

A CARBON PRICE POLICY IN VERMONT

Study Author



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About REMI



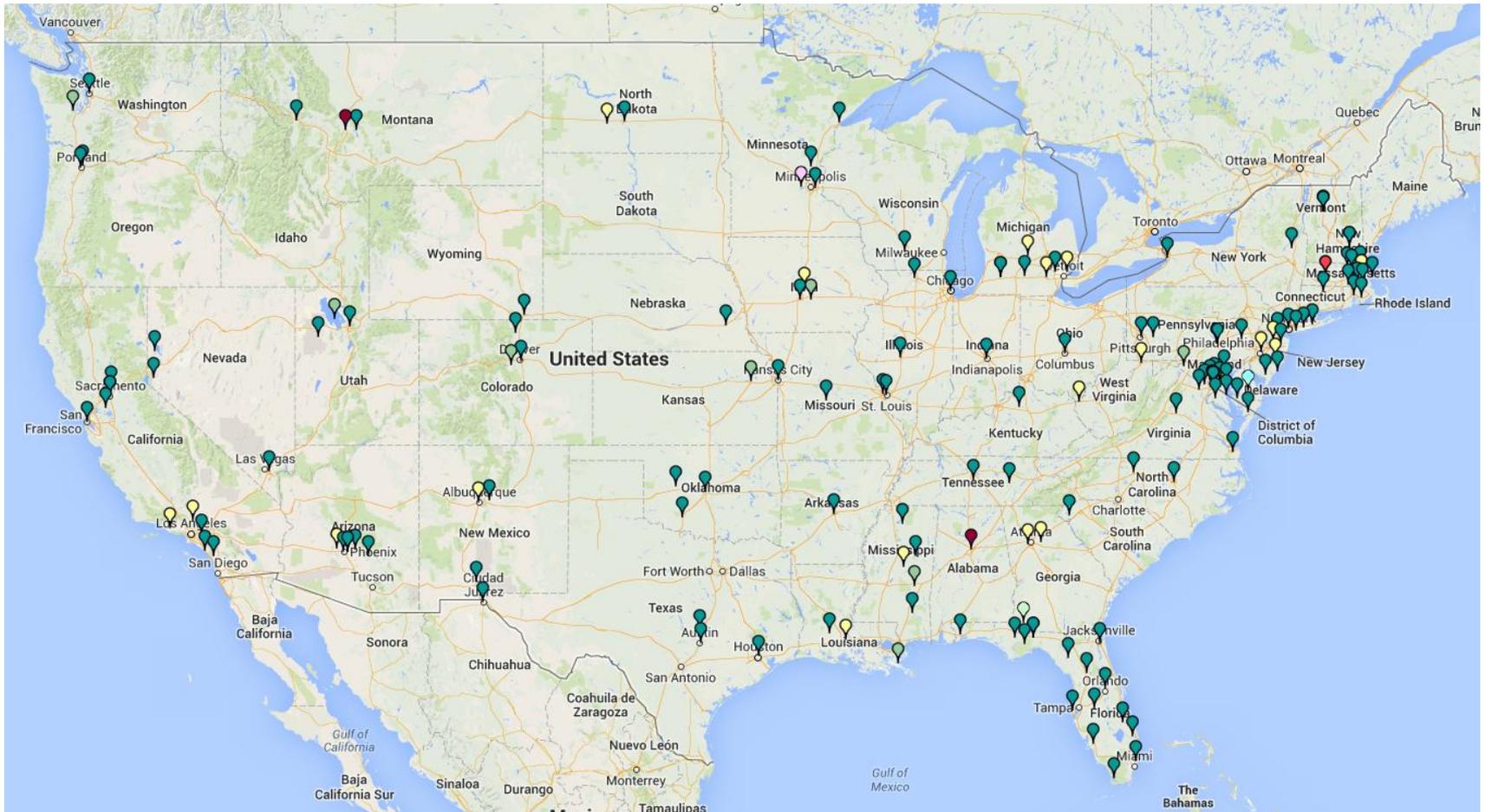
Regional Modeling

- Founded as an offshoot of research performed at the University of Massachusetts-Amherst in the late 1970s
- Software, data, consulting services, and issue expertise involving regional economic and demographic analysis

Clients and Research

- Public sector: 47/50 states, federal agencies, regional authorities, cities, universities, international groups
- Private sector: consultants, “Big 4” accounting firms, Fortune 500 companies, trade associations (AGA, NEA, NFIB, etc.)
- Recent projects on immigration reform and Medicaid expansion

Client Base

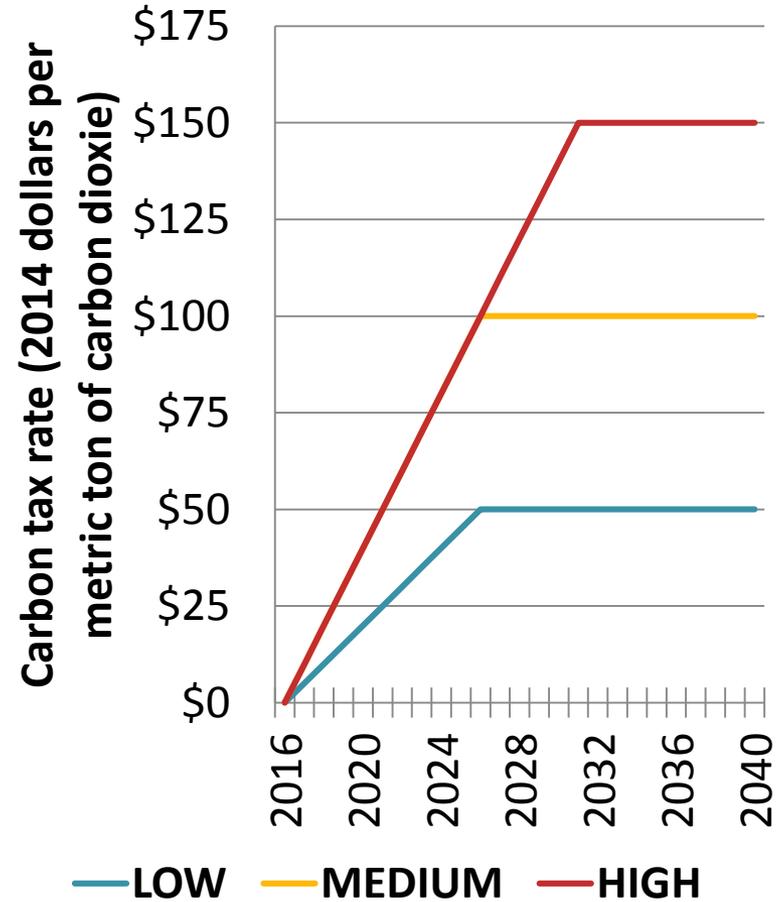


what does **REMI** say? sm

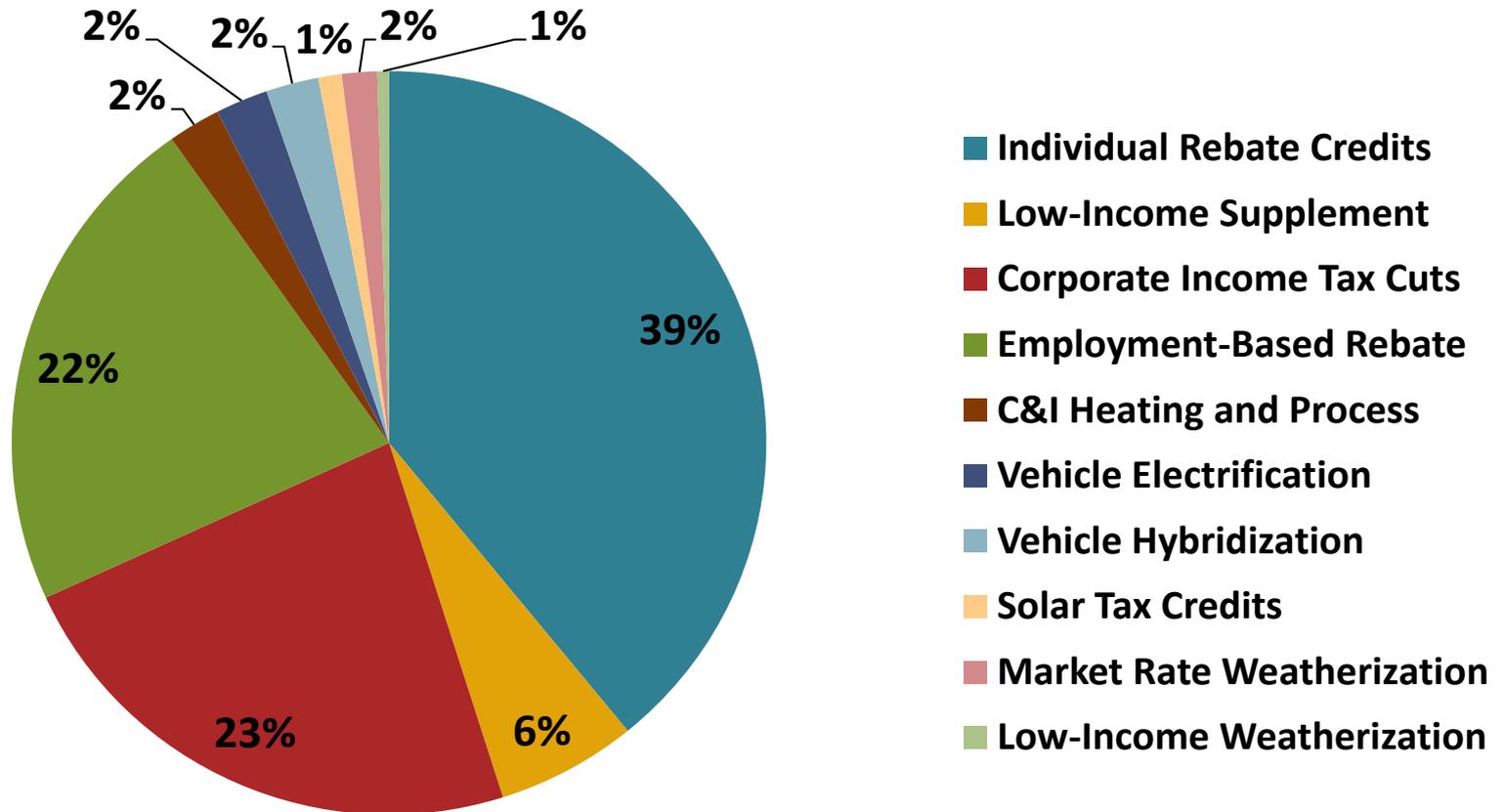
Carbon Pricing



- Fee paid in Vermont for emitting carbon dioxide into the air
 - ▣ Covers liquid and gaseous fuels
 - Not electricity (already covered by RGGI)
- Revenue recycled
 - ▣ Similar to program in British Columbia



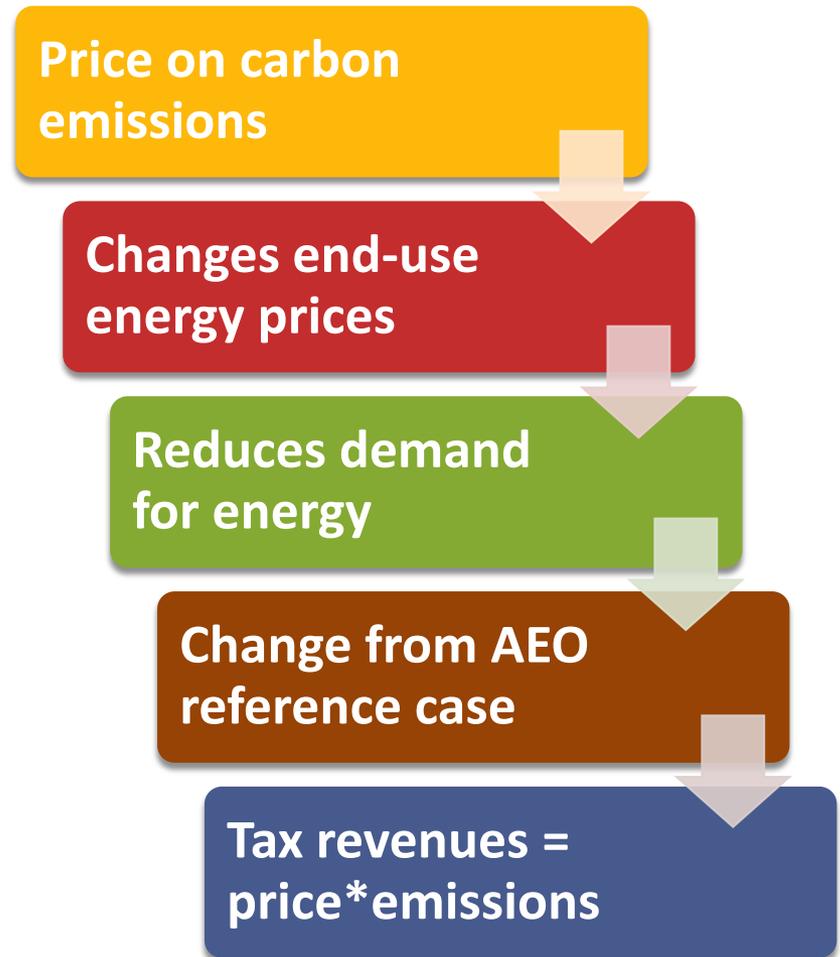
Revenue Recycling



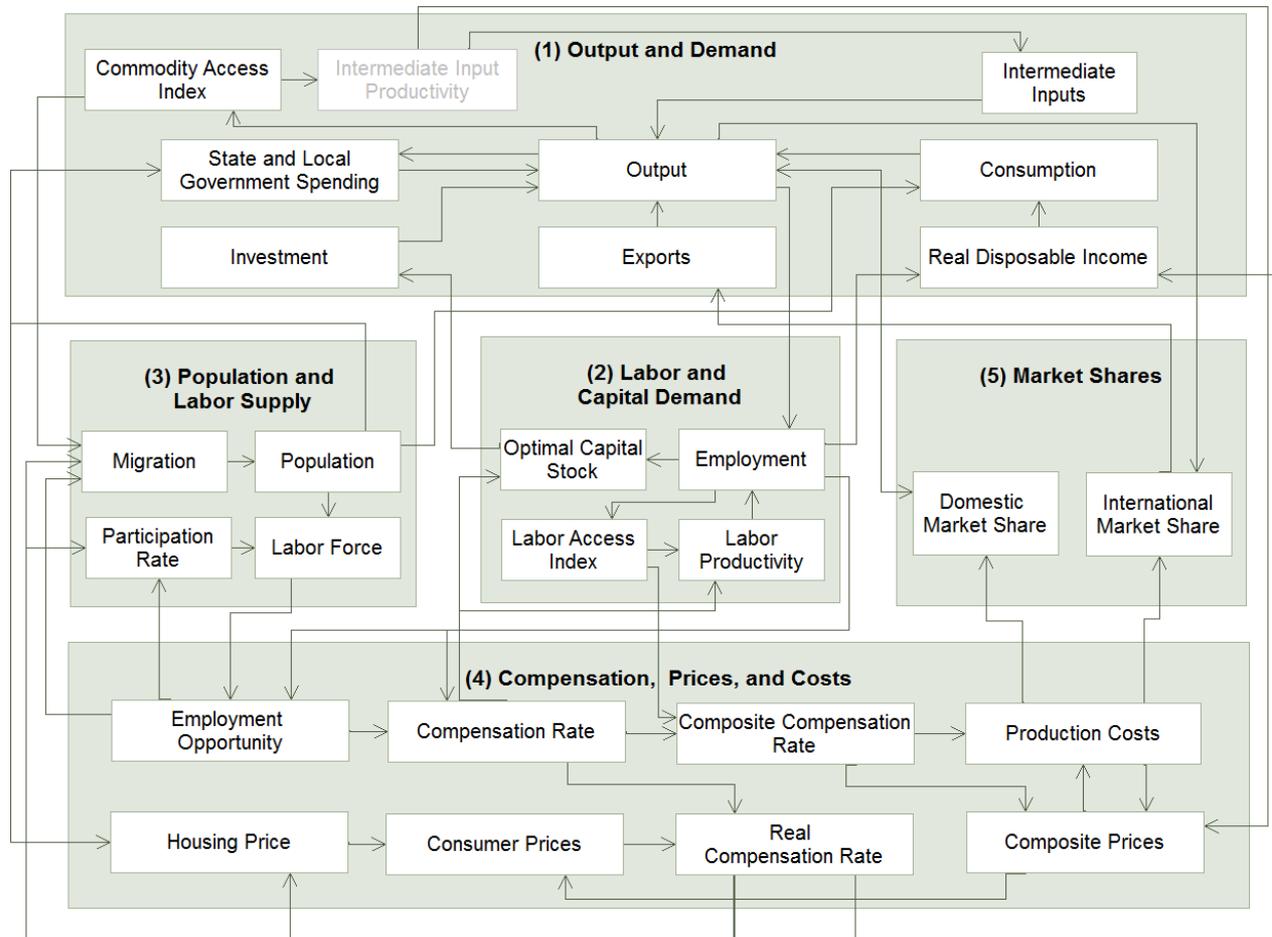
CTAM Model



- **Carbon Tax (or Price) Analysis Model**
 - ▣ Keibun Mori
 - Open-sourced
 - ▣ Public data only from the U.S. DOE
 - ▣ Previous applications:
 - Massachusetts
 - Washington
 - King County, WA
 - California
 - Federal (9-regions)



REMI PI⁺



what does **REMI** say? sm

Integrated System



CTAM Model

- Energy costs for petroleum-derived products, natural gas, and electricity
- Residential, commercial, and industrial sectors

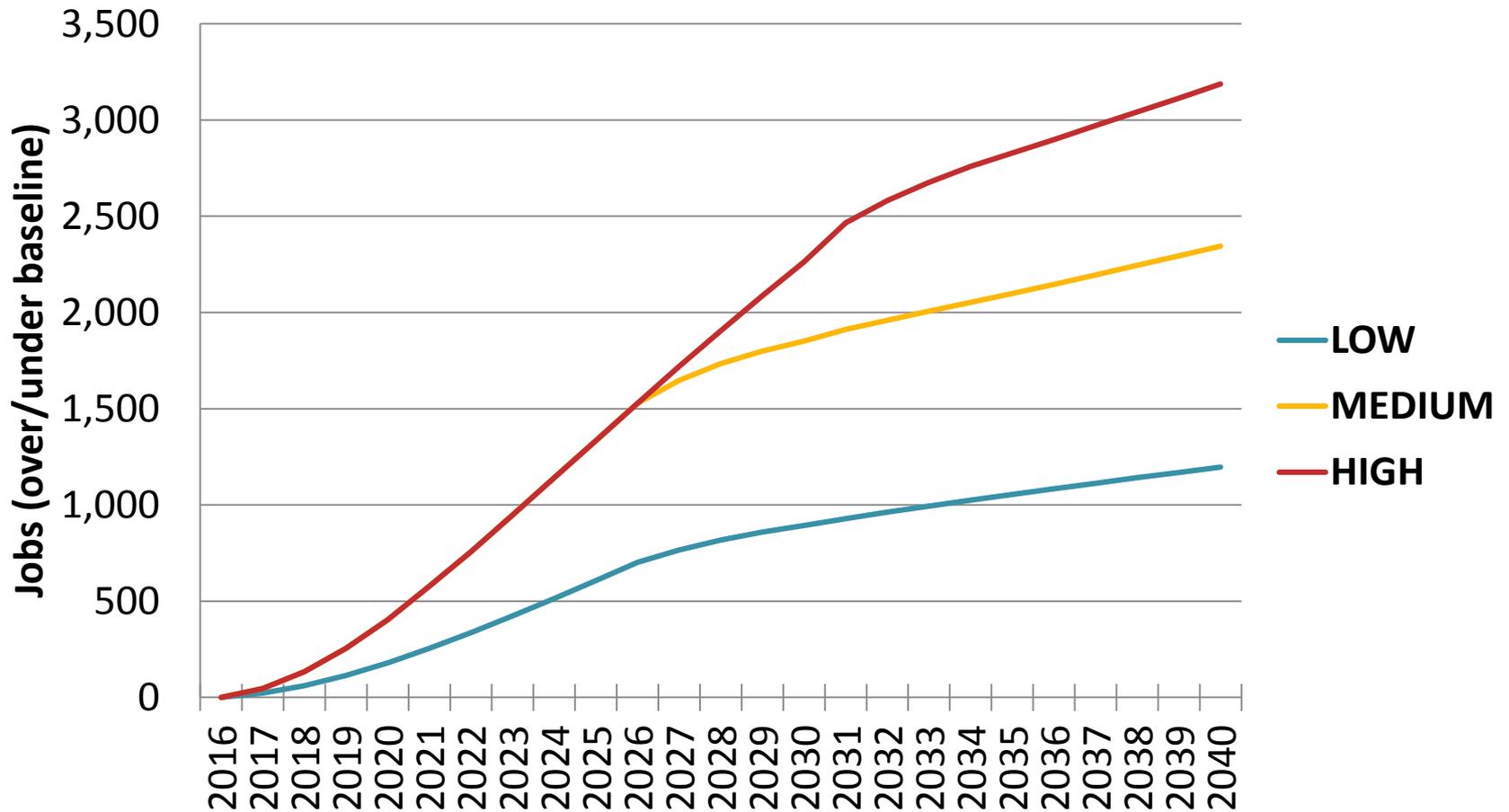
PI+ Model

- Variables for energy-related costs of living and doing business in Vermont
- Revenue recycling measures
- GDP and population growth

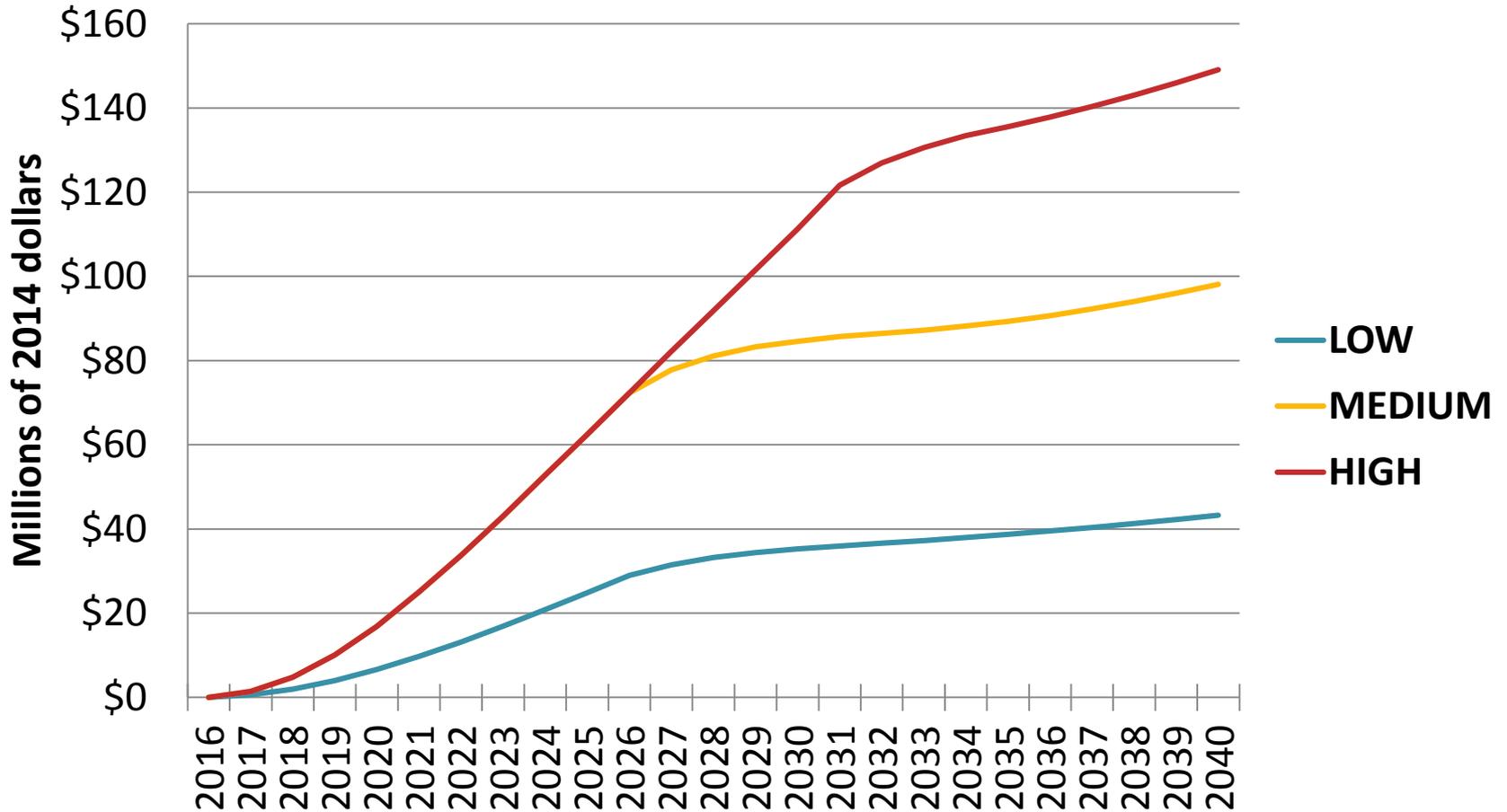
Economics and Demographics

REMI PI⁺

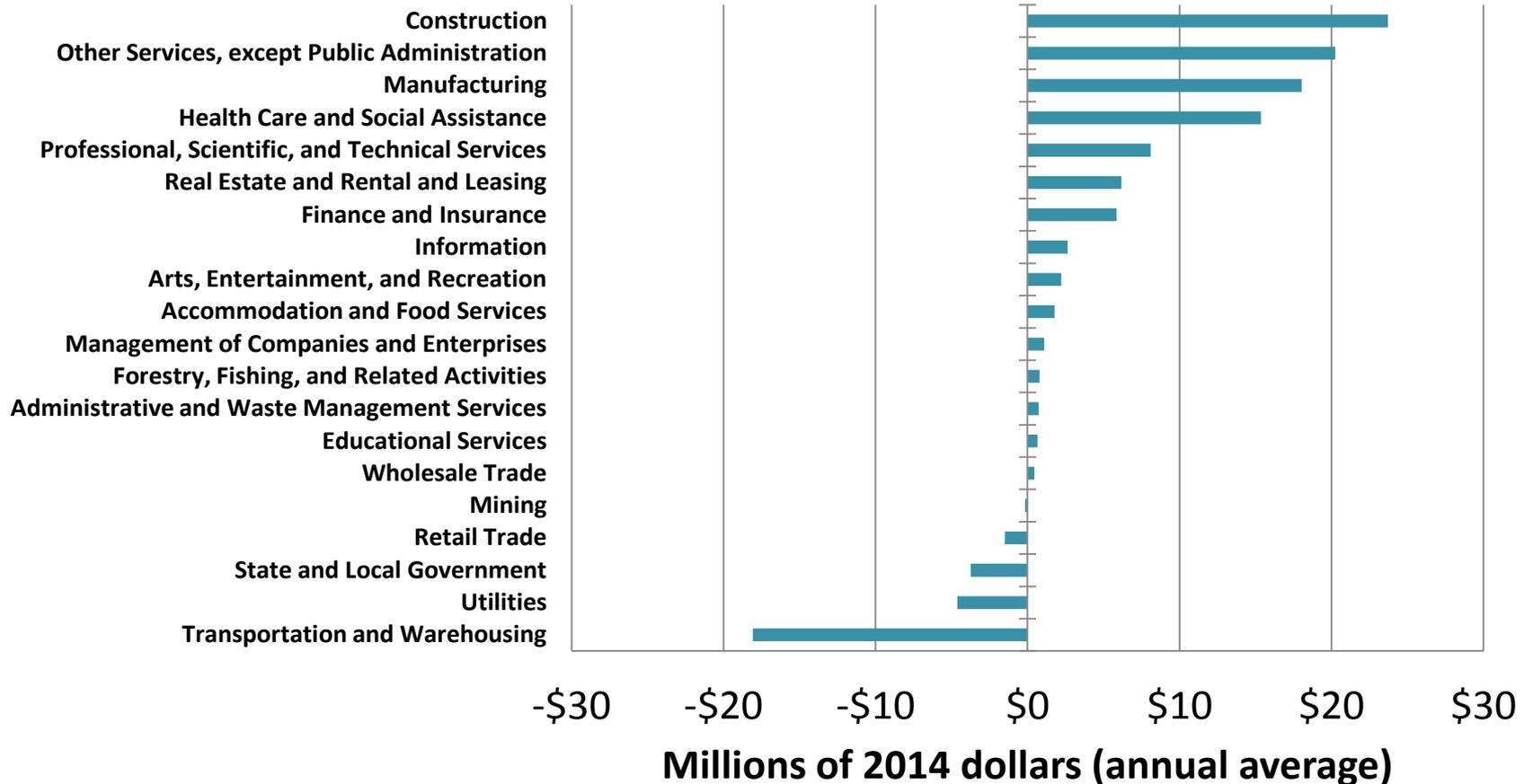
Total Employment



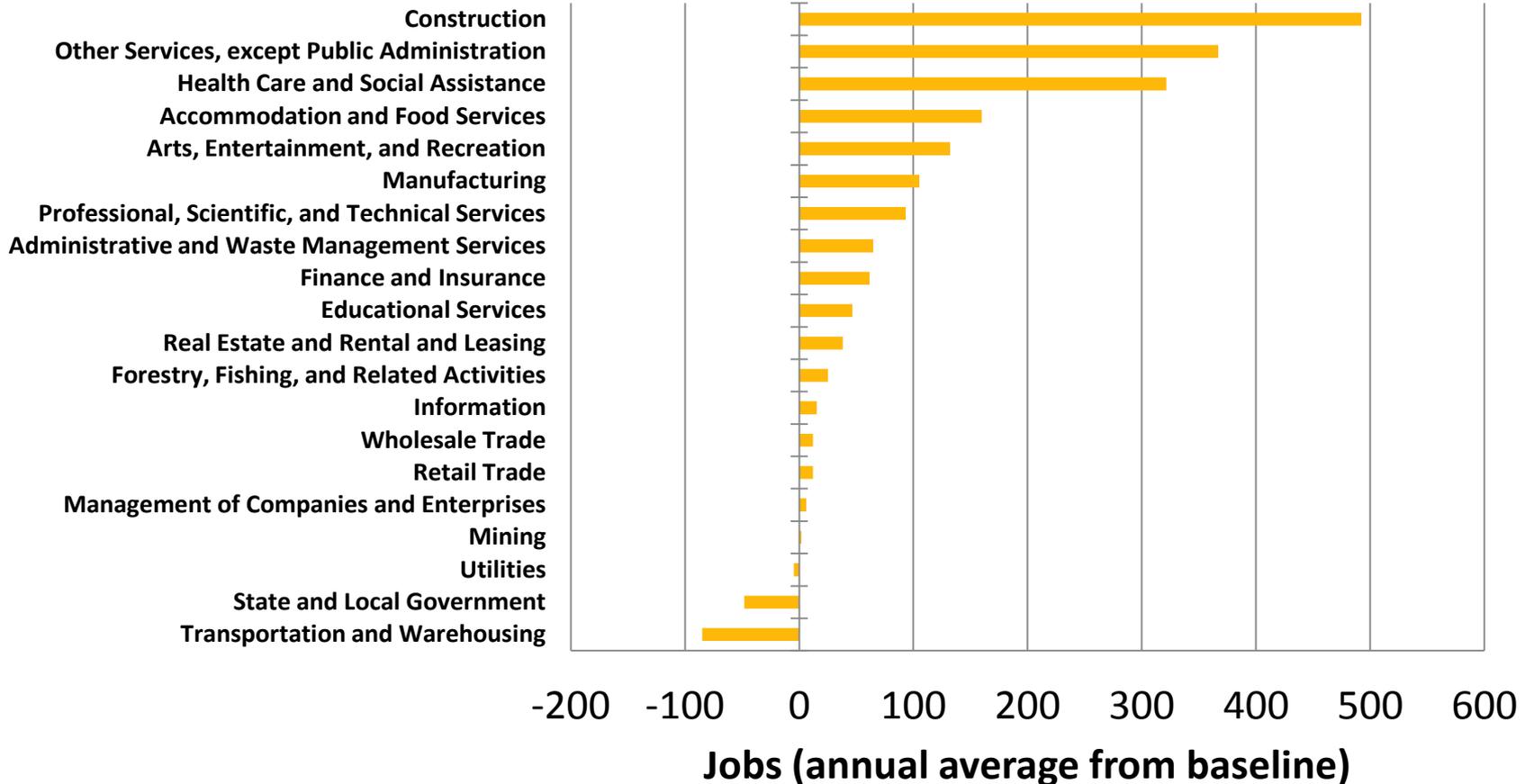
Gross State Product



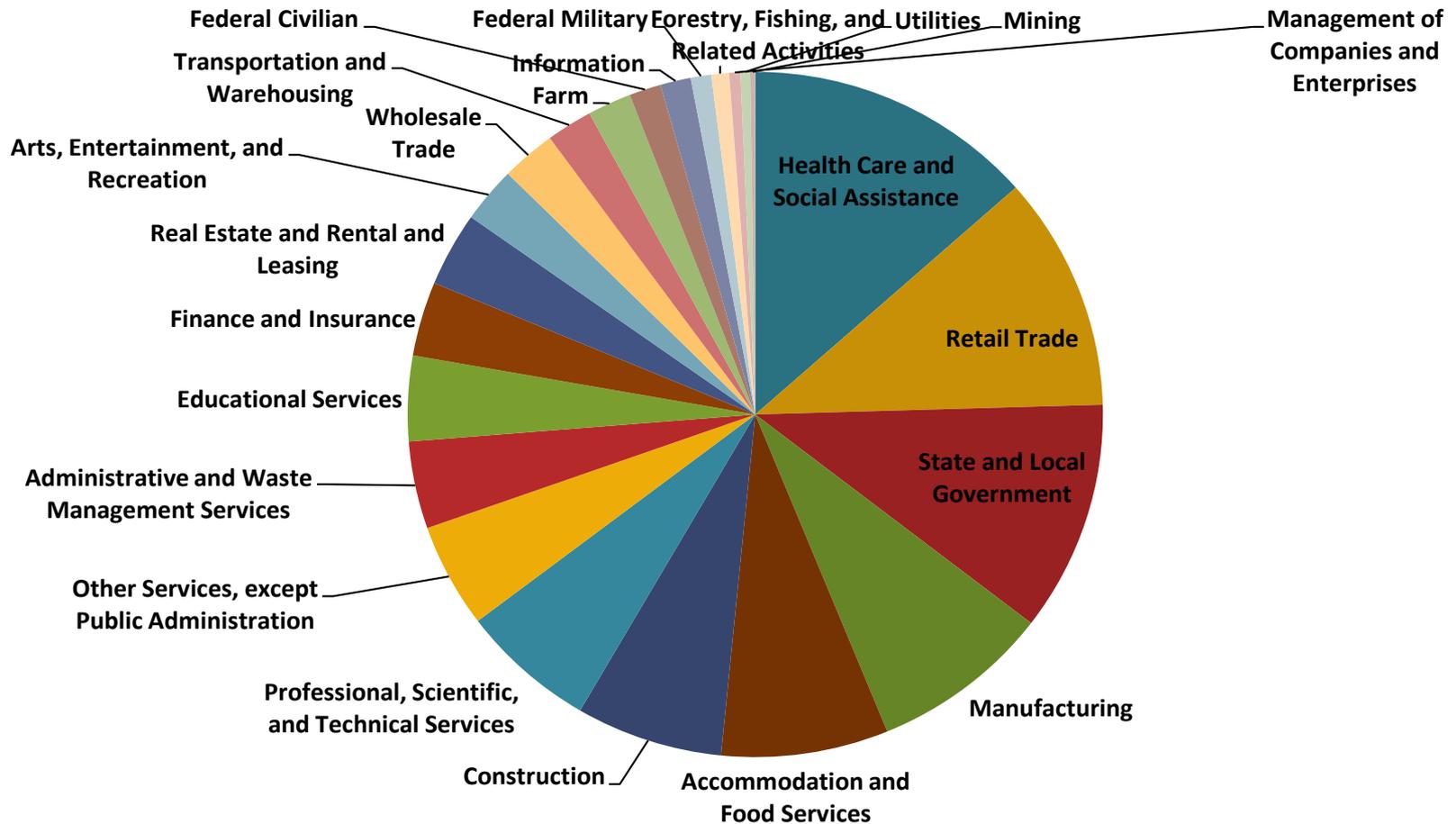
GSP by Industry



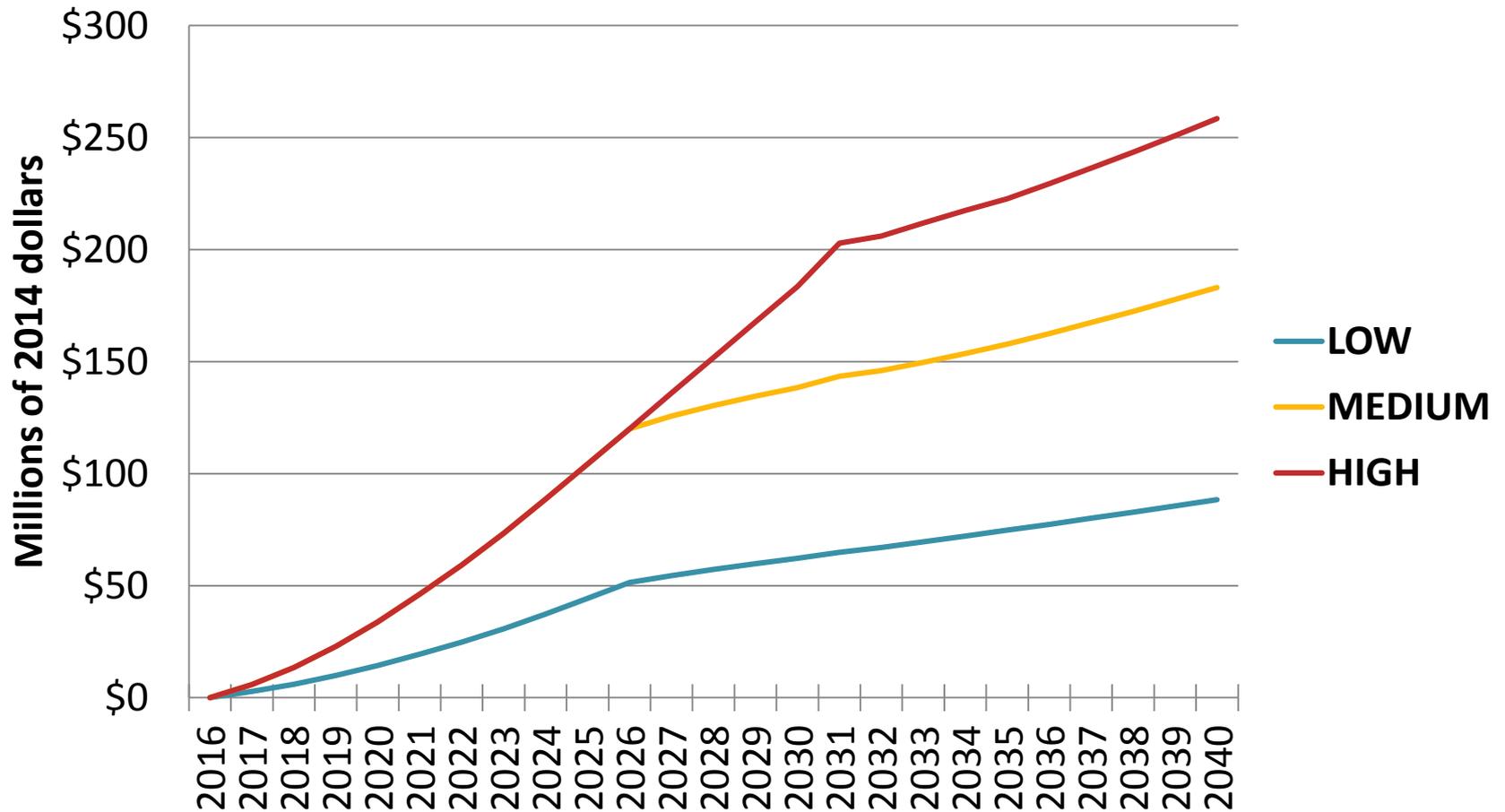
Jobs by Industry



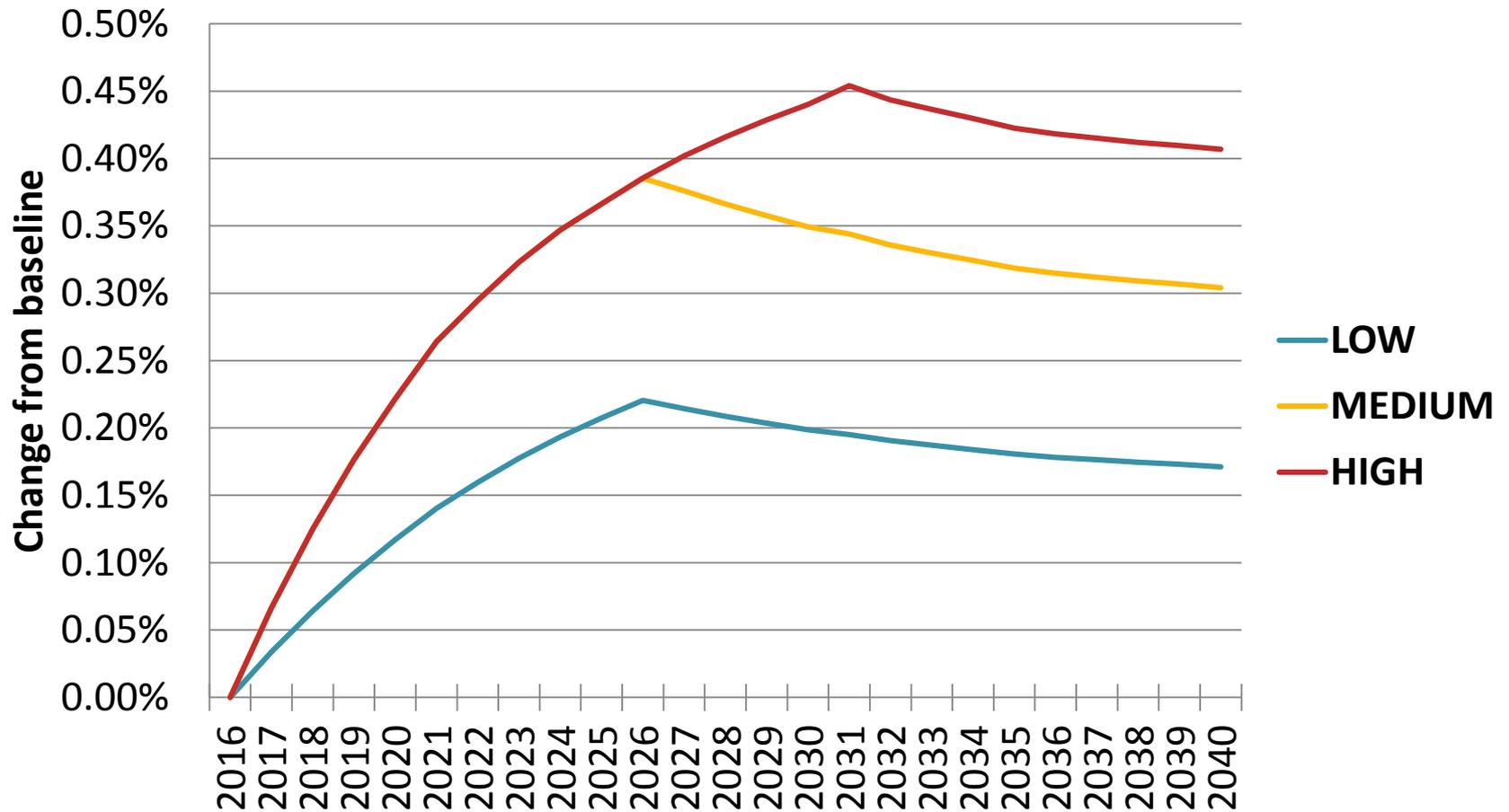
Vermont Jobs (2013)



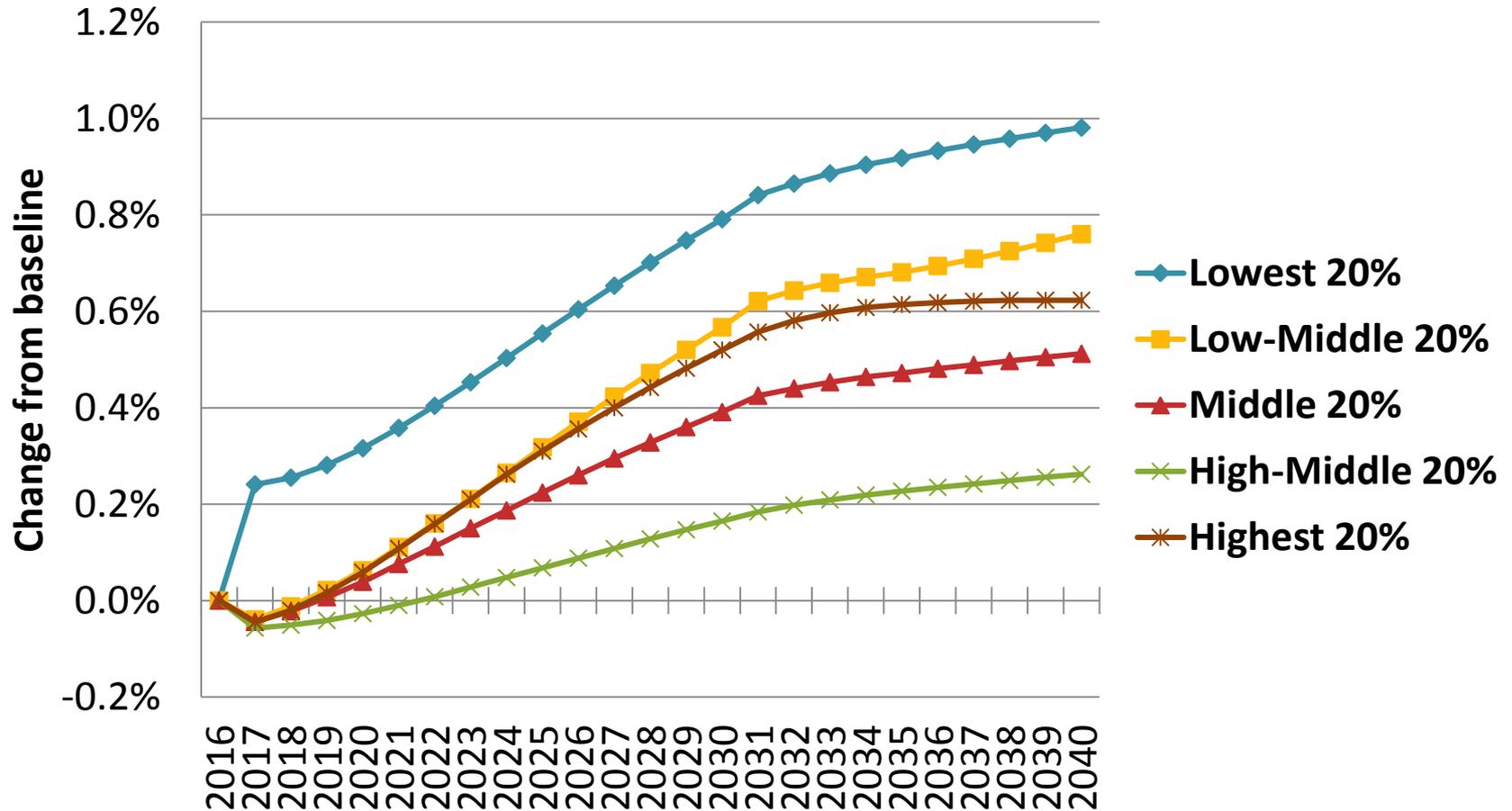
Real Personal Income



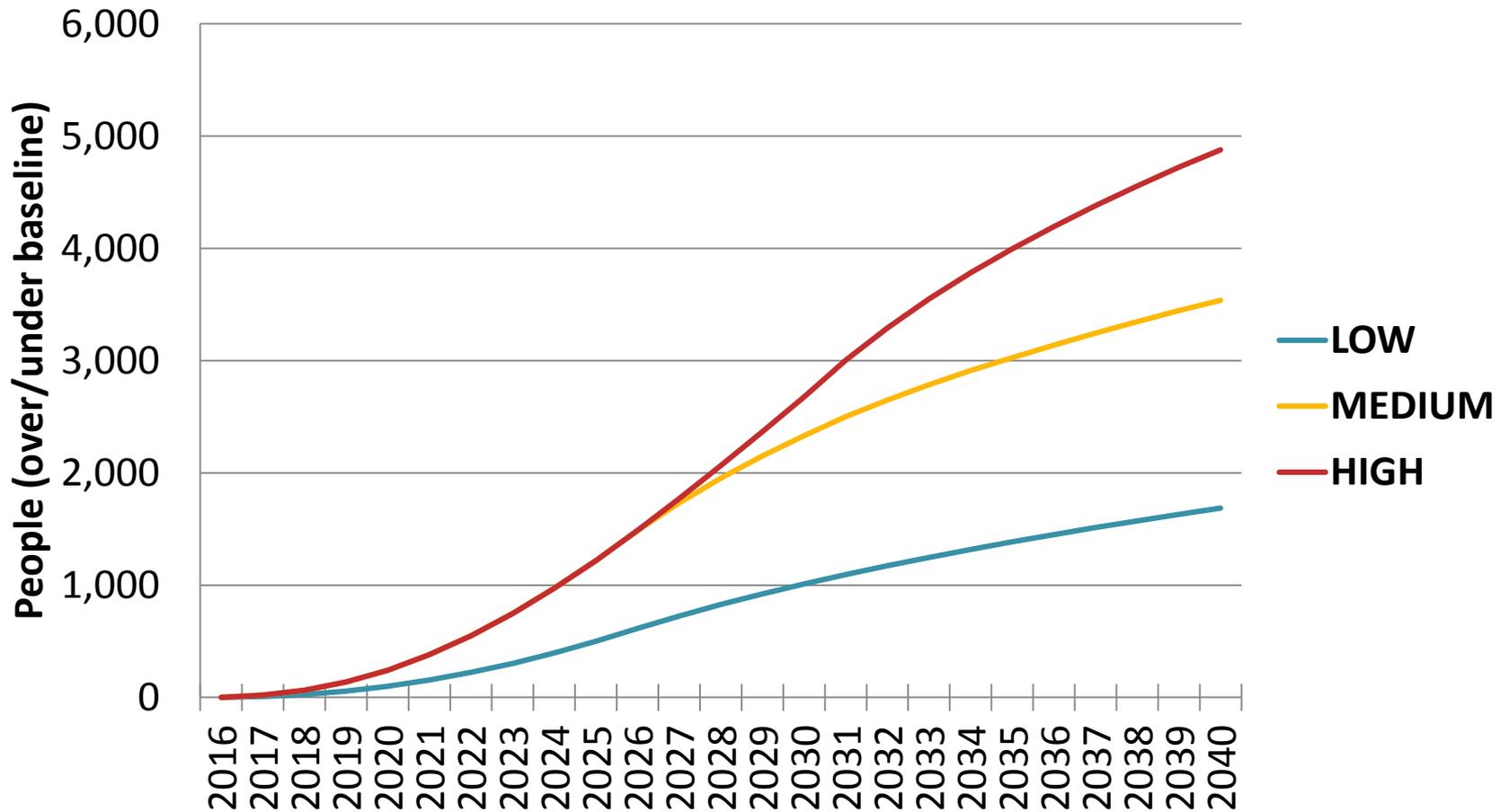
Cost of Living Index



Income by Quintile



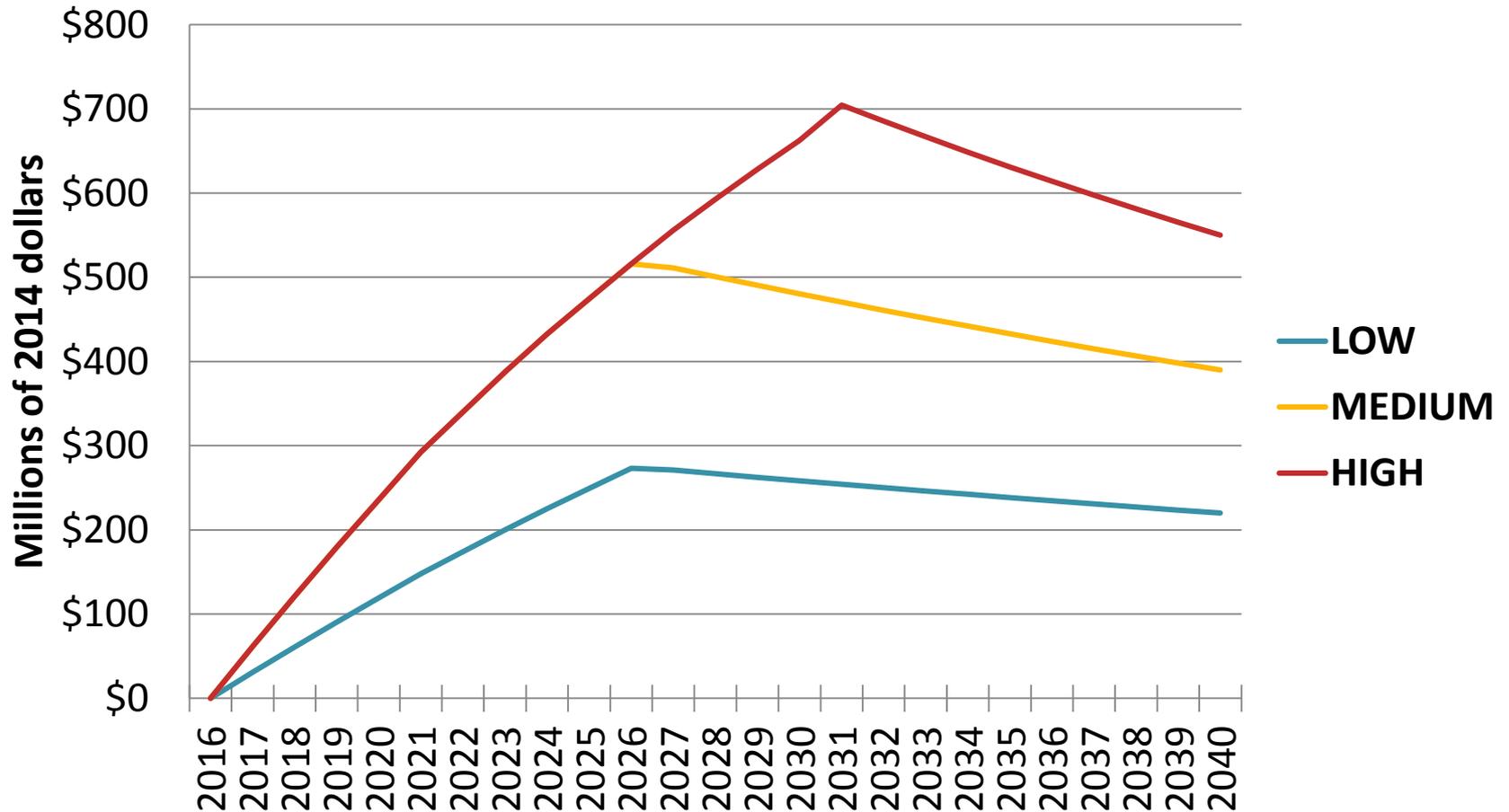
Population



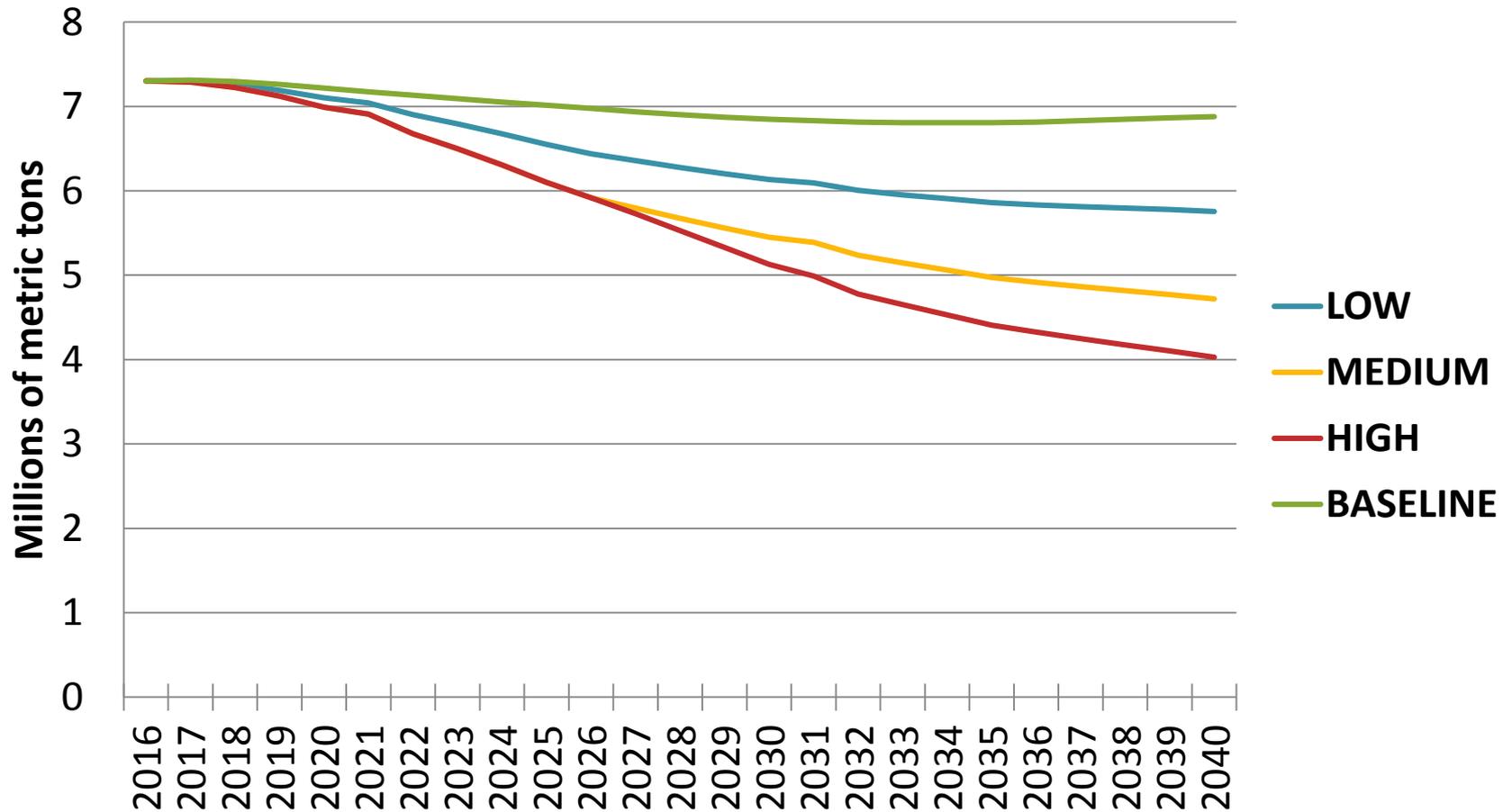
Fiscal and Emissions

Vermont CTAM (“VACTAM”)

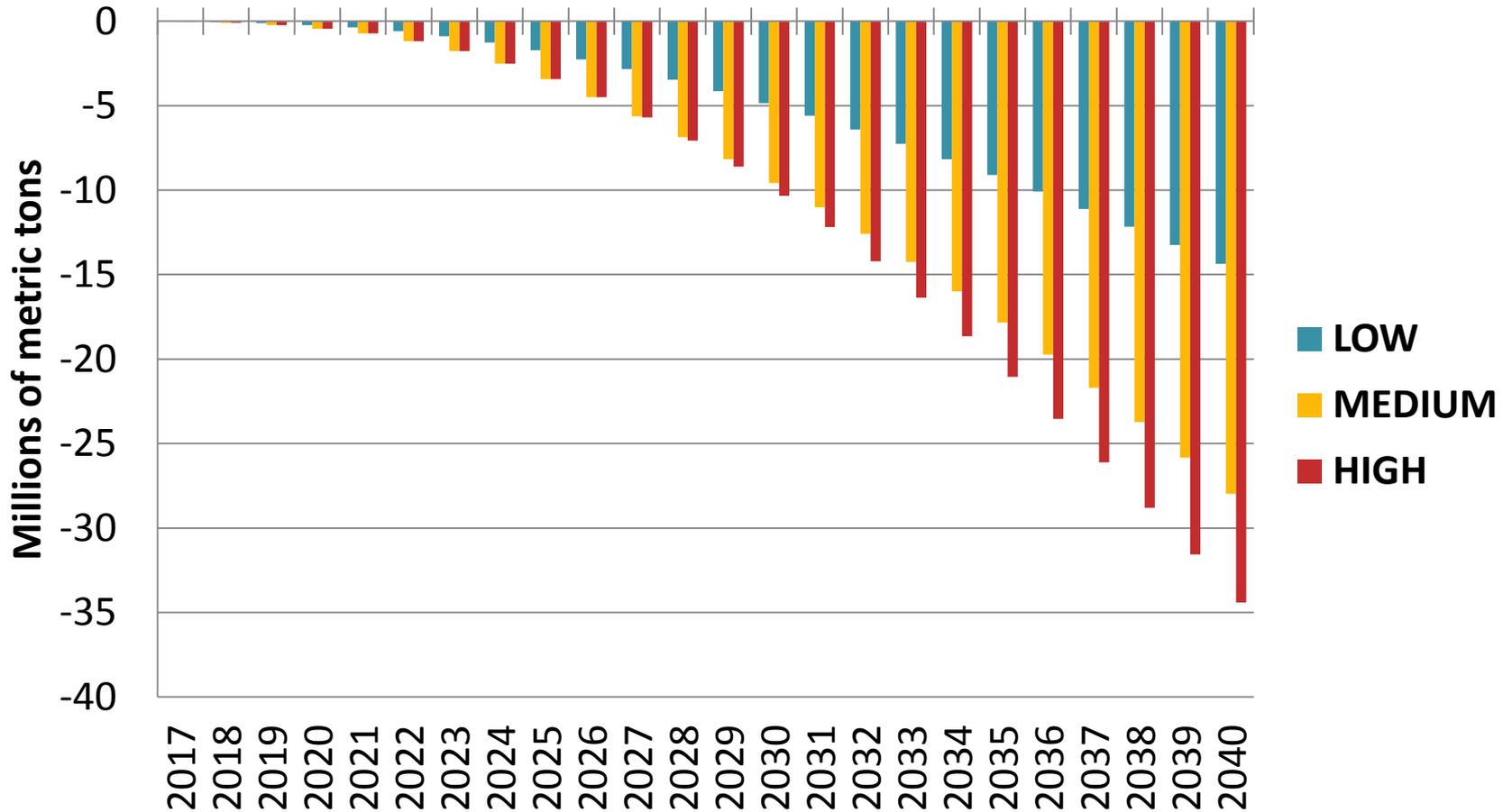
Carbon Revenues



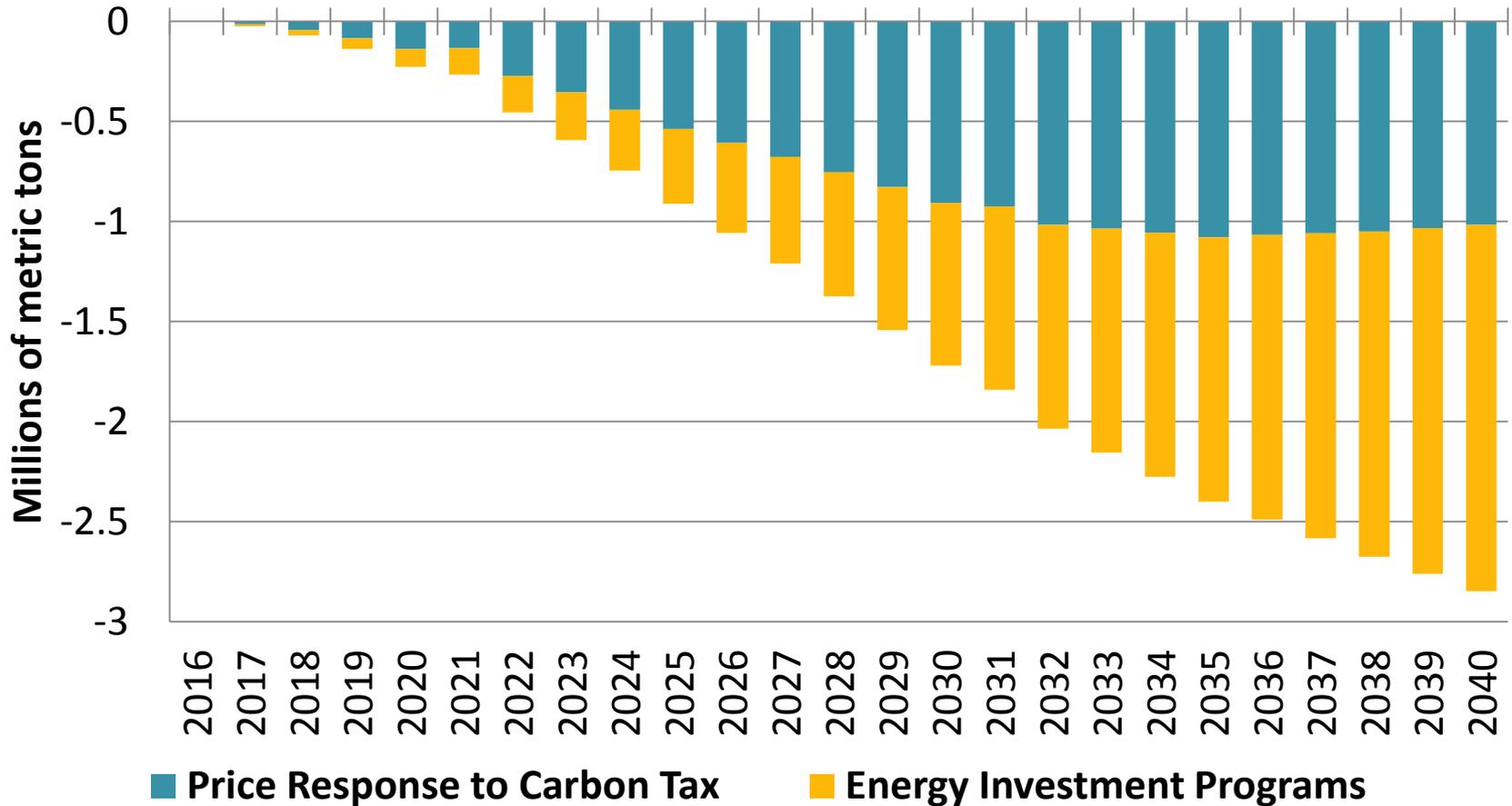
Carbon Emissions



Cumulative Savings



Source of Savings



Main Takeaways



Economic

- 1,500 to 3,000 additional jobs
- Additional GSP and real personal income

Fiscal

- \$500 million to \$700 million per year
- Declines with emissions in long-term

Emissions

- Falls up to 40% from the baseline
- Split between price and efficiencies

Demographic

- 2,000 to 4,000 more Vermonters
- Responding to stronger labor market



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