



MPOAC Staff Directors

Mobility Performance Measures & MAP-21

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Presentation Purposes

- Introduction to Mobility Performance Measures
- FDOT's Mobility Performance Measures Program
- Possible MAP-21 requirements
- FDOT/MPO collaboration





Introduction to Mobility Performance Measures



Follow-up to 6/3/11 presentation



Importance of Mobility

“Providing **mobility** for people and goods is transportation’s most essential function.”





Desire for Performance Measures



Mobility performance measures

MAKE SENSE



Performance Measures



Are we making progress towards our goals?

Measure and evaluate what matters

Let technical work inform policy choices



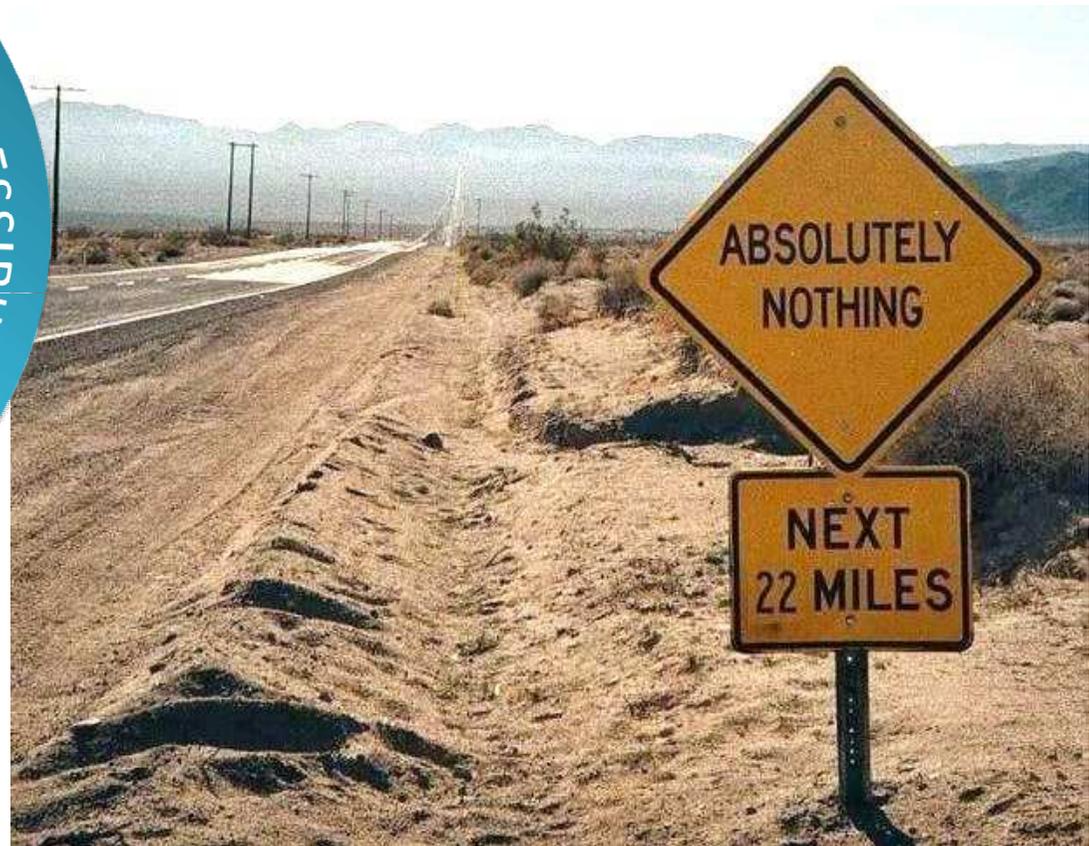
Dimensions of Mobility

- To adequately address mobility, **all four dimensions** should be emphasized and multiple performance measures used.



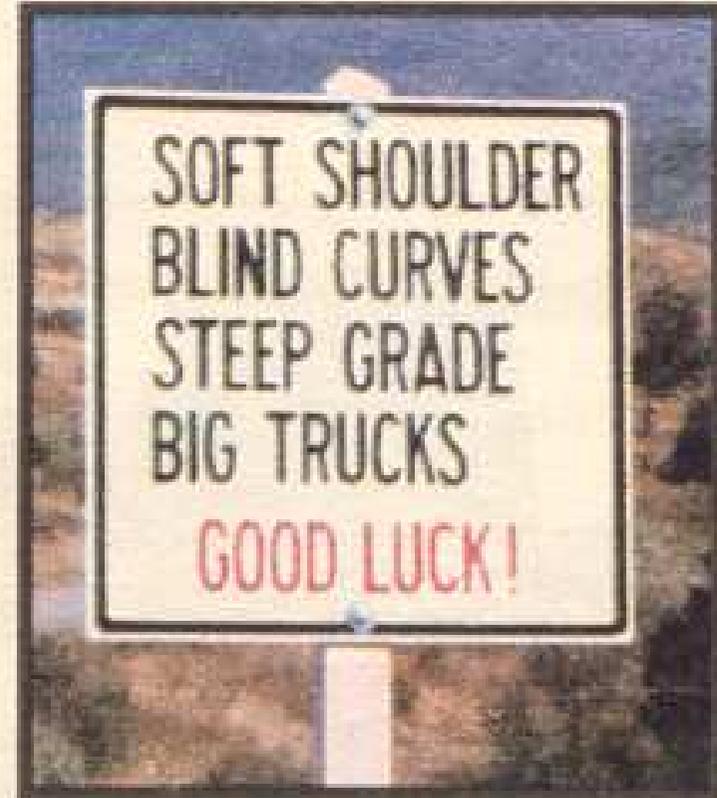
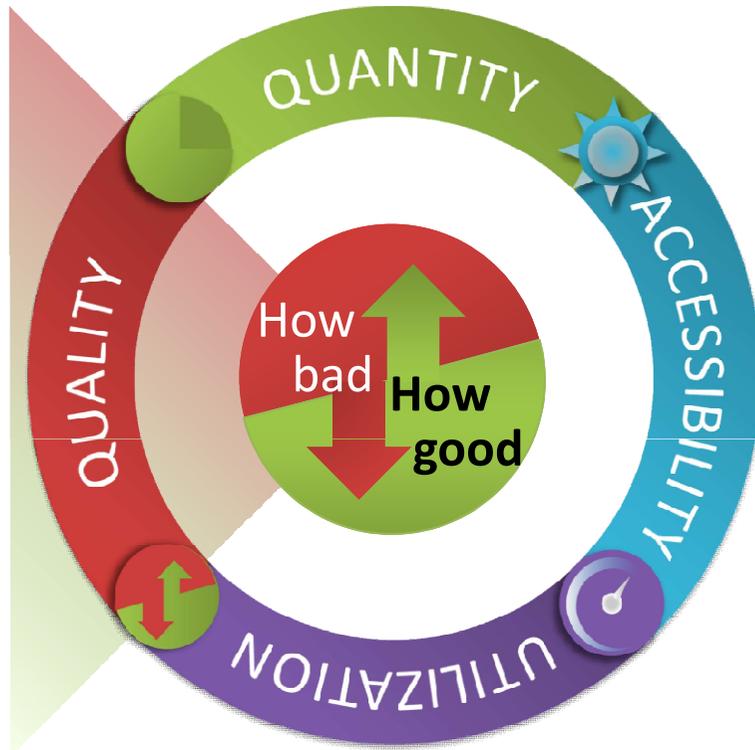


Quantity





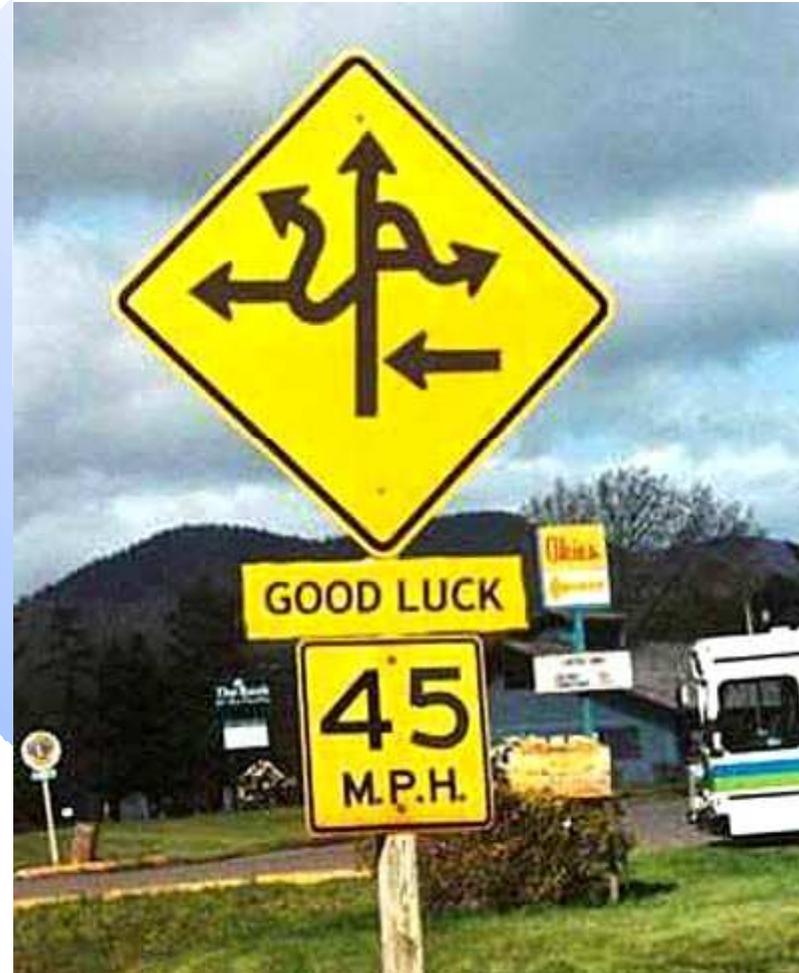
Quality



▲ Walter Youngquist of Eugene, Ore., saw this in central Oregon. He was lucky (or he turned around).



Accessibility





Capacity Utilization





Applicability to All Modes





Mobility Performance Measures in Relationship to Other Performance Measures



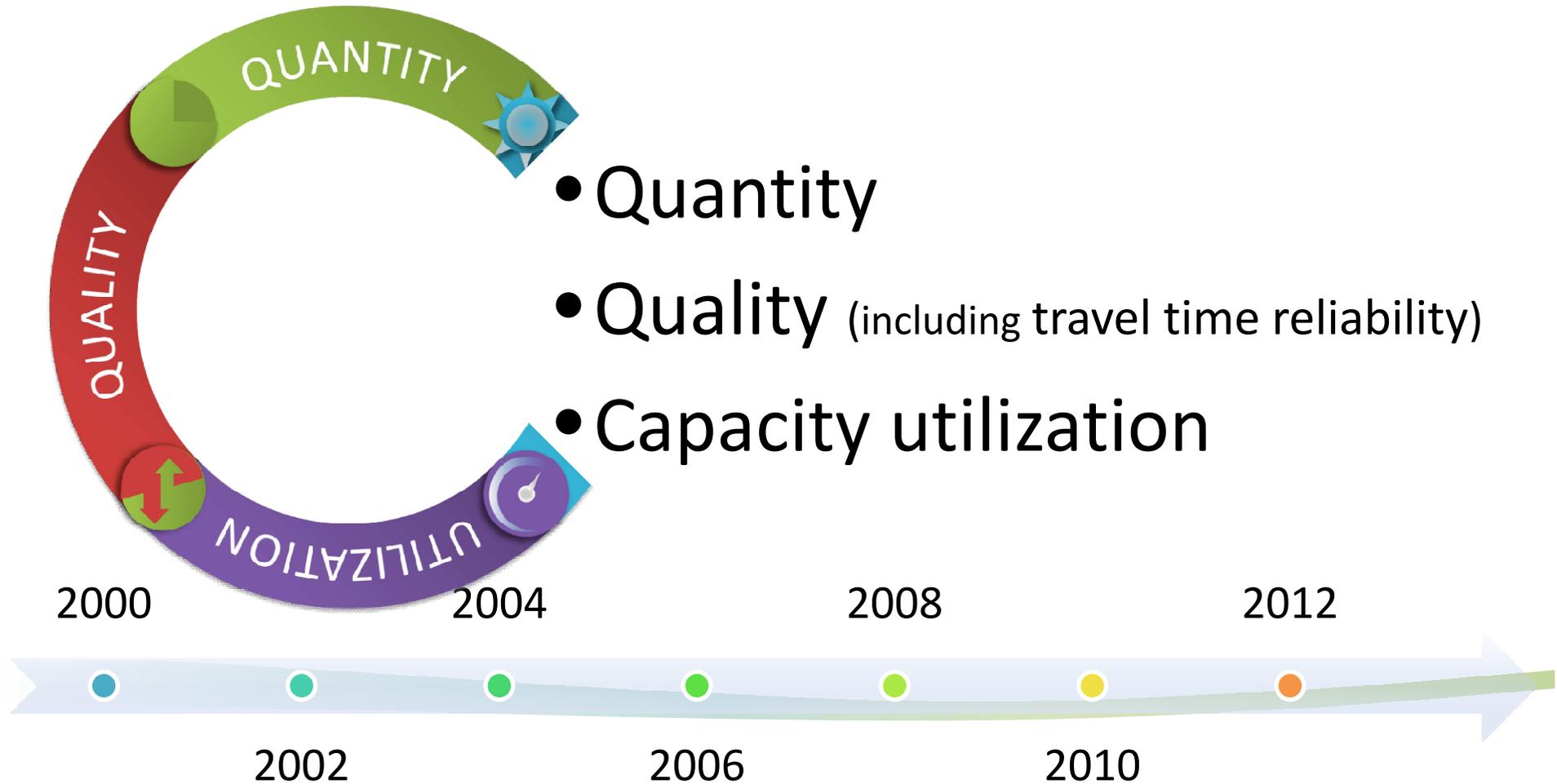
- Mobility measures do not address
 - Safety
 - Economic
 - Environmental
 - Asset (pavement, bridges)
 - Human resources
 - Production





FDOT Past Activities

- C.O. TranStat Office has been tracking and reporting many highway performance mobility performance measures for 10+ years
- FDOT is considered a national leader





Recent Activities

- Renewed emphasis
 - Expanding measures beyond highway
 - Updating calculation methodologies
- Outreach
 - Within FDOT (Districts, modal offices)
 - MPOs
 - Consensus and reasonable consistency
- MAP-21 preparation

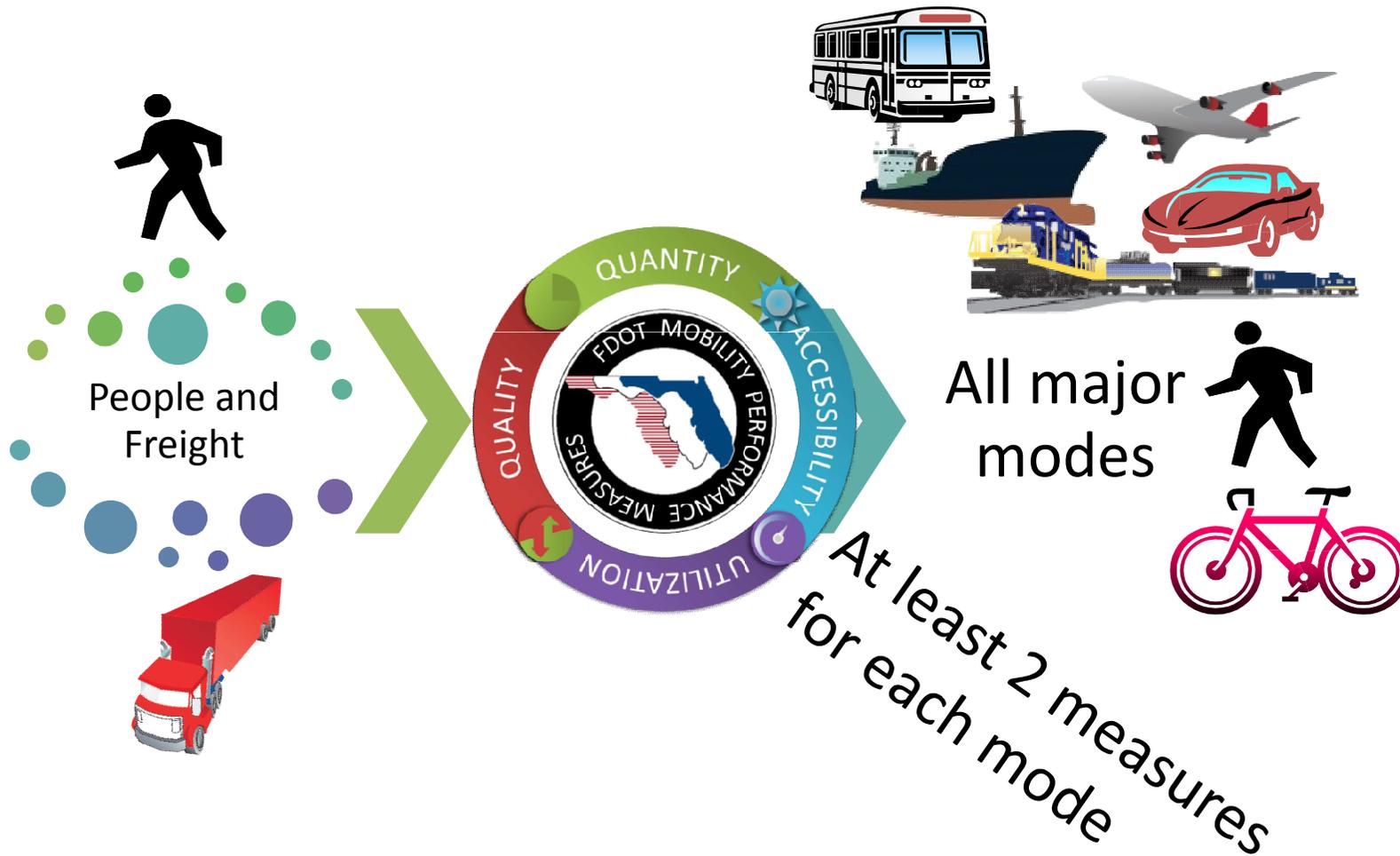


FDOT's Draft Statewide Mobility Performance Measures

	MODE	QUANTITY	QUALITY	ACCESSIBILITY	UTILIZATION
People	Highway	Vehicle miles traveled Person miles traveled	Average travel speed Delay Travel time reliability index % travel meeting LOS standards % miles meeting LOS standards	% population within 30 min of jobs	Vehicles per lane mile % miles heavily congested % travel heavily congested Hours heavily congested
	Aviation	Passengers	Departure reliability	Highway adequacy (LOS) % population within 30 min drive time	Demand to capacity ratios
	Rail	Passengers		% population < X time or distance	
	Seaport	Passengers		Highway adequacy (LOS)	
	Transit	Ridership Passenger miles	Average headway		
	Pedestrian		Level of Service (LOS)	Sidewalk coverage	
	Bicycle		Level of Service (LOS)	Bike lane/shoulder coverage	
Freight	Highway	Combination truck tonnage Combination truck ton miles traveled Combination truck miles traveled Truck miles traveled	Combination truck average travel speed Combination truck delay Travel time reliability index		Vehicles per lane mile % miles severely congested Combination truck Incoming/outgoing tonnage
	Aviation	Tonnage		Highway adequacy (LOS)	
	Rail	Tonnage		Highway adequacy (LOS) Quality rail access	
	Seaport	Tonnage Truck equivalent units		Highway adequacy (LOS)	



Features of Draft Statewide Mobility Performance Measures



For FDOT purposes, not MAP-21



SOUTHEAST FLORIDA REGIONAL TRANSPORTATION SYSTEM MEASURES

Outcomes Assessment Annual Report
2006 through 2010 Reporting Period



SEFTC
Southeast Florida
Transportation Council



REGIONAL PERFORMANCE MEASURES	2006 TO 2010 PROGRESS	2006 TO 2010 FIVE YEAR CHANGE**	2006 TO 2010 FIVE YEAR TREND
MOBILITY			
Time Spent Traveling (per capita)	●	From 0.59 hours in 2006 to 0.56 hours in 2010 (a 5% decrease)	
Truck Congestion Cost per Truck Mile Traveled*	●	From \$0.31/mile in 2007 to \$0.38/mile in 2010 (a 22% increase)	
Uncongested Peak Vehicle Miles Traveled per lane-mile	●	From 517 VMT/lane-mile in 2006 to 531 VMT/lane-mile in 2010 (a 3% increase)	
Delay per Auto Commuter	●	From 44 hours/year in 2006 to 38 hours/year in 2010 (a 14% decrease)	
Proportion of Travel Congested	●	From 43% in 2006 to 39% in 2010 (a 9% decrease)	
MULTIMODAL ACCESS & INTEGRATION			
Annual Transit Trips per Capita	●	From 29.4 trips/year/person to 26.9 trips/year/person (a 9% decrease)	
Commute Mode Share	●	From 22.3% in 2006 to 21.4% in 2010 (a 4% decrease)	
Tonnage of Freight Goods Moving Through Ports	●	From 17.6 Million tons in 2006 to 15.2 Million tons in 2010 (a 14% decrease)	



Mobility Performance Measures Resources

- **FDOT**

- www.dot.state.fl.us/planning/statistics/mobilitymeasures
- Florida Highway Data Sourcebook

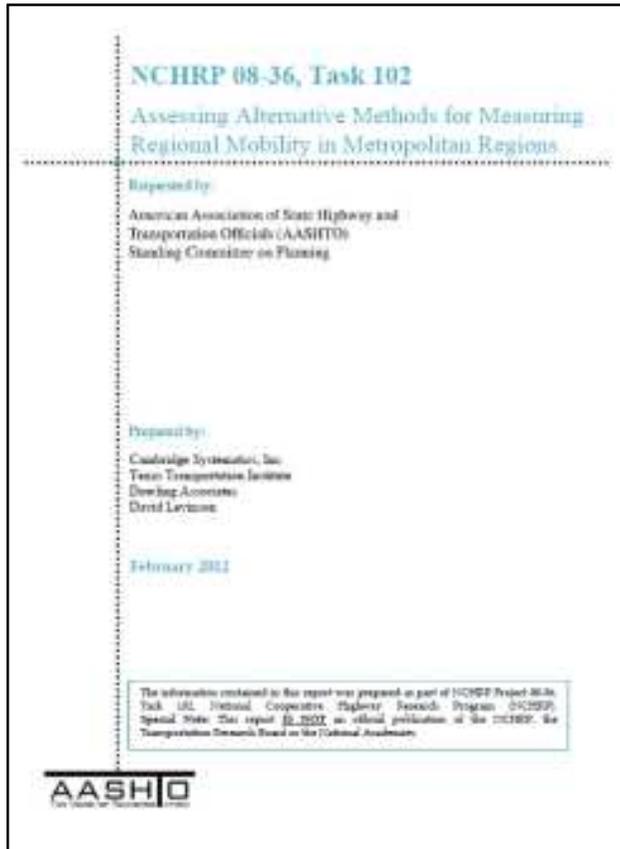


NCHRP 8-36 Task 102:

Assessing Alternative Methods for Measuring Regional Mobility in Metropolitan Regions



NCHRP 08-36, Task 102



Assessing Alternative Methods for Measuring Regional Mobility in Metropolitan Regions

February 2012

- Used FDOT concepts as a starting point
- Identified specific performance measures
- Emphasized need for tying outcomes to agency activities



NCHRP 8-36: Mobility Performance Measure Structure

o Categories



- Quantity of travel (e.g., vehicle-miles traveled)
- Quality of travel (e.g., delay, reliability indices)
- Accessibility (travel time to opportunities)
- Capacity Utilization (e.g., how long does congestion last, how many miles does congestion cover?)



NCHRP 8-36: | Mobility Performance Measure Structure

- Measurement Scale
 - Facility-based measurements (e.g., detectors)
 - Trip-based (e.g., vehicle probes, personal device tracking)
- Geographic Scale
 - Facility
 - Corridor
 - Areawide



MAP-21 Requirements

MAP-21

Moving Ahead for Progress in the 21st Century

Follow-up to Glassman's 11/8/12 presentation



MAP-21 National Goal Areas for the Federal Aid Highway Program



Safety

Infrastructure Condition

Congestion Reduction

System Reliability

Freight Movement and Economic Vitality

Environmental Sustainability

Reduced Project Delivery Delays



MAP-21 Timing



USDOT by 4/14, in consultation with State DOTs, MPOs, and other stakeholders, will promulgate rulemaking that establishes measures



Mobility Performance Measures

Provide not less than 90 days to comment on regulation



MAP-21 System Coverage

USDOT will establish measures for **States** to use to assess:



Condition of
Pavements



Condition of
Bridges



Performance
of (mobility)

- Interstate System
- National Highway System



Performance Targets



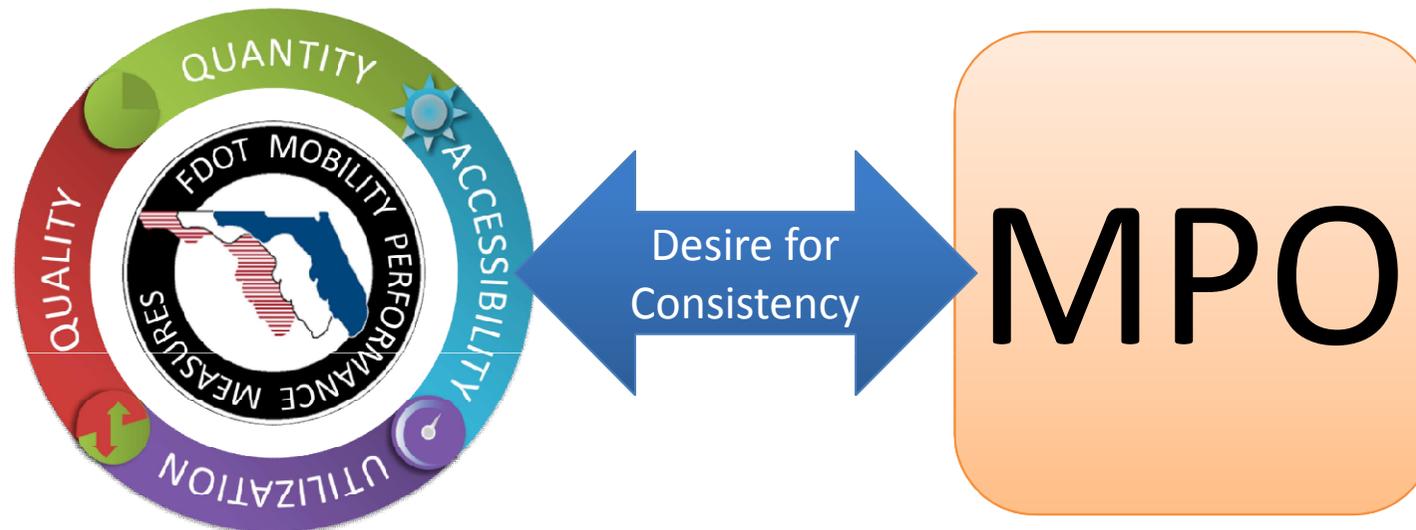
States will set targets for each measure established by USDOT no later than **1 year** after the final rule is promulgated for the measures



MPOs will set targets, where applicable for the same measures no later than 180 days after the State sets their target.



Performance Targets



States and MPOs must integrate performance plans into a performance-based process

Silent on MPOs not achieving targets



Performance Plans



Anticipated effect of the improvement program toward achieving the performance



Links investment priorities to performance targets



Performance Evaluation

USDOT will establish criteria to evaluate the effectiveness of the performance-based planning process of States





Thoughts on MAP-21 State and MPO Mobility Performance Measures Requirements





Thoughts on FDOT/MPOs Providing MAP-21 Mobility Performance Measures



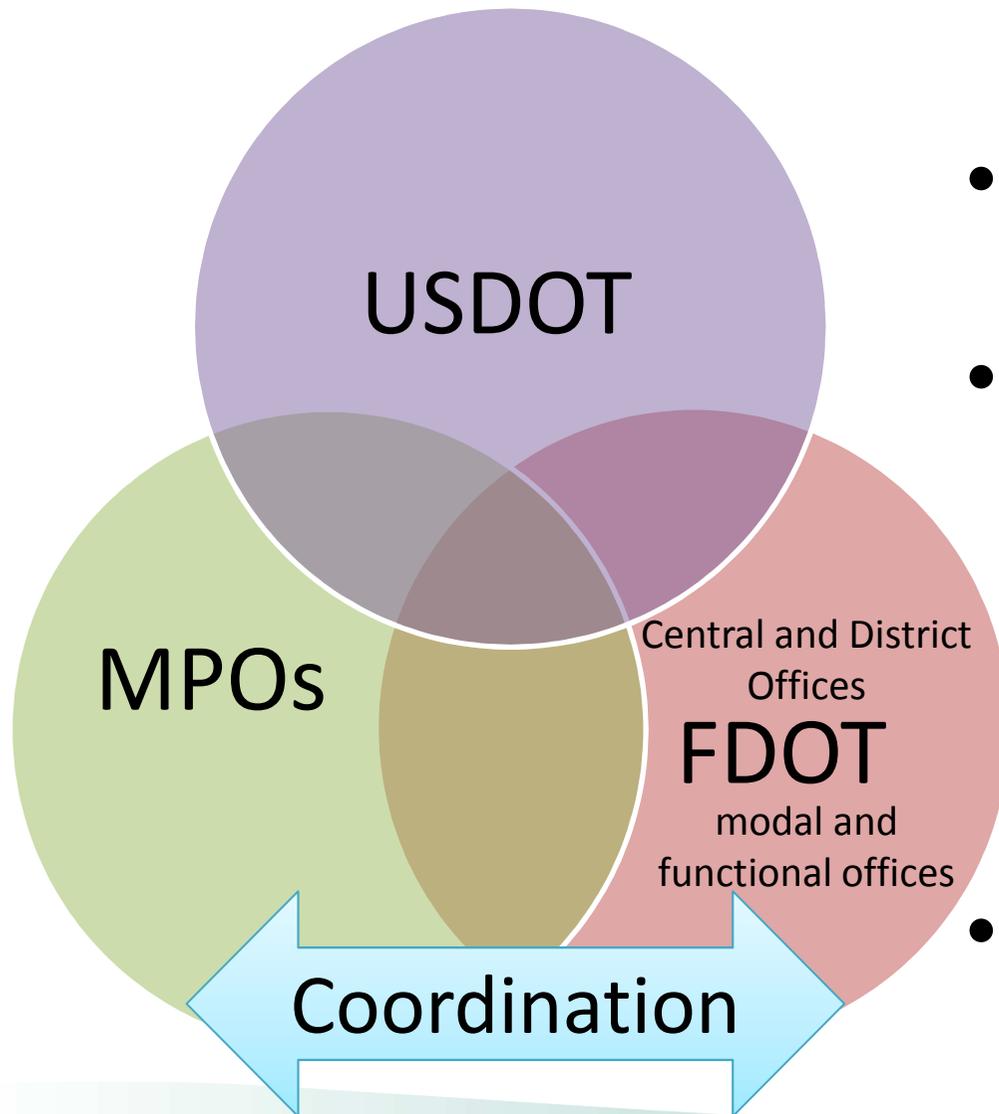
Delay
Travel time reliability
Other?

- FDOT (C.O.) will calculate and report these likely MAP-21 measures
- Flexible to provide results by MPO area
- **Would you like FDOT to pursue that concept?**



FDOT Action Items

for Addressing Performance Measures



- Desire for consensus and general consistency
- Information dissemination?
 - One-page fact/information sheets
 - Website
 - Training
- Other – How can we help?



Any Questions?

CONCLUDING DISCUSSION