

NATIONAL
ACADEMIES

Sciences
Engineering
Medicine

TRB TRANSPORTATION RESEARCH BOARD

TRB Webinar: Successes & Challenges—The First 4 Years of Federal Performance Management

March 30, 2023

1:00 – 2:30 PM

NOVEMBER 2022 UPDATE

PDH Certification Information

1.5 Professional Development Hours (PDH) – see follow-up email

You must attend the entire webinar.

Questions? Contact Andie Pitchford at TRBwebinar@nas.edu

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

ENGINEERING



REGISTERED CONTINUING EDUCATION PROGRAM

AICP Credit Information

1.5 American Institute of Certified Planners Certification Maintenance Credits

You must attend the entire webinar

Log into the American Planning Association website to claim your credits

Contact AICP, not TRB, with questions

CLE Credit Information

1.25 Continuing Legal Education Credits from the American Bar Association

You must attend the entire webinar

TRB did not seek approval for this workshop from the state board, we advise you contact your state board to see if credit would be accepted

See email following webinar for the certificate to provide to your board

Purpose Statement

Federal transportation performance management (TPM) requirements were signed into law in the early 2010s. Following robust efforts by transportation agencies nationwide, the first four-year cycle of implementation concluded. While the federal TPM requirements created greater consistency and transparency, challenges remain. This webinar will reflect on lessons learned by state departments of transportation (DOTs), metropolitan planning organizations (MPOs), and transit agencies. Put these lessons to use as you look ahead to the next decade.

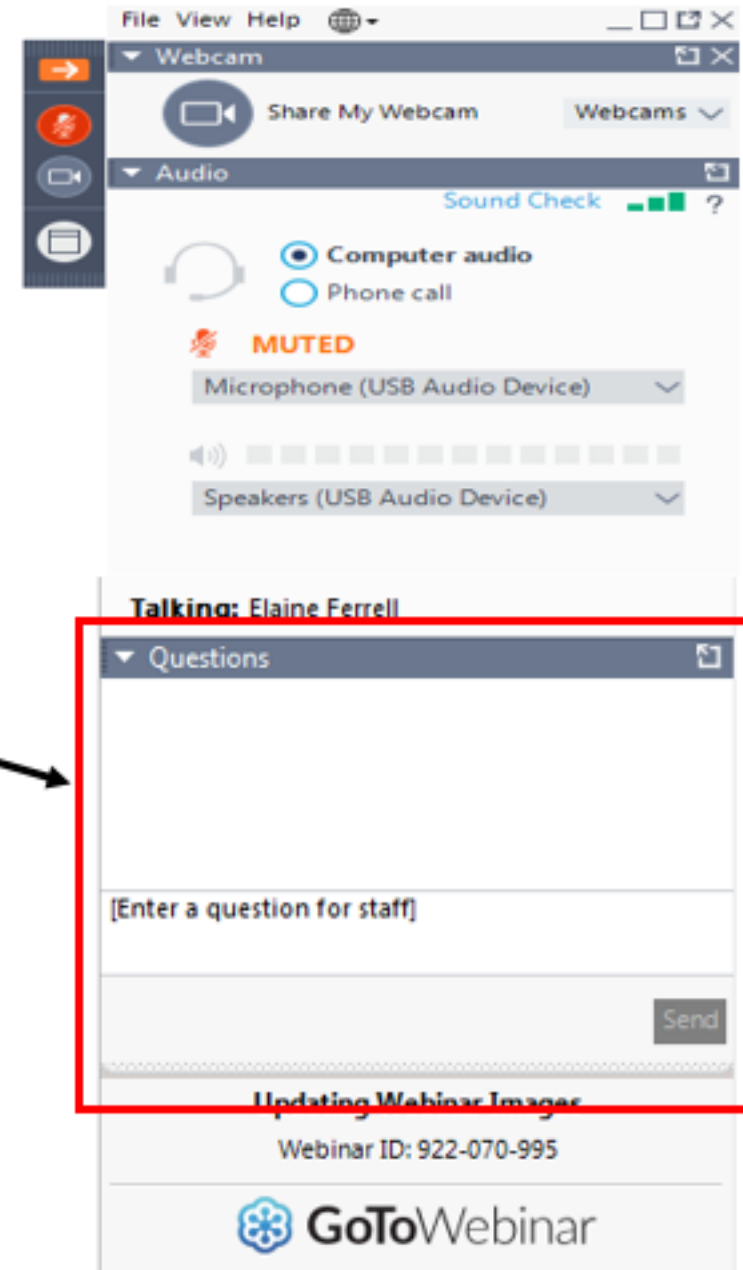
Learning Objectives

At the end of this webinar, you will be able to:

- Identify the federal transportation performance requirements benefits, limitations, and challenges
- Set effective performance targets for safety, asset management, and system performance in alignment with federal requirements
- Complement federally required targets with robust performance management practices that address emerging issues like climate, resilience, and equity

Questions and Answers

- Please type your questions into your webinar control panel
- We will read your questions out loud, and answer as many as time allows



Today's presenters



Dr. Mshadoni Smith-Jackson
m.smithjackson@dot.gov
Federal Highway Administration



U.S. Department of Transportation
Federal Highway Administration



Jordan Holt
jhholt@wmata.com
Washington Metropolitan Area Transit Authority



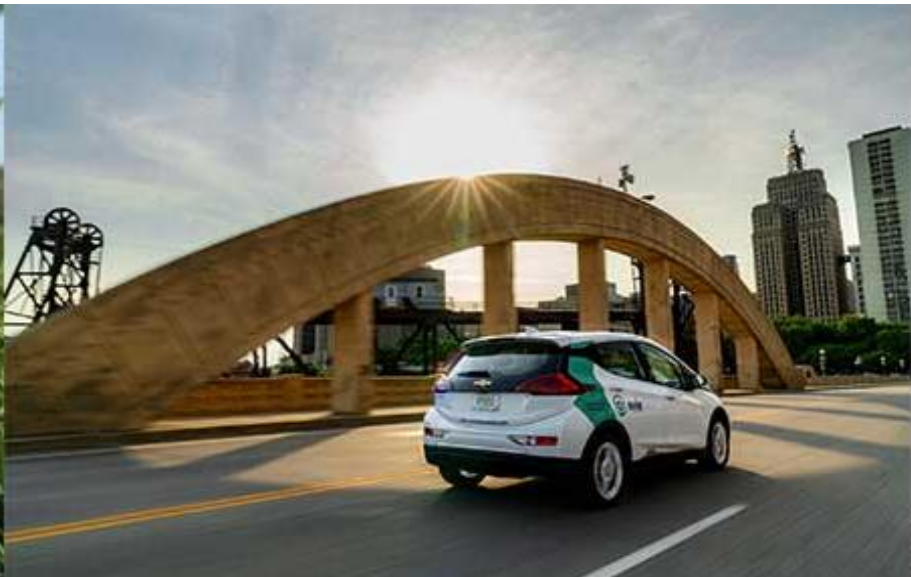
Deanna Belden
deanna.belden@state.mn.us
Minnesota DOT



Keith Miller
kmiller@njtpa.org
North Jersey Transportation Planning Authority

Defining the Vision. Shaping the Future.





Successes & Challenges

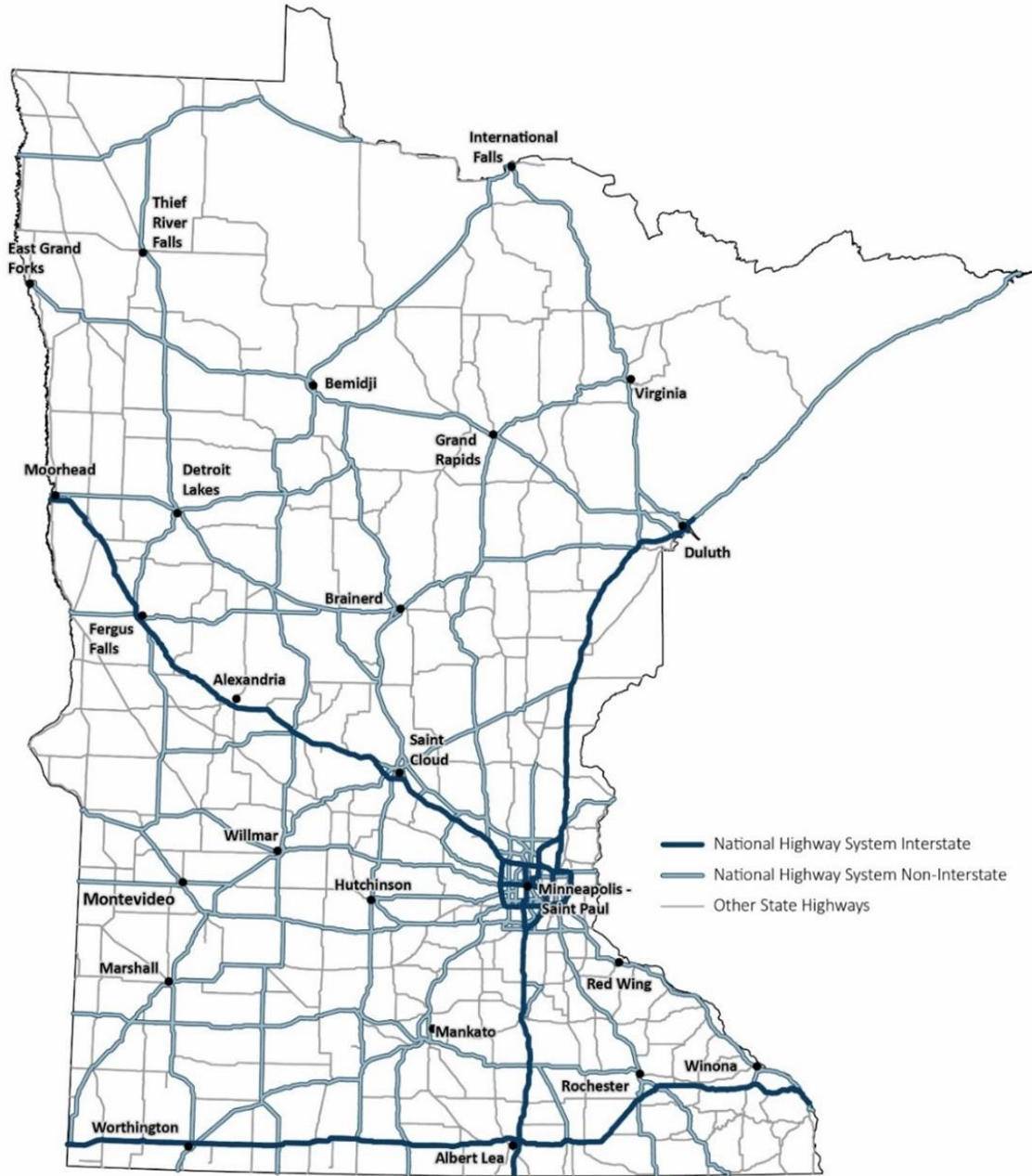
The First 4 Years of Federal Performance Management

Deanna Belden

Minnesota Department of Transportation

TRB Webinar, March 30, 2023

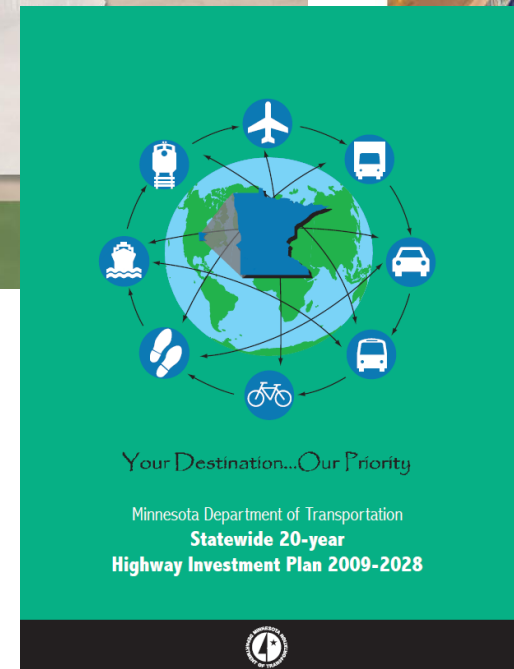
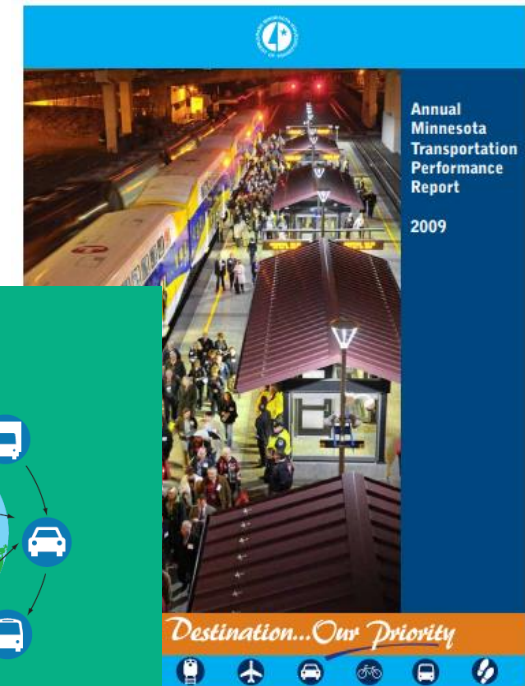
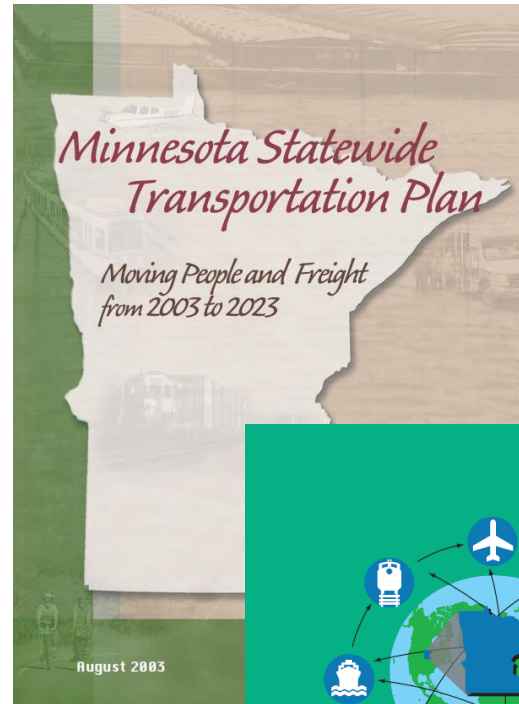
Transportation in Minnesota



- 142,864 centerline miles of streets, roads and highways (4th largest roadway network)
- 11,703 miles of state highway
- Population 5.7 million (22st most populous state)
- 21,148 Bridges (10 feet span and greater)
- Eight MPOs (four bi-state)
- Seven-county metro area has approximately 56% of the state's population

History with performance-based planning

- First performance-based plan adopted in 2003
 - Funding was sufficient to meet targets for asset condition and statewide mobility
- By 2009, asset condition need alone exceeded projected revenue
 - Did not plan to meet all performance targets
- First Annual Transportation Performance Report published in 2009
- 2013 State Highway Investment Plan – adjustment due to passage of MAP-21



Current performance-based planning

Multimodal Plan

DECEMBER 2022

STATEWIDE MULTIMODAL TRANSPORTATION PLAN

Minnesota's highest level policy plan for transportation

MINNESOTA GO

L CONNECTIONS

AND IMPROVE MULTIMODAL TRANSPORTATION OPTIONS ESSENTIAL FOR MINNESOTANS' PROSPERITY AND OF LIFE. STRATEGICALLY CONSIDER NEW CONNECTIONS THAT MEET PERFORMANCE TARGETS AND MAXIMIZE SOCIAL, ECONOMIC AND ENVIRONMENTAL BENEFITS.

IDENTIFYING KEY CONNECTIONS within and between communities is key to providing a complete, efficient and affordable transportation system. Critical connections vary by transportation mode and may be different for walking, riding, bicycling, transit, driving and freight purposes. These connections differ in scale depending on how people and goods move across the state. Throughout a region or within a community, changes in our economy may warrant new freight connections or increase connectivity. Also, new investments are needed to increase system connectivity for people, walking, riding, bicycling and taking transit.

Investment Plans

Minnesota
A Collaborative Vision for Transportation

20-Year State Highway Investment Plan 2018-2037

conditions and roadway infrastructure on the state highway system are shown in the tables on the right. These estimates meet the minimum benchmarks established by SAHSE 34 and higher performance measures, however, many estimates do not meet MNDOT targets.

Figure 3-6 summarizes the expected condition of all System Roadway investment categories based on MNDOT's investment priorities for the 2018-2037 investment plan to the extent of current government authorization in the 2017-2021 period. System Roadway Categories and their investment.

Investment Category	Objective Area	Current Conditions (2017)	Projected Outcomes in 2037	Total Investment (2018-2037)
Freeway Condition	System	Most MNDOT targets and SAHSE 34 benchmarks for both and for both pavement condition.	Most MNDOT targets and SAHSE 34 benchmarks for both pavement condition.	\$19.31 billion
	Statewide	Interstate: 1.9% poor Non-Interstate: 3.2% poor	Interstate: 4.0% poor Non-Interstate: 8.0% poor	
Bridge Condition	System	Most SAHSE 28 benchmarks for both MNDOT and for both for bridge condition. Only Non-Interstate needs MNDOT targets for bridge condition.	Non-Interstate bridge condition worse, while MNDOT bridge condition maintained. SAHSE 28 benchmarks are met but MNDOT benchmarks are not.	\$2.38 billion
	Statewide	Non-Interstate: 4.2% poor Non-Interstate: 1.3% poor	Non-Interstate: 7.0-8.2% poor	
Truckload Infrastructure Condition	System	Roadside infrastructure condition is not meeting targets.	The condition of roadside infrastructure assets will be maintained. Condition targets for safety, deep storm water basins and overhead sign structures will be met.	\$1.80 billion
	Statewide	Capacity: 13.0% poor Deep Storm Water Treatment: 24.0% poor	Capacity: 14.0-15.0% poor Deep Storm Water Treatment: 23.0-29.0% poor	
Urban/Rural Road Condition	System	2,050 miles of resurfaced roads. Number of resurfaced roads not constant.	MNDOT will transfer more miles of resurfacing between the state and local agencies.	\$60 million
	Statewide	8.0% of road acres in good condition and nearly half in poor condition. Rapid or replacement repair rates not responsive given full road.	8.0% of road acres will remain in good condition. High road acreage ratios replacement and not keep pace resulting in substandard road miles.	
TOTAL				\$14.48 B

Performance Monitoring

Performance Dashboard

Open Decision Making Transportation Safety Critical Connections System Stewardship

See How We Are Performing

PERFORMANCE MEASURES

GREEN HOUSE GAS EMISSION FROM TRANSPORT

Safety Environment

Aviation Transit

2021 Minnesota Performance Scorecard

Transportation systems are essential to Minnesota's quality of life and economic competitiveness. MNDOT develops this annual scorecard to track performance across the state on Minnesota's many modal systems. The scorecard is organized around strategic objectives that MNDOT has identified with the public in the Statewide Multimodal Transportation Policy Plan. To be accountable, MNDOT has developed a performance management system that guides investments and operational decisions. Key measures are highlighted in this scorecard while a more extensive list can be found at <http://performance.mnstate.gov/>.

CRITICAL CONNECTIONS

The transportation system is a vital part of keeping Minnesotans connected to jobs, family, shopping, health care, school, places of worship, recreation, and entertainment. MNDOT is committed to maintain and improve multimodal transportation connections essential for Minnesotans' prosperity and quality of life and will strategically consider new connections that help meet performance targets and maximize social, economic, and environmental benefits.

Measures Target Result & Score Trend Analysis

NHS Travel Time Reliability - Percent of person miles traveled on the National Highway System (NHS) that are considered reliable. 95.4% State 92.2% Metro (2021)

Twin Cities Freeway Congestion - Percent of metro area freeway miles below 45mph in a.m. or p.m. peak. Tracking Indicator 5.8% (2021)

Snow and Ice Control - Frequency of achieving bare lanes within targeted number of hours after a winter weather event. 84% (2021-2022)

Air Transportation - Number of available seat miles (ASM) offered on scheduled flights from MSP airport. Tracking Indicator 16.8 billion (2021)

Supports Minnesota GO 50-year vision. Establishes objectives & strategies to guide investment.



Integrates performance planning & risk assessment to establish priorities for projected funding. Considers impact of investments on performance targets.



Evaluates progress and reports performance to the public.

UNDERSTANDING PERFORMANCE MEASUREMENT

 [Learn more: performance.minnesotago.org](https://performance.minnesotago.org)



Minnesota's transportation system has a lot of pieces.

Our system is made up of roads, bridges, sidewalks, trails, airports, railroads, waterways and more. The people who build, maintain and use them are also part of the system.



Measuring performance helps us understand if our system is meeting our goals.

The agencies that manage our transportation system set goals for each piece. "Performance measures" are how we track them to make sure the system works how we expect.



Knowing which goals we meet and where we fall short drives how we invest in and operate our system.

Everything we do involves tradeoffs — costs vs. benefits, long-term vs. short-term and more. Performance data helps us make our decisions wisely.

Initiated: 1990s

Minnesota was one of the first states to establish performance measures and continues to be a leader in using performance to inform decisions.

STATE



TWO WAYS TO MEASURE

FEDERAL



Initiated: 2012

Legislation to set national performance measures passed in 2012. States were first required to report on them in 2017.

Federal TPM Opportunities & Challenges

- Opportunities
 - Conversations about performance
 - Reliability data set
- Challenges
 - Different state vs. federal measures
 - Target Setting



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

Conversations about performance



- Target setting requirements has led to good conversations about performance
- Increased engagement and coordination with MPOs

Reliability dataset

- National Performance Management Research Data Set (NPMRDS)
- New use of combined Interstate and Non-Interstate NHS reliability measure

Figure 1: Annual Statewide TTTR Index Value

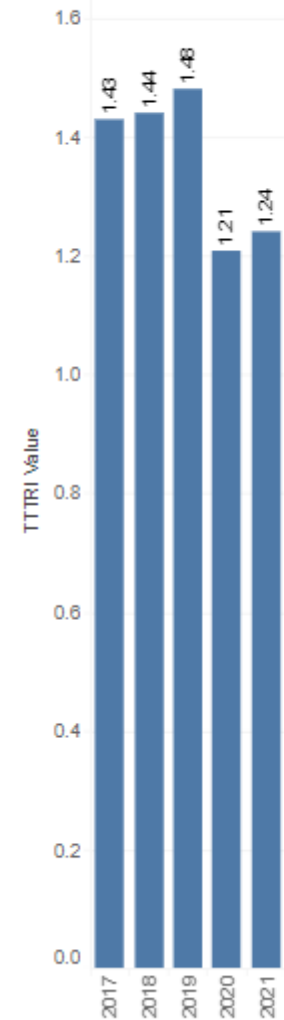


Figure 2: TTTR Index Values for Metropolitan Areas in MN

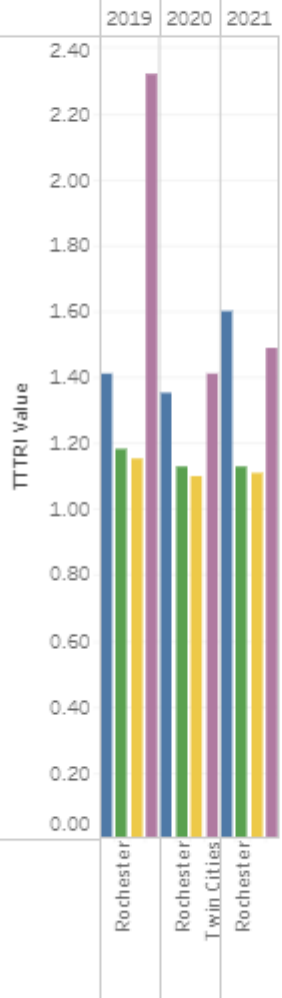
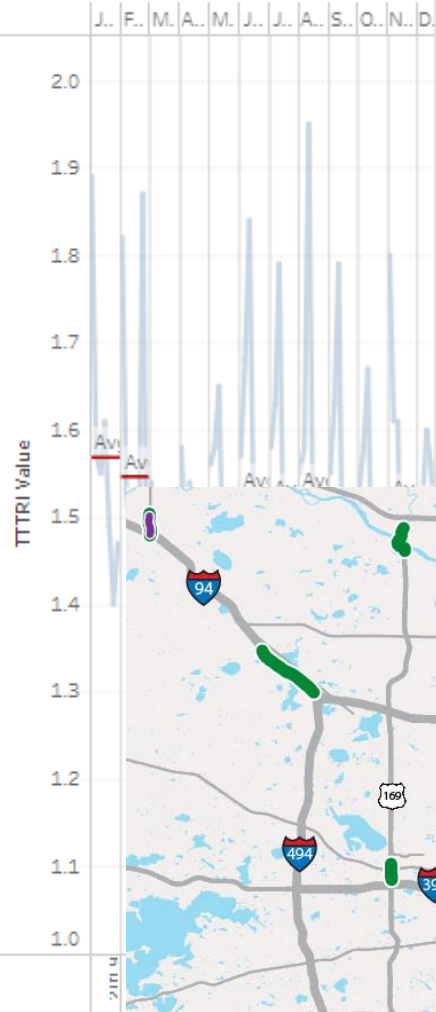
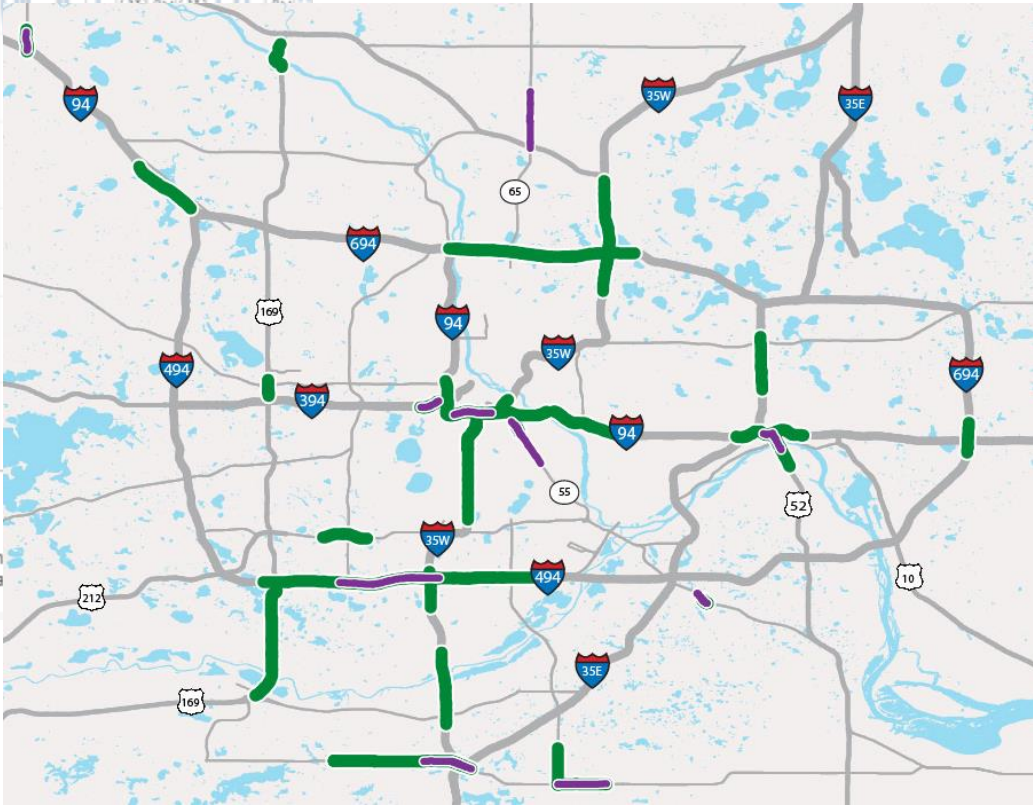


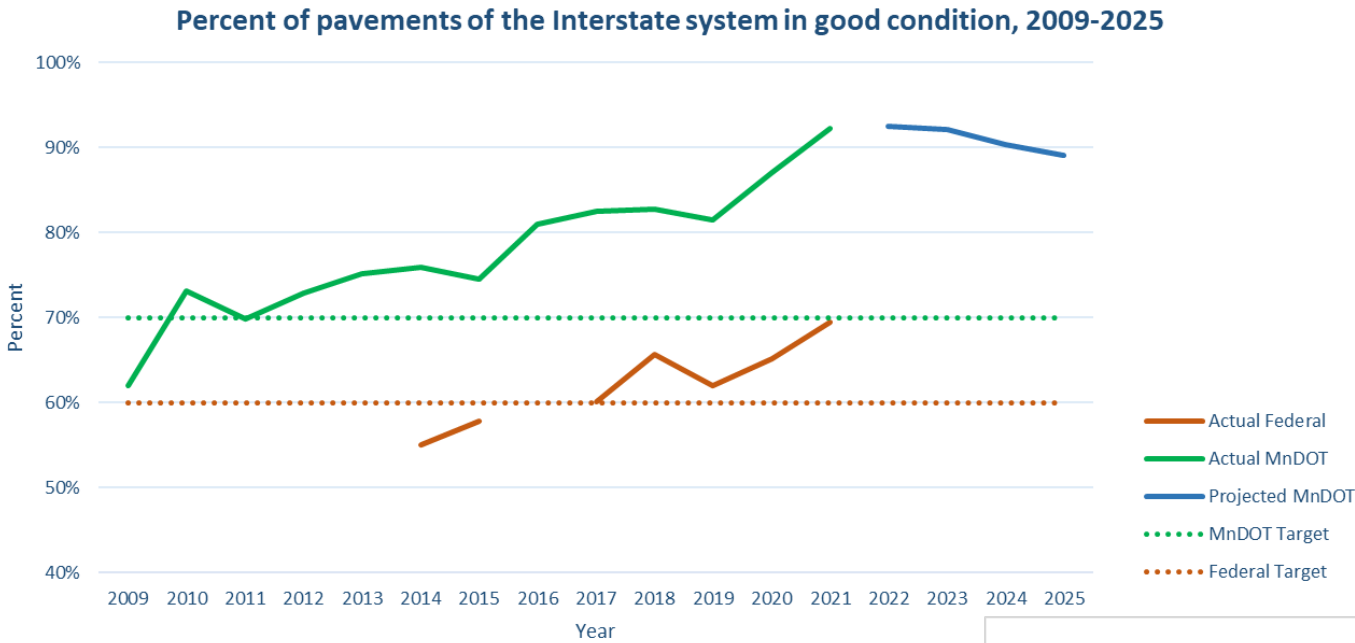
Figure 3: Seasonality and Average TTTR Index Values



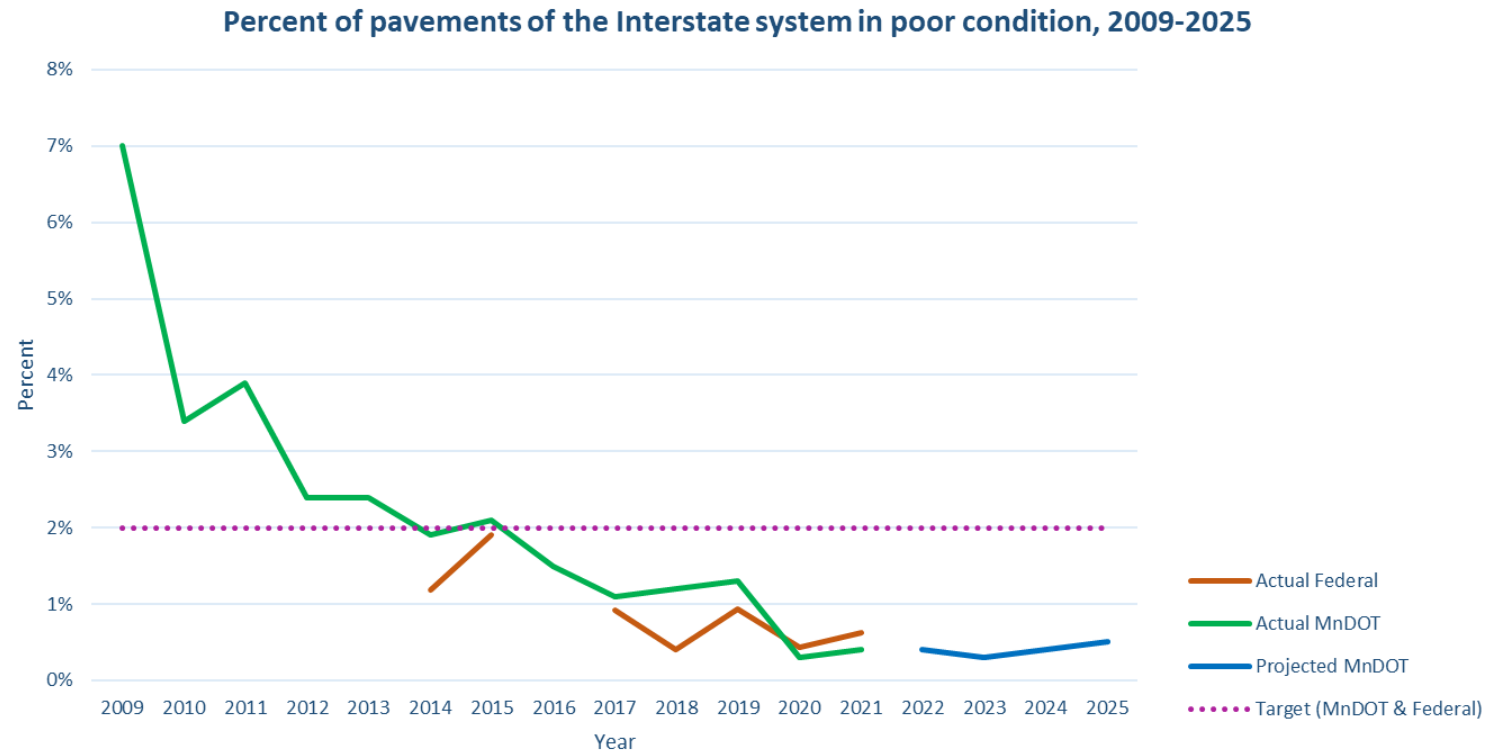
Source: Nation Research Data



Different State vs. Federal measures



- Federal pavement measure is substantially different than MnDOT's measure
- Pavement model cannot predict federal measures
- Confusion with federal minimum condition requirements



Target Setting



- Timeframe issues
 - Short-term vs long-term
- Reconciling definition and methods
 - Target vs expected outcome
 - Policy or goal based vs trend based
- Use in decision making
- Implications of meeting/not meeting

Next four years

- Federal TPM requirements
 - Be open to learning
 - Provide constructive feedback when needed
- Use and develop measures within the state to move toward the Minnesota GO vision

MINNESOTA'S MULTIMODAL TRANSPORTATION SYSTEM MAXIMIZES THE HEALTH OF PEOPLE, THE ENVIRONMENT AND OUR ECONOMY.



Quality
of Life



Environmental
Health



Economic
Competitiveness

Thank you!

Deanna Belden

deanna.belden@state.mn.us

NJTPA's TPM Challenges & Opportunities

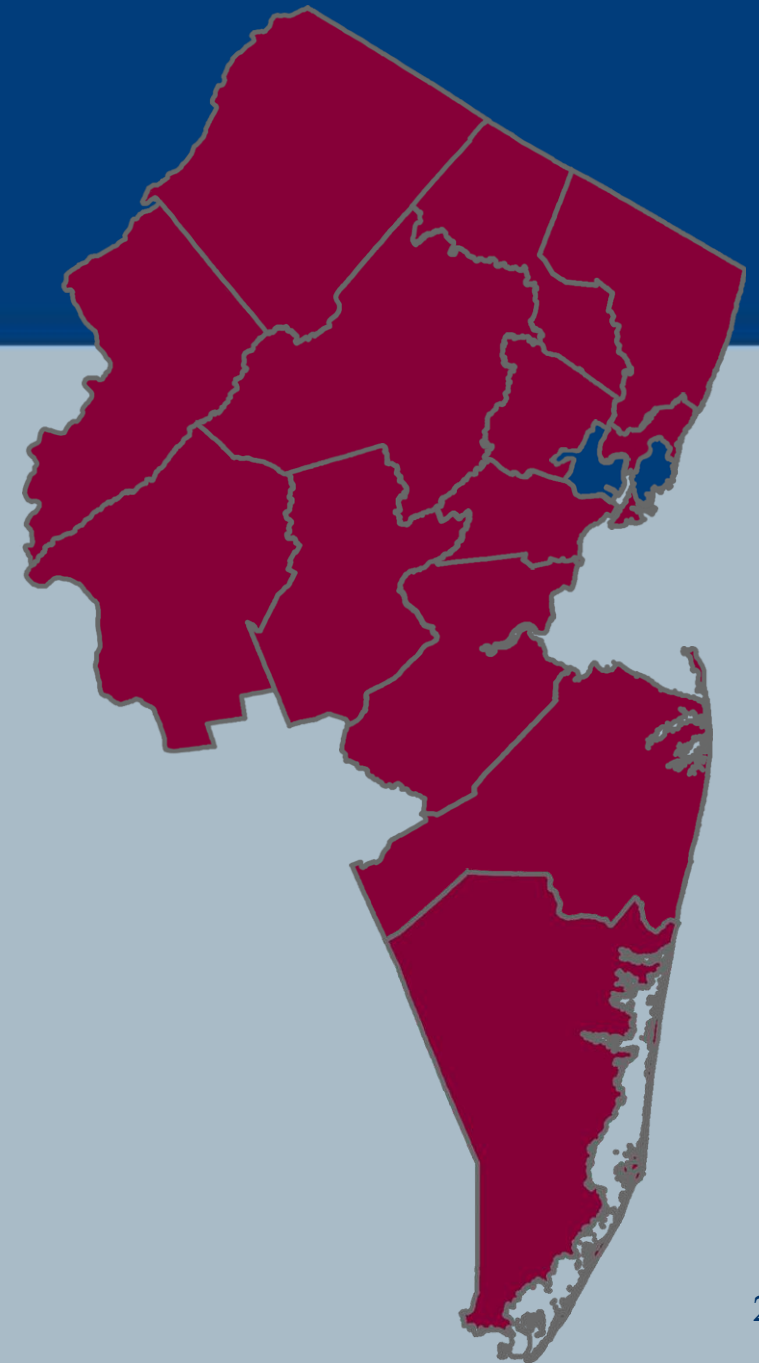
TRB Webinar: Successes and Challenges— The First 4 Years of Federal Performance Management

March 30, 2023



Keith Miller, Data Analysis & Forecasting Manager

NJTPA Region & Board of Trustees



Regional Transportation System

Road Network:

- 147 million vehicle miles each day
- 26,000 miles of roads, including 177 miles of toll roads
- 4,800 bridges

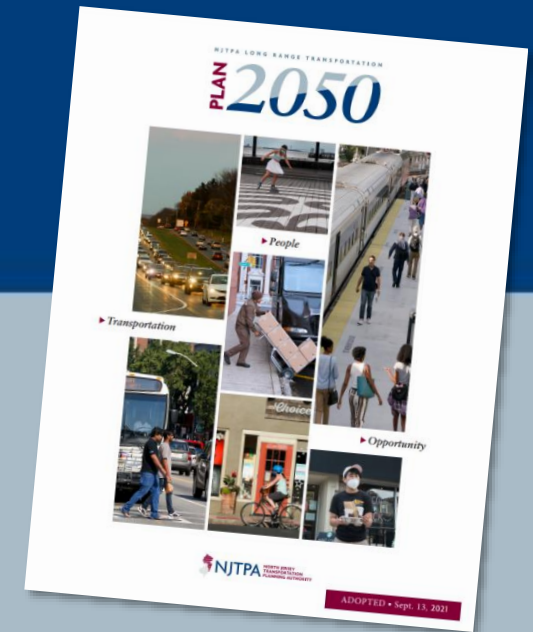
Transit Network (pre-pandemic):

- 732,000 daily trips
- 13 percent of commuters ride transit
- 250 bus routes
- Commuter rail: 390 miles of track, 150 stations



Plan 2050: Transportation. People. Opportunity.

- Long-range plan (adopted September 2021)
- A vision for all transportation investments
- Forecasts demographics and performance
- Identifies needs and improvements



Transportation System Performance

4

Figure 4-10:
Percent Roadway Lane-miles in Good or Fair (i.e., Acceptable) Condition

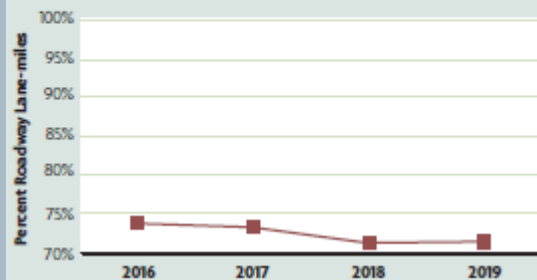
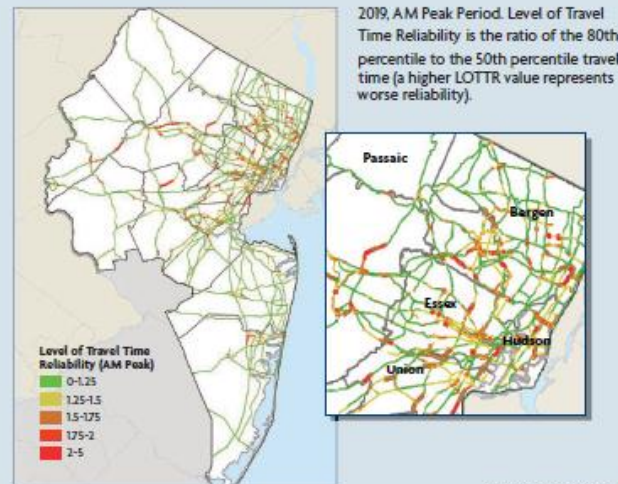


Figure 4-3:
Roadway Travel Time Reliability



2019, AM Peak Period. Level of Travel Time Reliability is the ratio of the 80th percentile to the 50th percentile travel time (a higher LOTTR value represents worse reliability).

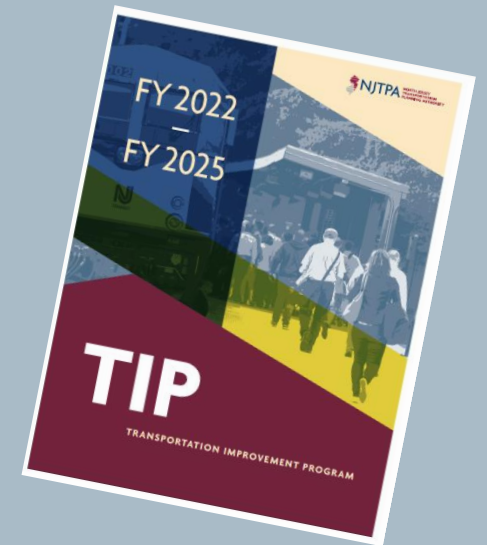
Source: USDOT NPMROS, CATT La

Transit Asset Condition Measures - NJ TRANSIT - 1-year targets

Measure	Fiscal year ³ of data collection->		1-year targets	
	FY2019	FY2020	Previous target	Current target
Rolling Stock: Percent of revenue vehicles that have met or exceeded their ULB²			Condition	Previous target met?
AB - Articulated Bus	100.00%	100.00%	✓	20.00%
AO - Automobile	28.89%	28.89%	✓	52.76%
BR - Over-the-road Bus	45.00%	52.02%	✗	46.40%
BU - Bus	0.00%	0.16%	✗	0.00%
CU - Cutaway	13.19%	11.67%	✓	1.50%
LR - Light Rail Vehicle	0.00%	0.00%	✓	0.00% ⁴
MV - Minivan	4.35%	2.13%	✓	4.35%
RL - Commuter Rail Locomotive	6.41%	7.55%	✗	6.37%
RP - Commuter Rail Passenger Coach	18.26%	17.94%	✓	17.94%
RS - Commuter Rail Self-Propelled Passenger Car	100.00%	100.00%	✓	100.00%
SV - Sports Utility Vehicle	0.00%	0.00%	✓	0.00%
VN - Van	1.53%	2.74%	✓	1.53%

Transportation Improvement Program

- Performance-based Project Prioritization Criteria
- Performance measure discussion (Appendix M): Roadway & transit safety, roadway & transit assets, reliability/freight, traffic congestion, emissions reductions
 - Background
 - Targets and goals
 - Progress toward targets
 - Example projects & programs



Highlights from Use of National Performance Measures

- Successful multi-agency cooperation
- Highlights important transportation issues:
 - Challenge to preserving aging infrastructure
 - Recent increases in traffic fatalities
 - Importance of travel time reliability for people and goods
 - Prevalence of non-SOV modes
 - Project benefits across programs
- Short-term targets will serve as useful benchmarks
- National measures don't tell the complete story

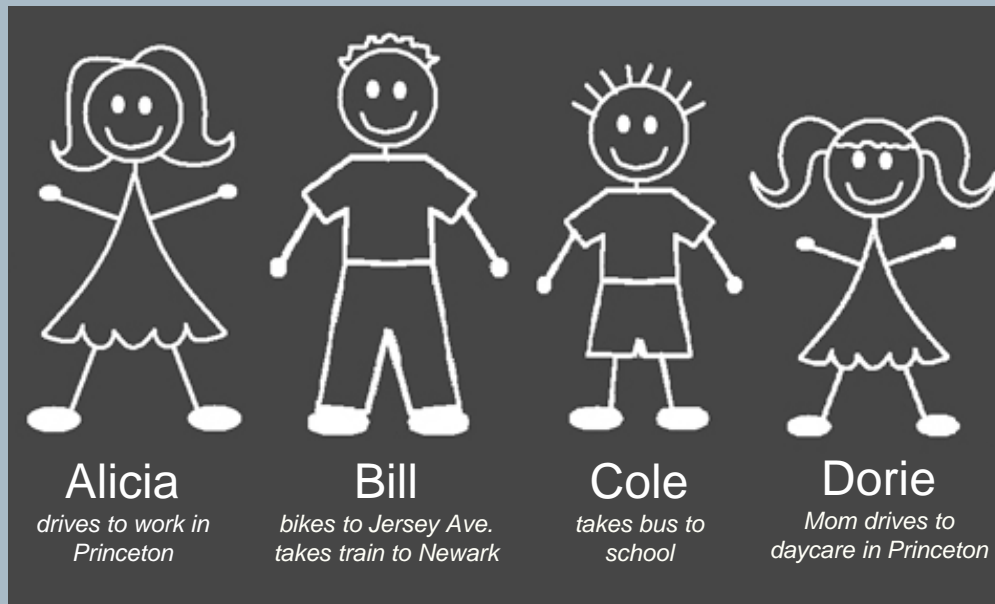
First Four Years: Challenges & Opportunities

- Communication and collaboration
 - Intra-agency
 - Interagency
- Evolving data
- Meaningful targets

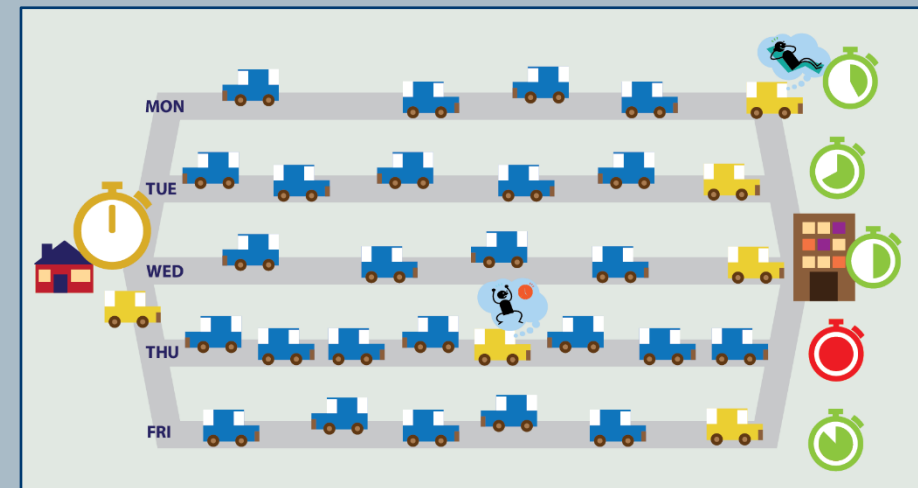
Communication and Collaboration (Intra-agency)

- Explaining measures, telling stories, getting buy-in

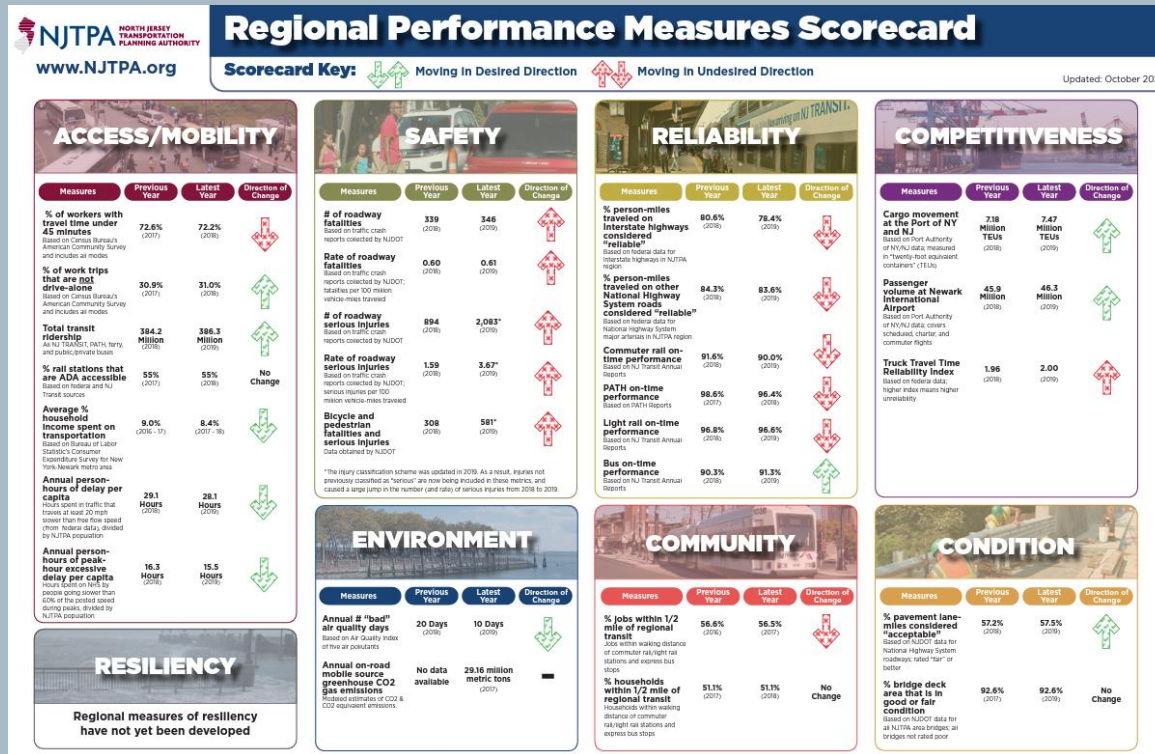
Peak Hour Excessive Delay



Travel Time Reliability



Communication and Collaboration (Intra-agency)



Pavement and Bridge Condition - New Jersey National Highway System - 2- and 4-year targets

Measure	First Performance Period (2018-2021)						
	Baseline	2-year target	2-year condition	2-year target met?	4-year target	4-year condition	4-year target met?
Year of data collection->	2017	2019		2021			
% Int. pavement lane miles in good condition	62.1% ²	²	62.1%	²	50.0%	75.7%	
% Int. pavement lane miles in poor condition	1.8% ²	²	1.8%	²	2.5%	0.1%	
% non-Int. NHS pvmt lane miles in good condition ¹	32.5%	25.0%	33.0%		25.0%	41.6%	
% non-Int. NHS pvmt lane miles in poor condition ¹	2.4% ³	2.5%	10.7%		15.0% ⁴	4.8%	
% NHS bridge deck area in good condition	21.7%	19.4%	22.1%		21.3% ⁵	21.3%	
% NHS bridge deck area in poor condition	6.5% ³	6.5%	6.8%		6.8% ⁶	6.6%	

Notes:

¹ Using Full Distress + IRI

² For this first performance period, baseline and 2-year targets are not required for this measure. For official FHWA reporting purposes, the "baseline" will be the 2-year condition.

³ Based on unreliable or incomplete data.

⁴ 4-year target adjusted from 2.5% to 15%. Due to data limitations and lack of experience with the new pavement metrics, the earlier targets were flawed.

⁵ 4-year target adjusted from 18.6% to 21.3%. Recent trends motivated a more optimistic target.

⁶ 4-year target adjusted from 6.5% to 6.8%. A correction and current look at the data underpinned this small adjustment.

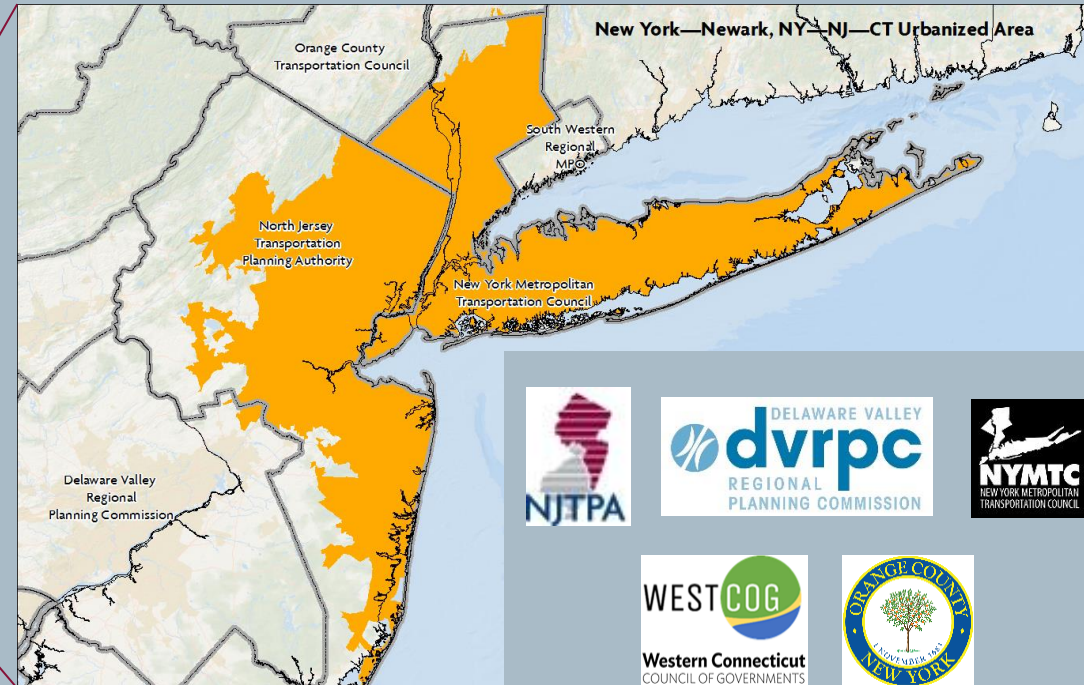
<https://njtpa.org/Planning/Plans-Guidance/Performance-Measures/Regional-Performance-Measures.aspx>

Communication and Collaboration (Interagency)

- Interagency groups

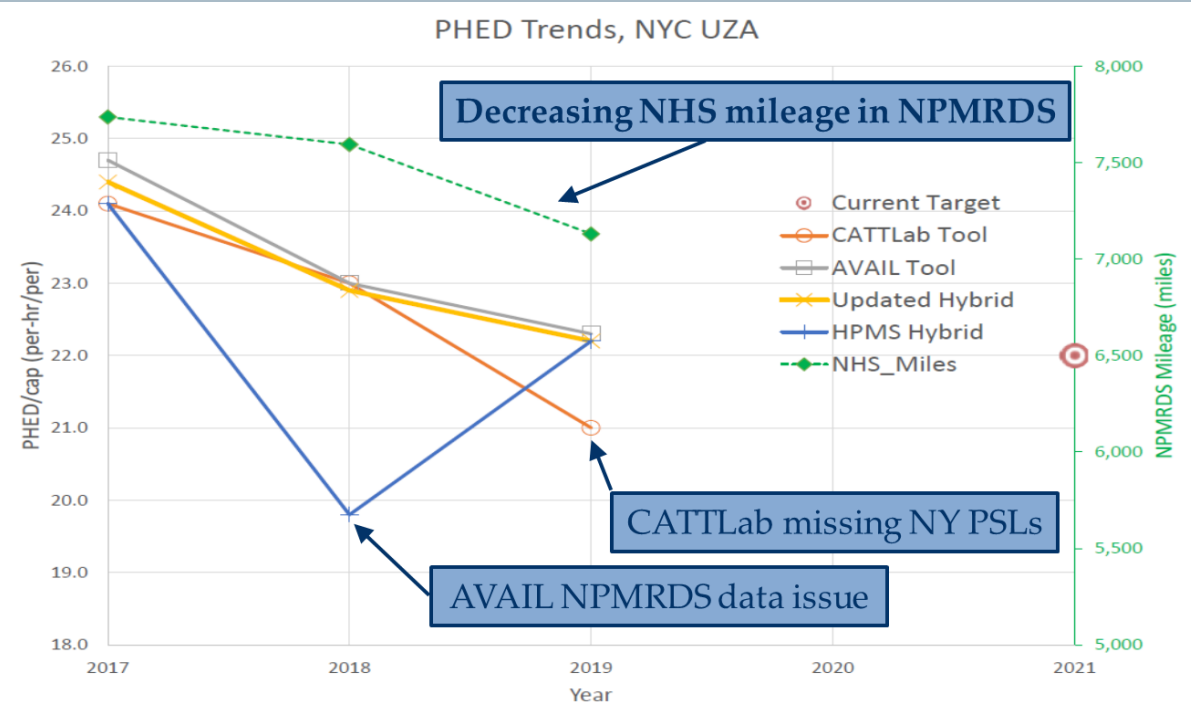
PM Rule	Team
Safety (PM1)	NJ Safety Team
Infrastructure (PM2)	NJ TAMP Team
System Performance (PM3)	NJ Complete Team
	UZA Coord. Groups
	NJ AQ Working Group
Transit Assets	Transit Providers, MPOs, NJDOT
Transit Safety	

New York/Newark UZA



MPO Collaboration Group
MAP Forum

Evolving Data



NJTPA
NORTH JERSEY
TRANSPORTATION
PLANNING AUTHORITY
Defining the Vision. Shaping the Future.

Transportation Performance Measures

Select a topic to begin

Access/Mobility

Safety

Reliability

Competitiveness

Resiliency

Environment

Community

Condition

Other Regional Indicators

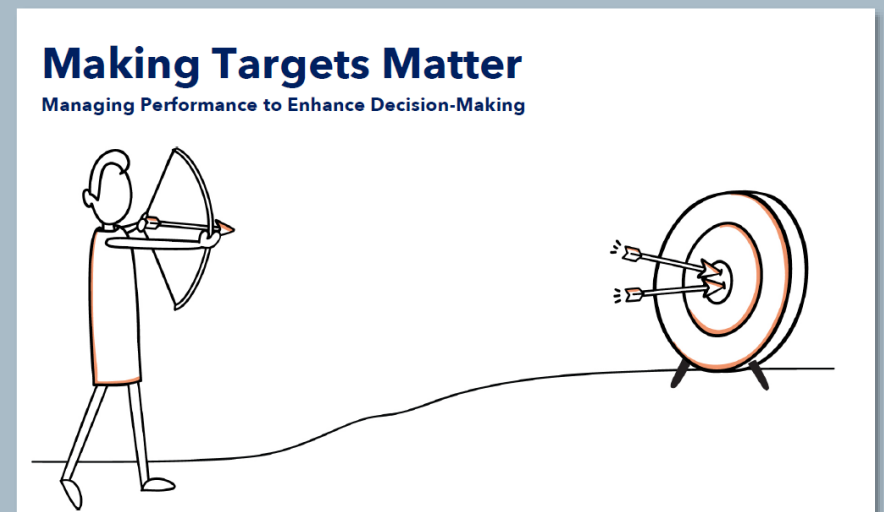
Economy & Land Use

Healthy Living

https://tpm.njtpa.org/rpm_dashboard.html

Meaningful Targets

- Going beyond technical requirements
- Evolving the target-setting process:
 - Forum for performance discussions
 - Influence project and program development
 - Less focus on mechanics
 - More focus on performance story



Contact Info

Keith Miller

Manager, Data Analysis & Forecasting

North Jersey Transportation Planning Authority

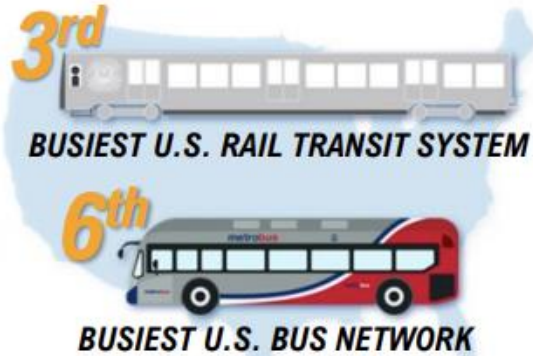
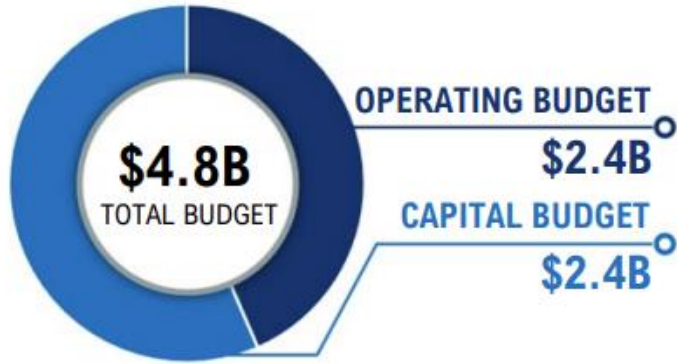
kmiller@njtpa.org

973-639-8444

Four Years of Federal Transportation Performance Management

Jordan Holt
DATE 03/30/2023

Metro at a Glance



METROBUS		METRORAIL		METROACCESS	
1,571 ACTIVE FLEET	38.4M SCHEDULED REVENUE MILES	1,278 ACTIVE FLEET	132.3M SCHEDULED REVENUE MILES	754 ACTIVE FLEET	28.5K SCHEDULED REVENUE MILES

130 MILES OF RAIL		98 RAIL STATIONS	
AERIAL 19 MILES	DC 40 STATIONS		
SURFACE 60 MILES	MD 26 STATIONS		
SUBWAY 51 MILES	VA 32 STATIONS		

Long History of Performance-Based Management



“WMATA has established many of the performance-based planning and programming elements necessary...”
-Federal Highway Administration

Maturing Asset and Safety Management Practices

Asset Management

- 2010: FTA asset management grant
- 2011: First Asset Management Maturity Assessment
- 2013: Asset Management Strategy, Second Maturity Assessment
- 2016: Capital Needs Inventory and Prioritization (CY17-26)
2016 > FTA Publishes TAM Final Rule
- 2018: First Transit Asset Management Plan
- 2018: Jurisdictions provide dedicated capital funding
- 2019: 10-Year Capital Needs Forecast (FY19-28)
- 2022: Second Transit Asset Management Plan
- 2023: Capital Improvement Program and 10-year Plan

Safety Management

- 2016: Began developing a Safety Management System
2018 > FTA Publishes PTASP Final Rule
- 2020: First Agency Safety Plan
- 2021: Second Agency Safety Plan
- 2022: Partnership with MITRE, starting with focus on Safety Culture
- 2022: Third Agency Safety Plan
- 2022-24: Safety Risk Management process

Metro's Suite of Plans

M METRO | STRATEGIC PLAN

Your Metro, The Way Forward

Establishing Metro's North Star

Mission – What We Do
Your Metro – Connecting you to possibilities

Vision – Where We're Going
The region's trusted way to move more people safely and sustainably

Goals – Our Priorities to Achieve the Vision

- Service Excellence
- Regional Opportunity & Partnership
- Sustainability
- Talented Teams

Data and stakeholder input led to four goals and supporting objectives to achieve Metro's vision

Service Excellence	Regional Opportunity and Partnership	Sustainability	Talented Teams
Deliver safe, reliable, convenient, and enjoyable service for all customers	Design transit service to move more people and connect a growing region	Manage resources responsibly to achieve a sustainable operating, capital, and environmental model	Attract, develop, and retain top talent where individuals feel valued, supported, and proud of their contribution



M metro **PROPOSED**
FY2024 - FY2029
Capital Improvement Program & 10-Year Plan

February 2023



WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Transit Asset Management Plan

M metro



October 2022-2026

WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY

Public Transportation Agency Safety Plan



DOCUMENT NUMBER: 400-SAFE-ADM-01-03
RELEASE/VERSION: 3.0
CONTENT OWNER: Department of Safety
Washington Metropolitan Area Transit Authority
300 7th St., SW Washington, DC 20024

RELEASE/VERSION DATE: December 31, 2022

M metro

FY2023 Transit Asset Management Targets

Table 3-6. Current Performance Targets

Asset Class	Performance Measure	FY2023 Targets
Rolling Stock (Revenue Vehicles)	Percentage of vehicles that have met or exceeded their ULB	Railcars: 0% Standard Buses: 4% Articulated Buses: 0% (MetroAccess) Vans: 7%
Equipment (Non-Revenue Vehicles)	Percentage of vehicles that have met or exceeded their ULB	Automobiles: 51% Truck & Rubber Tired: 33% Steel Wheeled: 29%
Facility	Percentage of facilities rated below three (3) on the FTA TERM scale	Admin & Maintenance: 8% Passenger & Parking: 5%
Infrastructure	Percentage of track segments, signal, and systems with performance restrictions	5.2%

FY2023 Safety Performance Targets

1.4.2.1 Safety Performance Target: Fatalities

No employee or customer should experience a fatality as a result of using Metro.

Metric	Bus Target	Rail Target	MetroAccess Target
Fatalities	0	0	0

1.4.2.2 Safety Performance Target: Injuries

Theoretically, all employees and customers should have a Metro experience that is free from harm. The following targets reflect Metro's commitment to move closer toward making this theory a reality.

Metric	Bus Target	Rail Target	MetroAccess Target
Customer Injury Rate*	56.4	20.6	15.6
Employee Injury Rate*	15.4	8.5	8.1
Overall Injury Rate* Combined	71.8	29.1	23.7
Overall Injury Count	433	104	43
Targeted performance improvement percentage	15%	15%	15%

*per 10 million VRM

1.4.2.3 Safety Performance Target: Safety Events

The key to ensuring zero fatalities and reducing injuries is to continuously improve toward creating an environment that is conducive to consistent outcomes, which equates to experiencing less safety events. Consequently, the safety performance improvement targeted for safety events is consistent with the target for injuries.

Metric	Bus Target	Rail Target	MetroAccess Target
Safety Event Rate*	53.0	3.9	19.5
Safety Event Count	188	23	35
Targeted performance improvement percentage	15%	15%	15%

*per 10 million VRM

1.4.2.4 Safety Performance Target: Assaults

No employee should have to worry about the threat of being assaulted at work. To achieve these targets, MTPD is taking the lead by employing the latest best practices and implementing a strategy composed of three pillars: education, outreach, and enforcement.

Metric	Bus Target	Rail Target	MetroAccess Target
Assault Rate*	10.0	10.0	0
Assault Count	36	60	0
Targeted performance improvement percentage	5%	17%	N/A

*per 10 million VRM

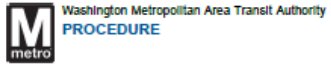
1.4.2.5 Safety Performance Target: System Reliability

Maintaining the system in a State-Of-Good-Repair (SOGR) is the foundation for Metro to produce produces consistent, repeatable outcomes that create an environment conducive to a safe experience. Historically, rail reliability targets were based on mean time between mechanical failure whereas the bus and MetroAccess modes were based on mean time between delay. Target setting has continuously improved in this area with the calculations based on mean time between delay standardized across all three modes. Additionally, the 7000 series railcars performance is significantly different in terms of the number of miles travelled and reliability compared to the legacy fleet (2000, 3000, and 6000 series), so specific targets have been established as reflected in the table below.

Metric	Bus Target	Rail Target	MetroAccess Target
System Reliability (mileage in terms of Mean Distance Between Delay)	8,200	56,500 (7k Fleet) 14,000 (Legacy Fleet)	22,000
Targeted performance improvement percentage	9%	5% (7k) 4% (Legacy Fleet)	3%

Successes

Mature Target Setting Process

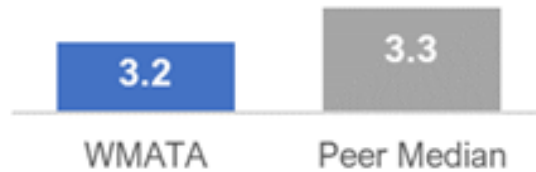


Washington Metropolitan Area Transit Authority
PROCEDURE

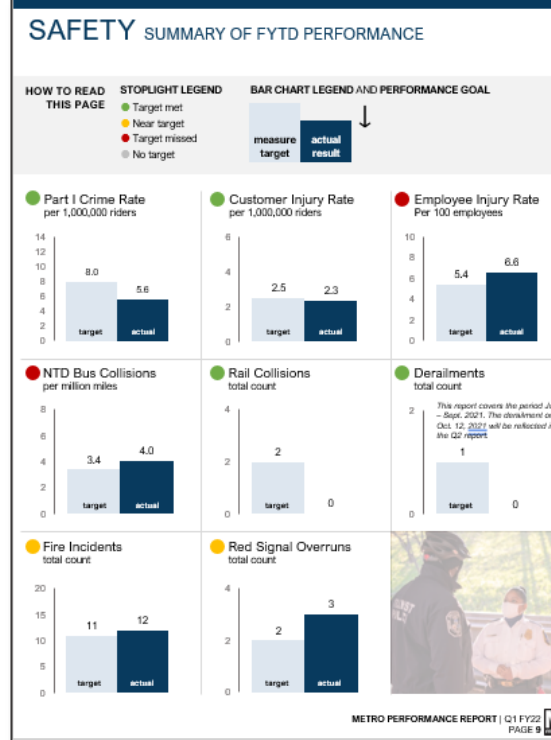
Procedure Number: OBPP-PERF-P03-01
PERF Annual Target Setting Procedure
October 26, 2022

- Documentation
- Benchmarking
- Data quality

Collisions per one million revenue miles



Unified and Standardized Safety Reporting



FYTD Scorecard: The Customer Experience Measured

Through Q2 of FY23, Metro met 15 of the 26 measures with FY23 targets featured in this report

- Target met
- Target at risk
- Target missed
- No target

Metro Ridership | page 9

Metro Customer Satisfaction | page 10-11

- RAIL
- BUS
- ACCESS

- How much of my service was canceled or missed? page 12-13
 - RAIL MISSED SERVICE
 - BUS MISSED TRIPS
- How often am I getting accurate real-time arrival info? page 14-15
 - BUS PREDICTION AVAILABILITY
 - BUS PREDICTION ACCURACY
- How reliable is my service? page 16-18
 - RAIL CUSTOMER ON-TIME PERFORMANCE
 - BUS ON-TIME PERFORMANCE
 - ACCESS ON-TIME PICK-UP PERFORMANCE
- How often are elevators and escalators out of service? page 19-20
 - ELEVATOR AVAILABILITY
 - ESCALATOR AVAILABILITY
- How crowded is it when I normally travel? page 21-22
 - RAIL CROWDING
 - BUS CROWDING
- How reliable is Metro's fleet? page 23-25
 - RAIL FLEET RELIABILITY:
 - 7000-SERIES
 - LEGACY SERIES
 - BUS FLEET RELIABILITY
 - ACCESS FLEET RELIABILITY
- How safe is Metro's system from crime? page 26
 - PART 1 CRIMES
- How safe is my ride? page 27-33
 - SYSTEM SAFETY EVENTS:
 - RAIL
 - BUS
 - ACCESS
 - CUSTOMER INJURIES:
 - RAIL
 - BUS
 - ACCESS
 - CUSTOMER FATALITIES:
 - RAIL
 - BUS
 - ACCESS
- How safe is Metro for its employees? page 33-36
 - NTD-REPORTABLE ASSAULTS:
 - RAIL
 - BUS
 - EMPLOYEE INJURIES:
 - RAIL
 - BUS
 - EMPLOYEE FATALITIES:
 - RAIL
 - BUS

Challenges/Opportunities

Federal measures don't tell 100% of our story

- Safety measures are retrospective, don't capture culture
- GAO 19-202 "Actions Needed to Strengthen Capital Planning"

The General Manager of WMATA should develop performance measures to be used for assessing capital investments and the capital planning process to determine if the investments and planning process have achieved their planned goals and objectives. (Recommendation 2)

Open ⓘ

create an inventory of performance measures that will be made widely available across the organization, and such measures will be included in project implementation plans and used to track progress and measure project specific outcomes. WMATA

Discomfort setting non-zero safety targets

- Tension between long-term goals and annual targets

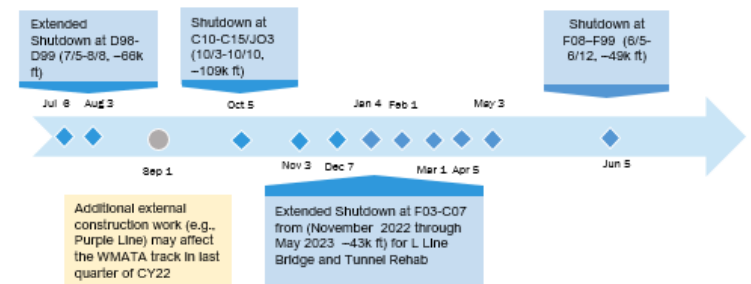


Sometimes measure results aren't meaningful

- Example: Right-of-way performance restrictions driven by capital work

Driver	FY21	FY22 Actual	FY23 Target
Unplanned SPDR	0.3%	1%	1%
Planned SPDR (Confirmed)	5.3%	3.5%	4.23%
Planned SPDR (Tentative)	-	-	0%
Total	5.6%	4.5%	5.23%

Monthly Outlook for Planned SPDR in FY23



Today's presenters



Dr. Mshadoni Smith-Jackson
m.smithjackson@dot.gov
Federal Highway Administration



U.S. Department of Transportation
Federal Highway Administration



Jordan Holt
jhholt@wmata.com
Washington Metropolitan Area Transit Authority



Deanna Belden
deanna.belden@state.mn.us
Minnesota DOT



Keith Miller
kmiller@njtpa.org
New Jersey Transportation Planning Authority

Defining the Vision. Shaping the Future.



Upcoming events for you

July 8, 2023

TRB's National Conference on
Transportation Asset Management



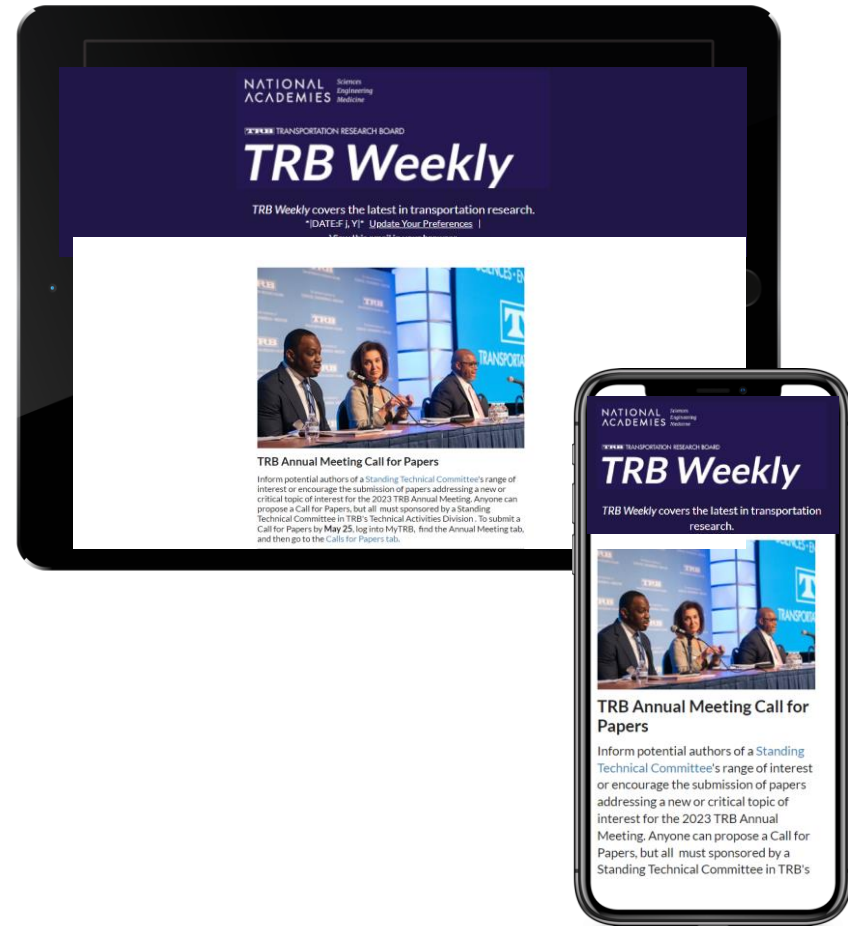
[https://www.nationalacademies.org/trb/
events](https://www.nationalacademies.org/trb/events)

Subscribe to *TRB Weekly*

If your agency, university, or organization perform transportation research, you and your colleagues need the *TRB Weekly* newsletter in your inboxes!

Each Tuesday, we announce the latest:

- RFPs
- TRB's many industry-focused webinars and events
- 3-5 new TRB reports each week
- Top research across the industry



Spread the word and subscribe!

<https://bit.ly/ResubscribeTRBWeekly>

Discover new TRB Webinars weekly

Set your preferred topics to get the latest listed webinars and those coming up soon every Wednesday, curated especially for you!

<https://mailchi.mp/nas.edu/trbwebinars>

And follow #TRBwebinar on social media



Get involved

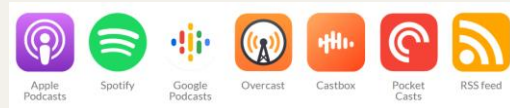
<https://www.nationalacademies.org/trb/get-involved>

- **Become a Friend of a Standing Technical Committee**

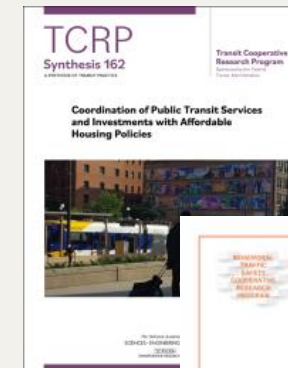
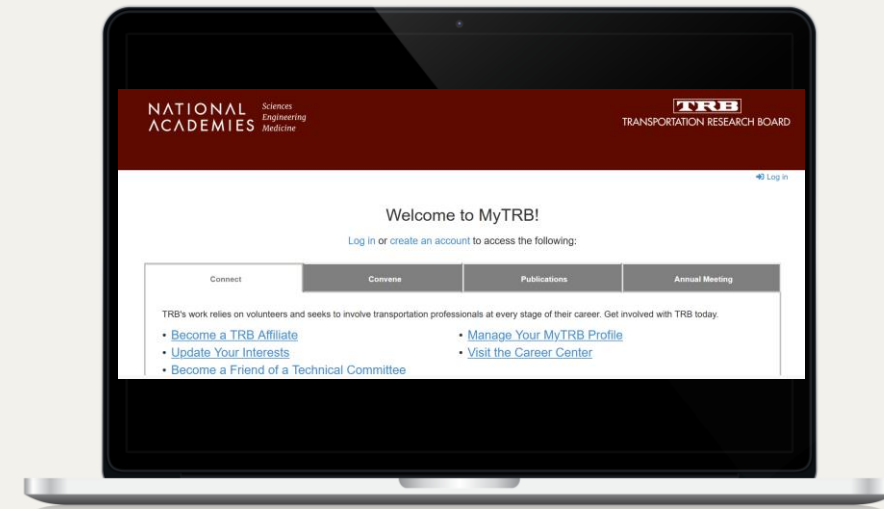
Network and pursue a path to Standing Committee membership

- **Work with a CRP**

- **Listen to our podcast**



<https://www.nationalacademies.org/podcasts/trb>



We want to hear from you

- Take our survey
- Tell us how you use TRB Webinars in your work at trbwebinar@nas.edu

