PRESENTATION TO BEGIN SHORTLY AFTER 2:00 PM EST

REMI 2.0 LAUNCH SERIES

SOLUTIONS-BASED ANALYSIS: MODELING POLICY USING REMI

what does REMI say? sm

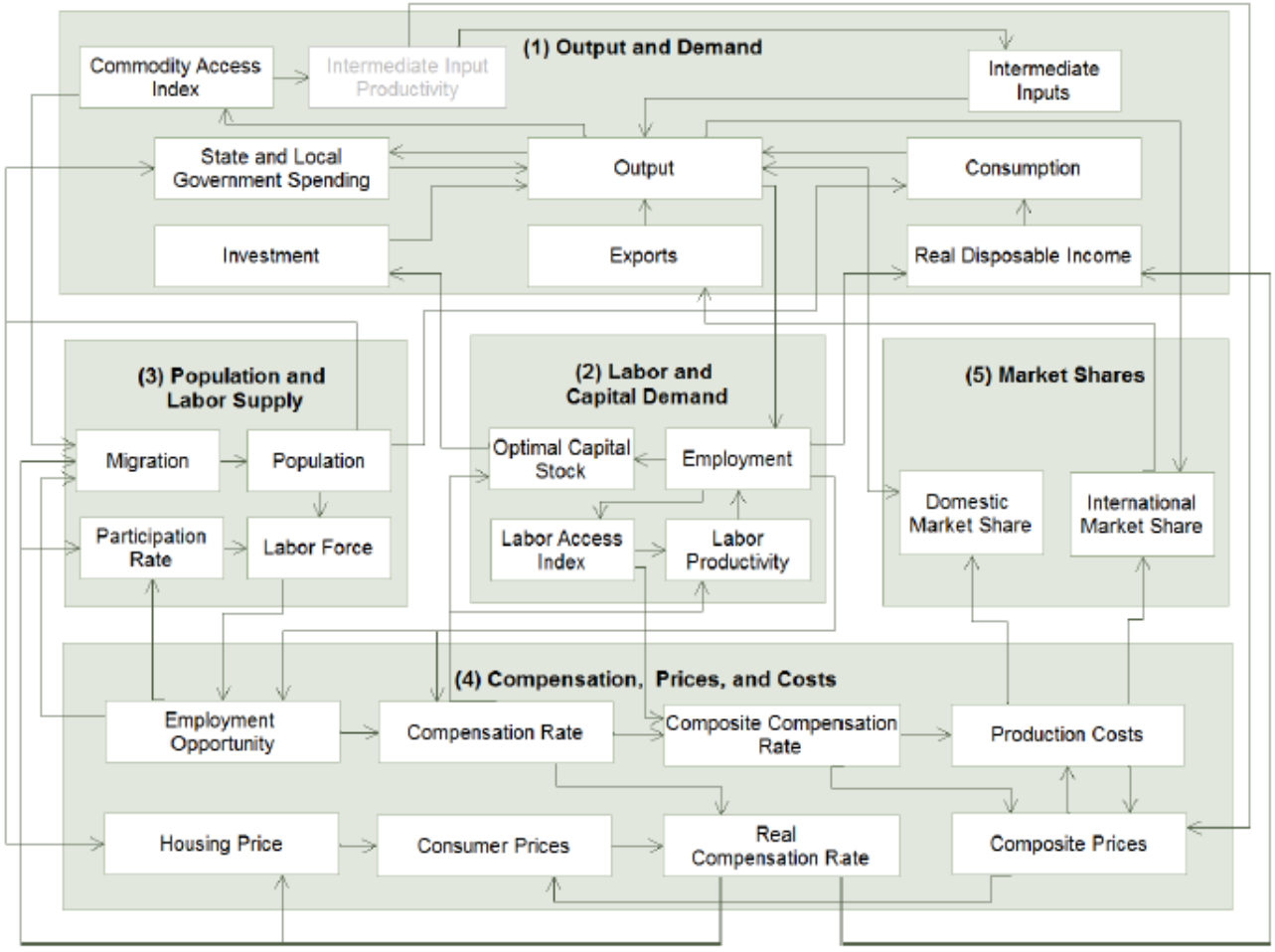
Presented by Marley Buchman, Senior Economic Associate

Launch Series Schedule and Outline

- **Session 3: Economic and Demographic Dimensions of Regional Growth**
  - Jan. 31st and Feb. 2nd, 2:00 PM EST
- **Session 4: From Start to Finish: Completing a REMI Analysis**
  - Feb. 7th and Feb. 9th, 2:00 PM EST

Register at www.remi.com/events-2/online-seminars

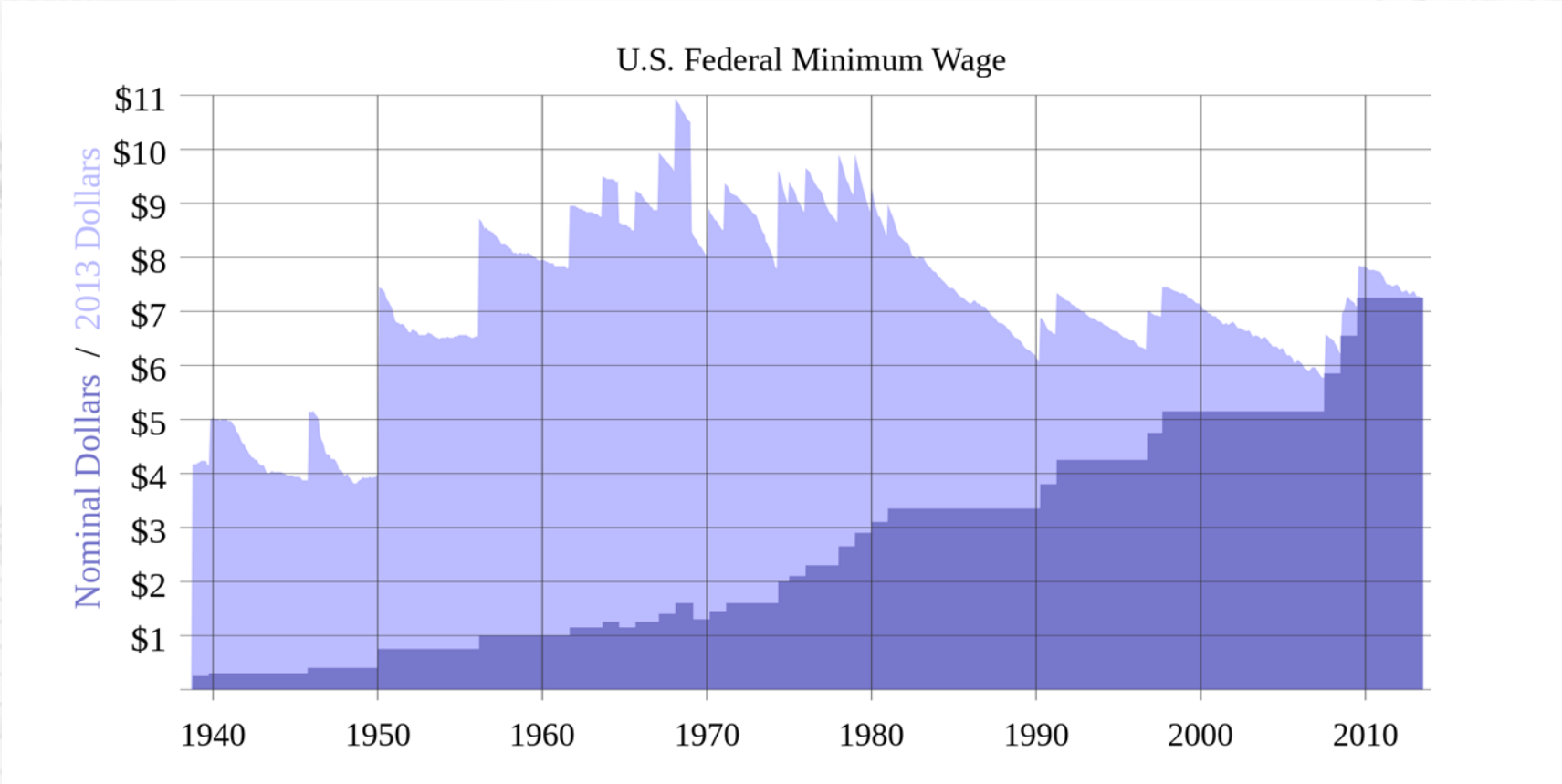
Model Structure



Minimum Wage

- Changes to the minimum wage are contentious
  - Seen by proponents as a matter of fairness
  - Critics say a higher minimum wage harms business, costs jobs
- Economists disagree on the cost-benefits
  - Basic neoclassical theory points to fewer jobs
  - Empirical studies provide mixed evidence

Historical Changes

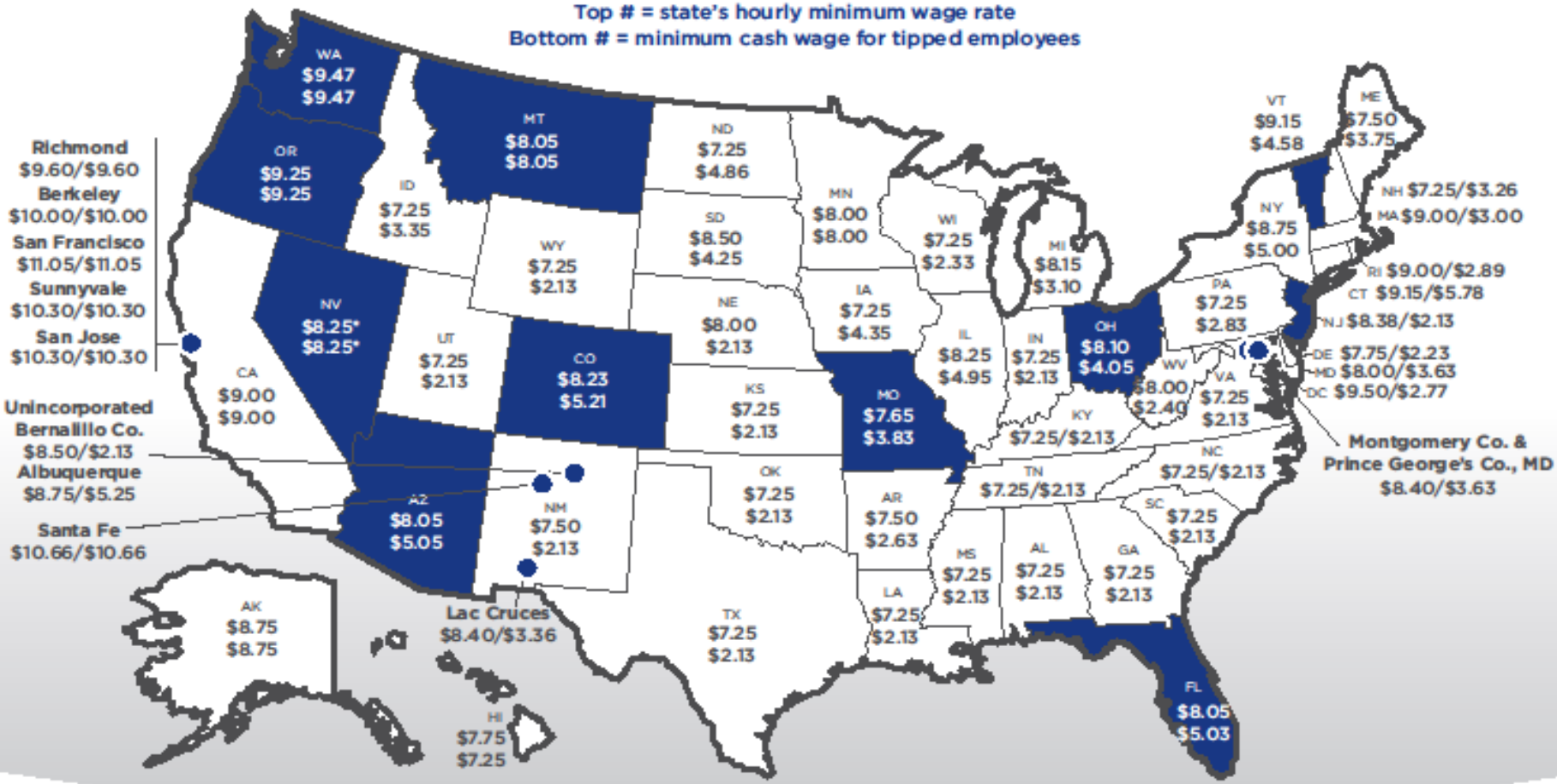


December 5, 2014

State and Local

Minimum Wage Rates: 2015

Top # = state's hourly minimum wage rate
Bottom # = minimum cash wage for tipped employees



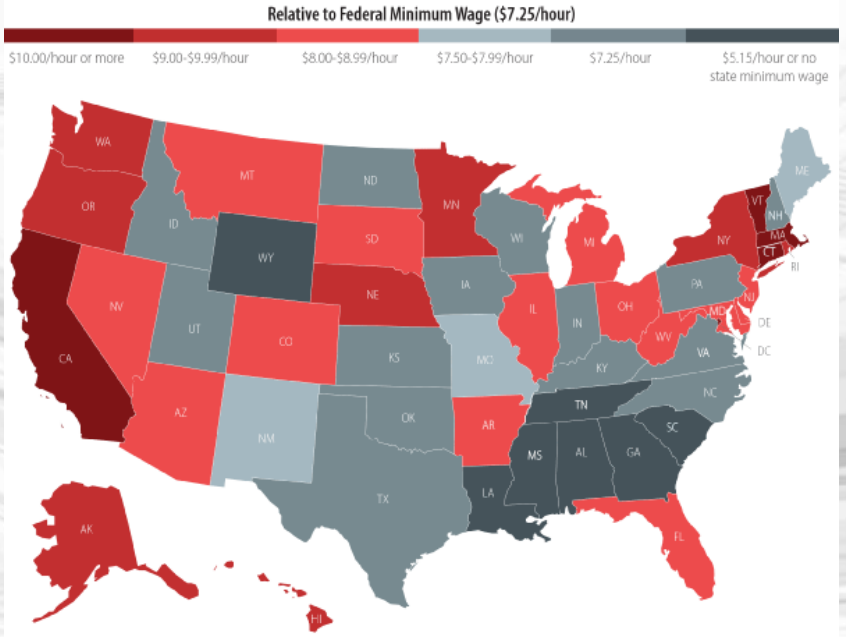
■ States that index their wage rates yearly

* Nevada: If a Nevada employer offers a qualified health plan, the minimum wage is $7.25 an hour.

NATIONAL RESTAURANT ASSOCIATION

Restaurant.org/Advocacy

How High Will Your State's Minimum Wage Be on January 1, 2017?



Highest Minimum Wages

1. **Washington, D.C.** ($11.50/hour)
2. **Massachusetts** ($11.00/hour)
3. **California** ($10.50/hour)
4. **Connecticut** ($10.10/hour)
5. **Vermont** ($10.00/hour)

Lowest Minimum Wages

Wyoming and **Georgia** have a state minimum wage of $5.15/hour, and five states—**Alabama, Louisiana, Mississippi, South Carolina** and **Tennessee**—have no state minimum wage. Employees covered under the Fair Labor Standards Act are guaranteed at least the federal minimum wage, while those not covered may be paid a lower rate. 14 states follow the federal minimum wage of $7.25/hour.

what does REMI say? [sm]

Graphic: Kiplinger

Model Demonstration

Infrastructure

- U.S. has long-term need for infrastructure investments
  - American Society for Civil Engineers: U.S. should spend *$3.6 trillion* by 2020 on critical infrastructure
- Target investments can provide both a short-term and long-term boost to the economy
  - Short-term: direct and indirect inducement for job creation
  - Improved highways, electrical grids, and air transportation networks increase efficiency, leading to productivity gains
- Prioritizing infrastructure projects
  - Dynamic economic modeling can capture both the direct effects but also potential productivity gains

Investing in Productivity

- More technologically advanced systems can increase efficiency and boost economy
  - Next Generation Air Transportation System (NextGen)
    - Modernize air traffic control by utilizing satellite-based communication
    - Potentially reduce delays
  - Soo Locks reconfiguration
    - Long-stalled $580 million project could help shipping
    - Aging infrastructure risks flow of goods

Transportation Studies Using REMI

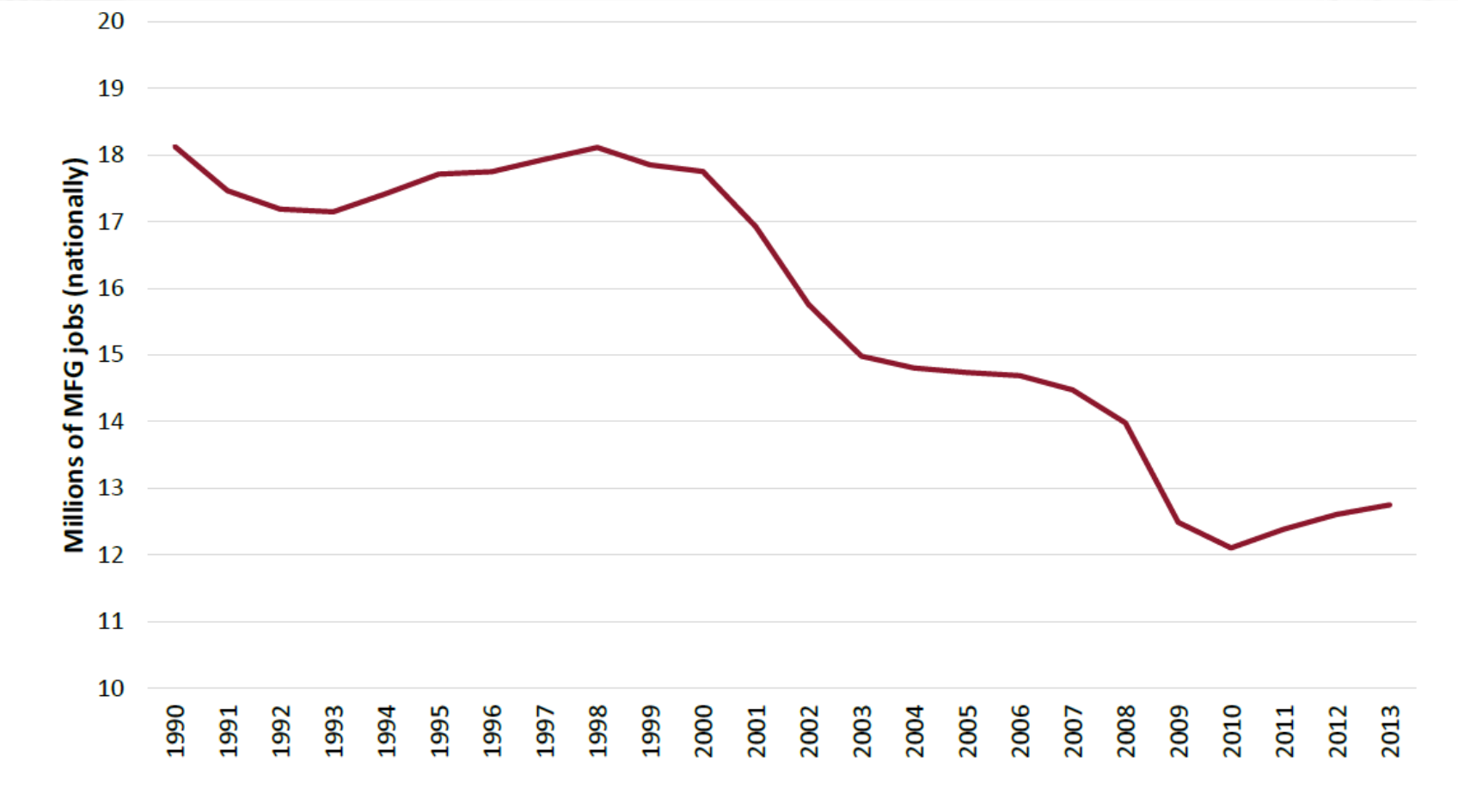
- **U.S. Department of Homeland Security,** *The Perils of Efficiency: An Analysis of an Unexpected Closure of Poe Lock and Its Impact*, 2015. Assesses potential impact of unexpected 6-month closure of Poe Lock at the Soo Locks connecting Lakes Huron and Superior.
- **Southern California Association of Governments,** *2012–2035 Regional Transportation Plan/Sustainable Communities Strategy,* 2012. Planning long term for increasing mobility of residents and visitors in region while reducing emissions
- **Economics Research Associates**, *Economic and Fiscal Impacts of the Port of San Diego*, prepared for San Diego Unified Port District, 2007. Analyzed the Port's economic and fiscal impact to the region using REMI model to estimate indirect and induced impacts.
- **Minnesota Department of Employment and Economic Development & Minnesota Department of Transportation,** *Economic Impacts of the I-35W Bridge Collapse,* 2009. Evaluated impact of detours following the I-35W Mississippi River bridge collapse; showed an $113,000 reduction in the state's economic output.

Model Demonstration

Trade

- Fueled by concern over income inequality, criticism of international free trade agreements has become louder
  - Trade opens up markets for U.S. businesses, and provides consumers with less expensive goods
  - However, trade creates winners and losers, producing negative impacts for some regions
- Evaluating the effects in different regions
  - Dynamic modeling on the county and state levels detect differing effects from international competition

Manufacturing Employment



Model Demonstration

Energy/Environmental Policy

- Carbon taxes impose a price on emissions
  - A market-based alternative to regulations
  - Encourage businesses and consumers to use less fossil fuels
- Revenue-neutral carbon taxes shift spending
  - Ease burden of higher energy costs through offsetting tax cuts or rebates
  - Can stimulate growth through tax cuts
  - Higher energy costs still affect certain industries and regions

State Carbon Studies

- Massachusetts
  - Simulated the effects of three rates, each per metric ton of CO_2 - $15, $30, and $45 – with reductions in corporate, income, and sales taxes
  - By 2035, MA would gain 2,000 and 11,000 jobs and between $2 billion and $10 billion in output compared to baseline
- Washington
  - Simulated effects of phasing in three possible rates, each per metric ton of CO_2 - $30, $50, and $100 – offset by tax cuts
  - By 2035, state could add between 5,000 and 40,000 jobs and $250 million to $2.75 billion in output compared to baseline
- Vermont
  - Simulated the effects of three rates, each per metric ton of CO_2 - $50, $100, and $150
  - By 2030s, VT would have an additional 1,000 to 3,000 jobs and increased economic output between 0.25% and 0.5% above baseline

Model Demonstration