



FDOT's Transportation Systems Management and Operations Mainstreaming

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Performance Enhancement Goals

1. Improve travel time reliability
2. Reduce all lanes cleared time
3. Throughput increase
4. Delay reduction
5. Secondary crash rates
6. District uptime availability
7. Statewide uptime availability



TSMO Data for Operations

- **Real-Time Dashboarding**
 - Performance Metrics
 - Communication for Leadership
 - Data Based Decision Making
- **Identify safety needs and support solutions**
 - Speeding near construction zones
 - Wrong Way Driver data
 - Bike/Ped Crash Data



CASE
STUDY

FDOT'S SMART WORK ZONE INITIATIVE

By Florida Department of Transportation (FDOT), Office of Traffic Engineering and Operations

Quantify Benefits of TSM&O Strategies

- Mobility-related TSM&O strategies
- Safety-related TSM&O strategies

Strategy	Mobility Performance Measure	Safety Performance Measure
TSP	Travel Time	Crash Frequency
	Travel Delay	
ASCT	Travel Speed	Crash Frequency
Road Rangers	Incident Clearance Duration	Secondary Crash
Ramp Meter	Buffer Index (BI)	Crash Occurrence Risk
DMS	Average Speed	Crashes Downstream
Express Lanes	Buffer Index (BI)	

Arterials

Freeways

Near Miss Identification Safety System (N-MISS)

- 26 signalized intersections
- Risk profiles based on near-miss events
- **Benefits:**
 - Collect, analyze and disseminate real-time N-MISS information
 - Identify potential traffic incidents
 - Reduce primary and secondary crash occurrences



Safety Data Dashboard

Safety Data Integration Space - Transportation Safety View

All

Lane Departure

Impaired Driving

Pedestrians

Bicyclists

Intersections

Unrestrained Occupants

Motorcyclists

Aging Road Users

Speeding & Aggressive Driving

Commercial Vehicles

Teen Drivers

All Emphasis Areas

State Highway System Only - Fatalities and Severe Injuries Only

Year ALL YEARS

District ALL

MPO/TPO ALL MPO/TPO

County ALL

Expand for Help

11,592

Fatalities

64,351

Severe Injuries

Fatalities and Severe Injuries by Year



Most Harmful Events



Most Harmful Event

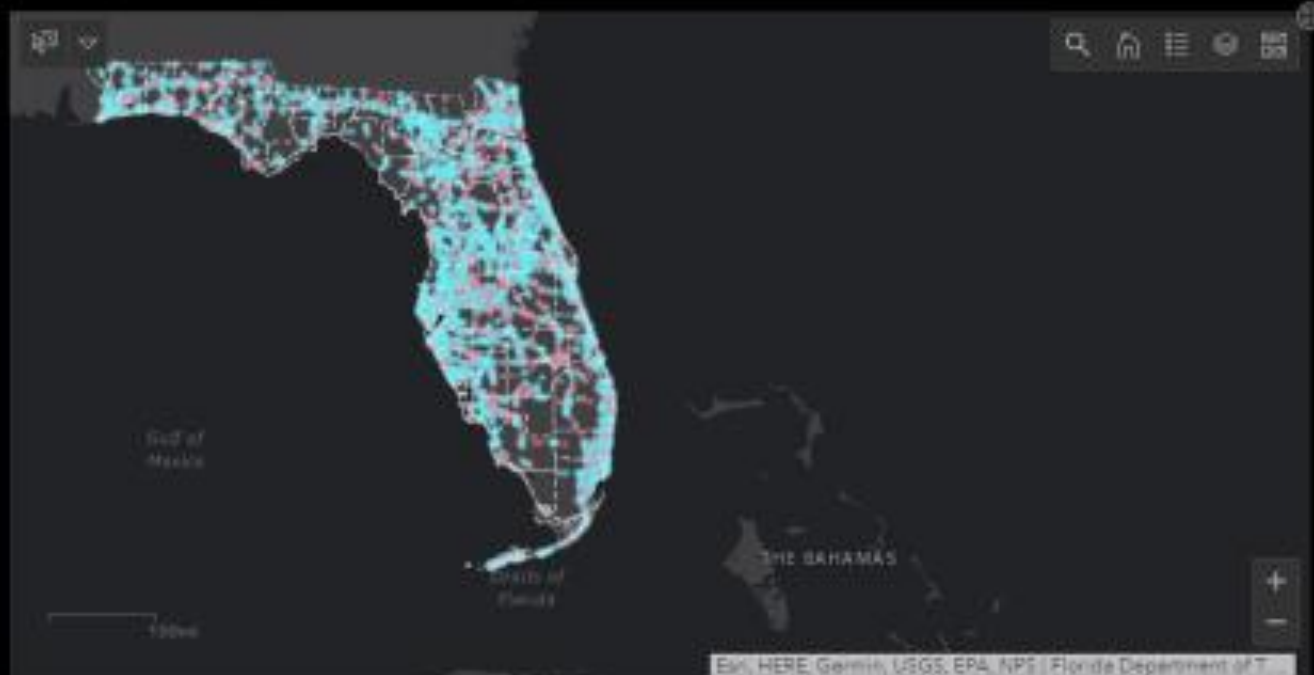
Vehicle Maneuver

Driver Action

Weather

Road Surface

Lighting



Notes: (1) To apply one or more filters to the map, click on a graph. To reset all filters, press CLEAR and RESET on the top bar. (2) Points on the map reflect fatalities and severe injuries, not crashes. For example, one crash may have both fatalities and severe injuries, in which case it will be shown with an overlapping blue and red point on the map.

Work Zone Safety Data

Safety Data Integration Space - Transportation Safety View

All Lane Departure Impaired Driving Pedestrians Bicyclists Intersections Unrestrained Occupants Motorcyclists Aging Road Users Speeding & Aggressive Driving Commercial Vehicles Teen Drivers

Work Zones

State Highway System Only - Fatalities and Severe Injuries Only

Year ALL YEARS

District ALL

MPO/TPO ALL MPO/TPO

County ALL

Expand for Help

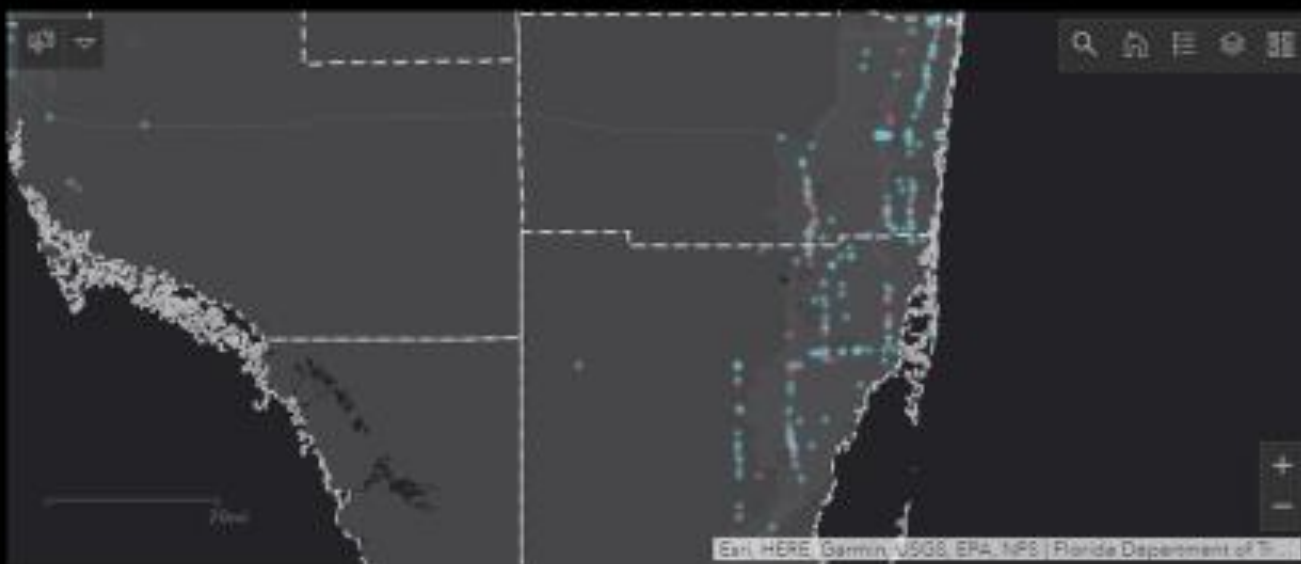
65
Fatalities

299
Severe Injuries

Fatalities and Severe Injuries by Year



Work Zone Crashes are crashes that are reported by the law enforcement officer as involving a work zone or on a roadway that is under construction or where maintenance work is taking place.



Most Harmful Events



Most Harmful Event

Vehicle Maneuver

Driver Action

Weather

Road

Lighting

Notes: (1) To apply one or more filters to the map, click on a graph. To reset all filters, press CLEAR and RESET on the top bar. (2) Points on the map reflect fatalities and severe injuries, not crashes. For example, one crash may have both fatalities and severe injuries, in which case it will be shown with an overlapping blue and red point on the map.

TSMO Applications for Safety



Railroad Crossing
Safety
Countermeasures



Florida Connected
and Automated
Vehicle (CAV)
Initiative Dashboard



Wrong Way Driving
Safety
Countermeasures

Dashboards



Data Sources for TSMO



*Driving distracted
puts everyone
on the road in danger.*

*The text can wait,
put it down
and focus on driving.*

April Safety Message

flhsmv.gov/distracted

FLHSMV

