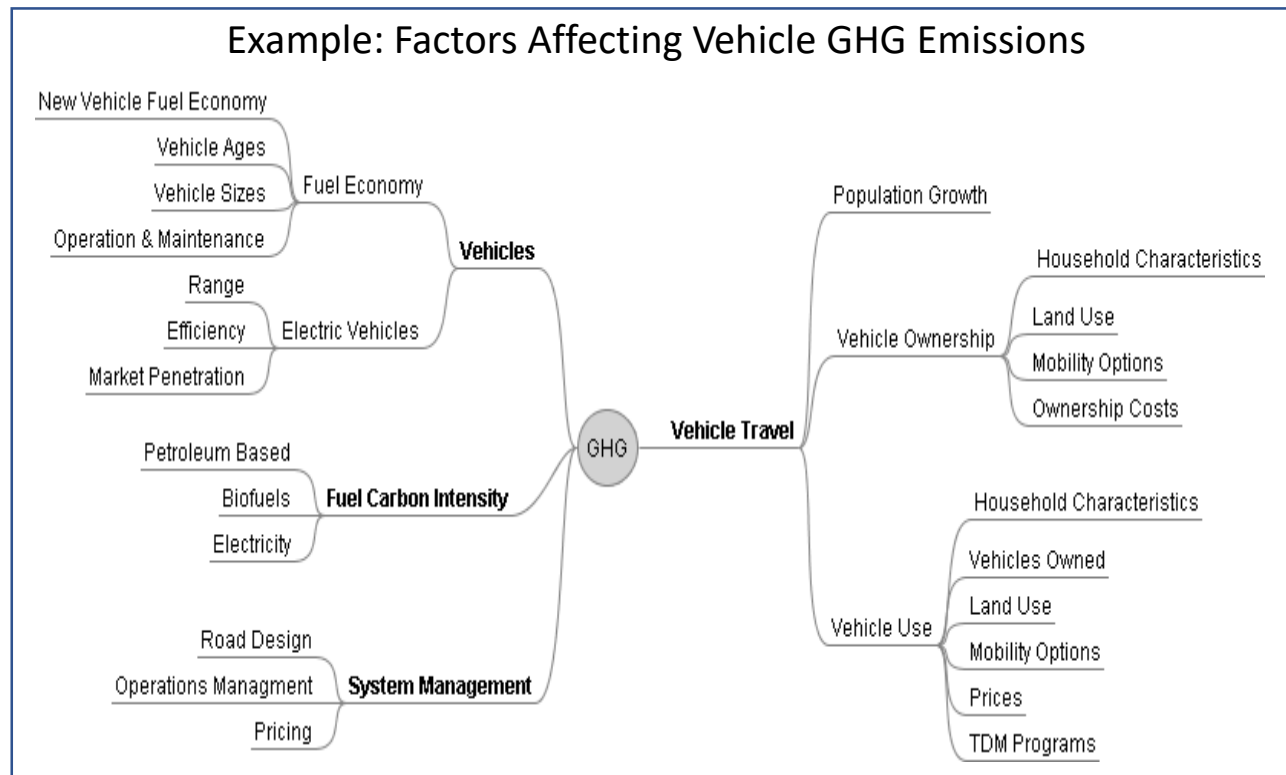


VisionEval Regional Strategic Planning Model (VE-RSPM) & Land Use Scenario Developer (LUSDR)

Brian Gregor, P.E.
Workshop 1A – Risky Business
Innovations in Travel Modeling 2018
Atlanta, Georgia

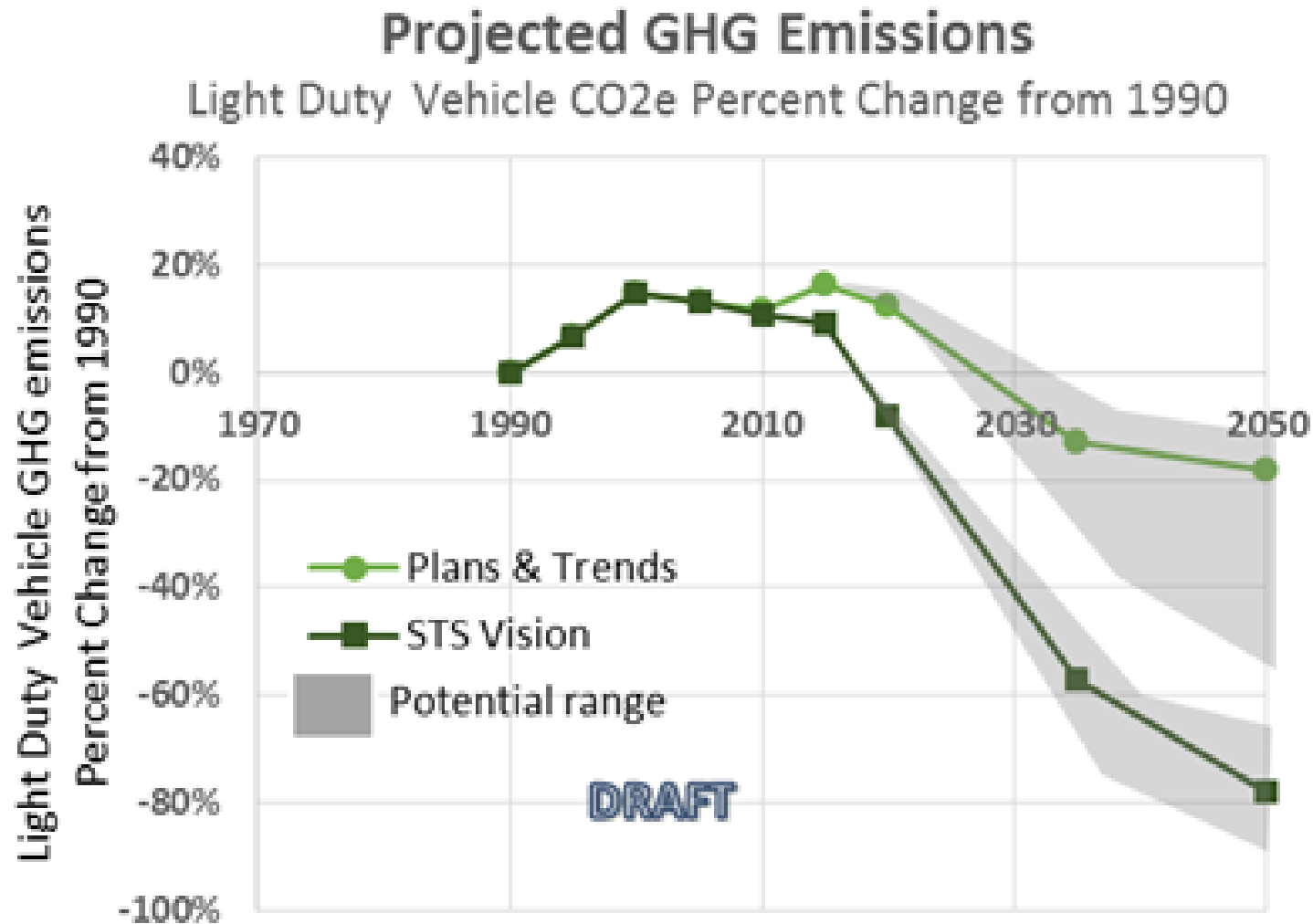
VisionEval / Regional Strategic Planning Model

Many factors with many uncertainties affect travel and the impacts of travel



VE-RSPM enables modeling of 100s – 1000s of scenarios and enables broad exploration of decision space and creation of decision support tools

Analyzing Uncertainty of Outcomes



Developing Decision Support Tools #1



Developing Decision Support Tools #2



Developing Decision Support Tools #3

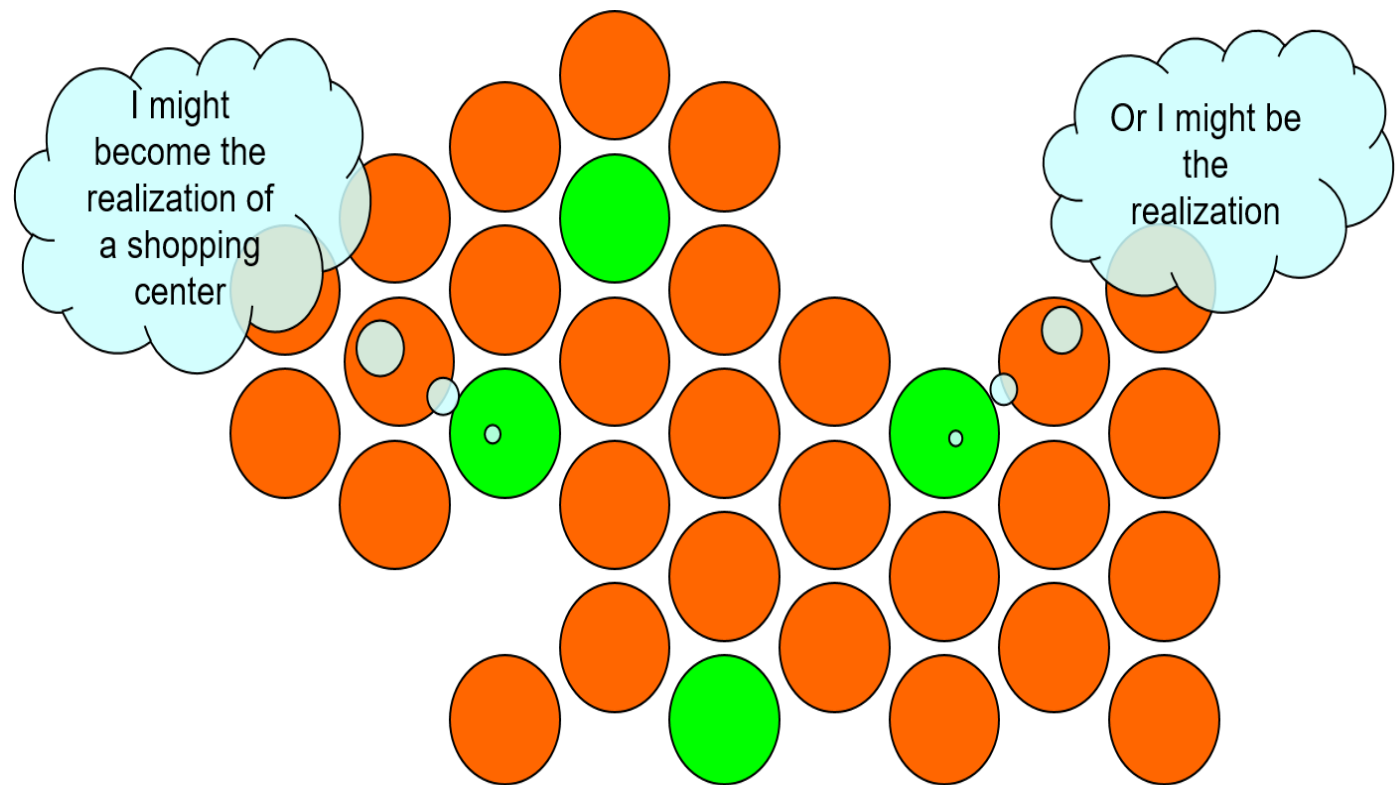


Land Use Scenario Developer

Develop Many Plausible Land Use Scenarios

- Monte Carlo simulations of individual households, employment establishments, and developments

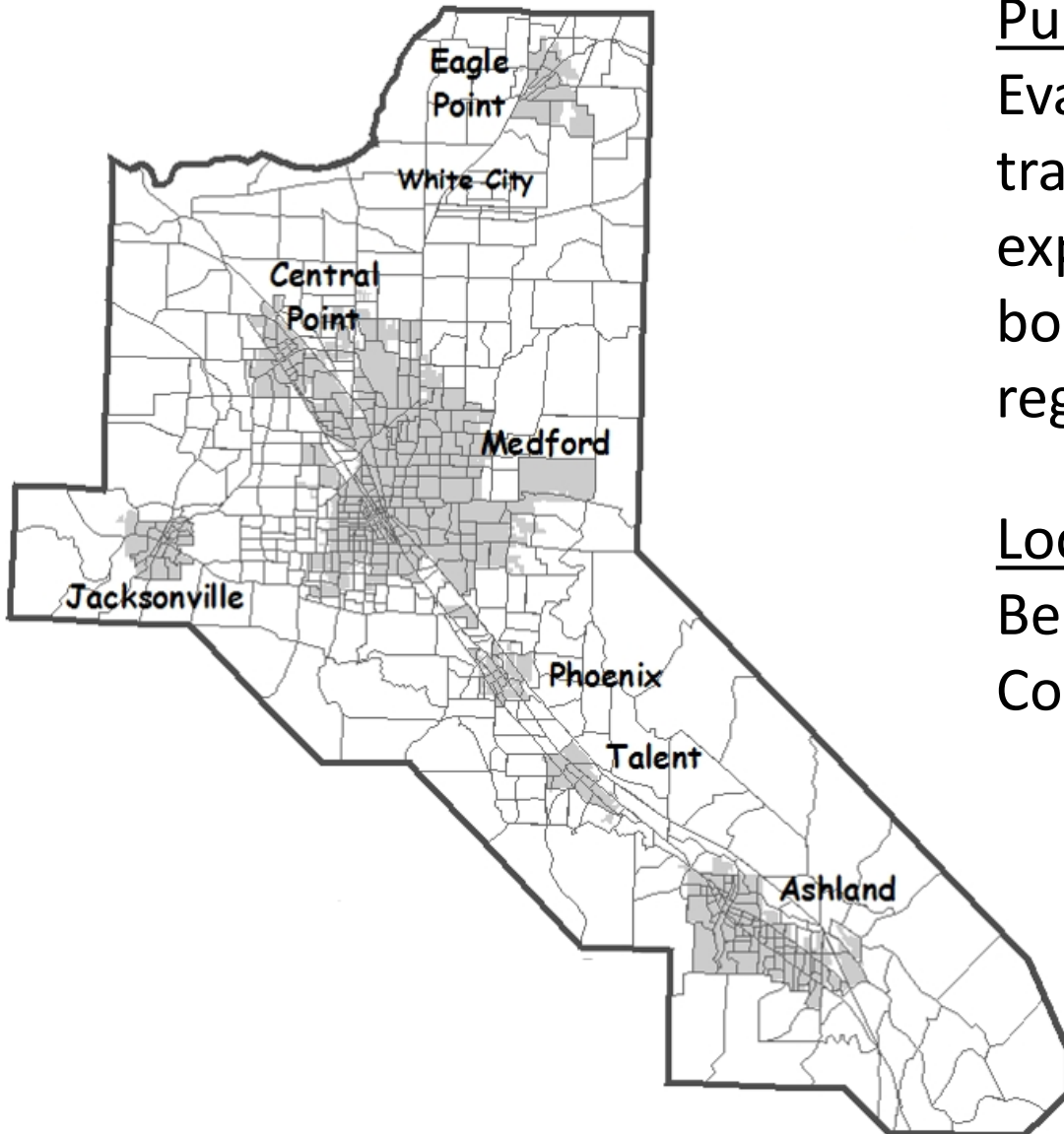
- Location modeling focuses on land development decisions



But shopping center employment won't be spread out over all zones meeting shopping center requirements



Study Purpose and Location



Purpose:

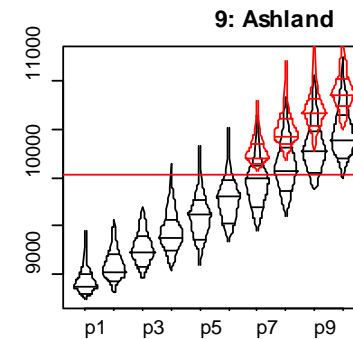
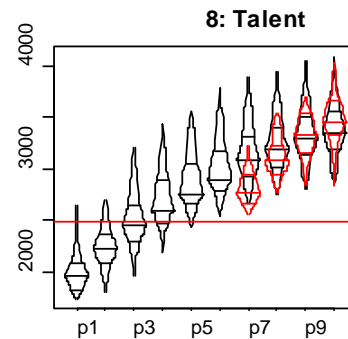
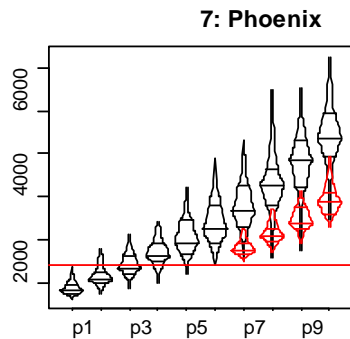
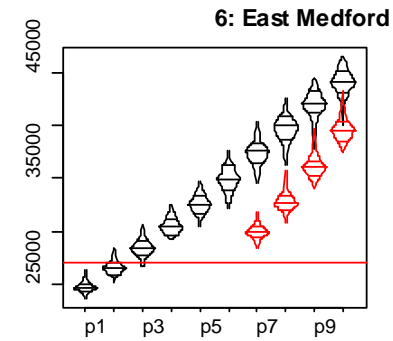
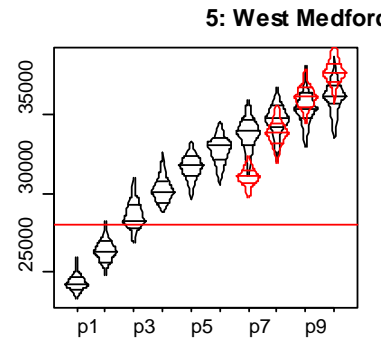
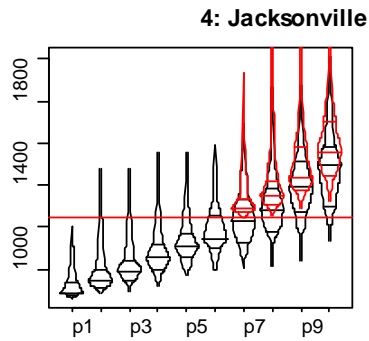
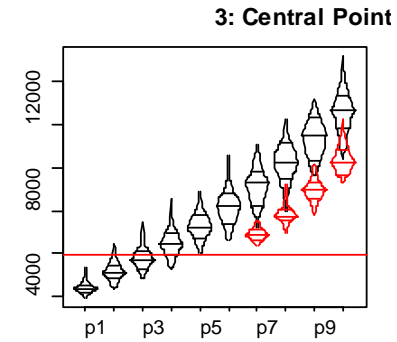
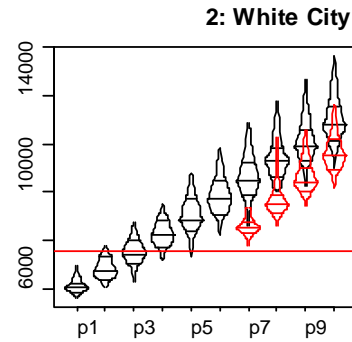
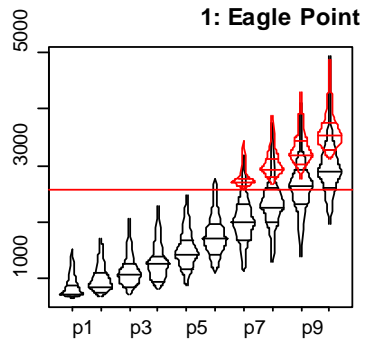
Evaluate the potential transportation impacts of expanding urban growth boundaries of cities in the region

Location:

Bear Creek Valley, Jackson County Oregon

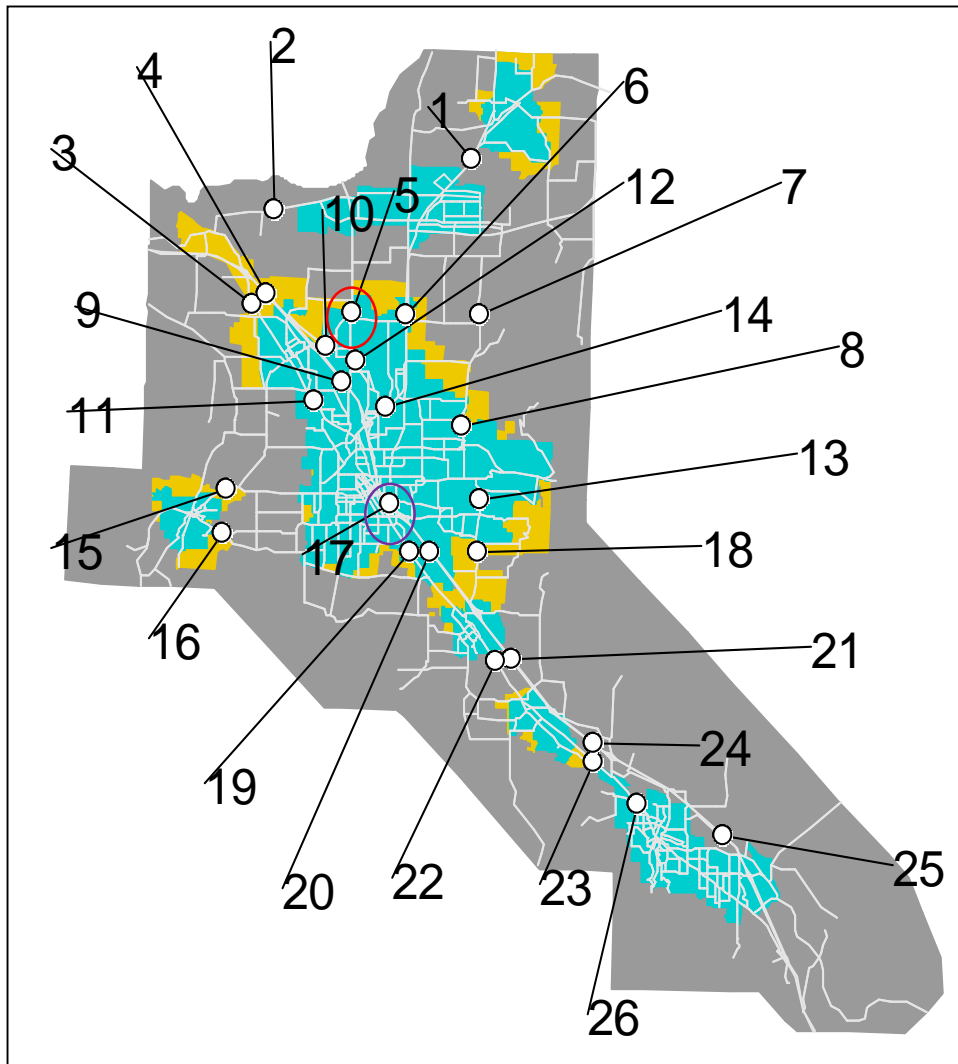
Variation in Population Forecasts

Comparison of Employment for Runs Starting at t
(horizontal red line = 2030 base)

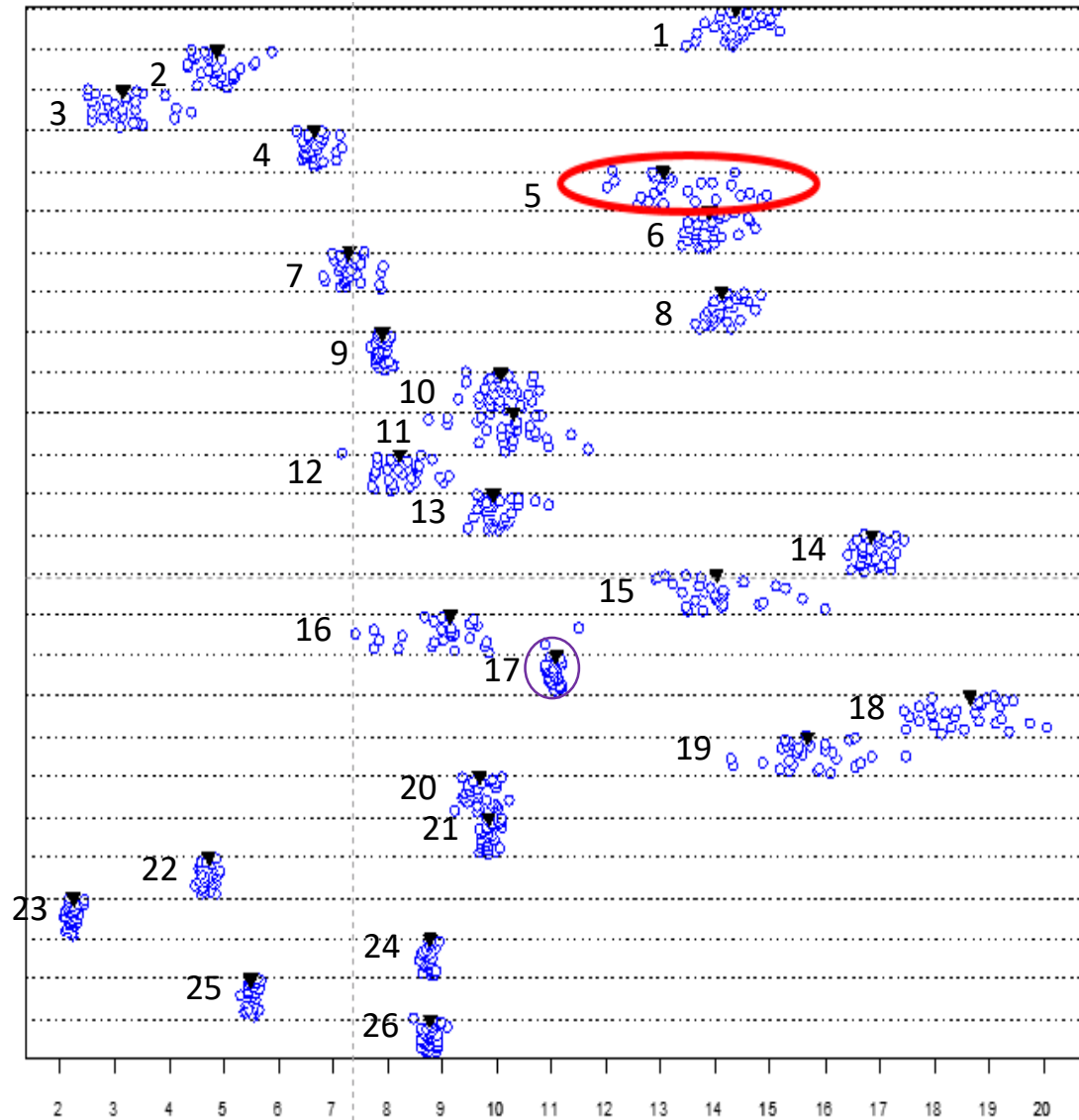


Variation in Traffic Forecasts

Traffic Monitoring Locations

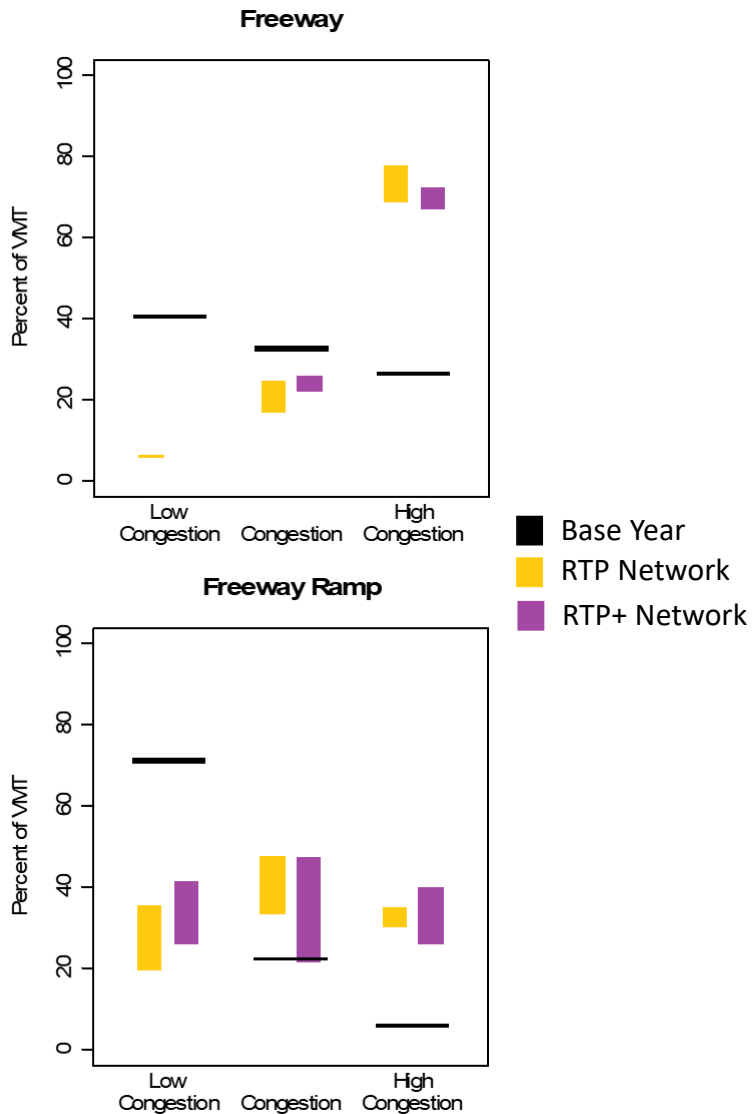


Ratio of ADT to Hourly Capacity

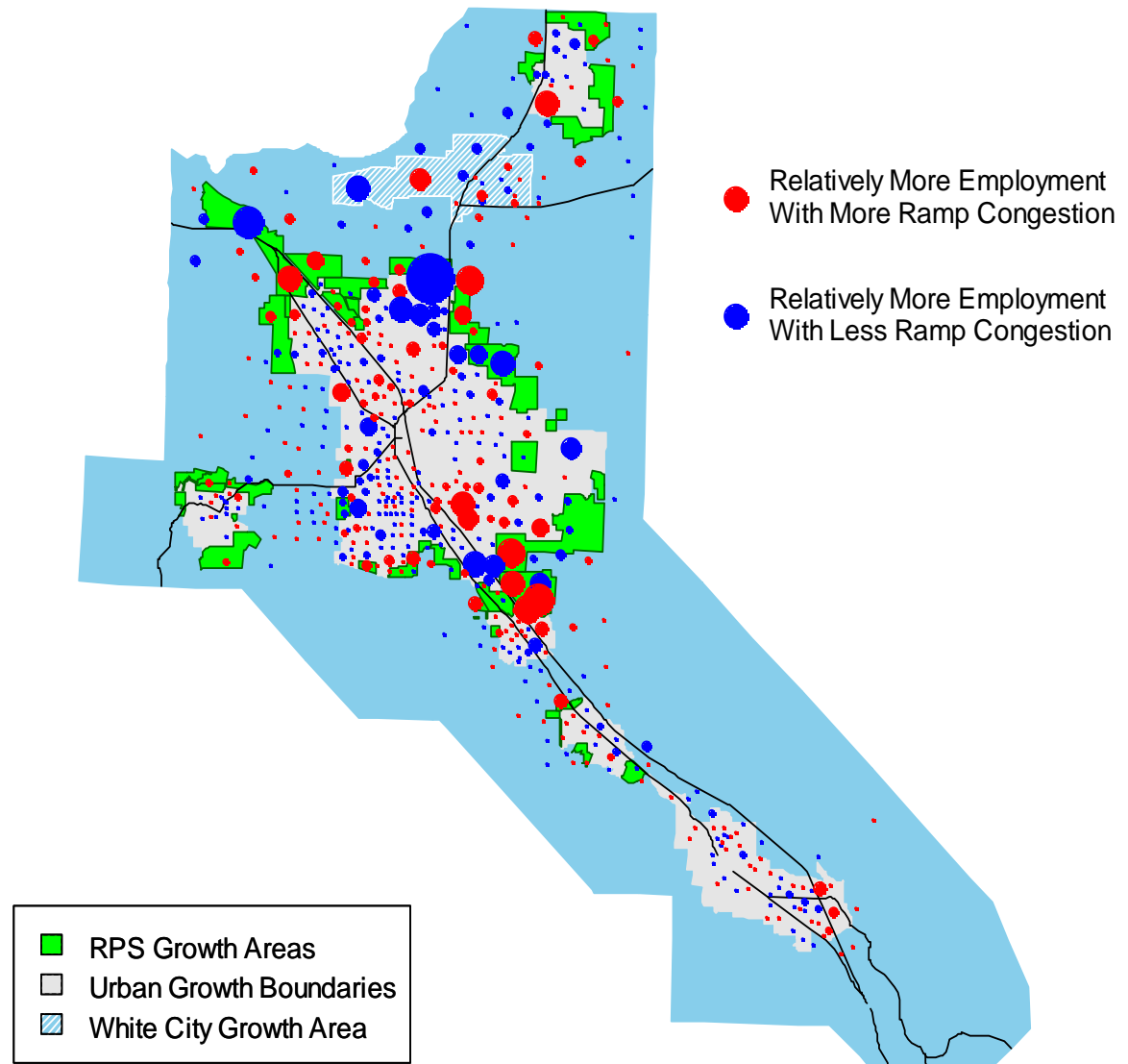


Identify Potential Land Use Planning Issues

Variation in Freeway and Ramp Congestion



Where Employment Growth is Associated with More Ramp Congestion



For more information ...

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<https://github.com/gregorbj>

<https://gregorbj.github.io/RSPM-Viewer/>

VisionEval

<http://visioneval.org/>