



November 9, 2023

2022-2032 Employment Projections

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ARIZONA

OFFICE OF ECONOMIC OPPORTUNITY



INDUSTRY PROJECTIONS METHODOLOGY: ESTIMATION PROCESS

- The long-term projections process estimates employment ten years from the baseline period
 - Historic 2022 employment data are used as the base year of the forecast
 - Employment estimates for 2022 are the latest available annual data published by the U.S. Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW) program
 - Projected data are modeled for forecast-year 2032
- Projected employment estimates are created using historical employment trends
- Estimates are refined through a review of current U.S. and Arizona economic trends

INDUSTRY PROJECTIONS METHODOLOGY: ESTIMATION PROCESS

The principal data source is the BLS QCEW data

- Near census of all employment subject to unemployment insurance tax law (92%-95% of total Arizona employment)

The QCEW industry classification structure differs slightly from the BLS Current Employment Statistics (CES) industry classification structure

- Notably:
 - o QCEW: Federal, state and local government employment is categorized in the industry that best describes the business activity
 - Public K-12 teachers are categorized in the Ed. Services sector
 - o CES: Federal, state and local government employment is categorized in the government industry sector, regardless of business activity
 - Public K-12 teachers are categorized in the Local Gov. Ed. sector

INDUSTRY PROJECTIONS METHODOLOGY: DATA SOURCE

Industry Projections Estimates Include:

- Nonfarm employment
- Self-employed workers
- Private household workers
- Railway workers
- Religious organization workers
- Farm workers

Industry Projections Estimates Exclude:

- Unpaid family workers
- Active duty military service personnel

SUBSTATE REGIONS

Projected employment was estimated for 20 substate regions including:

All Fifteen Arizona Counties

Three Multi-County Areas

- Northeast Arizona: Apache, Navajo, and Gila Counties
- Southeast Arizona: Greenlee, Graham, and Cochise Counties
- Mohave and La Paz Counties

Two Sub-County Areas

- City of Phoenix and Balance of Maricopa County

INDUSTRY PROJECTIONS METHODOLOGY: ECONOMIC ASSUMPTIONS

- No major economic or political disruptions will occur
- Government agencies will operate within their budgets
- Population distribution will not differ significantly
- The U.S. economic framework will not differ significantly from its current state
- Long-term employment patterns will continue in most industries

The projections methodology in its entirety can be found at
https://www.azcommerce.com/media/1545673/lt_proj_method.pdf

ADDITIONAL FORECAST ASSUMPTIONS

- Arizona's population growth rate is projected to slow, but will continue to outpace that of the United States overall
- The demand for health care services will continue to increase as a large portion of the population is expected to reach Medicare eligibility during the forecasted period
- Nonstore retail and transportation and warehousing will drive employment growth within the retail trade sector
- Warehousing and storage industry will reach a maturity point where the rapid growth rates of the past are no longer sustainable
- High interest rates in the foreseeable future will reduce the number of construction projects that are economically viable

ARIZONA PROJECTIONS HIGHLIGHTS

- Total Arizona employment is projected to grow by 477,968 jobs over the ten-year period, reaching 3,797,484 jobs in 2032
- Total Arizona employment is projected to grow 1.4% annually (14.4% total growth) from 2022-2032
- Arizona employment growth (1.4% annualized) is projected to outpace U.S. employment growth (0.3% annualized) over the projected ten-year period
- Education and Health Services is projected to add the largest number of jobs (13,741 jobs annually), primarily within Health Services
- Educational and Health Services is also projected to record the largest percentage gain (1.9% annually)

PROJECTED 10-YEAR EMPLOYMENT GROWTH COMPARISON

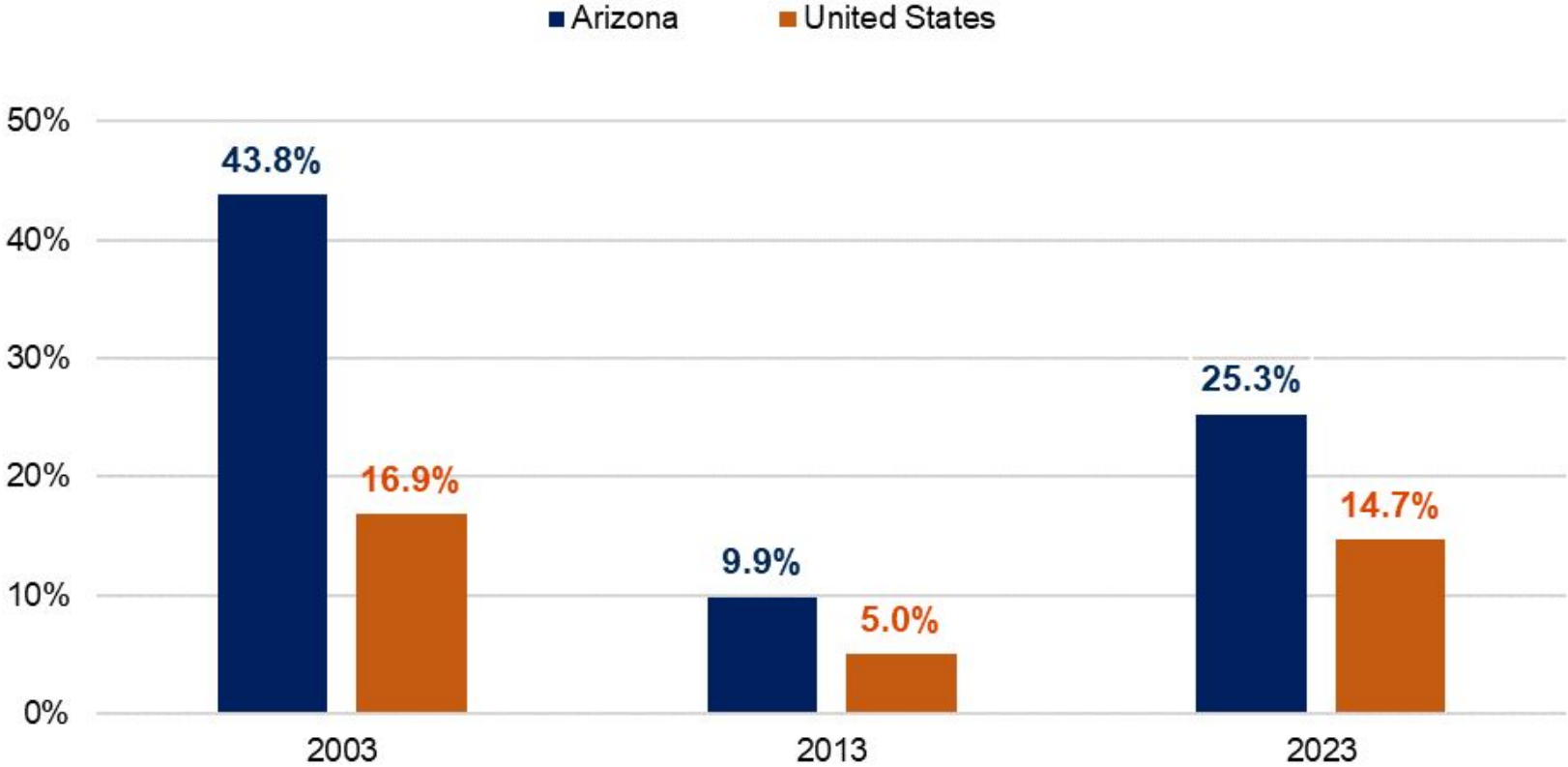
Area	Employment Levels		Employment Change		
	2022	2032	Numeric Change	Percentage Change	Annualized % Change
Arizona	3,319,516	3,797,484	477,968	14.4%	1.4%
United States	164,482,600	169,148,100	4,665,500	2.8%	0.3%

Source: Arizona Office of Economic Opportunity, Bureau of Labor Statistics

Note: National 2022-2032 projections were released on September 6, 2023

10-YEAR NONFARM EMPLOYMENT GROWTH

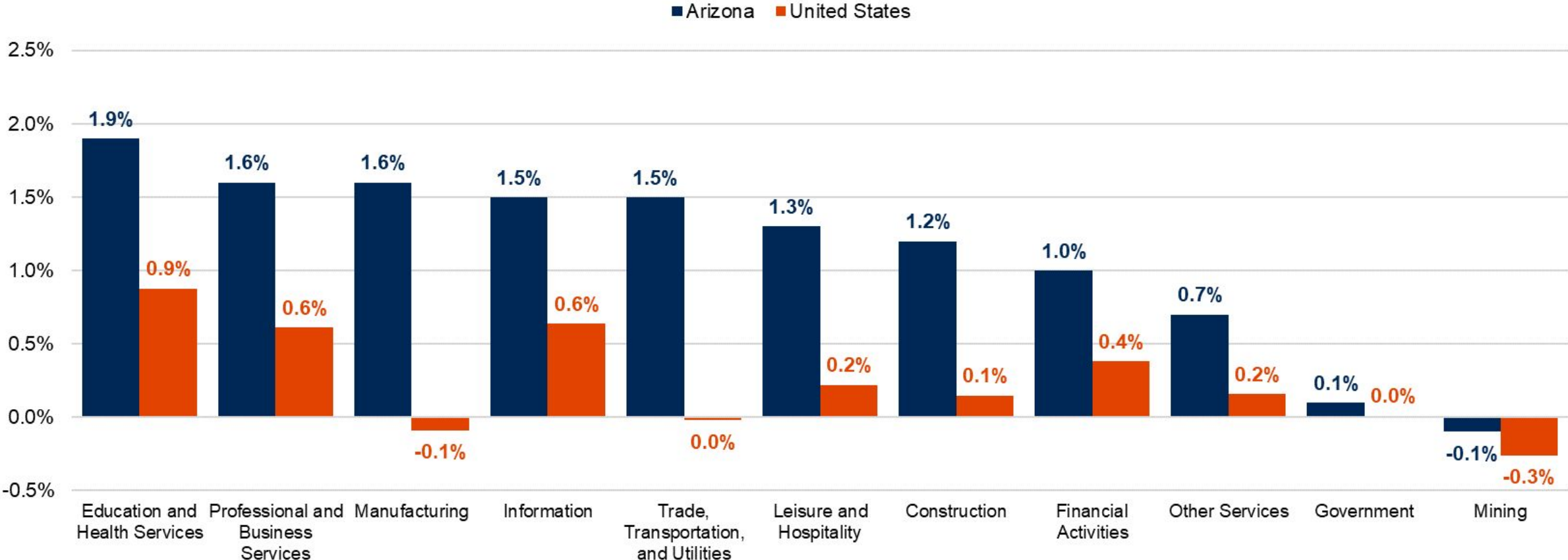
Seasonally Adjusted



* September was used as the reference period for each year
Source: U.S Bureau of Labor Statistics CES Program

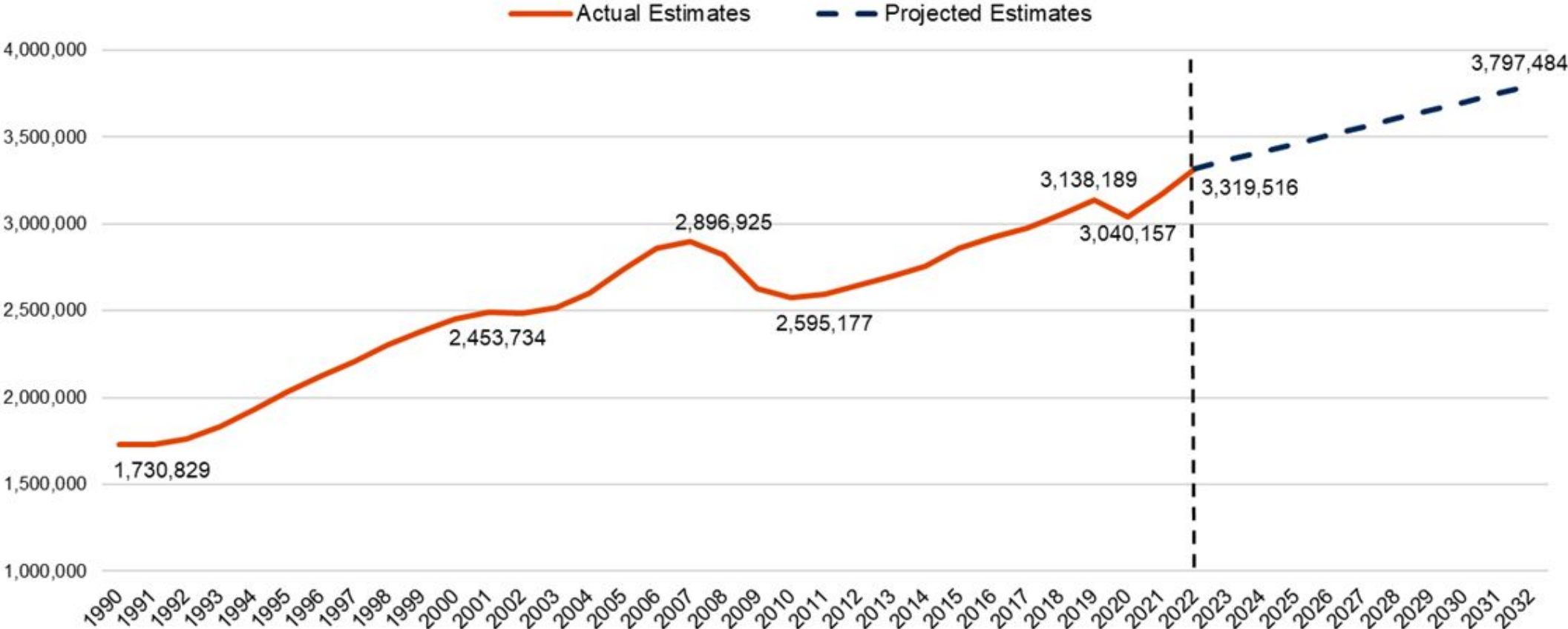
ARIZONA AND U.S. PROJECTED ANNUAL PERCENT CHANGE

2022-2032, Supersector Employment



Source: Arizona Office of Economic Opportunity, Bureau of Labor Statistics

ARIZONA TOTAL EMPLOYMENT



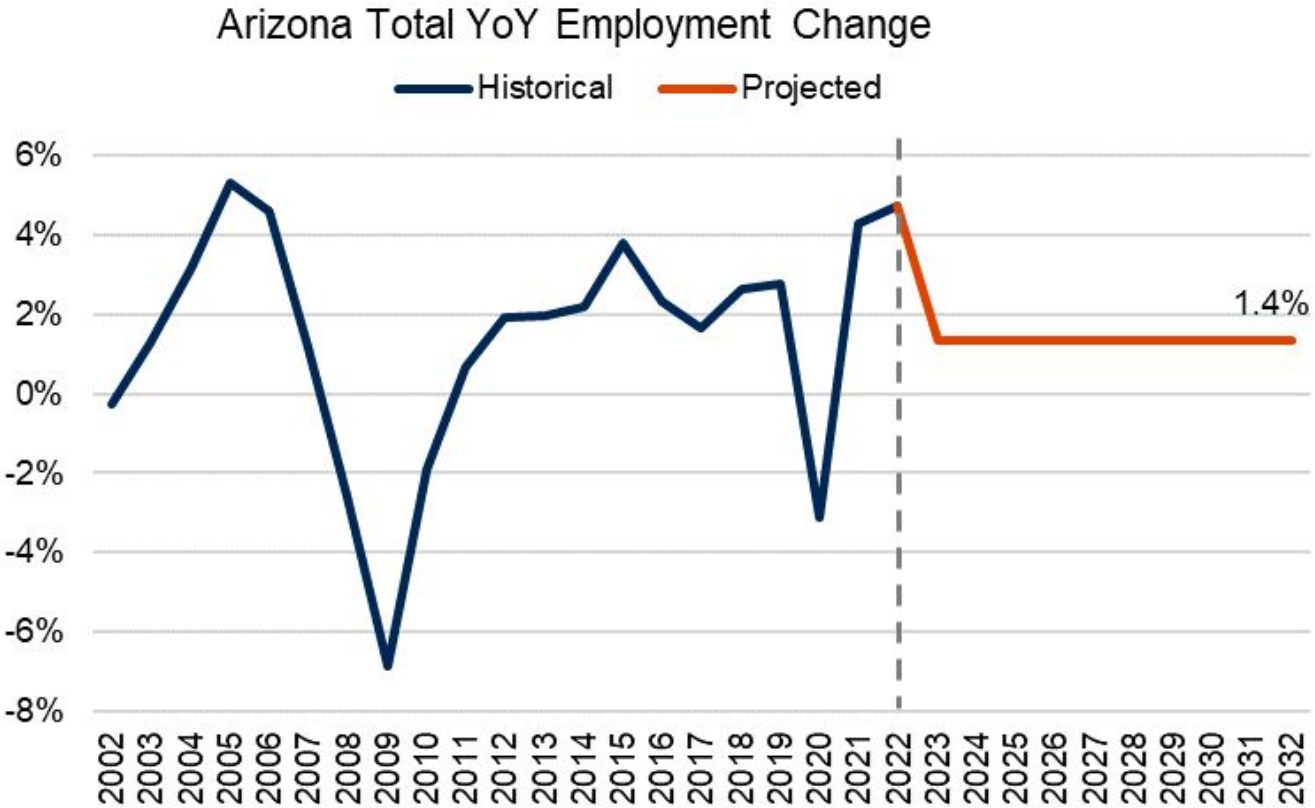
Source: Arizona Office of Economic Opportunity

NOTE: 2022-2032 numbers reflect average ten-year projected growth. Only 2032 employment values were estimated for this release. Employment values from 2023-2031 are not official projected estimates and are included for continuity purposes only.

ARIZONA TOTAL EMPLOYMENT YOY CHANGE

Highlight:

- Total employment is projected to grow 477,968 jobs or 1.4% annually from 2022-2032



Source: Arizona Office of Economic Opportunity

Note: Annual growth may differ from year-to-year between 2022 to 2032, but is projected to average the growth noted in the chart.

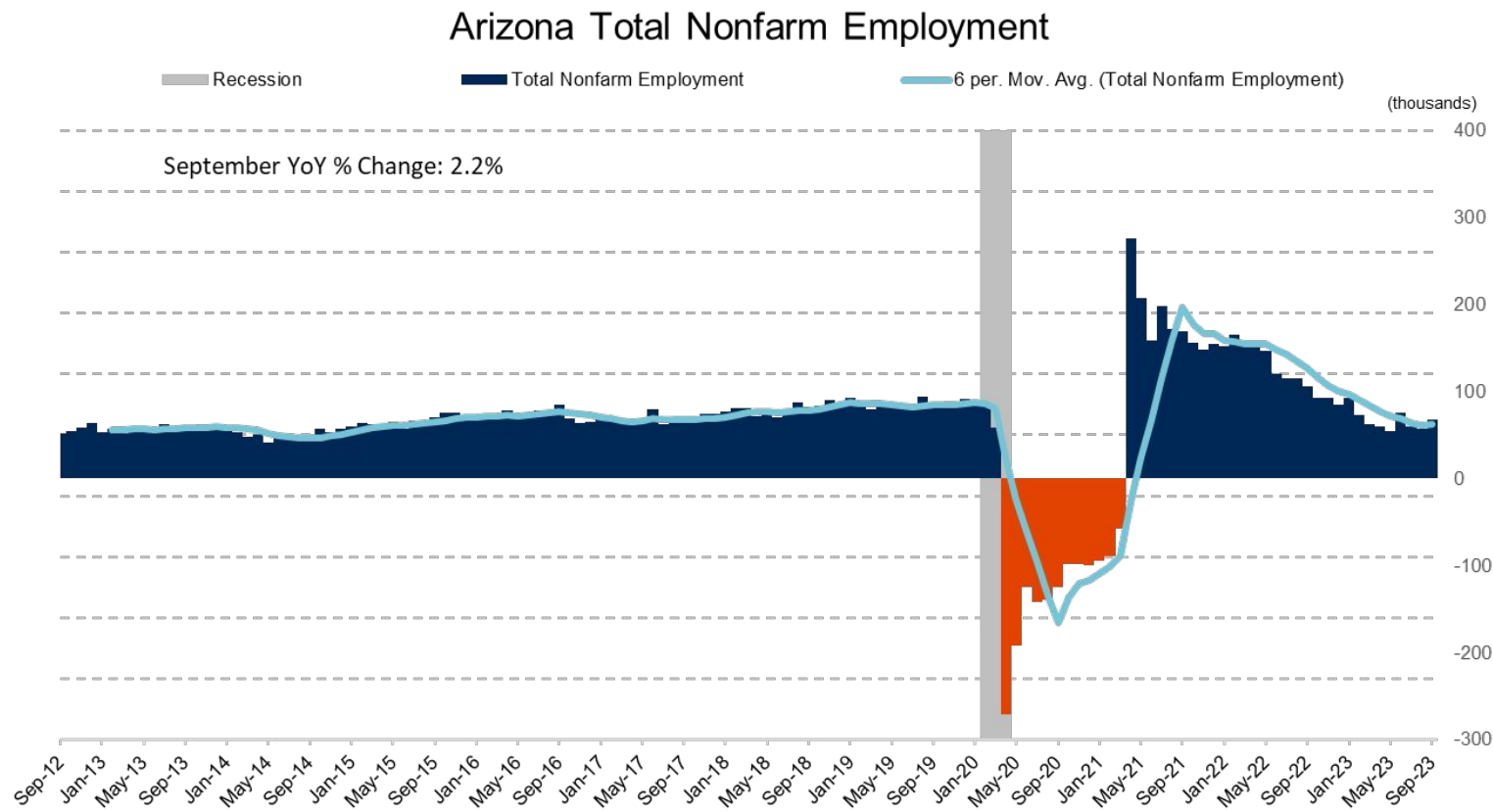
Economic Trends

Short-term:

- Arizona not seasonally adjusted (NSA) total nonfarm employment increased by 67,300 jobs or 2.2% year-over-year (YoY) in Sept. 2023
- The Arizona seasonally adjusted (SA) unemployment rate increased to 4.0% in Sept. 2023 from 3.8% in Aug. 2023
- The Phoenix Metro Consumer Price Index (CPI) increased 3.7% YoY in Aug. 2023, largely because of increased energy, food, and housing prices
- The Federal Open Market Committee (FOMC) kept the federal funds effective rate unchanged at 5.33% in Sept. 2023 from Aug. 2023

ARIZONA NONFARM EMPLOYMENT YEAR-OVER-YEAR CHANGE

Not Seasonally Adjusted

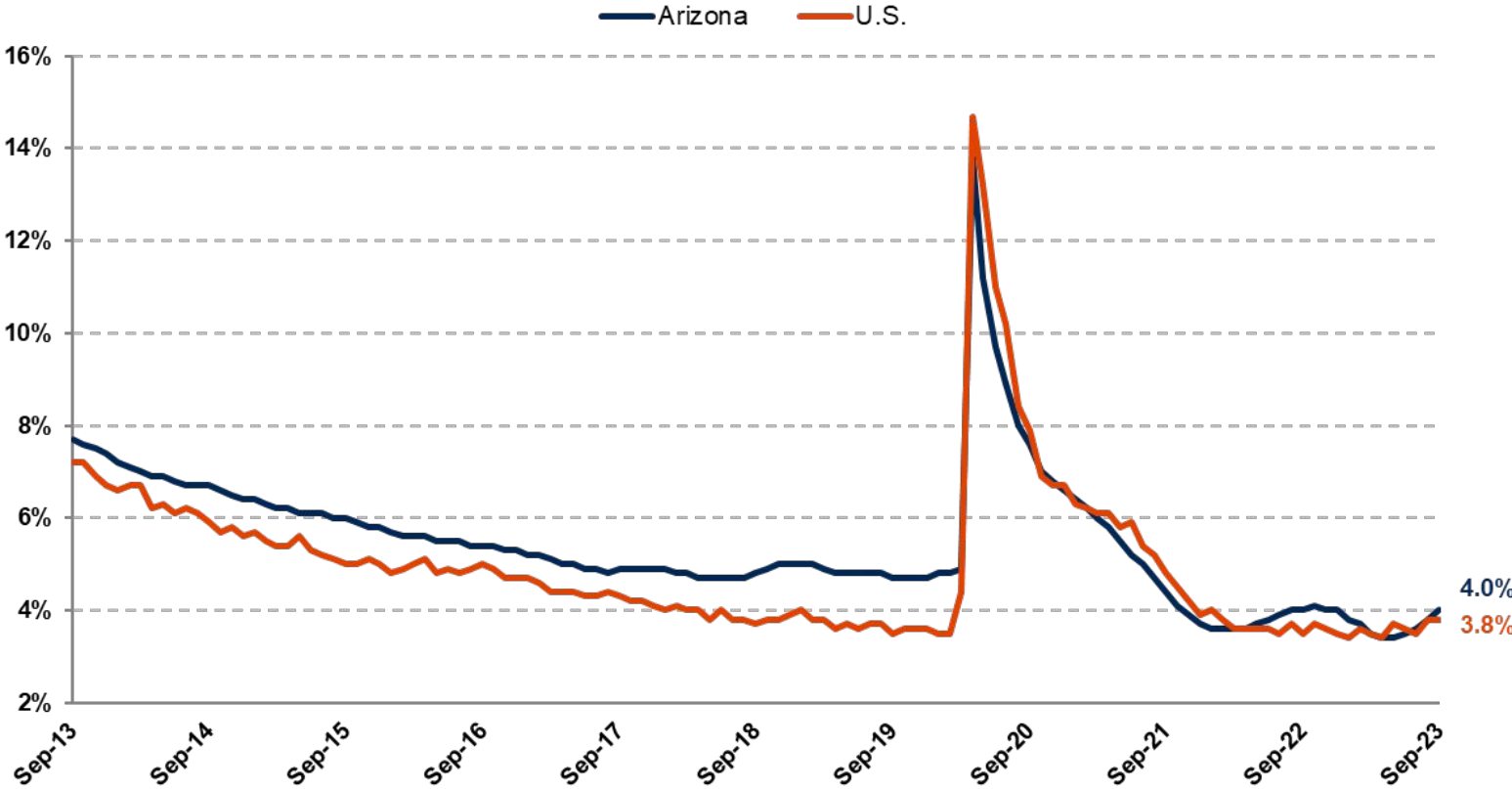


Source: Produced by the Arizona Office of Economic Opportunity in cooperation with the U.S. Dept. of Labor, BLS

Highlight:

Total Nonfarm Employment gained 67,300 jobs (2.2%)

Arizona & U.S. Unemployment Rate Seasonally Adjusted

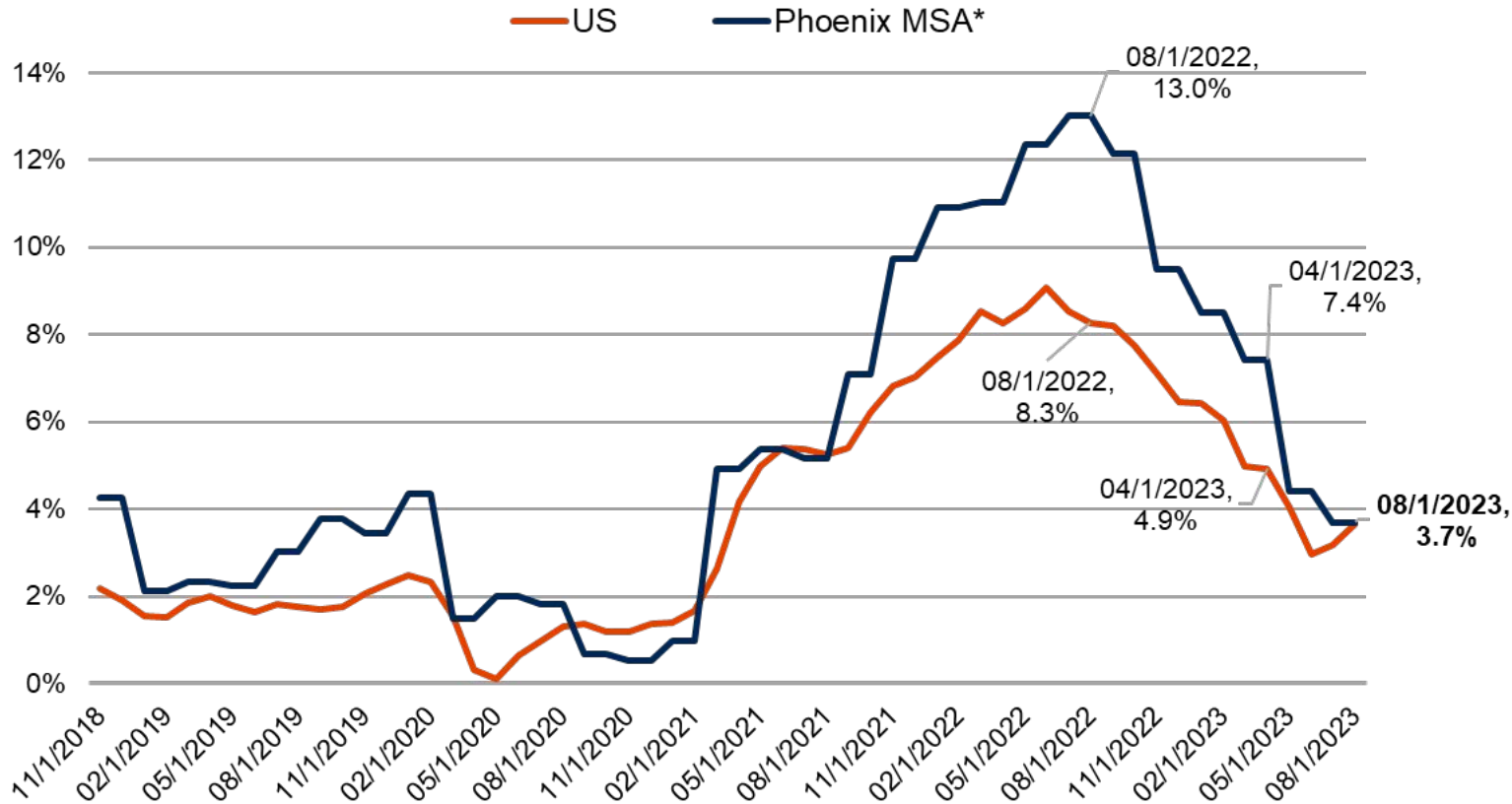


PERIOD	LABOR FORCE	EMPLOYMENT	UNEMPLOYMENT	UNEMPLOYMENT RATE
Sep-23	3,708,900	3,561,100	147,800	4.0%
OTM CHANGE	11,600	5,400	6,200	0.2
OTY CHANGE	71,700	71,000	600	0.0

Note: Seasonally adjusted; rounded to the nearest 100

CONSUMER PRICE INDEX YEAR-OVER-YEAR PERCENT CHANGE (August 2023)

Not Seasonally Adjusted



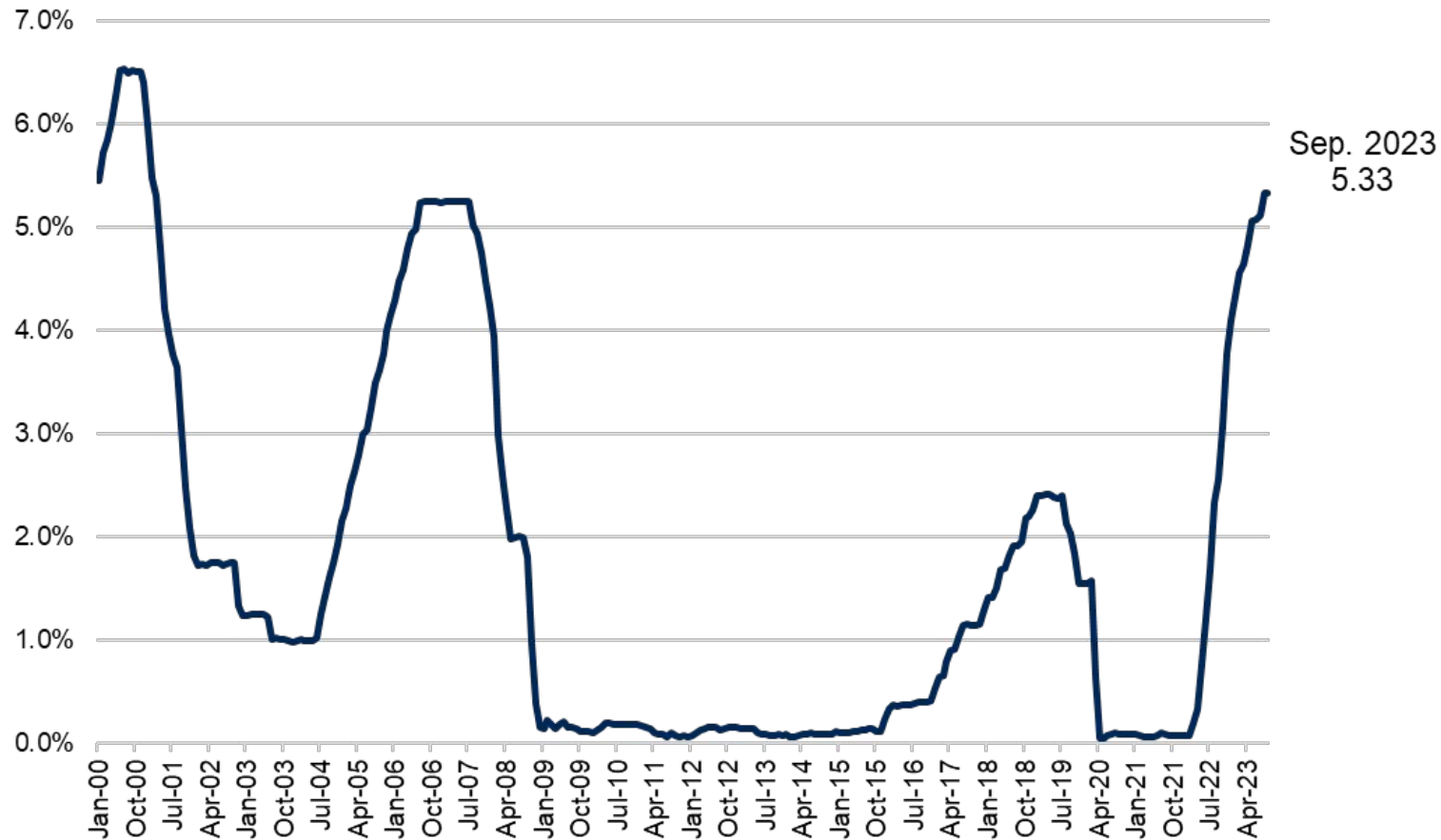
*Phoenix MSA estimates are released every other month
Source: US BLS CPI Program

Highlights:

- US CPI increased 3.7% year-over-year (YoY) in August 2023
 - Housing prices rose 5.7%
 - Energy prices fell 3.6%
 - Food prices rose 4.3%
 - Transportation prices rose 1.4%
- Phoenix MSA CPI increased 3.7% YoY in August 2023
 - Housing prices rose 6.8%
 - Energy prices rose 4.5%
 - Food prices rose 4.9%
 - Transportation prices fell 1.2%

FEDERAL FUNDS EFFECTIVE RATE

Not Seasonally Adjusted



Source: Board of Governors of the Federal Reserve System

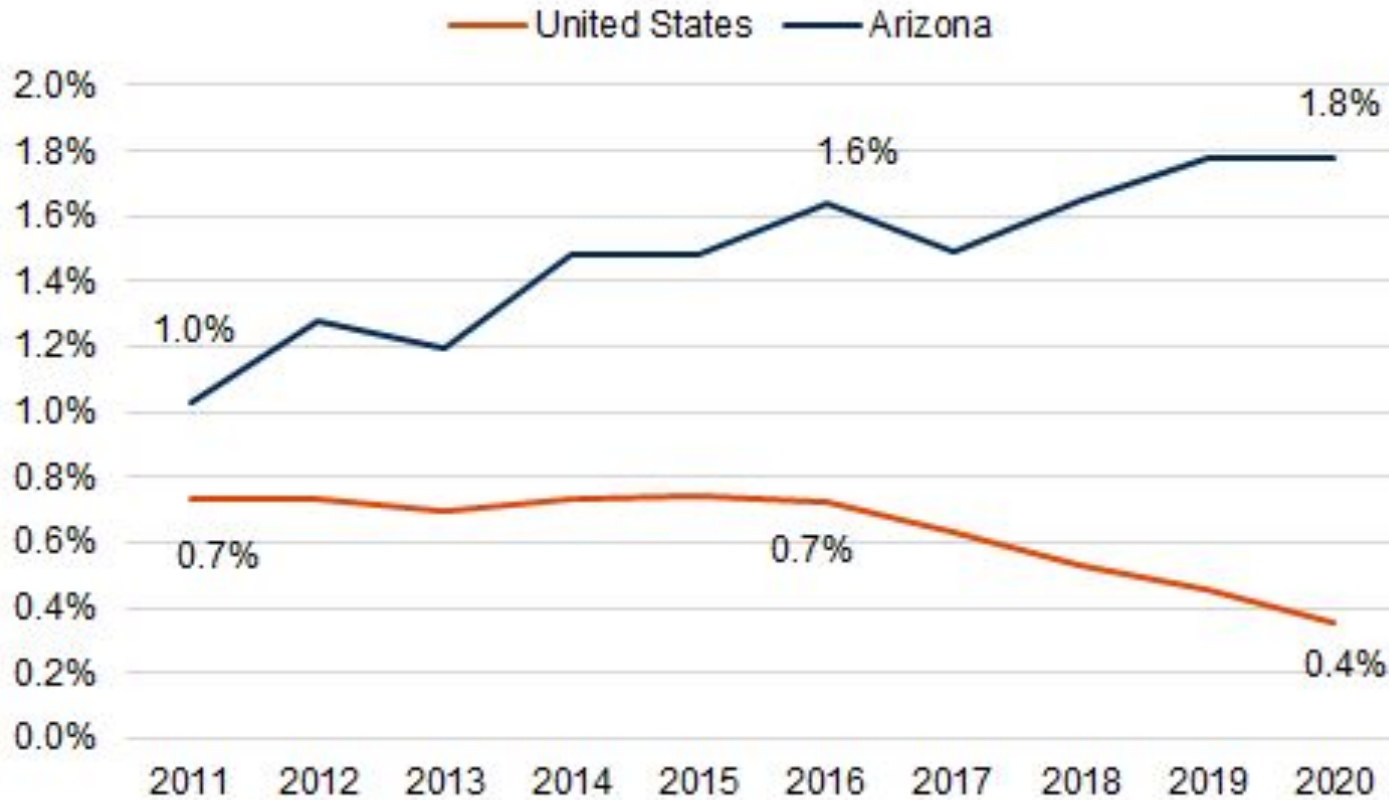
The federal funds effective rate remained unchanged at 5.33 in September 2023 from August 2023

ECONOMIC TRENDS

Long term:

- U.S. population continues to grow, but at a decelerating pace
- Arizona population growth has been among the fastest in the nation
- Arizona's labor force growth has ranked in the top 10 among U.S. states over the past four decades (1983-2023)
- Arizona's employment growth has ranked in the top 10 among U.S. states over the past three decades (1993-2023)

POPULATION GROWTH



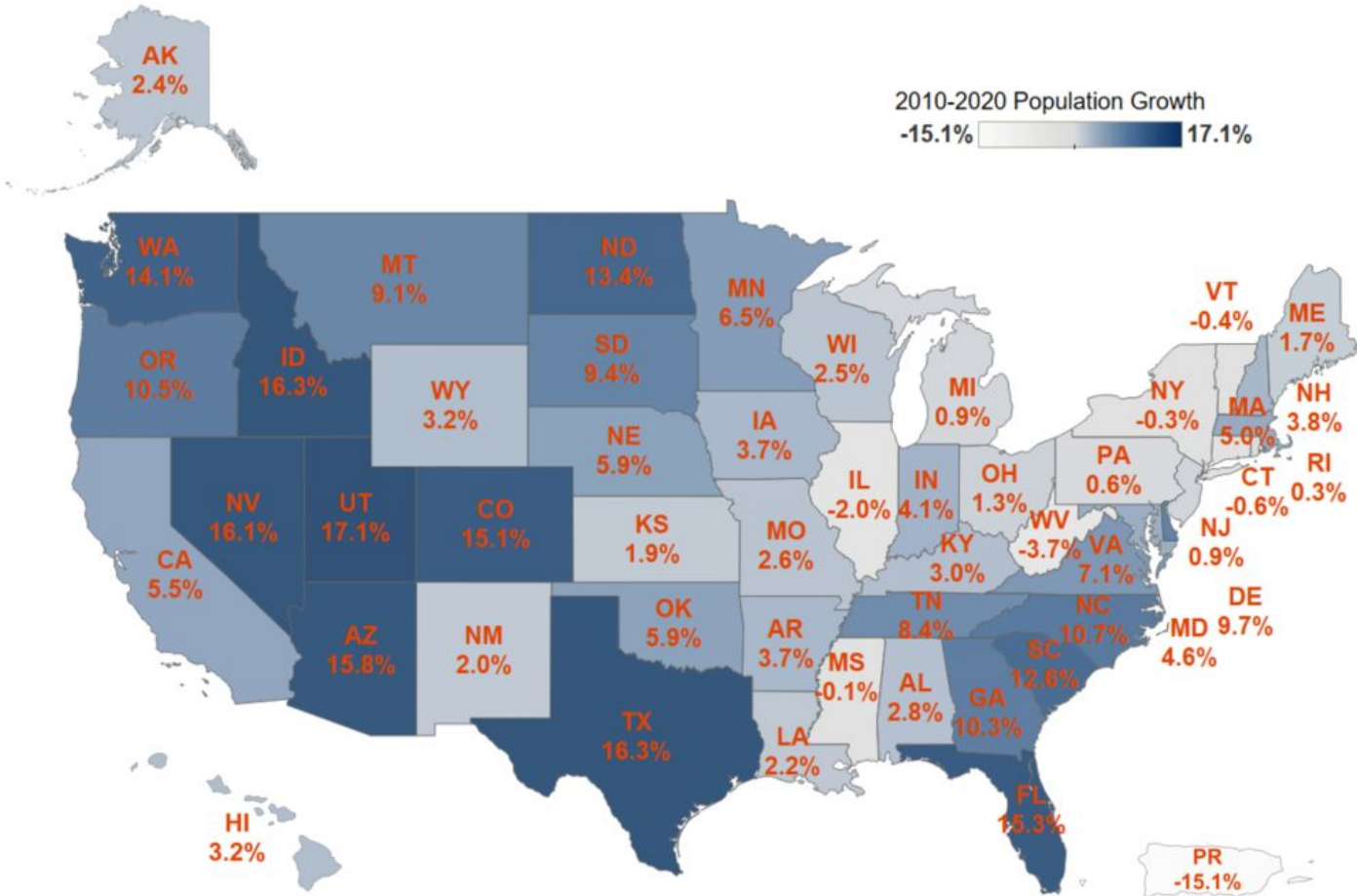
Source: U.S. Census Bureau

Highlights:

- U.S. population continues to grow, but at a decelerating pace
- Arizona's 2020 population growth rate was four times larger than the U.S. population growth rate
- Arizona population growth ranked 2nd in the nation in 2020 and 3rd in 2019

POPULATION CHANGE BY U.S. STATE

2010 to 2020

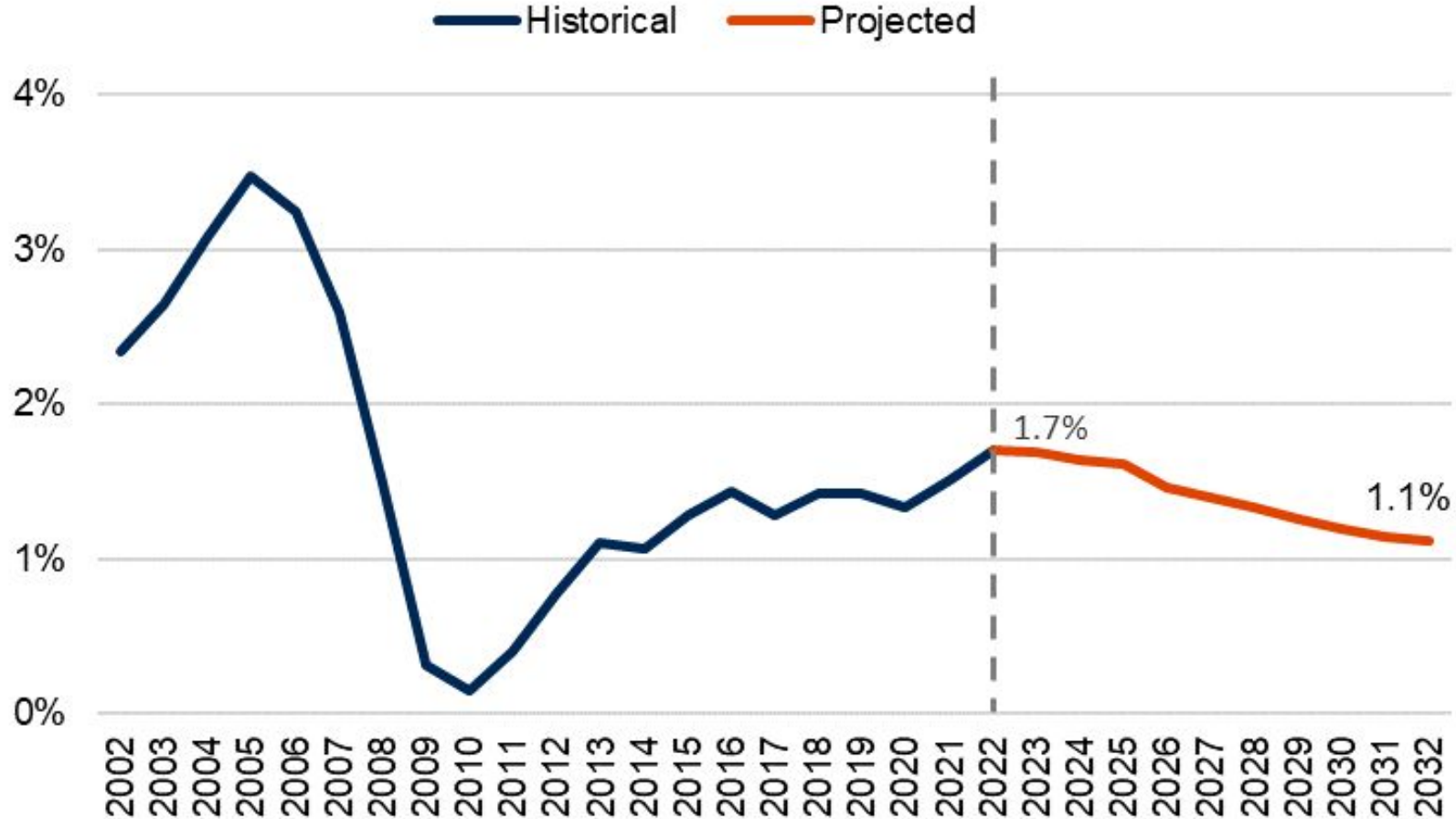


Highlight:

Arizona's population growth from 2010-2020 ranked 5 in the nation.

Source: US Census Bureau Population and Housing Unit Estimates Program

ARIZONA POPULATION YOY CHANGE



Source: Arizona Office of Economic Opportunity

Highlight:

- The population is projected to grow 1.1 million or 1.4% annually from 2022-2032

ARIZONA LABOR FORCE CHANGE*

Seasonally Adjusted, 1983-2023

	1983	1993	2003	2013	2023
Level ¹	1,400,000	1,964,000	2,739,000	3,070,000	3,709,000
Rank	29	22	21	18	15
10-Yr. Numeric Chg. ¹	**	564,000	775,000	331,000	639,000
Rank	**	9	5	7	4
10-Yr. Percent Chg.	**	40%	39%	12%	21%
Rank	**	2	2	8	3

* September was used as the reference period for each year

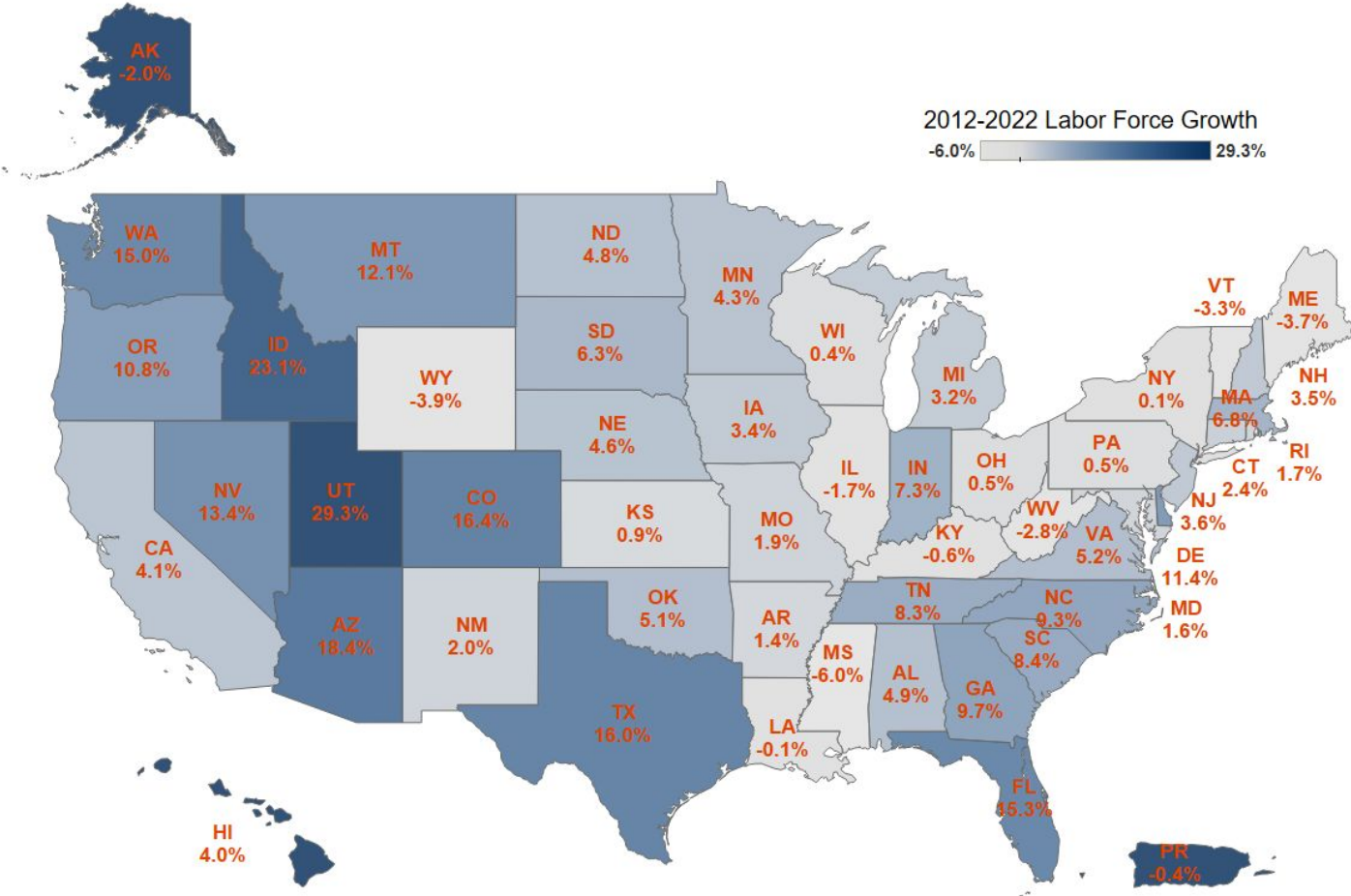
** State data series available only through 1976

¹ Rounded to the nearest 1,000

- Arizona’s labor force growth has been among the fastest in the nation, helping to improve it’s national ranking from the 29th largest labor force in 1983 to the 15th largest in 2023
- The Arizona labor force grew by 639,000 people over the past ten years (2013 - 2023), ranking fourth among U.S. states
- From 2013 to 2023, Arizona’s labor force growth rate ranked 3rd in the nation, an improvement from its 2003-2013 ranking of 8th

LABOR FORCE CHANGE BY U.S. STATE

2012 to 2022



Source: U.S. Bureau of Labor Statistics

Highlight:

- States in the Northwest, Southwest and South have benefited from migration out of the Northeast and Midwest over the past 10 years
- Arizona’s labor force growth from 2012-2022 ranked third in the nation

ARIZONA EMPLOYMENT CHANGE*

Seasonally Adjusted, 1993-2023

	1993	2003	2013	2023
Level ¹	1,603,000	2,305,000	2,532,000	3,172,000
Rank	24	21	21	17
10-Yr. Numeric Chg. ¹	**	702,000	227,000	640,000
Rank	**	5	9	8
10-Yr. Percent Chg.	**	44%	10%	25%
Rank	**	2	12	5

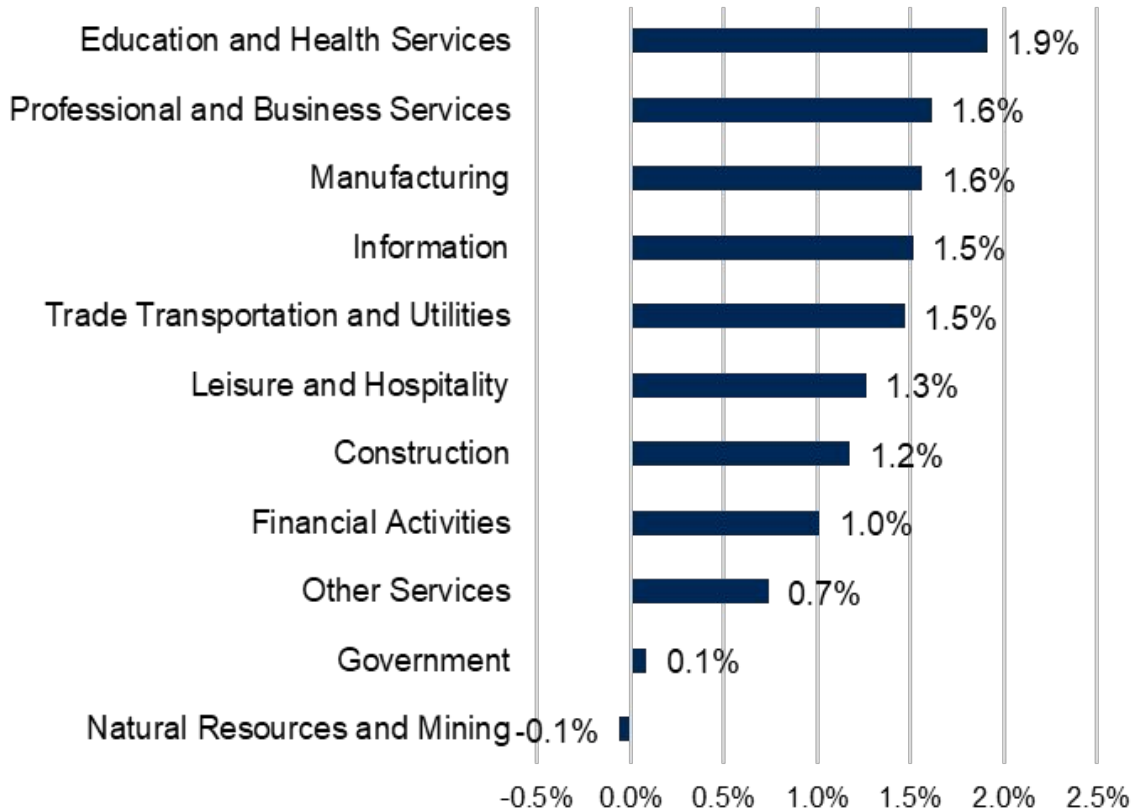
* September was used as the reference period for each year
 ** State data series available through 1990
¹ Rounded to the nearest 1,000

- Arizona’s employment growth has been among the fastest in the nation, helping to improve it’s national ranking from the 24th largest employment base in 1993 to the 17th largest in 2023
- Arizona employment grew by 640,000 people over the past ten years (2013 - 2023), ranking eighth among U.S. states
- From 2013 to 2023, Arizona’s employment growth rate ranked 5th in the nation, an improvement from its 2003-2013 ranking of 5th

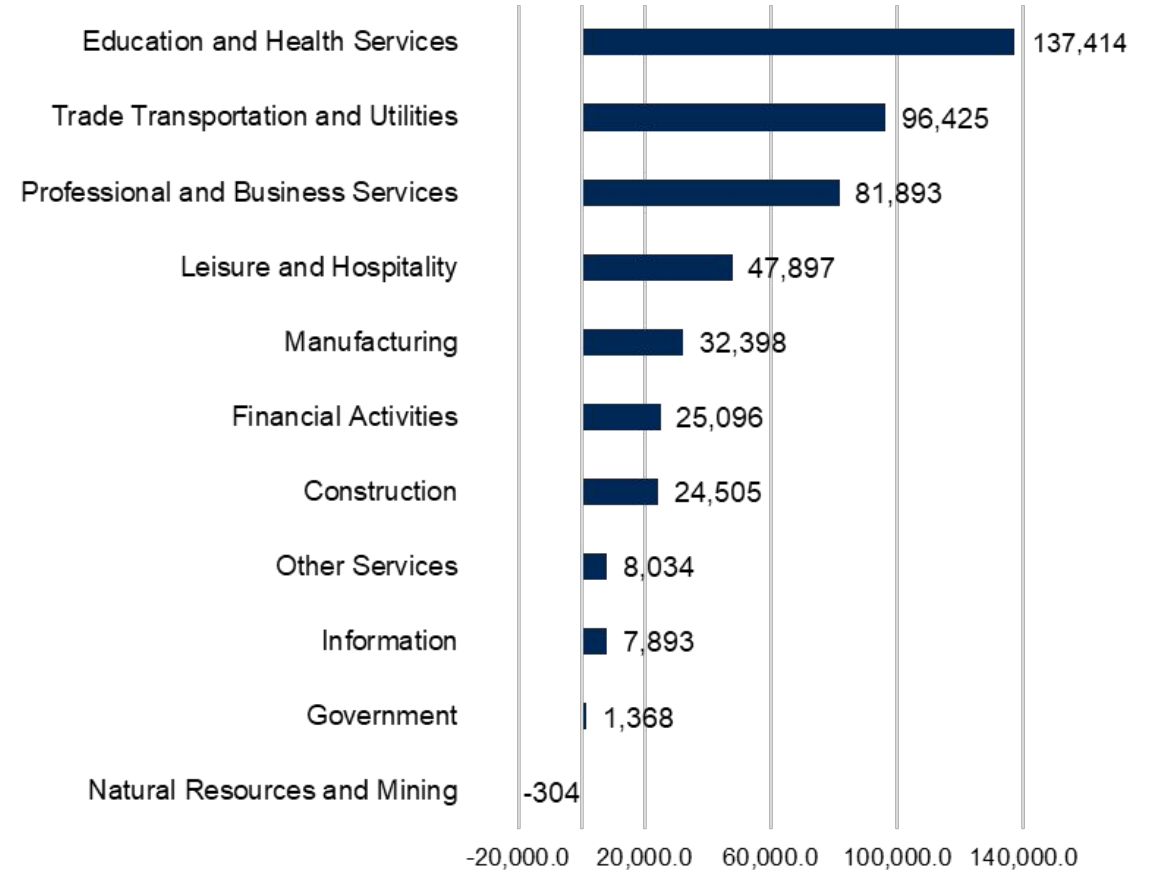
Projected Employment Highlights

PROJECTED INDUSTRY EMPLOYMENT CHANGE

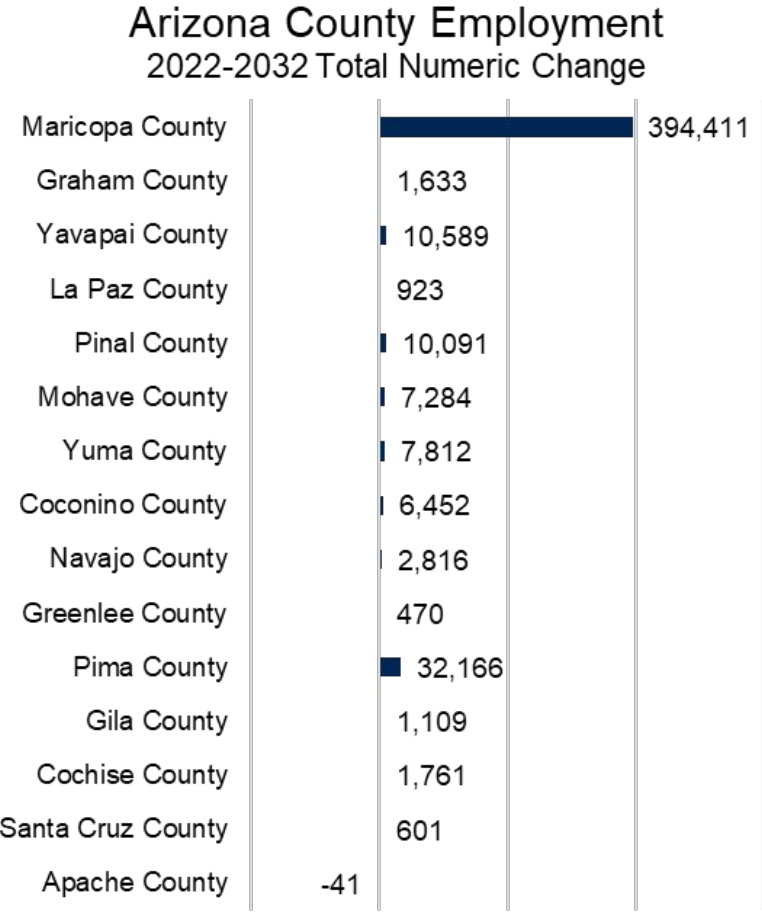
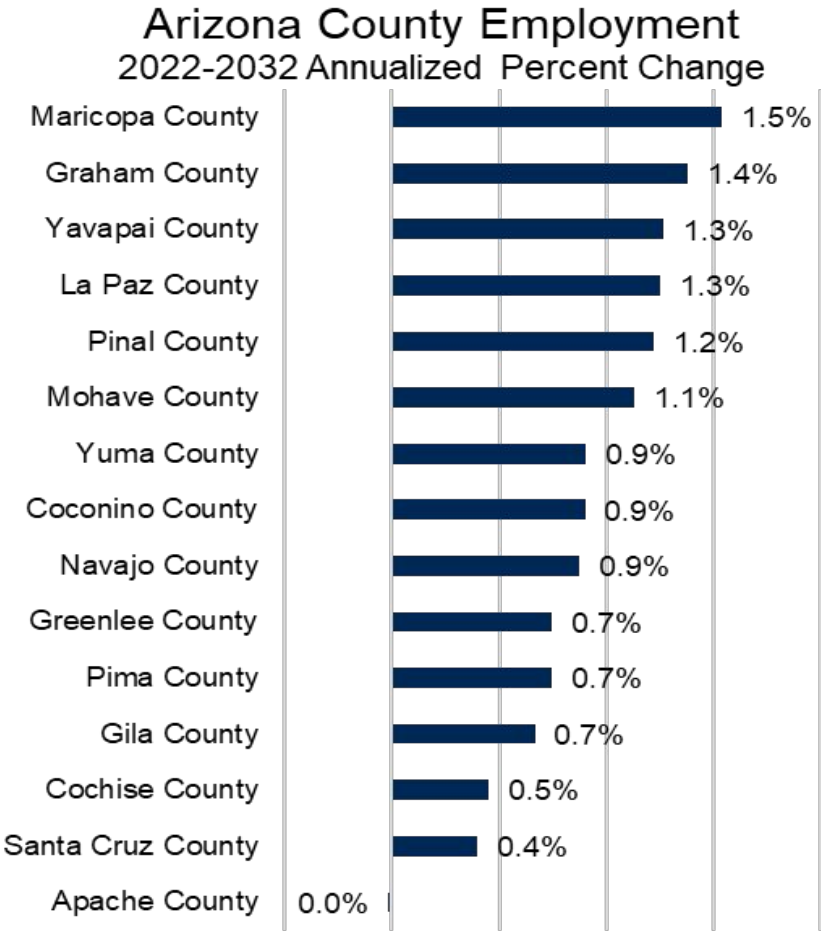
Arizona Supersector Employment 2022-2032 Annualized Percentage Change



Arizona Supersector Employment 2022-2032 Total Numeric Change



PROJECTED EMPLOYMENT CHANGE BY COUNTY



- Maricopa County is projected to account for 83% of job gains in Arizona from 2022-2032

Source: Arizona Office of Economic Opportunity

Source: Arizona Office of Economic Opportunity

AREA HIGHLIGHT: APACHE COUNTY

	2002	2012	2022	2032
Employment	21,278	20,244	18,556	18,515
10-Yr. Numeric Chg	4,011	-1,034	-1,688	-41
10-Yr. Percentage Chg	23.2%	-4.9%	-8.3%	-0.2%

Source: Arizona Office of Economic Opportunity

- Employment losses from 2012-2022 occurred primarily within Local Gov. (-888 jobs or -20.0%) and Education and Health Services (-748 jobs or -13.4%)
- Employment losses from 2022-2032 are projected to occur primarily within Local Gov. (-481 jobs or -13.5%) and Educational Services (-155 jobs or -6.3%)

INDUSTRY HIGHLIGHT: CONSTRUCTION

Sector	Historic Change (2012-2022)		Projected Change (2022-2032)	
	Numeric Change	% Change (Annual)	Numeric Change	% Change (Annual)
Construction	79,691	5.3%	24,505	1.2%
Construction of Buildings	20,584	7.0%	3,959	0.9%
Heavy and Civil Engineering Construction	6,283	3.0%	599	0.2%
Specialty Trade Contractors	52,824	5.3%	19,947	1.4%

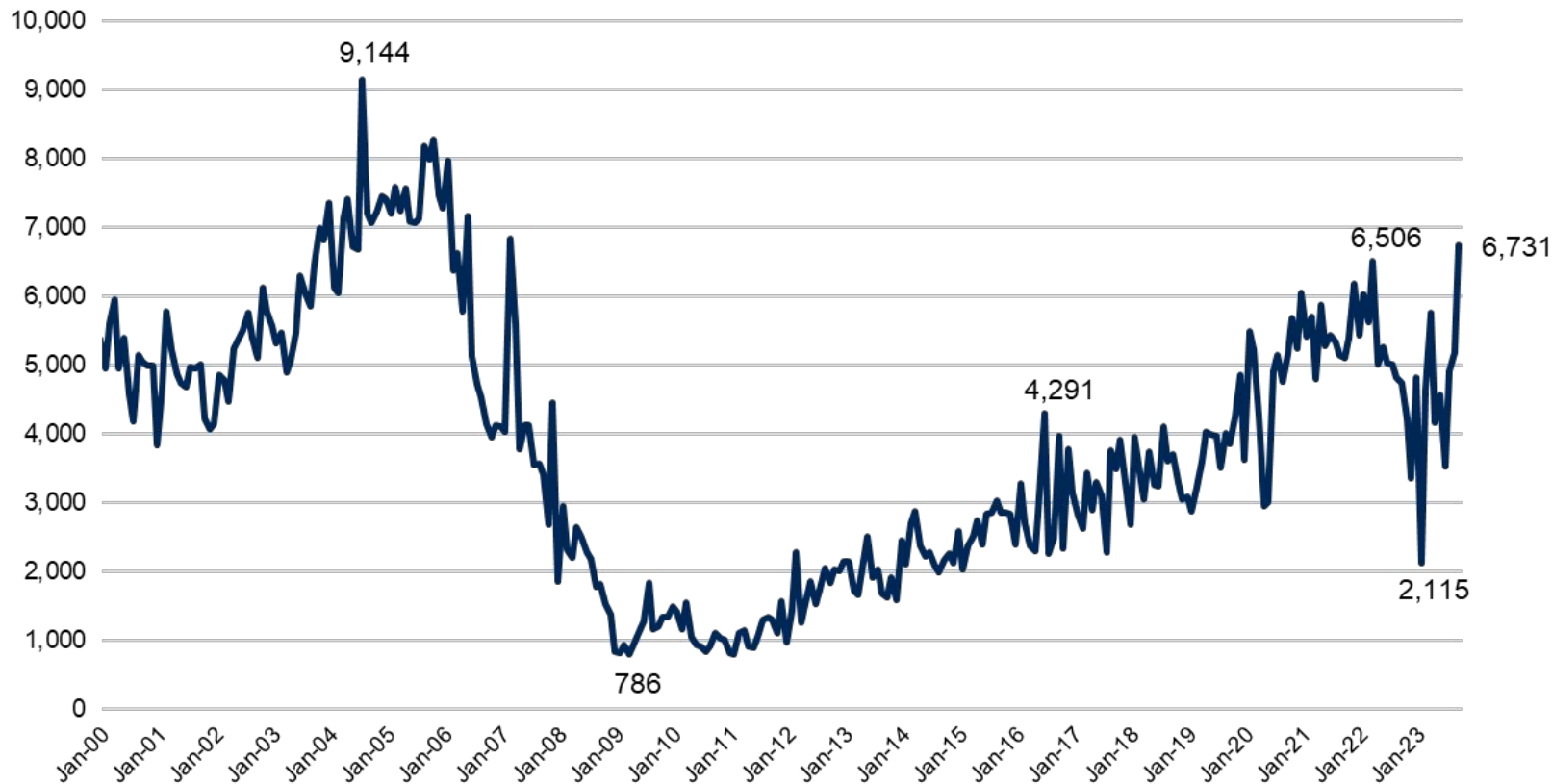
Source: Arizona Office of Economic Opportunity

Notable Changes:

- Construction employment growth is projected to continue through 2032
- Employment is projected to grow at a slower rate from 2022-2032 than it did from 2012-2022
 - This is partially because growth from 2012-2022 was atypically high following the 2007 Great Recession
 - Construction employment grew at an annualized rate of 0.4% from 2002-2021

ARIZONA NEW PRIVATE HOUSING UNITS AUTHORIZED BY BUILDING PERMITS

Seasonally Adjusted



Source: U.S. Census Bureau

Notable Changes:

- Building permits increased by 30.1% in Sept. 2023 from Aug. 2023
- 6,731 building permits were authorized in Sept. 2023, an increase of 1,991 permits (42.0%) from Sept. 2022
- Building permits hit an eight year low in January 2023

U.S. 30-YEAR FIXED RATE MORTGAGE AVERAGE

Not Seasonally Adjusted

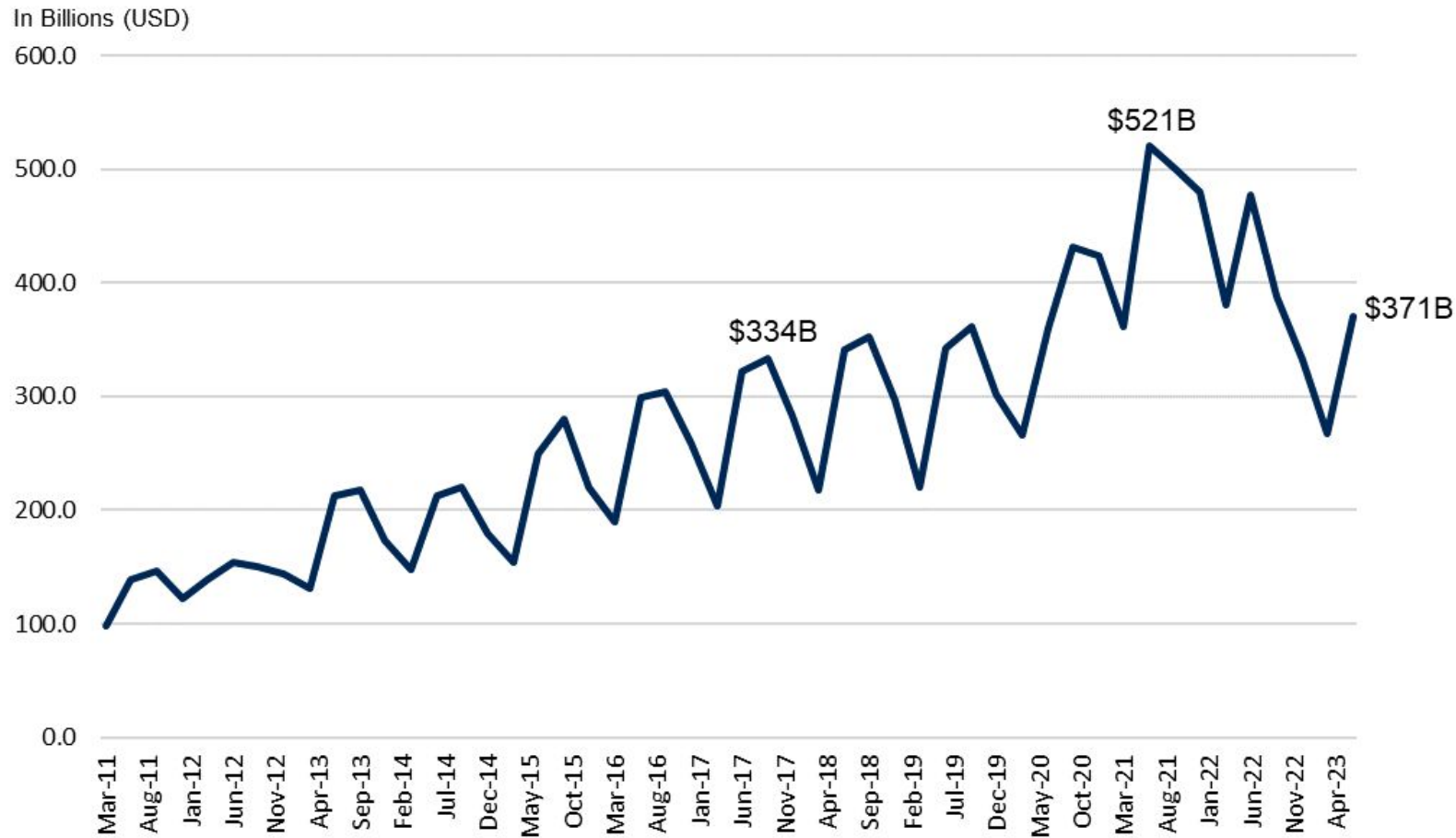


Source: Freddie Mac

The 30-Yr fixed mortgage rate increased to 7.79% in the week ending 10/26/23, a near 23 year high

U.S. Mortgage Originations, Purchases

Not Seasonally Adjusted

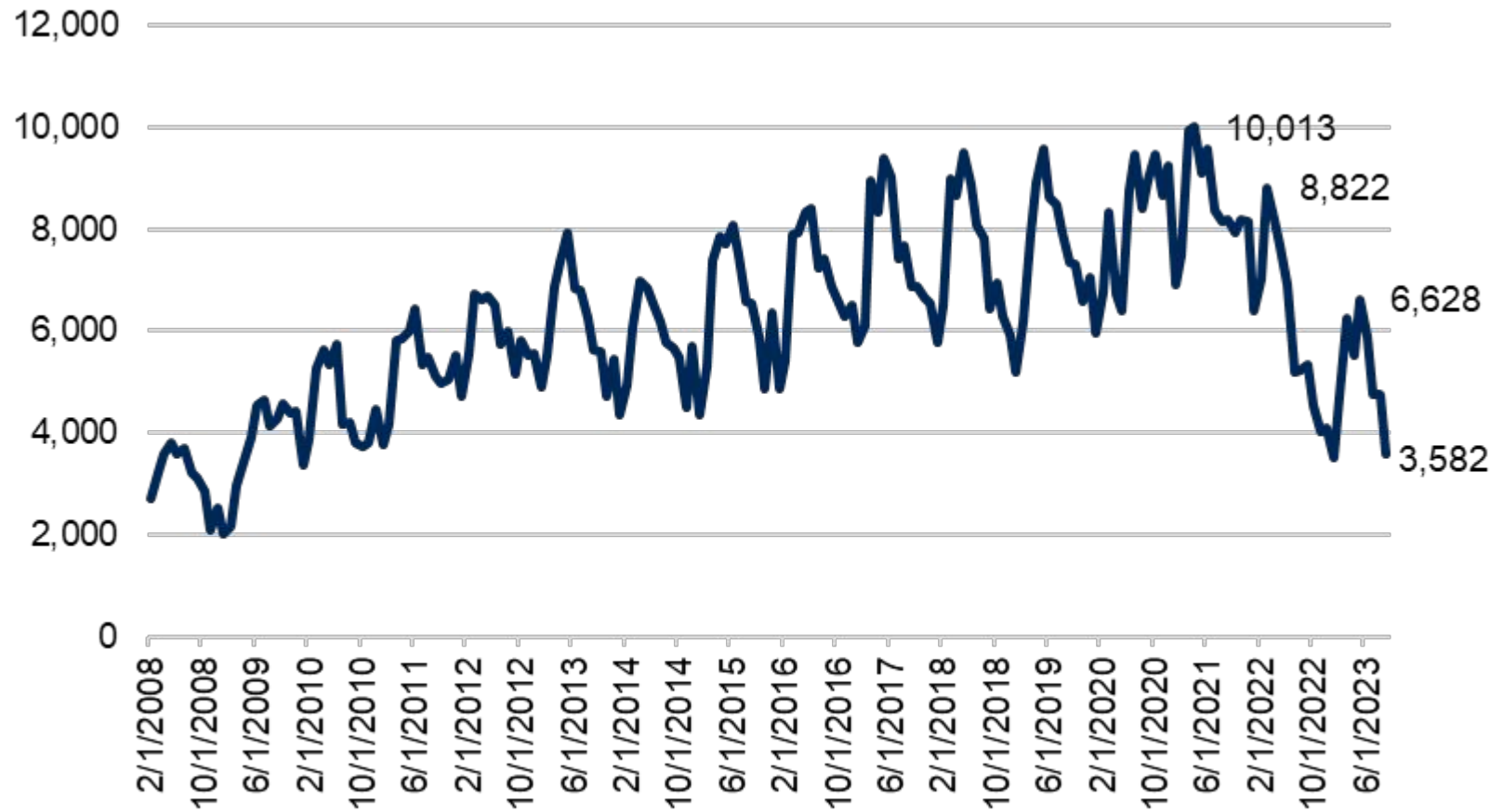


2023 Q2 Mortgage Purchases totaled \$371B, down from \$477B in 2022 Q2 (-22%)

Source: Mortgage Bankers Association

Phoenix MSA Residential Home Sales

Not Seasonally Adjusted



Phoenix MSA residential home sales decreased 32.9% YoY in Sept. 2023 to 3,582 sales

Source: Zillow Economic Research

INDUSTRY HIGHLIGHT: LEISURE AND HOSPITALITY



Source: Arizona Office of Economic Opportunity

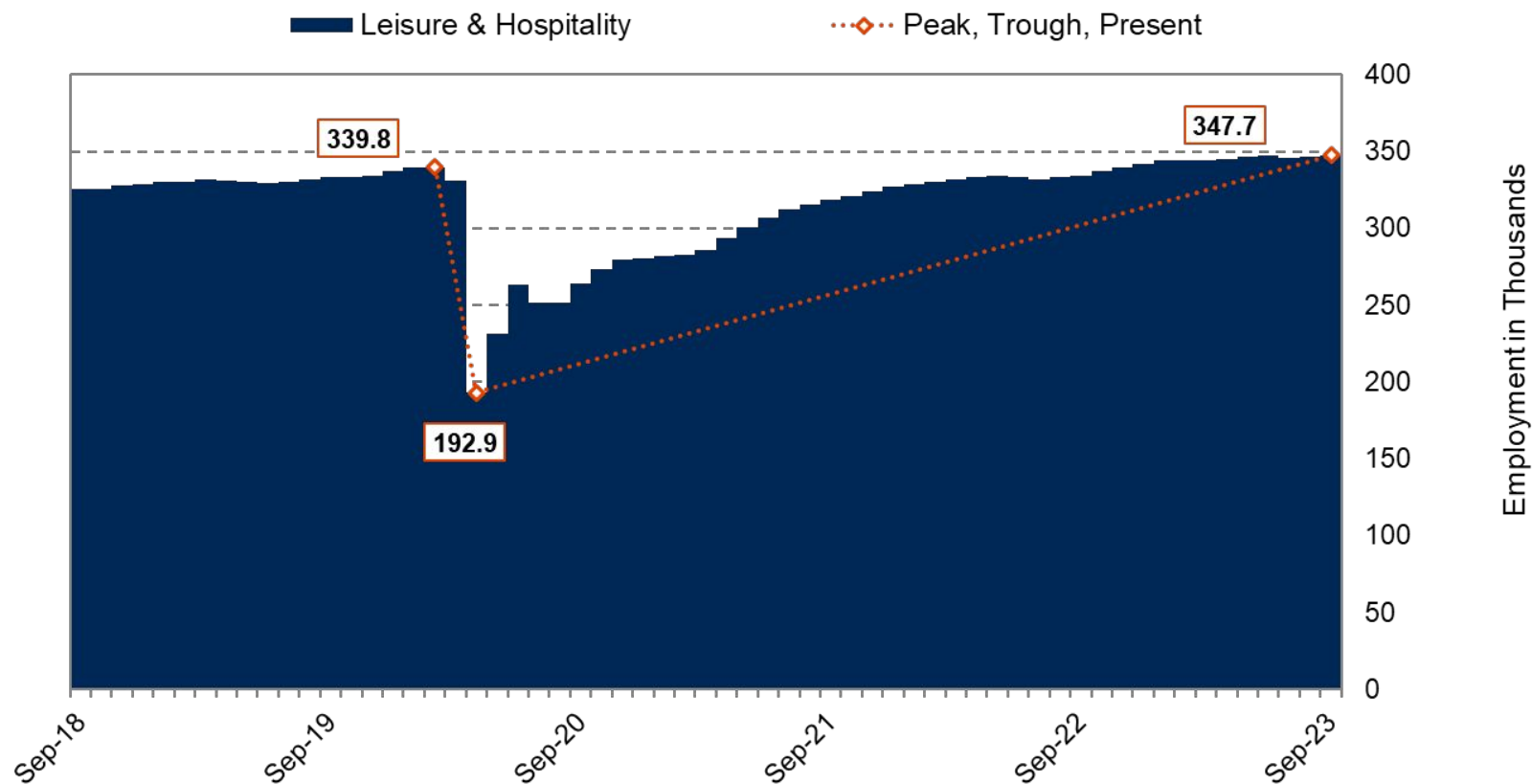
Notable Changes:

Job gains are projected to be strongest in:

- Food Service and Drinking Places (1.4% annual growth)
- Amusement, Gambling, and Recreation Industries (1.3% annual growth)

INDUSTRY HIGHLIGHT: LEISURE AND HOSPITALITY

Seasonally Adjusted

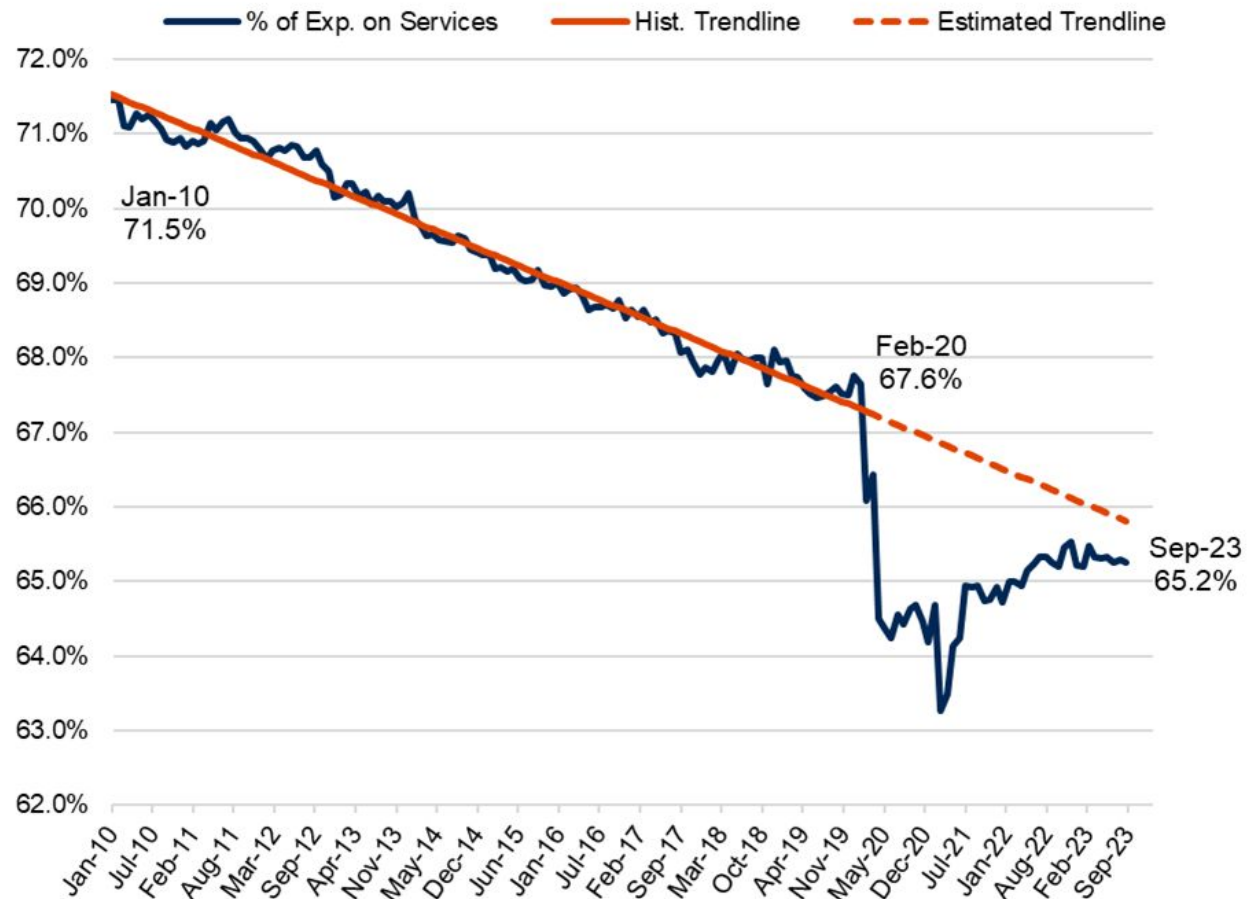


Source: Produced by the Arizona Office of Economic Opportunity in cooperation with the U.S. Dept. of Labor, BLS

Notable Changes:

- Employment declined by 146,900 jobs (-43.2%) from February 2020 to April 2020.
- Since April 2020, 105% (154,800 jobs) of the Leisure and Hospitality pandemic job losses have been recovered

PERCENT OF U.S. PERSONAL CONSUMPTION EXPENDITURES (PCE) ON SERVICES



Source: Bureau of Economic Analysis

Notable Changes:

Percent of U.S. PCE on services has been declining over the past ten years. The COVID-19 pandemic has accelerated its decline.

- In September 2023, PCE on services represented 65.2% of total PCE

INDUSTRY HIGHLIGHT: HEALTHCARE AND SOCIAL ASSISTANCE

Sector	Historic Change (2012-2022)		Projected Change (2022-2032)	
	Numeric Change	% Change (Annual)	Numeric Change	% Change (Annual)
Health Care and Social Assistance	104,019	2.8%	129,521	2.7%
Ambulatory Health Care Services	54,203	3.3%	64,470	2.9%
Hospitals	16,854	1.6%	24,121	1.9%
Nursing and Residential Care Facilities	16,854	1.7%	20,548	3.2%
Social Assistance	8,562	4.4%	20,382	2.6%

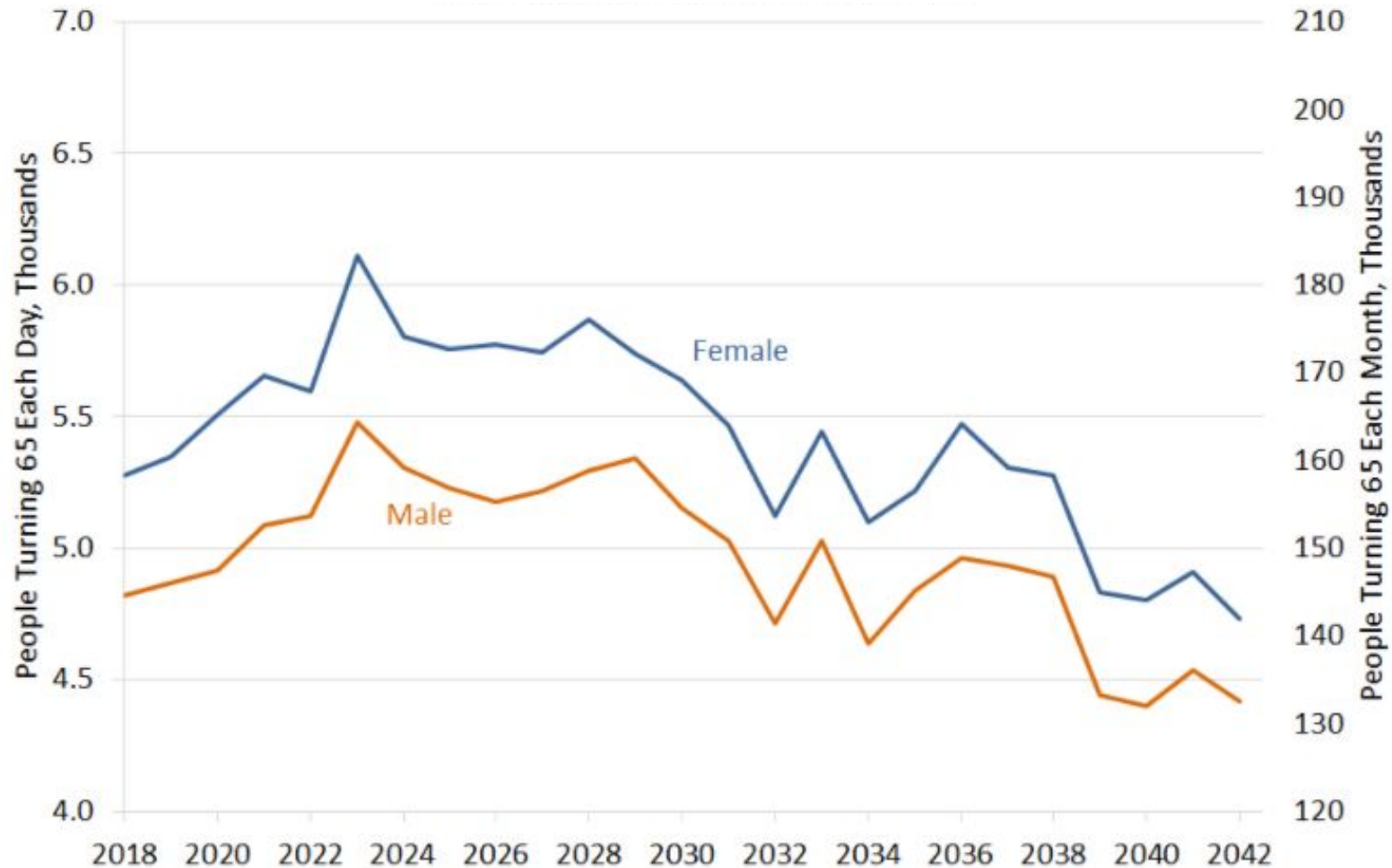
Source: Arizona Office of Economic Opportunity

Notable Changes:

Health Care employment is projected to increase by 2.7% annually from 2021-2031

- Projected growth is less than the 2012-2022 growth rate of 2.8%
- Growth will be driven, in part, by population growth and an aging population

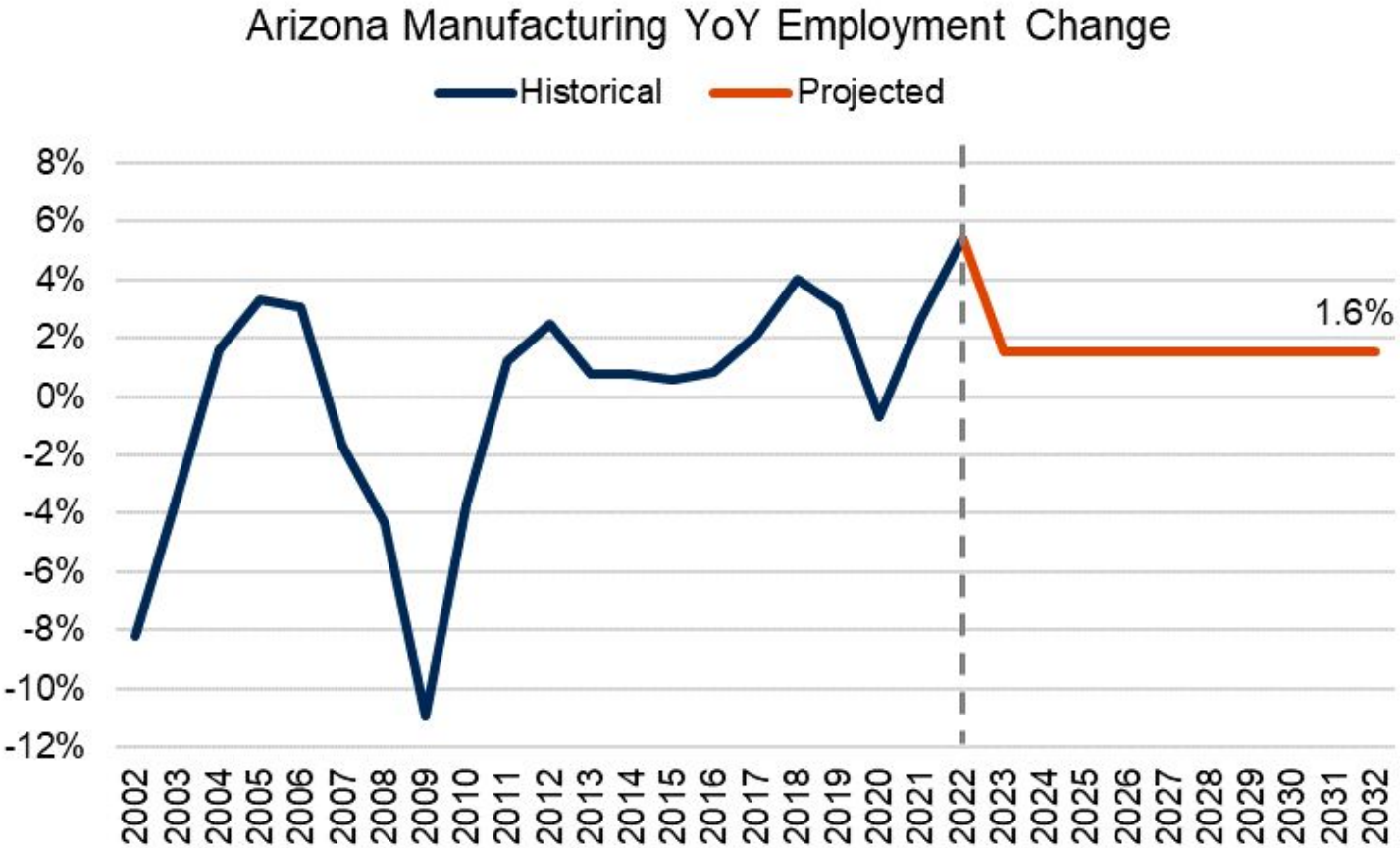
THE AGING U.S. POPULATION



Notable Changes:

- The number of people reaching retirement age is on the rise¹
- In 2023 alone, nearly 350,000 residents are expected to turn 65 each month
- Research has shown that nearly half of lifetime medical expenditures is incurred during the senior years (age 65+)²

INDUSTRY HIGHLIGHT: MANUFACTURING



Source: Arizona Office of Economic Opportunity

Notable Changes:

Manufacturing job growth is projected to continue through 2032, with the strongest growth projected in:

- Food Manufacturing (2.8% annual growth)
- Plastics and Rubber Products Manufacturing (2.8% annual growth)
- Beverage and Tobacco Product Manufacturing (2.6% annual growth)

INDUSTRY HIGHLIGHT: TRANSPORTATION AND WAREHOUSING

Sector	Historic Change (2012-2022)		Projected Change (2022-2032)	
	Numeric Change	% Change (Annual)	Numeric Change	% Change (Annual)
Transportation and Warehousing	63,812	6.4%	41,474	2.6%
Couriers and Messengers	10,952	8.4%	8,905	3.8%
Scenic and Sightseeing Transportation	139	2.7%	280	3.9%
Support Activities for Transportation	5,438	4.0%	3,431	1.9%
Truck Transportation	7,304	3.4%	7,908	2.7%
Warehousing and Storage	39,467	16.2%	20,473	3.4%

Source: Arizona Office of Economic Opportunity

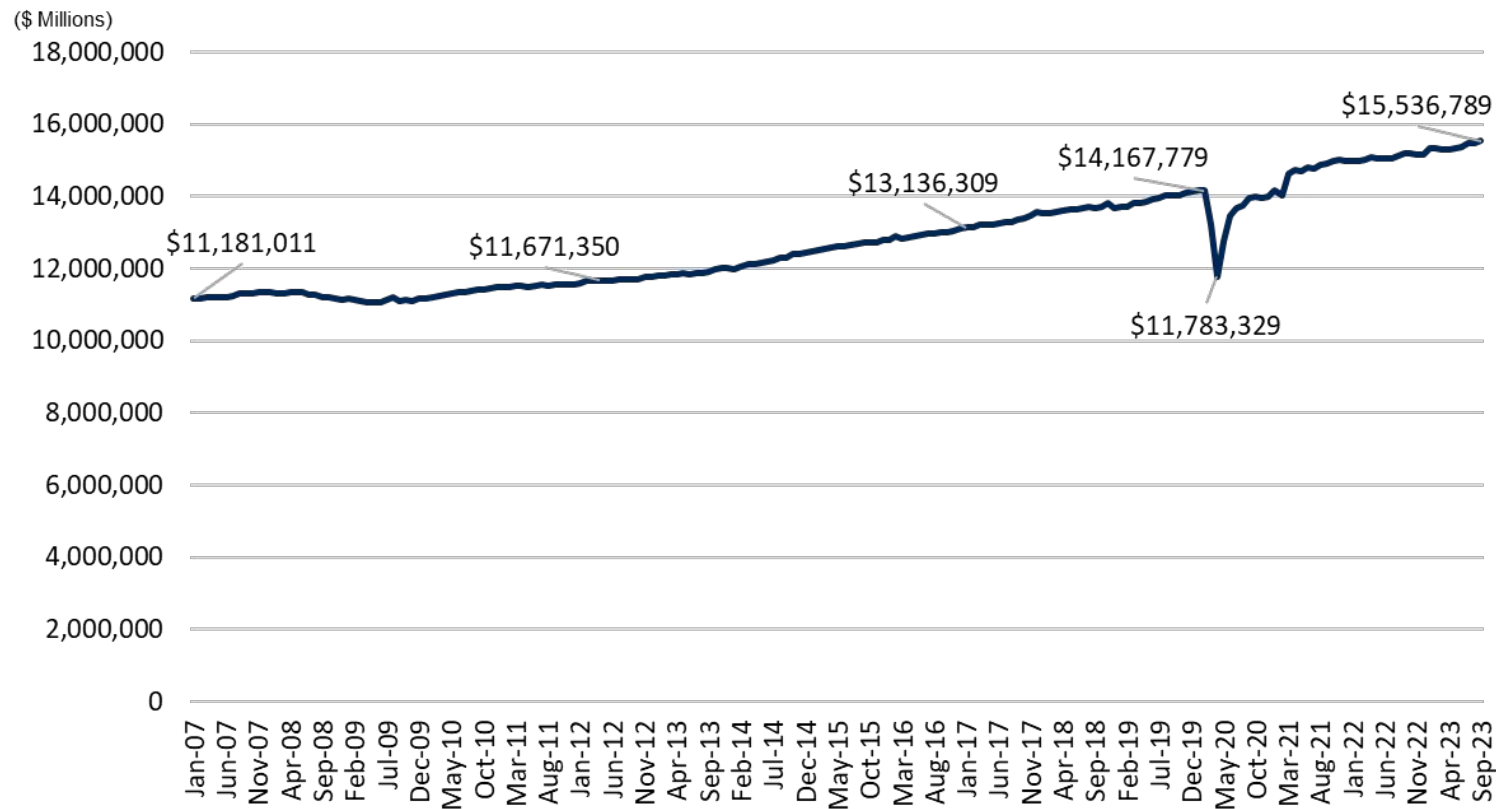
Source: Arizona Office of Economic Opportunity

Notable Changes:

Job growth in Warehousing and Storage is projected to account for the majority of job gains in Transportation and Warehousing

- Warehousing and Storage employment more than doubled over the past five years (2017-2022) and quadrupled over the past ten years (2012-2022)
- The emergence of online retail has increased the demand for warehousing and storage jobs

U.S. REAL PERSONAL CONSUMPTION EXPENDITURES (PCE)



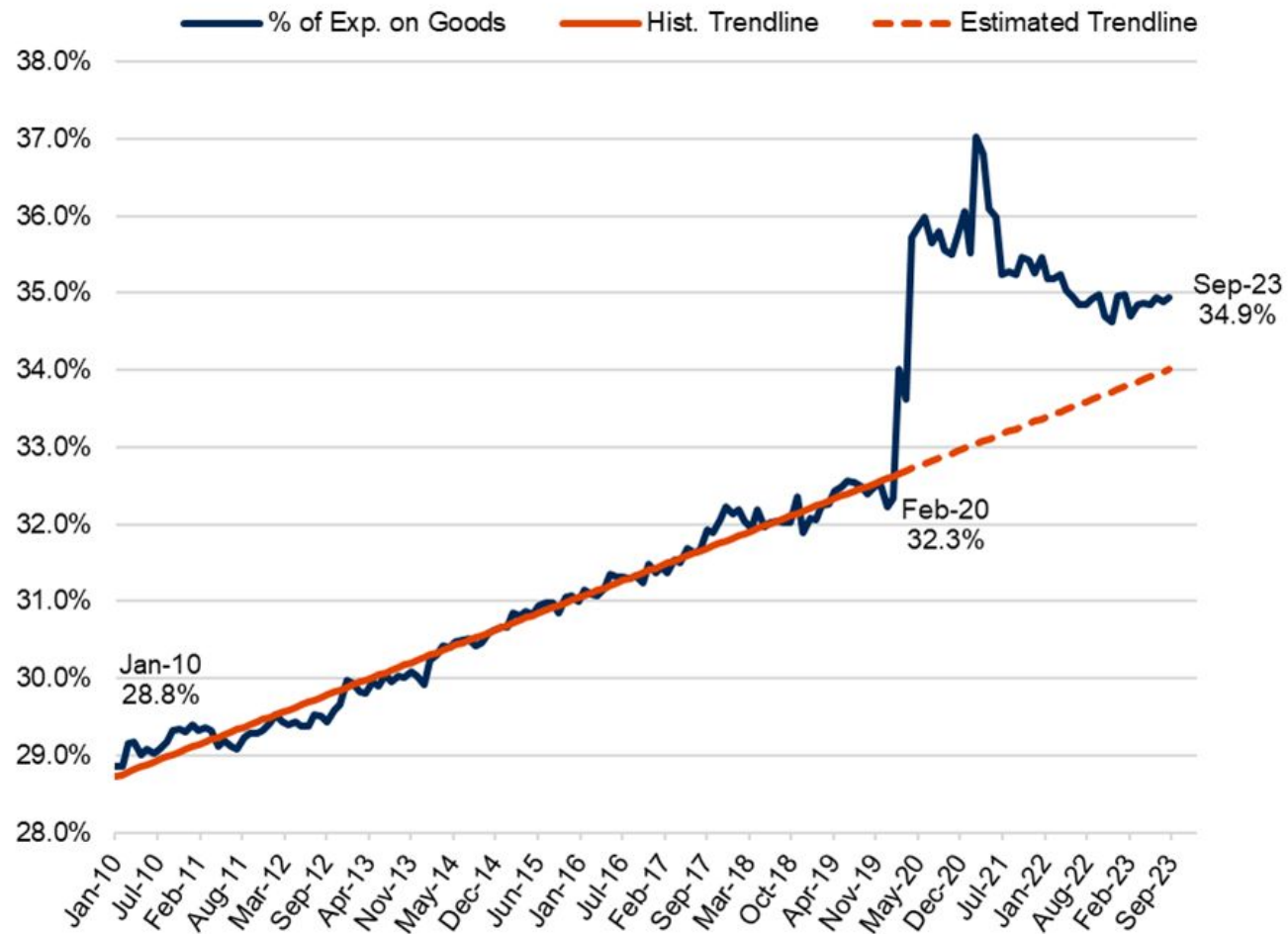
Annualized Rate, Chained 2017 Dollars
Source: Bureau of Economic Analysis

Notable Changes:

U.S. PCE recovered quickly after declining sharply in the early months of the COVID-19 pandemic

- In September 2023, PCE levels exceeded pre-pandemic levels by 9.7%
- Over the year, in September 2023, U.S. PCE increased by 2.4%

PERCENT OF U.S. PERSONAL CONSUMPTION EXPENDITURES (PCE) ON GOODS



Source: Bureau of Economic Analysis

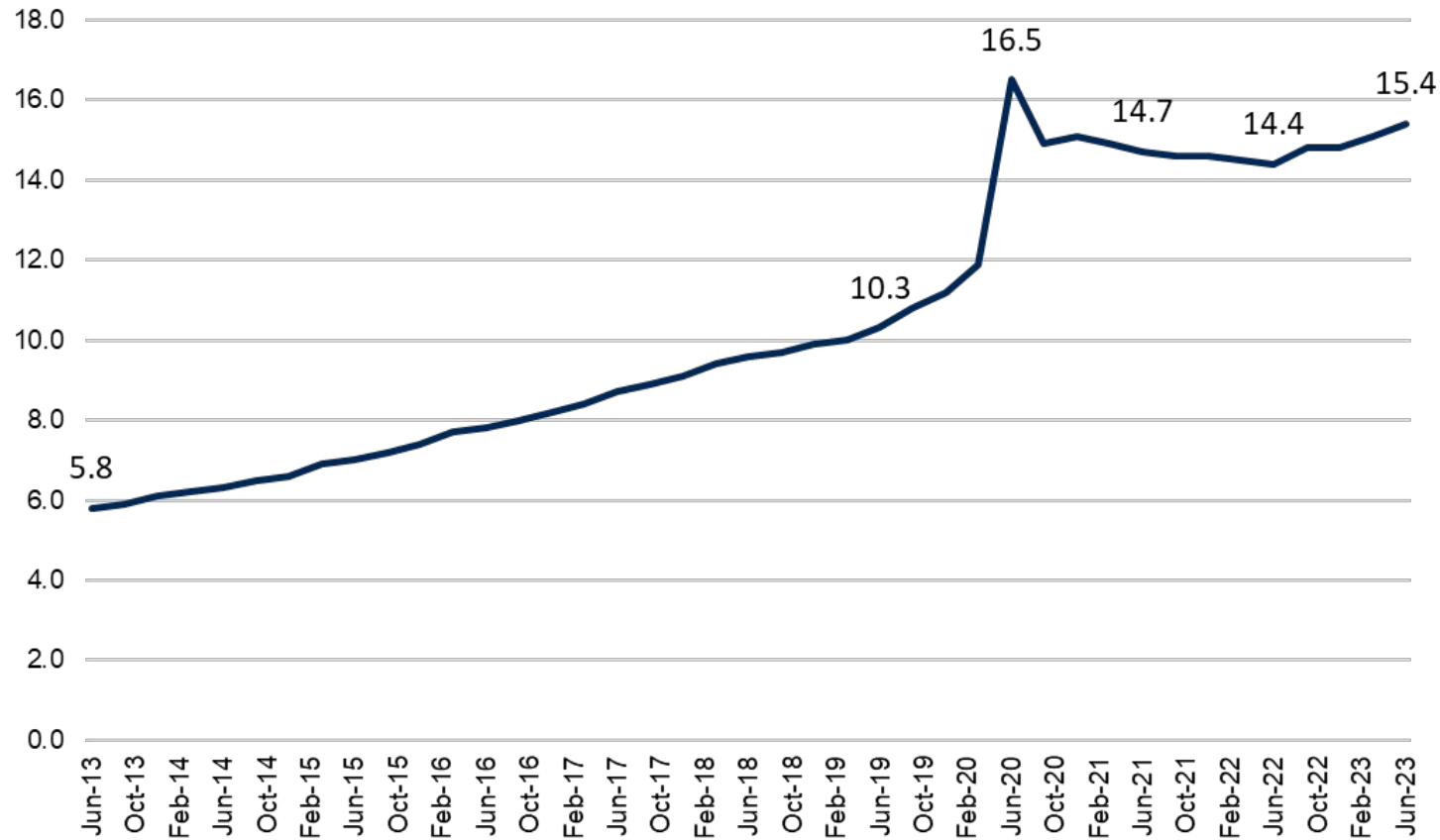
Notable Changes:

Percent of U.S. PCE on services has been increasing over the past ten years

- In September 2023, PCE on goods represented 34.9% of total PCE

QUARTERLY U.S. E-COMMERCE (ONLINE RETAIL) SALES AS A PERCENT OF QUARTERLY RETAIL SALES

Q2 2013 – Q2 2023, Seasonally Adjusted



Notable Changes:

Over the past two decades, e-commerce has accounted for an increasing percent of total retail sales

- E-commerce sales as a percent of total retail sales increased to 15.4% in Q2 2023 from 14.4% in Q2 2022

ADDITIONAL RESOURCES

Area: Industry Level: Projection Type: Short Term (2022 - 2024) Long Term (2022 - 2032)

Long Term (2022 - 2032) Arizona Industry Projections

Industry	Base Employment	Projected Employment	Total Employment Numeric Change	Total Employment Percentage Change	Annual Employment Numeric Change	Annual Employment Percentage Change
Construction	197,497	222,002	24,505	12.4%	2,451	1.2%
Education and Health Servi..	660,179	797,593	137,414	20.8%	13,741	1.9%
Financial Activities	236,884	261,980	25,096	10.6%	2,510	1.0%
Government	160,352	161,720	1,368	0.9%	137	0.1%
Information	48,664	56,557	7,893	16.2%	789	1.5%
Leisure and Hospitality	358,269	406,166	47,897	13.4%	4,790	1.3%
Manufacturing	193,062	225,460	32,398	16.8%	3,240	1.6%

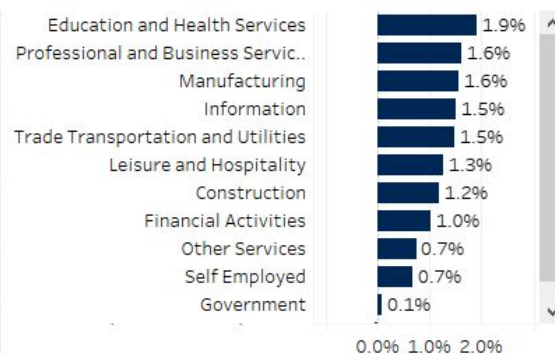
Annual Employment % Change

Industry: Actual Annual % Change Projected Annual % Change



Employment Change Long Term (2022 - 2032)

Measure Type:



[Click Here to Download Data Based on Filter Selections](#)

Interactive data tools are available on the OEO website at:

<https://www.azcommerce.com/oelabor-market/employment-projections/>

REPORT SUMMARY

- Total employment is projected to continue gaining jobs, growing by 1.4% annually from 2022 to 2032
- Nine out of ten private sector industries are projected to add jobs through 2032
- Fourteen out of fifteen Arizona counties are projected to add jobs through 2032
- Growth is projected to be led by Education and Health Services (1.9% annually), Professional and Business Services (1.6% annually), and Manufacturing (1.6% annually)
- Health care jobs will continue to grow across the state as demand for health care services is anticipated to increase



QUESTIONS?

UPCOMING RELEASES

- November 16, 2023:
October 2023 Press Release

- December 21, 2023:
November 2023 Press Release

Contact

Website: Laborstats.az.gov

Email: Laborinfo@oeo.az.gov

Phone: 602-771-2222



WORKS CITED

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