



State  
**Smart Transportation**  
Initiative

*Practical Solutions to Move America Forward*



# Accessibility Measures:

Madison, WI; Sacramento, CA; and Virginia

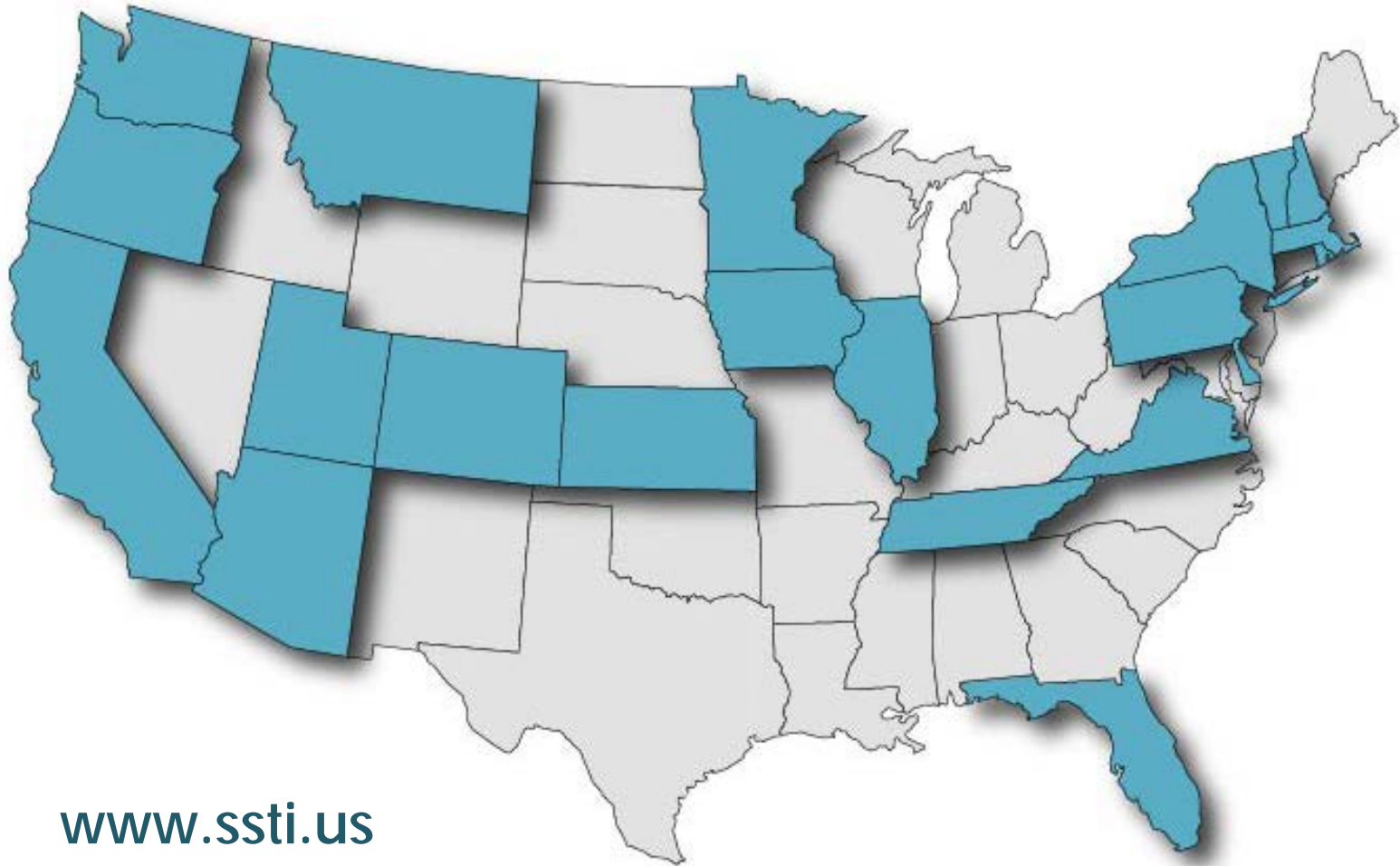
CHRIS McCAHILL, PHD  
SENIOR ASSOCIATE

Moving Towards a Sustainable California

Berkeley, CA – August 9, 2016

# State Smart Transportation Initiative

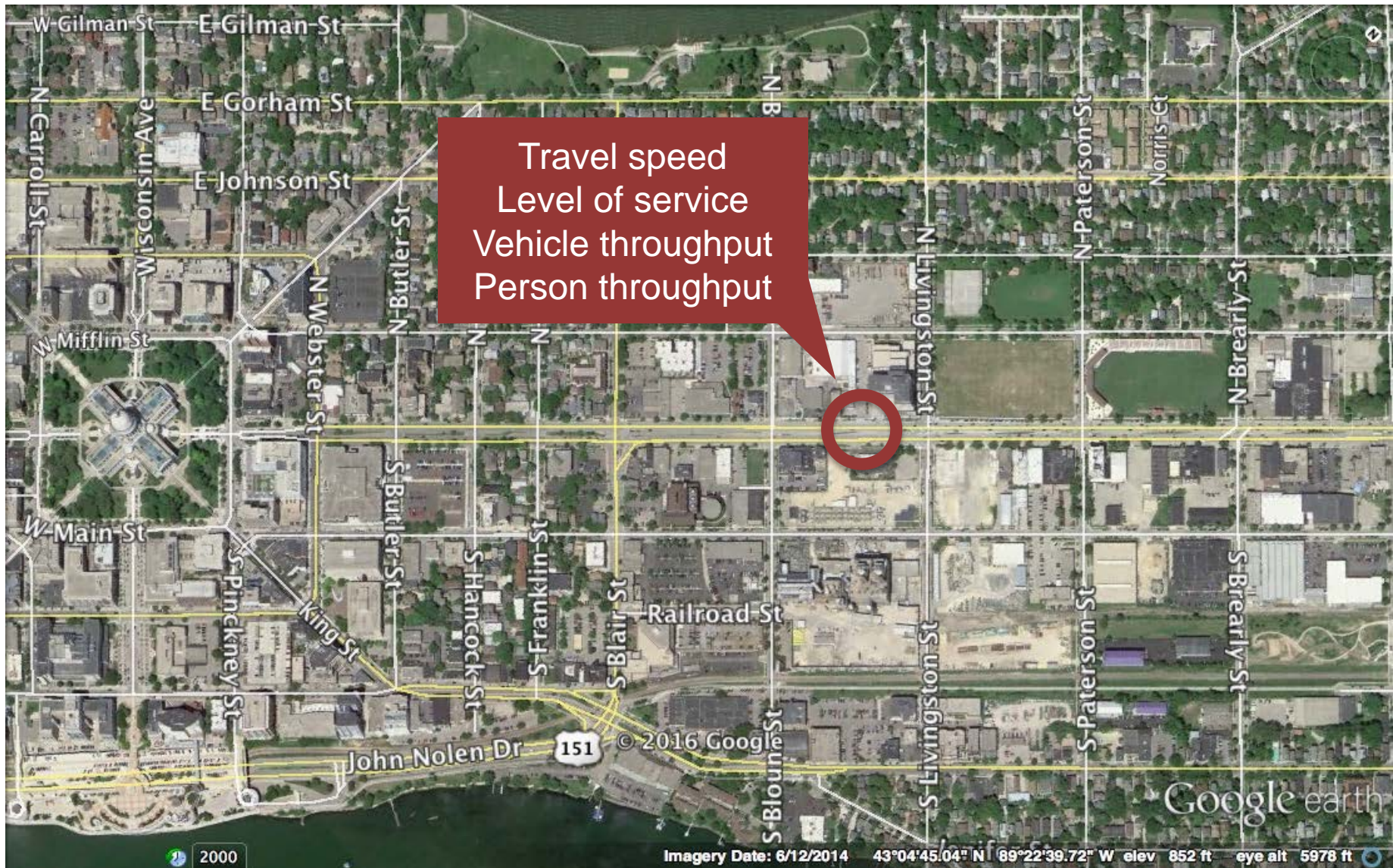
A network of reform-oriented DOTs, housed at the University of Wisconsin-Madison.



[www.ssti.us](http://www.ssti.us)

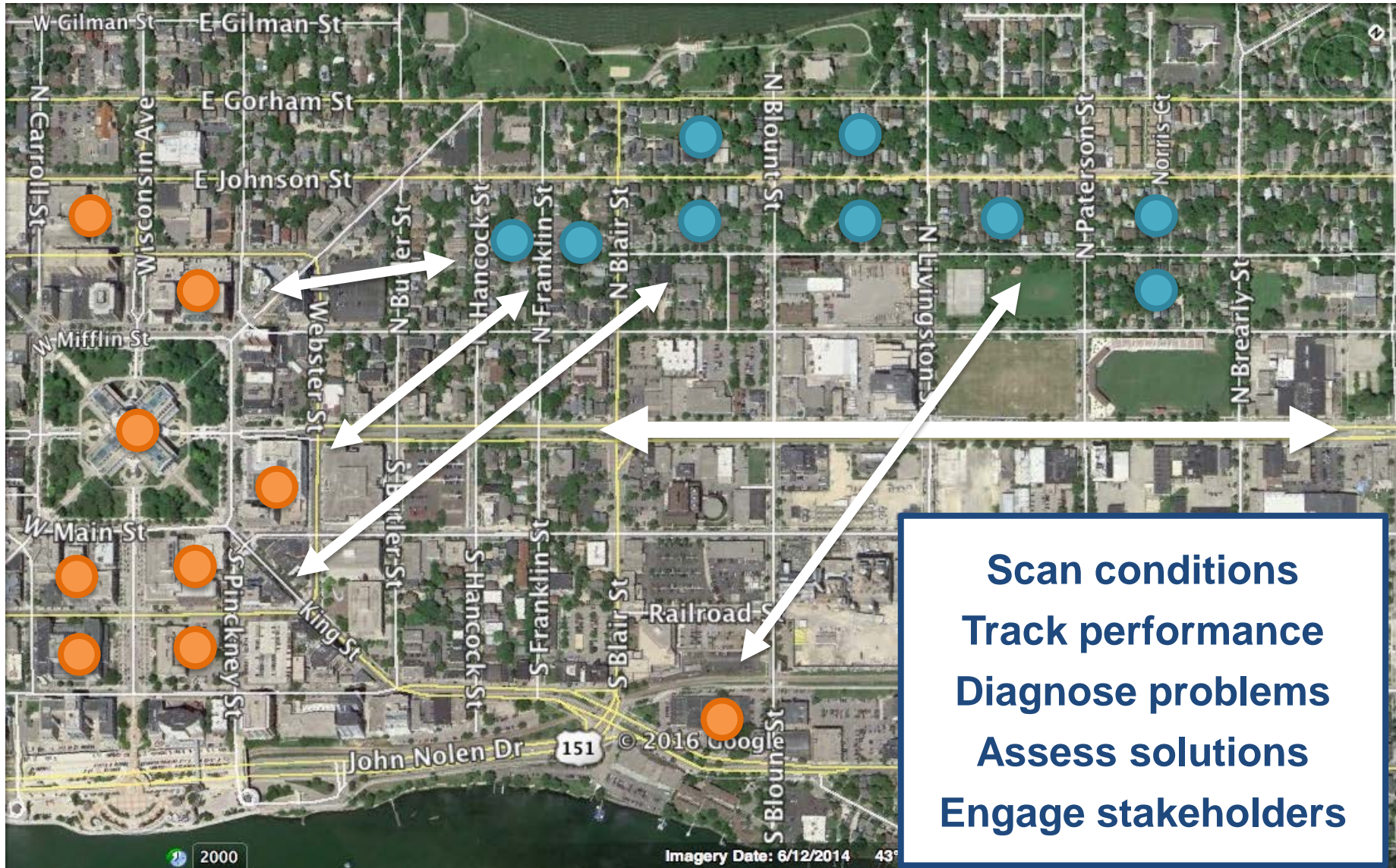


# Why measure accessibility?



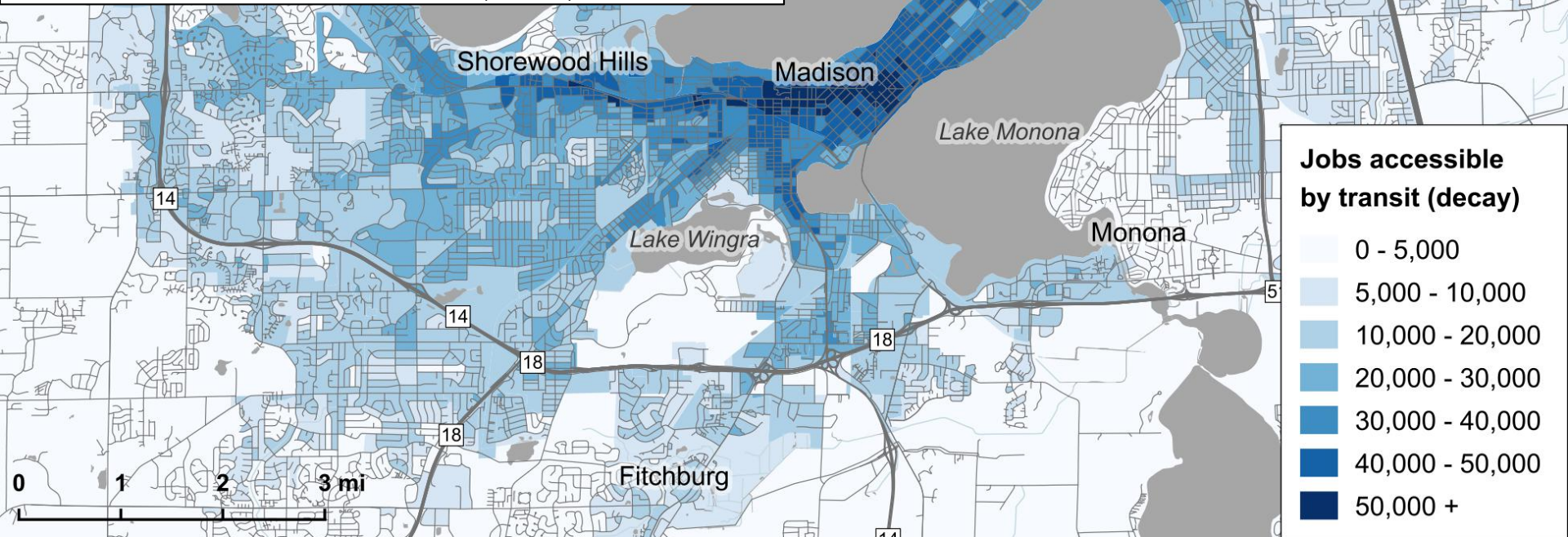
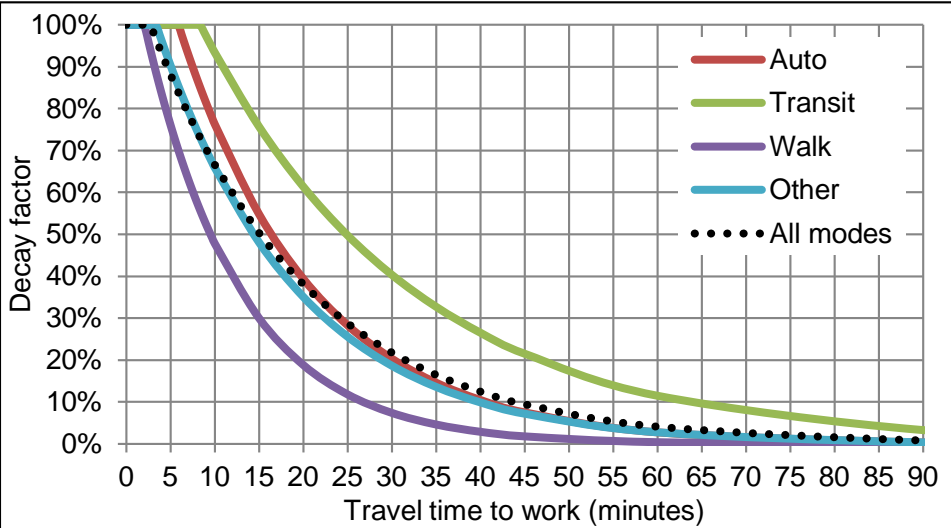


# Why measure accessibility?



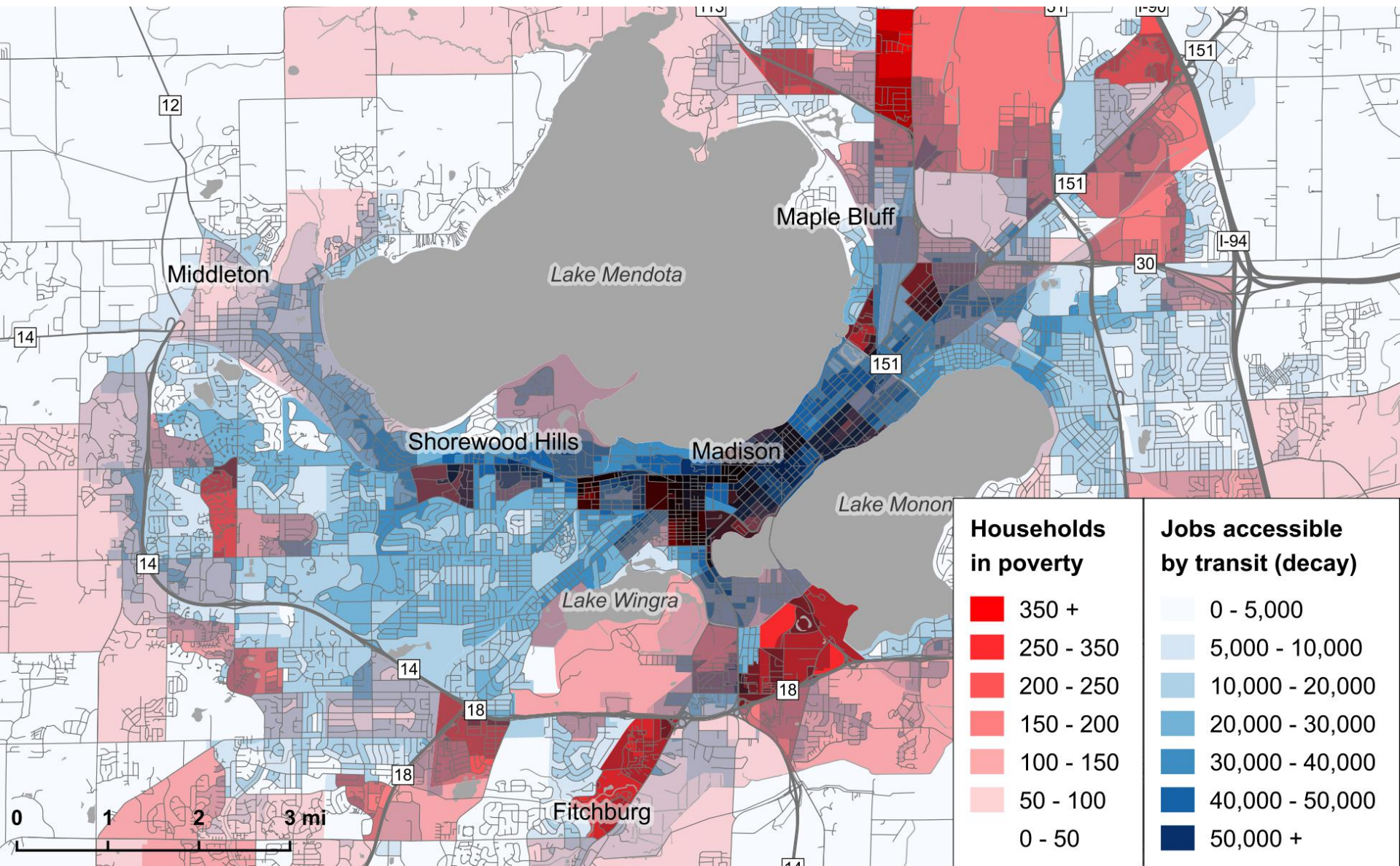


# Access to Jobs by Transit

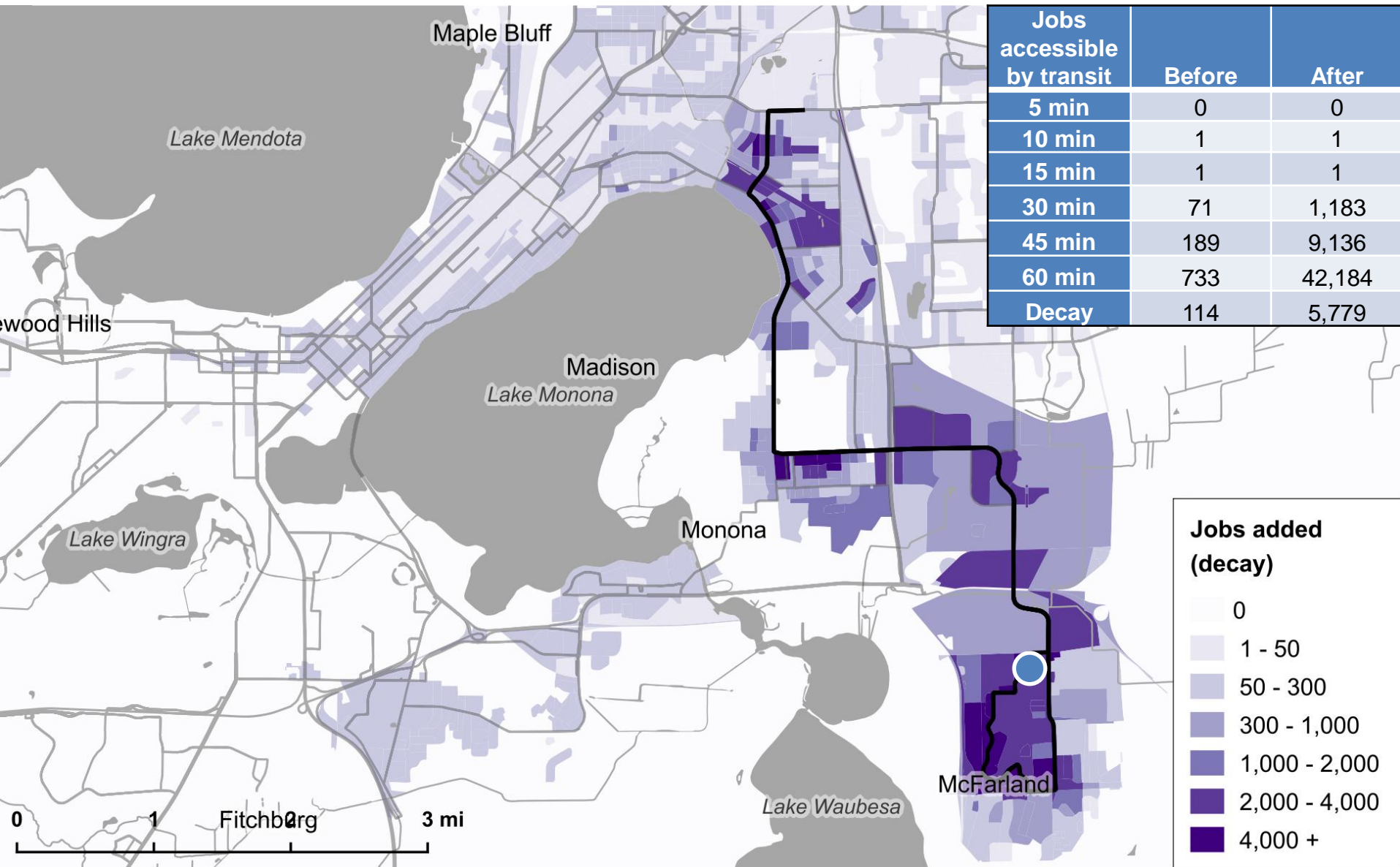




# Access to Jobs by Transit & Poverty

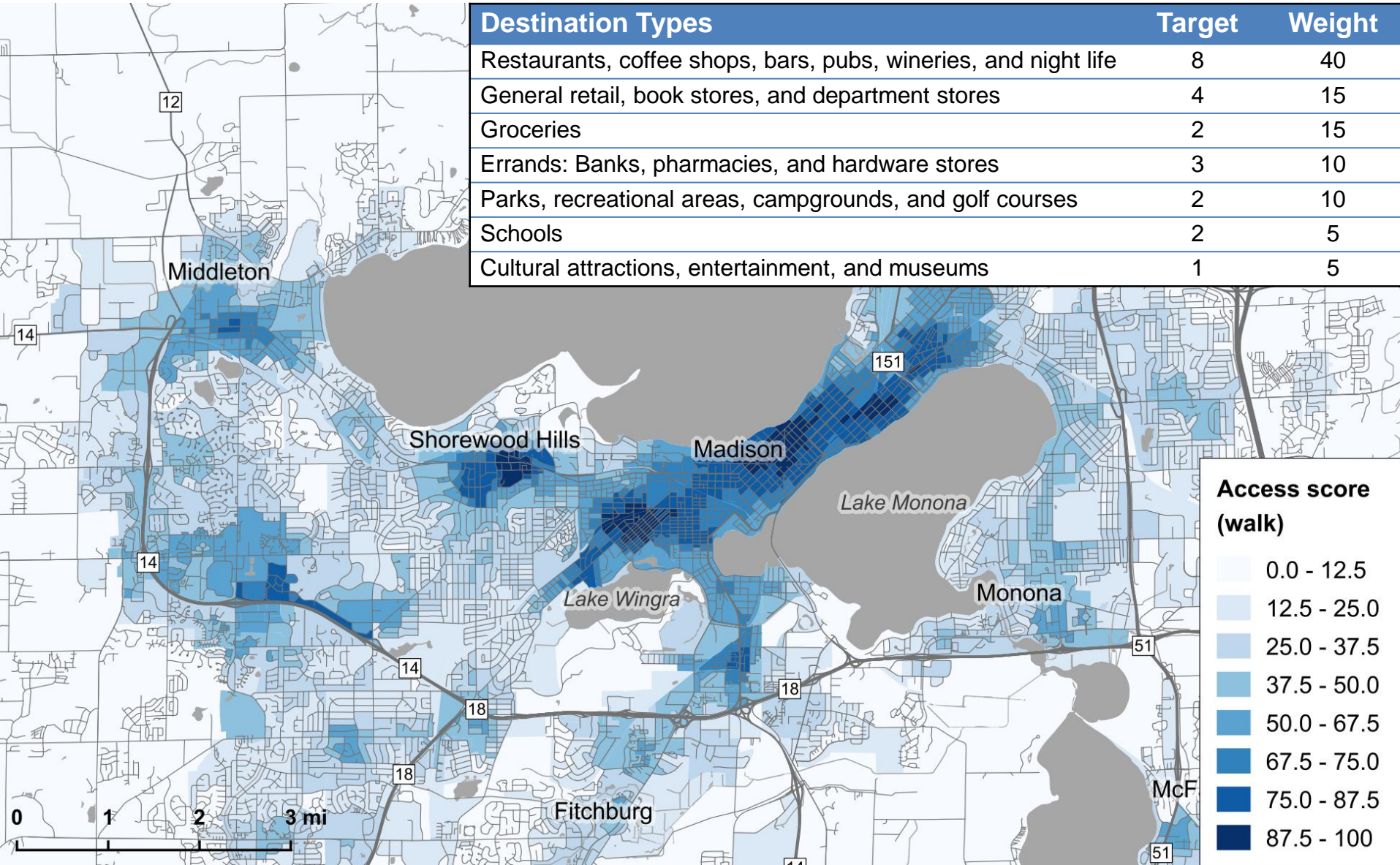


# Project Evaluation: Route 31 Bus



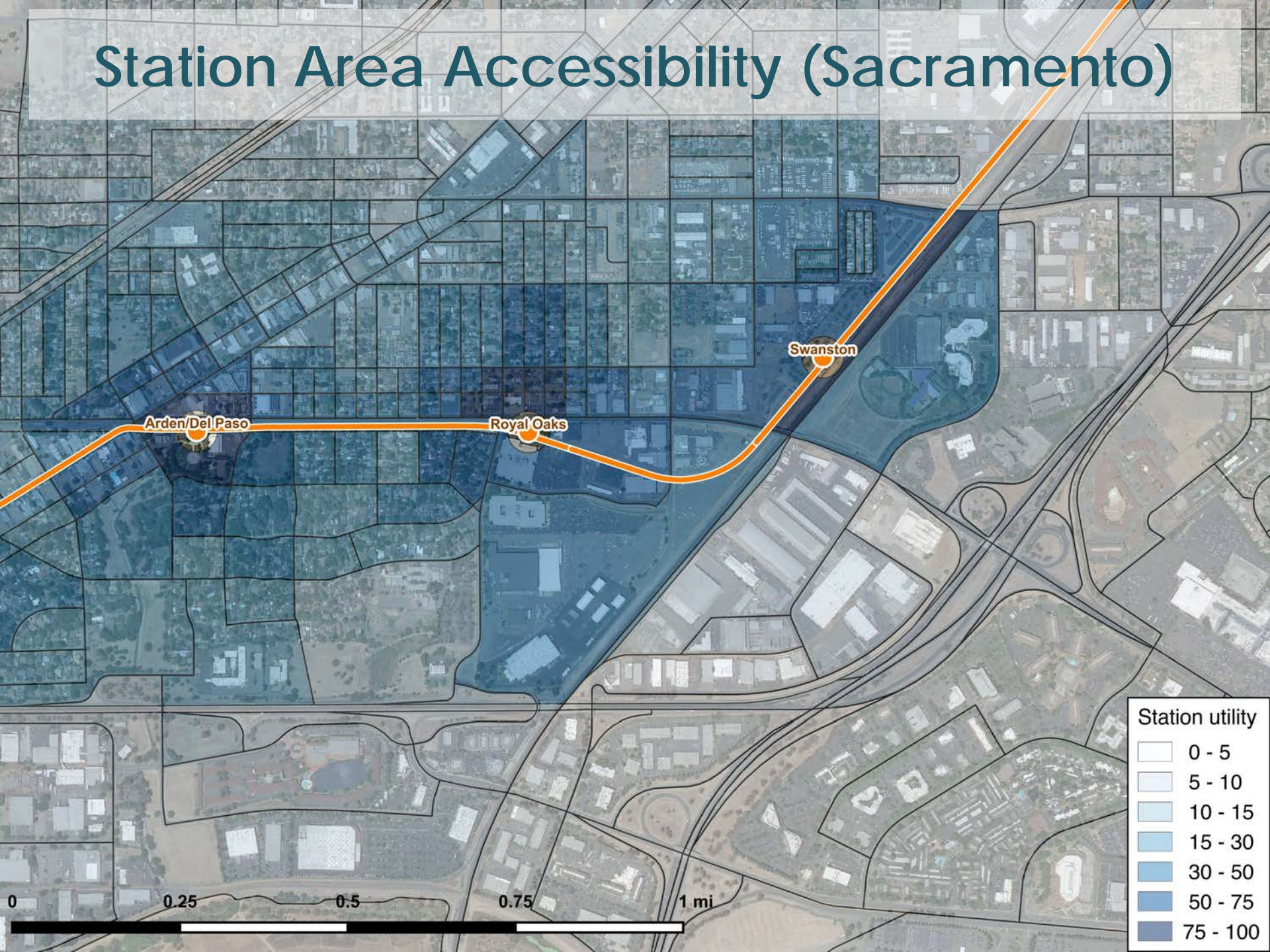


# Non-Work Access: Walking





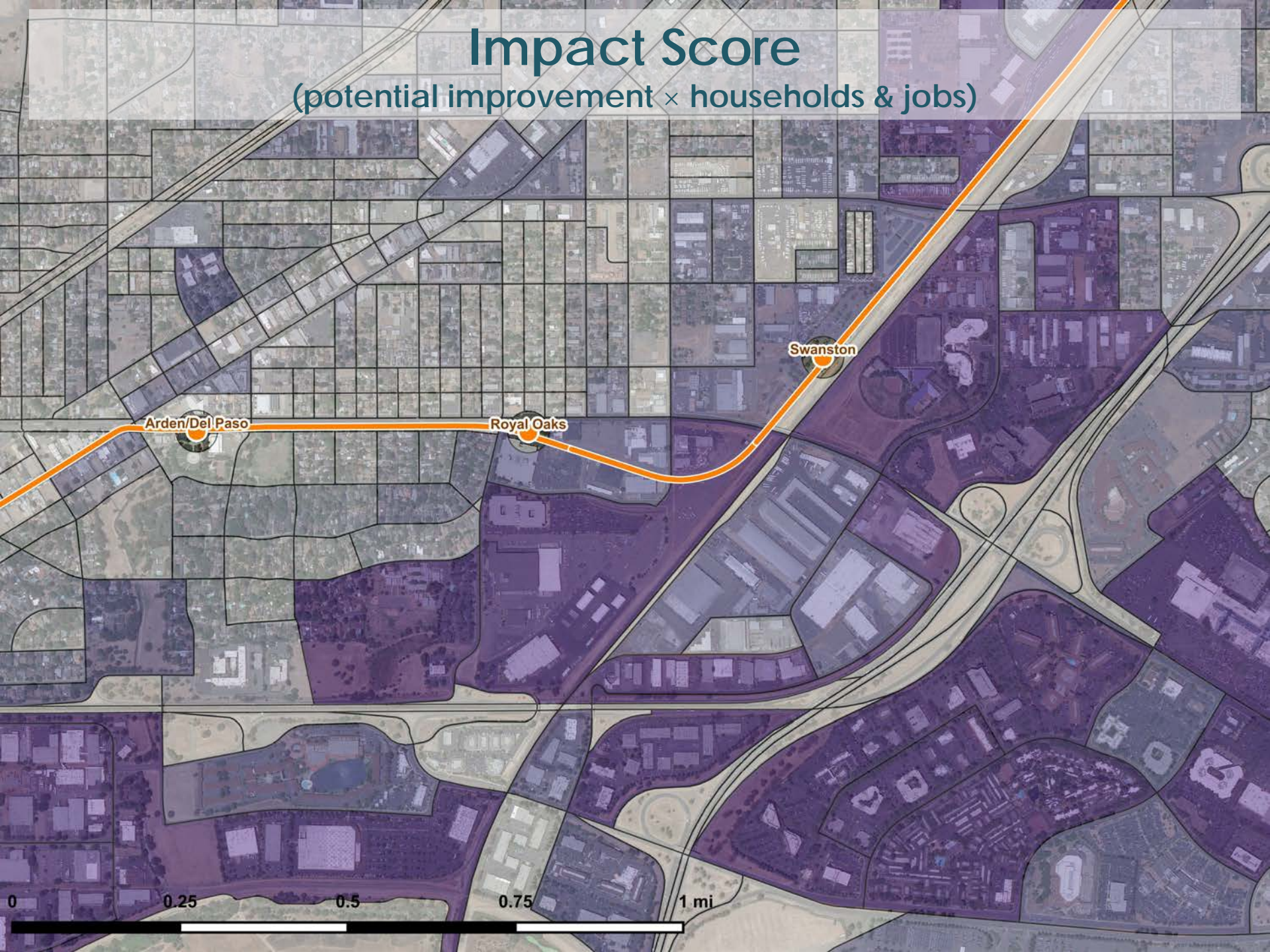
# Station Area Accessibility (Sacramento)





# Impact Score

(potential improvement × households & jobs)





# Smart Scale

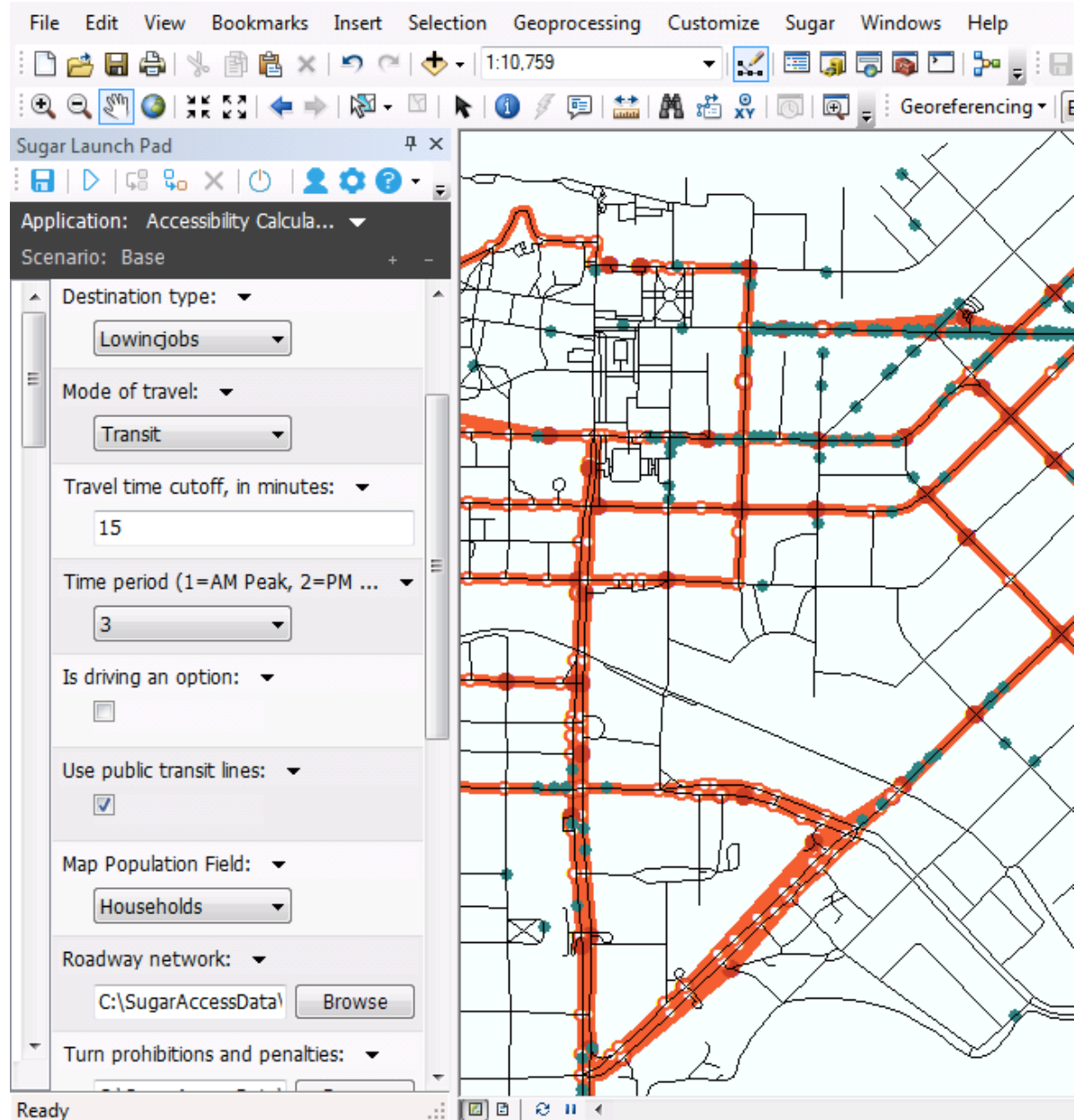
Virginia's project prioritization, established under HB2 in 2014 and implemented in June 2015

Safety	<ul style="list-style-type: none"><li>◆ Number of fatal and severe injury crashes</li><li>◆ Rate of fatal and severe injury crashes</li></ul>
Congestion Mitigation	<ul style="list-style-type: none"><li>◆ Person throughput</li><li>◆ Person hours of delay</li></ul>
Accessibility	<ul style="list-style-type: none"><li>◆ Access to jobs</li><li>◆ Access to jobs for disadvantaged populations</li><li>◆ Access to multimodal choices</li></ul>
Environmental Quality	<ul style="list-style-type: none"><li>◆ Air quality and energy environmental effect</li><li>◆ Impact to natural and</li></ul>
Economic Development	<ul style="list-style-type: none"><li>◆ Project support for economic development</li><li>◆ Intermodal access and</li><li>◆ Travel time reliability</li></ul>
Land Use (Only required for MPOs with populations of more than 200,000)	<ul style="list-style-type: none"><li>◆ Land use policy consistency</li></ul>

Decay-weighted jobs  
Auto and transit

# Sugar Access

- Runs in ArcMap
- Data included with license:
  - Road network with travel times from HERE data
  - Bike and pedestrian network
  - Transit network from GTFS files
  - Block-level data including jobs
  - Points of interest from HERE data
- Customizable output





Chris McCahill

State Smart Transportation Initiative

[mccahill@ssti.us](mailto:mccahill@ssti.us)

608-262-7797

