Transportation Performance Management Webinar Series

What's New? The Future of Transportation Performance Management

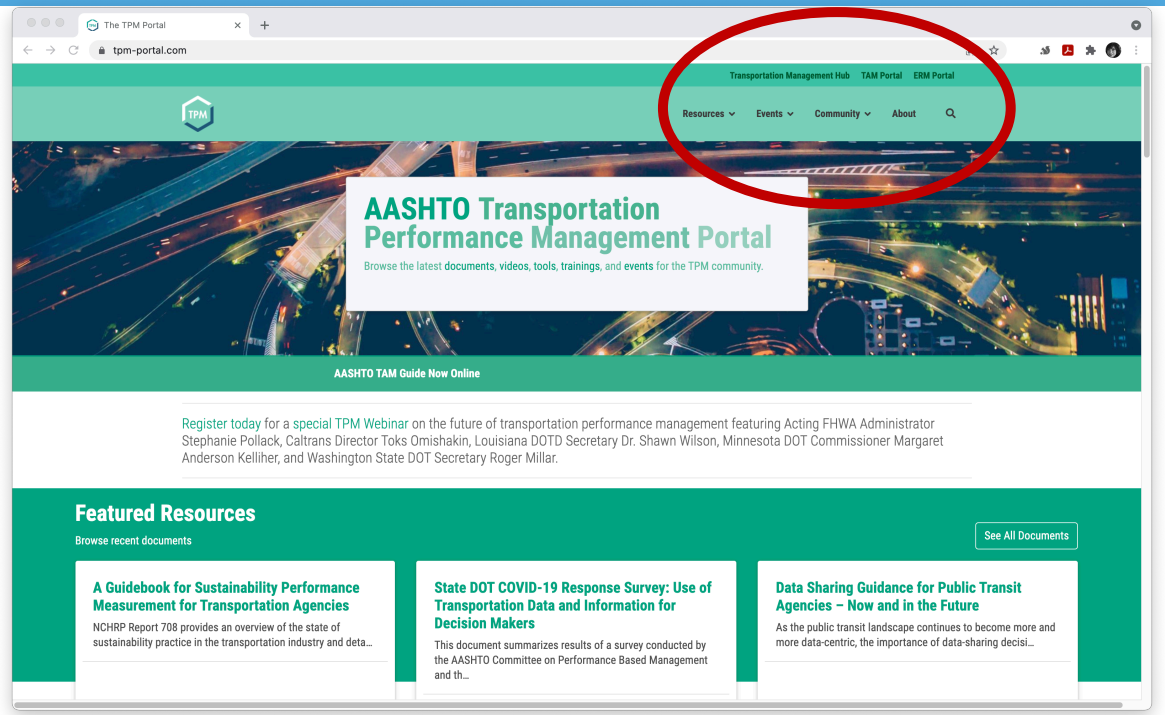
Sponsored by the TPM Pooled Fund
with support from AASHTO CPBM Leadership and FHWA

May 19, 2021

TPM Webinar 6

Transportation Performance Management Webinar Series

- Our TPM webinar series is held every two months, on topics such as communications, system performance management, data sources, and many more to come!
- Today is the 6th webinar in our bi-monthly series
- We welcome ideas for future webinar topics and presentations
- Use the webinar Q&A panel during the webinar
  - Submit questions for today's presenters
  - Submit ideas for future webinar topics



Find us on the NEW AASHTO TPM Portal
https://www.tpm-portal.com

FHWA Welcome

Susanna Reck

Transportation Performance Management Team Lead, FHWA

susanna.reck@dot.gov

AASHTO Welcome

Matthew H. Hardy, Ph.D.

Program Director for Planning and Performance Management, AASHTO

mhardy@aashto.org

Webinar Agenda

2:00 **Webinar Welcome and Introduction**
Christos Xenophontos, Rhode Island DOT, Susanna Reck, FHWA, Matt Hardy, AASHTO, Hyun-A Park, Spy Pond Partners, LLC

2:10 **Biden-Harris Administration Vision and TPM**
Stephanie Pollack, Acting Administrator, FHWA

2:25 **Caltrans Presentation**
Toks Omishakin, Director, Caltrans

2:35 **Louisiana DOTD Presentation**
Dr. Shawn Wilson, Secretary, Louisiana DOTD

2:45 **Equity, Accessibility & Sustainability**
Margaret Anderson Kelliher, Commissioner, Minnesota DOT

2:55 **Equity – You Measure What You Treasure**
Roger Millar, Secretary, Washington State DOT

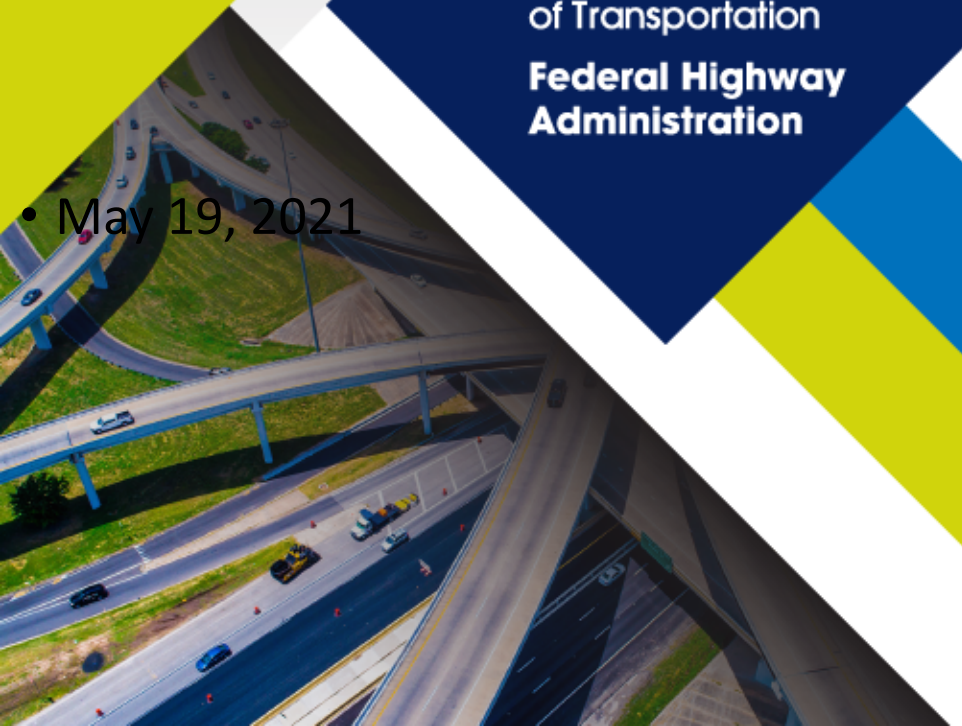
3:05 **Q&A**
Matt Hardy

The Future of Transportation Performance Management

Stephanie Pollack, Acting Administrator
Federal Highway Administration

May 20, 2021

U.S. Department of Transportation
Federal Highway Administration



- May 19, 2021

U.S. Department of Transportation
Federal Highway Administration

How Does the Congressionally-Mandated Transportation Performance Management System Work?

Why Performance Management?

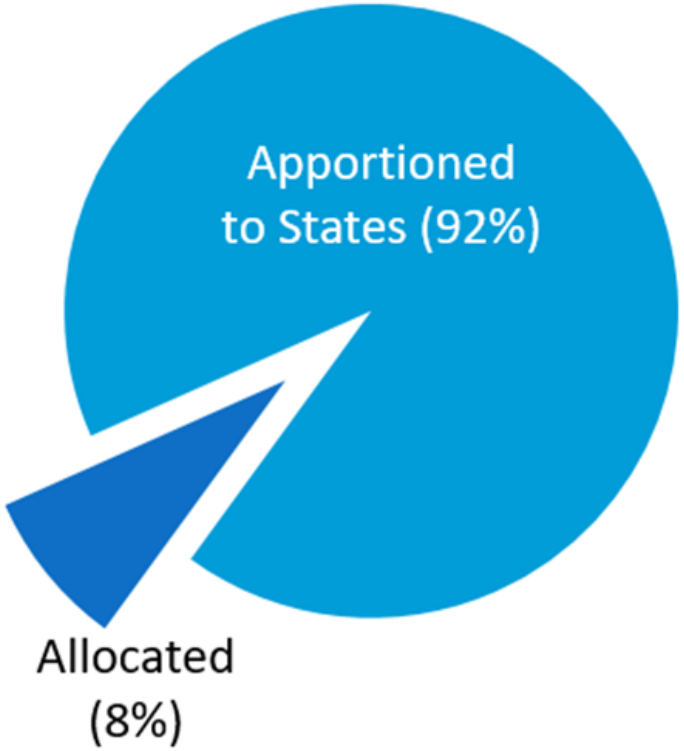
23 U.S.C. 150(a) Declaration of Policy states that "Performance management will transform the federal-aid highway program and

- Provide the **most efficient investment** of Federal transportation funds
- Refocus on **national transportation goals**
- Increase **accountability and transparency**
- **Improve decision-making** through performance-based planning and programming

Creating Accountability in the Federal-Aid Highway Program

U.S. Department of Transportation
Federal Highway Administration

Distribution under FAST Act (FY16-20)



FLEXIBILITY

ACCOUNTABILITY

U.S. Department of Transportation
Federal Highway Administration

Focus on Seven National Goals

23 U.S.C. 150(b) National Goals.- It is in the interest of the United States to focus the Federal-aid highway program on the following national goals:

(1) **Safety** -To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

(2) **Infrastructure condition** -To maintain the highway infrastructure asset system in a state of good repair.

(3) **Congestion reduction** -To achieve a significant reduction in congestion on the National Highway System.

(4) **System reliability** -To improve the efficiency of the surface transportation system.

(5) **Freight movement and economic vitality** -To improve the National Highway Freight Network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.

(6) **Environmental sustainability** -To enhance the performance of the transportation system while protecting and enhancing the natural environment.

(7) **Reduced project delivery delays**-To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

U.S. Department of Transportation
Federal Highway Administration

Performance Areas

- Highway Safety Improvement Program (HSIP)
  - Fatalities and Serious Injuries – all public roads
- National Highway Performance Program (NHPP)
  - Pavement and Bridge Condition – NHS
  - System Performance - NHS
- National Highway Freight Program (NHFP)
  - Freight Movement - Interstate
- Congestion Mitigation & Air Quality Improvement Program (CMAQ)
  - Congestion – nonattainment/maintenance areas
  - Emissions – nonattainment/maintenance areas

Putting the Pieces Together

- **National Goals**
- **Measures**
- **Targets**
- **Plans**
- **Reports**
- **Accountability and Transparency**

U.S. Department of Transportation
Federal Highway Administration

Infrastructure Final Rule

- 6 Measures
  - Bridge condition (% Good/Poor, NHS)
  - Pavement condition (% Good/Poor, Interstate, other NHS)
- New pavement measure
- 4-year performance periods
- State and MPO target setting requirements
- 2-year progress reviews of States
- NHS Asset Management Plan
- Additional minimum condition requirement for NHS bridges and Interstate pavements

U.S. Department of Transportation
Federal Highway Administration

Consequences if Targets Are Not Met

- States that do not make significant progress toward achieving their Safety performance targets:
  - Lose funding flexibility
  - Must develop plan of action
- States that do not make significant progress toward achieving their NHPP & NHFP performance targets:
  - Must document the actions they will take to meet targets and submit with their next biennial plan submission; are encouraged to submit earlier.
- States that do not meet minimum condition requirements for NHS bridges and Interstate pavements lose funding flexibility:
  - Bridge condition (% Good/Poor, NHS)
  - Pavement condition (% Good/Poor, Interstate, other NHS)

U.S. Department of Transportation
Federal Highway Administration

How Are the States Doing on Meeting TPM Targets?

U.S. Department of Transportation
Federal Highway Administration

System Performance, CMAQ, and Freight

- 6 Measures
  - Reliability (trucks: Interstate)
  - Percent System Reliable (all vehicles: Interstate, other NHS)
  - Peak Hour Excessive Delay*
  - Percent Non-SOV Travel*
  - Emissions
- National travel time database
- 4-year performance periods
- State and MPO target setting requirements
- 2-year progress reviews of States

* Currently limited to UZAs over 1 million population. Limited to UZAs over 200k population beginning in 2022

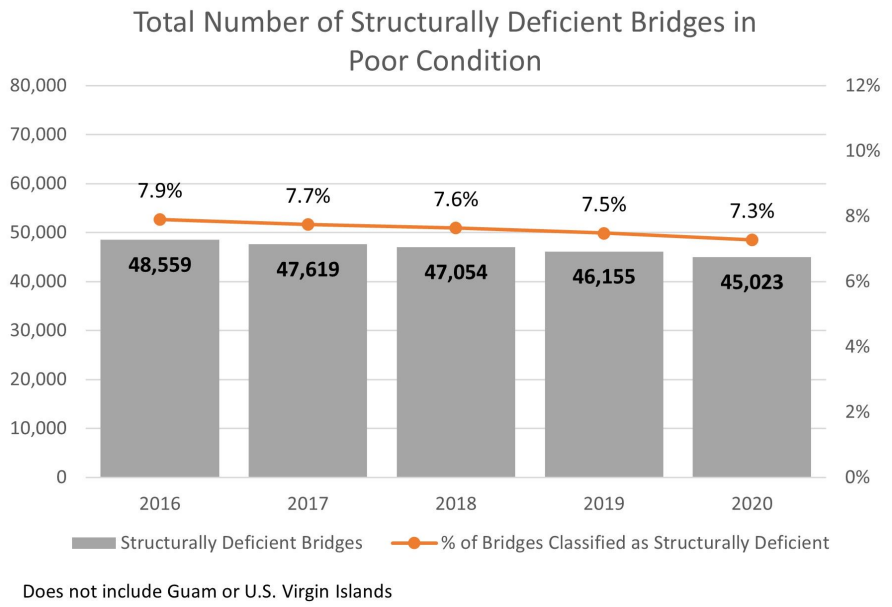
U.S. Department of Transportation
Federal Highway Administration

Measure Area	Measure	Number of States Made/Not Made Progress	Additional Reporting
The condition of pavements on the Non-Interstate NHS	Pavements: Non-Interstate NHS %Good	47 / 5	10 States require Additional Reporting for the *Non-Interstate NHS Pavements Measure Area*.
	Pavements: Non-Interstate NHS %Poor	45 / 7	
The condition of bridges on the NHS	Bridges: NHS %Good	30 / 22	25 States require Additional Reporting for the *NHS Bridges Measure Area*.
	Bridges: NHS %Poor	39 / 13	
The performance of the Interstate System	Reliability: Interstates	41 / 11	11 States require Additional Reporting for NHS Travel Time Reliability Measure Area.
Freight movement on the Interstate System	Freight: Interstates	37 / 15	15 States require Additional Reporting for the *Interstate Freight Measure Area*.

State Performance (PM2 and PM3)

But are US bridges in better condition?

- Roughly 2 out of 3 of the nation's 45,000 poor condition bridges are "off-system" bridges, not those on the National Highway System
- The number of the nation's bridges in good condition has dipped 2.5% over the last decade due to a lack of bridge preservation and preventative maintenance



Does not include Guam or U.S. Virgin Islands

ARTBA American Road & Transportation Builders Association

2021 Bridge Conditions Report

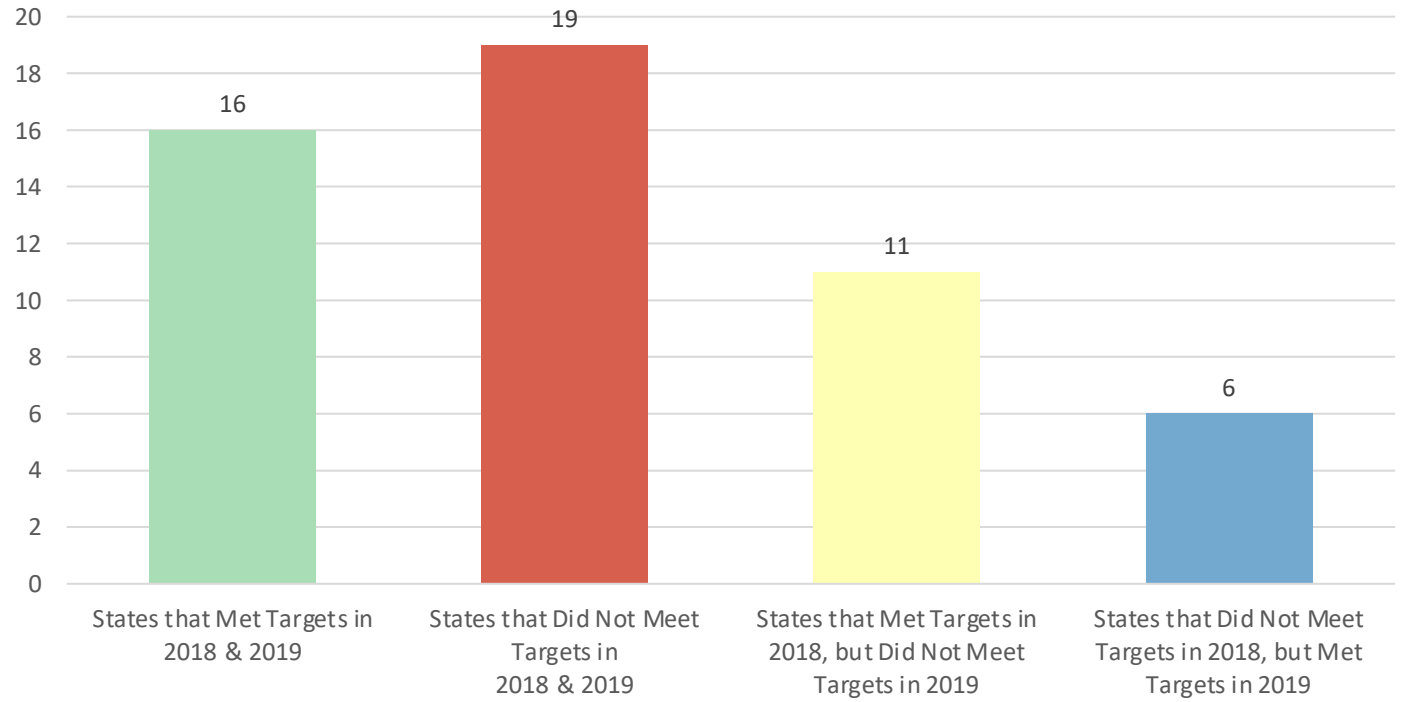
U.S. Department of Transportation
Federal Highway Administration

Safety Performance Requirements

- 5 measures*
  - Fatalities (number and rate)
  - Serious Injuries (number and rate)
  - Non-motorized Safety (number)
- Annual State and MPO targets
- One common definition for serious injuries
- Annual reporting on performance
- Annual assessment of progress
- Additional requirements in HSIP for high-risk rural road and older driver/pedestrian safety.

*5-year rolling average

State Performance (Safety)



- 22 States made significant progress in meeting their 2019 safety targets
- Most States met their serious injury targets (40)
- Many States were not able to meet their non-motorized targets (28)

U.S. Department of Transportation
Federal Highway Administration

Taking TPM to the Next Level: Transforming the Federal-Aid Highway System

U.S. Department of Transportation
Federal Highway Administration

Back to Those Seven National Goals

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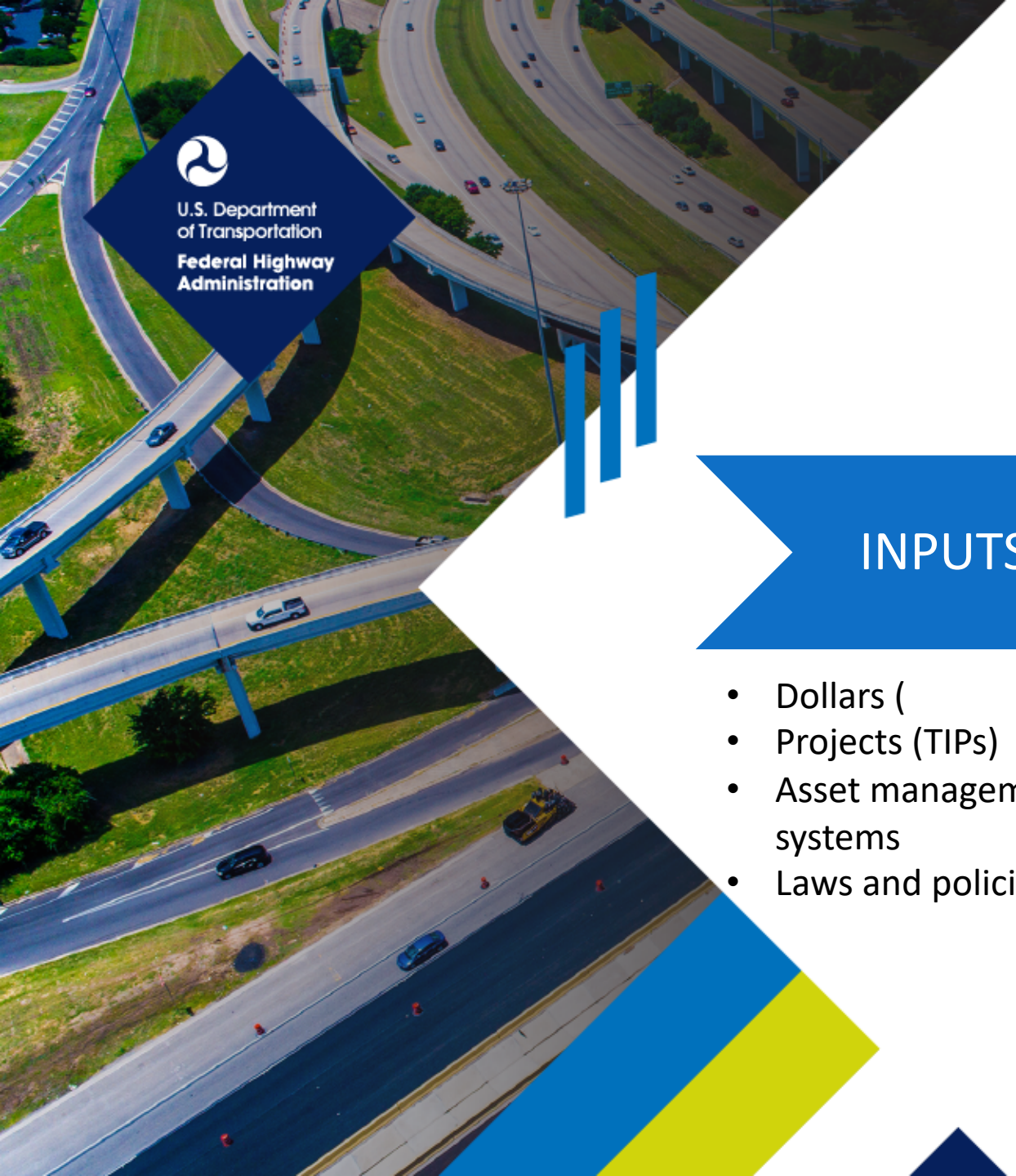


Distinguishing Inputs from Outputs from Outcomes

INPUTS

- Dollars (
- Projects (TIPs)
- Asset management systems
- Laws and policies

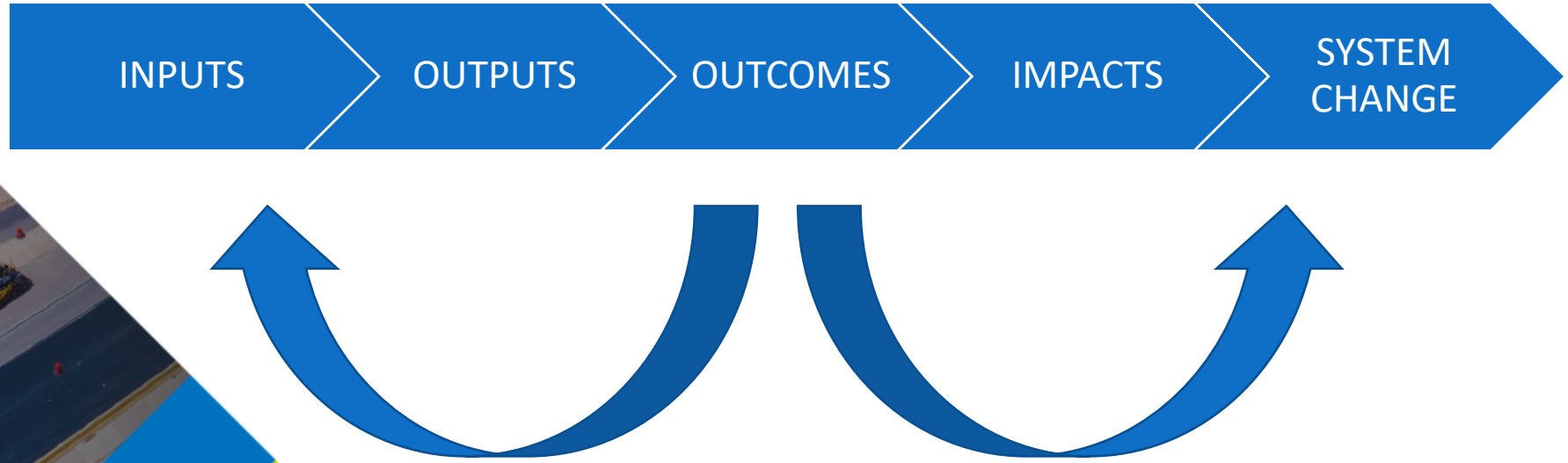
OUTPUTS

- Reduced project costs
- Improved bridge conditions
- Improved pavement conditions
- Lower emissions
- Jobs

OUTCOMES

- More reliable travel/ Less congestion
- Healthier and more sustainable environment
- Access to national and international trade markets
- Economic development

What is a Logic Model or Theory of Change?



U.S. Department
of Transportation

**Federal Highway
Administration**

AASHTO/FHWA TPM Webinar Series:
What's New? The Future of Transportation

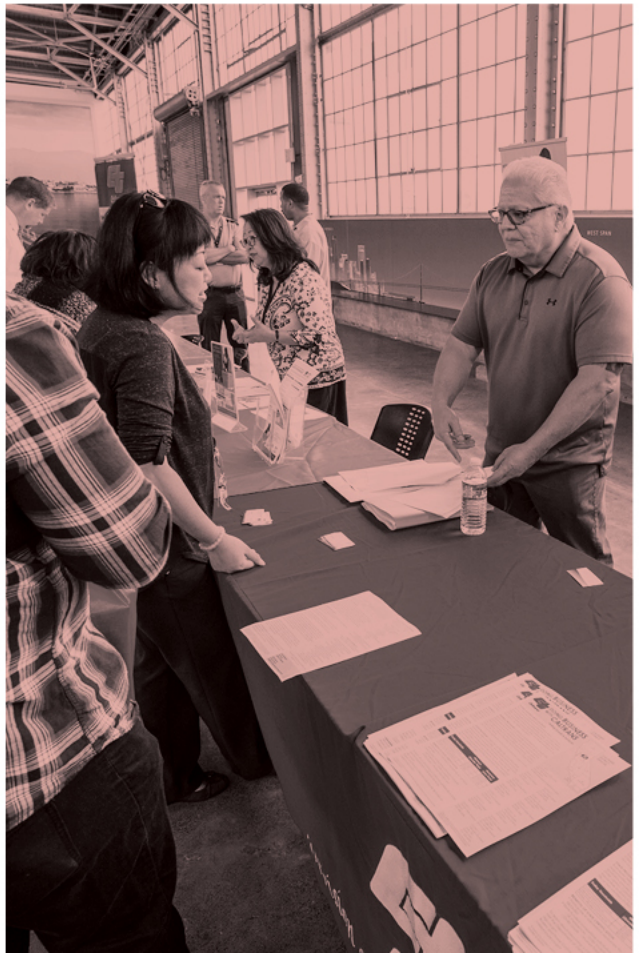
TOKS OMISHAKIN CALTRANS DIRECTOR MAY 19, 2021

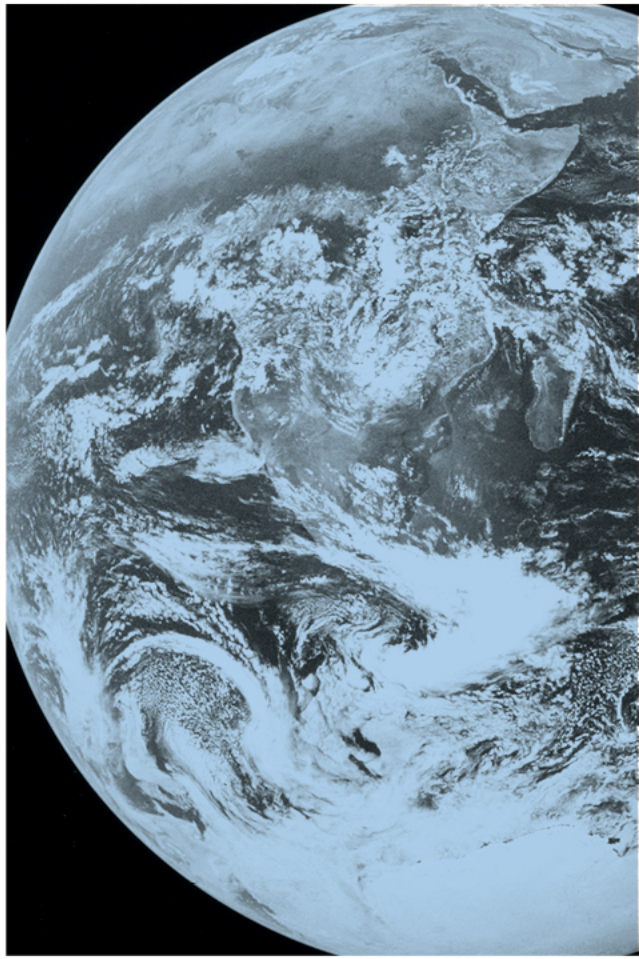
CALTRANS' 4 "Ps" OF EQUITY

PEOPLE

PROJECTS/ PROGRAMS

PARTNERSHIPS





PLANET

5 Priorities

SAFETY

MODALITY

INNOVATION

EFFICIENCY

PARTNERSHIPS

SAFETY

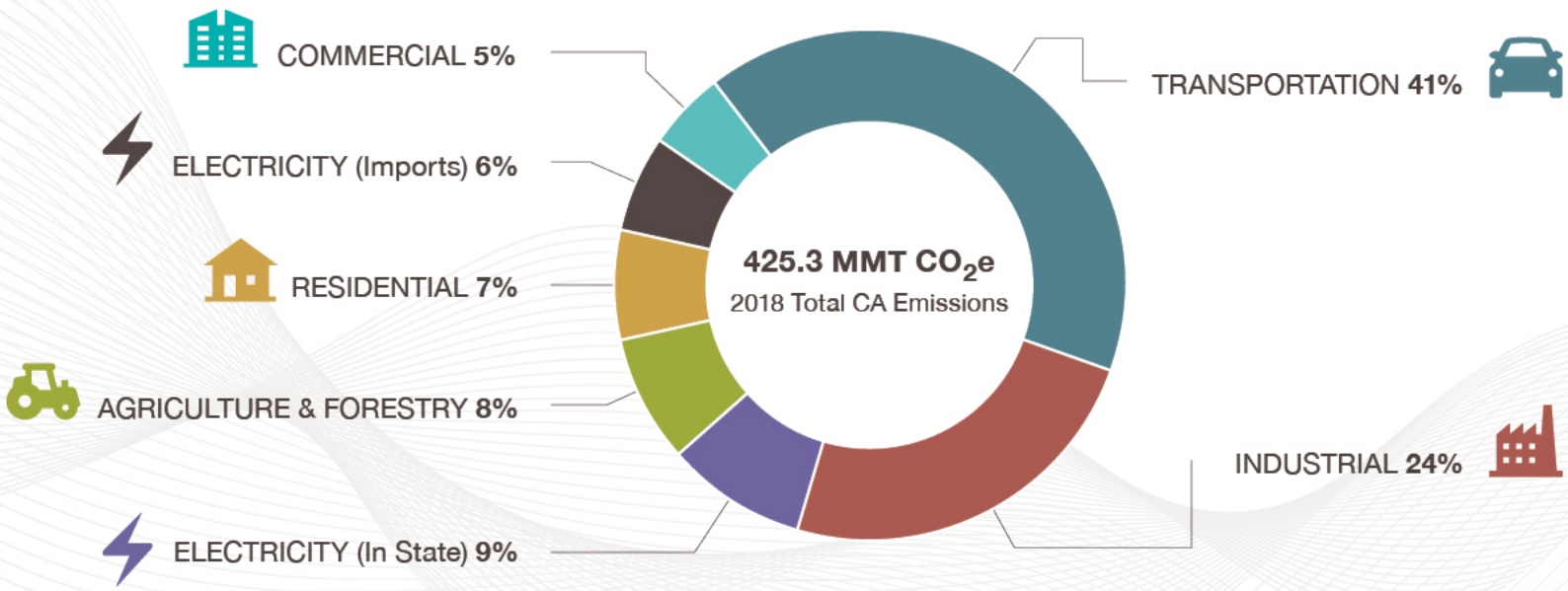
VULNERABLE USERS

VEHICLES

ZERO DEATHS

CLIMATE ACTION IN CALIFORNIA

2018 GHG EMISSIONS BY MAIN ECONOMIC SECTOR



Source: California Air Resources Board: 2000-2018 GHG Inventory

CALTRANS AND MULTIMODALISM

5
Priorities

INNOVATION

Integrated Ticketless Travel

How do we integrate all mobility options?

Cal-ITP
California Integrated Travel Project

5
Priorities

EFFICIENCY

5
Priorities

PARTNERSHIPS

"Nothing is more dramatically apparent than the inadequacy of transportation in our larger urban areas. The solution cannot be found only in the construction of additional urban highways – vital as that job is.

Other means for mass transportation which use less space and equipment must be improved and expanded. Perhaps even more important, planning for transportation and land use must go hand in hand as two inseparable aspects of the same process."

PRESIDENT JOHN F. KENNEDY
Special Message to Congress
May 9, 1961

FOR MORE INFORMATION

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LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Transportation Performance Management

Shawn D. Wilson, Ph.D.

Secretary

@onevisionary

May 19, 2021

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Performance Management

- Asset Management
  - Climate Change
- Transportation Systems Management & Operations
  - Environmental Aspects
- Emergency Management
  - Extreme Weather

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Asset Management

- First Transportation Asset Management Plan adopted in 2015; updated in 2019
- Next update (2023) will incorporate climate change and resiliency
- State Based Effort – Climate Change Task Force

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Transportation Systems Management & Operations

- Incident Management
  - Advance notification through 511 and Dynamic Message Signs
  - MAP trucks
  - Safety Feature Repairs
- ITS Operations
  - Dynamic Message Signs
  - Signal Synchronization
- Ferry Boat and Movable Bridge Operations
- Work Zone Management
- Response to Complaints
  - Signal malfunctions, debris, etc.
- PM3 Targets

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Emergency Management

- Louisiana is well versed and organized in Emergency Management
  - State Emergency Operations Center
    - Activated in response to an event
      - Hurricanes
      - Flooding
      - Snow/Ice
      - Hazardous Materials Incidents
    - DOTD serves as lead agency for Emergency Support Functions 1 (Transportation & Emergency Support) and 3 (Public Works & Engineering)


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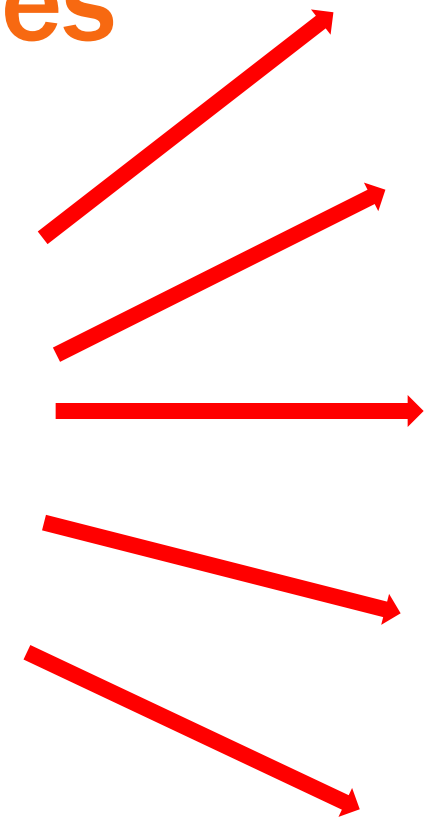
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Funding Mechanisms

- Capital Projects
  - Budget Partitioned into Five Major Categories
    - System Preservation (i.e., Asset Management)
    - Operations/Motorist Services (i.e., Transportation Systems Management & Operations)
- Operations
  - District Forces contribute to the bulk of the effort for Emergency Management before, during and after an event
  - District Forces are also called upon to make any manner of repair to the system

Budget Partition Categories

TOTAL CONSTRUCTION BUDGET



- SYSTEM PRESERVATION/SUSTAINABILITY
- OPERATIONS/ MOTORIST SERVICES
- TRAFFIC SAFETY
- ADDITIONAL CAPACITY/ NEW INFRASTRUCTURE
- QUALITY OF LIFE/ LOCAL PUBLIC ASSISTANCE

Budget Sub-Partition
System Preservation

➢ Pavement Preservation (non-Interstate)	$ 178 M
– Includes non-Interstate NHS	
➢ Pavement Preservation (Interstate)	$ 32 M
➢ Bridge Preservation (on-system)	$193 M
➢ Bridge Preservation (off-system)	$ 13 M
TOTAL	$416 M

Budget Sub-Partition
Operations/Motorist Services

ITS	$11.0 M
Traffic Control Devices	$14.8 M
Roadway Flooding	$ 3.7 M
Weigh Stations	$ 0.5 M
TSM	$11.1 M
Interstate Lighting	$ 1.9 M
Rest Areas	$ 0.5 M
Access Management	$ 8.1 M
Ferries/Major Repairs	$ 3.3 M
Movable Bridge Preventive Maintenance	$ 1.9 M
ADA Program	$ 2.1 M
TOTAL	$58.9 M

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

Questions

Equity, Accessibility & Sustainability

AASHTO/FHWA TPM Webinar Series: What's New? The Future of Transportation Performance Management

Margaret Anderson Kelliher, Commissioner

May 19, 2021

DEPARTMENT OF TRANSPORTATION

Measuring Transportation Equity

- Disaggregate data
- Understand the bias in our data/methods
- Both quantitative and qualitative
- Multidimensional

New Walking Performance Measures

- % of people who walk to work as primary mode

- % of people who walk at least a few times per week

- % of sidewalk gaps filled on MnDOT roadways

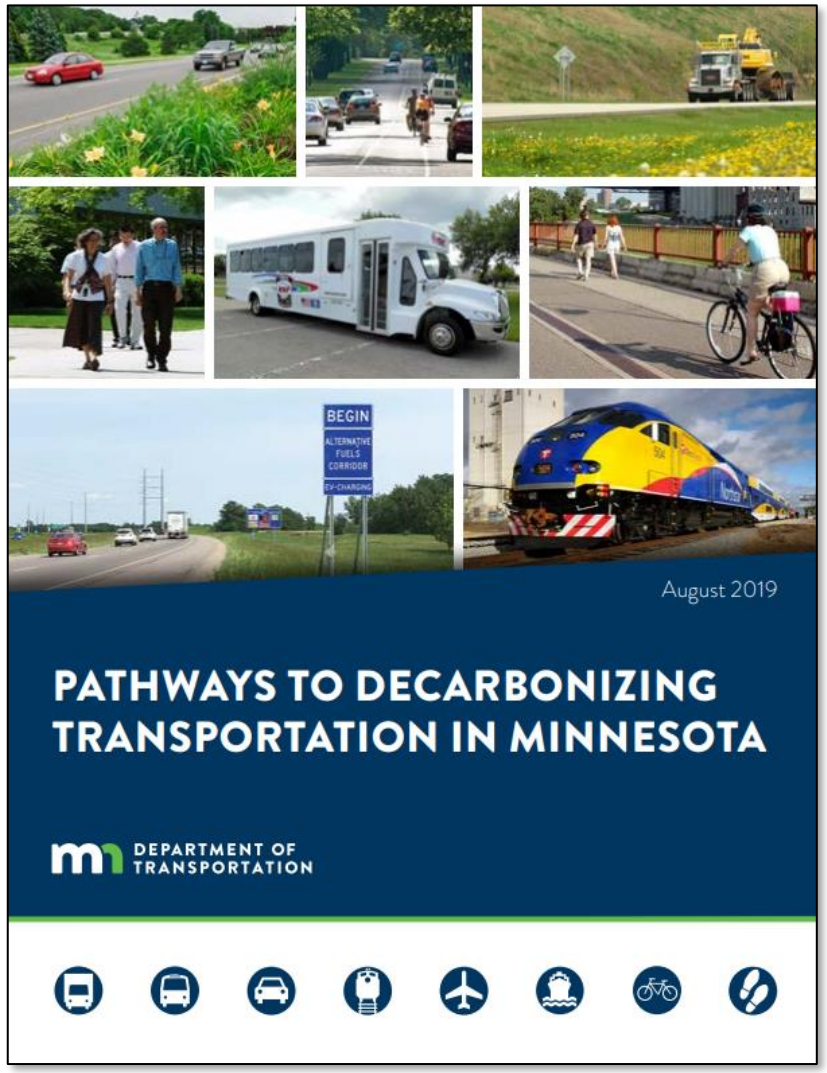
- % of projects meeting State Pedestrian Plan guidance related to preferred facility type by land use context and project type

Climate Impacts in Minnesota

Minnesota will be one of the states most impacted by climate change

Climate Impacts	Increased Likelihood
Floods	Very High
Warmer Winters	Very High
Invasive Species	High
Droughts	Medium
Extreme Heat	Medium Low
Wildfires	Low
Severe Wind	Low

Sustainable Transportation Advisory Council



Top Priority Recommendations

Fueling and Powering Transportation

- Increase investment in charging infrastructure, beyond existing VW settlement investments - **Support**
- Establish rebates for EVs, including dealership support and consumer rebates - **Support**
- Develop a clean fuels policy - **Support**

VMT Reduction and Transportation Options

- Adopt a statewide goal of reducing VMT by 20% by 2050 – **Support preliminary goal**
- Stop expanding highway capacity to reduce congestion – **Explore Further**
- Prioritize transit and high occupancy vehicles on MnDOT owned right of way - **Support**

Sustainability Reporting

Focus Areas

Reduce transportation carbon pollution

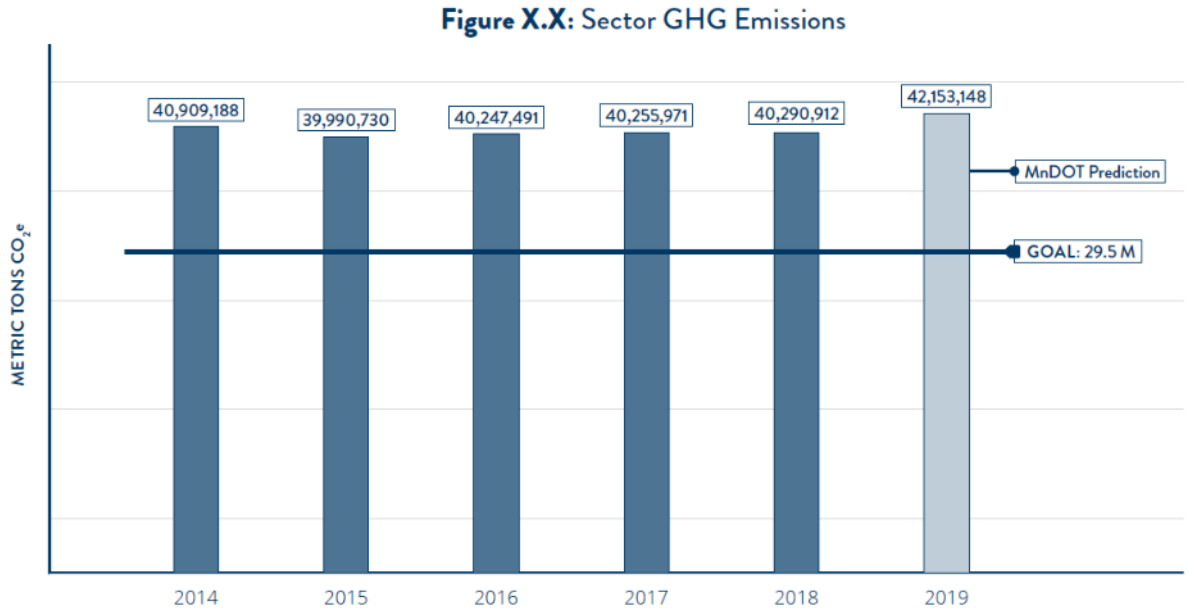
Lead by example through MnDOT sustainability efforts

- Facilities
- Fleet
- Highway Operations
- Roadside Vegetation
- Construction

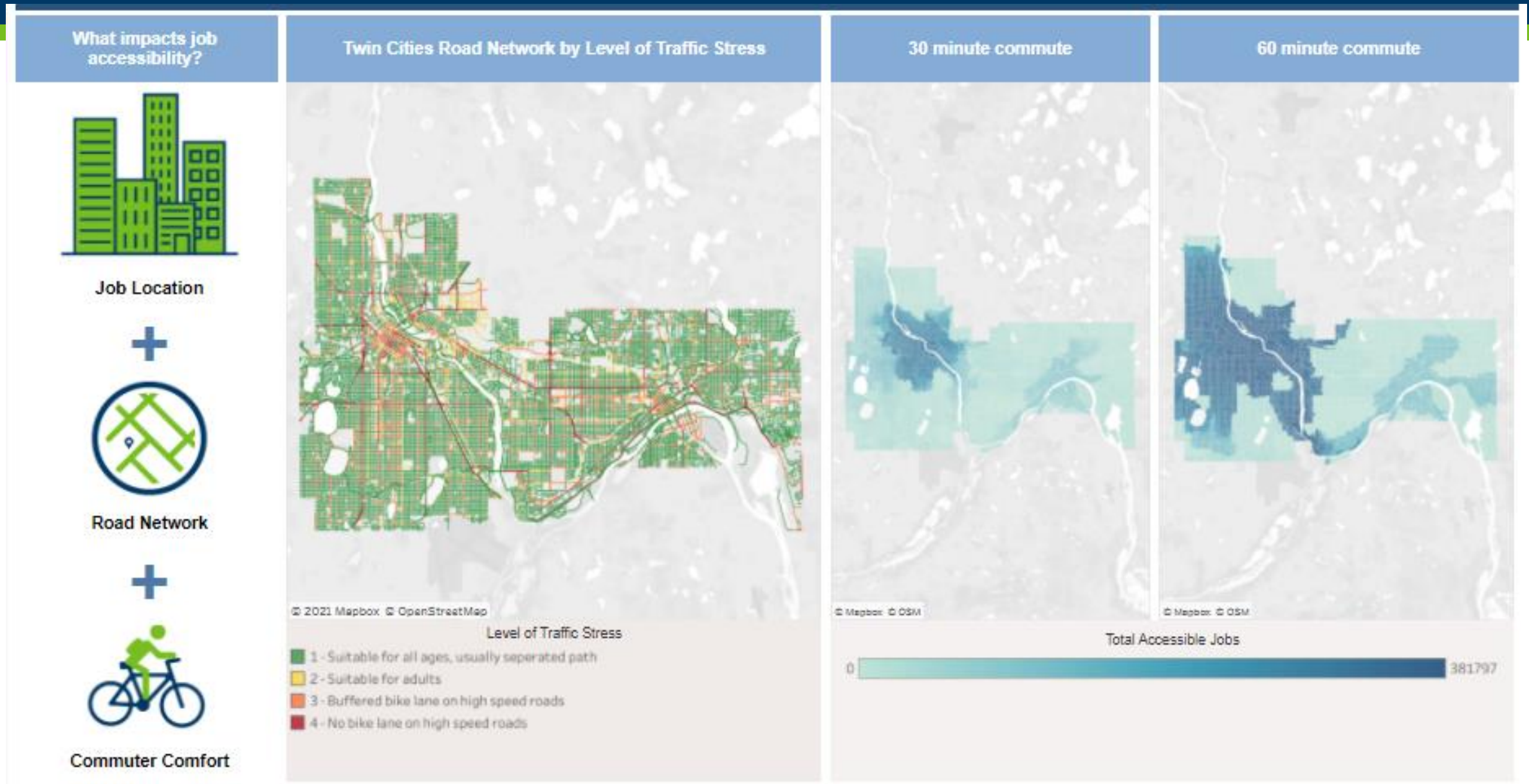
Support transportation that improves public health for all Minnesotans

- Walking, Biking & Transit
- Transportation Equity & Safety

Improve resilience of the transportation system in Minnesota

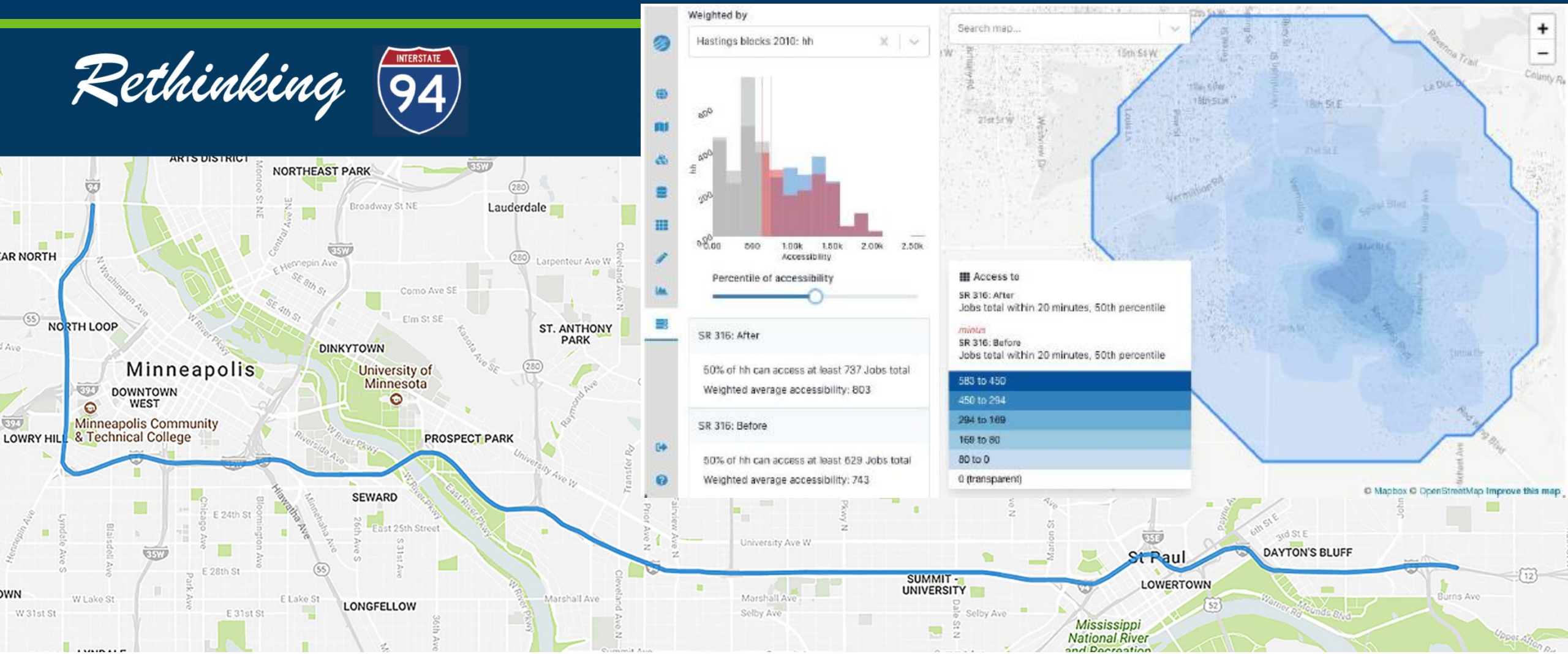


Accessibility Measures (Access to Destinations)



Other accessibility studies and implementation efforts

Rethinking INTERSTATE 94



DEPARTMENT OF TRANSPORTATION

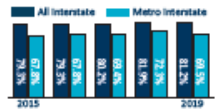
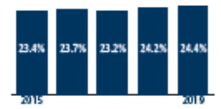
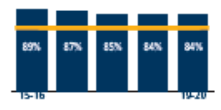
2019 Minnesota Performance Scorecard

Transportation systems are essential to Minnesota's quality of life and economic competitiveness. MnDOT develops this annual scorecard to track progress across the state on the agency's performance on our 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 and a more exhaustive list can be found at http://performance.minnesotago.org/.

SCORE KEY: Good | Needs Improvement | Poor | Target

CRITICAL CONNECTIONS

This objective is about maintaining and strategically improving the state's multimodal transportation connections. Key measures focus on how reliably each of our modal systems are serving Minnesotans. Rapidly clearing snow and ice events continues to be an area of success. Though progress is steady, MnDOT still has much work ahead in bringing state highway sidewalks into ADA compliance.

Measures	Target	Result & Score	Trend	Analysis
Interstate Travel Time Reliability - Percent of person-miles traveled on the Interstate network that are considered reliable. This measure applies to both the Twin Cities area and the state as a whole	Tracking Indicator	81.2% All Interstate, 69.5% metro Interstate (2019)		Travel time reliability has been stable for the past 5 years. The difference between reliability scores for the metropolitan area and statewide is primarily due to traffic volumes and congestion.
Twin Cities Freeway Congestion - Percent of metro-area freeway miles below 45mph in a.m. or p.m. peak	Tracking Indicator	24.4% (2019) ▲		The extent of peak period congestion increased slightly in 2019, with 24.4% of the system congested during peak hours. Congestion is expected to increase as economic activity and the regions population continue to grow.
Snow and Ice Control - Frequency of achieving bare lanes within targeted number of hours after a winter weather event	≥70%	84% (2019-2020) ●		MnDOT cleared lanes to bare pavement within the targeted number of hours 84% of the time during the winter of 2019-2020. MnDOT has achieved its snow and ice clearance goals each of the last eleven winters.

2019 MINNESOTA PERFORMANCE SCORECARD

Hover over the letters next to each viz to read more about the following:

- D Description of the measure
- A Analysis of the measure
- R Result of the most recent year
- T Target goal for the measure
- S Score performance for the measure

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Score Performance Key:

- Poor
- Needs Improvement
- Good

*Note: 2019 data for Pedestrian Accessibility and Safety still pending.

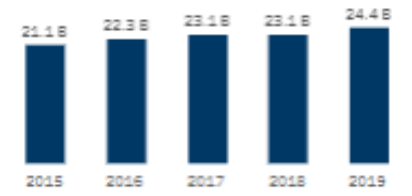
CRITICAL CONNECTIONS

INTERSTATE TRAVEL TIME RELIABILITY

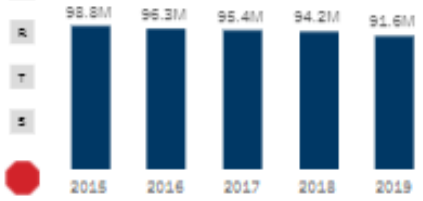
TWIN CITIES FREEWAY CONGESTION

SNOW & ICE CONTROL

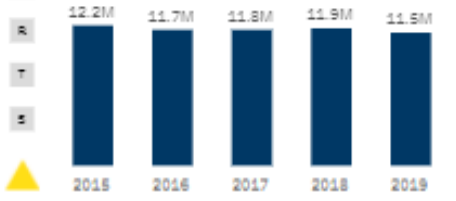
AVAILABLE SEAT MILES (BILLIONS)



TWIN CITIES TRANSIT RIDERSHIP (MILLIONS)



GREATER MN TRANSIT RIDERSHIP (MILLIONS)



performance.minnesotago.org/

Roger Millar

Secretary, Washington State DOT

May 19, 2021

TPM Webinar 6

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