



# **SEMCOG Regional Development Forecast Model**

*UrbanSim User Conference  
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- The background of the slide is a dark blue gradient with a faint, semi-transparent map of the Southeastern United States, including Florida, Georgia, and Alabama, overlaid on the right side.
- **Part I. Region development pattern and model improvements**
    - The today, past and future of the region
    - Model improvements
  - **Part II. Input developments:**
    - Database design
    - Data Imputation

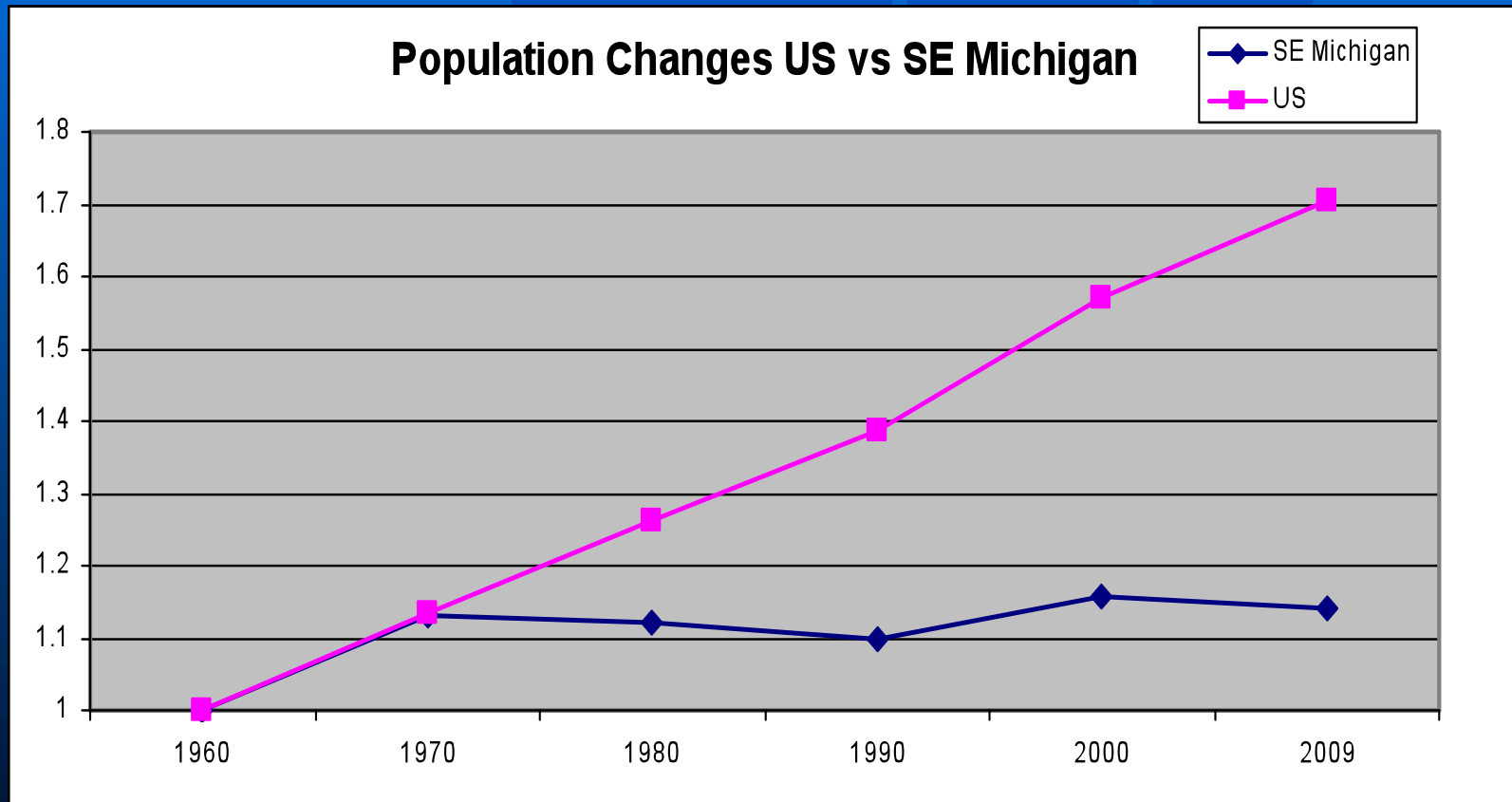
## Part I. Region development pattern and model improvements

### Southeast Michigan

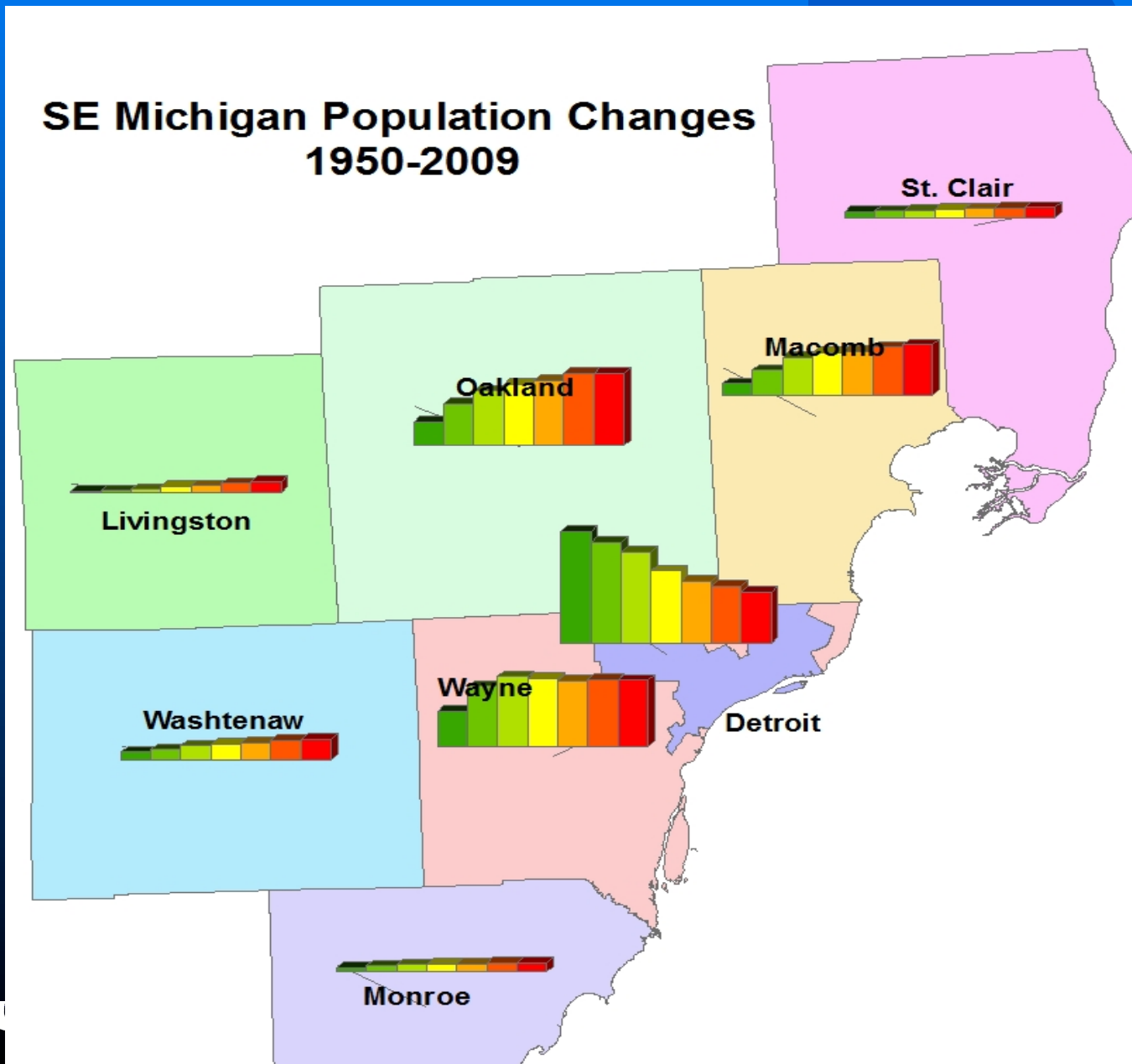


2008	Statistics
Population	4,775,765
Households	1,791,378
Jobs	2,681,819
Parcels	1,844,917

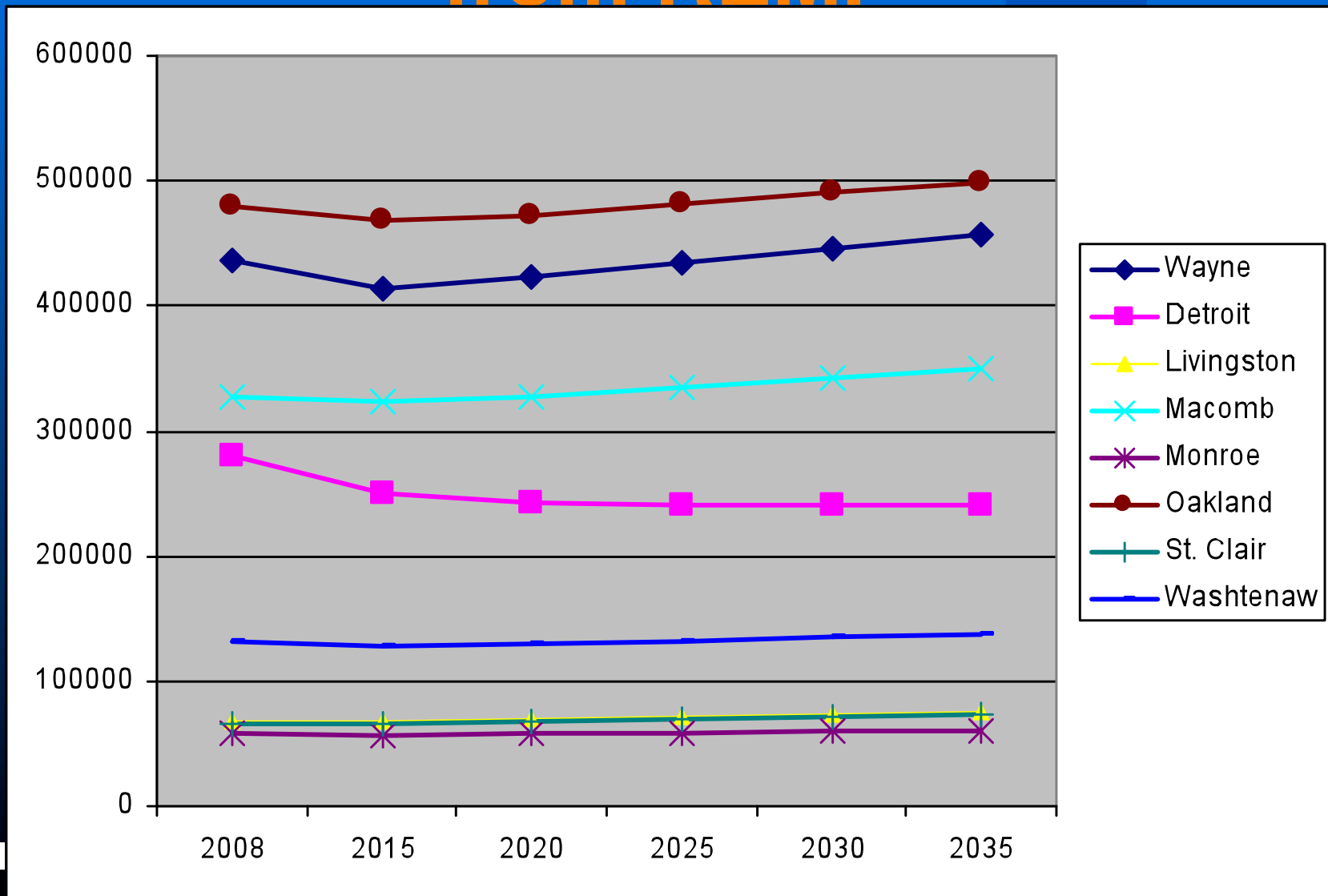
# Development History: A region of slow growth and decline



# Development history: internal differences



# Future: Forecast by large area from REMI



# Unique situation of the region

- Temporal changes of development curves and differences between large areas
  - How to capture the trend
- Decline in near future
  - Job loss in the manner of events
  - Increased spatial variation: vacancy rates

# Modeling for SE Michigan

## Model improvements

- Large area control
  - Temporal changes
  - Incorporate economic forecast results at county level
  - Better output controls for scenarios
- Job event model:
  - Job removal/increase in the manner of events
  - Events with specific time, location and scale information

# Modeling for SE Michigan



- Location specific controls
  - Target vacancy rates by city or TAZ
- Renovation model
  - Building renovations
- The importance of scenarios
  - Baseline, high and low



**Thank you!**