for Domestic and International Trade

The Department will help ensure the objectives related to freight & trade are achieved through various key actions including some of the following notable activities:

- Enhance Florida's role as a global hub that provides efficient and reliable connectivity for trade and visitors
- Identify seaports where channels need to be deepened and where terminals need to be expanded

- Identify airports where cargo may exceed available capacity and that have the greatest potential for increasing related economic activity
- Support the development of Florida as a major international trade hub with targeted investments in the capacity of and connectivity among SIS hubs and corridors, such as airports, seaports, rail terminals, integrated logistics centers, highways (some with exclusive truck lanes), rail lines, and coastal and inland waterways
- Improve the efficiency and connectivity of the supply chain serving Florida's businesses

OBJECTIVE: Maximize the use of existing Transportation facilities

State DOTs across the nation are striving to optimize the use of the existing transportation system. As we work to accommodate growth in travel demand, our primary focus is to ensure that we squeeze out the best performance possible from the existing transportation system. Improved system operation is a key Department priority. We accomplish it in various ways including leveraging information technology and achieving greater collaboration among transportation system stakeholders such as emergency response agencies.

Florida is developing and aggressively using technology to combat congestion. Information Technology (IT) has been leveraged in various ways such as providing real-time information to assist travelers. While improved traveler information is being provided through variable message signs, highway advisory radio, cell phones and the internet, we are improving system operations in other ways highlighted below.

Transportation System Management & Operations (TSM&O)

TSM&O is designed to optimize the performance of Florida's multimodal infrastructure through a combination of systems, services, and projects that preserve capacity and improve system security, safety, and reliability. For Florida's economy to continue to expand we must be able to gain transportation capacity from a combination of capacity adding projects and improved operation and throughput of our existing system—the latter is especially important and cost-effective.

TSM&O improves mobility for roadway users through real-time monitoring of the transportation system and responding as quickly as possible to accidents and incidents. Estimates of the TSM&O benefit to cost ratio are on the order of 9:1. Using technology solutions as an alternative to traditional capacity enhancements, such as roadway widening, also means lower capital and maintenance costs. Those proactive approaches and tools enhance transportation system performance by:

- Improving travel time and reliability for our customers

- Improving traffic flow through work zones
- Enhancing safety
- Producing cost-savings for drivers, and the Department

Managed Lanes

Managed Lanes is a TSM&O tool used to manage traffic along existing highways in congested urban areas. Managed lane projects are underway across the country to alleviate traffic congestion utilizing various strategies to improve the flow and maximize the efficiency of the highway system. Common types of managed lanes include high-occupancy vehicle (HOV) lanes, high-occupancy toll (HOT) lanes, express lanes (value priced lanes), and exclusive or special use lanes.

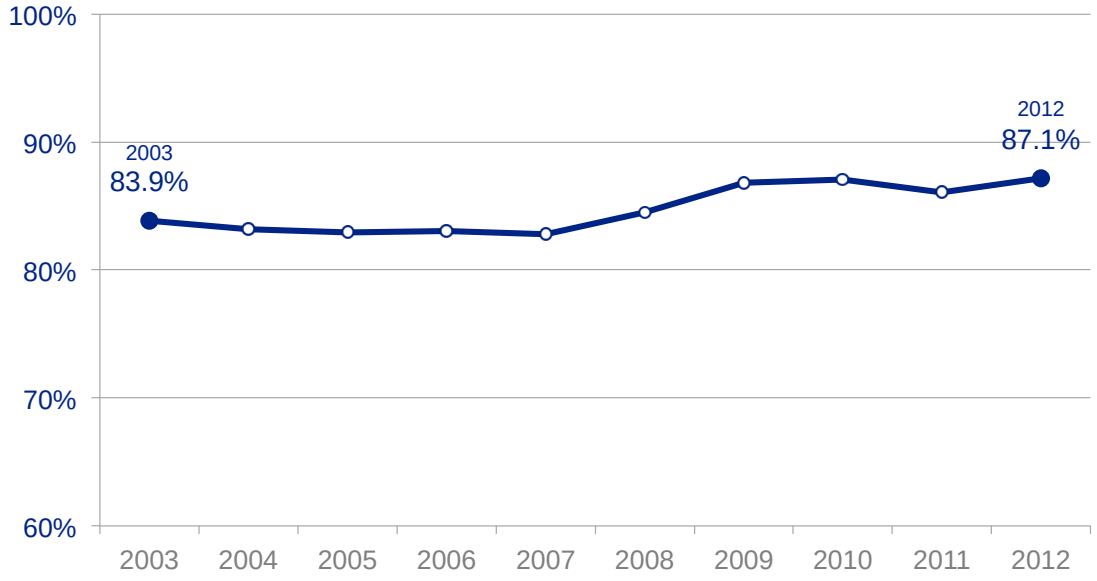
Florida developed a statewide policy for managed lanes in 2013. It provides a methodology on how to apply managed lane strategies consistently across the state. This growing application of express lanes, particularly in South Florida, will better serve our customers and accommodate growth.

Level of Service

Level of Service (LOS) provides a measure for evaluating roadway performance by relating travel demand to roadway capacity. Various LOS levels or grades are established along with thresholds that provide a basic standard of acceptability. During 2012, 87.1 percent of the State Highway System (SHS) met or exceeded the acceptable LOS criteria—a 1 percent improvement over the prior year (See **Figure 6**). Also worth noting:

- The percent travel meeting LOS criteria during the peak hour/peak period also improved from 2011 to 2012 for the Strategic Intermodal System (SIS) highway corridors, connectors, and freeways. Non-freeways meeting the LOS criteria remained at the same level (93.9 percent) as in 2011. In short, there was no diminution of LOS performance on these facilities from 2011 to 2012, with improvements on most.
- The overall trend since 2003 is one of generally steady travel improvement meeting the established LOS performance criteria. Keeping this level of performance is critically important for Florida to support the effective and efficient movement of people and goods.
- This favorable LOS trend is also occurring in Florida's seven largest counties. In 2003 78.1 percent of the SHS in these counties met the LOS criteria. By 2012, nearly 82 percent of the SHS in these counties met these same criteria. This reflects well on FDOT's ability to satisfy travel demand in a state with a large population, extensive business and shipping activity, and a large number of tourists and visitors.

Figure 6: Percent of Travel on SHS Meeting LOS Criteria During Peak Hour or Peak Period

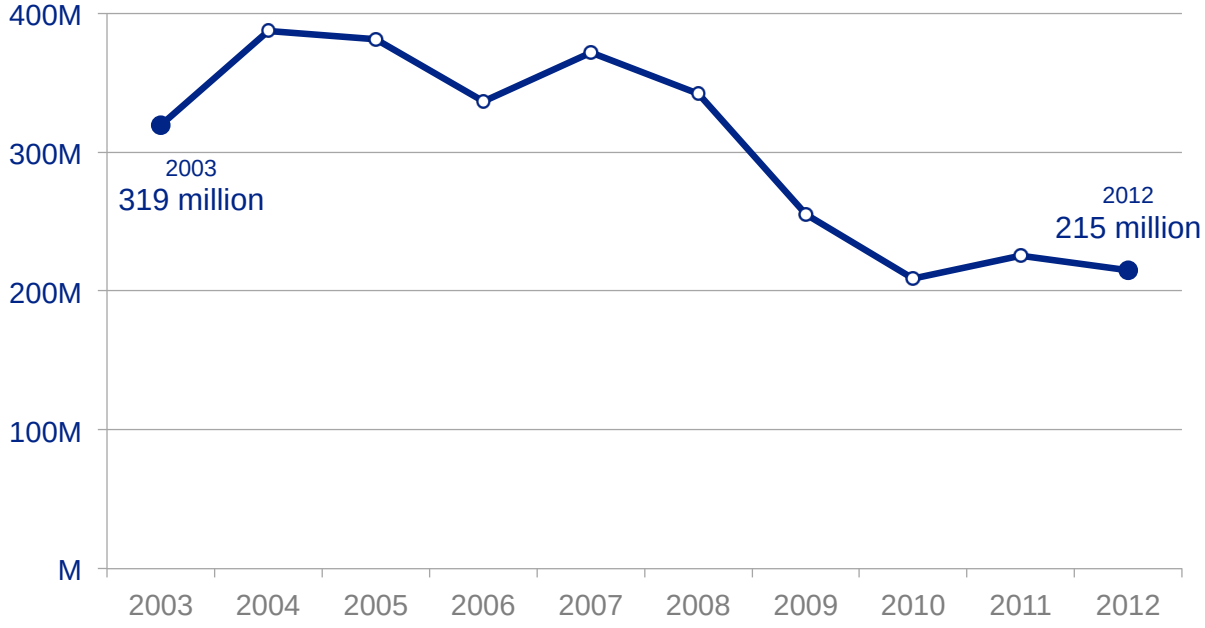


Vehicle Hours of Delay on the State Highway System (SHS)

As seen in **Figure 7**, vehicle hours of delay on the State Highway System (SHS) has generally been declining over the nine years shown. Delay is an important transportation performance measure because delay equates to costs in time and money for individuals and businesses. Delay, however, should not be considered in isolation from other factors. Note, for example, the steep drop in delay between 2007 and 2010. This demonstrates that while delay reduction is desirable from a transportation perspective, we do not want that reduction to be at the cost of an economic recession, which likely explains a portion of the drop during that period.

Since 2009, vehicle hours of delay in the 7 largest Florida Counties has actually been increasing which is probably indicative of economic recovery. The hours of delay, however, are still well below the levels seen in the early 2000s. As such, Florida's transportation network is accommodating the economic recovery with room for growth.

Figure 7: Annual Vehicle Hours of Delay on the State Highway System



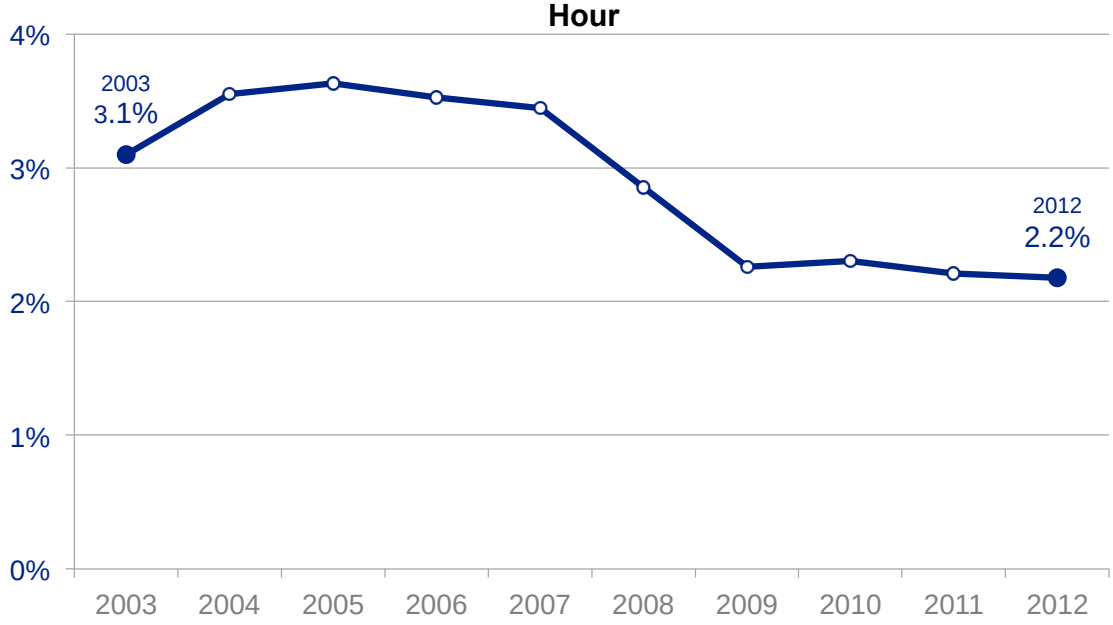
Percent Miles Severely Congested

Florida has also experienced a reduction in severe peak hour congestion on the State Highway System as seen in **Figure 8**[1]. This decline was also most pronounced during the worst years of the recession—2008 and 2009.

- 2.2 percent of the State Highway System was severely congested In 2012 —this had been as high as 3.6 percent in 2005
- By comparison, almost 4 percent of SIS highway corridor mileage was severely congested in 2004 as compared to 2.2 percent in 2012
- Severe congestion on the State Highway System in the 7 largest counties has held constant at 6.6 percent over the past four years
- Severe congestion in Florida's non-urbanized areas is negligible, well under 1 percent of miles being severely congested

[1] Percent Miles Severely Congested is defined as the percent of roadway miles operating at LOS "F" in the peak hour.

Figure 8: Percent Miles on SHS Severely Congested During Peak Hour



Strategies for Maximizing the Use of Existing Facilities

Looking forward, the Department will build on its success with further system operations enhancements. This will be accomplished by advancing the following objectives which will result in improved system performance, which in turn will undergird our economy by efficiently moving people and goods:

- Implement technological improvements that increase efficiency of planning, design, and construction; intelligent transportation systems; and toll facilities operations
- Make optimal use of existing transportation facilities and services through strategies which address traffic operations, incidents, emergency management, access management and surrounding land uses before expanding those facilities and services
- Identify/invest in “last-mile projects” (e.g., small improvements such as turn lanes and expanded intersection geometry to improve truck movement, etc.)
- Implement managed lanes to manage congestion
- Coordinate with local governments to promote land uses that are consistent with and supportive of important transportation infrastructure
- Continue to advance ITS/access management investments that improve system performance

OBJECTIVE: Develop/redevelop multi-modal corridors to support future mobility

Florida's population, now the third highest in the nation, is expected to increase 37 percent by 2040, visitors 44 percent by 2040, and freight tonnage 39 percent by 2035. Continued growth in population, visitors, and economic activity is increasing demand for moving people and freight. To ensure a more proactive future, the Department established a Future Corridors planning process. This is a statewide effort to plan the major transportation corridors critical to the state's economic competitiveness and quality of life over the next 50 years. The Future Corridors process builds upon the 2060 Florida Transportation Plan.

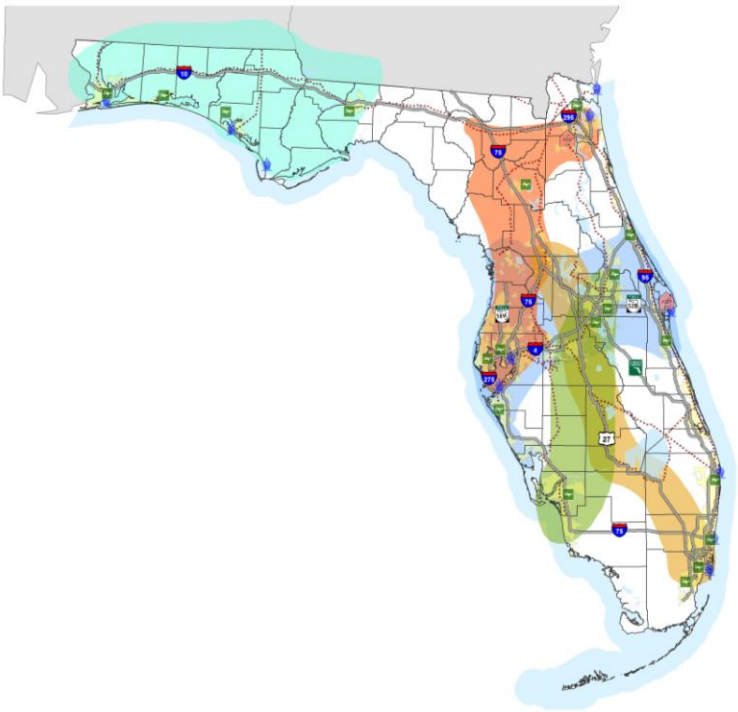
The Department identified five regional pairs as study areas for this initiative (see **Figure 9**):

- Tampa Bay to Central Florida
- Tampa Bay to Northeast Florida
- Southeast Florida through the Heartland to Central Florida
- Southwest Florida through the Heartland to Central Florida
- Northwest Florida connectivity to the Florida peninsula and neighboring states

The Department completed Concept studies on the first two priority study areas in 2013, covering Tampa Bay to Central Florida and Tampa Bay to Northeast Florida. The reports identified potential long-term corridor development strategies in each area and identified segments for the more detailed Evaluation studies.

In November 2013, Governor Rick Scott issued an Executive Order creating the East Central Florida Corridor Task Force. The purpose of the Task Force is to evaluate and develop recommendations on transportation, environment, and land use planning for portions of Brevard, Orange, and Osceola counties. This study area is timely for more detailed analysis due to several ongoing initiatives, including the development of high-tech centers in Orlando and on the Space Coast; the transition of the Cape Canaveral Spaceport to commercial markets; the planned expansion of Port Canaveral; long-term land planning activities underway by major landowners including the Deseret Ranches of Florida; plans to build an expressway system in Osceola County; and plans to introduce the All Aboard Florida passenger rail service from Miami to Orlando, which will run through this study area. The Task Force, to be chaired by the Department of Economic Opportunity, will issue its report to the Governor by December 1, 2014. The Department will serve as a member of the Task Force and provide technical support to the effort.

Figure 9: Future Corridors Study Areas



Within the Tampa Bay-Northeast Florida study area, the Department is exploring the potential for new or improved multimodal corridors to help relieve portions of Interstate 75 and improve connectivity from the fast growing 'Suncoast' region to the north of Tampa and the Gainesville/Ocala area. Eventually these corridors could form part of a longer connection between Tampa Bay and Jacksonville, two large urban areas that are not well connected today. The Department is the lead agency for this initiative, working with a full range of statewide, regional, and local partners.

Strategies for Supporting Multi-Modal Corridors for Future Mobility

The Department will help ensure the objectives related to future corridors are achieved through these actions:

- Identify future mobility and connectivity needs in the context of statewide and regional visions for Florida's future growth
- Invest in transportation capacity improvements to meet future demand for moving people and freight
- Explore options for partnerships with landowners and utilities for corridor preservation and development

- Coordinate and co-locate transportation facilities with existing and new utilities and other infrastructure investments to help focus growth in areas targeted for future development and redevelopment in regional and community visions and plans
- Adopt a proactive process to identify established and emerging regional employment centers based on statewide and regional visions and plans and to identify transportation investments serving these targeted centers
- Identify transportation investments to improve connectivity to rural employment centers and economically productive rural lands, consistent with statewide and regional visions and plans
- Coordinate with other states to improve connectivity on multistate highway, rail, and waterway corridors connecting Florida to the rest of the United States

OBJECTIVE: Participate in statewide and regional visioning efforts

The 2060 FTP provides a statewide transportation vision and goals and has been developed within the context of the State Comprehensive Plan. Elements of a statewide transportation vision pertaining to public sector policies and investments must be implemented through changes to state agency plans emphasizing the need and benefits for more collaborative partnerships for achieving common goals and desired outcomes.

Statewide Vision

The 2060 FTP established an overarching principle that Florida should make its most significant transportation decisions—those involving new facilities or services, or major expansion or transformation of existing ones—in the context of long range visions about the future growth and development of Florida's regions and, ideally, the state as a whole. Since the 2060 FTP was adopted, FDOT has been working with statewide partners to explore approaches for creating a statewide vision.

Regional Visions

The 2060 FTP called for the state to continue to support development of regional visions covering large geographic areas sharing common economic, environmental, and cultural ties. Coalitions of counties and cities in at least nine regions of Florida have recently or are currently collaborating on long-term growth visions. Such visions can indicate how regions desire to grow in the future and provide important information about likely long-term development patterns. These visions and related action plans also may provide guidance about critical environmental, community and economic assets, including those which would benefit from enhanced connectivity and those where transportation impacts should be avoided or minimized. The

Department is participating in these regional visioning processes, in many cases providing technical and or financial support to assist in the process.

Statewide Partnerships

Over the past decade, in support of the FTP, and more recently the Transportation Vision for the 21st Century articulated by Governor Scott and Secretary Prasad, FDOT has been strengthening its partnerships with several statewide organizations engaged in shaping the future of Florida's economy. Some key partnerships related to economic competitiveness are noted below.

Florida Department of Economic Opportunity – In 2011, the Governor and Legislature reorganized Florida's statewide economic development agencies and created the Department of Economic Opportunity (DEO) to promote economic prosperity for all Floridians and businesses through successful workforce, community, and economic development strategies.

The Legislature mandated that DEO create a five-year Florida Strategic Plan for Economic Development. Similar to the FTP, DEO is developing this as a plan for all of Florida that identifies a common vision, goals, objectives, and strategies for state agencies and regional and local partners. The Department has assisted in development of this plan through participating in statewide and regional forums and through providing in-kind support. The plan was released in 2013.

The plan emphasizes focusing Florida's economic development approach around four cross-cutting strategies:

- Strengthen collaboration and alignment among state, regional and local entities toward the state's economic vision
- Develop and implement a statewide strategy to develop regional talent and innovation clusters using global best practices
- Connect economic development, talent, infrastructure, housing, partnerships and other resources within and across regions to build Florida as a globally competitive megaregion
- Position Florida as a global hub for trade, visitors, talent, innovation and investment

Florida Chamber Foundation – The Florida Chamber Foundation is a nonprofit research and education foundation affiliated with the Florida Chamber of Commerce. The Foundation created the Six Pillars™ framework reflecting the critical factors determining Florida's economic future, encompassing the following areas:

- Talent Supply & Education
- Innovation & Economic Development
- Infrastructure & Growth Leadership
- Business Climate & Competitiveness
- Civic & Governance Systems
- Quality of Life & Quality Places

The Foundation released the first iteration of the Six Pillars 20-year Strategic Plan in 2011 and updated this plan in 2012. The Foundation also developed statewide indicators to track progress in each of the Six Pillars, through an on-line system known as The Florida Scorecard. The Department has participated in these processes.

Strategies for Visions & Partnerships

The Department will help ensure the objective related to collaborative partnerships is achieved through these actions:

- Identify and invest in regionally significant facilities under the Transportation Regional Incentive Program that support regional economic development and growth management strategies
- Coordinate with partners to support regional and statewide priorities
- Continue to support Department of Economic Opportunity (DEO) in the implementation of Florida's Strategic Plan for Economic Development
- Continue to partner with the Florida Chamber Foundation in the development of the Six Pillars 20-year Strategic Plan
- Continue to support development and implementation of regional visions
- Participate with partners in the development of a 50-year statewide vision

OBJECTIVE: Increase transit ridership at twice the average rate of population growth

Transit

Local transportation investments primarily should reflect the importance of community building and preservation, based on the unique vision of each urban or rural community. Accessibility to and availability of transit options are crucial for the enhancement of local mobility and community livability. An objective to increase transit ridership at twice the average rate of

population growth was established to measure the success in promoting transit as an alternative mode of transportation for professional, recreational and other purposes.

Public Transit Fast Facts

- Transit supports a strong economy in numerous ways benefiting employers, commuters and visitors. Federal funds used to support fixed-route transit in Florida increased the state's annual economic output by $464 million, supporting more than 4,000 jobs each year, and increased annual labor income by $192 million
- 74% of Florida residents live within walking distance of fixed-route transit
- Transit reduces travel delay from traffic congestion by 6.6 million hours each year

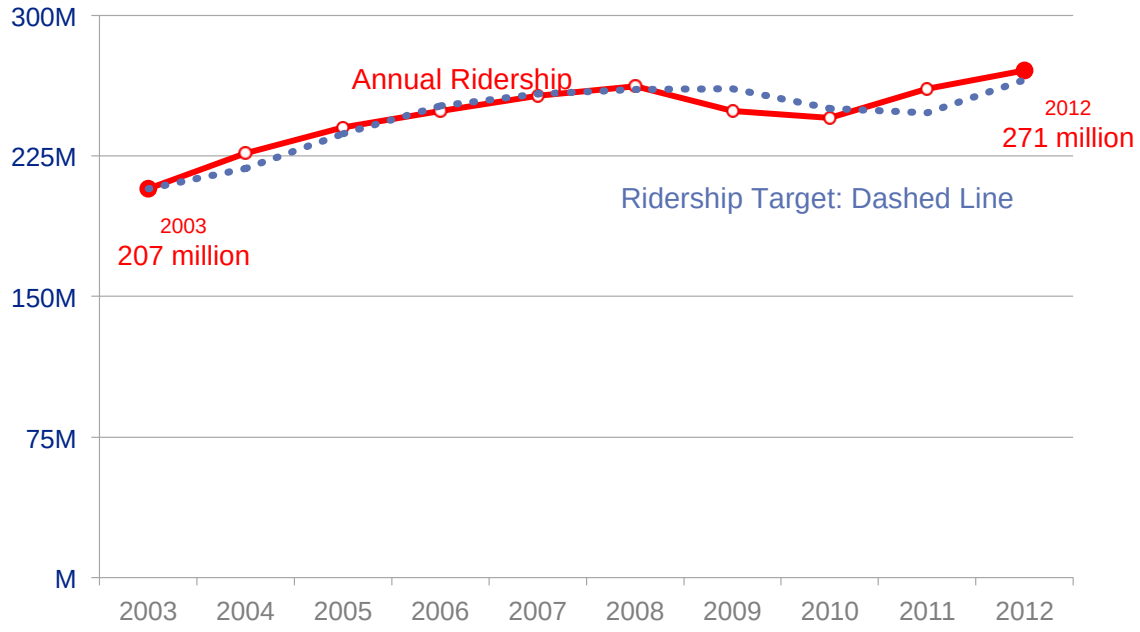
The Department is committed to assisting partners in increasing transit ridership. Over 87.5 percent of Floridian's live in urban areas and 81 percent live within the service area of a transit system. Transit is also a viable solution in helping to reduce greenhouse gases while providing a sustainable transportation system.

Passenger Trips

Figure 10 shows that passenger trips served by transit throughout Florida's 32 transit systems has been steadily increasing over the past decade, albeit with a slight dip in 2009 and 2010. In 2012 there were over 270 million trips, an increase of about 3.6 percent from 2011. Transit ridership grew due to population growth, high gas prices, automobile affordability challenges, and transit service and infrastructure improvements.

As noted above, the Department uses the ratio of transit growth to population growth as a measure to evaluate transit ridership performance. For most of the last decade Florida's transit ridership growth was near to, or more than, twice the state's population growth. **Figure 10** highlights Florida's change in transit ridership relative to population growth, surpassing the target objective of increasing ridership at twice the level of population growth for 2011 and 2012.

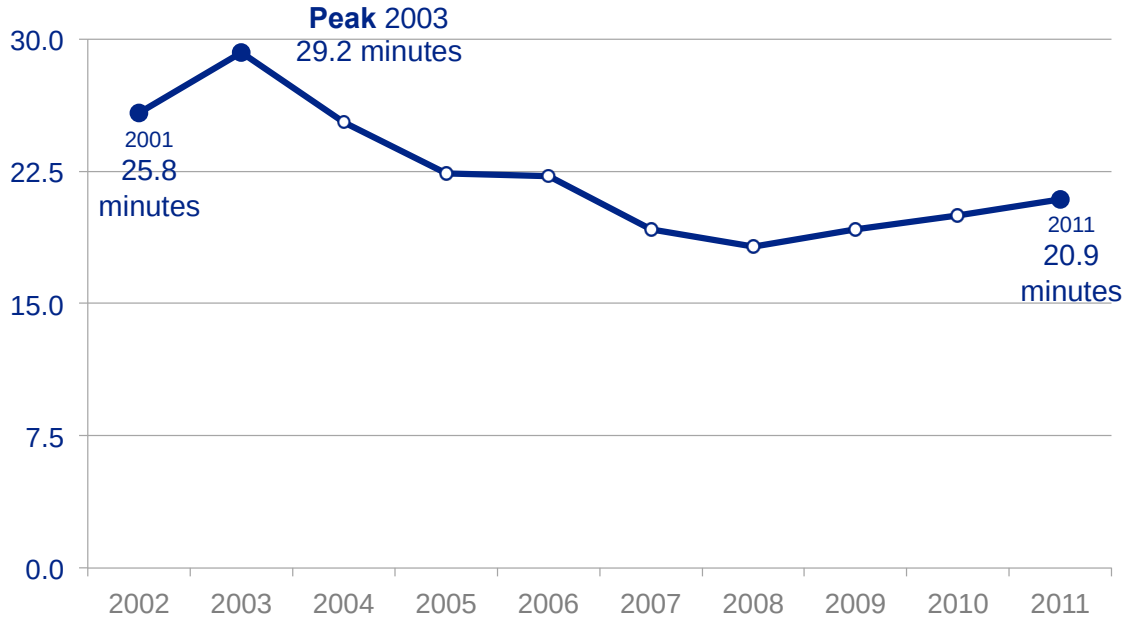
Figure 10: Annual Transit Ridership



Transit Headways

Transit Average Headway is a performance measure that most transit users and non-users value—it is the measure of time between operating transit vehicles. Anyone who has missed a bus is eager for the next bus to arrive as soon as possible and views public transportation's value in terms of service frequency. As shown in **Figure 11**, average transit headways have been decreasing steadily—dramatically since a high of 29.2 minutes in 2003. While the average headway ticked up slightly in 2011, a 20.9 minute average headway is still a major improvement. Reduction of headway time is important to attract and retain many public transportation users and prospective users. The Internet and smart phone applications make transit travel information easier to access, making transit easier to use.

Figure 11: Average Transit Headways

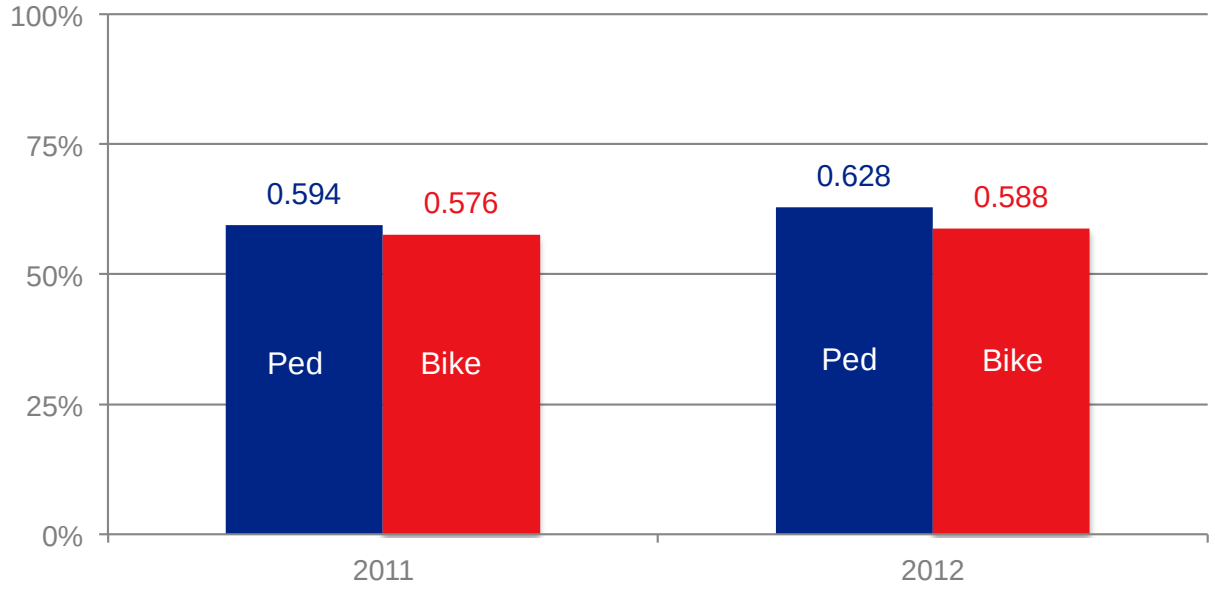


Pedestrian and Bicycle Facilities

Many Florida regions and communities place a premium on quality of life and with it improved bicycle and pedestrian accommodation as a transportation element of their vision. The existence of these measures and the improvements already seen demonstrate the Department's commitment to all modes of transportation. **Figure 12** highlights the percentage of state roads that have sidewalks or bike lanes/shoulders.

- In 2011 FDOT began measuring the percentage of sidewalk coverage on SHS facilities in urban areas and similarly for bike lanes or shared pathways
- Between 2011 and 2012 Pedestrian Facilities increased from 59.4 percent to 62.8 percent on SHS roads in all urban areas
- Over the same period the percentage of bike lane and shoulder coverage increased from 57.6 percent to 58.8 percent

Figure 12: Percent of Urban SHS Roads with Pedestrain and Bike Facilities



Rail, Seaport & Airport Passengers

Florida's rail passenger performance measure is the annual number of revenue paying Amtrak passengers (inter-city rail). As **Figure 13** shows we are experiencing a steady increase in rail passengers with 1.2 million Florida passengers in in 2012. Ridership has been increasing every year since 2005.

Figure 14 illustrates Florida's growth and slight decline in seaport passengers over the twelve year period between 2001 and 2012. The number of cruise passengers peaked in 2004 at 14.7 million, with slight decreases thereafter to 12.2 million in 2012.

Figure 15 illustrates Florida's overall growth in airport passengers over the nine year period between 2002 and 2011. The number of airport passengers peaked in 2007 at 69.7 million, with slight decreases in 2008 and 2009, with increases occurring thereafter to 69.3 million in 2011.

Figure 13: Annual Rail Passengers

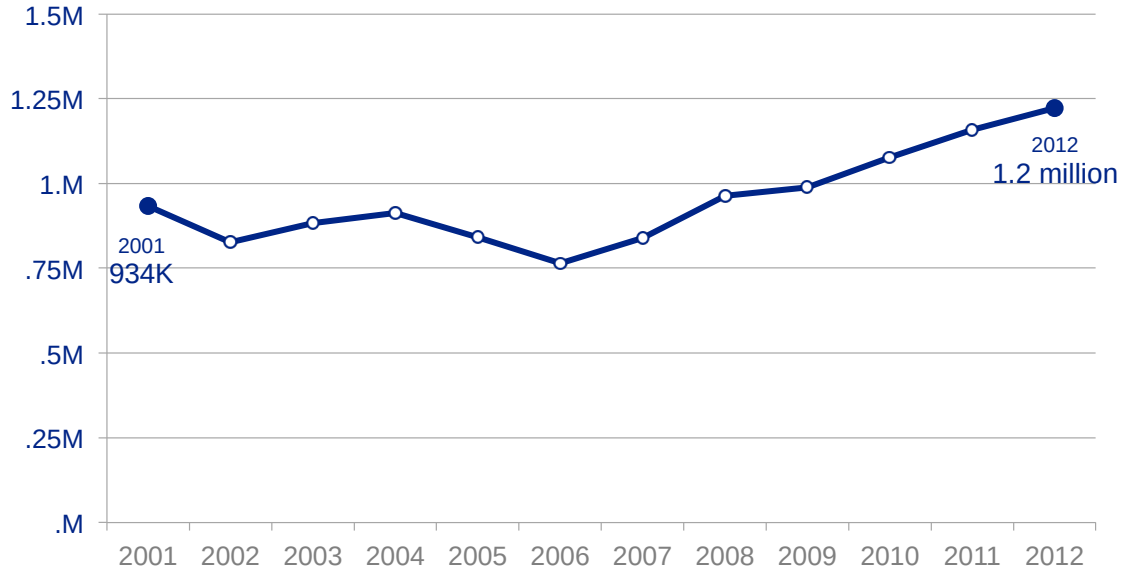


Figure 14: Annual Seaport Passengers

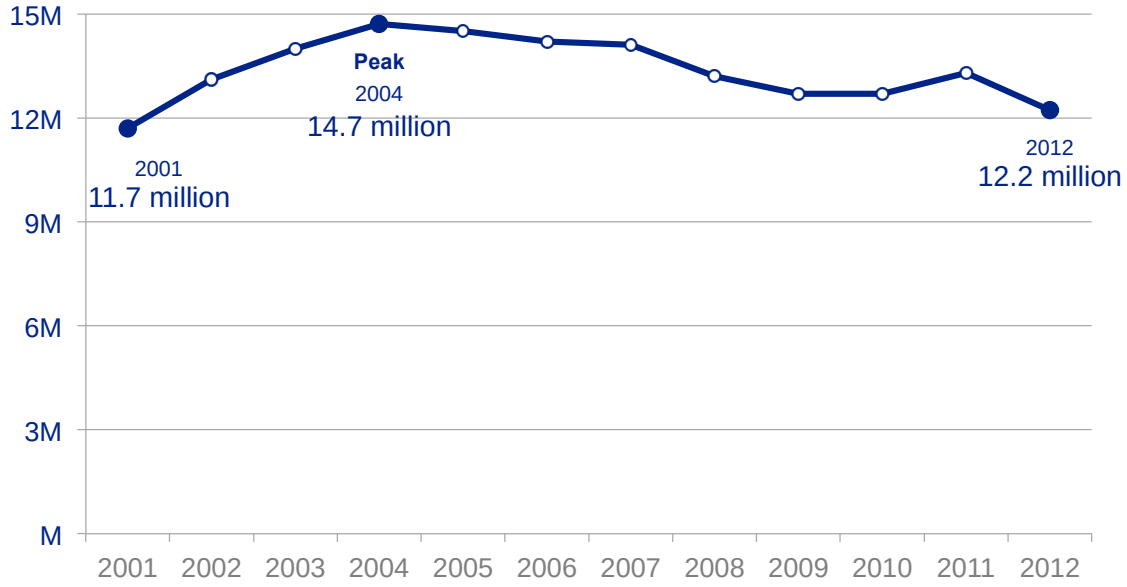
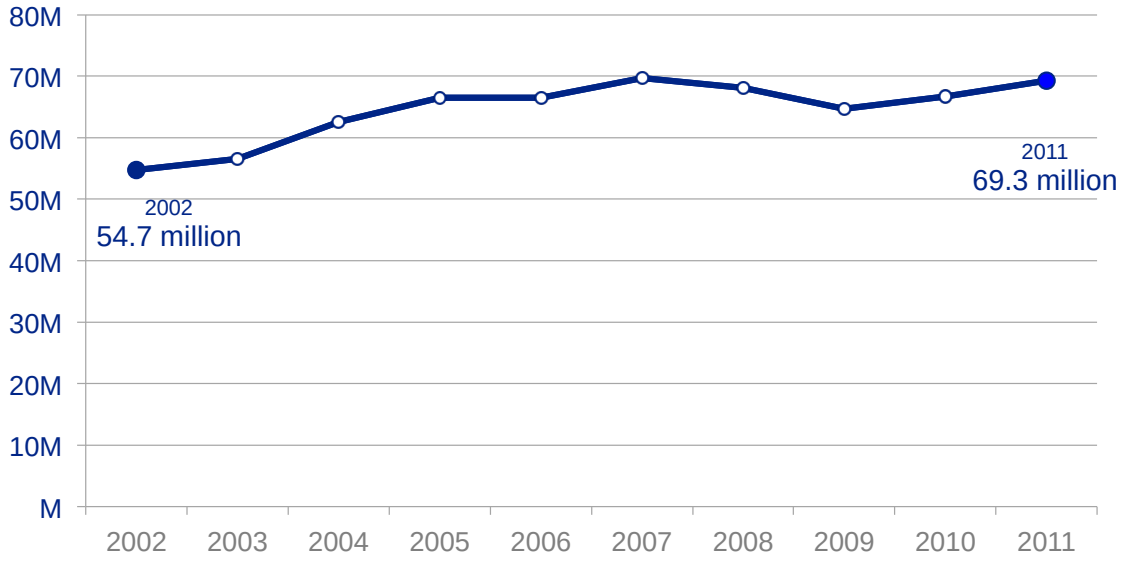


Figure 15: Annual Airport Passengers



Strategies for Increasing Transit Ridership and Other Transportation Choices

The Department will help ensure the objective related to transportation choices is achieved through these actions:

- Identify and invest in local transportation infrastructure and services that support locally defined visions and comprehensive plans
- Promote multi-modal options (including non-motorized travel) within existing and future corridors
- Introduce new modal options or develop new transportation hubs or corridors when existing facilities cannot meet mobility or connectivity needs
- Create institutional structures which support statewide, regional and local mobility needs, building upon closer coordination between transportation, land use and economic development decisions
- Promote the effective use of rail, water and air corridors to move freight and people
- Promote options that increase vehicle occupancy

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2060 FLORIDA TRANSPORTATION PLAN

QUALITY OF LIFE & ENVIRONMENTAL STEWARDSHIP

2013 PERFORMANCE REPORT

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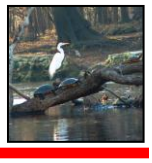
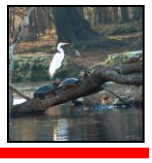


This report is part of the Performance-Based Planning and Programming Process used by the Florida Department of Transportation (FDOT). For a description of that process, updates to this report and other transportation performance reporting initiatives of FDOT, go to FDOTPerforms.org.

BY THE NUMBERS

Quality of Life and Environmental Stewardship are key goals of the Florida Transportation Plan. FDOT delivers it transportation program as stewards of financial resources and of our state's many environmental and community assets. Key performance highlights include:

- Over the past decade Florida advanced more than 150 transportation enhancement /transportation alternatives type projects
- Since 1992 over half a billion dollars have been invested in Florida projects for these transportation enhancement/transportation alternatives categories: bicycle and pedestrian facilities, landscaping, preservation of abandoned railway corridors, rehabilitation/operation of historic transportation facilities, and control and removal of outdoor advertising
- An April 2013 analysis of MPO transportation planning indicated a wide range of improvements over prior reviews in areas such as land use, public participation and optimizing the performance of existing facilities
- All areas within Florida are now air quality attainment areas
- Visitors are satisfied with Florida's overall transportation system—with approximately 90 percent either satisfied or very satisfied over the 2000 to 2011 time period: those indicating being very satisfied increased substantially from 30 percent to 39 percent over that period
- Three out of every four Florida residents surveyed indicate that travel time between cities and towns is satisfactory—agreement went from 67 percent to 75 percent between 2000 and 2011, with strong agreement increasing from 5 percent to 12 percent
- Commercial vehicle drivers express satisfaction with Florida intercity travel time, with the percent satisfied increasing from 68 percent in 2000 to 78 percent in 2011—those commercial drivers indicating being very satisfied increased from 5 percent to 11 percent over the same period
- The Department carries out its role as an environmental steward in many ways including increasing the tonnage of recycled pavement from about 570 thousand tons in 2005 to over 940 thousand tons in 2013—an approximately 65 percent increase in less than a decade



OUR GOALS

MAKE TRANSPORTATION DECISIONS TO SUPPORT AND ENHANCE LIVABLE COMMUNITIES

MAKE TRANSPORTATION DECISIONS TO PROMOTE RESPONSIBLE ENVIRONMENTAL STEWARDSHIP

Transportation investments can contribute greatly to our quality of life while affecting the human and natural environment in both positive and negative ways. The transportation decision-making process considers the varied potential impacts of alternative transportation investments. Transportation planners, environmental specialists, and engineers have myriad data and analytical tools to evaluate the beneficial and adverse environmental effects of alternative approaches to transportation projects. This provides the means for promoting the former while avoiding or mitigating the latter effects.

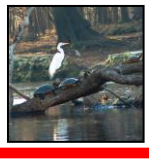
Transportation planning also should be integrated with planning for land use, development, and environmental resources for maximum effectiveness. Transportation decisions should be made with careful attention to enriching the quality of life for the public while ensuring responsible stewardship of the natural, physical, and socio-cultural environment.

OUR OBJECTIVES

The Florida Department of Transportation sets objectives and strategies to implement the goals of the *2060 Florida Transportation Plan*. Each objective is advanced through varied strategies. The following objectives provide the policy framework for connecting the Department's budget and work program to the *2060 Florida Transportation Plan's* quality of life and environmental stewardship goals.

- Make transportation decisions in the context of community interests, plans, values and visions
- Enhance the Florida travel experience
- Deliver a transportation system that supports quality of life and environmental stewardship

The best transportation investments enhance quality of life, provide options for mobility, and are compatible and consistent with the needs and desires of the communities they serve. Transportation planning and project development can occur in ways that enhance livable communities through responsible environmental stewardship.



OBJECTIVE: Make Transportation Decisions in the Context of Community Interests, Plans, Values and Visions

The Department has made great strides to ensure that transportation planning and project design meaningfully engage people and result in projects that are harmonious with community values and vision. The Department has an action orientation toward collaboration and community involvement. This positive approach stresses that transportation improvements can bolster quality of life and community character, rather than detracting from them.

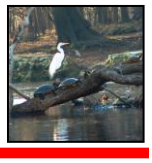
The *2060 Florida Transportation Plan* was developed with the hands-on involvement of many varied stakeholders with extensive regional input through workshops around the state. We continue to build on that direction by improving our public involvement efforts through surveys and research of best practices nationally. The Context Sensitive Solutions Policy instituted by the Department in 2008 established a strong linkage between transportation project development and community visions. The Department, for example, completed over 1,500 Transportation Enhancement (TE)/Transportation Alternatives (TA) projects over the past decade—such as bike paths and sidewalks that have enriched many communities demonstrating how transportation can connect people in varied ways.

Transportation Alternatives

The Department is supporting community visions and values by implementing projects through the federally-funded Transportation Alternatives (TA) program[1]. TAs can include community-based projects which expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic and environmental aspects of our transportation infrastructure. TA projects can expand travel choice, strengthen the local economy, improve the quality of life, and protect the environment. These projects can include on- and off-road pedestrian and bicycle facilities, improving access to public transportation to enhance mobility, community improvement activities, environmental mitigation, recreational trails, and safe routes to school projects.

To illustrate Florida's commitment to our citizen's quality of life, the Department coordinated with numerous local governments over the past two decades to provide opportunities to enhance community visions and interests through TA style projects. **Table 1** shows the level of funds that were programmed by the top five TE categories (predecessor to the TA program) between 1992 and 2012. Over a half billion dollars were programmed for these top five categories,

[1] The TA program replaced funding from the Transportation Enhancement (TE), Recreational Trails, Safe Routes to School, as well as several other discretionary programs, combining them into a single funding source under MAP-21.



demonstrating the tremendous investment the Department undertook in coordinating with local governments to improve the quality of life throughout Florida.

Table 1: Transportation Enhancement Programmed Funds – Top Five Categories

Program Categories	Amount ($)
Pedestrian and Bike Facilities	$346,627,605
Landscaping	$94,327,258
Preservation of Abandoned Railway Corridors	$42,899,874
Rehabilitation/Operation of Historic Transportation Facilities	$40,128,326
Control and Removal of Outdoor Advertising	$19,048,144
Total Top 5 TE Categories	**$543, 031,207**

Source: Florida State Profile—National Transportation Alternatives Clearinghouse

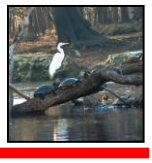
The Department receives an average allocation of about $50 million per year for the TA program. Since 2000, the Department has coordinated with metropolitan planning organizations (MPOs) and local governments to fund 1,530 TE projects totaling more than $617 million for all program categories.

The Department is also collaborating with various communities such as those in Lee and Broward County to implement Complete Streets, which is a philosophy for streets to be planned, designed, operated, and maintained to enable safe, convenient and comfortable travel for users of all ages and abilities regardless of their mode of transportation. Complete Streets as defined by a national coalition that advocates this approach is that Complete Streets are:

> *… for everyone. They are designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists and transit riders of all ages and abilities. Complete Streets make it easy to cross the street, walk to shops, and bicycle to work. They allow buses to run on time and make it safe for people to walk to and from train stations.*

Community Involvement

The Department has a successful history of providing opportunities for the public and our many partners to be engaged and involved in the transportation decision-making process. The



Department's Public Involvement Policy calls for "information exchange activities in all functional areas using various techniques adapted to local area conditions and project requirements." We recognize the importance of flexibility in our efforts to effectively address unique community needs and desires. Community involvement is a way of doing business for the Department. It is not unusual to go above and beyond the requirements of various state and federal laws and regulations to ensure that stakeholders truly have a sense of ownership for Department funded projects.

The Department updated the 2060 Florida Transportation Plan (FTP) through extensive partner/public involvement to receive input from interested stakeholders. A 29-member steering committee composed of key partners, supported by four advisory groups, guided the process. Two statewide webinars with more than 800 attendees let participants know how they could become involved in the Plan's update. Twelve regional workshops were held throughout the state where nearly 550 participants attended to provide input. Throughout the process, nearly 300 briefings were held with statewide, regional and local partners with more than 10,000 Floridians participating throughout the process. The Department continued its extensive public outreach efforts up through the adoption of the 2060 FTP.

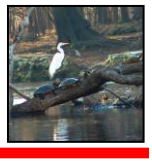
A series of research projects have reviewed national literature on public engagement, surveyed activities in other states, assessed the status of public involvement in our own state, and identified performance measures to help us better understand the strengths and opportunities in our public involvement processes. Future research will provide survey instruments and tools for the districts and MPOs to use to evaluate their own efforts.

Safe Mobility for Life Program

The Department participates in the Safe Mobility for Life Program (formerly The Elder Road Use Program) which promotes transportation safety for seniors. Recent progress includes:

- An Aging Road User Survey is conducted every year (2011 is our baseline)
- More aging road users have heard of the Safe Mobility for Life Coalition (11% in 2013 as compared to 10% in 2012)
- 15% of respondents are preparing for when they can no longer safely drive

The Department strives to ensure that our communication with the public is purposeful and easy to understand. The Plain Language Initiative resulted in office-by-office review of documents and written materials to assure we are creating communication which is clear, concise and easily understood. In addition, we have developed a web page which lists all meeting notices required to be posted by Florida Statute. The reader can view all meeting notices or just those in a specific geographical area.



Community Visions

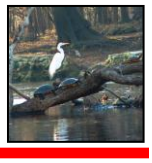
A community's vision and values help to guide enhancements to the existing community and future development. Major transportation decisions should be made in the context of long range visions about the future growth and development of Florida's regions and, ideally, the state as a whole. Visioning is occurring at all levels: locally, regionally and statewide. At its core is the recognition that vision and values have meaning to people, that a unique sense of place matters a lot and should be reflected or incorporated in projects and programs.

Locally, visions are developed through comprehensive plans and through metropolitan planning organization plans. These plans present a future based on developing infrastructure and providing services suited to human-scale development. As local or metropolitan plans, these efforts are closest to impacting individual citizens' lives.

Regionally, visions are developed for areas that typically share common economic, environmental, or cultural ties. Regional visions provide a framework for multiple community visions. The Department plays a particularly important role in the visioning processes at the regional and statewide levels by providing a "shared" transportation facilities and services perspective that crosses and serves multiple jurisdictions and interests.

Elements of regional visions pertaining to public sector policies and investments should be implemented through changes to strategic regional policy plans, local government comprehensive plans, long range transportation plans, resource agency plans, economic development plans, and other plans. As regional visioning matures, regions should develop new approaches to governance and decision making to help move desired outcomes from concept to implementation in a timely and efficient manner. For instance:

- Central Florida embarked on an 18-month visioning process to create a Shared Growth Vision where nearly 20,000 Central Florida residents were involved in creating a vision for how the region can grow through 2050, when the population is expected to double from 3.5 million to 7.2 million people.
- The East Central Florida Regional Planning Council, on behalf of twenty six partners that comprise the East Central Florida Sustainable Communities Consortium, was awarded a $2.4 million a Housing and Urban Development Sustainable Communities Initiative regional planning grant to plan for sustainable transit oriented development and affordable housing around future SunRail station locations.
- MPOs are encouraged to further regional visions through their long range transportation planning process and in the plan product.



Improved Long Range Regional Planning

In April 2013 the Center for Urban Transportation Research prepared a review of MPO Long Range Transportation Plans (LRTPs) for the Department and the Florida Metropolitan Planning Organization Advisory Council (MPOAC). It included many observations about the regional transportation planning process across Florida's 26 MPOs. A few points are noted below from the study that are indicative of the advance of transportation planning, particularly in relation to communities, quality of life, the environments, and multi modalism:

- Public participation efforts continue to evolve with the use of social media and recognition that some approaches prove more effective than others
- Environmental justice was commonly addressed and a handful of MPOs directly analyzed the benefit to populations protected by Title VI
- Safety and security remained relevant in most LRTPs
- LRTPs continue to improve in terms of readability and reader-friendly formats
- Attention to the transportation/land use connection was evident in many LRTPs
- Plans emphasized and reinforced regional planning efforts

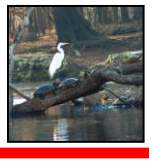
The report also made this most important conclusion: many MPOs described the 2035 plan as a major change or shift from previous plans due to various factors such as addressing multiple modes, emphasizing transit, testing land use scenarios, and/or optimizing the performance of existing facilities.

Context Sensitive Solutions

The Department is committed to providing projects that are supportive of community visions. To that end a Context Sensitive Solutions (CSS) design policy was instituted. It provides a proactive, collaborative and interdisciplinary approach to planning and developing transportation projects and activities for all modes appropriate to scale, cost, location, and schedule. CSS takes into account the views of stakeholders and the local area in which the project will be located, operated, and maintained. CSS considers the physical setting in which a project or activity is to be implemented and seeks to enhance and conserve community defining features and environmental resources.

Community Effects

The human environment can be affected both positively and negatively by transportation actions. Decisions made by the Department and other transportation agencies can impact issues such as access and mobility, land use, housing, the economy, and aesthetics; shaping



how people live, work and play. The Department, as part of the National Environmental Policy Act (NEPA) process, proactively addresses the significance of these effects through its Sociocultural Effects Evaluation process in an effort to identify, avoid, minimize or mitigate potentially unacceptable consequences of a proposed transportation action and when possible enhance the community at the same time. Using demographic data and public input provided through the process allows the Department to understand community goals and values to better address community concerns. The Department follows an established community impact assessment in project development to ensure that the impacts of project alternatives—including community/neighborhood and social impacts, are known and addressed.

FDOT districts coordinate with MPOs and local governments to collect existing data and the results of earlier community outreach. For example, a sociocultural effects evaluation of a major interstate project identified that access to schools could be an issue, leading to close coordination with the school district's Safe Routes to Schools program.

Strategies for Supporting Community Interests, Plans, Values & Visions

The Department will help ensure that the objective related to supporting community interests, plans, values and visions is achieved through these actions:

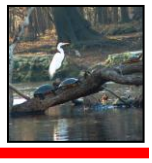
- Provide local and regional entities with the tools to support environmental stewardship
- Provide opportunities for stakeholders and partners to offer input in the transportation decision-making process

OBJECTIVE: Enhance the Florida Travel Experience

Transportation is far more than getting from "point A to point B," as important as that is. The Department realizes that the travel experience itself has significant value for transportation system users, particularly in light of Florida's great natural beauty. Indeed, the journey is as important as the destination. This fairly new focus on enhancing the Florida Travel Experience is opportunity laden and provides an important reminder that performance—at its very core—is very much in the eye of the traveler/system user.

> ***Historic Bridges Enhance Travel Experience***
>
> The Department has updated its inventory and evaluation of Florida's historic highway bridges. This involved the evaluation of over 4,000 bridges and the identification of 166 significant historic structures.

The Department has an extensive range of officially designated Scenic Highways that cover nearly half of the state's counties. Scenic Highway designation is special. It is only given to those transportation routes with unique assets for enhancing the experience of travelers, including scenic vistas and



portals to other unique community features; features that are protected and conserved by local communities. We are also making major strides in improving our Highway Beautification Program, including planting large trees that provide natural beauty with the benefit of reducing noise and water runoff.

Scenic Highways

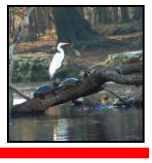
The Department's Scenic Highways Program promotes Florida as an attractive destination for travelers, with cultural, historical, archeological, recreational, natural and scenic qualities. Among the 26 Florida Scenic Highways (a total of 1,452 miles traversing 43 percent of Florida's counties), six have received National Scenic Byway designation and one has received the special All-American Road designation. For more information go to http://www.floridascenichighways.com/.

Florida's designated scenic highways promote a heightened awareness of the state's exceptional resources and unique history through educational and visual experiences. The program was developed "to preserve, maintain, protect and enhance Florida's outstanding cultural, historical, archeological, recreational, natural and scenic resources." It is voluntary and grass-roots based, involving strong local citizen and government support to help meet its objectives. The program is perhaps best summarized by its mission statement: "The Florida Scenic Highways Program will preserve, enhance and maintain the intrinsic resources of scenic corridors through a sustainable balance of conservation and land use." Through community-based consensus and partnerships, the program will promote economic prosperity and broaden the traveler's overall recreational and educational experience.

> ***FDOT Continues to Expand Scenic Highways***
>
> The Scenic Sumter Heritage Byway was designated in May 2013 FDOT. It includes 62 miles of roadway from State Road (SR) 50 to SR 44 and includes many historic and scenic intrinsic resources.

Highway Beautification

The Department's Highway Beautification Program is being "re-engineered" to make Florida an attractive place for its residents, tourists and businesses. It is the policy of the Department to conserve, protect, restore, and enhance Florida's natural resources and scenic beauty. Under this policy, Florida strives towards having the nation's most beautiful highways; safe roadsides that are durable, and ecologically and economically sustainable; and measurable returns on its investment.



Now and for the next few years the Department will implement roadside beautification projects using large trees, and few if any shrubs. This will help make Florida an attractive place to do business, to attract visitors and businesses to invest more time and money in Florida. With thoughtful site specific design, this Consistent, Predictable, and Repeatable approach will produce the highest visual impact and distinctive sense of place at the lowest design, construction, and maintenance cost. Tall trees generously and safely placed at the most highly traveled interchanges and gateways into and through the state (Florida's most visible landscapes) will instantly create a welcoming and enjoyable experience; the first and lasting impression of the state and individual communities.

Importance and Scope of Highway Roadsides

FDOT is responsible for the management and care of 186,000 acres; ½ of one percent (one of every 200 acres) of the entire land area of Florida.

Unlike a contiguous parcel of this size, state highway roadsides are a network of living edges, touching and linking nearly every natural and agricultural resource in the state. The impact of roadside management decisions extends far beyond the road's edge, often for several hundred yards, and impacts nearly twenty times that amount of the surrounding environment.

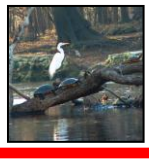
Source: University of Florida 2012 report to FDOT Environmental Management Office

For the future, as the economy strengthens and as the highest priority roadside landscapes are being completed, beautification can be routinely integrated into the processes used to plan, design, construct, and maintain roadways—roadways that accommodate bold performing landscapes that enhance private enterprise and public health and safety. Roadside landscape projects can mimic natural processes that manage stormwater, filter air, shade pedestrians, conserve energy, provide habitat, and be beautiful. Bold leadership at all levels within the Department can make it possible to create and sustain memorable landscapes that contribute to Florida's overall well-being.

Customer Satisfaction

Since 2000, the Department has surveyed Florida residents, visitors, commercial drivers, and government officials about what we are doing right and what we can do better in providing transportation products and services to them. These survey results help us track our progress in improving customer satisfaction.

From August 2011 to March 2012, the Department conducted its most recent biennial customer satisfaction surveys. More than 6,500 FDOT customers responded to our surveys. They included Florida residents (2,881), visitors to Florida (400), government officials (408), and commercial drivers (2,831). As with the previous surveys, these groups rated their satisfaction



with several aspects of the State Highway System: the visibility of roadway signs and markings, construction zones, traffic flow, rest areas and airports, and overall satisfaction with the transportation system.

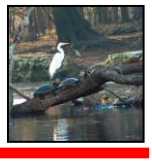
The 2011/2012 survey results overall are comparable to those of the previous customer surveys. Since 2000, satisfaction steadily improved in key areas such as access to businesses during construction, timeliness of completing construction projects, as well as local input on roadway design and statewide plans. Improvements in satisfaction have also been observed with safety, travel time, congestion and overall transportation system.

The following are some highlights from the Department's customer surveys that relate to the performance objective of enhancing the Florida travel experience—it includes residents, visitors and commercial vehicle operators. For a complete review of the Department's customer survey results, please visit the Florida Customer Satisfaction Survey webpage at: http://www.dot.state.fl.us/planning/customers/.

Florida Visitors

Florida Visitor Customer Survey Results / Highlights from 2000 to 2011:

- Spacing of exits and crossroad signs allows enough time for travel decisions—improved from 88 percent either strongly agreeing in 2000 or agreeing to 94 percent in 2011
- Strong agreement with roadside sign visibility improved from 29 percent to 42 percent with a total of 95 percent being either in strong agreement or agreement by 2011
- Roadway striping and marking visibility at night being good—81 percent strongly agreeing or agreeing in 2000; by 2011 that increased to 87 percent agreement with strong agreement increasing markedly from 22 percent to 33 percent
- Travel time between cities and towns visiting being satisfactory—agreement went from 86 percent to 88 percent between 2000 and 2011; notably, strong agreement increased significantly from 14 percent to 26 percent
- Surveyed visitors indicate a dramatic increase in roadside conditions—81 percent agreeing that roadsides are attractive in 2000; by 2011that increased to 84 percent, but those who strongly agreed climbed from 12 percent to 29 percent over the period
- Visitors are satisfied with Florida's overall transportation system—with approximately 90 percent either satisfied or very satisfied over the period from 2000 to 2011, but with those being very satisfied increasing substantially from 30 percent to 39 percent over that time frame



Florida Residents

Florida Resident Customer Survey Results / Highlights from 2000 to 2011:

- Spacing of exits and crossroad signs for travel decision making improved from 87 percent to 89 percent agreeing that spacing allows enough time for travel decisions, with strong agreement climbing from 13 percent to 22 percent over the same period
- Residents agreement that road sign visibility being adequate went from 89 percent to 91 percent with strong agreement climbing from 14 percent to 24 percent
- Those indicating that visibility of roadway marking and striping at night to be good went from 64 percent to 67 percent, and those who strongly agreed increased from 8 percent to 13 percent
- Travel time between cities and towns being satisfactory went from 67 percent agreement to 75 percent agreement between 2000 to 2011, with strong agreement going from 5 percent to 12 percent
- Roadside condition attractiveness level of agreement remained essentially flat over the period, going from 72 percent to 71 percent agreement, however those who indicated strongly that roadside conditions are attractive went from 4 percent to 7 percent of those surveyed
- Overall satisfaction with Florida's Transportation System decreased slightly from 69 percent agreement to 67 percent agreement between 2000 to 2011; however those who expressed that they were very satisfied with the system climbed from 3 percent to 7 percent over the same time period

Commercial Vehicle Drivers

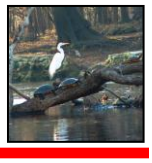
Commercial Vehicle Driver Survey Results / Highlights from 2000 to 2011:

- Commercial vehicle drivers indicating satisfaction with intercity travel time increased from 68 percent to 78 percent between 2000 to 2011—and those drivers indicating being very satisfied increased 5 percent to 11 percent
- Satisfaction with road smoothness went from 69 percent to 73 percent—with an increase from 7 percent to 13 percent being very satisfied with road smoothness over the 2000 to 2011 time period

Strategies for Enhancing the Florida Travel Experience

The Department will help ensure the objective related to enhancing the Florida travel experience is achieved through these actions:

- Monitor and improve satisfaction in key areas important to our customers
- Promote and implement programs such as Scenic Highways and highway beautification



OBJECTIVE: Deliver a Transportation System That Supports Quality of Life and Environmental Stewardship

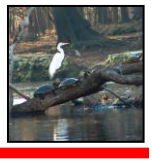
As good stewards of public resources, the Department strives to reconcile transportation improvements with surrounding environmental assets as efficiently as possible to maximize the amount of funding available to improve the State's transportation infrastructure. The Department has made significant progress addressing that challenge through our Efficient Transportation Decision-Making Process (ETDM) and Project Development & Environment (PD&E) process. As we collaborate with environmental resource agencies this process helps achieve consensus on outcomes as cost-effectively as possible.

Process improvements have also translated into project improvements ranging from bridge replacements that preserve important historic assets to establishing roadway lighting schemes that minimize impacts to protected species. The Department's performance in this area will continue to be one that strives to go above and beyond, by achieving cost-effective solutions collaboratively with resource agencies. Mobility that respects the environment will serve to enhance and protect Florida's unique quality of life for the long-term.

Air Quality

All areas of Florida are now air quality attainment areas. Orange County; Duval County; the Tampa Bay area including Hillsborough and Pinellas Counties; and Southeast Florida including Miami-Dade, Broward, and Palm Beach Counties continue to be classified by the Environmental Protection Agency as attainment/maintenance areas for the pollutant ozone and a portion of Hillsborough County is a maintenance area for lead.

The Department works with environmental resource agencies to create linkages between land use, transportation, cultural, and environmental planning initiatives. One way this has been accomplished is through the ETDM process, which is Florida's streamlining initiative to provide early involvement of environmental resource and permitting agencies, along with the public, in planning and developing transportation improvements. Resource and regulatory agencies serve as members of an Environmental Technical Advisory Team to perform early project screenings through the use of a web-based Environmental Screening Tool. These screenings inform the Department and local governments of potential environmental issues within the vicinity of a proposed project. Along with agency-specific data, comments from the agencies and the public are used by the Department to identify and subsequently avoid or minimize potential impacts to natural and cultural resources. Between 2003 and 2011, 519 projects have been screened through the ETDM process.



Florida's PD&E process was developed to ensure that the design of transportation projects appropriately reflects and incorporates the unique engineering, natural and community characteristics of the local area. The Department created the process to ensure that transportation projects follow the policies and procedures which fulfill the requirements of NEPA and similar state laws, which assures consideration of the physical and human environment in the planning and delivery of transportation projects. Through the PD&E process the Department has developed mechanisms by which early consultation, coordination and communication with stakeholders address potential issues.

Coastal Roadway Environmentally Sensitive Lighting Initiative

Roadway lighting can interfere with sea turtle nesting, affecting the breeding success of sea turtles, which are listed as endangered under the Endangered Species Act. In 2011, the Federal Highway Administration (FHWA) identified the Department's Coastal Roadway Environmentally Sensitive Lighting Initiative as an Exemplary Ecosystem Initiative, highlighting the project's innovative approach to wildlife preservation and its use of cutting-edge science to achieve significant, high-quality results to reduce or eliminate impacts to sea turtles. This initiative incorporated specially designed roadway lighting that reduced or eliminated impacts to adjacent sea turtle nesting beaches through an embedded roadway lighting design system implemented along State Road A1A (SR A1A) in Boca Raton.

The embedded roadway lighting system was also awarded the Engineering Excellence Award by the Florida Institute of Consulting Engineers, and the American Council of Engineering Companies. Another component of the lighting initiative was a street light retrofit in Broward County in which the Department retrofitted existing lighting structures rather than replacing them. This cost-effective strategy earned the Department recognition from the State of Florida Prudential-Davis Productivity Awards Program.

Recycled Materials

Roadway construction and reconstruction is increasingly turning to recycled materials for cost savings and environmental benefits. The estimated amount of recycled asphalt pavement used in the past 10 years has almost doubled (see **Figure 1**). Steel, concrete, fill and other materials are occasionally recycled in the numerous construction projects underway annually to build and maintain the Florida roadway system.

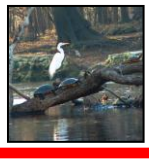
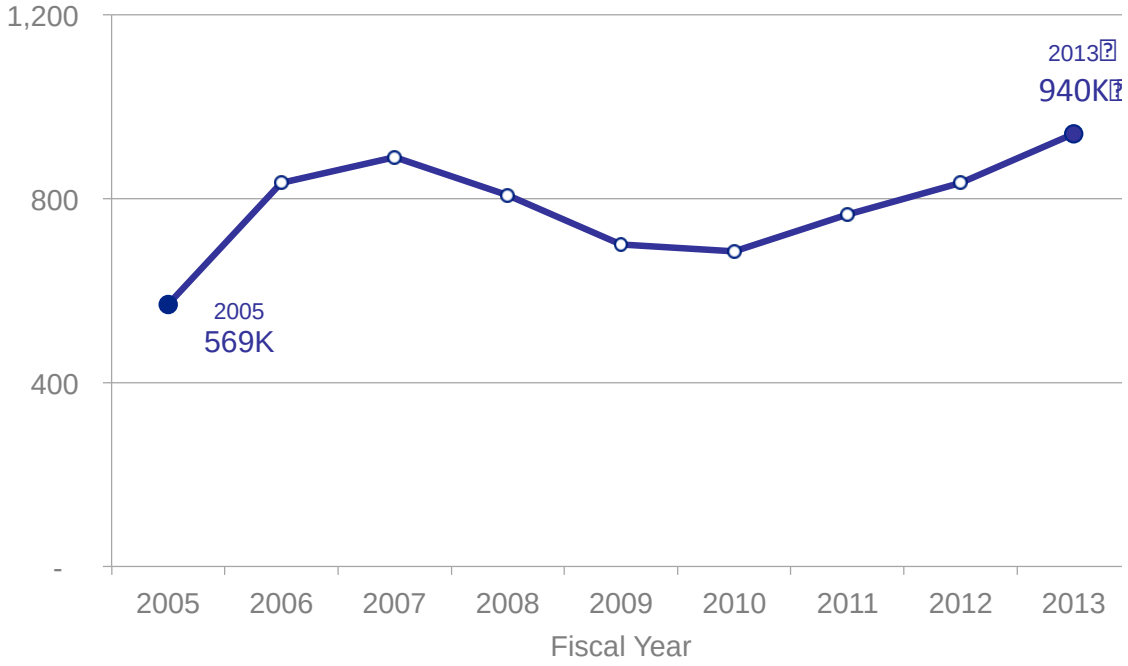


Figure 1: FDOT Recycled Pavement (thousands)



Strategies for Supporting Quality of Life & Environmental Stewardship

The Department will help ensure the objective related to supporting quality of life and environmental stewardship is achieved through these actions:

- Consider integration of environmental stewardship throughout transportation decision-making in project delivery
- Assure stewardship is accomplished through standardized processes and consistent approaches
- Optimize mitigation approaches for unavoidable impacts

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2013 PERFORMANCE REPORT

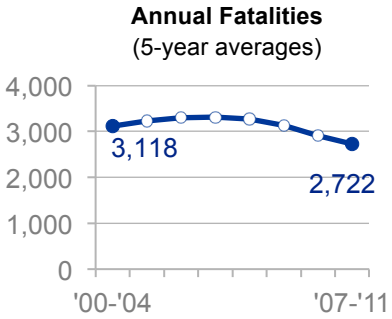
SAFETY & SECURITY AT A GLANCE

THE GOAL: Provide a safe and secure transportation system for all users

WHY IT'S IMPORTANT: The safety and security of the transportation system is among Florida's highest commitments to its residents and visitors. Safety and security improvements can save lives, enhance our quality of life, and support Florida's economic competitiveness.

Highway Safety

The Florida Department of Transportation's objective is to reduce the number of fatalities and serious injuries by 5% annually.

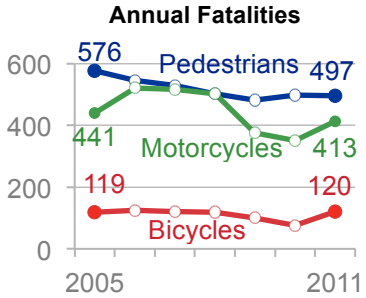


Key Strategies:

- Improve engineering practices to reduce lane-departure crashes
- Improve impaired driving prevention, public education, and training
- Increase public awareness and outreach programs on distracted driving

Vulnerable Road Users

Pedestrian, bicyclist, and motorcyclist safety are major challenges and continue to be a priority for the Department.



Key Strategies:

- Increase public awareness of safety issues related to vulnerable road users
- Develop and implement counter-measures at the highest vulnerable road user crash locations

Other Transportation Modes

Seaports, rail, public transit and airport facilities are important components of the Florida transportation system and improving the safety of these facilities is a Department priority.

Key Strategies:

- Continue to conduct public education campaigns for awareness of rail-highway crossing safety
- Provide technical assistance to transit agencies on safety matters
- Establish priorities to correct hazardous rail-highway crossings
- Continue to conduct annual safety inspections of public-use aviation facilities

Security

Transportation security requires collaboration among many organizations. Emphasis areas include: emergency management and preparedness planning, law enforcement, and the shipping of hazardous materials.

Key Strategies:

- Implement security policies and strategies to deter and respond to attacks on the transportation system
- Improve compatibility of communications and other critical equipment
- Support safe and efficient mobility as part of disaster response
- Ensure that national security transportation needs for Florida's military facilities can be met

2013 PERFORMANCE REPORT

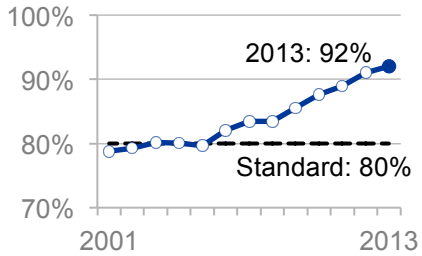
MAINTENANCE & OPERATIONS AT A GLANCE

THE GOAL: Maintain and Operate Florida's Transportation System Proactively

WHY IT'S IMPORTANT: Florida has invested billions of dollars in roads, rail networks, airports, transit facilities and services, seaports and other elements of the transportation system. Regular maintenance and improvements keep these assets operating efficiently to extend their useful life and can delay the substantial cost of reconstructing or replacing them.

Pavement Conditions

The State Highway System has remained at or near the target of 80% non-deficient throughout the last decade.

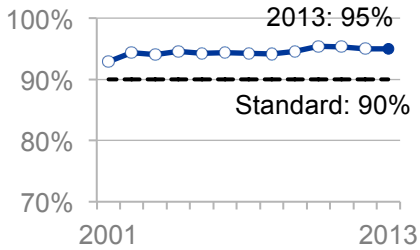


Key Strategies:

- Resurface at least 4% of the State Highway System annually
- Reduce the illegal operation of overweight commercial motor vehicles

Bridge Conditions

Over 95% of all Department maintained bridges meet standards, which means Florida bridges do not show evidence of structural deterioration and are not limited by weight.

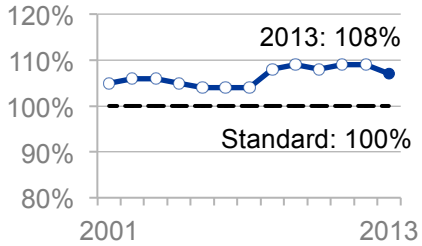


Key Strategies:

- Replace or repair all structurally deficient and weight restricted bridges within 6 years of identification
- Replace all other bridges designated for replacement within 9 years of deficiency identification

Roadway Maintenance

The Department is committed to achieving all of its maintenance standards for the State Highway System. This includes potholes, signs, lighting, mowing, litter removal, etc.



Key Strategies:

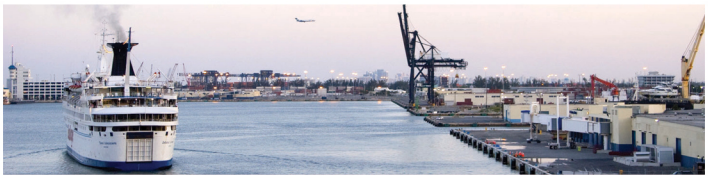
- Continue to identify and implement practices which reduce the time and cost of preservation
- Increase efficiencies through use of state-of-the-art technologies and innovative contracting methods

System Operations

Additional roadway and facility improvements alone will not solve our traffic problems. Travel choices, technology, access management and land use issues must also be considered.

Key Strategies:

- Increase the use of Intelligent Transportation Systems technology
- Expand the use of the electronic toll collection
- Support commuter assistance programs for sharing rides to work
- Coordinate with partners in revising regional evacuation plans



2013 PERFORMANCE REPORT
ECONOMIC COMPETITIVENESS & MOBILITY | AT A GLANCE

THE GOALS: (1) Invest in transportation to support a prosperous globally competitive economy and (2) Improve mobility and connectivity for people and freight

WHY IT'S IMPORTANT: Transportation provides mobility, access and connectivity – to link people with jobs and services, businesses with suppliers, employees and customers, visitors with destinations, and students with schools. A transportation system that achieves these outcomes allows the efficient flow of people and freight, and in-turn creates jobs and supports economic growth.

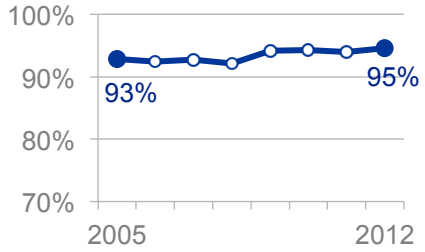
Strategic Investments

Florida's transportation needs outpace available revenues and the existing system cannot accommodate forecasted demand, so investments must be made strategically and in collaboration with partners.

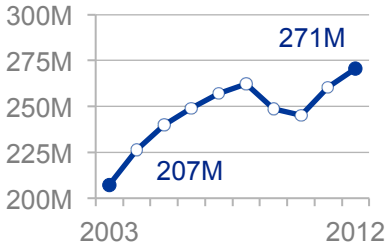
Key Strategies:

- Allocate up to 75% of new discretionary capacity funds to the Strategic Intermodal System (SIS) - focusing on the SIS network will produce the greatest impact on commerce and economic strength
- Promote funding flexibility to meet emerging economic opportunities
- Evaluate projects for economic impacts and consider the results when setting priorities
- Promote investment decisions that support statewide and regional visions for Florida's future growth
- Coordinate with local governments to promote land uses and growth strategies that support efficient and effective transportation
- Introduce new modal options and transportation hubs or corridors where existing facilities cannot meet mobility or connectivity needs

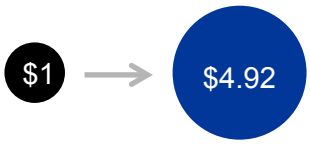
Reliability on Freeways



Annual Transit Ridership



Average Benefit Cost Ratio



Every dollar invested yields $4.92 in economic benefits

Support Freight and Trade

Improved support for the movement of freight and trade will make Florida a global hub for logistics, trade and manufacturing.

Key Strategies:

- Identify opportunities to strategically expand the capacity of air and sea ports and the corridors that most impact connectivity
- Target investments that enhance the ability to handle Florida's own imports and exports
- Develop and implement a statewide Freight Mobility and Trade Plan to provide efficient and reliable connectivity options

Maximize Existing Facilities

With fewer funds available to build our way out of congestion, maximizing the efficiency of our existing system is critical.

Key Strategies:

- Use technology to increase system efficiency
- Implement and encourage the use of managed lanes to manage congestion
- Continue to implement strategies to improve incident and emergency management
- Promote multi-modal options within existing corridors
- Invest in last-mile projects

2013 PERFORMANCE REPORT
QUALITY OF LIFE & ENVIRONMENTAL STEWARDSHIP AT A GLANCE

THE GOALS: (1) Make transportation decisions to support and enhance livable communities, and (2) Make transportation decisions to promote responsible environmental stewardship

WHY IT'S IMPORTANT: Transportation investments can be made in ways that enhance mobility and quality of life while ensuring responsible stewardship of the environment.

Support Community Interest, Values and Visions

The Department is committed to engaging citizens and partners so that projects are harmonious with community values and visions.

Key Strategies:

- Provide local and regional entities with the tools to support environmental stewardship
- Provide opportunities for stakeholders and partners to offer input in the transportation decision-making process

Accomplishments

- A recent FDOT analysis indicated a wide range of improvements in areas such as land use and public participation
- Over the past decade Florida advanced more than 150 transportation enhancement and transportation alternatives projects

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Enhance the Florida Travel Experience

Travel is more than getting from point A to point B, as important as that is. The Department recognizes that the travel experience also adds significant value to transportation users.

Key Strategies:

- Monitor and improve satisfaction in key areas important to our customers
- Promote and implement programs such as Scenic Highways and highway beautification

Accomplishments

- 90% of Florida's visitors indicated they are 'satisfied' or 'very satisfied' with Florida's transportation system on surveys between 2000 and 2011

Deliver a Transportation System that Supports Quality of Life and Environmental Stewardship

The Department is committed to minimizing adverse environmental impacts of transportation improvements and protecting Florida's physical, natural and cultural environment.

Key Strategies:

- Consider integration of environmental stewardship throughout transportation decision-making in project delivery
- Assure stewardship is accomplished through standardized processes and consistent approaches
- Optimize mitigation approaches for unavoidable impacts

Accomplishments

- All areas within Florida are now air quality attainment areas
- The Department is an environmental steward in many ways including increasing the tonnage of recycled pavement from about 570K tons in 2005 to over 940K tons in 2013

Get more information at: FDOTPerforms.org

FDOT