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TRANSPORTATION RESEARCH BOARD

Enter the Portal - The Transportation Performance Management (TPM) Portal

August 12, 2020

@NASEMTRB
#TRBwebinar

PDH Certification Information:

- 1.5 Professional Development Hour (PDH) – see follow-up email for instructions
- You must attend the entire webinar to be eligible to receive PDH credits
- Questions? Contact Reggie Gillum at RGillum@nas.edu

The Transportation Research Board has met the standards and requirements of the Registered Continuing Education Providers Program. Credit earned on completion of this program will be reported to RCEP. A certificate of completion will be issued to participants that have registered and attended the entire session. As such, it does not include content that may be deemed or construed to be an approval or endorsement by RCEP.

RCEP

REGISTERED CONTINUING EDUCATION PROGRAM

#TRBwebinar

Learning Objectives

List resources and utilize tools available on the TPM Portal

#TRBwebinar

Introduction to the TPM Portal

Christos S. Xenophontos, *Rhode Island Department of Transportation*
Perry Lubin, *Spy Pond Partners, LLC*

8/12/2020

1. TPM Portal Introduction

What is the TPM Portal?

A web application and knowledge hub

- Developed through NCHRP Project 20-24(97)
- Stewarded by AASHTO’s CPBM
- Expanded and sustained by the TPM Pooled Fund

What is the TPM Portal?

- Events
- Tools
- Trainings
- Community
- Videos
- Publications

“A one-stop-shop for TPM practitioners.”

How Can it help you?

TPM Practitioners

Three highlights:

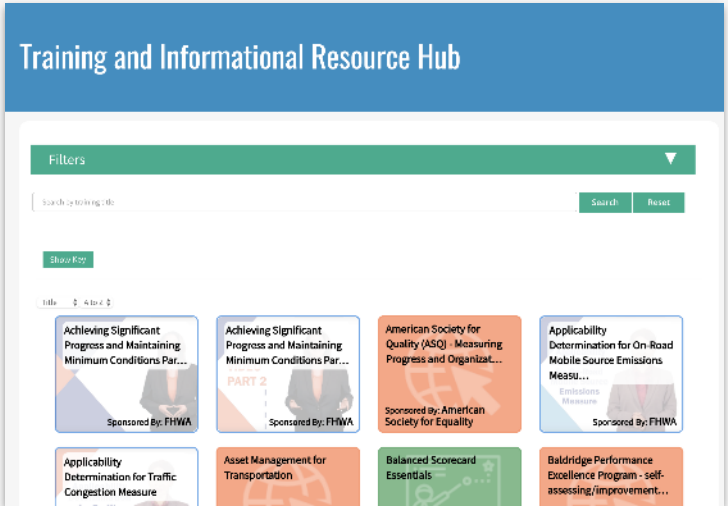
- TPM Training Hub
- TPM Now! Video Series
- TPM Webinar Series

How Can it help you?

TPM Practitioners

TPM Training Hub:

- Trainings from many providers, collected and indexed in one location
- Build TPM skills at your own pace

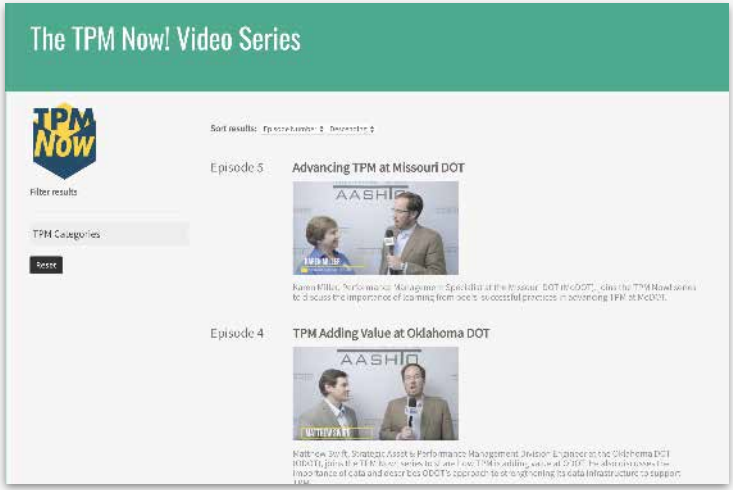


How Can it help you?

TPM Practitioners

TPM Now! Video Series:

- Reflections from TPM practitioners and leaders
- Insightful, conversational, accessible

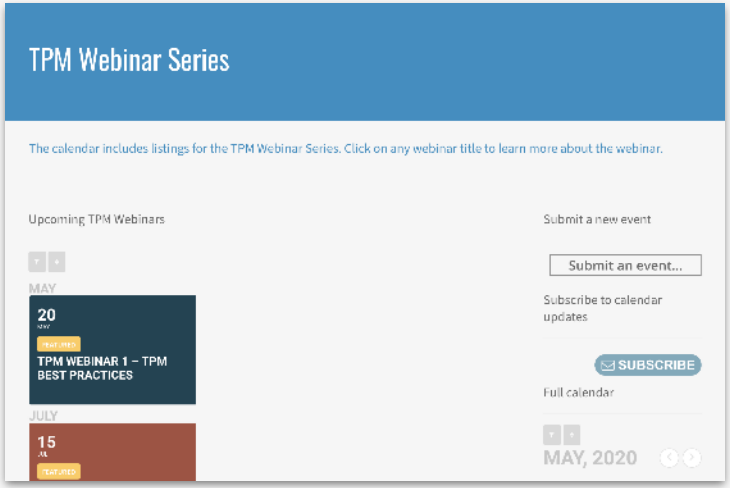


How Can it help you?

TPM Practitioners

TPM Webinar Series:

- Highlight noteworthy practices and insights
- Introductions to key TPM topics

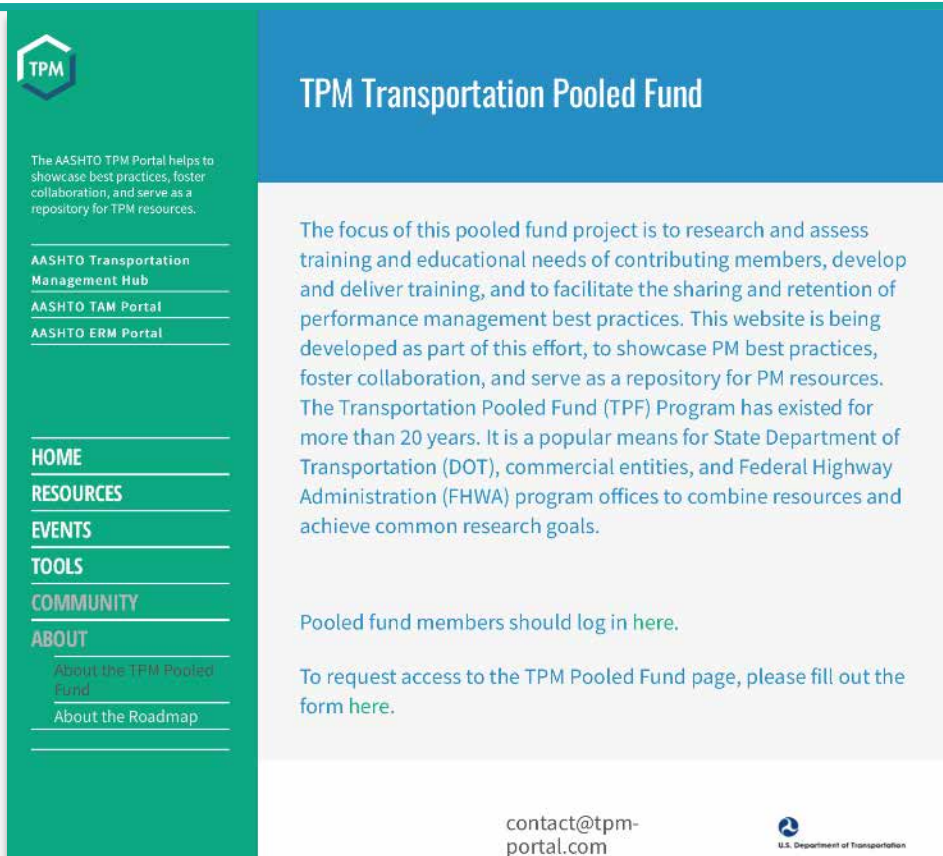


How Can it help you?

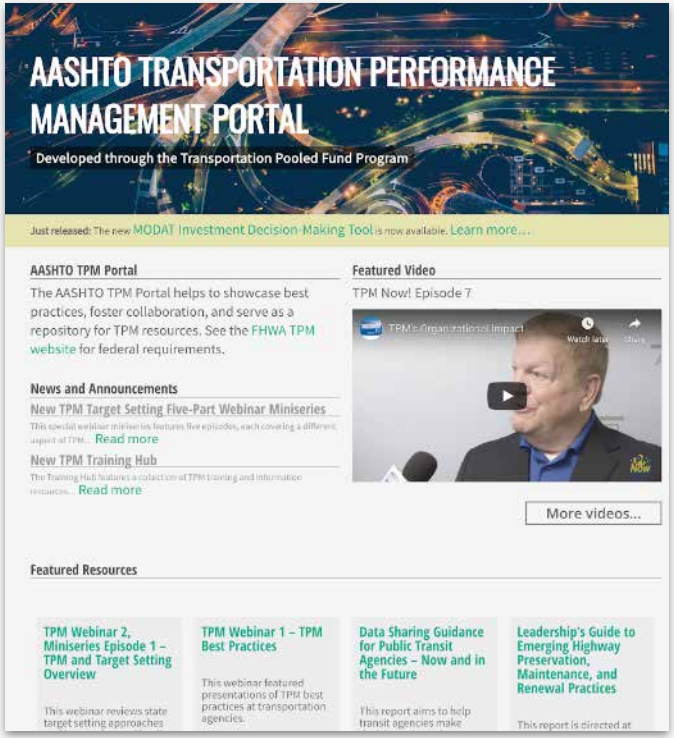
TPM Pooled Fund

TPM Pooled Fund Page:

- Password-protected TPM Pooled Fund page



TPM Portal Demo



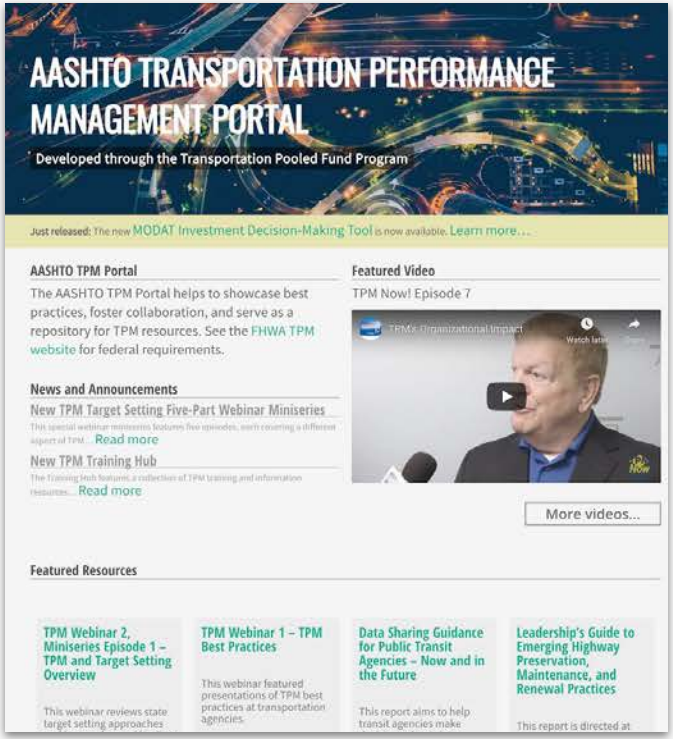
What's Next?

Structure of the Portal

- Designed to help practitioners find what they need quickly
- The portal is organized into the following menu items:
  - Homepage
  - Resources
  - Events
  - Tools
  - Community
  - About

The Homepage

- News and Announcements
- Featured Resources
- Featured Events
- A Calendar of Upcoming Events
- Option to Subscribe for Portal Updates

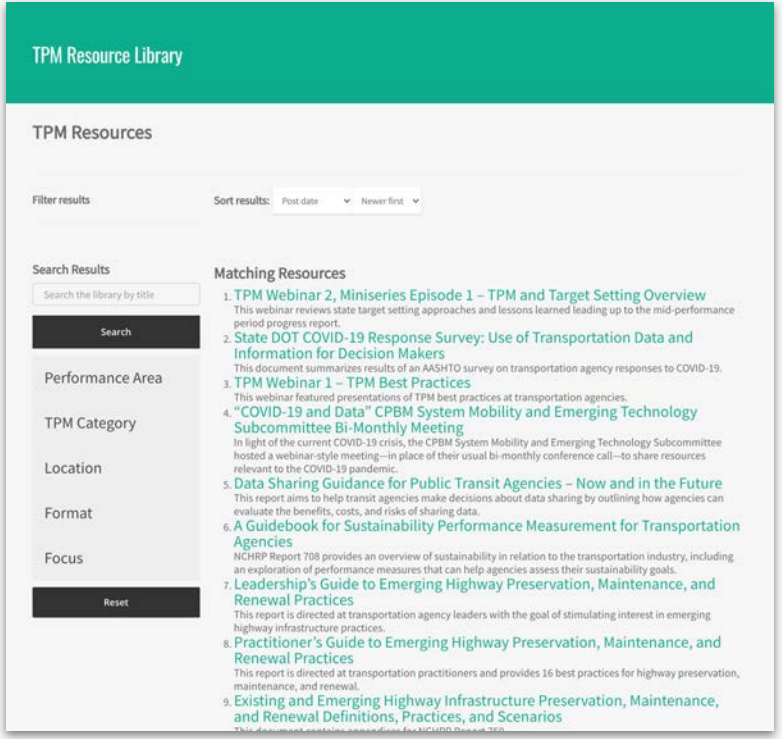


Resources

- Resource Library
- Training and Informational Resource Hub
- TPM Now! Videos
- Legislative and Regulatory Requirements
- Transportation Agency Examples
- TPM Research Roadmap

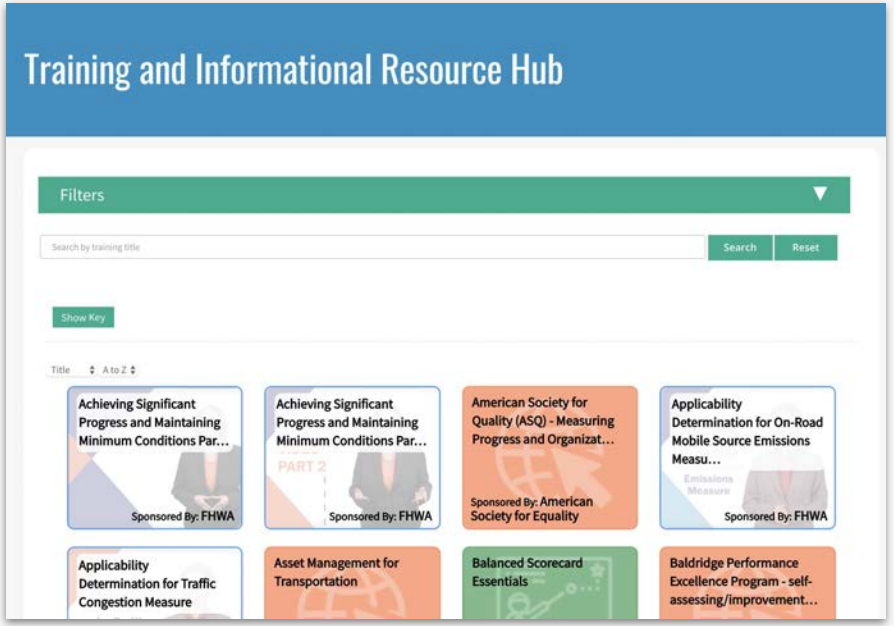
Library

- Sort, Search, and Filter through the entire TPM Portal resource repository
- Resources can be filtered by:
  - Performance Area
  - TPM Category
  - Location
  - Format
  - Focus



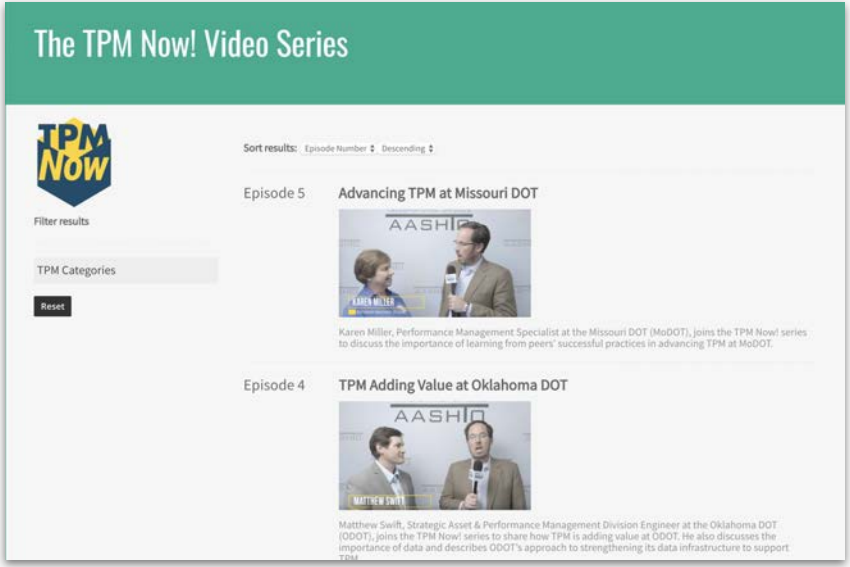
Training Hub

- Sort, Search, and Filter through the best selection of instructor-led training, web-based TPM training and video information



TPM Now! Video Series

- A web video series created to share transportation performance management (TPM) insights and experiences
- Each episode features an interview with a leader in the TPM community



Legislative and Regulatory Requirements

- A page for resources specifically relevant to legislative and regulatory provisions related to TPM

Legislative and Regulatory Resources

This page includes resources addressing legislative and regulatory requirements pertaining to performance management.

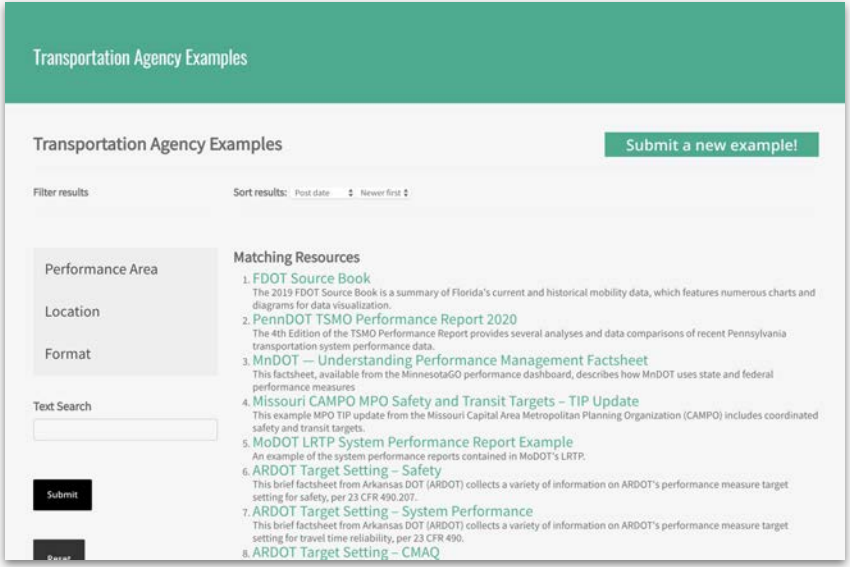
See the FHWA TPM website for federal requirements.

Resources

1. 2019 Transportation Performance Management Peer Exchange – Summary Report
   TPM Pooled Fund / 2020
2. Performance Management Reporting Peer Exchange Final Report – NCHRP Project 20-24 Task 124
   TRB / 20-24 Task 124 / 2019
3. Missouri CAMPO MPO Safety and Transit Targets – TIP Update
   MoDOT / 2018
4. Ohio DOT: Making the Pavement Management System Work to Support Asset Management – 2018 San Diego TRB TAM Conference
   / 2018
5. NYSDOT's System of Engagement – 2018 San Diego TRB TAM Conference
   / 2018
6. Rural County Pavement Preservation Planning in Minnesota – 2018 San Diego TRB TAM Conference
   / 2018
7. Implementation of a MODA Approach for Prioritization of Asset Investments for Caltrans – 2018 San Diego TRB TAM Conference
   / 2018
8. Asset Management Coordination in North Central Texas – 2018 San Diego TRB TAM Conference
   / 2018
9. Hawaii DOT: "Good Roads Cost Less" – 2018 San Diego TRB TAM Conference
   / 2018

Transportation Agency Examples

- Curated agency examples
- Focuses primarily on TPM documents sourced from
  - State DOTs
  - MPOs
  - and transit agencies



TPM Research Roadmap

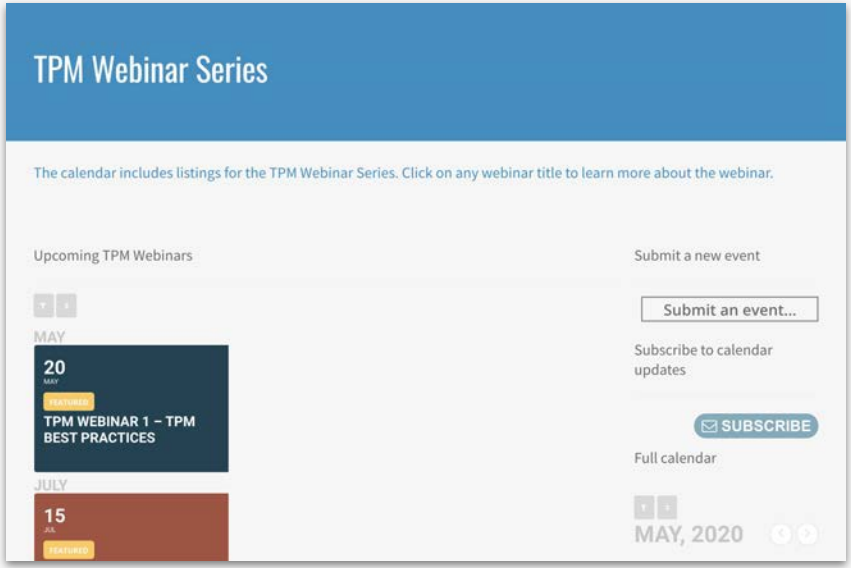
- The roadmap seeks to help TPM practitioners:
  - See research needs
  - Prioritize candidate projects
  - And see a complete view of active projects

Events

- Navigate through the portal's collection of meetings, conferences, important deadlines, virtual meetings, webinars, and more
- Filter the calendar by event formats or event topics
- Look ahead to future months or event to past months with our **Full Calendar** at the bottom of the main Events page

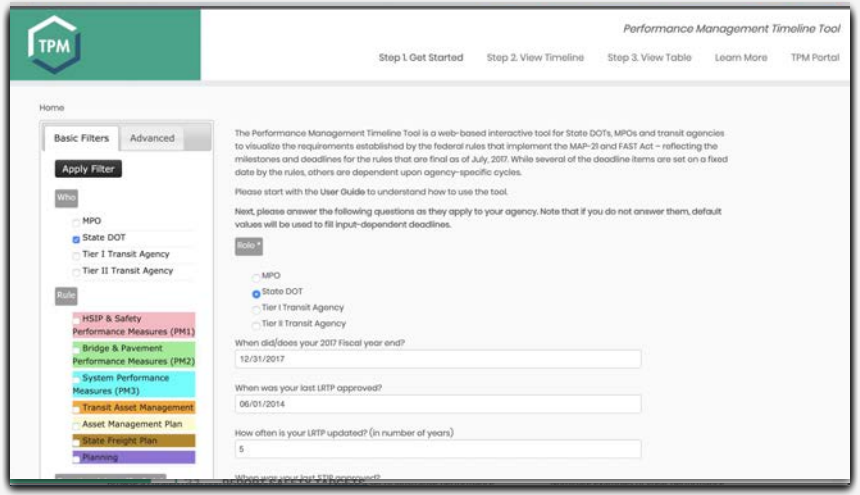
TPM Webinar Series

- This events page features episodes of the TPM Webinar Series
- Register for upcoming webinars
- Download slides or video from past TPM webinars



Tools

- MODAT
- TPM Toolbox
- Communicating Performance
- TPM Benchmarking Tool
- Calendar of TPM Deadlines
- TPM Corridor Tool
- TPM Timeline Tool



Community

- AASHTO CPBM Home, Subcommittee, and Work Group Pages
- TPM Pooled Fund (Member-only) page
- A link to the FHWA TPM Homepage
- Transportation Lean Forum Homepage
- Links to the TRB ABC10, ABC20, ABC30, and ABC40 pages

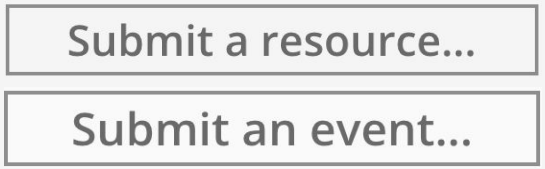
About

- Allows you to learn more about:
  - the TPM Pooled Fund
  - And the Research Roadmap

Interacting and Adding to the Portal

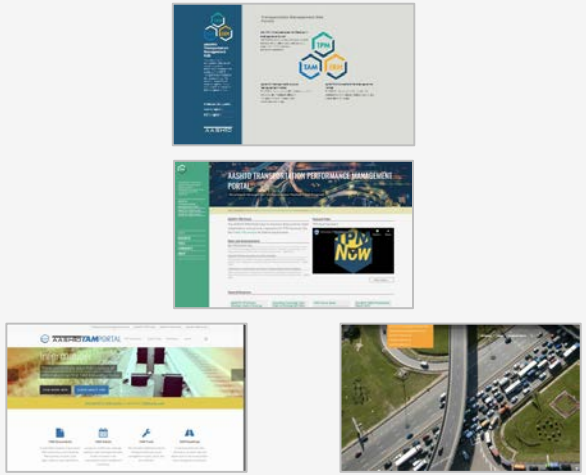
- To further the objectives of the portal (showcasing best practices, fostering collaboration, and holding a repository of TPM resources), we encourage you to submit candidate resources or events to the TPM Portal

- You'll find these buttons posted all over the site



AASHTO Web Sites

Current



Independent Sites. Manually linked. Custom Software.

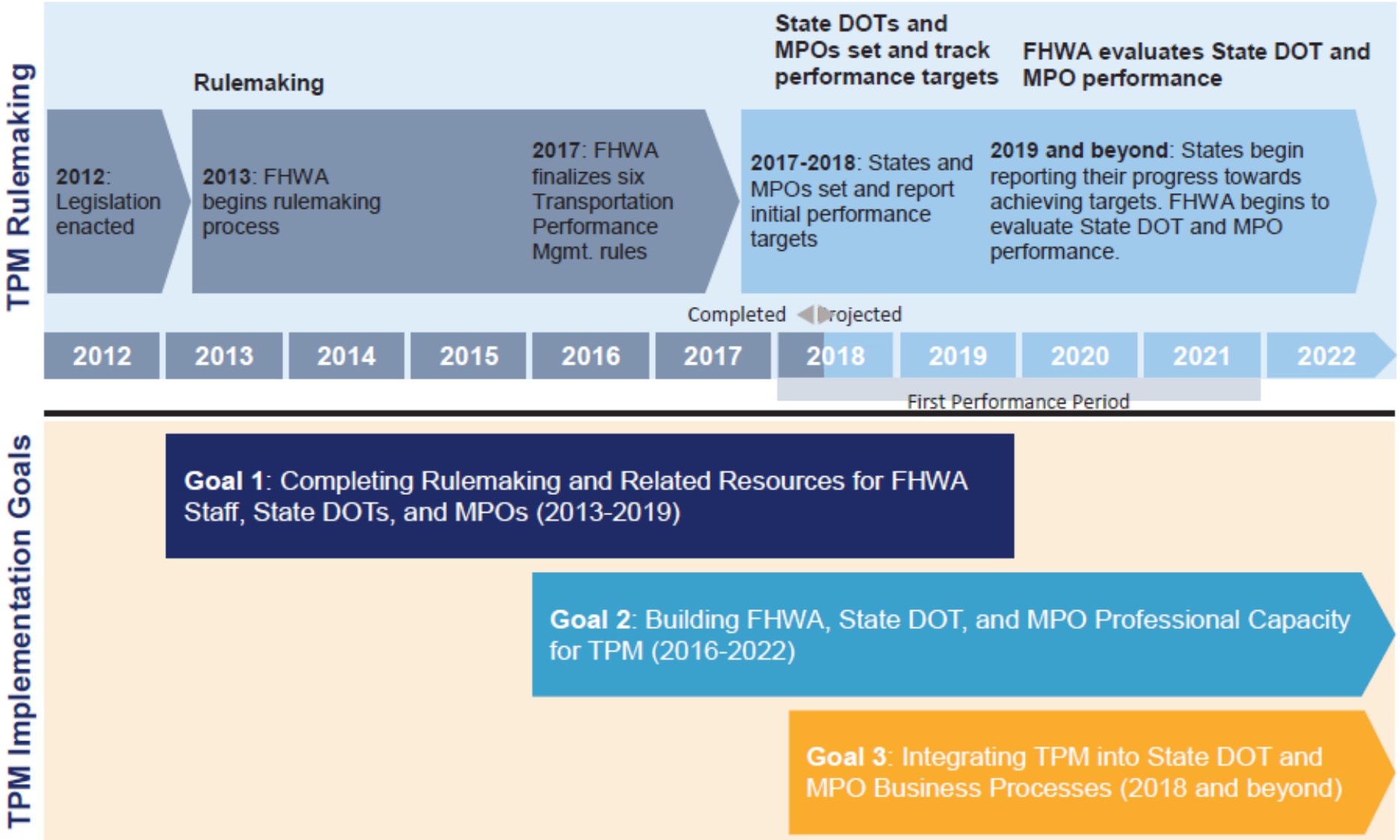
Connected

Networked Sites. Automatically linked. Common Software.

Challenges in Measuring Performance: Safety Case Study

Matthew Hardy, Ph.D.
Program Director for Planning and Performance Management
AASHTO

Performance Management Journey



Performance Management Paradigm

1. Establishing Targets
   - Aggressive versus Achievable Targets
   - Maximizing Performance versus Paying the Game
2. Communication
   - Telling the Story
   - Creating transparency regardless of the results
3. Balance
   - Federal—State—Local Measures
   - Not “versus” but “and”
4. Accountability
   - Data-Driven Decisions

PM1: Safety Performance Measures

- Transportation Performance Management (TPM) program
- Safety Performance Management (Safety PM)
- Safety PM Final Rule - 23 CFR 924; 23 CFR 490 (Subpart A & B)
  1. Number of fatalities
  2. Fatalities per 100 million vehicle miles traveled
  3. Number of serious injuries
  4. Serious injuries per 100 million vehicle miles traveled
  5. Number of non-motorized fatalities and non-motorized serious injuries

PM Safety Assessments

- FHWA Significant Progress Assessment
  - Did a state meet their targets?
    - Actual Performance is better than the Target; or
    - Actual Performance is better than the Baseline
  - Did a state meet their targets for 4 our of the 5 performance measures?
    - Yes à State DOT Made Significant Progress
    - No à State DOT Did Not Make Significant Progress
- Letters sent to each State DOT on Friday, April 24, 2020
  - 27 State DOTs Made Significant Progress
  - 25 State DOTs Did Not Make Significant Progress

If a State *did not make significant progress*

1. Use obligation authority equal to the HSIP apportionment for the year prior to the year for which the targets were not met or significant progress was not made, only for HSIP projects; and
2. Submit an annual HSIP Implementation Plan that describes actions the State will take to meet or make significant progress toward meeting its subsequent targets. Under 23 U.S.C. 148(i), the HSIP Implementation Plan must:
   - Identify roadway features that constitute a hazard to road users;
   - Identify highway safety improvement projects on the basis of crash experience, crash potential, or other data supported means;
   - Describe how HSIP funds will be allocated, including projects, activities, and strategies to be implemented;
   - Describe how the proposed projects, activities, and strategies funded under the State HSIP will allow the State to make progress toward achieving the safety performance targets; and
   - Describe the actions the State will undertake to achieve the performance targets.

Preliminary Analysis

- How did State DOTs meet significant progress?
  - 16 states met or exceeded their targets for at least 4 of the 5 performance measures.
  - 36 states needed to use the Baseline Assessment as an alternative to assess meeting significant progress.
    - Of the 36, only 11 had the Baseline Assessment help them in meeting significant progress.

Conclusions

1. 40% of the states needed the Baseline Assessment to ensure they made significant progress
2. Baseline Assessment is an important backstop to enable State DOTs to establish more aggressive targets.

Performance Measurement Achievement

Met Targets

- Fatalities: 22
- Fatality Rate: 23
- Serious Injuries: 31
- Serious Injury Rate: 33
- Non-Motorized: 23

Met Targets or Baseline

- Fatalities: 29
- Fatality Rate: 32
- Serious Injuries: 43
- Serious Injury Rate: 47
- Non-Motorized: 28

Other Questions to be Addressed

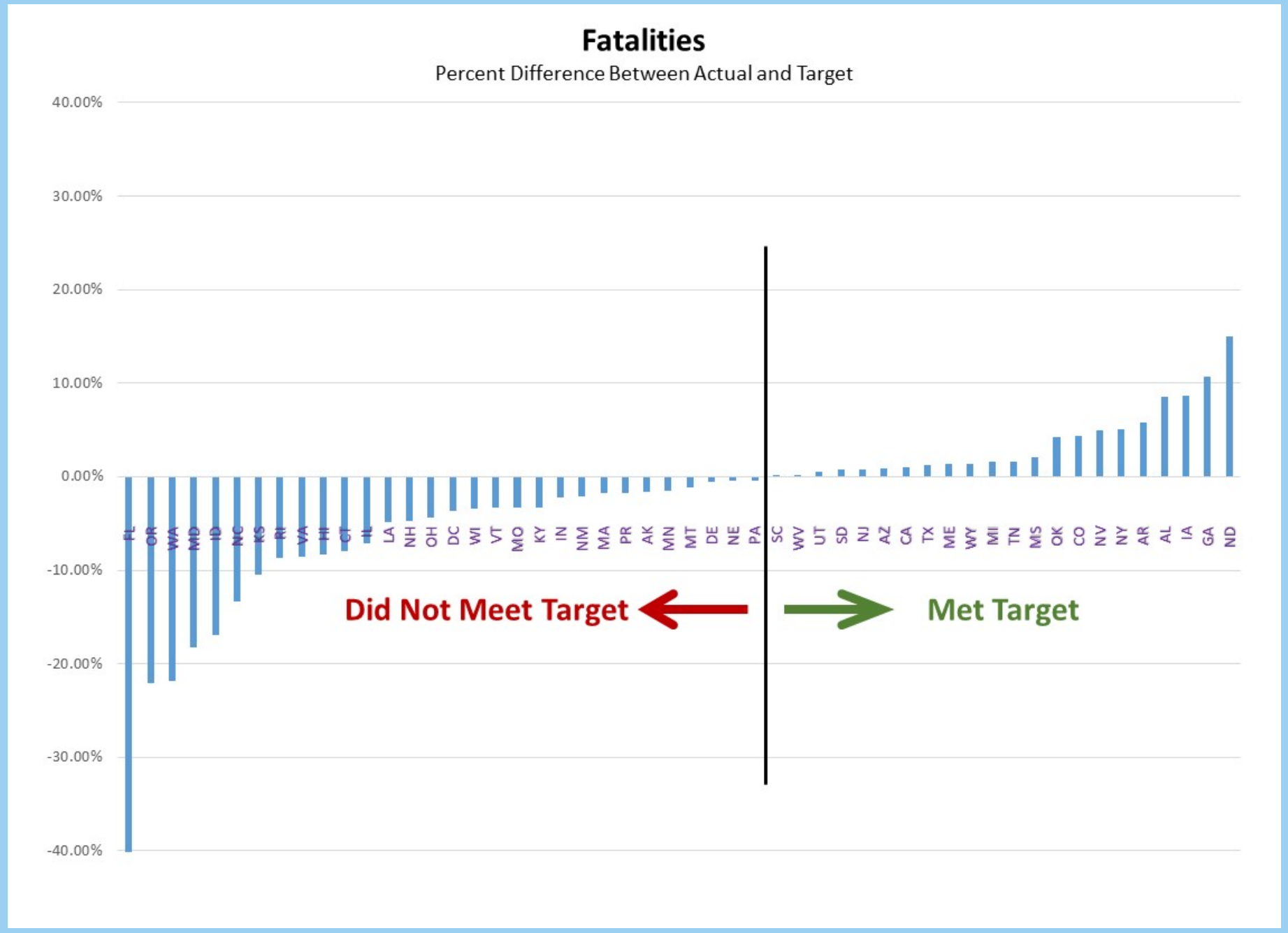
- ü How far off were the targets from the actual numbers?
- ü What is the impact on the 25 states that did not make significant progress?
- ü How many states' targets showed improvement.
- q What kind of targets did states establish?
- q What is the correlation between target setting technique and making significant progress?
- q What was the impact of Toward Zero Deaths goals on target achievement and making significant process?
- q Are there other techniques that could be used to determine making significant progress?

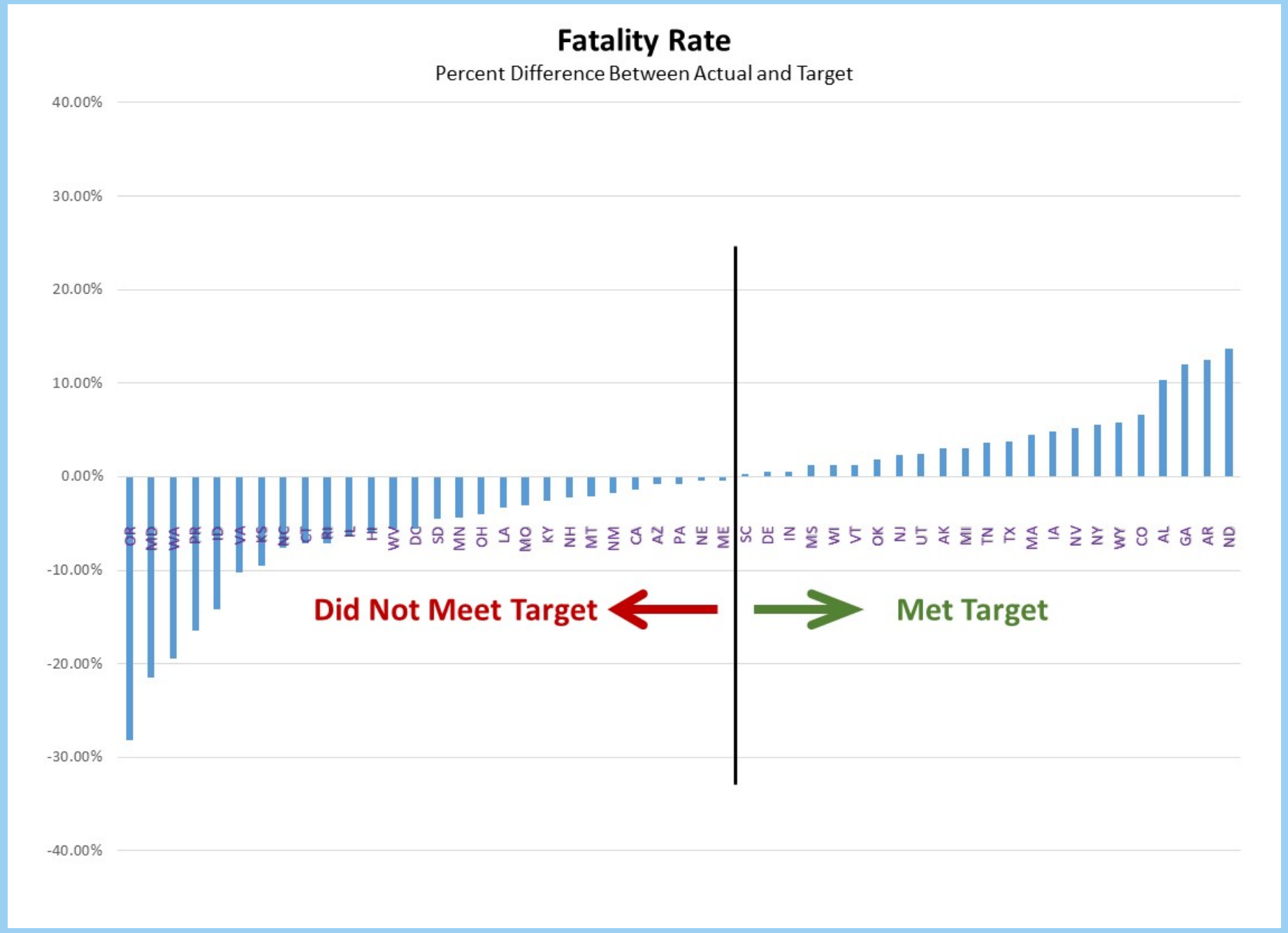
Difference Between Actual and Target

- **Aggressive Targets**
  - Florida set the most aggressive targets (0 deaths or serious injuries).
  - No other state set targets this aggressive (or aspirational).
  - They did better than the baseline on only 2 of the 5 performance measures.
- **Oklahoma had the highest difference between their target and the actual number**
  - Serious Injuries, Serious Injury Rates, and Non-Motorized saw a difference upwards of 300%
- **Excluding Florida and Oklahoma, these are how much, on average, a state overestimated (met their targets) or underestimated (did not meet their target)**

- **Fatality**
  - Overestimate: 3.67%
  - Underestimate: -6.47%
- **Fatality Rate**
  - Overestimate: 4.62%
  - Underestimate: -7.01%
- **Serious Injuries**
  - Overestimate: 10.15%
  - Underestimate: -7.10%
- **Serious Injury Rate**
  - Overestimate: 8.85%
  - Underestimate: -7.38%
- **Non-Motorized**
  - Overestimate: 6.91%
  - Underestimate: -7.43%

Conclusions à Vast majority of the State DOTs set targets that were close to the actual. The difference between meeting a target and not meeting a target was sometimes less than 0.03%


Fatalities
Percent Difference Between Actual and Target
40.00%
30.00%
20.00%
10.00%
0.00%
-10.00%
-20.00%
-30.00%
-40.00%
FL OR WA MD ID NC KS RI VA HI CT IL LA NH OH DC WI VT MO KY IN NM MA PR AK MN MT DE NE PA SC WV UT SD NJ AZ CA TX ME WY MI TN MS OK CO NV NY AR AL IA GA ND
Did Not Meet Target
Met Target


Fatality Rate
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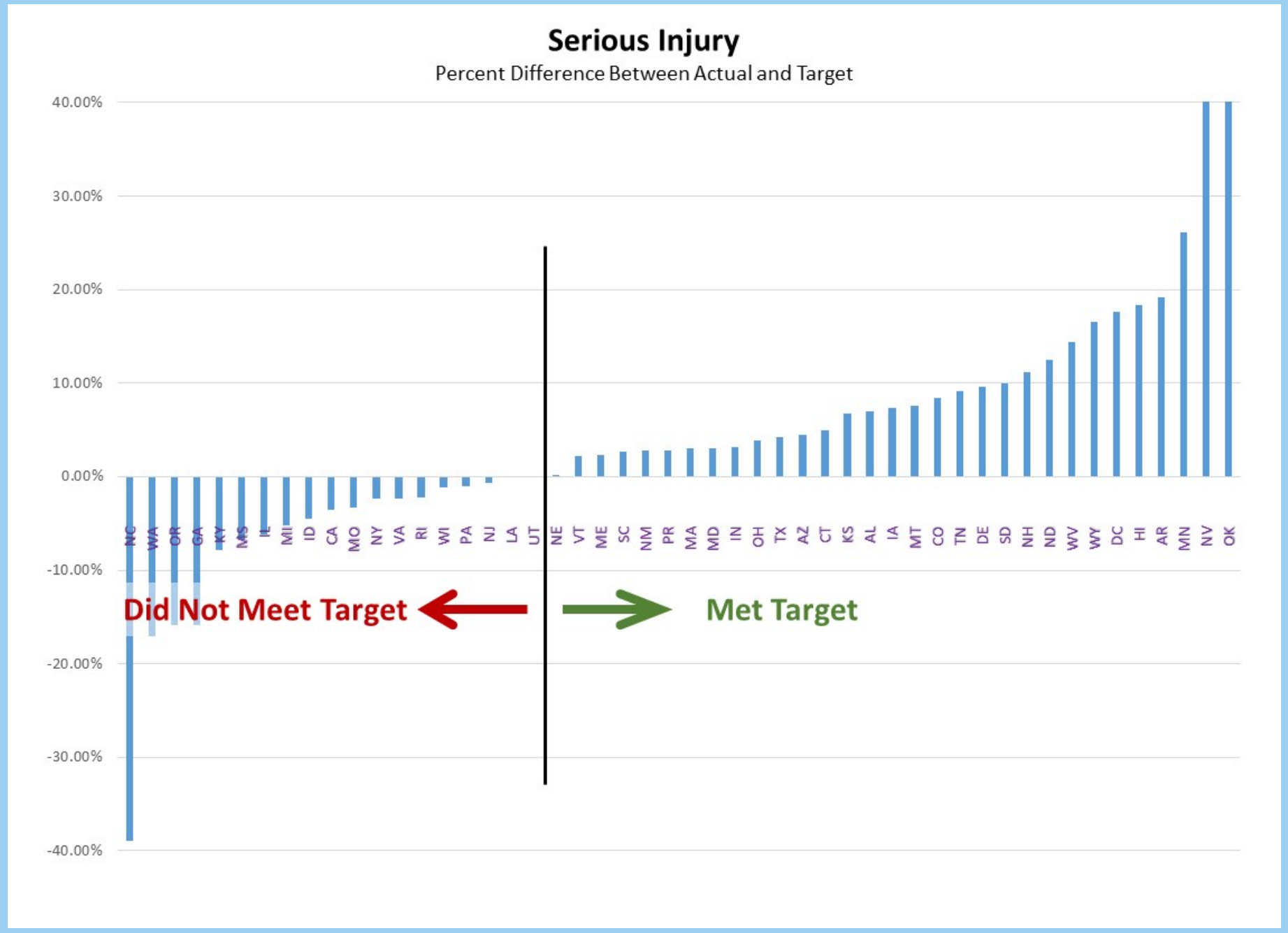
Did Not Meet Target
Met Target


Serious Injury
Percent Difference Between Actual and Target
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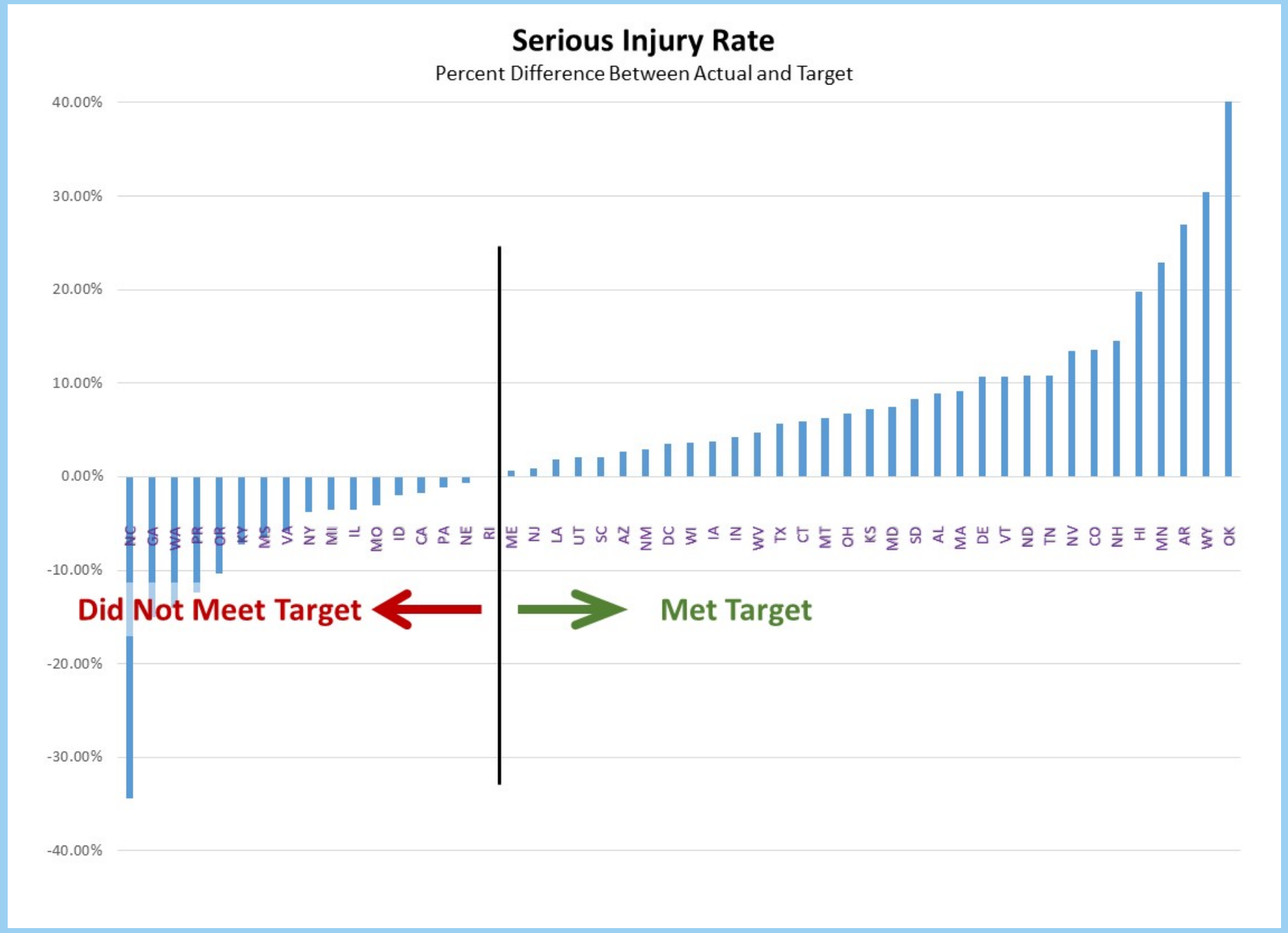
NC WA OR GA KY MS IL MI ID CA MO NY VA RI WI PA NJ LA UT NE VT ME SC NM PR MA MD IN OH TX AZ CT KS AL IA MT CO TN DE SD NH ND WV WY DC HI AR MN NV OK
Did Not Meet Target
Met Target


Serious Injury Rate
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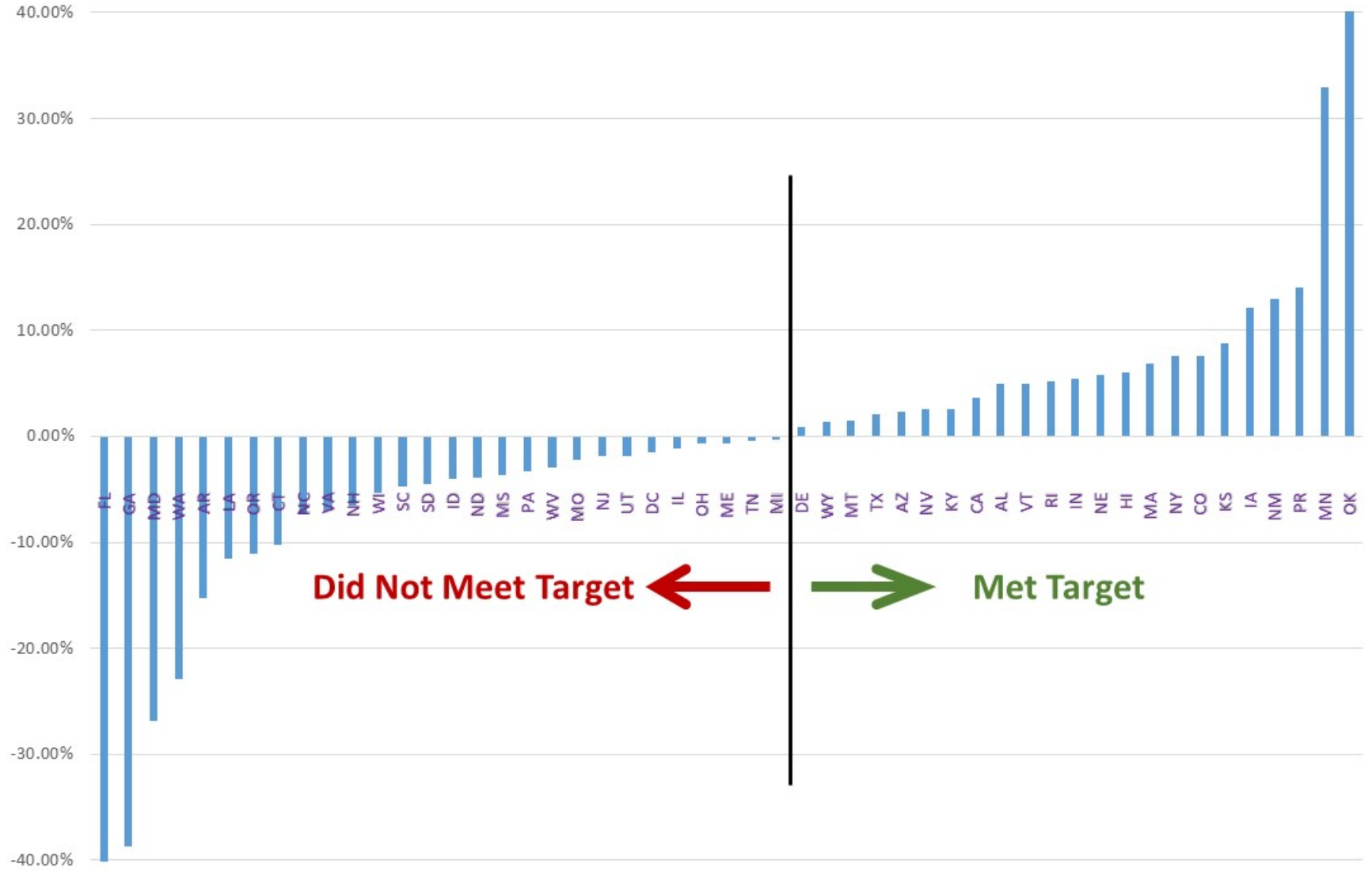
NC GA WA PR OR KY MS VA NY MI IL MO ID CA PA NE RI ME NJ LA UT SC AZ NM DC WI IA IN WV TX CT MT OH KS MD SD AL MA DE VT ND TN NV CO NH HI MN AR WY OK
Did Not Meet Target
Met Target

Non-Motorized Fatalities

Percent Difference Between Actual and Target



Impact on State DOTs

Question: Asked the 25 State DOTs who did not make significant progress…

1. Do you anticipate the restriction in obligation authority as a barrier to implementing your safety program?
   - General Response—No. Most already fully obligate all HSIP funding on safety projects
2. Does your state have concerns with the HSIP Implementation Plan reporting requirements?
   - Mixed response and most State DOTs do not see this as a major hurdle.
   - But, given the current COVID-19 pandemic and this being a new requirement, flexibility in terms of the due date would be welcome.
   - Some question the value of doing the plan given all of the other safety planning requirements. What is the value added of doing the HSIP Implementation Plan?

…Discussion…
Performance Management Paradigm

1. Why ***establish targets***?
   - Aggressive versus Achievable Targets
   - Maximizing Performance versus Paying the Game
2. Who should do the ***communications***?
   - Telling the Story
   - Creating transparency regardless of the results
3. How do we create the right **balance**?
   - Federal—State—Local Measures
   - Not “versus” but “and”
4. How do achieve ***accountability***?
   - Data-Driven Decisions

State Performance Dashboard - Virginia

Highway Safety

775.2

Number of Fatalities
Five-year average

Learn more about Highway Safety

Highway Infrastructure Condition

33.6%

Bridges in Good Condition
National Highway System

Learn more about Highway Infrastructure Condition

Highway Reliability

1.48

Truck Travel Time Reliability Index
Interstate Highways

Emissions Reductions

5.369

NOx Emissions (kg/day) Reduced
through CMAQ projects, 4-yr cumulative

Email Notification

Sign up to receive general notices on TPM

Enter your E-mail Submit

Events

- Webinar: Target Setting for System Performance Measures
  August 12, 2020
- View all Upcoming Events

Related Links

- TPM Contacts

Contact

- **Susanna Reck**
  Office of Stewardship, Oversight and Management
  202-366-1548
  E-mail Susanna

Transportation Comparative

Benchmarking Platform

ben(t)SHmärk

The ongoing process of comparing outcomes and practices to those of similar organizations, with the intention of continuously improving quality and performance.

This platform is intended to facilitate continuous benchmarking among state DOTs. Here, transportation practitioners can find appropriate peers, compare performance across a number of measures, and most importantly, connect with other practitioners to discover what works for performance improvement. Register for full site access, or browse publicly available performance and improvement information.

Find Peers

With the Peer Selection tool you can find agencies like you. Use the predefined peer grouping for your agency, or select the characteristics most important to you to create custom.

Compare Performance

Compare performance over time and across agencies with a number of chart options. Or, form a benchmarking network to compare performance using custom measures.

Learn & Improve

Users registered with a Department of Transportation email address can share successful practices in a particular performance area, or ask other high-performing agencies their secrets using Noteworthy Practice Narratives.

Why Benchmark?

Transportation system performance involves a diverse set of agencies that operate at all levels of government; with varied spans of responsibilities across transportation modes; and within the context of different laws, regulations, and public priorities. These agencies increasingly are pressed to publicly report statistics on performance of the systems they manage, but there are very few commonly applicable definitions, criteria, or standards for how system performance is to be measured. Benchmarking—comparing one's performance with that of carefully selected peers—uses appropriate comparisons to assist in identifying desirable levels of performance, and perhaps more importantly, learning how to achieve them.

"The AASHTO community is more ready than it's ever been to do

Contact

Matt Hardy

202-624-3625

mhardy@aashto.org

Today's Panelists

#TRBWebinar

Perry Lubin, *Spy Pond Partners, LLC*

Moderator: Steve Guenther, *Caltrans*

Christos Xenophontos, *Rhode Island DOT*

Matthew Hardy, *AASHTO*

TPM Portal

Thank you

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Steve Guenther steve.guenther@dot.ca.gov

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- May provide a path to Standing Committee membership

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- Recognize, honor, and celebrate the TRB community; and
- Highlight 100 years of accomplishments.

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#TRB100

MOVING IDEAS: ADVANCING SOCIETY—100 YEARS OF TRANSPORTATION RESEARCH