

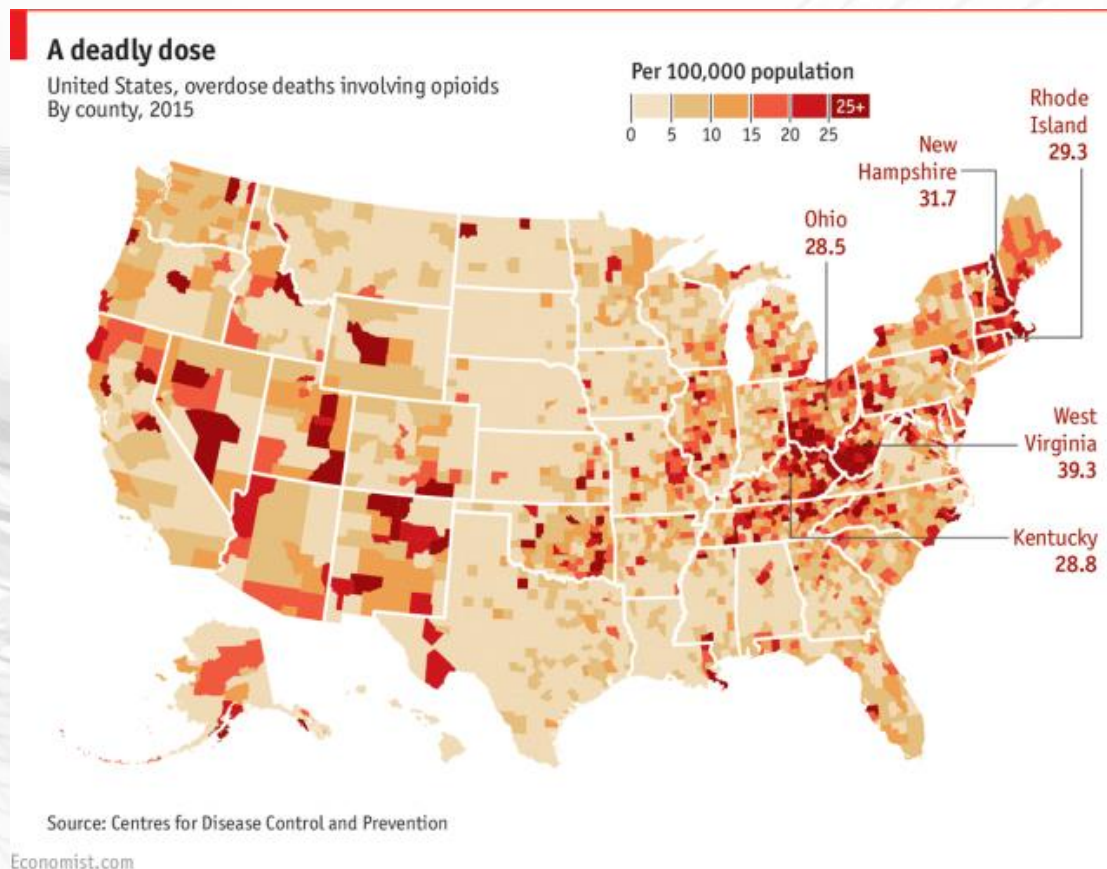
# THE OPIOID EPIDEMIC: ECONOMIC AND FISCAL ANALYSIS

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

**Presented by Regional Economic Models, Inc.**

# Background

- Nearly 2 million Americans abused or were dependent on prescription opioids in 2014
- 91 Americans die every day from overdoses
  - ▣ Rate has risen 4x since 1999
- Unequal geographic burden
  - ▣ New England, Appalachia, Southwest hit the hardest



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

# Costly Economic Burden



- Medical Costs
  - ▣ Treatment for conditions caused by opioid abuse
  - ▣ Substance abuse treatment (e.g., rehab)
- Criminal Justice Costs
  - ▣ Spending on drug crime enforcement, etc.
- Production Losses
  - ▣ Increased mortality rate
  - ▣ Decreased participation rate
  - ▣ Decreased on-the-job productivity
  - ▣ Increased non-compensation costs

# Opioids and Health Care



- Medicaid
  - \$9.4 billion in Medicaid spending in 2013
    - 636k Medicaid enrollees with opioid addiction in 2013
  - Does not include Hepatitis C drugs
    - Other associated illnesses include heart disease, STI's, depression
- Substance Abuse Treatment
  - \$2.8 billion in 2013 (2/3 by state, local governments)

# Opioids and Criminal Justice

- Increased state and local government spending
  - ▣ Police: +\$2.8 billion
  - ▣ Court cases: +\$1.2 billion
  - ▣ Incarceration: +\$3.2 billion
  - ▣ Over \$7 billion increase in spending



# Workforce Impacts



- Nearly all men aged 24-54 were in the labor force in the 50's and 60's, currently it is 88.5%
- Alan Krueger study: nearly half of the 1.8 million workers who were out of the labor force for “other” reasons had taken an opioid the day before being surveyed
  - ▣ “Over the last 15 years, the spread of prescription opioid medication could account for possibly 20 percent of the decline in labor force participation.”

# Impacts in the Workplace



- Employees become less productive
  - ▣ Unable to focus or stay awake
  - ▣ Missing work more frequently
- They also impose additional costs on businesses
  - ▣ Many business conducting drug screenings
  - ▣ Increase in turnover / additional training
  - ▣ Increase in accidents & worker compensation claims

# REMI Model Scenarios



## □ National

### ■ Economic impacts of production losses

- Survival rate (ages 25-64): -0.01pp
- Labor force participation rate (ages 25-64): -0.5pp
- Labor productivity: -0.2%
- Aggregate production costs: +\$40 billion

## □ State

### ■ Economic & fiscal impacts

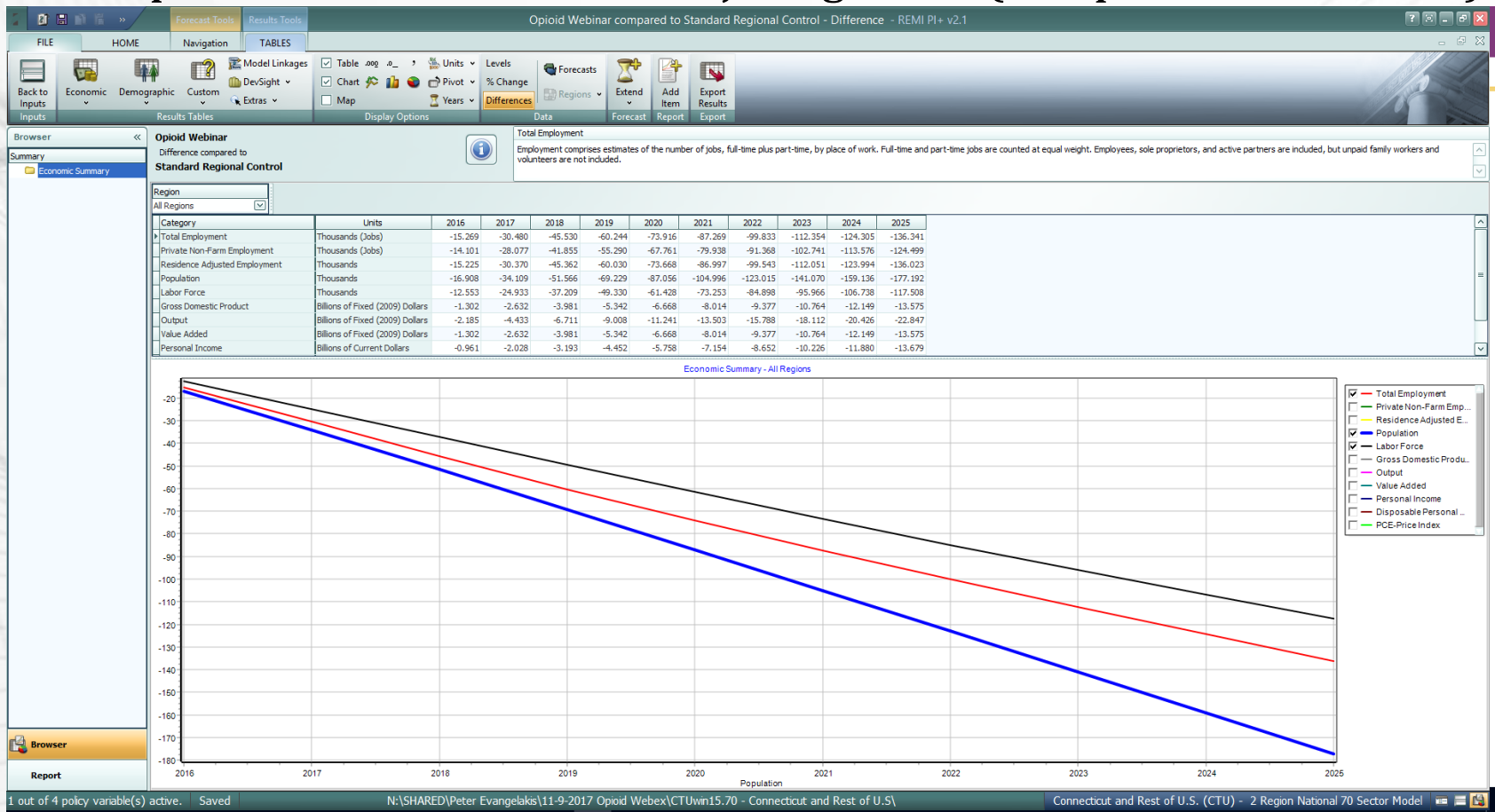
### ■ Increased health care and criminal justice spending



# National: Mortality



- Population slowdown lowers jobs growth (compounds over time)

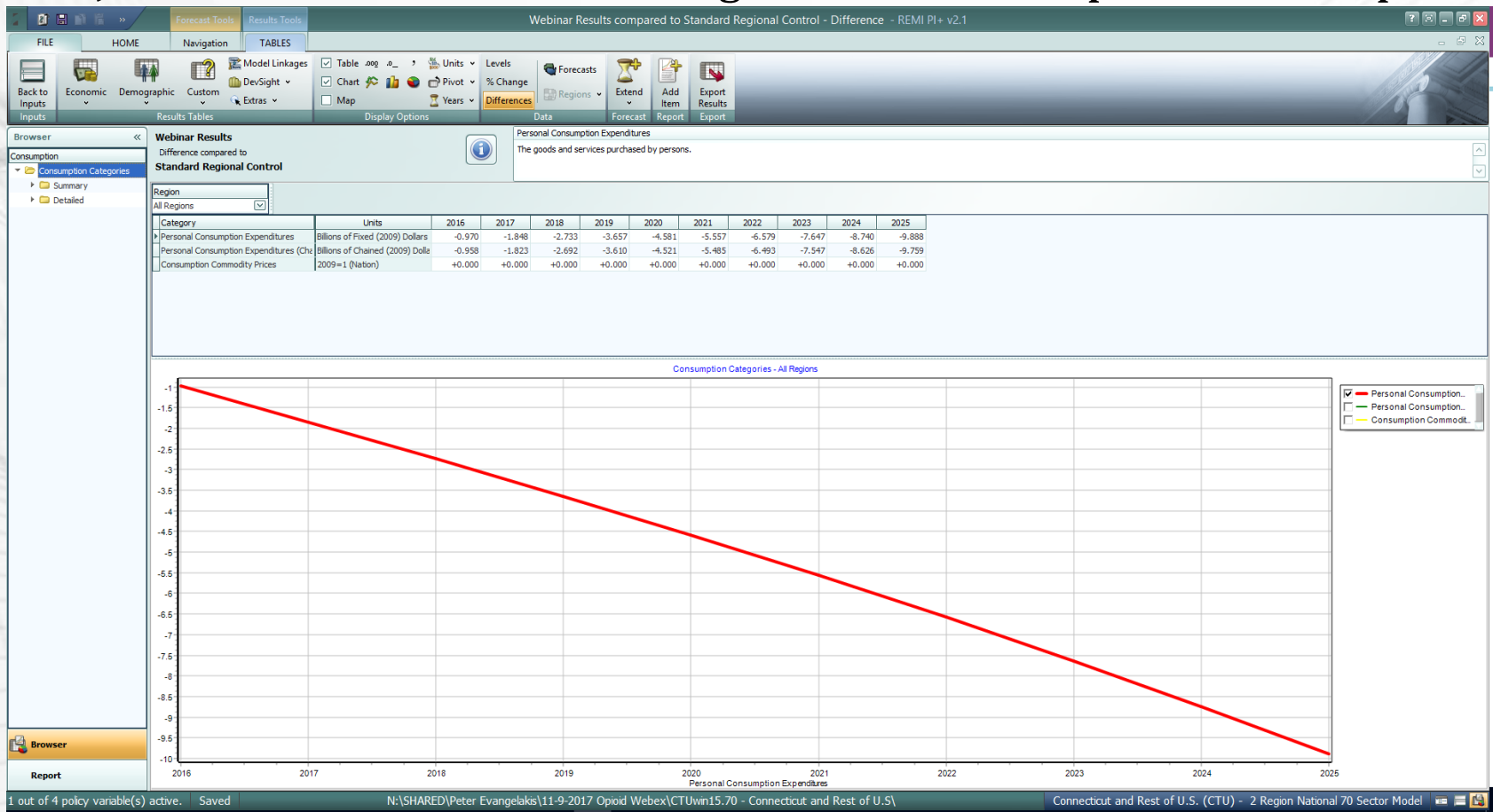


what does REMI say? <sup>sm</sup>

# National: Mortality



- Jobs slowdown hurts income growth, which impacts consumption

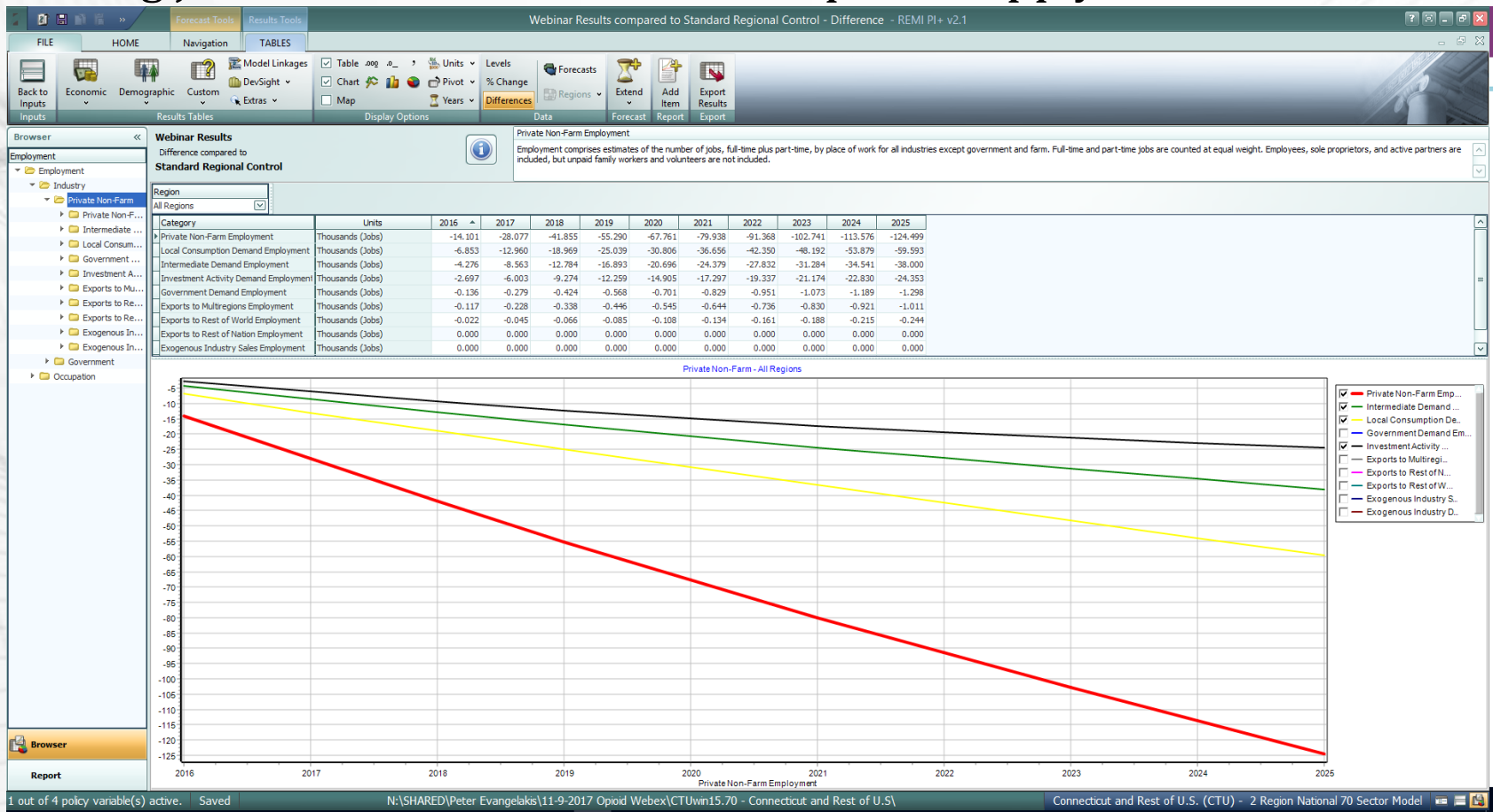


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# National: Mortality



- Big job slowdown drivers: consumption, supply chain, investment

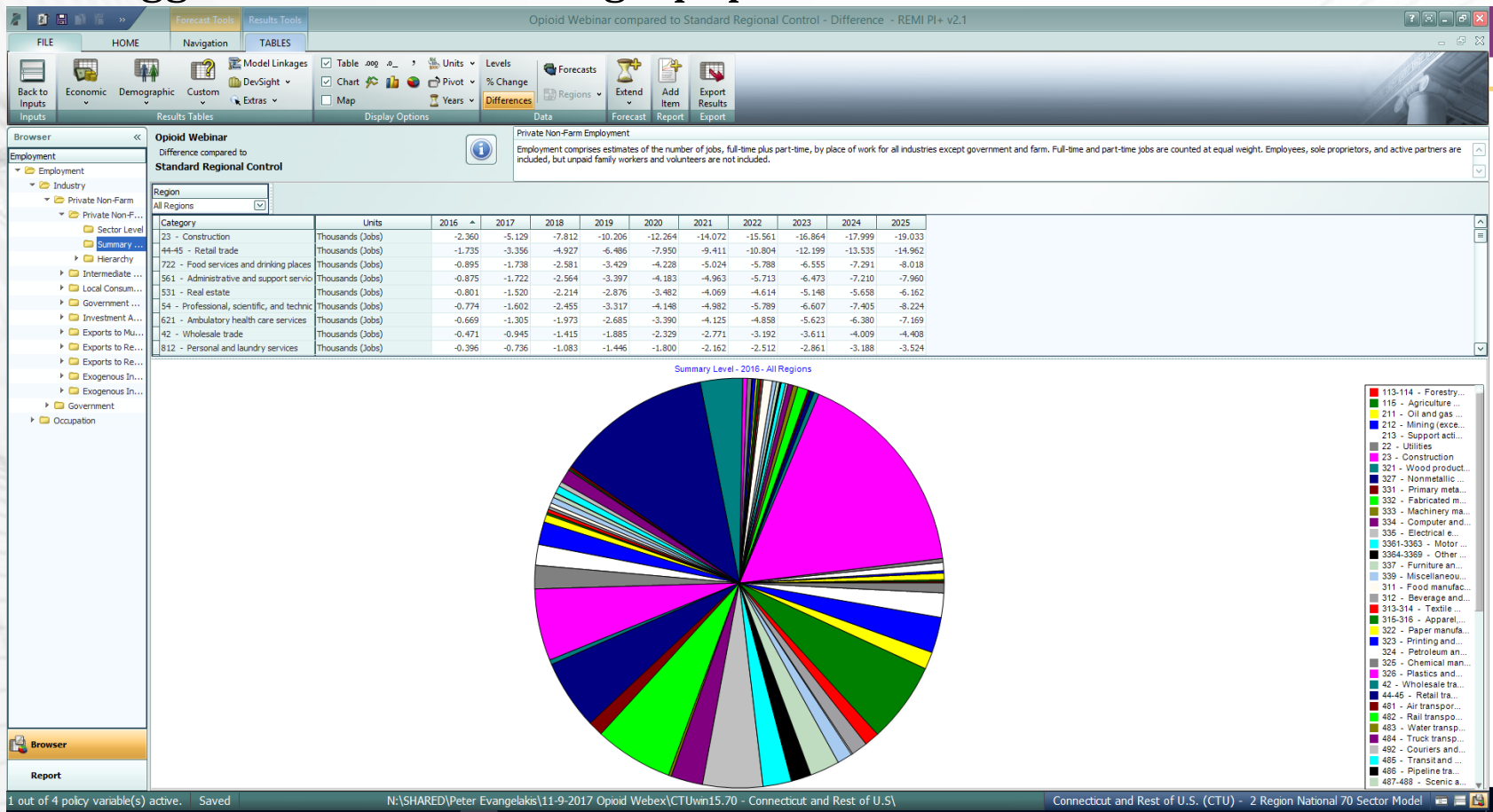


what does REMI say? <sup>sm</sup>

# National: Mortality



- Biggest slowdown in large, population-reliant sectors

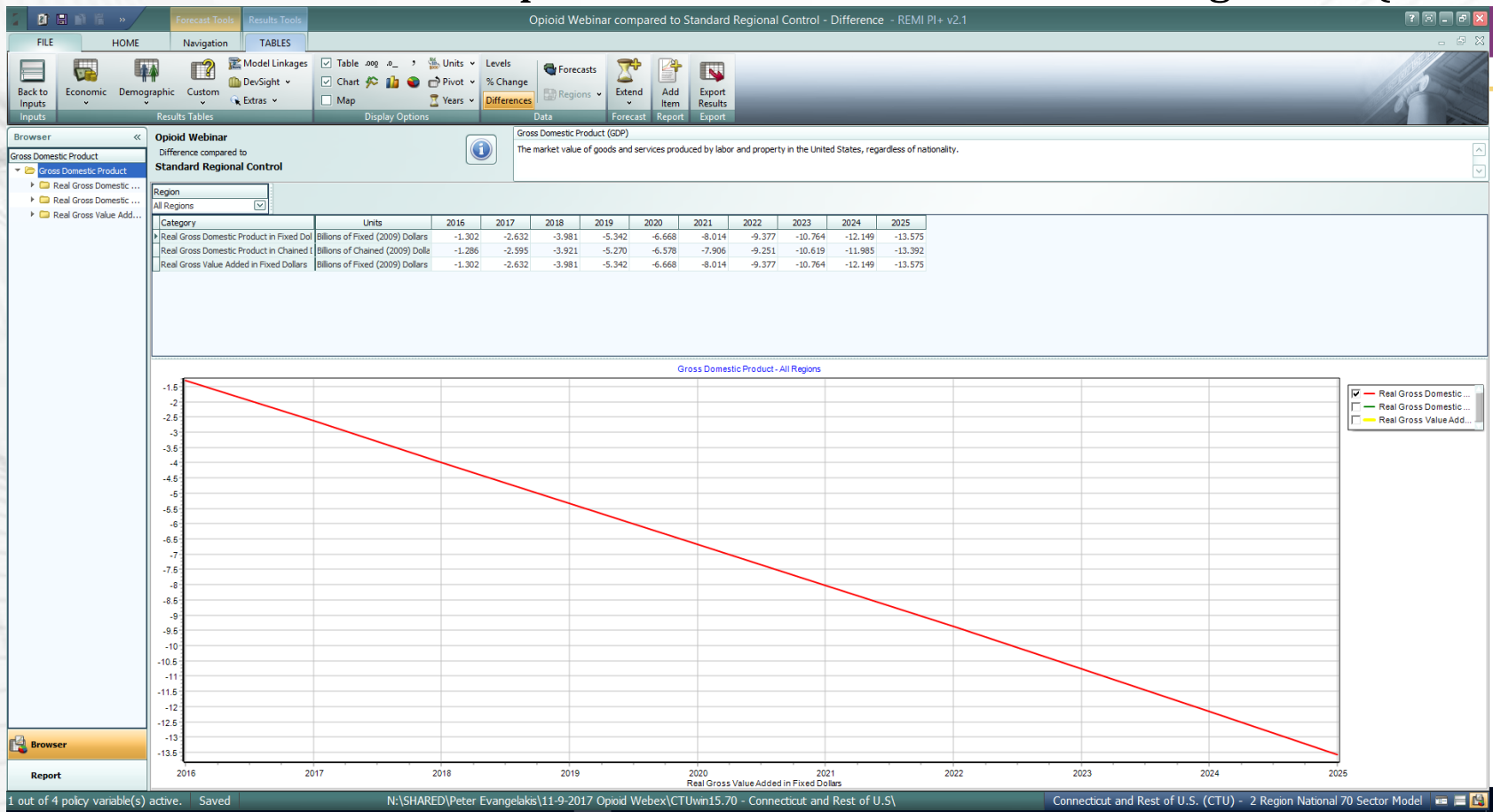


what does REMI say? <sup>sm</sup>

# National: Mortality



- Decrease in consumption and investment hurts GDP growth (0.1%)



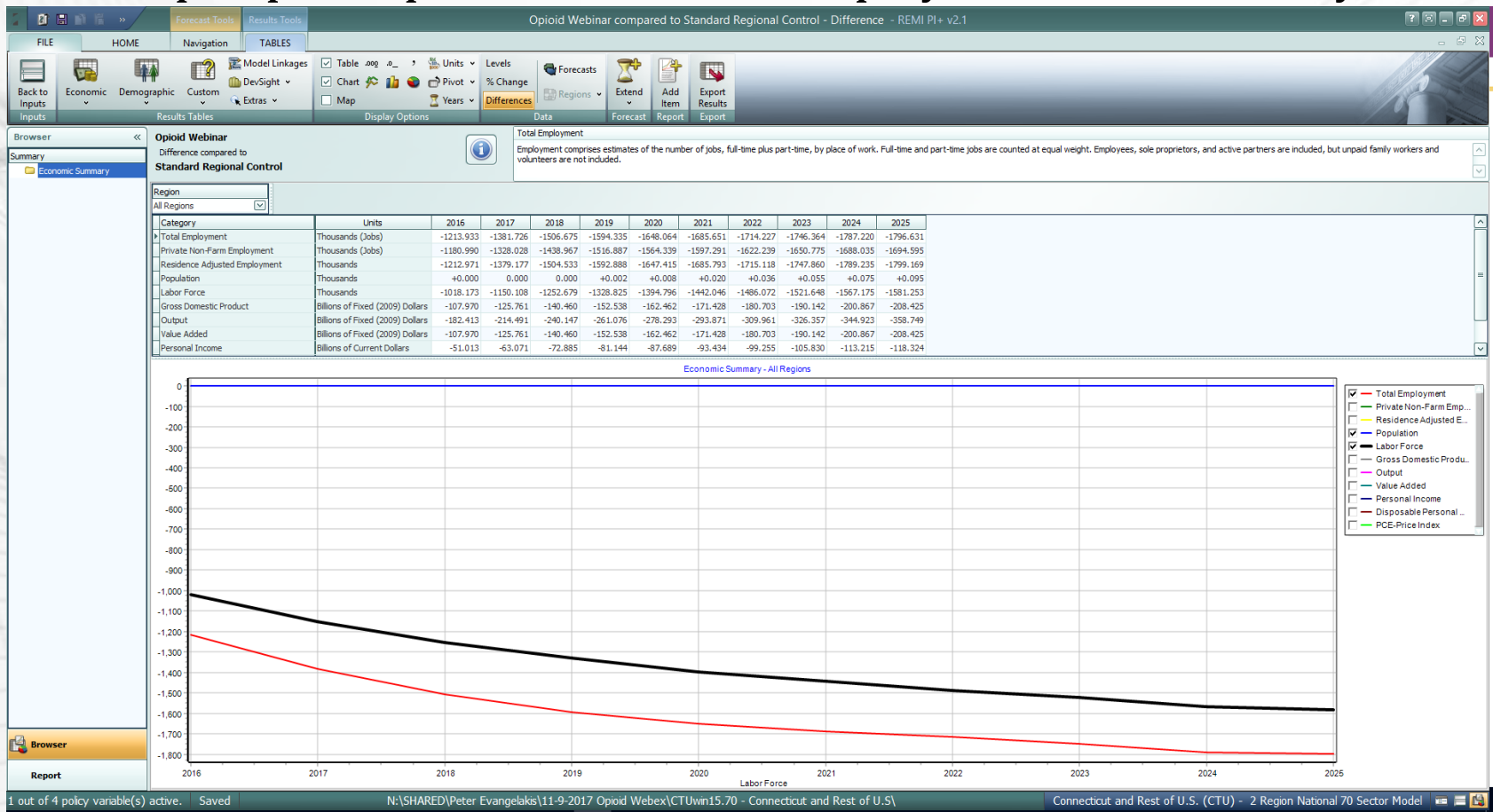
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# National: Labor Force



- Drop in participation rate drives employment down directly

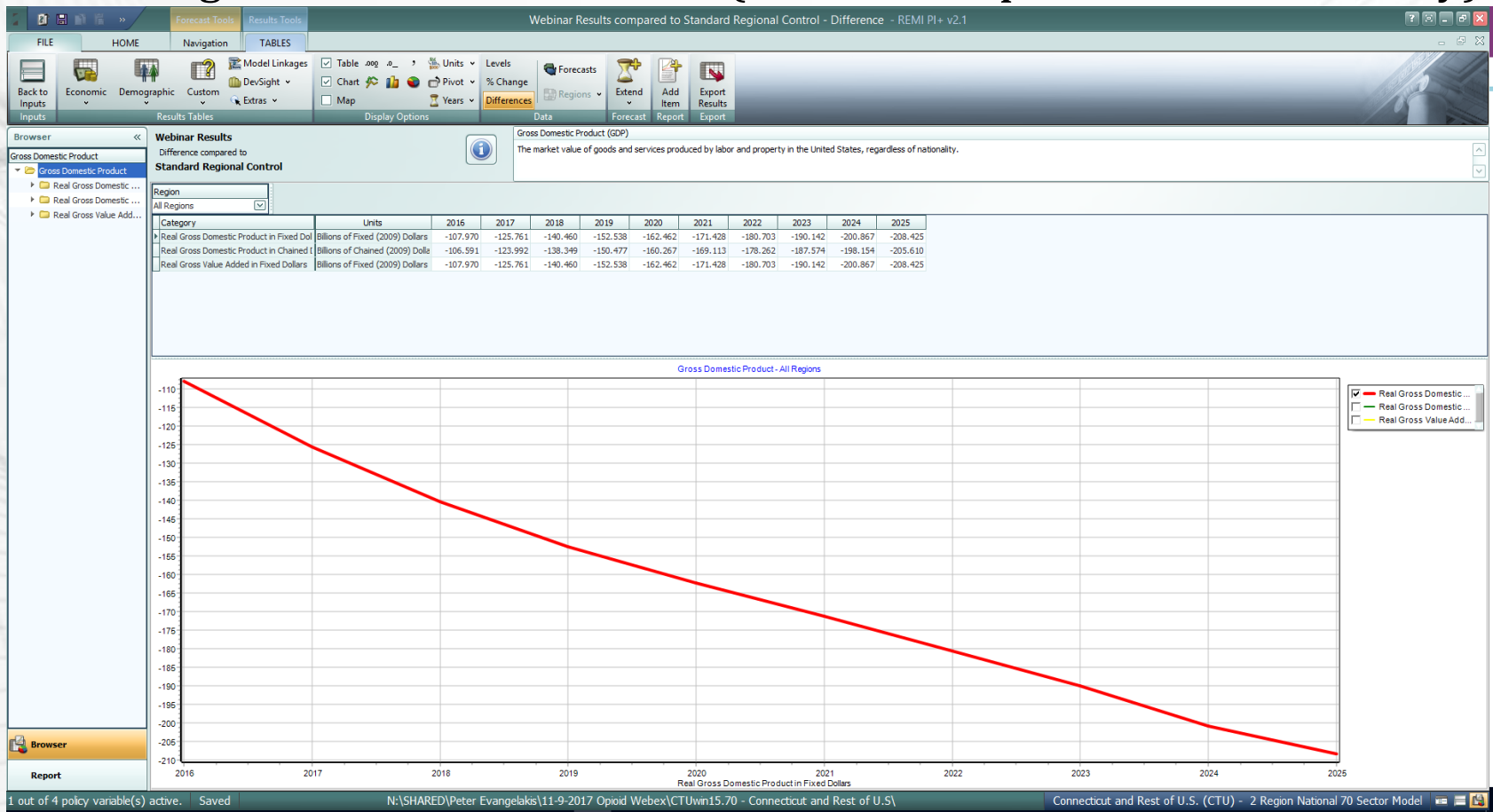


what does REMI say? <sup>sm</sup>

# National: Labor Force



- GDP growth slowdown of 1% (3-4x less impactful than mortality)

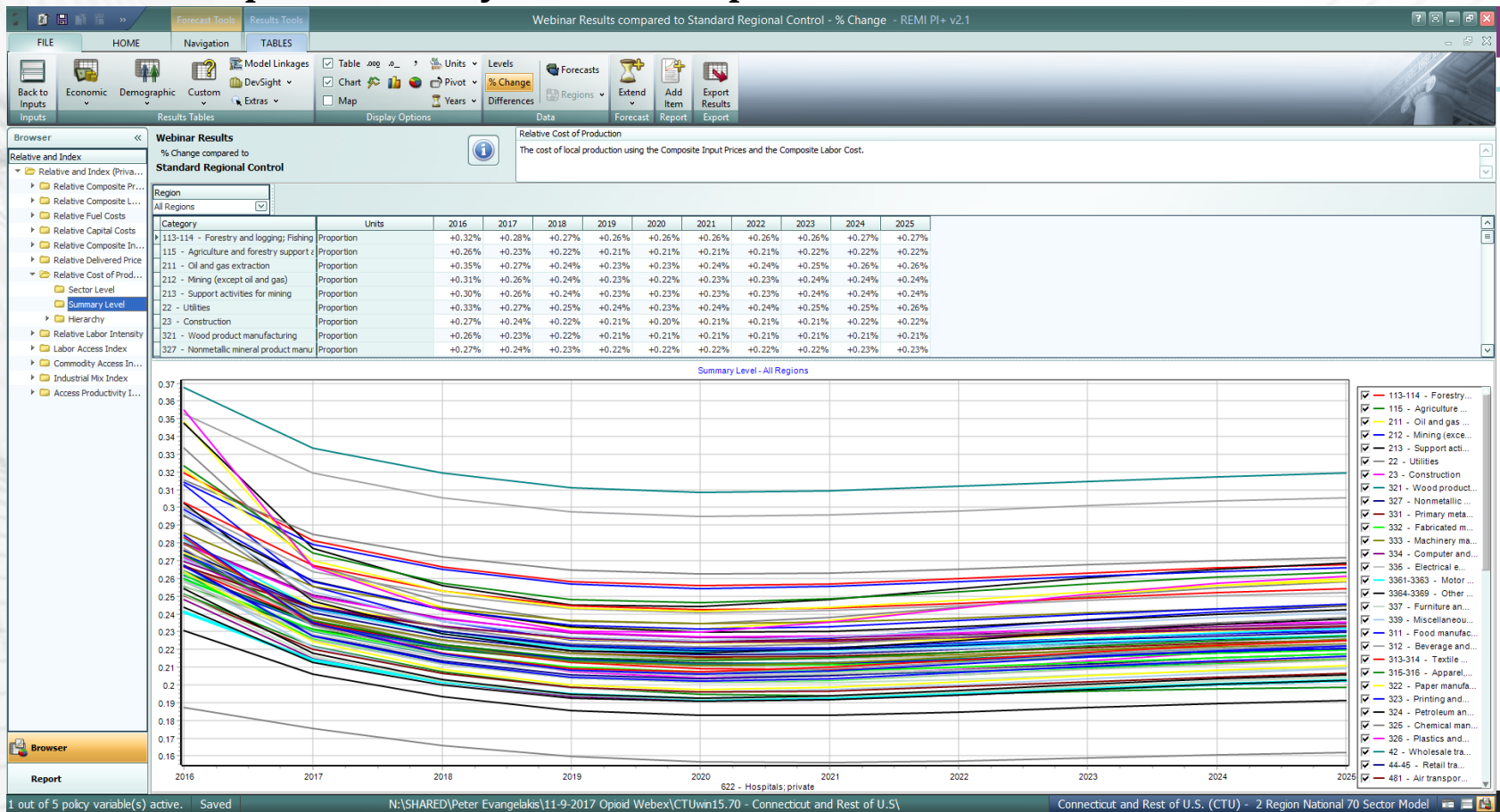


what does REMI say? <sup>sm</sup>

# National: Productivity



## □ Lower productivity increases production costs

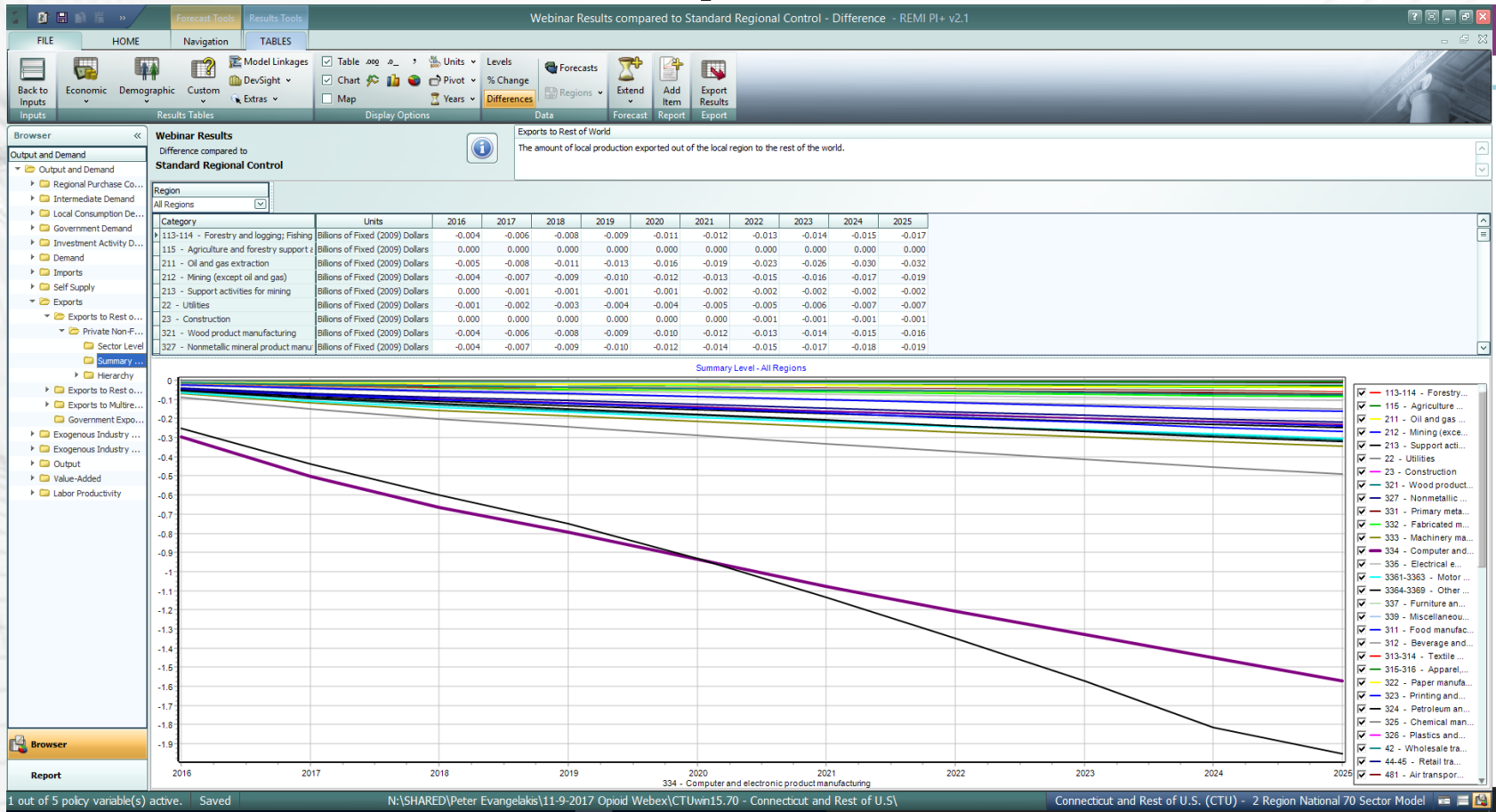


what does REMI say? <sup>sm</sup>

# National: Productivity



- Businesses become less competitive, lose market share

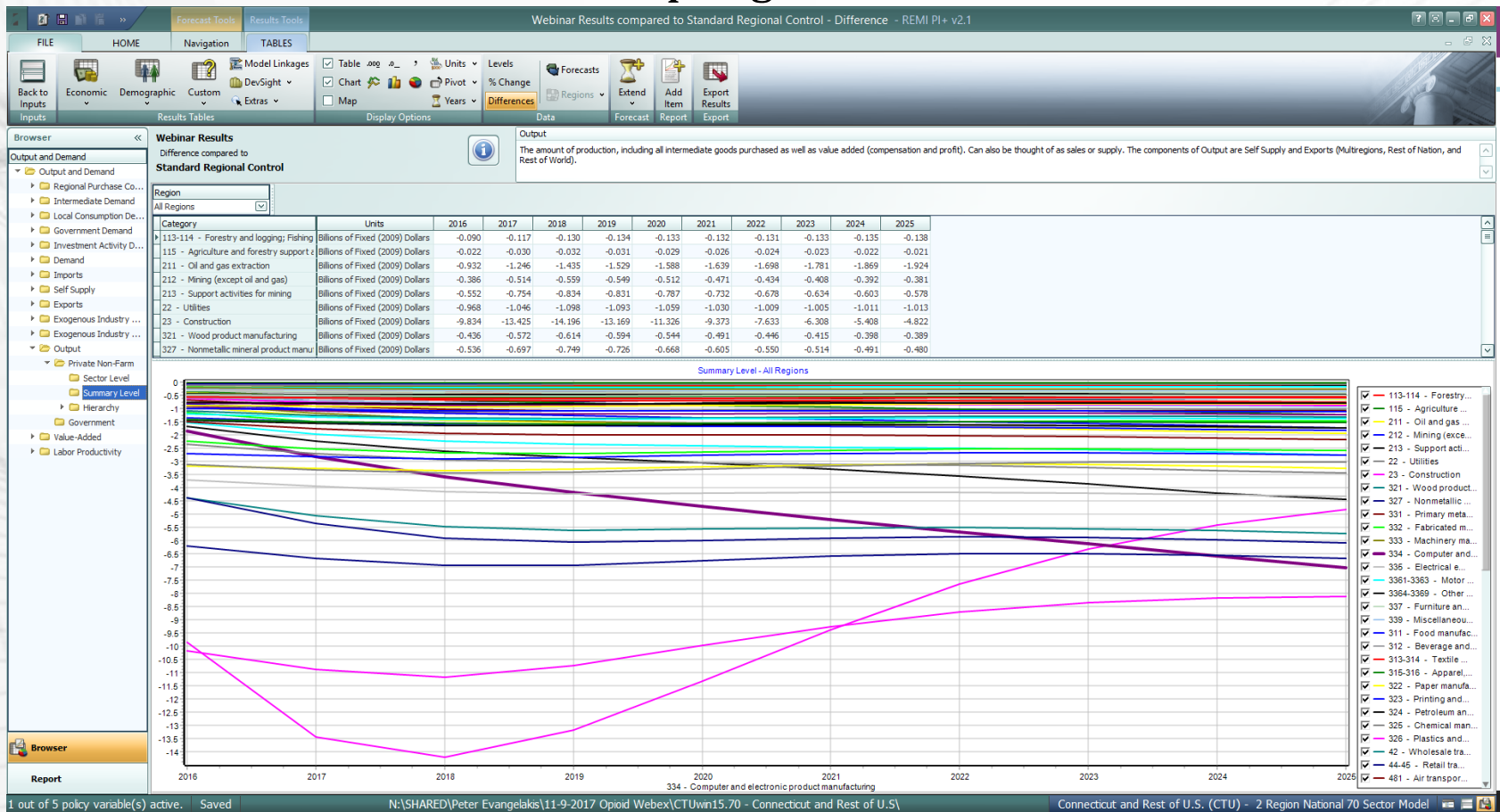


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# National: Productivity



- This drives a decline in output growth



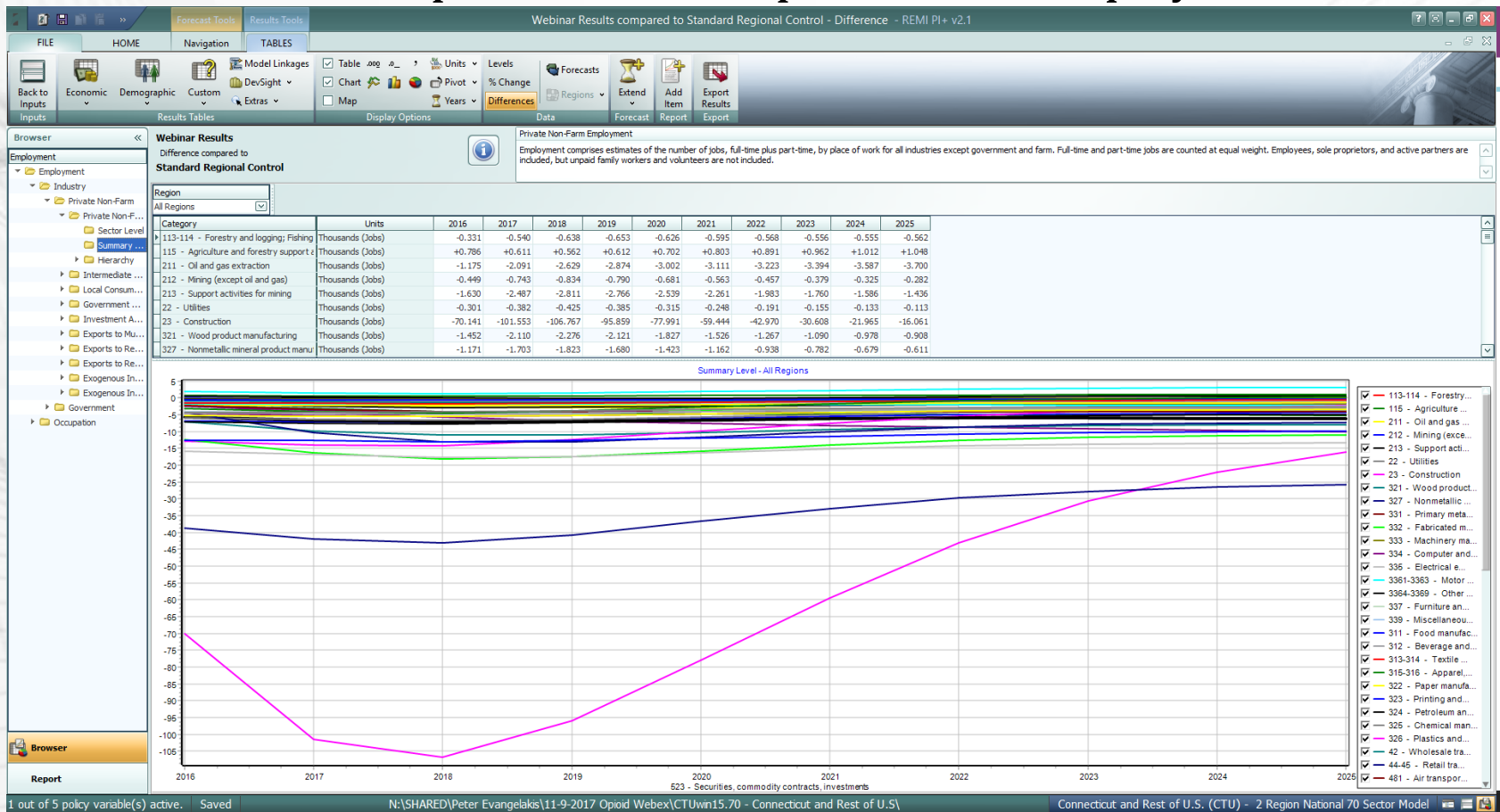
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# National: Productivity



□ ...which in turn puts downward pressure on employment

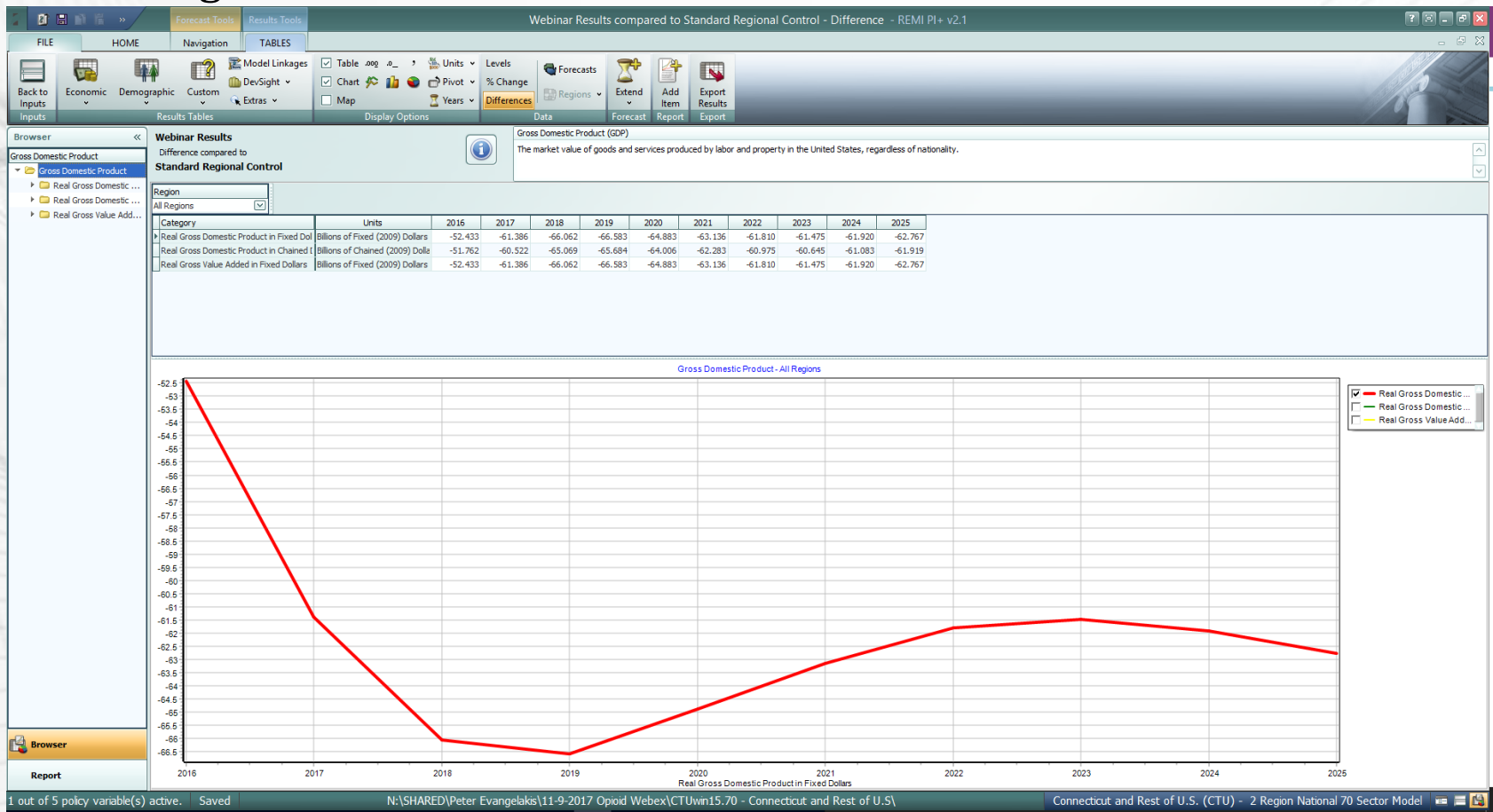


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# National: Productivity



## □ GDP growth slowdown of about 0.3%

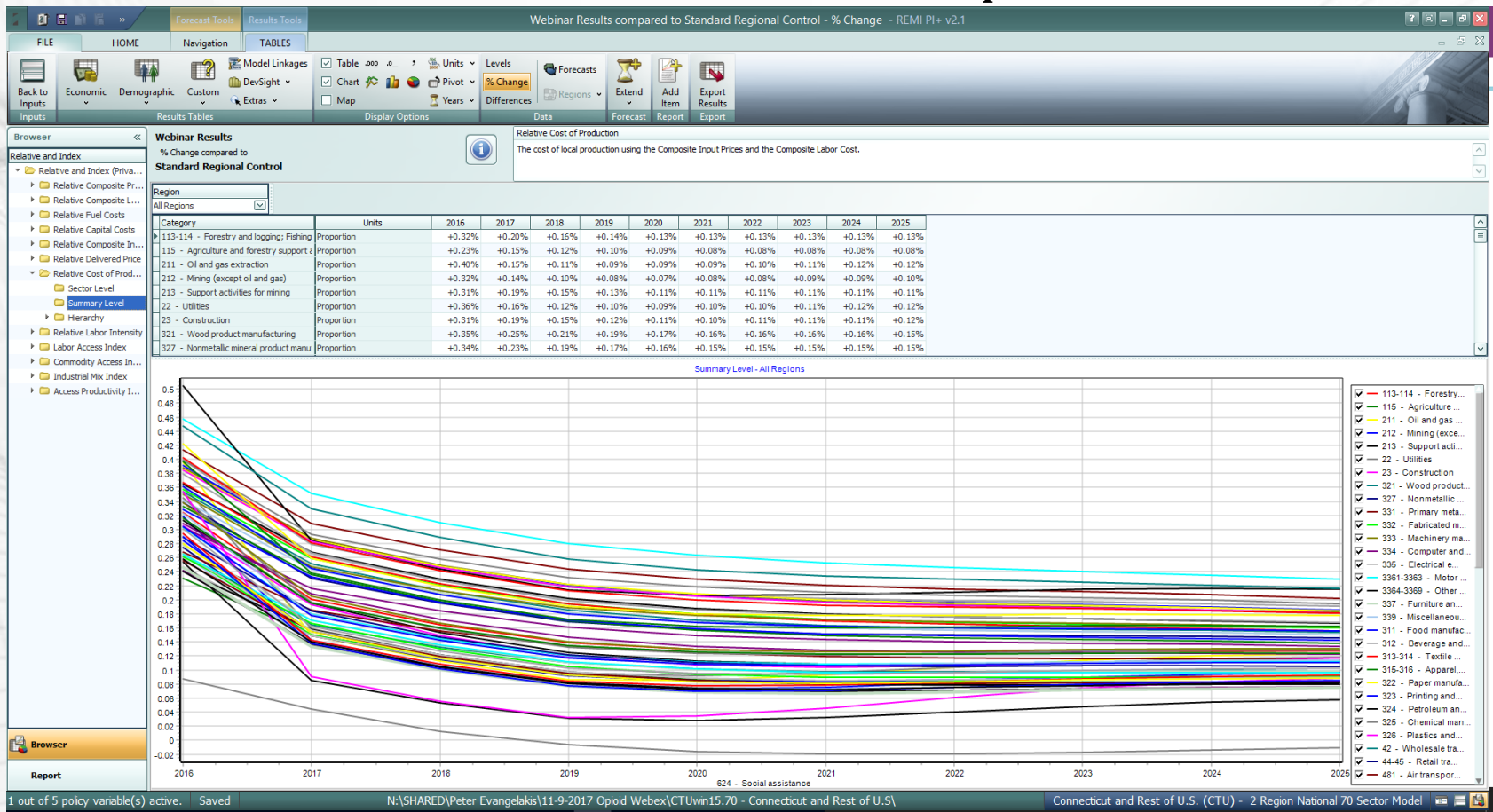


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# National: Labor Costs



- Increased costs make businesses less competitive

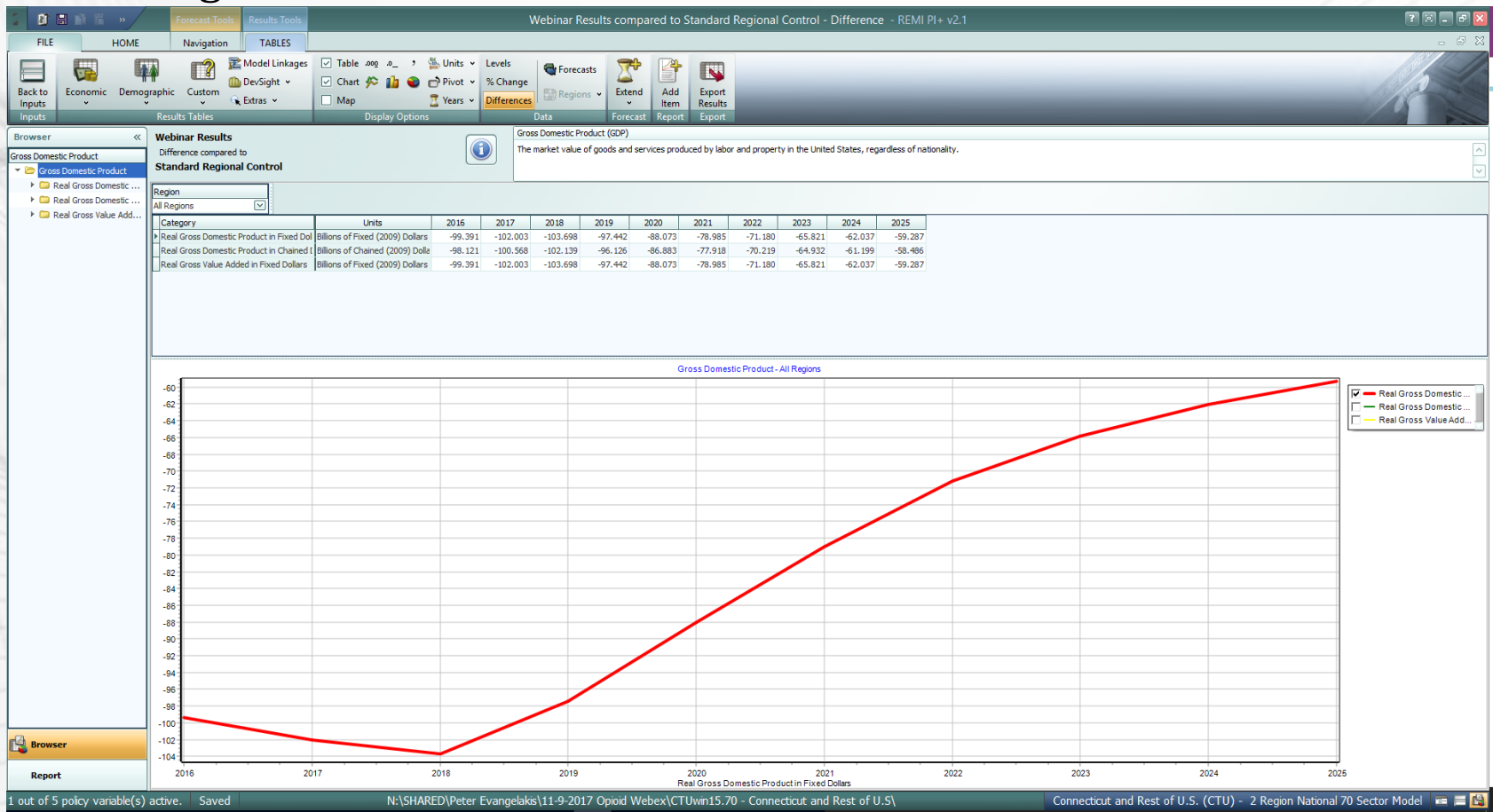


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# National: Labor Costs



- GDP growth slowdown of about 0.3%

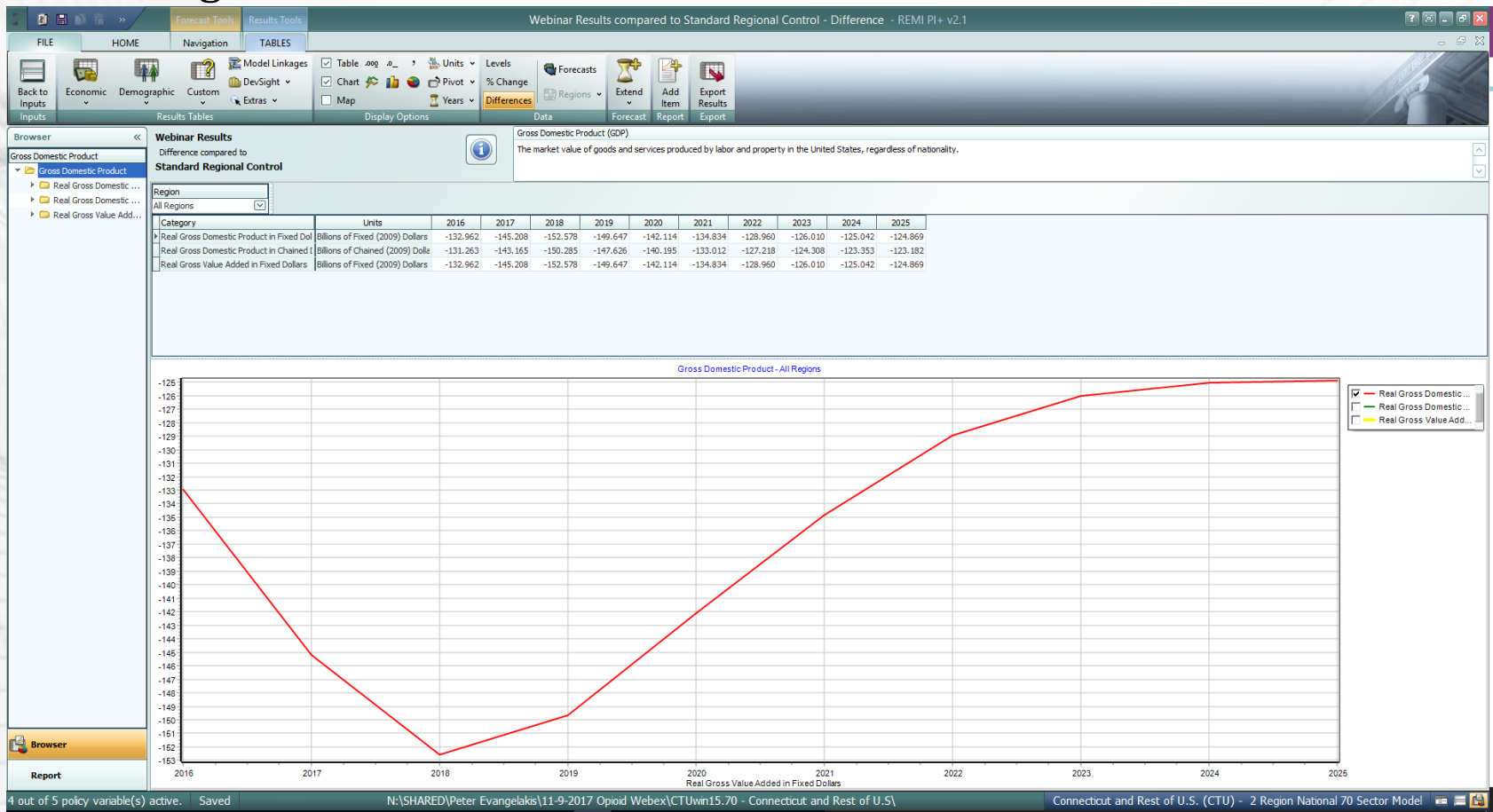


what does REMI say? <sup>sm</sup>

# National: Total Economic



## □ GDP growth slowdown of about 0.6%



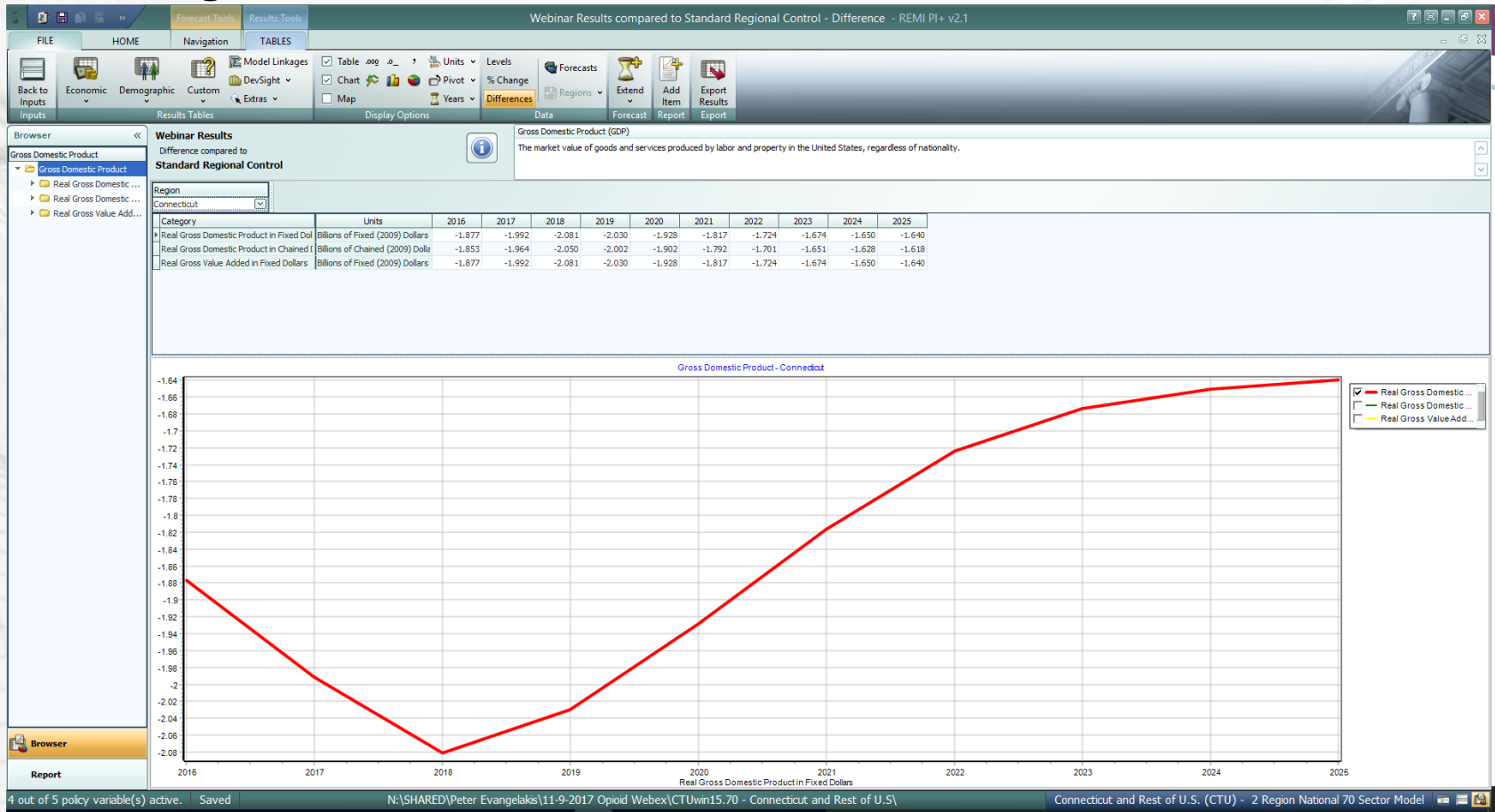
what does REMI say? <sup>sm</sup>



# State: Total Economic



## □ GDP growth slowdown of about 0.2%



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

# State: Increased Costs



- Revenues shrink as a result of the decreased tax base
  - ▣ Decreased personal income → lower income tax revenue
  - ▣ Decreased consumption → lower sales tax revenue
- Average increase in health care and criminal justice costs to states of over \$300 million **in addition**
- Where does the money come from in the budget?
  - ▣ Increase in taxes: further hurts the economy
  - ▣ Cut spending elsewhere: what gets cut?
    - Potential short- and long-run impacts (e.g., education)

# Conclusions



- Opioid crisis shrinks the economy in several ways
  - ▣ Impacts both the citizenry and government budgets
  - ▣ Increased costs to governments further squeeze budgets, force hard choices
  
- Unfortunately, many more costs...
  - ▣ Harvard Med School: Cost of overdose deaths in MA from 2010 – 2016 was \$40 Billion
  - ▣ Impacts on quality of life, loss of loved ones
  - ▣ Psychological and economic impacts on children