CPBM/TPM Pooled Fund
Quarterly Web Call

June 4, 2020

Agenda

2:00 **Welcome.** Tim Henkel, Minnesota DOT, Christos Xenophontos, Rhode Island DOT

2:10 **FHWA Update.** Susanna Reck, FHWA

2:15 **AASHTO Update.** Matt Hardy, AASHTO

- **PM 1 Safety Performance Measures Analysis and Next Steps**

2:25 **CPBM Business.**

- **Overview of CPBM.** Tim Henkel, Minnesota DOT
- **CPBM Subcommittee Updates**
  - **Asset Management.** Matt Haubrich and Anne-Marie McDonnell
  - **Organizational Management.** Deanna Belden and Charlie Purcell
  - **Risk Management.** Jean Wallace and Nathan Lee
  - **System Mobility and Emerging Technology.** Daniela Bremmer and Jay Styles
- **Work Group Updates**
  - **Policy and Rulemaking.** Lynn Zanto and Paul Degges
  - **Professional Development and Technical Services.** John Selmer
  - **Research.** Tammy Haas

Agenda

3:05 **2020 Summer Meeting.** Matt Hardy, AASHTO

3:10 **TPM Pooled Fund Business.**

- **Pooled Fund Business.** Christos Xenophontos, Rhode Island DOT
- **Training and Informational Resource Hub.** Perry Lubin, Spy Pond Partners
- **MODA TC3 Training Introduction.** Bill Robert, Spy Pond Partners and Kevin Monaghan, E-Content

3:55 **Wrap-Up.** Matt Hardy, AASHTO

FHWA TPM Capacity-Building Update

AASHTO Update

American Association of State Highway and Transportation Officials

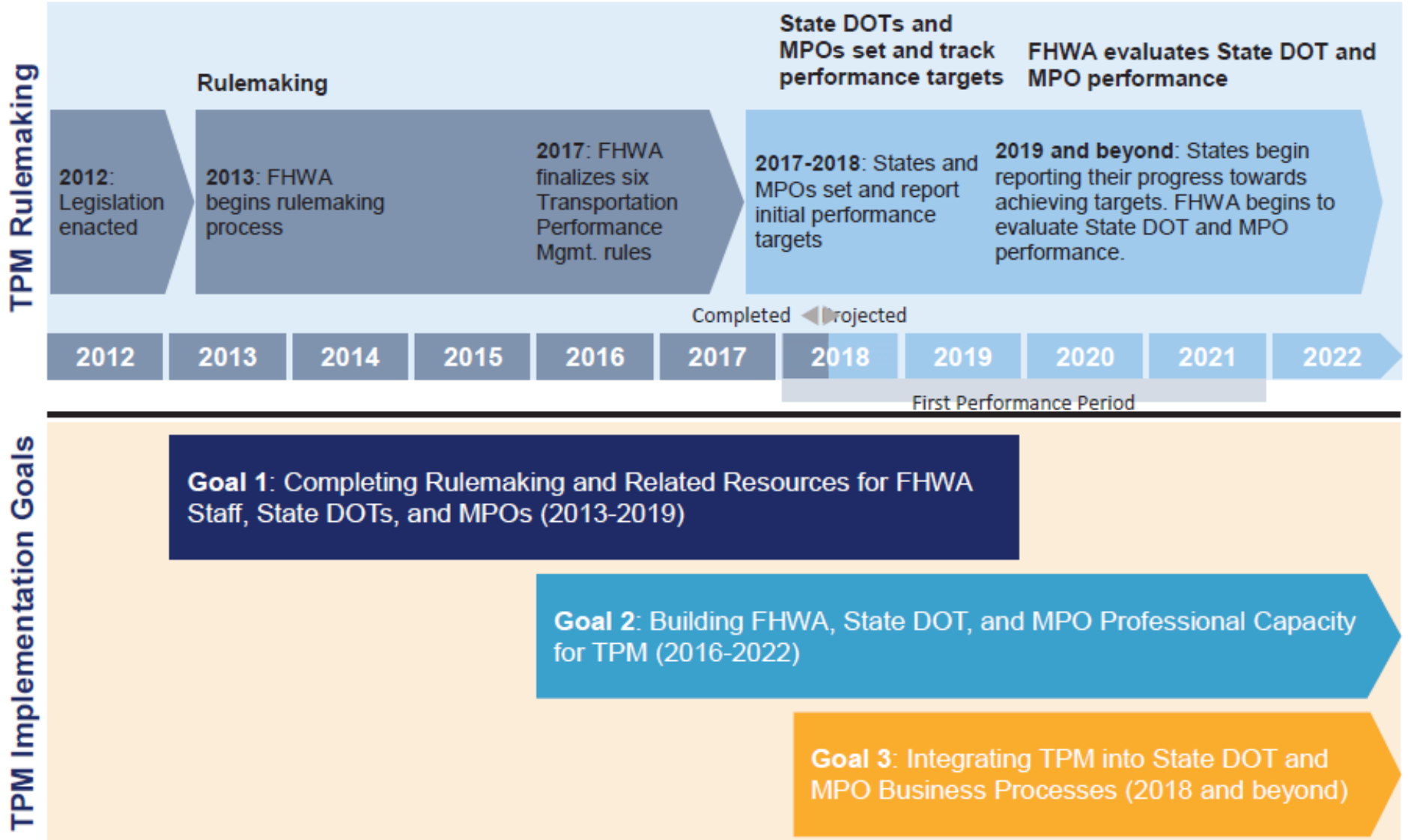
AASHTO

State Perspectives on Safety Performance Measure Assessment

Tim Henkel, Minnesota DOT
Chair of Committee on Performance Based Management

AASHTO

Performance Management Journey



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

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

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 → State DOT Made Significant Progress
    - No → 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

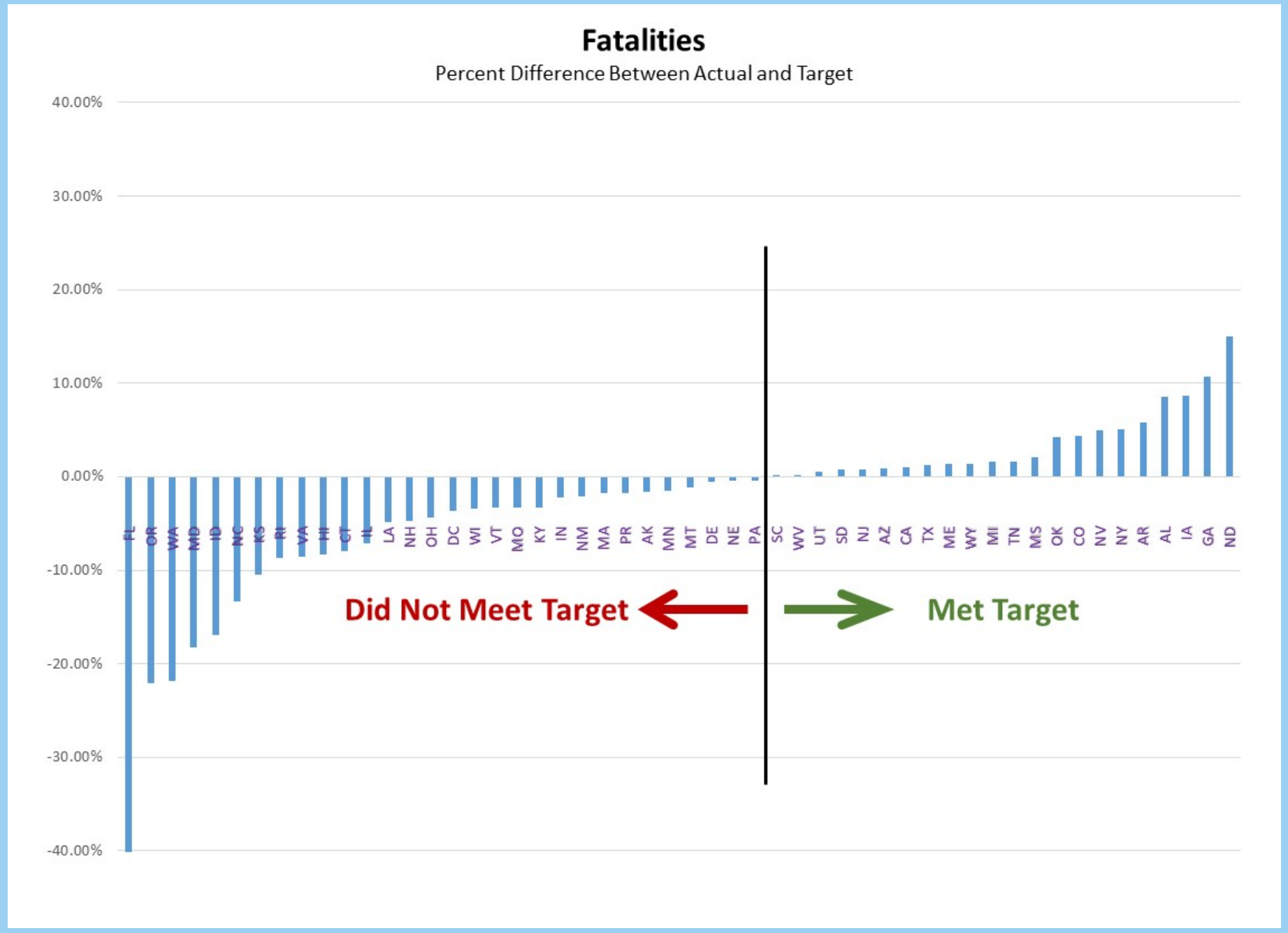
- ✓ How far off were the targets from the actual numbers?
- ✓ What is the impact on the 25 states that did not make significant progress?
- ✓ How many states' targets showed improvement.
- ❑ What kind of targets did states establish?
- ❑ What is the correlation between target setting technique and making significant progress?
- ❑ What was the impact of Toward Zero Deaths goals on target achievement and making significant process?
- ❑ 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→ 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%
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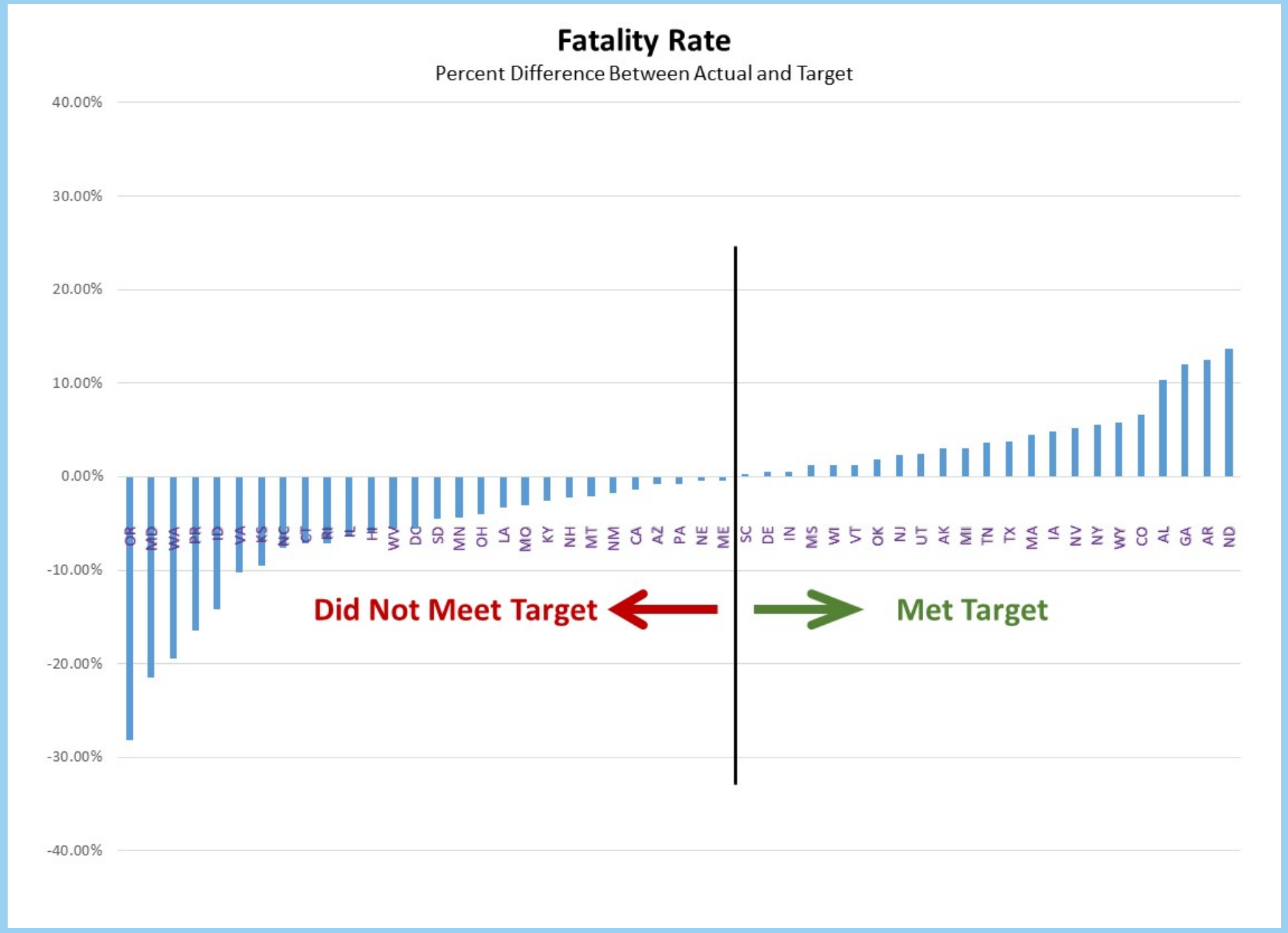
-30.00%
-40.00%
FL OR WA MD ID NC KS RI VA HI CT IL LA NH OH DC WI VT MO KY IN NM MA PR AK MN MT DE NE PA SC WV UT SD NJ AZ CA TX ME WY MI TN MS OK CO NV NY AR AL IA GA ND
Did Not Meet Target
Met Target


Fatality Rate
Percent Difference Between Actual and Target
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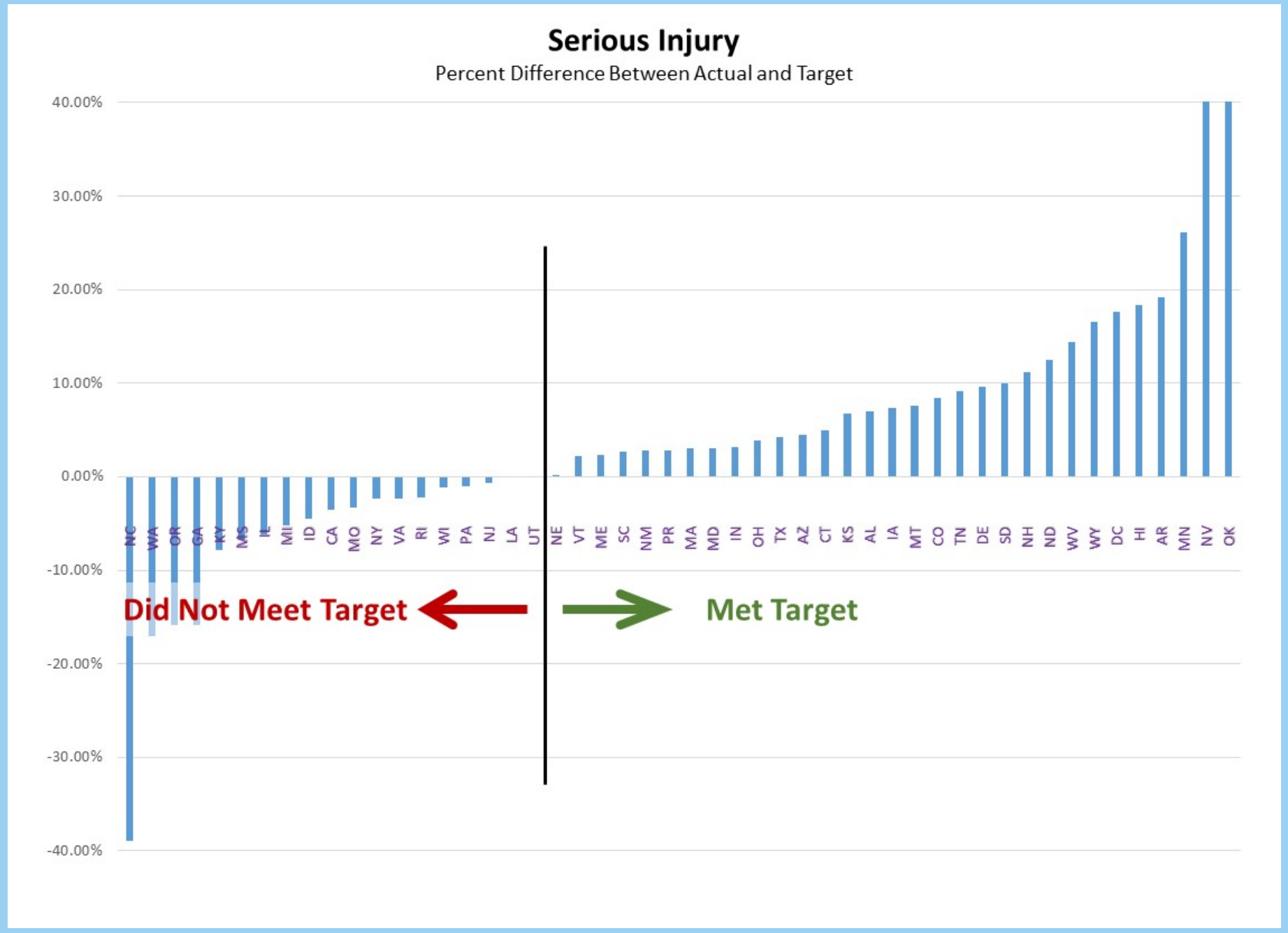
Did Not Meet Target
Met Target


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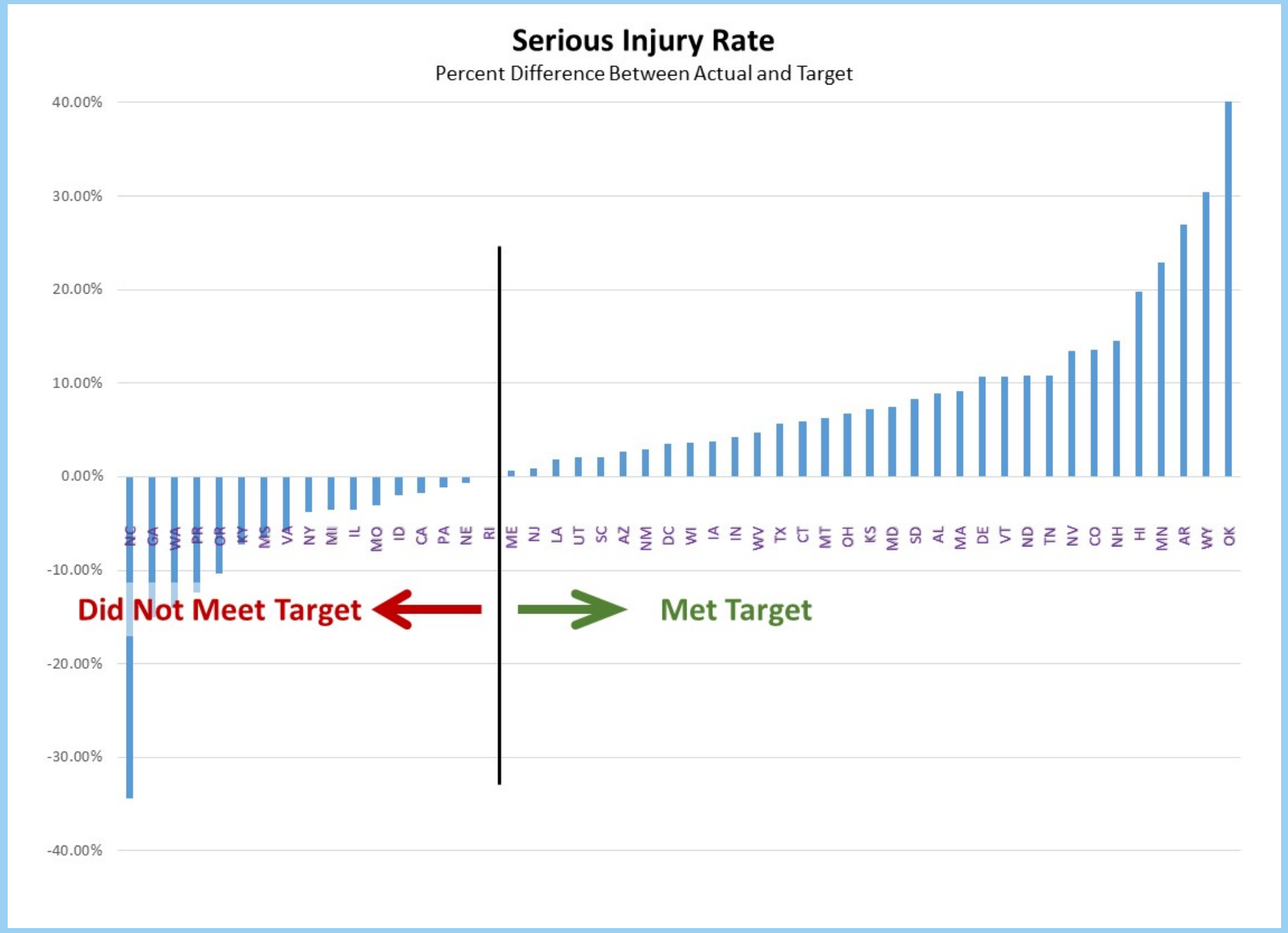
-40.00%
NC WA OR GA KY MS IL MI ID CA MO NY VA RI WI PA NJ LA UT NE VT ME SC NM PR MA MD IN OH TX AZ CT KS AL IA MT CO TN DE SD NH ND WV WY DC HI AR MN NV OK
Did Not Meet Target
Met Target


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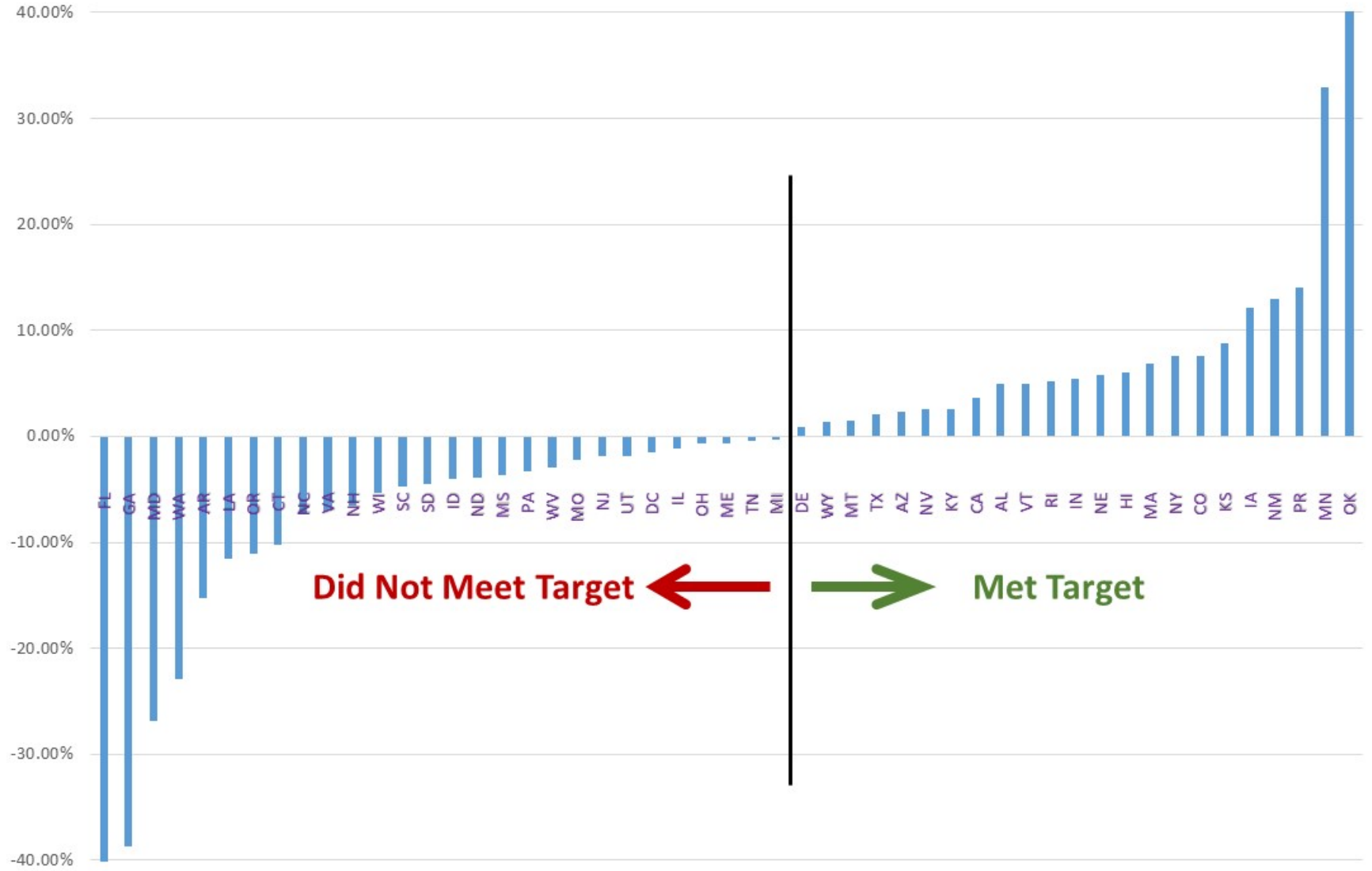
-40.00%
NC GA WA PR OR KY MS VA NY MI IL MO ID CA PA NE RI ME NJ LA UT SC AZ NM DC WI IA IN WV TX CT MT OH KS MD SD AL MA DE VT ND TN NV CO NH HI MN AR WY OK
Did Not Meet Target
Met Target

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?

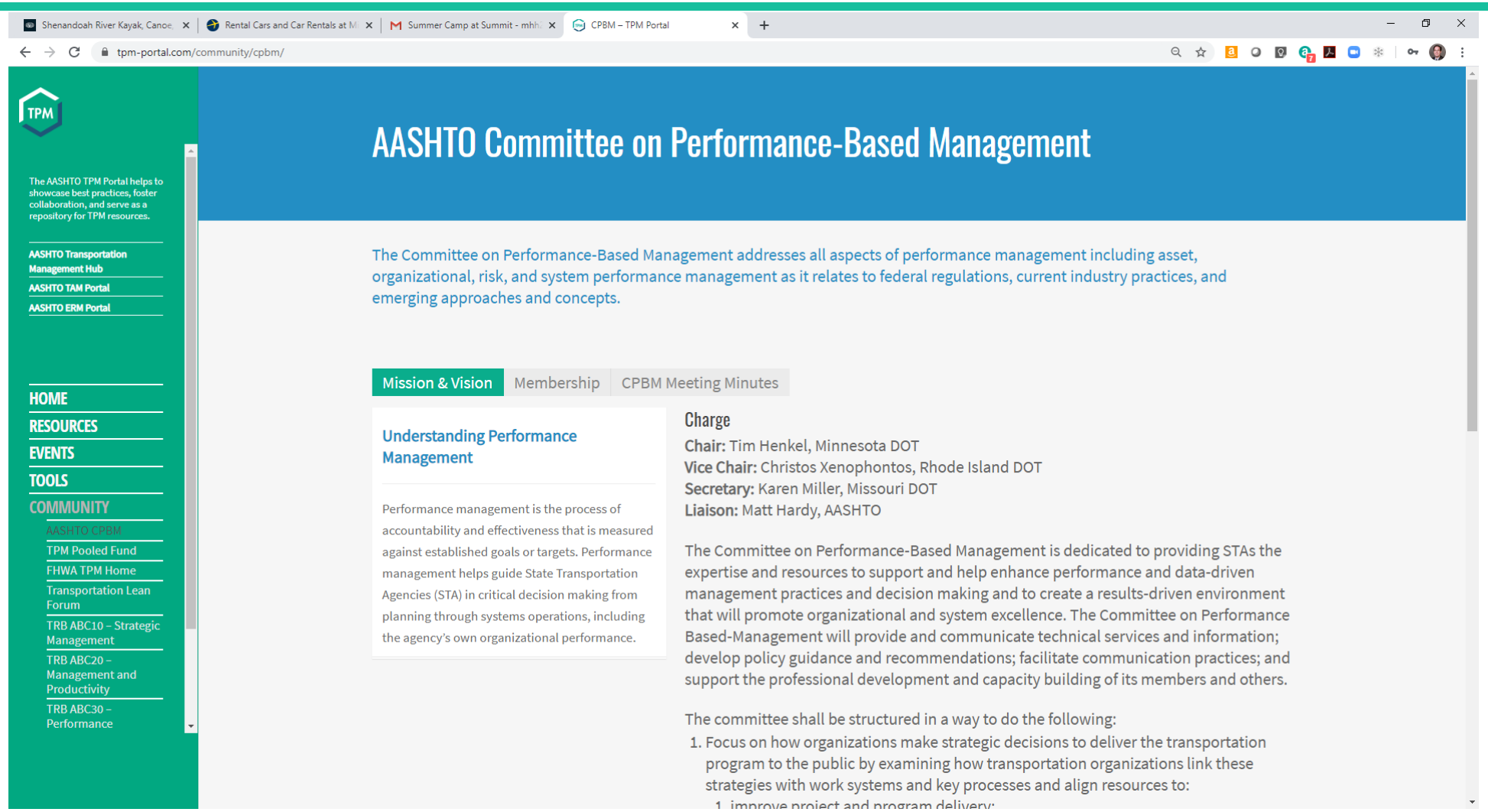
…Discussion…
Performance Management Paradigm

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

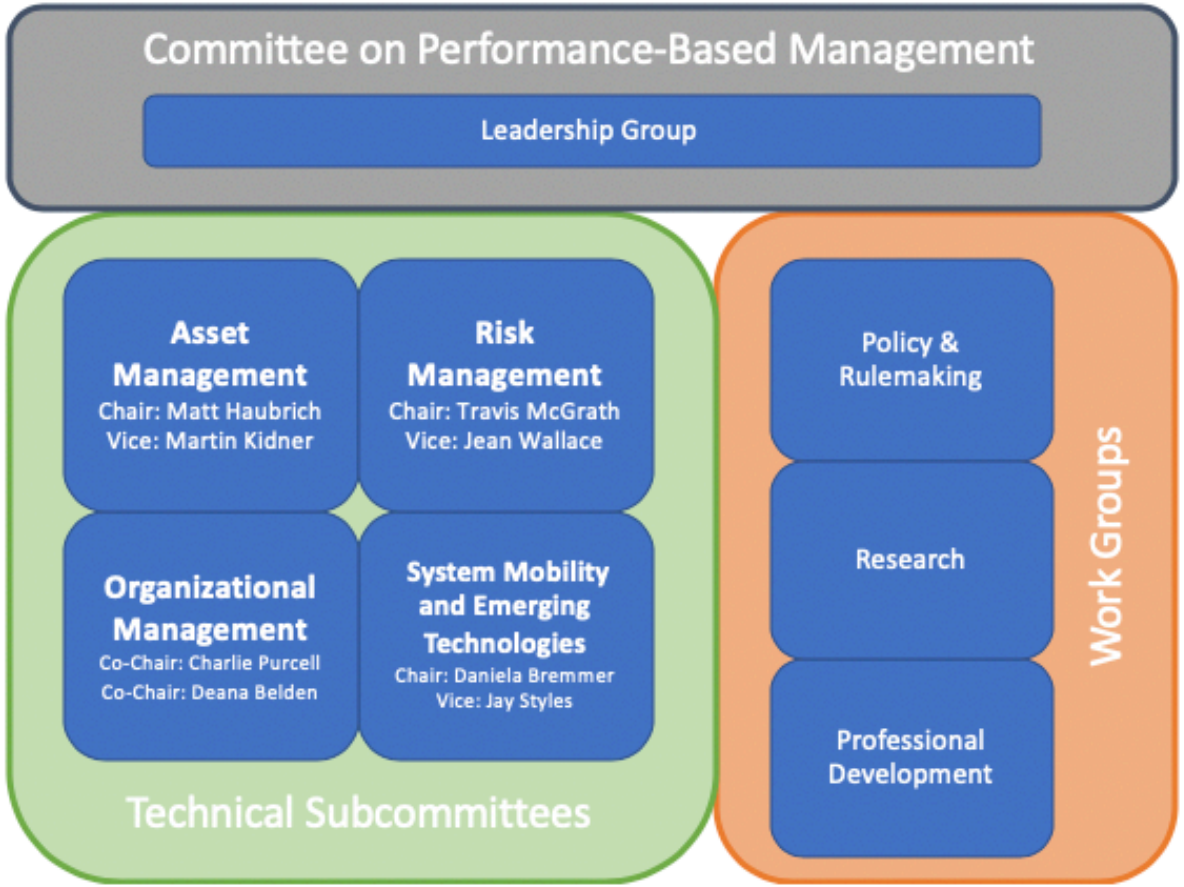
Questions

Tim Henkel
651-366-4829
tim.henkel@state.mn.us

CPBM Business



Structure


Committee on Performance-Based Management
Leadership Group
Asset Management
Chair: Matt Haubrich
Vice: Martin Kidner
Risk Management
Chair: Travis McGrath
Vice: Jean Wallace
Organizational Management
Co-Chair: Charlie Purcell
Co-Chair: Deana Belden
System Mobility and Emerging Technologies
Chair: Daniela Bremmer
Vice: Jay Styles
Technical Subcommittees
Policy & Rulemaking
Research
Professional Development
Work Groups

Leadership

Chair: Tim Henkel, MN

Vice Chair: Christos Xenophontos, RI

Secretary: Karen Miller, MO

Leadership Group

- Comprised of subcommittee chairs and vice-chairs
- Meetings: Fourth Tuesday at 12:30pm
- Complete list of subcommittees, work groups and recurring meetings at: https://www.tpm-portal.com/wp-content/uploads/2020/06/AASHTO-CPBM-Subcommittee-Webinars200603.pdf

Asset Management

- Focused on supporting State DOT needs related to Asset Management.
  - Implementation activities
  - Research
  - Federal requirements
  - Peer community & information sharing
- Monthly telephonic meetings, held jointly with the TRB Asset Management committee.
  - Everyone is welcome to attend and encouraged to participate
- AASHTO TAM Portal: https://www.tam-portal.com/

Asset Management

Recent significant milestones

- Approval of the 3rd edition of the AASHTO TAM Guide
  - Web-based version available! (https://www.tamguide.com/)
- Completion of NCHRP Report 921: Case Studies in Cross-Asset, Multi Objective Resource Allocation
  - MODAT tool for trade-off analysis (https://multiobjective.org/)
- NCHRP Synthesis 556: *Asset Management Approaches to Identifying and Evaluating Assets Damaged Due to Emergency Events*
- NCHRP Report 898*: Guide for Financial Planning and Management in Support of Transportation Asset Management*

Asset Management

Mark your calendars!

- Summer 2020 Mega-Meeting (virtual)
  - July 13 – 15, 11:00am -1:00pm & 2:00pm -4:00pm EDT daily

    http://www.tam-portal.com/2020MegaMeeting for more information
- TRB 13th National TAM Conference
  - Boston, MA – August 2021 (rescheduled)

    www.trb.org/Conferences/AssetMgt2020.aspx
- Bi-monthly TAM Webinar Series (in cooperation with FHWA) 3rd Wednesday of each (even numbered) month
  - Next will be June 17th (TAM Webinar 44: Integrating the TAMP and the STIP)

    https://www.tam-portal.com/event/

Organizational Management

TRB committee partnership

- Workforce Development & Organizational Excellence Committee (AJE15)
- Leadership transition
- Discussions to align committee scopes

Organizational Management

Charter Update

- **Mission**
  - Help agencies achieve organizational excellence and advance the practice of performance excellence by identifying, analyzing and sharing information to improve organizational performance at the strategic, tactical and operational levels of the organization
- **Goals**
  - Assist agencies to achieve strategic goals and improve performance in the most effective and efficient way.
  - Examine and share effective organizational models, leadership structures and competencies used to monitor, respond to and implement organizational improvement.
  - Provide agencies with best practices in the application of process/quality improvement tools and methodologies.

Organizational Management

Work Plan Update

- Activity 1 – Process Improvement
- Activity 2 – Non-system Performance Measures
- Activity 3 - Support the Agency Capability Building (ACB) Portal

Risk Management

SRM meetings: 2nd Monday of even-numbered months, 1-2 p.m. Eastern

Chair, Jean Wallace, MnDOT; Vice-Chair, Nathan Lee, Utah DOT

Launched two new research projects:

- NCHRP 20-123(04), Strategic Planning Session and Development of a Risk-Management Research Roadmap. Status: the project panel developed and issued the RFP. A contractor has been selected and TRB is working to finalize and execute the contract.

- NCHRP 23-09, Scoping Study to Develop the Basis for a Highway Standard to Conduct an All-Hazards Risk and Resilience Analysis. Status: the project panel met in late January to develop the RFP. Proposals have been received, and the panel will meet in July to select a contractor.

Risk Management

FY21 NCHRP Problem Statements Submitted:

- Building Risk-Management Momentum in an Agency - Not selected for funding, but we are reviewing feedback from FHWA, NCHRP, and the State DOTs to revise and resubmit for FY22.
- Prioritization of Risks Related to Connected and Automated Vehicles and Emerging Technologies - Status: selected for funding in FY21.

Ongoing projects:

NCHRP 20-44 Implementation of the AASHTO Guide for Enterprise Risk Management

- Objective: advance the practice of ERM within state DOTs
- The project is funding three states for ERM pilot implementation, plus forming a Community of Practice (CoP) for ongoing peer implementation support
- Discussions are occurring on the role of the CoP and the SRM committee.

Subcommittee Summer Meeting

- Planned to occur during the CPBM Summer Business Meeting in August – watch for more details!

System Mobility and Emerging Technologies

- Joint subcommittee formally fuses the related work of the Committee on Transportation System Operations (CTSO) and Committee on Performance-Based Management (CPBM). With an informal, collaborative relationship with the Committee on Data Management and Analytics (CDMA)
- Serves as forum to share how state DOTs are managing system operation and system mobility and how performance is impacted due to current and emerging transportation technologies, operational strategies and connected environments
- Explores system and mobility related performance, data and analytical tools, performance communication, reporting approaches, research and related, private sector partnerships
- Examines the impacts of current and emerging system management approaches such as Connected and Automated Vehicle (CAV) technology, Cooperative Automated Transportation (CAT) and Mobility on Demand (MOD) programs.

System Mobility and Emerging Technologies

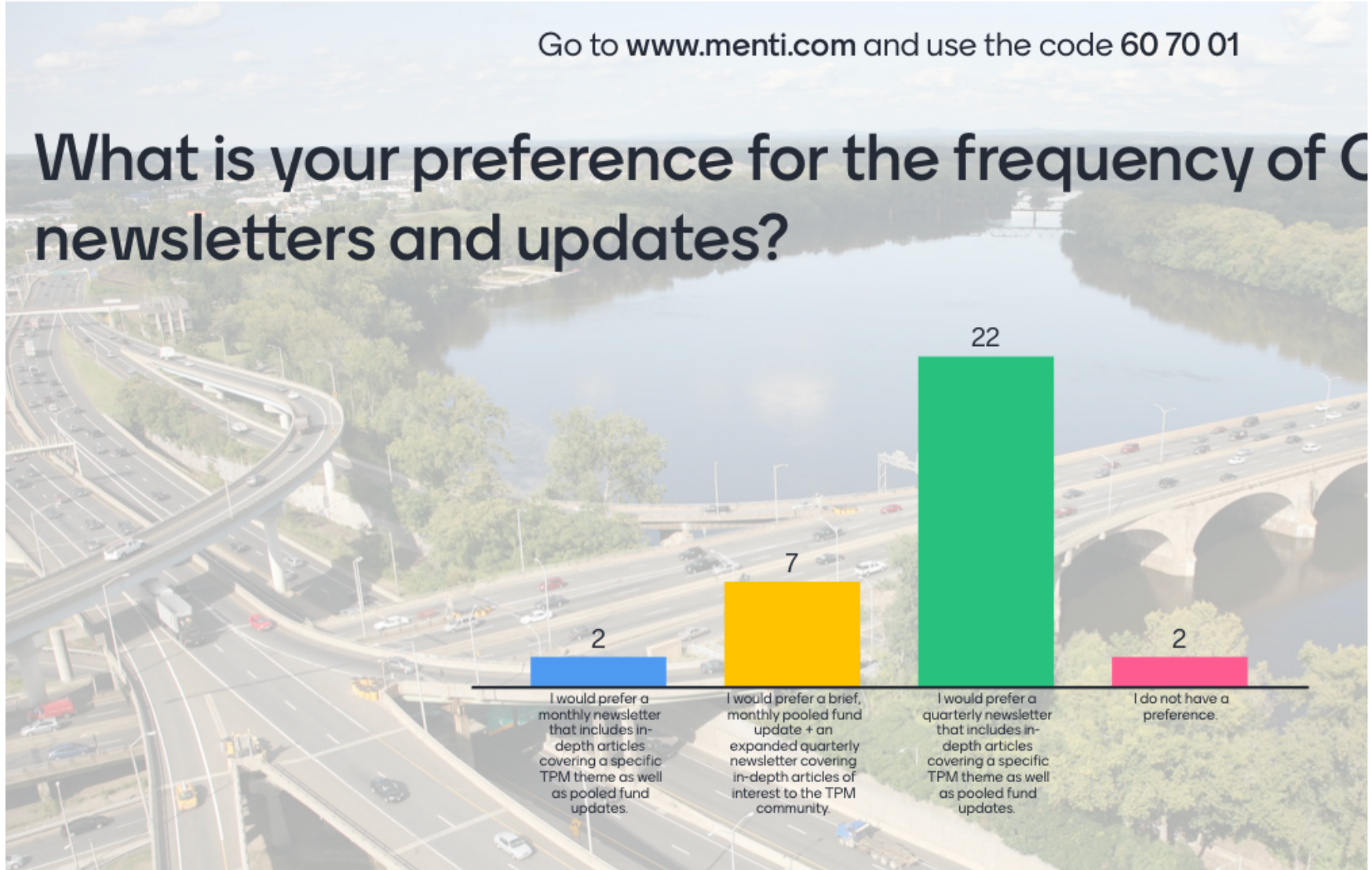
Near Term Work plan Actions:

- Seek and identify members interested in participating and or leading work plan activities
- Reach out to the subcommittee and working groups of both standing committees to identify work plan priorities and opportunities for collaboration and identify partner TRB committees
- Share Best Practices- Conduct Bi-Monthly Webinars
  - April 22, 2020: System Performance Data Inform Covid-19 Policies , featured INRIX, University of Maryland, and Google and provided information on free data sources related to Covid-19 analysis (recorded): https://attendee.gotowebinar.com/recording/2019291993716040707
  - Survey results: Covid-19 related Data request and needs: https://www.tpm-portal.com/resource/dot-covid19-data-survey/
  - Next webinar: June 16th, 11:30 PDT
- Contacts:
  - Subcommittee chair, Daniela Bremmer (WSDOT) - bremmed@wsdot.wa.gov;
  - Vice-chair, Jay Styles (VDOT), jay.styles@vdot.virginia.gov;
  - Patrick Zelinski, (AASHTO – CTSO staff) PZelinski@aashto.org;
  - Matt Hardy (AASHTO-CPBM- joint subcommittee staff lead), mhardy@aashto.org

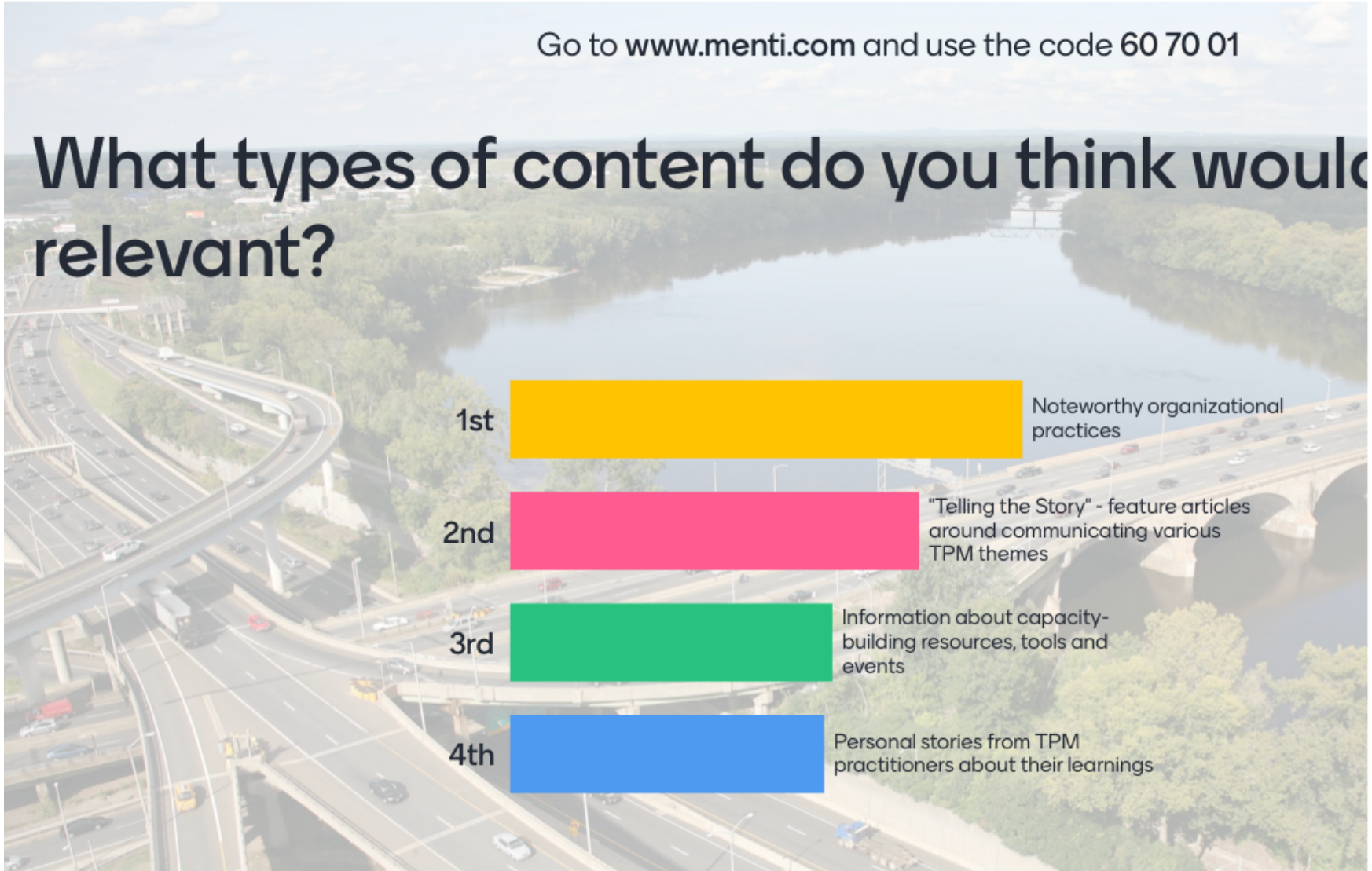
Policy and Rulemaking

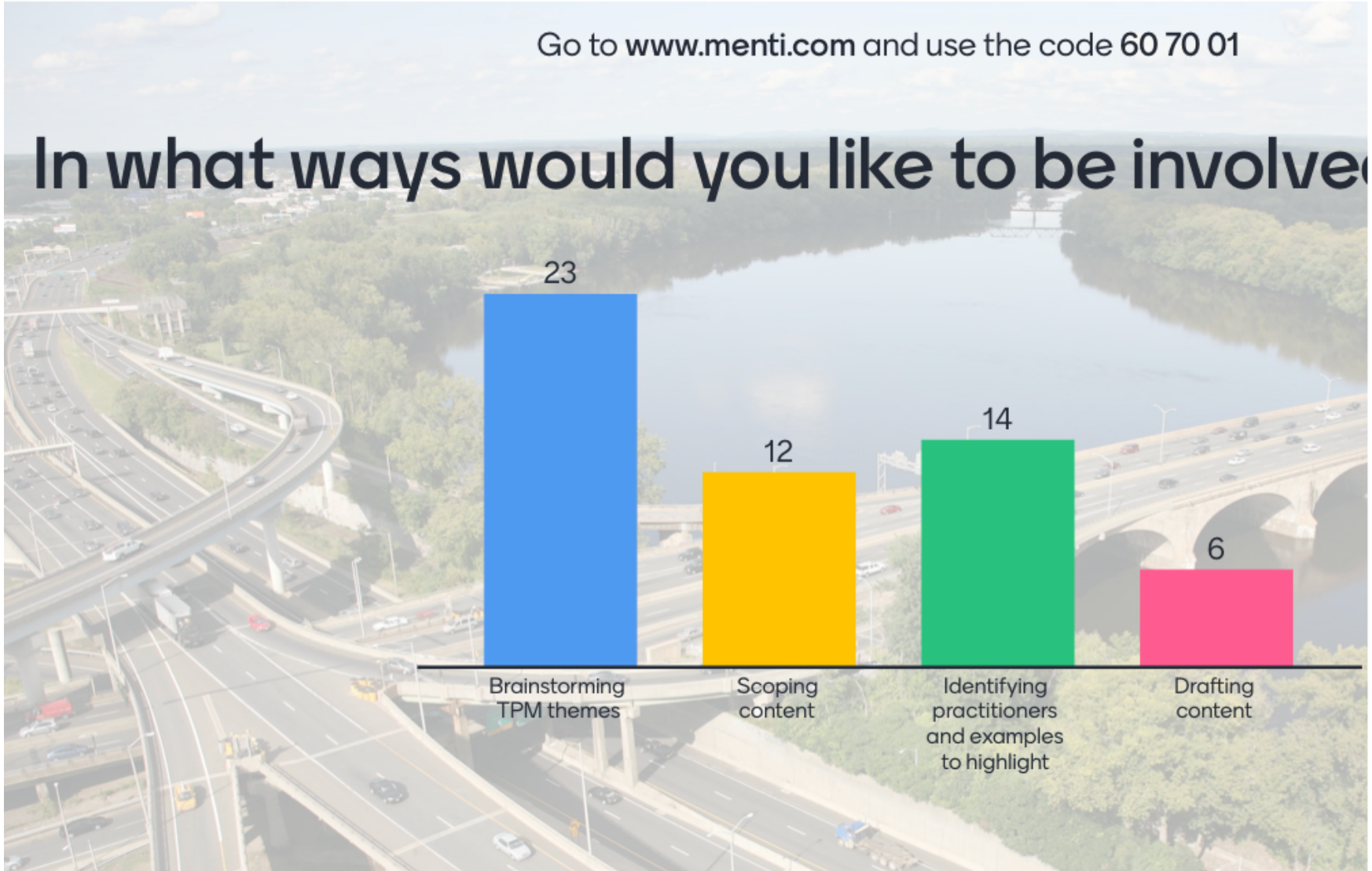
Professional Development

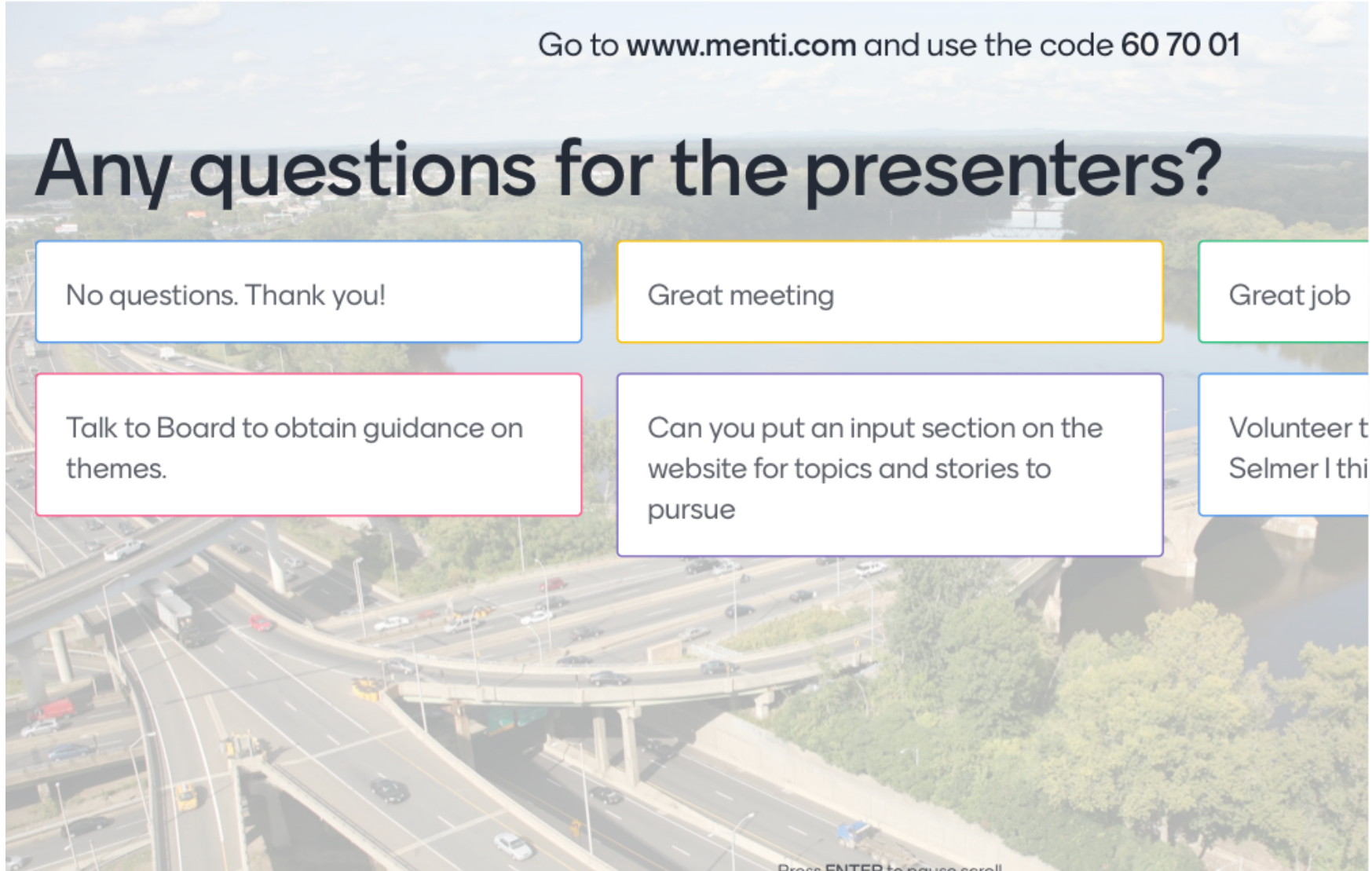
- Current Focus
  - Working with TPM Pooled Fund to resurrect prior committee newsletter
  - Prior newsletter was well received but had some difficulties that limited its effectiveness and sustainability
    - Content development, alignment, collage of efforts, clearer understanding of intended objective
  - In order to address some of these short comings
    - Spy Pond Partners will assist with content development
    - Iowa DOT will provide graphic design and prepare newsletter layout
  - Quick survey for input


Go to www.menti.com and use the code 60 70 01
What is your preference for the frequency of C
newsletters and updates?
2
7
22
2
I would prefer a monthly newsletter that includes in-depth articles covering a specific TPM theme as well as pooled fund updates.
I would prefer a brief, monthly pooled fund update + an expanded quarterly newsletter covering in-depth articles of interest to the TPM community.
I would prefer a quarterly newsletter that includes in-depth articles covering a specific TPM theme as well as pooled fund updates.
I do not have a preference.

Go to www.menti.com and use the code 60 70 01
What TPM topic would you most like to see in expanded newsletter?
casestudies
systemic risk
data analytics
covid impacts
infrastructure
target setting
real time info
user delay cost
feedback loop
resiliency measures
integrating data sources
federal updates
research spotlight
benchmarking performance
system performamce
risk mgt
targets
performance
rule and policy update
lasting effects of covid
resiliency
data visualization
current responses
telecommuting
committee updates
ghg emissions
multimodal
risk management
data collections
change management
good practice
community
workforce
data
av cv
pilot
integrating tpm in pl pgm
complex systems
risk mgmt for bridges
risk
tying to decision making
new measures
organizational culture
perspectives
performance measures
communicating performance
organizational mangement
emerging
forecasting
leadership
emerging technologies
subcommittee efforts
part 667
data source
congestion
tpm maturity
network connectivity
new initiatives
strategies
trb committee news
micromobility
technology
success stories
recruiting
culture
analysis


Go to www.menti.com and use the code 60 70 01
What types of content do you think would be relevant?
1st
Noteworthy organizational practices
2nd
"Telling the Story" - feature articles around communicating various TPM themes
3rd
Information about capacity-building resources, tools and events
4th
Personal stories from TPM practitioners about their learnings


Go to www.menti.com and use the code 60 70 01
In what ways would you like to be involve
23
12
14
6
Brainstorming TPM themes
Scoping content
Identifying practitioners and examples to highlight
Drafting content


Go to www.menti.com and use the code 60 70 01
Any questions for the presenters?
No questions. Thank you!
Great meeting
Great job
Talk to Board to obtain guidance on themes.
Can you put an input section on the website for topics and stories to pursue
Volunteer t
Selmer I thi

Research

- Monthly Conference Call 2nd Friday at 10 am ET (AASHTO CPBM Research)
- NCHRP FY2021 NCHRP Panel Member Nominations due June 30
  - Link to NCHRP Projects: http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP_Announcement2021.pdf
- NCHRP FY2021 Synthesis Panel Member Nominations due June 30
  - Link to 19 Synthesis Topics:

    http://onlinepubs.trb.org/Onlinepubs/nchrp/docs/NCHRP_SynthesisAnnouncement2021.pdf
- Link to Nominate for a panel on myTRB:

  https://volunteer.mytrb.org/Panel/AvailableProjects[volunteer.mytrb.org]

FY2021 NCHRP Program Submissions

- ✓ Guidance on Using Performance-Based Management Approaches for Maintenance
  - $500k, 30 months
- Building Momentum in an Agency for Risk Management
  - $300k, 12 months
- Causes and Effects of Transportation Asset Data Collection Variability on Condition Assessment
  - $400k, 12 months
- ✓ Connecting Transportation Asset Management (TAM) and Transportation System and Management Operations (TSMO)
  - $500k, 30 months
- ✓ Prioritization of Risks Related to Connected and Automated Vehicles and Emerging Technologies
  - $250k, 18-24 months
- ✓ Future Enhancements and Content for the AASHTO TAM Guide III
  - $450k, 18 months (continuation project)

NCHRP Synthesis Topics

Submitted

- ✓ Standardization of Terminology for Transportation Risk and Resilience Programs (RISK)
- Assessing the Trade-offs of Transportation Asset Data Collection Techniques (ASSET)
- A Synthesis of the Impact of Transportation Asset Management Plans on State DOT Practices (ASSET)

Others

- 52-01—State of Practice on Infrastructure Inspections for the Digital Age
- 52-02—Current Practices in Bridge Asset Management for Decision-Making
- 52-07—Use of Pavement Data Collection Technology for Pavement Data Quality Management and MAP-21 Target Setting
- 52-16—Visualization of Performance Measures

FY2021 Domestic Scan

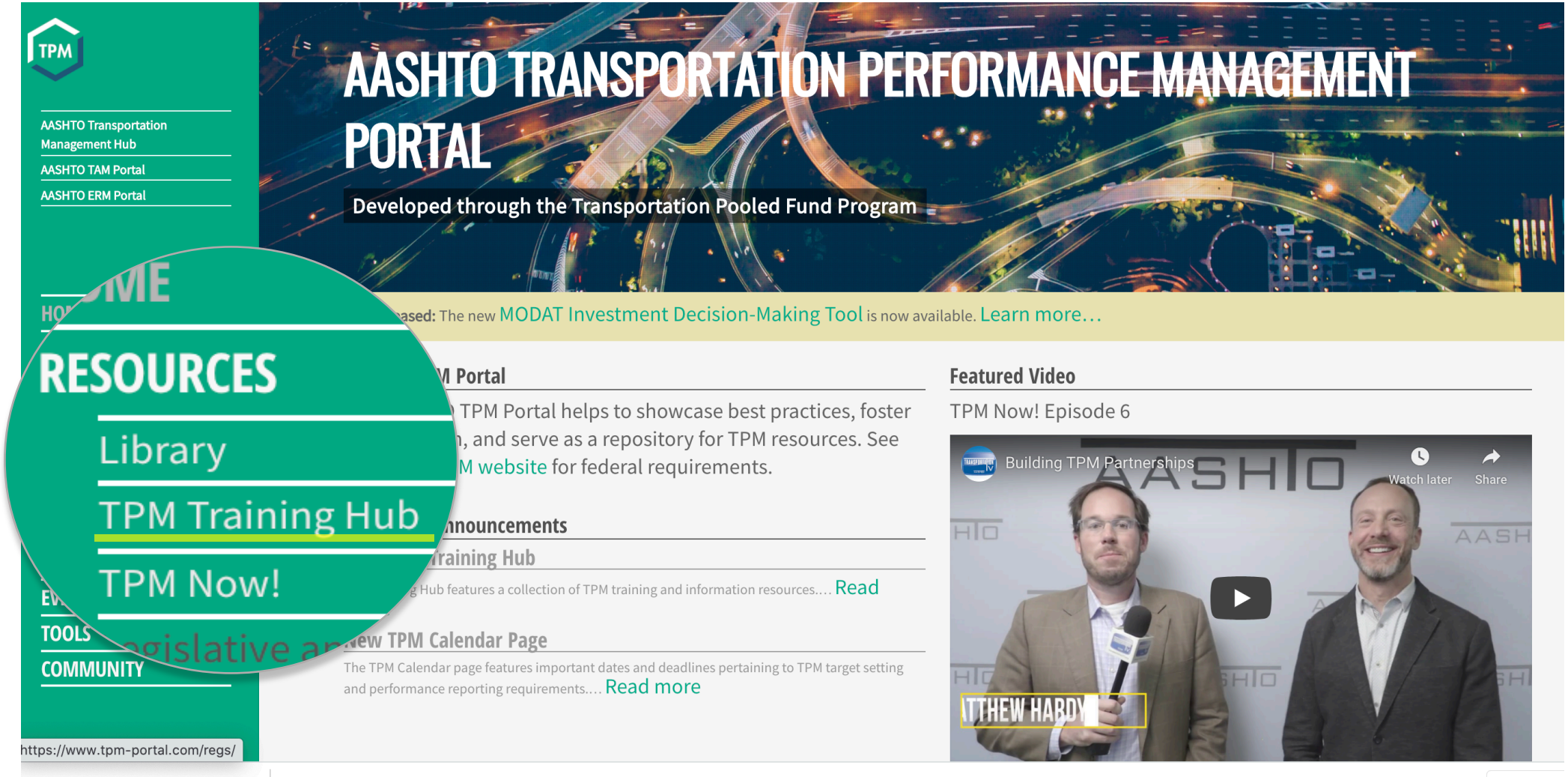
- Best Practices for Developing, Implementing and Maintaining an Effective Bridge Management System
  - Project Selected/funded!!
- Next steps:
  - Identify State DOT panel members that are representatives from CPBM that can follow this project through to implementation (estimate 5 years)
  - Work with Chad Allen (proposed Panel chair) to develop the work plan (site visits, peer exchanges and states to participate)

2020 Summer Meeting

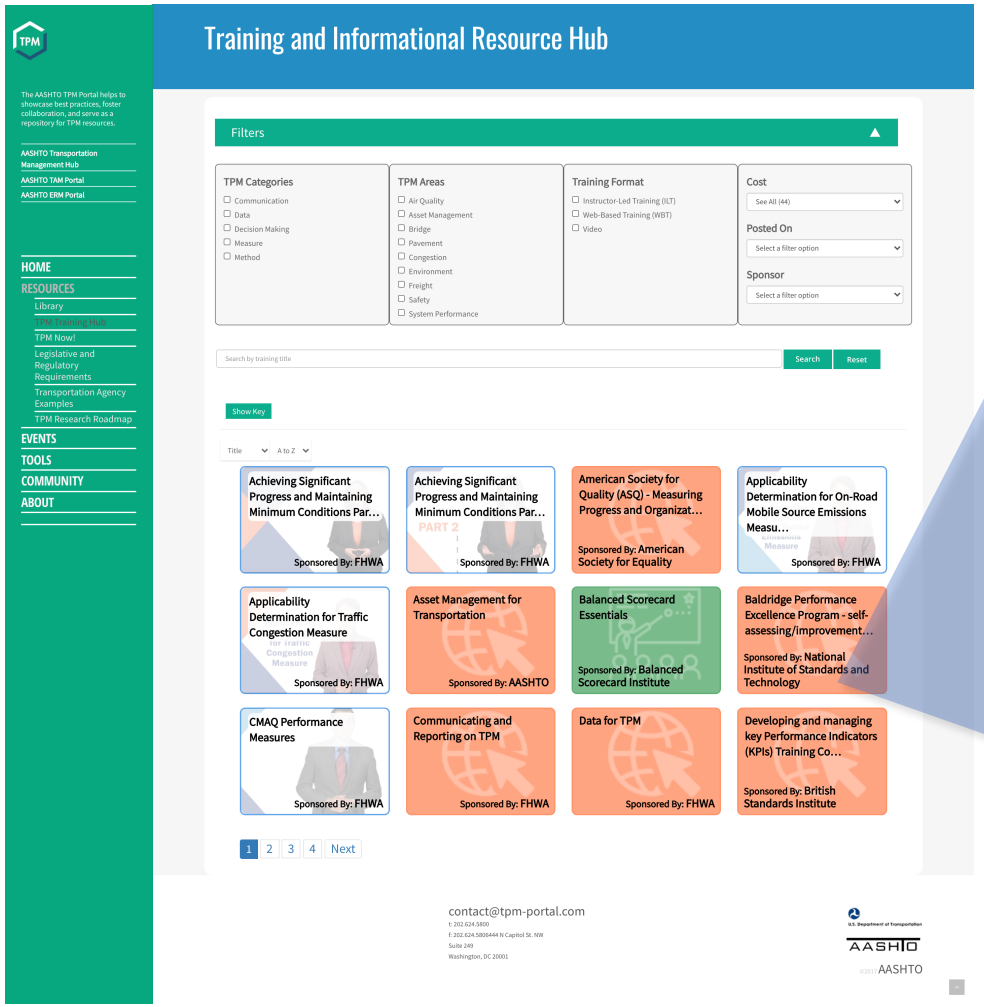
TPM Pooled Fund Recent Activities

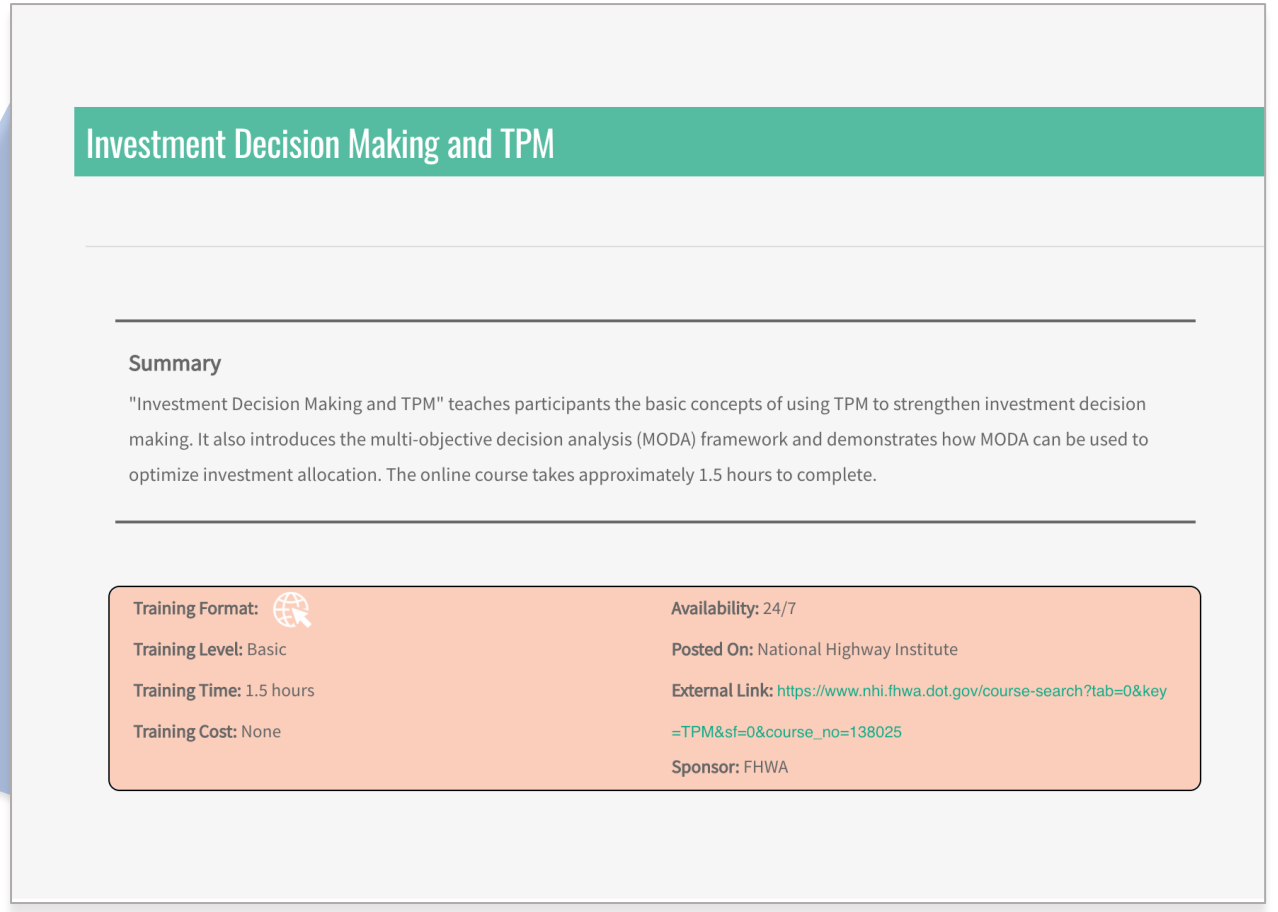
- First TPM Webinar on TPM Best Practices held May 20th
- Performance-Based Prioritization Using MODA TC3 training launched last week
- Updated TAM TC3 training coming soon
- TPM Training and Informational Hub live on TPM Portal
- Latest TPM Now! Video: Andrew Gruber, Wasatch Front Regional Council

Training Hub

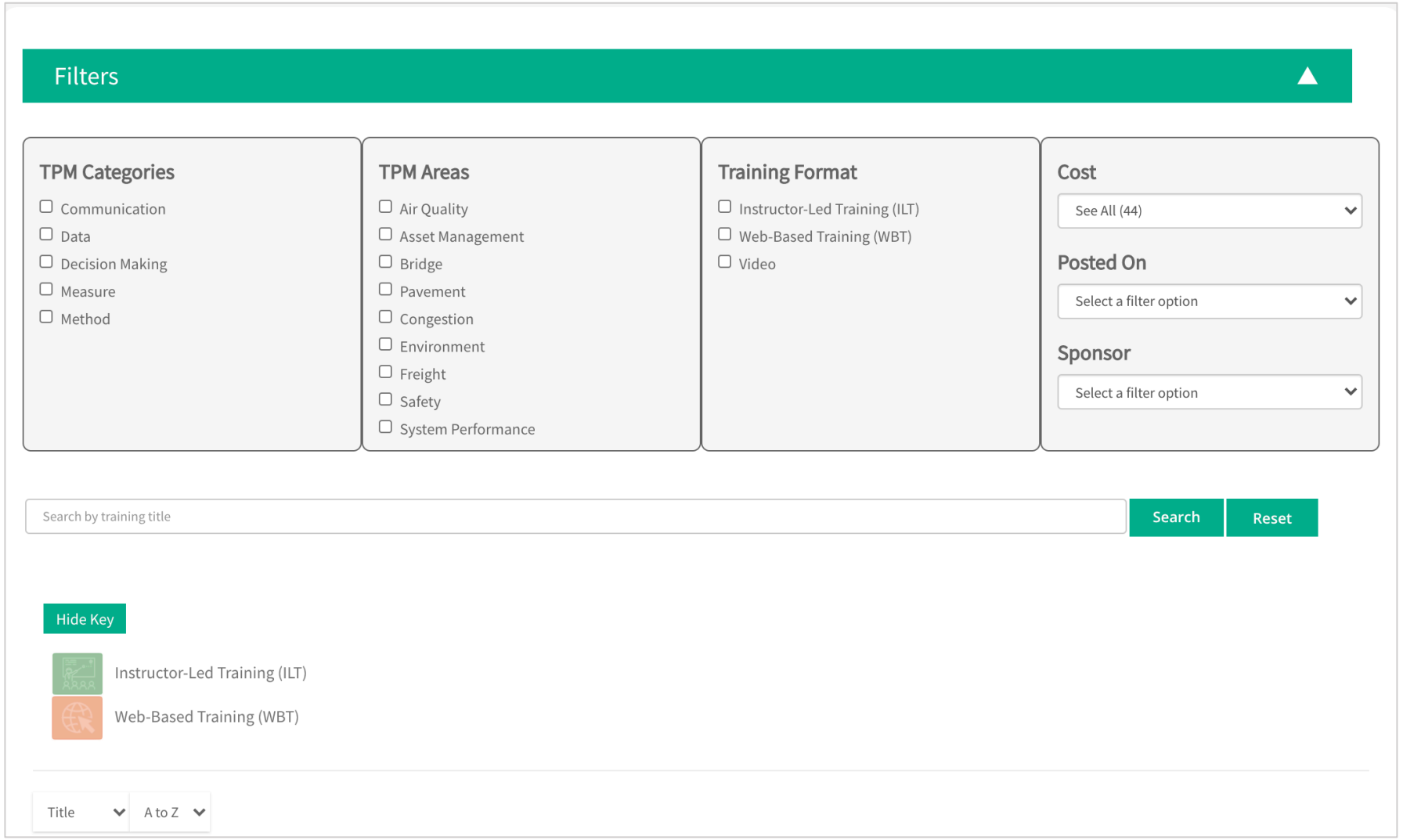


Training Hub





Training Hub



- TPM Categories
- TPM Areas
- Training Format
- Cost
- Date Posted
- Sponsor
- Text Search
- Sort Options

MODA Training

- New training course developed through the TPM Pooled Fund : Performance-Based Prioritization Using MODA
- Leverages past work performed for NCHRP and NCHRP
- Course deployed using AASHTO's TC3 Platform
- Initial course in the TC3 TPM area

TRANSPORTATION CURRICULUM COORDINATION COUNCIL

What is TC3?

AASHTO's Training

Transportation Curriculum Coordination Council

(Established in 2000)

- Technical workforce development
- National coordinated approach
- Leveraged resources
- Cost-effective course development
- AASHTO Technical Service Program (TSP) in 2013

TRANSPORTATION CURRICULUM COORDINATION COUNCIL

What is TC3?

AASHTO's Training

TC3 MISSION

Develop, maintain, and provide effective access for a quality training curriculum to enhance the competency of the nation's transportation technical workforce, with the focus on construction, maintenance, and materials.

TC3 VISION

Be the resource that the transportation industry relies on for job-related competency training, focusing on the construction, maintenance, and materials technical workforce.

TRANSPORTATION CURRICULUM COORDINATION COUNCIL

TC3 Organization

Organization Overview

- TC3 Executive Board
- Council members
- Six working committees
- Contract services

TC3 Council Members

- State DOTs
- FHWA
- AASHTO staff
- Associate industry members

TRANSPORTATION CURRICULUM COORDINATION COUNCIL

Module Learning Outcomes

Upon completion of the module, you will be able to:

- Define Multi-Objective Decision Analysis (MODA)
- Explain the relationship between MODA and Transportation Performance Management (TPM)
- Summarize the benefits of, and challenges to, using MODA
- Describe how an agency may implement MODA in their investment prioritization process

This lesson will take approximately 45 minutes to complete.

American Association of State Highway and Transportation Officials
AASHTO

What is Multi-Objective Decision Analysis (MODA)?

Structured approach for choosing between a set of alternatives considering multiple objectives

An approach that a transportation agency can use to support prioritization of different investment alternatives when programming across different performance areas

Requires quantifying one's objectives and the value obtained with respect to each objective by each alternative under consideration

The approach yields a prioritized set of investments balancing different objectives

There are specific resources provided at the end of this module. For additional information, refer to:

- Keeney, R.L. and Raiffa, H. *Decision Making with Multiple Objectives: Preferences and Value Tradeoffs*.
- Kirkwood, C.W. *Strategic Decision Making: Multiobjective Decision Analysis with Spreadsheets.*
- Parnell, G.S., Driscoll, P.J., and Henderson, D.L. *Decision Making in Systems Engineering and Management.*

Benefits of Using MODA to Prioritize

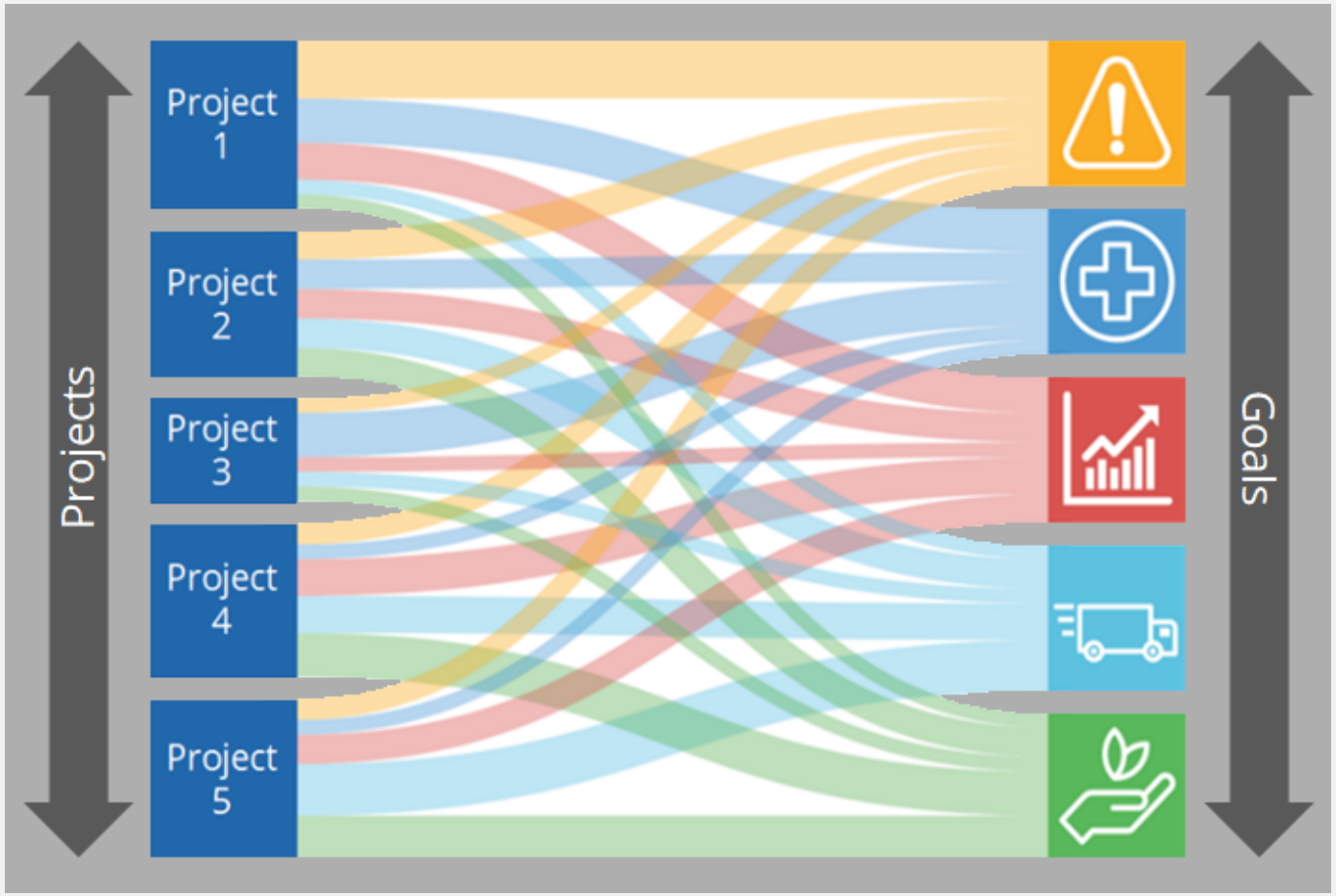
Better alignment of resource allocation decisions with agency goals and objectives

- Clear definition of goals and objectives
- Performance-based
- Data-driven

More effective use of scarce resources

Repeatability

Transparency



Considerations in Implementing MODA

Scope

- What types of investments will be prioritized?
- How many funding periods are considered?
- How will the results be used?

Data and Forecasting

- Need predicted performance for each measure representing the full range of objectives

Methodology

- Generating candidate investments
- Relating investment objectives to performance measures
- Scaling performance measures
- Weighing competing objectives

Multi-Objective Decision Analysis (MODA)

Module Learning Outcomes

Upon completion of the module, you will be able to:

- Explain the steps in implementing MODA for investment prioritization
- Describe how agencies have implemented MODA

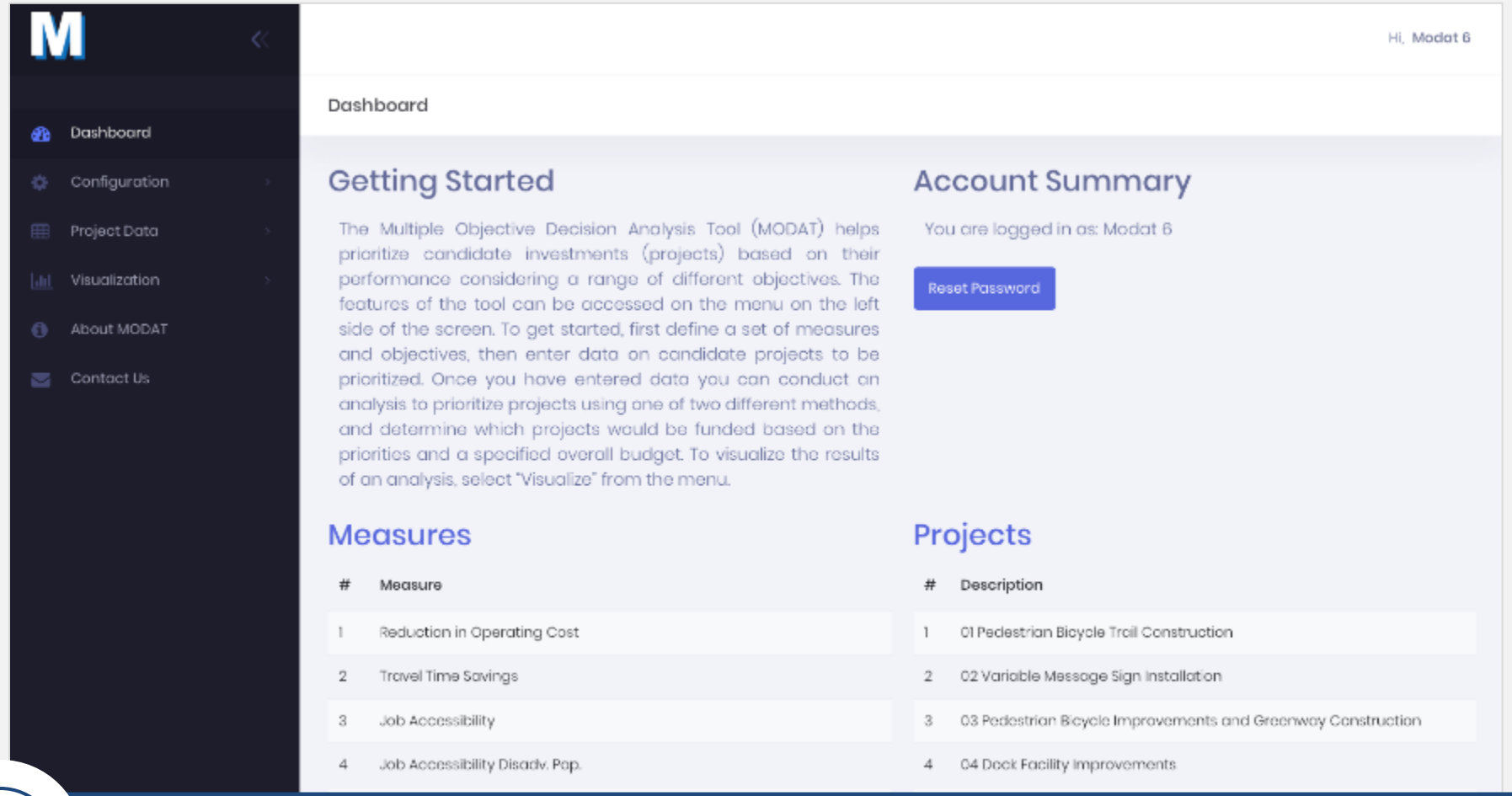
This lesson will take approximately 45 minutes to complete.

MODA Implementation Steps

The figure shown here illustrates the eight basic steps in the process. They are:

1. Establish the scope
2. Define goals and objectives
3. Select performance measures and evaluation criteria
4. Assess data and analytical capabilities
5. Prototype the approach
6. Set weights on goals and objectives
7. Apply the model
8. Communicate the results

Multiple Objective Decision Analysis Tool (MODAT)



Web-based tool for supporting MODA

Developed through NCHRP research and now hosted by AASHTO

Available at no cost for transportation agencies to use

Can be used to test or support an agency's MODA implementation

Additional tool documentation available on the tool website: www.multiobjective.org

Performance-Based Prioritization Using MODA

Lesson 2: Steps in Implementing MODA

American Association of State Highway and Transportation Officials

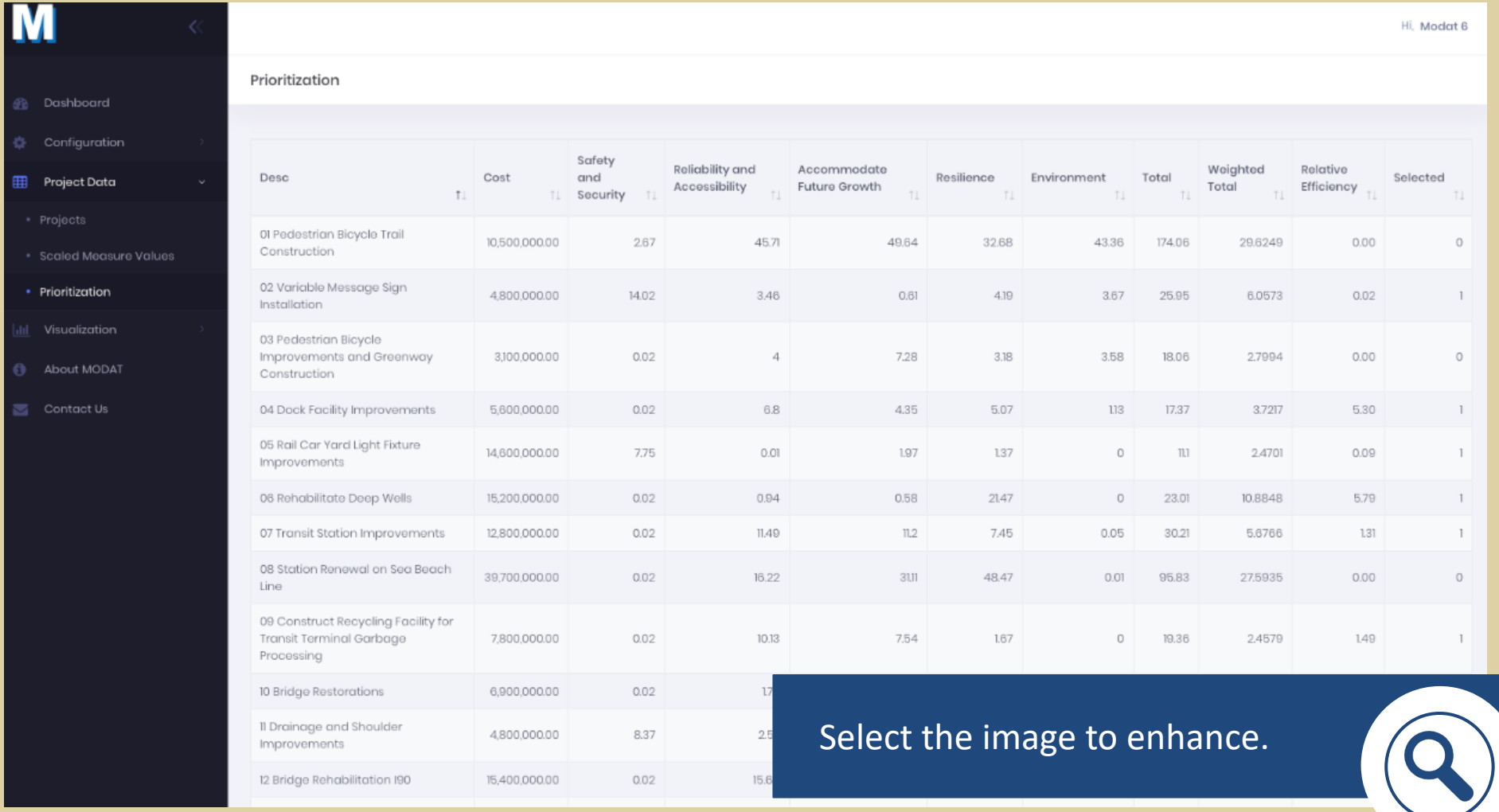
AASHTO

Communicating Results

MODAT

- [x] MODAT Project Lists
- [ ] MODAT Flow Diagram
- [ ] Additional Documentation

Communicating Results Example: Project List in MODAT



Desc	Cost	Safety and Security	Reliability and Accessibility	Accommodate Future Growth	Resilience	Environment	Total	Weighted Total	Relative Efficiency	Selected
01 Pedestrian Bicycle Trail Construction	10,500,000.00	2.67	45.71	49.64	32.68	43.36	174.06	29.6249	0.00	0
02 Variable Message Sign Installation	4,800,000.00	14.02	3.46	0.61	4.19	3.67	25.95	6.0573	0.02	1
03 Pedestrian Bicycle Improvements and Greenway Construction	3,100,000.00	0.02	4	7.28	3.18	3.58	18.06	2.7994	0.00	0
04 Dock Facility Improvements	5,600,000.00	0.02	6.8	4.35	5.07	1.13	17.37	3.7217	5.30	1
05 Rail Car Yard Light Fixture Improvements	14,600,000.00	7.75	0.01	1.97	1.37	0	11.1	2.4701	0.09	1
06 Rehabilitate Deep Wells	15,200,000.00	0.02	0.94	0.58	21.47	0	23.01	10.8848	5.79	1
07 Transit Station Improvements	12,800,000.00	0.02	11.49	11.2	7.45	0.05	30.21	5.6766	1.31	1
08 Station Renewal on Sea Beach Line	39,700,000.00	0.02	16.22	31.11	48.47	0.01	95.83	27.5935	0.00	0
09 Construct Recycling Facility for Transit Terminal Garbage Processing	7,800,000.00	0.02	10.13	7.54	1.67	0	19.36	2.4579	1.49	1
10 Bridge Restorations	6,900,000.00	0.02	1.7							
11 Drainage and Shoulder Improvements	4,800,000.00	8.37	2.5							
12 Bridge Rehabilitation I90	15,400,000.00	0.02	15.6							

Select the image to enhance.

Performance-Based Prioritization Using MODA

Lesson 2: Steps in Implementing MODA

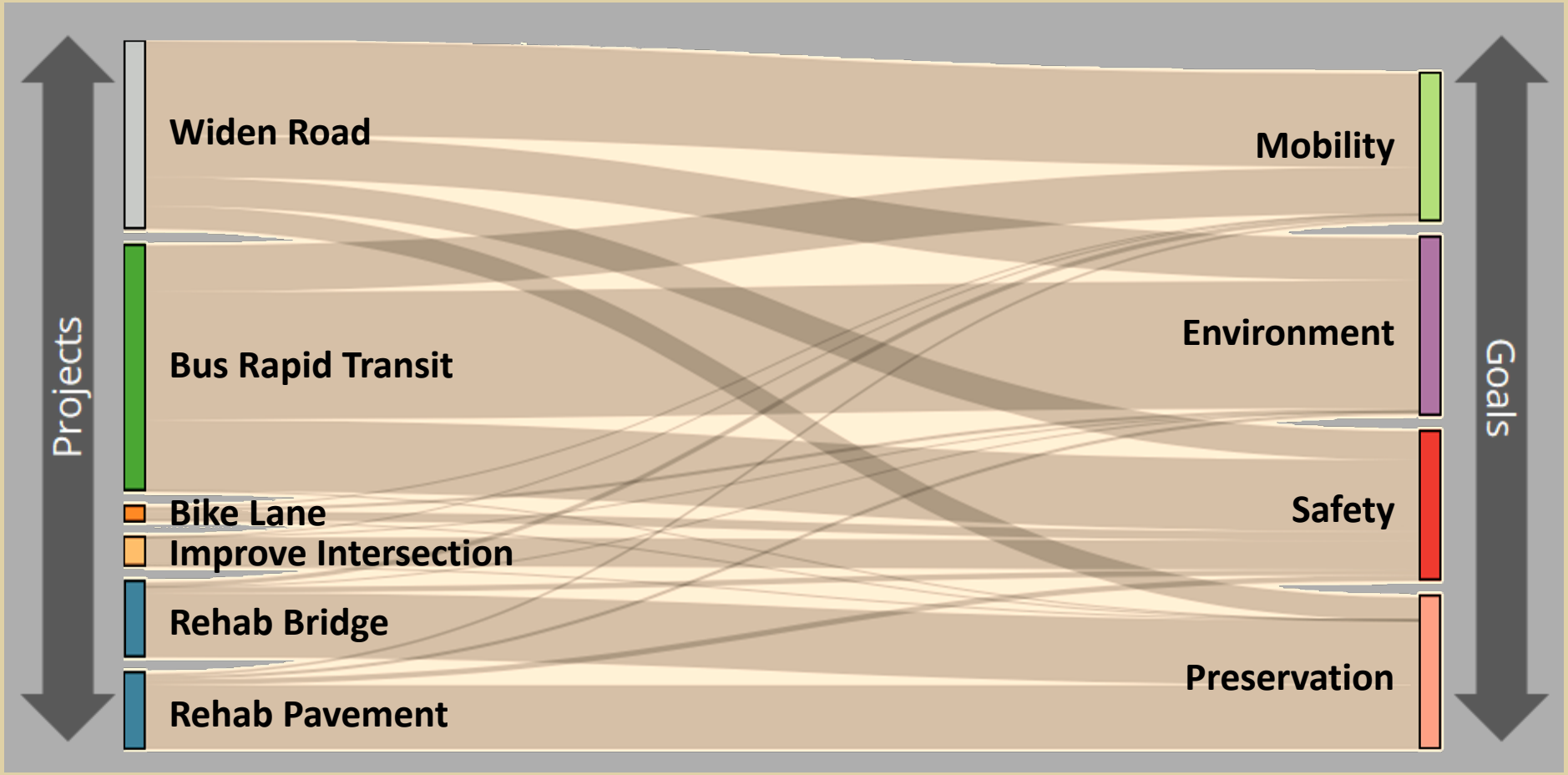
Communicating Results

MODAT

- ❑ MODAT Project Lists
- ✓ MODAT Flow Diagram
- ❑ Additional Documentation

Communicating Results Example: Flow Diagram in MODAT

- Project and goals flow diagram



Wrap Up

- We hope you will join us for our next joint CPBM/TPM Pooled Fund Quarterly web call on September 3, 2020 at 2:00 PM EST
- The feature topic for the next call will be the TPM Research Roadmap.
- Notes and materials will be sent to all invitees over the next week.
- Visit the TPM Portal for updates and to download the TPM Pooled Fund Peer Exchange report: ***tpm-portal.com***