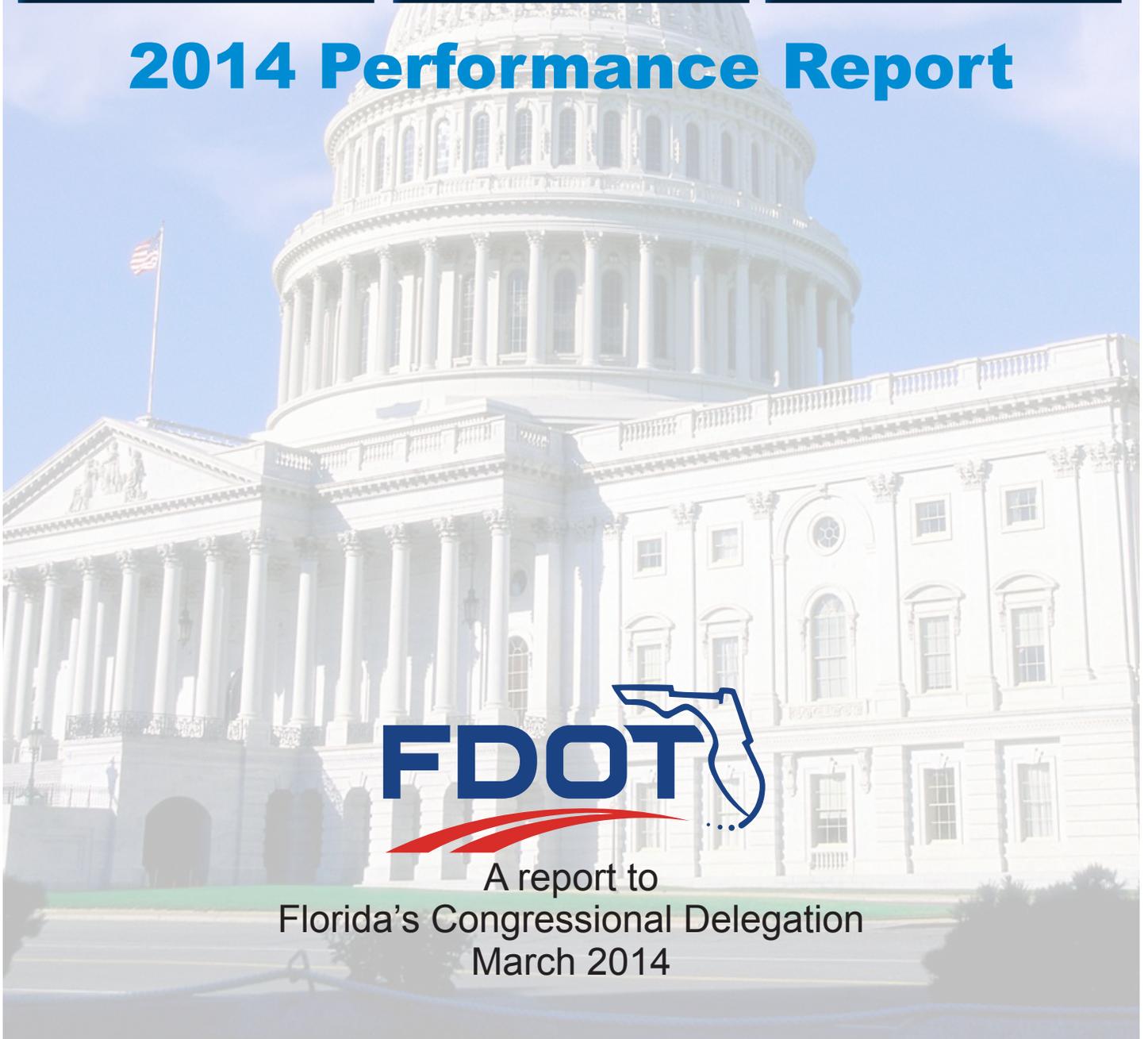


# MAP 21

Moving Ahead for Progress in the 21st Century



## 2014 Performance Report



A report to  
Florida's Congressional Delegation  
March 2014



*Florida Department of Transportation*

RICK SCOTT  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.  
SECRETARY

March 7, 2014

This letter was sent to each member of the  
Florida Congressional Delegation  
Washington, D.C.

Dear Senator/Congressperson:

Section 1203 of the Moving Ahead for Progress in the 21st Century Act (MAP-21), Public Law 112-141, defines national goals for the Federal-aid highway program. Performance measures are to be established through the federal rulemaking process and subsequent target setting and performance reporting by the states. It is very important that the ultimate rules add value to the states and that flexibility is an overarching principle recognizing that each state has unique needs.

FDOT has a history of performance reporting that aligns closely with the MAP-21 performance management requirements. Enclosed is our second MAP-21 Performance Report two years ahead of the statutory schedule. Summaries of our performance for safety, system performance, roadways, bridges, freight, transit and air quality are included. The Department is committed to achieving further improvement in all areas. We will continue to provide annual updates and keep you informed of any issues or ideas related to the rulemaking and implementation process.

The close collaboration of federal and state government will be essential for achieving the potential envisioned (and needed) for performance management and measurement. FDOT is committed to being leaders and innovators in this vitally important area of transportation management. Thank you for your leadership and support.

Please contact me if you have any questions or comments regarding this report. I can be reached at 850-414-5206.

Sincerely,

Ananth Prasad, P.E.  
Secretary

## 2014 MAP-21 Performance Report



### Safety

*The number of fatalities and serious injuries on Florida's roadways continued to drop in 2012*

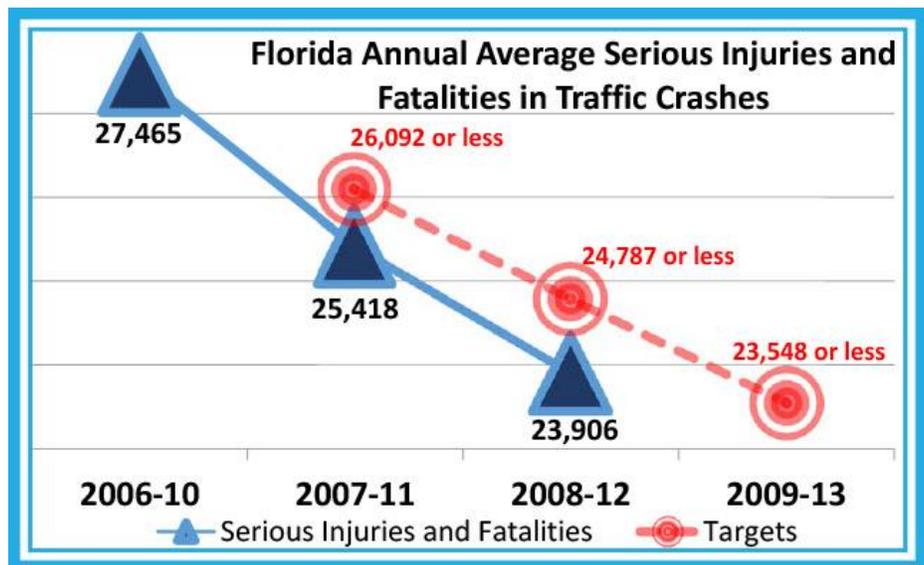
**Overview:** Because life is precious, FDOT has set the highway safety improvement bar as high as possible with a long-range goal of zero traffic fatalities. This commitment has resulted in a steady decline in average annual fatalities and serious injuries since 2005. FDOT's safety strategy encompasses education, enforcement, engineering and emergency response. Our actions include targeted intersection safety improvements and varied education and enforcement efforts. The "Put It Down" campaign is aimed at reducing distracted driving and pedestrian texting in crosswalks. FDOT also partners to focus on at-risk drivers with other stakeholder organizations such as the Florida Sheriffs Association (which teaches teens safe driving practices) or the Safe Mobility for Life Coalition (which coordinates efforts to reach aging road users). Improved safety for bicyclists, pedestrians, and motorcyclists, and campaigns to address impaired and aggressive driving are pursued through a combination of education, engineering and enforcement.

**MAP-21 Provisions:** Requires states to have a safety data system for analyses that support the Strategic Highway Safety Plan and the Highway Safety Improvement Program and to use the safety data systems to identify fatalities and serious injuries on all public roads by location and to identify locations and roadway elements that pose dangers to all road users, including vehicle occupants and non-occupant roadway users (e.g. pedestrians and bicyclists) [23 U.S.C. 148 (c)(2)(B)(i) and(iii)].

#### Issues:

- Target Setting: Reduce the number of fatalities and injuries by 5 percent each year based on the 5-year average
- There is no consistent classification of "serious injury" from state to state

**For More Information:** See the Safety & Security Annual Performance Report at [FDOTPerforms.org](http://FDOTPerforms.org) for Florida's strategies to achieve our objectives.



## 2014 MAP-21 Performance Report



### System Performance

**87% of rush hour traffic on state highways travels at acceptable operating conditions**

**Overview:** Florida has one of the most complete mobility highway system reporting systems in the nation. We have been reporting the quantity of travel, quality of travel and system utilization for over 10 years. This information helps ensure that the most needed system improvements are identified and implemented.

**MAP-21 Provisions:** Requires states to assess performance of the Interstate Highway System and non-Interstate segments of the National Highway System. It also requires the setting of performance targets, coordination with MPOs; and establishing a performance-based process.

#### Issues:

- The intended use of private data (e.g., freight carriers and shippers) vs. FDOT's data modeling techniques presents various challenges.
- The need for national consistency in setting performance measure thresholds such as travel time meeting generally acceptable operating conditions, delay, and travel time reliability
- Calculation methodologies will need to be valid and reliable
- Network coverage for each measure may not be possible in the short run
- Setting relevant and realistic targets
- Target Setting: To be determined.

**For More Information:** See the FDOT Source Book at:

<http://www.dot.state.fl.us/planning/statistics/mobilitymeasures/>

**Results:** for 2008-2012 for recommended performance measures

	2008	2009	2010	2011	2012
Vehicle miles traveled (millions)	309.7	300.4	301.5	298.2	284.1
% travel in generally acceptable operating conditions during the peak hour	84.5%	86.8%	87.1%	86.1%	87.1%
Delay (thousands of hours)	144.6	109.1	97.5	102.6	98.4
Travel time reliability	92.1%	94.2%	94.3%	94.0%	94.6%
% miles severely congested	2.9%	2.3%	2.3%	2.2%	2.2%



## 2014 MAP-21 Performance Report

**Overview:** The Department has a long-standing commitment to ensuring that at least 80% of pavements on the State Highway System (SHS) meet Department standards for non-deficiency. One of the MAP-21 Program's performance goals is to maintain the pavements (including the traveled surface of bridges) on the National Highway System (NHS) in good condition.

## Roadways

**Over 91%  
of Florida  
Interstate  
roadways  
meet MAP-21  
good  
condition  
criteria**

### MAP-21 Pavement Provisions:

- USDOT will establish performance measures on pavement condition and performance of the Interstate System and the remainder of the National Highway System within 18 months of enactment. [§1203; 23 USC 150(c)].
- States will set performance targets in support of those measures within one year of the USDOT final rule on performance measures. [§1203; 23 USC 150(d)].
- USDOT will establish minimum thresholds for Interstate pavement condition. [§1203; 23 USC 150(c) (3)].
- Each state will maintain minimum thresholds for Interstate pavement condition [§1106; 23 USC 119(f)].

### Issues:

- The Florida portion of the NHS expanded from 4,500 miles to more than 8,000 miles under new MAP-21 definitions for that system. This creates a greater demand on state resources to collect, store, analyze, and report the additional NHS pavement data.
- The Department ensures that 80% of the pavements on the State Highway System meet Department Standards.
- Currently there is no MAP-21 guidance for reporting, field test data collected/reported according to HPMS Field Manual (2012).

NHS		Good (IRI < 95)		Fair (95 ≤ IRI ≤ 170)		Poor (IRI > 170)		Total Lane Miles
		Lane Miles	% Lane Miles	Lane Miles	% Lane Miles	Lane Miles	% Lane Miles	
SHS	Interstate	6,428	91%	594	8%	49	1%	7,071
	Non-Interstate	17,902	81%	3,555	16%	600	3%	22,057
Off SHS Total		630	42%	682	45%	187	12%	1,498
NHS Total		24,959	81%	4,831	16%	836	3%	30,626

\* Mileage shown here is extrapolated from the Pavement Condition Survey rated sections and includes bridges' traveled surface.

\* 1,498 lane miles of roads on the NHS are not part of the State Highway System, and are not maintained by the State.

\* IRI are in in/mile

## 2014 MAP-21 Performance Report



### Bridges

**Over 95% of state-maintained bridges meet standards and all state bridges open to the public are safe**

**Overview:** Florida is committed to keeping state highway bridges in a good and safe condition. The Department maintains 6,703 bridges and inspected 2,546 other bridges owned by other state and local jurisdictions last year. The Department takes a proactive maintenance approach which has proven cost-effective. Preventative maintenance and repairs are performed to prevent bridges from deteriorating to a level at which the repair cost would be much greater. This approach ensures that our bridges meet or exceed their design life, resulting in a lower frequency of large capital bridge replacement costs.

**MAP-21 Provisions:** States must maintain minimum thresholds for National Highway System (NHS) bridges (no more than 10% of total NHS bridge deck area may be on structurally deficient bridges). [§1106; 23 USC 119(f)].

#### Issues:

- The specific data elements and ranges to be used for categorizing bridges as good, fair or poor are still being discussed among states.
- The Florida portion of the National Highway System expanded from 4,500 miles to more than 8,000 miles as MAP-21 redefined what comprises the NHS. Less than 3% of the total deck area of NHS bridges in Florida are on structurally deficient bridges.
- Using current NBI element data, it is not possible to obtain an accurate value of equivalent deck area for culverts. Currently, 2 of 1,101 (0.2%) state maintained culverts are structurally deficient.
- Target Setting: Ensure that 90 percent of Department-maintained bridges meet standards while keeping all Department-maintained bridges open to the public safe

**For More Information:** See the Maintenance & Operations Annual Performance Report at [FDOTPerforms.org](http://FDOTPerforms.org) for Florida's strategies for achieving our bridge objectives.

NHS Bridge Performance by Condition Ratings				
Bridges	Number	Percent by Number	Deck Area SF	Percent by Deck Area
Good or Excellent	3,475	96.7%	88,665,082	91.5%
Fair	103	2.9%	6,097,464	6.3%
Poor	14	0.4%	2,087,304	2.2%
Total	3,592	100.0%	96,849,851	100.0%
Ratings: Excellent – 8 or 9; Good – 6 or 7; Fair – 5; Poor – 4 Data include MDX and OOCEA				

Does not include culverts.



## Freight

*Freight travel on Florida's main highways is reliable over 85% of the time<sup>1</sup>*

## 2014 MAP-21 Performance Report

**Overview:** Florida has a comprehensive freight mobility monitoring program. The information helps to ensure that the most needed improvements to the freight network are identified and implemented.

**MAP-21 Provisions:** Requires states to assess the performance of the National Freight Network; set performance targets; coordinate with MPOs; establish a performance-based process.

### Issues:

- Use of proprietary data vs. public data
- Establishing reliable and sufficient origin and destination of shipments data
- Having reasonably good estimates of the value of cargo being shipped
- Network coverage
- There should be national consistency in setting threshold for performance measures such as travel time reliability
- Calculation methodologies
- Target Setting: To be determined.

**For More Information:** See the FDOT Source Book at:

<http://www.dot.state.fl.us/planning/statistics/mobilitymeasures/>

**Results:** for 2008-2012 for recommended performance measures

	2008	2009	2010	2011	2012
Combination truck miles traveled (millions)	14.7	13.6	12.7	12.7	13.4
Travel time reliability	84.9%	89.1%	89.4%	88.8%	89.8%
Combination truck delay (thousands of hours)	11.5	6.5	6.3	7.9	7.8
% miles severely congested	2.8%	2.3%	2.4%	2.7%	2.4%

<sup>1</sup> This applies to state limited access highways in the state's largest urbanized areas during peak travel hours. However, it does not address freight movement to or from the point of origin/destination (the "last mile"). FDOT has begun to work on a trip oriented approach.



## 2014 MAP-21 Performance Report

### Transit

*Transit is improving Florida's mobility*

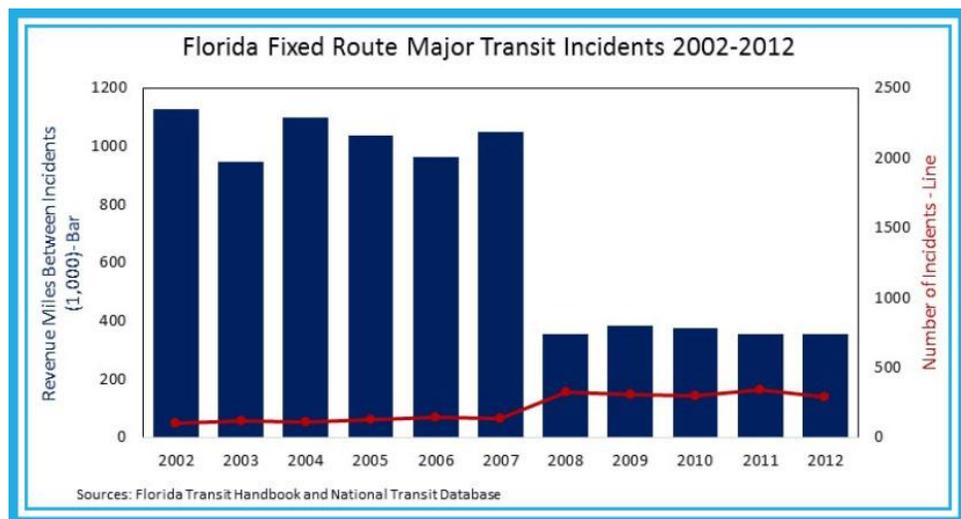
**Overview:** The Federal Transit Agency (FTA), requires both rural and urban transit agencies to report transit related data to the National Transit Database (NTD). Over the last 10 years, Florida has reported on the performance of their 29 urban fixed-route transit systems using data contained in the NTD. Since 2000, public transit ridership has increased by over 40% underscoring its strategic value for improving mobility. Florida performance measures range from annual ridership to operating costs per mile, and include indicators for state of good repair and safety, such as revenue miles between incidents (breakdowns) and accidents. Additionally, the annual number of transit related incidents and fatalities are also included in the Annual Performance Report for the Florida Transportation Plan.

**MAP-21 Provisions:** Requires transit agencies and states to develop performance measures for State of Good Repair and Safety based on agency Asset Management and Safety Plans. Data and metrics used to report this information will be identified by FTA through rulemaking.

**Issues:**

- Florida reports on the urban transit systems only. MAP-21 requires a new system for reporting the performance measures for the rural transit agencies to be developed at the state level.
- Target Setting: Performance targets for transit state of good repair and safety have not been established.

**For More Information:** See the Florida Transit Information Handbook at: <http://www.dot.state.fl.us/transit/Pages/2013FloridaTransitHandbook.pdf> for the performance of Florida's urban transit agencies.



*Notes: In 2007, NTD set new requirements in reporting safety data, which explains the increase in incidents between 2007 and 2008.*



# Congestion Mitigation and Air Quality

*The entire State of Florida will maintain compliance with current air quality standards*

## 2014 MAP-21 Performance Report

**Overview:** The entire state of Florida is in compliance with present air quality standards. Florida receives Congestion Mitigation and Air Quality (CMAQ) Federal funds.

**MAP-21 Provisions:** For the purpose of carrying out the Congestion Mitigation and Air Quality Improvement Program USDOT shall establish measures for state use to assess:

- Traffic congestion
- On-road mobile source emissions

**Issues:**

- Air quality standards could change making some areas non-attainment designated areas for ozone or other criteria pollutants.
- Although the title of the national program includes congestion mitigation, this program primarily relates to air quality. Will congestion mitigation be required regardless of air quality issues?
- Which performance measures, if any, are relevant if all of Florida meets air quality standards?
- If performance measures are required, will they just be for Transportation Management Areas over 1 million population?
- Data to assess on-road mobile source emissions is obtained from the Motor Vehicle Emission Simulator (MOVES) Air Quality model. FDOT is not required to run the MOVES model due to attainment status.
- Target Setting: FDOT expects to set initial targets after the anticipated CMAQ rulemaking in July 2014.

**For More Information:** Contact FDOT’s Office of Policy Planning or Environmental Management Office.

**Preliminary Measures:** Vehicle miles traveled and the percentage of miles severely congested could be used as performance indicators as shown below.

	2008	2009	2010	2011	2012
Vehicle miles traveled (millions)	309.7	300.4	301.5	298.2	284.1
% miles severely congested	2.9%	2.3%	2.3%	2.2%	2.2%

**MAP 21**

Moving Ahead for Progress in the 21st Century

Produced by The Florida Department of Transportation