# INCENTIVIZED ECONOMIC DEVELOPMENT PROGRAM REVIEW - BEST PRACTICES

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*what does REMI say? sm*

# Current Landscape

- Commonly tax incentives and subsidies for:
  - Individual companies
  - Entire Industry
- $100 billion annually in federal incentives (CATO Institute)
- $80 billion annually from states, counties and cities (New York Times)
- Programs are on the expenditure side as well
  - Manufacturing Assistance Programs
  - Employee Training Programs

# Recent Examples of Incentives

- Just this past year:
  - Amazon received $750 million
  - Toyota-Mazda received $900 million
  - Ford received $234 million
  - Facebook received $150 million



# Why states offering these incentives?

- States are competing for these companies to locate in their region
- These companies contribute directly:
  - Employment
  - Industry Output
  - State Revenue
- Generate increased economic and business activity, with ripple effects to other industries and consumption

# “But For” Sensitivity Analysis

- One of the largest criticisms of incentives is that a company would have undertaken a project without the incentive (Trent, 2019)
- Example:
  - New York Times report on Professor Nathan Jensen’s study of the Texas Chapter 313 incentive program
    - “85 to 90 percent of the projects benefiting from such incentives would have gone forward without them” (Porter, 2018)
  - Based on a review of nationwide “but for” percentages, the Upjohn Institute found at least 75 percent of firms would have made similar decisions without the incentive (Bartik, 2018)
- Important for states to include a “but for” sensitivity test

# Greater Evaluation of Incentive Programs

- Incentives have traditionally been more permanent, facing little scrutiny or modification, but recently:
  - 13 states passed legislation requiring regular evaluations of incentive programs in 2015 and 2016

**Why?**

1. To assure goals are being reached
2. To avoid wasteful spending

# Steps for Effective Evaluation (PEW Trusts)

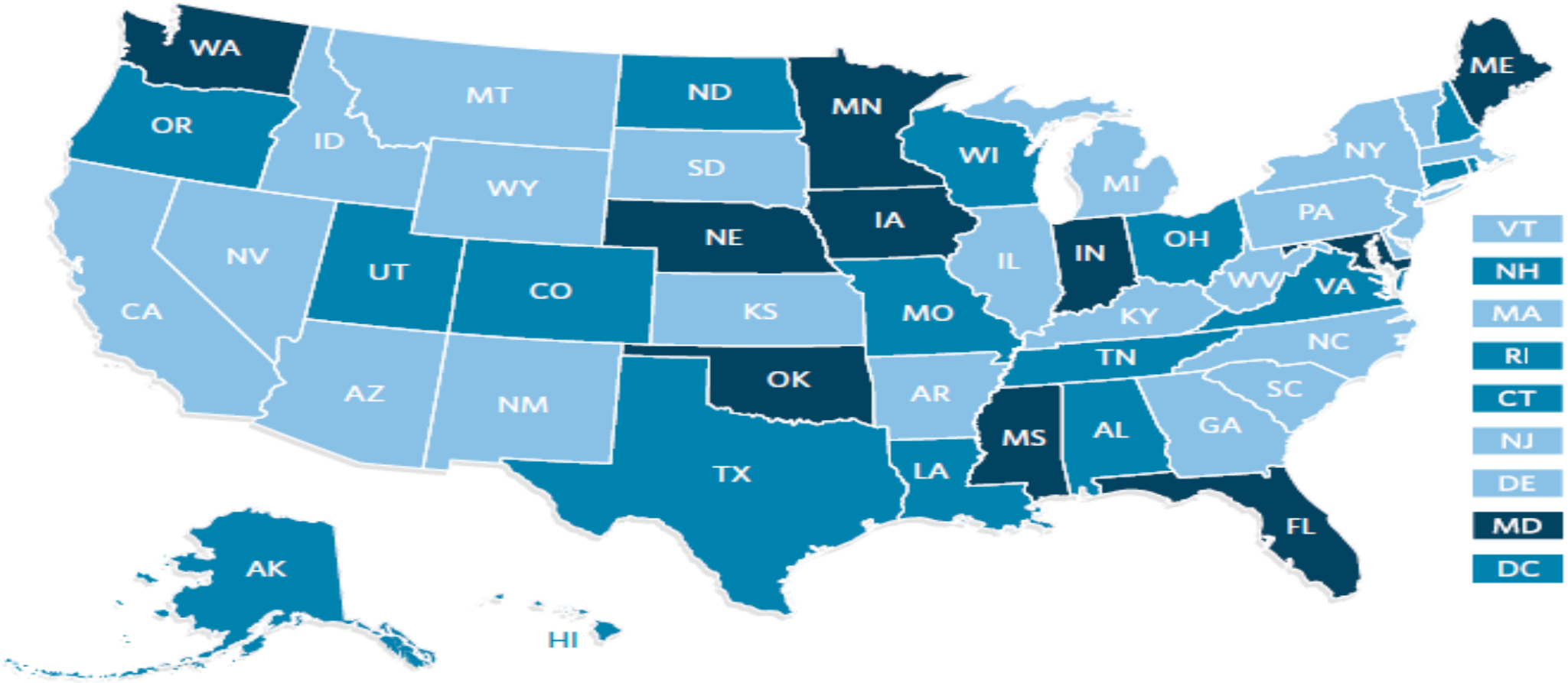
1. Make a Plan
   - Comprehensive portfolio of state incentives
   - Cycle schedule for evaluation
   - Related evaluators with relevant data available
2. Measure the Impact
   - Changes in business behavior
   - Economic Trade-offs
   - Indirect effects
   - Are goals being achieved
3. Inform policy choices and have transparency in findings
   - Mandate Legislative Hearings
   - Incentive Expiration dates to ensure review
   - Communicate findings to agencies and allow modifications

**4 steps states can take for effective evaluations**

- **Inform policy choices** — Build evaluation of incentives into policy and budget deliberations to ensure lawmakers use the results
- **Include all major tax incentives** — Establish a strategic and ongoing schedule to review all tax incentives for economic development.
- **Measure economic impact** — Ask and answer the right questions using good data and analysis
- **Draw clear conclusions** — Determine whether tax incentives are achieving the state's goals

*Source: Pew Center on the States*

# State Tax Incentive Evaluation Ratings




**10** leading **18** making progress **23** trailing

Note: The leading states have well-designed plans to regularly evaluate tax incentives, experience in producing quality evaluations that rigorously measure economic impact, and a process for informing policy choices. The states that are making progress have made a plan by enacting a policy that requires regular evaluation of major tax incentives. The trailing states lack a well-designed plan to regularly evaluate major tax incentives.

Source: Pew analysis based on interviews with state officials and a review of tax incentive evaluations and evaluation statutes

# State Tax Incentive Evaluations Database

- Administered by the National Conference of State Legislatures (NCSL)
- Allows users to search for state evaluations by **topic, state, year, and type of incentive**
- Provides links to all available evaluation reports for each state
- URL: http://www.ncsl.org/research/fiscal-policy/state-tax-incentive-evaluations-database.aspx

# Best Practices: Minnesota

- PEW Ranking: “Leading”
- 2015 Incentive Evaluation Law
- Evaluator: Department of Employment and Economic Development (DEED)
  - Office of Legislative Auditor reviews DEED reports
  - One incentive to be studied each year by the Legislative Auditor

*Note: Special thanks to Neal Young, Economic Analysis Director, MN DEED*

# Evaluation of "exclusive incentives"

- Required to review and report best practices of company specific tax incentive programs
- Recent Examples:
  - Mayo Clinic
  - Mall of America
  - Minnesota Vikings
- To guide the legislature when creating future "exclusive incentives"

# DEED Business Incentives: ROI Analysis

Primary ROI indicator is increase in wages for Minnesota economy relative to cost of subsidies

1. Gather inputs for spreadsheet (primarily from program application materials)
2. Time horizon ranges, from 3-10 years, depending on program
3. Analysis is conducted in REMI
4. Bring total wages from REMI into spreadsheet to calculate the ROI

# Economic Impact Overview

- The so-called “ripple effect”
  - Direct Effect
    - The “pebble” that creates the “ripple”
    - The change that starts it all
    - In economist’s language, this effect is exogenous
  - Indirect Effect
    - Also called the supply chain effect
    - Determined by inter-industry linkages
  - Induced Effect
    - Also called the income effect
    - This is how the direct and indirect effects hit “main street”

# ROI Inputs and Outputs

- Inputs:
  - Jobs Created
  - Construction ($millions)
  - Equipment ($millions)
  - Infrastructure ($millions)
  - Total Payroll
  - Annual Payroll per Job
  - REMI Wage ($thousands)
  - Wage Bill Adjustment ($millions)
  - State Incentives $mil
  - Govt. Spending Offset $mil

- Outputs:
  - Stream of Wages and Salaries ($bil)
    - NPV ($bil)
  - Stream of Incentives Cost ($bil)
    - NPV ($bil)
  - ROI (Wage NPV/Cost NPV)

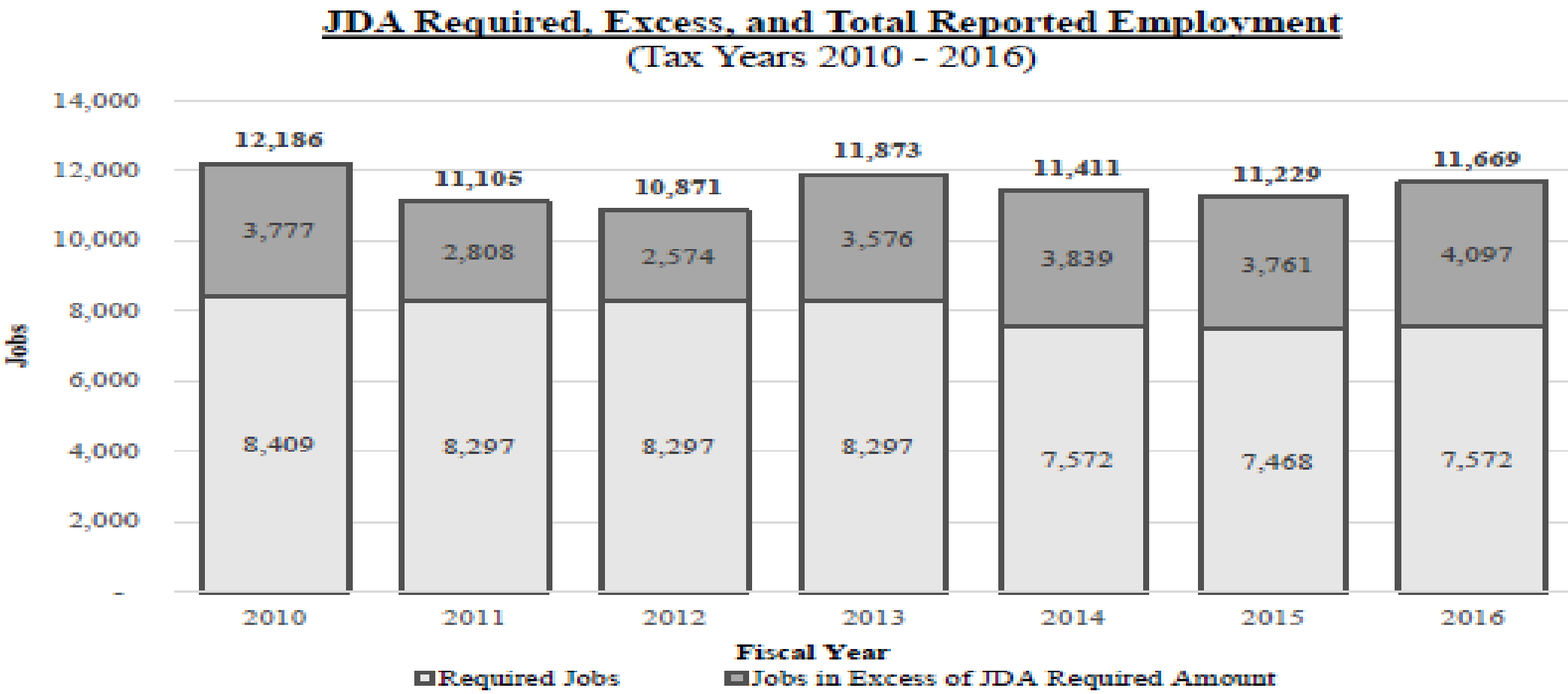
# Best Practices: Rhode Island

- In 2010, RI provided $75 million to video game start-up, 38 studios
  - The company collapsed in 2012, which left RI to pay the bondholders
  - Led to scaling back of incentives and call for evaluation legislation
- Incentive Evaluation Law enacted in 2013
  - Evaluation Schedule: 3 year cycle
  - Evaluator: Office of Revenue Analysis

# Job Development Act (JDA) Evaluation

- Business tax rate reduction of .20 percent for each new unit of employment
- Data from the Department of Taxation's credit recipients and publically available reports used to produce:
  - Rate reduction amounts
  - JDA required and excess employment amounts
  - Rate reductions per required employee
  - Past and projected revenue impacts

# JDA Employment




**Note**: Jobs defined according to Jobs Development Act "full-time equivalent active employee" counting methodology as specififed in R.I. Gen. Laws §42-64.5-2(7). The figues provided above each bar represent the total jobs (equal to the sum of required jobs and excess jobs) among firms for each fiscal year.

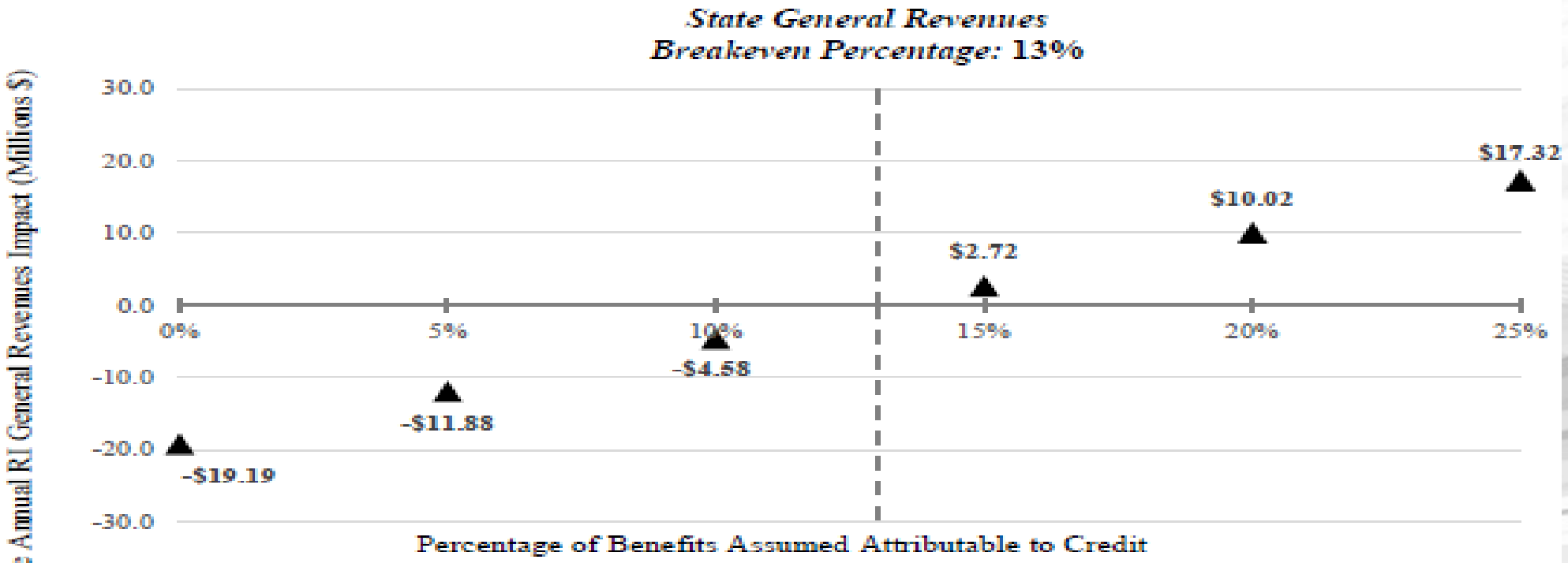
**Source**: Rhode Island Form 9261A as reported in annual *Unified Economic Development Reports* published by the Rhode Island Department of Revenue.

# Cost-Benefit Analysis with REMI

- Benefits modeled by inputting employment increases based on required employment from the JDA program
- Costs modeled by decreasing state government spending based on forgone revenue from rate reduction
- Conducted a "but-for" sensitivity analysis using a **breakeven approach**:
  - Percentage of the economic activity attributed to the JDA needed for costs to equal benefits
  - Percentage greater than breakeven indicates net positive benefits

# Revenue Impact Analysis

**Jobs Development Act:**
**Rhode Island General Revenue Breakeven Analysis**
(Average Annual RI General Revenue Impact, Calendar Years 2013-2015)




**Notes:** Label accompanying each ▲ marker refers to net Rhode Island general revenue impact resulting from a cost-benefit analysis assuming the labeled percentage of JDA benefits. General revenue impact is equal to the net revenue impact resulting from the direct, indirect, and induced effects in addition to the cost of paying back the cost of the tax credit. Note that the breakeven percentage is defined as the percent of benefits included in a cost-benefit analysis resulting in a net zero state Rhode Island general revenues impact.

**Source:** ORA calculations utilizing REMI PI+

# Revenue Impact Analysis

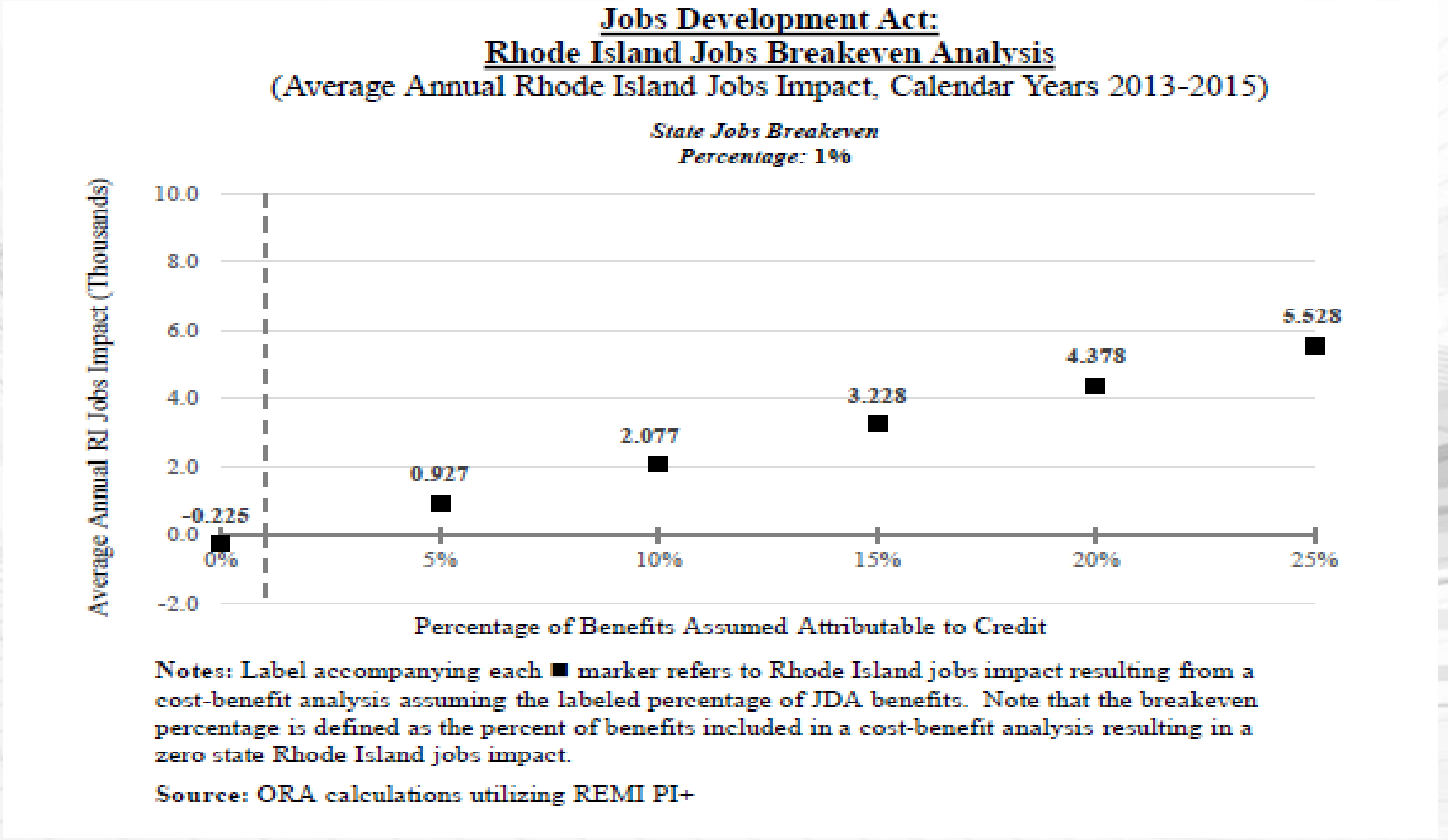
**Rhode Island Jobs Development Act:**
**Detailed Revenue Impacts**
(Average Annual RI General Revenue Impact, Calendar Years 2013-2015)

| Item Description | Amount |
|---|---|
| ***General Revenue Generated by Incentive by Component*** | |
| Personal Income Tax | $11,716,932 |
| Sales and Use Taxes | $11,469,931 |
| Other Taxes | $524,126 |
| Total Departmental Receipts | $3,615,506 |
| Other Sources | $3,990,293 |
| **Total General Revenue Generated by Incentive** | **$35,434,469** |
| **Forgone Revenue Due to Incentive** | **$(18,110,129)** |
| **Net Change in General Revenue, After Paying for Incentive** | **$17,324,341** |
| **New Revenues Generated for Every Dollar of Incentive** | **$1.96** |

**Note:** Revenue impacts assume that 25% of economic activity associated with the JDA program is attributable to the availability of the JDA.

**Source:** ORA calculations based on historical Rhode Island revenue amounts and REMI PI+ simulations.

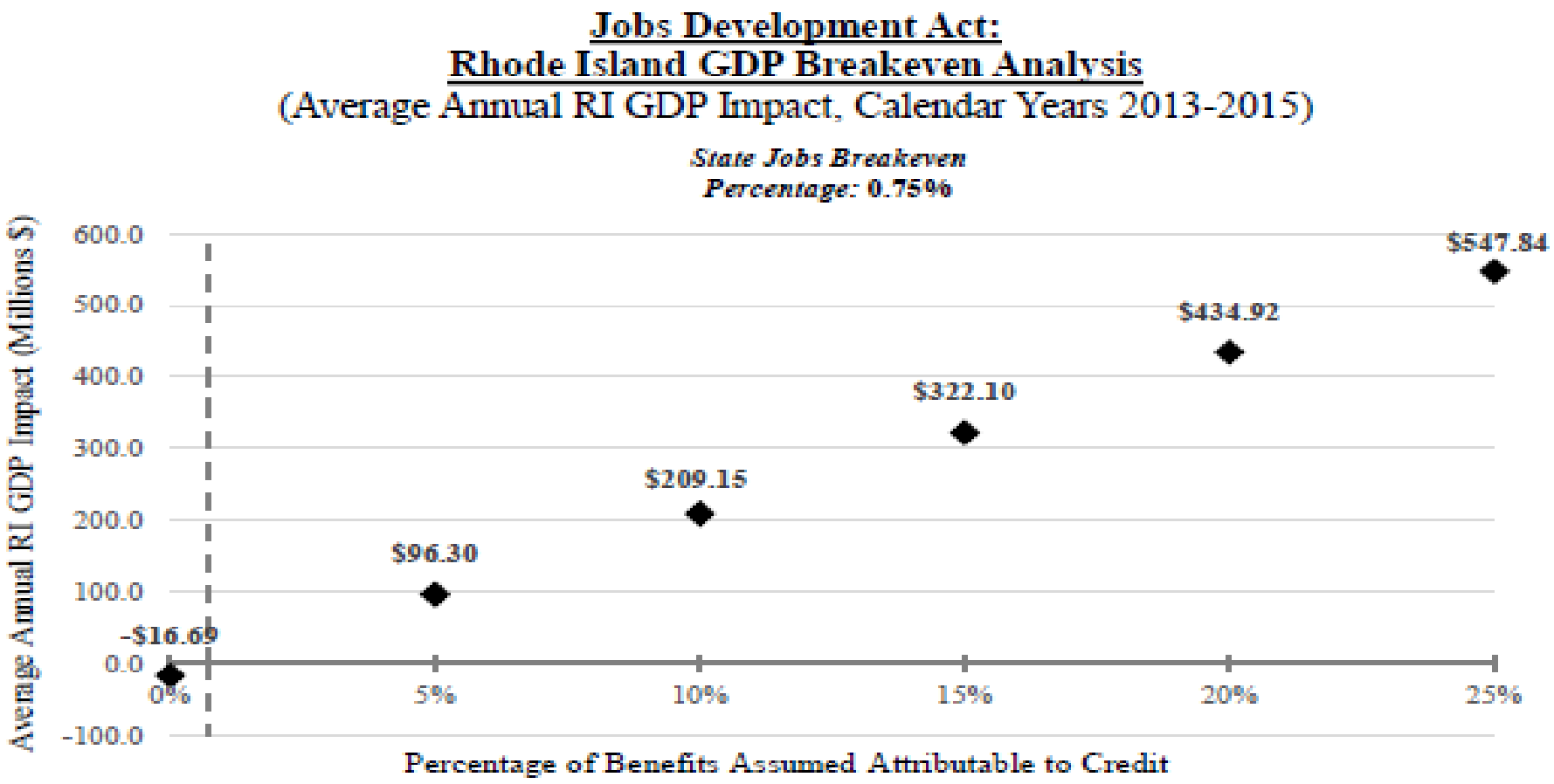
# Employment Impact Analysis




Notes: Label accompanying each ■ marker refers to Rhode Island jobs impact resulting from a cost-benefit analysis assuming the labeled percentage of JDA benefits. Note that the breakeven percentage is defined as the percent of benefits included in a cost-benefit analysis resulting in a zero state Rhode Island jobs impact.

Source: ORA calculations utilizing REMI PI+

# GDP Impact Analysis




**Notes:** Label accompanying each ◆ marker refers to RI GDP impact resulting from a cost-benefit analysis assuming the labeled percentage of JDA benefits. Note that the breakeven percentage is defined as the percent of benefits included in a cost-benefit analysis resulting in a zero state RI GDP impact.

**Source:** ORA calculations utilizing REMI PI+

# Example:
# Impact of Labor Force Training

The National-Level Economic Impact of the Manufacturing Extension Partnership (MEP) - W.E. Upjohn Institute for Employment Research, March 2017

| Forecast | Jobs | GDP | Output | Personal Income | Returns to Treasury | ROI Return on Investment |
|---|---|---|---|---|---|---|
| Unconstrained Model Using Industry Variables | 575,870 | $63.04* | $130.15* | $34.64* | $4.66* | 35.8:1 |
| Constrained Model Using Firm Variables | 142,381 | $15.40* | $29.89* | $8.44* | $1.13* | 8.7:1 |
| 11.5% Solution Using Firm Variables | 16,532 | $1.79* | $3.46* | $.98* | $.132* | 1:1 |

*Dollars in billions

Ran three different simulations in REMI to evaluate impacts on performance indicators. Sensitivity analysis provided: 1) best case scenario assuming no competition (unconstrained) net new growth; 2) constrained scenario assuming some crowding out would occur and 3) level of economic activity needed to breakeven.

# About REMI

**REMI's 39-year history of rigorous academic research and software development has led to the development of the the industry standard in macroeconomic research methodology:**

**Input-Output**

Close analysis of inter-industry relationships

**General Equilibrium**

Estimate of long-run stability of the economy allows for analysis of policy decisions

**Econometrics**

Advanced statistical analyses underpinning the model

**Economic Geography**

Effects of geographic concentration of labor and industry

**Integrated REMI economic modelling approach**

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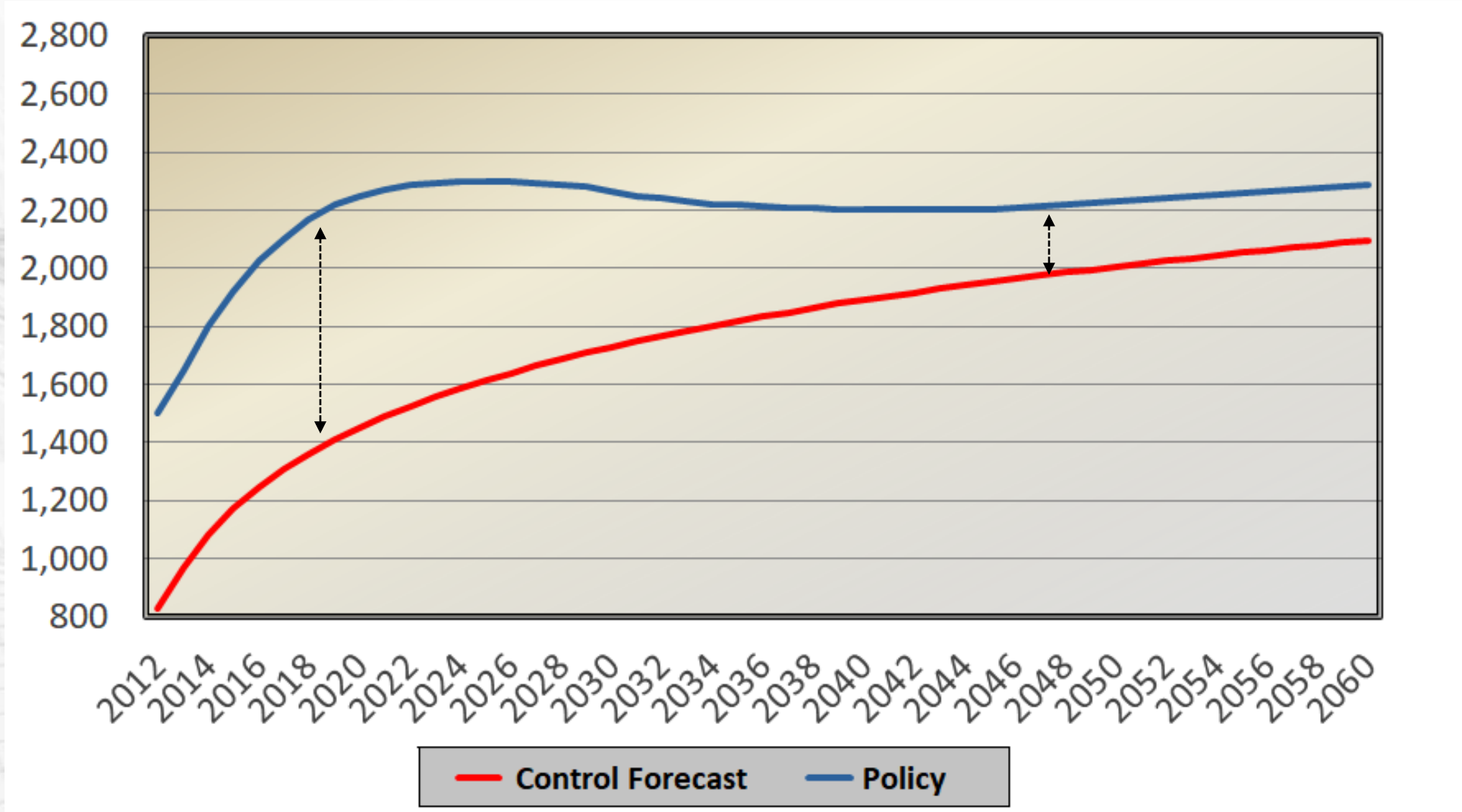
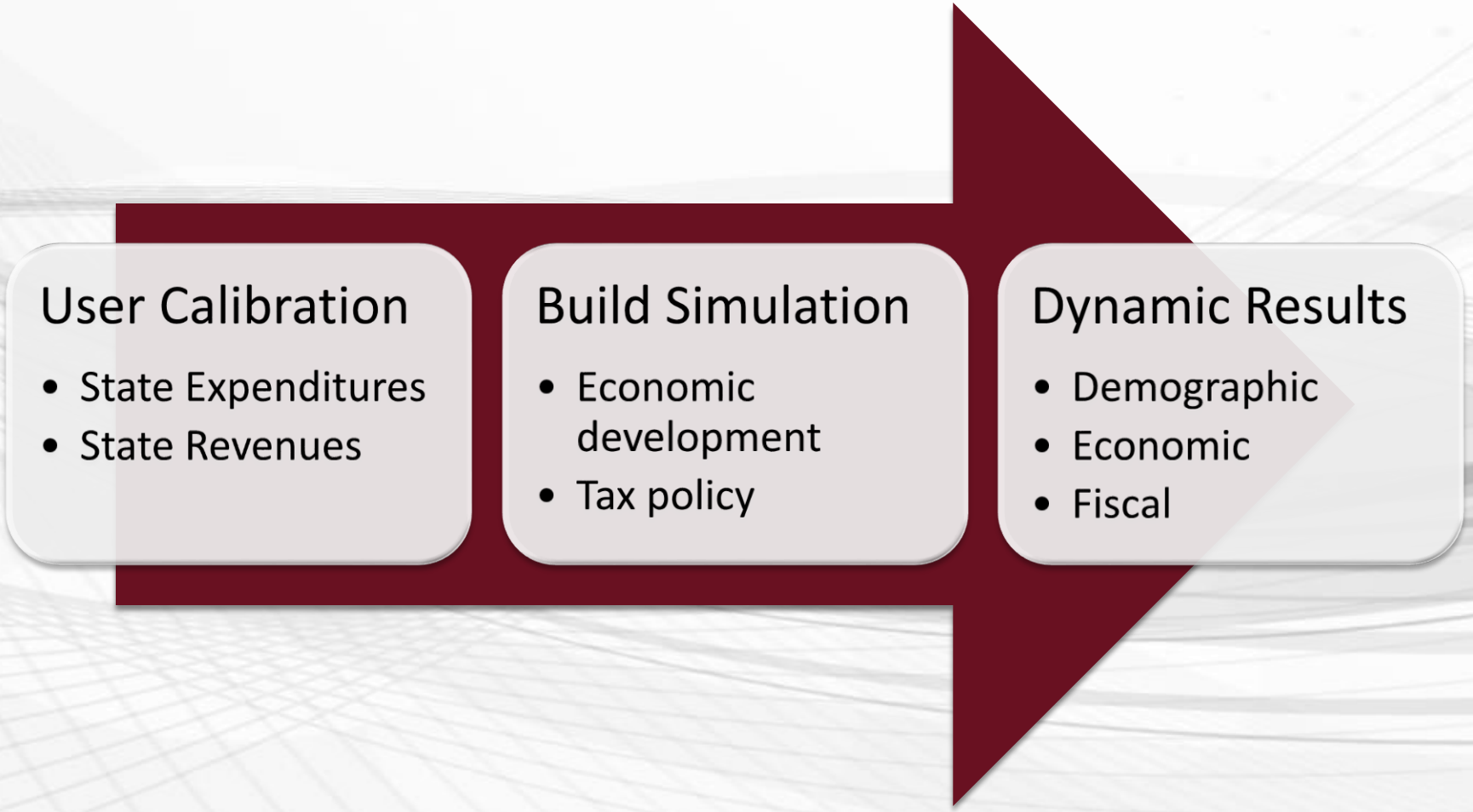
# Dynamic Modeling



# Modeling Process Review



# Model Demonstration