COVID-19 Outbreak: Metro Area Travel Declines

Collaborative research between the Metropolitan Council, Metro Transit and MnDOT
Motivation

- Minnesota Management and Budget office (MMB) asked MnDOT, Metropolitan Council and Metro Transit for measures of social distancing

- Measures meant to inform disease modeling efforts and evaluate effectiveness of social distancing policies

- Traffic and ridership data provide near-real-time measures of change

- Existing research was quickly re-tooled
Sources of data

MnDOT
• 100+ Automated Traffic Recorders (ATRs) spread across the state on various roadway types

Metropolitan Council
• 1000+ MnDOT Regional Transportation Management Center (RTMC) traffic sensors on metro area freeways

Metro Transit
• Automated passenger counters (APCs) on buses and rail lines
Metro Area Freeways

Interactive mapping application:

http://metrotransitmn.shinyapps.io/covid-traffic-trends/
State actions appear in traffic data
Traffic data in state COVID-19 dashboard

Data updated daily in coordination with MMB

https://mn.gov/covid19/data/response.jsp
Metro Transit: “thank you for not riding”

<table>
<thead>
<tr>
<th>Date</th>
<th>Express Bus</th>
<th>Local Bus</th>
<th>Rail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar 01</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mar 15</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr 01</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Preliminary estimates, subject to change

- 9-5 commute trips collapsed March 16 week (school closure)
- Service reduction March 25
- Overall system down 72%
- Managing system for social distancing capacity
- Essential trips still supported
Planned Research

• Using other sources of data to measure social distancing and the return to “normal”

• Developing collaborations with transportation scientists at the University of Minnesota

• Long-term effects of COVID-19 on travel and ridership

• Continued collaboration between MMB, MnDOT, Metro Transit and Metropolitan Council