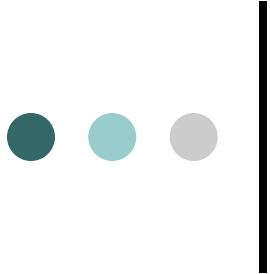




# Regional Congestion Overview

MPC Meeting  
August 10, 2006



# Alternative Mobility Standards - Review

- Level of Service Standards for State facilities contained in Oregon highway Plan (OHP)
  - ‘Mobility Standards’
- OHP provides for development of Alternative Mobility Standards (AMS) where adopted standards cannot be met.



# AMS – Review

- Requirements for AMS development include identification of local commitments to:
  - “specific actions to manage transportation demand and ensure efficient use of the capacity of the state highway system.”



# AMS - Review

- Other key points from April
  - Good vs. Bad Congestion
  - Congestion-related Policy Interests:
    - Achieving desired land use patterns as the region grows
    - Providing for efficient and balanced transportation access to land
    - Providing mobility for through traffic
    - Providing for freight mobility



# AMS - Review

- Local Commitments already reflected in the RTP:
  - Bus Rapid Transit
  - Nodal development
  - Priority Bike Projects
  - Intelligent Transportation System (ITS) investments
  - Transportation Demand Management (TDM) strategies
  - Local road system improvements



# Next Part of Series – Regional Congestion Overview

- Congestion – What is it? Why is it important? Where does it come from?
- Congestion status
  - Current and future congestion
  - Mobility dependence
  - Implications of congestion
- Next Steps



# What is Congestion?

- “Congestion usually relates to an excess of vehicles on a portion of roadway at a particular time resulting in speeds that are slower than normal or ‘free-flow’ speeds.”

# Congestion in Context – Why is it Important?

## Negative Congestion Effects

Emergency Response

Air Pollution

Fuel Economy

Truck Driving Costs

Safety

Noise

Commuter Travel Time

Unreliable Travel Times

CONGESTION

## Positive Congestion Effects

Trip concentration  
High volumes

Increased market viability  
for mixed land uses

Increased market viability  
for higher density development

Increased market viability  
for use of alternative modes

**Economic Competitiveness through reduced accessibility for certain trips –**

- Decreases labor and delivery market area
- Reduces advantage of location



# Where Does it Come From?

- Growth in the Economy
  - Increased number of dwelling units
  - Increased employment
  - Increased income
  - Geographic expansion of urban levels of development
  - Growth in surrounding areas



# Where Does it Come From?

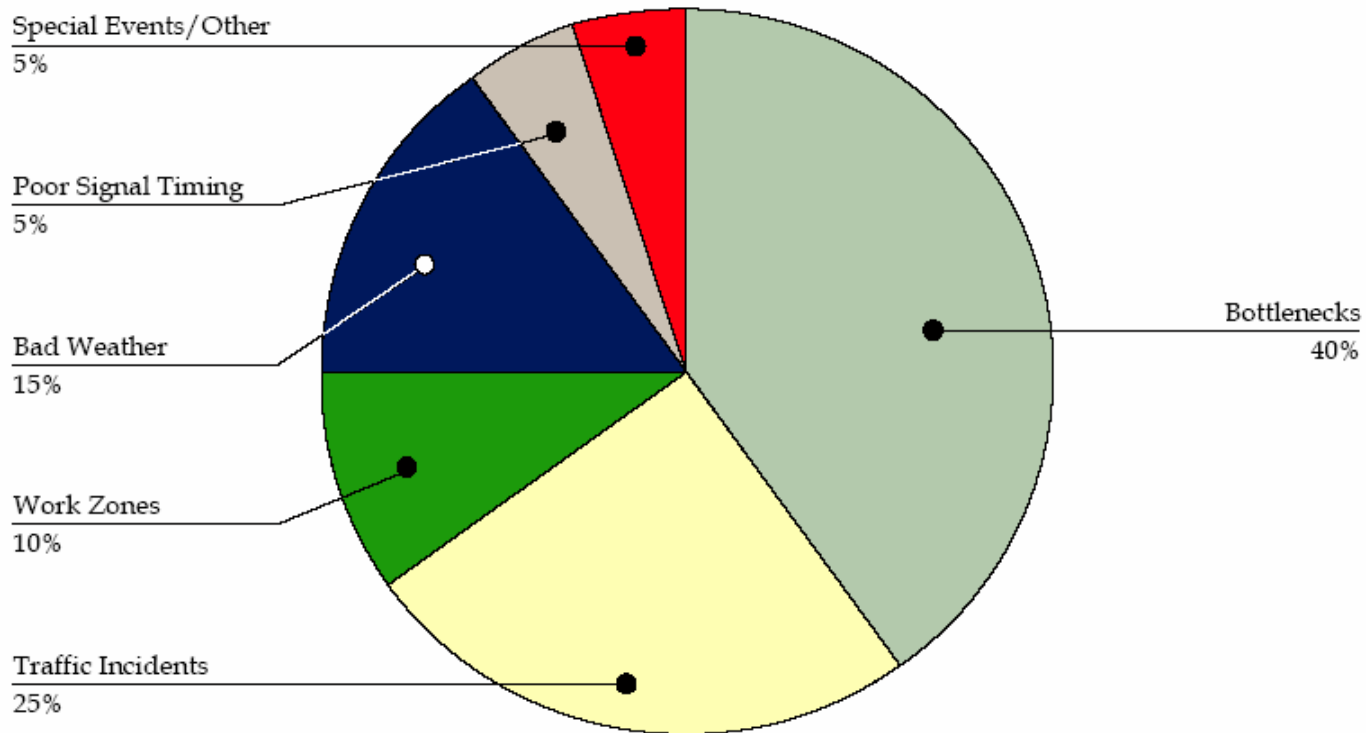
- Economic Growth leads to growth in demand for transportation
- Growth in transportation demand has outstripped growth in supply – leading to congestion
  - As congestion increases; travel time reliability decreases



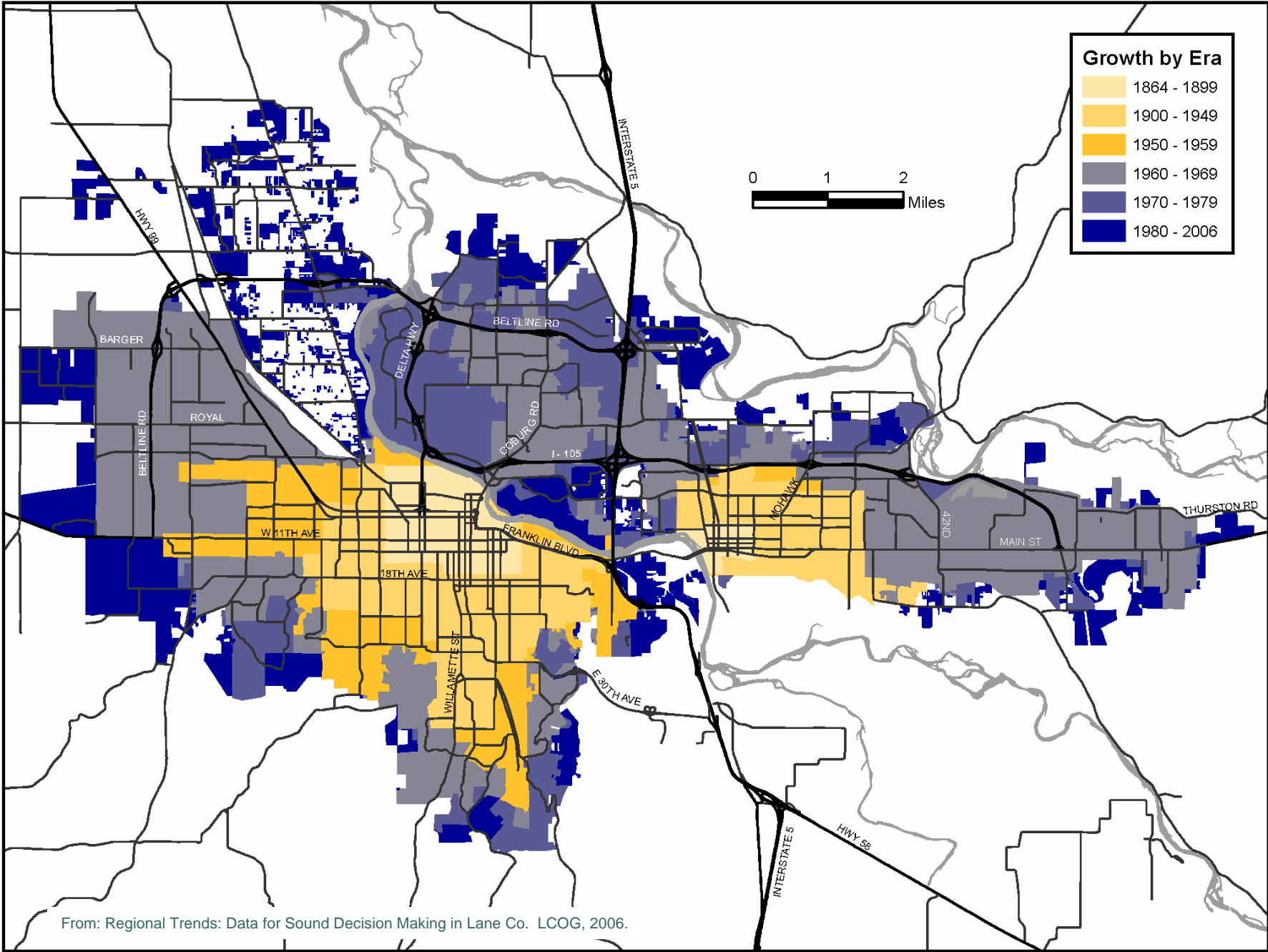
# Variables Contributing to Daily Congestion

NCHRP 8-36, Task 53 (01)  
Reliability Performance Measures Peer Exchange

**Figure 1.1** The Sources of Congestion  
*National Summary*



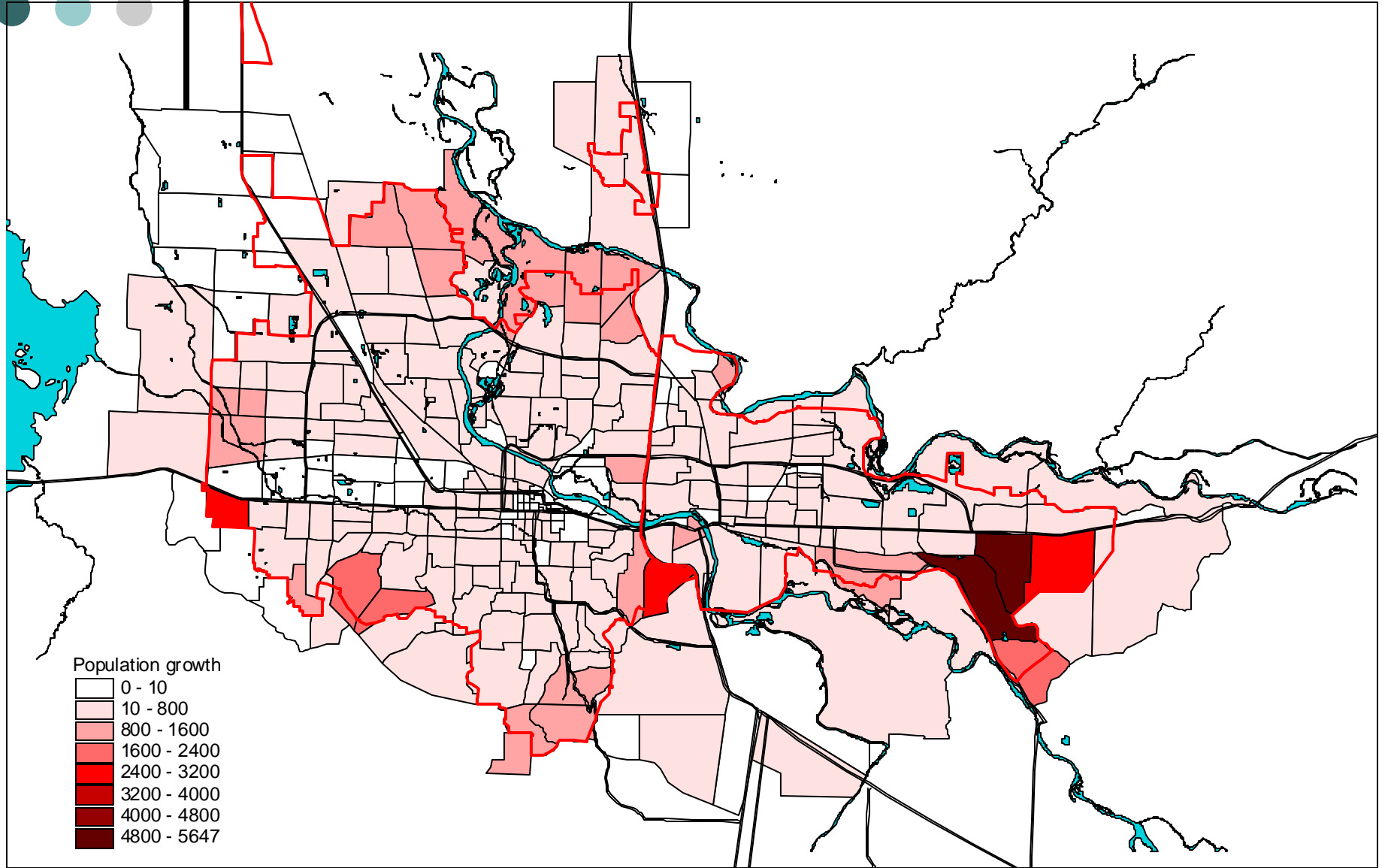
# Annexation history of Eugene and Springfield



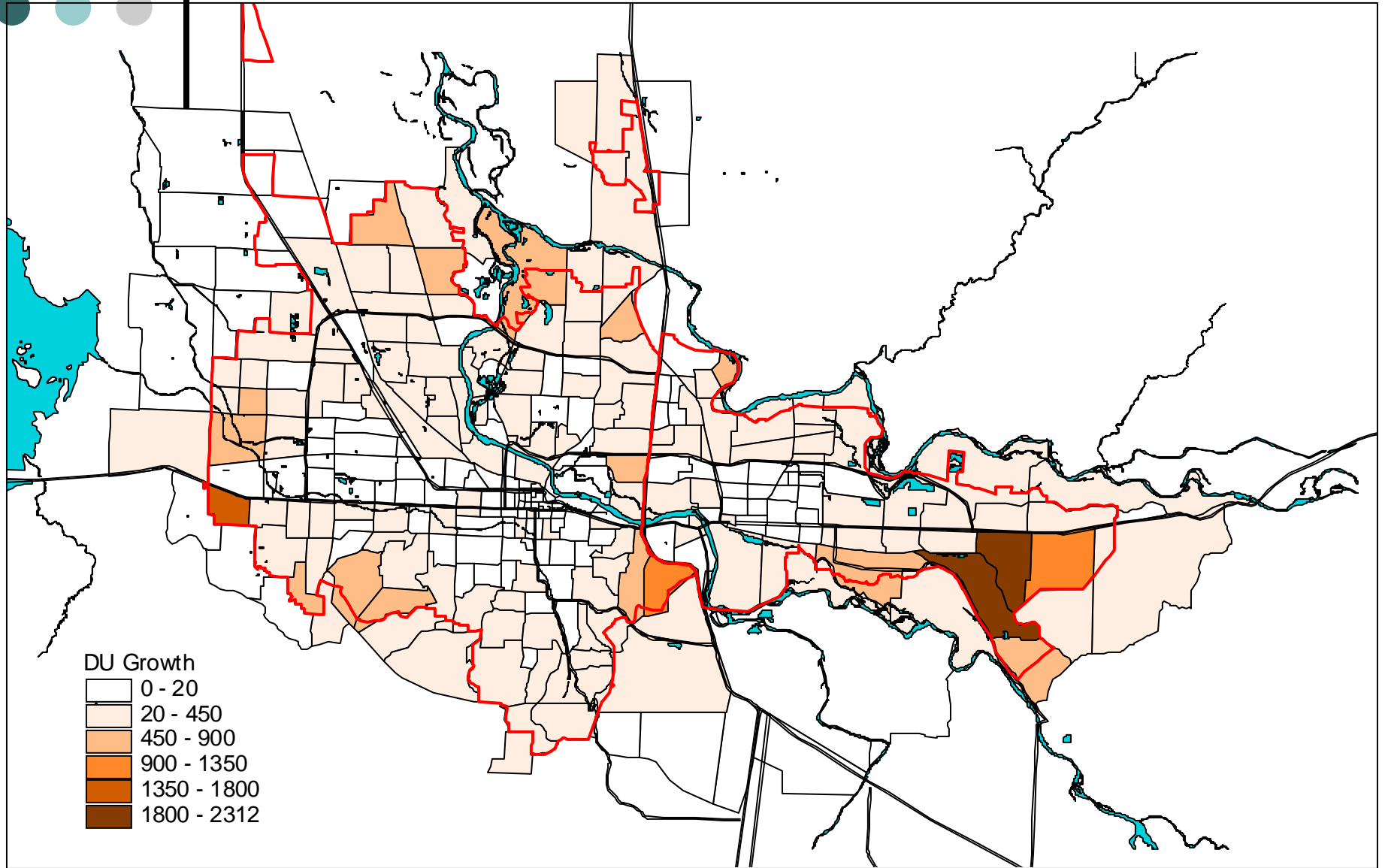
From: Regional Trends: Data for Sound Decision Making in Lane Co. LCOG, 2006.



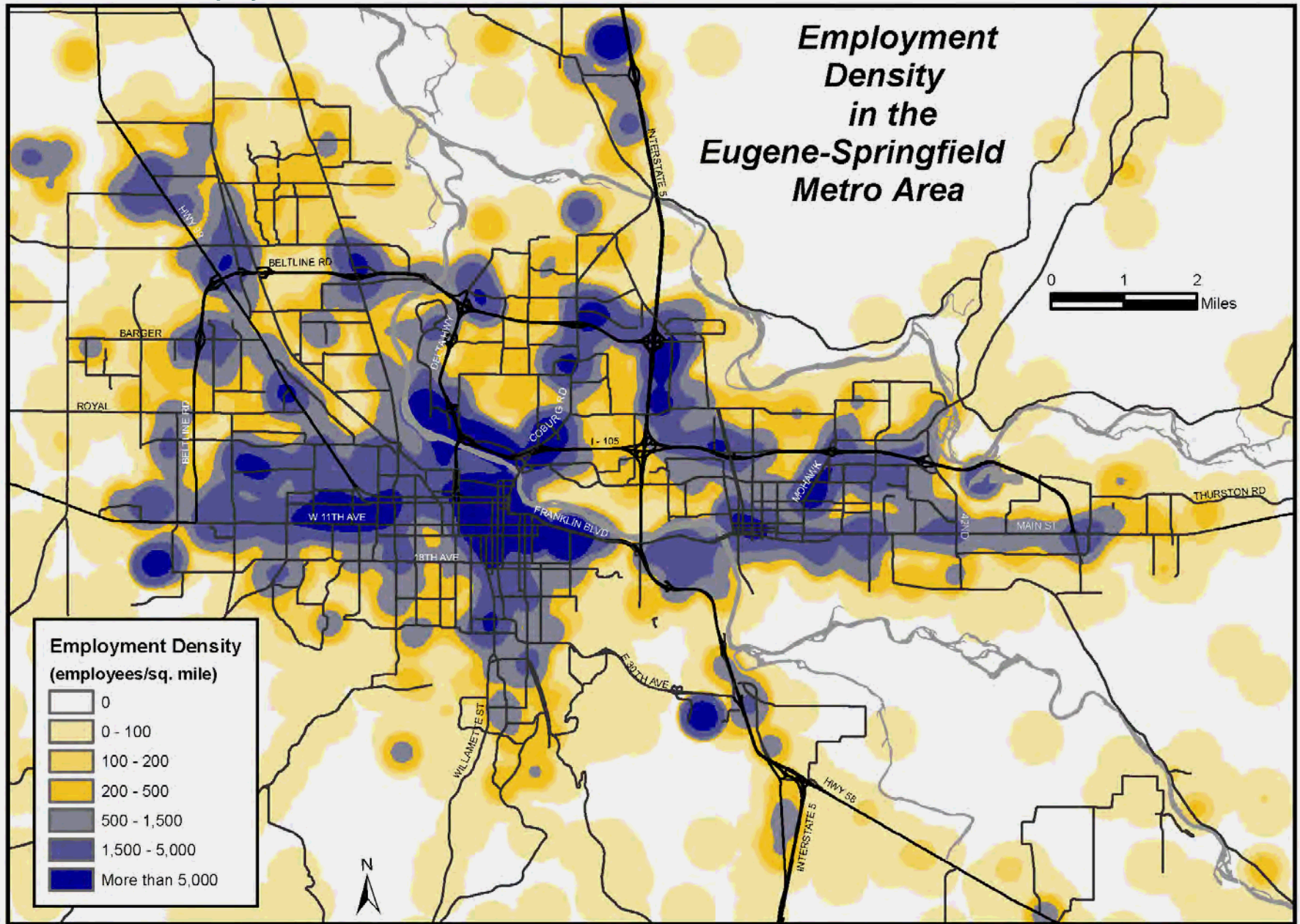
# Population Growth: 2002 to 2025



# Dwelling Unit Growth: 2002 to 2025

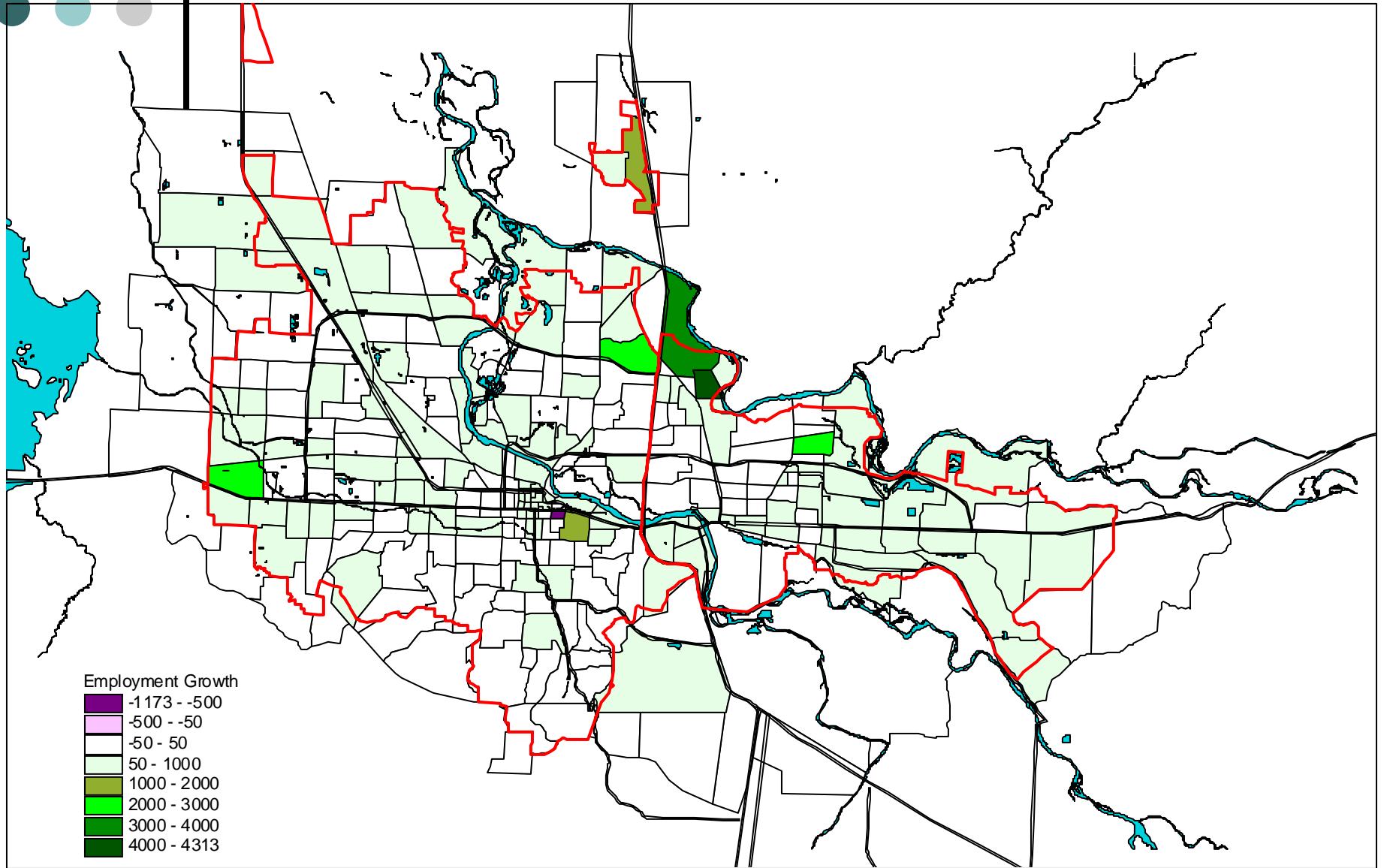


## 2002 Covered Employment

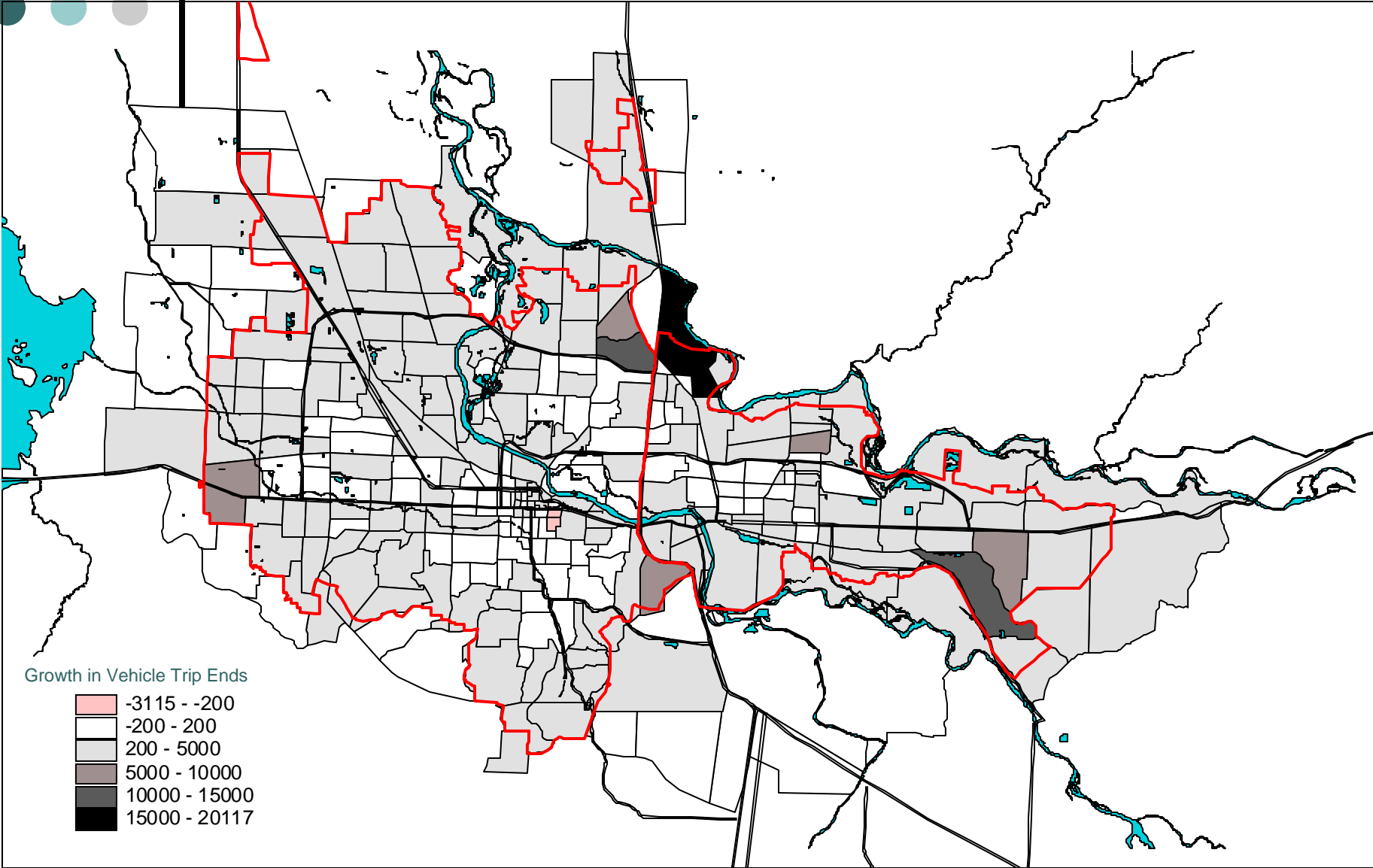


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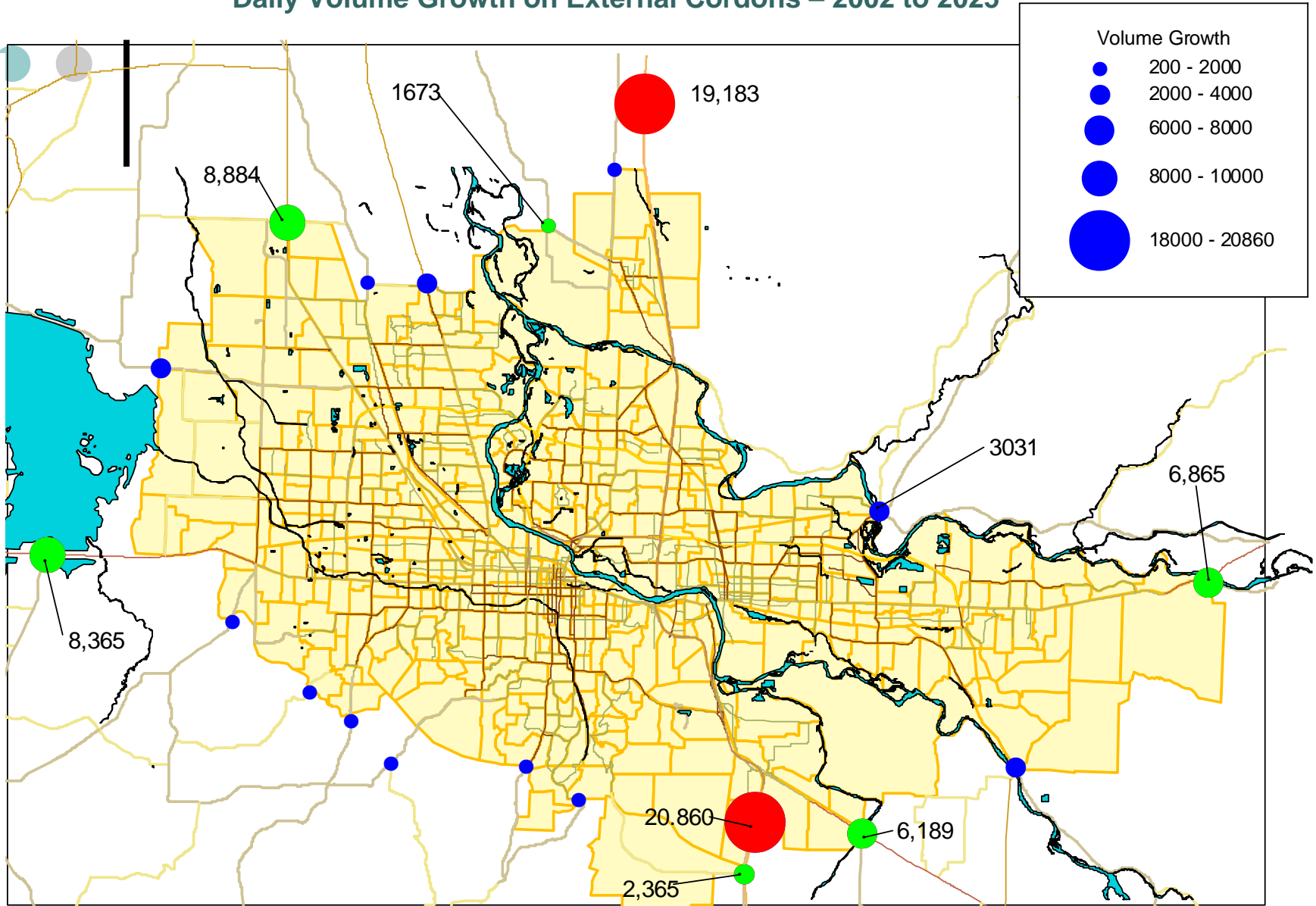
# Employment Growth: 2002 to 2025



# Growth in Vehicle Trip Ends: 2002 to 2025



# Daily Volume Growth on External Cords – 2002 to 2025

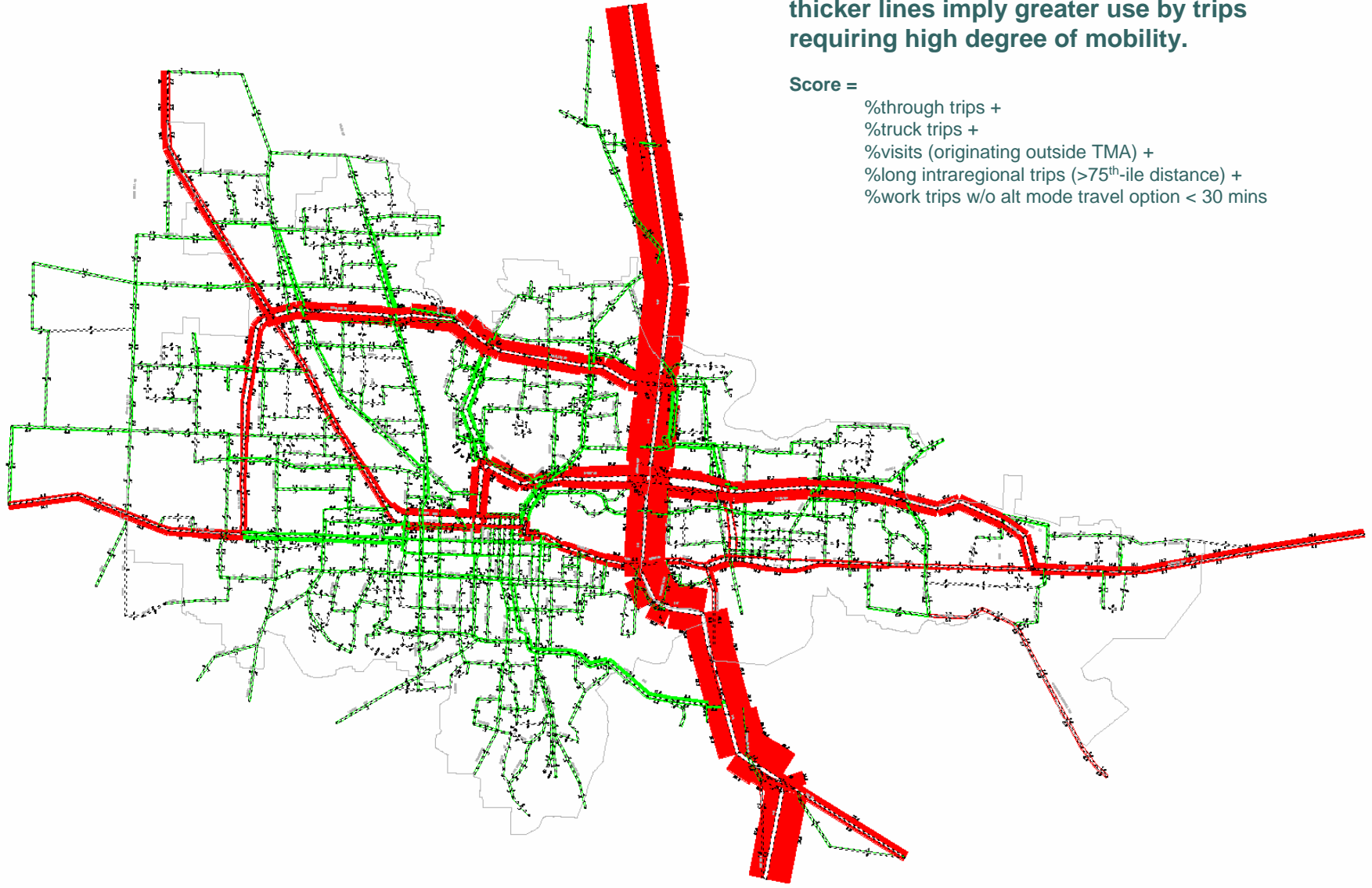


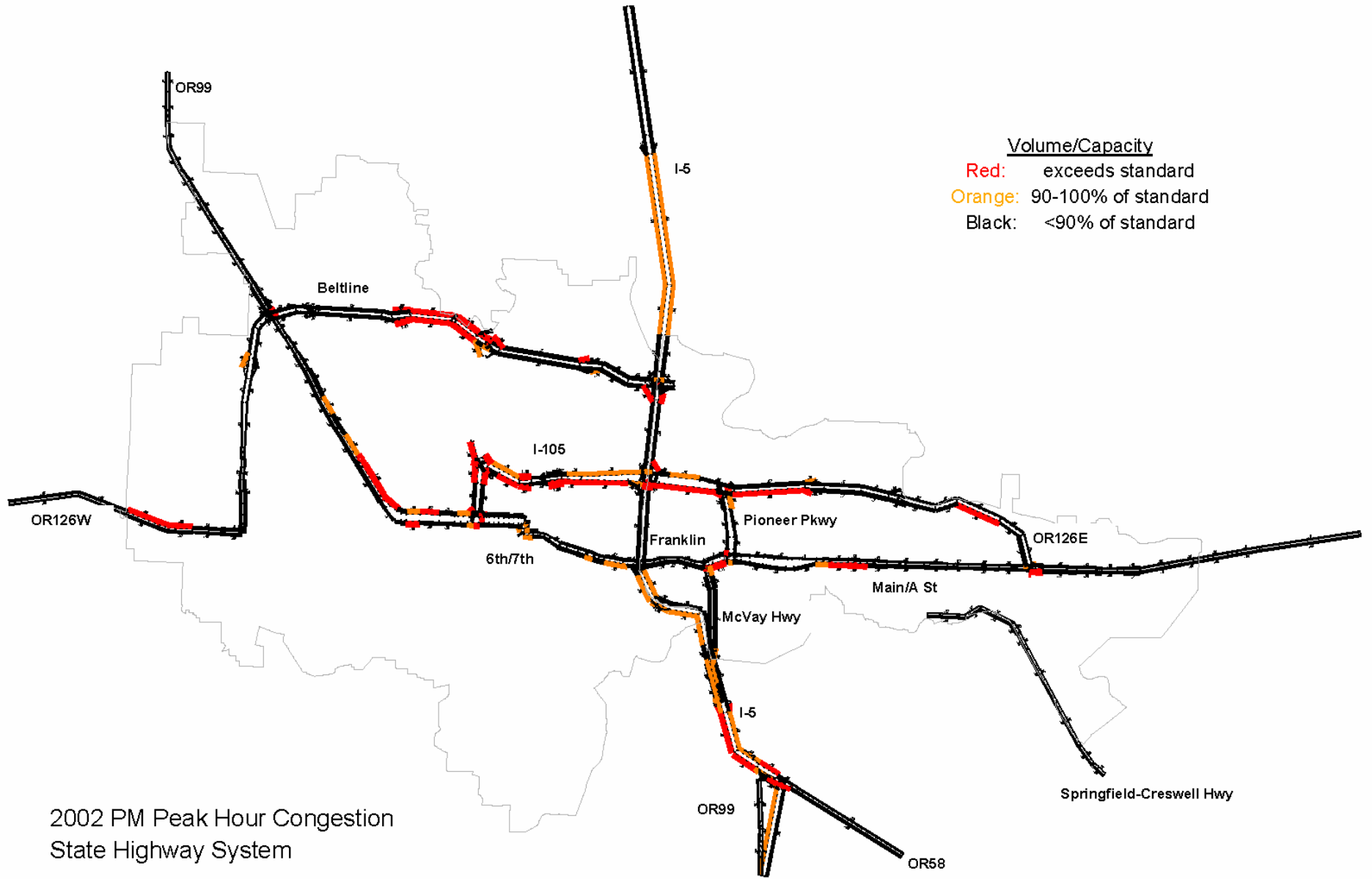
# Roadway Mobility Dependence - 2002

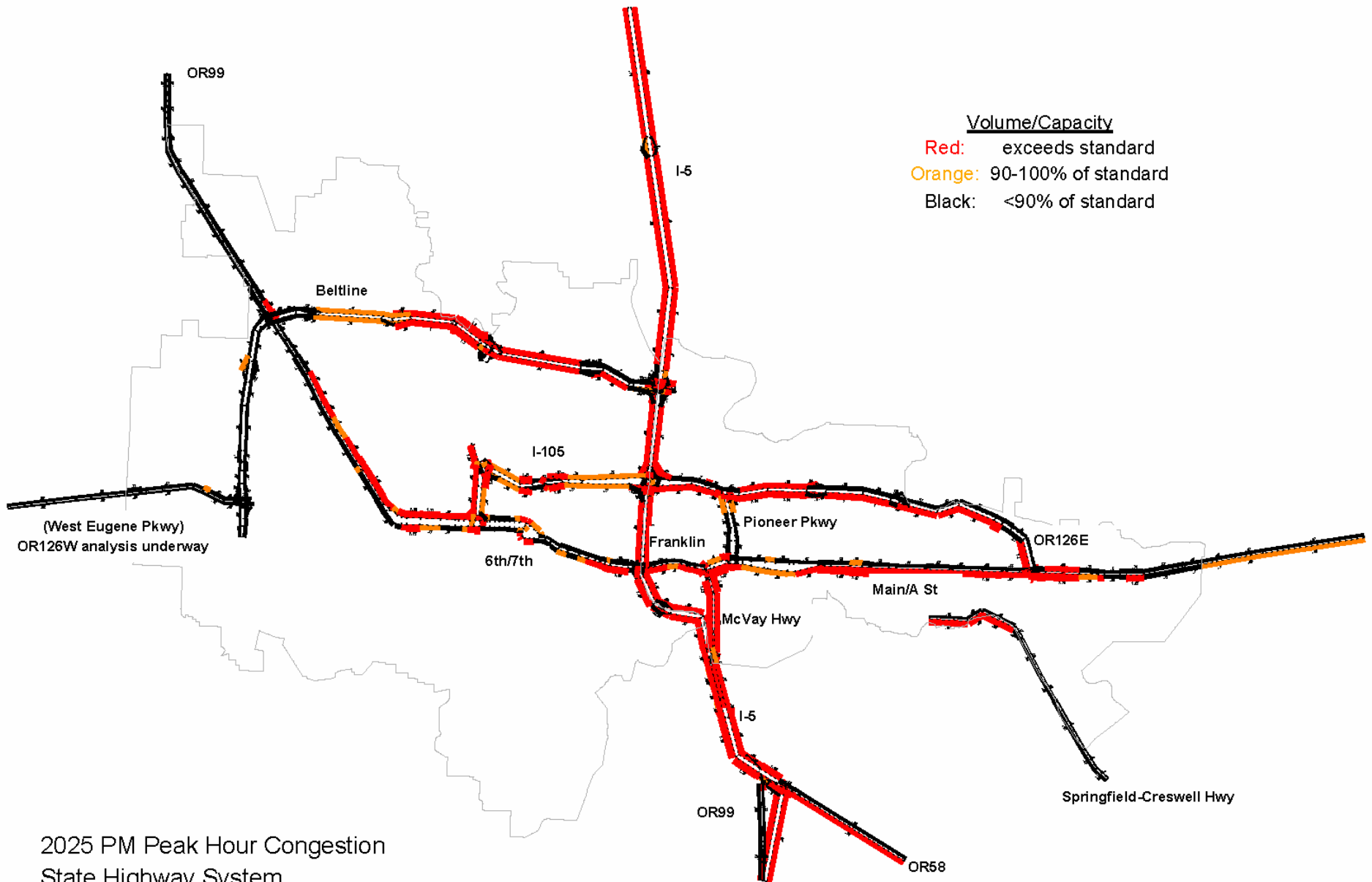
**Red:** state system  
**Green:** local system

Lines thickness indicates “mobility score”:  
thicker lines imply greater use by trips requiring high degree of mobility.

Score =  
%through trips +  
%truck trips +  
%visits (originating outside TMA) +  
%long intraregional trips (>75<sup>th</sup>-ile distance) +  
%work trips w/o alt mode travel option < 30 mins







2025 PM Peak Hour Congestion  
 State Highway System  
 2025 RTP Fiscally Constrained Plan



# Comparisons

<b>Comparisons with other cities of similar size/population</b>	<b>Portland</b>	<b>Eug/Spfld</b>	<b>Salem</b>
Annual delay per Peak traveler	average	lower	higher
ratio of Travel time in peak to Travel time in offpeak	<b>much higher</b>	average	average
Total delay	average	lower	average
Total cost	average	lower	lower
Delay per Peak traveler Increase since 1982	higher	lower	higher
Total delay increase since 1982	average	much lower	lower

ref:TTI 2005 Urban Mobility Report

"Delay" = travel time above that needed to complete a trip at free-flow speeds  
(assumed 60 mph on freeways, 35 mp on principal arterials)



# Congestion's Implications

- From '*Statewide Congestion Overview for Oregon*'
  - On average, every new job in Oregon adds about 15,500 annual vehicle miles
  - Every \$1,000 increase in total state personal income adds about 360 annual VMT
  - Congestion is expected to get much worse if economic growth continues to greatly exceed capital investment in the road system



# Congestion's Implications

- Congestion erodes region's competitive advantage:
  - Increased costs for additional drivers and trucks;
  - Reduced market areas;
  - Increased inventories;
  - Costs for additional crews and decentralized operations to serve same market area;
- (From Portland's *'The Cost of Congestion to the Economy of the Portland Region'*)



# Congestion's Implications

- Specific examples from Portland's congestion report:
  - Intel moved last shipment departure time up 2 hrs for outbound shipments through PDX due to increased p.m. peak congestion;
  - Sysco Foods opened new regional distribution center in Spokane to better serve market area, because it was taking too long to serve its market from the Portland area;
  - OrePac increased inventories by 7% to 8% to mitigate for congestion delays, representing a lost opportunity for other investment.



# What's Next ?

- Results from assessment of alternative solutions
- Proposal for possible changes to State's mobility standards
- Possible local commitments to include in proposal



"The only way to solve the traffic problems of the country is to pass a law that only paid-for cars are allowed to use the highways." Will Rogers