



Presented to TTAC  
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# HAMPTON ROADS 2045

## Socioeconomic Forecast

# Why do the forecast

- Serves as input data for the HRTPO 2045 Long-Range Transportation Plan
- Provides an impartial and consistent set of socioeconomic projections that can assist organizations when planning for the region's future

# What is included in the forecast

- Population
- Employment by place of residence
- Employment by place of work
  - Retail
  - Industrial
  - Office
  - Other
- Households
- Passenger Vehicle Registrations

# Forecast Process

## Regional Control Totals

1. Literature Review of Forecasting Techniques
2. Review Best Practices
3. Begin Data Collection
  - Raw Data
  - Input from Localities
  - Research Assumptions
  - Model Inputs
4. Produce Draft Control Totals
5. Produce Draft Jurisdiction Totals
6. Review Draft with Planning Staff/LRTP Subcommittee
7. Present Control Totals for Approval

# Forecast Methodologies

## Literature Review & Best Practices

### Techniques

- Extrapolation
- Ratio
- Cohort
- Structural
- Scenario Based

### Best Practices

- Diverse methodologies
- Iterative process
- Top Down / Bottom Up
- Dynamic / Structural

# Forecast Methodology

## Data Collection and Modeling

### Raw Data

- U.S. Census Bureau
- Bureau of Economic Analysis
- Bureau of Labor Statistics
- Virginia Employment Commission
- Internal Revenue Service
- Professional Literature & Resources
- Alternative Forecast Methods
  - Woods & Poole
  - Weldon Cooper Center
- **Information from Localities**

# Forecast Methodology

## Modeling

### What is REMI?

**Regional Economic Models, Inc**

REMI is one of the most advanced and sophisticated dynamic forecasting and policy analysis tools available on the market, widely recognized for quality, accuracy and integrity.

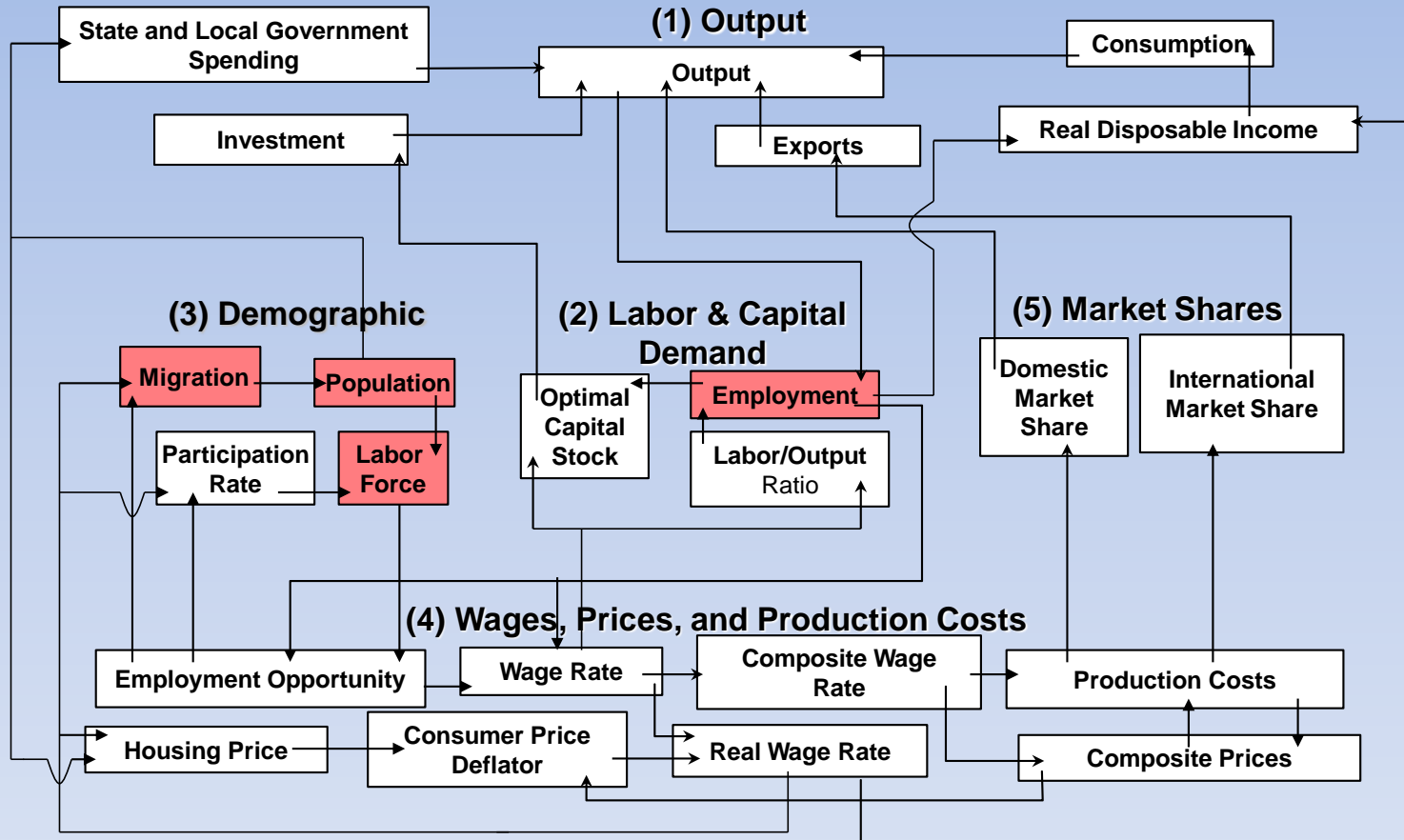
The model contains 169 unique industry sectors and over 700 policy variables to enable simulations that simultaneously forecast thousands of variables.

The Commission's REMI model was purchased in 2001 and is updated on an annual basis. National, state and local data are collected from a variety of sources and specifically calibrated for the Hampton Roads Region.

#### Major Data Sources Include:

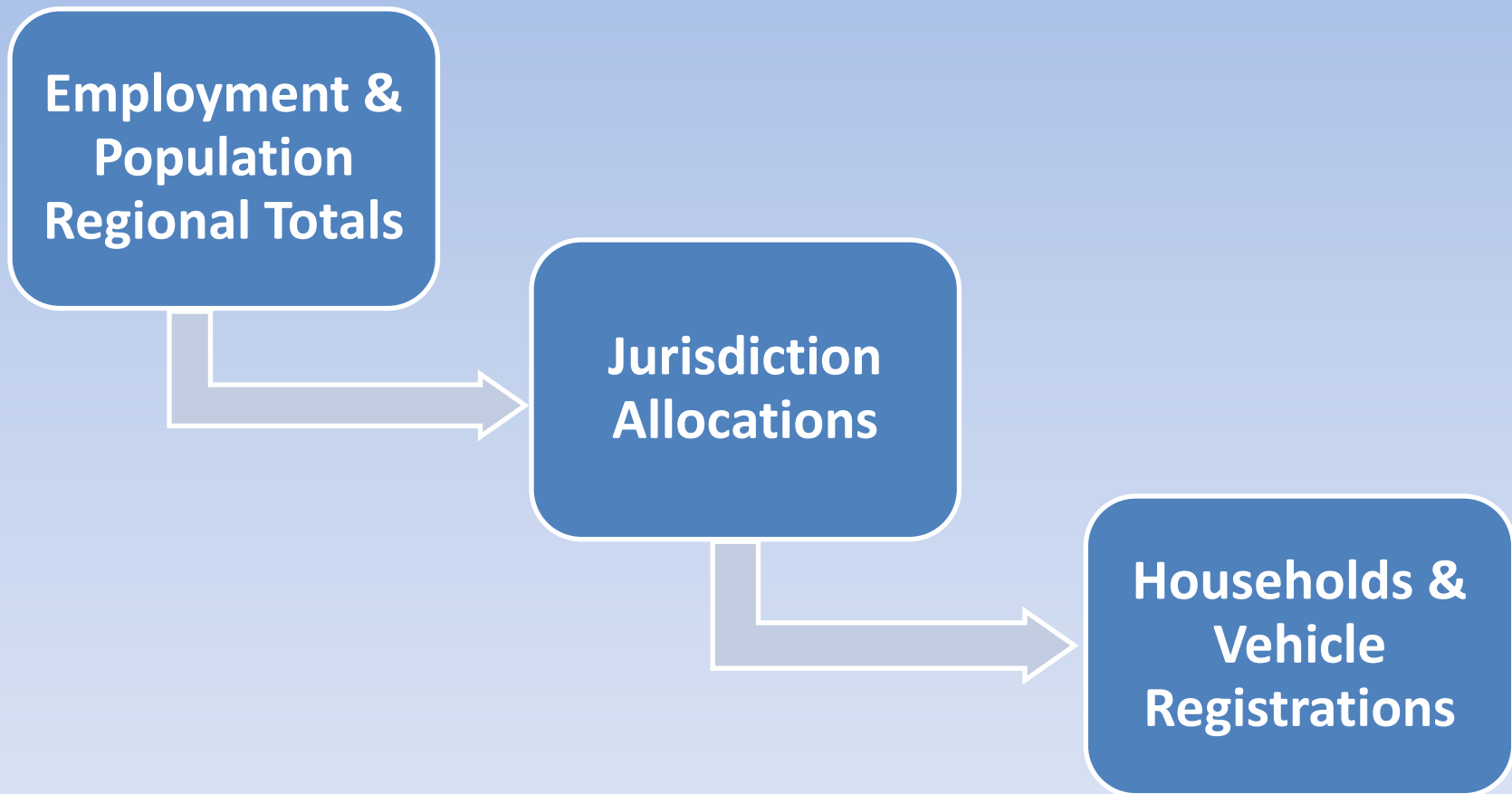
- Bureau of Economic Analysis
- Bureau of Labor Statistics
- Census
- Department of Defense
- Energy Information Administration
- Center for Disease Control
- County Business Patterns
- Research Seminar in Quantitative Economics

# REMI Model Structure





# Forecast Methodology



# Forecast Methodology

## Data Collection and Modeling

# ASSUMPTIONS

- Technology
- Employment trends
- Household trends
- Vehicles per household
- Population density
- Migration
- Labor force participation
- Commuting patterns
- Federal, State, and Local Policy
- Planning and zoning
- Energy prices
- Natural Increase
- Persons per household
- Land Availability
- Transportation Modes and Costs
- Sea-level rise

# Two-Step Process

- Step 1 - HRTPO
  - Regional Control Totals
  - Jurisdiction Assignments
  - Board Approval
- Step 2 - Local Staff & HRTPO
  - Allocation of jurisdictional data to the TAZ level

# Questions/Discussion

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