

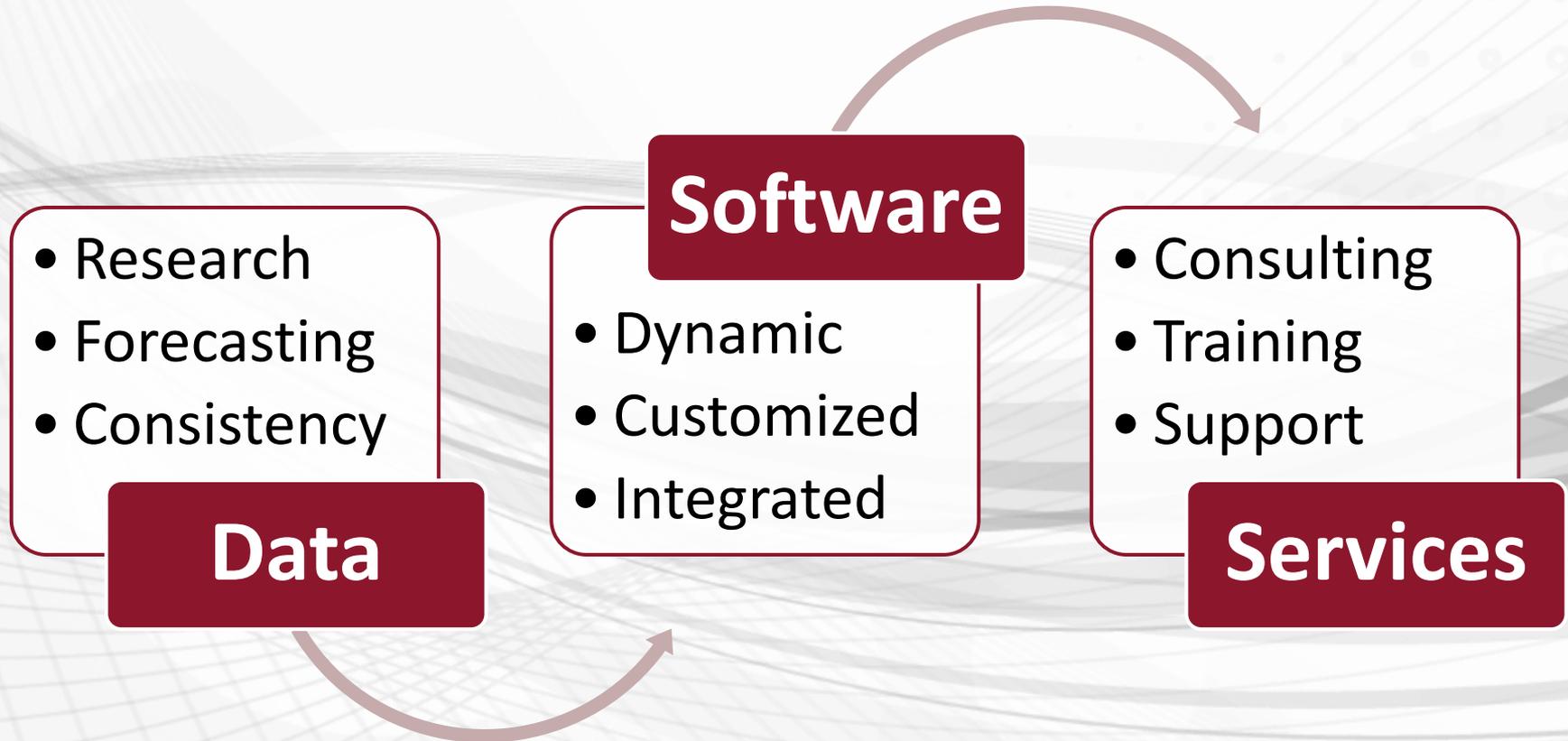


# INTRODUCTION TO REMI POLICY ANALYSIS

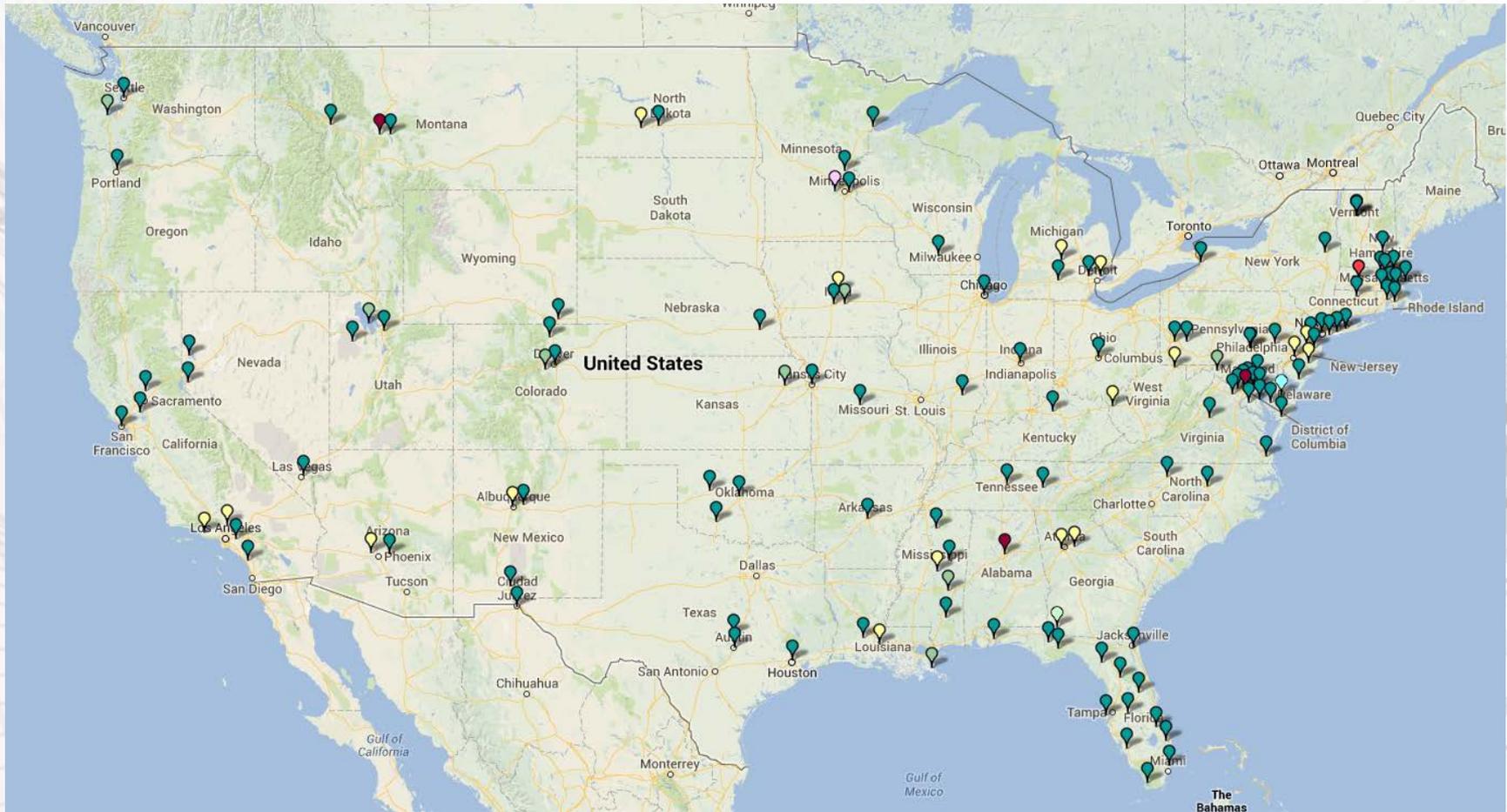
what does **REMI** say? <sup>sm</sup>

**Bismarck, ND – December 1, 2015**

# About



# Clients



what does **REMI** say? *sm*

# REMI in States



## Tax-PI

- UC Boulder
- Mississippi Institutions of Higher Learning
- Iowa Dept of Revenue
- Illinois Dept of Revenue
- Washington Joint Legislative Audit and Review Committee
- Florida Office of Economic and Demographic Research
- Texas Legislative Budget Board
- Vermont Legislative Joint Fiscal
- Kansas Department of Revenue

## PI+

- Iowa Legislative Services
- Arizona Joint Legislative Budget Board
- California Department of Finance
- Oregon Legislative Revenue Office
- Nebraska Dept of Revenue
- Wyoming Dept of Administration
- Massachusetts Dept of Revenue
- Utah Legislative Fiscal Analysts Office
- Louisiana Dept of Administration

# Users



## State and Local Governments

- Montana Department of Commerce (DOC)
- Southern California Association of Governments (SCAG)

Economic and demographic forecast for 56 counties  
Impact of the \$500 billion long-range transportation plan

## Federal Agencies

- Sandia National Laboratory (SNL)
- U.S. Army Corps of Engineers (USACE)

Integration of REMI with energy and financial models  
Environmental impact of closing Chicago River freight locks

## International

- Alberta Enterprise and Advanced Education
- Korean Energy Economics Institute (KEEI)

Supply chain implications for oil and gas developments  
Development and energy policy for the 10 provinces

## Consultants

- Booz Allen Hamilton
- Cambridge Systematics

Impacts of new technology on macroeconomic growth  
Tolling options for Interstate-95 in North Carolina

## Academic Institutions

- Florida State University (FSU)
- University of Michigan

Contribution of university system to Florida's economy  
Budget planning and tax credit analysis for Lansing

## Non-Profits and Research Groups

- National Federation of Independent Business (NFIB)
- Third Way

Healthcare reform and tax credits for small businesses  
State-by-state impact of the "fiscal cliff" and sequestration

# Integrated Model



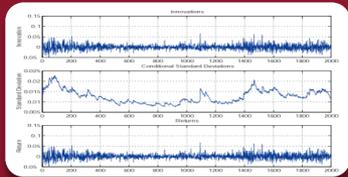
## Input-Output (IO) Tabulation

- Industry-to-industry transactions and social accounting matrices
- Supply chains, regional purchase concepts, and multipliers



## Computable General Equilibrium (CGE)

- Long-term effects after markets “clear” back to an equilibrium
- Dynamic adjustments to population, fuel mixtures, market shares, etc.



## Econometrics

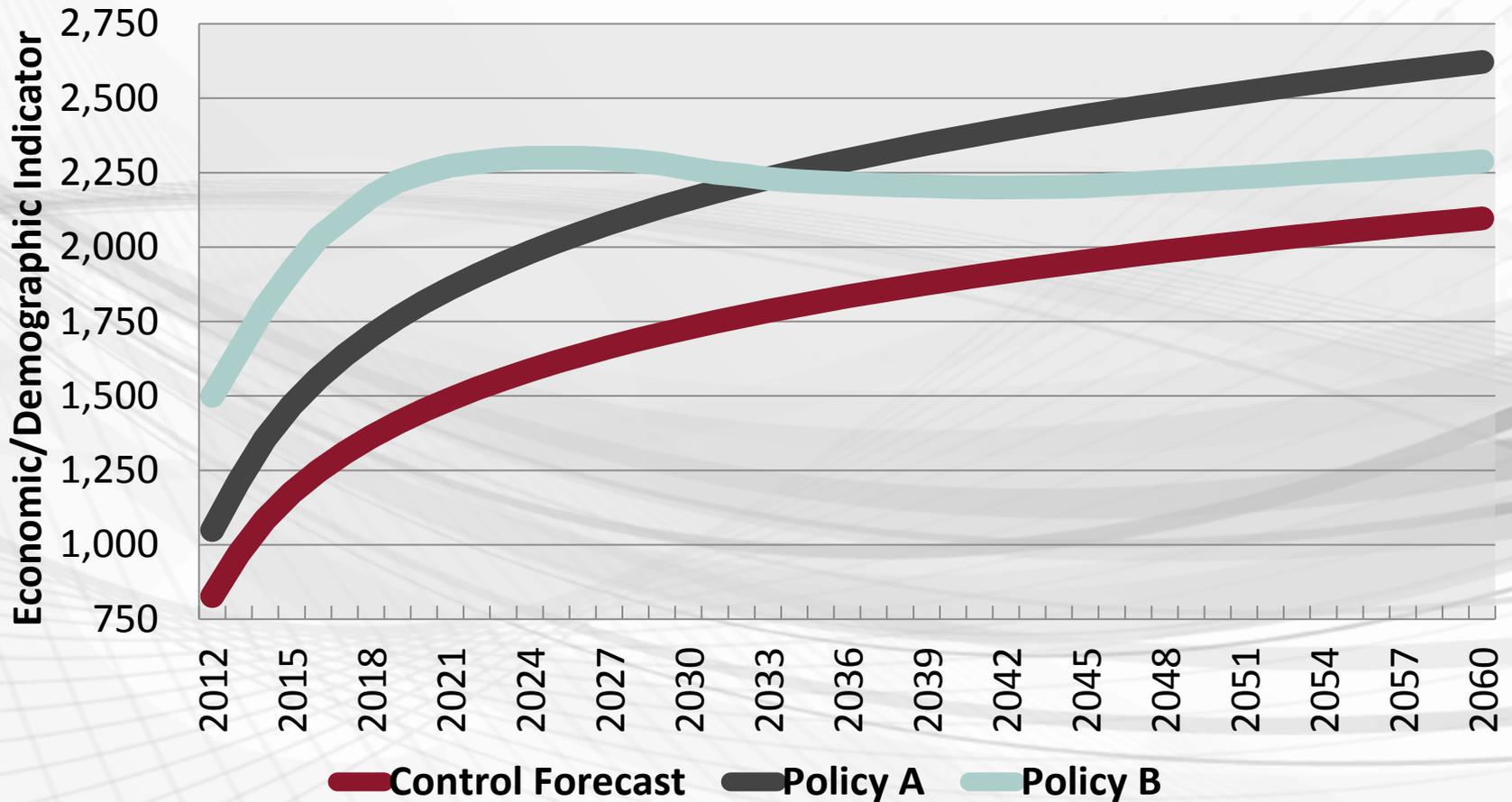
- Estimation of statistical parameters from historical data
- Strength of responses, elasticities, preferences, and “time lags”

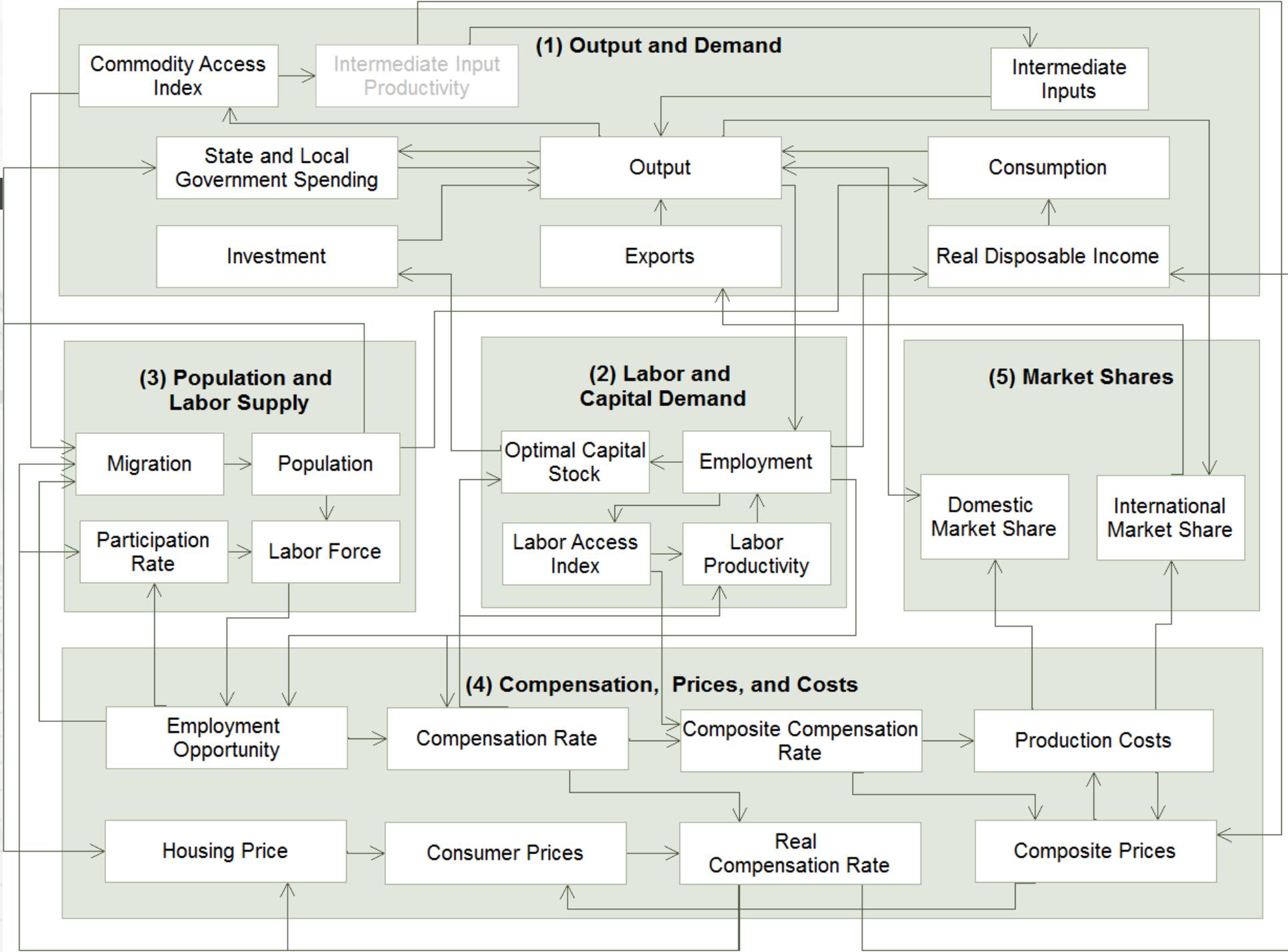


## New Economic Geography (NEG)

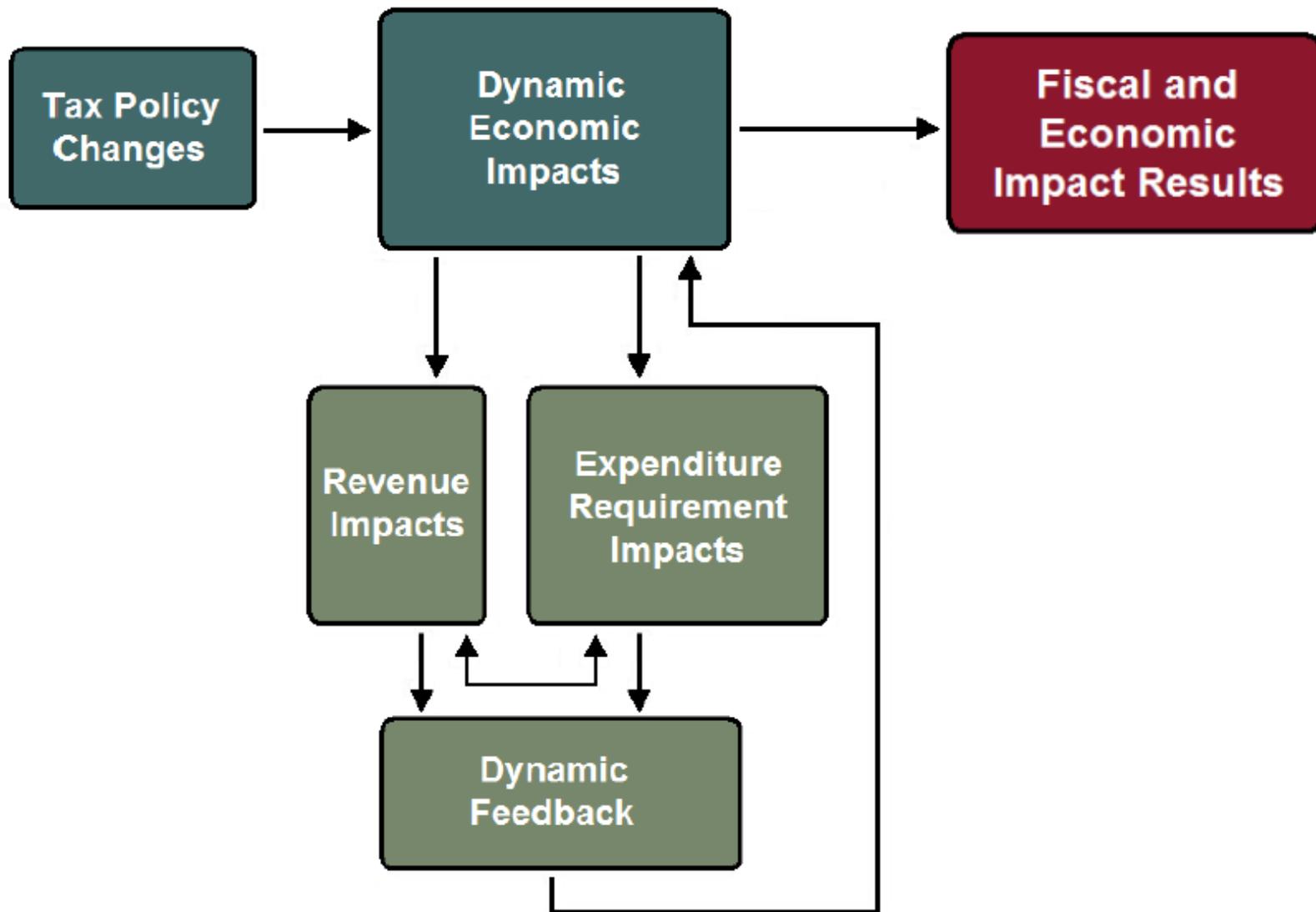
- Endogenous productivity adjustments from industry/labor clustering
- Full trade flows by industry and interregional competitiveness

# Framework





# Tax-PI Model Structure Overview



# Tax-PI Framework



- We work with you to calibrate
- Customized state budget
  - Revenue
  - Expenditures
- Specify how the model balances
  - Demand Driven
  - Revenue Driven
- Customizable state spending categories

# Tax-PI and Public Policy



- Change in Tax Policy
- Evaluating Tax Expenditures
- Dynamic Fiscal Notes

# Film Tax Credit Example



- Input variables (this is just a small sample):
  - Project budgets
    - Salaries – “above the line” (writers, producers, directors, actors) and “below the line” (set designers, makeup artists, cameramen, etc.)
    - Supplies purchased
    - Travel and lodging expenses
    - Per diem spending by people involved in the project
  - Amount of credit
  - Royalty payments after the fact
  - User specifies which projects attributable to the credit

# Film Tax Credit Example



- Outputs (not a comprehensive list):
  - Dynamic revenue effect
  - Jobs created during the project (by occupation)
  - Jobs retained after the project
  - Increase in GSP, value-added, personal incomes, etc.
  - In-migration to the state
  - Development of film industry supply chains in-state, versus imported from elsewhere
  - Short vs. long-term effects (REMI simulation results are year-to-year and projected to 2060)