

AASHTO SCOPM Task Force on  
MAP-21 National Performance Measures

# Target-Setting Workshop

Supported by the NCHRP 20-24 Program

AASHTO  
444 North Capitol Street NW  
Washington, DC 20001

Thursday, June 13, 2013

AASHTO SCOPM Task Force on  
MAP-21 National Performance Measures

## Target-Setting Workshop

Paul Degges, Tennessee Department of Transportation  
Chair

Welcome and Introduction

Thursday, June 13, 2013

# Welcome and Introduction

## **Workshop purpose:**

- Identify and assess specific MAP-21 target-setting issues in order to inform FHWA of states' concerns
- Help states prepare for target setting.

## **Workshop preparation:**

- Culmination of much effort by Task Force members
- Working alongside State DOT partners and others from MPOs

# Welcome and Introduction

## **Pre-workshop activities:**

- Developed preliminary findings on target-setting for each MAP-2I performance measure area
- Conducted survey designed to identify issues that states will encounter in their effort to meet MAP-2I target-setting requirements

## **Workshop charge:**

- Review and discussion of draft preliminary findings
- Identify key cross-cutting issues, and recommend actions and next-steps

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MAP-21 National Performance Measures

## Target-Setting Workshop

Janet Oakley, AASHTO

AASHTO Update

Thursday, June 13, 2013

# AASHTO Update

AASHTO SCOPM Task Force on  
MAP-21 National Performance Measures

## Target-Setting Workshop

Pete Stephanos, FHWA Office of Performance Management

FHWA Update

Thursday, June 13, 2013

# FHWA Update



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MAP-21 National Performance Measures

# Target-Setting Workshop

Hyun-A Park, Spy Pond Partners

## Workshop Agenda

Thursday, June 13, 2013

# Agenda

## **1. Welcome, Introduction, and Workshop Overview**

- Paul Degges
- Janet Oakley
- Pete Stephanos
- Hyun-A Park

## **2. Key Cross-Cutting Issues and Recommendations**

- Matt Hardy

## **3. Pavement Performance Management Area**

- Christos Xenophontos
- Judith Corley-Lay

## **4. Bridge Performance Management Area**

- Gregg Fredrick
- Tim Gatz

## **5. Break**

## **6. Freight Performance Management Area**

- Tim Henkel
- Lori Richter

## **7. System Performance Performance Management Area**

- Daniela Bremmer

# Agenda

## 8. CMAQ Performance Management Area

- Mara Campbell
- Rachel Falsetti

## 9. Safety Performance Management Area

- Tom Cole
- Bernie Arseneau
- John Selmer

## 10. Lunch

## 11. Update: Cross-Cutting Issues and Recommendations

- John Barton

## 12. Priority Issues Brainstorming

## 13. Break

## 14. Activities Priority Setting

## 15. Workshop Wrap-up and Next Steps

# Participating Organizations

## State DOTs

- Alabama DOT
- Arizona DOT
- Arkansas DOT
- Caltrans
- Colorado DOT
- Connecticut DOT
- Florida DOT
- Georgia DOT
- Idaho DOT
- Illinois DOT
- Iowa DOT
- Kentucky Transportation Cabinet
- Maine DOT
- Maryland DOT
- Massachusetts DOT
- Michigan DOT
- Minnesota DOT
- Missouri DOT
- Montana DOT
- Nebraska DOT
- New York State DOT
- North Carolina DOT
- North Dakota DOT
- Ohio DOT
- Oklahoma DOT
- Oregon DOT
- Rhode Island DOT
- Tennessee DOT
- Texas DOT
- Utah DOT
- Virginia DOT
- Washington State DOT
- Wisconsin DOT
- Wyoming DOT

# Participating Organizations (continued)

## Others

- Anchorage Metropolitan Area Transportation Solutions – MPO
- Atlanta Regional Commission
- Baltimore Metropolitan Council
- Duluth - Superior Metropolitan Interstate Council
- Hampton Roads TPO
- Houston-Galveston Area Council
- Lubbock MPO
- Metropolitan Transportation Commission
- North Central Texas Council of

## Governments

- North Jersey Transportation Planning Authority
- Waco Metropolitan Planning Organization
- Wasatch Front Regional Council
- AMPO
- Texas A&M Transportation Institute
- University of Minnesota
- INRIX

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# Target-Setting Workshop

Matt Hardy, AASHTO

## Key Cross-Cutting Issues and Recommendations

Thursday, June 13, 2013

# Key Cross-Cutting Issues and Recommendations

## GOVERNANCE

- MAP-2I performance measure and target-setting rules should focus on federal objectives and state support of these objectives. The rules should be focused on the ability of states, using available federal funds, to deliver the desired results – not on how states manage their own programs that do not use federal funds.
  - States may choose to implement the MAP-2I performance requirements separately from the state performance management program. In some states, federal funds only support a small part of the overall budget. For these states separate performance management programs may be appropriate. In other states, the majority of the program is federally funded and state and federal goals and objectives may be the same.
  - The role of the forthcoming National Freight Network must be clarified.

# Key Cross-Cutting Issues and Recommendations

## GENERAL CONCERNS

- For the Freight, System Performance, and CMAQ areas, the performance measures are not mature and can be expected to be improved over time. Ideally the rules will allow for this – setting measures in stone too early could limit progress and ultimately the value of the performance measures
- Target setting has risks – an agency that doesn't meet the target they have established could face public criticism. There is also the possibility of unintended consequences, for example; the public could say “why is failure a reason to invest more \$\$\$” when not meeting a target?
- There is a need for good data and the time and staff to evaluate results versus target



# Key Cross-Cutting Issues and Recommendations

## **PROVIDE MAXIMUM FLEXIBILITY**

- State should not be required to set targets in a uniform way
- Complement flexibility in target setting with transparency and accountability
- Allow flexibility for DOTs and MPOs to use a risk-based target-setting approach
- Allow states to approach target-setting for the entire set of national performance measures as a bundle. This may lead to having some targets get worse while others get better. This accommodates states that have tradeoff processes.
- Managing to a single target is difficult to do

# Key Cross-Cutting Issues and Recommendations

## **PROVIDE MAXIMUM FLEXIBILITY (CONTINUED)**

- If a state wants to adjust targets dynamically (on an ongoing basis as conditions change), they should be allowed to do so.
- Would it be possible for states to use measures that are close but not exactly the same as the ones defined? This could be desirable mainly for the freight, system performance, and CMAQ measures.
- Consider allowing targets in the form of % change (slope or trend line rather than single number).

# Key Cross-Cutting Issues and Recommendations

## NEED FURTHER CLARIFICATION

- Target-setting is directly related to what goals and objectives have been established. Clearer guidance is needed on the federal goals and objectives for each of the performance areas.
- There are existing federal requirements that have some overlap with the national performance measure and target-setting requirements in MAP-21. Guidance is needed on the relationships across these overlapping federal requirements – for example:
  - Safety: NHTSA performance measure requirements
  - CMAQ: EPA air quality requirements
  - Freight: Long range plans and freight plans
- FHWA should provide further details on the definition of corridors, segments, and thresholds for the system performance and freight measures

# Key Cross-Cutting Issues and Recommendations

## **NEED A RATIONAL SCHEDULE**

- The time periods for the performance measure data collection, target-setting, assessment, and target-setting adjustments need to consider the varying processes each state has for these activities. Performance measures and targets are reported on the previous year's data. Two years later this reporting will result in an assessment of whether a state has met or not met its targets. If adjustments are needed to the targets based on this assessment, there may be lengthy processes to follow to adjust the target. When is the adjusted target reported - two years from the last reporting? When will the adjusted target be assessed? At the next biennial reporting? This may be only a year from the adjustment date.
- A mock case study of how this would work for a state would be helpful. Colorado may be a good state to use for this case study.

# Key Cross-Cutting Issues and Recommendations

## COMMUNICATION IS NEEDED NOW AND CONTINUOUSLY

- Based on the input provided in the surveys, it appears that there are varying degrees of understanding of MAP-2I and the schedule and processes for finalizing the rules.
  - Some people perceive MAP-2I performance measure requirements as broader than what is in the legislation.
  - Some people are not aware that FHWA is working on a contract with a private vendor to acquire truck and passenger movement data to support the system performance and freight measures.
- Regular webinars starting immediately may be helpful to keep people updated on MAP-2I facts and plans.
  - Webinars and resources on target-setting would be helpful

# Key Cross-Cutting Issues and Recommendations

## **COMMUNICATION IS NEEDED NOW AND CONTINUOUSLY (CONTINUED)**

- AASHTO communication activities should address
  - Concerns about what will happen if targets are missed.
  - Purpose of delving into target setting approaches prior to rulemaking, when measures are still speculative
- Different activities reach different audiences so use of multiple forums to communicate would be most effective.
- AASHTO and FHWA should continue to facilitate discussion amongst states

# Key Cross-Cutting Issues and Recommendations

## GUIDANCE AND TRAINING

- Process guidance is needed on:
  - Expected level of uniformity across states in target setting and reporting processes
  - Incentives and disincentives of target-setting. What is the incentive for setting stretch targets and the disincentive of setting low targets that are easy to meet?
  - Coordination of performance targeting across different MAP-21 performance areas

# Key Cross-Cutting Issues and Recommendations

## **GUIDANCE AND TRAINING (CONTINUED)**

- Technical guidance would be helpful on:
  - Target setting methods, covering establishment of trend lines, distinguishing normal statistical variations from actual changes; identifying performance measure relationships to factors such as weather, work zones, economic conditions, economic development, population, capacity, etc.
    - Present results in context of: funding, freight flow trends, population growth, weather, local jurisdiction action/inaction, customer survey results, assumptions vs. reality, etc.
  - Root cause analysis - several states noted in their survey responses that they would conduct “root cause” analysis to understand why targets were not met. This would involve delving into the reasons why the state did not accomplish what it thought it could do. Documented examples of these analyses for different performance areas would be of value.
- AASHTO and FHWA should establish clearinghouse for information exchange and/or information on best practices.
- Trainings should be ready to be delivered when rules are finalized



AASHTO SCOPM Task Force on  
MAP-21 National Performance Measures

## Target-Setting Workshop

Christos Xenophontos, Rhode Island DOT  
Judith Corley-Lay, North Carolina DOT

Pavement Performance Measure Area

Thursday, June 13, 2013

# Pavement Participants



- Tim Barnett, Alabama DOT
- Jean Nehme, Arizona DOT
- Floyd Roehrich, Arizona DOT
- Jessie Jones, Arkansas DOT
- Charles Meyer, Colorado DOT
- Scott Richrath, Colorado DOT
- Colleen Kissane, Connecticut DOT
- Tom Cole, Idaho DOT
- Priscilla Tobias, Illinois DOT
- John Selmer, Iowa DOT
- Allen Myers, Kentucky Transportation Cabinet
- Duane Burnell, Maine DOT
- Joyce Taylor, Maine DOT
- Paul Fernandes, Massachusetts DOT
- Paul Kenney, Massachusetts DOT
- Christopher Lynch, Massachusetts DOT
- Esther Nga, Massachusetts DOT
- Bernie Arseneau, Minnesota DOT
- Brenda Cowin, Minnesota DOT
- Leanna Depue, Missouri DOT
- John Donahue, Missouri DOT
- Fred Zwonechek, Nebraska DOT
- Lou Adams, New York State DOT
- Brad Allen, New York State DOT

# Pavement Participants (continued)



- Rick Bennett, New York State DOT
- Regina Doyle, New York State DOT
- Allan Warde, New York State DOT
- Judith Corley-Lay, North Carolina DOT
- Scott Zainhofsky, North Dakota DOT
- Troy Costales, Oregon DOT
- Christos Xenophontos, Rhode Island DOT
- Terry Pence, Texas DOT
- Robert Hull, Utah DOT
- David Luhr, Washington State DOT
- John Milton, Washington State DOT
- Rich Denbow, AMPO
- Kelly Hardy, AASHTO
- Matt Hardy, AASHTO
- Vicki Schofield, AASHTO

# Pavement Issues and Recommendations



## GENERAL CONCERNS

- Recognize that target setting process is integral to risk based asset management plan (TAMP) development
  - Target-setting involves tradeoffs across assets/program areas
  - Requires a long-term view, need to communicate long term impacts of a less aggressive target/higher need backlog
- The processes for off system/local NHS roads is not in place for monitoring and analyzing the data, no trend line has been established
- Recognize TIP/STIP project cycle – time lag to impact system conditions given existing commitments. Changes to the STIP late in the game may put agency credibility on the line.

# Pavement Issues and Recommendations



## **GENERAL CONCERNS (CONTINUED)**

- Present results in context of: funding, freight flow trends, population growth, weather, local jurisdiction action/inaction, customer survey results, assumptions vs. reality, etc.
- Consequences of failure to meet a target must be carefully weighed – could have unintended consequences
  - affect the attainment of targets in other areas (lack of system-wide view)
  - drive investment decisions to a worst-first strategy

# Pavement Issues and Recommendations



## MEASURE DEFINITION

- Structural Health Index – recognize lack of established definition; variations across states in source data to compute potential index
- Advancement of Structural Health Index: Have a pooled fund study to develop consistent faulting and cracking standards. Intensive effort underway to move forward structural-capacity testing technology/implementation.
- Recognize variations in each state’s internal processes of finalizing results

# Pavement Issues and Recommendations



## **GUIDANCE AND TRAINING NEEDS**

- Technical information and guidance is needed on:
  - Measurement and analysis of IRI
  - Calibration and certification of measurement equipment
  - Summaries of the latest research on road roughness and its effect on vehicle operating costs

# Pavement Issues and Recommendations



## **GUIDANCE AND TRAINING NEEDS**

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AASHTO SCOPM Task Force on  
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## Target-Setting Workshop

Gregg Fredrick, Wyoming DOT  
Tim Gatz, Oklahoma DOT

Bridge Performance Measure Area

Thursday, June 13, 2013

# Bridge Participants



- Jean Nehme, Arizona DOT
- Floyd Roehrich, Arizona DOT
- Barton Newton, Caltrans
- Joshua Laipply, Colorado DOT
- Scott Richrath, Colorado DOT
- Colleen Kissane, Connecticut DOT
- Matt Farrar, Idaho DOT
- Chip Getchell, Maine DOT
- Paul Fernandes, Massachusetts DOT
- Rebecca Curtis, Michigan DOT
- Dave Juntunen, Michigan DOT
- Scott Zainhofsky, North Dakota DOT
- Tim Gatz, Oklahoma DOT
- Bruce Johnson, Oregon DOT
- Greg Freeby, Texas DOT
- Paul Cortez, Wyoming DOT
- Gregg Fredrick, Wyoming DOT
- Matt Hardy, AASHTO
- Kelley Rehm, AASHTO

# Bridge Issues and Recommendations



## GENERAL CONCERNS

- Resolution of input from Subcommittee on Bridges and Structures on changing the Good/Fair/Poor measure to one based on maintenance, repair and rehabilitation need category: Cyclical Maintenance (CM), Preventive Maintenance (PM), and Replacement/Rehabilitation (RR)
- Concern with definition and implications of expanded NHS - some owners of expanded NHS facilities don't want to be on new NHS and are attempting to change functional classification.
- Concern with use of deck area weighting – implications for smaller bridges
- End of calendar year reporting is not good for bridges – prefer reporting in April right after NBI data submittal

# Bridge Issues and Recommendations



## GENERAL CONCERNS (CONTINUED)

- Targets need to be set in the context of a budget/funding amount for NHS and Non-NHS
- Concern that necessary actions not captured by the performance measure may be deferred (e.g. addressing seismic issues)
- Cannot manage to a single target – target-setting is a multi-objective process, and States have many targets/objectives that must be balanced
- Concern with potential for inconsistent interpretations of performance data
- Need to assure the public that bridges below a target or labeled Deficient are still safe

# Bridge Issues and Recommendations



## MEASURE DEFINITION

- Definition of the CM, PM, RR measure still being clarified – expecting further input from Subcommittee on Bridges and Structures.
- Seeking greater flexibility in measure definition (i.e. trend targets vs. single-number targets)
- Concern that SD measure is not aligned with current bridge management practices and could result in a worst first strategy
- Concern that focus on SD target will drive sub-optimal project selection

# Bridge Issues and Recommendations



## **MEASURE DEFINITION (CONTINUED)**

- Concern about inconsistency of SD measure with risk-based asset management plan requirements – need measures to address safety and risk as well as condition
- Need to address the time required to initiate and complete a project that will have impact on the measure. Most projects cannot be initiated and completed within three year timeframe (inspection, programming, design, construction)

# Bridge Issues and Recommendations



## GUIDANCE AND TRAINING NEEDS

- Offer guidance on how other states are incorporating off-system bridges into target-setting
- Guidance should emphasize that the criteria for prioritization does NOT have to match the performance measure
- Advocate/provide for funding to help maintain target conditions for off-system NHS bridges
- FHWA/AASHTO should provide more support on how to use analytical tools like AASHTOWare BrM for target-setting
- Provide training on bridge-preservation policy

# Bridge Issues and Recommendations



## **BEST PRACTICE SHARING**

- Would like successful examples of bridge target-setting approaches (What is being optimized?)
- Would like to have a mechanism for comparing targets to those of peer states
- Note: North Dakota has an asset tradeoff model to produce targets (explore whether useful for others)



AASHTO SCOPM Task Force on  
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## Target-Setting Workshop

Tim Henkel, Minnesota DOT  
Lori Richter, Wisconsin DOT

Freight Performance Measure Area

Thursday, June 13, 2013

# Freights Participants



- Floyd Roehrich, Arizona DOT
- Jean Nehme, Arizona DOT
- John Nelson, Arizona DOT
- Jessie Jones, Arkansas DOT
- Jason Wallis, Colorado DOT
- Erik Sabina, Colorado DOT
- Colleen Kissane, Connecticut DOT
- Deanna Belden, Minnesota DOT
- Bill Gardener, Minnesota DOT
- Tim Henkel, Minnesota DOT
- Alan Warde, New York DOT
- Scott Zainhofsky, North Dakota DOT
- David Lee, Florida DOT
- Doug McCloud, Florida DOT
- Barbara Ivanov, Washington State DOT
- Lori Richter, Wisconsin DOT
- Teresa Brewer, Anchorage Metropolitan Area Transportation Solutions
- Bala Akundi, Baltimore Metropolitan Council
- Ron Chicka, Duluth - Superior Metropolitan Interstate Council
- Robert B. Case, Hampton Roads TPO
- Chen-Fu Liao, University of Minnesota
- Bill Eisele, Texas A&M Transportation Institute
- Tim Lomax, Texas A&M Transportation Institute
- DeLania Hardy, AMPO
- Rich Denbow, AMPO

# Freight Issues and Recommendations



## **GENERAL CONCERN**

- The freight measures may be too narrowly defined to fully reflect and communicate what is important about the country's freight system.
- Need to relate to safety and mobility objectives

# Freight Issues and Recommendations



## MEASURE DEFINITION

- Some believe freight measures should also address "quantity" aspects and "capacity utilization" aspects of freight movement
- Will there be a measure that combines modes? Concern that all measures in this area are only concerned with the truck mode.
- Consider allowing area-wide/aggregate target rather than corridor-specific

# Freight Issues and Recommendations



## **NEW FHWA CONTRACT WITH VENDOR FOR DATA**

- Make sure the data is compatible with state systems
  - Provide option for states to supplement using local data
  - Segmentation is important - RFP does not include specific requirements related to segmentation
  - Need to support additional processing to match existing segments with other data, especially HPMS
- FHWA needs to provide funds to post-process the data if the data is not going to be ready-to-use.
- Suggest FHWA compute the federally-mandated measure for States, but give the option to use that result or supplement it with States' own speed data – should they choose to collect it
- Need historical trend information in order to be able to determine targets. Suggest FHWA provide this information to produce first targets.

# Freight Issues and Recommendations



## **GUIDANCE AND TRAINING NEEDS**

- Provide data, technical assistance, training, information exchange, and information on national/global freight trends.

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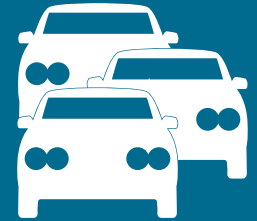
## Target-Setting Workshop

Daniela Bremmer, Washington State DOT

System Performance - Performance Measure Area

Thursday, June 13, 2013

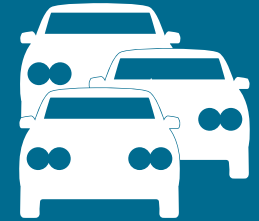
# System Performance Participants



- Jean Nehme, Arizona DOT
- Floyd Roehrich, Arizona DOT
- Jane Berner, California DOT
- Scott Richrath, Colorado DOT
- Erik Sabina, Colorado DOT
- Ermias Weldemicael, Colorado DOT
- Colleen Kissane, Connecticut DOT
- Doug McLeod, Florida DOT
- Ed Hanscom, Maine DOT
- Tony Kratofil, Michigan DOT
- Lynn Zanto, Montana DOT
- Jim Skinner, Montana DOT
- Alan Warde, New York State DOT
- Scott Zainhofsky, North Dakota DOT
- Jason Yeray, Ohio DOT
- David Huft, South Dakota DOT
- Casey Dusza, Texas DOT
- Jack Foster, Texas DOT
- Tanya Norman, Texas DOT
- Peggy Thurin, Texas DOT
- Daniela Bremmer, Washington State DOT
- Sreenath Gangula, Washington State DOT

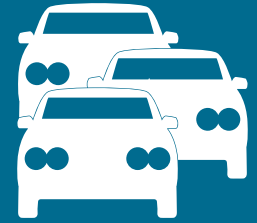


# System Performance Participants



- Ashby Johnson, Houston-Galveston Area Council
- Hans-Michael Ruthe, Houston-Galveston Area Council
- David Jones, Lubbock MPO
- Michael Morris, North Central Texas Council Of Governments
- Brian Fineman, North Jersey TPA
- Keith Miller, North Jersey TPA
- Christopher Evilia, Waco Metropolitan Planning Organization
- Ned Hacker, Wasatch Front Regional Council, MPO Salt Lake City
- Tim Lomax, Texas A&M Transportation Institute
- Rick Schuman, INRIX
- Matt Hardy, AASHTO
- Gummada Murthy, AASHTO

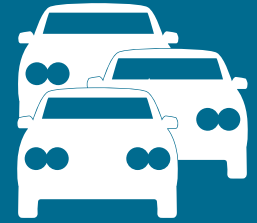
# System Performance Issues and Recommendations



## GENERAL CONCERNS

- States may need financial and technical resources and expertise for the data collection, processing, analyzing, and reporting of required performance measures in a timely manner, to ensure consistent analysis between states.
- Funding flexibility is critical to enabling states to act based on targeted vs. actual performance
- Concern about (mis)use of measures & targets for state to state comparisons or scorecards
- Delay/reliability not necessarily seen as a focus area for some states/regions – safety and asset condition may be more important

# System Performance Issues and Recommendations



## **GENERAL CONCERNS (CONTINUED)**

- Statewide system performance targets not useful for making operational and corridor investment decisions
- Future prediction methodologies not well established for reliability
- Important to recognize that methodologies are not mature and need time to improve
- Population, employment, economy are key drivers of traffic and congestion, more than agency actions
- Meeting economic growth objective likely to mean worsening congestion
- Desire to link between targets and socio-economic conditions

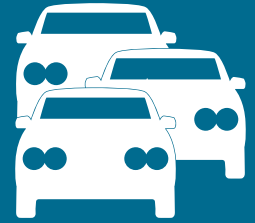
# System Performance Issues and Recommendations



## MEASURE DEFINITION

- Clarify recommended flexibility for states to define geographic scope/network coverage
- Need to clearly establish flexibility/constraints with regard to:
  - Time frame
  - Relative or absolute targets
  - Realistic or aspirational
  - Update frequency & process

# System Performance Issues and Recommendations

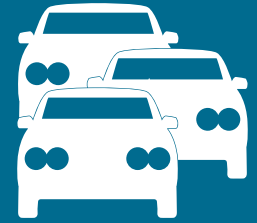


## MEASURE DEFINITION (CONTINUED)

*Some dissenting opinions about:*

- Delay and reliability as appropriate “one size fits all states” measures
- Whether measures adequately capture characteristics of interest – e.g. percent of travel meeting generally accepted operating conditions, utilization of available capacity
- Whether states should set threshold speed values for determining delay (versus use of national standards for rural and urban areas)

# System Performance Issues and Recommendations



## DATA

- USDOT must provide processed traffic data that can be readily integrated with other existing datasets in a state (traffic volume, number of lanes, roadway type, etc.). This alignment of various data elements/datasets on a single platform (such as GIS) is called conflation, which is necessary for developing MAP-21 performance measures.

# System Performance Issues and Recommendations

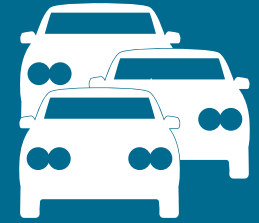


## DATA

*New FHWA data will be valuable given many agencies lack the data for calculating the measures, but still concern about:*

- Conflating the data to state inventory and traffic data – different segmentations, timeframes
- Reconciliation with existing archived travel time data
- Blending with modeled data for trend analysis
- Contextual data (economic, funding, investment, fuel prices, etc.) is essential and must be packaged in a meaningful way
- Many agencies have 1-2 year lags from data collection to distribution/availability

# System Performance Issues and Recommendations



## GUIDANCE AND TRAINING NEEDS

- Request guidance on alternative target setting methods and sharing of agency practices
- Supporting studies and data would be helpful:
  - Pre-recession traffic trend data
  - Studies correlating traffic congestion with economic indicators, level of investment, operational decisions
  - Reliability indices for benchmarking/comparison



AASHTO SCOPM Task Force on  
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## Target-Setting Workshop

Mara Campbell, Missouri DOT  
Rachel Falsetti, Caltrans

CMAQ Performance Measure Area

Thursday, June 13, 2013

# CMAQ Participants



- Floyd Roehrich, Arizona DOT
- Jessie Jones, Arkansas DOT
- Muhaned Aljabiry, California DOT
- Rachel Falsetti, California DOT
- Sandi Kohrs, Colorado DOT
- Sabrina Williams, Colorado DOT
- Colleen Kissane, Connecticut DOT
- Phil Peevey, Georgia DOT
- Jerry Casey, Maine DOT
- Nate Howard, Maine DOT
- Howard Simons, Maryland DOT
- Paul Fernandes, Massachusetts DOT
- Pat Bursaw, Minnesota DOT
- Mike Henderson, Missouri DOT
- Christa Ippoliti, New York State DOT
- Patrick Lentlie, New York State DOT
- Alan Warde, New York State DOT
- Lynn Weiskopf, New York State DOT
- Michelle Conkle, Texas DOT
- Jack Foster, Texas DOT
- Jim Ponticello, Virginia DOT
- Tim Sexton, Washington State DOT

# CMAQ Participants



- Todd Lang, Baltimore Metropolitan Council
- Ross McKeown, Metropolitan Transportation Commission
- Dave Vautin, Metropolitan Transportation Commission
- Craig Goldblatt, Metropolitan Transportation Commission
- Harold Brazil, Metropolitan Transportation Commission
- Christie Gotti, North Central Texas Council of Governments
- Matt Hardy, AASHTO
- Jennifer Brickett, AASHTO

# CMAQ Issues and Recommendations



## GENERAL CONCERNS

- Lack of consistent processes established for modeling impacts, especially delay
- Concern that targets could drive suboptimal project selection
- CMAQ-eligible projects may not be the best projects to improve performance
- Concern that approach may systematically favor some jurisdictions in project selection, undermining equitable distribution
- Need to recognize differences between areas that already have low emissions and little congestion and areas with substantial air quality and congestion issues
  - For some areas, a target to “maintain” or even get worse could be justified in order to achieve other objectives

# CMAQ Issues and Recommendations



## PROGRAM PERFORMANCE VERSUS SYSTEM PERFORMANCE

- MAP-21 requirements may not favor use of CMAQ funds to address highly localized problems

# CMAQ Issues and Recommendations



## MEASURE DEFINITION

- Need more precise definition for the measures
- AASHTO's proposed measure is not aligned with current reporting process.
- Concern with use of 2009 non-attainment timeframe, particularly for states that have made gains over last four years.
- Some concerns with basing MAP-2I measures on the annual CMAQ report; set of projects that the report considers is different than the set of projects adopted that year

# CMAQ Issues and Recommendations



## **MEASURE DEFINITION (CONTINUED)**

- Consider reporting hours of delay per capita rather than total
- For emissions, use kg/day for consistency with FHWA database
- FHWA travel time data – provide for small sections that can be aggregated

# CMAQ Issues and Recommendations



## GUIDANCE AND TRAINING NEEDS

- Current CMAQ project models focus on emissions reduction, not delay; many CMAQ projects don't impact delay. Provide examples of calculation methodologies.
- Guidance needs to address emissions and delay impact assessment for a range of project types
- Need guidance on data source and method for setting a baseline/ redefinition of baseline
  - Need for use of regional emissions and delay from models or would targets be based on estimated reductions from CMAQ projects, independent of a baseline value?
  - Annual reductions estimated from funded CMAQ projects or averaged over multiple years to smooth out variations?



# CMAQ Issues and Recommendations



## **BEST PRACTICES SHARING**

- New York has a model for project analysis tool (explore whether useful for others)

AASHTO SCOPM Task Force on  
MAP-21 National Performance Measures

## Target-Setting Workshop

Tom Cole, Idaho DOT

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Safety Performance Measure Area

Thursday, June 13, 2013

# Safety Participants

- Timothy E. Barnett, Alabama DOT
- Floyd Roehrich, Arizona DOT
- Jessie Jones, Arkansas DOT
- Scott Richrath, Colorado DOT
- Pete Capetera, Connecticut DOT
- Colleen A. Kissane, Connecticut DOT
- Tom Cole, Idaho DOT
- Priscilla Tobias, Illinois DOT
- John Selmer, Iowa DOT
- Duane Brunell, Maine DOT
- Jerry Casey, Maine DOT
- Jeanetta Hill, Massachusetts DOT
- Bernie Arseneau, Minnesota DOT
- Sue Groth, Minnesota DOT
- Leanna Depue, Missouri DOT
- Fred Zwonechek, Nebraska DOT
- Scott Zainhofsky, North Dakota DOT
- Troy Costales, Oregon DOT
- Robert Hull, Utah DOT
- John Milton, Washington State DOT

# Safety Participants

- Patrick Hall, Atlanta Regional Commission
- Bala Akundi, Baltimore Metropolitan Council
- Jeff Kaufman, Houston-Galveston Area Council
- Kelly Hardy, AASHTO

# Safety Issues and Recommendations



## GENERAL CONCERNS

- Evaluation, analysis and diagnosis capability is key for target setting process to be effective; requires substantial resources and expertise
- States with zero-based goals shouldn't be discouraged from also setting less aggressive interim targets.
- Targets should not be linked to funding. Target achievement dependent on factors unrelated to what can be addressed via engineering fixes.
- Recognize random variation in results in evaluating target achievement – consider target in the form of a range around a report mean (e.g.  $\pm 5$  percent)

# Safety Issues and Recommendations



## **GENERAL CONCERNS (CONTINUED)**

- Performance holding steady, or in some situations declining, may be acceptable
- Targets need to be set in the context of available funding and agency funding allocation decisions
- Recognize time lag between funding/initiating countermeasures and resulting impacts
- USDOT should consider a state's current safety performance before assessing consequences of missed targets: long term progress, fatality/injury rates relative to national average, best use of available resources, etc. Contextual information including trends in VMT, population, demographics, economic changes, licensing & registration, changes to crash reporting, funding important for understanding results

# Safety Issues and Recommendations



## DATA AVAILABILITY

- Time lag issues in availability of final fatality and injury numbers – e.g. final FARS data for 2012 available December 2013
- Lack of complete traffic data to compute rates – especially on local roads
- Reduce “competing sets of accident data at the local, State, and Federal level”
- States need certified VMT data at least 3 months before performance report is due

# Safety Issues and Recommendations



## GUIDANCE AND TRAINING NEEDS

- Process guidance is needed on:
  - Building on existing well-established data-driven safety planning process – including target setting, identifying emphasis areas, evaluation and adjustment
- Technical guidance is needed on:
  - Establishing national standard definition and process to determine and report serious injuries, contributing factors, and location of accidents (using GPS)
  - Traffic & VMT prediction methodologies in high-production shale-oil/gas regions



AASHTO SCOPM Task Force on  
MAP-21 National Performance Measures

# Target-Setting Workshop

John Barton, Texas DOT

Update: Cross-Cutting Issues and Recommendations

Thursday, June 13, 2013

# Key Cross-Cutting Issues and Recommendations

## GOVERNANCE

- MAP-2I performance measure and target-setting rules should focus on federal objectives and state support of these objectives. The rules should be focused on the ability of states, using available federal funds, to deliver the desired results – not on how states manage their own programs that do not use federal funds.
  - States may choose to implement the MAP-2I performance requirements separately from the state performance management program. In some states, federal funds only support a small part of the overall budget. For these states separate performance management programs may be appropriate. In other states, the majority of the program is federally funded and state and federal goals and objectives may be the same.
  - The role of the forthcoming National Freight Network must be clarified.

# Key Cross-Cutting Issues and Recommendations

## GENERAL CONCERNS

- For the Freight, System Performance, and CMAQ areas, the performance measures are not mature and can be expected to be improved over time. Ideally the rules will allow for this – setting measures in stone too early could limit progress and ultimately the value of the performance measures
- Target setting has risks – an agency that doesn't meet the target they have established could face public criticism. There is also the possibility of unintended consequences, for example; the public could say “why is failure a reason to invest more \$\$\$” when not meeting a target?
- There is a need for good data and the time and staff to evaluate results versus target

# Key Cross-Cutting Issues and Recommendations

## **PROVIDE MAXIMUM FLEXIBILITY**

- State should not be required to set targets in a uniform way
- Complement flexibility in target setting with transparency and accountability
- Allow flexibility for DOTs and MPOs to use a risk-based target-setting approach
- Allow states to approach target-setting for the entire set of national performance measures as a bundle. This may lead to having some targets get worse while others get better. This accommodates states that have tradeoff processes.
- Managing to a single target is difficult to do

# Key Cross-Cutting Issues and Recommendations

## **PROVIDE MAXIMUM FLEXIBILITY (CONTINUED)**

- If a state wants to adjust targets dynamically (on an ongoing basis as conditions change), they should be allowed to do so.
- Would it be possible for states to use measures that are close but not exactly the same as the ones defined? This could be desirable mainly for the freight, system performance, and CMAQ measures.
- Consider allowing targets in the form of % change (slope or trend line rather than single number).

# Key Cross-Cutting Issues and Recommendations

## NEED FURTHER CLARIFICATION

- Target-setting is directly related to what goals and objectives have been established. Clearer guidance is needed on the federal goals and objectives for each of the performance areas.
- There are existing federal requirements that have some overlap with the national performance measure and target-setting requirements in MAP-21. Guidance is needed on the relationships across these overlapping federal requirements – for example:
  - Safety: NHTSA performance measure requirements
  - CMAQ: EPA air quality requirements
  - Freight: Long range plans and freight plans
- FHWA should provide further details on the definition of corridors, segments, and thresholds for the system performance and freight measures

# Key Cross-Cutting Issues and Recommendations

## NEED A RATIONAL SCHEDULE

- The time periods for the performance measure data collection, target-setting, assessment, and target-setting adjustments need to consider the varying processes each state has for these activities. Performance measures and targets are reported on the previous year's data. Two years later this reporting will result in an assessment of whether a state has met or not met its targets. If adjustments are needed to the targets based on this assessment, there may be lengthy processes to follow to adjust the target. When is the adjusted target reported - two years from the last reporting? When will the adjusted target be assessed? At the next biennial reporting? This may be only a year from the adjustment date.
- A mock case study of how this would work for a state would be helpful. Colorado may be a good state to use for this case study.

# Key Cross-Cutting Issues and Recommendations

## COMMUNICATION IS NEEDED NOW AND CONTINUOUSLY

- Based on the input provided in the surveys, it appears that there are varying degrees of understanding of MAP-2I and the schedule and processes for finalizing the rules.
  - Some people perceive MAP-2I performance measure requirements as broader than what is in the legislation.
  - Some people are not aware that FHWA is working on a contract with a private vendor to acquire truck and passenger movement data to support the system performance and freight measures.
- Regular webinars starting immediately may be helpful to keep people updated on MAP-2I facts and plans.
  - Webinars and resources on target-setting would be helpful



# Key Cross-Cutting Issues and Recommendations

## **COMMUNICATION IS NEEDED NOW AND CONTINUOUSLY (CONTINUED)**

- AASHTO communication activities should address
  - Concerns about what will happen if targets are missed.
  - Purpose of delving into target setting approaches prior to rulemaking, when measures are still speculative
- Different activities reach different audiences so use of multiple forums to communicate would be most effective.
- AASHTO and FHWA should continue to facilitate discussion amongst states

# Key Cross-Cutting Issues and Recommendations

## **GUIDANCE AND TRAINING**

- Process guidance is needed on:
  - Expected level of uniformity across states in target setting and reporting processes
  - Incentives and disincentives of target-setting. What is the incentive for setting stretch targets and the disincentive of setting low targets that are easy to meet?
  - Coordination of performance targeting across different MAP-21 performance areas

# Key Cross-Cutting Issues and Recommendations

## **GUIDANCE AND TRAINING (CONTINUED)**

- Technical guidance would be helpful on:
  - Target setting methods, covering establishment of trend lines, distinguishing normal statistical variations from actual changes; identifying performance measure relationships to factors such as weather, work zones, economic conditions, economic development, population, capacity, etc.
    - Present results in context of: funding, freight flow trends, population growth, weather, local jurisdiction action/inaction, customer survey results, assumptions vs. reality, etc.
  - Root cause analysis - several states noted in their survey responses that they would conduct “root cause” analysis to understand why targets were not met. This would involve delving into the reasons why the state did not accomplish what it thought it could do. Documented examples of these analyses for different performance areas would be of value.
- AASHTO and FHWA should establish clearinghouse for information exchange and/or information on best practices.
- Trainings should be ready to be delivered when rules are finalized

AASHTO SCOPM Task Force on  
MAP-21 National Performance Measures

# Target-Setting Workshop

Priority Issues Brainstorming

Thursday, June 13, 2013

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MAP-21 National Performance Measures

# Target-Setting Workshop

Activities Priority Setting

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# Target-Setting Workshop

Workshop Wrap-up and Next Steps

Thursday, June 13, 2013