

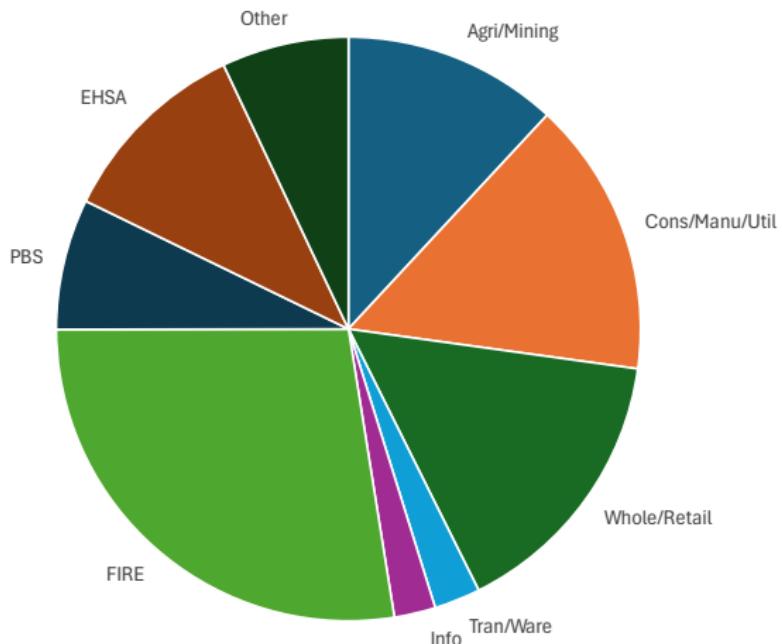
State Economic Conditions: South Dakota

Joseph M. Santos

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South Dakota State University

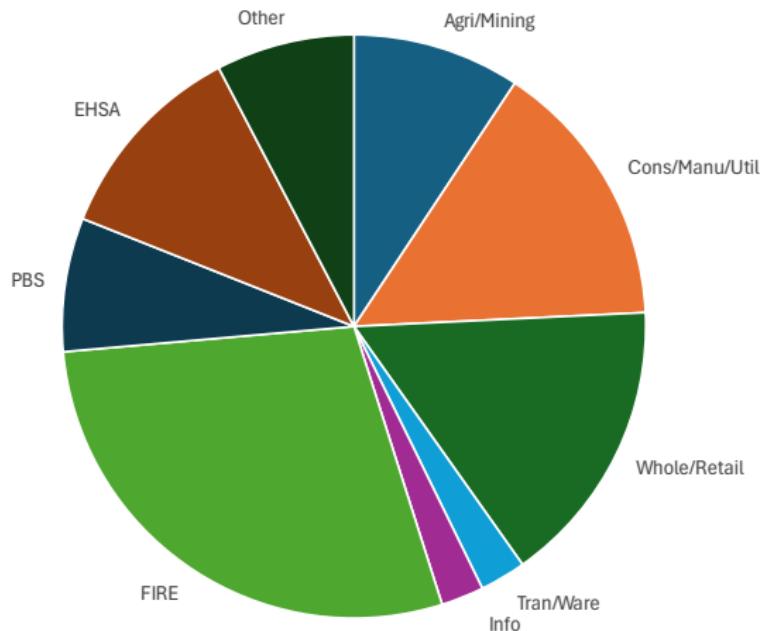
level set

South Dakota GDP by Private Industry Composition, 2023

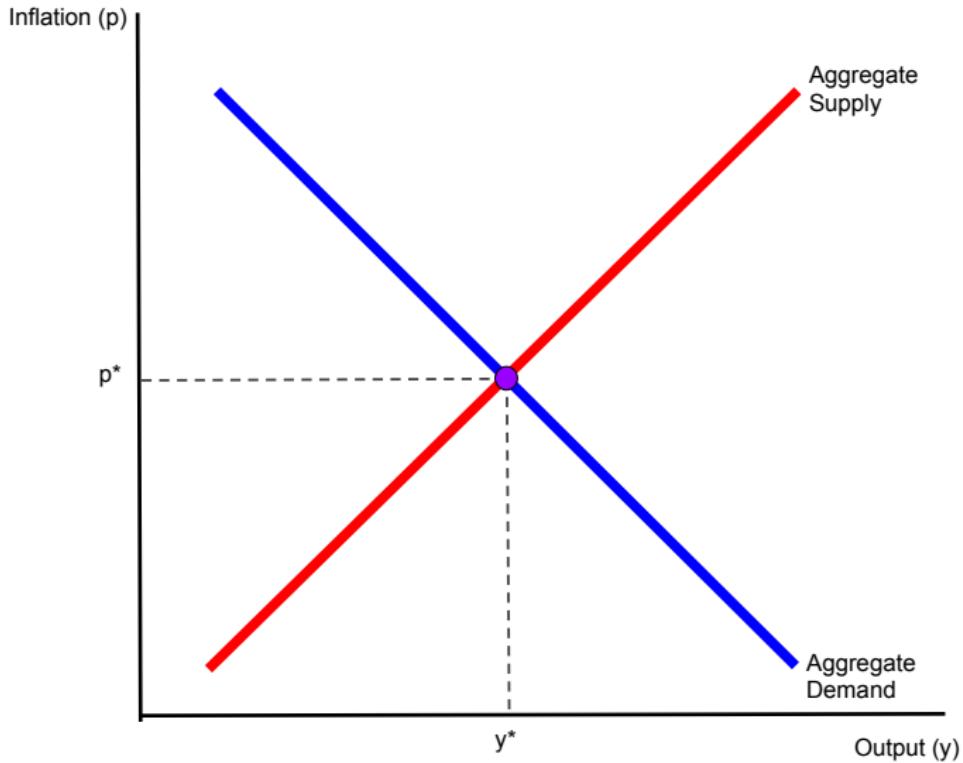


Source: U.S. Bureau of Economic Analysis

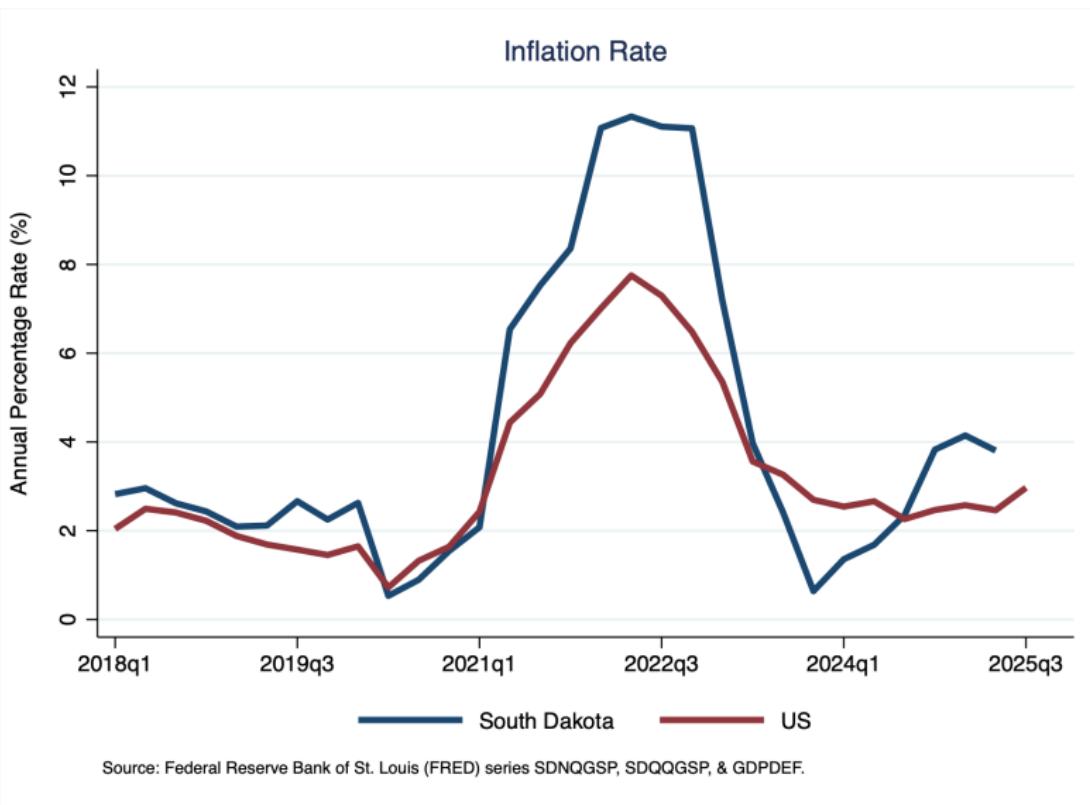
South Dakota GDP by Private Industry Composition, 2024



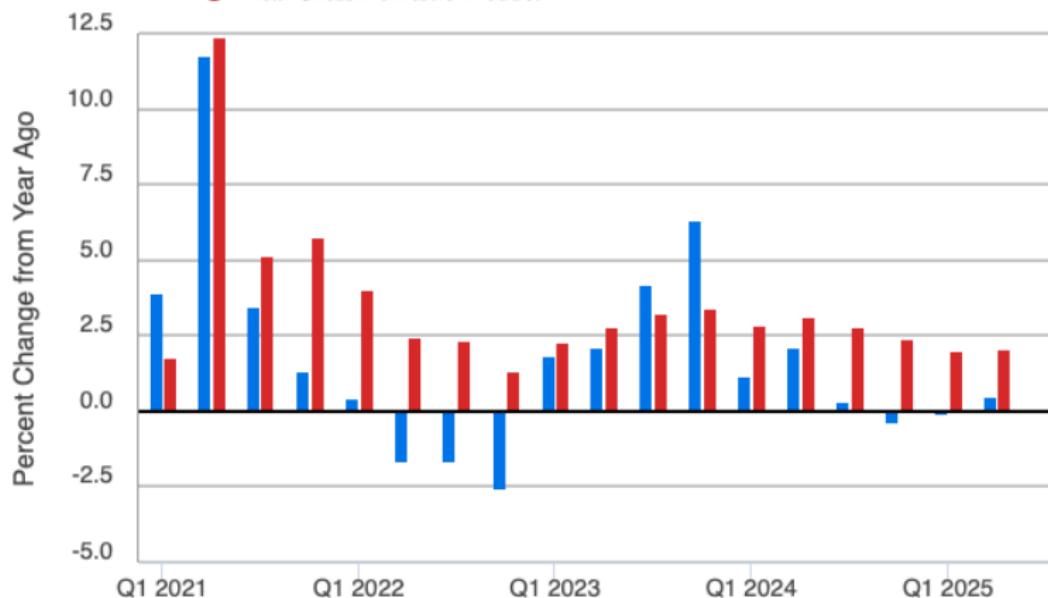
Source: U.S. Bureau of Economic Analysis



purchasing power (*p*)



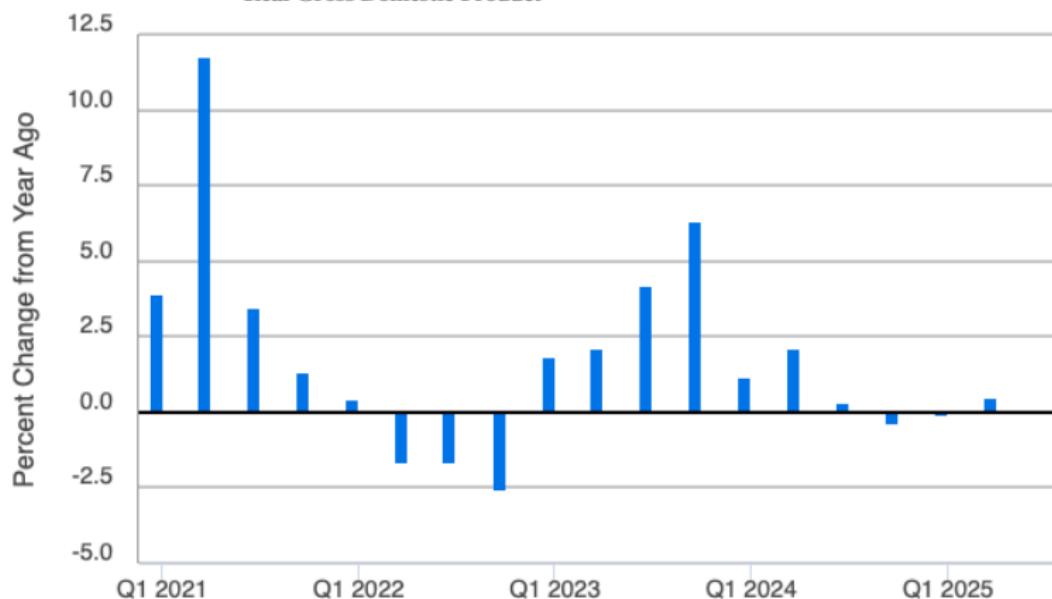
real power (y)



Source: U.S. Bureau of Economic Analysis via FRED®

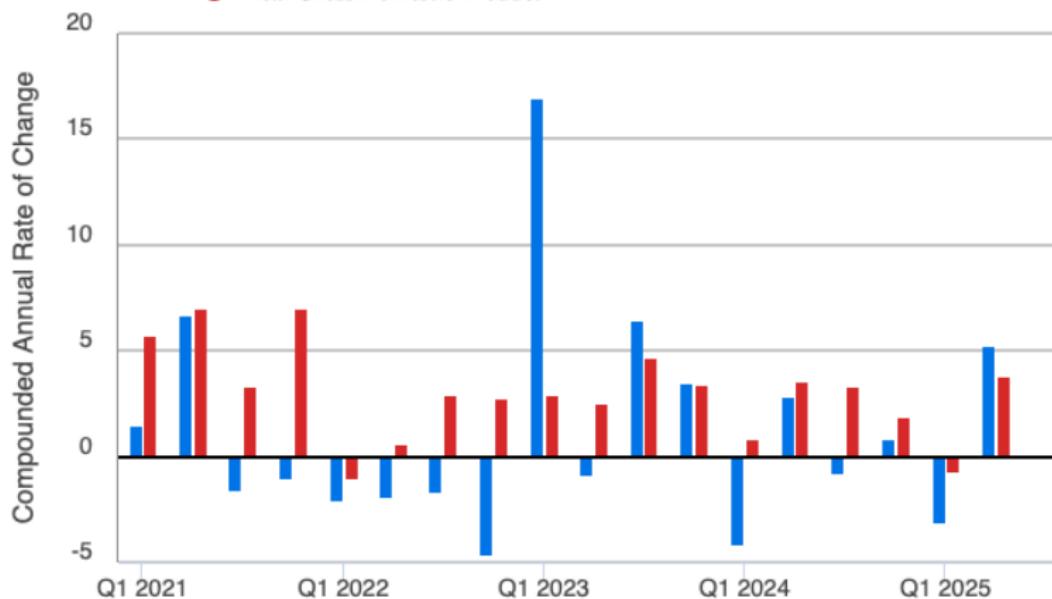


Real Gross Domestic Product: All Industry Total in South Dakota
Real Gross Domestic Product



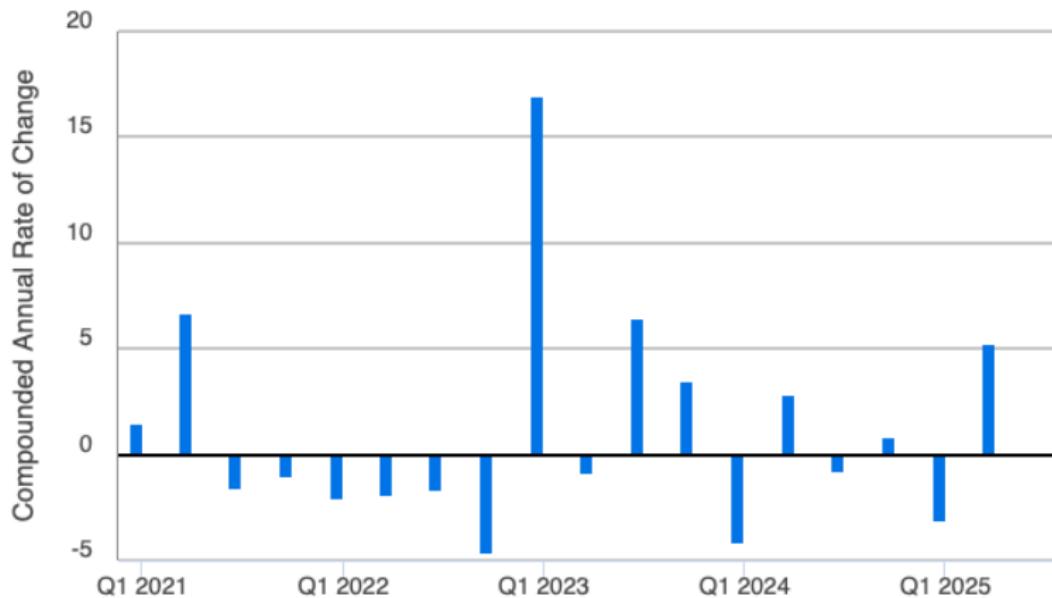
Source: U.S. Bureau of Economic Analysis via FRED®

Real Gross Domestic Product: All Industry Total in South Dakota
Real Gross Domestic Product



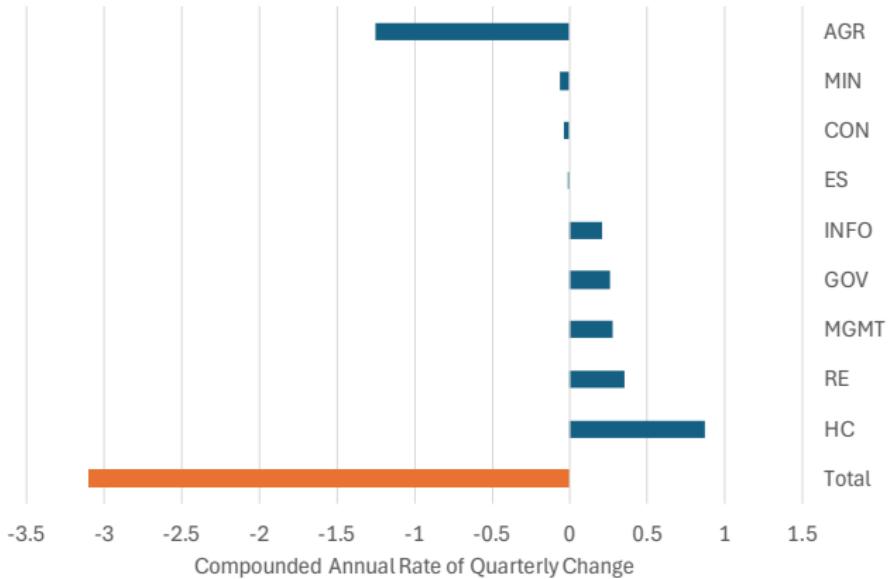
Source: U.S. Bureau of Economic Analysis via FRED®

● Real Gross Domestic Product: All Industry Total in South Dakota
Real Gross Domestic Product



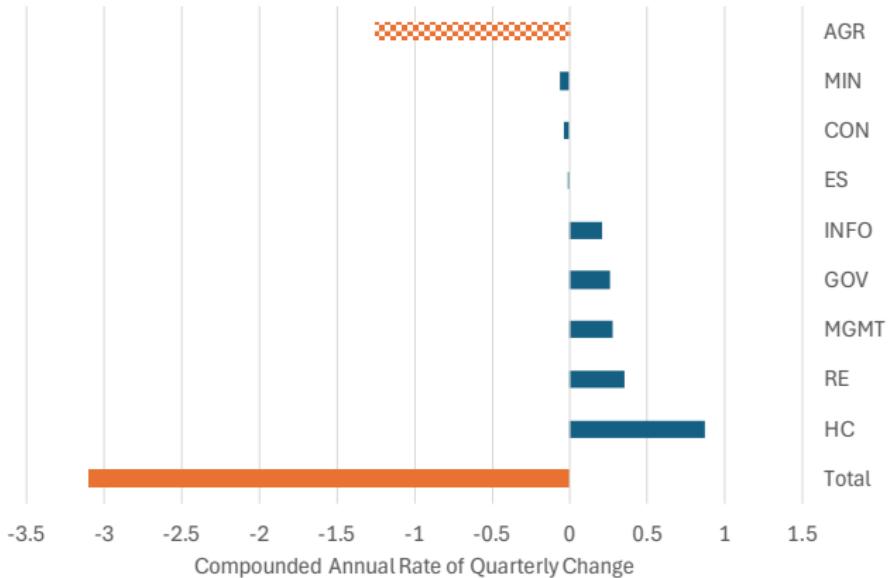
Source: U.S. Bureau of Economic Analysis via FRED®

Contribution to Real GDP Quarterly Growth, SD, 2025:Q1



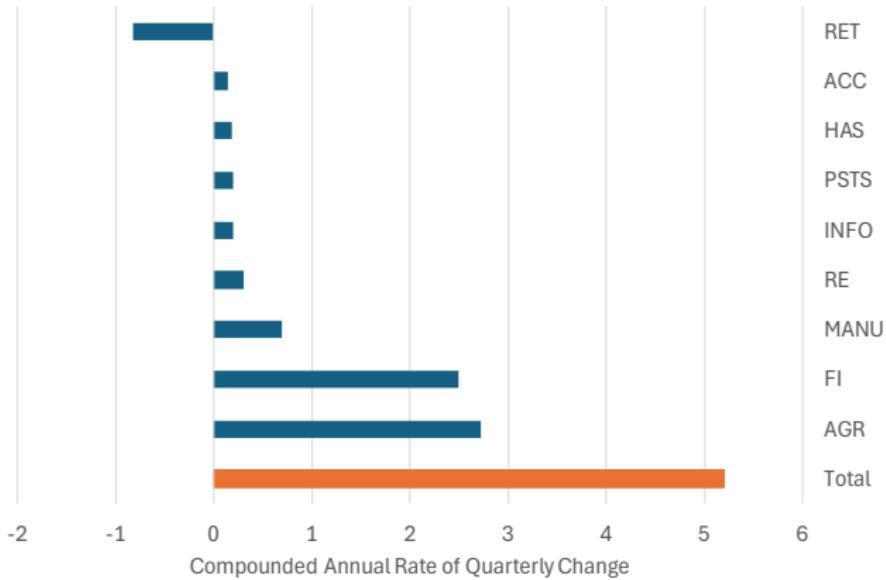
Source: US Bureau of Economic Analysis.

Contribution to Real GDP Quarterly Growth, SD, 2025:Q1



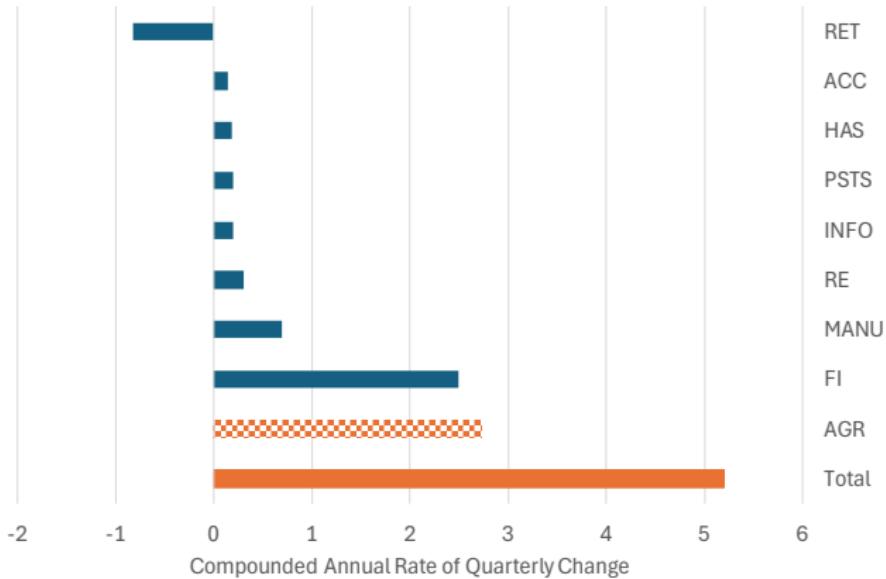
Source: US Bureau of Economic Analysis.

Contribution to Real GDP Quarterly Growth, SD, 2025:Q2

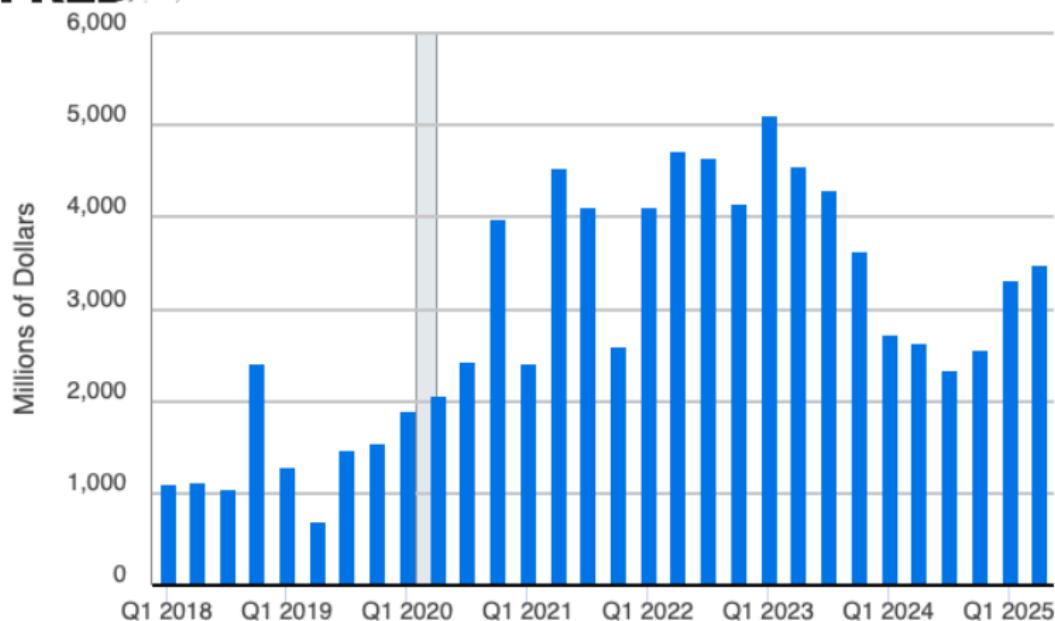


Source: US Bureau of Economic Analysis.

Contribution to Real GDP Quarterly Growth, SD, 2025:Q2



Source: US Bureau of Economic Analysis.



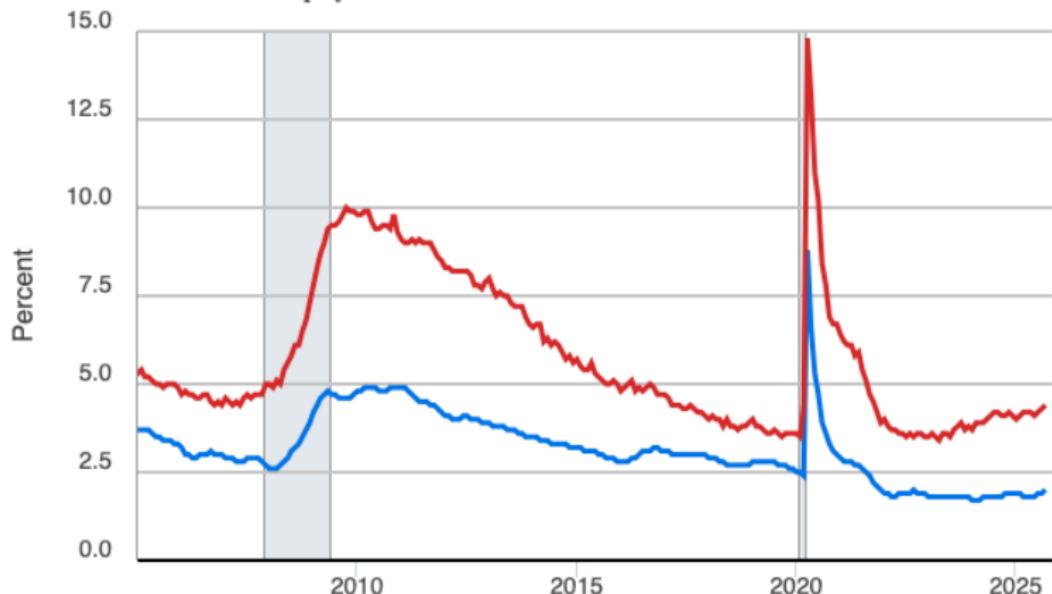
Sources: Federal Reserve Bank of St. Louis; U.S. Bureau of Economic Analysis v...

Source: US Bureau of Economic Analysis.

labor matters

FRED 

Unemployment Rate in South Dakota
Unemployment Rate



Source: U.S. Bureau of Labor Statistics via FRED®

Labor Market Transitions

$$u = \frac{U}{E + U}$$

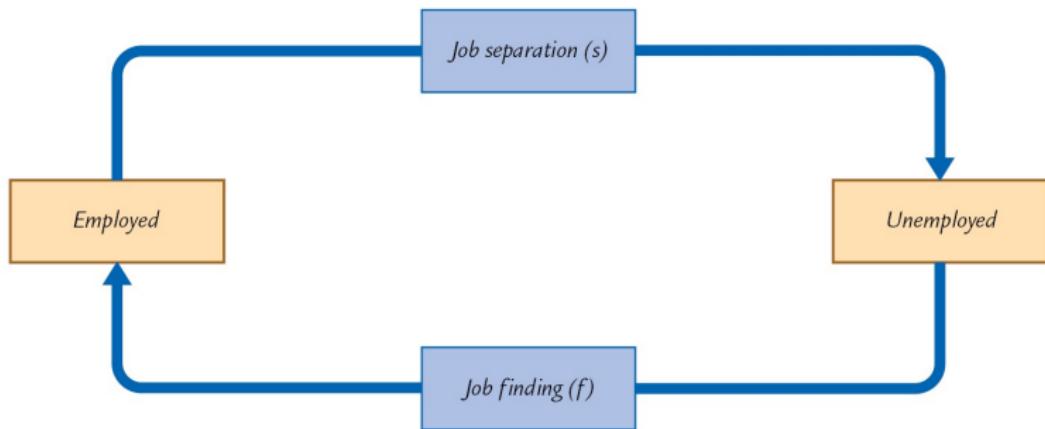
Where u is the unemployment rate;
 U is the level of unemployment;
 E is the level of employment.

Labor Market Transitions

$$u = \frac{U}{E + U}$$

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 U is the level of unemployment;
 E is the level of employment.

Labor Market Transitions



Labor Market Transitions

$$f \times U \quad s \times E$$

Where f is the fraction of unemployed individuals, U , who find jobs;
 s is the fraction of employed individuals, E , who lose or quit jobs.

Labor Market Transitions

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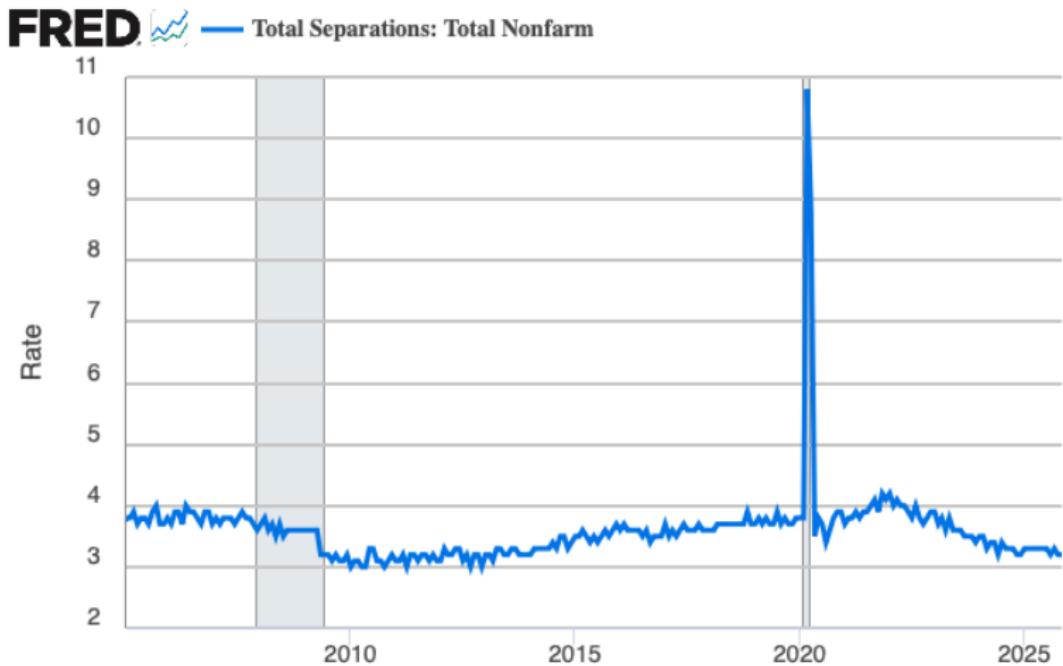
Labor Market Transitions

$$f \times U \quad s \times E$$

find *separate*

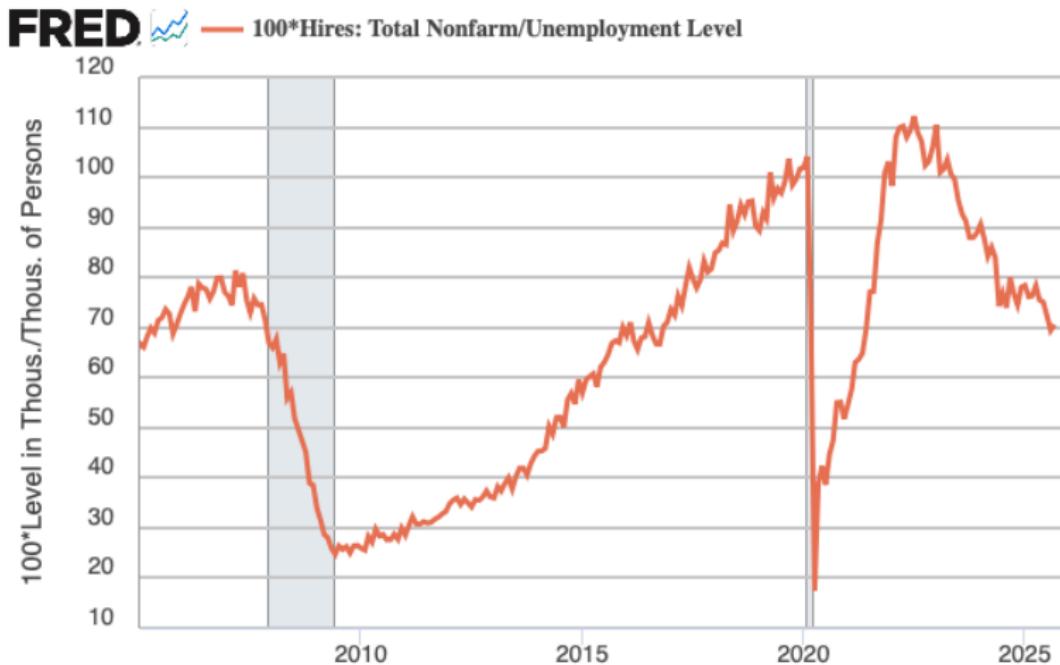
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U.S. Separation Rate(*s*)

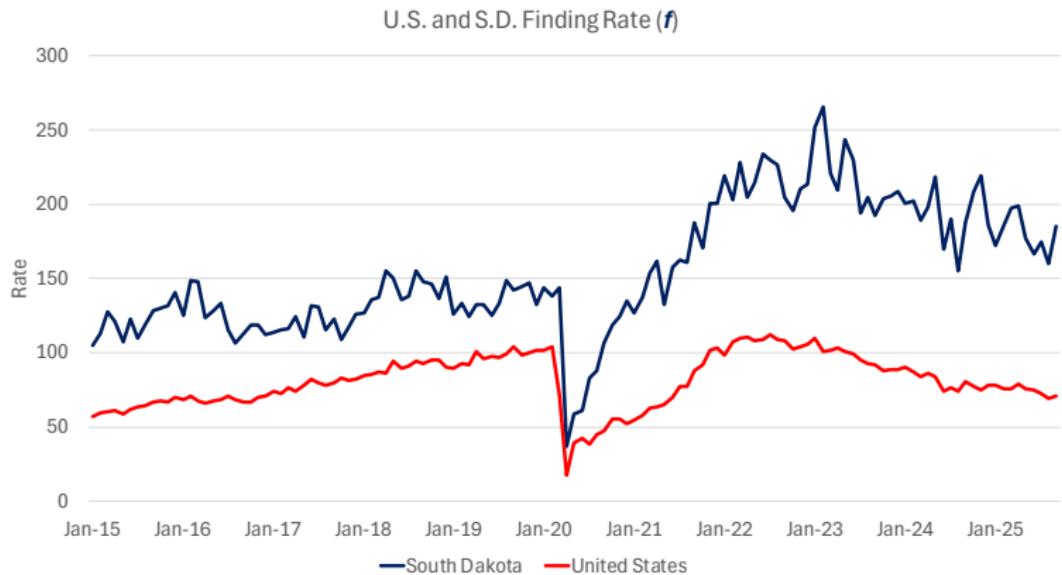


Source: U.S. Bureau of Labor Statistics via FRED®

U.S. Finding Rate (f)



Source: U.S. Bureau of Labor Statistics via FRED®



Source: US Bureau of Labor Statistics.

Labor Market Transitions

$$f \times U \quad s \times E$$

find *separate*

Where f is the fraction of unemployed individuals, U , who find jobs;
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Labor Market Transitions

$$f \times U \underset{\text{find}}{\text{?}} \ s \times E \underset{\text{separate}}{\text{?}}$$

Where f is the fraction of unemployed individuals, U , who find jobs;
 s is the fraction of employed individuals, E , who lose or quit jobs.

Labor Market Transitions

$$f^* \times U = s^* \times E$$

find *separate*

Where f is the fraction of unemployed individuals, U , who find jobs;
 s is the fraction of employed individuals, E , who lose or quit jobs.

Labor Market Transitions

$$f^* \times U = s^* \times E$$

$$u = \frac{U}{E + U}$$

Labor Market Transitions

$$f^* \times U = s^* \times E$$

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Labor Market Transitions

$$u^* = \frac{1}{1 + f^* / s^*}$$

Where u^* is the natural rate of unemployment.

Labor Market Transitions

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Where u^* is the natural rate of unemployment.

Labor Market Transitions — United States, September 2025¹

$$\begin{aligned} u^* &= \frac{1}{1 + f^* / s^*} \\ &= \frac{1}{1 + 0.50 / 0.035} \\ u^* &= 6.5\% \end{aligned}$$

$$u_{US}^a = 4.4\%$$

Source: US Bureau of Labor Statistics.

¹ $f^* = 0.50$ implies an expected unemployment spell of 60 days.

Labor Market Transitions — South Dakota, September 2025

$$\begin{aligned} u^* &= \frac{1}{1 + f^* / s^*} \\ &= \frac{1}{1 + 0.50 / 0.035} \\ u^* &= 6.5\% \\ u_{SD}^a &= 2.0\% \end{aligned}$$

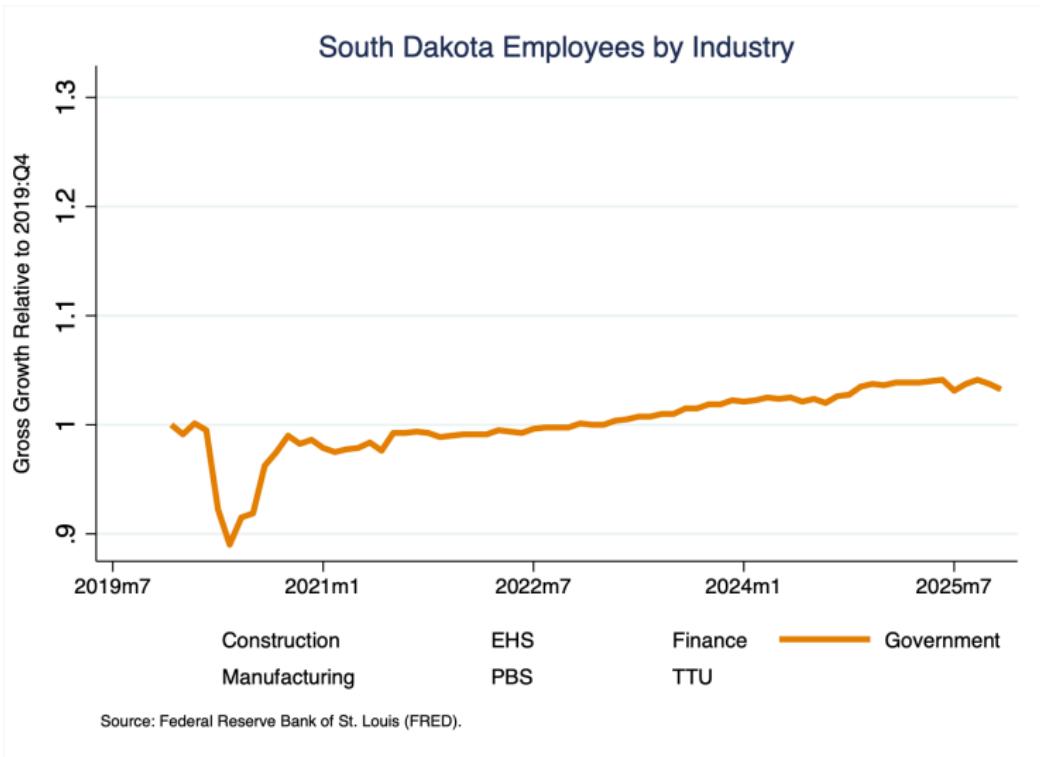
Source: US Bureau of Labor Statistics.

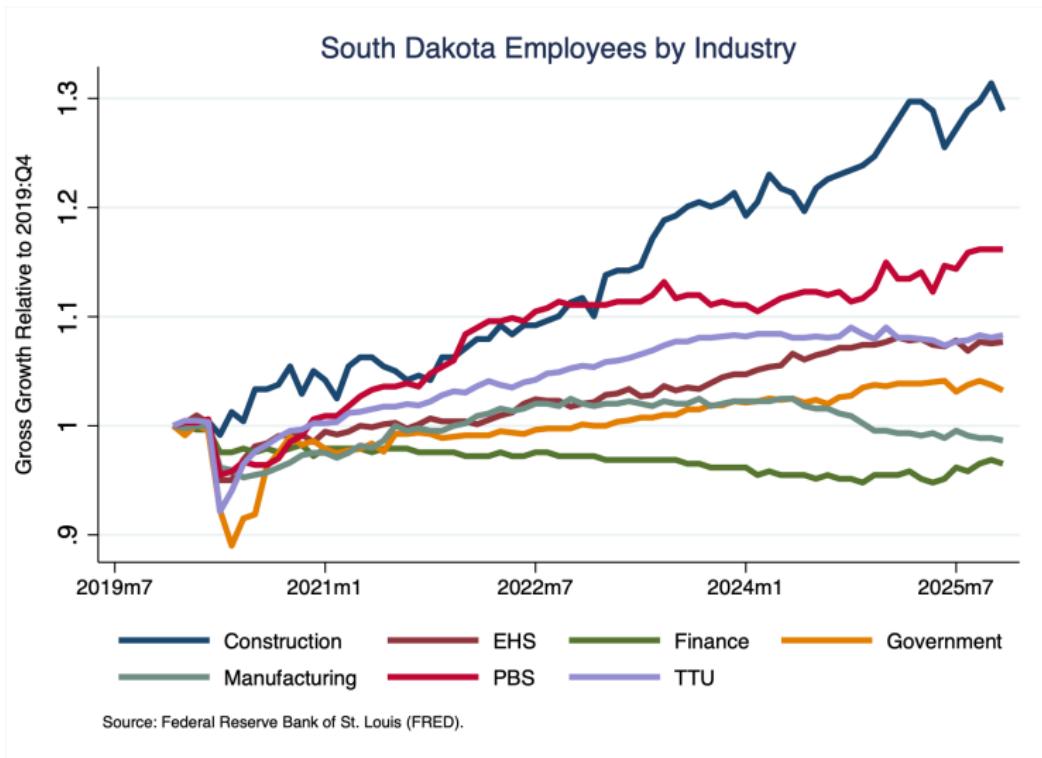
Labor Market Transitions, September 2025

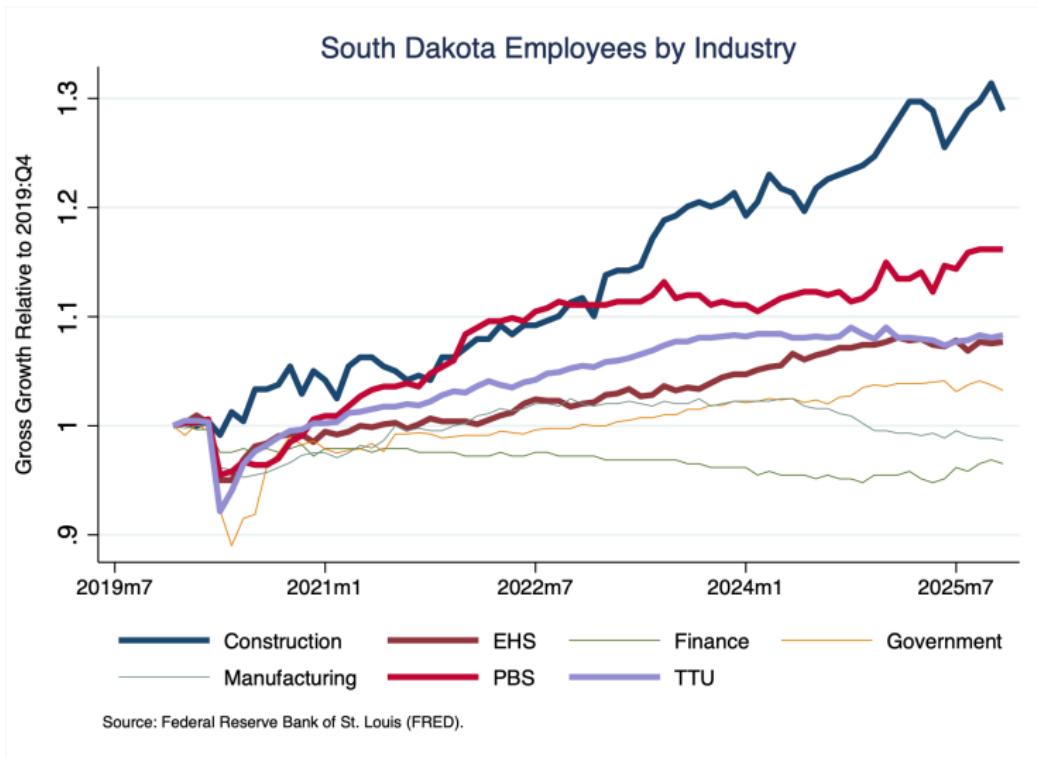
| | s^* | f^* | u^* | u^a | f^a | $E[u \text{ spell}]$ |
|---------------|-------|-------|-------|-------|-------|----------------------|
| South Dakota | 3.5% | 50% | 6.5% | 2.0% | 185% | 16 days |
| United States | 3.5% | 50% | 6.5% | 4.4% | 71% | 42 days |

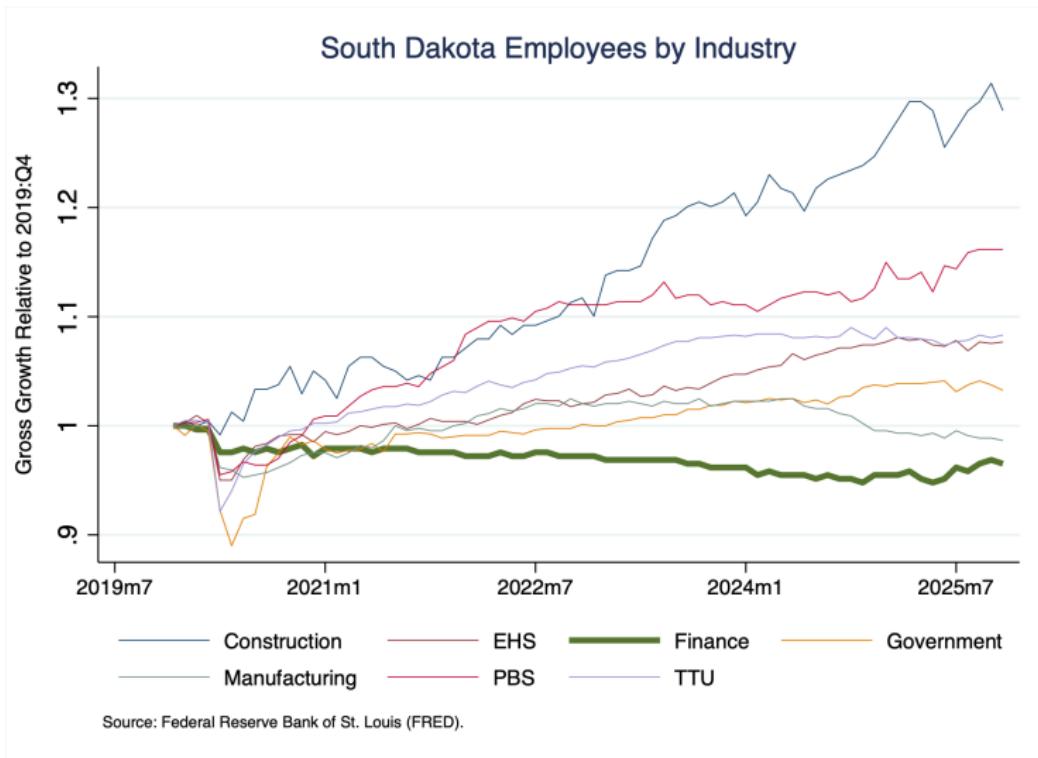
Source: U.S. BLS and author's calculations.

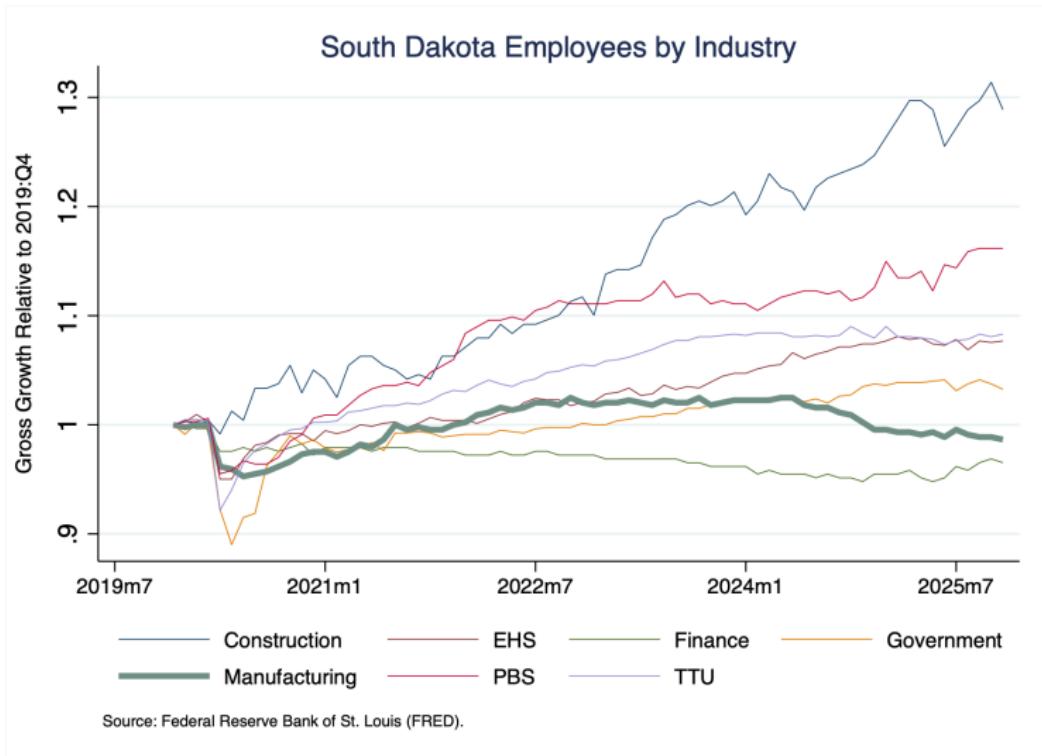
industry leaders



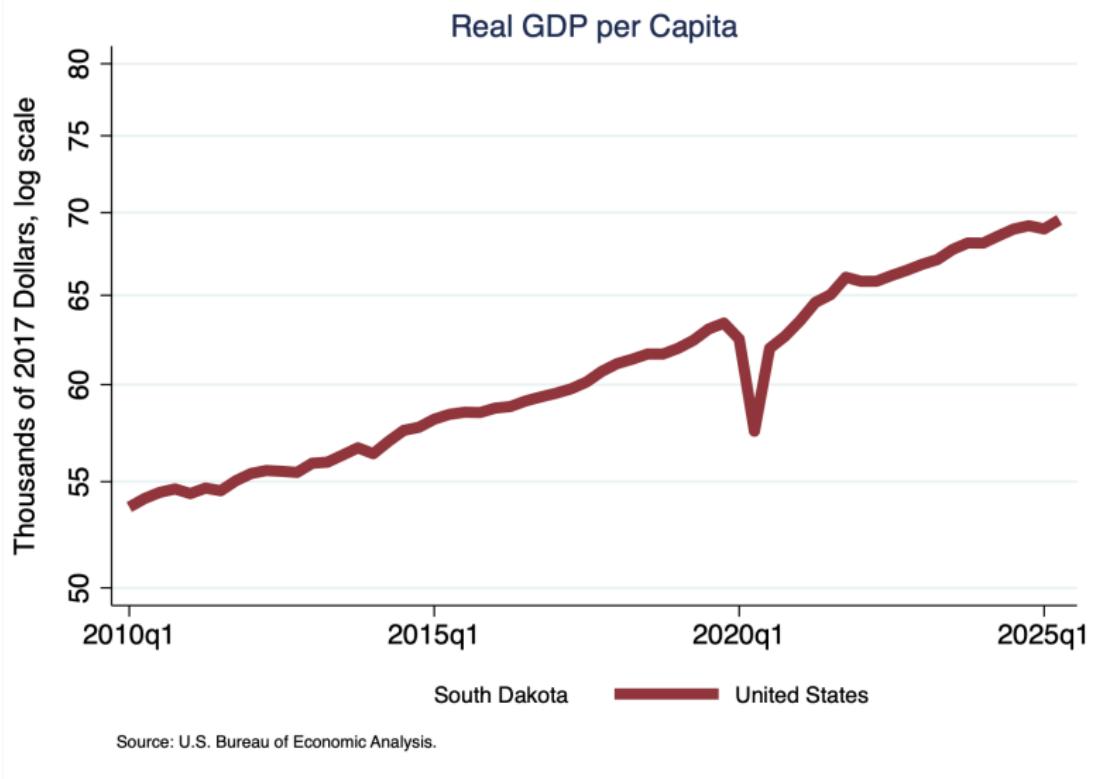


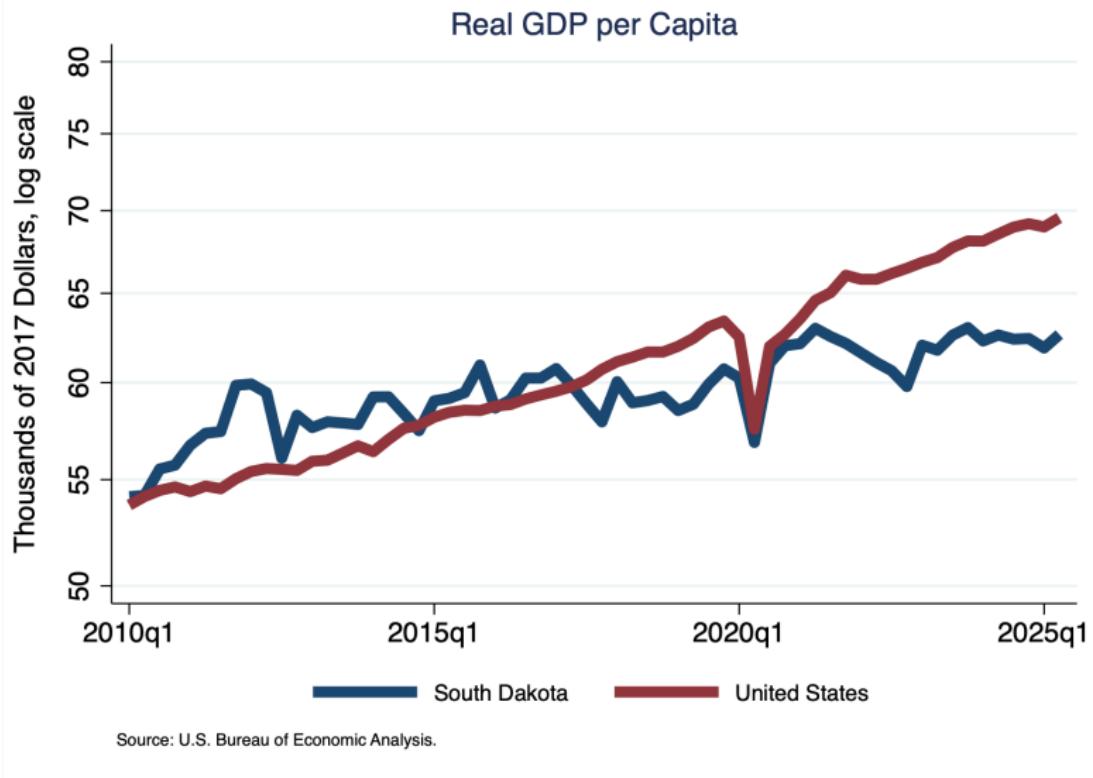


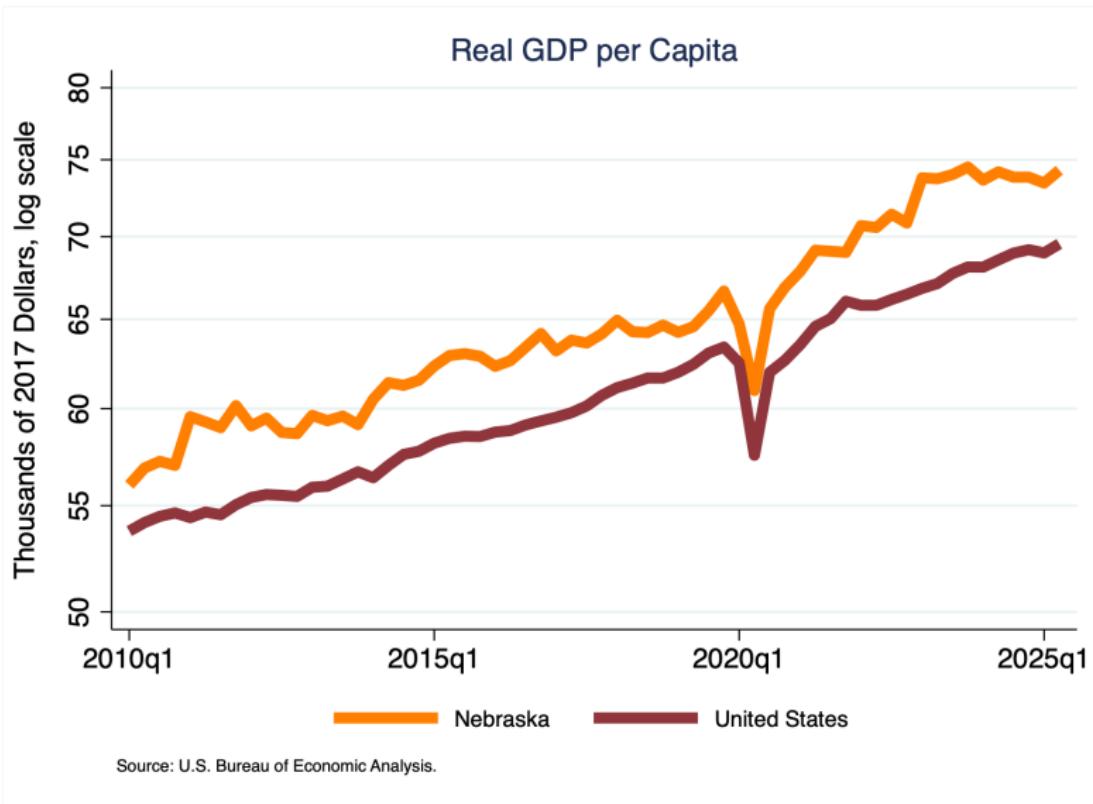


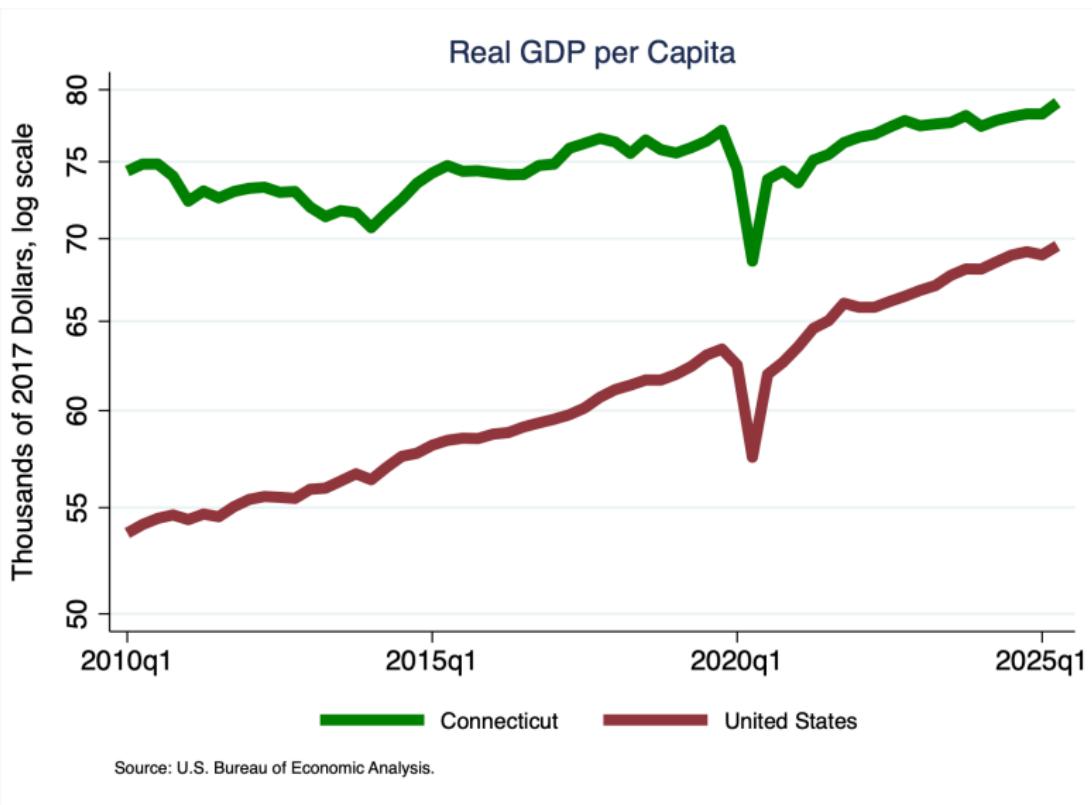


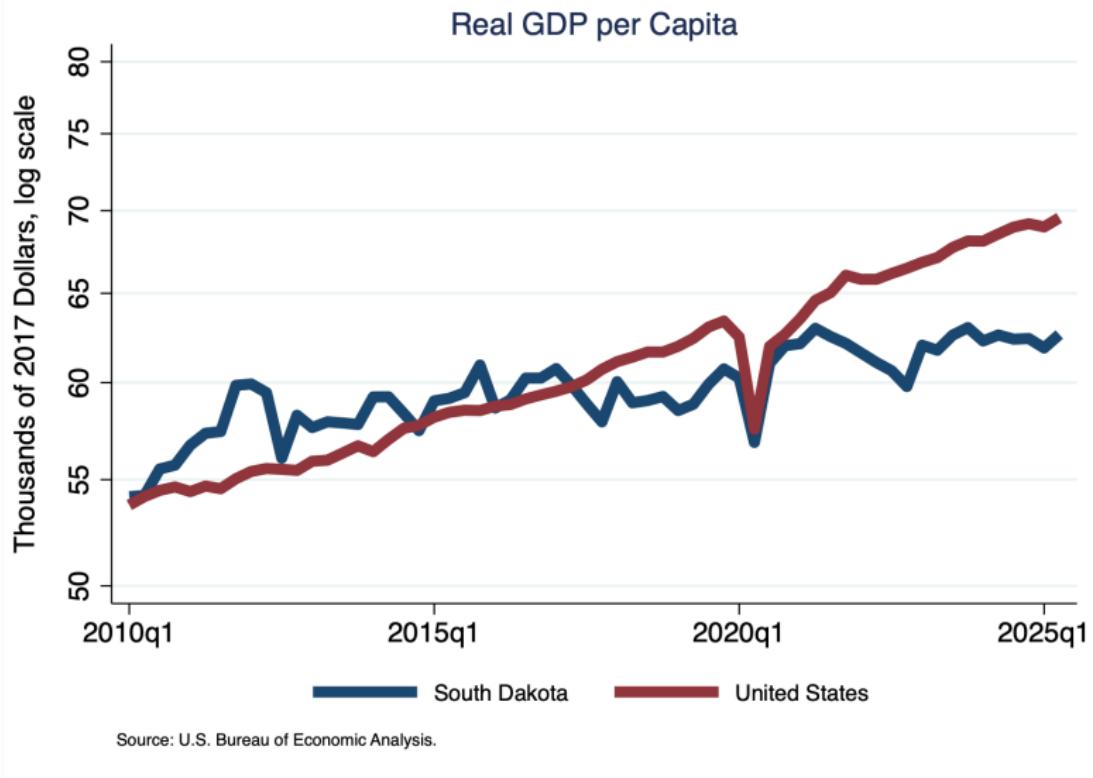
bounded optimism











A Production Decomposition, 2025:Q1

| | Real GDP per Capita | Employee Productivity | Employment Rate | Labor-Force Participation Rate |
|---------------|------------------------------------|---|--|---|
| | $\left(\frac{r.gdp}{pop} \right)$ | $\left(\frac{r.gdp}{employed} \right)$ | $\left(\frac{employed}{labor\ force} \right)$ | $\left(\frac{labor\ force}{pop} \right)$ |
| South Dakota | \$62,644 | | 0.98 | 0.69 |
| United States | \$69,549 | | 0.96 | 0.62 |

Sources: U.S. BEA, FRED, and author's calculations; productivity measure is implied.

A Production Decomposition, 2025:Q1

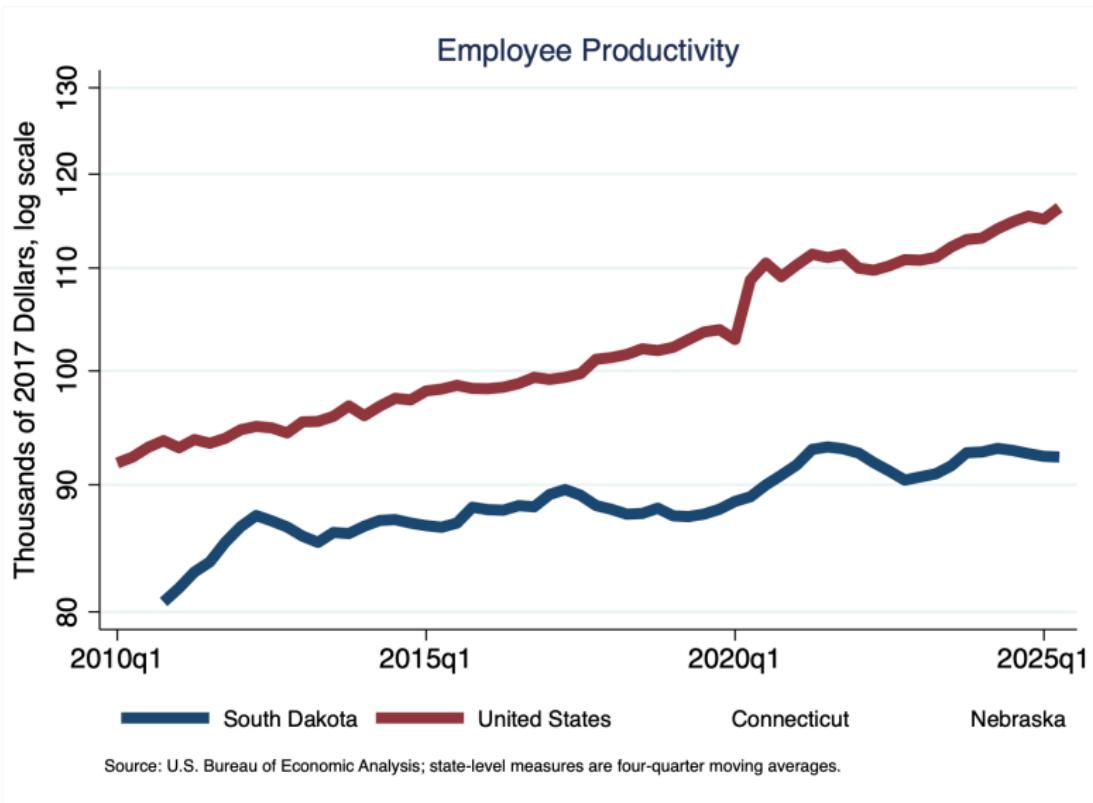
| | Real GDP per Capita | Employee Productivity | Employment Rate | Labor-Force Participation Rate |
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| | $\left(\frac{r.gdp}{pop} \right)$ | $\left(\frac{r.gdp}{employed} \right)$ | $\left(\frac{employed}{labor\ force} \right)$ | $\left(\frac{labor\ force}{pop} \right)$ |
| South Dakota | \$62,644 | \$92,721 | 0.98 | 0.69 |
| United States | \$69,549 | \$116,343 | 0.96 | 0.62 |

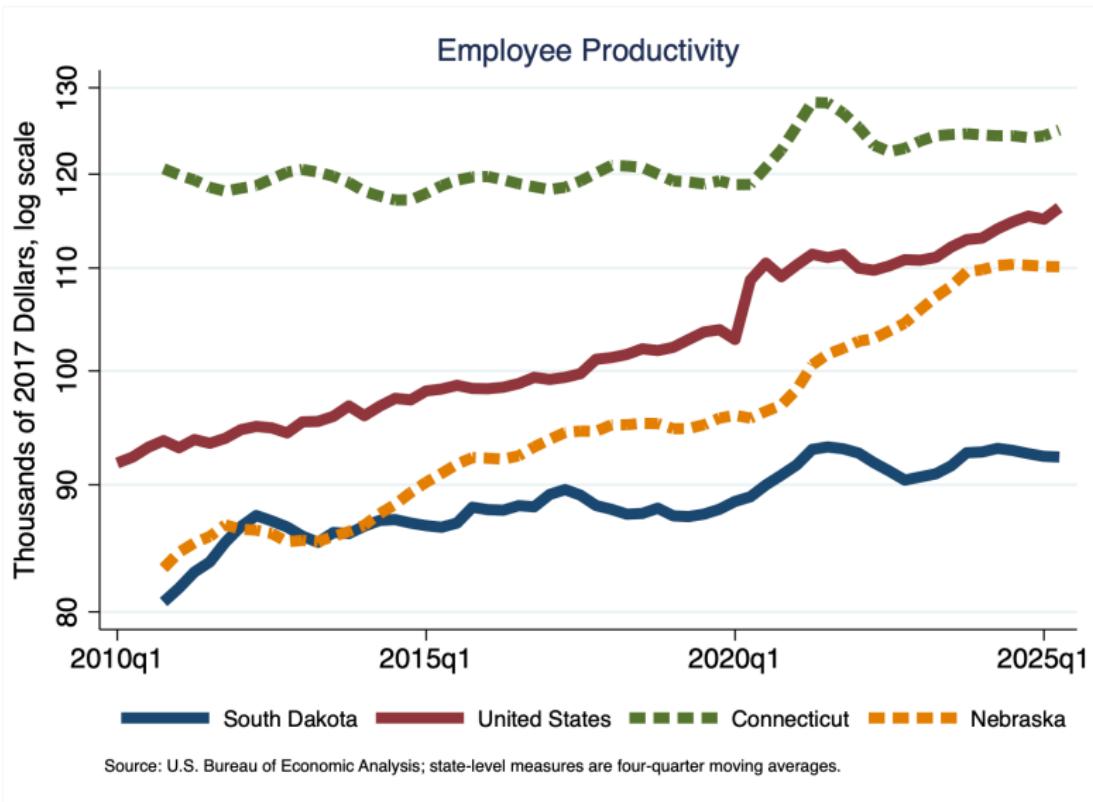
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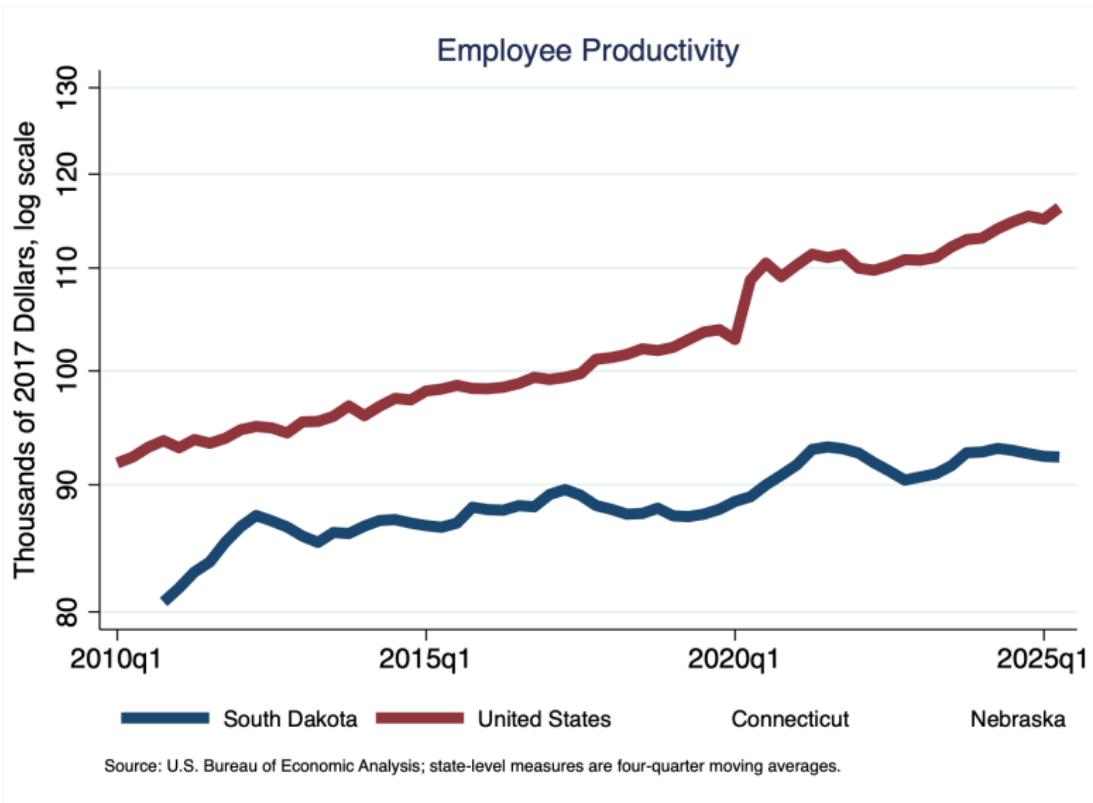
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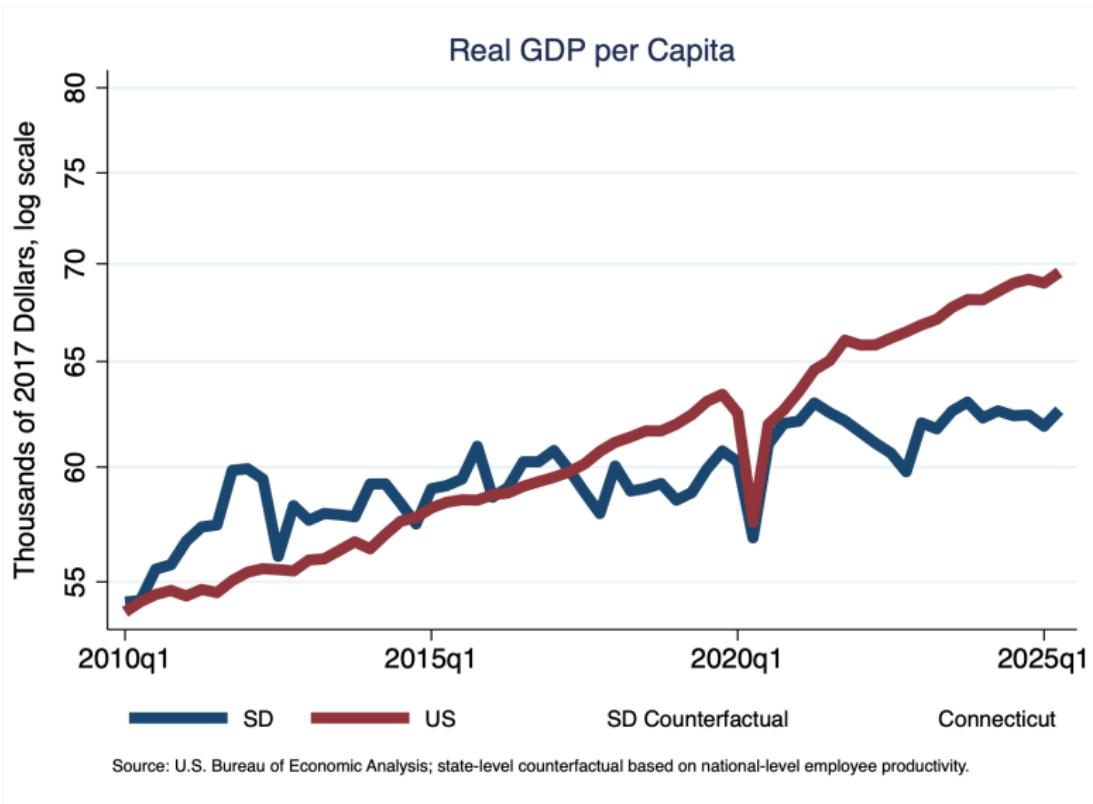
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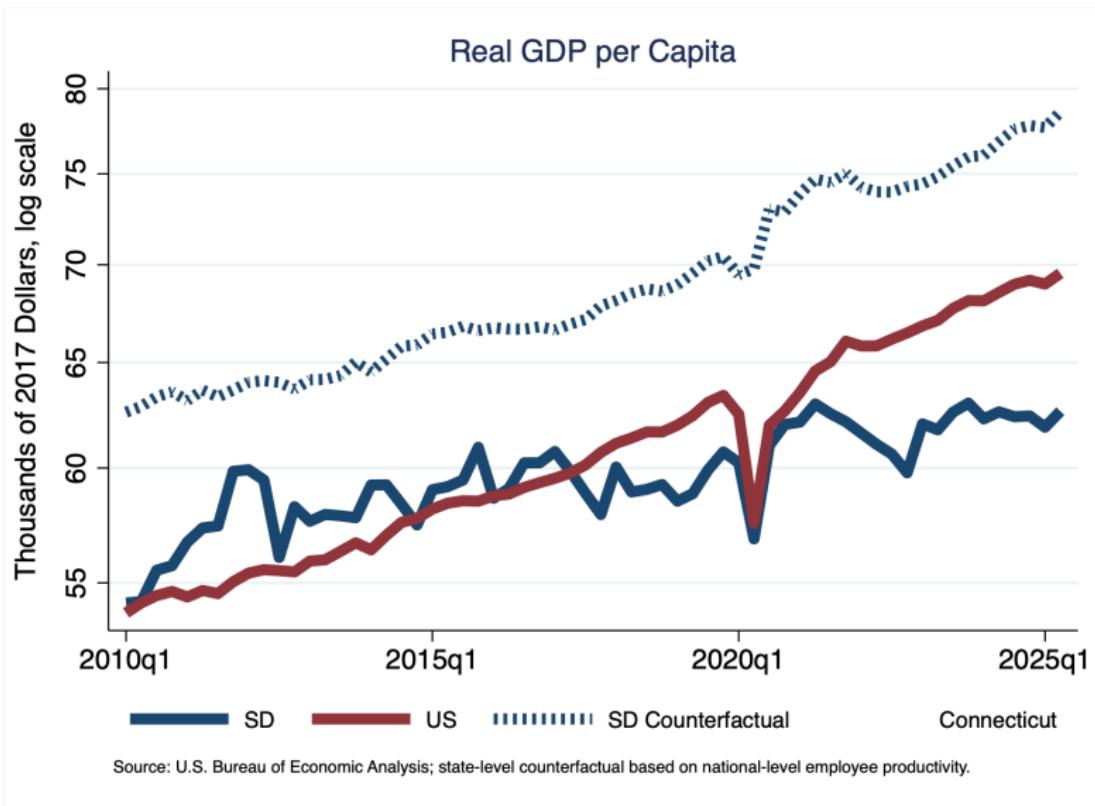


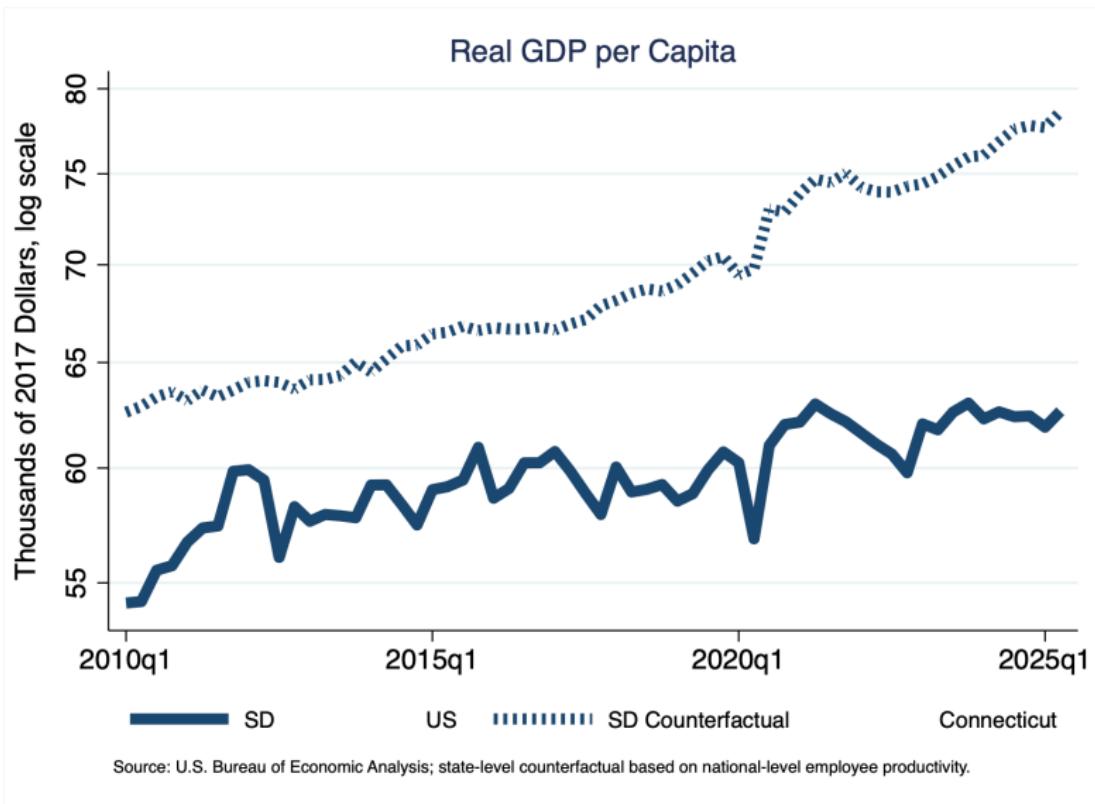


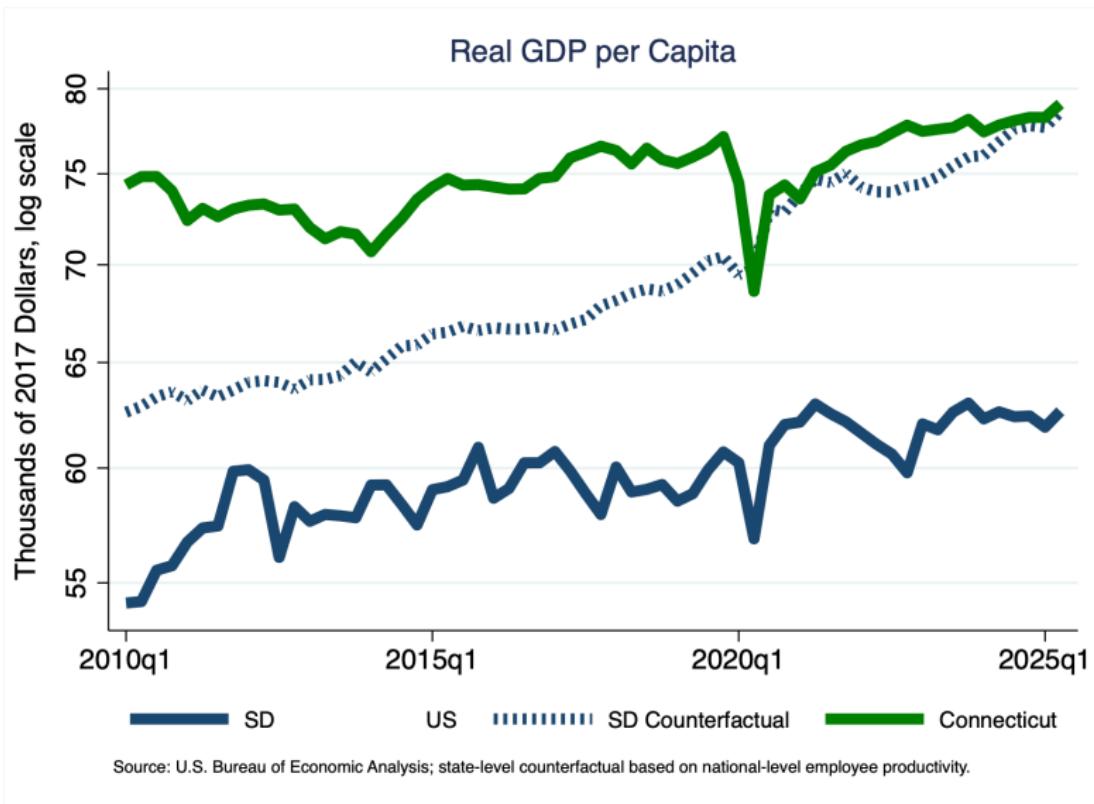


a counterfactual









Takeaways

level set: FIRE, Cons/Manu/Util, Wholesale/Retail, Agr/Min, EHSA

purchasing power: Regional inflation remains elevated.

real power: Growth is relatively weak YoY, 2025 strong QoQ.

labor matters: Tight markets persist.

industry leaders: Cons, PBS, TTU, EHS.

bounded optimism: Productivity is the principal challenge.

thank you