

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

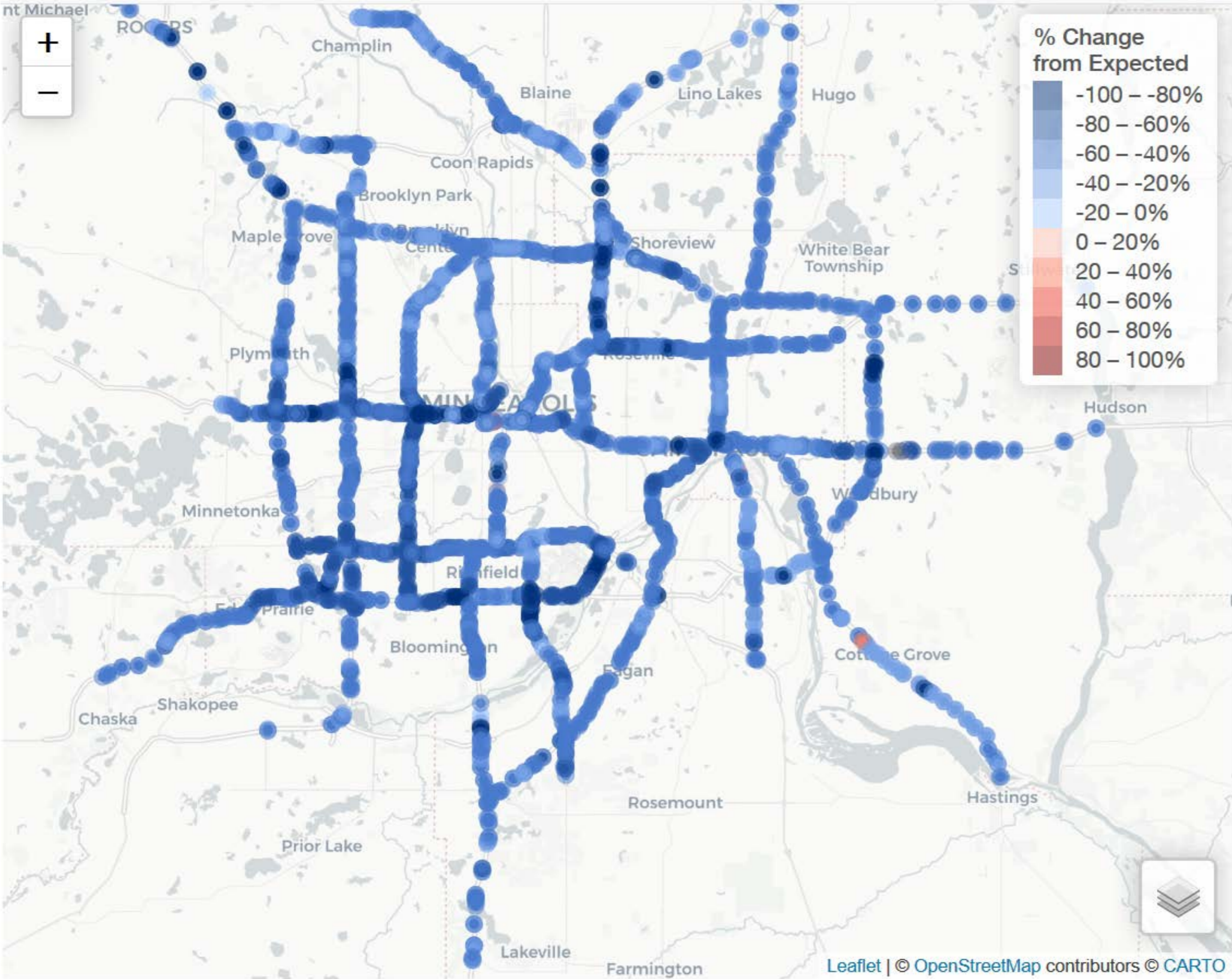
Metropolitan Council

- 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



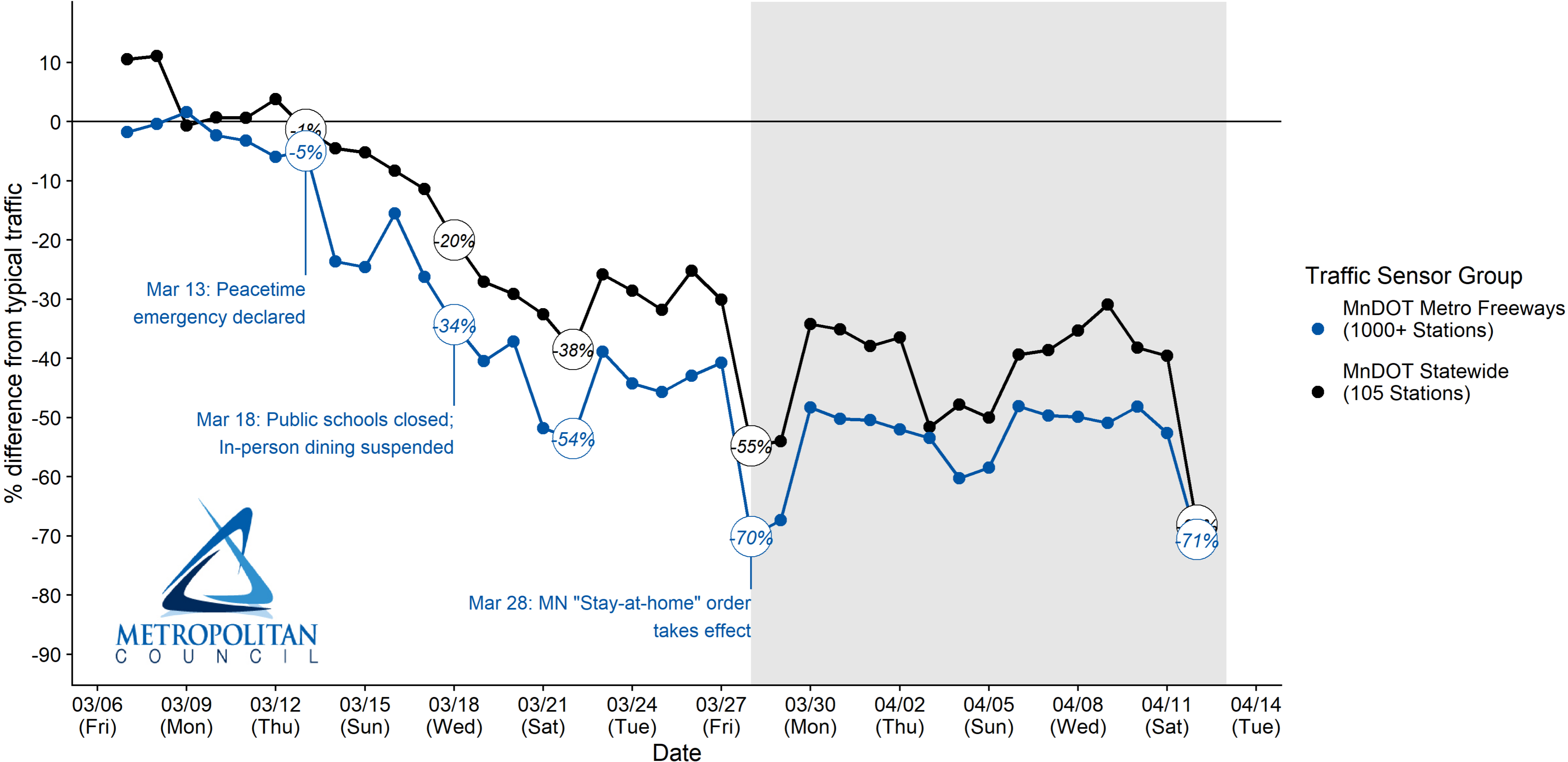
Interactive mapping application:

<http://metrotransitm.n.shinyapps.io/covid-traffic-trends/>



State actions appear in traffic data

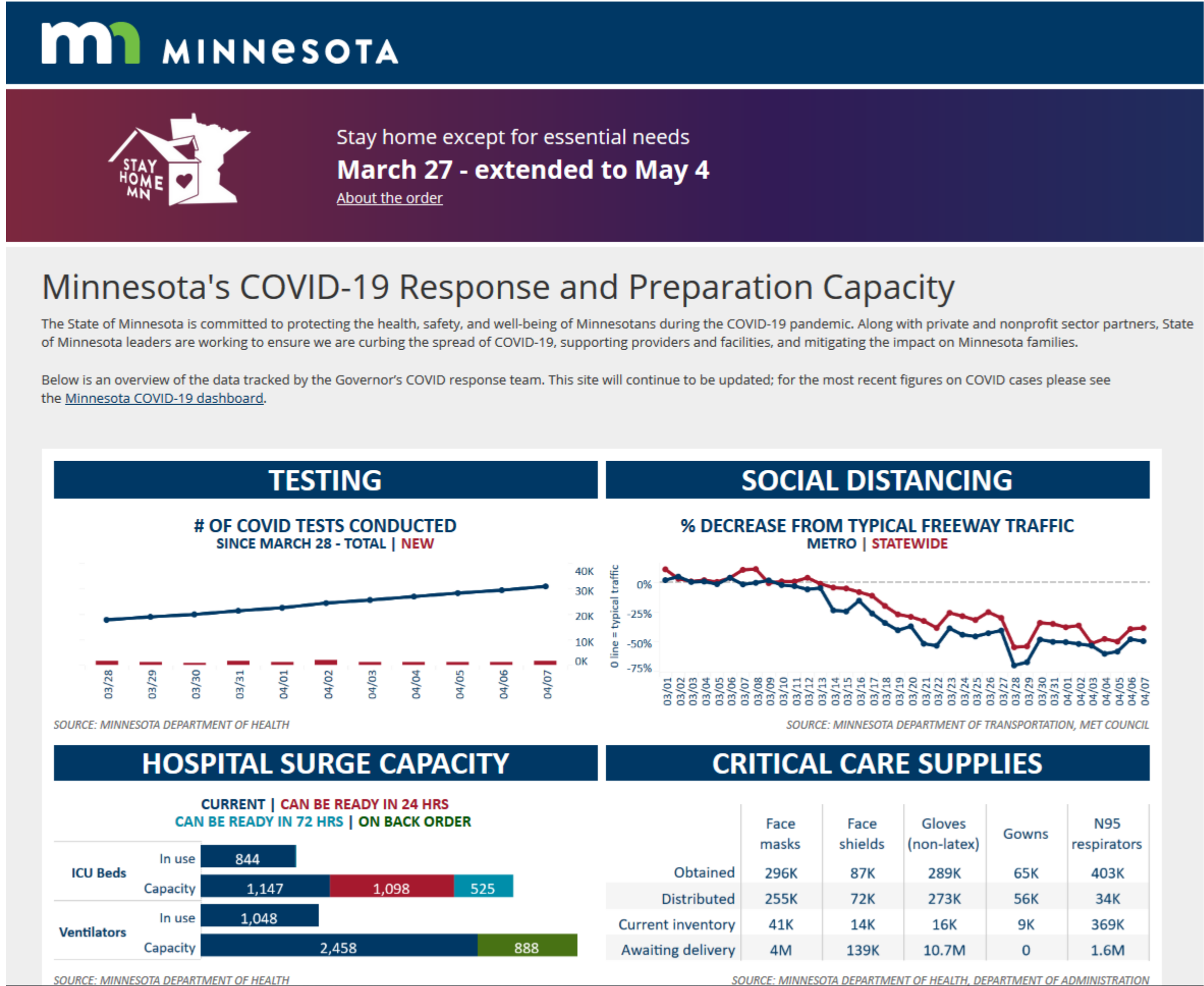
Traffic on MnDOT Roads
Updated 2020-04-13



Traffic data in state COVID-19 dashboard

Data updated daily in coordination with MMB

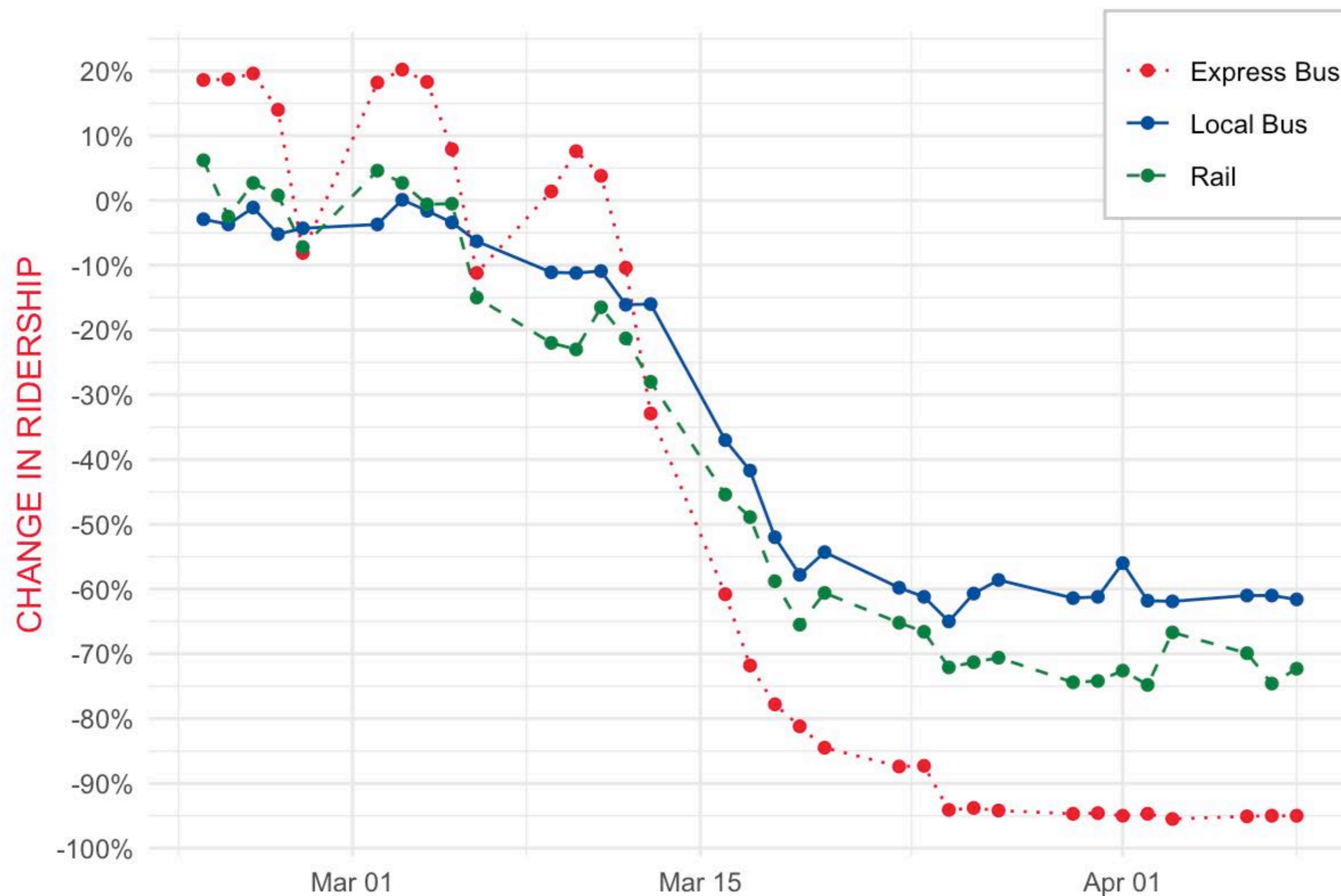
<https://mn.gov/covid19/data/response.jsp>



Metro Transit: “thank you for not riding”

Percent Change in Weekday Ridership

(Compared to average weekday ridership 2/24–2/28)



*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