National Accessibility Evaluation TAP Meeting

September 28, 2015

Agenda

1. Welcome from MnDOT
2. Introductions
3. Project Overview
4. Future TAP Meetings
5. Other Business

Welcome from MnDOT

Jean Wallace

Introductions

Brenda Thomas

Accessibility Observatory Staff

- Prof. David Levinson, Managing Director
- Andrew Owen, Director
- Brendan Murphy, Researcher
- Student researchers

ACCESSIBILITY OBSERVATORY

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TAP Members

- Minnesota Department of Transportation (lead agency)
  - Jean Wallace, Deanna Belden, Farideh Amiri
- Federal Highway Administration
  - Brian Gardner
- Arkansas State Highway and Transportation Department
  - Jessie Jones, Michael Henry, Virginia Porta
- California Department of Transportation
  - Rahul Srivastava
- Florida Department of Transportation
  - Dana Knox
- Iowa Department of Transportation
  - Peggi Knight
- North Carolina Department of Transportation
  - David Wasserman
- Virginia Department of Transportation
  - Peter Ohlms
- Wisconsin Department of Transportation
  - Toni Rice

CTS Staff

- Laurie McGinnis, Director
- Brenda Thomas, Director of Coordinated Research
- Colleen O’Connor Toberman, Program Coordinator

Project Overview

Andrew Owen

Goals and Deliverables

1. Accessibility datasets
2. Accessibility reports
3. Annual updates and improvements

Accessibility Datasets

- Census block level
- Coverage of each partner's jurisdiction
- Auto and transit
- # of jobs within X minutes, categorized by wage level and industry
- Data formats:
  - Shapefile
  - Tabular (CSV)
- Example:
  - Access Across America: Transit 2014 data (http://access.umn.edu/data/)
- Private download link provided to each partner
- Accessibility Observatory can also host publicly

Access Across America: Transit 2014 Data

Owen, Andrew; Levinson, David M; University of Minnesota Accessibility Observatory (2014)

Published Date
2014-12-05

Author Contact
Owen, Andrew (aowen@umn.edu)

Data Type
Dataset

Abstract
This data was created as part of a study that examined the accessibility to jobs by transit in 46 of the 50 largest (by population) metropolitan areas in the United States. It is the most detailed evaluation to date of access to jobs by transit, and it allows for a direct comparison of the transit accessibility performance of America's largest metropolitan areas.

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Persistent link to this item
http://dx.doi.org/10.13020/D6MW2Q
http://hdl.handle.net/11299/168064

Services
Full Metadata (XML)
View Usage Statistics

Suggested Citation
Owen, Andrew; Levinson, David M. (2014). Access Across America: Transit 2014 Data [dataset]. Retrieved from the Data Repository for the University of Minnesota, http://dx.doi.org/10.13020/D6MW2Q.

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File View/Open	Description	Size	Format
CTS14-12.pdf	Access Across America: Transit 2014 Methodology	2.925Mb	application/pdf
AODataDoc2014.pdf	Accessibility Data Documentation 2014	100.9Kb	application/pdf
12060_tr_2014_0700-0859.zip	Atlanta-Sandy Springs-Marietta, GA -- Shapefile	65.50Mb	application/zip
12060_tr_2014_0700-0859.csv	Atlanta-Sandy Springs-Marietta, GA -- CSV	1.823Mb	text/csv
12420_tr_2014_0700-0859.zip	Austin-Round Rock-San Marcos, TX -- Shapefile	21.06Mb	application/zip
12420_tr_2014_0700-0859.csv	Austin-Round Rock-San Marcos, TX -- CSV	768.9Kb	text/csv
12580_tr_2014_0700-0859.zip	Baltimore-Towson, MD -- Shapefile	36.46Mb	application/zip
12580_tr_2014_0700-0859.csv	Baltimore-Towson, MD -- CSV	1.248Mb	text/csv
13820_tr_2014_0700-0859.zip	Birmingham-Hoover, AL -- Shapefile	36.91Mb	application/zip
13820_tr_2014_0700-0859.csv	Birmingham-Hoover, AL -- CSV	1.110Mb	text/csv
14460_tr_2014_0700-0859.zip	Boston-Cambridge-Quincy, MA-NH -- Shapefile	51.79Mb	application/zip

Access Across America: Transit 2014 data
(http://access.umn.edu/data/)

Accessibility Datasets

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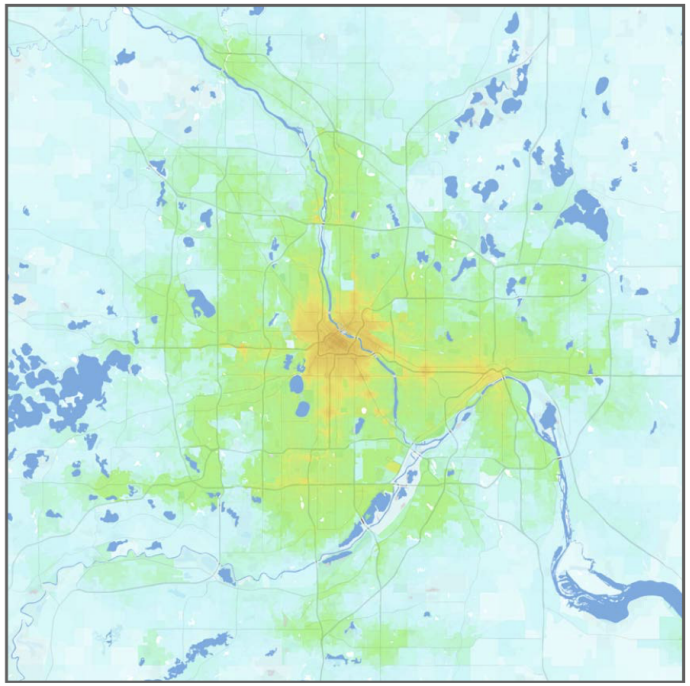
Accessibility Reports

- National report series: Access Across America
  - Separate auto, transit reports
  - Metropolitan area summaries of accessibility data
  - Example: Access Across America: Transit 2014 (http://access.umn.edu/research/america/transit/2014/)
- Local reports for each partner
  - State level report: summarized to metro areas, counties
  - Report weighted accessibility averages
  - Identify accessibility patterns and trends

Minneapolis
Minneapolis-St. Paul-Bloomington, MN-WI



Jobs within 30 minutes by transit, averaged 7 – 9 AM

- 0 – 1,000
- 1,000 – 2,500
- 2,500 – 5,000
- 5,000 – 7,500
- 7,500 – 10,000
- 10,000 – 25,000
- 25,000 – 50,000
- 50,000 – 75,000
- 75,000 – 100,000
- 100,000 – 250,000
- 250,000 – 500,000
- 500,000 – 750,000
- 750,000 – 1,000,000
- 1,000,000 +

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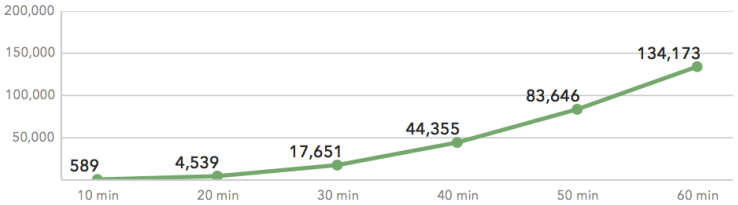
Rank by Weighted Accessibility	**13**
Rank by Total Employment	**14**
Total Jobs	**1,702,530**
Average Job Density (per km^2)	**109**
Total Workers	**1,652,044**
Average Worker Density (per km^2)	**106**

Job and worker totals are based on LEHD estimates and may not match other sources.

Job Accessibility by Travel Time Threshold



Transit Schedules Included

Agency	Dates
Airport (MAC)	January 25, 2014 – March 07, 2014
Anoka County	January 25, 2014 – March 07, 2014
MVTA	November 12, 2013 – March 07, 2014
Maple Grove	January 25, 2014 – March 07, 2014
Metro	November 12, 2013 – March 07, 2014
Metro Transit	January 25, 2014 – March 07, 2014
Minnesota Valley	January 25, 2014 – March 07, 2014
Plymouth	January 25, 2014 – March 07, 2014
Prior Lake	January 25, 2014 – March 07, 2014
Scott County	January 25, 2014 – March 07, 2014
Shakopee	January 25, 2014 – March 07, 2014
SouthWest Transit	January 25, 2014 – March 07, 2014
University of Minnesota	January 25, 2014 – March 07, 2014

Accessibility Reports

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Annual Updates and Improvements

- Review data, methodology, and deliverables annually
- Identify opportunities to improve and increase impact
  - New transportation modes
  - New destination types
  - New communication tools
  - Refinements to methodology
  - Data coverage
- Discuss at annual in-person TAP meeting

Timeline

- Contract start date: July 9, 2015
- Task 1: Communications and TAP Panel Engagement
  - Ongoing
- Task 2: Collect Input Datasets
  - September 2015
- Task 3: Calculate Accessibility Datasets
  - November 2015
- Task 4: Prepare Accessibility Reports
  - February 2016 **(DECEMBER 2015)**
- Task 5: TAP Review of Results and Methodology
  - March 2016 **(JANUARY 2016)**
- Tasks 6 & 7: Project Review & Reporting
  - May – June 2016

Current Status

- Task 2 complete (Collect Input Datasets)
  - Complete US road network with speed profiles supplied by TomTom
  - Block-level employment estimates from U.S. Census LEHD
  - Pedestrian network with national coverage from OpenStreetMap
  - Ongoing transit schedule collection and updates
- Task 3 in progress (Calculate Accessibility Datasets)
  - Integrating TomTom data into accessibility tools
  - Merging transit schedules with pedestrian network
- Supporting tasks:
  - Configured dedicated database server
- Processing work plan amendments for new partners

Future TAP Meetings

Colleen O’Connor Toberman

Future TAP Meetings

- January 2016 — TRB Annual Meeting
- Other meetings

Other Business

Brenda Thomas

Seeking Projects for Case Studies

- FHWA-funded research project:
  "Exploring and Expanding Accessibility Metrics for Transportation Planning"
- Evaluate and demonstrate the use of accessibility metrics in real-world planning projects
- 6 case studies
  - Ongoing or recently completed
  - Variety of modes
  - Variety of agency types/scales
  - Transportation OR land use (zoning, density, etc)
- For each case study:
  - Compare accessibility before and after
  - Report on data needs, cost, and effort
- Contact Andrew Owen

Data Updates and Improvements

- Transit schedule data relies on operators publishing GTFS files
  - Encourage GTFS publishing from local transit operators!
  - Some state DOTs provide GTFS repository/clearinghouse
  - Accessibility Observatory can provide GTFS creation and update services
- Pedestrian network relies on OpenStreetMap
  - Crowdsourced data, high-quality
  - Delay between infrastructure changes and OSM changes
  - Encourage OSM updates as part of infrastructure projects

Questions

MINNESOTA DEPARTMENT OF TRANSPORTATION

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