Conference on Performance and Data in Transportation Decision Making

September 15-18, 2019
Atlanta, Georgia
Omni Hotel at CNN Center

Organized by
Transportation Research Board

Sponsoring TRB Committees
Committee on Statewide Multimodal Transportation Planning (ADA10)
Committee on Metropolitan Policy, Planning, and Processes (ADA20)
Committee on Transportation Programming and Investment Decision-Making (ADA50)
Task Force on Data for Decisions and Performance Measures (A0030T)
Committee on Performance Management (ABC30)
Committee on Transportation Asset Management (ABC40)
Committee on Transit Management and Performance (AP010)

In Partnership with
American Association of State Highway and Transportation Officials (AASHTO)

The National Academies of
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TRANSPORTATION RESEARCH BOARD

Welcome to the TRB Conference on Performance and Data in Transportation Decision Making!

Let's face it. Each of us is continually quizzed on the best and most groundbreaking means to meet the ever-increasing demand for transportation infrastructure and services in a continuously evolving industry paradigm. Five years ago there was very little discussion of applying such innovations as Mobility-as-a-Service or vehicle automation and connectivity. Yet these are becoming household words, and the industry is still challenged on knowing when and how to apply innovation in the transportation planning and investment landscape. Furthermore, industry advances allow for more detailed and voluminous data on how, where and when we travel, but access and use of these data is not a simple matter for agencies. Whether these questions come from the public, elected officials, a supervisor, co-worker, or even professional and personal acquaintances . . . we are often front and center for answers. As we formulate answers, we look at the data we collect, the metrics we measure, and our own processes developed for making transportation decisions. We also look to conferences like this one to help us consider the models, tools and options available to us to advance our state of practice, while seeking validation, where appropriate, for our established planning and engineering programs and pursuits.

The conference planning committee is very excited to present this program on Performance and Data in Transportation Decision Making, a program that we believe will be useful, and instructive to your time here in Atlanta and readily applicable upon returning to your home organization. The agenda includes 34 interactive conference sessions with 120 presentations addressing various decision-making topics across four technical topic areas, or "tracks": Performance and Project Selection, Multi-modal Considerations, Data Considerations, and Public Involvement and Communications. Professionals from state departments of transportation, metropolitan planning organizations, universities, National Cooperative Highway Research Program (NCHRP) panels, federal agencies, software developers, and private-sector consultants will be here as both speakers and attendees to share their insights and experiences. The program includes opportunities for after-hours informal networking to keep the conversation going. We hope you will make the most of this unique opportunity to interact with your peers and other industry representatives on the latest research and practical methods for using data and performance measures to inform decisions on transportation services and infrastructure in urban and rural areas alike.

We are pleased to announce that TRB will be developing a post-conference "E-circular" summary of the conference presentations and discussions through a generous contribution by the Federal Highway Administration. This will enable the reach of this conference to extend to a broader array of professionals and help kick start any subsequent activity on developing research problem statements or plans for implementation and adoption that might take place within the transportation industry. Look for the E-circular to be available on the TRB website in early 2020.

Finally, this conference could not take place without the generous patronage support of thirteen organizations. Look for their logos and advertisements in this program and please be certain to visit their exhibits during the conference.

Enjoy your time in Atlanta!

Bob Hazlett, Maricopa Association of Governments
Conference Planning Co-Chair

David Wasserman, North Carolina DOT
Conference Planning Co-Chair

Bob Hazlett, *Conference Co-chair,* Maricopa Association of Governments
David Wasserman, *Conference Co-chair,* North Carolina Department of Transportation
Claudia Bilotto, WSP
Jerri Bohard, Oregon Department of Transportation
J. Matthew Carpenter, Sacramento Area Council of Governments
Matthew Hardy, American Association of State Highway and Transportation Officials
Patricia Hendren, I-95 Corridor Coalition
Jordan Holt, Washington Metropolitan Area Transit Authority
Bill Keyrouze, Association of Metropolitan Planning Organizations
Deborah Miller, Kansas University Public Management Center
Harlan Miller, Federal Highway Administration
James Mitchell, Louisiana Department of Transportation and Development
Jon Schermann, Metropolitan Washington Council of Governments
Joseph Schofer, Northwestern University
Tracy Selin, Cambridge Systematics
Hannah Twaddell, ICF
Amy Van Doren, Marin Transit
Dwayne Weeks, Federal Transit Administration
Penelope Weinberger, American Association of State Highway and Transportation Officials

TRB STAFF
Jennifer L. Weeks
Tom Palmerlee
Megan Kaufmann
Mary Kissi

TRANSPORTATION RESEARCH BOARD

COMMITTEE MEETINGS

AASHTO Committees		
AASHTO Committee on Data Management and Analytics, Leadership Group	Sunday, September 15, 9am – 12pm	*Walnut Room*
AASHTO Committee on Performance Based Management	Sunday, September 15, 9am – 12pm	*Grand Ballroom A (M4)*
AASHTO Committee on Data Management and Analytics	Sunday, September 15, 1pm – 4pm	*Walnut Room*
AASHTO Organizational Management Subcommittee (joint meeting with TRB Committee on Management and Productivity – ABC20)	Tuesday, September 17, 6pm – 8pm	*Grand Ballroom A (M4)*
TRB Committees		
TRB Committee on Statewide Transportation Data Information Systems (ABJ20)	Sunday, September 15 9am – 12pm	*Hickory Room*
TRB Committee on Performance Management (ABC30)	Sunday, September 15 1pm – 4pm	*Grand Ballroom C (M4)*
TRB Committee on Statewide Multimodal Planning (ADA10)	Sunday, September 15, 1pm - 4pm	*Grand Ballroom A (M4)*
TRB Committee on Information Systems and Technology (ABJ50)	Sunday, September 15, 1pm - 4pm	*Hickory (M3)*
TRB Committee on Transit Management and Performance (AP010)	Sunday, September 15, 1pm - 4pm	*Grand Ballroom B (M4)*
TRB Section on Management and Leadership (ABC00)	Sunday, September 15, 6pm - 8pm	*TBD*
TRB Committee on Metropolitan Planning, Policy and Processes (ADA20)	Tuesday, September 17, 6 pm – 8pm	*Grand Ballroom C (M4)*
TRB Committee on Regional Transportation Systems Management (AHB10)	Tuesday, September 17, 6pm – 8pm; Wednesday, September 18, Noon – 5pm	*Oak (LL)*
TRB Committee on Management and Productivity (ABC20) (joint meeting with AASHTO Organizational Management Subcommittee)	Tuesday, September 17, 6pm – 8pm	*Grand Ballroom A (M4)*

CONFERENCE AT A GLANCE

Sunday, September 15		
Noon – 5:00 p.m.	**Registration**	*M4 Prefunction*
9:00 a.m. – Noon	**Committee Meetings**	
	TRB Committee on Statewide Transportation Data Information Systems (ABJ20)	*Hickory (M3)*
	AASHTO Committee on Leadership Group	*Walnut (M3)*
	AASHTO Committee on Performance-Based Management	*Grand Ballroom A (M4)*
1:00 p.m. – 4:00 p.m.	**Committee Meetings**	
	TRB Committee on Performance Management (ABC30)	*Grand Ballroom C (M4)*
	TRB Committee on Information Systems and Technology (ABJ50)	*Hickory (M3)*
	AASHTO Committee on Data Management and Analytics	*Walnut (M3)*
	TRB Committee on Statewide Multimodal Planning (ADA10)	*Grand Ballroom A (M4)*
	TRB Committee on Transit Management and Performance (AP010)	*Grand Ballroom B (M4)*
6:00 p.m. – 8:00 p.m.	TRB Section on Management and Leadership (ABC00)	*TBD*
6:00 p.m.	**Social Event: Scavenger Hunt (begins at 6:15PM)**	*Registration Area*
Monday, September 16		
7:30 a.m. – 5:00 p.m.	**Registration**	*M4 Prefunction*
7:30 a.m. – 5:30 p.m.	**Exhibits**	*M4 Prefunction*
8:30 a.m. – 10:30 a.m.	**Opening Session: Special Session #1**	*Grand Ballroom E (M4)*
10:30 a.m. – 11:00 a.m.	**Break**	*M4 Prefunction*
11:00 a.m. – 12:30 p.m.	**Concurrent Breakout Sessions: 1A, 1B, 1C, 1D.**	
	1A: State and MPO Transportation Plans – How Agencies Are Using Data to Shape Investment Decisions	*Grand Ballroom A (M4)*
	1B: Benchmarking: Collaborating to Develop Common Performance Measures	*Grand Ballroom B (M4)*
	1C: State of the Nation/Balancing Data-Driven Decision-Making with Political Reality	*Grand Ballroom C (M4)*
	1D: Engaging the Public and Local Officials in Data Driven Decision Making	*Dogwood (M1)*
12:30 a.m. – 2:00 p.m.	**Lunch with Key Note Speaker**	*Grand Ballroom E (M4)*

Time	Session	Location
2:00 p.m. – 3:30 p.m.	**Concurrent Breakout Sessions: 2A, 2B, 2C, 2D.**	
	2A: Using Business Intelligence Tools to Improve Decision-Making	*Grand Ballroom A (M4)*
	2B: The Road to High-Value BI Opportunities: Bringing together the Decision Maker, Data, Analytics, and the Kitchen Sink, Part 1	*Grand Ballroom B (M4)*
	2C: Data-driven Project Selection Across the States	*Grand Ballroom C (M4)*
	2D: Fostering Local Accountability for Regional and State-wide System Performance	*Dogwood (M1)*
3:30 p.m. – 4:00 p.m.	**Break**	*M4 Prefunction*
4:00 p.m. – 5:30 p.m.	**Concurrent Breakout Sessions: 3A, 3B, 3C, 3D.**	
	3A: Aligning Goals of State DOT Plans for Implementation Success	*Grand Ballroom A (M4)*
	3B: The Road to High-Value BI Opportunities: Bringing together the Decision Maker, Data, Analytics, and the Kitchen Sink, Part 2	*Grand Ballroom B (M4)*
	3C: Mode-Neutral Project Evaluation	*Grand Ballroom C (M4)*
	3D: Fostering Employee Accountability for Agency Performance - WMATA Case Study	*Dogwood (M1)*
5:30 p.m. – 7:00 p.m.	**Welcome Reception/ Poster Session/Exhibits**	*Grand Ballroom E (M4)*
Tuesday, September 17		
7:30 a.m. – 5:00 p.m.	**Registration**	*M4 Prefunction*
7:30 a.m. – 5:30 a.m.	**Exhibits**	*M4 Prefunction*
8:30 a.m. – 10:30 a.m.	**Plenary Session: Special Session #2:**	*Grand Ballroom E (M4)*
10:30 a.m. – 11:00 a.m	**Break**	*M4 Prefunction*
11:00 a.m. – 12:30 p.m.	**Concurrent Breakout Sessions: 4A, 4B, 4C, 4D.**	
	4A: Tools to Aid in the Monitoring of Multimodal Performance Measures	*Grand Ballroom A (M4)*
	4B: Using Data to Inform Decisions	*Grand Ballroom B (M4)*
	4C: Getting into the Details of Highway Project Evaluation	*Grand Ballroom C (M4)*
	4D: Statewide Frameworks for Collaborative Performance Management	*Dogwood (M1)*
12:30 p.m. – 2:00 p.m.	**Lunch with Special Guest Speaker**	*Grand Ballroom E (M4)*
2:00 p.m. – 3:30 p.m.	**Concurrent Breakout Sessions: 5A, 5B, 5C, 5D.**	
	5A: Guiding the Process For Evaluating Needs and Investments for DOTs and MPOs	*Grand Ballroom A (M4)*

	5B: Lessons Learned on Data Governance	*Grand Ballroom B (M4)*
	5C: Getting into the Details of Multimodal (Transit / Bike & Ped) Project Evaluation	*Grand Ballroom C (M4)*
	5D: Dashboard Demo	*Dogwood (M1)*
3:30 p.m. – 4:00 p.m.	**Break**	*M4 Prefunction*
4:00 p.m. – 5:30 p.m.	**Concurrent Breakout Sessions: 6A, 6B, 6C, 6D.**	
	6A: It Is All About Transit	*Grand Ballroom A (M4)*
	6B: Improving Data Governance to Support Decision Making	*Grand Ballroom B (M4)*
	6C: Speed Data[ing] (Data & Tools used in project evaluation that feeds the TIP/STIP)	*Dogwood (M1)*
	6D: Works In Progress: Research and Capacity-Building Initiatives to Advance Data Driven Decision Making	*Grand Ballroom C (M4)*
	Committee Meetings	
6:00 p.m. – 8:00 p.m.	TRB Committee on Regional Transportation Systems Management and Operations (AHB10)	*Oak (LL)*
	TRB Committee on Metropolitan Policy, Planning and Processes (ADA20)	*Grand Ballroom C (M4)*
	Joint Meeting - TRB Committee on Management and Productivity (ABC20) and AASHTO Organizational Management Subcommittee	*Grand Ballroom A (M4)*
Wednesday, September 18		
7:30 a.m. – 10:00 a.m.	**Registration**	*M4 Prefunction*
8:30 a.m. – 11:00 a.m.	**Exhibits**	*M4 Prefunction*
8:30 a.m. – 10:00 a.m.	**Concurrent Breakout Sessions: 7A, 7B, 7C, 7D.**	
	7A: How Transit Agencies are Revamping their Data Analysis to Make Collaboration with Cities and MPOs More Effective, Efficient, and Measurable	*Grand Ballroom A (M4)*
	7B: Private Data	*Grand Ballroom B (M4)*
	7C: Communicating Project Selection Results	*Grand Ballroom C (M4)*
	7D: Achieving the National Goals Supported by Federally Required Performance Measures	*Dogwood (M1)*
10:00 a.m. – 10:30 a.m.	**Break**	*M4 Prefunction*
10:30 a.m. – Noon	**Conference Closing Session: Bring it all Together**	*Grand Ballroom E (M4)*
Noon – 5:00 p.m.	FHWA Workshop	*Redwood (M1)*
	TRB Committee on Regional Transportation Systems Management and Operations (AHB10)	*Oak (LL)*

Sunday, September 15

Noon - 5:00 p.m. - M4 Prefunction
Registration

9:00 a.m. - Noon
Committee Meetings

- TRB Committee on Statewide Transportation Data Information Systems (ABJ20) - *Hickory (M3)*
- AASHTO Committee on Leadership Group - *Walnut (M3)*
- AASHTO Committee on Performance-Based Management - *Grand Ballroom A (M4)*

1:00 p.m. - 4:00 p.m.
Committee Meetings

- TRB Committee on Performance Management (ABC30) - *Grand Ballroom C (M4)*
- TRB Committee on Information Systems and Technology (ABJ50) - *Hickory (M3)*
- AASHTO Committee on Data Management and Analytics - *Walnut (M3)*
- TRB Committee on Statewide Multimodal Planning (ADA10) - *Grand Ballroom A (M4)*
- TRB Committee on Transit Management and Performance (AP010) - *Grand Ballroom B (M4)*

6:00 p.m: Registration Area
Social Event: Scavenger Hunt (begins at 6:15PM)

Monday, September 16

7:30 a.m. - 5:00 p.m. - M4 Prefunction
Registration

7:30 a.m. - 8:30 a.m. - M4 Prefunction
Continental Breakfast

7:30 a.m. - 5:30 p.m. - M4 Prefunction
Exhibits

8:30 a.m. - 10:30 a.m.
Welcome and Opening Session - *Grand Ballroom E (M4)*

Opening Session
Bob Hazlett, *Maricopa Association of Governments*
Chair, Conference Planning Committee

Special Session #1: What Performance Based Decision-Making Looks like from State, Regional and Local Leaders
Moderator: Patricia Hendren, I-95 Corridor Coalition

- Russell McMurry, Commissioner, *Georgia Department of Transportation*
- Kyle Schneweis, Director, *Nebraska Department of Transportation*
- Tina Quigley, Chief Executive Officer, *Regional Transportation Commission of Southern Nevada*
- Jacob Tzegaegbe, Senior Transportation Policy Advisor, *City of Atlanta*
- Yvonne Carney, Director of Strategic Performance, *Washington Suburban Sanitary Commission*

10:30 a.m. - 11:00 a.m. - M4 Prefunction
Break

11:00 a.m. - 12:30 p.m.
Concurrent Breakout Sessions

Session 1A - *Grand Ballroom A (M4)*
State and MPO Transportation Plans – How Agencies Are Using Data to Shape Investment Decisions
Moderator: John Orr, Atlanta Regional Commission

Analyzing Freight Flows and Trends to Improve Freight Investments
Michael Vanderhoof, *Illinois Department of Transportation*

Guide towards Zero Deaths – Analyze Data and Select Strategies to Address Safety Issues
Eric Tang, *Vanasse Hangen Brustlin, Inc.*

Planning for an Uncertain Future
Matt Haubrich, *Iowa Department of Transportation*

Where Do We Go from Here? Preparing a Platform for Success
Monique de los Rios-Urban, *Maricopa Association of Governments*

Session 1B *- Grand Ballroom B (M4)*
Benchmarking: Collaborating to Develop Common Performance Measures
Moderator: Amy Van Doren, Marin Transit

Outcome-Driven Performance Measure for Funding Allocation that Makes Paradigm Shift: MTC's StreetSaver Tool
Sui Tan, *Metropolitan Transportation Commission*

Comparing Apples to Apples - Interagency Scorecard Framework
Brian Brooke, *Sound Transit*

Session 1C - *Grand Ballroom C (M4)*
State of the Nation/Balancing Data-Driven Decision-Making with Political Reality
Moderator: David Jackson, Cambridge Systematics

State of the Nation
David Jackson, *Cambridge Systematics*

North Carolina's Strategic Transportation Investments Prioritization Process
David Wasserman, *North Carolina Department of Transportation*

Virginia's Smart Scale Project Selection Process
Chad Tucker, *Virginia Office of Intermodal Planning and Investment*

Arizona's P2P Process
Dan Gabiou, *Arizona Department of Transportation*

Session 1D - *Dogwood (M1)*
Engaging the Public and Local Officials in Data Driven Decision Making
Moderator: Claudia Billotto, WSP

Project Prioritization Made Simple
Allan Fye and Ben Owen, *Northern Virginia Transportation Commission*

Man Makes Rational Choices Using PBPP
Beth Alden, *Hillsborough County Metropolitan Planning Organization*

Connecting Northwestern Indiana's Vision for 2050 to the Transportation Improvement Program
Trey Wadsworth, *Northwestern Indiana Regional Planning Commission*

12:30 p.m. - 2:00 p.m. - *Grand Ballroom E (M4)*
Lunch with Key Note Speaker
Moderator: Patricia Hendren, I-95 Corridor Coalition

Transforming Transit: Using Community Involvement to Turn Around a Beleaguered Agency
Keith Parker, CEO, *Goodwill of North Georgia, Former CEO of MARTA*

Keith T. Parker is President and CEO of Goodwill of North Georgia. Prior to that, he served as the General Manager and Chief Executive Officer of the Metropolitan Atlanta Rapid Transit Authority (MARTA), the nation's 9th largest transit system that includes heavy rail, bus and paratransit services. With an annual budget of $1 billion, MARTA provides more than 400,000 passenger boardings a day. Keith will discuss his time at MARTA where he and his team balanced the budget, improved efficiencies, increased bus and rail service, enhanced the customer experience, and restored pride among MARTA employees and staff. MARTA is now recognized as one of the most innovative transit authorities in the nation. And, Parker was recognized by APTA and METRO Magazine for his ability to transform agency efficiencies, implement cost-effective measures, and engender a culture of innovation in diverse environments. Additionally, Keith will discuss how a continued focus on research and improving the customer experience has translated to his new role at Goodwill of North Georgia.

2:00 p.m. - 3:30 p.m.
Concurrent Breakout Sessions

Session 2A - *Grand Ballroom A (M4)*
Using Business Intelligence Tools to Improve Decision-Making
Moderator: Yvonne Carney, Washington Suburban Sanitary Commission

Maintaining an Analytical Framework for Database Management of Performance Data at SCDOT Chowdhury Siddiqui, *South Carolina Department of Transportation*

Port Authority Enables Data Driven Decision Making Using an Integrated Analytics Platform Theodore Bobowsky, *Port Authority of New York and New Jersey*

Developing Receptive Enterprise Management Systems in an Era of Performance-Based Management: A Case Study
Richard Boadi, *Wood Environment & Infrastructure Solutions. Inc.*

Session 2B - *Grand Ballroom B (M4)*
The Road to High-Value BI Opportunities: Bringing together the Decision Maker, Data, Analytics, and the Kitchen Sink, Part 1
Moderator: Vaishali Shah, AEM Corporation

Part 1 of 2 sessions presents the finding and framework from the NCHRP 03-128: Business Intelligence (BI) Techniques for Transportation Agency Decision Making, frocusing on BI Analytics techniques, data management and decision making. Session 3B will engage participants in applying the BI framework.

Vaishali Shah and Benjamin Pecheux, *AEM Corporation;* Pat Noyes, *Pat Noyes & Associates*; and Emanuel Robinson, *WESTAT*

Session 2C - *Grand Ballroom C (M4)*
Data-driven Project Selection Across the States
Moderator: David Wasserman

Kentucky's SHIFT Program
Scott Thomson, *Kentucky Transportation Cabinet*

MassDOT'S Project Selection Process
Bryan Pounds, *Massachusetts Department of Transportation*

One Nevada Transportation Plan
Sondra Rosenberg, *Nevada Department of Transportation*

Texas DOT's Project Selection Process
Peter Smith, *Texas Department of Transportation*

Minnesota DOT'S New Project Selection Process
Philip Schaffner, *Minnesota Department of Transportation*

Session 2D - *Dogwood (M1)*
Fostering Local Accountability for Regional and Statewide System Performance
Moderator: Michael Grant, ICF

Performance-based maintenance at Michigan DOT
Gareth McKay, *WSP*

Development of a Performance Based Approach to Revenue Distribution in the San Francisco Bay Area: A Case Study in Stakeholder Engagement
Theresa Romell, *Metropolitan Transportation Commission*

3:30 p.m. - 4:00 p.m. - M4 Prefunction
Break

4:00 p.m. - 5:30 p.m.
Concurrent Breakout Sessions

Session 3A - *Grand Ballroom A (M4)*
Aligning Goals of State DOT Plans for Implementation Success
Moderator: Jessie Jones, Arkansas Department of Transportation

Performance Based Planning and Programming - Connecting the Dots
Larry Shifflet, *Pennsylvania Department of Transportation*

Toward a Common Vision: Aligning MnDOT's Family of Plans
Philip Schaffner, *Minnesota Department of Transportation*

How Do We Plan To Create a Statewide Preformance Based Integrated Multiagency Multimodal Transportation Strategy for Washington State in Three Easy Steps
Jeremy Jewkes, *Washington State Department of Transportation*

Session 3B- *Grand Ballroom B (M4)*
The Road to High-Value BI Opportunities: Bringing together the Decision Maker, Data, Analytics, and the Kitchen Sink, Part 2
Moderator: Vaishali Shah, AEM Corp.

Part 2 builds on the information presented in session 2B through interactive breakout groups focused on applying the BI framework to asset, operations, and human capital management decisions based on guidance from NCHRP 03-128: Business Intelligence (BI) Techniques for Transportation Agency Decision Making.

Vaishali Shah and Benjamin Pecheux, *AEM Corporation;* Pat Noyes, *Pat Noyes & Associates*; and Emanuel Robinson, *WESTAT*

Session 3C - *Grand Ballroom C (M4)*
Mode-Neutral Project Evaluation
Moderator: J. Matthew Carpenter, Sacramento Area Council of Governments

Recapping the Spokane Peer Exchange
Tracy Selin, *Cambridge Systematics*

Mode-Neutral Project Prioritization, an MPO Success Story
Tracy Selin, *Cambridge Systematics*

Comparing Projects Across Modes in Virginia
Chad Tucker, *Virginia Office of Intermodal Planning and Investment*

Revamping Vermont's' Project Selection and Prioritization Processes
Chad Allen, *Vermont Agency of Transportation*

Session 3D - *Dogwood (M1)*
Fostering Employee Accountability for Agency Performance - WMATA Case Study
Moderator: Jordan Holt, Washington Metropolitan Area Transit Authority

I Need Track Rights! Using Data to Support and Sustain Development of Standardized Processes
Elissa McDade, *Washington Metropolitan Area Transit Authority*

Washington Metro's 3% Challenge: Mobilizing an agency-wide efficiency transformation program
Elissa McDade, *Washington Metropolitan Area Transit Authority*

WMATA's Non-Revenue Fleet Dashboard
Laura Moeini, *Washington Metropolitan Area Transit Authority*

5:30 p.m. - 7:00 p.m. - *Grand Ballroom E (M4)*
Welcome Reception/Poster Session/Exhibits

Methodology to Capture the Effects of Construction Projects on Travel Time Reliability Measures in South Carolina
Siddiqui Chowdhury, *South Carolina Department of Transportation*

Introduction to the Census Transportation Planning Products Program Data Set and its Many Applications
Penelope Weinberger, *AASHTO*

Methodology to Validate Accuracy of Automated Systems Using Cell Phones
Sylvan Hoover, *Oregon State University*

Framework for Identifying Systematic Service Deterioration from the Passengers' Perspective in Urban Rail Systems (Hong Kong) Using Excess Journey Time as a Measure of the Gap Between Service Expectations and Passenger Experience
Kenji Chigusa, *East Japan Railway Company*

Performance Measures to Evaluate the Quality of Safety Data
Nancy Lefler, *UNC Highway Safety Research Center*

Evolution of HPMS Pavement Condition Data
Amy Simpson, *Wood Environment & Infrastructure Solutions, Inc.*

Pavement Performance Measures and Condition in 2018 versus 2015
Sareh Kouchaki, *Wood Environment & Infrastructure Solutions, Inc.*

Evaluating the National Transit Asset Management Program
Mshadoni Smith, *Federal Transit Administration*

Life-Cycle Cost Assessment of Maintenance and Repair Strategies for Bridges
Dena Khatami, *Wood Environment & Infrastructure Solutions, Inc.*

What is a Swing Weight and Why Does it Matter
Bobby Cottam, *Burns & McDonnell*

The Use of Performance Measures in Transit Funding Allocation: Experiences Across States
Jerry Zhiron Zhao, *University of Minnesota*

How Roadway Speed Performance Metrics are Being Used in Project Prioritization of Safety Projects
David Ederer, *Georgia Tech*

Let the Big Picture Data Speak- Focus on the Message and Change will Come
Satvinder Sandhu, *Federal Highway Administration*

Tuesday, September, 17

7:30 a.m. - 5:00 p.m. - M4 Prefunction
Registration

7:30 a.m. - 8:30 a.m. - M4 Prefunction
Continental Breakfast

7:30 a.m. - 5:30 p.m. - M4 Prefunction
Exhibits

8:30 a.m. - 10:30 a.m.
Plenary Session: Special Session #2 - *Grand Ballroom E (M4)*
Special Session #2: How Data is Changing the Structure and Role of Public Agencies
Moderator: Matt Hardy, American Association of State Highway and Transportation Officials

Data Changing Agency from the Inside
Greg Slater, *Maryland State Highway Administration*

Structuring Your Agency to Disseminate Information to Decision Makers
Tim Henkel, *Minnesota Department of Transportation*

New Agency Approaches to Fulfilling Performance Analytic Needs
Ryan Huff, *Nebraska Department of Transportation*

How Can Agencies Better Prepare for Data Today and the Unknown of Tomorrow?
Michael Pack, *University of Maryland CATT Lab*

10:30 a.m. - 11:00 a.m. - M4 Prefunction
Break

11:00 a.m. - 12:30 p.m.
Concurrent Breakout Sessions

Session 4A - *Grand Ballroom A (M4)*
Tools to Aid in the Monitoring of Multimodal Performance Measures
Moderator: John Kaliski, Cambridge Systematic

US Department of Energy: Mobility -Energy Productivity Measure: Standard for Smart City Mobility Assessment
Stanley Young, *National Renewable Energy Lab*

El Paso MPO's Multimodal Web Tool
Marketa Vavrova, *University of Texas El Paso;* and Sonia Perez, *El Paso Metropolitan Planning Organization*

Evolution of the FDOT Multimodal Mobility Measures Program
Monica Zhong, *Florida Department of Transportation*; and Praveen Pasumarthy, *Cambridge Systematics*

A New Multimodal Tool to Better Understand Supply Chain Performances
Chandra Bondzie, *Federal Highway Administration*; and Patricia Hendren, *I-95 Corridor Coalition*

Session 4B - *Grand Ballroom B (M4)*
Using Data to Inform Decisions
Moderator: Jordan Holt, Washington Metropolitan Area Transit Authority

GIS Enhances Asset Management and Operations
Nate Reck, *GeoDecisions, a Division of Gannett Fleming*

Managing Data, Traffic, and Expectations: Football Gameday Operations Performance Measures
Madison Metsker-Galarza, *Texas A&M Transportation Institute*

Using Cost-Benefit Analysis
Mark Seaman, *New York City Department of Transportation*

NDOT Lessons learned from Leveraging Data Science to Support Operational Decision Making
Mark Egge, *High Street Consulting*

Session 4C - *Grand Ballroom C (M4)*
Getting into the Details of Highway & Freight Project Evaluation
Moderator: Joseph Schofer, Northwestern University

Prioritizing Project Selections for Operations
Jason Firman, *Michigan Department of Transportation*

How Travel Time Data is Used in NCTCOG's Project Selection Process
Brian Dell, *North Central Texas Council of Governments*

How ARC Evaluates Highway Projects
John Orr, *Atlanta Regional Commission*

Balancing Urban and Rural Project Scoring in a Rapidly Urbanizing State
Jason Schronce, *North Carolina Department of Transportation*

Session 4D - *Dogwood (M1)*
Statewide Frameworks for Collaborative Performance Management
Moderator: Peter Plumeau, Economic Development Research Group

Florida DOT/MPO Collaboration for Transportation Planning and Performance Management
Carl Mikyska, *Florida Metropolitan Planning Organization Advisory Council;* John Kaliski, *Cambridge Systematics*

West Virginia DOT Planning and Communicating for Performance: Aligning Data, Communication, and Management Tools to Institutionalize Performance Based Decision Making Gehan Elsayed, West *Virginia Department of Transportation; and* David Jackson*, Cambridge Systematics*

12:30 p.m.- 2:00 p.m. - Grand Ballroom E (M4)
Lunch with Special Guest Speaker
Moderator: Patricia Hendren, I-95 Corridor Coalition

The Link Between Transportation Performance and Economic Vitality
 Mohammed Chaara, *Director of Machine Learning and Data Sciences*

Mohammed (Mo) Chaara is Director of Machine Learning and Data Sciences at UPS. In this role, he leads the UPS Global Advanced Analytics practice and is responsible for developing, managing and governing advanced analytics projects globally. Mo will discuss how UPS collects, analyzes and uses data to run its business; how a poor performing transportation system affects UPS and UPS views on the future of goods movement. UPS is known data based insights to drive business transformation. As an analytics and strategy executive Mo will highlight how data does drive UPS decisions and how making sound investments in our transportation system supports our country's economic vitality.

2:00 p.m. - 3:30 p.m.
Concurrent Breakout Sessions

Session 5A - *Grand Ballroom A (M4)*
Guiding the Process For Evaluating Needs and Investments for DOTs and MPOs
Moderator: Paul Hershkowitz, ICF

NCHRP 19-14: Sharing intelligence About System Performance to "Right Size" Transportation Investments
Kyle Schroekenthaler, *Economic Development Research Group*

MetroPlan Orlando - Aligning Objectives and Investments Using Data and Performance-Based Processes
Alex Trauger, *MetroPlan Orlando*

When Data and Politics Collide
Chris Upchurch, *Wichita Area Metropololitan Planning Organization*

Session 5B - *Grand Ballroom B (M4)*
Lessons Learned on Data Governance
Moderator: Harlan Miller, Federal Highway Administration

Improving Data Assessment and Governance to Support Informed Decisions: Lessons Learned
Richard Boadi, *Wood Environment & Infrastructure Solutions*

How TxDOT Tackled Growth in Performance Measures Volume
Tarun Malhotra, *Michigan Department of Transportation*

Session 5C - *Grand Ballroom C (M4)*
Getting into the Details of Multimodal (Transit / Bike & Ped) Project Evaluation
Moderator: Jason Schronce, North Carolina Department of Transportation

The Atlanta-Region Transit Link Authority Project Selection Project
Lori Sand, *Atlanta-Region Transit Link Authority*

LA Metro's Project Selection Process
Mark Yamarone, *LA Metro; and Michael Snavely, Cambridge Systematics*

Application of ActiveTrans Prioritization by City of Harrisonburg Virginia
Elise Barrella, *Wake Forest University*

Evaluating Accessibility as Part of Hawaii DOT's Project Selection process
Eric Sundquist, *State Smart Transportation Initiative*

Integrating Equity and Resilience Into the Metropolitan Transportation Commission Project Evaluation Process
Dave Vautin, *Metropolitan Transportation Commission*

Session 5D - *Dogwood (M1)*
Dashboard Demo
Moderator: Penelope Weinberger, American Association of State Highway and Transportation Officials

VDOT's New Dashboard
Jay Styles, *Virginia Department of Transportation*

The Non-Revenue Fleet Dashboard
Laura Moeini, *Washington Metropolitan Area Transit Authority*

ARC DASHes Through the Data
Shichen Fan and Kyung-Hwa Kim, *Atlanta Regional Commission*

ARC Activity-Based Model Visualization Platform (ABMVIZ)
Abigail Marinelli, Guy Rousseau, and Kyeil Kim, *Atlanta Regional Commission*

MDOT Performance Dashboard
Deanna Belden, *Minnesota Department of Transportation*

Flash Report - Using Data for Informed Decision Making Every Day Hyeeun
Tortora, *Chicago Transit Authority*

3:30 p.m. - 4:00 p.m. M4 Prefunction
Break

4:00 p.m. - 5:30 p.m.
Concurrent Breakout Sessions

Session 6A - *Grand Ballroom A (M4)*
It Is All About Transit
Moderator: Kenneth Cervenka, Federal Transit Administration

Performance Management: From Program Initiation to Planning and Operations for Maryland Transit Administration
David Miller, *Foursquare ITP*

Evaluating Alternative Mobility Performance Measures for the Traveler's Experience
Alice Grossman, *Eno Center for Transportation*

Using Bus-Stop Level Data to Measure the Ridership Elasticity to Frequency in Four Cities
Simon Berrebi, *Georgia Institute of Technology*

Session 6B - *Grand Ballroom B (M4)*
Improving Data Governance to Support Decision Making
Moderator: Anita Vandervalk, Iteris, Inc

Data Governance to Support Performance Management and Decision Making within State DOT's
- Cassie Jordan, *Texas Department of Transportation*
- Chad Baker, *California Department of Transportation*
- Leni Oman, *Washington State Department of Transportation*
- Tarun Malhotra, *Michigan Department of Transportation*
- Barb Cohn, *Colorado Department of Transportation*

Session 6C - *Dogwood (M1)*
Speed Data[ing] (Data & Tools used in project evaluation that feeds the TIP/STIP)
Moderator: Penelope Weinberger, American Association of State Highway and Transportation Officials

Kentucky's SHIFT Tool
Mark Egge, *High Street Consulting*

North Carolina DOT's "SPOT Online"
Jason Schronce, *North Carolina Department of Transportation*

New York City Strategic Plan Scoring System
Chris Hamby, *New York City Department of Transportation*

Georgia's Mark1 and Numetric Platform
Sam Harris, *Georgia Department of Transportation*

Performance and Data - 2019

Performance-based Prioritization of NCDOT Statewide Signal System Retiming Program
Thomas Chase, *Institute for Transportation Research and Education*

Texas Corridor Prioritization Tool
Peter Smith, *Texas Department of Transportation*

Session 6D - *Grand Ballroom C (M4)*
Works In Progress: Research and Capacity-Building Initiatives to Advance Data-Driven Decision Making
Moderator: Bob Hazlett, Maricopa Association of Governments

Federal Highway Administration Transportation Program Management Implementation Survey of Departments of Transportation and Metropolitan Planning Organizations
Michael Nesbitt, *Federal Highway Administration*

FTA Research and Capacity Building Initiatives
David Schneider, *Federal Transit Administration Office of Research and Innovation*

Transportation Research Board Cooperative Research Programs Research Initiatives
- Michael Grant, *ICF*
- Ann Hartell, *Transportation Research Board*
- Hannah Twaddell, *ICF*

AASHTO Communities of Practice and Related Initiatives
Matt Hardy, *American Association of State Highway and Transportation Officials*

AMPO Technical Working Groups and Related Initiatives
Bill Keyrouze, *Association of Metropolitan Planning Organizations*

Committee Meetings
6:00 p.m. - 8:00 p.m.
- TRB Committee on Regional Transportation Systems Management and Operations (AHB10) - *Oak (LL)*
- TRB Committee on Metropolitan Policy, Planning and Processes (ADA20) - *Grand Ballroom C (M4)*
- Joint Meeting - TRB Committee on Management and Productivity (ABC20) and AASHTO Organizational Management Subcommittee - *Grand Ballroom A (M4)*

Wednesday, September, 18

7:30 a.m. - 10:00 a.m. - *M4 Prefunction*
Registration

7:30 a.m. - 8:30 a.m. - *M4 Prefunction*
Continental Breakfast

7:30 a.m. - Noon *- M4 Prefunction*
Exhibits

8:30 a.m. - 10:00 a.m.
Concurrent Breakout Sessions

Session 7A - *Grand Ballroom A (M4)*
How Transit Agencies are Revamping their Data Analysis to Make Collaboration with Cities and MPOs More Effective, Efficient, and Measurable
Moderator: Madeline Zhu, Swiftly

Transit Signal Priority: How to Help Keep Transit Travel Times Predicable on the City's Most Congested Streets
Krae Stieffenhofer, *Kimley-Horn*

Better Data, Better Arguments, and Better Decisions
Adam Burger and Tamiko Percell, *Santa Clara Valley Transportation Authority*

Session 7B - *Grand Ballroom B (M4)*
Private Data
Moderator: Mara Campbell, Jacobs

Opportunities and Challenges of Using Private Sector Data
Xu Zhang, *Kentucky Transportation Center*

Capabilities, Benefits and Limitations of Using Cellular Network Data for Transportation Planning and Management
Bob Pauley, *Cellint*

Big Data - Processing, Licensing, and Use
Jason Lemp and Nick Caccamo, *Cambridge Systematics*

Estimation of Mobility Performance of Freeways Based on Time Exposed Time to Collision Using Trajectory Data in a Connected Environment
Leila Azizi, *Florida International University*

Data and Technology Trends – How Do They Impact Decision Making Processes?
Anita Vandervalk, *Iteris, Inc.*

Session 7C - *Grand Ballroom C (M4)*
Communicating Project Selection Results
Moderator: Hannah Twaddell, ICF

Panel Discussion
- David Wasserman, N*orth Carolina Department of Transportation*
- Chad Tucker, *Virginia Office of Intermodal Planning and Investment*
- Dan Gabiou*, Arizona Department of Transportation*

Session 7D - *Dogwood (M1)*
Achieving the National Goals Supported by Federally Required Performance Measures
Moderator: Harlan Miller, Federal Highway Administration

Briefing on national state of the practice followed by interactive discussion with panel and participants.

   Overview of Transportation Performance Management and Performance Based Planning
   Harlan Miller, *FHWA Office of Planning*, Michael Nesbitt, *FHWA Office of Transportation Performance Management*; and Ken Cervenka, *FTA Office of Planning*

   FHWA TPM Implementation Survey of DOTs and MPOs
   Michael Nesbitt, *Federal Highway Administration*

10:00 a.m. - 10:30 a.m*. - M4 Prefunction*
Break

10:30 a.m. - Noon
Conference Closing Session: Bring it all Together - *Grand Ballroom E (M4)*
Moderator: Bob Hazlett , Maricopa Association of Governments

   Panel Discussion
- John Kaliski, *Cambridge Systematics*
- Jordan Holt, *Washington Metropolitan Area Transit Authority*
- David Wasserman, *North Carolina Department of Transportation*
- Hannah Twaddell, *ICF*

Noon *- 5:00 p.m.*
FHWA Workshop - *Redwood (M1)*

- Tool for Investment Decision Making - limited to 35 participants
- TRB Committee on Information Systems and Technology (ABJ50)

Noon *- 5:00 p.m.*

- TRB Committee on Regional Transportation Systems Management and Operations (AHB10) - *Oak (LL)*

The **Center for Advanced Transportation Technology Laboratory** is a not-for-profit, interdisciplinary group of 100+ professional engineers, software developers, and researchers.

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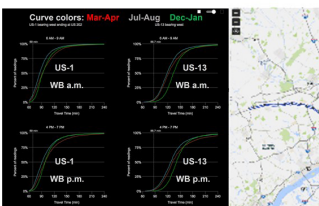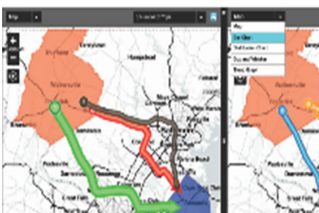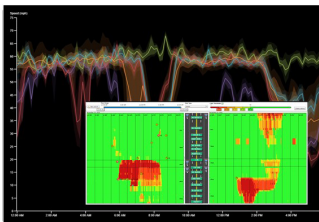
The Regional Integrated Transportation Information System

- Real-time, multi-agency situational awareness
- Collaborative decision making
- Interactive visualizations for TSMO applications
- Safety and congestion performance measures and AARs

The Work Zone Performance Monitoring Application

- Conduct work zone audits
- Evaluate lane closure permits
- Automated email and txt alerts on safety and congestion issue
- Complies with the Final Rule on Work Zone Safety & Mobility

Probe Data Analytics Suite (includes NPMRDS Analytics)

- System performance measures with 3rd party speed data
- Interactive and visual bottleneck ranking, problem identification, project development, before & after studies, system performance, funding justification, after action reviews, and more
- Compute, visualize, & download MAP-21 PM3 metrics for target-setting, strategy evaluation & reporting

Trajectory/O-D Analytics

- Analyze people and freight movement data
- Dynamic and filterable O-D matrix analysis / roadway segment route analysis
- Validates Travel Demand Models, supplements major corridor planning studies, determine benefits (or consequences) of major improvement projects

Arterial Signal System Performance Measures

- Developed in conjunction with Purdue University
- Rank and compare the change in performance of corridors between two time periods
- Provides before-and-after comparison for corridor performance improvement projects & providing detailed analysis of both congestion and reliability

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By creating flexible and dynamic decision support models, Decision Lens is empowering organizations to understand the impact of their investment choices and guide their outcomes.
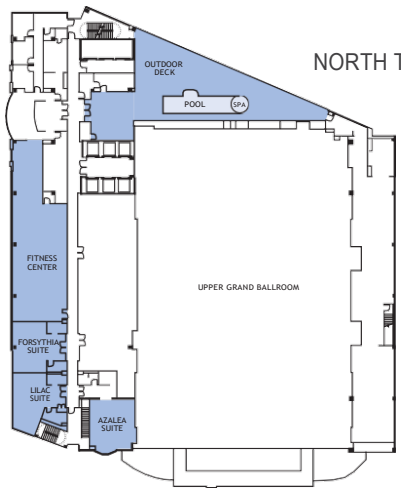
DECISION LENS

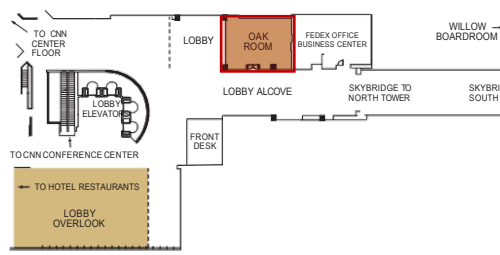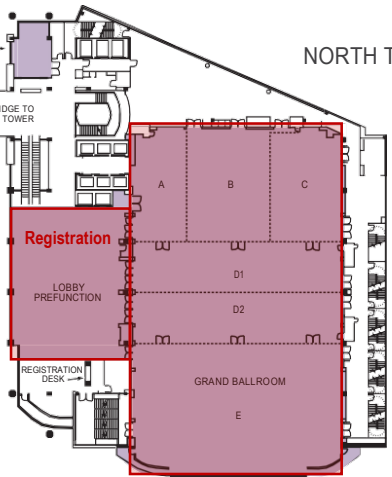OMNI ATLANTA HOTEL AT CNN CENTER MEETING SPACE
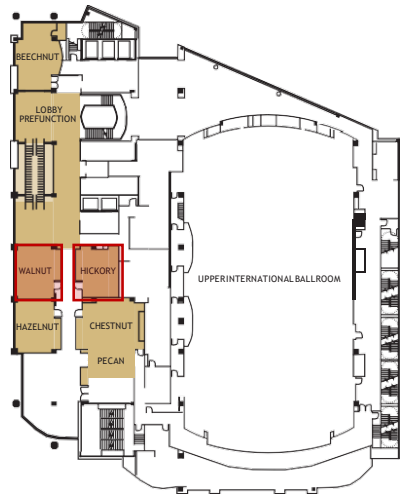

SOUTH TOWER | ATRIUM TERRACE LEVEL
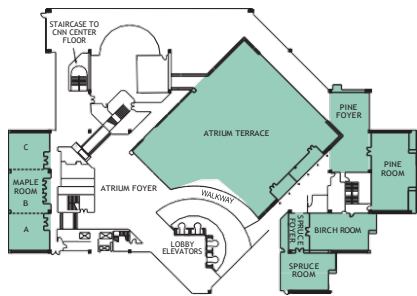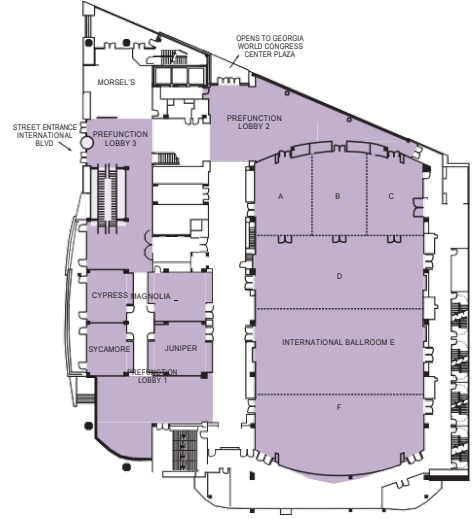
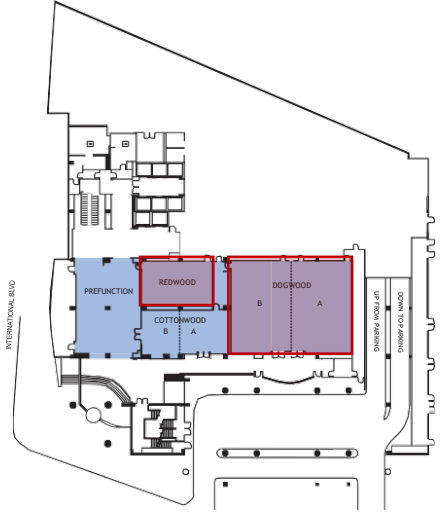NORTH TOWER | M6

SOUTH TOWER | HOTEL LOBBY LEVEL

NORTH TOWER | M4

NORTH TOWER | M3

NORTH TOWER | M2

NORTH TOWER | M1

Special Thank You to the Federal Highway Administration

The Wednesday post-conference workshop and E-circular conference summary document are made possible with their generous financial support.

U.S. Department of Transportation
Federal Highway Administration

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SAVE THE DATE: **NATIONAL CONFERENCE ON TRANSPORTATION ASSET MANAGEMENT**
JULY 11-14, 2020
BOSTON, MA

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The 13th National Conference on Transportation Asset Management (TAM) provides an opportunity for all practitioners involved in their agency's asset management initiative to build core competencies and generate new ideas.

- Looking for both practical and innovative presentations.
- Selected abstracts will be featured in either poster or technical podium sessions.
- Presenters will be required to register and attend the conference to be included in the final program.

Presentation tracks and crosscutting issues:

- Track 1: Implementation
- Track 2: Data Governance/Tools
- Track 3: Managing Risk
- Track 4: Partners and Peers
- Track 5: Sustaining Asset Management in your Organization
- Crosscutting Issue 1: Transit
- Crosscutting Issue 2: Resilience

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