

Measuring Transportation and Land Use Coordination: The National Accessibility Evaluation

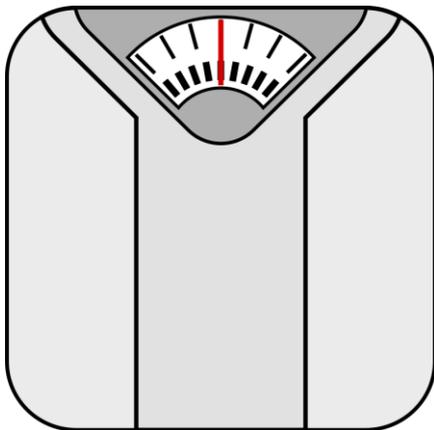
Coordinating Transportation and Land Use Planning Forum
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We Know How to Measure...



But How to Measure Transportation and Land Use Coordination?



How to Measure Transportation and Land Use Coordination

- Qualitatively: plan consistency
- Quantitatively: **Accessibility**
 - (not ADA accessibility)
 - Access to destinations
 - How many places can you reach in a certain time threshold?



Why Measure Accessibility?

- Transportation exists to connect people to destinations that matter
- We can and should measure how well we meet this goal
 - One way is to calculate access to jobs by transit and auto for each Census block
 - Other ways also exist
- It can help choose projects (Smart Scale)



National Accessibility Evaluation

- Pooled-fund approach: multiple states (and MPOs, if interested) team up
- Consistent, nation-wide evaluation of multi-modal access to destinations
- Products:
 - *Access Across America* national accessibility report series
 - Detailed local accessibility datasets & reports

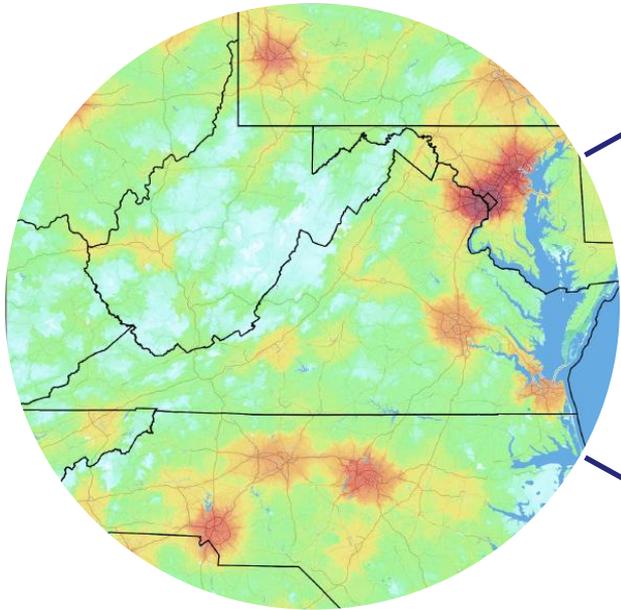


Participation

- Current 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 State Highway Administration
 - North Carolina Department of Transportation
 - Tennessee Department of Transportation
 - Virginia Department of Transportation
 - Washington, DC, District Department of Transportation
 - Washington State Department of Transportation



Calculating Accessibility



Travel
Times

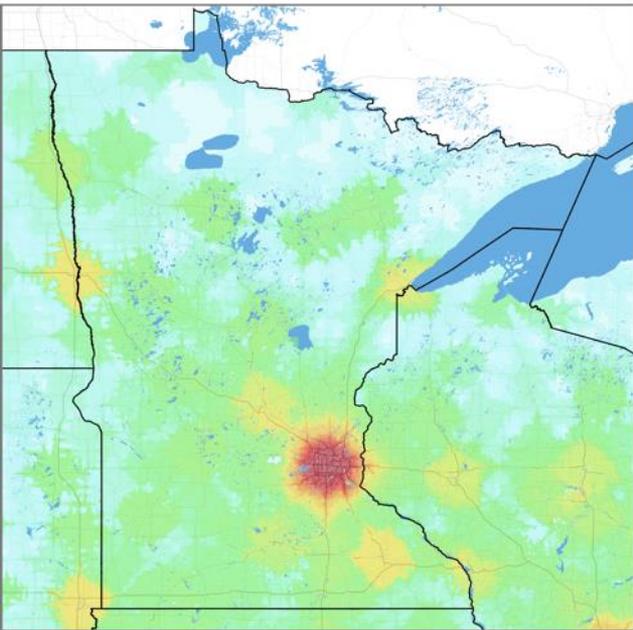
- Transit
- Driving

Land
Use

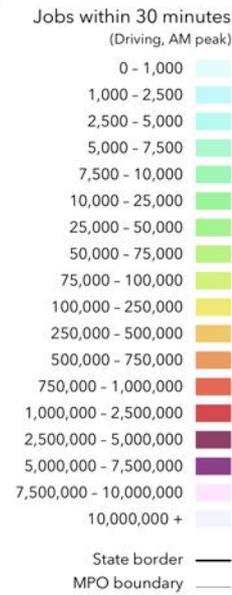
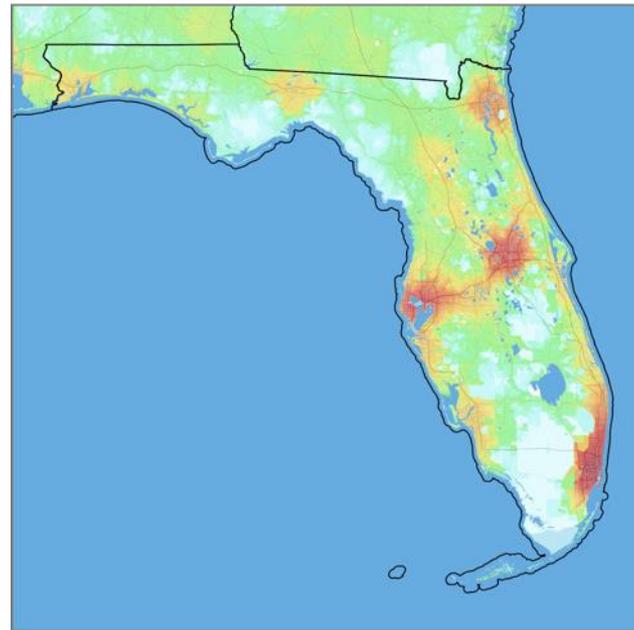
- Workplace locations



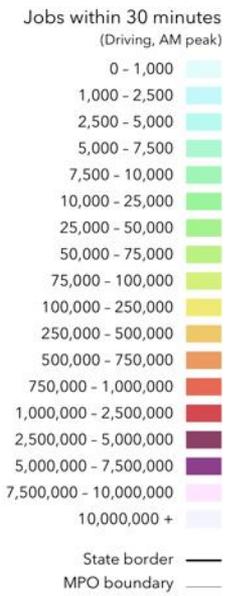
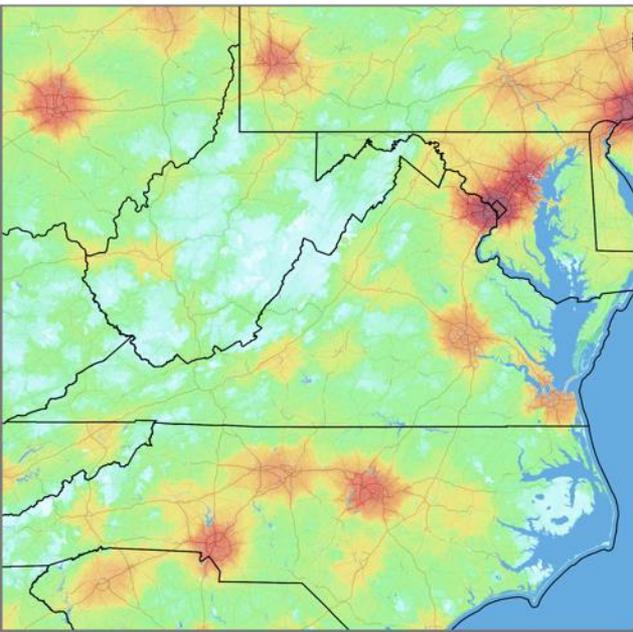
Minnesota



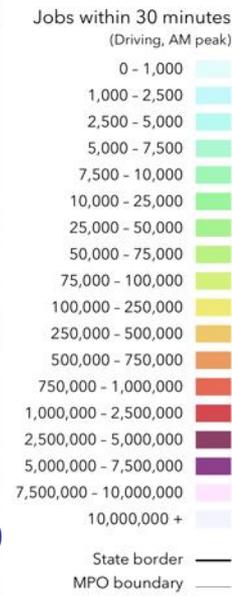
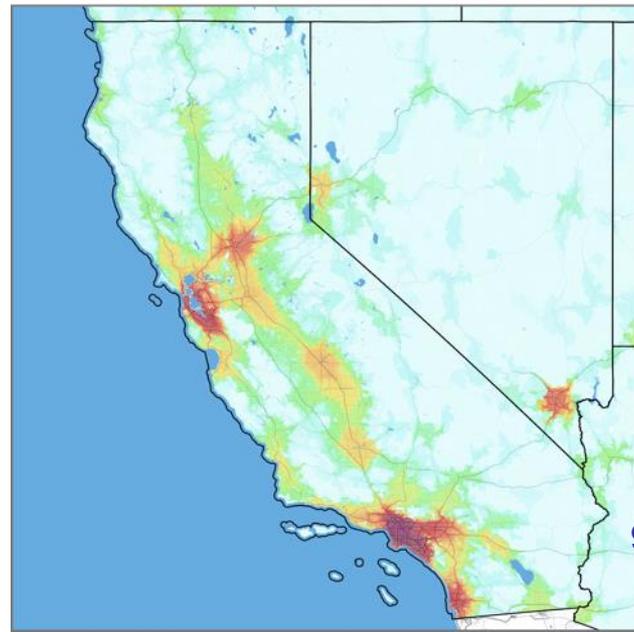
Florida



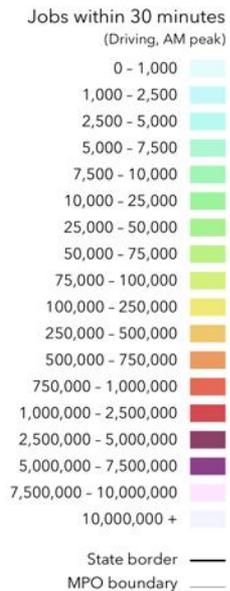
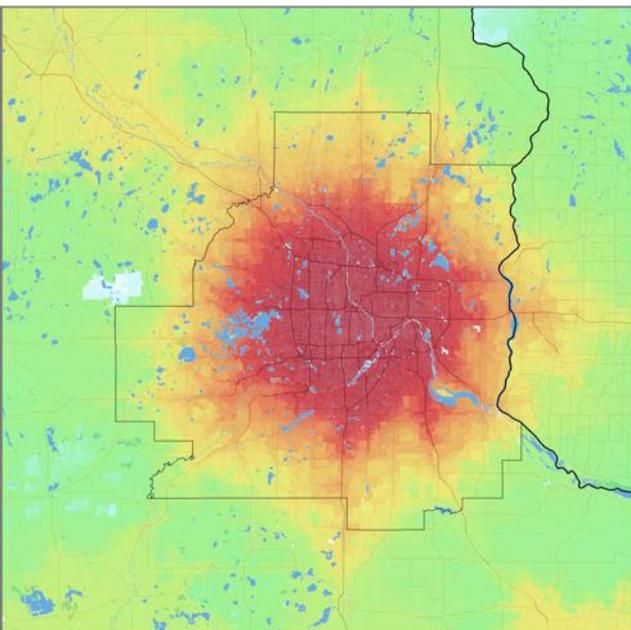
Virginia



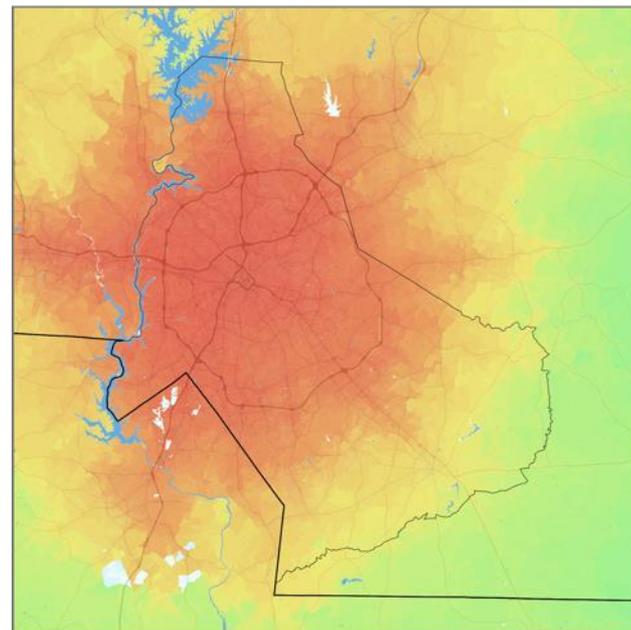
California



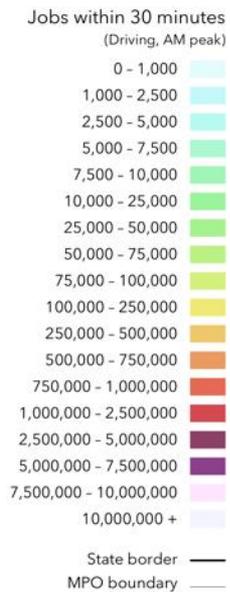
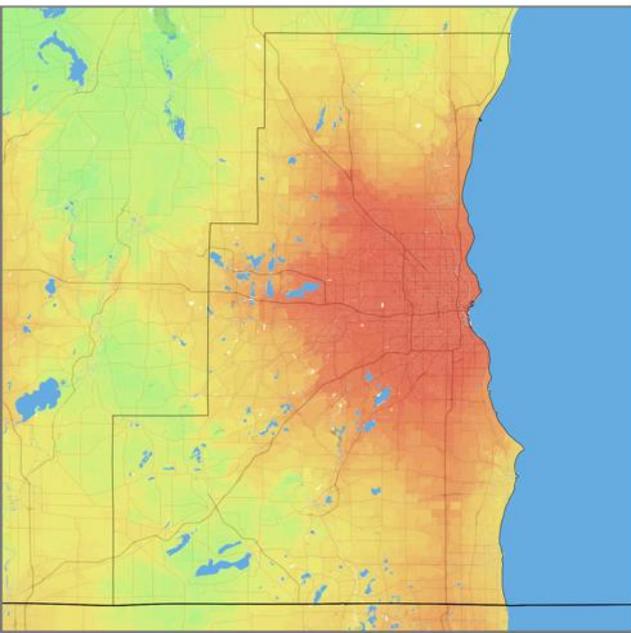
Metropolitan Council



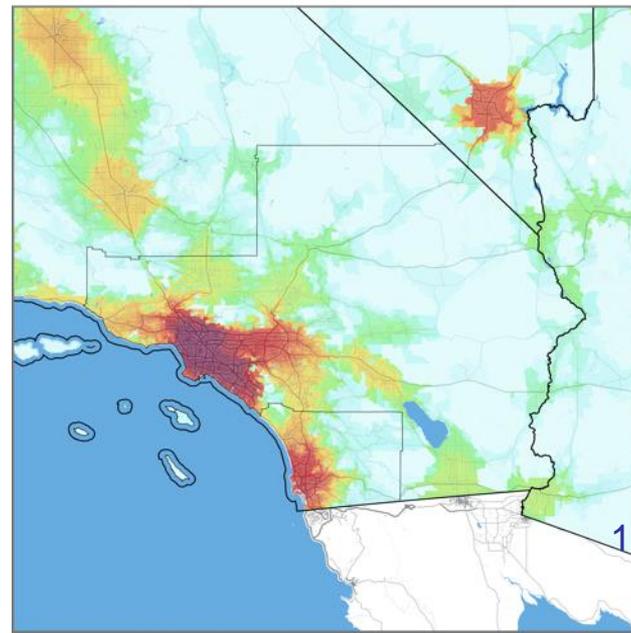
Charlotte Regional Transportation Planning Organization



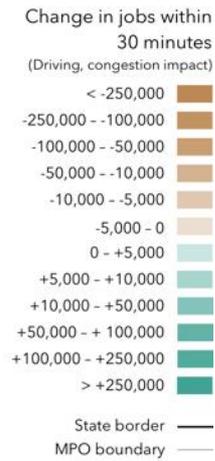
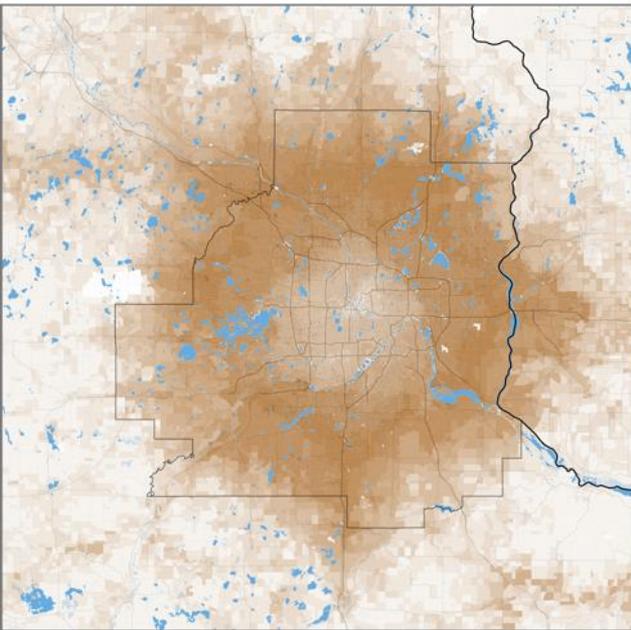
Southeastern Wisconsin Regional Planning Commission



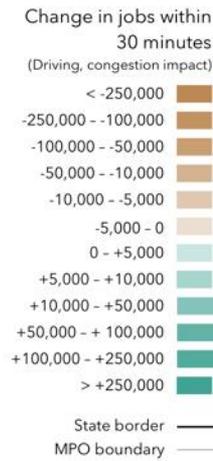
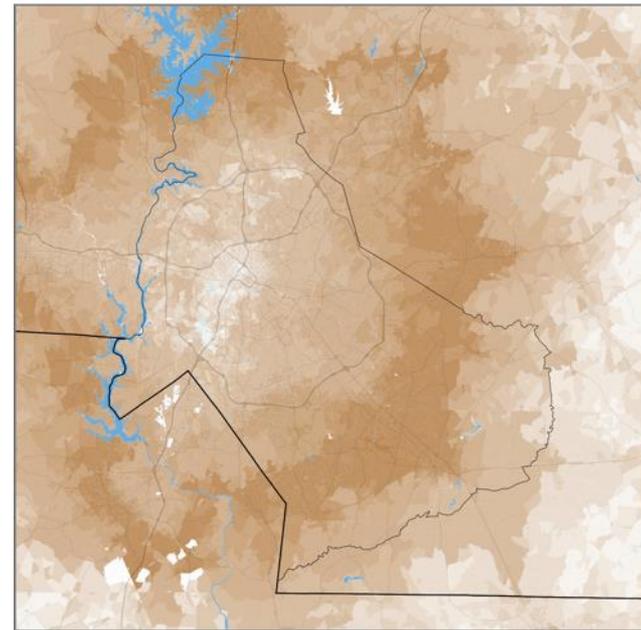
Southern California Association of Governments



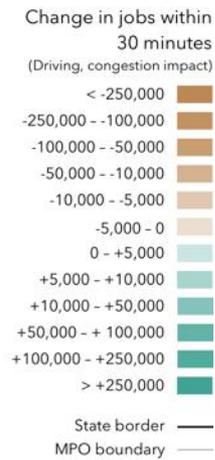
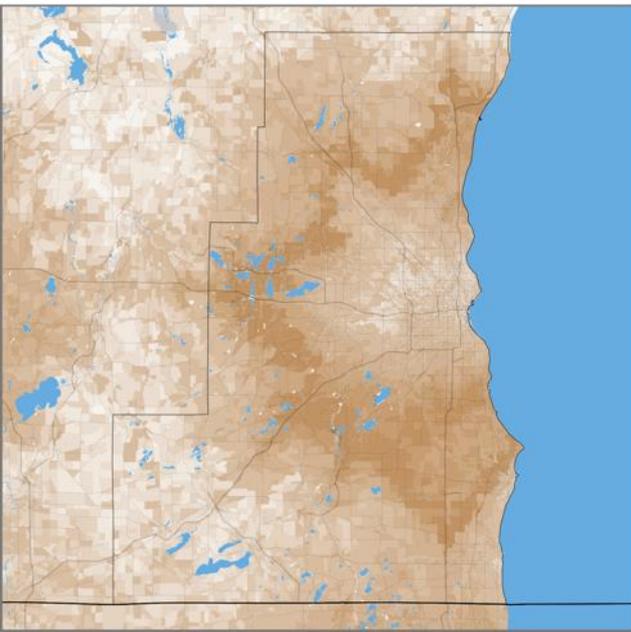
Metropolitan Council



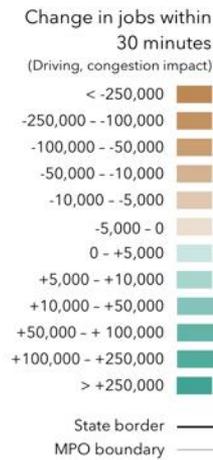
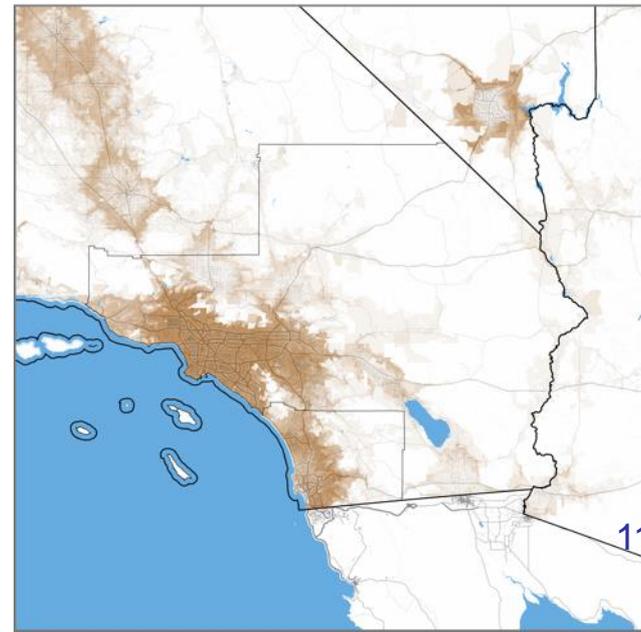
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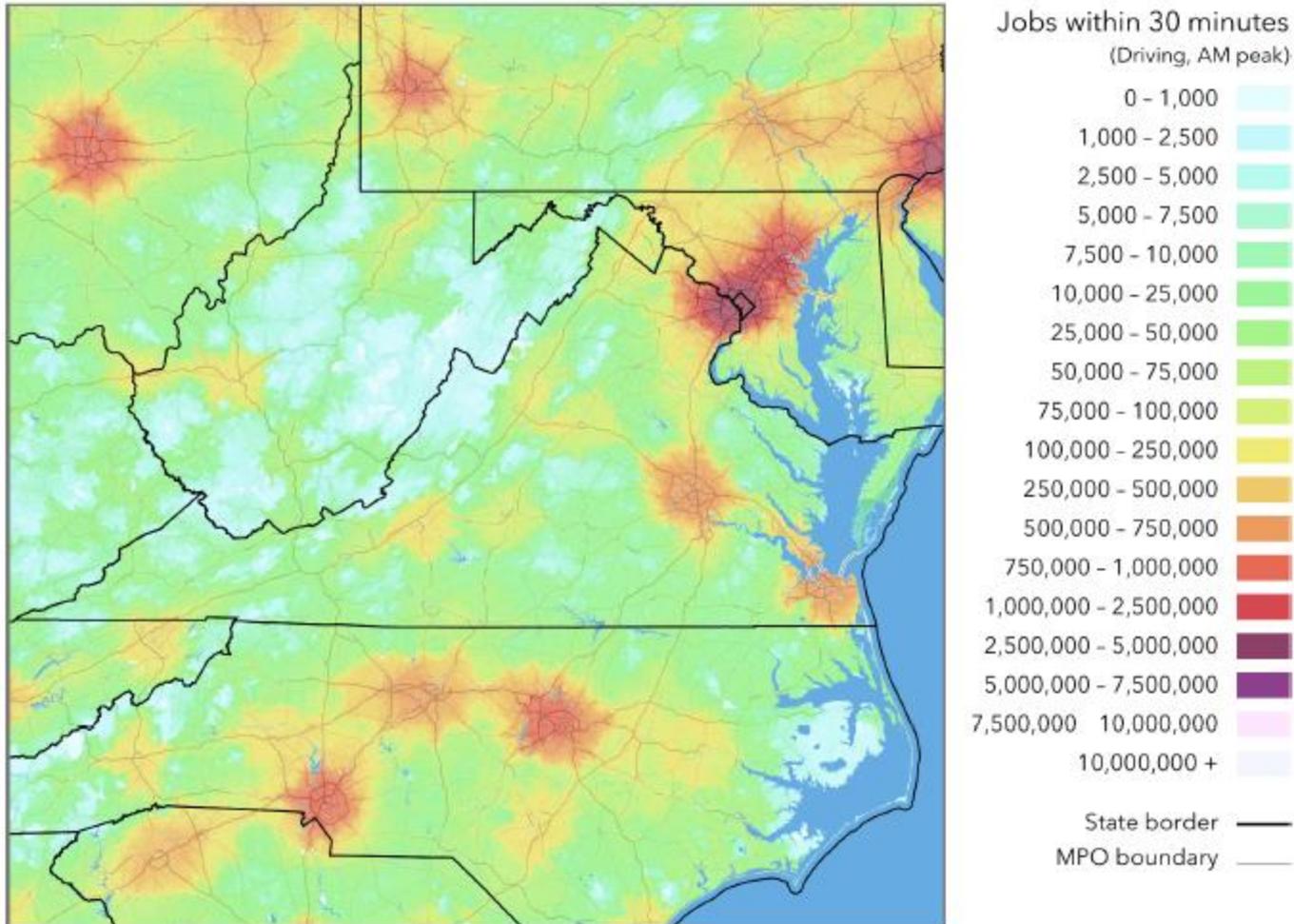


Benefits & Uses

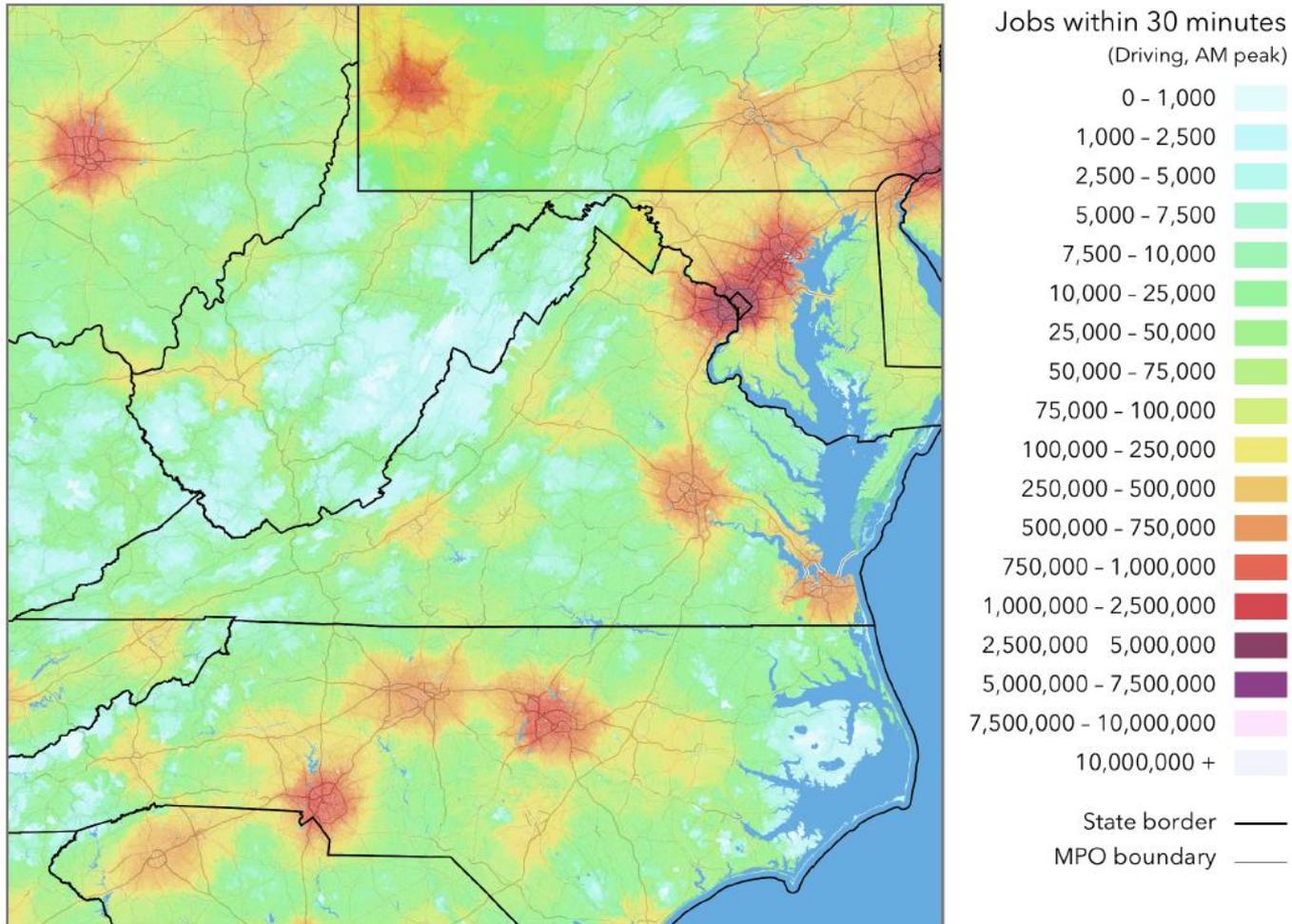
- Annual monitoring
- Builds trend line for long-term performance management & reporting
- Data available universally, can be analyzed & combined to meet multiple needs
- Provides baseline data for project/scenario evaluation
- Reveals project impact after implementation



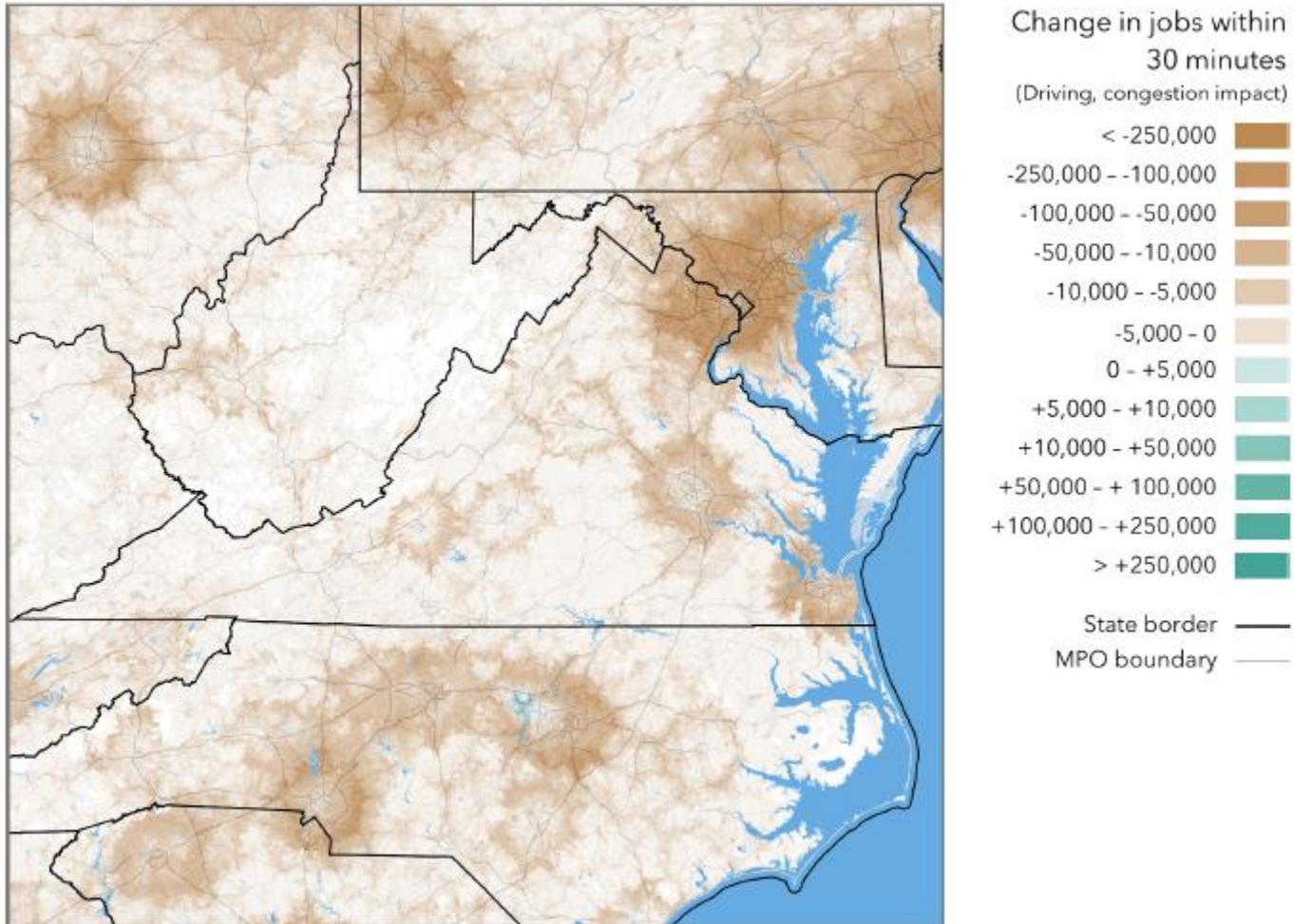
Accessibility Reports for Virginia: Auto 2015



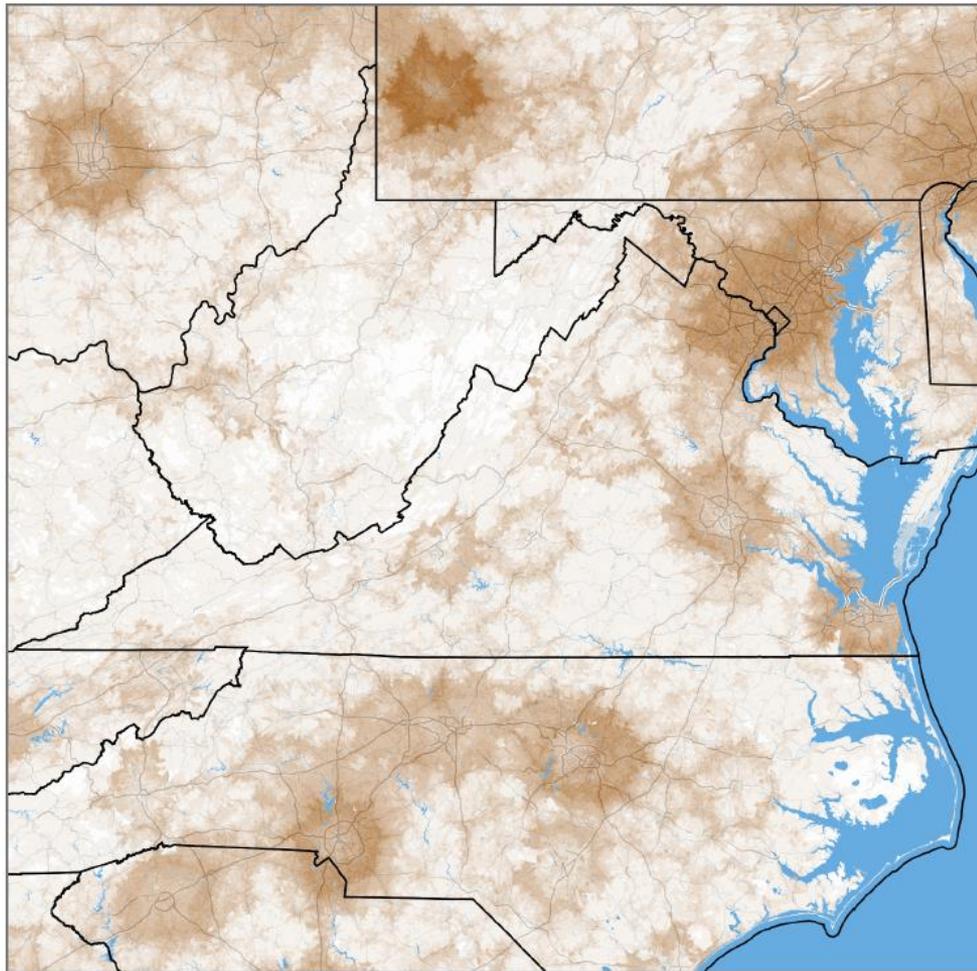
Accessibility Reports for Virginia: Auto 2016



Accessibility Reports for Virginia: Auto Congestion, 2015



Accessibility Reports for Virginia: Auto Congestion, 2016

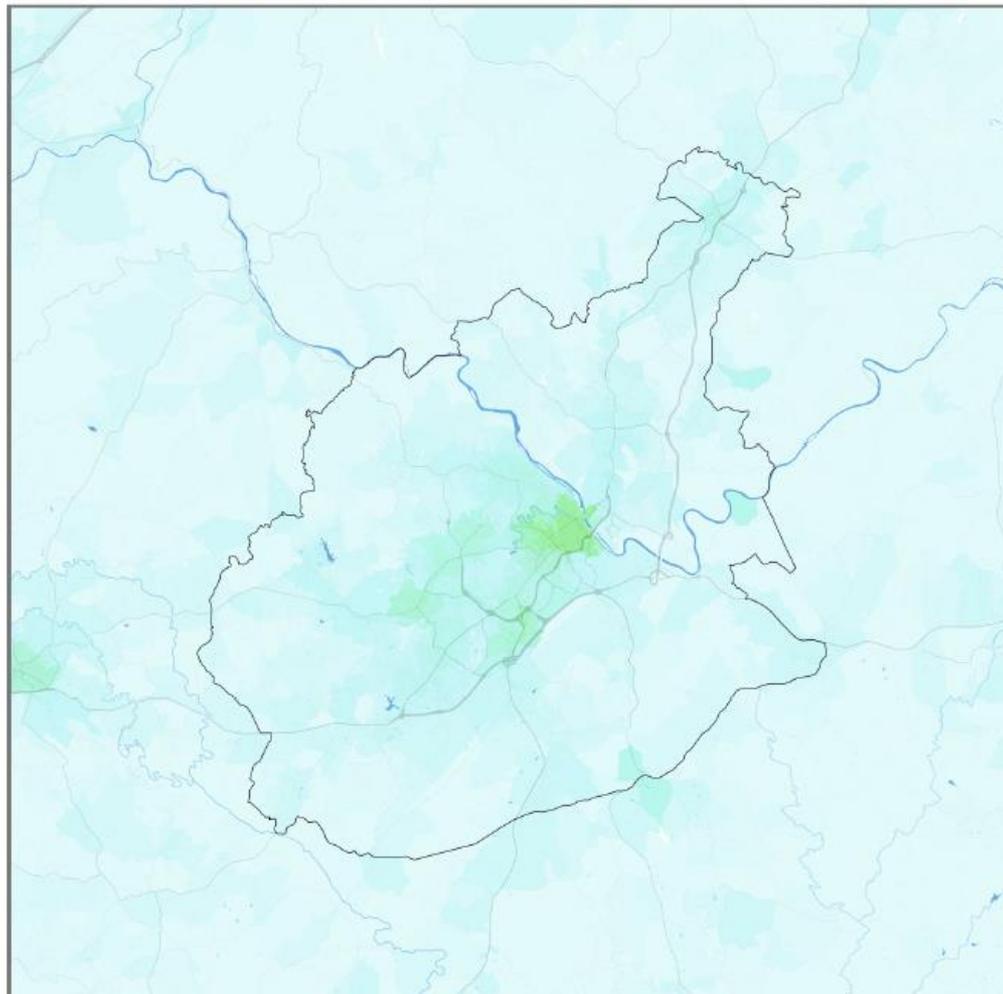


Change in jobs within
30 minutes
(Driving, congestion impact)



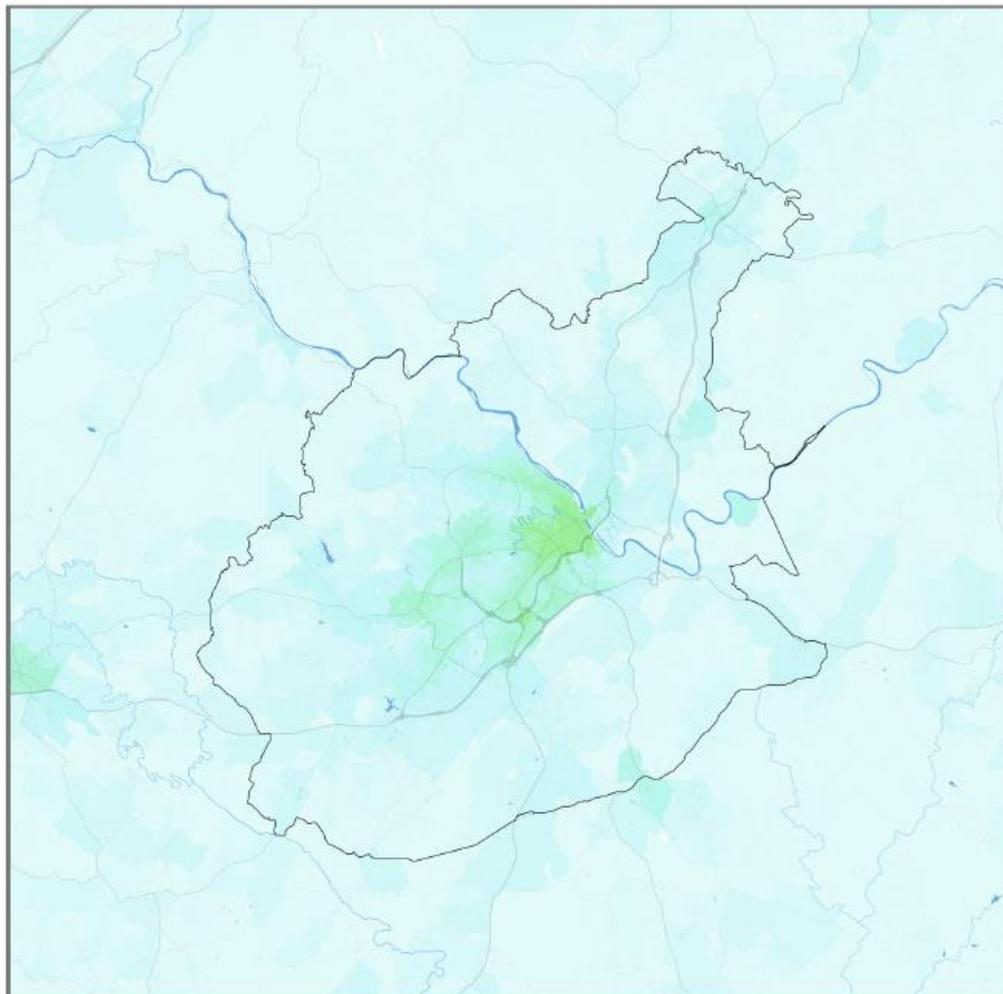
Accessibility Reports for Virginia: Transit 2015, Lynchburg

Central Virginia MPO



Accessibility Reports for Virginia: Transit 2016, Lynchburg

Central Virginia MPO



Jobs within 30 minutes

(Transit, AM peak)



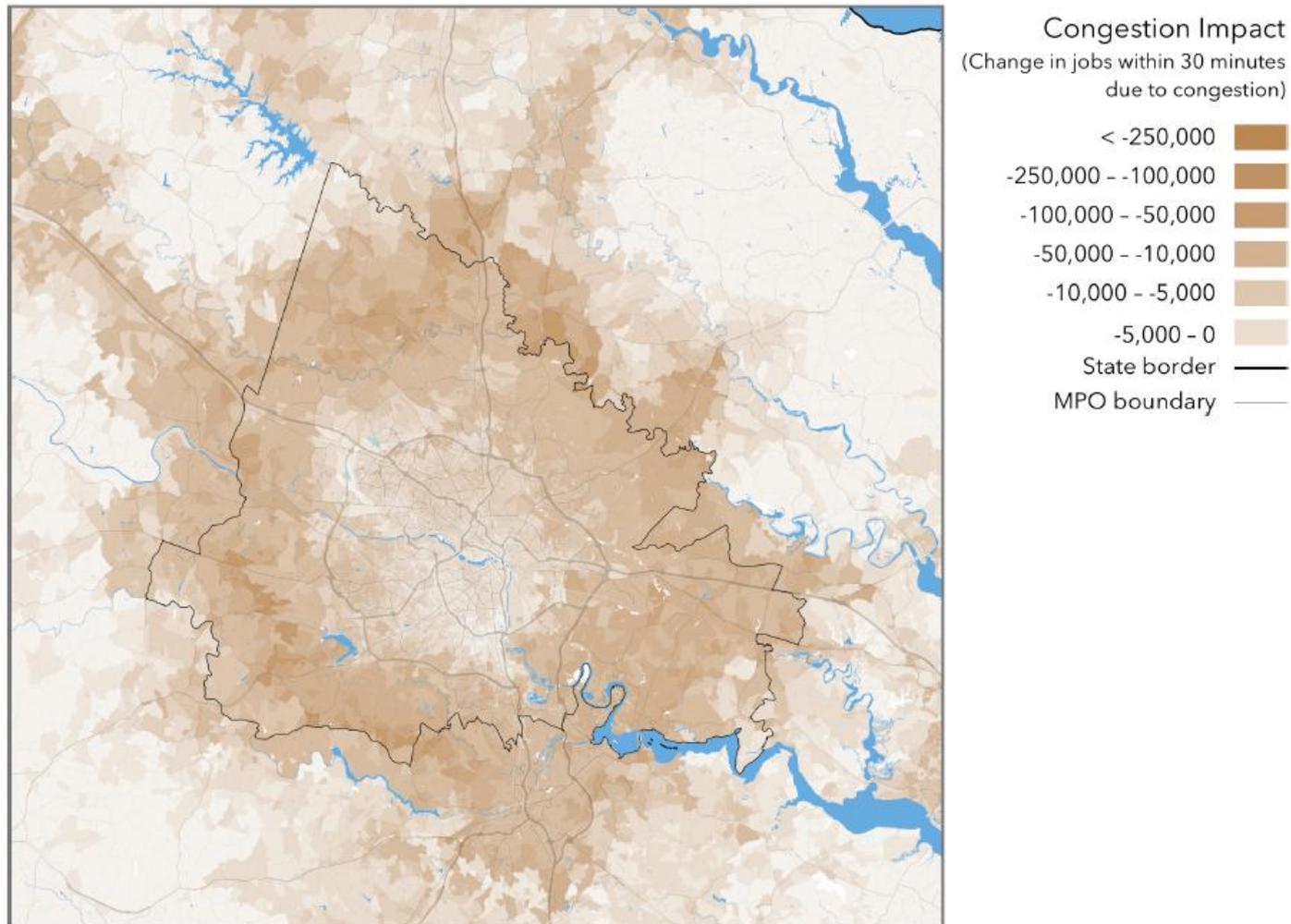
State border —

MPO boundary —



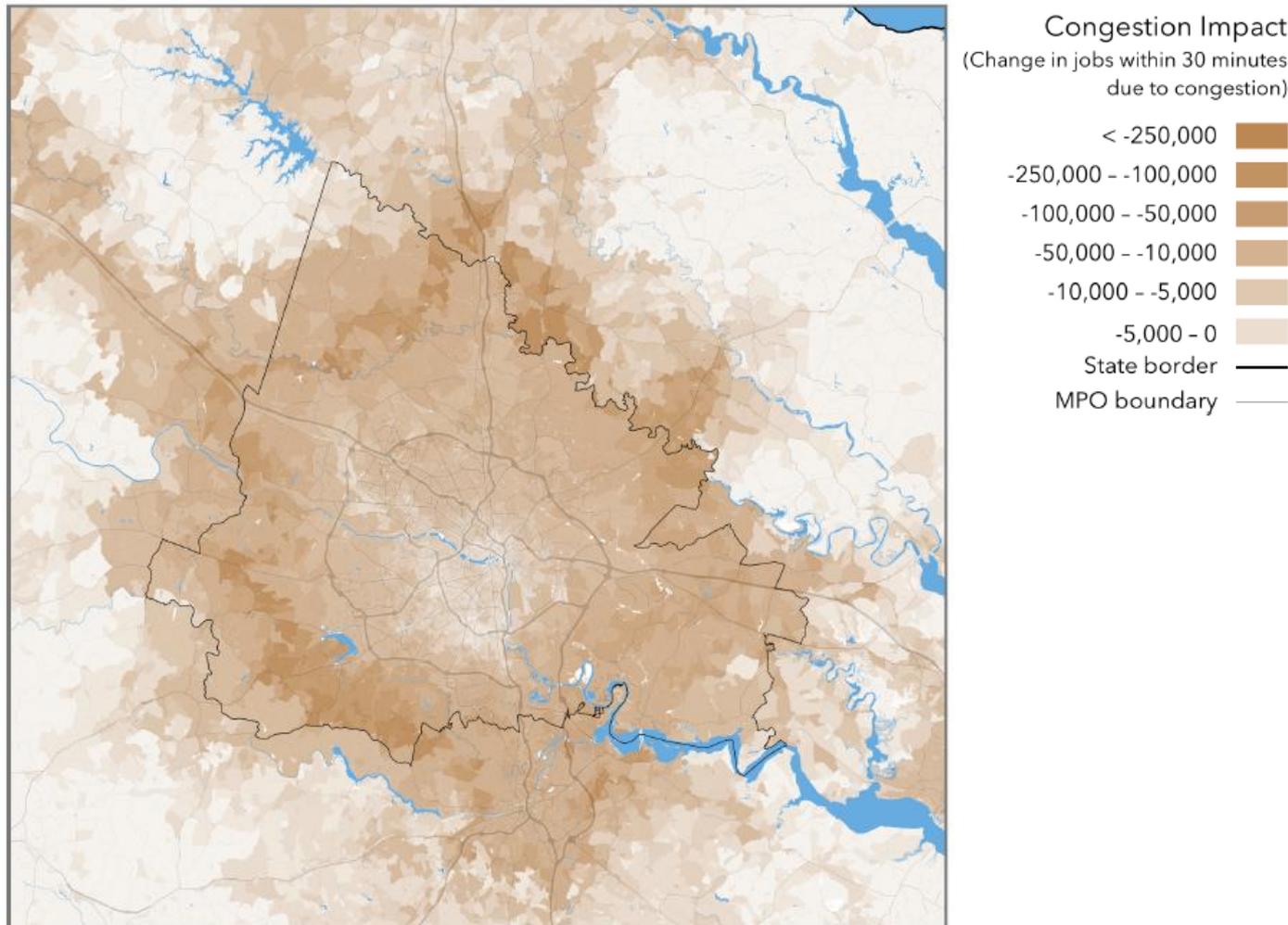
Accessibility Reports for Va: Congestion 2015, Richmond

Richmond Area MPO



Accessibility Reports for Va: Congestion 2016, Richmond

Richmond Area MPO



National Capital Region Transportation Planning Board

Job Accessibility Results – Transit, 2016

Total Jobs 2,743,094

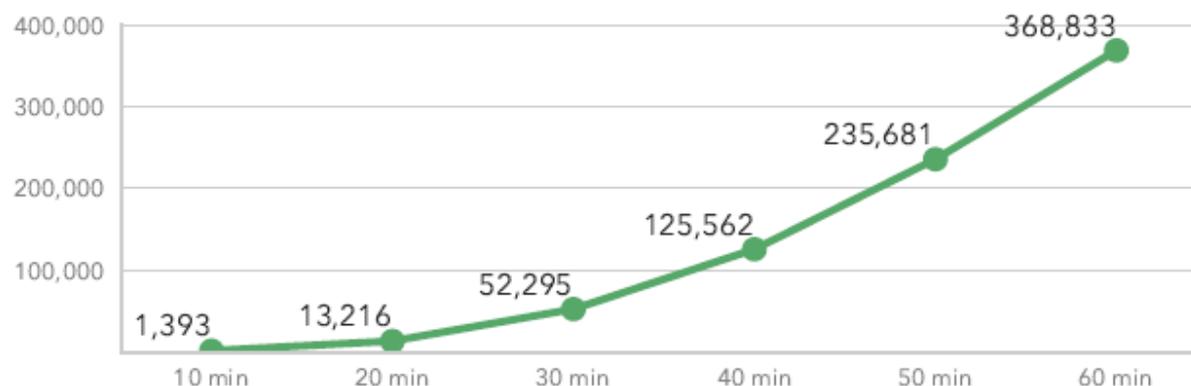
Average Job Density (per mi²) 1999

Total Workers 2,497,894

Average Worker Density (per mi²) 1821

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

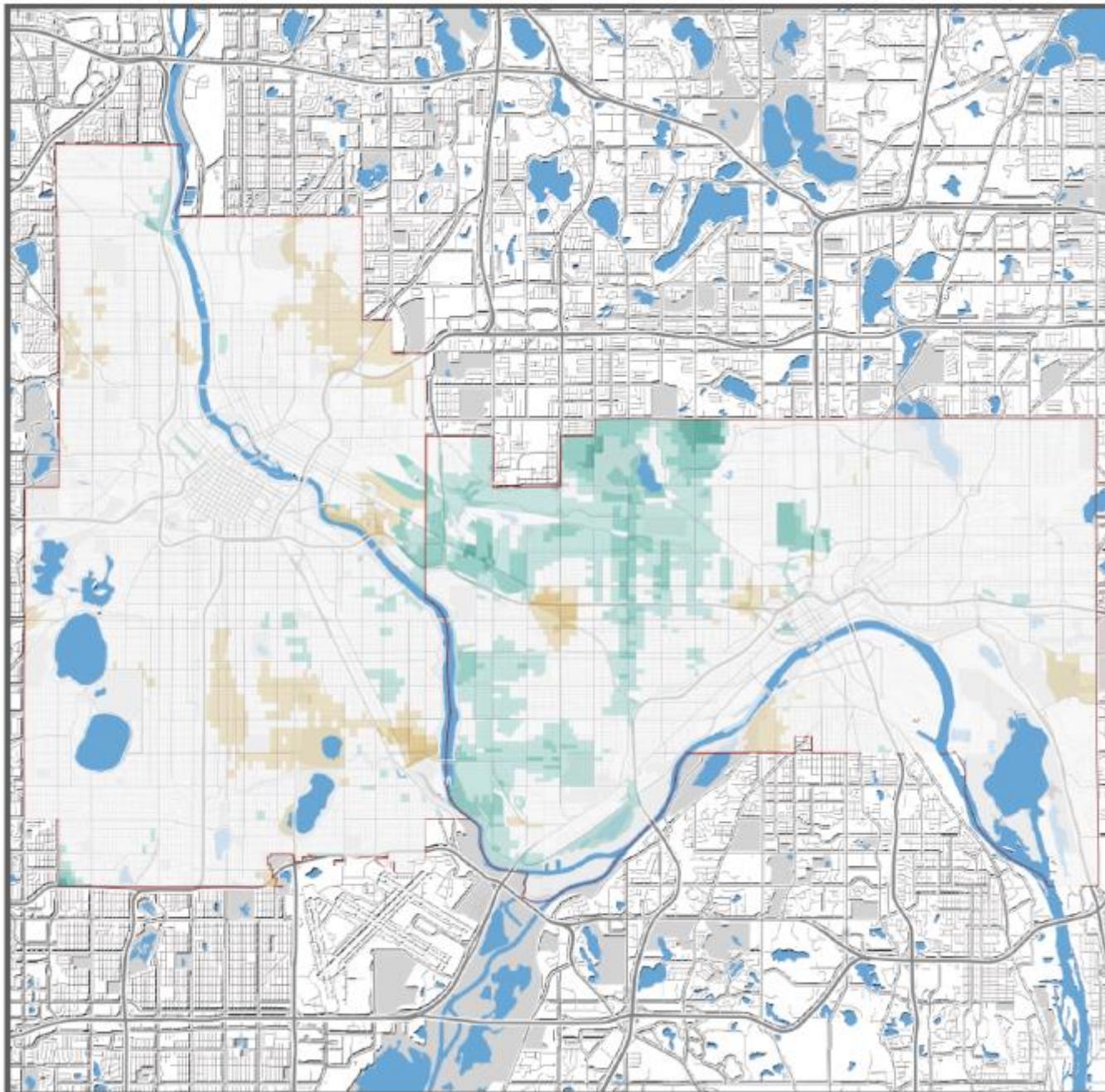
Average Job Accessibility by Travel Time Threshold (worker-weighted)



Transit Schedules Included

Agency	Dates
Alexandria Transit Company (DASH)	October 18, 2015 - August 20, 2016
Arlington Transit	January 2, 2016 - December 31, 2017
DC Circulator	December 1, 2015 - May 28, 2016
Fairfax Connector	September 28, 2013 - March 31, 2017
MET	January 20, 2016 - July 17, 2016
Potomac and Rappahannock Transportation Commission	December 7, 2015 - July 3, 2016
Virginia Railway Express	November 30, 2015 - December 7, 2016





Change in number of jobs within 30 minutes by transit

- < -100%
- 100% - -50%
- 50% - -25%
- 25% - -10%
- 10% - +10%
- +10% - +25%
- +25% - +50%
- +50% - +100%
- > +100%

Report Release Schedule

Mode	Data Year		
	2015	2016	2017
Transit	Available	Available	June
Auto	Available	Available	September
Walking and Biking	--	Summer	TBD
Freight	--	In development/TBD	

Datasets and reports are *accessible* at

<http://access.umn.edu/research/pooledfund/index.html>

Contact me to find out how: Peter.Ohlms@vdot.Virginia.gov



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