
Arizona Economic Conditions, the Construction Industry, & Public Policy Influences on the State's Forecast

October 2022

ROUNDS CONSULTING GROUP



The Bottom Line...

- There is always an economic story to tell.
- The hard part is telling it.

Always start with the US...



What is the story? Part 1:

- Covid hit the economy and the US government overreacted.
- The recession was short lived and primarily impacted lower income people, but the stimulus spending was broad-based.
- The Federal Reserve made money very cheap and easy to get...for too long.
- Covid issues impacted the supply chain, both goods and labor.

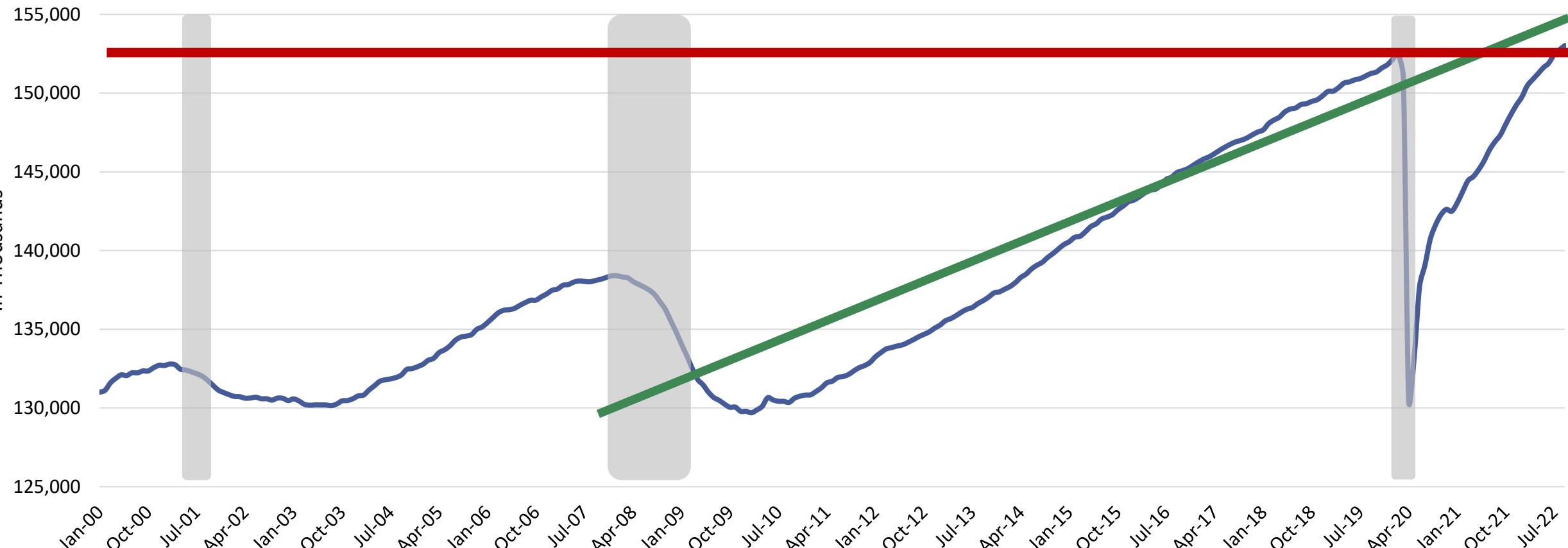
U.S. Employment

Seasonally Adjusted; Annually, 2000 - 2022*

Source: U.S. Bureau of Labor Statistics



Recession Period



*Through September 2022

U.S. Unemployment Rate

Seasonally Adjusted; Monthly, 1985 - 2022*

Source: U.S. Bureau of Labor Statistics



Recession Period

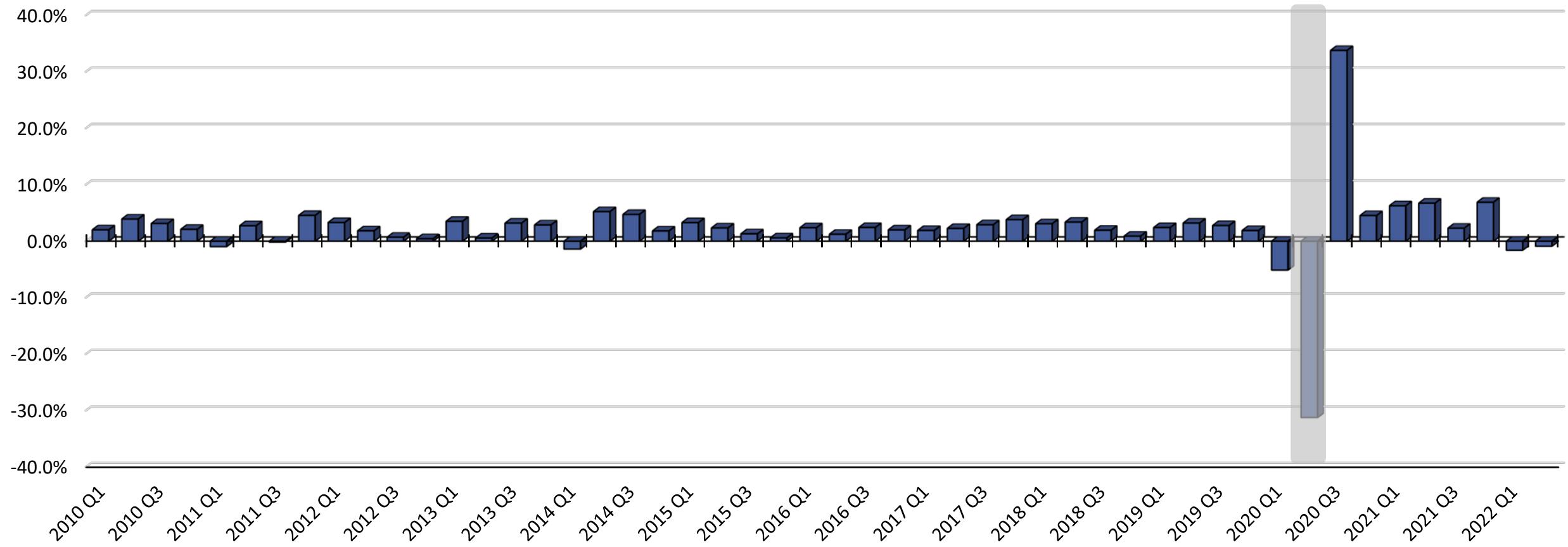


*Through September 2022

U.S. Real GDP

Annualized Percent Change; Quarterly, 2010 - 2022*
Source: U.S. Bureau of Economic Analysis

 Recession Period



*Data through Q2 2022

U.S. Yield Curve

10-Year Treasury Constant Maturity Minus 2-Year Treasury Constant Maturity; Monthly, 1985 - 2022*

Source: U.S. Treasury Department



Recession Period



*Through September 2022

Federal Funds Effective Rate

Not-Seasonally Adjusted; Average Monthly, 1985 - 2022*

Source: Board of Governors of the Federal Reserve System



Recession Period



*Through September 2022

What is the story? Part 2:

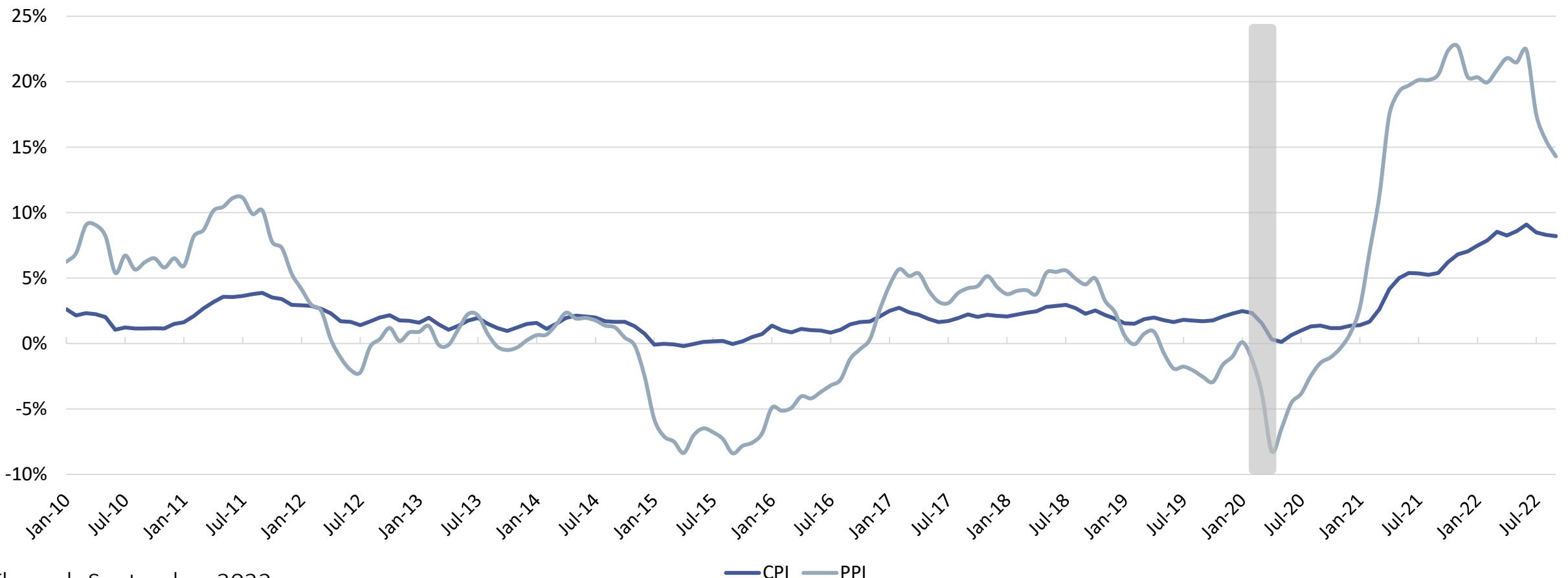
- **Inflation** heated up.
- **Russia/Ukraine** further drove up fuel prices.
- **The Fed's delay in raising interest rates** is now being countered with aggressive increases in rates and money being pulled out of the economy.

Consumer Price Index vs. Producer Price Index

All Items CPI; All Commodity PPI; Not-Seasonally Adjusted; Year-over-Year Percent Growth, 2010 - 2022*

Source: U.S. Bureau of Labor Statistics

Recession Period



Annual Household Expenditures

For the Phoenix MSA

Source: U.S. Bureau of Labor Statistics

Category	2005 % of Annual Expenditures	2010 % of Annual Expenditures	2022 % of Annual Expenditures
Housing	30.0%	33.6%	34.3%
Transportation	21.5%	16.3%	23.0%
Food	13.1%	13.4%	10.5%
Healthcare	5.9%	6.1%	7.7%
Entertainment	4.8%	6.3%	3.8%
Apparel	3.8%	4.9%	2.4%
Education	1.5%	0.6%	1.4%
Other	19.4%	18.8%	16.9%

What is the story? Part 3:

- A “Volcker” recession by 2023.
- Reset button pushed and the next cycle begins.



Arizona's Economic Profile



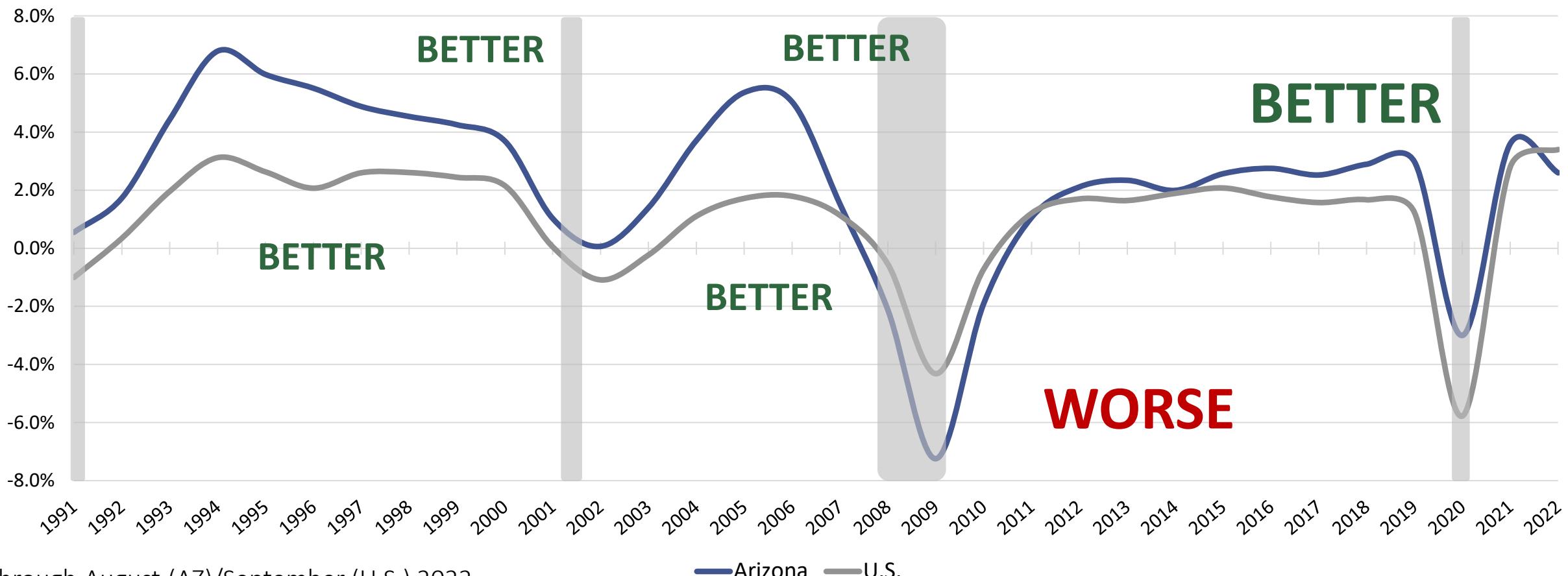
Arizona vs. U.S. Job Growth

Annual Percent Growth, 1985 - 2022*

Source: U.S. Bureau of Labor Statistics



Recession Period



*Through August (AZ)/September (U.S.) 2022

— Arizona — U.S.

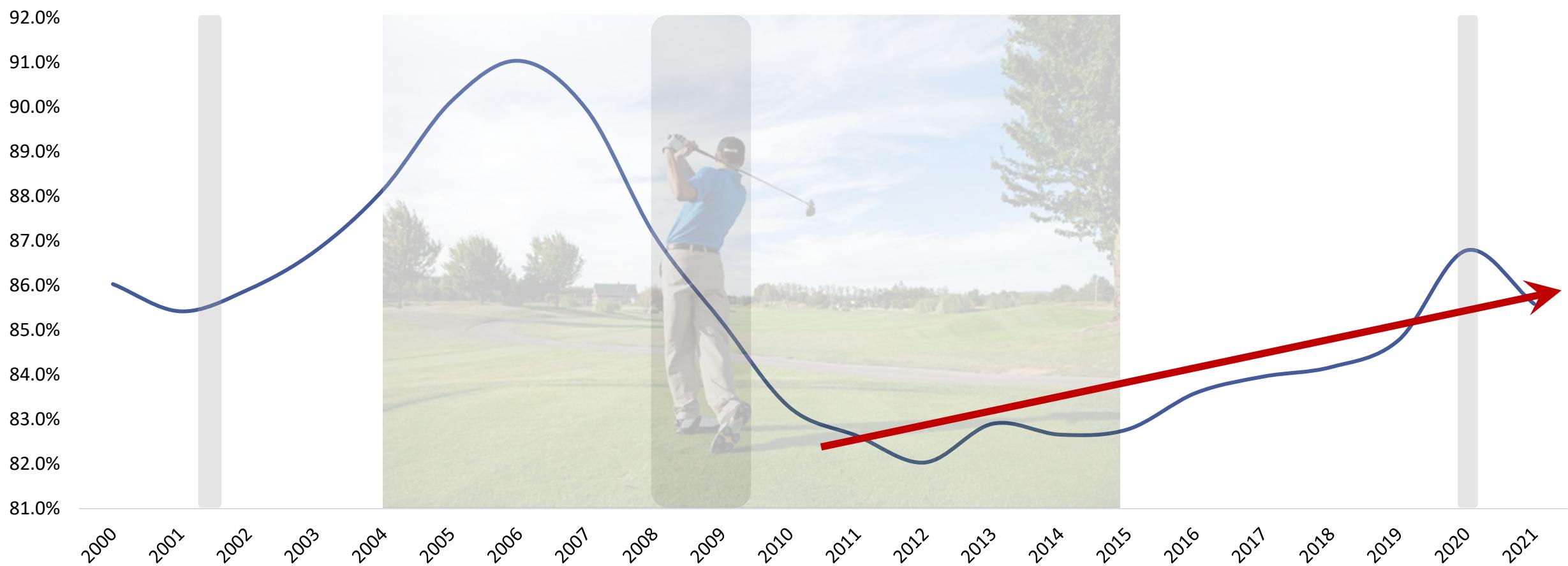
Per Capita Personal Income in Arizona

Arizona as a Percent of the U.S.; Annually, 2000 - 2021

Source: U.S. Bureau of Economic Analysis



Recession Period



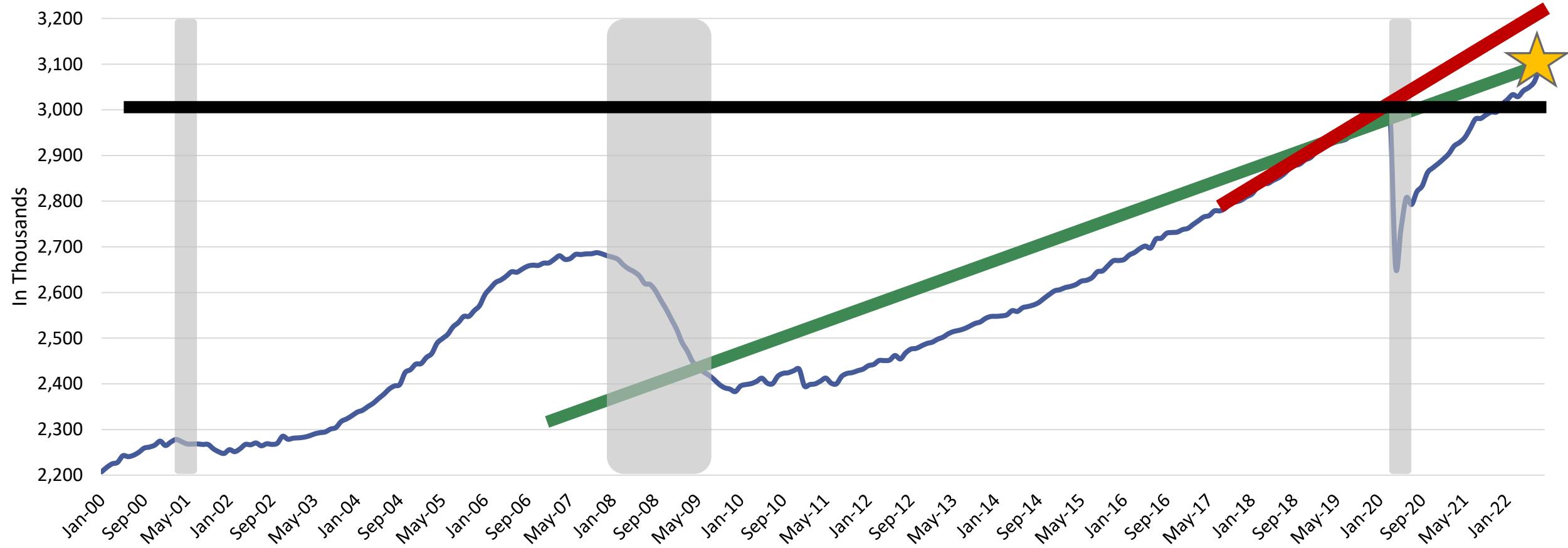
Arizona Employment

Seasonally Adjusted; Monthly, 2000 - 2022*

Source: U.S. Bureau of Labor Statistics



Recession Period

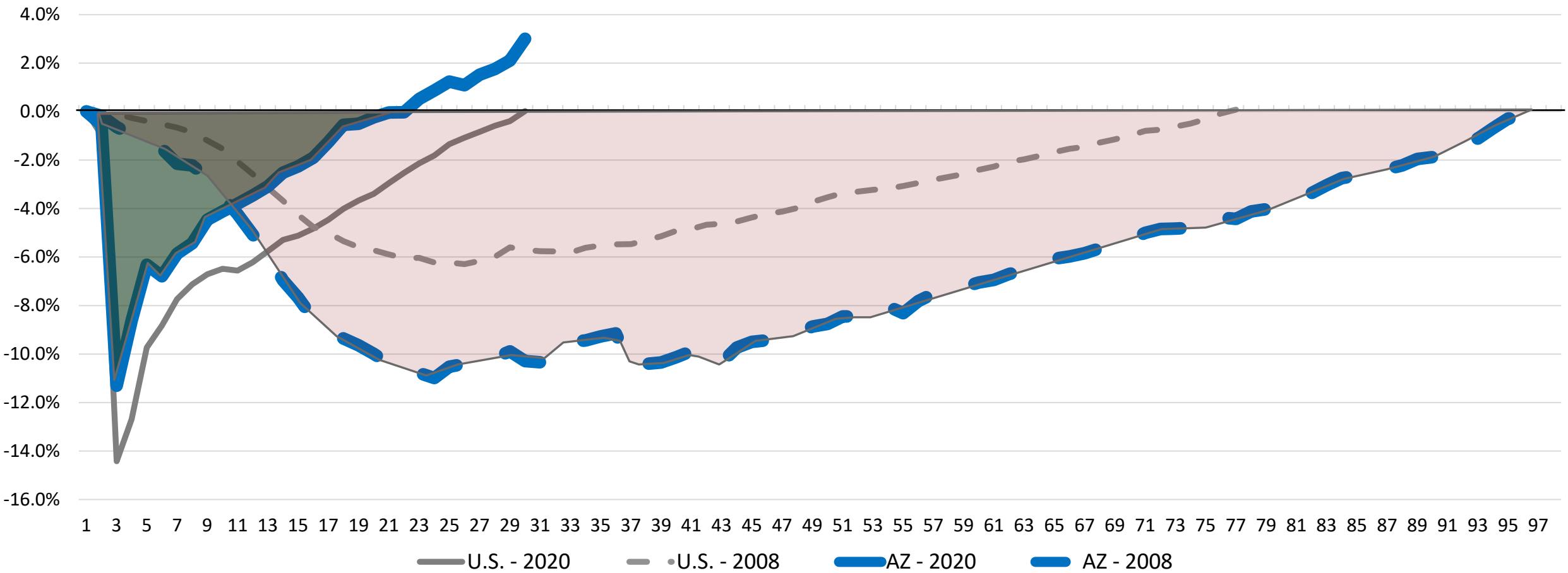


*Through September 2022

U.S. vs Arizona Job Recovery

Seasonally Adjusted; Monthly Employment Percent Change Since Peak Levels (Jan 08'/Feb 20')

Source: U.S. Bureau of Labor Statistics



Sometimes the explanation is simple math...



U.S. Job Growth by State 2020

State Ranking

Source: U.S. Bureau of Labor Statistics

Rank	%	State	Rank	%	State
1	-0.71%	Idaho	11	-4.20%	Texas
2	-1.41%	Utah	12	-4.21%	Mississippi
3	-2.75%	Arkansas	13	-4.54%	Oklahoma
4	-2.92%	Montana	14	-4.57%	Georgia
5	-3.03%	Arizona	15	-4.59%	Kansas
6	-3.23%	South Dakota	16	-4.73%	Missouri
7	-3.68%	Nebraska	17	-4.91%	Florida
8	-3.77%	Tennessee	18	-4.93%	South Carolina
9	-3.85%	North Carolina	19	-4.95%	Iowa
10	-4.01%	Alabama	20	-4.96%	Virginia

U.S. Job Growth by State 2022

State Ranking; Year-To-Date 2022*

Source: U.S. Bureau of Labor Statistics

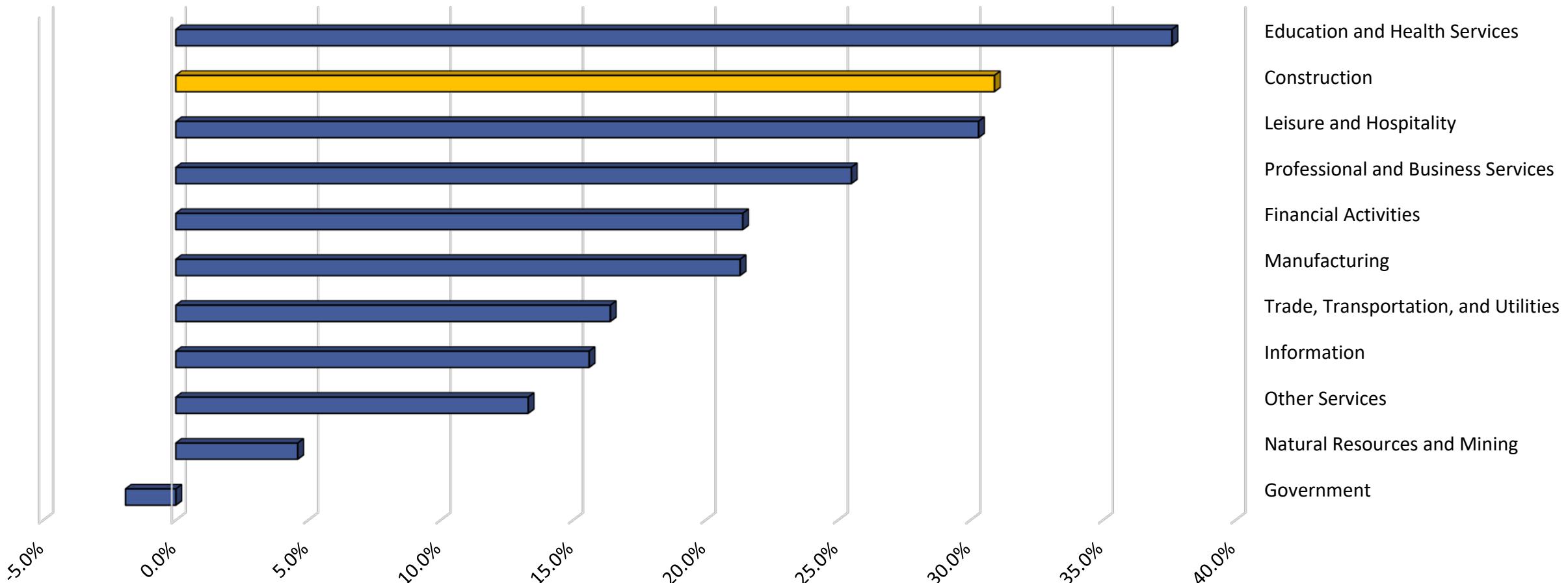
Rank	%	State	Rank	%	State
1	7.85%	Nevada	11	4.79%	Oregon
2	6.02%	Texas	12	4.69%	Hawaii
3	5.62%	California	13	4.66%	Colorado
4	5.57%	Florida	14	4.23%	Illinois
5	5.24%	New Jersey	15	4.19%	Tennessee
6	5.21%	New Mexico	16	4.05%	Michigan
7	5.20%	Georgia	17	3.88%	Arizona
8	5.16%	New York	18	3.87%	North Carolina
9	4.88%	Washington	19	3.73%	Utah
10	4.83%	Massachusetts	20	3.69%	Pennsylvania

*Through August 2022

Arizona Employment Projections by Industry

10 Year Projections, 2020 - 2030

Source: Arizona Office of Economic Opportunity



Arizona Economic Forecasts

2023 Projections

Source: Seidman Research Institute – Western Blue Chip Forecasts

	2022 Consensus	2023 Consensus
Current Dollar Personal Income	4.0%	5.5%
Retail Sales	6.3%	5.0%
Employment	3.2%	3.2%
Population Growth	1.6%	1.5%
Single Family Housing Permits	4.1%	0.6%

What does the economic data tell us?

- AZ has a **resilient economy**.
- This occurred not by accident, but was deliberate.
- Resilient economies **perform better during recessions**.
- Therefore, volatility in tax revenues is modest compared to other states.
- **Need to keep diversifying, need to build on our strengths.**

Biggest Risks?



What Matters in Growing the Economy?

- Tax Rates
- Econ Development Programs
- **Workforce (quality/avail/cost)**
- **Transportation Infrastructure**
- Marketing
- Responsible Regulations
- Balanced Budget
- Reliable/Cost Effective Energy
- Water
- **Housing Affordability**
- Economic Diversity



Arizona Residential Market Trends



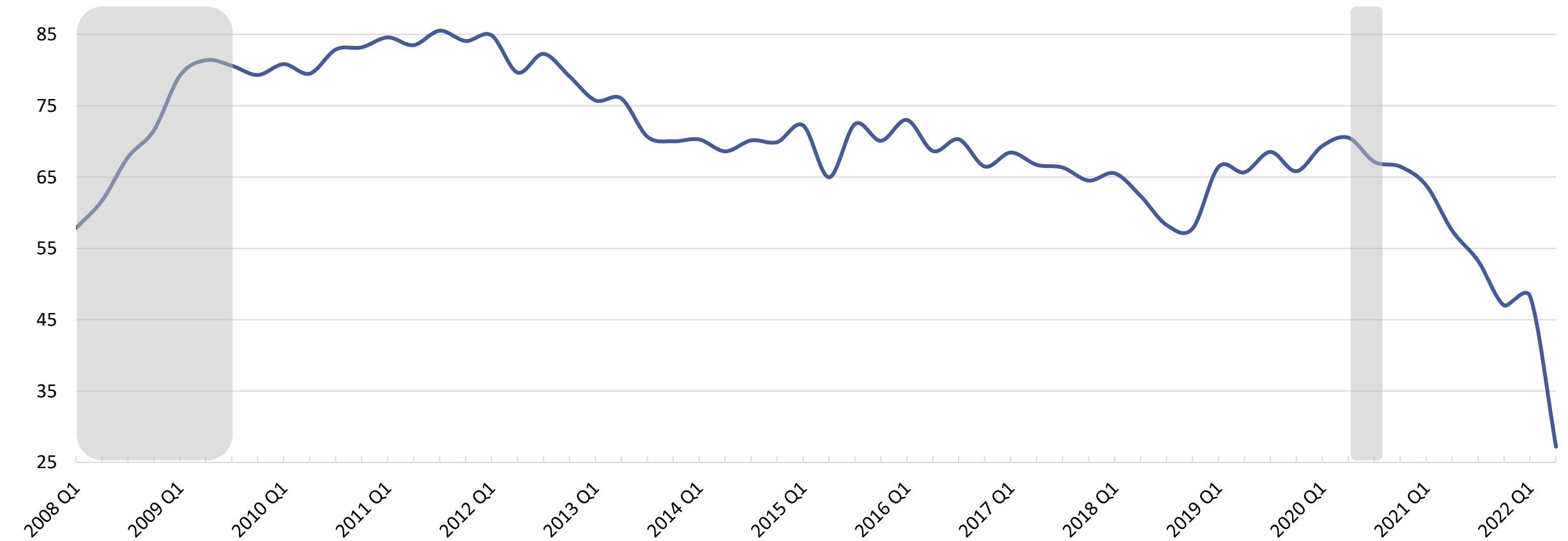
Arizona Housing Affordability Index

Quarterly, 2008 – 2022*

Source: National Association of Home Builders



Recession Period



*2022 Through Q2

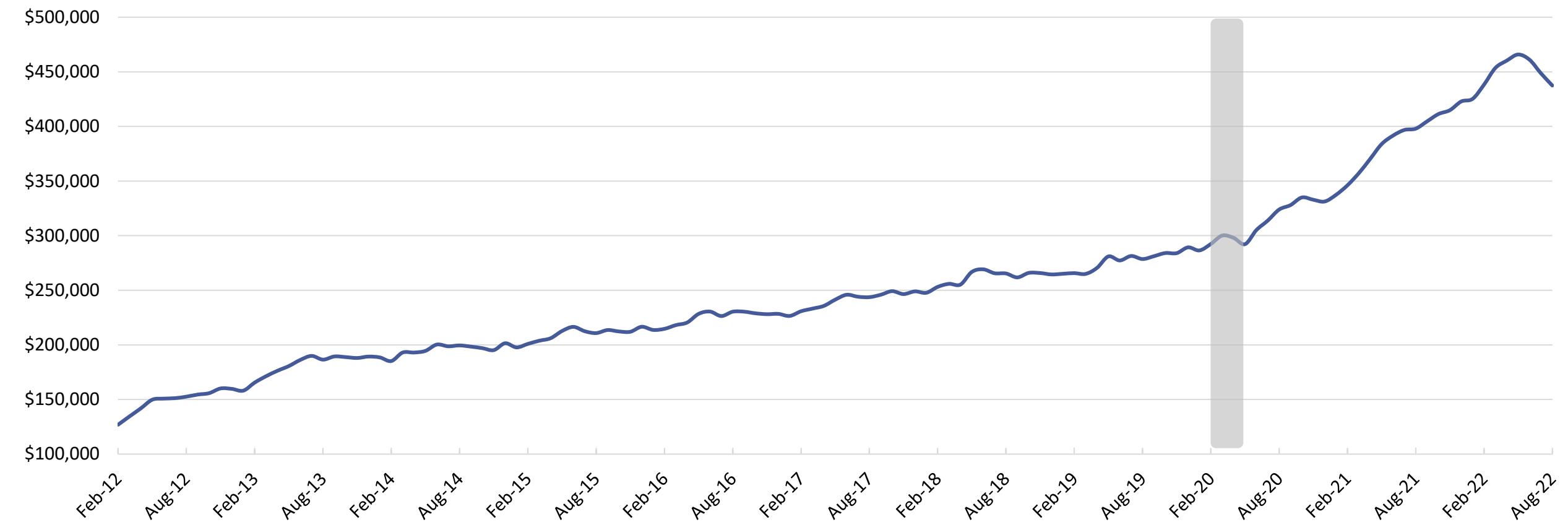
Arizona Median Price of Homes Sold

Monthly, February 2012-2022*

Source: Redfin



Recession Period



*Through August 2022

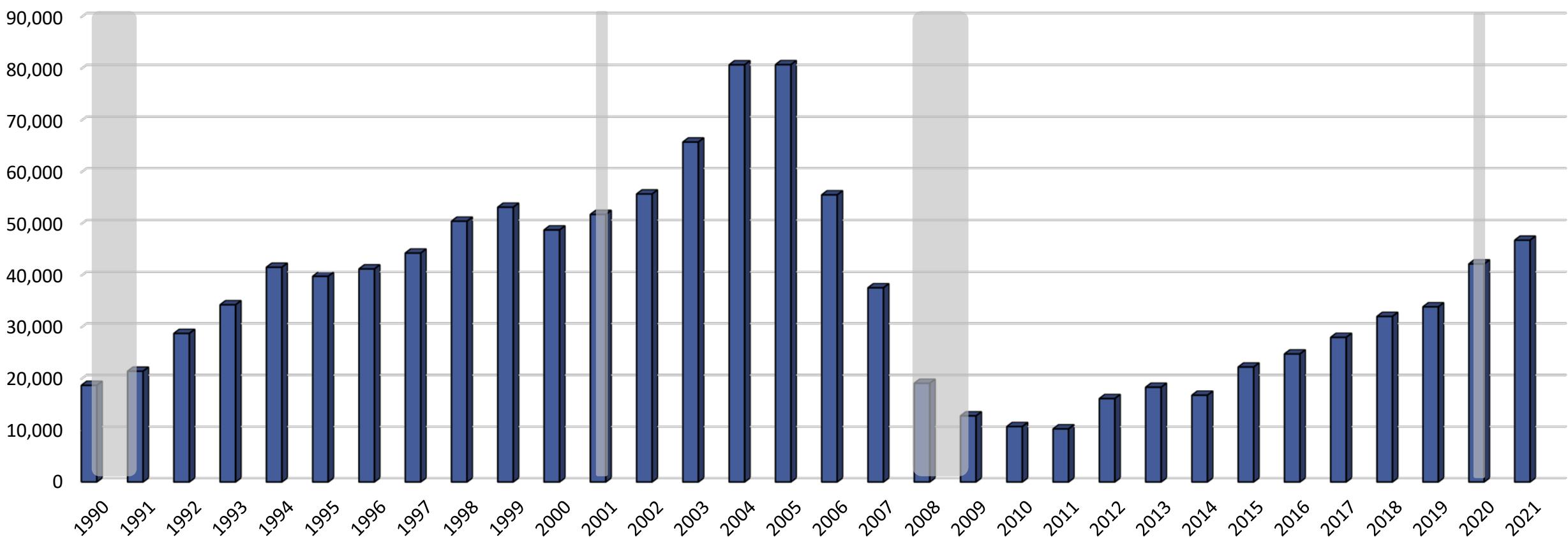
Arizona Single Family Home Permits

Annually, 1990-2021

Source: U.S. Census Bureau



Recession Period



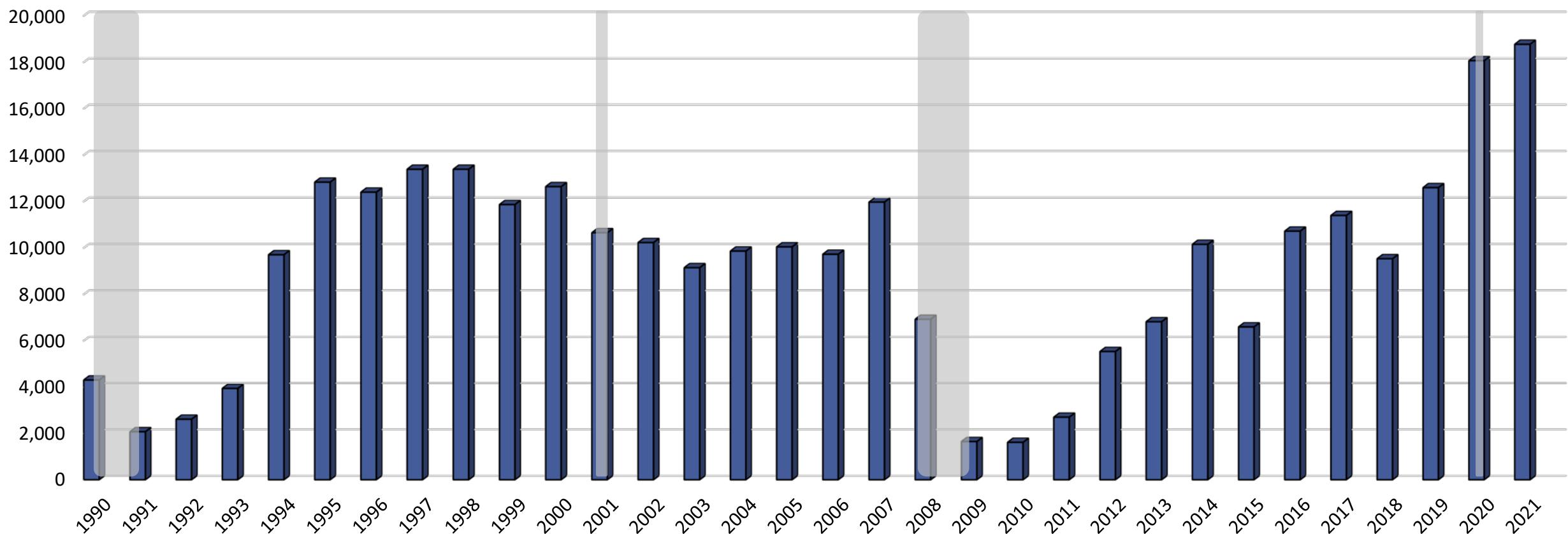
Arizona Multi-Family Home Permits

Annually, 1990-2021

Source: U.S. Census Bureau



Recession Period



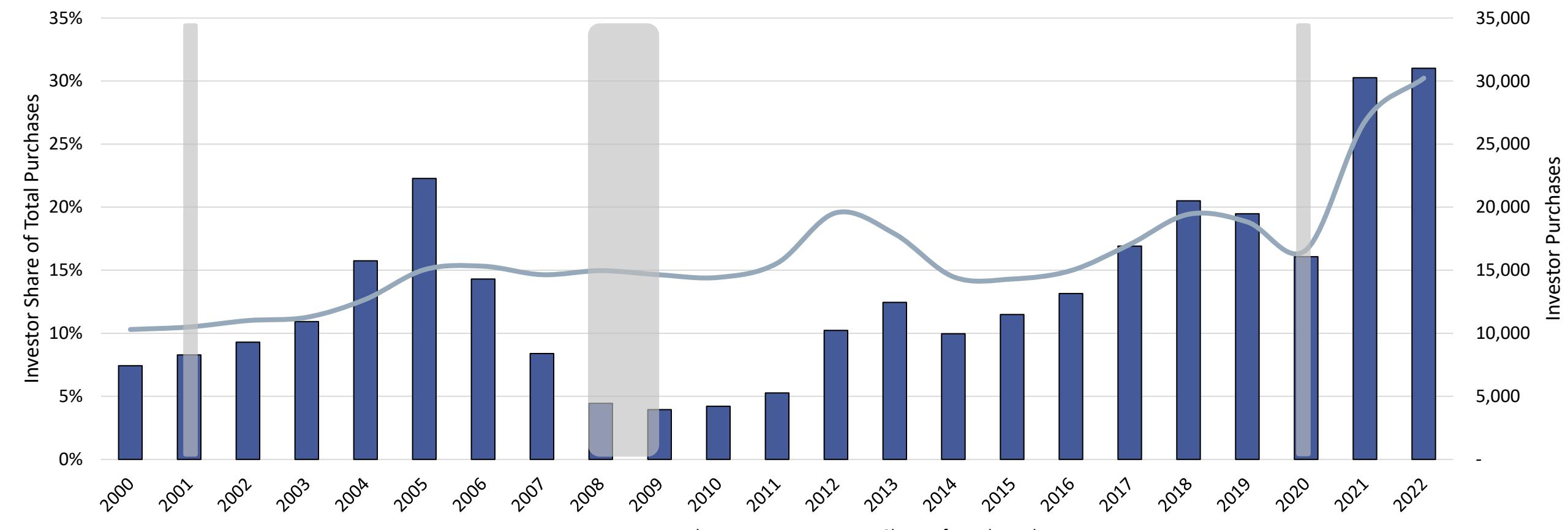
Investor Home Purchase Activity

Phoenix MSA; Annually, 2000-2022*

Source: Redfin



Recession Period



*2022 Annualized Through Q2

Investor Purchases Investor Share of Total Purchases

Housing Developer Sentiment

U.S. Level; Monthly, 2000 - 2022*

Source: NAHB – Housing Market Index



Recession Period



*2022 Through September

Arizona Housing Shortage Estimates

Source: Rounds Consulting Group; Common Sense Institute; Up For Growth

Up For Growth Study	Common Sense Institute Study	Rounds Consulting Group Study
122,700 Units	95,800 Units	40,000 – 80,000 Units

Arizona Commercial Market Trends

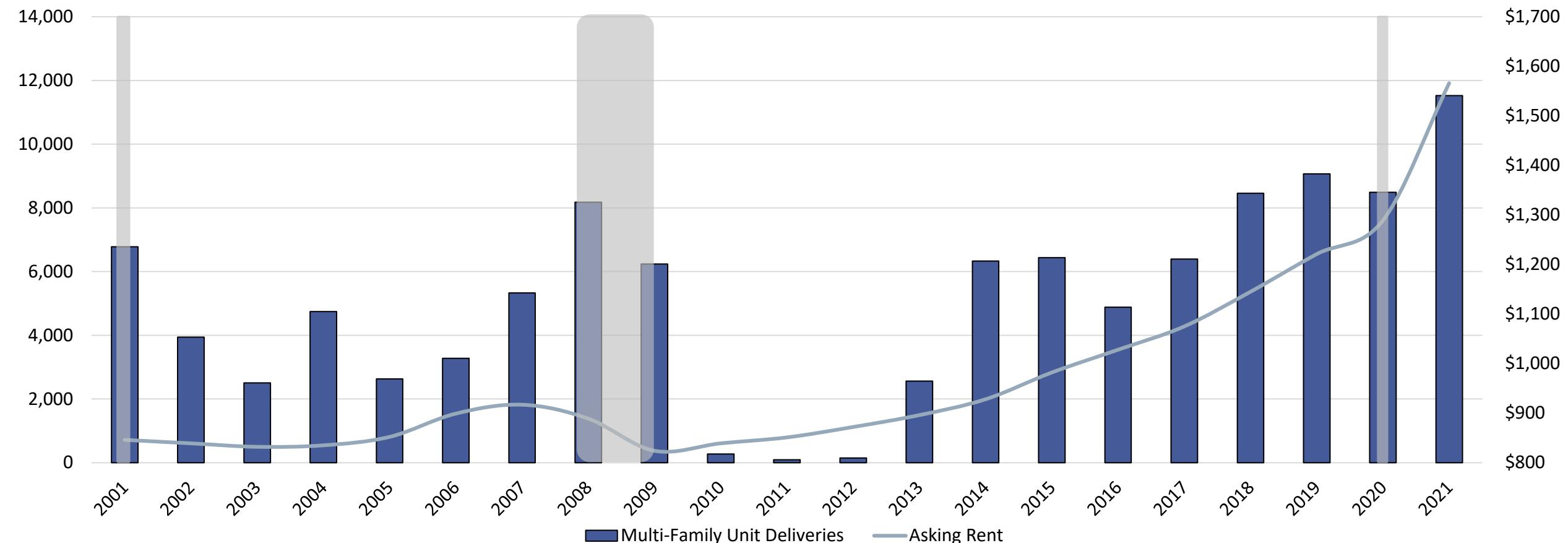


Multi-Family Unit Deliveries vs. Asking Rent

Phoenix MSA, Annually, 2001-2021

Source: CoStar

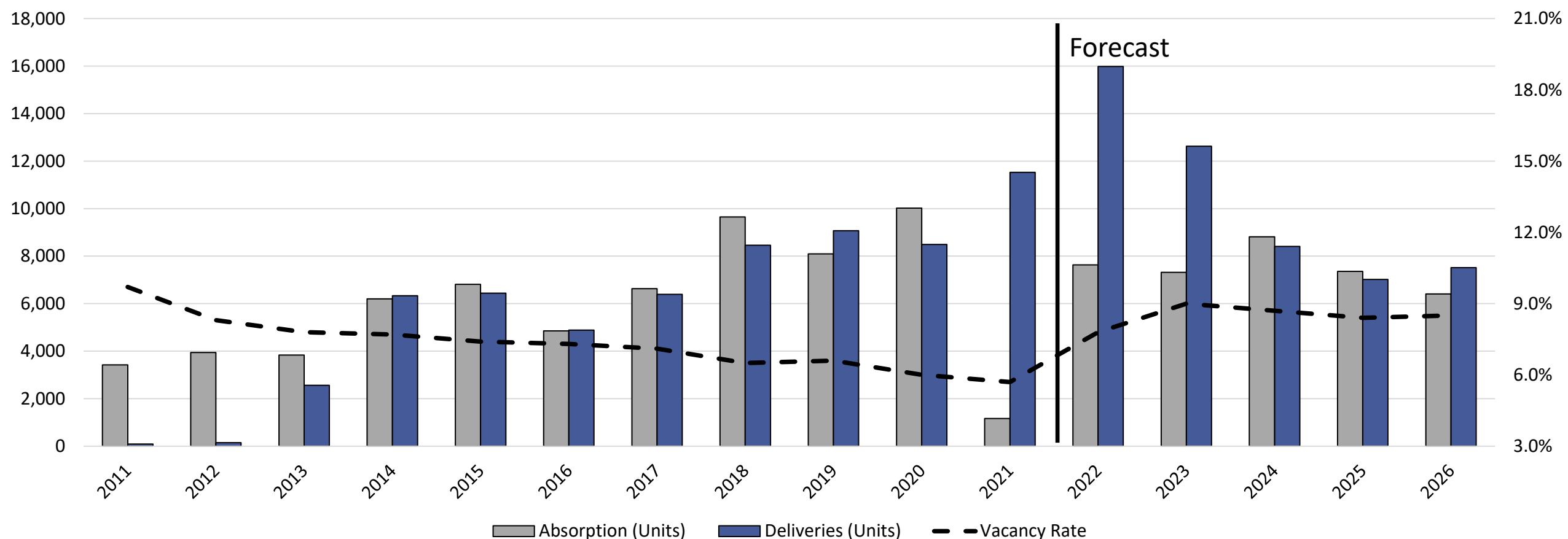
 Recession Period



Greater Phoenix – Multi-Family Real Estate Market

2011-2026: Absorption, Deliveries, and Vacancy Rate

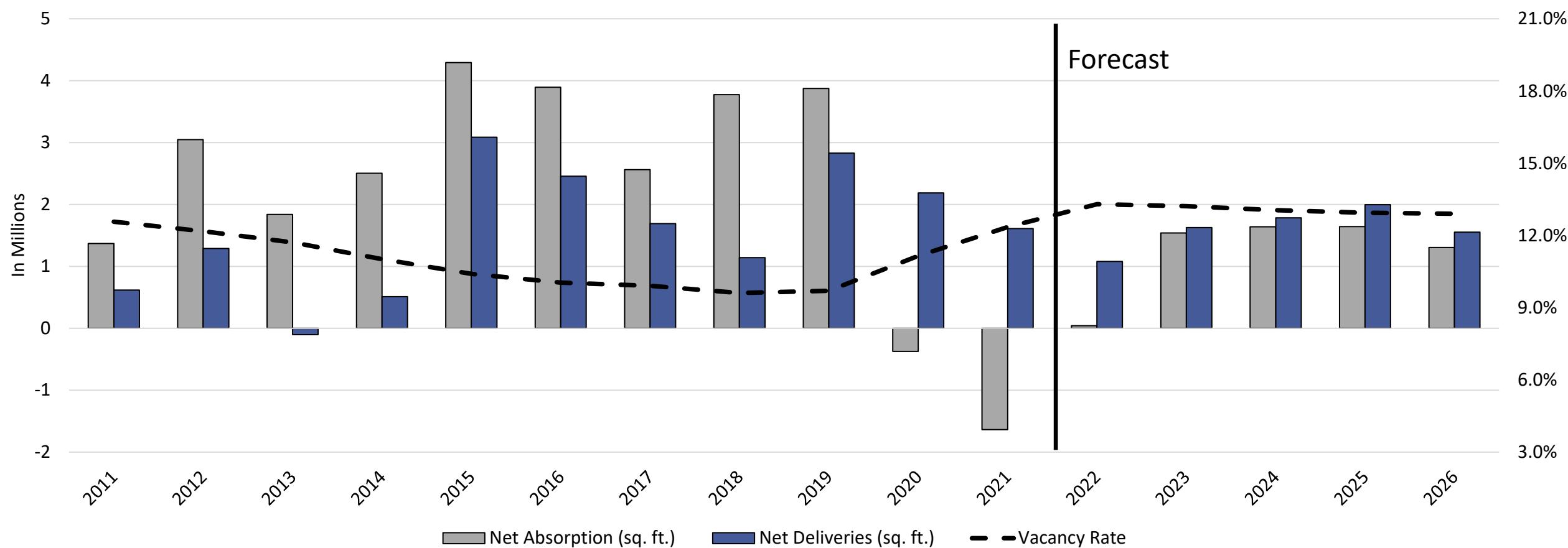
Source: CoStar



Greater Phoenix - Office Real Estate Market

2011-2026: Net Absorption, Net Deliveries, and Vacancy Rate

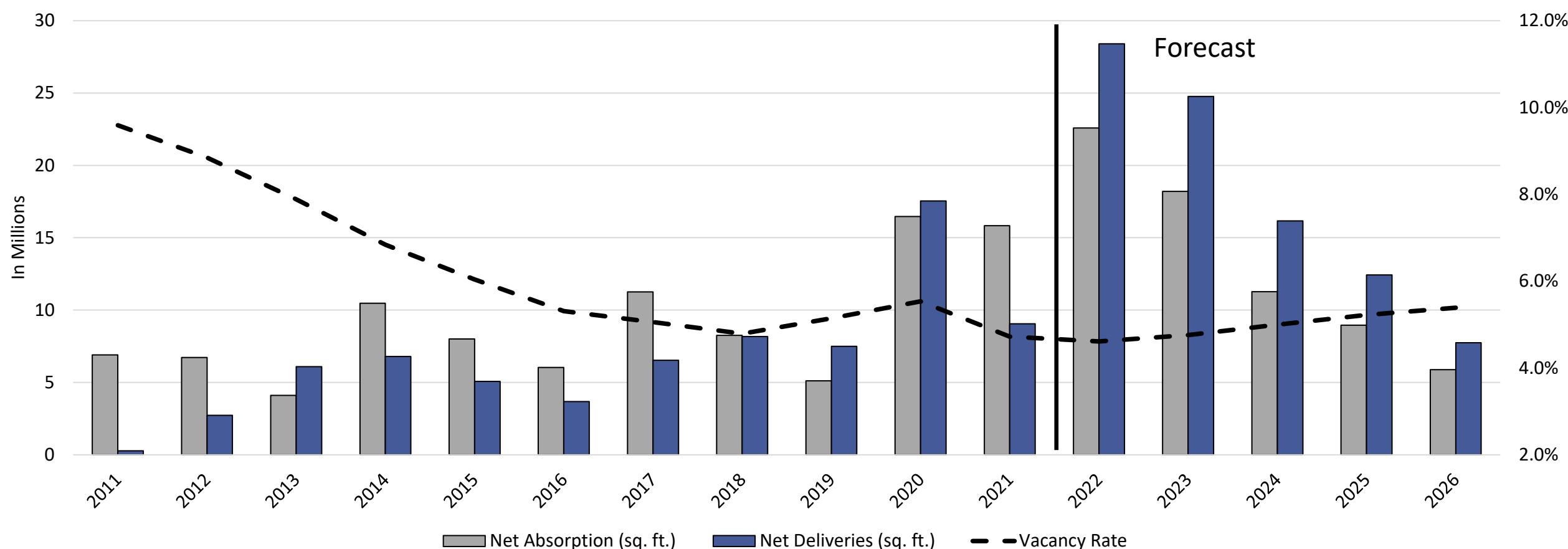
Source: CoStar



Greater Phoenix - Industrial Real Estate Market

2011-2026: Net Absorption, Net Deliveries, and Vacancy Rate

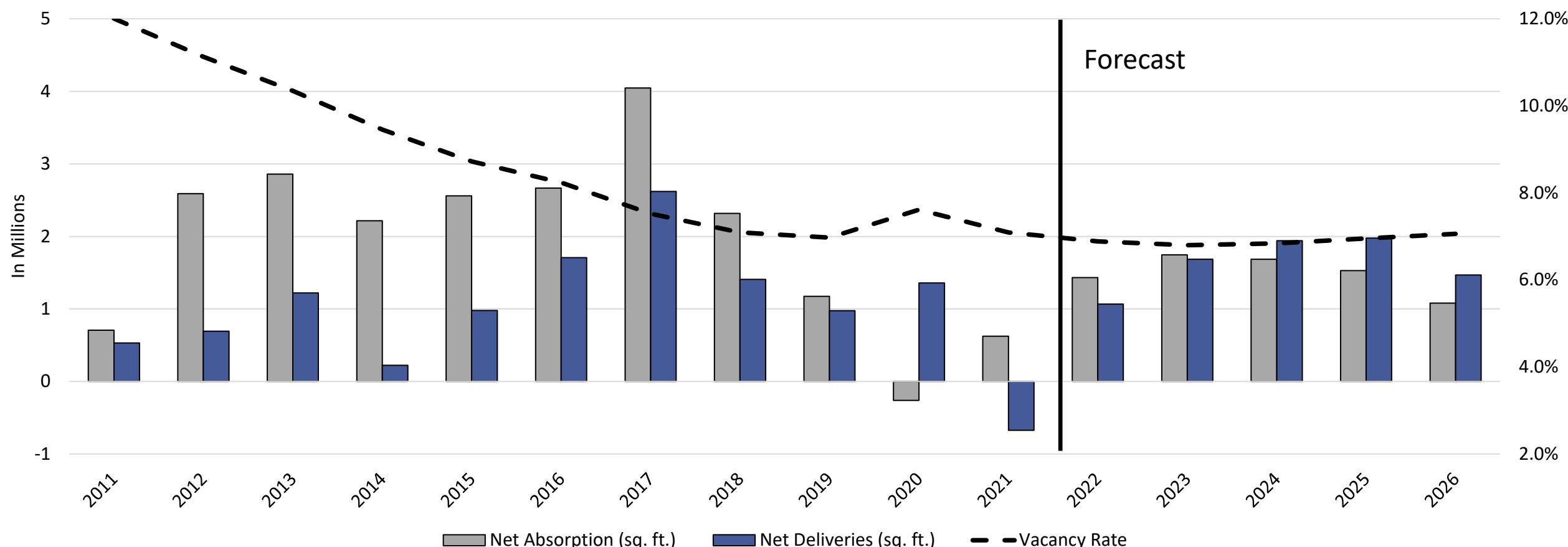
Source: CoStar



Greater Phoenix - Retail Real Estate Market

2011-2026: Net Absorption, Net Deliveries, and Vacancy Rate

Source: CoStar



Conclusion...

- Be optimistic about AZ regardless of the pending recession.
- 2025 - 2030 = Best expansion in state's history?



"Oh boy! ... It's dog food again!"

Q & A

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