Advancing Transportation Equity

Strategies for reducing transportation disparities

Project Highlights

- Efforts to advance transportation equity need to focus on both the structural inequities built into society—such as racial segregation and auto dependency—and the transportation barriers that affect specific communities and population groups.
- Equity initiatives are likely to require actions beyond a transportation agency’s traditional responsibilities.
- Top opportunities for advancing transportation equity include inclusive public engagement and interagency collaboration across all levels and sectors.
- Detailed recommendations targeting specific populations and focusing on multimodal solutions offer promise for improving transportation equity in Minnesota.

Project Background

Transportation contributes to many broad societal outcomes, such as employment, wealth, and health. However, there are disparities and inequities in Minnesotans’ ability to reach destinations. Underserved and underrepresented communities in Minnesota include low-income communities, communities of color, indigenous communities, older adults, people with disabilities, women and youth, rural residents, and people with limited car access.

The Minnesota Department of Transportation (MnDOT) launched its Advancing Transportation Equity initiative in 2017 to better understand how transportation systems, services, and decision-making processes help or hinder the lives of underserved and underrepresented communities in Minnesota. As part of this effort, MnDOT enlisted the help of University of Minnesota transportation researchers to examine current research and practice in the field, recommend action steps for MnDOT and its partners to consider in advancing transportation equity, and identify directions for future research and practice that can advance transportation equity in Minnesota.

Current Research and Practice

Researchers began by examining current research in the field of transportation equity. A review of the literature found that transportation equity has been defined in a variety of ways. Based on the community input received during this study, the team created a working definition of equitable transportation (see sidebar).

Redefining Transportation Equity

After gathering community input from a diverse group of transportation users and stakeholders, researchers developed a working definition of equitable transportation:

- Transportation systems that support multimodal options that are affordable, sustainable, reliable, efficient, safe, and easy to use;
- Quality transportation services that are accessible to all populations for reaching destinations independently if needed; and
- Transportation decision-making processes that incorporate inclusive public engagement to reduce the long-standing socioeconomic disparities experienced by underserved and underrepresented communities.
The team’s review also revealed that societal-level structural inequities cause specific population groups to face disproportionate transportation barriers. Some of these structural inequities, such as racialized spatial segregation in metropolitan areas and auto-dependent development patterns, are built into the very fabric of our communities. The user-pay principle that governs the current transportation finance system is viewed as another inequity, as it does not take into account users’ ability to pay.

Transportation equity concepts commonly focus on compensating for specific inequities, rather than structural ones, by providing more resources to population groups that have greater and more complex transportation needs. However, recent studies suggest that efforts to advance transportation equity need to focus on both the structural inequities built into our communities and the specific transportation inequities that affect neighborhoods, individuals, and groups of individuals due to their racial/ethnic identity, income, ability, gender, age, and location.

Building on their review, the researchers then explored 24 programs from across the United States that aim to improve transportation equity. To better understand what these programs do, who is involved, and what they hope to accomplish, the researchers categorized the programs in terms of the scale at which they are organized, the dimension of primary activities, the equity perspective, and the direction of approach. The goal was to produce structured, generalizable knowledge about the current state of the practice.

The programs examined included an anti-discrimination program for regional transportation planning in Boston, model policies to assist state and local equity planning from the U.S. EPA, and a program to provide discounted transit passes and vehicle access to low-income Seattle residents. The range of structures and approaches indicate that the promotion of equity is not a single, unified field, but includes a variety of sub-fields of planning, policy, and public administration that intersect with each other. This finding is crucial to bear in mind, as promoting transportation equity in general is likely to require actions beyond a transportation agency’s traditional responsibilities as well as collaboration with other agencies and organizations.

**Stakeholder Engagement**

Stakeholder engagement was an integral component of researchers’ efforts to define transportation equity, formulate specific recommendations to advance transportation equity, and identify future research directions. The Project Advisory Group provided key guidance for the project and included representatives from MnDOT and other public-sector agencies as well as external community partners with expertise in addressing disparities and inequities. Additionally, a group of transportation users and equity stakeholders was invited to help the research team gain a better understanding of how transportation contributes to disparities and inequities for underserved and underrepresented communities and population groups in Minnesota.

Finally, researchers engaged with community members using intercept surveys at a community event to seek direct input from attendees about the day-to-day transportation challenges they face. Better infrastructure as well as increased safety and security were the most identified needs in relation to walking or using a mobility-assist device. Community members also thought that better infrastructure was needed for bicycling, and that long travel times and limited service made public transit use inconvenient. Stakeholder engagement further identified top opportunities for advancing transportation equity, which include public engagement/relationship-building and coordination across all levels and sectors.

**Recommendations**

Based on the literature and practice review as well as the stakeholder engagement efforts, the research team proposed recommendations for MnDOT and other transportation partners to consider in advancing transportation equity. The recommendations, categorized under six overarching themes, address both societal inequities and the inequities of the transportation system itself (see table on next page). To help prioritize the recommendations, the report identifies which underserved and underrepresented populations are most likely to benefit from each recommendation, along with what modes of transportation each recommendation affects.
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| **Engagement Processes**  
Designing engagement processes that facilitate community leadership and the inclusive participation of traditionally underserved and underrepresented communities, where community members drive conversations around their transportation needs and strategies for implementing solutions. | • Incorporate inclusive and culturally sensitive community engagement practices in decision-making processes.  
• Conduct multilingual outreach and engagement with limited-English populations, particularly with immigrant communities.  
• Work in close partnership with community members to build trust over time and maintain effective relationships that go beyond project deadlines. |
| **Increasing Opportunities**  
Initiating programs and policies that increase access to social and economic opportunities, such as jobs, affordable housing, healthy food, education, health care, and recreation, particularly for underserved and underrepresented communities. | • Provide quality and affordable public transit facilities and services, particularly for transit-dependent communities.  
• Create and expand connections between employment centers and underserved neighborhoods that are physically isolated from job opportunities.  
• Support transit-oriented development that offers affordable housing options and support community economic development.  
• Ensure that shared and technology-based mobility options such as ride share, bike share, scooter share, and telecommuting provide mobility opportunities for underrepresented communities. |
| **Transportation for Sustainability and Health**  
Creating policies and programs that support active transportation and provide safe, smart, and affordable transportation alternatives that minimize automobile dependency to create healthier, more sustainable communities. | • Encourage transportation agencies to design, construct, maintain, and improve roadways to encourage active transportation.  
• Support initiatives that decrease the harmful impacts of automobile use on community health and wellbeing.  
• Reduce adverse impacts of freight transportation systems, particularly on low-income and communities of color who are disproportionately located near freight routes and facilities. |
| **Equity Spending**  
Integrating equity promotion as a standardized practice at the agency and program level, particularly in prioritizing spending across the system and distributing infrastructure projects. | • Increase access to jobs and training in the transportation industry for communities that are historically underrepresented.  
• Increase contracts to businesses owned/operated by underrepresented populations to support wealth-building among underrepresented communities.  
• Strengthen the role of equity among the criteria for spending across the transportation system and for distributing infrastructure projects based on community priorities. |
| **Collaboration & Coordination**  
Collaborating and coordinating across transportation and non-transportation agencies, institutions, and organizations, including academic institutions, to advance equity. | • Engage in multi-stakeholder collaboration to create a collective vision with mutually beneficial outcomes, potentially following successful collaborative practices that are part of the Minnesota Toward Zero Deaths program. |
| **Evaluation Metrics**  
Incorporating both quantitative and qualitative metrics for evaluating transportation programs and projects as well as their impacts on underserved and underrepresented populations. | • Develop a framework for measuring and evaluating the impacts of policy, program, and project implementation from an equity standpoint.  
• Facilitate accountability and effective implementation of projects and programs by developing an implementation plan with an equity lens.  
• Evaluate the potential positive and negative health impacts of a program or project before it is implemented. |
Future Research Directions and Conclusions

The final section of the report includes research problem statements for under-researched areas and identifies future research directions. The under-researched areas identified for future research include:

• Implementation strategies and outcomes of existing transportation equity efforts.
• Outcome evaluation metrics related to equity that include both quantitative and qualitative measures.
• Disparities faced by older adults, people with sensory and/or cognitive disabilities, single-parent households, and tribal communities.
• Effective community engagement methods that lead to ongoing long-term relationships.
• Strategies for making new mobility options, including automated vehicles, more equitable.
• Equity considerations in freight planning.
• Impacts of racial bias in traffic enforcement and transit policing.
• Specific opportunities for advancing transportation equity in rural Minnesota.

While great challenges remain in identifying and addressing transportation inequities in Minnesota, MnDOT’s Advancing Transportation Equity initiative presents a unique opportunity to lay the groundwork for a new, collaborative approach. The report proposes new strategies and activities for MnDOT and its partners to make meaningful change and reduce long-standing disparities experienced by underserved and underrepresented communities.

About the research

This research was sponsored by the Minnesota Department of Transportation. The final report—Advancing Transportation Equity: Research and Practice—was authored by Leoma Van Dort (research assistant), Andrew Guthrie (research fellow), and Yingling Fan (professor) of the Humphrey School of Public Affairs, and Gina Baas (associate director, engagement and education) of CTS.