

Advancing TSMO: A Federal Perspective

Amelia (Millie) Hayes, P.E., RSP₂
Federal Highway Administration Texas Division

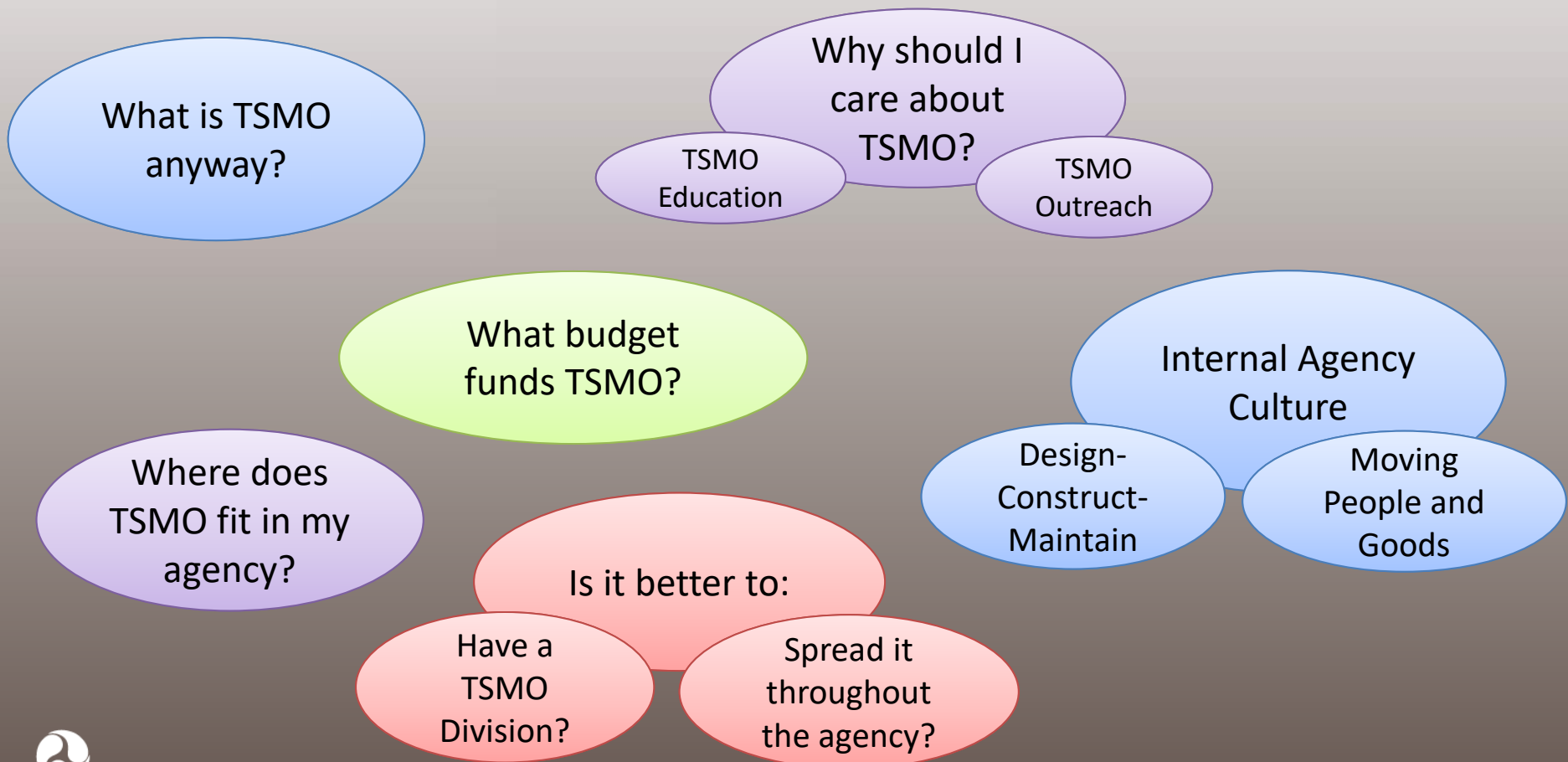
TexITE Dallas
May 2020

Agenda

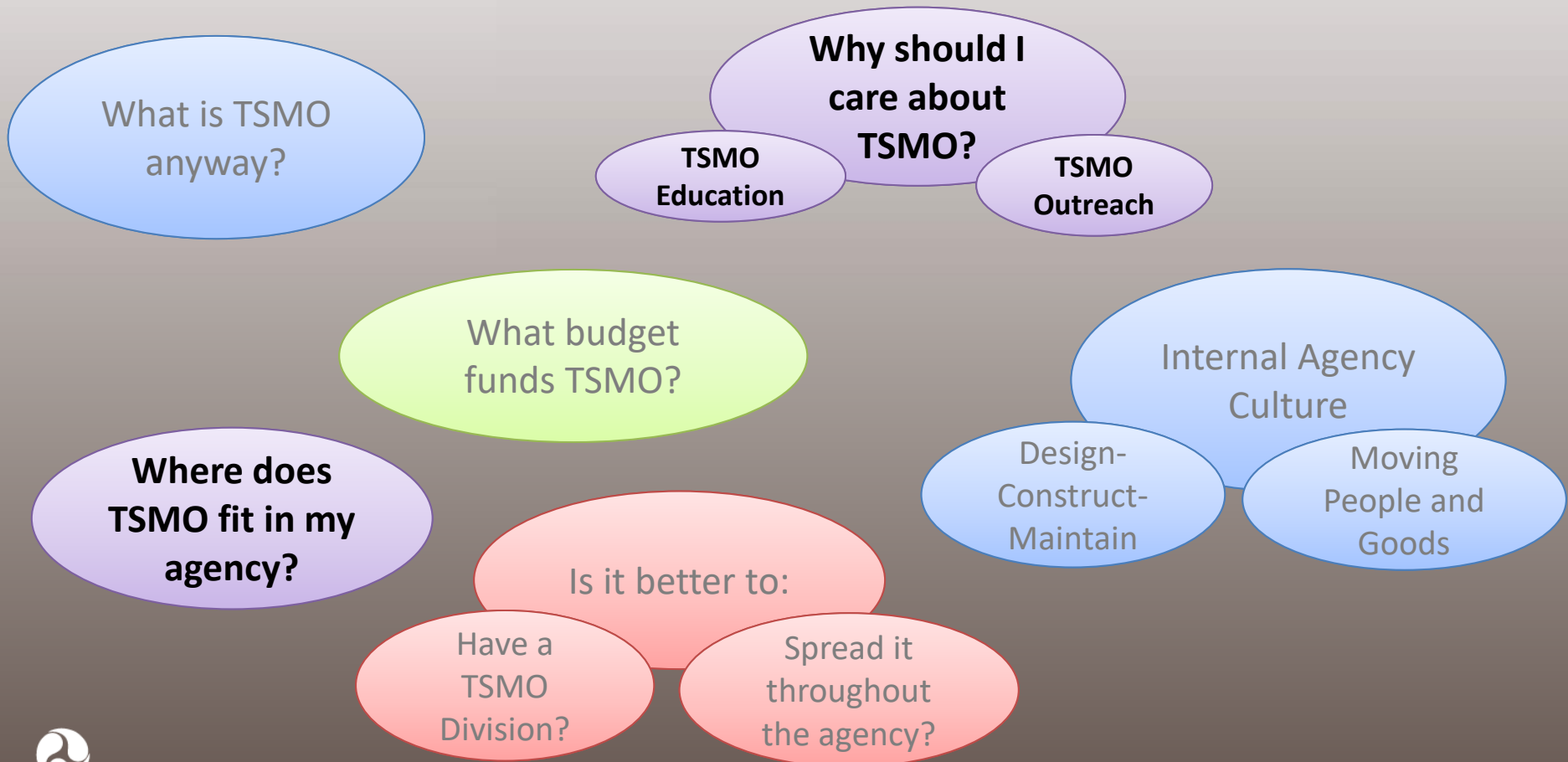
- Communicating and Integrating TSMO
- Business Cases for TSMO
- Connecting Operations to Other Core Agency Programs
- TSMO Resources and Opportunities



Challenges Communicating and Integrating TSMO



Challenges Communicating and Integrating TSMO



Integrating and Mainstreaming TSMO into Agencies

- TSMO program development
- Building TSMO into agency processes
- Developing agency culture that supports/values TSMO
- Communicating value of TSMO/business case
- Considering reliability
- Developing effective partnerships/collaboration – internal and external
- Developing workforce capabilities for TSMO



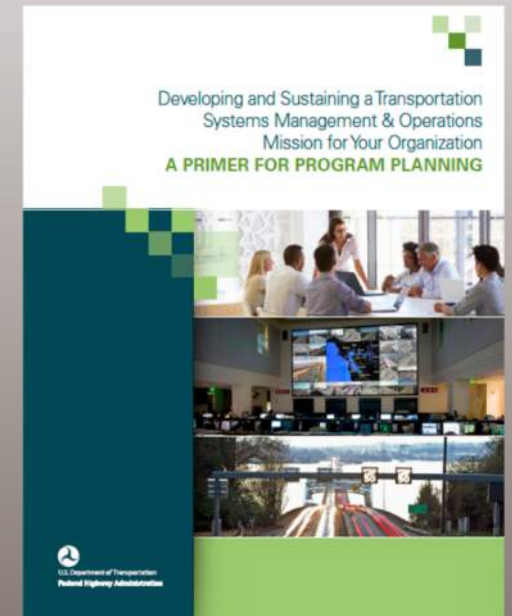
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Integrating TSMO: TSMO Program Planning

- Moves TSMO from an ad hoc set of activities or strategies into a cohesive ***program*** that is vital to the mission of the agency.
- Facilitates ***integration*** and ***mainstreaming*** of TSMO within a transportation organization to support new and evolving roles and responsibilities.



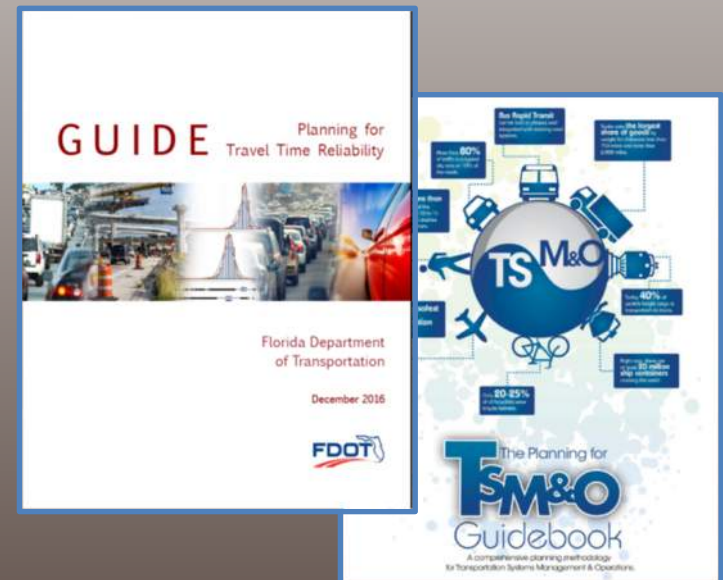
<https://ops.fhwa.dot.gov/publications/fhwahop17017/fhwahop17017.pdf>



Integrating TSMO Into Business Processes: Florida

Modifying processes to integrate TSMO and reliability into planning – project and strategy analysis, investment decisions

- Florida DOT
 - Integrated TSMO and reliability analysis into processes
 - Planning for reliability guide
 - Planning for TSMO guide
 - Outreach and training



Communicating the Value of TSMO: Business Case to Leadership

- TSMO outreach toolkit
- Short videos
- Success stories

<https://transportationops.org/business-case>



Communicating the Value of TSMO: Business Case to the General Public



Tired of Sitting in Traffic? Us too.

The Michigan Department of Transportation (MDOT) is implementing innovative solutions that reduce congestion and increase safety simply by improving the day-to-day operations of the roads we've already built. These solutions use advanced technologies and partnerships to increase mobility, reliability, and safety. Cost-effective and quick to implement, they also provide high benefit-to-cost ratios when combined with traditional means of building and maintaining the state transportation system. Plus, these solutions build on and strengthen MDOT's current longtime services, such as clearing crashes and plowing snow. Some examples of these solutions and their benefits are listed to the right.



Efficient commutes

Optimally timed traffic lights help motorists flow more smoothly through intersections. This traffic light harmonization can reduce travel times by 8 to 20 percent.

Reliable commutes

Michigan Traffic Incident Management Effort (Mi-TIME) provides important training on quickly and safely clearing incidents. So far Mi-TIME has trained more than 5,600 responders.

Safer roads

Technologies to safely manage construction zones help decrease the number of work zone crashes, injuries, and deaths on Michigan roadways.

Easier-to-use traveler information

MDOT's MI Drive website (www.michigan.gov/drive) provides 24/7 traffic and incident information.

Michigan's reputation as a leader

Planet M (www.planetm.com) promotes innovation in transportation mobility technologies across the state of Michigan.

Fewer wasted gallons of gas

Travelers won't have to waste gasoline idling in congestion, enhancing livability and sustainability.

Better, faster, cheaper, safer, and smarter

These solutions allow MDOT to more cost-effectively reduce congestion, increase safety, and provide Michigan residents with noticeable benefits *NOW*.



To learn more about MDOT's operational solutions, please visit: www.michigan.gov/mdot



Many Connections are Needed



Planning



Design



Construction



Maintenance



Operations



Connecting Operations to Other Core Agency Programs

- Establish relationships across units
- Understand what's important from both perspectives
- Talk a common language
- Build TSMO into agency processes
- Joint training and workshops
- Collaborate on TSMO program development



Connecting Operations: TSMO Fact Sheets

SAFETY
ENHANCING TRANSPORTATION:
CONNECTING TSMO AND SAFETY

CONSTRUCTION
ENHANCING TRANSPORTATION:
CONNECTING TSMO

ASSET MANAGEMENT
ENHANCING TRANSPORTATION:
CONNECTING TSMO AND ASSET MANAGEMENT

ENVIRONMENT
ENHANCING TRANSPORTATION:
CONNECTING TSMO

HUMAN RESOURCES
ENHANCING TRANSPORTATION:
CONNECTING TSMO AND HUMAN RESOURCES

MAINTENANCE
ENHANCING TRANSPORTATION:
CONNECTING TSMO AND MAINTENANCE

WHAT IS TSMO?
The transportation industry is rapidly evolving with advanced technology and a new emphasis on management and operations. Roadways are becoming increasingly complex,

WHAT IS TSMO?
Transportation systems management and operations (TSMO) is the use of strategies, technologies,

WHAT IS TSMO?
TSMO strategies help make road and bridge maintenance activities safer for workers and traffic and less disruptive to travelers by managing traffic during maintenance activities and alerting drivers to the presence of work crews and lane closures.

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Transportation systems management and operations (TSMO) is the use of strategies, technologies,



https://ops.fhwa.dot.gov/plan4ops/focus_areas/integrating/tsmo_factsheets.htm

U.S. Department of Transportation
Federal Highway Administration

TSMO Resources: Operations Center of Excellence

NOCoE
National Operations Center of Excellence

Delivering resources to save time, lives, and money

LOG IN REGISTER

Knowledge Center Why TSMO? Calendar News About Us

TOP STORIES

United States

KNOWLEDGE CENTER

Explore publications, tools, case studies, on-demand learning and research. Our knowledge center is full of resources that have been developed specifically for transportation operations.

Click here or the button below to expand your transportation knowledge!

EXPLORE OUR KNOWLEDGE CENTER

SPaT Challenge

A challenge to state and local public sector transportation infrastructure owners and operators to cooperate together to achieve deployment of DSRC infrastructure with SPaT.... [Read More](#)

2018 Joint ITE International and Midwestern/Great Lakes Districts Annual Meeting and Exhibit Preview: TSMO Activities & Highlights
July 30, 2018 from 2:00 pm - 3:00 pm EDT

- Launched early 2015
- Collaboration of AASHTO, ITE, ITSA with support from FHWA
- Website and Technical Services
 - Technical resources
 - Calendar of events
 - Peer exchanges
 - Webinars
 - Newsletter, and more



TSMO Resources and Opportunities: Workshops

- Contemporary Approaches to Travel Demand Management
- TSMO Program Planning
- Planning for Travel Time Reliability

Planning for Transportation Demand Management: A Contemporary Approach
Fall/Winter 2016

WORKSHOP DATE & TIME:
To be determined

LOCATION:
To be determined

WORKSHOP LENGTH:
1 Day

COST: Free

Managing demand is about providing travelers with travel choices, such as work location, time of travel, mode, and route. In the broadest sense, demand management is about providing travelers with effective choices to improve travel reliability.

For more information on the hosting a workshop, contact:
Wayne Berman
Federal Highway Administration

A WORKSHOP

This workshop is designed to bring together transportation planners, traffic management professionals, transit operations staff, and transportation demand management (TDM) professionals to gain an understanding of contemporary approaches for influencing travel behavior and planning for demand management.

Today's transportation systems are facing a number of challenges, including:

- Increasing demand for transportation services
- Limited resources
- Increasing competition for transportation services
- Increasing demand for transportation services
- Limited resources
- Increasing competition for transportation services

Transportation Systems Management and Operations Program Planning
Summer 2016

WORKSHOP DATE & TIME:
August 15, 2016
8:30 AM - 4:00 PM

LOCATION:
Transportation Planning and Policy Building Room
ARDOT Central Office
16204 Interstate 95
Little Rock, AR 72099

COST: Free

A WORKSHOP

This workshop is designed to help and their partners in conducting TSMO program planning. Through TSMO program planning for their organization and support program planning facilitates inter-transportation organizations to support these organizations.

TSMO program planning identifies elements needed to advance TSMO (see figure below).

For more information:
Joe Gregory, PE
FHWA Office of Operations
joseph.gregory@dot.gov
202.366.0010 or
Jim Harris
jim.harris@dot.gov
202.366.2579

3. TACTICAL
Program Services, Activities & Plans
Implementation, Policy & Goals
Performance Measurement & Reporting

WORKSHOP DATE & TIME:
TBD

LOCATION:
TBD

COST: FREE

Planning for reliability reduces unexpected delays and ensures travelers reach their destination on time.

Planning for Reliability Workshop
Advancing Reliability through Operations

Travel time reliability is critical to many transportation system users, whether they are vehicle drivers, transit riders, freight shippers and carriers, or even air travelers. This workshop equips planners and operators to integrate reliability and operations into transportation planning using a performance-based approach. The workshop helps planners and operators elevate reliability as a system goal and performance measure and apply operations strategies to achieve reliability and other system goals. Participants will gain a deeper understanding of the concept of reliability and its measures. Small group exercises allow participants to apply what they have learned to realistic scenarios and leave the workshop with an action plan.

Benefits of the Planning for Reliability

- **Enables decisions based on a more accurate reflection of traveler experience.** Planning based only on average travel time rather than accounting for how predictable travel time may be will miss a major part of the system performance story and likely miss solutions that would directly improve travel times and their predictability.
- **Improves customer satisfaction.** Most travelers are less tolerant of the unexpected and tend to remember the few bad days they spent in traffic rather than their average travel time throughout the year. Unreliable travel times penalize travelers with other unexpected delays or unproductive "padding" of their travel time to avoid being late.
- **Elevates consideration of lower cost operational strategies.** Travel time reliability better quantifies the benefits of traffic management and operations activities than average travel times.
- **Improves safety.** Addressing causes of unreliability, such as traffic incidents through improved incident management, can reduce secondary crashes and congestion-related crashes.
- **Increases economic benefits.** Improving reliability increases productivity of



Contact Information

Amelia (Millie) Hayes, P.E., RSP₂

Safety & Traffic Operations Specialist

FHWA Texas Division

amelia.hayes@dot.gov

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