States' Role in Economic Growth

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what does REMI say? sm

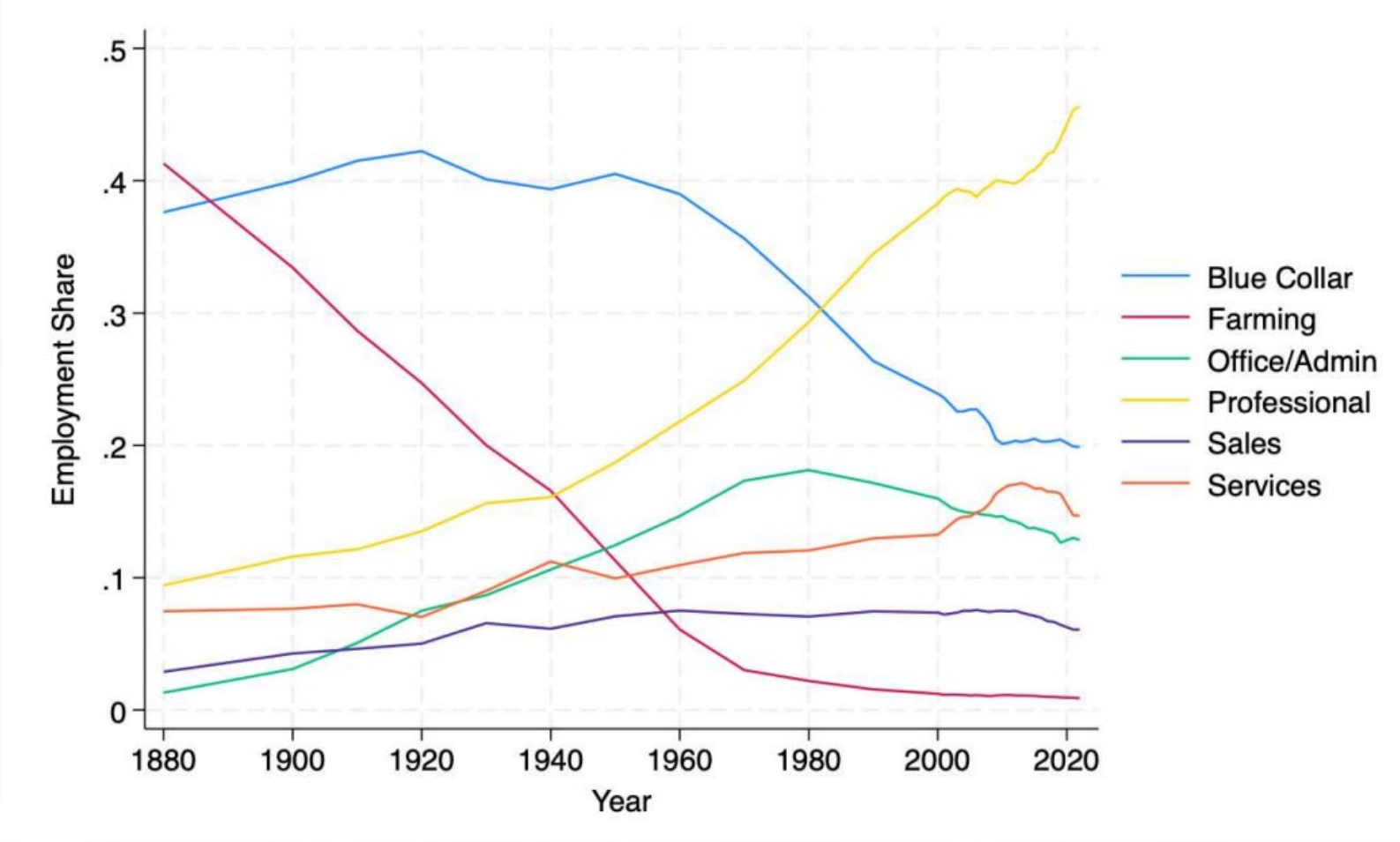
Looking at Emerging Megatrends from the Perspective of State Economies

- Megatrends: Changing demographics, Artificial Intelligence (AI)
- Understanding macroeconomic dynamics at the national and state level.

Technology and Artificial Intelligence

- New Technologies Disrupt industries and occupations
- Typical pattern: Job losses offset by job gains, increase in productivity, transition is often destabilizing
- Focus on AI; ongoing technological change also includes ICE to EV's, remote work/communication, energy

Changes in the occupation structure of the US labor market, 1880–2024

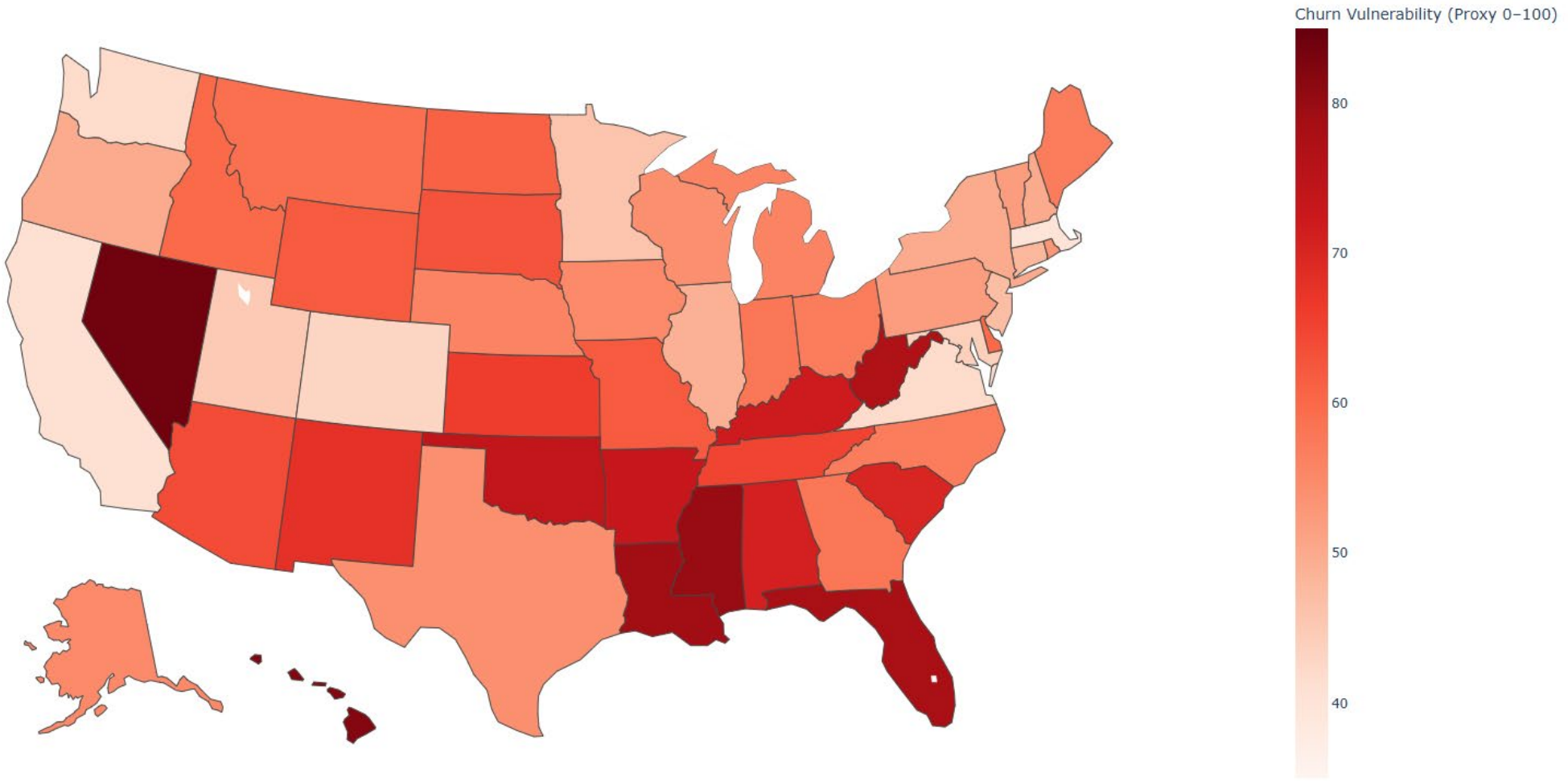


Notes: Calculations are based on decadal US census data from 1880 to 2000 (except for 1890) and 2001-2022 American Community Survey (ACS) samples (except for 2020), sourced via the Integrated Public Use Microdata Series (IPUMS) (Ruggles et al. 2024). Occupations are harmonized across decades to two-digit SOC codes using the IPUMS occ1950 encoding and methodology used in Autor and Dorn 2013; a detailed methodology is described in the data appendix. Samples are restricted to workers aged 18 to 64 in noninstitutional quarters who provide nonmilitary occupational responses.

Figure from Deming, David, ChristopherOng, and Lawrence H. Summers. 2024. "Technological Disruption in the US LaborMarket" In Strengthening America'sEconomic Dynamism. Washington, DC: Aspen Institute.

Labor market churn by decade, 1880–2020

Map of Job Churn Vulnerability from AI/ Automaton



Source: OpenAI (2025). Large Language Model. *ChatGPT v5.0*. Using OLS, QCEW, Frey and Osbourne (2017).

Model Simulation 1: ↑ Retail Productivity

Scenario:

- Increased productivity in retail trade: 10% increase from 2025-2035, "Anticipatory Fed."

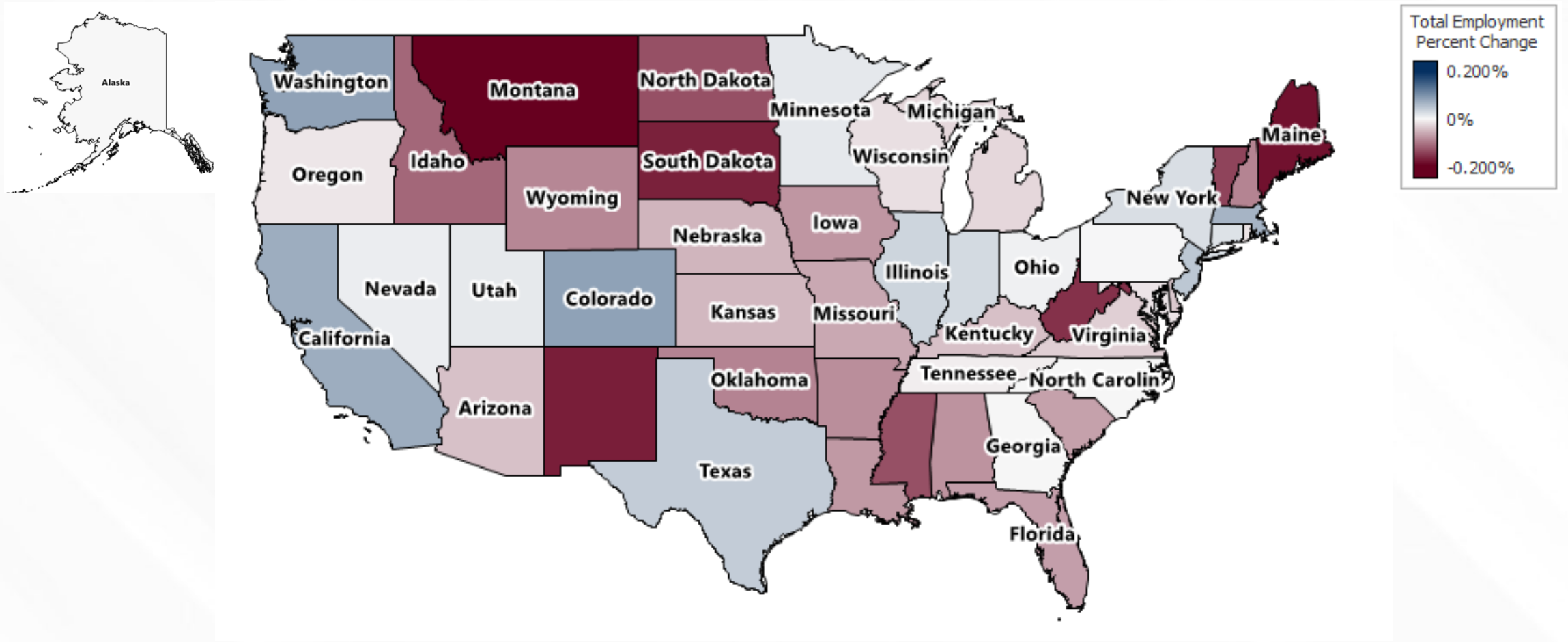
Policy variable:

➢ Labor Productivity in Retail trade

Economic Summary:

		Year										
Category	Units	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Employment	Thousands (Jobs)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gross Domestic Product	Billions of Fixed (2017) Dollars	0.39%	0.39%	0.39%	0.38%	0.39%	0.39%	0.39%	0.39%	0.39%	0.39%	0.39%
Real Disposable Personal Income per Capita	Thousands of Fixed (2017) Dollars	0.50%	0.44%	0.44%	0.45%	0.46%	0.47%	0.48%	0.48%	0.49%	0.49%	0.49%

↑ Retail Productivity Results: Maps



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↑ Retail Productivity: Weighted Compensation Rate

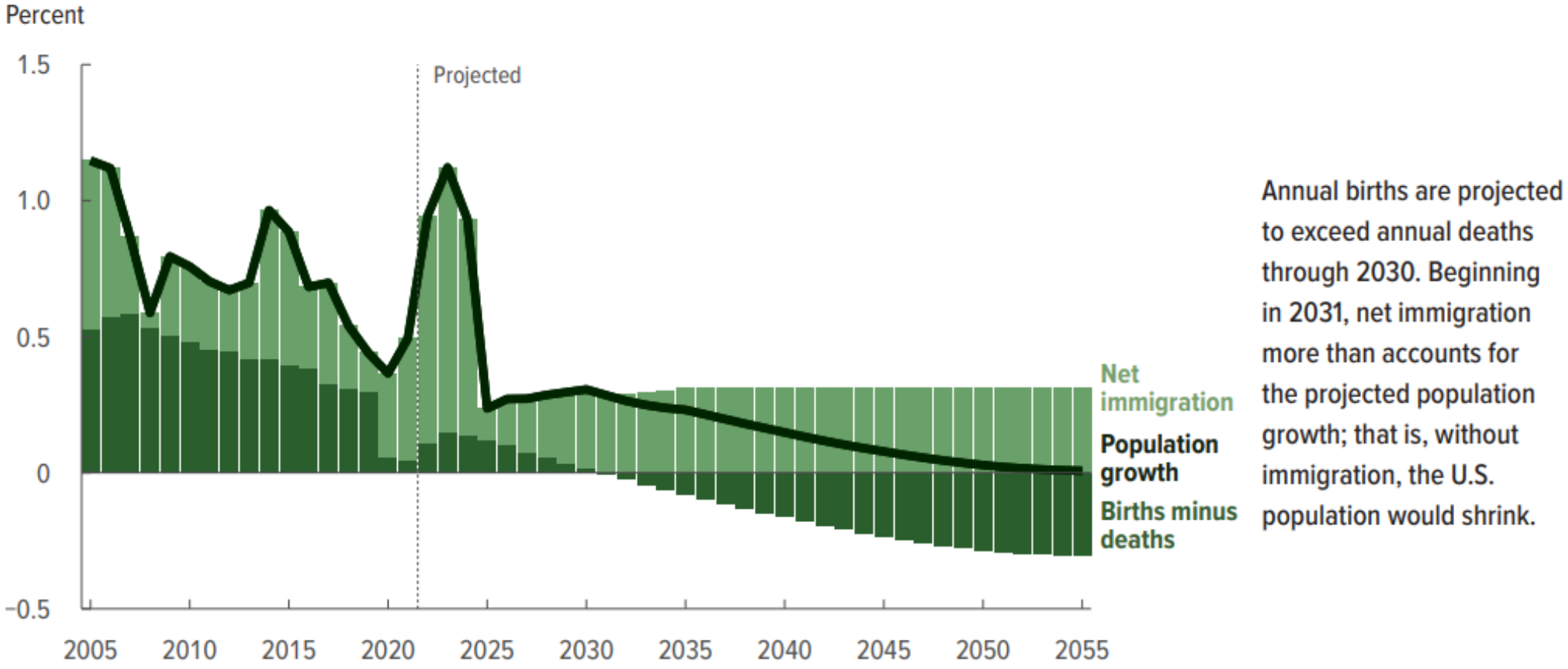
Demographic Change

Immigration

- CBO has lowered population growth estimates in September 2025 release from January 2025
- Lower immigration, lower fertility; 2035 population projection in 2035 4.5 million smaller (1.2%)
- Administrative actions and 2025 reconciliation act represents a shift in policy

Congressional Budget Office: Demographic Outlook

Population Growth and Contributing Factors



Annual births are projected to exceed annual deaths through 2030. Beginning in 2031, net immigration more than accounts for the projected population growth; that is, without immigration, the U.S. population would shrink.

Data source: Congressional Budget Office. See www.cbo.gov/publication/61390#data.

Population refers to the Social Security area population, which includes all residents of the 50 U.S. states and the District of Columbia, as well as civilian residents of U.S. territories. It also includes federal civilian employees and members of the U.S. armed forces living abroad and their dependents, U.S. citizens living abroad, and noncitizens living abroad who are eligible for Social Security benefits on the basis of their earnings while in the United States.

Immigration: AEI Estimates

- 2025 estimate range: -525,000 to 115,000
- 2026 estimate range: -735,000 to 507,000
- Afterwards, range from +2,000,000 to -1,500,000 net annual immigration

Potential Path for U.S. Economy

- Rapid technological innovation combined with nativist immigration policy
- Rapid technological innovation combined with nativist policy (Immigration Act of 1924)
- 1920 Immigration as Percent of US: 13.2, 1970: 4.7%; Current Population Survey Jan 2025: 15.8%

Model Simulation 2: ↓ Retail Workers and ↓ Int'l Immigration

Scenario:

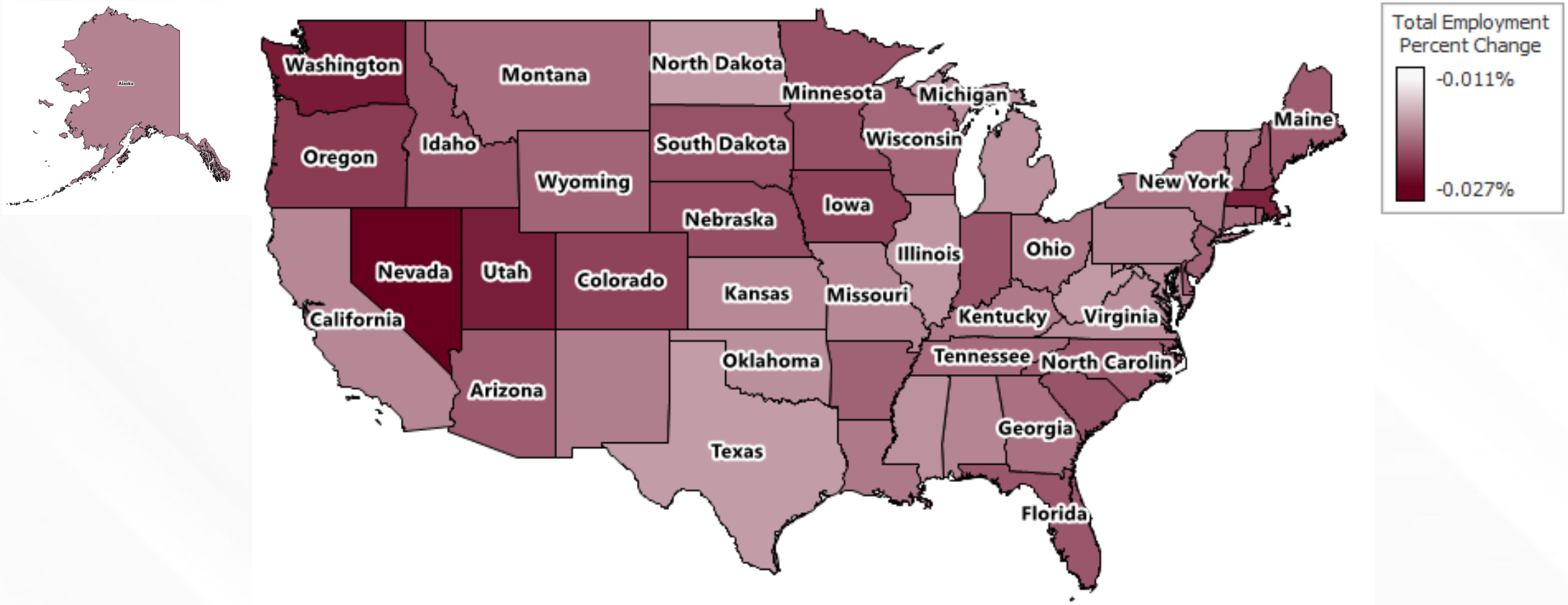
- Fewer workers needed for retail, "Anticipatory Fed."
- Less immigration → Lower labor supply available for retail

Model Results: ↓ Retail Workers and ↓ Int'l Immigration

		Year										
Category	Units	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Total Employment	Thousands (Jobs)	-33.431	-35.436	-39.787	-42.162	-44.130	-46.123	-48.490	-51.164	-55.271	-59.787	-65.104
Population	Thousands	-101.274	-103.796	-106.373	-108.981	-111.597	-114.198	-116.761	-119.263	-121.686	-124.012	-126.225
Labor Force	Thousands	-49.402	-48.780	-49.340	-50.199	-51.091	-51.981	-53.029	-54.212	-55.606	-57.274	-59.178
Gross Domestic Product	Billions of Fixed (2017) Dollars	-3.971	-4.729	-5.752	-6.593	-7.421	-8.296	-9.271	-10.370	-11.745	-13.343	-15.329
Real Disposable Personal Income	Billions of Fixed (2017) Dollars	-3.644	-4.089	-5.001	-5.839	-6.709	-7.653	-8.696	-9.855	-11.251	-12.828	-14.754
Real Disposable Personal Income per Capita	Thousands of Fixed (2017) Dollars	0.004	0.003	0.001	0.000	-0.002	-0.004	-0.006	-0.009	-0.012	-0.016	-0.020

Weighted Compensation Rate: ↓ Retail Workers, ↓ Int'l Immigration

↓ Retail Workers and ↓ Int'l Immigration Results: Maps



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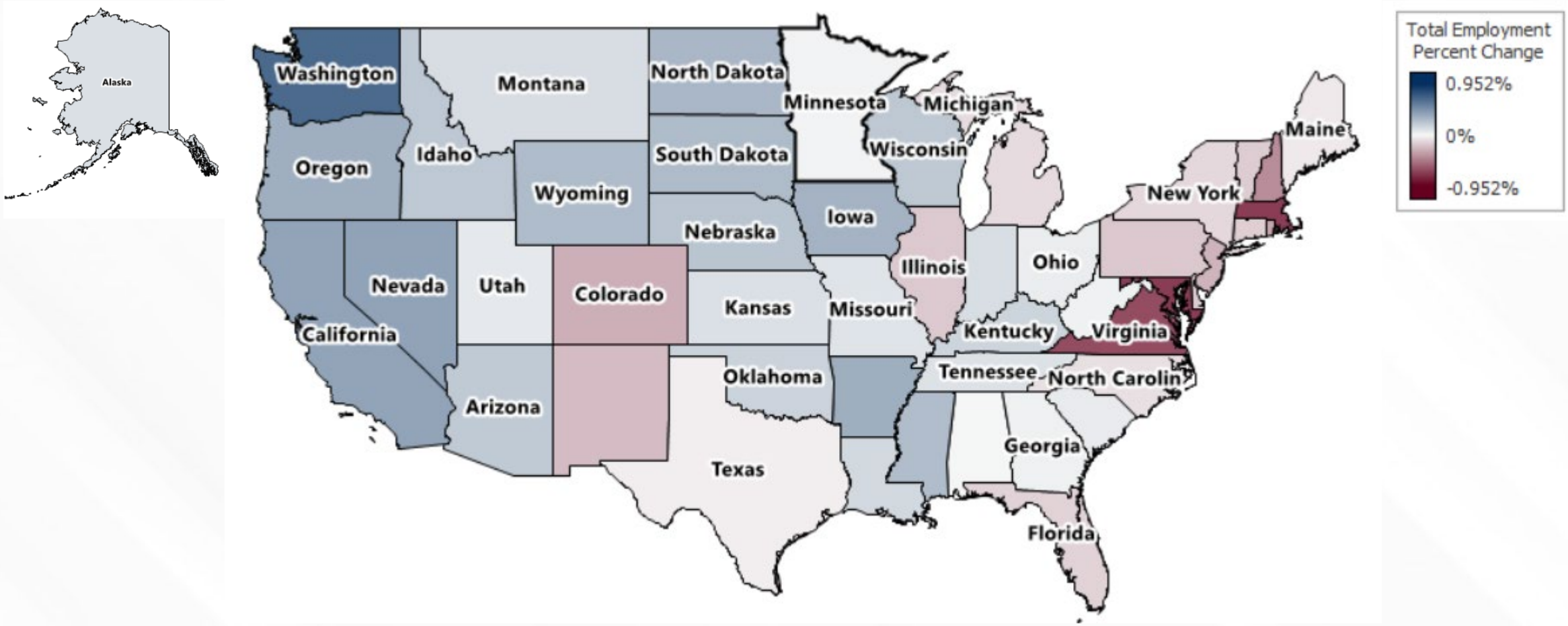
Model Simulation 3: ↑ Professional Services, ↑ Data Processing Employment

Context for Model Simulation 3: US Map of Data Centers

Results: ↑Professional Services, ↑Data Processing Employment

Weighted Compensation Rate:
↑ Professional Services, ↑ Data Processing Employment

Model Simulation Results: Maps



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Today's Economy in Historical Context

- Investment in "information processing equipment and software" is 92% of U.S. GDP growth in first half of 2025 (Jason Furman)
- Tangible economy (housing and office construction, food, motor vehicles, retail sales) under stress (but supported by 'wealth effect')
- Economy is a bet on a highly speculative future of AI, Robots, the Digital Economy, Drones, Crypto, Nuclear, EV's, Fintech, VR, Space.
- High-risk economy: bets on the future have led to financial panics and depressions

Today's Economy in Historical Context

- Panics of: 1792; 1819; 1837; 1857; 1873; 1893; 1907; 1920; 1929.
- 1973 stagflation; 1986-95 savings and loan; 2000 dot.com; global financial crisis 2007; Covid-19 2020
- Land speculation; rail speculation; stock market speculation.
- Often leading to multi-year recessions; blunted recently by expansionary monetary and fiscal policy (kicking the can?)
- Process of "creative destruction" leading to higher productivity in the long run, but often at high economic cost.

Implications for State, and Local/Regional Policy

- Education and Training: future economy demands high skills across all occupations
- Data-driven economic development policy: economic and fiscal benefits of incentives require accurate calculations
- Embrace change and innovation with open eyes
- Policies to support human needs (transportation, housing, education, health).
- Develop resilient fiscal policies.

Conclusion

- A New Era: Rapid AI-driven technological change; nativist immigration policy
- Increase in automation driven by technology and labor scarcity
- Disruption to state and local economies, occupational categories
- We can evaluate and quantify various alternatives with REMI modeling

Thank you for attending!

For more information, please contact
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