An interactive, web-native approach

Transportation System Performance Evaluation

Preface

This report is a comprehensive review of the Twin Cities transportation system as prepared by Metropolitan Council in 2023. The Minnesota State Legislature adopted statutes in 1996 requiring the Metropolitan Council to produce this report (previously called the Transportation System Audit). This report was prepared to inform the 2024 update of the region’s long-range transportation plan, the 2050 Transportation Policy Plan (2050 TPP).

Metropolitan Council

The Council’s mission is to foster efficient and economic growth for a prosperous metropolitan region

Chair: Charlie Zelle

Table 1: Metropolitan Council Members

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Author: Metropolitan Council
Published: April 14, 2023

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4.1 Perception of Safety When Walking and Bicycling

Metro respondents to MnDOT’s public opinion survey are asked to rate perceptions of safety for bicycling and walking in their communities using a four point scale. 1 corresponds to a perception that bicycling and walking is not at all safe and 4 corresponds to a perception that bicycling and walking is very safe. MnDOT tracks the percentage of respondents who perceive their environment as safe by totaling those who respond with 3 (somewhat safe) or 4 (very safe). The survey is typically done every two years.

Figure 4.1 shows how people’s responses to the question How safe do you think your community is for walking (or using a wheelchair or personal mobility device) over time. In recent years, the amount of people who felt “not very safe” or “not at all safe” has increased. For instance, those who felt “not at all safe” increased from 2% in 2015 to 4% in 2019.

Figure 4.1: Perceptions of safety when walking
Current 2040 TPP Goals

**Transportation System Stewardship**
Sustainable investments in the transportation system are protected by strategically preserving, maintaining, and operating system assets.

**Access to Destinations**
A reliable, affordable, and efficient multimodal transportation system supports the prosperity of people and businesses by connecting them to destinations throughout the region and beyond.

**Healthy and Equitable Communities**
The regional transportation system advances equity and contributes to communities’ livability and sustainability while protecting the natural, cultural, and developed environments.

**Safety and Security**
The regional transportation system is safe and secure for all users.

**Competitive Economy**
The regional transportation system supports the economic competitiveness, vitality, and prosperity of the region and state.

**Leveraging Transportation Investments to Guide Land Use**
The region leverages transportation investments to guide land use and development patterns that advance the regional vision of stewardship, prosperity, livability, equity, and sustainability.
Pavement Condition

Pavement in 'Poor' Category (Interstate and NHS)

Twin Cities and Minnesota. Source: MnDOT

- 2017: Twin Cities 1.2%, Statewide 1.1%
- 2018: Twin Cities 1.0%, Statewide 0.8%
- 2019: Twin Cities 1.4%, Statewide 1.0%
- 2020: Twin Cities 0.8%, Statewide 0.6%
- 2021: Twin Cities 1.1%, Statewide 0.8%
Public Transit

Unlinked trips per revenue hour

Source: National Transit Database
All Modes

Bus

Vanpool

Rail

Dial-a-ride

Twin Cities  Peer regions
Highway capacity

Spare highway capacity

The average spare capacity for the most congested hour for all highways in the Twin Cities.
Annual Precipitation in Minnesota

NOAA National Centers for Environmental Information, Climate at a Glance: Statewide Time Series, published December 2022
Serious injury crash rate on Minnesota roads, 2017-2021

Source: MnDOT Office of Traffic Engineering
Bike and ped injuries and fatalities

Source: MnDOT Office of Traffic Engineering

Twin Cities

Minnesota

Pedestrians killed
Pedestrians seriously injured
Bicyclists killed
Bicyclists seriously injured
Mode share by Thrive - walking

Percent of trips made by walking: 2010, 2019 and 2021

Source: Travel Behavior Inventory. Includes trips that started or ended within the MPO.
Mode participation rate

Mode participation rate, adults, 2019 vs. 2021

Source: Travel Behavior Inventory. Includes only adults who live in the MPO.
Trip replacement behavior

Percent of adults who _ on a typical weekday, 2019 vs. 2021

Source: Travel Behavior Inventory. Includes only adults who live in the MPO.

Survey year
- 2018-2019
- 2021

- Stayed home all day
- Worked from home 6 hours or more
- Received packages at home
- Got a delivery of food
Transit Ridership

Twin Cities Ridership by mode

Source: National Transit Database

<table>
<thead>
<tr>
<th>Year</th>
<th>Bus</th>
<th>Dial-a-ride</th>
<th>Rail</th>
<th>Vanpool</th>
<th>Total Ridership</th>
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<tr>
<td>2015</td>
<td>95.5M</td>
<td>0.8M</td>
<td>0.2M</td>
<td>0.1M</td>
<td>96.4M</td>
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<td>2016</td>
<td>92.3M</td>
<td>0.9M</td>
<td>0.2M</td>
<td>0.1M</td>
<td>93.5M</td>
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<td>2017</td>
<td>91.4M</td>
<td>1.0M</td>
<td>0.2M</td>
<td>0.1M</td>
<td>92.7M</td>
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<tr>
<td>2018</td>
<td>90.0M</td>
<td>1.1M</td>
<td>0.2M</td>
<td>0.1M</td>
<td>91.4M</td>
</tr>
<tr>
<td>2019</td>
<td>87.4M</td>
<td>1.2M</td>
<td>0.2M</td>
<td>0.1M</td>
<td>88.0M</td>
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<tr>
<td>2020</td>
<td>39.8M</td>
<td>1.2M</td>
<td>0.2M</td>
<td>0.1M</td>
<td>41.3M</td>
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<tr>
<td>2021</td>
<td>36.9M</td>
<td>1.2M</td>
<td>0.2M</td>
<td>0.1M</td>
<td>39.4M</td>
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</table>
Commuter delay

Peak-hour auto commuter delay, minutes per person per day

Source: TTI Urban Mobility Report
E-ZPass Travel Time

Travel Time Reliability
I-35W Northbound, 2021 Weekdays
Non-auto modes

Share of commuters who use non-auto modes, top 25 U.S. metro areas

Source: ACS 1-year estimates by Metropolitan Statistical Area. Bold line is Twin Cities MSA.
How people travel in the 26 most populous U.S. metro areas

Source: 2017 National Household Travel Survey.
Non-commute mode share in the 26 most populous U.S. metro areas

Source: 2017 National Household Travel Survey.

Click on legend entries to filter by mode:
- Other
- Long-distance mode
- Bicycle
- School bus
- Taxi/TNC
- Transit
- Walk
- Drive

Percent of trips
Job availability by mode

Jobs available within 30 minutes by car

Source: UMN Accessibility Observatory. Access Across America: Auto 2019
Congestion costs

Annual truck congestion costs, 2020

Source: TTI Urban Mobility Report

- Dallas: $330M
- St. Louis: $181M
- Seattle: $148M
- Minneapolis-St. Paul: $119M
- Portland: $115M
- Denver: $112M
- Baltimore: $110M
- Cleveland: $93M
- Milwaukee: $74M
- Cincinnati: $65M
- Pittsburgh: $62M
Air quality

Air quality in the Twin Cities

Maximum value as percent of National Ambient Air Quality Standards. Source: MPCA, 2022

- Carbon monoxide (CO)
- Fine particles (PM$_{2.5}$)
- Nitrogen dioxide (NO$_2$)
- Ozone (O$_3$)
- PM$_{10}$
- Sulfur dioxide (SO$_2$)

Percent of Air Quality Standard

Year

VMT and population

Change in population and VMT since 2010

Source: Compiled Metropolitan Council, ACS, and Census population estimates and MnDOT VMT

Measure
- Daily Regional VMT
- Population

% Change

Year

Electric vehicles

Electric Vehicle Registrations

Combined original and renewal registrations. Source: MnDOT Electric Vehicle Dashboard
Gasoline consumption

Statewide gasoline consumption

Source: MN Department of Revenue. Aviation and special fuel not included.
High-frequency transit

Share of population within a 10 min. walk of transit, by service type

Source: Open Mobility Data (transit feeds), Census ACS (population estimates), and Metro Transit (walkshed)
Comprehensive plans

Transit

References
- Yes
- No

Unique Transit Strategies

Opportunities beyond Transitways/Non-Transitways

Increased Revenue Transitways

% of complete comprehensive plans
Thank you

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Liz.Roten@metc.state.mn.us