

TECHNICAL SUMMARY

Questions?

Contact research.dot@state.mn.us.

Technical Liaison:

Hally Turner, MnDOT
Hally.Turner@state.mn.us

Investigator:

Zachary Elgart, Texas A&M University

PROJECT COST:

\$130,500



Transportation equity includes ensuring accessibility for everyone across all modes of transportation.

Evaluating Metrics and Performance to Advance Transportation Equity

What Was the Need?

Ensuring Minnesota's transportation network does not create barriers or hardships for underserved or underrepresented communities is imperative. Understanding the degree to which equity is present across all transportation modes, however, can be a challenge. Measuring equity concepts is not straightforward, as definitions of terms, systems or population metrics have historically reflected varying assumptions and perspectives.

MnDOT operates under an Equity Lens Framework, which, in addition to supporting the core agency values of accountability as well as diversity and inclusion, emphasizes underrepresented groups to achieve equitable outcomes. Measures and methods to evaluate transportation program equity impacts, however, have generally been lacking. To assess both systemwide and population-specific strategies for ensuring equitable access to transportation programs and resources, MnDOT wanted a greater understanding of how to develop sound and meaningful equity metrics and evaluation methods.

What Was Our Goal?

The goal of this project was to develop performance measures, strategies and agency training to support MnDOT in achieving transportation equity statewide while considering the unique contexts of marginalized or vulnerable groups.

What Did We Do?

After reviewing a range of existing research, guidance, policies and other literature on the state of practice in transportation equity, researchers produced a resource compendium with equity definitions, assessment methods and ideas for improvement.

Next, an equity-focused review of 54 performance measures from MnDOT's [Performance Dashboard](#) identified if and how each measure considered equity or included any inherent biases or other limitations. For each measure, investigators identified populations that would benefit from its success or that may experience unintended negative or neutral outcomes, and considered how a measure might be improved to enhance equity. Then they proposed 16 preliminary conceptual performance measures focused on improving equity across a variety of agency functions.

Two focus groups, each with five public representatives, provided feedback on whether the draft performance measure concepts represented them and their needs, what may be missing and what they would prefer to see in the measures. During an online workshop, the project's Technical Advisory Panel (TAP) also provided feedback on the proposed concepts through interactive polling.

Due to the lengthy list of potential measures to further develop or improve, the TAP participated in a multiphase prioritization process to identify five key aspects of transportation equity: multimodal access and effectiveness, physical accessibility, infrastructure safety, affordability and representation.

For each key aspect, researchers developed five improved existing measures and five new, innovative performance measure concepts. Draft measures included descriptions and benefits; proposed metrics and targets; descriptions of necessary data sets and suggested data granularity; and ways to track, interpret and display the data.

The need for equity in transportation permeates all MnDOT efforts. Knowing if the agency is planning and administering programs or projects equitably can be challenging to assess. New research suggests improved performance measures and strategies to support agency efforts to advance equity across its responsibilities.

“This work underscored that there is no one solution to ensuring transportation equity. But it gave us a great set of questions and materials to use in scrutinizing all of our plans and projects through an equity lens.”

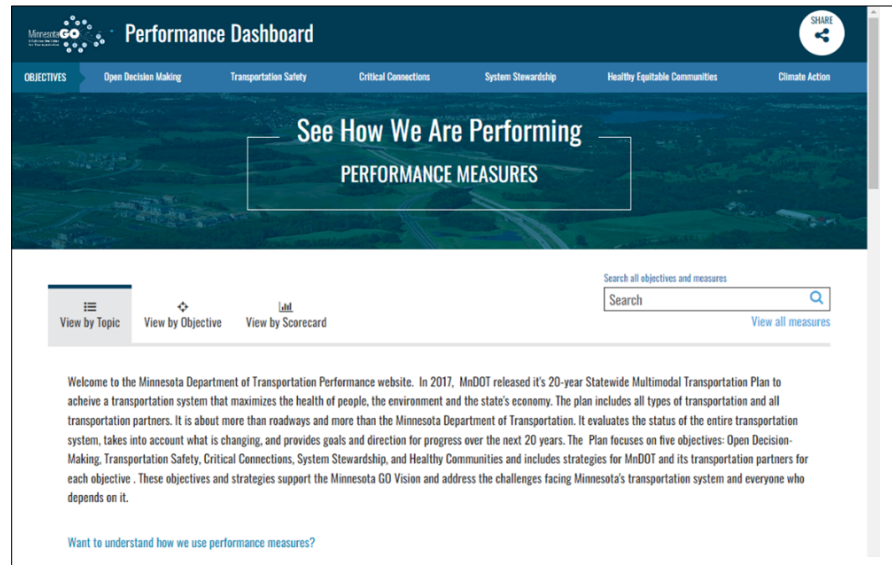
—Hally Turner,
Director, Policy Planning,
MnDOT Office of Planning
and Programming

“In addition to suggestions for equity-based performance measures, MnDOT now has tools to consider and apply equity principles in the context of its program areas and training resources to support this application.”

—Zachary Elgart,
Associate Research
Scientist, Transit Mobility
Program, Texas A&M
Transportation Institute

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Minnesota Department
of Transportation
Office of Research & Innovation
MS 330, First Floor
395 John Ireland Blvd.
St. Paul, MN 55155-1899
651-366-3780
www.mndot.gov/research



The Minnesota GO Performance Dashboard is the home for the statewide transportation performance measures.

What Did We Learn?

The review of MnDOT’s existing performance measures and feedback from the TAP and focus group participants identified potential macro-level improvements the agency can consider. Without necessarily collecting additional data, many measures reported only at the state level could be reported and visualized on a more local level to represent the lived experiences of specific populations. Also, providing access to the data that support some performance measures would allow communities and specific populations to understand transportation network performance as it relates to them and would enhance the transparency of the agency’s decision-making.

Based on the five key aspects, researchers offered suggestions to integrate an equity perspective to existing performance measurements concerning:

- On-time transit
- Americans with Disabilities Act compliance for pedestrians
- Reporting and tracking fatalities and serious injuries
- Job destination accessibility
- Workforce representativeness

Proposed improvements included providing more granular spatial data reporting and visualization for all measures; defining targets to create accountability for some measures; providing demographic breakdowns; and updating gender, race and ethnicity terminology.

Innovative, equity-focused new performance measures developed through the research concerned multimodal access and traveler impacts, user experience and local context, and inclusion and representation in workforce recruitment and retention.

Finally, investigators developed a self-study guide and presentation for MnDOT to use in training new and existing staff.

What’s Next?

This research provided tools and content to support MnDOT in advancing transportation equity in all of its efforts. The [2022 Statewide Multimodal Transportation Plan](#) includes plans to develop a performance measure to increase transportation equity. The results of this work would help the agency to deepen its work to advance transportation equity using an equity lens.

This Technical Summary pertains to Report 2023-14, “Qualitative and Quantitative Analysis to Advance Transportation Equity,” published March 2023. More information is available at mdl.mndot.gov.