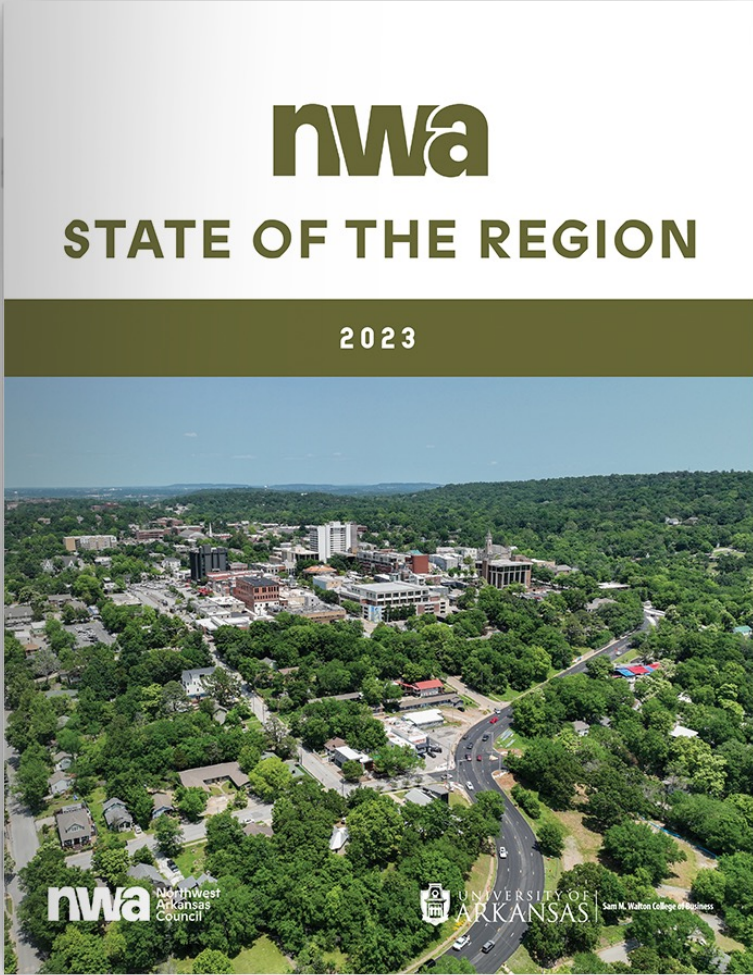


State of the Northwest Arkansas Region 2023



Sam M. Walton College of Business

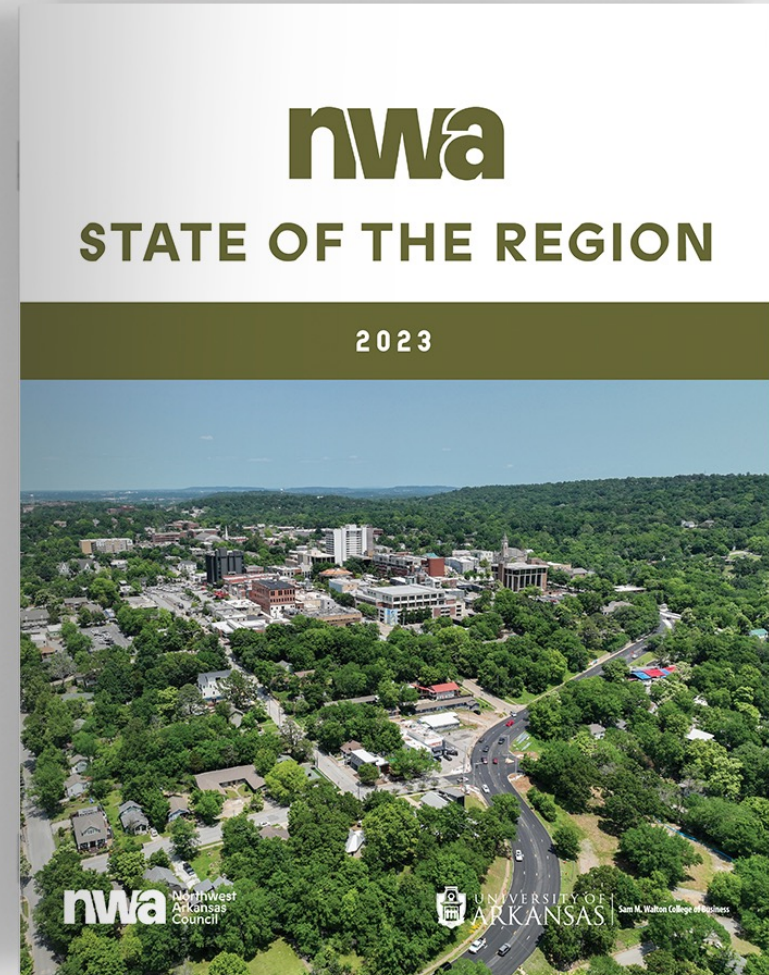




Nelson Peacock

President & CEO

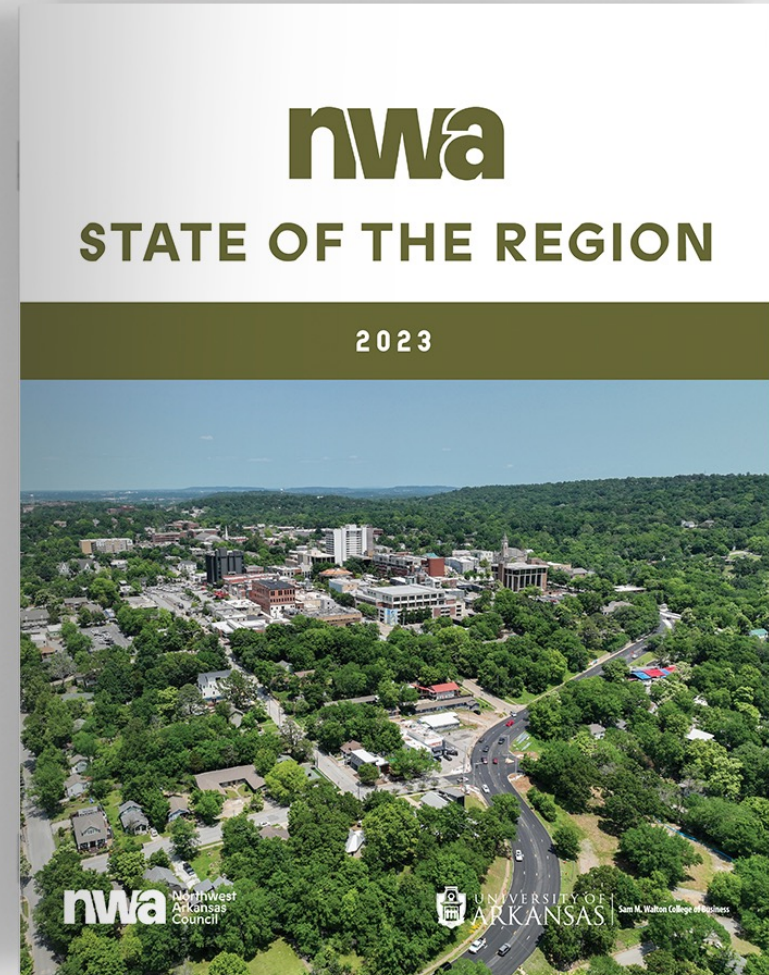
Northwest Arkansas Council





Donna Morris

Executive Vice President &
Chief People Office
Walmart





Nelson Peacock

President & CEO
Northwest Arkansas Council



Donna Morris

Executive Vice President &
Chief People Officer
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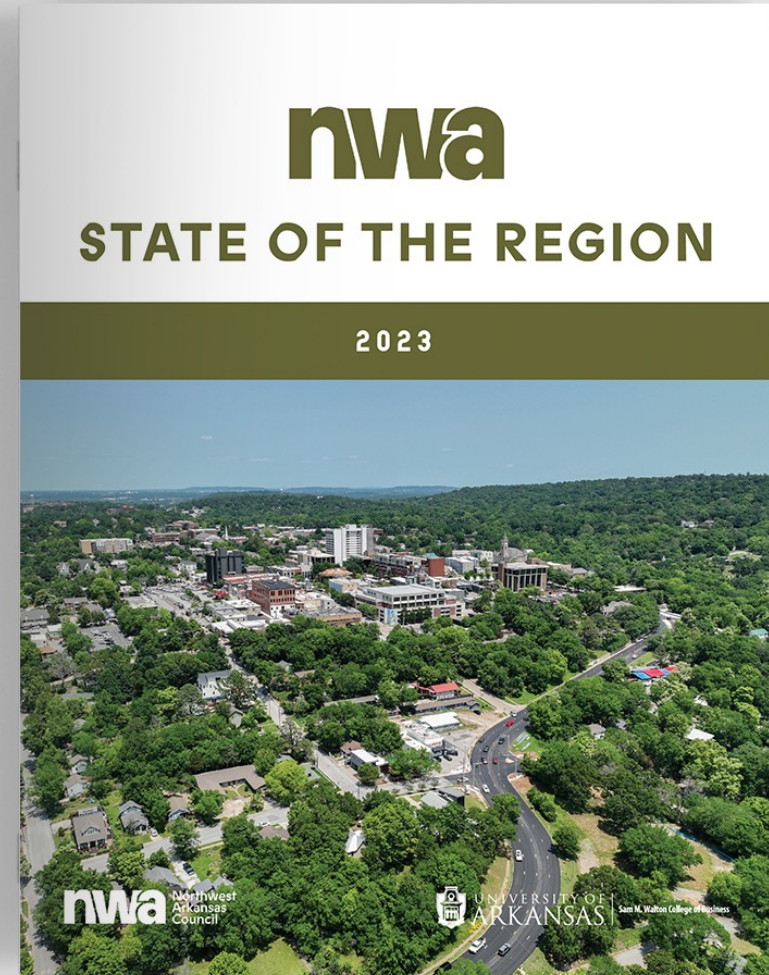
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Sam M. Walton College of Business



Mervin Jebaraj

Director, Center for Business and Economic Research
Walton College of Business, University of Arkansas



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State of the National, State and Regional Economy

Mervin Jebaraj, Director

Center for Business and Economic Research

October 25, 2023

Twitter:

#nwasotr @NWArkCouncil @MervinJebaraj

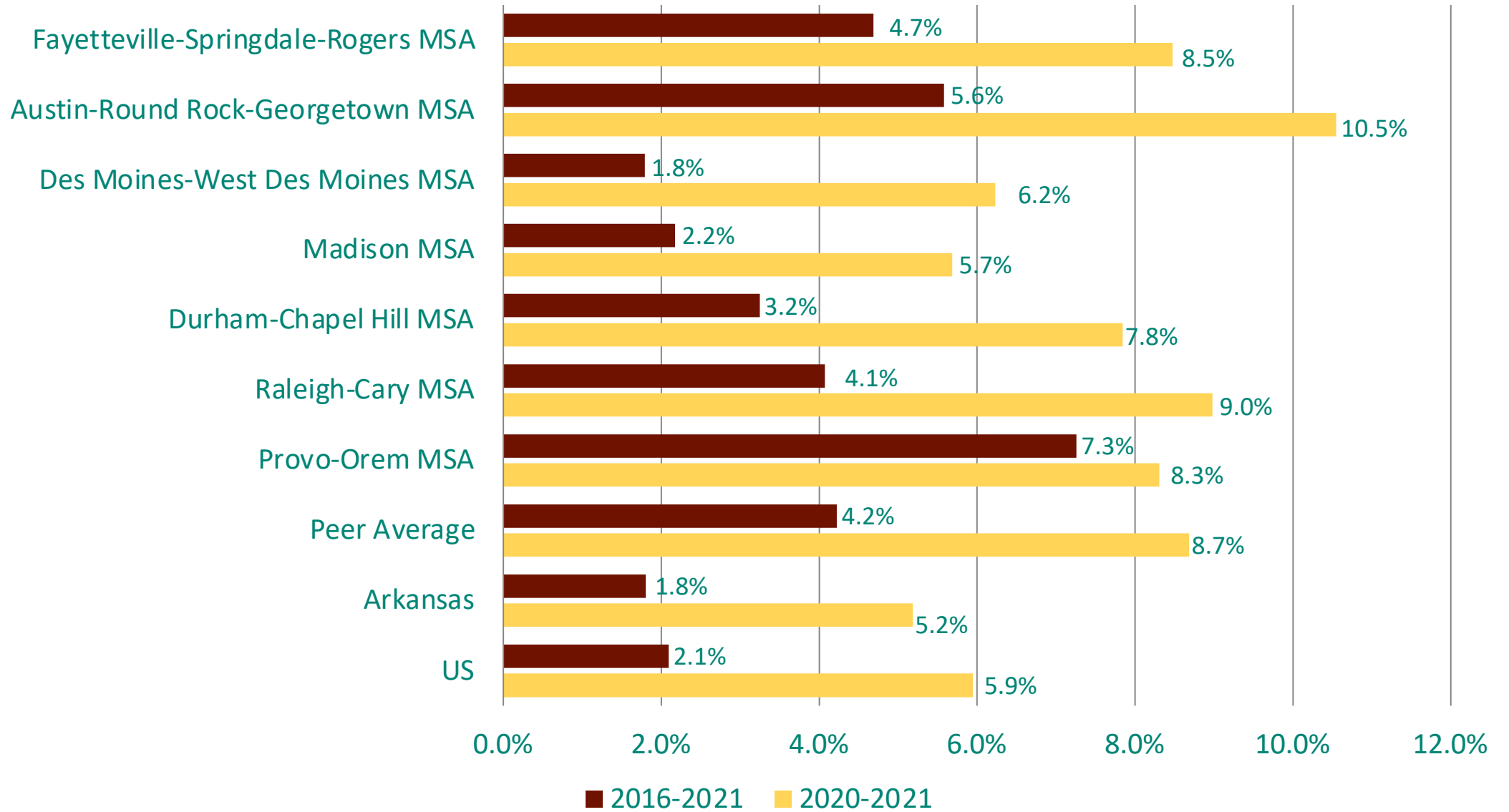


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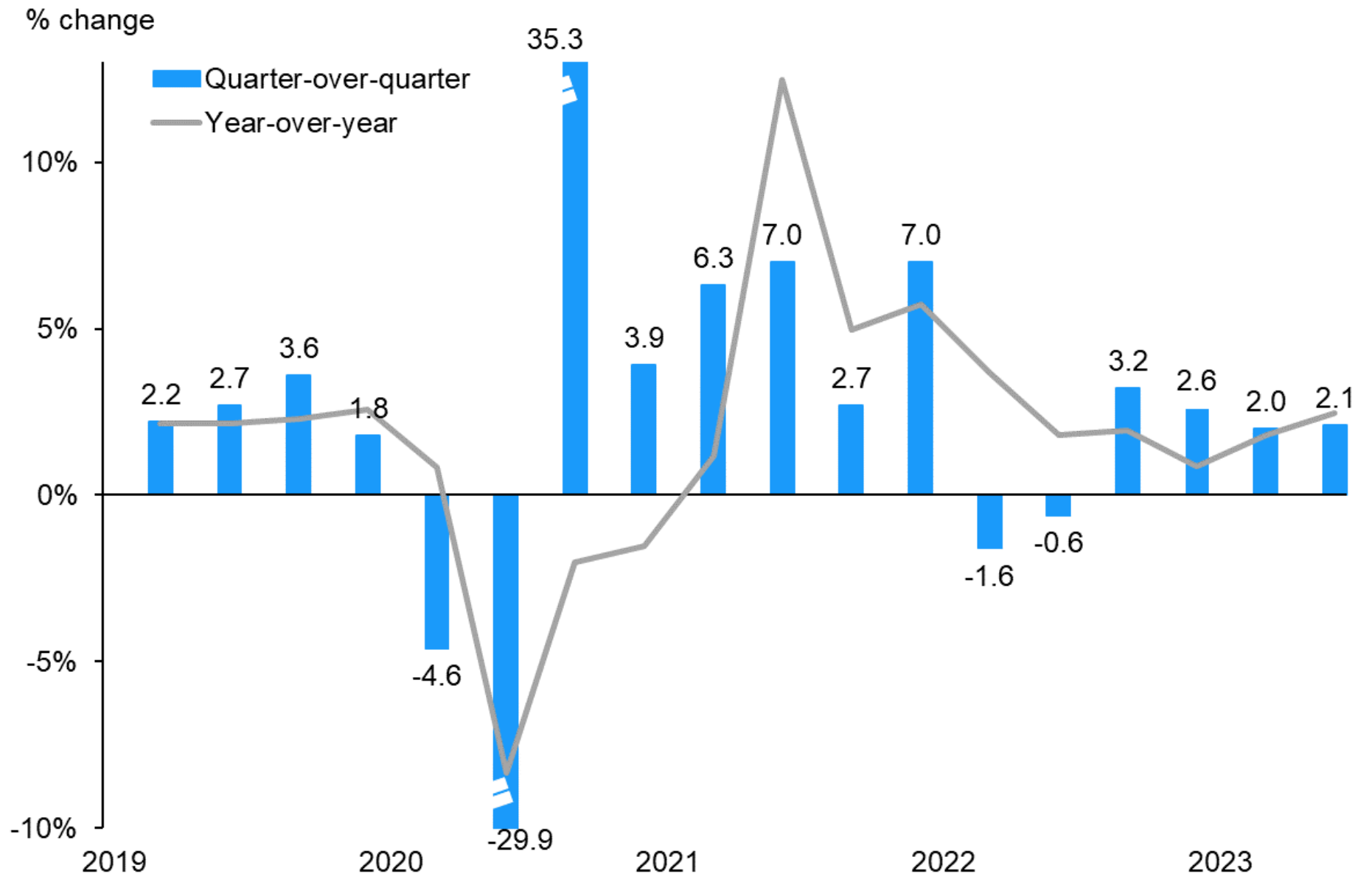


Change in Real GDP

Source: U.S. Bureau of Economic Analysis



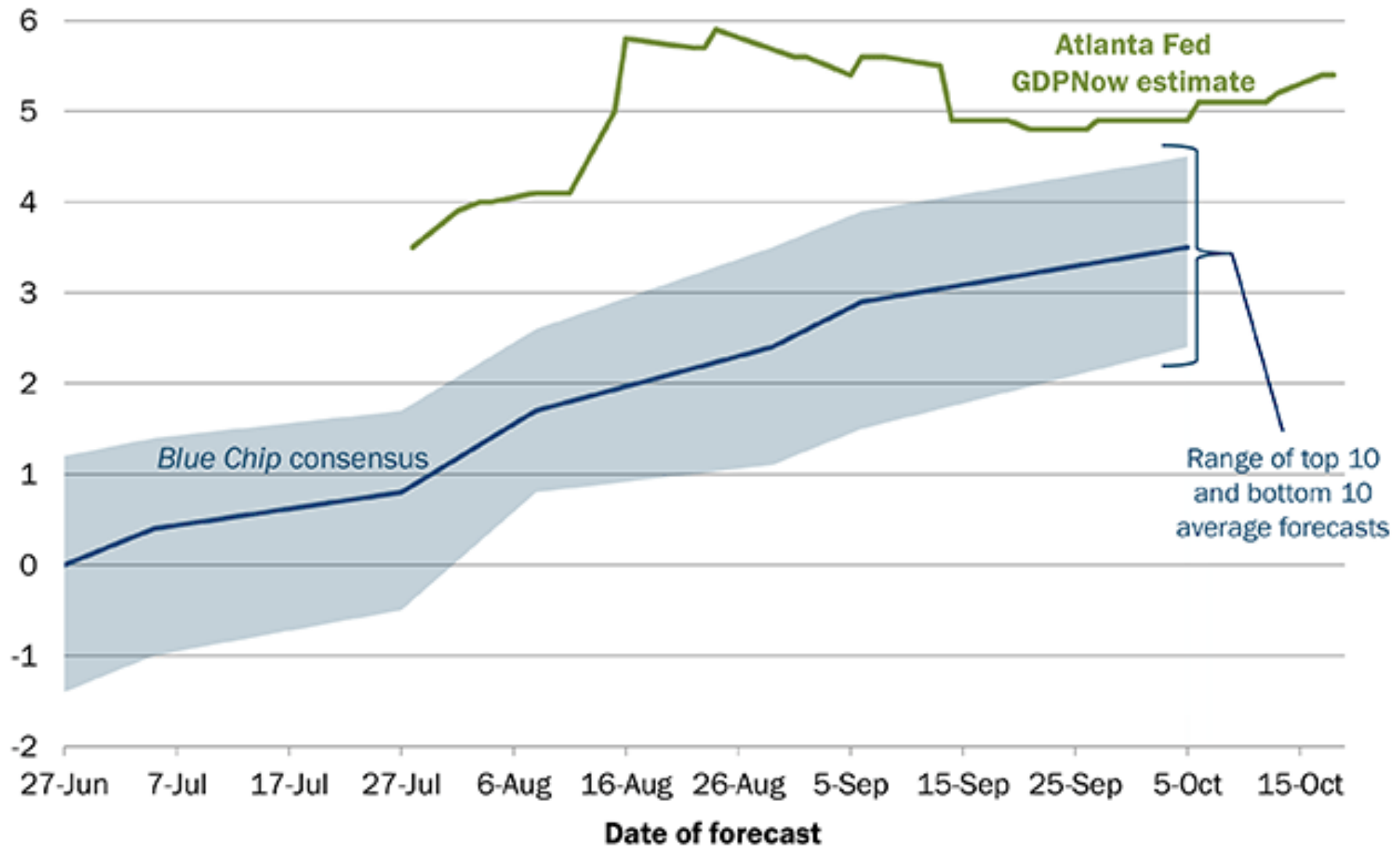
Real GDP Growth 2019Q1-2023Q2



Source: BEA, EY-Parthenon

Evolution of Atlanta Fed GDPNow real GDP estimate for 2023: Q3

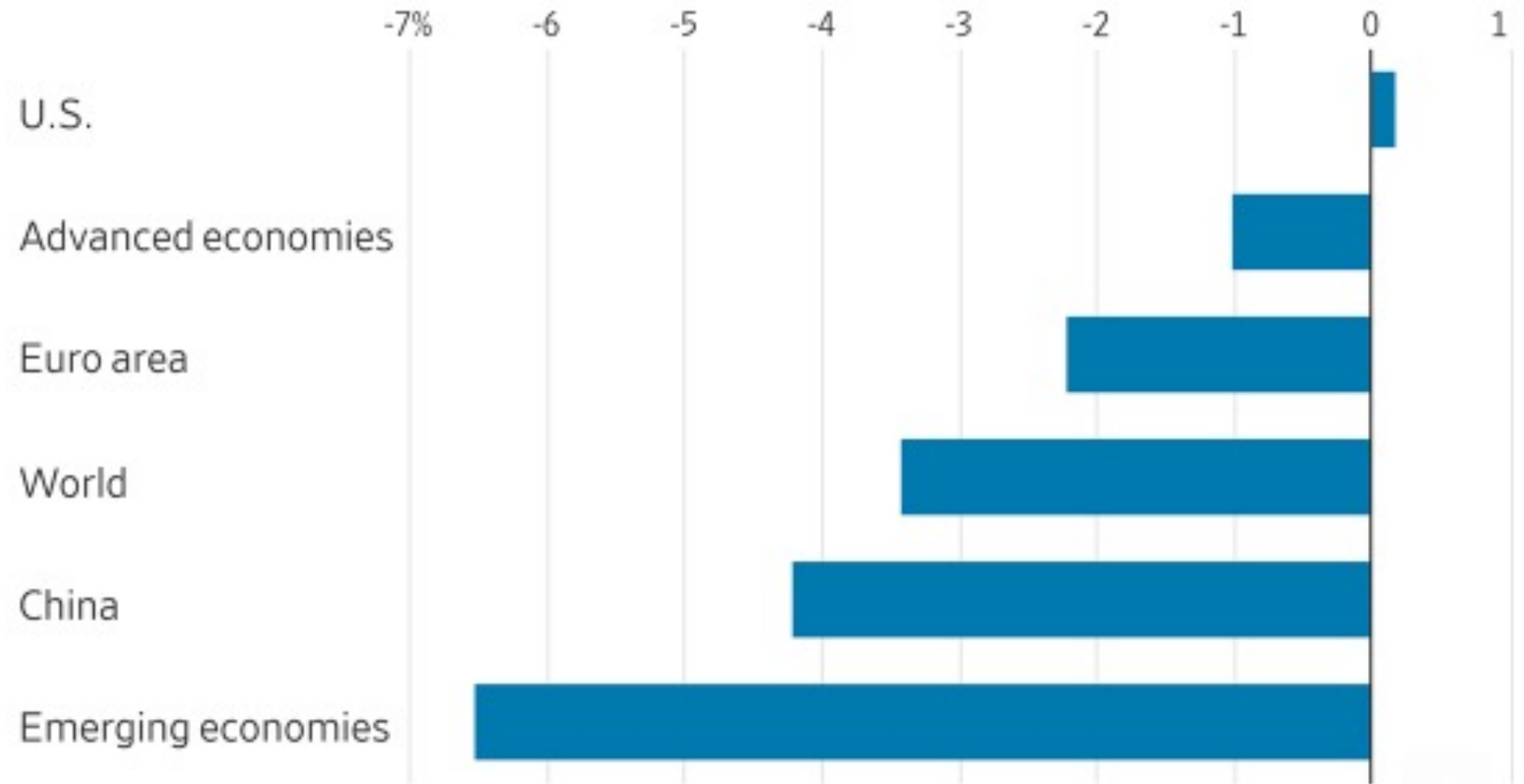
Quarterly percent change (SAAR)



Sources: Blue Chip Economic Indicators and Blue Chip Financial Forecasts

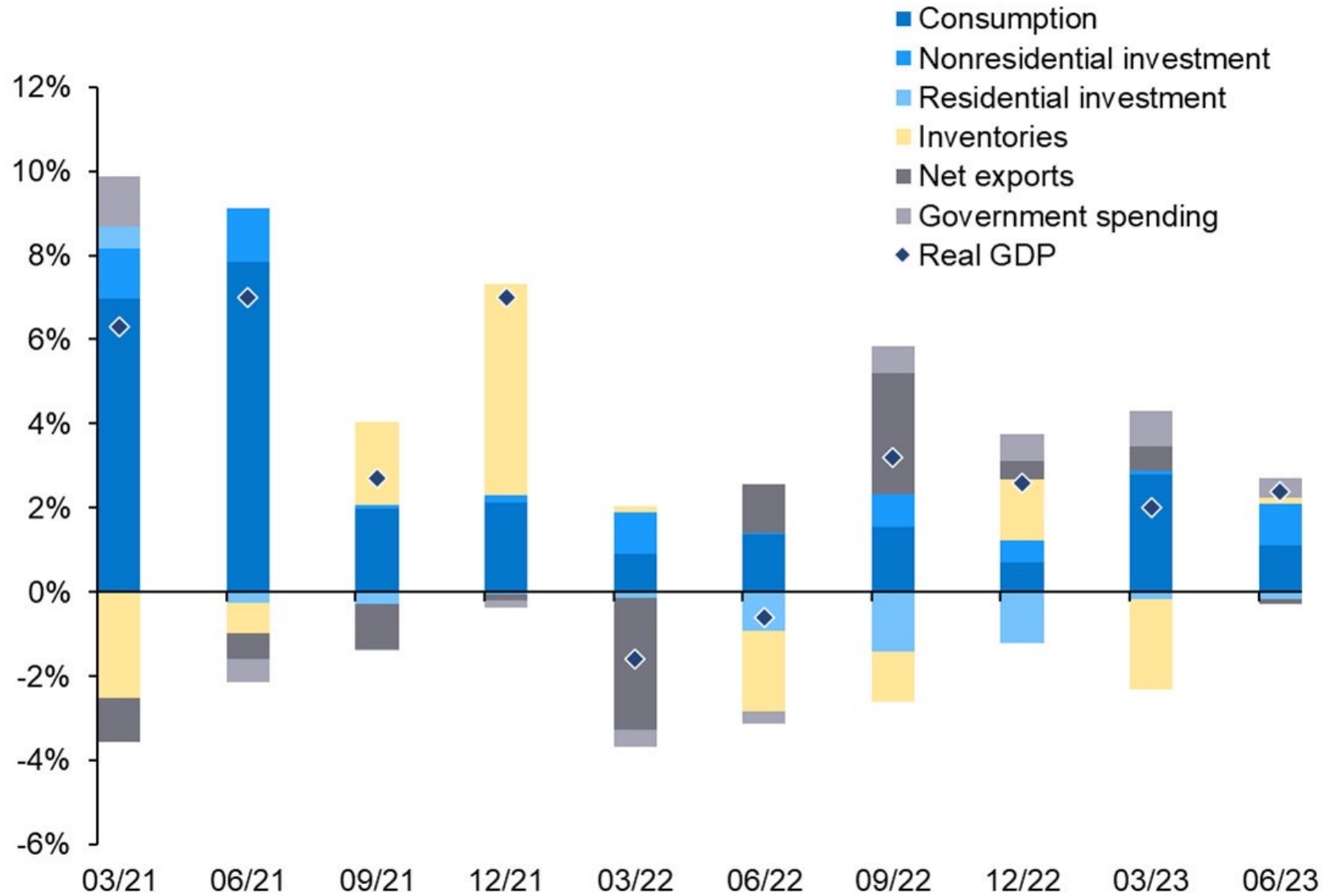
Note: The top (bottom) 10 average forecast is an average of the highest (lowest) 10 forecasts in the Blue Chip survey.

Difference between countries' 2023 real GDP and the IMF's prepandemic projections



Source: International Monetary Fund

US: Real GDP Growth Contributions Q1 2021 - Q2 2023 (%pts, annualized)



Source: BEA; EY-Parthenon

Year-over-year percent change in retail sales January 2022 - September 2023

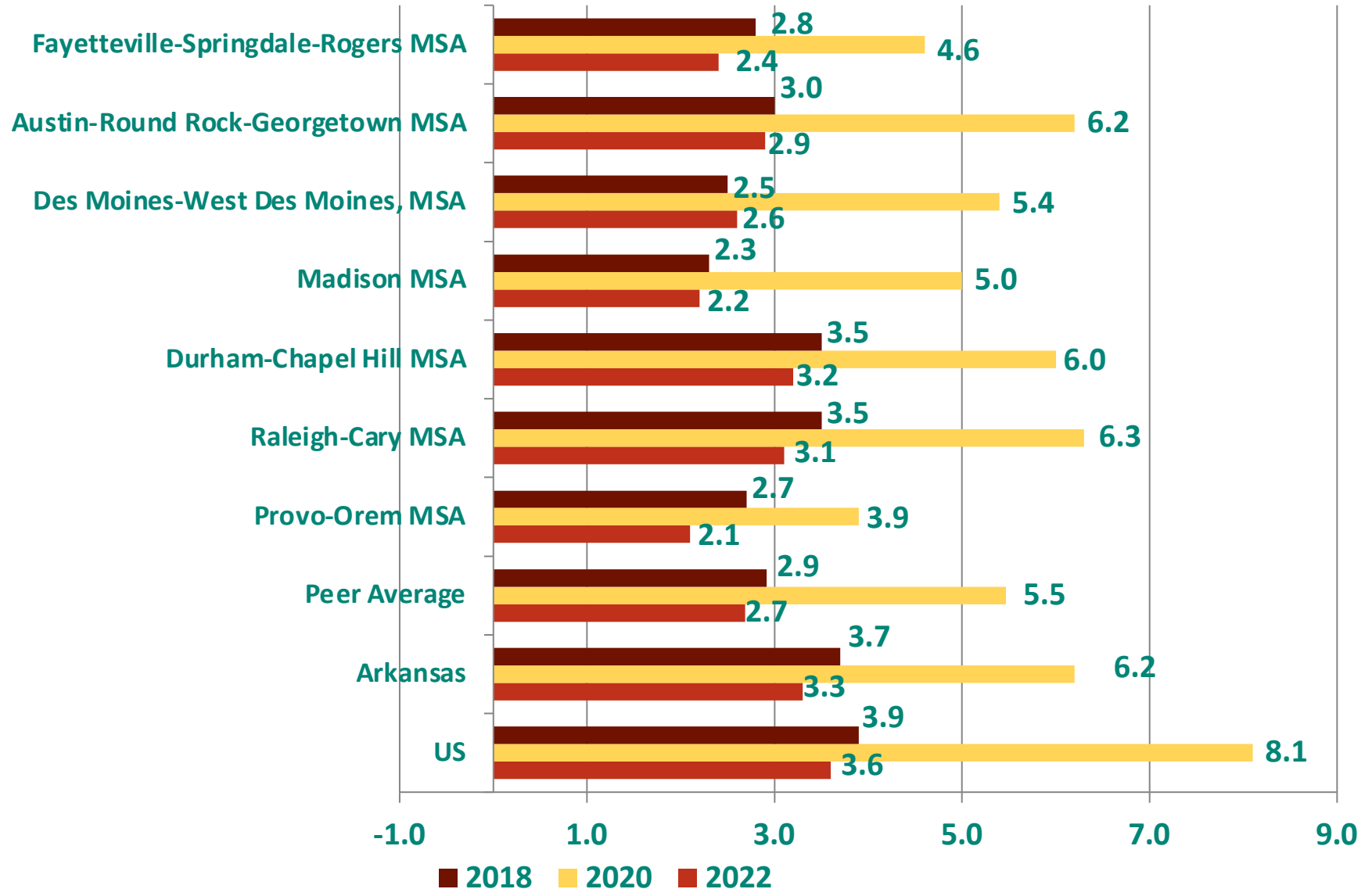


Source: Census Bureau; EY-Parthenon



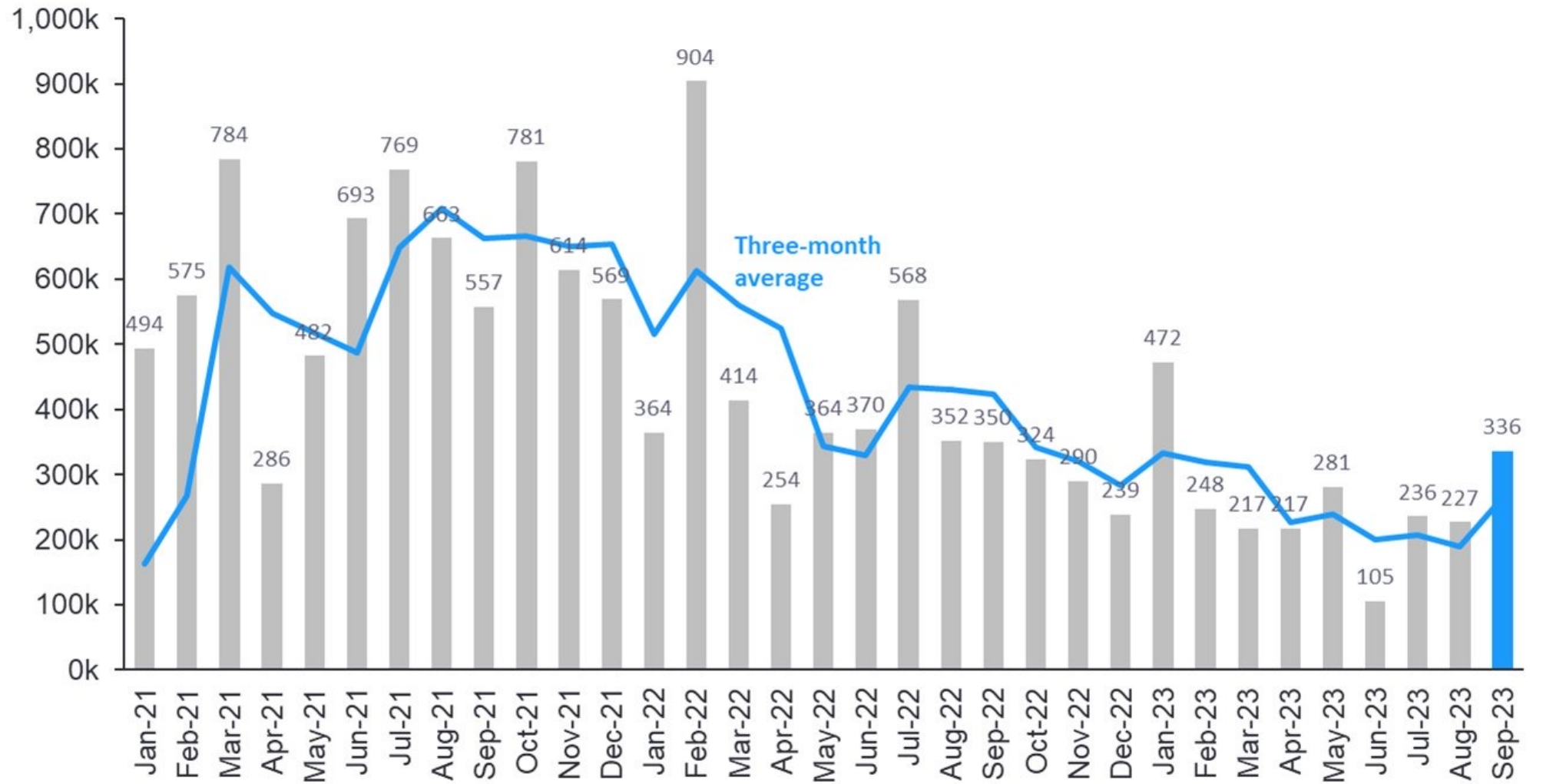
Unemployment Rate, Annual Average

Source: U.S. Bureau of Labor Statistics





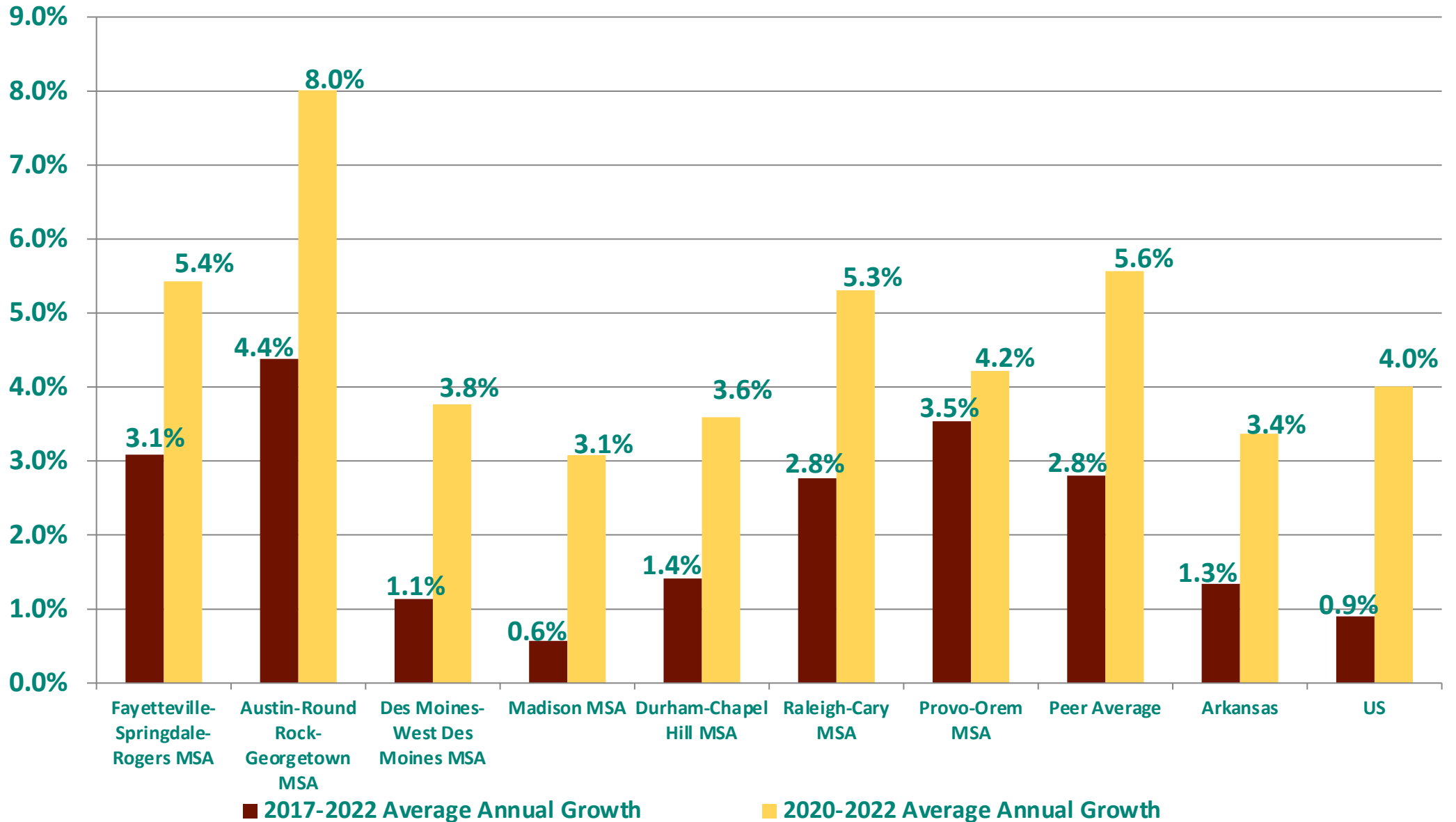
Month-over-month change in total nonfarm employment January 2021 - September 2023



Source: BLS; EY-Parthenon

Employment Growth Rate

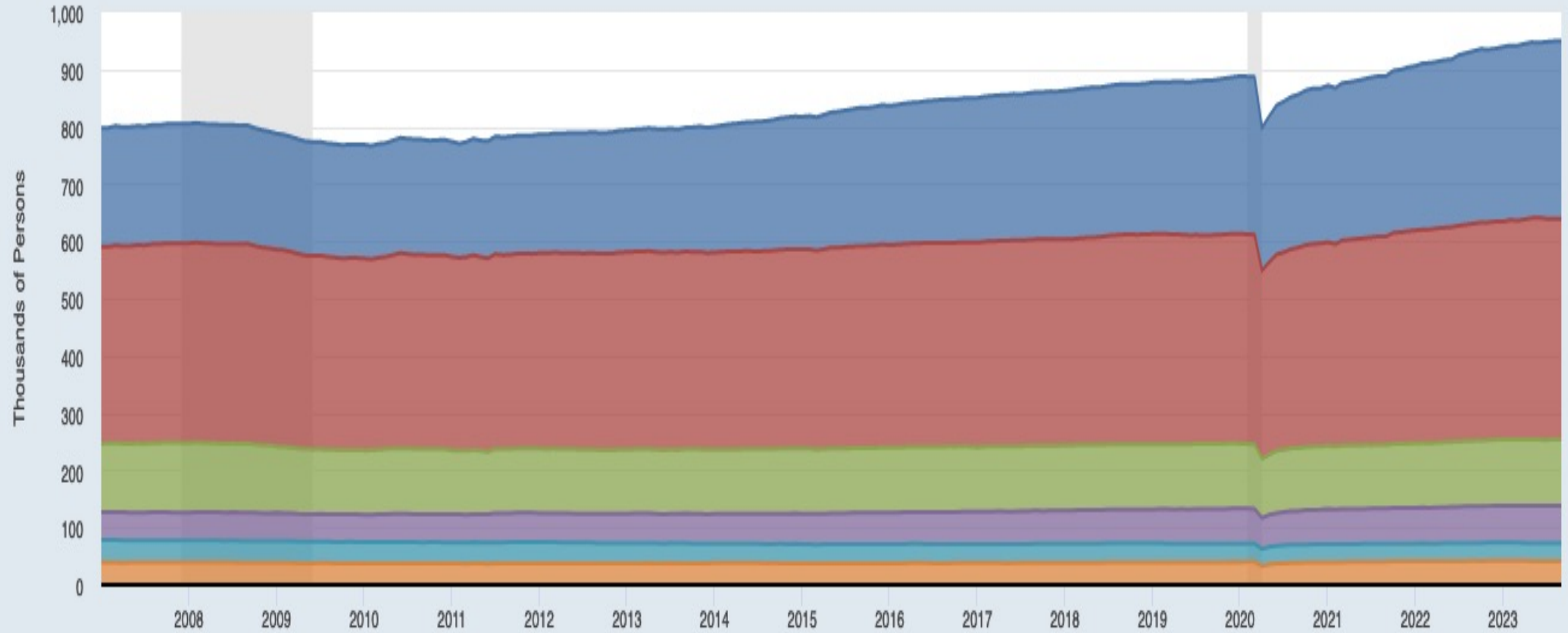
Source: U.S. Bureau of Labor Statistics





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- All Employees: Total Nonfarm in Fayetteville-Springdale-Rogers, AR-MO (MSA)
- All Employees: Total Nonfarm in Little Rock-North Little Rock-Conway, AR (MSA)
- All Employees: Total Nonfarm in Fort Smith, AR-OK (MSA)
- All Employees: Total Nonfarm in Jonesboro, AR (MSA)
- All Employees: Total Nonfarm in Pine Bluff, AR (MSA)
- All Employees: Total Nonfarm in Hot Springs, AR (MSA)



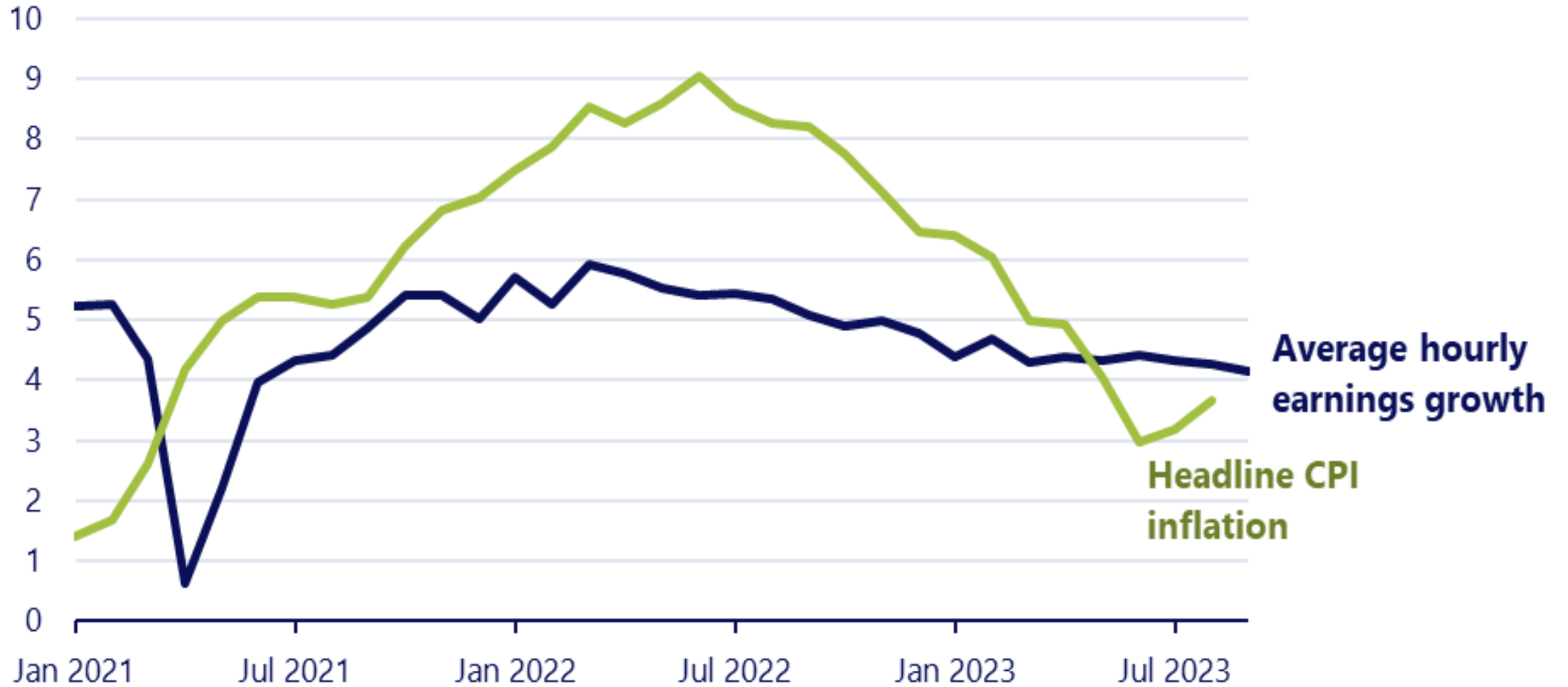
Shaded areas indicate U.S. recessions.

Source: U.S. Bureau of Labor Statistics

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Nominal average hourly earnings, all employees, and headline CPI-U

Percent, year-on-year



Council of Economic Advisers

Sources: Bureau of Labor Statistics; CEA calculations.



FRED  — Average Hourly Earnings of All Employees: Leisure and Hospitality in Arkansas



Shaded areas indicate U.S. recessions.

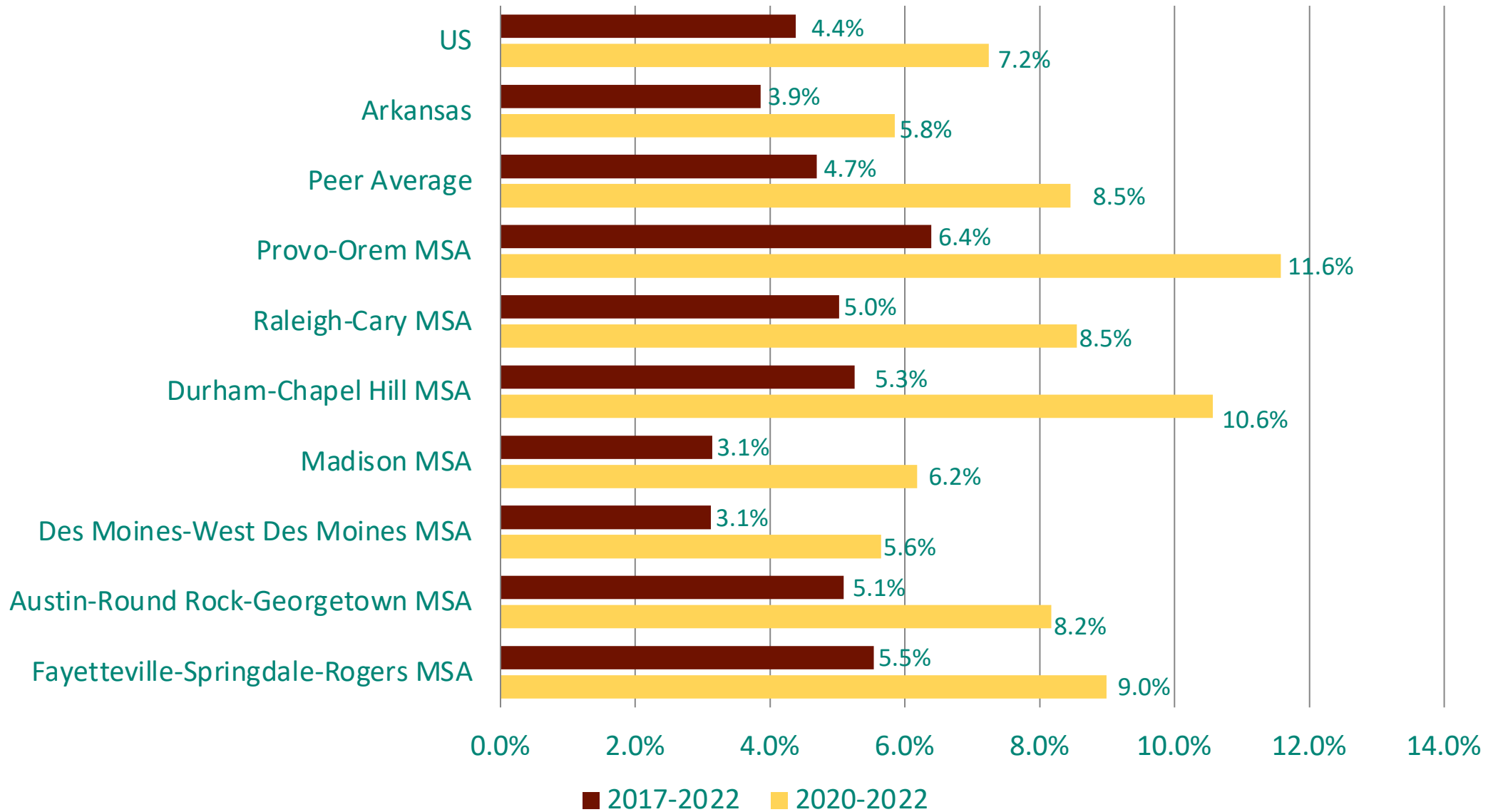
Sources: BLS; St. Louis Fed

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Change in Median Income

Source: U.S. Census Bureau



Present Situation and Expectations Index

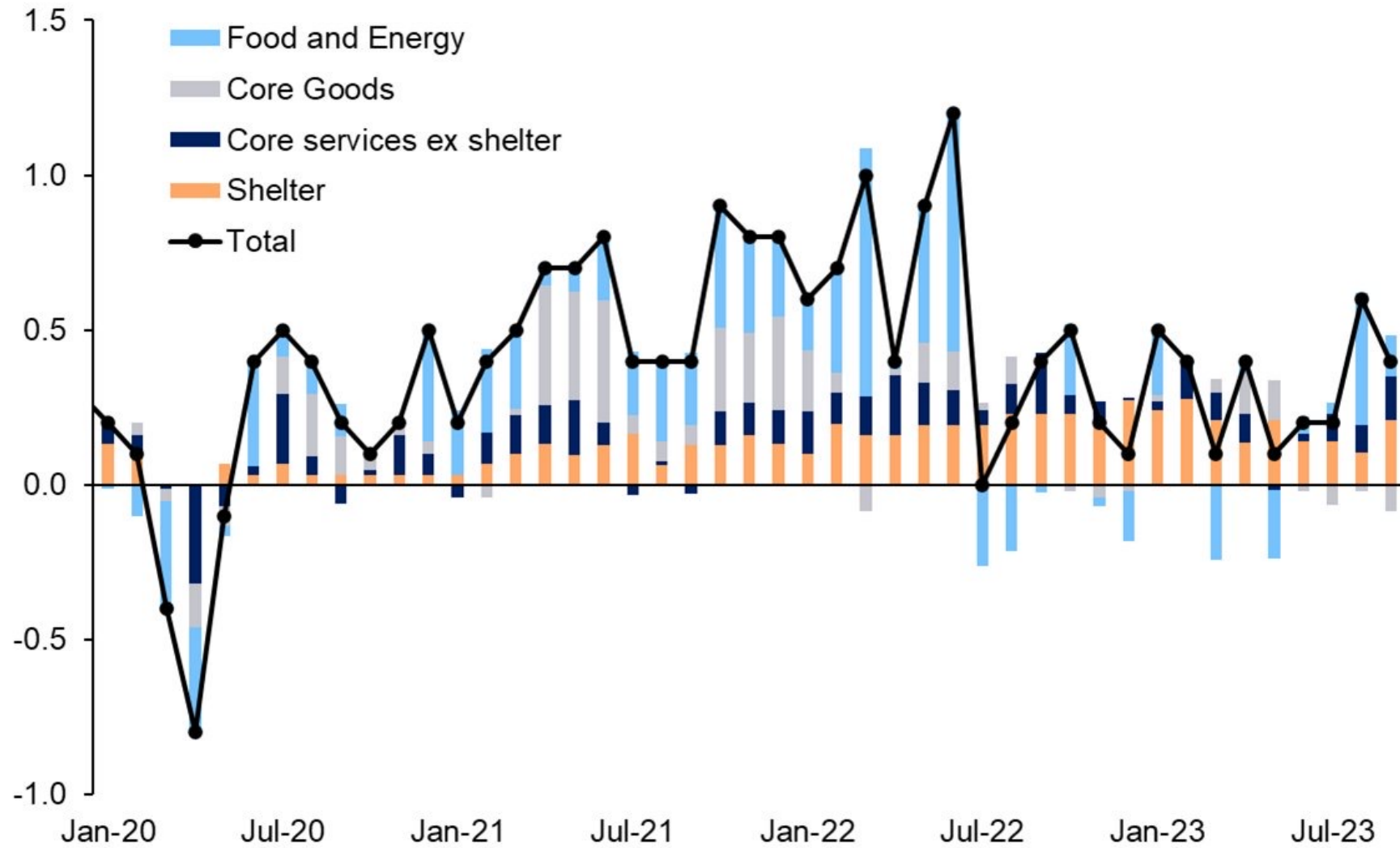
Index, 1985 = 100



*Shaded areas represent periods of recession.
Sources: The Conference Board; NBER
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Month-over-month percent change in consumer price index (CPI)

January 2020 - September 2023

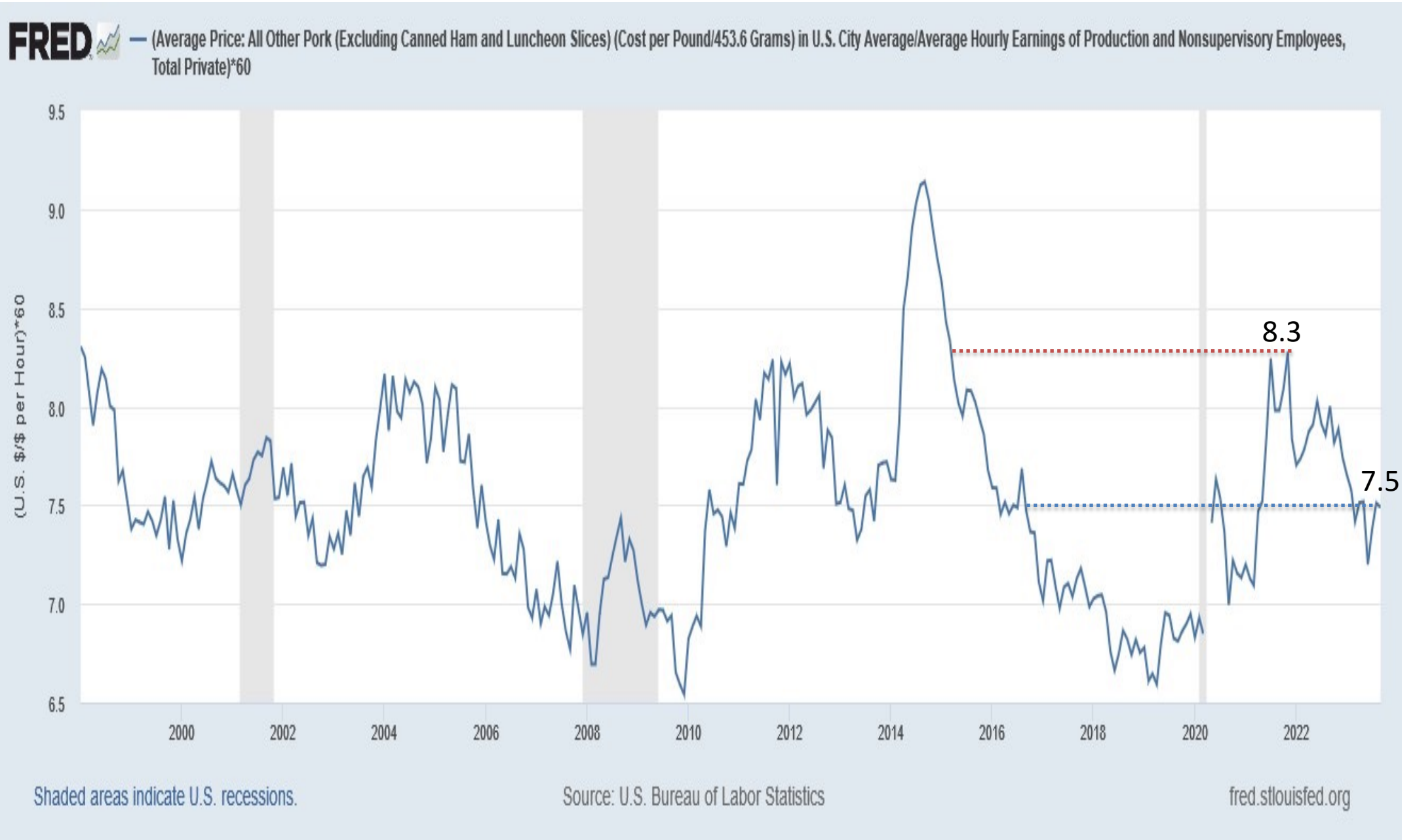


Source: BLS; EY-Parthenon

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(US Regular All Formulations Gas Price/Average Hourly Earnings of Production and Nonsupervisory Employees, Total Private)*60



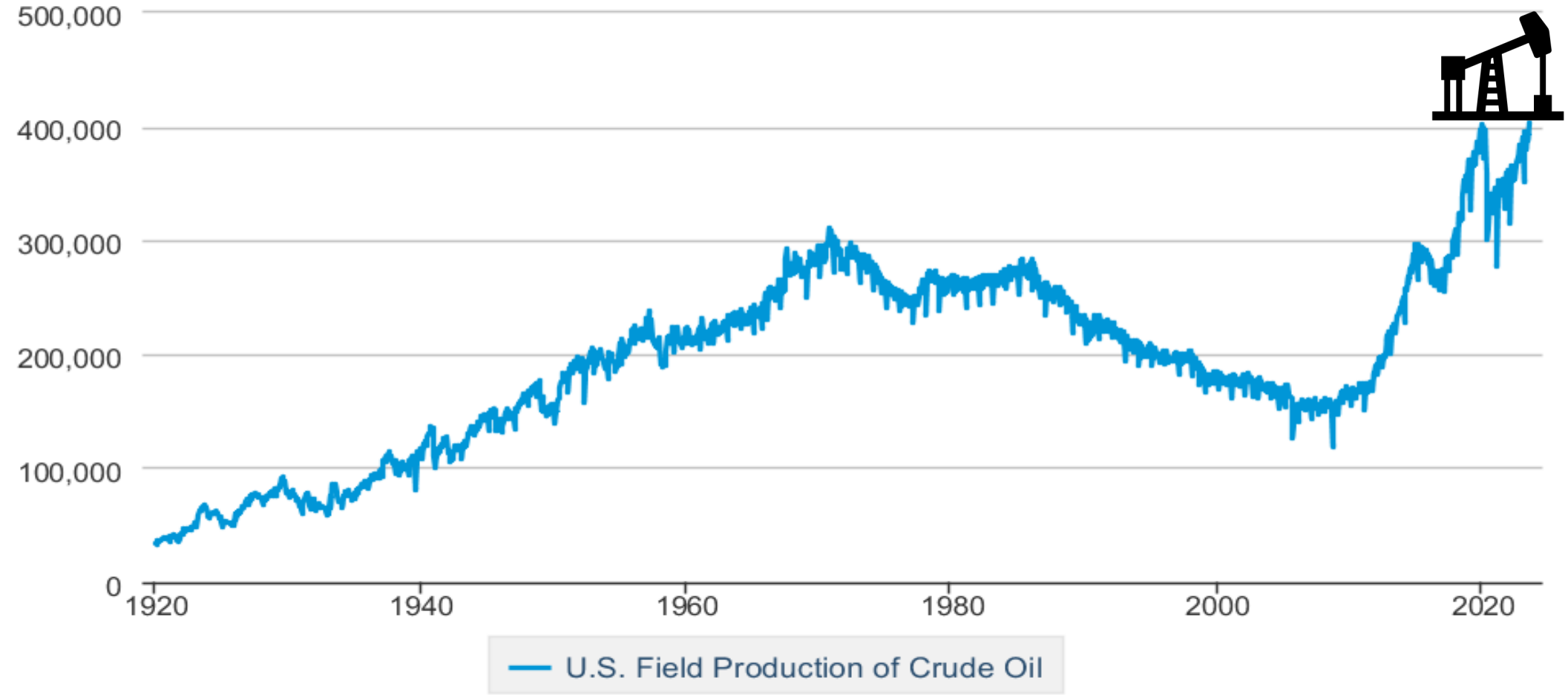
Shaded areas indicate U.S. recessions.

Sources: EIA; BLS

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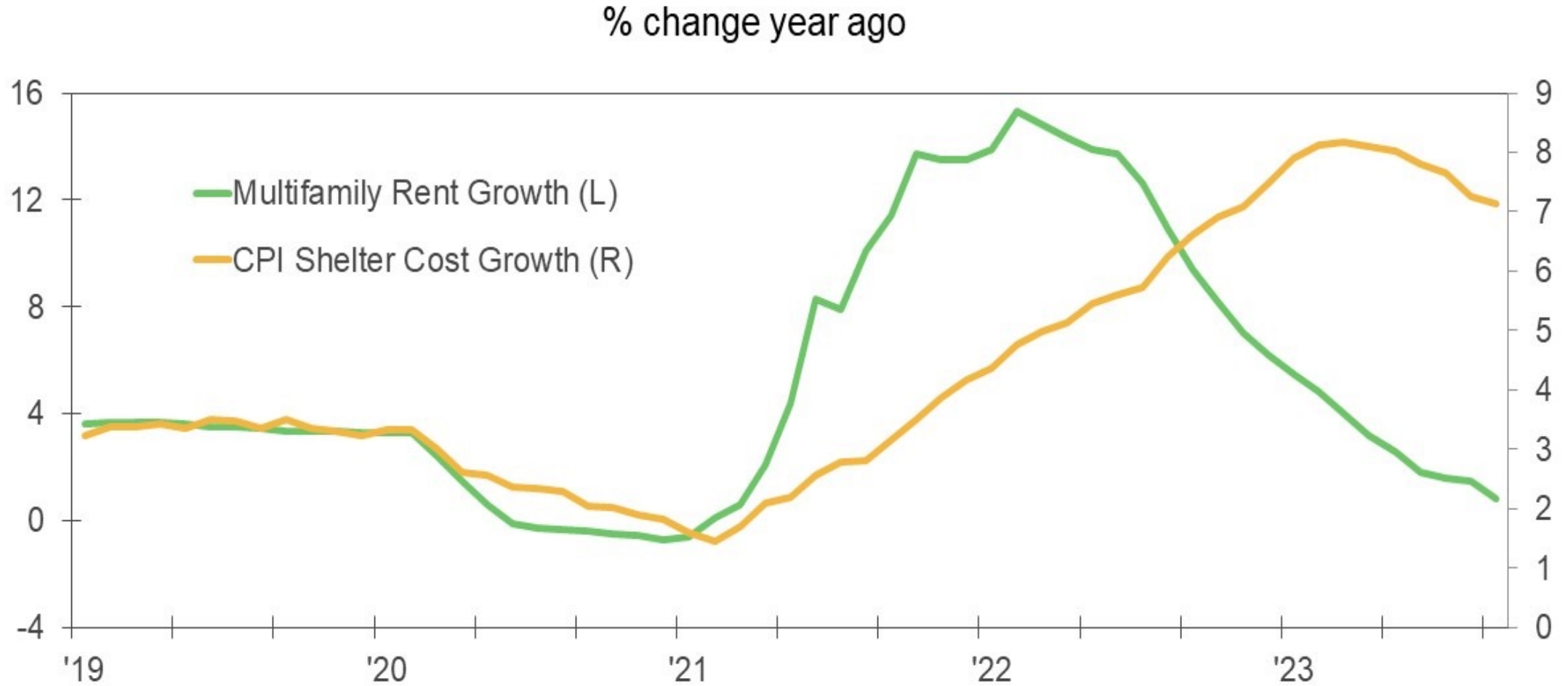
U.S. Field Production of Crude Oil

Thousand Barrels



Data source: U.S. Energy Information Administration

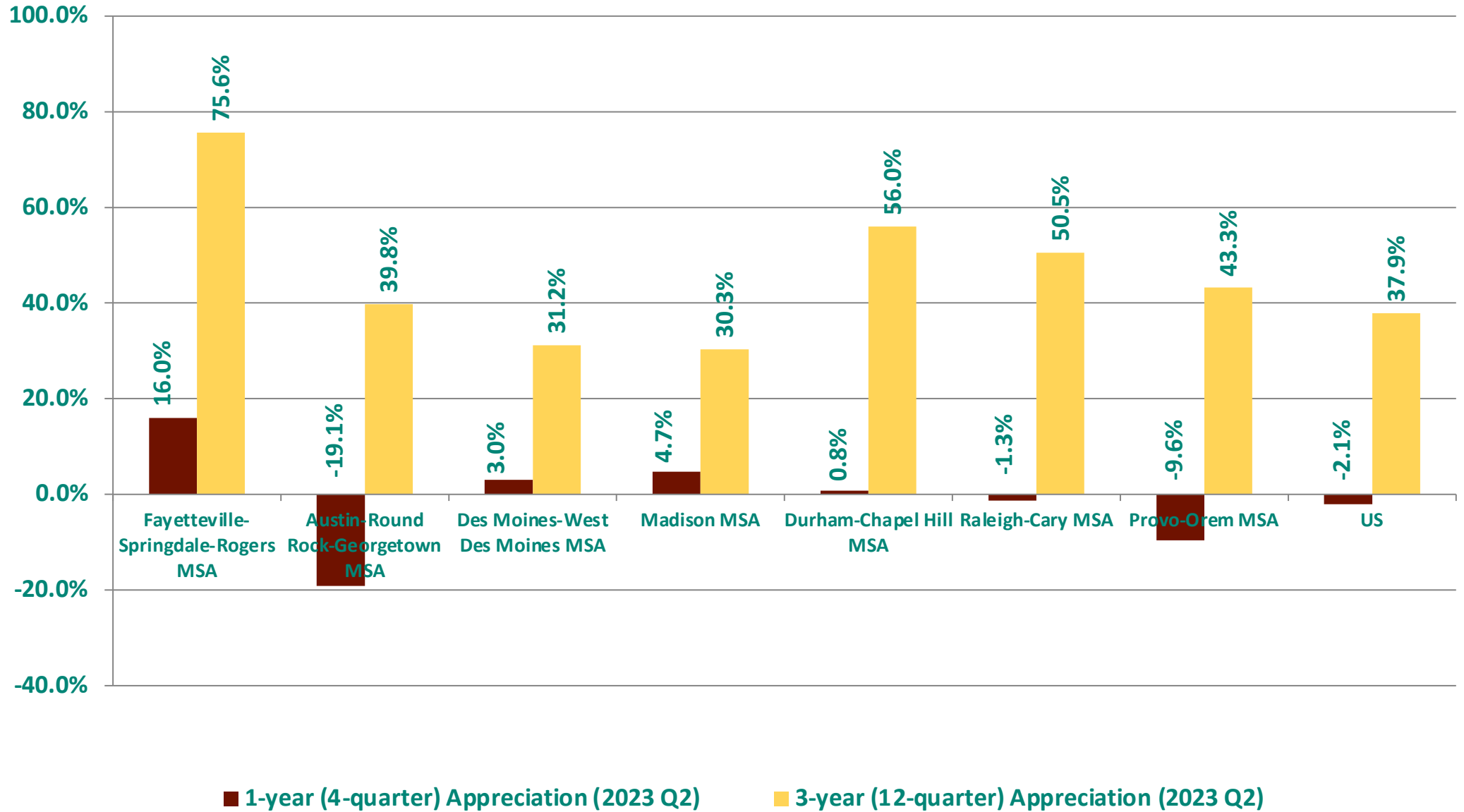
Shelter Inflation is Set to Moderate Much More



Sources: Yardi, Moody's Analytics

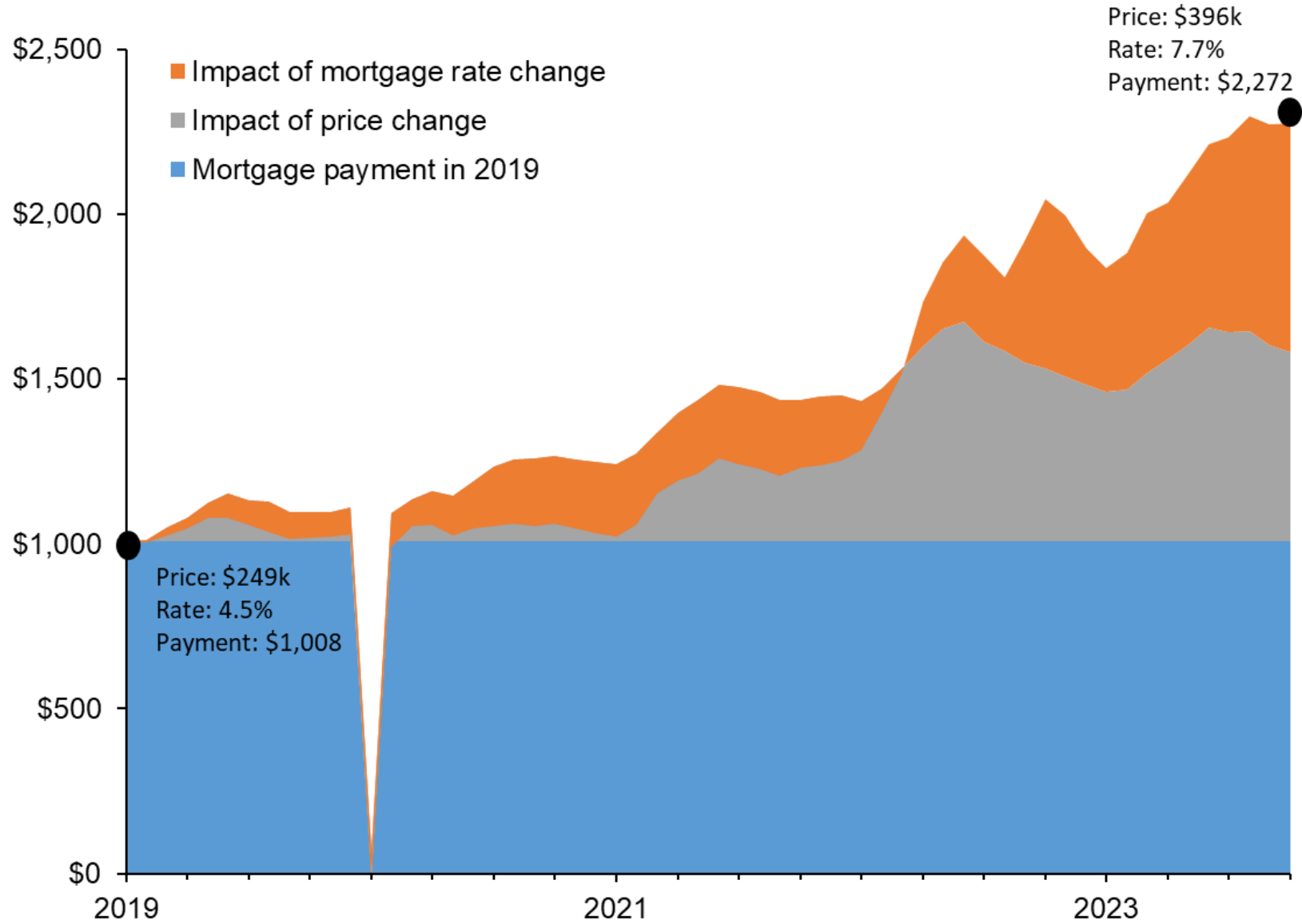
Median Price of Single Family Homes

Source: National Association of Realtors



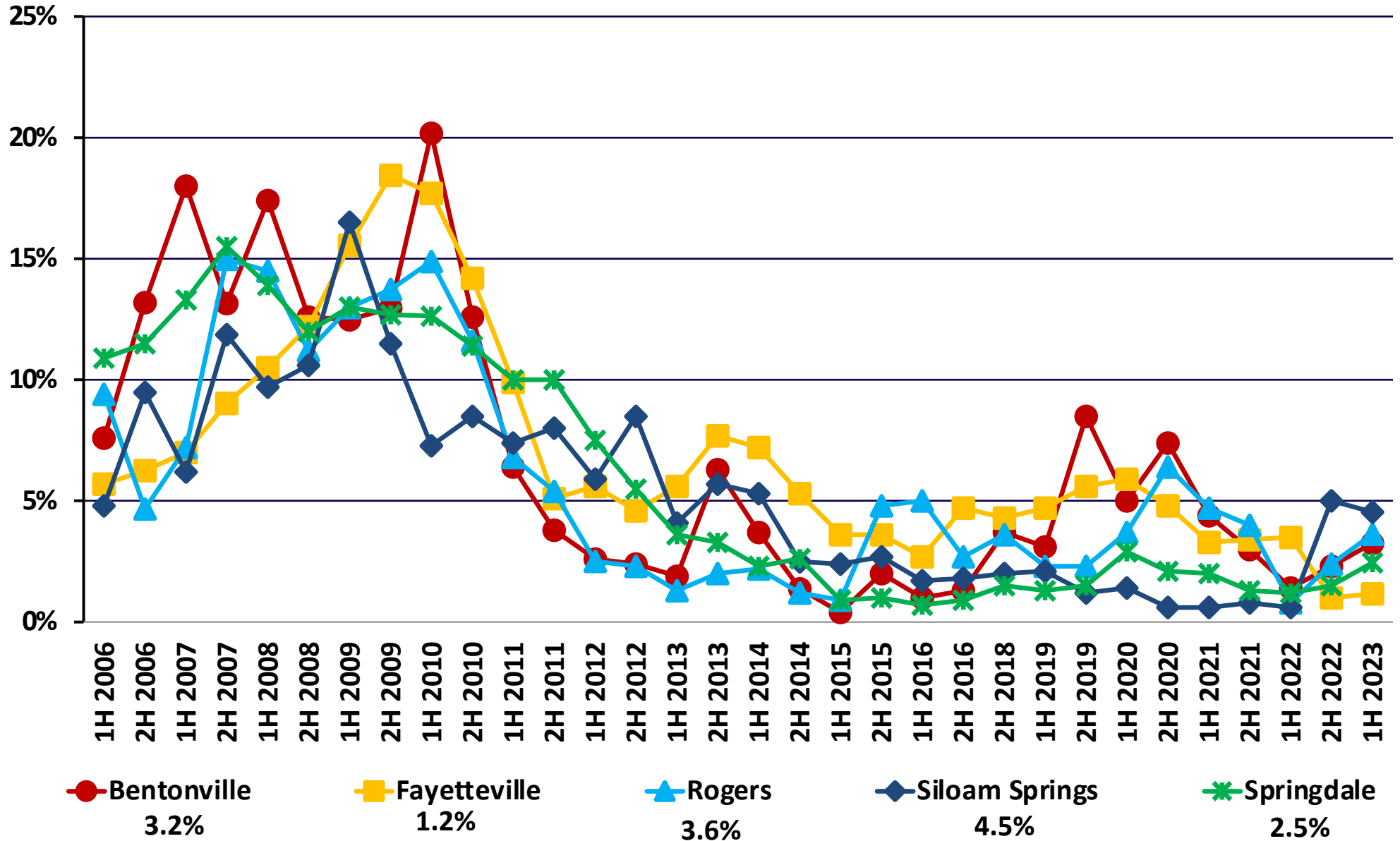
Monthly mortgage payment on median-price existing home

January 2019 - September 2023



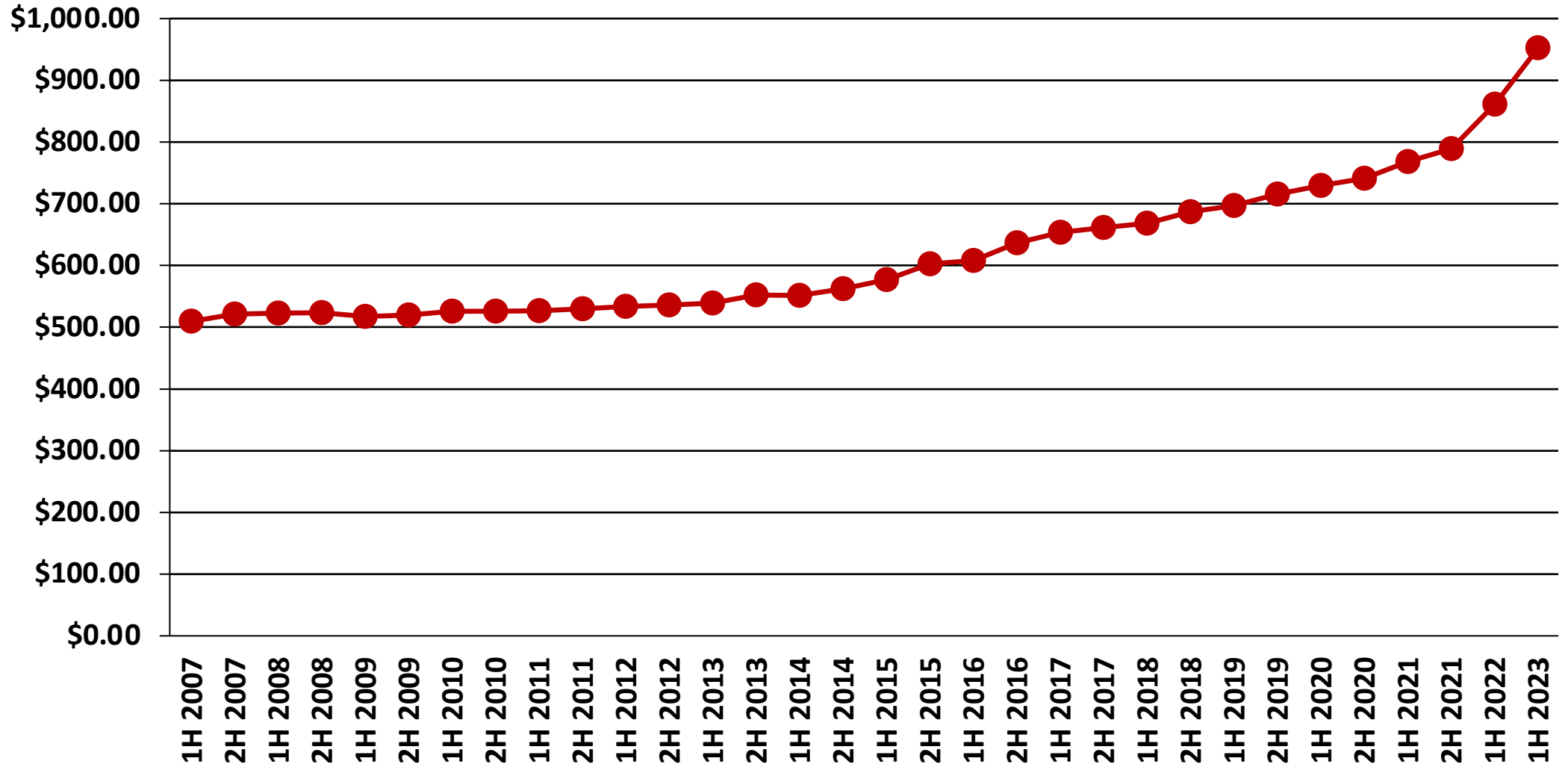
Source: National Association of Realtors; EY-Parthenon

Selected Cities Multifamily Average Vacancy Rates by City





Northwest Arkansas Price per Unit

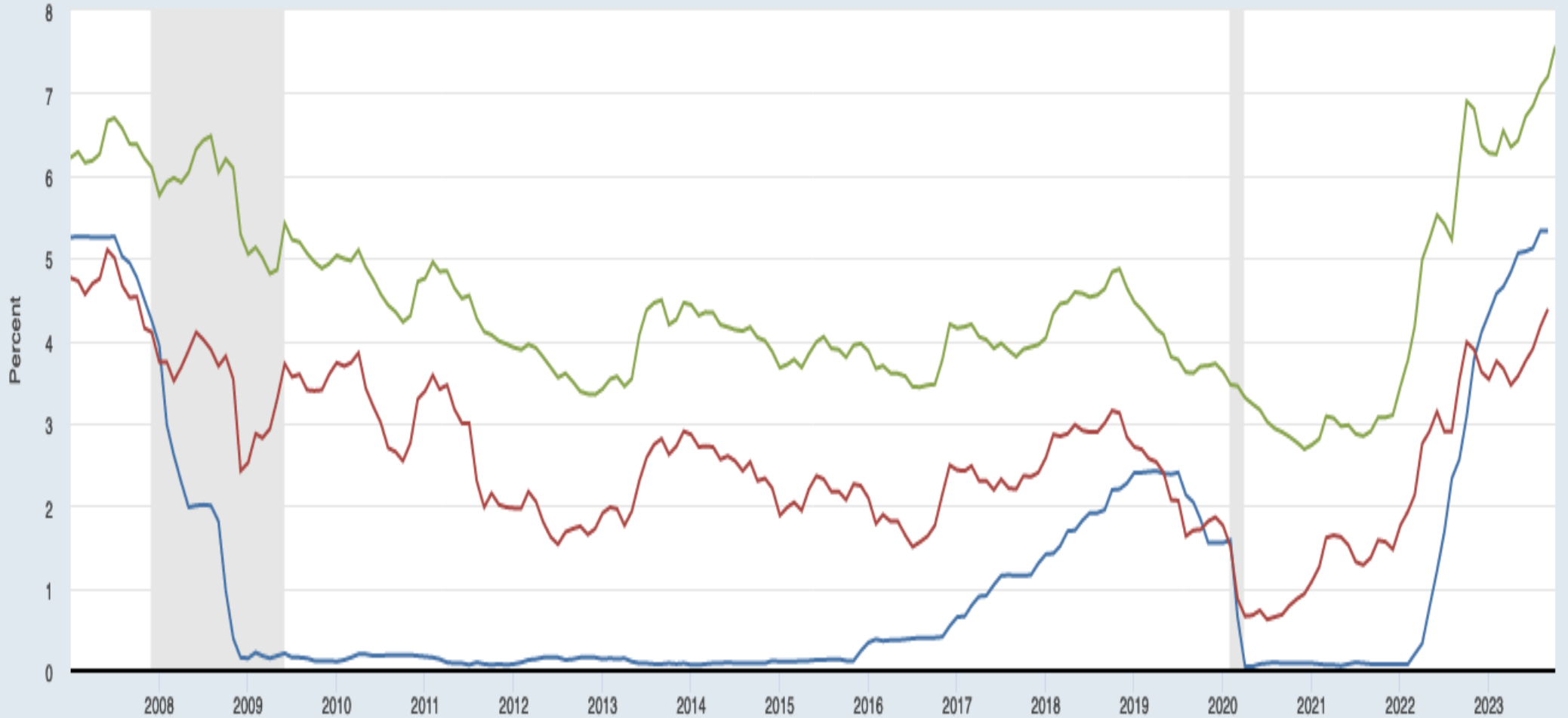


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FRED  Federal Funds Effective Rate
Market Yield on U.S. Treasury Securities at 10-Year Constant Maturity, Quoted on an Investment Basis
30-Year Fixed Rate Mortgage Average in the United States



Shaded areas indicate U.S. recessions.

Sources: Board of Governors; FHLMC

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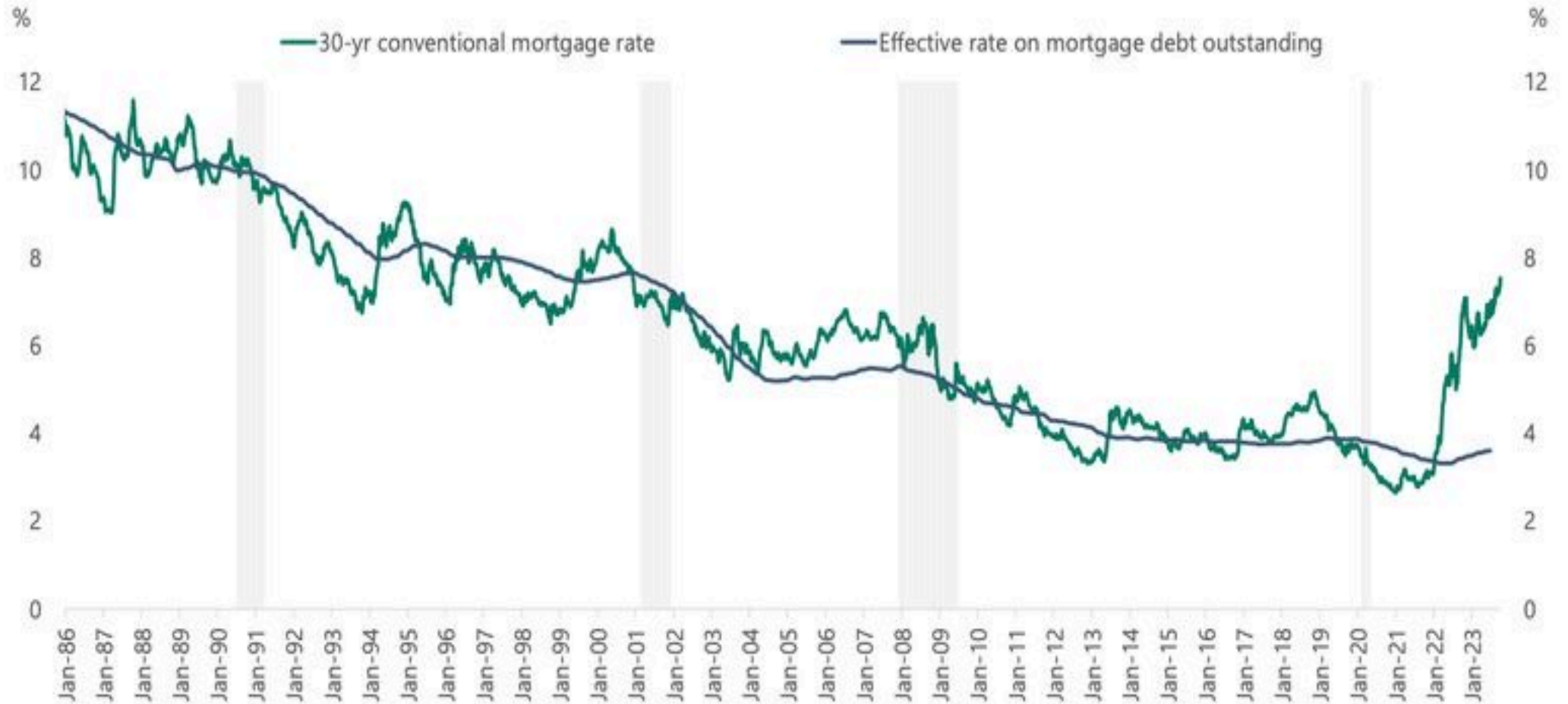


Shaded areas indicate U.S. recessions.

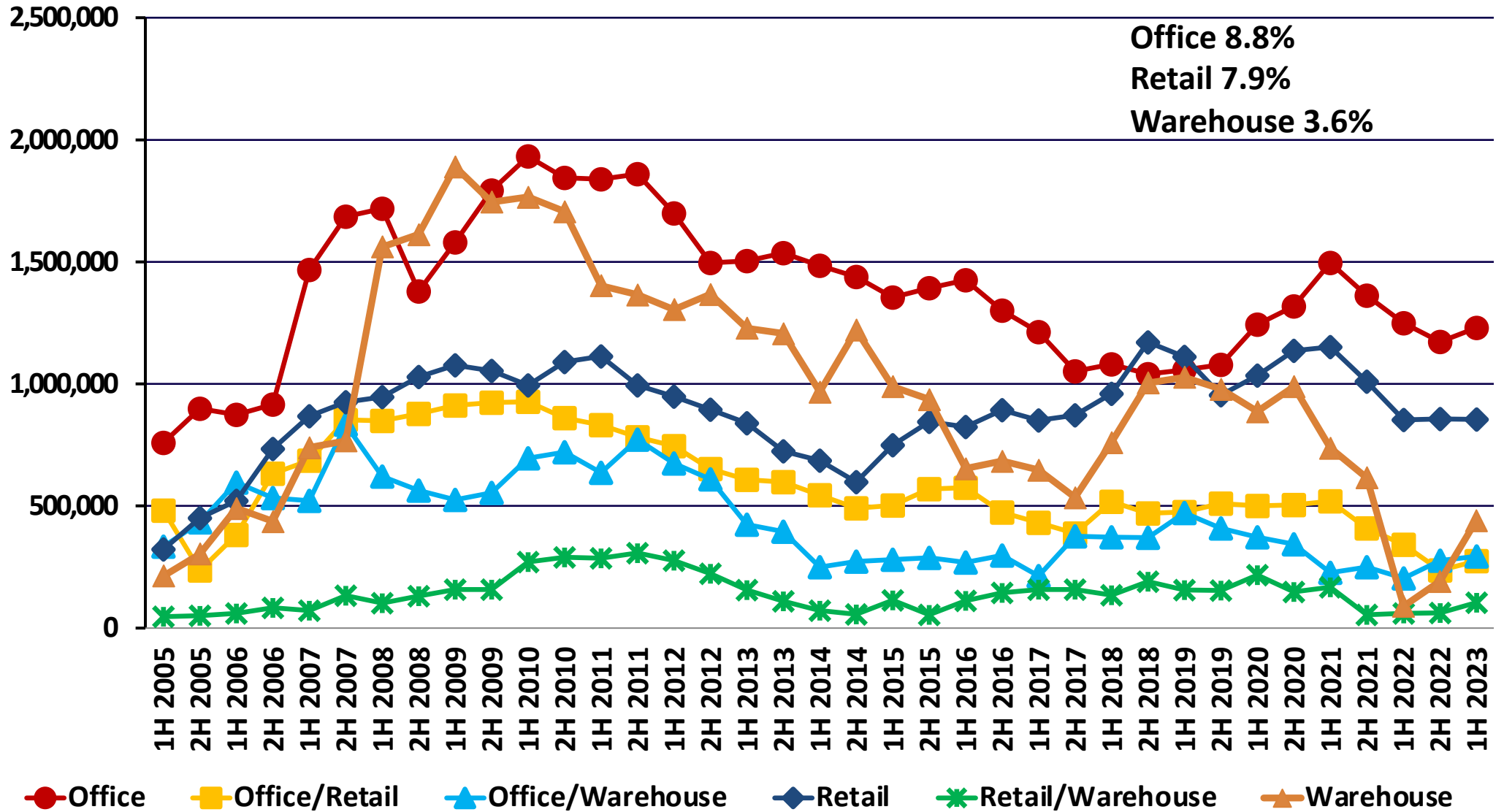
Sources: Board of Governors; FHLMC

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Effective outstanding mortgage rate around 3.6%

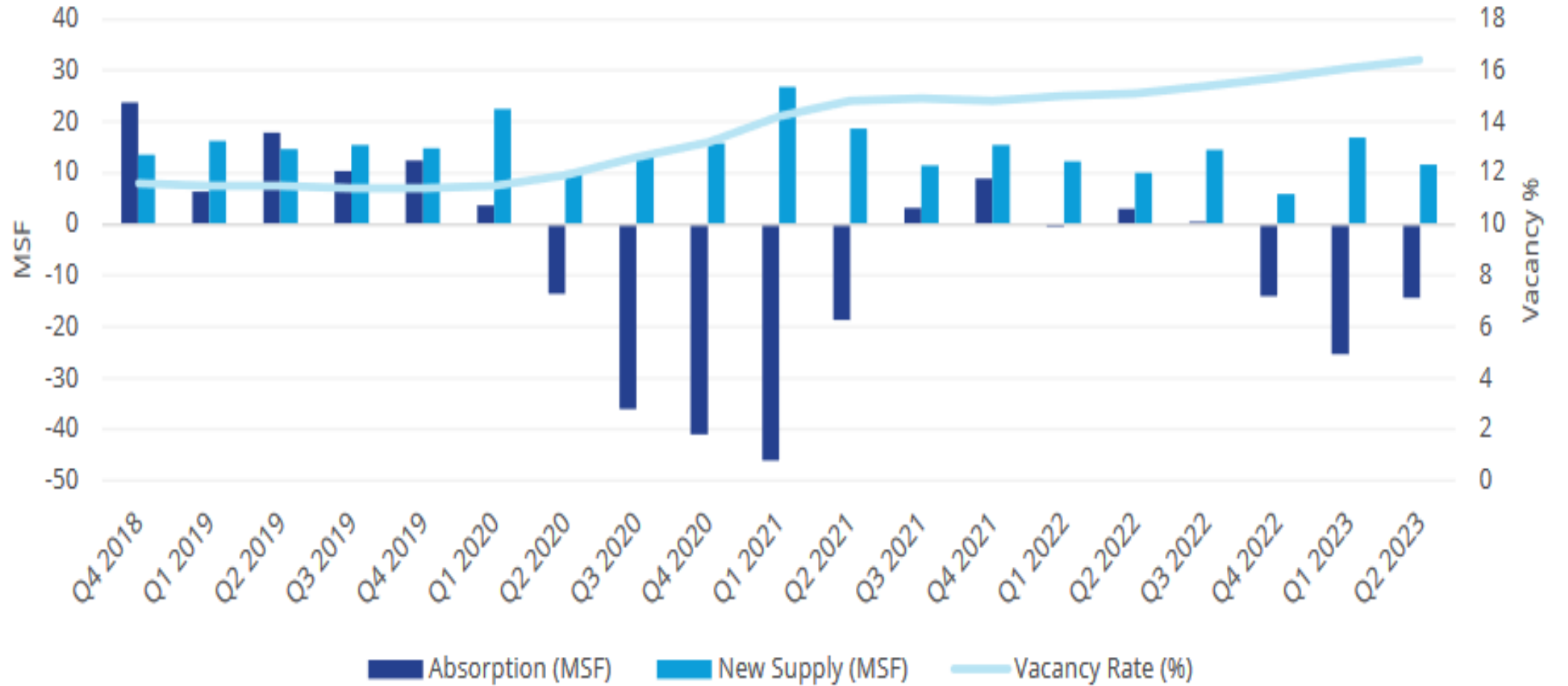


Northwest Arkansas Available Square Footage

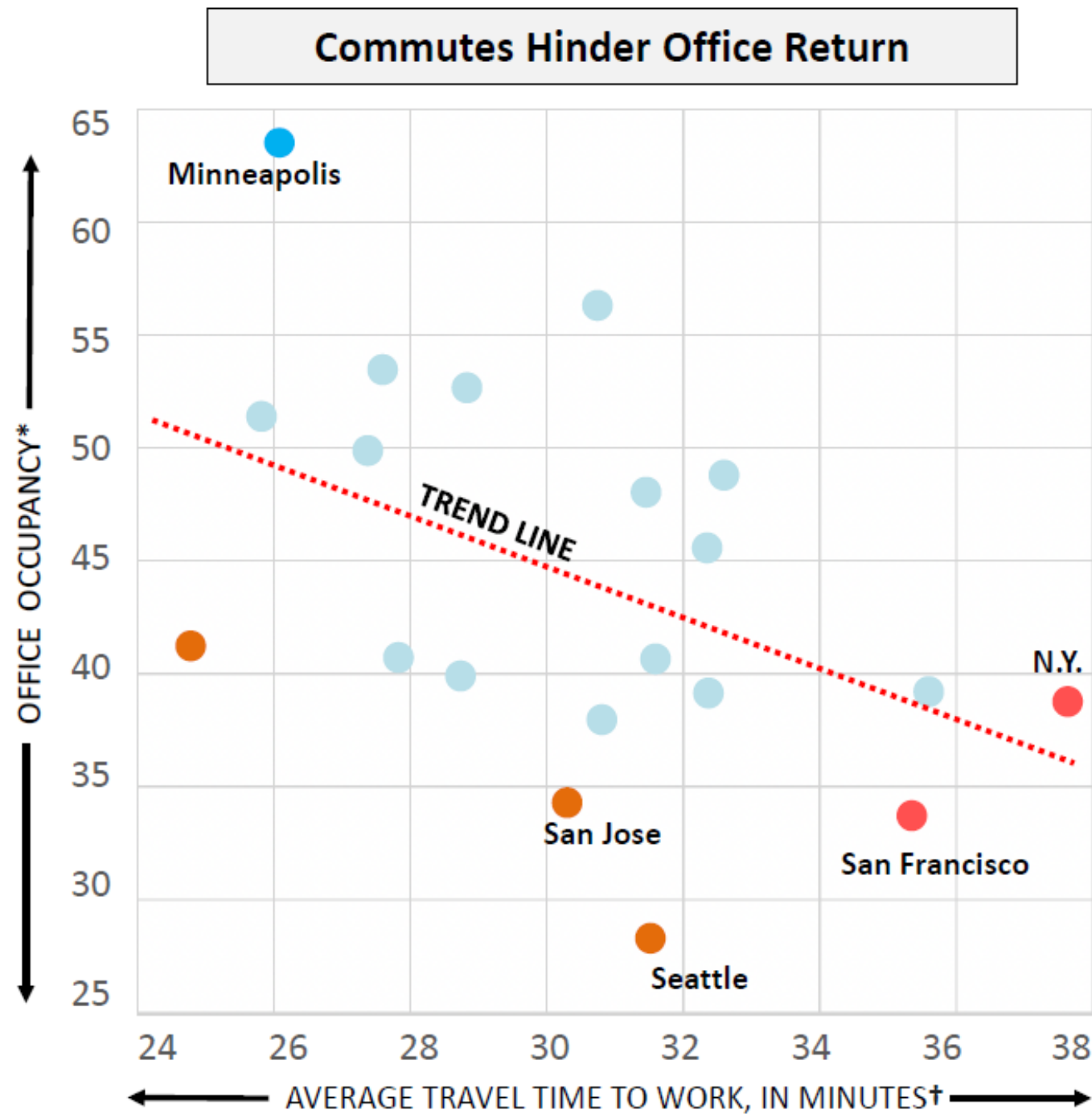




U.S. Office Market: Supply, Demand & Vacancy

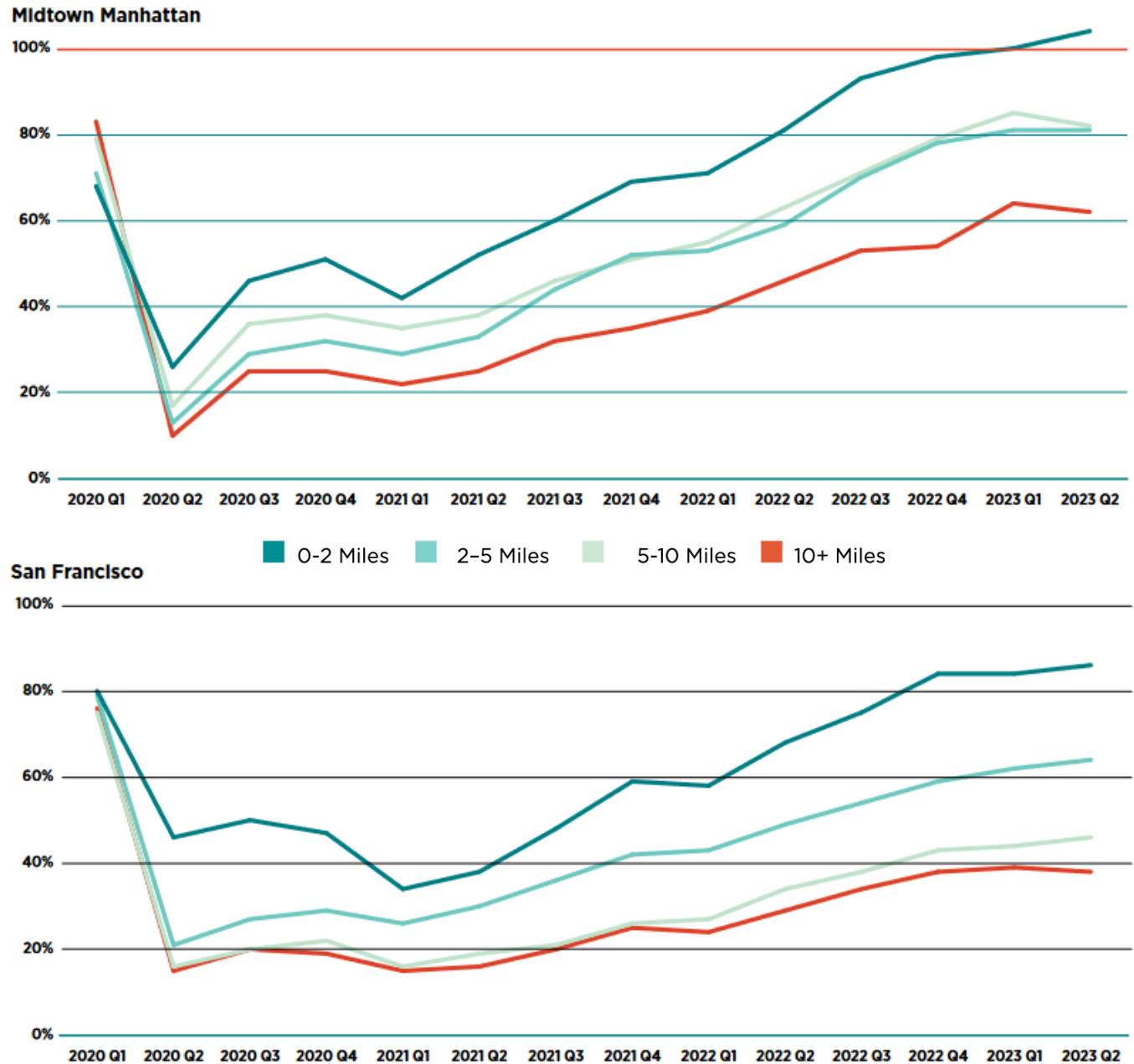


Source: Colliers



Source: U.S. Census Bureau 2019 American Community Survey (travel time); Kastle Systems (office occupancy)

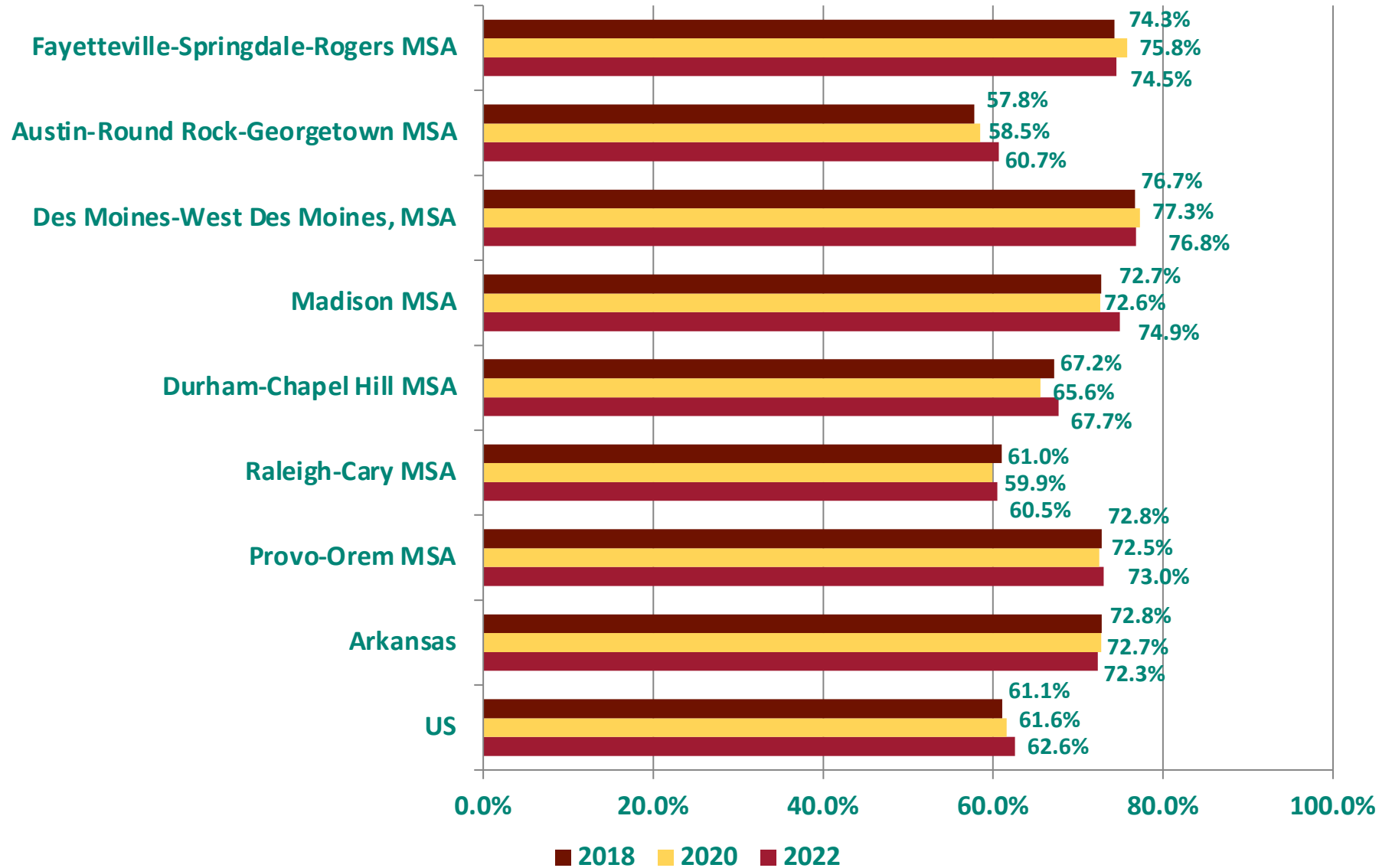
CORE DOWNTOWN NON-RESIDENT WORKER RECOVERY RATE BY COMMUTING DISTANCE



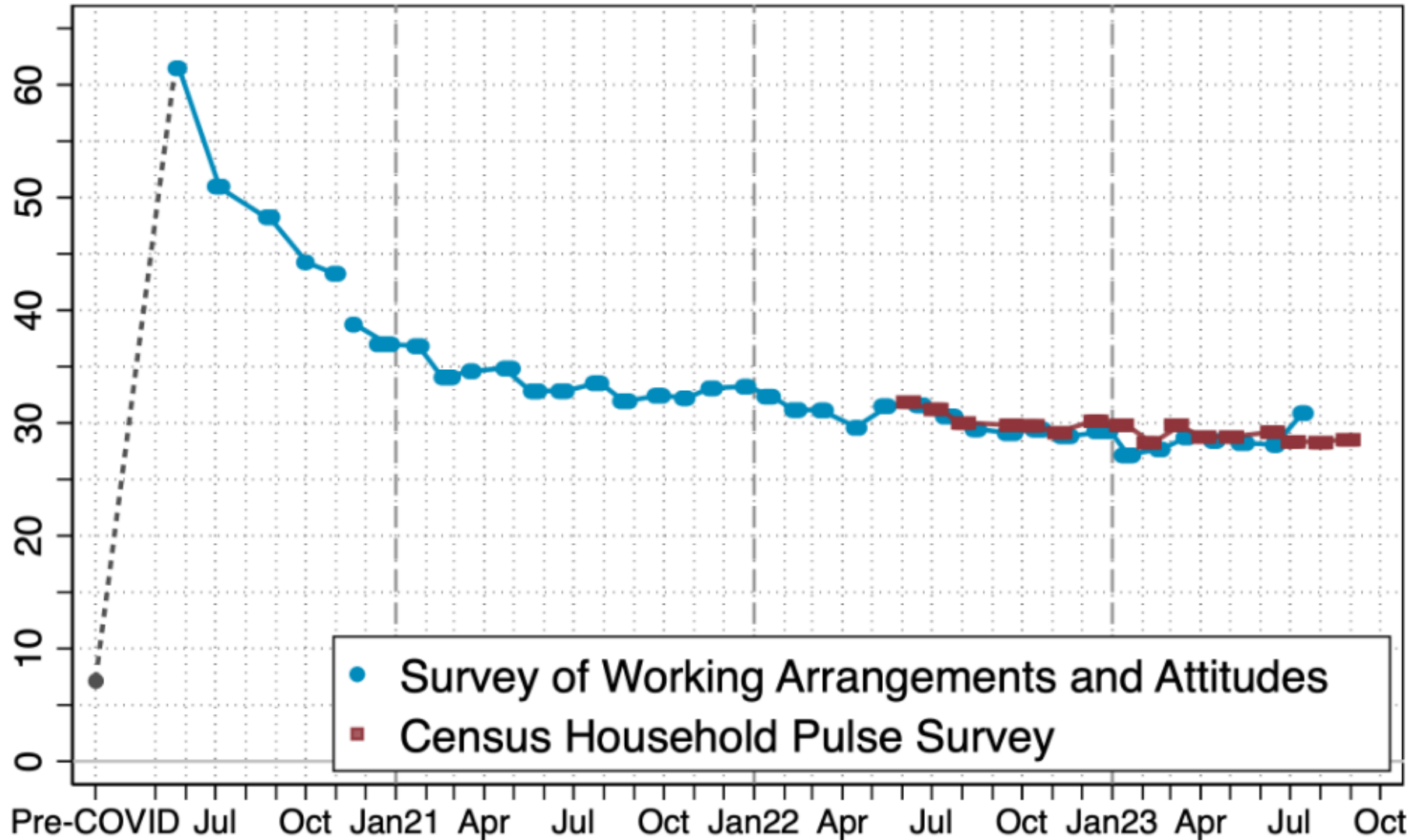


Commuting: Percent of Workers Traveling Fewer than 30 Minutes

Source: U.S. Census Bureau



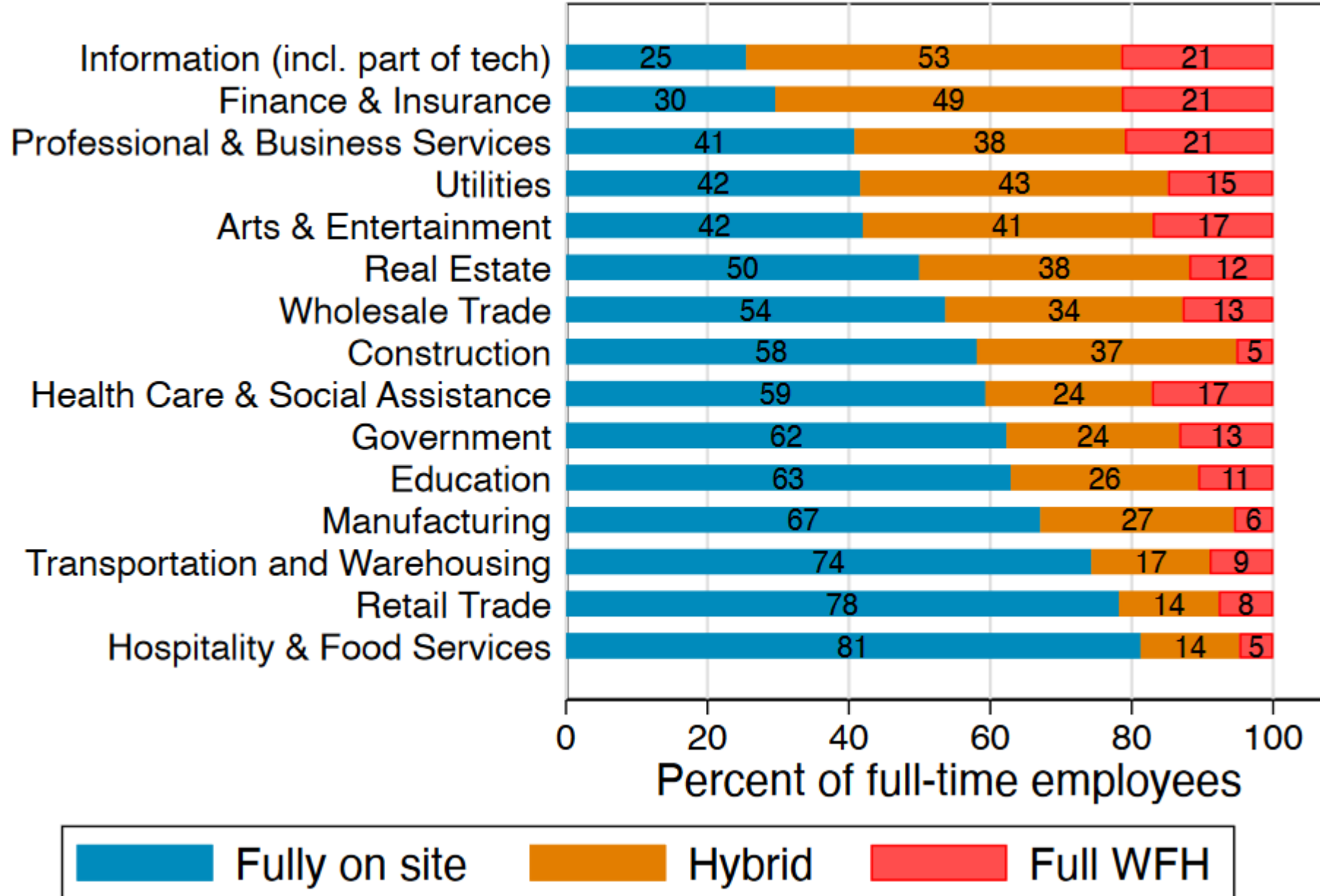
Percentage of paid full days worked from home



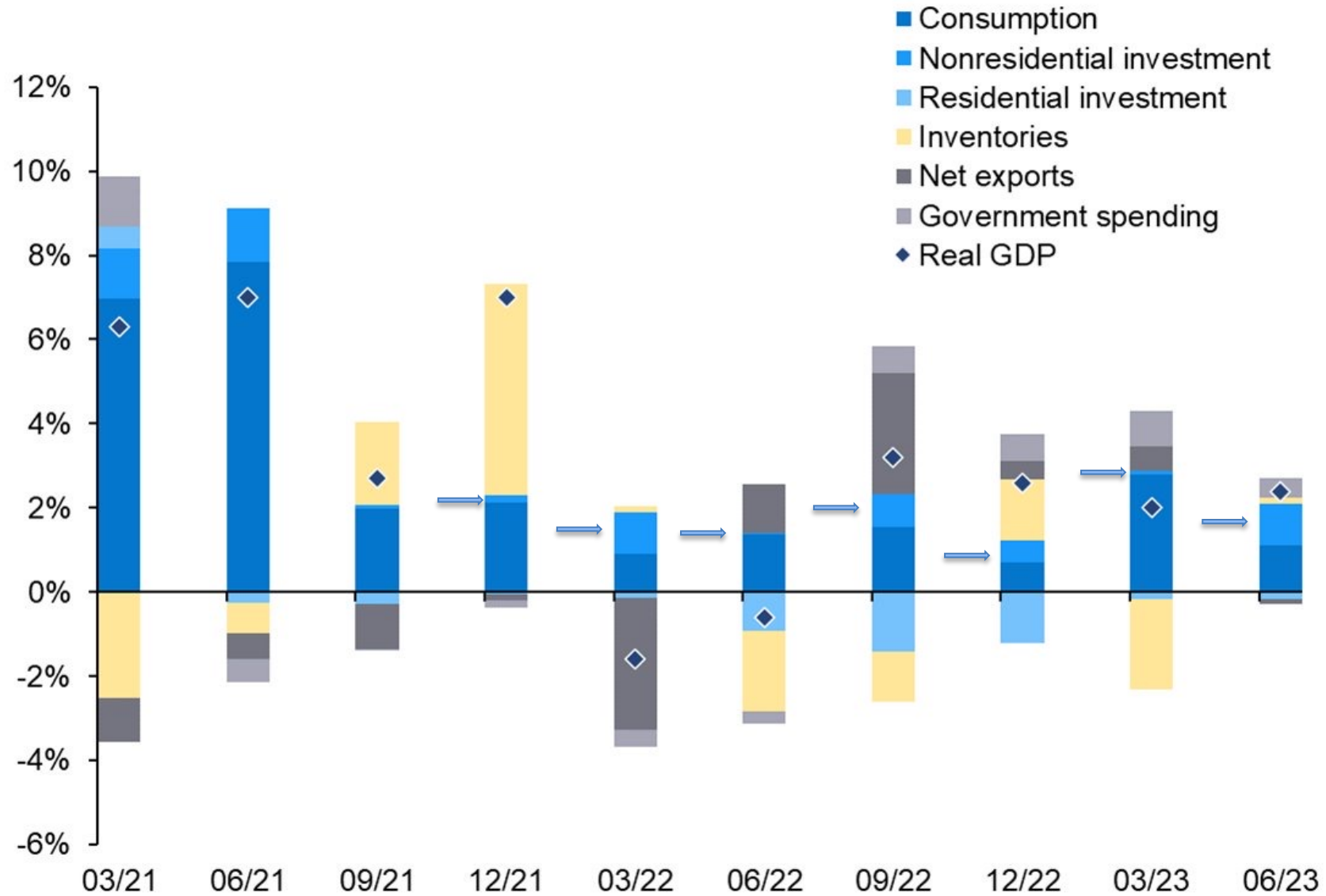
*We estimate the pre-COVID rate using the 2019 American Time Use Survey

*The break in the series in November 2020 reflects a change in the survey question.

Working Arrangements by Industry May to August 2023



US: Real GDP Growth Contributions Q1 2021 - Q2 2023 (%pts, annualized)



Source: BEA; EY-Parthenon

Real Construction Spending: Manufacturing



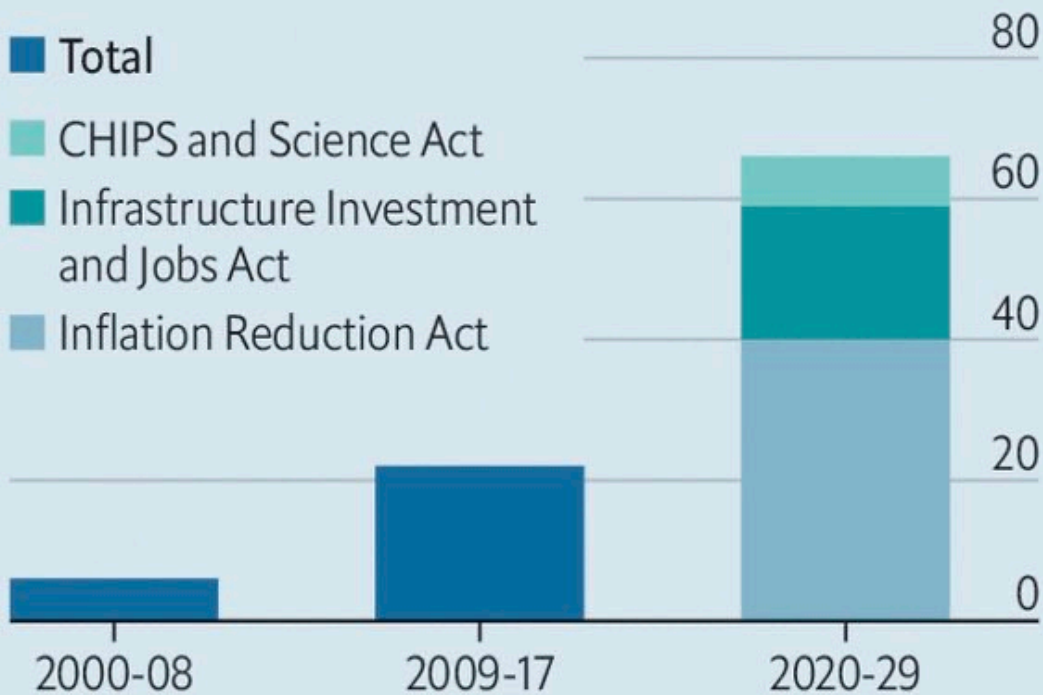
Note: Chart is in inflation-adjusted 2023 dollars.

Source: BLS, Census Bureau



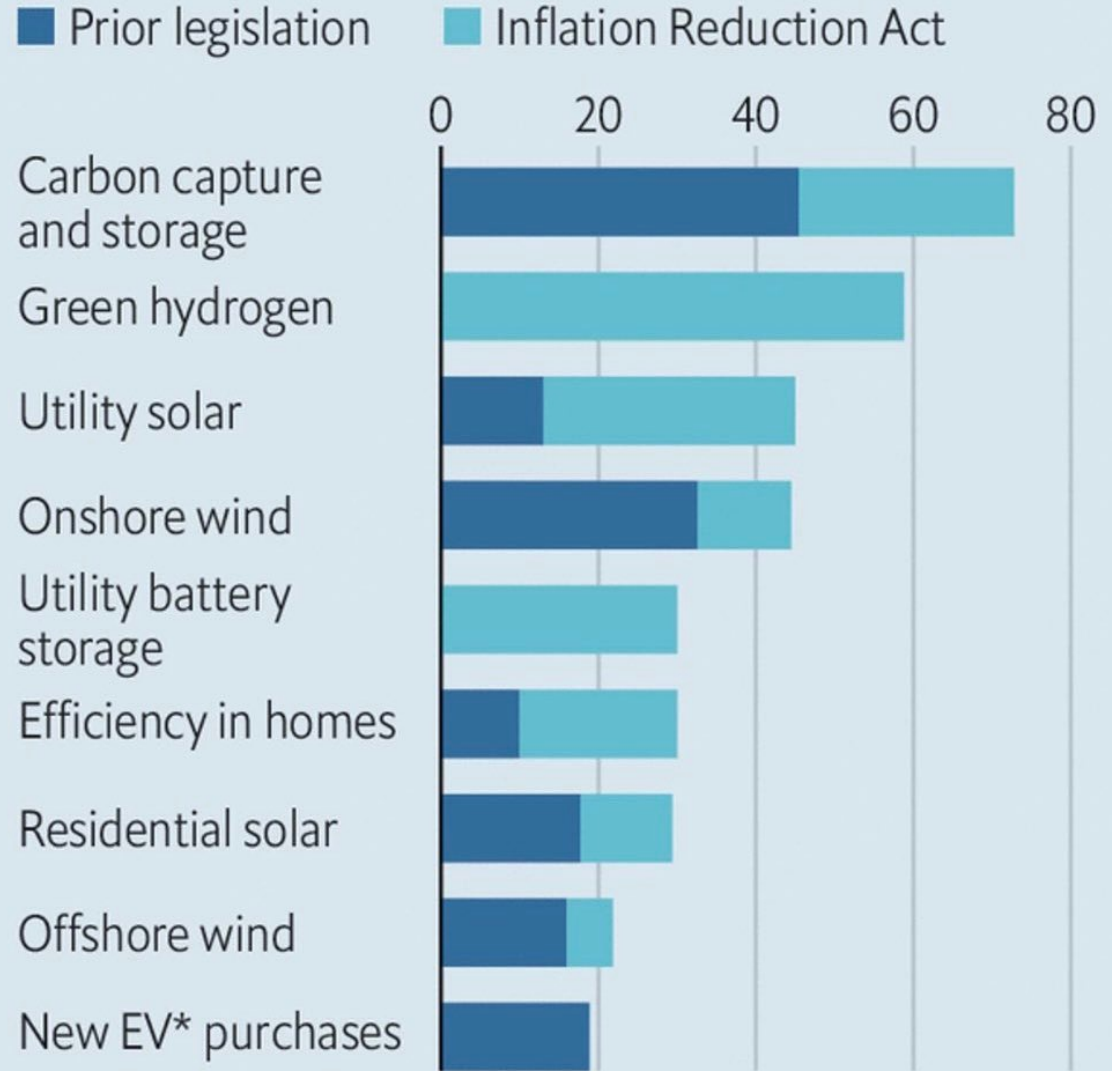
Green giant

United States, federal government spending on climate change, \$bn
Annual average



Sources: RMI; Credit Suisse

United States, tax credits and other incentives for selected clean technologies As % of average total cost, 2022

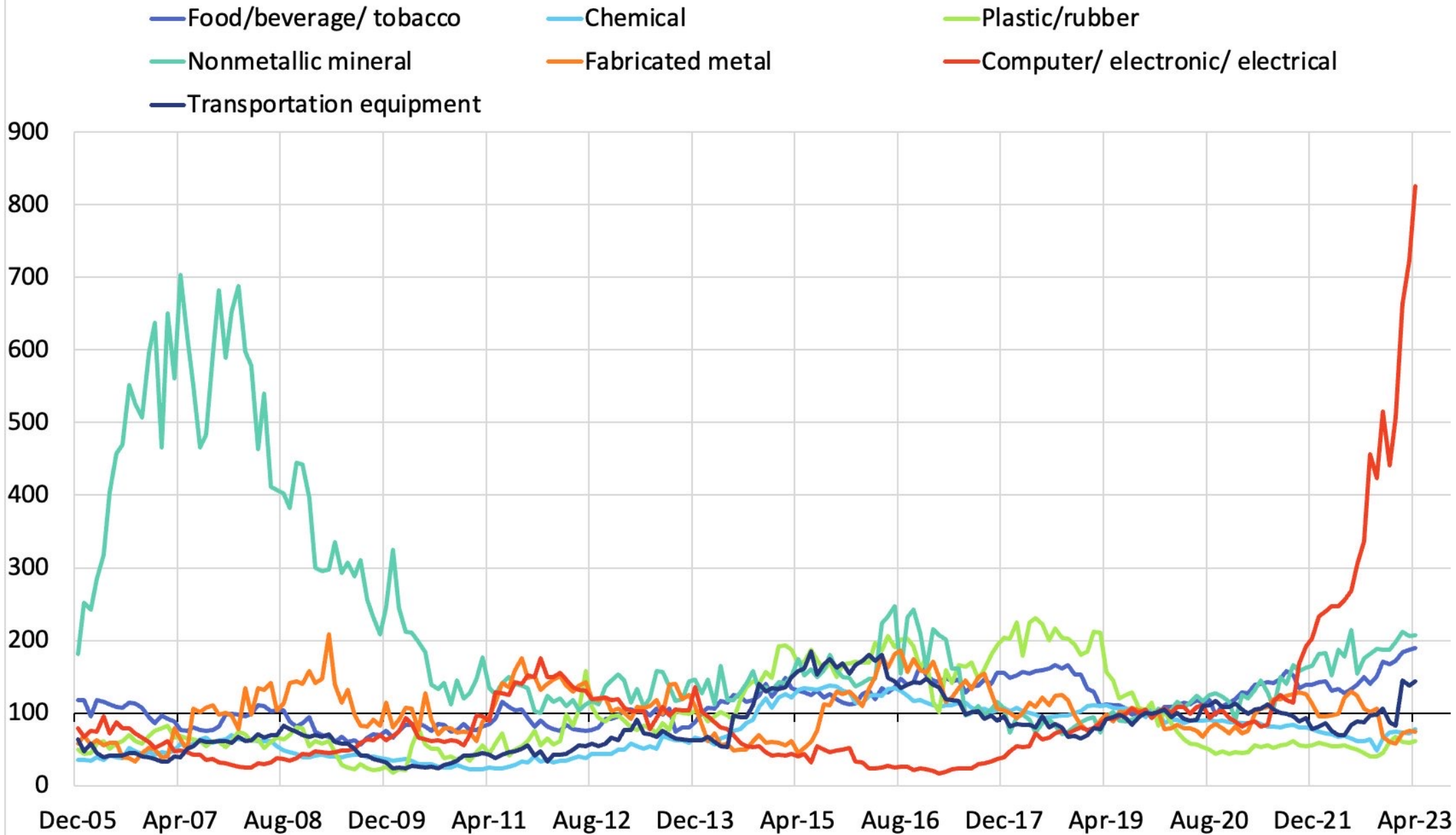


Source: Goldman Sachs

*Electric vehicle



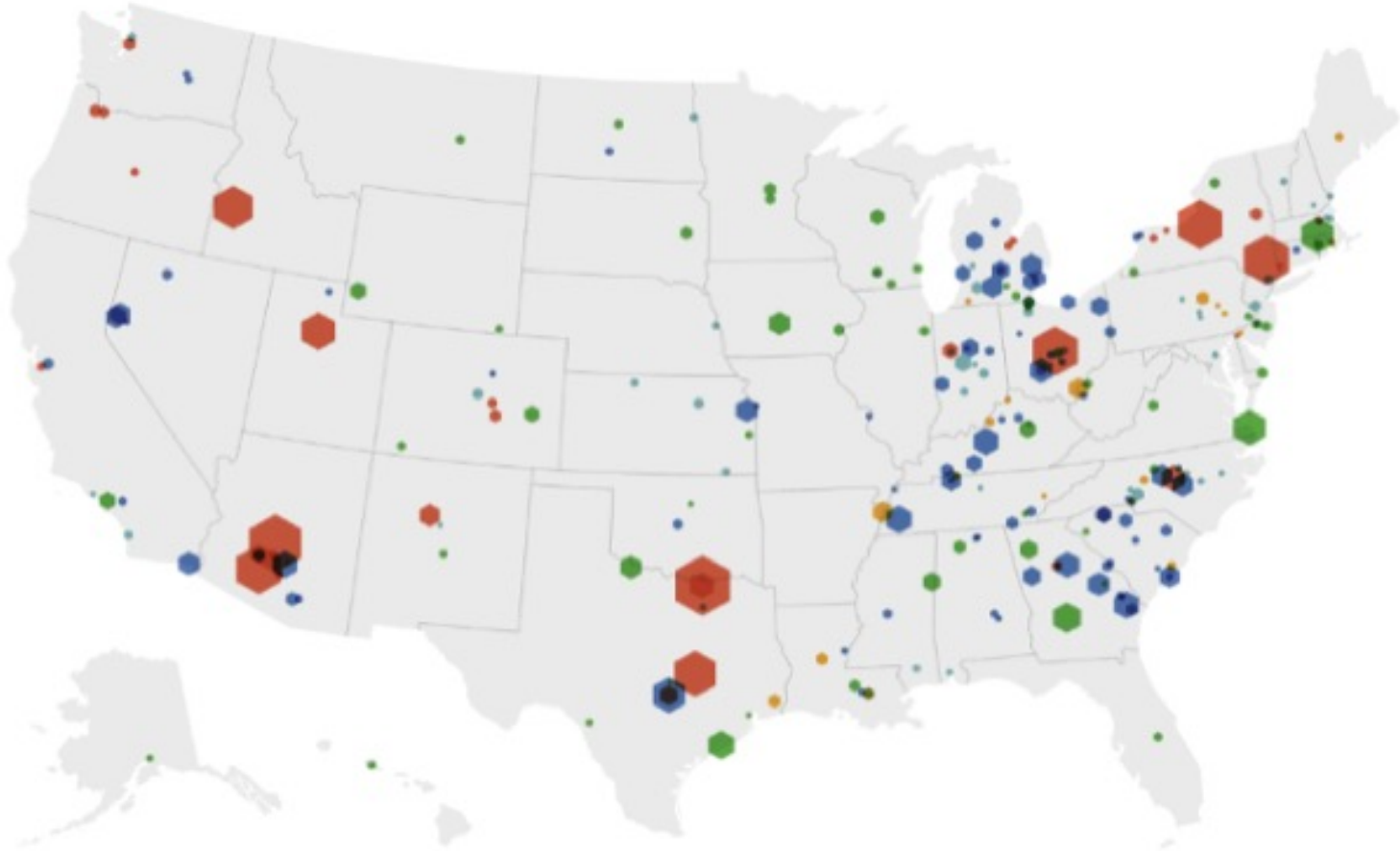
Real Construction Spending (100 = 2019Q4 Level)



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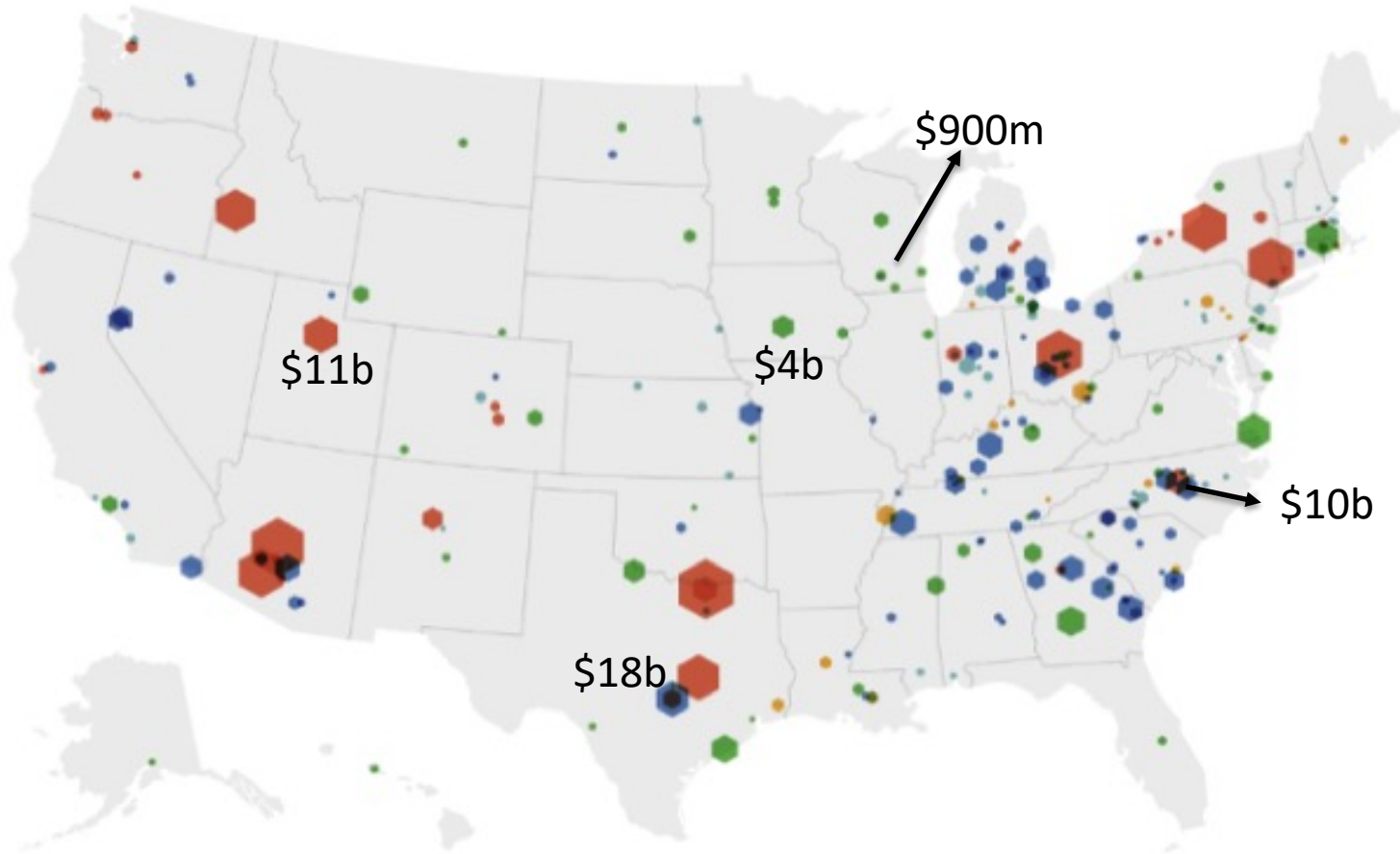


-  Semiconductors & Electronics
-  Clean Energy
-  EVs & Batteries
-  Heavy Industry
-  Biomanufacturing

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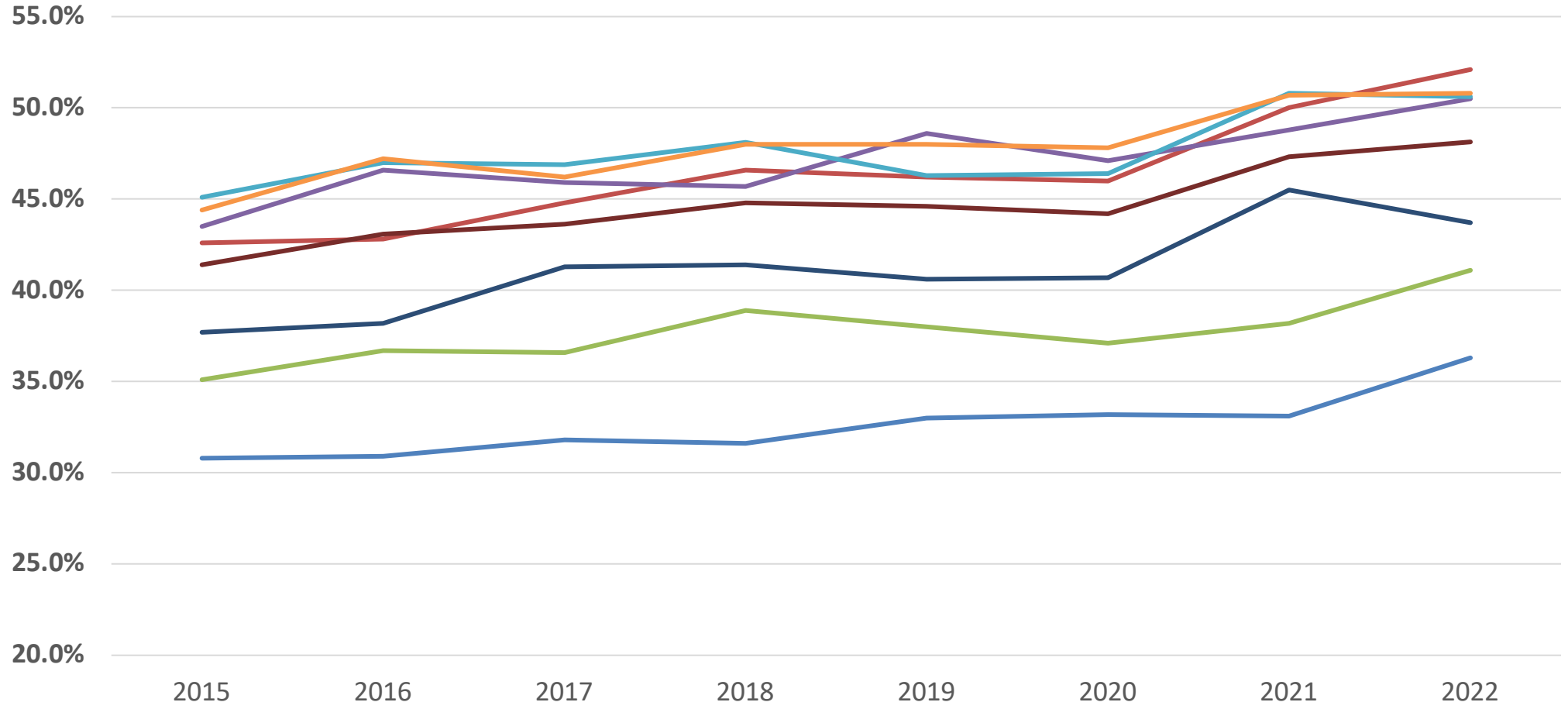
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-  Semiconductors & Electronics
-  Clean Energy
-  EVs & Batteries
-  Heavy Industry
-  Biomanufacturing



Bachelor's Degree or Higher in Adult Population Source: U.S. Census Bureau

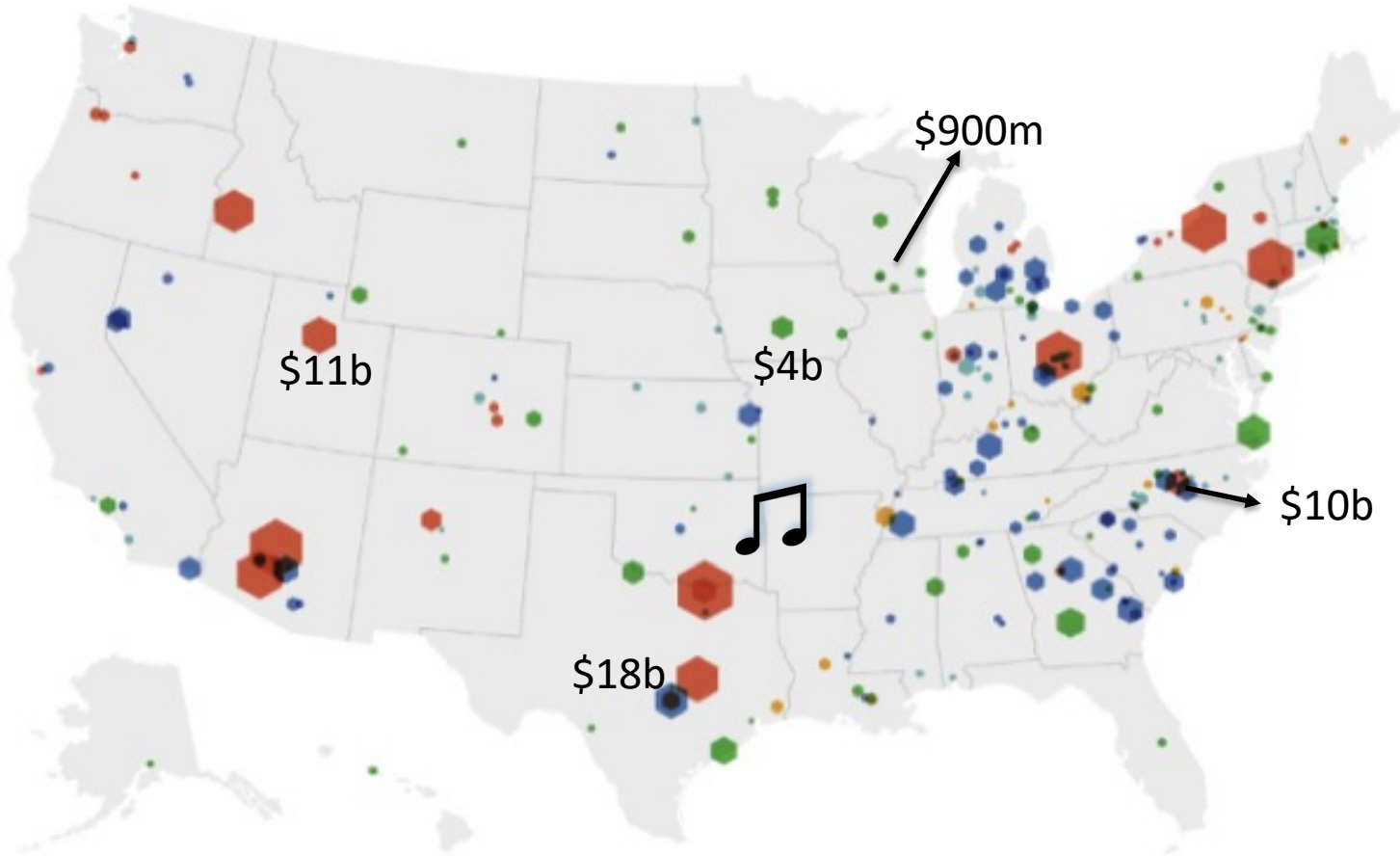


- Fayetteville-Springdale-Rogers MSA
- Austin-Round Rock-Georgetown MSA
- Des Moines-West Des Moines MSA
- Madison MSA
- Durham-Chapel Hill MSA
- Raleigh-Cary MSA
- Provo-Orem MSA
- Peer Average

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-  Semiconductors & Electronics
-  Clean Energy
-  EVs & Batteries
-  Heavy Industry
-  Biomanufacturing

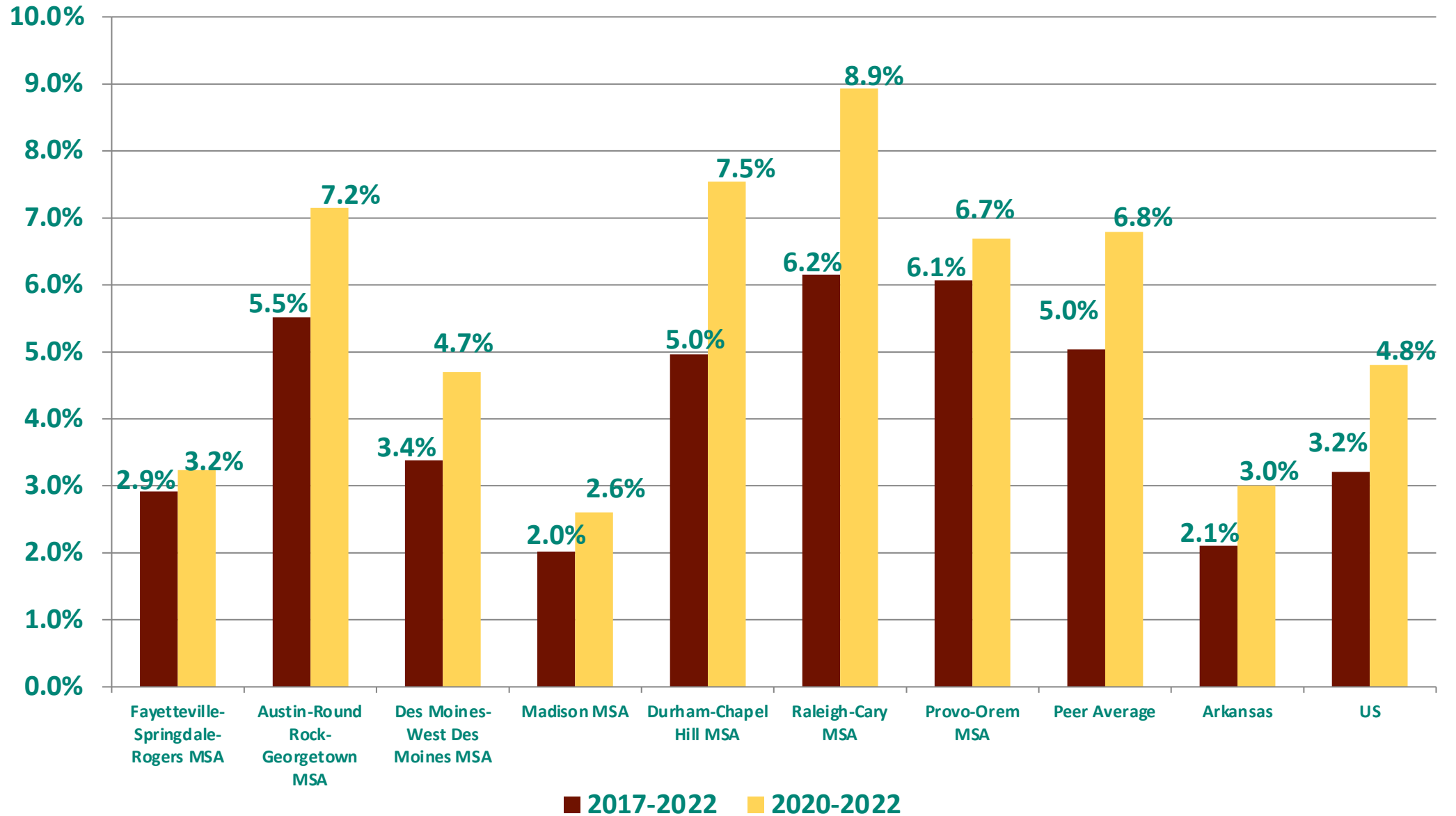
9 August 2023

Arkansas begins construction of US national Multi-User Silicon Carbide Research and Fabrication Facility



Business Establishment Growth

Source: U.S. Bureau of Labor Statistics



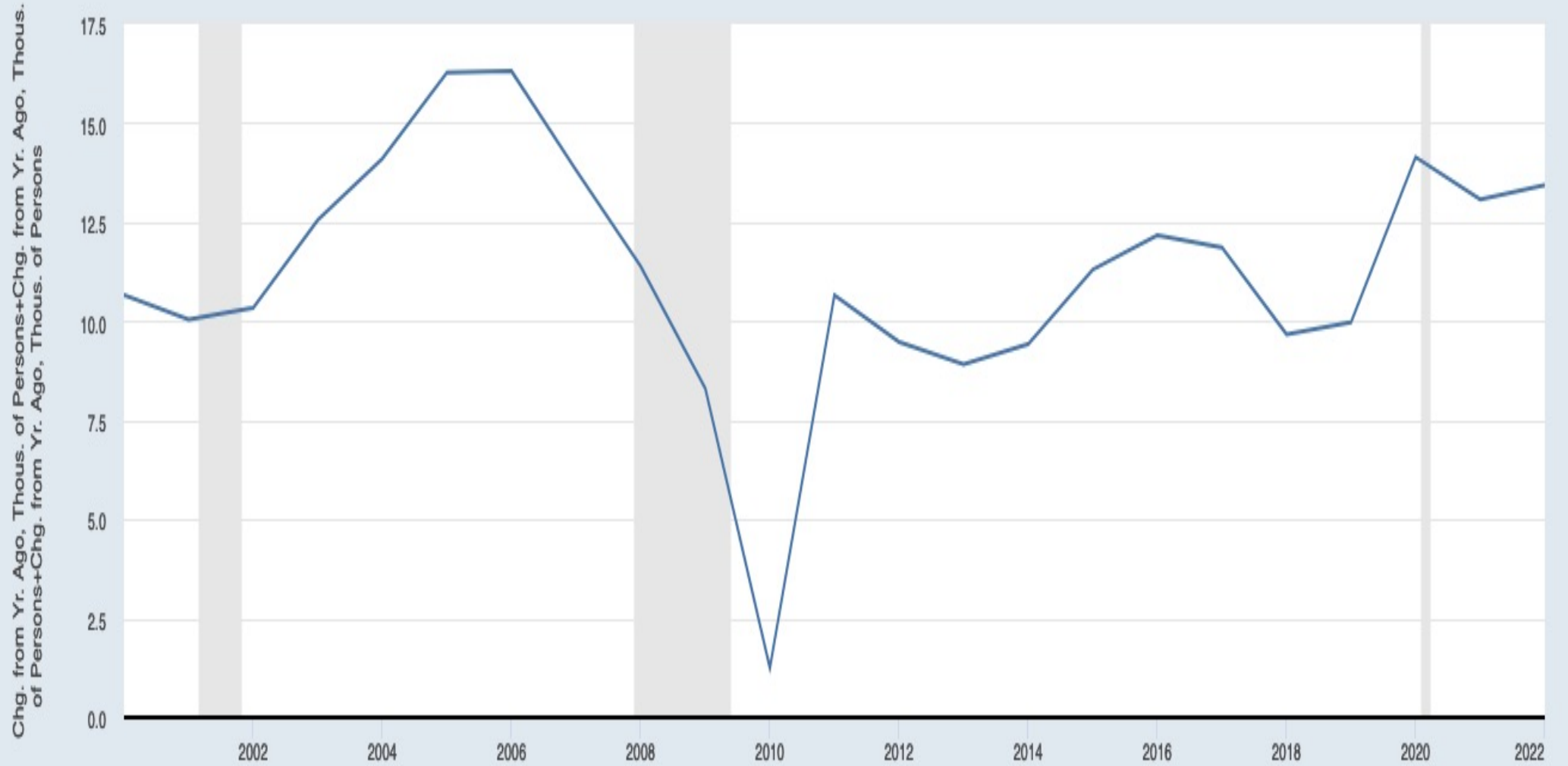
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— Resident Population in Benton County, AR+Resident Population in Washington County, AR+Resident Population in Madison County, AR



Shaded areas indicate U.S. recessions.

Source: U.S. Census Bureau

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INDICATOR	MOST RECENT ANNUAL DATA	VALUE FROM 2 YEARS PRIOR	2-YEAR PERCENT CHANGE
Population Estimate, July 2022	576,403	549,566	4.9%
Real GDP (<i>millions of chained 2012 dollars</i>), 2021	\$28,042	\$24,961	12.3%
Avg. Annual Unemployment Rate, 2022	2.4%	4.6%	-2.2%
Total Nonfarm Employment, 2022	303,000	272,600	11.2%
Median Household Income, 2022	\$73,364	\$61,761	18.8%
Average Annual Wages, 2022	\$53,810	\$50,470	6.6%
Business Establishments, 2022	15,050	14,121	6.6%
% of Adult Population <i>w/a bachelor's degree or Higher</i> , 2022	36.3%	33.2%	3.1%
Poverty Rate, 2022	10.9%	12.1%	-1.2%
R&D Expenditures (<i>thousands</i>), 2021	\$164,443	\$180,225	-8.8%
Average Domestic Airfare, 2022	\$499	\$374	33.5%

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PEER REGIONS OVERVIEW

	Fayetteville- Springdale- Rogers MSA	Austin- Round Rock- Georgetown MSA	Des Moines- West Des Moines MSA	Madison MSA	Durham- Chapel Hill MSA	Raleigh- Cary MSA	Provo- Orem MSA
Population Growth, 2020-2022	4.9%	5.3%	2.6%	0.8%	2.0%	4.5%	5.9%
Real GDP Growth, 2019-2021	12.3%	13%	7.1%	3.8%	8.8%	7.2%	13.2%
Annual Unemployment Rate, 2020-2022	2.4%	2.9%	2.6%	2.2%	3.2%	3.1%	2.1%
Nonfarm Employment Growth, 2020-2022	11.2%	16.7%	7.7%	6.3%	7.3%	10.9%	8.6%
Median Household Income, 2022	\$73,364	\$94,604	\$80,061	\$83,214	\$79,154	\$92,739	\$95,687
Average Annual Wages, 2022	\$53,810	\$63,890	\$59,950	\$62,200	\$71,720	\$62,500	\$56,440
Business Establishment Growth, 2022	6.6%	14.8%	9.6%	5.3%	15.7%	18.7%	13.8%
% of Adults w/Bachelor's Degree or Higher, 2022	36.3%	52.1%	41.1%	50.5%	50.6%	50.8%	43.7%
Poverty Rate, 2022	10.9%	9.4%	8.9%	9.8%	11.2%	7.9%	7.8%
R&D Expenditures (thousands), 2022	\$164,443	\$779,348	\$360,275	\$1,380,075	\$1,205,883	\$1,237,686	\$624,737
% of Workers Traveling Fewer than 30 Min., 2022	74.5%	60.7%	76.8%	74.9%	67.7%	60.5%	73.0%
Avg. Domestic Airfare, 2022	\$499	\$365	\$403	\$538	\$372	\$372	\$449
RANKING SCALE	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th



Questions and Comments?

The 2023 State of the Northwest Arkansas Region Report is available at <http://cber.uark.edu>.

Business Forecast 2024 is January 26, 2024
Sponsorship opportunities are available

Contact at mjebaraj@walton.uark.edu

or on Twitter: @MervinJebaraj