

ACCESSIBILITY OBSERVATORY

National Accessibility Evaluation Pooled-Fund Study

The University of Minnesota's Accessibility Observatory has created a national accessibility dataset at the census block level. The five-year study is funded through the Transportation Pooled Fund Program, a part of the National Cooperative Highway Research Program. The Minnesota Department of Transportation serves as the lead agency.

Updated annually, the new dataset describes accessibility to jobs for both driving and transit across the entire United States. Study partners are able to use the dataset for local transportation system evaluation, performance management, planning, and research efforts.

Each pooled-fund partner has direct digital access to the accessibility datasets for the jurisdictions of all partners and receives detailed reports of local accessibility trends and patterns. The study also is producing and publishing a series of reports summarizing the accessibility datasets for the 50 largest metropolitan areas.

Benefits of Accessibility Metrics

Transportation projects are undertaken to provide connectivity—the ability for people or things to physically travel—between locations, or to lower travel times where connectivity already exists. As long-term infrastructure investments, transportation systems are not built to satisfy individual trips at specific times, but rather to provide capacity that can be used to satisfy a huge variety of potential trips over the system's lifetime. This potential for interaction can be regarded as the fundamental product of transportation systems.

Accessibility metrics directly reflect this potential by combining network travel times with the locations and value of the many origins and destinations served by a multimodal transportation system. Accessibility combines the simpler concept of mobility with an understanding that travel is driven by a desire to reach destinations.

Data Sources

Accurate accessibility measurements rely on detailed, up-to-date information about transportation networks. Observatory staff perform accessibility calculations using commercially available, GPS-based speed measurements and published transit schedules.

- **Transit.** Digital schedule datasets, published by transit agencies across the country, describe the minute-by-minute arrivals and departures of buses, trains, streetcars, and ferries. These schedules are combined with pedestrian network data from OpenStreetMap to calculate door-to-door travel times for transit trips.
- **Driving.** The Observatory has a licensing agreement with TomTom, a global leader in navigation and mapping products, for use of its map and historical speed data. TomTom's MultiNet and Speed Profile datasets provide road network and historical speed information with coverage of the entire U.S., from freeways to local streets.

Current Partners

This pooled-fund project is supported by the following partners:

- Minnesota Department of Transportation (lead agency)
- Arkansas State Highway and Transportation Department
- California Department of Transportation
- Federal Highway Administration
- Florida Department of Transportation
- Iowa Department of Transportation
- Maryland Department of Transportation
- North Carolina Department of Transportation
- Virginia Department of Transportation
- Washington, DC, District Department of Transportation
- Washington State Department of Transportation
- Wisconsin Department of Transportation

Join the Study

Many types of organizations are invited to join this pooled-fund project, including state DOTs, MPOs, county and municipal governments, and transit agencies. For information about joining the project, use the Lead Agency Contact information provided at the website below or contact Accessibility Observatory staff.

More Information:

access.umn.edu/research/pooledfund

The pooled-fund page contains:

- Materials from a webinar introducing the project
- Materials from Technical Advisory Panel meetings
- The official project information page hosted by the National Cooperative Highway Research Program

Observatory Staff

The Observatory is a program of the University of Minnesota Center for Transportation Studies.

Andrew Owen
Director
612-624-7550
aowen@umn.edu

Brendan Murphy
Lead Researcher
612-624-7893
murph677@umn.edu

Kristin Carlson
Researcher
612-626-4052
carl4498@umn.edu

MnDOT Staff

Deanna Belden
Pooled-Fund Study
Technical Lead
Deanna.belden@state.mn.us