

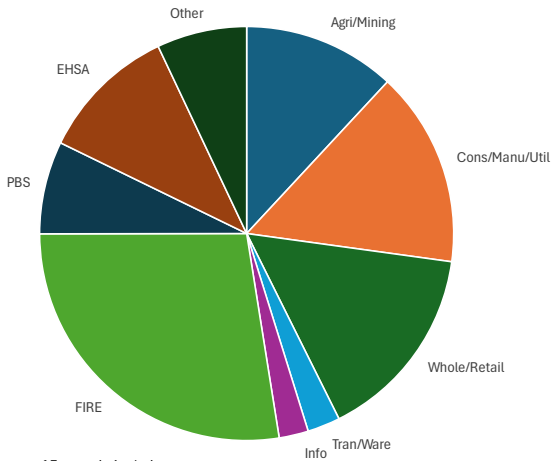
State Economic Conditions: South Dakota

Joseph M. Santos

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South Dakota State University

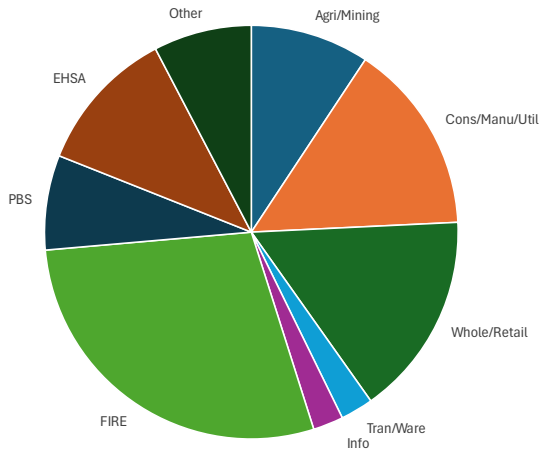
level set

South Dakota GDP by Private Industry Composition, 2023

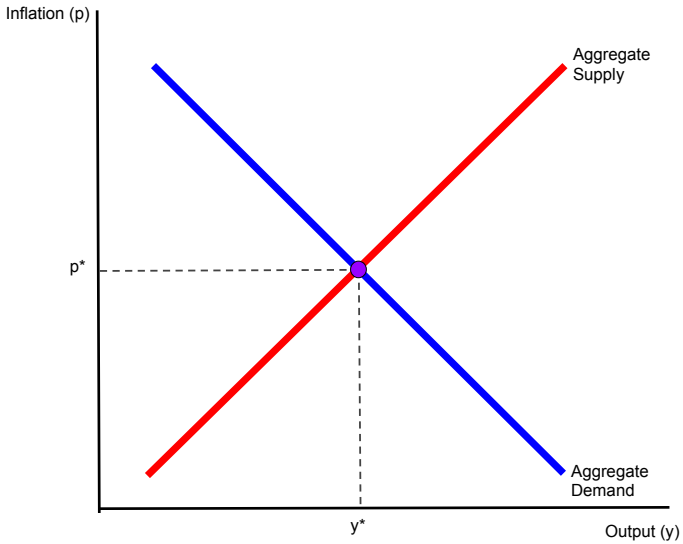


Source: U.S. Bureau of Economic Analysis

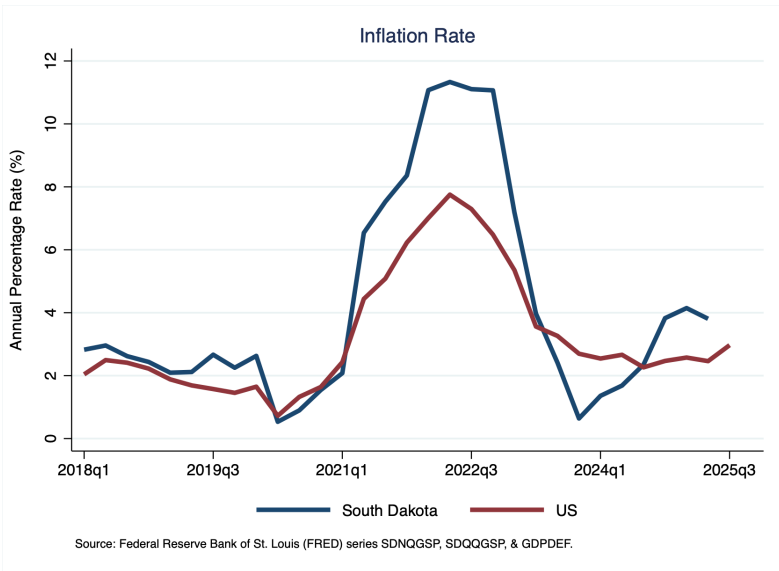
South Dakota GDP by Private Industry Composition, 2024



Source: U.S. Bureau of Economic Analysis



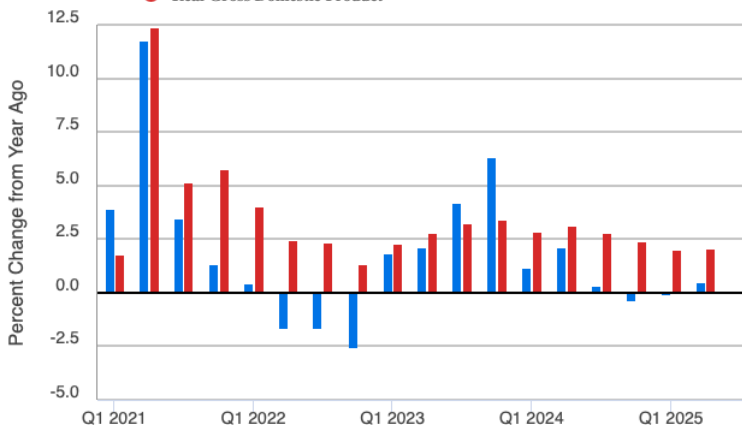
purchasing power (p)



real power (y)



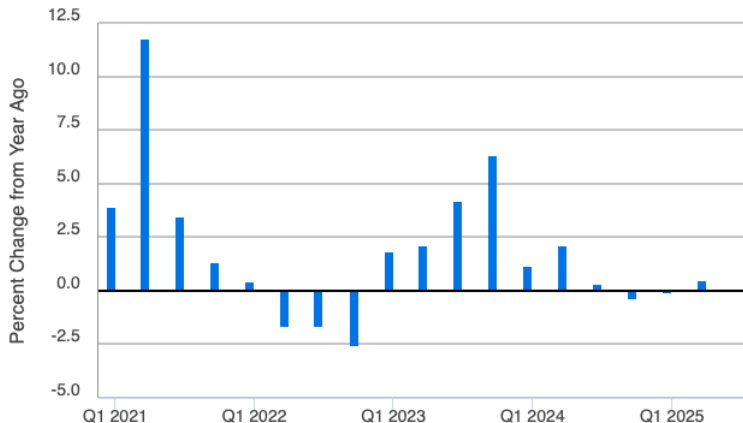
● Real Gross Domestic Product: All Industry Total in South Dakota
● Real Gross Domestic Product



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



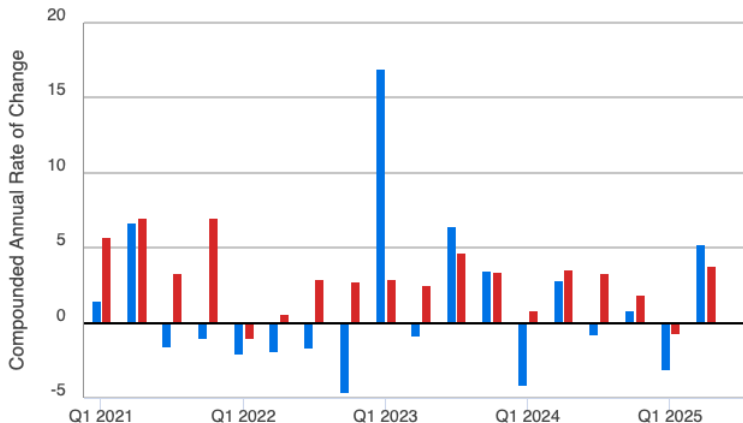
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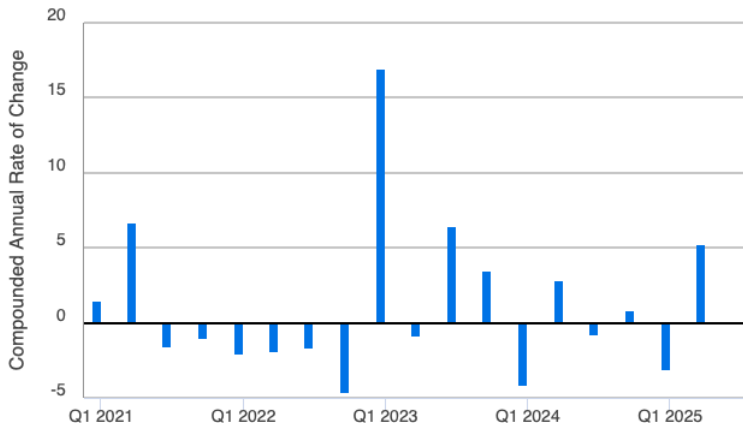
- Real Gross Domestic Product: All Industry Total in South Dakota
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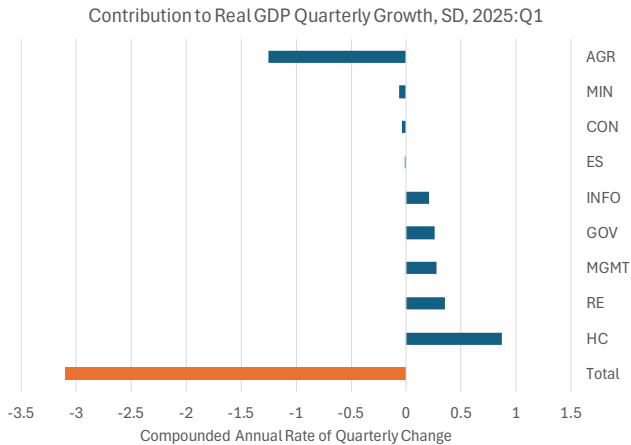
Source: U.S. Bureau of Economic Analysis via FRED®



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

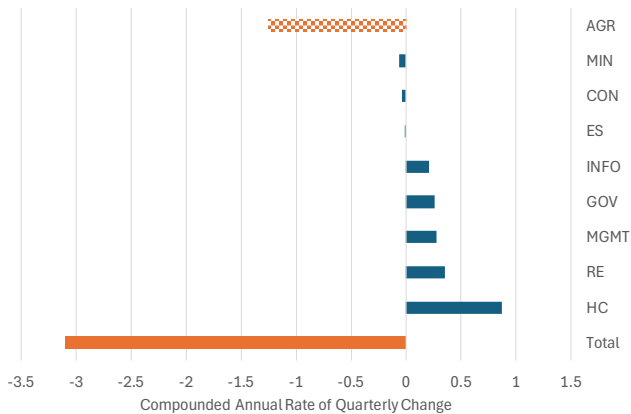


Source: U.S. Bureau of Economic Analysis via FRED®



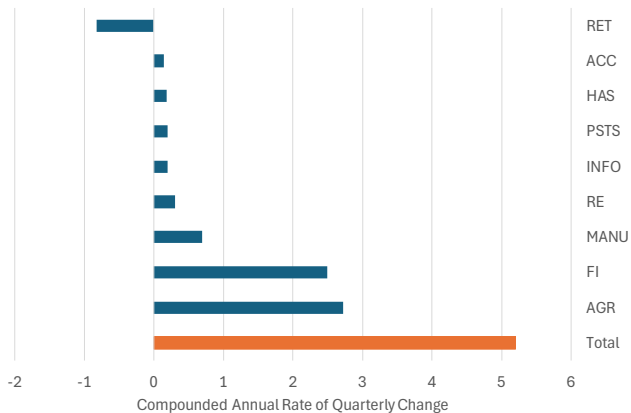
Source: US Bureau of Economic Analysis.

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



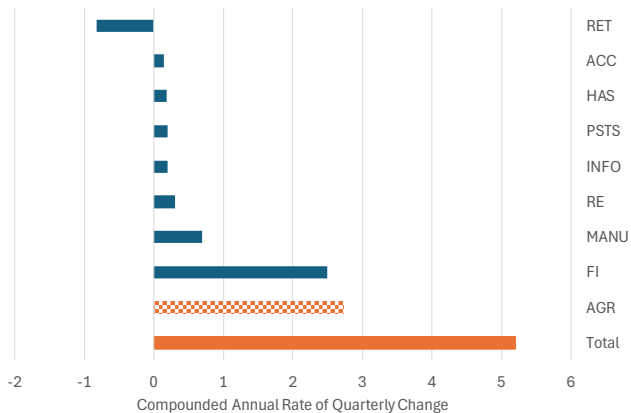
Source: US Bureau of Economic Analysis.

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

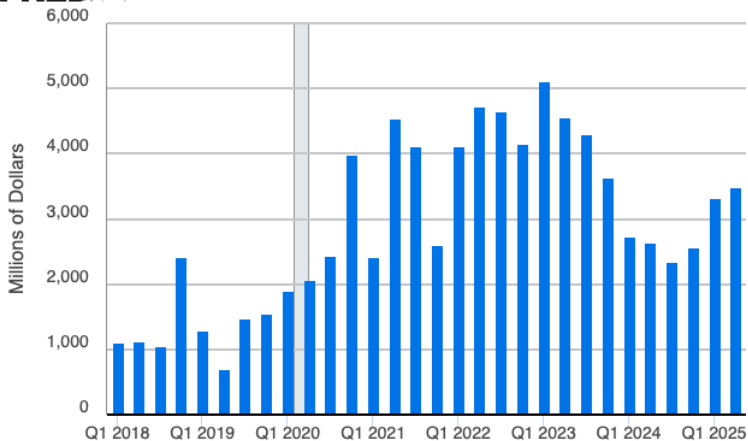


Source: US Bureau of Economic Analysis.

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...

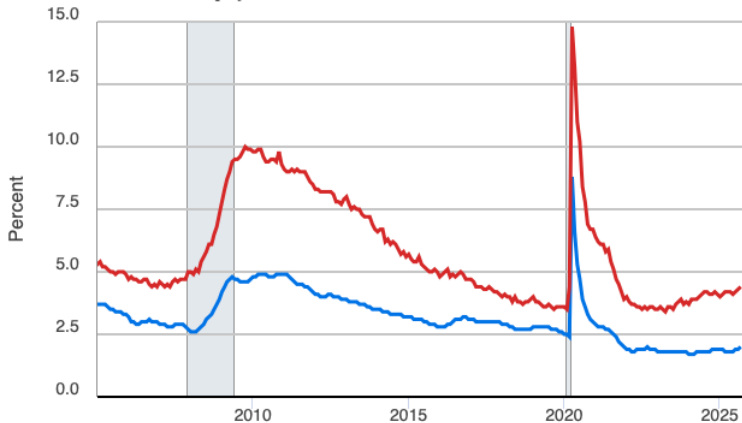
Source: US Bureau of Economic Analysis.

labor matters

FRED



— Unemployment Rate in South Dakota
— Unemployment Rate



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

Labor Market Transitions

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

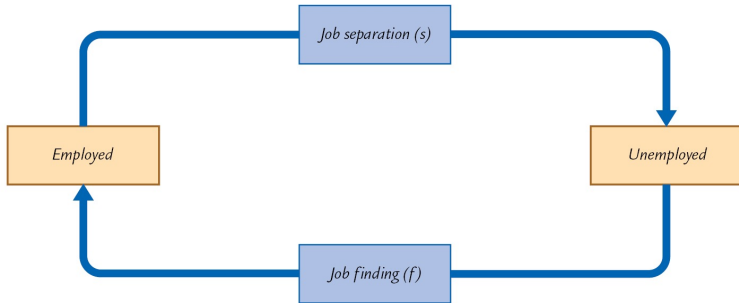
Where u is the unemployment rate;
 U is the level of unemployment;
 E is the level of employment.

Labor Market Transitions

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

Where u is the unemployment rate;
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 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

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

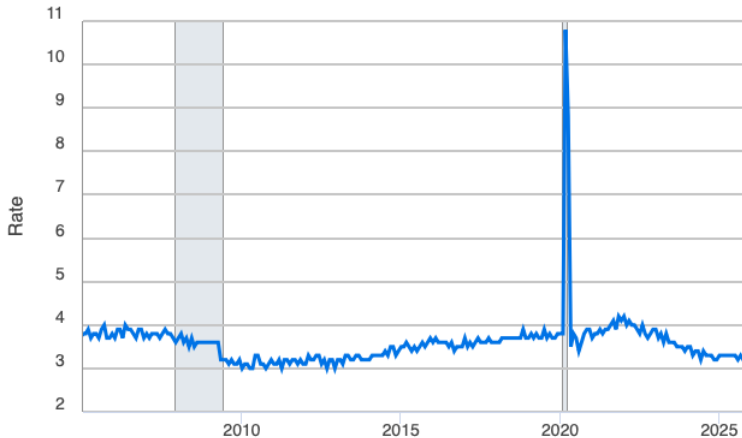
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U.S. Separation Rate(s)

FRED



— Total Separations: Total Nonfarm

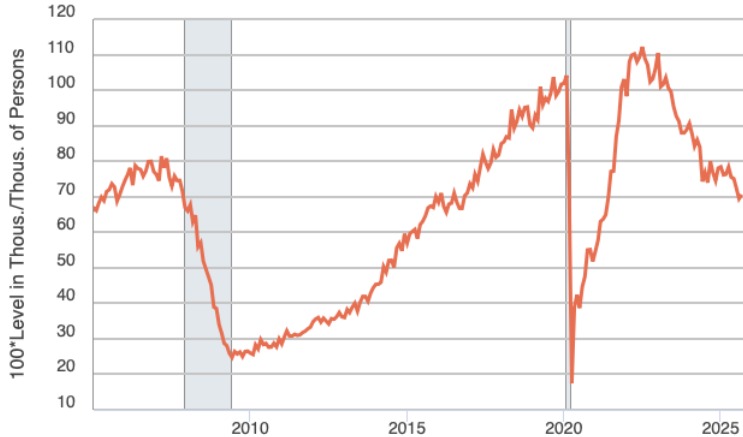


Source: U.S. Bureau of Labor Statistics via FRED®

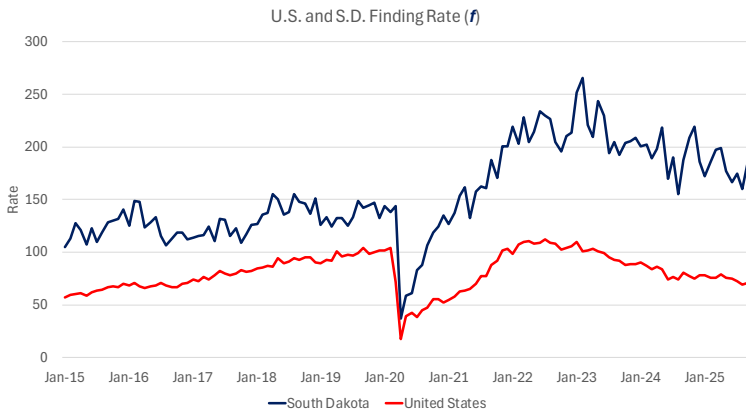
U.S. Finding Rate (f)

FRED 

— 100*Hires: Total Nonfarm/Unemployment Level



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



Source: US Bureau of Labor Statistics.

Labor Market Transitions

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

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Labor Market Transitions

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

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

$$f_{find}^* \times U = s_{separate}^* \times E$$

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

$$\begin{aligned}u^* &= \frac{1}{1 + f^*/s^*} \\&= \frac{1}{1 + 0.50/0.035} \\u^* &= 6.5\% \\u_{US}^a &= 4.4\%\end{aligned}$$

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

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

$$u^* = 6.5\%$$

$$u_{SD}^a = 2.0\%$$

Source: US Bureau of Labor Statistics.

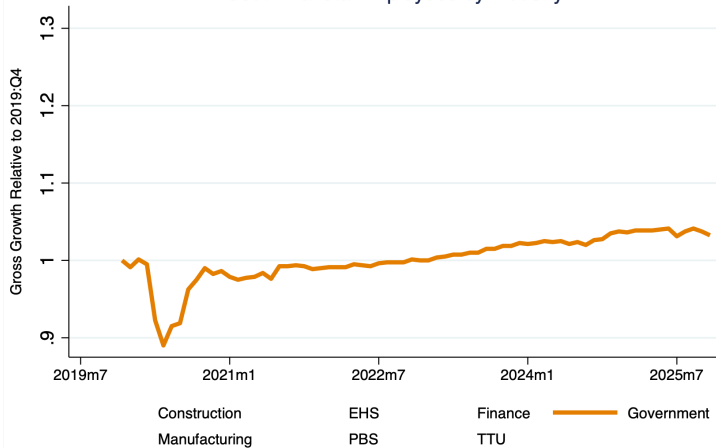
Labor Market Transitions, September 2025

	s^*	f^*	u^*	u^a	f^a	E[u 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.

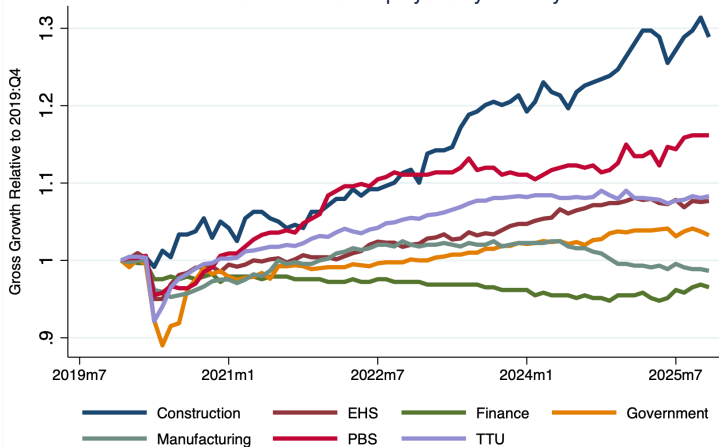
industry leaders

South Dakota Employees by Industry



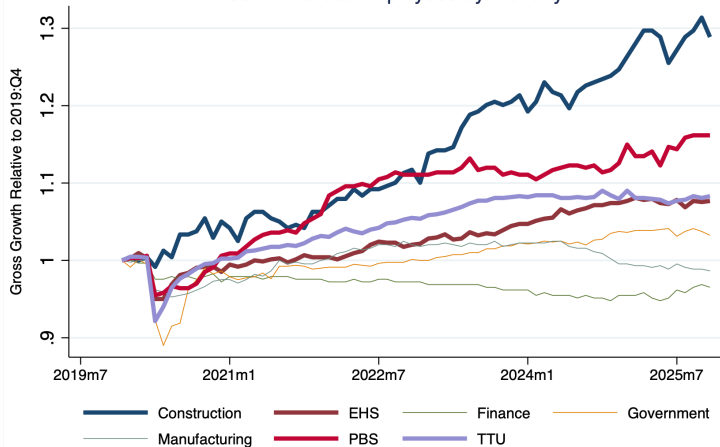
Source: Federal Reserve Bank of St. Louis (FRED).

South Dakota Employees by Industry



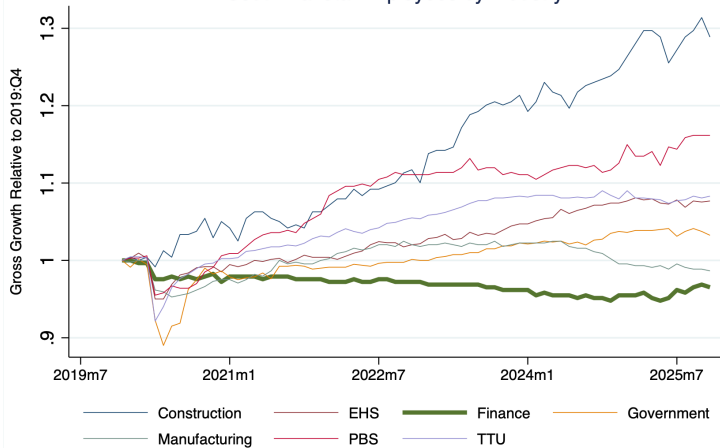
Source: Federal Reserve Bank of St. Louis (FRED).

South Dakota Employees by Industry



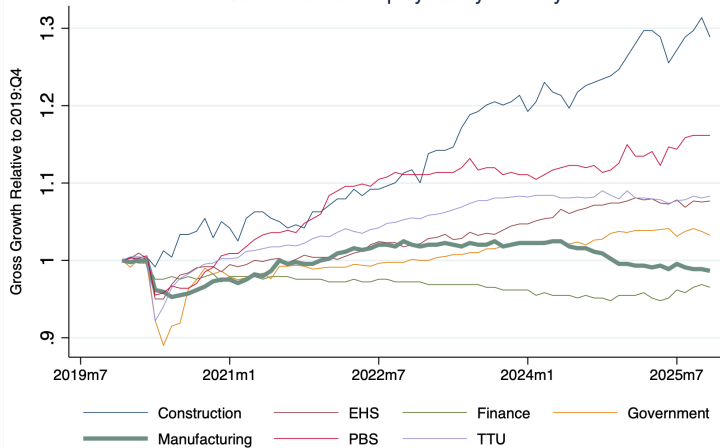
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South Dakota Employees by Industry



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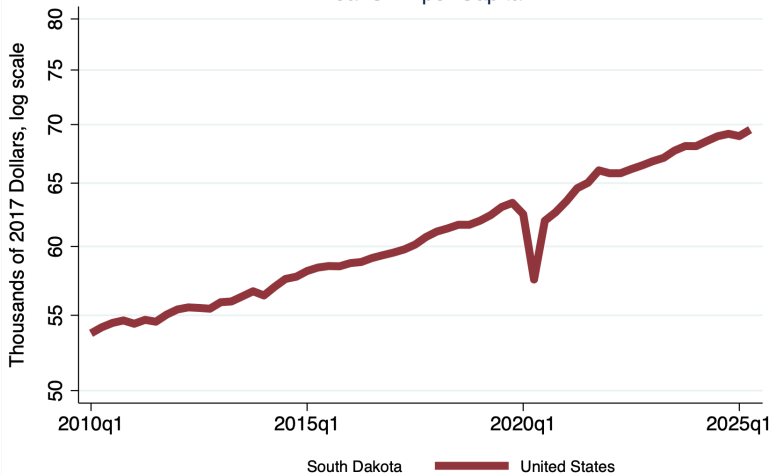
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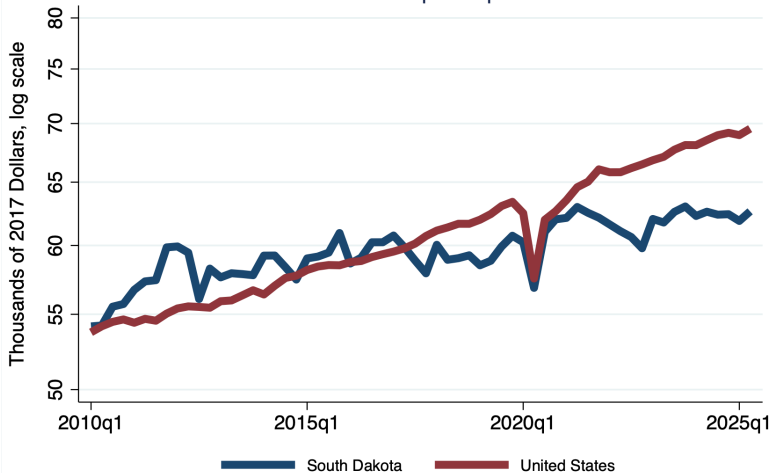
bounded optimism

Real GDP per Capita



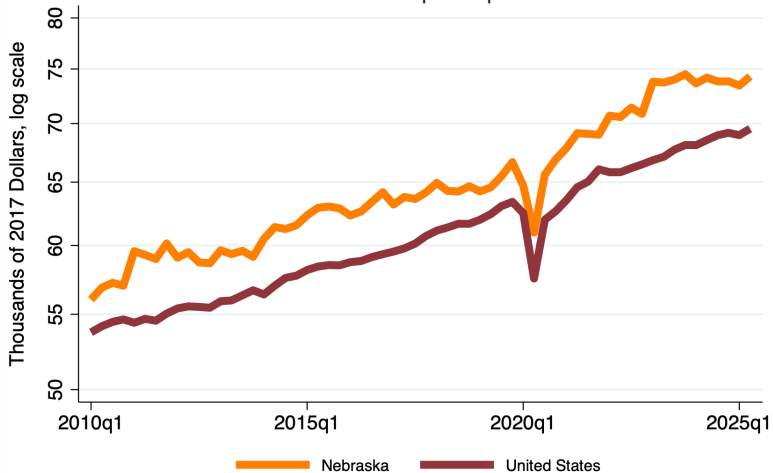
Source: U.S. Bureau of Economic Analysis.

Real GDP per Capita

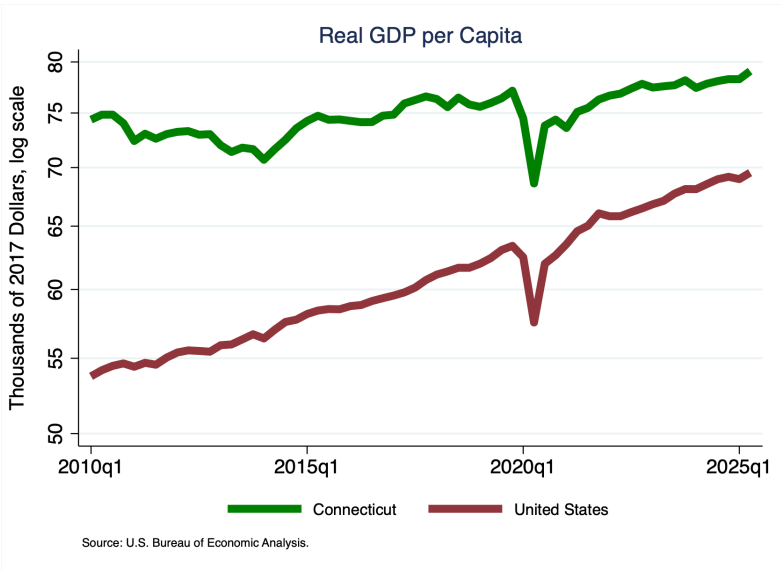


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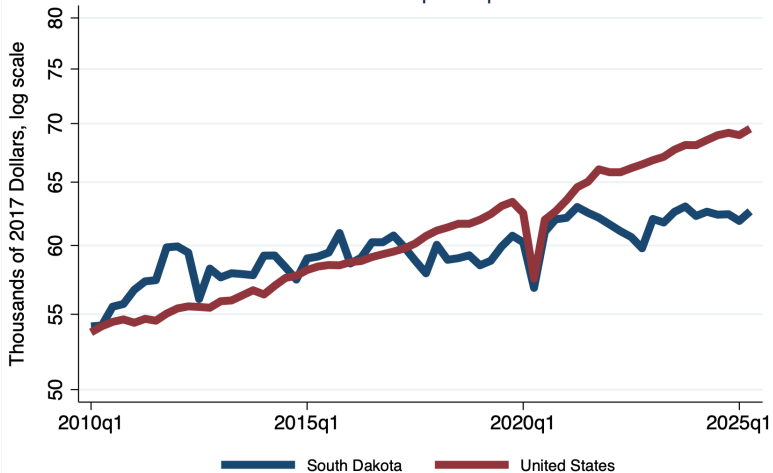
Real GDP per Capita



Source: U.S. Bureau of Economic Analysis.



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Source: U.S. Bureau of Economic Analysis.

A Production Decomposition, 2025:Q1

	Real GDP per Capita $\left(\frac{\text{r.gdp}}{\text{pop}} \right)$	Employee Productivity $\left(\frac{\text{r.gdp}}{\text{employed}} \right)$	Employment Rate $\left(\frac{\text{employed}}{\text{labor force}} \right)$	Labor-Force Participation Rate $\left(\frac{\text{labor force}}{\text{pop}} \right)$
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

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South Dakota	\$62,644	\$92,721	0.98	0.69
United States	\$69,549	\$116,343	0.96	0.62

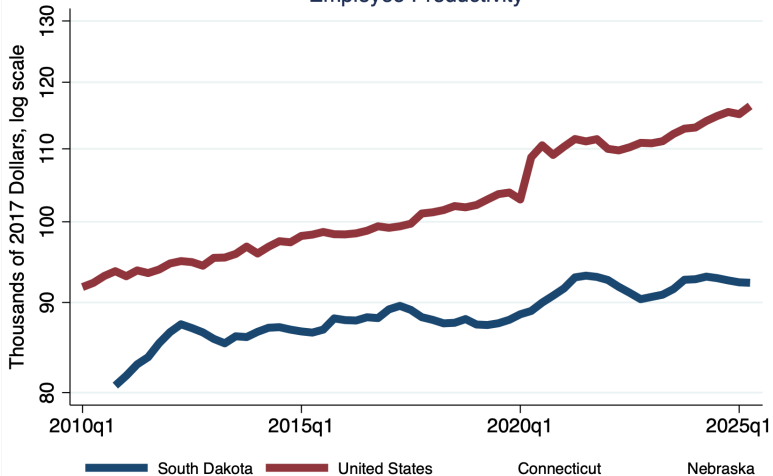
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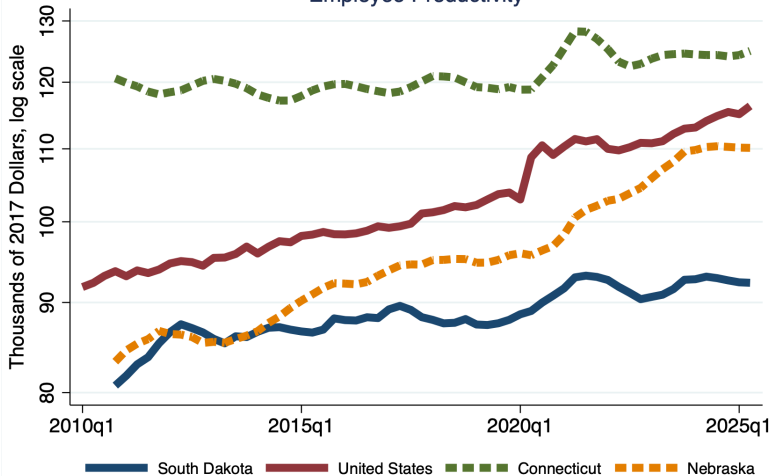
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Employee Productivity



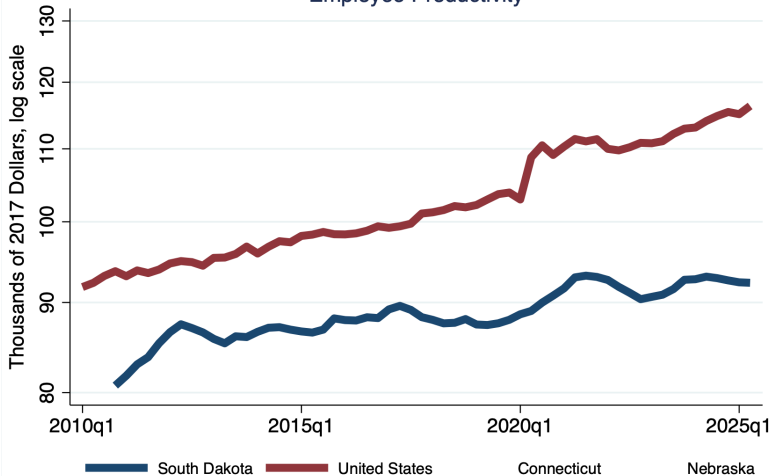
Source: U.S. Bureau of Economic Analysis; state-level measures are four-quarter moving averages.

Employee Productivity



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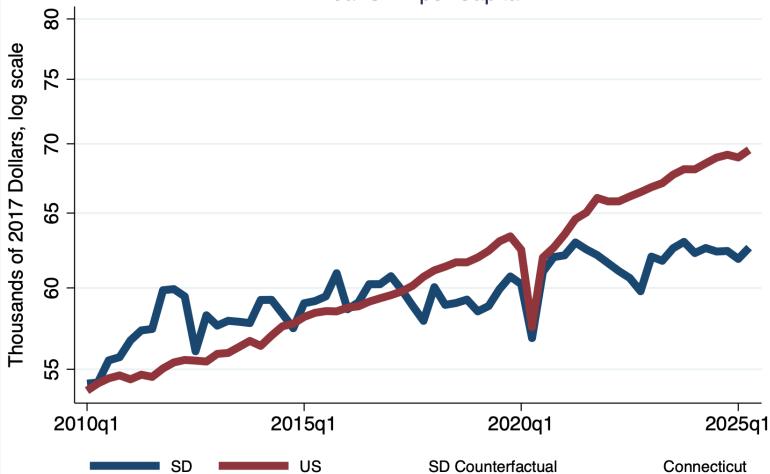
Employee Productivity



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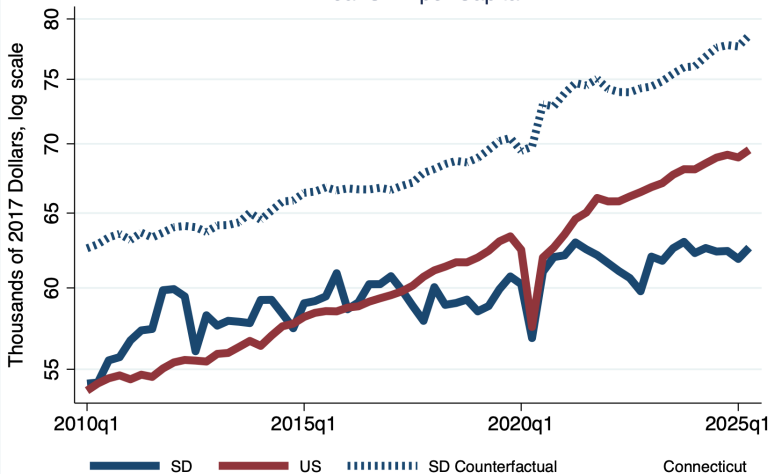
a counterfactual

Real GDP per Capita



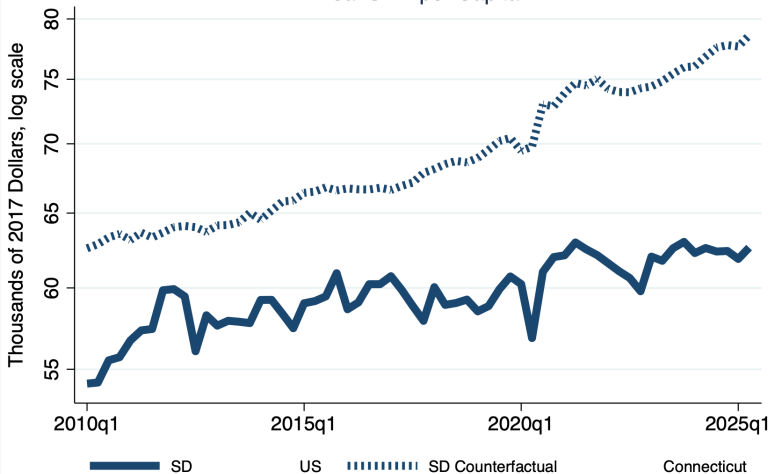
Source: U.S. Bureau of Economic Analysis; state-level counterfactual based on national-level employee productivity.

Real GDP per Capita

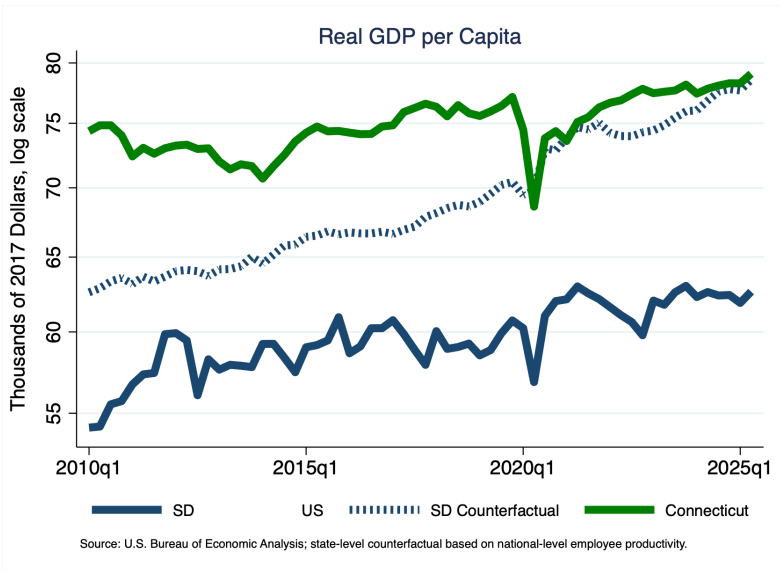


Source: U.S. Bureau of Economic Analysis; state-level counterfactual based on national-level employee productivity.

Real GDP per Capita



Source: U.S. Bureau of Economic Analysis; state-level counterfactual based on national-level employee productivity.



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