

Arizona Labor Market Information

April 6th, 2016

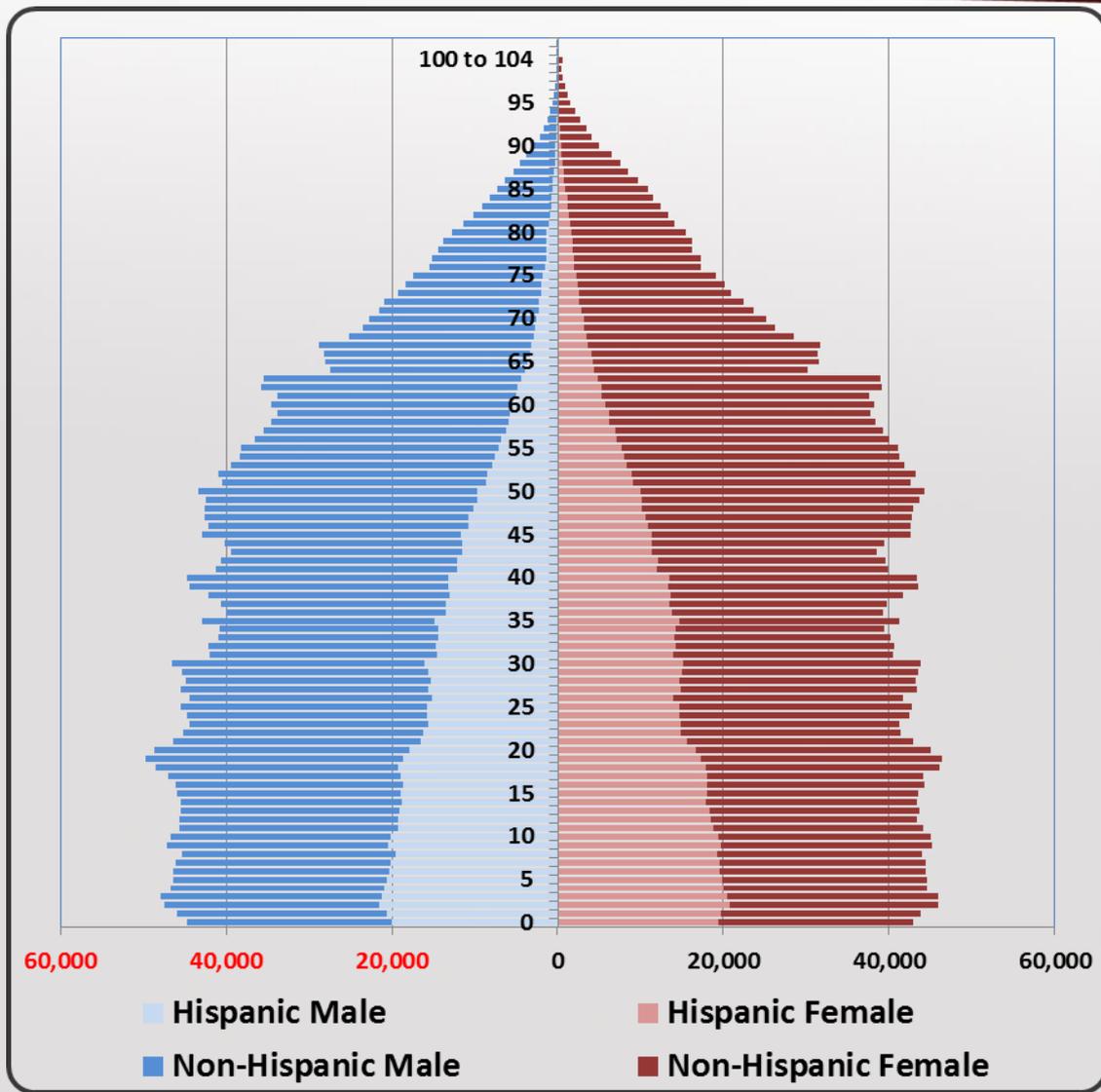
Doug Walls, Research Administrator
Arizona Department of Administration
Office of Employment and Population Statistics

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Agenda

- Demographics
- Labor Market Information (LMI)
- Recession Recovery
- February 2016 Employment Highlights
- How to Use LMI
- Organization & Contact Information
- Questions

Demographics



Arizona

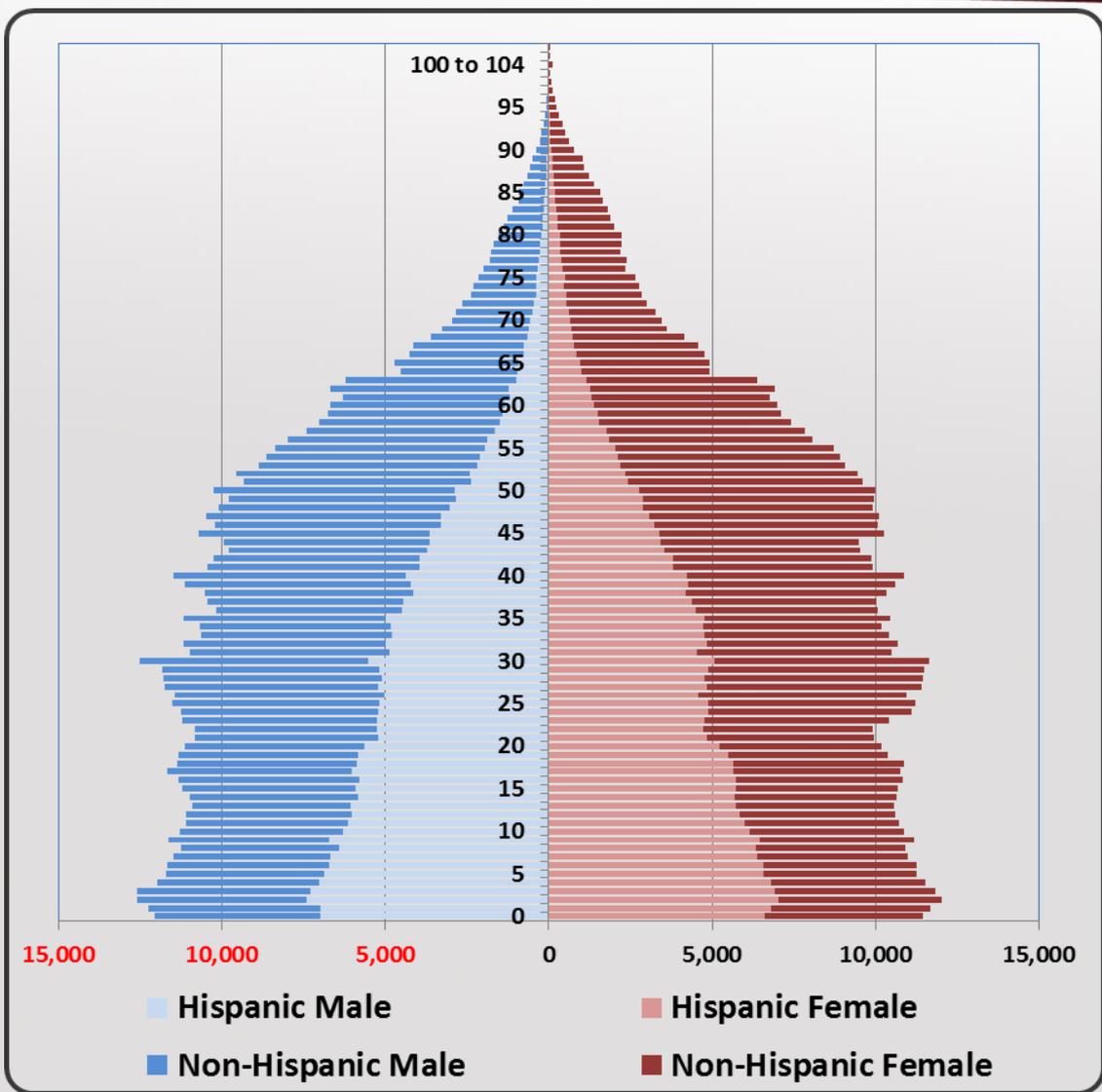
Census 2010

Total Population 6,392,017

Hispanic	1,895,228	29.6%
Male	951,818	14.9%
Female	943,410	14.8%

Non-Hispanic	4,497,621	70.4%
Male	2,224,188	34.8%
Female	2,273,433	35.6%

Under 17	1,537,878	24.1%
Age 17-24	724,347	11.3%
Age 25-34	856,693	13.4%
Age 35-44	822,494	12.9%
Age 45-54	842,546	13.2%
Age 55-64	726,228	11.4%
Over 64	881,831	13.8%

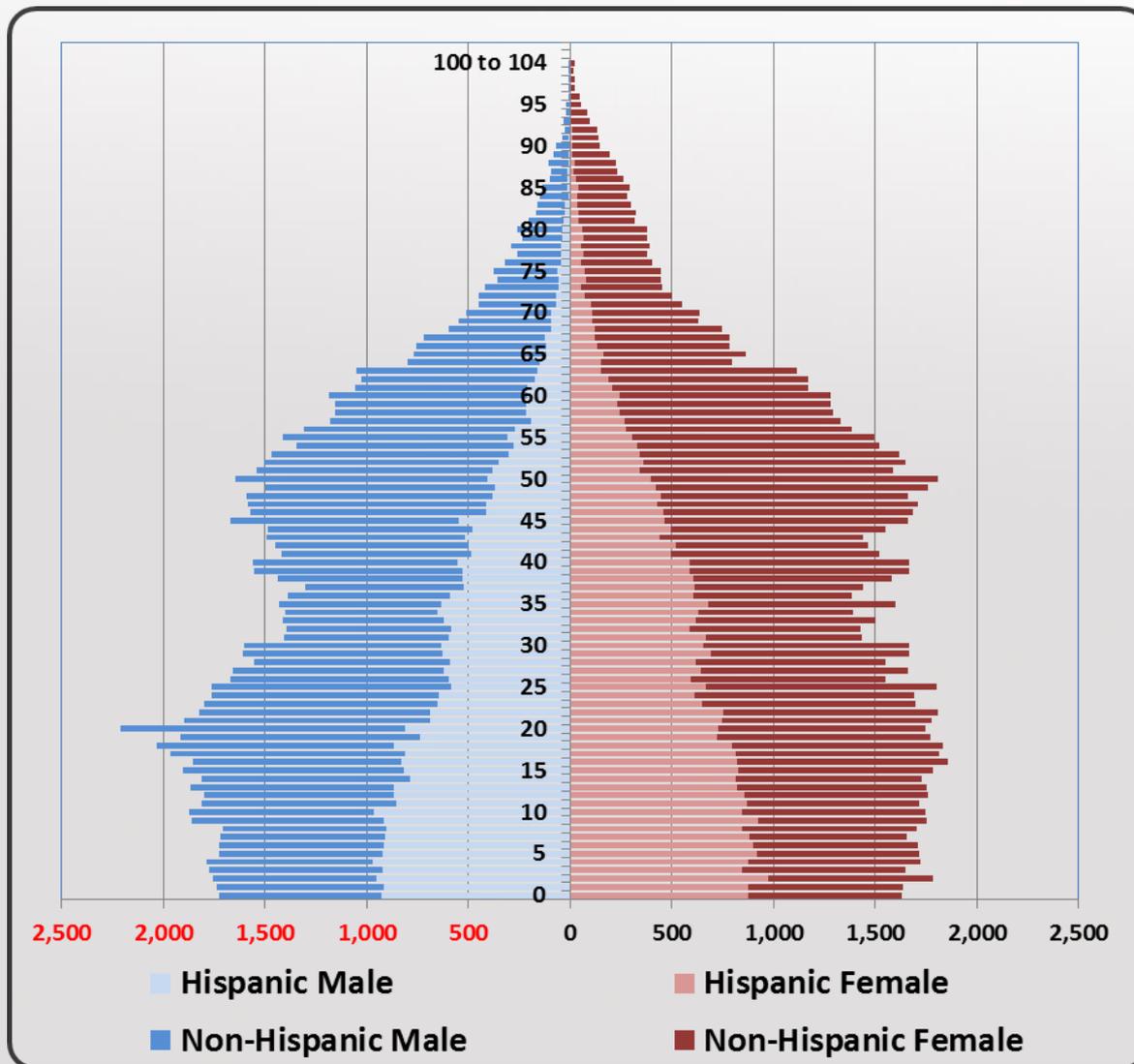


City of Phoenix

Census 2010

Total Population 1,445,632

Hispanic	589,877	40.8%
Male	298,982	20.7%
Female	290,895	20.1%
Non-Hispanic	855,755	59.2%
Male	426,038	29.5%
Female	429,717	29.7%
Under 17	385,922	26.7%
Age 17-24	173,090	12.0%
Age 25-34	224,128	15.5%
Age 35-44	206,387	14.3%
Age 45-54	195,144	13.5%
Age 55-64	139,018	9.6%
Over 64	121,943	8.4%



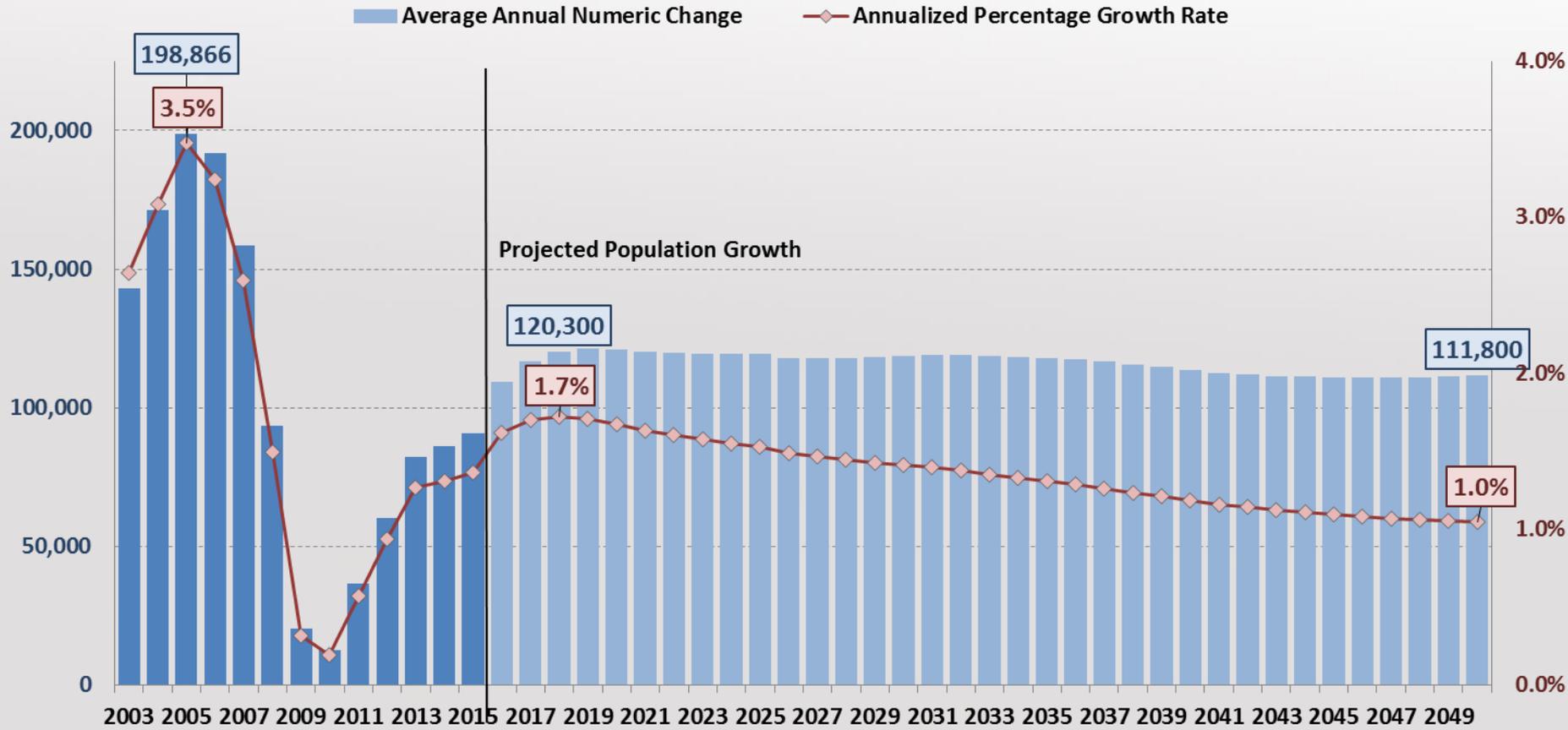
City of Glendale

Census 2010

Total Population 226,721

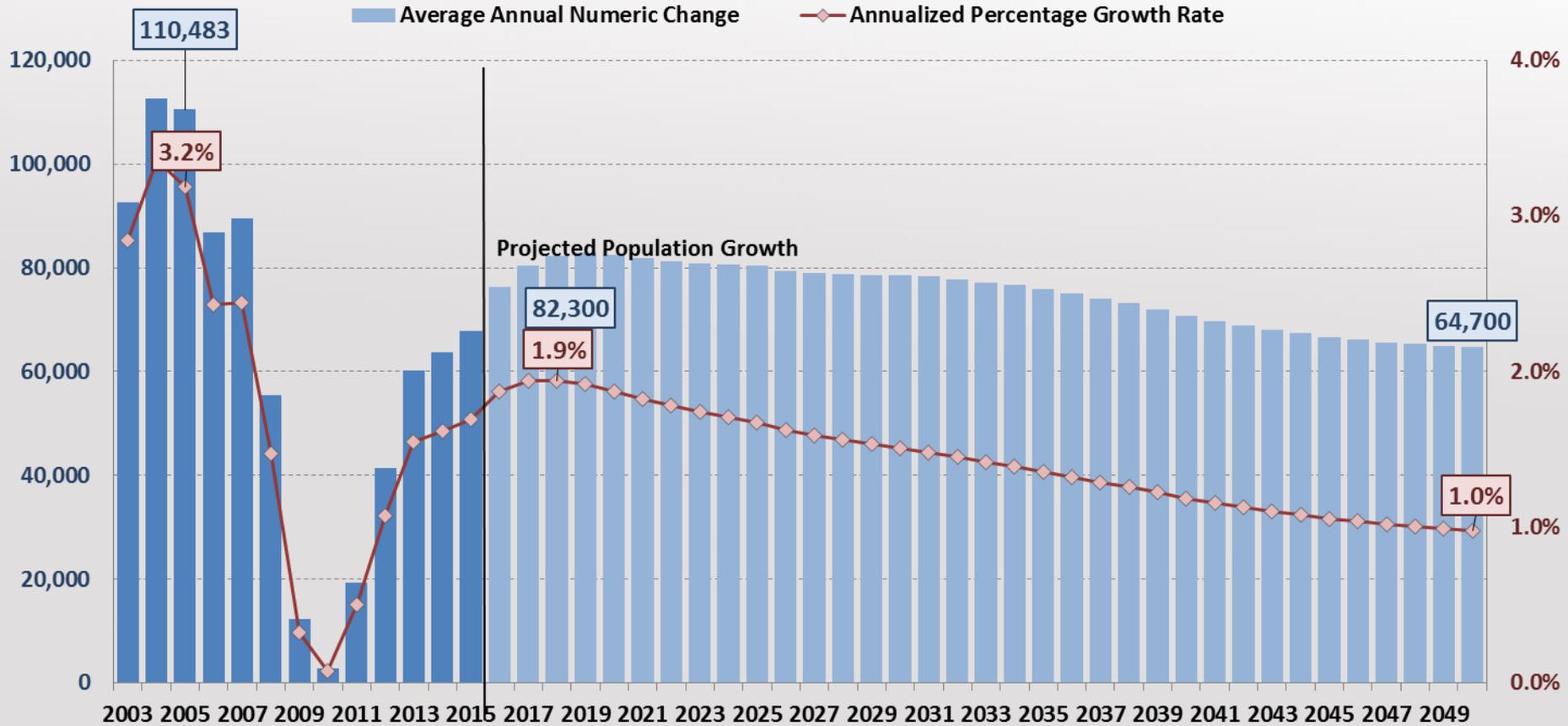
Hispanic	80,501	35.5%
Male	39,953	17.6%
Female	40,548	17.9%
Non-Hispanic	146,220	64.5%
Male	71,434	31.5%
Female	74,786	33.0%
Under 17	59,731	26.3%
Age 17-24	29,547	13.0%
Age 25-34	31,129	13.7%
Age 35-44	29,828	13.2%
Age 45-54	32,080	14.1%
Age 55-64	23,646	10.4%
Over 64	20,760	9.2%

Arizona's Population Growth and Growth Rates



Prepared by ADOA, Office of Employment and Population Statistics in cooperation with the U.S. Census Bureau

Maricopa County's Population Growth and Growth Rates



Prepared by ADOA, Office of Employment and Population Statistics in cooperation with the U.S. Census Bureau

AZ and U.S. Quick Facts

2014

	Arizona	U.S.
Median Household Income	\$49,928	\$53,482
Median Age	36.5	37.4
Individuals with a Disability Between 18-64	9.9%	10.2%
Veterans	514,290	20,700,711
Poverty Status	18.2%	15.6%
Mean Travel Time to Work (Minutes)	24.7	25.7
Civilian Labor Force	3,059,049	157,940,014
Population over 16	5,121,781	248,775,628

Source: Produced by the Arizona Office of Employment and Population Statistics using 2014 ACS 5-Year Estimates (DP03) in cooperation with the U.S. Census Bureau

Labor Market Information

Labor Market Information

How Occupations & Industries are Defined & Organized

- Occupation (describes what a worker does)
 - Standard Occupation Classification (SOC)
 - Six digit occupation code (O*NET has eight)
 - **The more digits, the more detail (hierarchal)**
- Industry (describes what the business does)
 - North American Industry Classification System (NAICS)
 - Six digit industry code
 - **The more digits, the more detail (hierarchal)**

Labor Market Information

SOC CLASSIFICATION LEVELS

Broad categories lead to unique 6-digit codes for each occupation:

22 Major groups ; divided into...

98 Minor groups; divided into...

450 Broad occupations; divided into...

800+ Detailed occupations

Labor Market Information

SOC STRUCTURE EXAMPLE

Major Group: 15-0000 Computer and Mathematical Occupations

Minor Group: 15-1000 Computer Occupations

Broad Occupation: 15-1130 Software Developers and Programmers

Detailed Occupation: 15-1132 Software Developers, Applications

Labor Market Information

NAICS CLASSIFICATION LEVELS

Broad categories lead to unique 6-digit codes for each occupation:

11 Super sectors; divided into...

20 Major sectors ; divided into...

99 Subsector; divided into...

312 Industry Groups; divided into...

713 Industries; divided into...

1,064+ National Industries

Labor Market Information

NAICS STRUCTURE EXAMPLE

Sector: [54](#) Professional and Business Services

Sub-Sector: [541](#) Professional, Scientific and
Technical Services

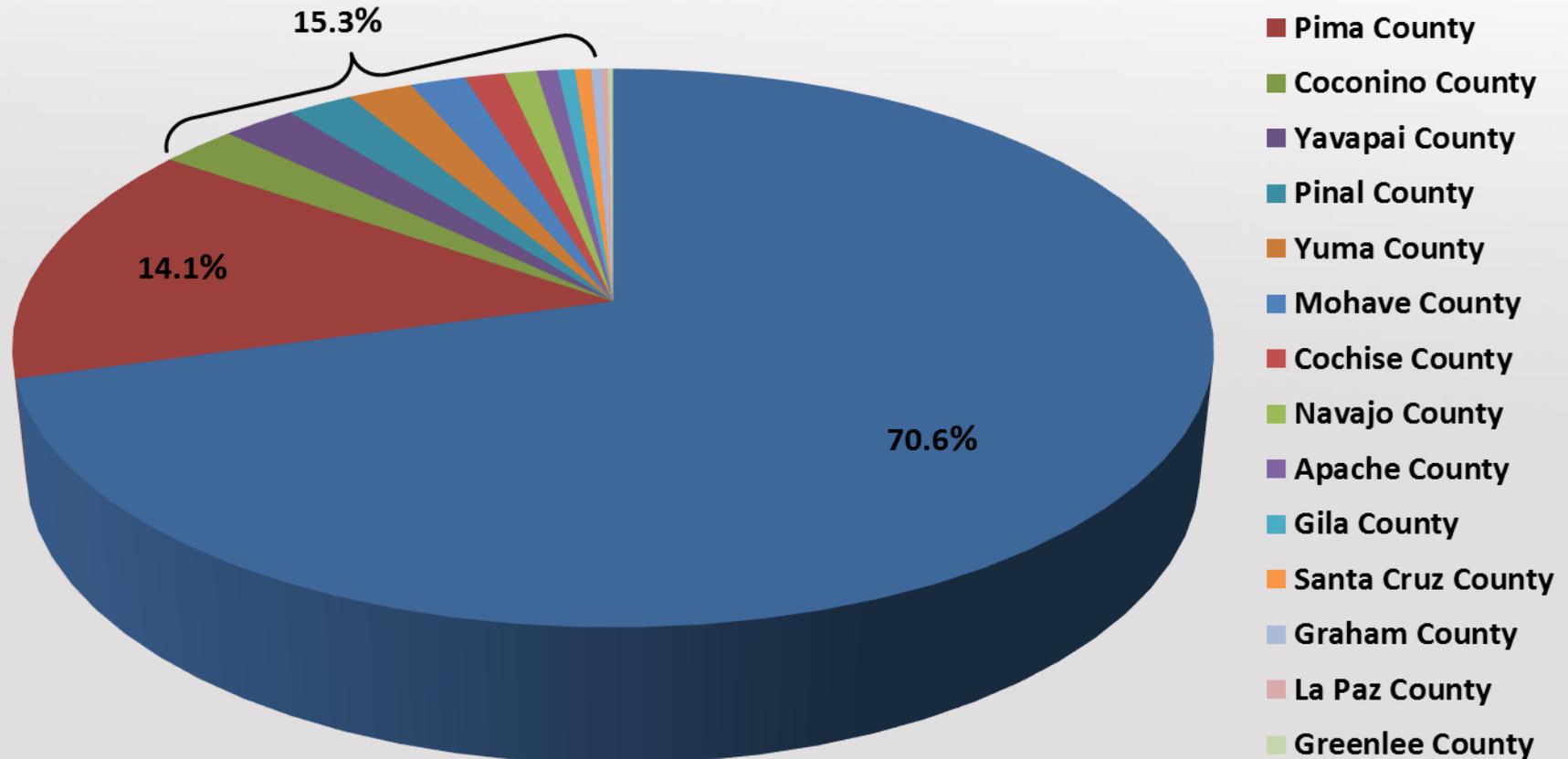
Industry Group: [5417](#) Scientific Research and
Development Services

NAICS Industry: [54171](#) Research and
Development in the Physical Engineering and
Life Sciences

National Industry: [541711](#) Research and
Development in Biotechnology

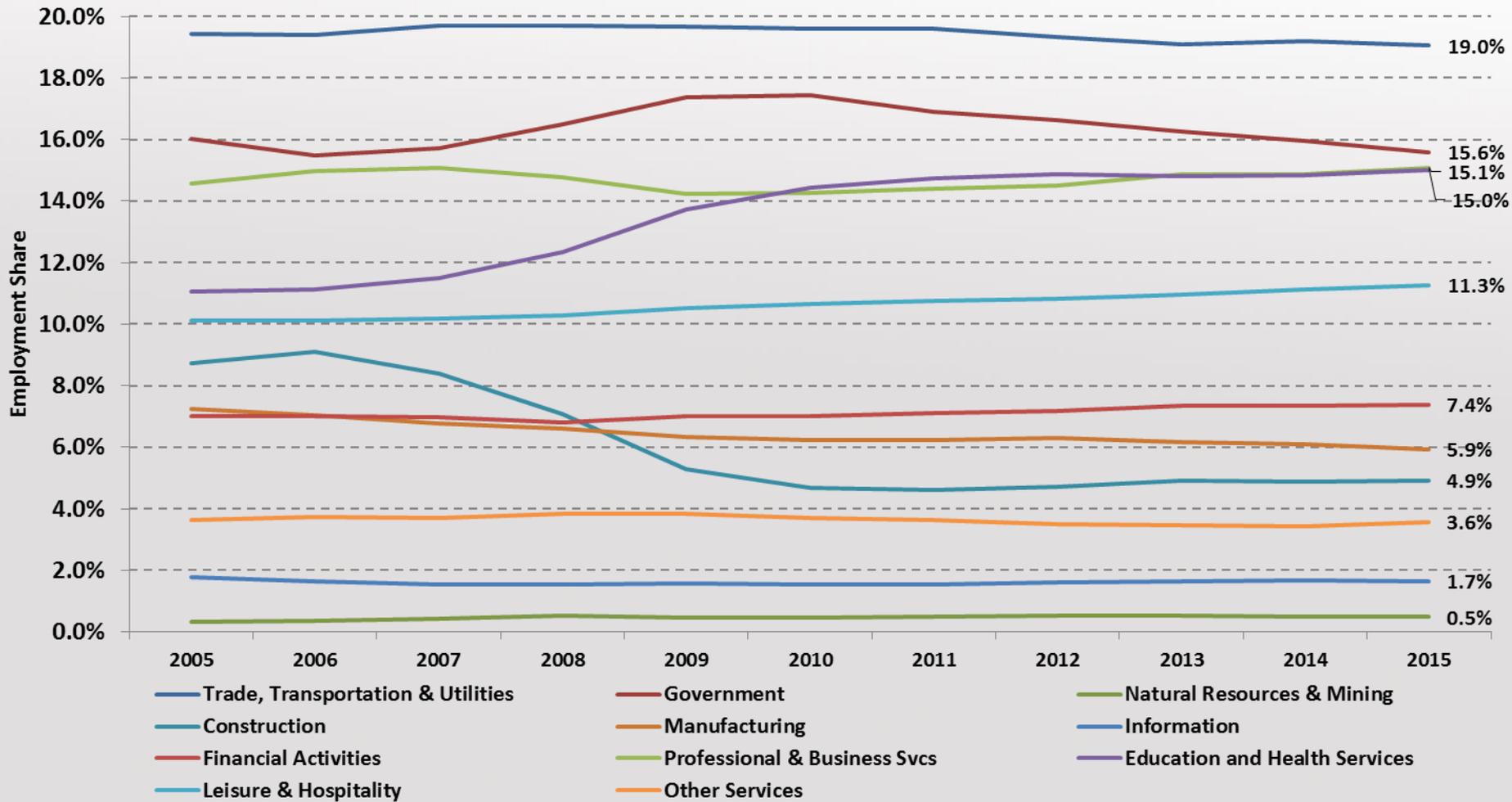
Arizona County Employment Share

February 2016



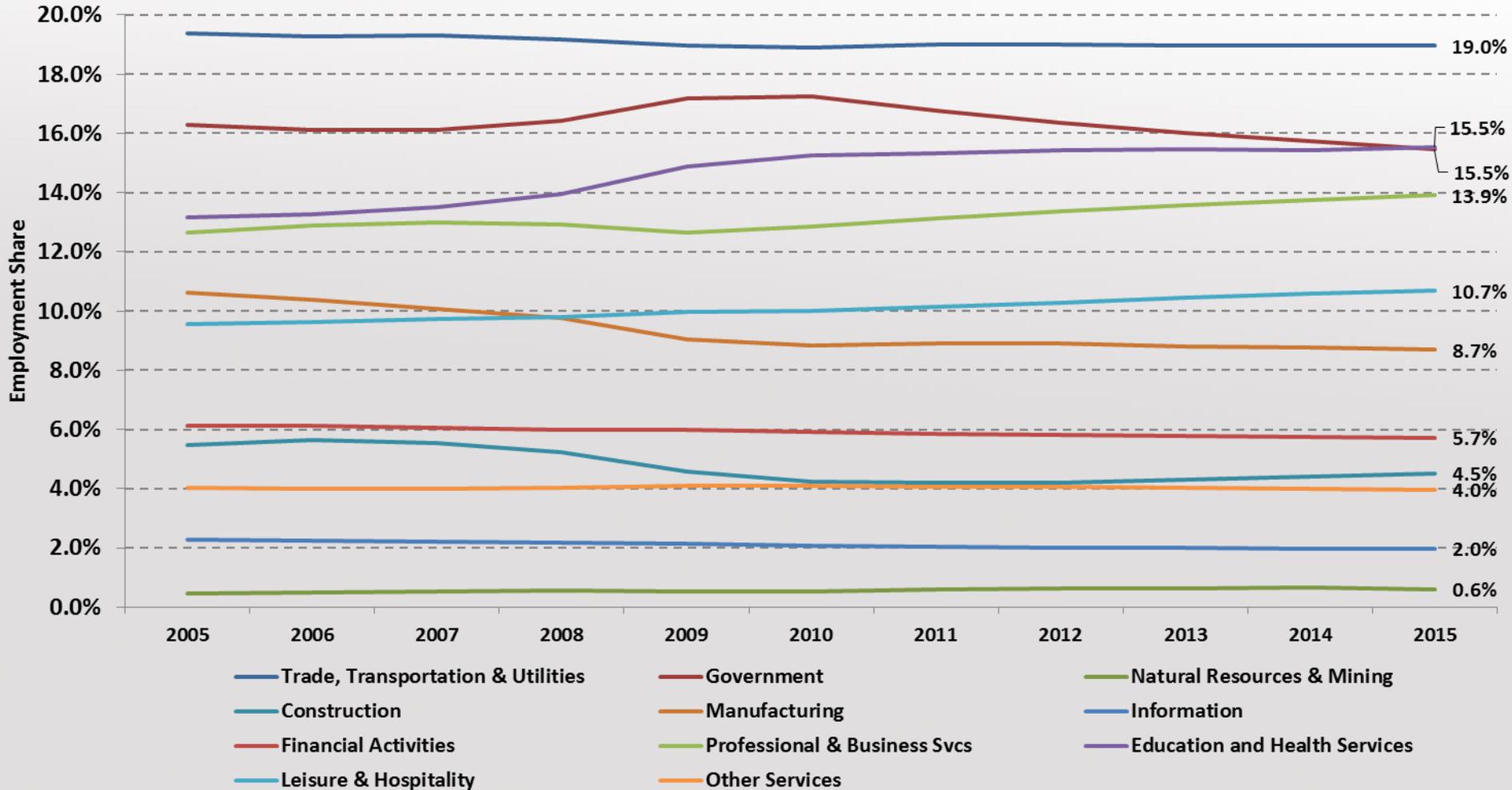
Source: Produced by the Arizona Office of Employment and Population Statistics using CES data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Arizona Total Nonfarm Share by Sector



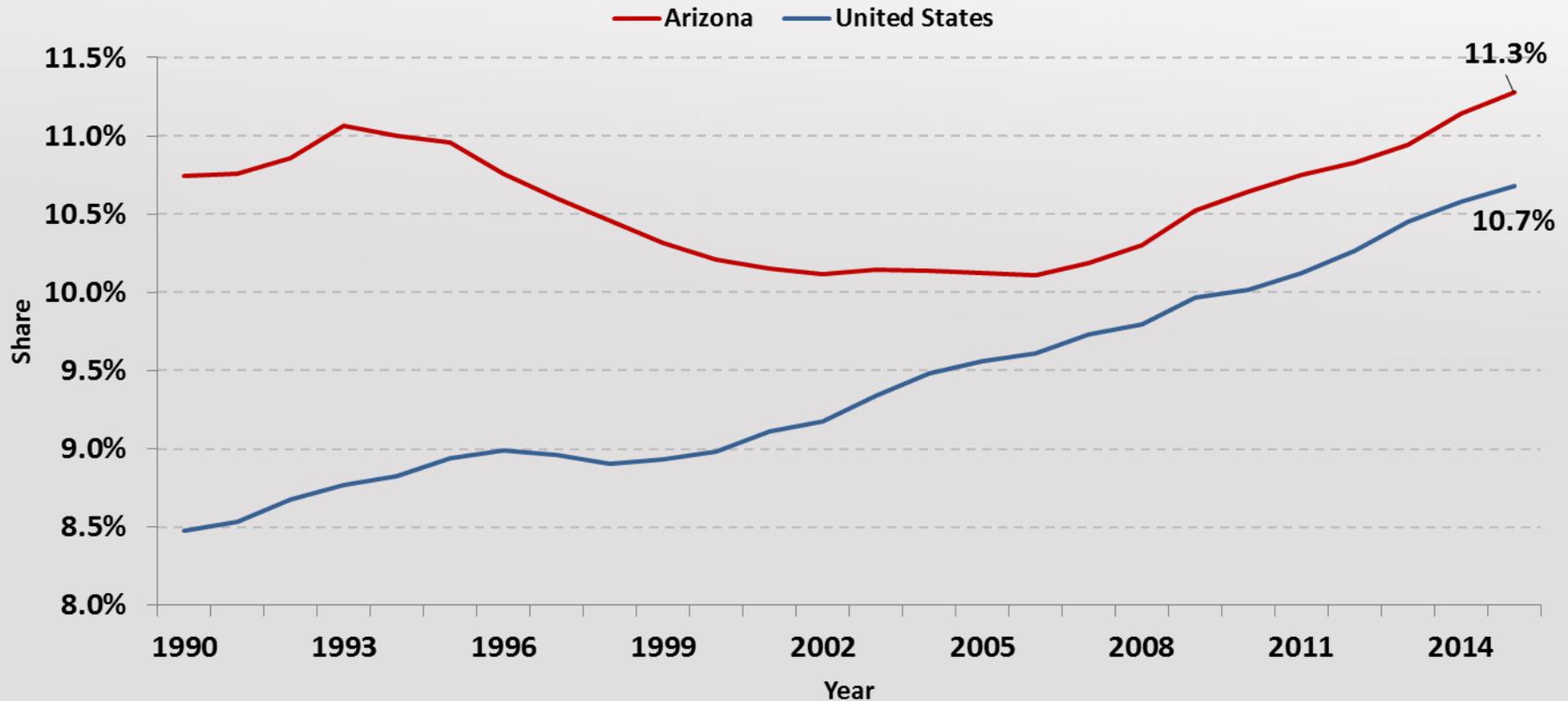
Source: Produced by the Arizona Office of Employment and Population Statistics using CES data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

US Total Nonfarm Share by Sector



Source: Produced by the Arizona Office of Employment and Population Statistics using CES data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

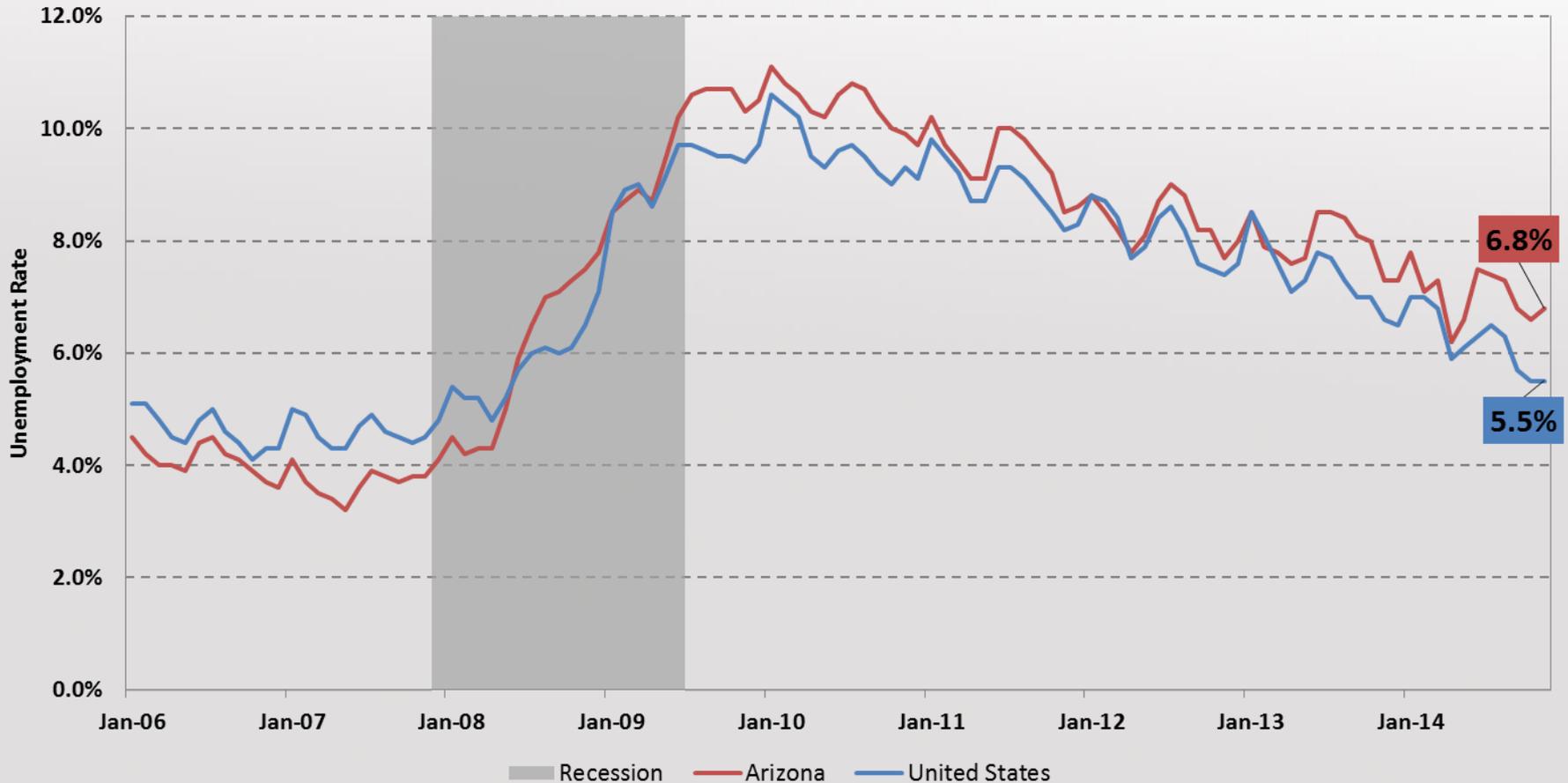
Leisure and Hospitality Employment Share of Nonfarm Employment CES Annual Average



Source: Produced by the Arizona Office of Employment and Population Statistics using CES data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Unemployment Rate

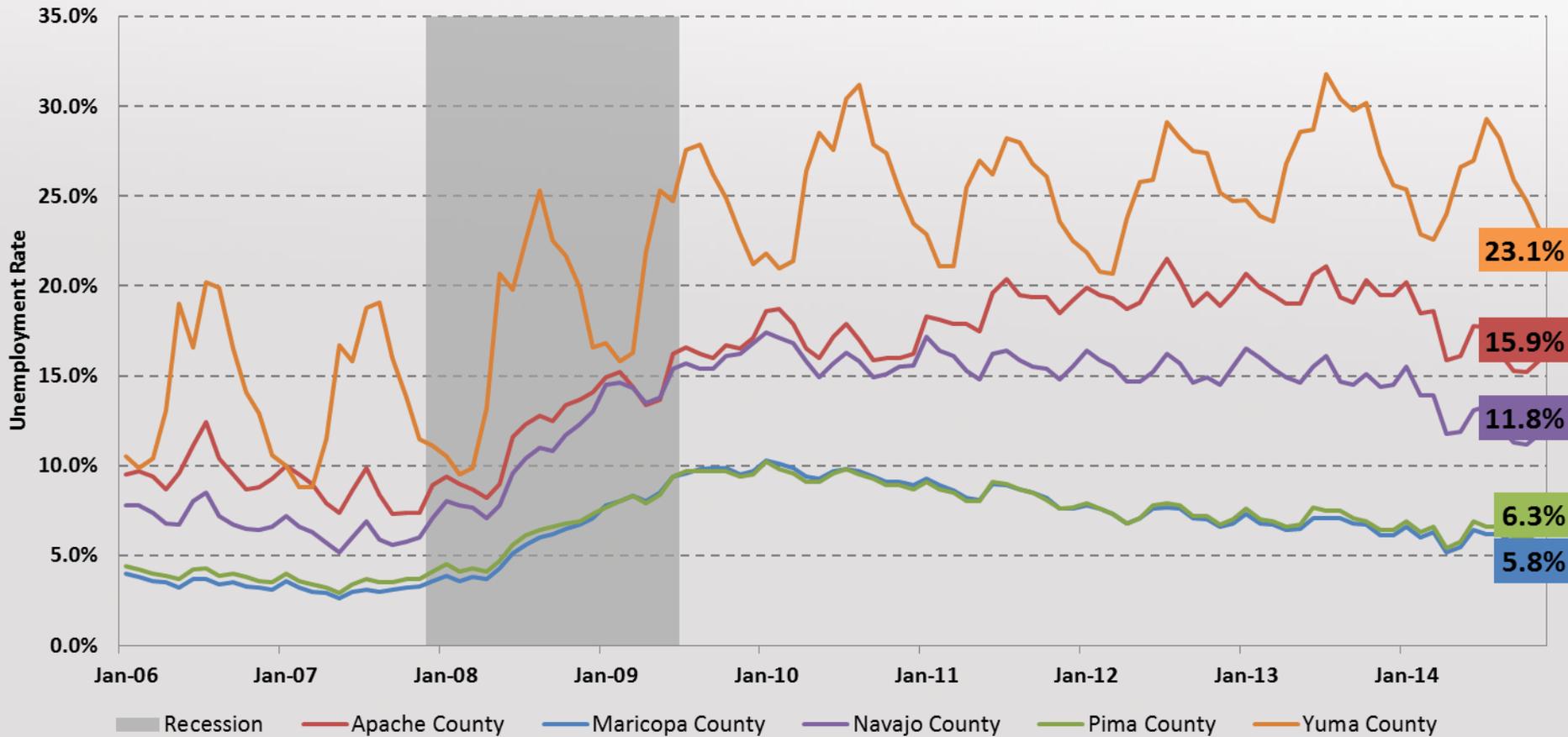
Not Seasonally Adjusted



Source: Produced by the Arizona Office of Employment and Population Statistics using LAUS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Unemployment Rate

Not Seasonally Adjusted

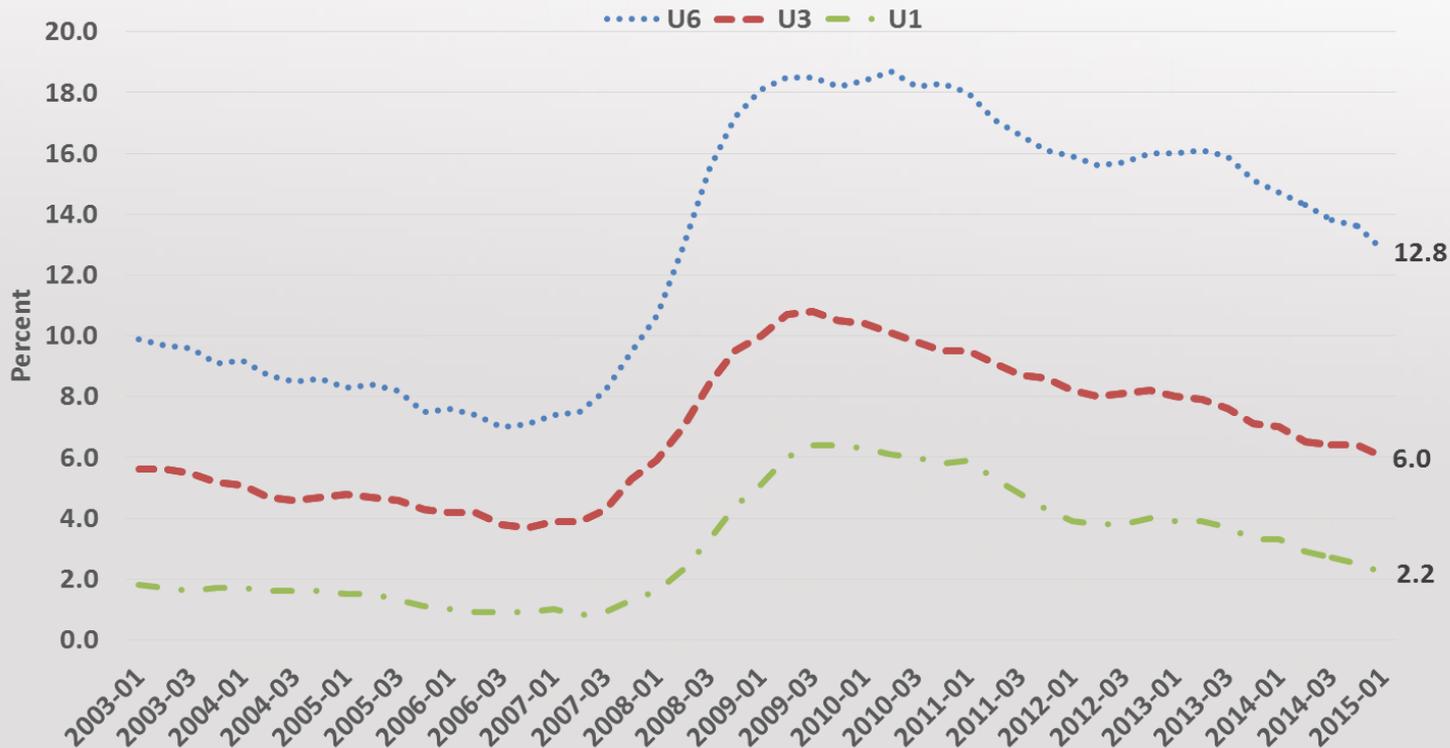


Source: Produced by the Arizona Office of Employment and Population Statistics using LAUS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Alternative Measures of Labor Underutilization

- **U1:** Persons unemployed 15 weeks or longer, as a percent of the civilian labor force
- **U2:** Job losers and persons who completed temporary jobs , as a percent of the civilian labor force
- **U3:** Total unemployed, as a percent of the civilian labor force (official unemployment rate)
- **U4:** U3 + discouraged workers (have given a job-market related reason for not currently looking for work), as a percent of the civilian labor force plus discouraged workers
- **U5:** U4 + all other marginally attached workers (indicate that they want and are available for a job and have looked for work sometime in the past 12 months), as a percent of the civilian labor force plus all persons marginally attached to the labor force
- **U6:** U5 + employed part time for economic reasons, as a percent of the civilian labor force plus all persons marginally attached to labor force

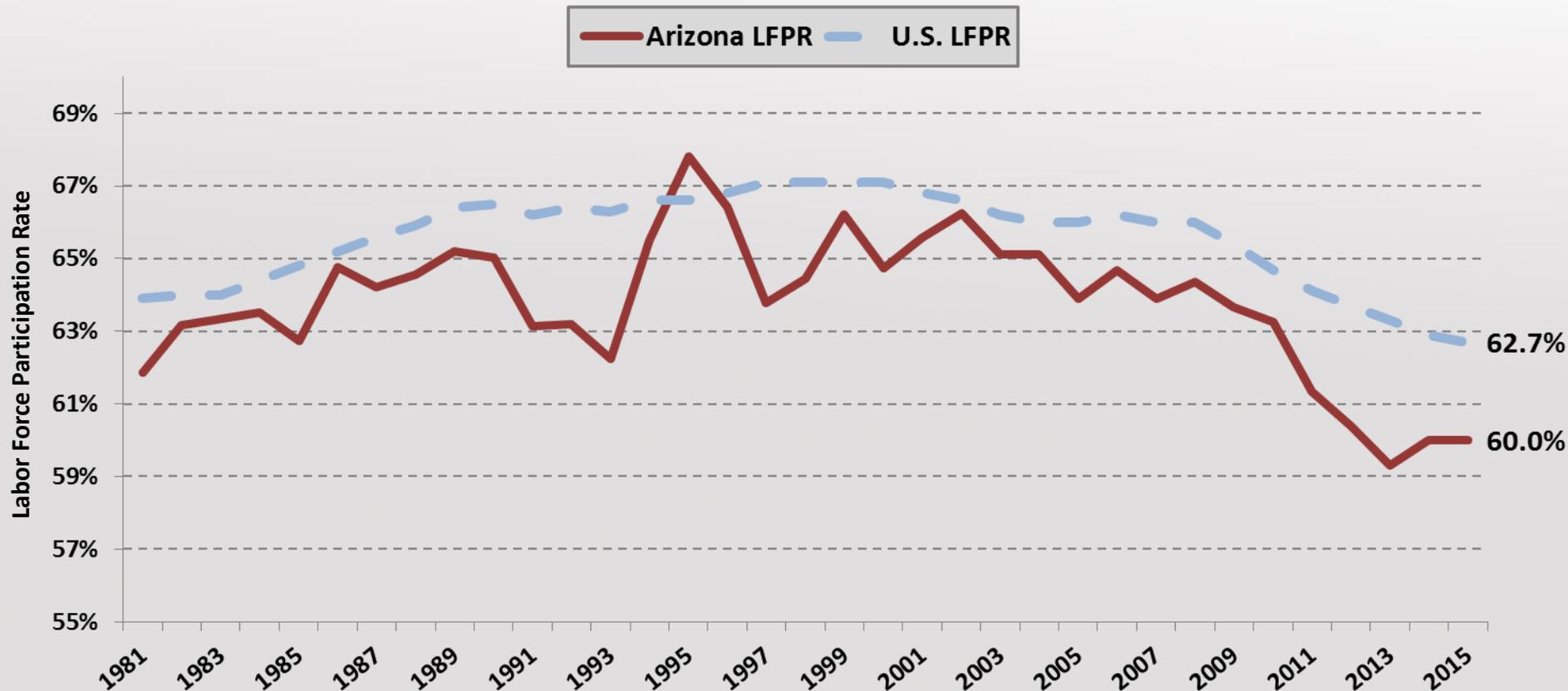
Alternative Measures of Labor Underutilization Arizona Quarterly Averages



- U-1:** Persons unemployed 15 weeks or longer
- U-2:** Job losers and persons who completed temporary jobs
- U-3:** Includes all jobless persons who are available to take a job and have actively sought work in the past 4 weeks
- U-4:** Adds discouraged workers
- U-5:** Adds all other persons marginally attached to the labor force
- U-6:** Adds workers employed part time for economic reasons

Source: U.S. Dept. of Labor Bureau of Labor Statistics

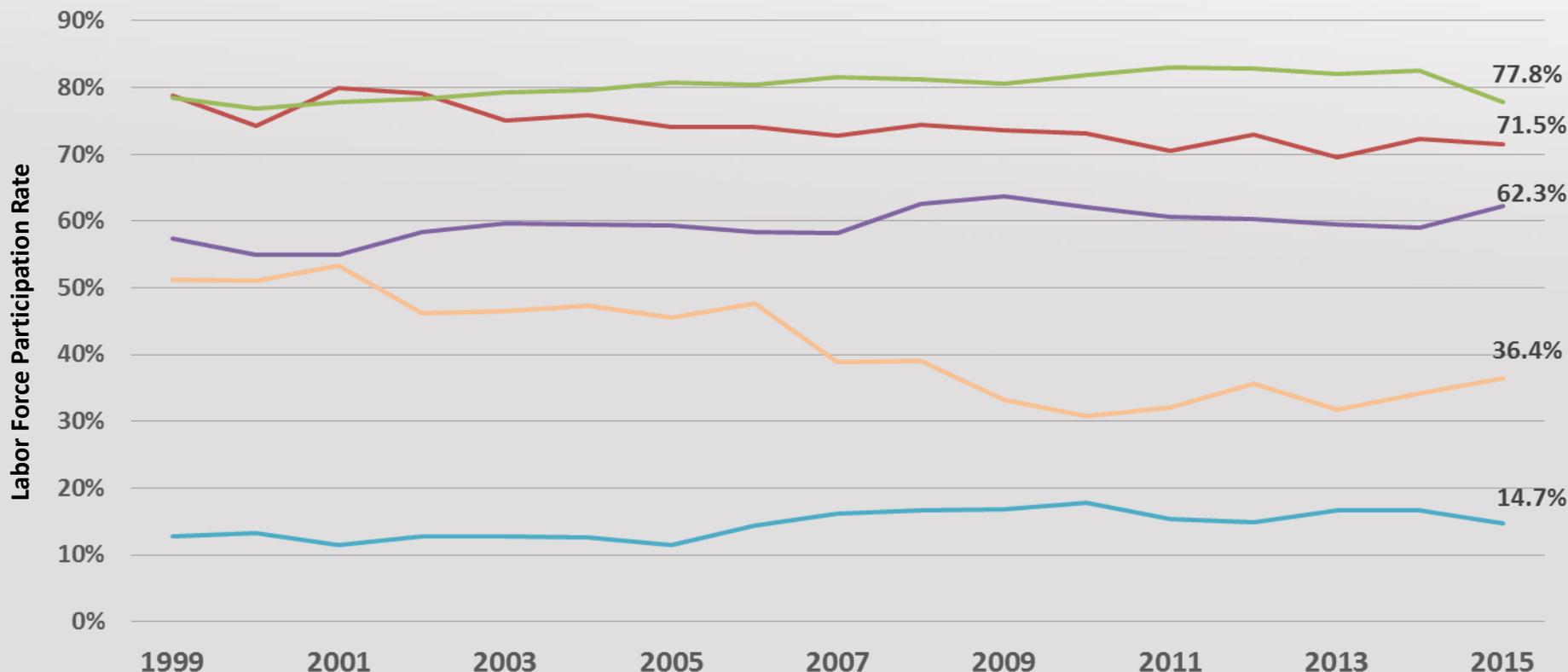
Labor Force Participation Rate 1981-2015



Source: Produced by the Arizona Office of Employment and Population Statistics using GPS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

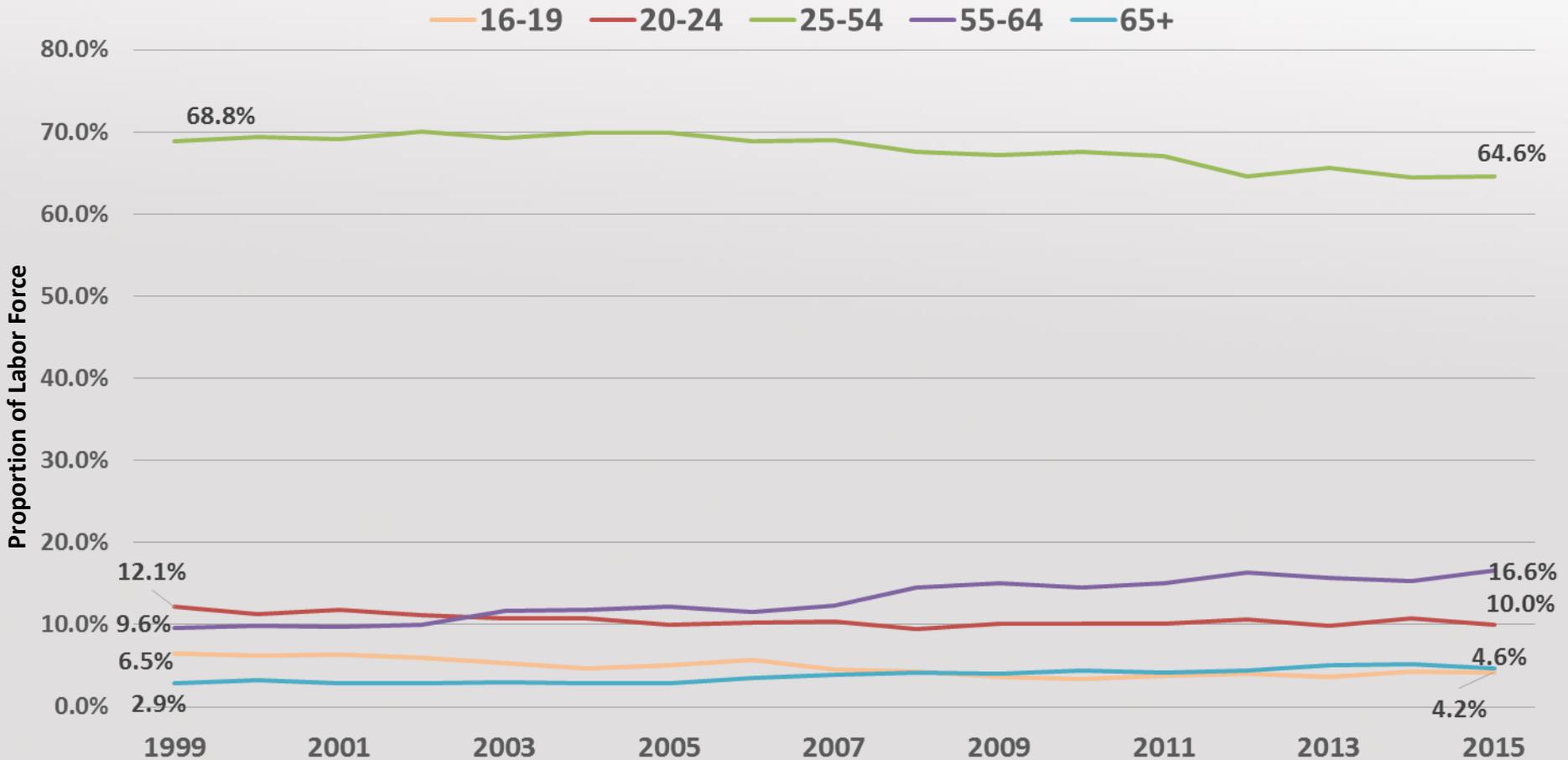
Labor Force Participation Rate by Age Group Arizona Annual Averages

16-19 20-24 25-54 55-64 65+



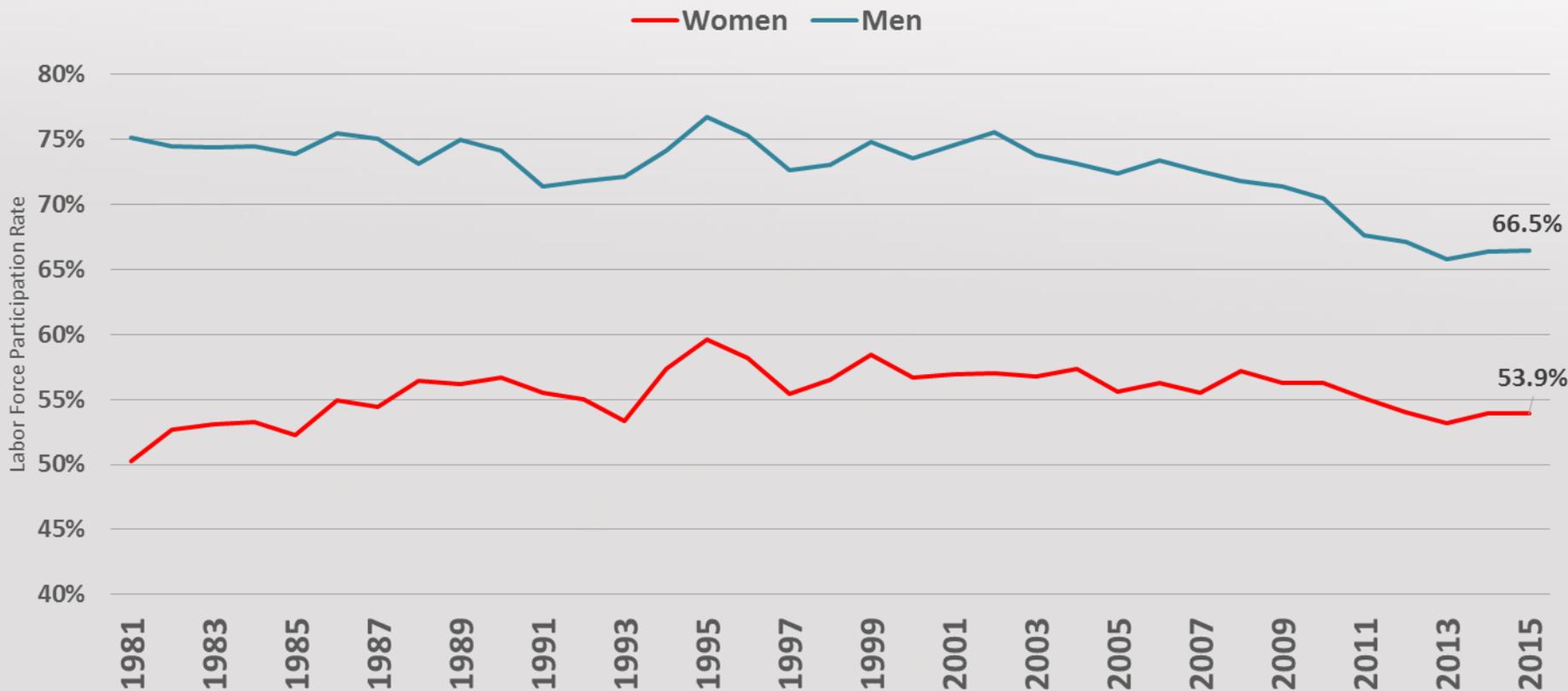
Source: Produced by the Arizona Office of Employment and Population Statistics using GPS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Total Labor Force Proportions by Age Group Over Time Arizona Annual Averages



Source: Produced by the Arizona Office of Employment and Population Statistics using GPS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

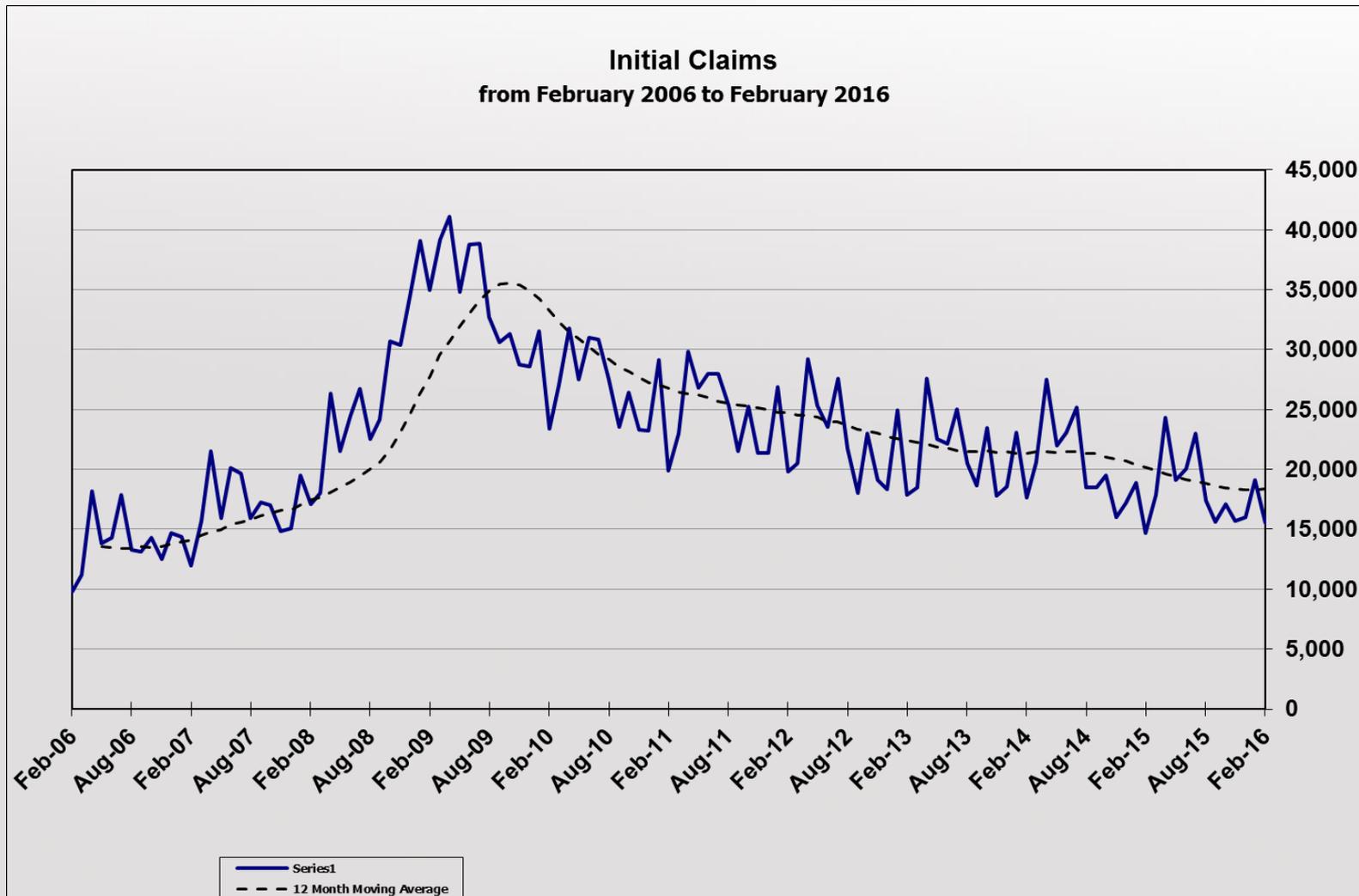
Labor Force Participation Rates by Sex Arizona Annual Averages



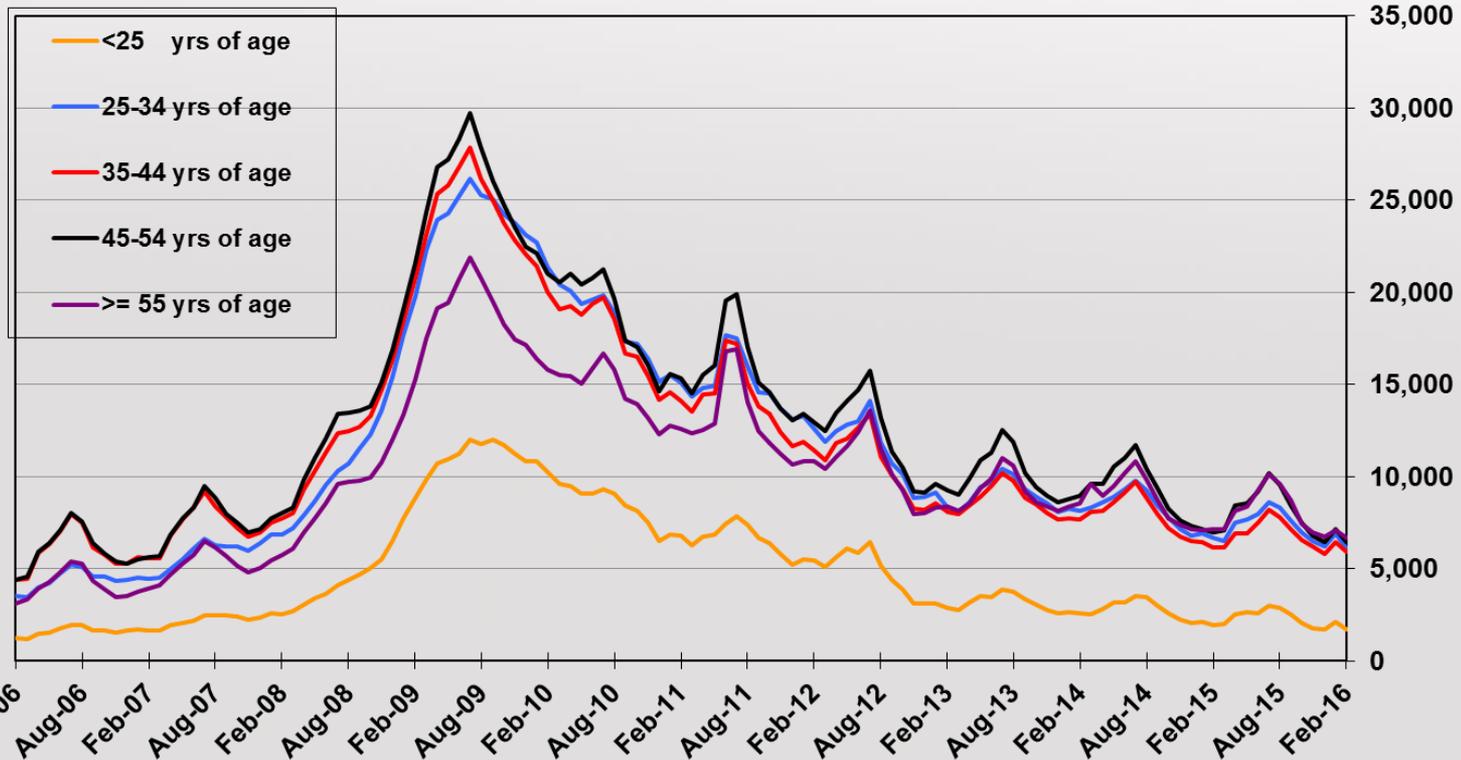
Source: Produced by the Arizona Office of Employment and Population Statistics using GPS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Monthly UI Claims

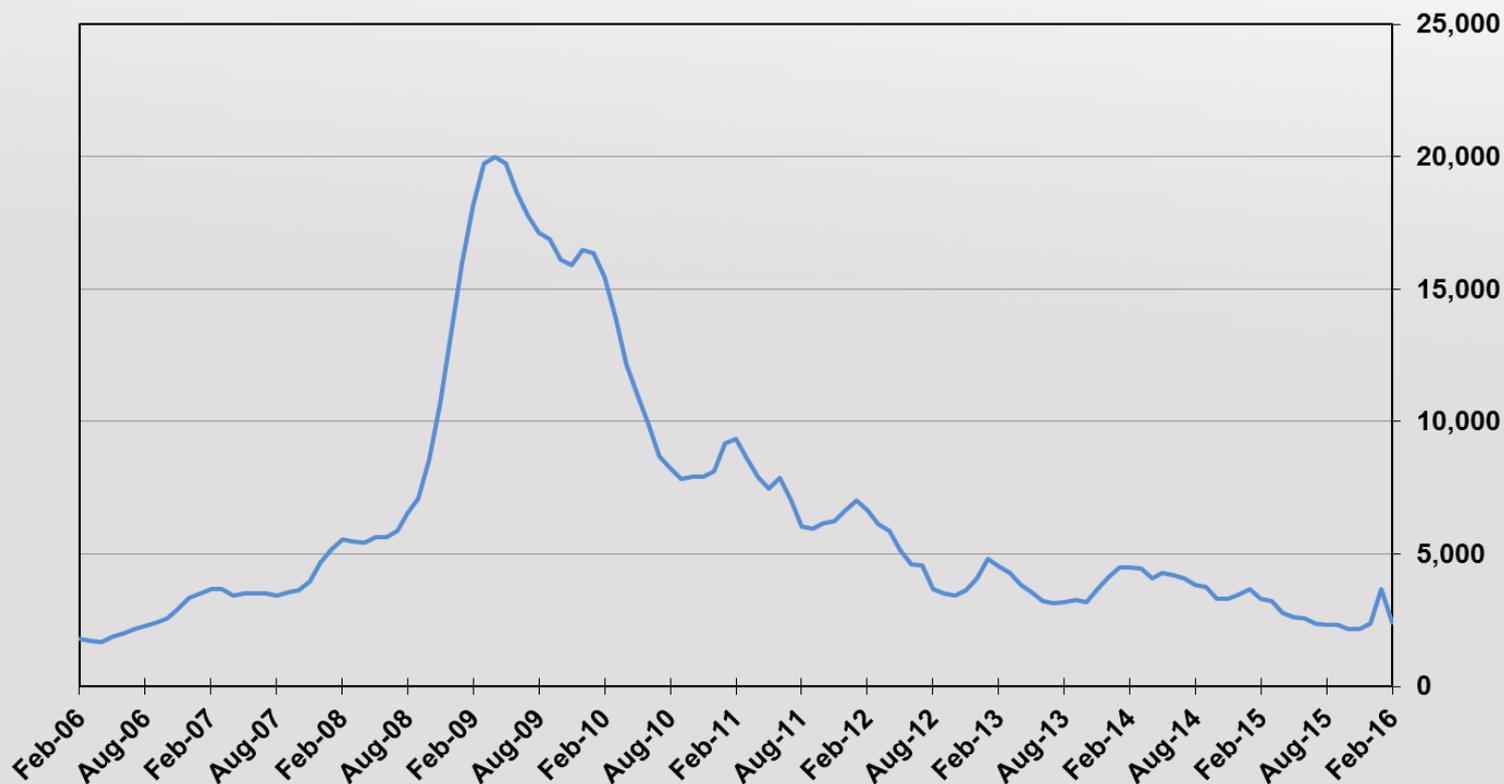
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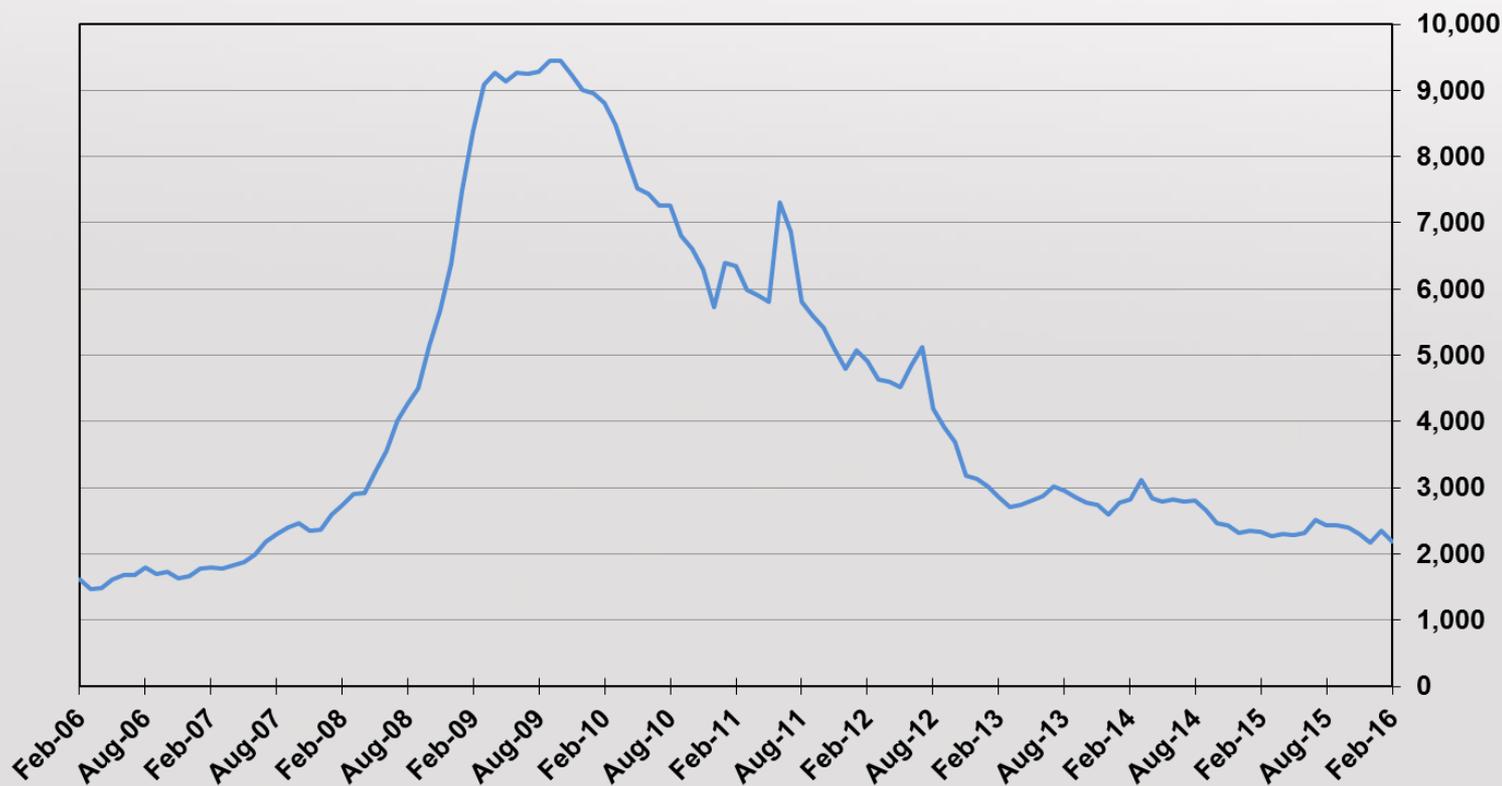
UI Claimants by Age
from February 2006 to February 2016



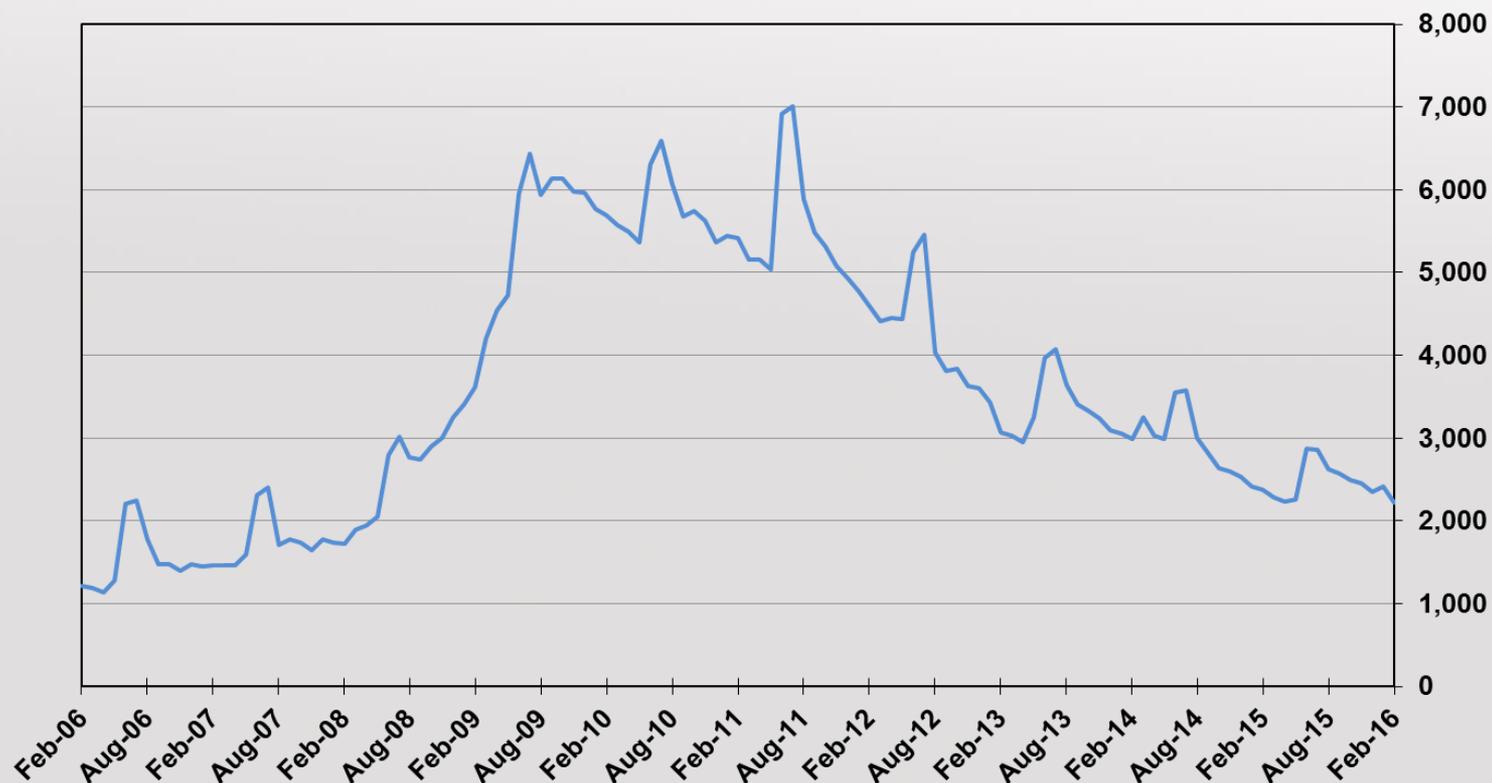
Monthly UI Claims by Industry - Construction from February 2006 to February 2016



Monthly UI Claims by Industry - Retail Trade from February 2006 to February 2016



Monthly UI Claims by Industry - Healthcare
from February 2006 to February 2016



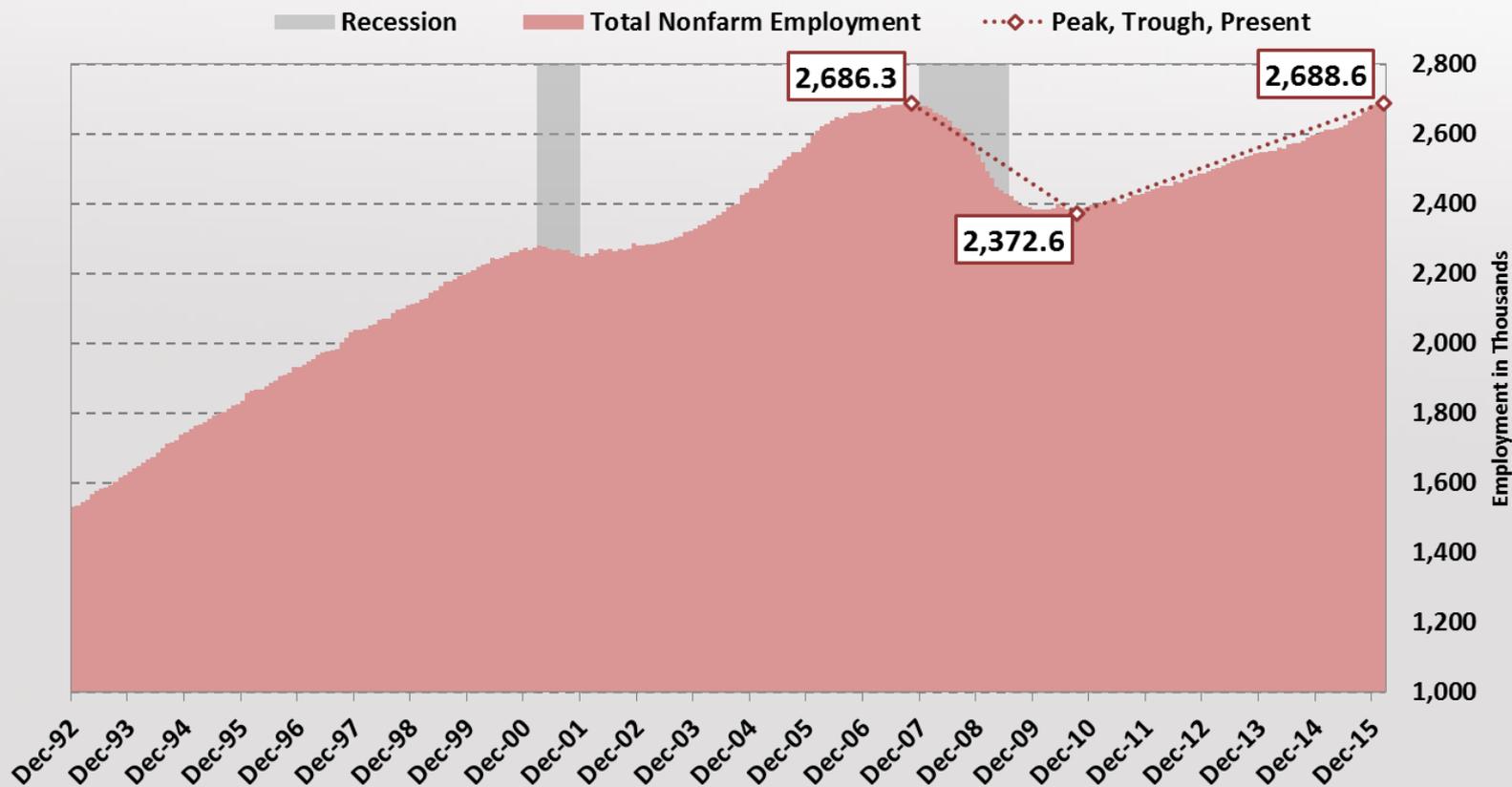
Recession --- Recovery

Employment Recession Defined

- **Pre-Recession Peak-** Signals the beginning of a recession; the month in which seasonally-adjusted employment reaches the highest levels before declining
- **Post-Recession Trough-** Signals the end of the recession; the month in which seasonally-adjusted employment reaches the lowest levels before increasing
- **Recession Replacement Rate-** The jobs recovered since the end of the recession as a share of the jobs lost during the recession
 - Greater than 100%: all jobs lost during the recession have been recovered
 - Less than 100%: not all jobs lost during the recession have been recovered

Arizona Industry Employment

Seasonally Adjusted



Source: Produced by the Arizona Office of Employment and Population Statistics in cooperation with the U.S. Dept. Of Labor, Bureau of Labor Statistics

Total nonfarm employment levels surpassed pre-recession peak employment levels in February 2016

United States

Recession	Employment Peak Date	Employment Trough Date
Recession I	June 1990	August 1991
Recession II	February 2001	August 2003
Recession III	January 2008	February 2010

Arizona

Recession	Employment Peak Date	Employment Trough Date
Recession I	January 1991	May 1991
Recession II	March 2001	December 2001
Recession III	October 2007	September 2010

United States			
Recession Period	Decline Period	Recovery Date	Recovery Period
Recession I	14	February 1993	18
Recession II	30	February 2005	18
Recession III	25	April 2014	50

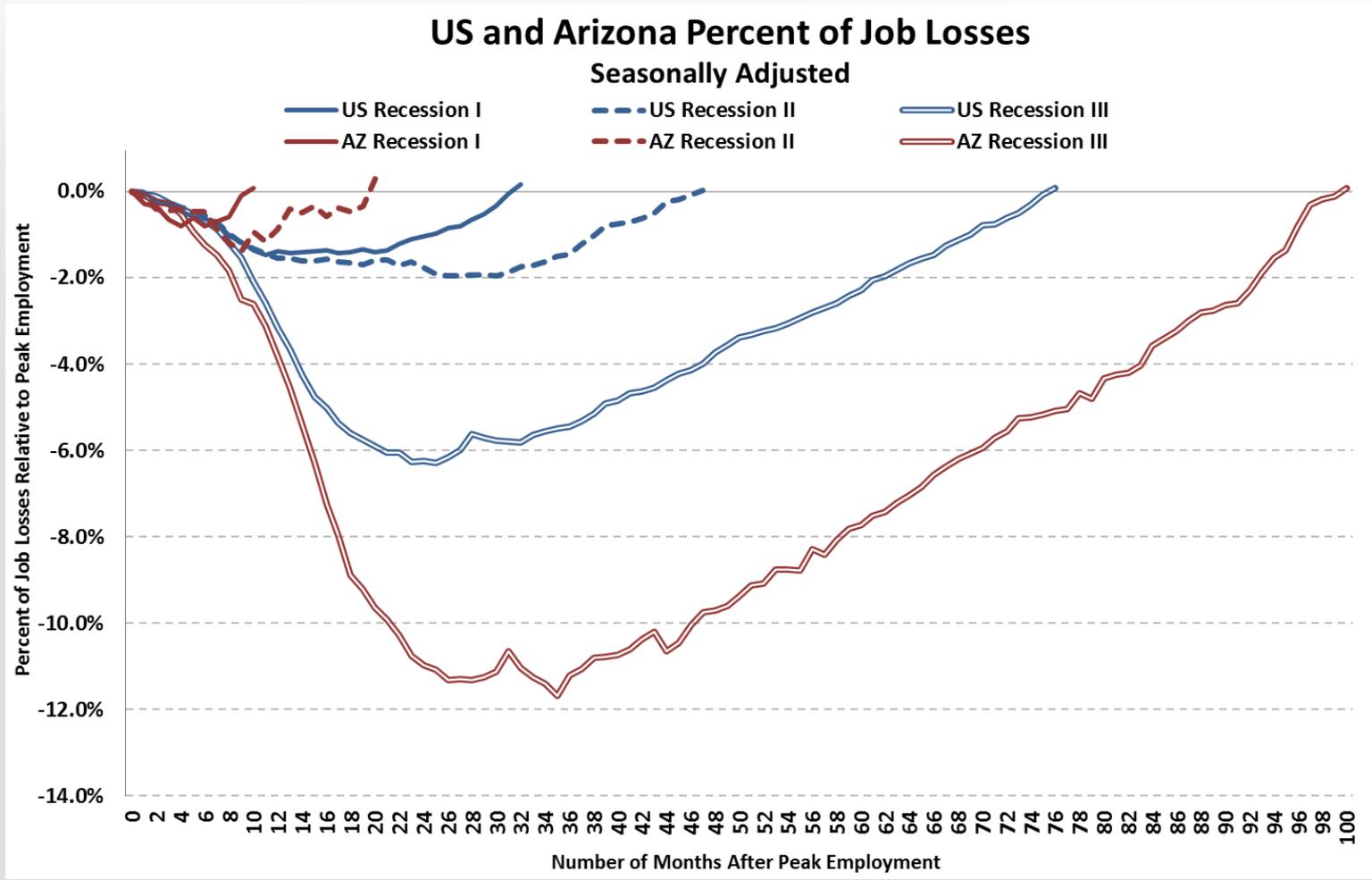
Arizona			
Recession Period	Decline Period	Recovery Date	Recovery Period
Recession I	4	November 1991	6
Recession II	9	January 2003	13
Recession III	35	February 2016	65

Recession III lasted 10 months longer in Arizona than it did for the US

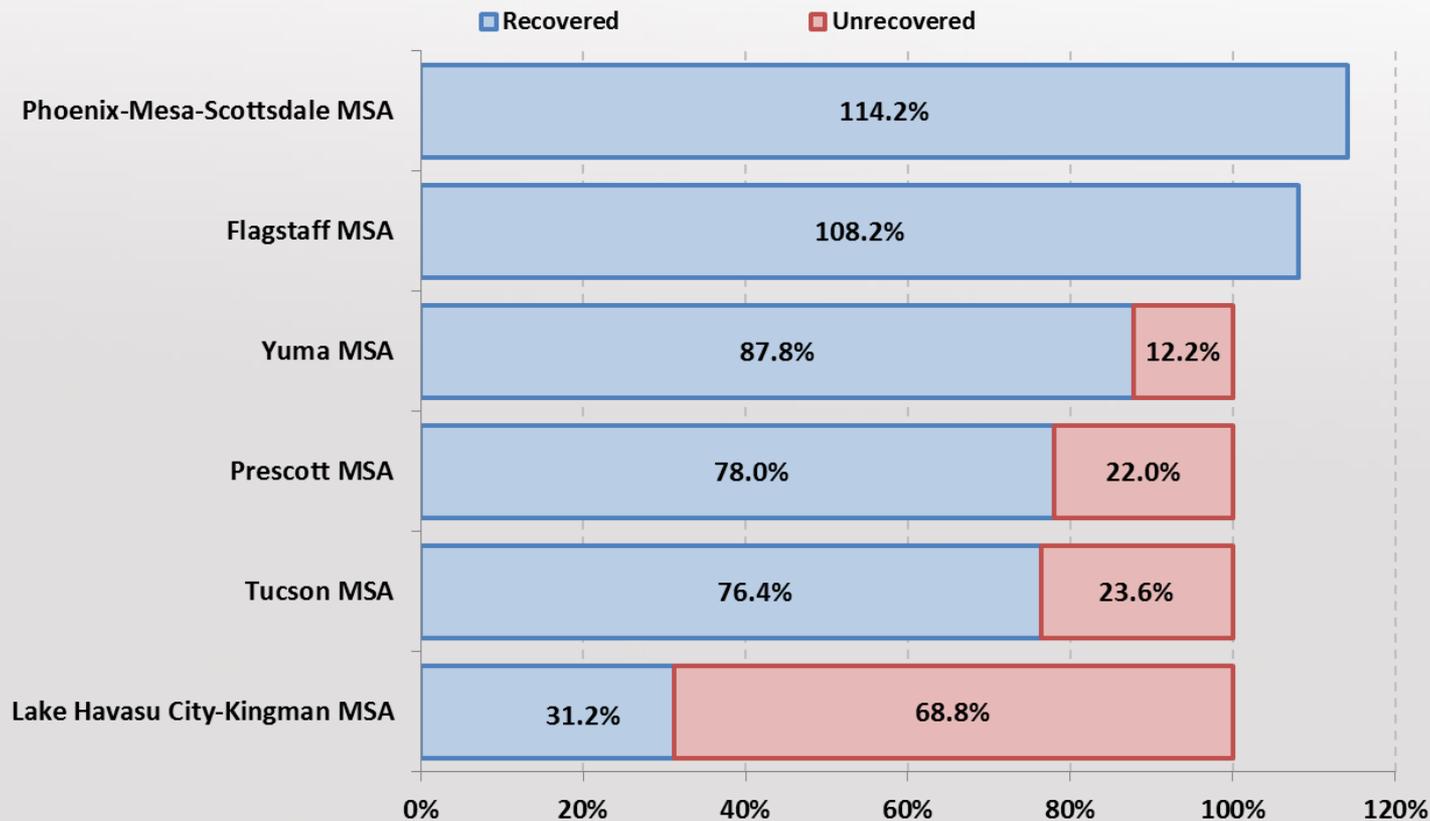
United States				
<i>(in thousands)</i>				
Recession Period	Employment Level		Jobs Lost	
	Peak	Trough	Number	Percentage
Recession I	109,822.0	108,255.0	-1,567.0	-1.4%
Recession II	132,617.0	129,919.0	-2,698.0	-2.0%
Recession III	138,056.0	129,320.0	-8,736.0	-6.3%

Arizona				
<i>(in thousands)</i>				
Recession Period	Employment Level		Jobs Lost	
	Peak	Trough	Number	Percentage
Recession I	1,497.4	1,485.1	-12.3	-0.8%
Recession II	2,278.2	2,246.5	-31.7	-1.4%
Recession III	2,687.1	2,373.2	-313.9	-11.7%

Arizona lost a larger percentage of total employment than the US during Recession III
 For Recession



Nonfarm Employment Replacement Rate by Substate Area (Oct '07 to Feb '16; Seasonally Adjusted)

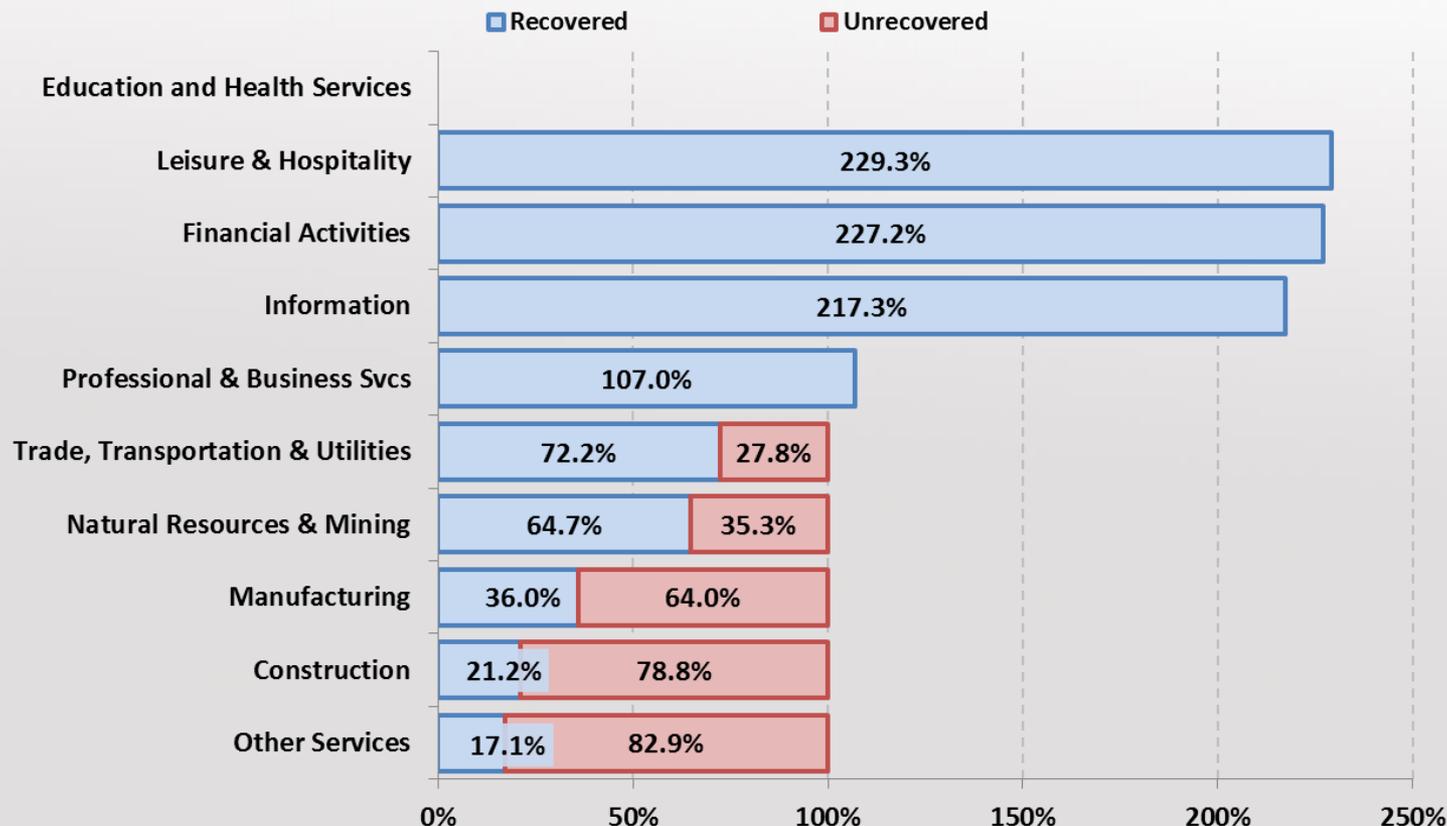


Source: Produced by the Arizona Office of Employment and Population Statistics in cooperation with the U.S. Dept. Of Labor, Bureau of Labor Statistics

Recession recovery has not been even throughout substate regions

Arizona Replacement Rate by Sector

(Seasonally Adjusted Nonfarm Employment)



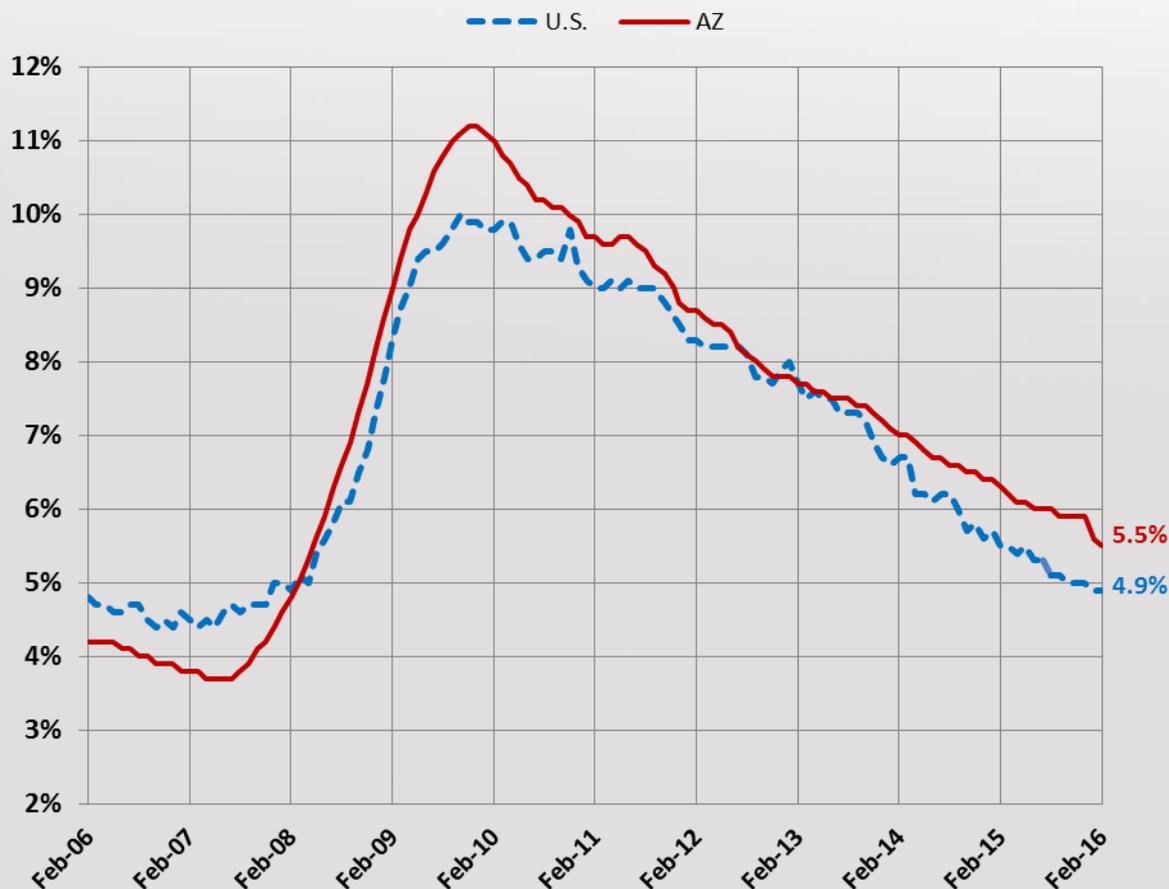
Source: Produced by the Arizona Office of Employment and Population Statistics in cooperation with the U.S. Dept. Of Labor, Bureau of Labor Statistics

Recession recovery has not been even throughout all sectors of the economy

February 2016

Employment Report Highlight

Arizona & U.S. Unemployment Rate Seasonally Adjusted



- AZ unemployment rate declined to 5.5%
- U.S. unemployment rate remained unchanged at 4.9%

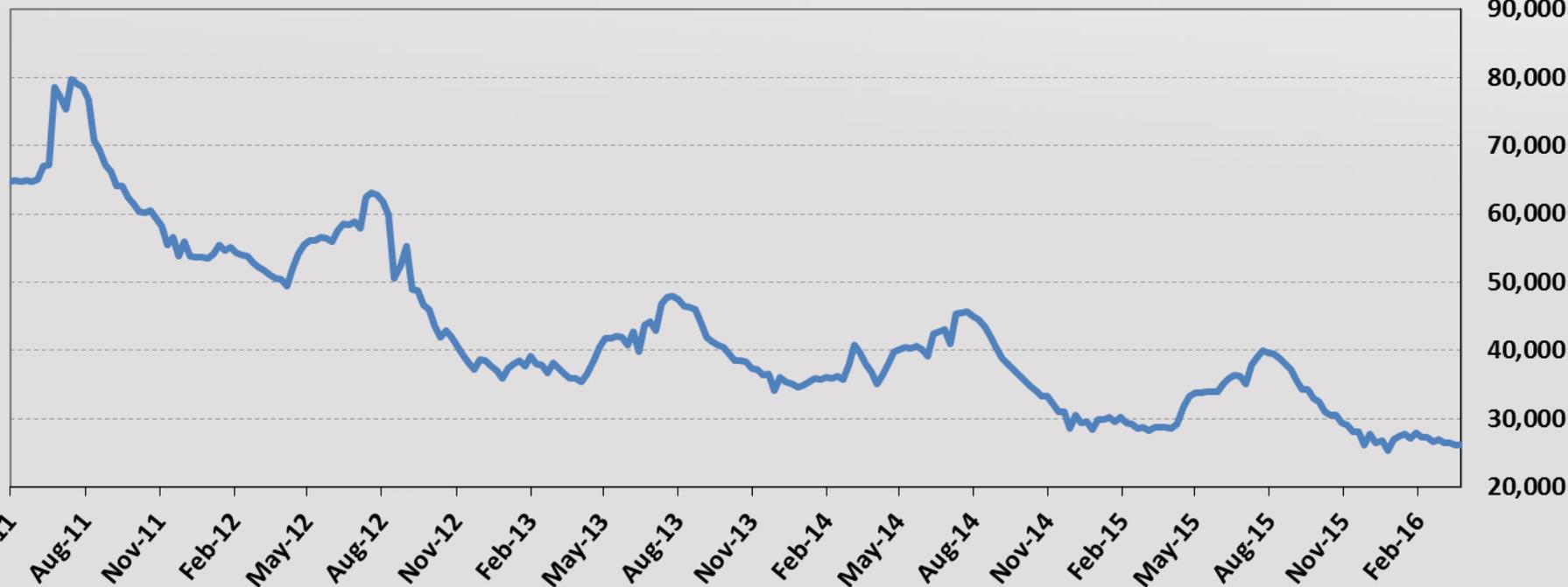
Source: Produced by the Arizona Office of Employment and Population Statistics using LAUS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Seasonally Adjusted

	Labor Force Employment		Unemployment	
	Level	Level	Level	Rate
Jan	3,187,561	3,008,409	179,152	5.6%
Feb	3,213,060	3,036,750	176,310	5.5%
Change	25,499	28,341	(2,842)	(0.1)%

Regular Weekly UI Claims in Arizona

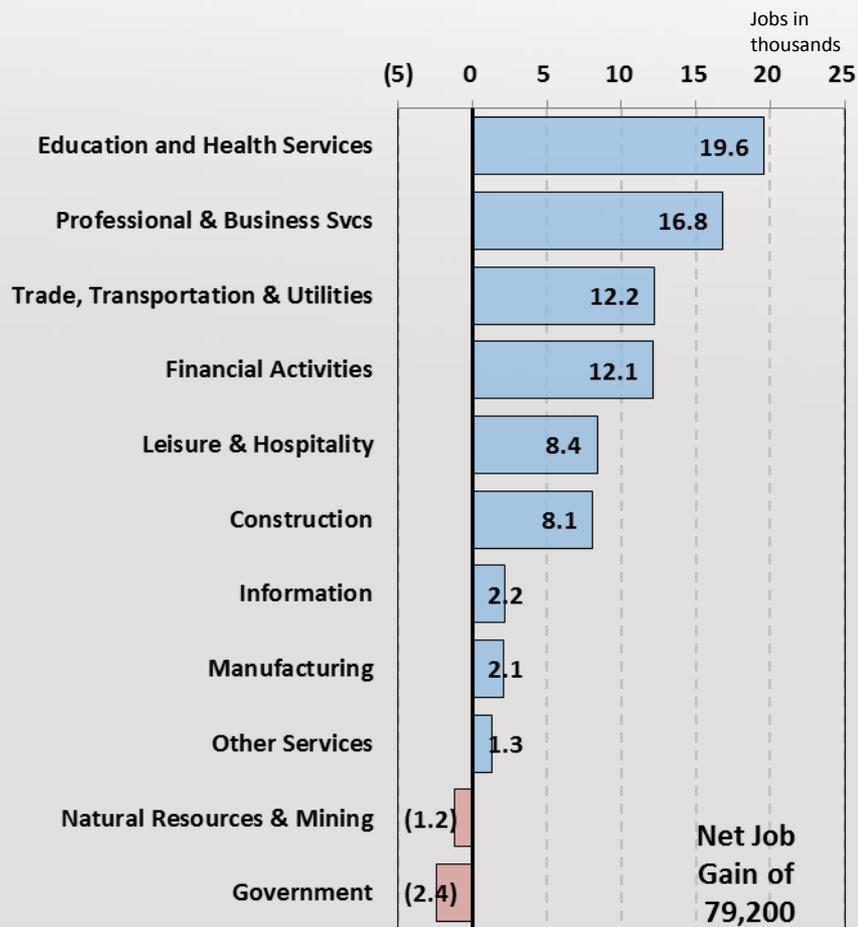
Total UI Claims Filed



Source: Produced by the Arizona Office of Employment and Population Statistics using ETA data in cooperation with the Arizona Dept. of Economic Security and using LAUS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Over-the-Year Job Gain/Loss by Sector

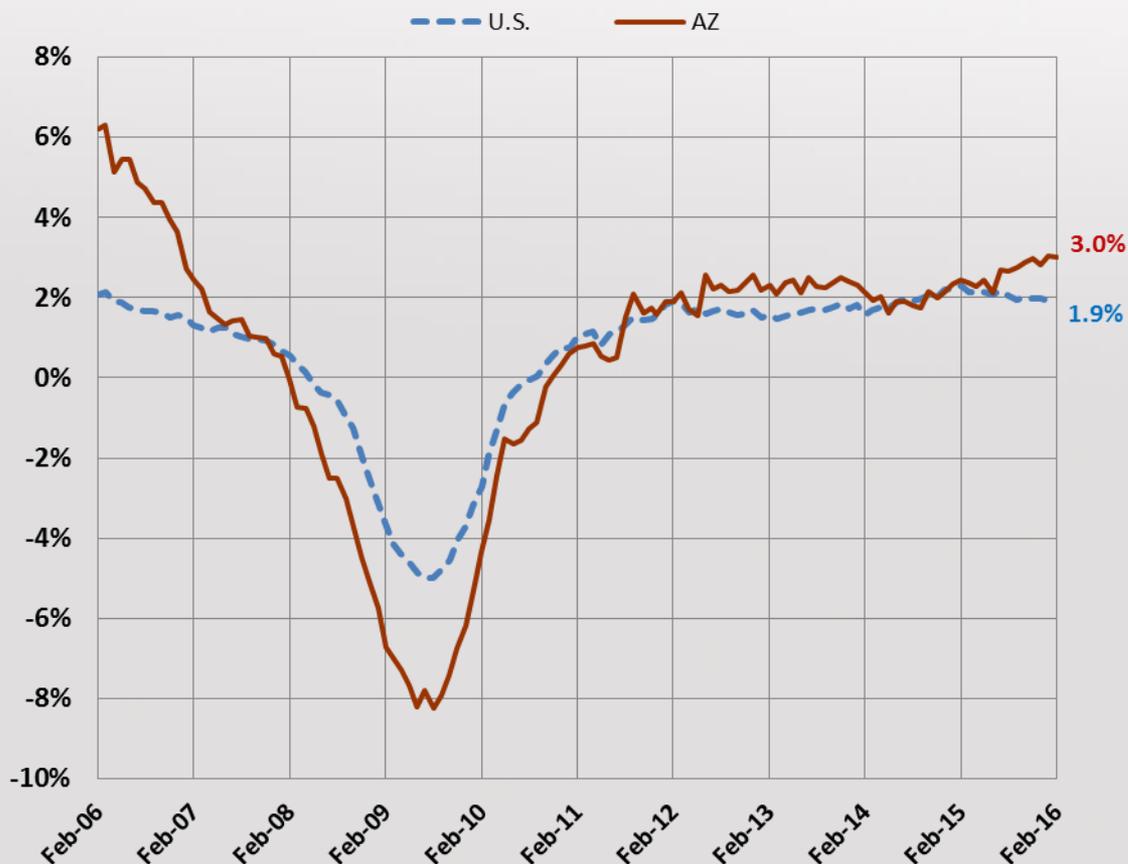
Arizona, Feb. 2015 to Feb. 2016



- Arizona added 79,200 Nonfarm jobs
- February OTY Nonfarm growth rate of 3.0%
- Private Sector gains: 81,600 jobs
Government losses: 2,400 jobs
- Nine of the eleven major sectors added jobs and two lost jobs
- Largest Supersector gains:
 - Professional and Business Services (16,800 jobs)
 - Education and Health Services (19,600 jobs)
 - Trade, Transportation, & Utilities (12,200)
 - Financial Activities (12,100 jobs)
- Supersector losses:
 - Natural Resources & Mining (1,200 jobs)
 - Government (2,400 jobs)

Source: Produced by the Arizona Office of Employment and Population Statistics using CES data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

Arizona & U.S. Nonfarm Employment Year-to-Year Percent Change



- AZ over-the-year employment increase was 3.0% in February
- U.S. over-the-year employment increase was 1.9% in February

Source: Produced by the Arizona Office of Employment and Population Statistics using LAUS data in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

U.S. States Ranked by Over-the-Year Percent Change in Nonfarm Employment

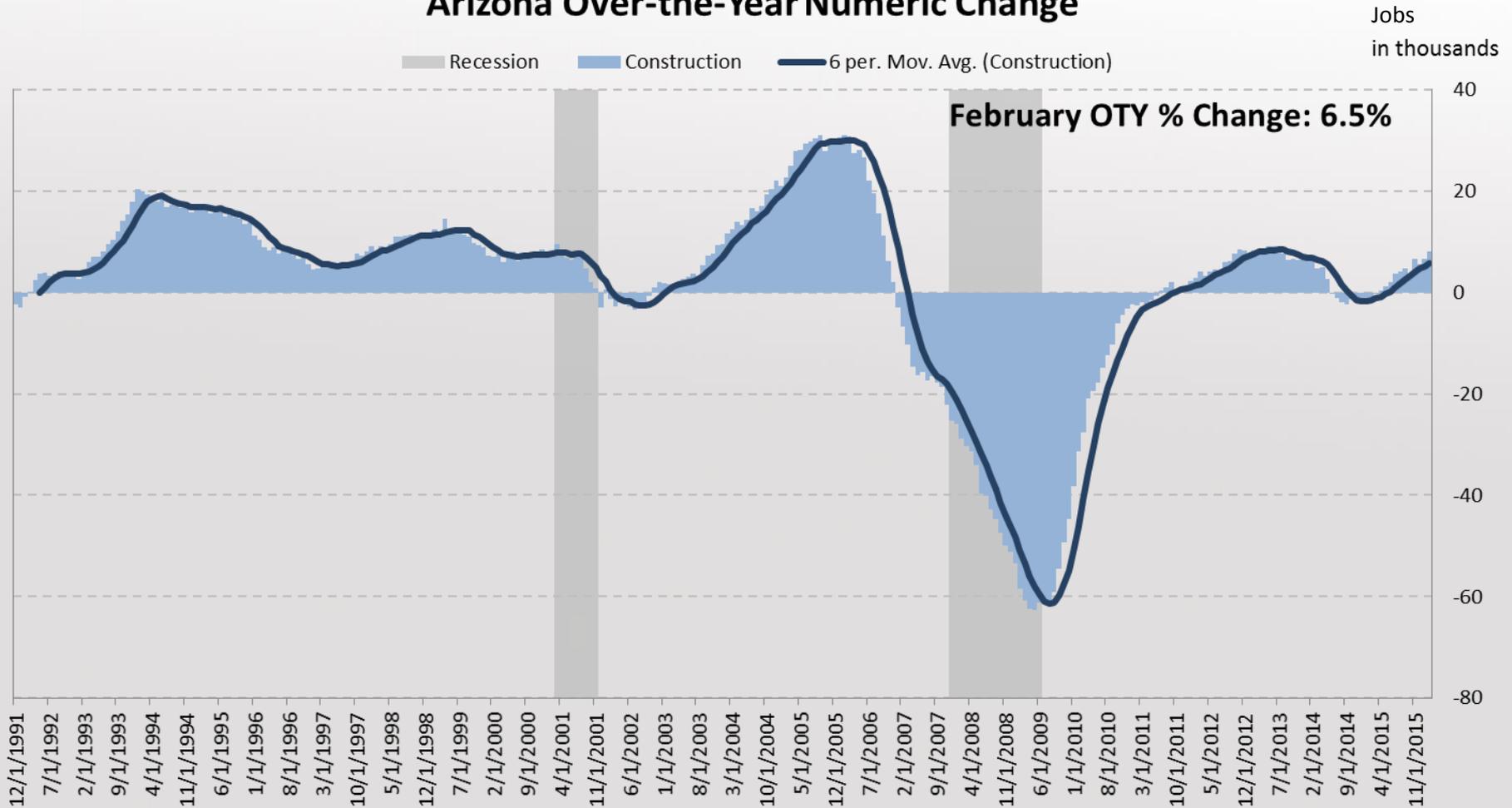
(employment in thousands, not seasonally adjusted)

Percentage of 50 States Total^(a)

Nonfarm Employment

RANK	STATE	February	February	<u>Over-the-Year Change</u>		February	February
		2016(p)	2015	Amount	Percentage ^(b)	2016(p)	2015
1	Idaho	678.0	652.6	25.4	3.9%	0.5%	0.5%
2	Utah	1,395.1	1,350.4	44.7	3.3%	1.0%	1.0%
3	Oregon	1,797.6	1,740.9	56.7	3.3%	1.3%	1.3%
4	Tennessee	2,923.3	2,831.7	91.6	3.2%	2.1%	2.0%
5	Florida	8,267.1	8,013.6	253.5	3.2%	5.8%	5.8%
6	Washington	3,180.2	3,084.2	96.0	3.1%	2.2%	2.2%
7	Arizona	2,700.1	2,620.9	79.2	3.0%	1.9%	1.9%
8	Georgia	4,308.1	4,188.1	120.0	2.9%	3.0%	3.0%
9	California	16,219.4	15,770.9	448.5	2.8%	11.5%	11.4%
10	Colorado	2,565.9	2,499.1	66.8	2.7%	1.8%	1.8%
11	Delaware	445.7	434.5	11.2	2.6%	0.3%	0.3%
12	Nevada	1,265.2	1,234.1	31.1	2.5%	0.9%	0.9%
13	South Carolina	2,009.1	1,960.2	48.9	2.5%	1.4%	1.4%
14	Virginia	3,859.4	3,766.5	92.9	2.5%	2.7%	2.7%
15	Hawaii	648.2	633.4	14.8	2.3%	0.5%	0.5%

Arizona Over-the-Year Numeric Change



Source: Produced by the Arizona Office of Employment and Population Statistics in cooperation with the U.S. Dept. of Labor, Bureau of Labor Statistics

New Private Housing Building Permits for Arizona Seasonally Adjusted



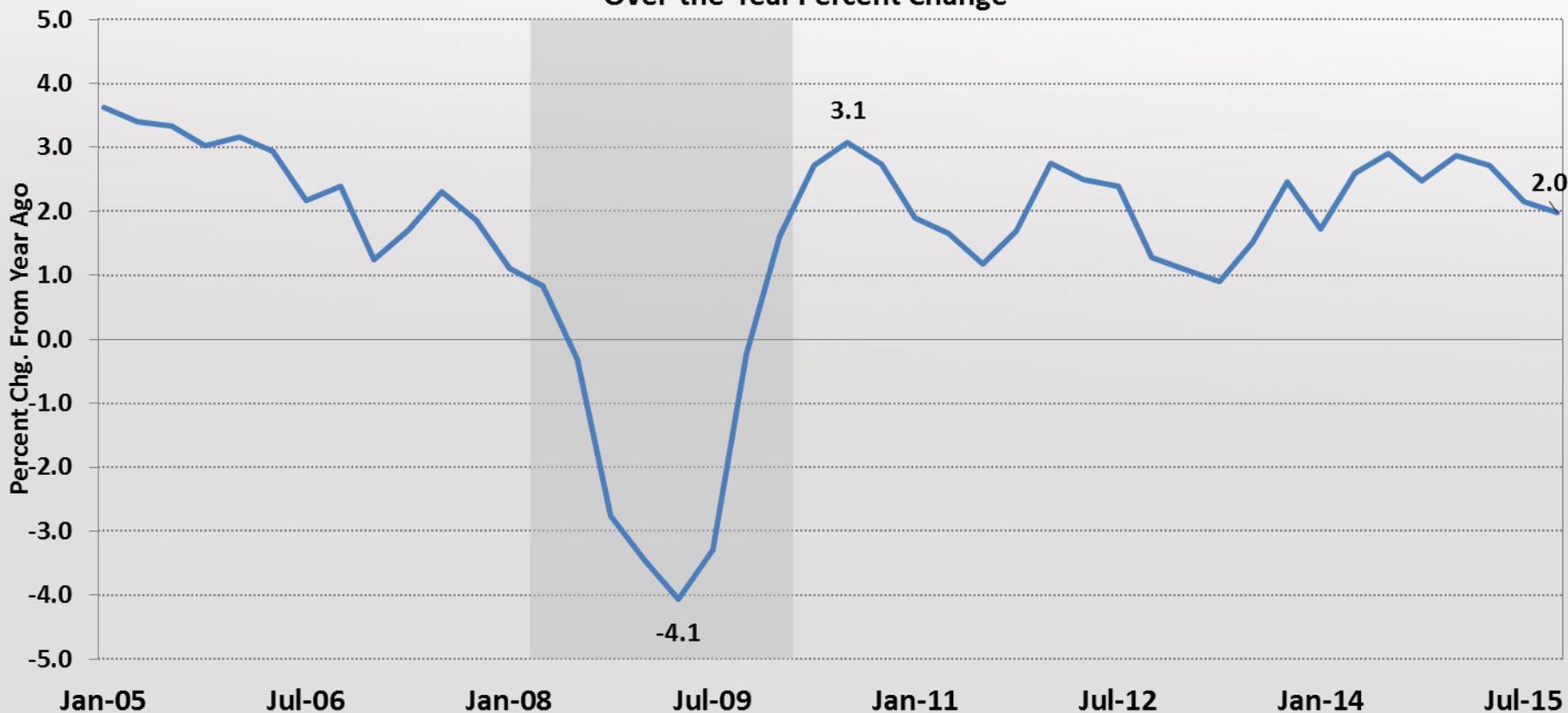
Source: Federal Reserve Bank of St. Louis/FRED

S&P/Case-Shiller AZ-Phoenix Home Price Index© Jan. 2000- Jan. 2016

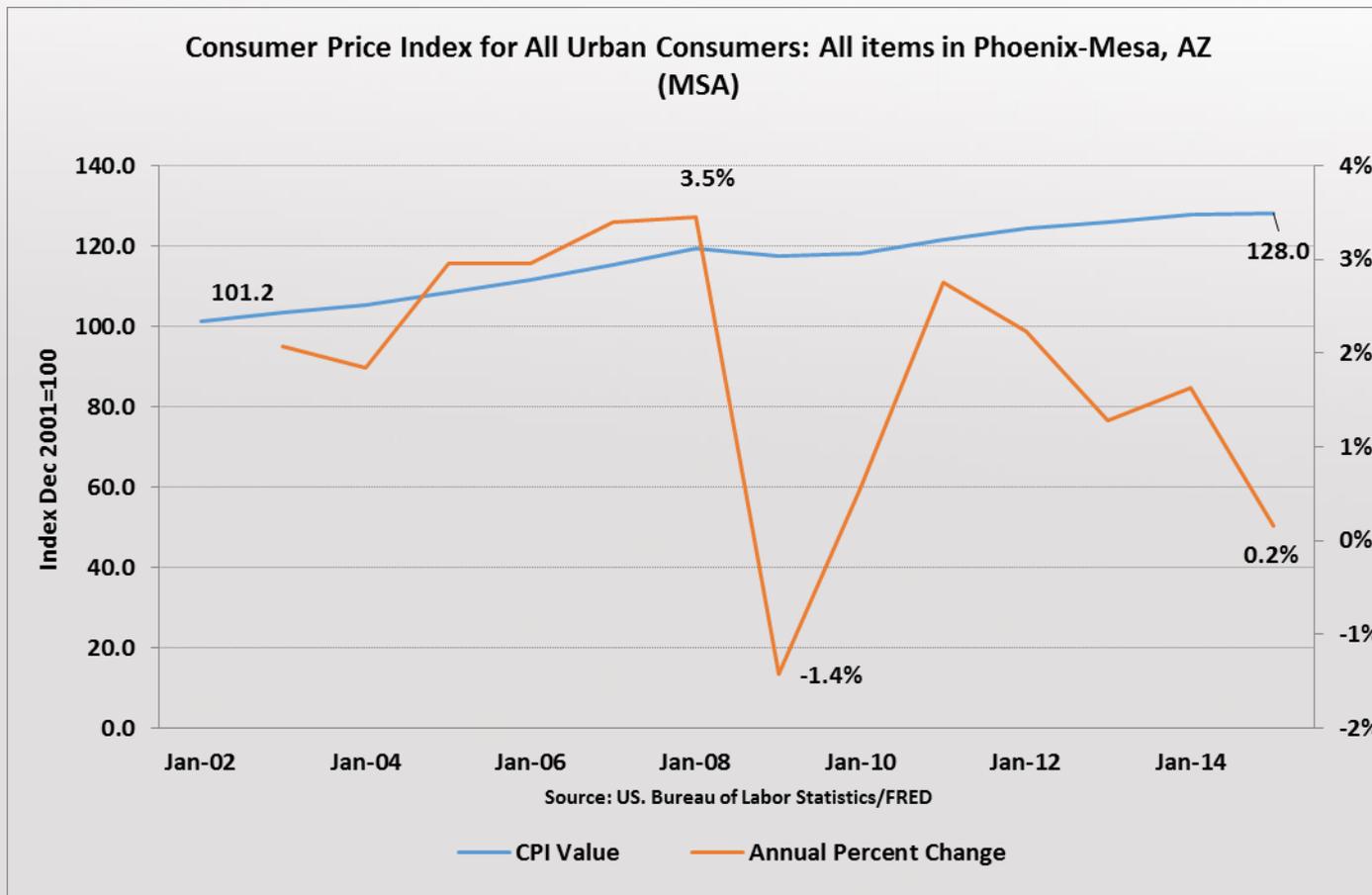


Source: S&P Dow Jones Indices LLC/FRED

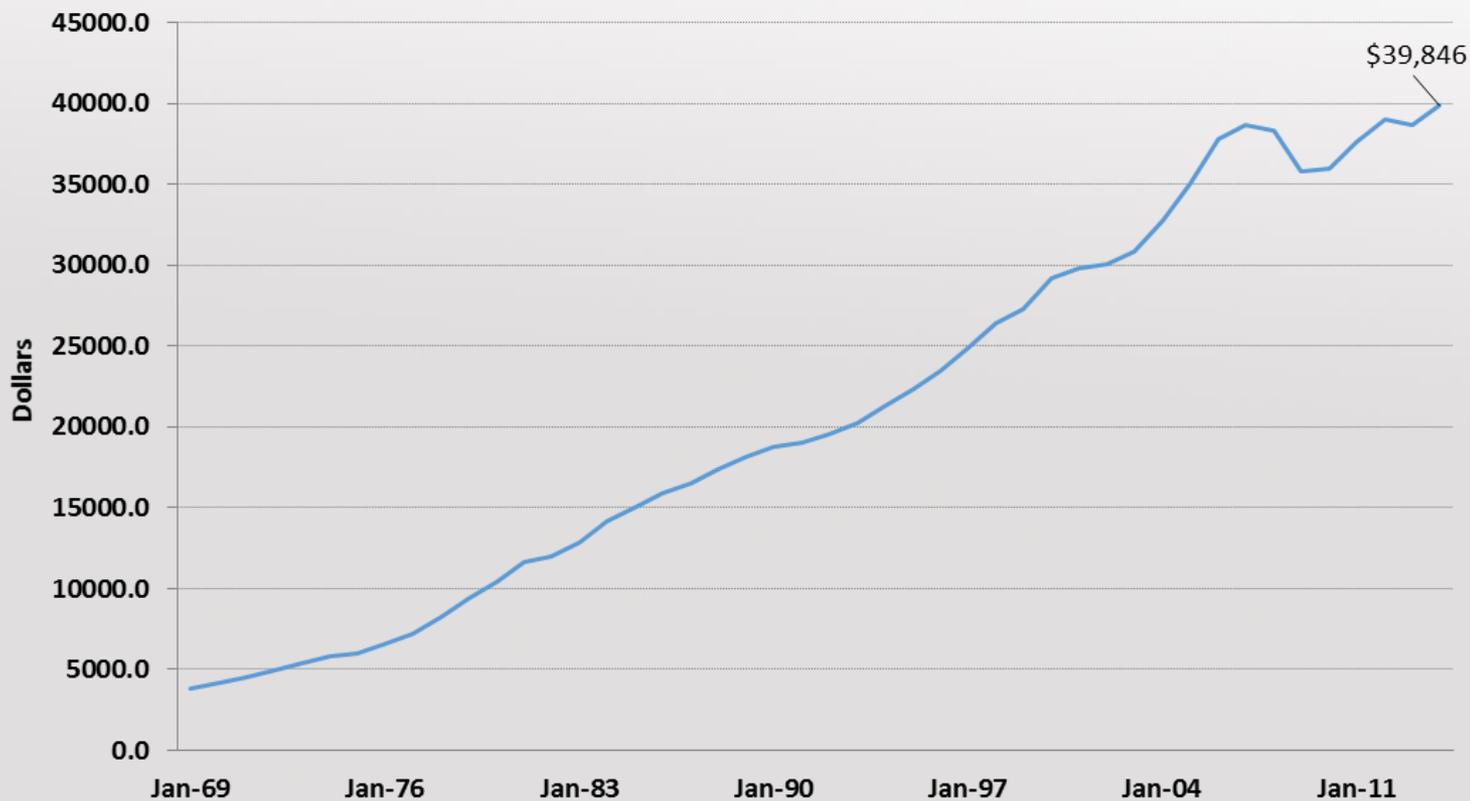
Real Gross Domestic Product Over-the-Year Percent Change



Source: U.S. Department of Commerce: Bureau of Economic Analysis/FRED



Per Capita Personal Income in Phoenix-Mesa-Glendale, AZ (MSA)



Source: US. Bureau of Economic Analysis/FRED

Short-Term Industry Employment Projections

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How Projections are Organized:

- Two-year employment projection period: (2015-Q3 to 2017-Q2)
- Projections are created from Quarterly Census of Employment and Wages (QCEW) data produced by the US Bureau of Labor Statistics
- QCEW program is a near census of all employers and jobs covered by Unemployment Insurance Program (97% of total nonagricultural employment)

Total Employment by Substate Area Annual Growth Rate (Compound)

	2013 Q3-2015 Q2(a)	2015 Q3- 2017Q2(b)
Arizona	2.41%	2.84%
Phoenix MSA ¹	2.90%	3.15%
Tucson MSA ²	0.56%	1.92%
Balance of State ³	1.84%	2.12%

1) Maricopa and Pinal Counties

2) Pima County

3) Arizona less Maricopa, Pinal and Pima counties

a) Historical

b) Forecast

Total Employment by Substate Area Employment Change

	2015 Q2(a)	2017Q2(b)	Employment Change
Arizona	2,718,515	2,875,050	156,535
Phoenix MSA ¹	1,952,031	2,077,030	124,999
Tucson MSA ²	370,866	385,259	14,393
Balance of State ³	395,848	412,781	16,933

1) Maricopa and Pinal Counties

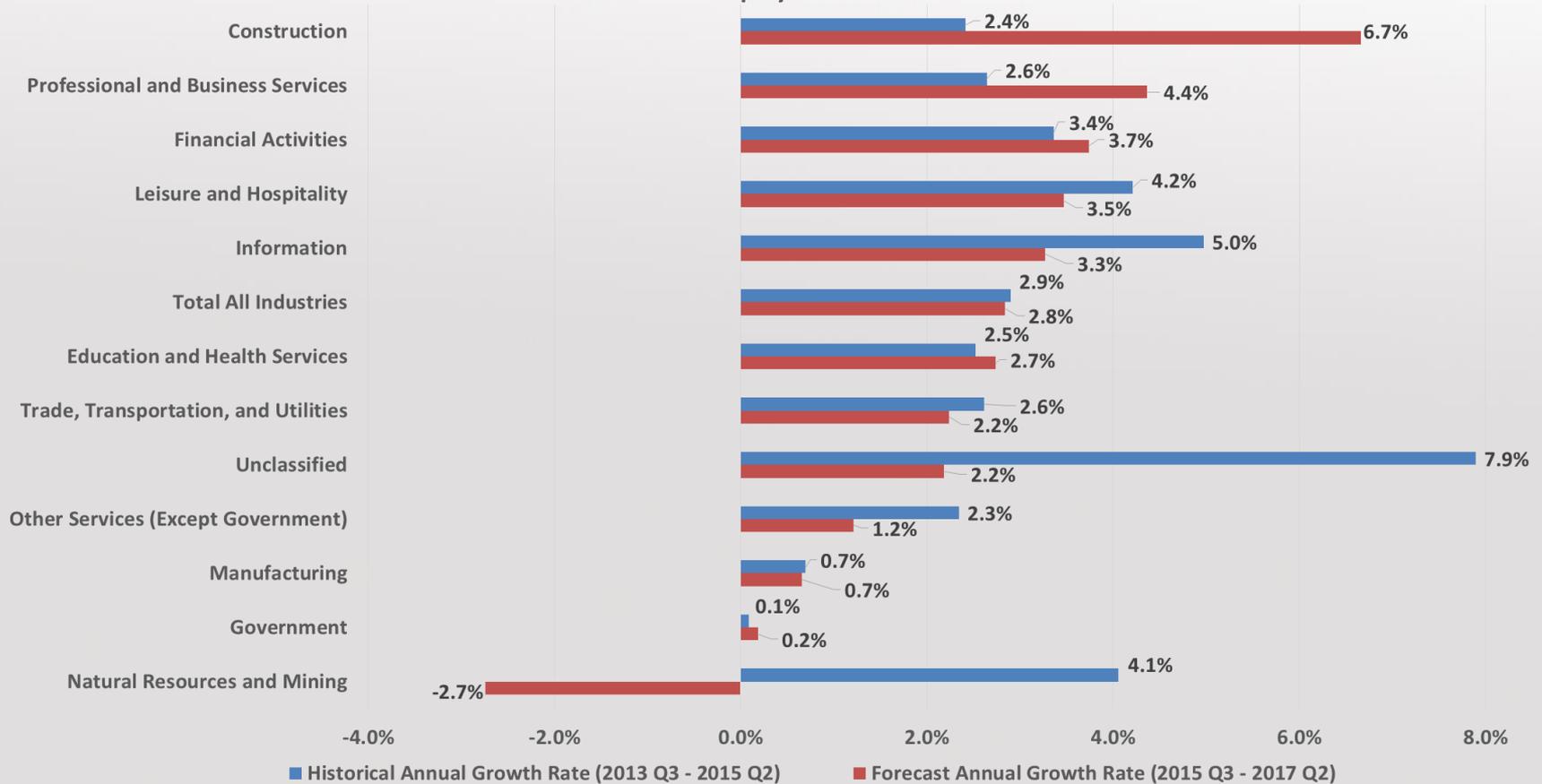
2) Pima County

3) Arizona less Maricopa, Pinal and Pima counties

a) Historical

b) Forecast

Arizona Sector Employment Annual Growth Rate



Arizona Sector Employment Annual Growth Rate (Compound)

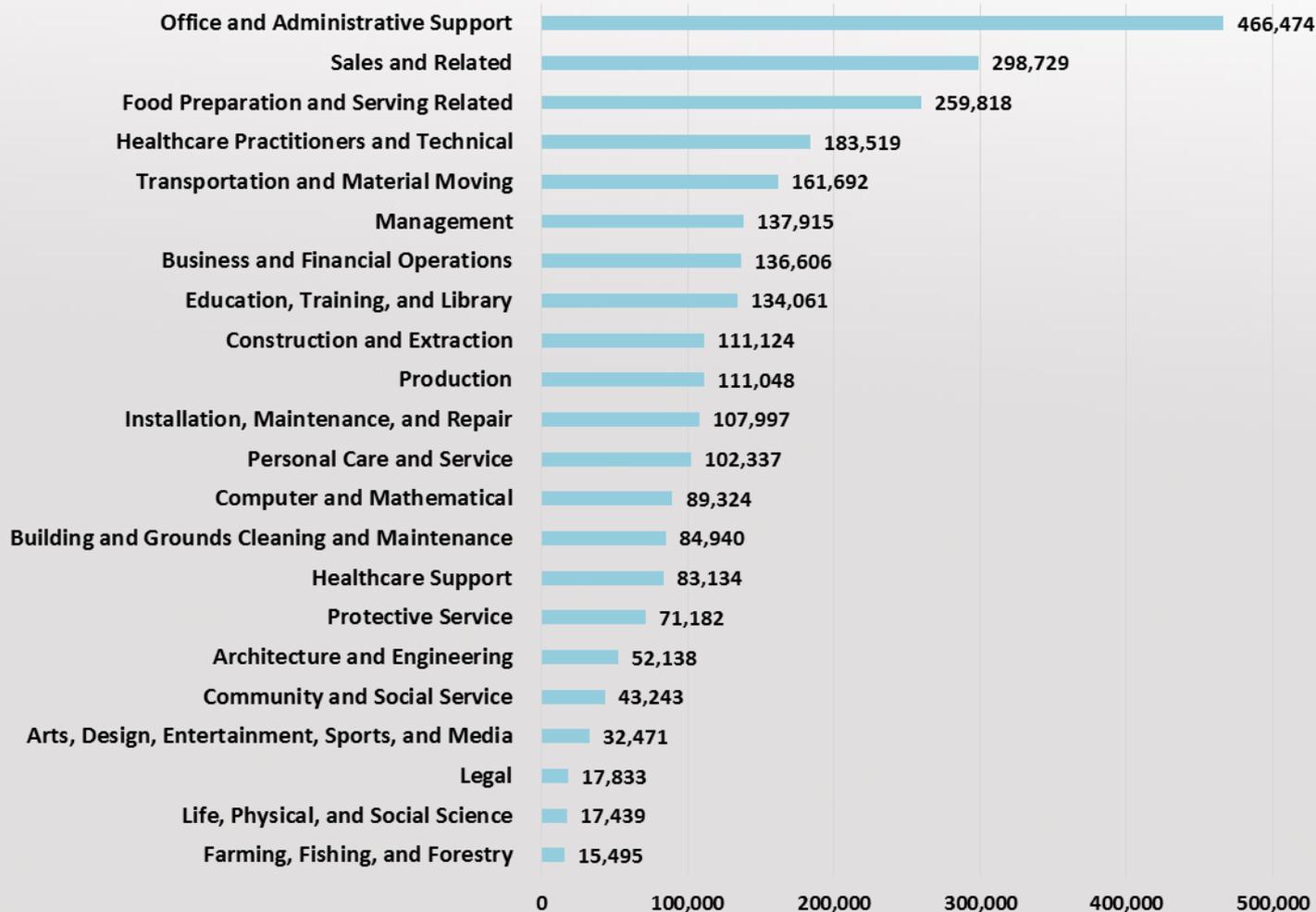
	2015 Q2(a)	2017Q2(b)	Employment Change
Total All Industries	2,718,515	2,875,050	156,535
Natural Resources and Mining	33,673	31,852	-1,821
Construction	128,777	146,509	17,732
Manufacturing	156,776	158,842	2,066
Trade, Transportation, and Utilities	517,566	540,980	23,414
Information	46,617	49,716	3,099
Financial Activities	189,261	203,668	14,407
Professional and Business Services	391,482	426,384	34,902
Education and Health Services	565,750	597,178	31,428
Leisure and Hospitality	320,397	342,991	22,594
Other Services (Except Government)	72,295	74,060	1,765
Government	150,867	151,421	554
Unclassified	145,056	151,446	6,390

a) Historical

b) Forecast

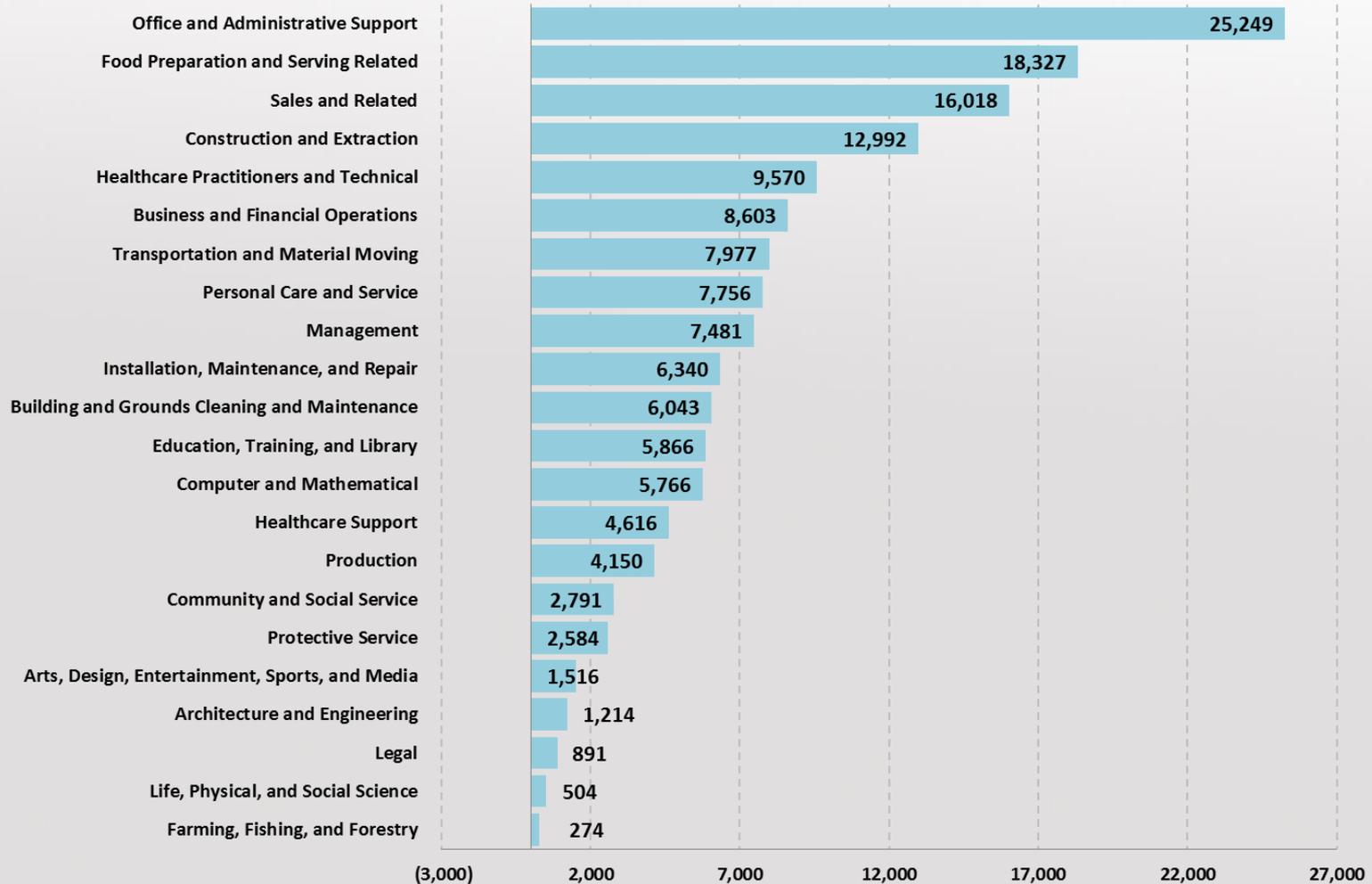
Short-Term Occupational Employment Projections

2015 Occupational Employment Estimates

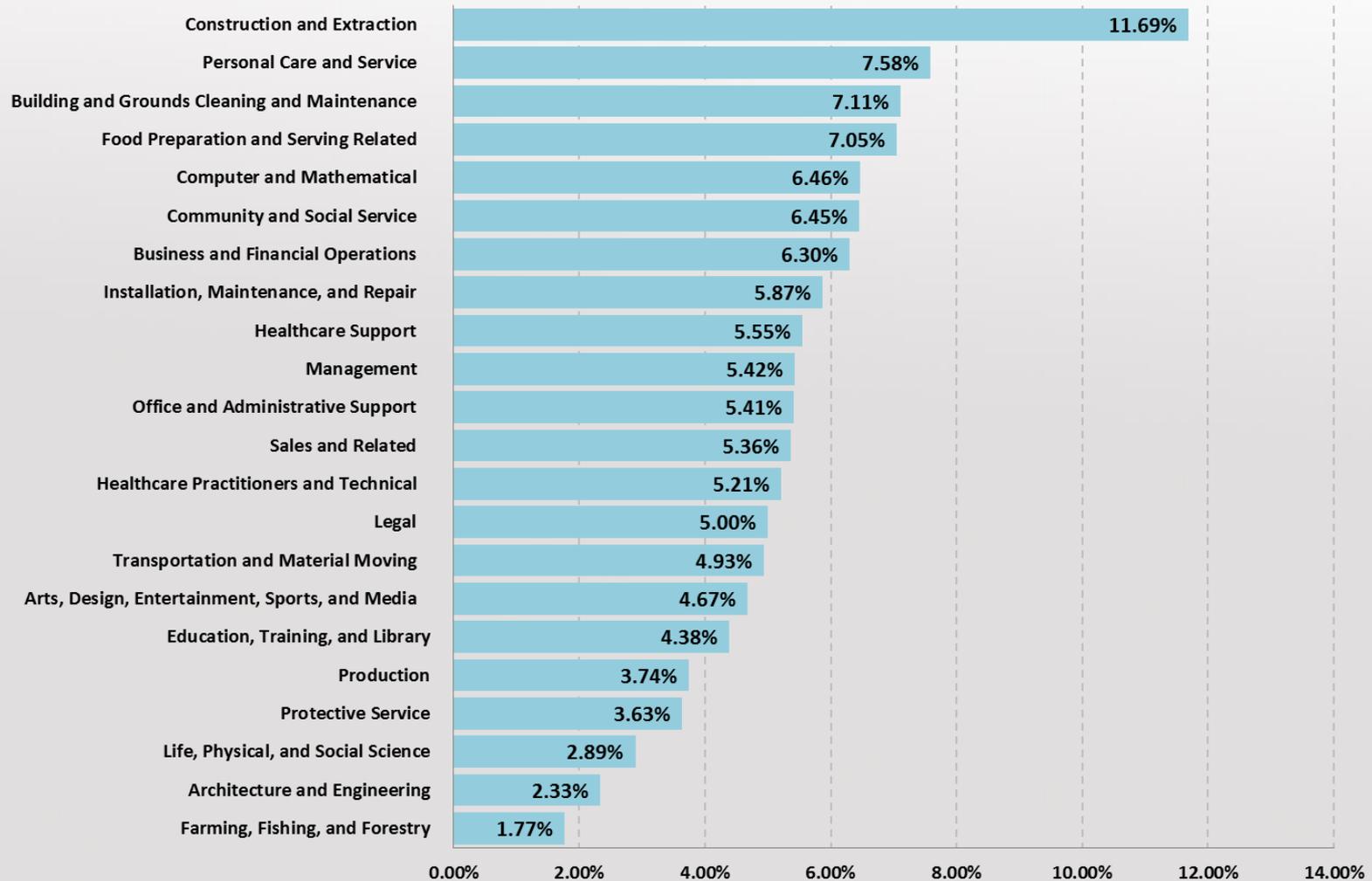


Arizona Major Occupational Groups

2015 - 2017 Total Numeric Change

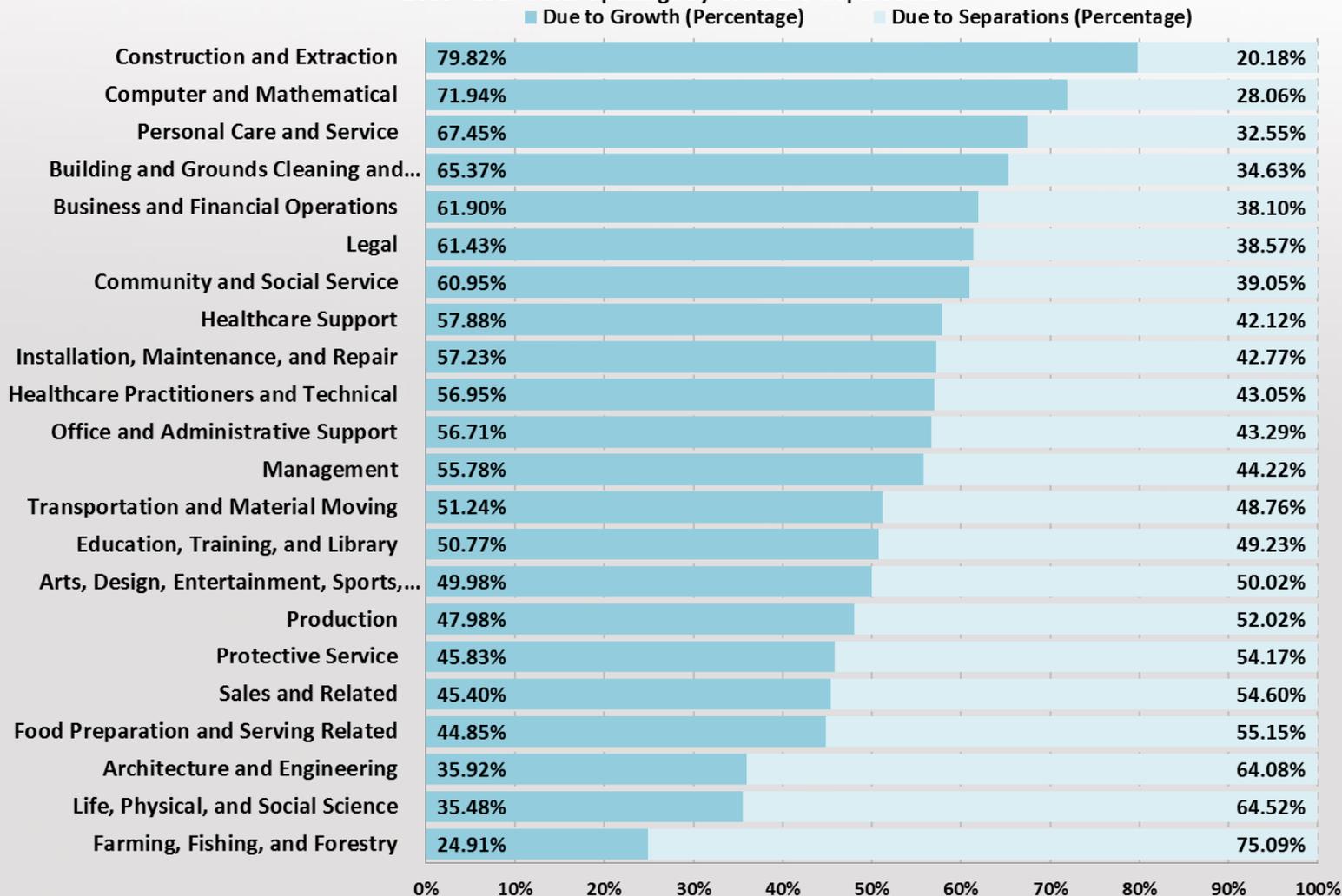


Arizona Major Occupational Groups 2015 - 2017 Total Percentage Change



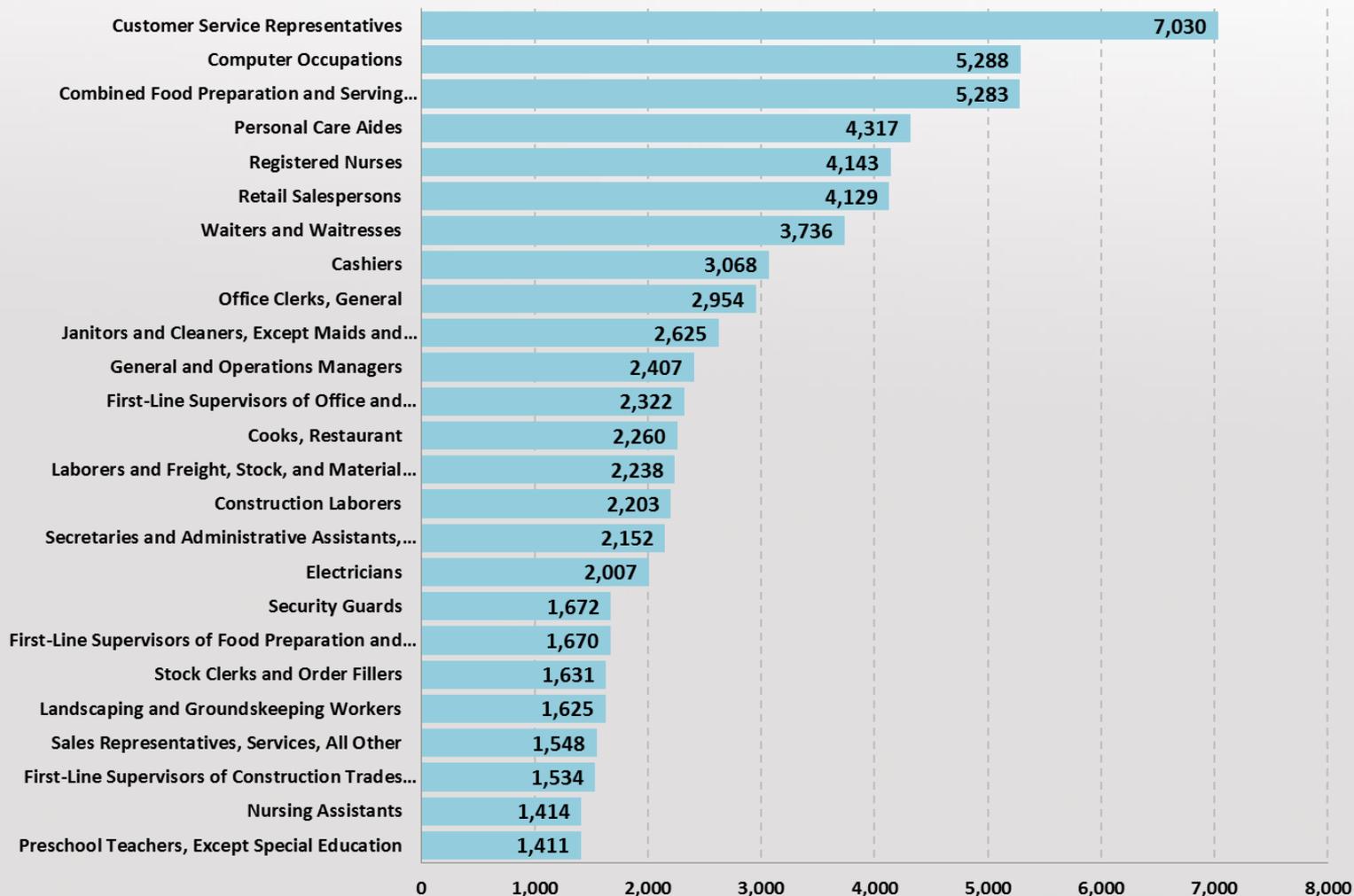
Arizona Major Occupational Groups

2015 - 2017 Total Openings by Growth & Separations



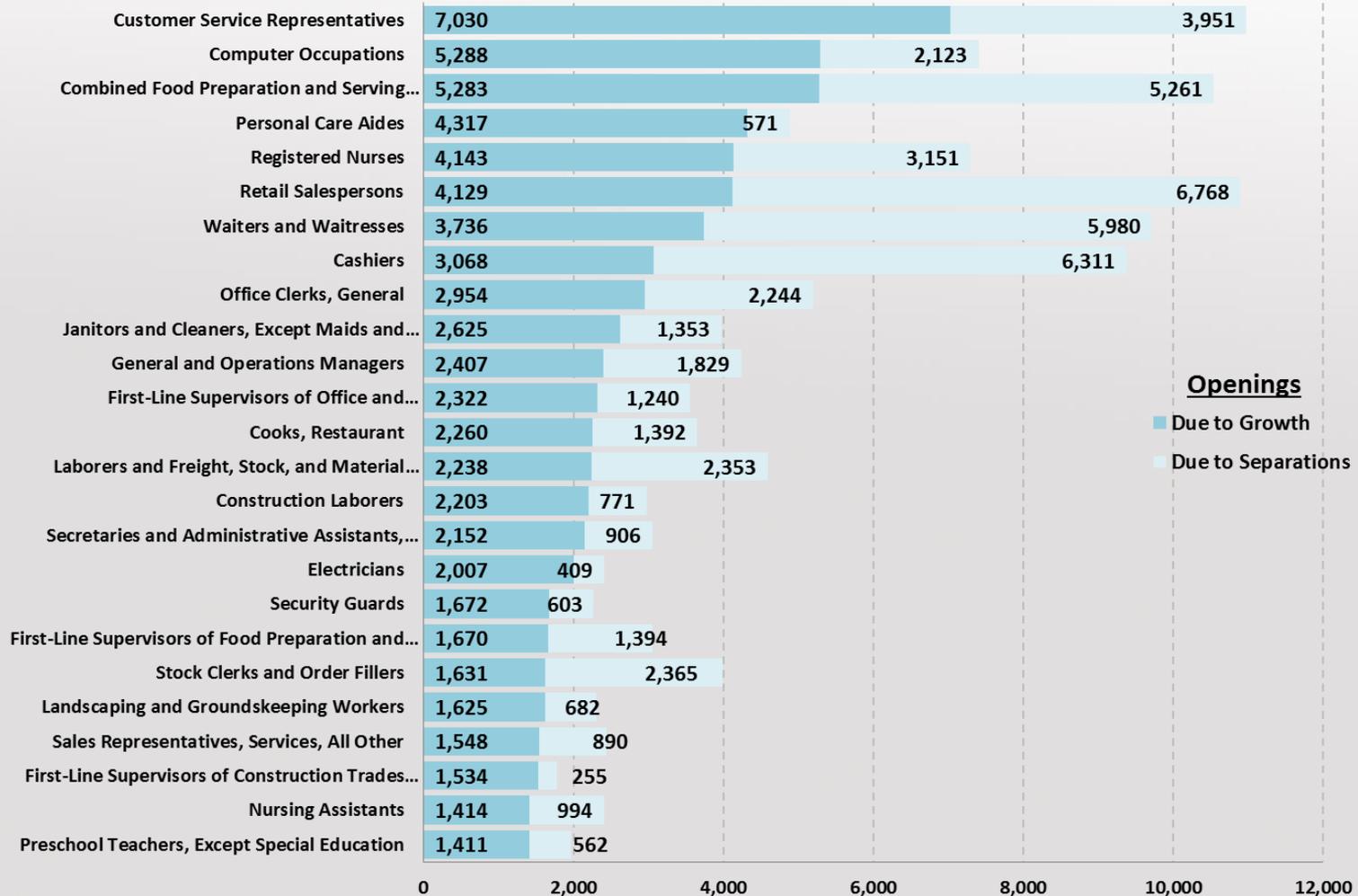
Top 25 Arizona Detailed Occupations

2015 - 2017 Highest Employment Change



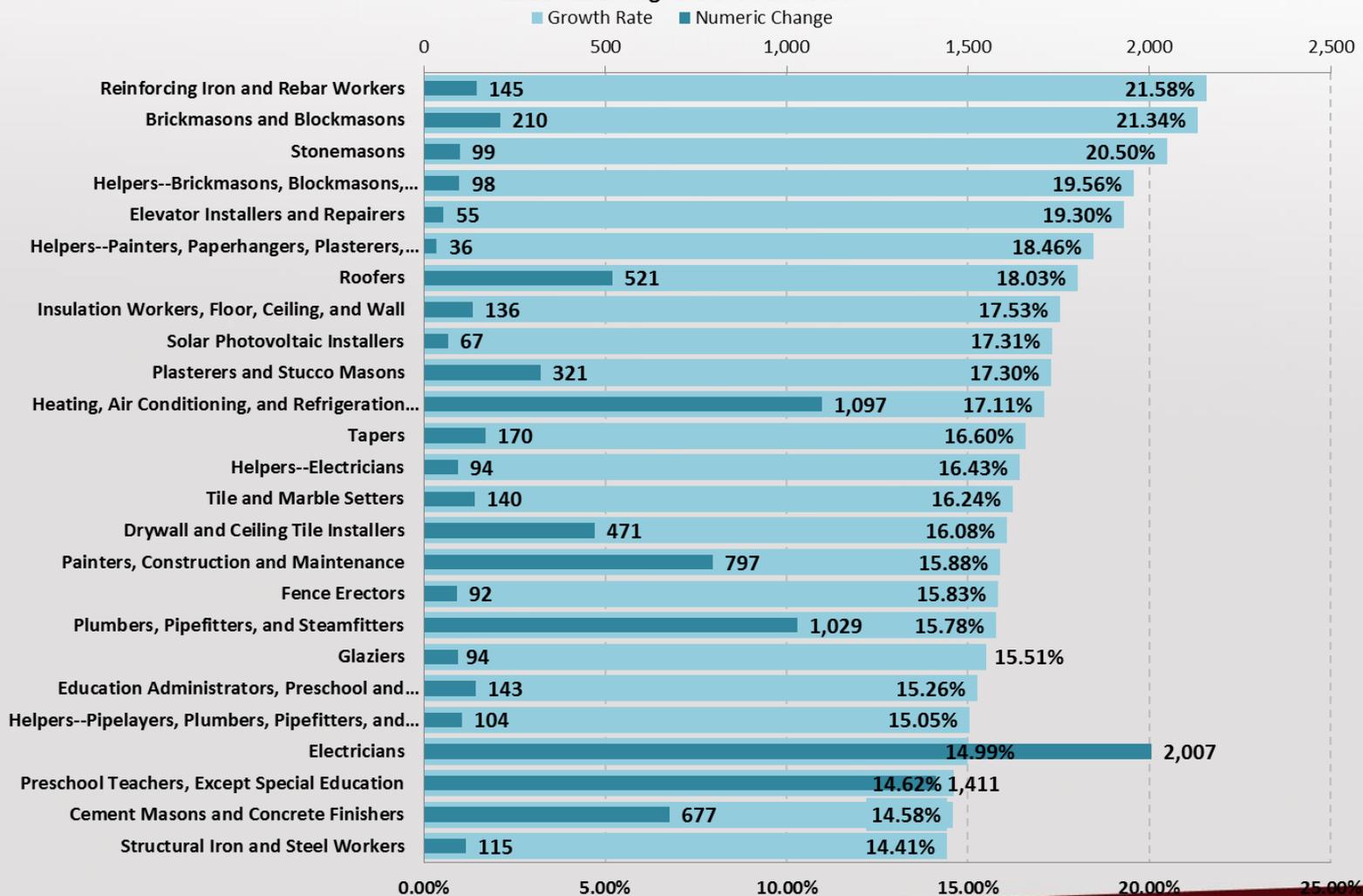
Top 25 Arizona Detailed Occupations

2015 - 2017 Annual Openings by Growth & Separations



Top 25 Arizona Detailed Occupations

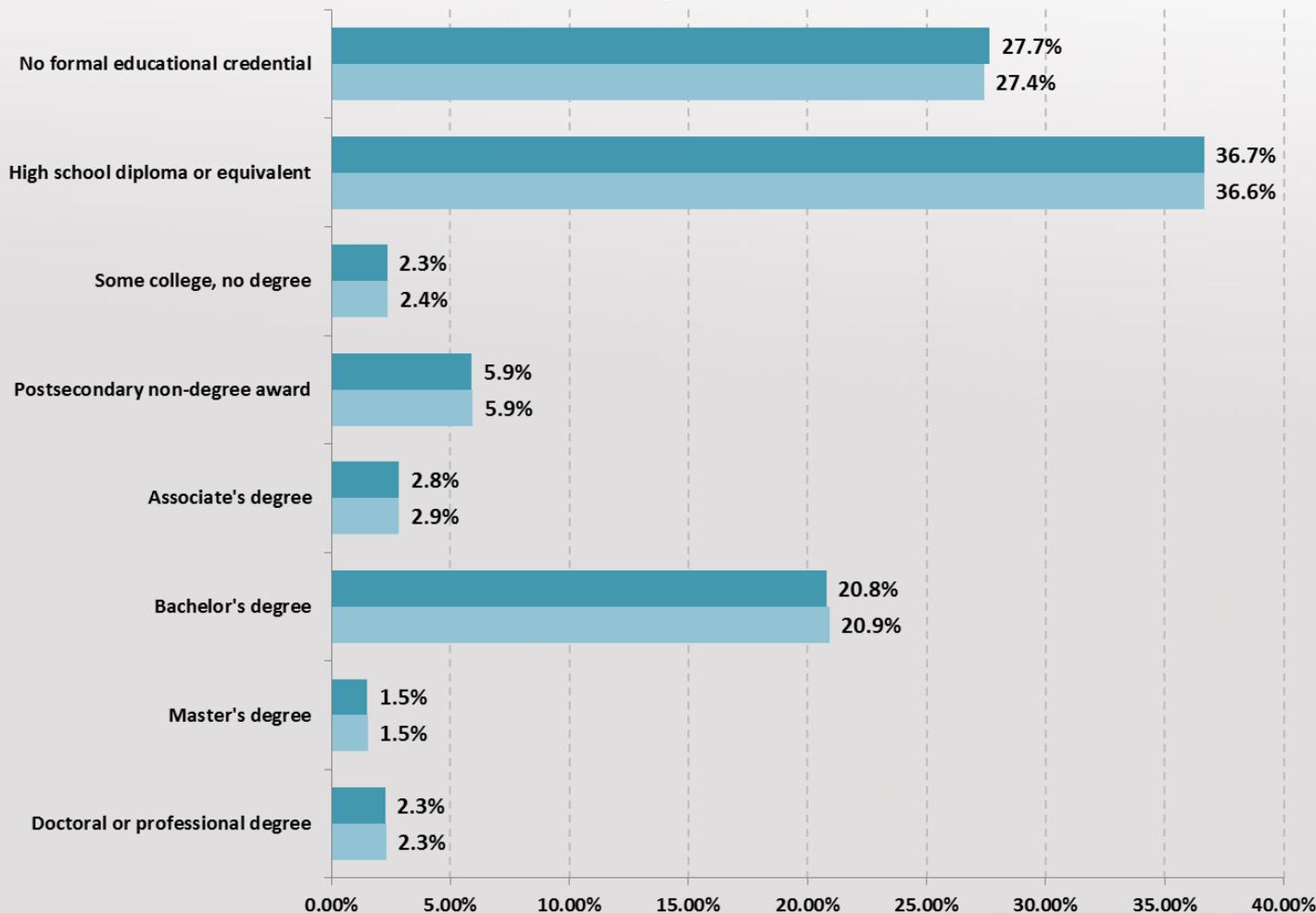
2015 - 2017 Highest Growth Rates



Arizona Share of Occupations by Minimum Education Requirement

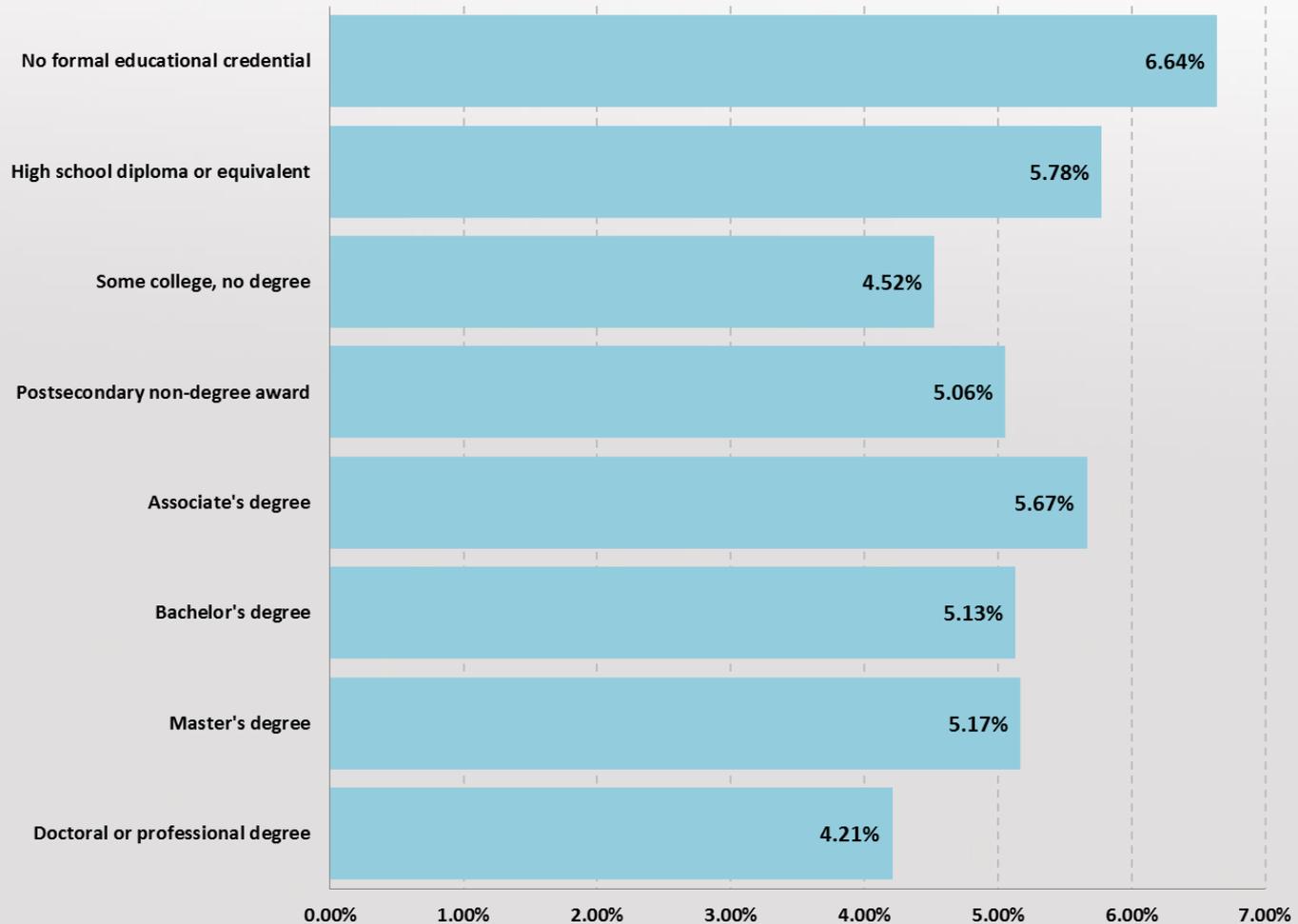
2015 & 2017 Employment Share

■ 2017 Projected ■ 2015 Estimated



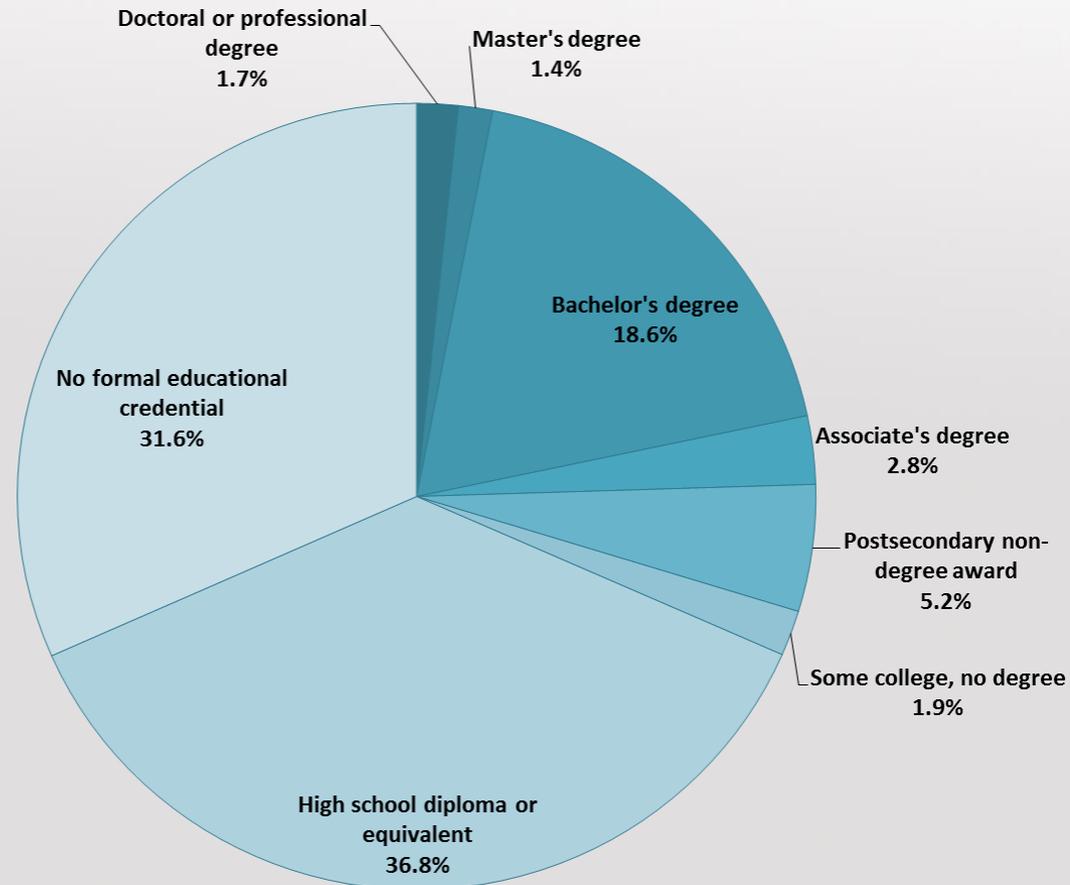
Arizona Occupations by Minimum Education Requirement

2015 - 2017 Total Percentage Change (Growth Rate)



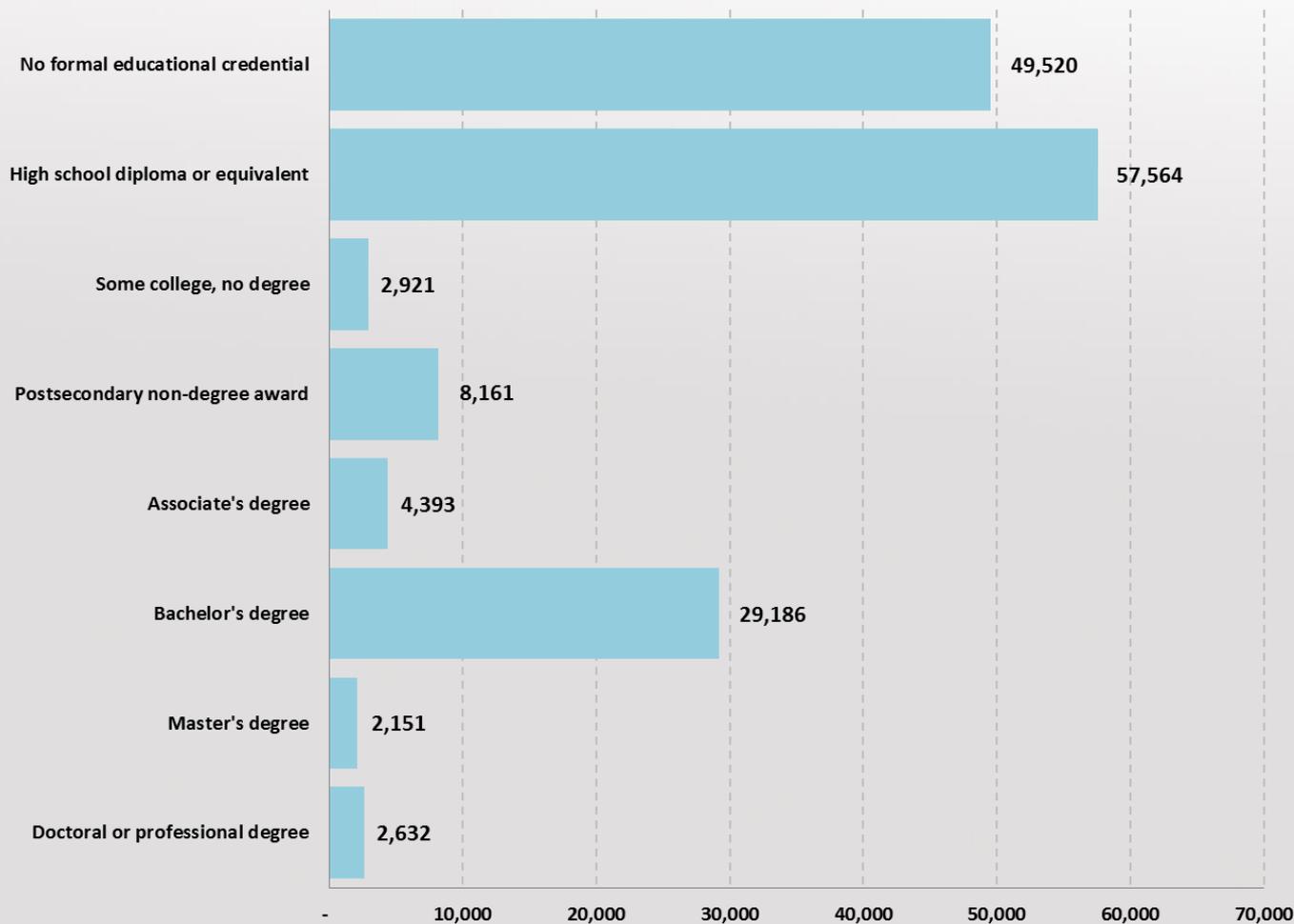
Arizona Share of Occupations by Minimum Education Requirement

2015 - 2017 Employment Change



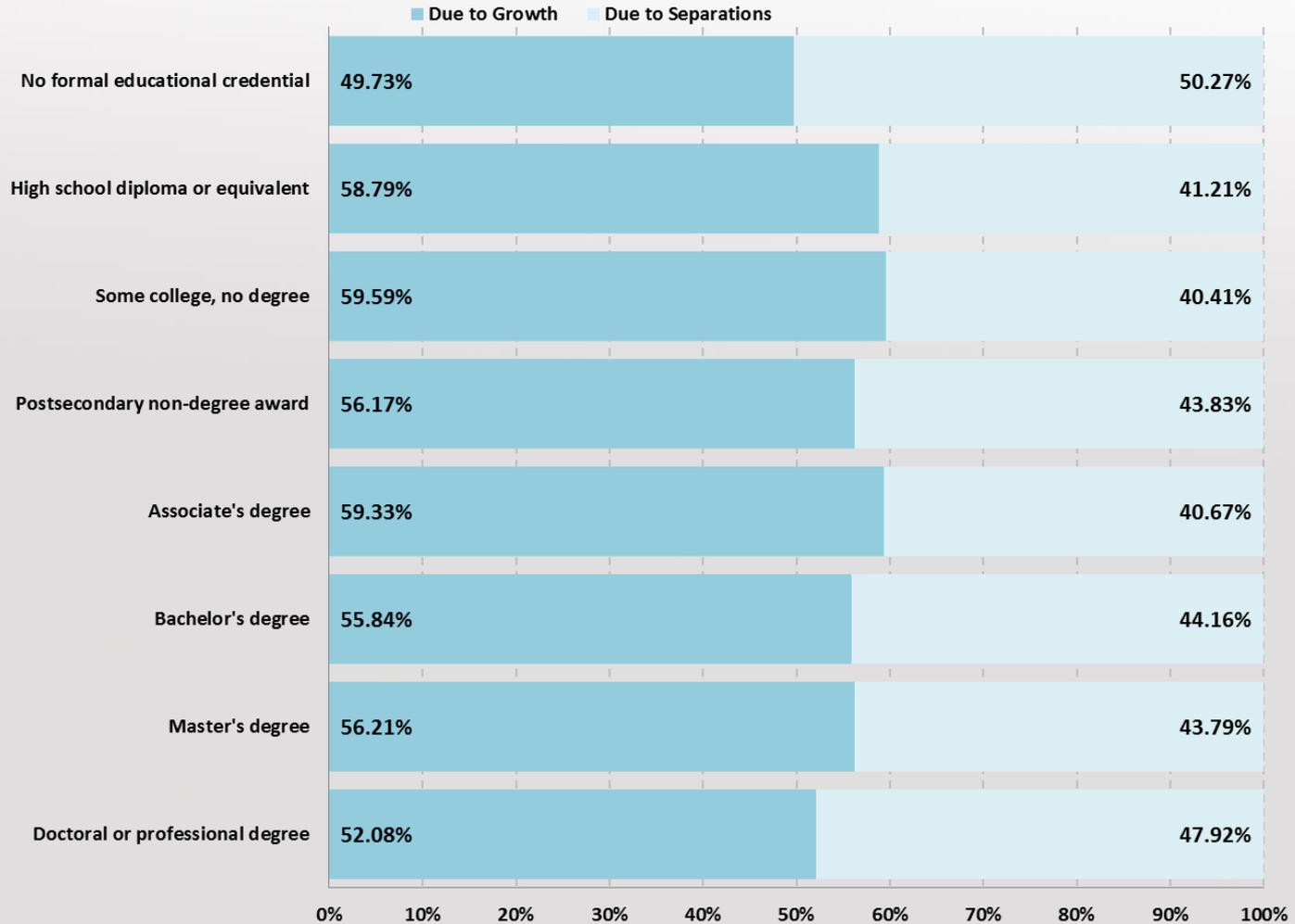
Arizona Occupations by Minimum Education Requirement

2015 - 2017 Total Numeric Change



Arizona Occupations by Minimum Education Requirement

2015 - 2017 Total Openings by Growth & Separations: Share of State Employment



Projected Highest Growing Occupations by Education Required

Occupation	SOC Code	Projected Employment	Total Openings	Minimum Education Requirement	Numeric Change
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	72,849	10,544	No formal educational credential	5,283
Personal Care Aides	39-9021	48,933	4,888	No formal educational credential	4,317
Retail Salespersons	41-2031	94,604	10,897	No formal educational credential	4,129
Waiters and Waitresses	35-3031	60,962	9,716	No formal educational credential	3,736
Cashiers	41-2011	65,355	9,379	No formal educational credential	3,068

Occupation	SOC Code	Projected Employment	Total Openings	Minimum Education Requirement	Numeric Change
Customer Service Representatives	43-4051	91,980	10,981	High school diploma or equivalent	7,030
Office Clerks, General	43-9061	56,148	5,198	High school diploma or equivalent	2,954
First-Line Supervisors of Office and Administrative Support Workers	43-1011	41,876	3,562	High school diploma or equivalent	2,322
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	43-6014	45,048	3,058	High school diploma or equivalent	2,152
Electricians	47-2111	15,393	2,416	High school diploma or equivalent	2,007

Emerging Demand Occupations- Employment and Wages

SOC Code	Occupation Title	2014 Average Levels		2012-2022
		Employment	Hourly Wage	Projected Annual Growth Rate
51-4041	Machinists	5,300	\$ 20.22	2.0%
29-1141	Registered Nurses	47,020	\$ 34.28	2.8%
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	22,580	\$ 28.26	2.3%
11-3031	Financial Managers	9,320	\$ 54.49	2.9%
11-3051	Industrial Production Managers	2,440	\$ 49.37	5.6%
29-1123	Physical Therapists	3,820	\$ 40.82	4.5%
47-4061	RailTrack Laying and Maintenance Equipment Operators	na	\$ 20.43	9.5%
17-2031	Biomedical Engineers	780	\$ 43.68	3.7%
51-1011	First-Line Supervisors of Production and Operating Workers	8,280	\$ 26.99	7.2%
41-3011	Advertising Sales Agents	2,380	\$ 25.81	0.2%
27-1024	Graphic Designers	3,100	\$ 22.04	0.9%
49-9071	Maintenance and Repair Workers, General	23,610	\$ 17.19	1.4%

Source: Arizona Department of Administration's Office of Employment and Population Statistics

Emerging Demand Occupations- Occupation Requirements

SOC Code	Occupation Title	Typical Requirement		
		Education Level	Work Experience	On-the-Job Training
51-4041	Machinists	High school diploma or equivalent	None	Long-term on-the-job training
29-1141	Registered Nurses	Associate's degree	None	None
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	High school diploma or equivalent	None	Moderate-term on-the-job training
11-3031	Financial Managers	Bachelor's degree	5 years or more	None
11-3051	Industrial Production Managers	Bachelor's degree	5 years or more	None
29-1123	Physical Therapists	Doctoral or professional degree	None	None
47-4061	RailTrack Laying and Maintenance Equipment Operators	High school diploma or equivalent	None	Moderate-term on-the-job training
17-2031	Biomedical Engineers	Bachelor's degree	None	None
51-1011	First-Line Supervisors of Production and Operating Workers	Postsecondary non-degree award	Less than 5 years	None
41-3011	Advertising Sales Agents	High school diploma or equivalent	None	Moderate-term on-the-job training
27-1024	Graphic Designers	Bachelor's degree	None	None
49-9071	Maintenance and Repair Workers, General	High school diploma or equivalent	None	Long-term on-the-job training

Source: Arizona Department of Administration's Office of Employment and Population Statistics

Employer's Employment Needs: Emerging Demand Occupations

SOC Code	Occupation Title	Occupation Descriptor:	Occupation Descriptor:	Occupation Descriptor:
		Knowledge	Skills	Abilities
41-3011	Advertising Sales Agents	Sales and Marketing	Persuasion	Oral Expression
17-2031	Biomedical Engineers	Engineering and Technology	Reading Comprehension	Deductive Reasoning
11-3031	Financial Managers	na	na	na
51-1011	First-Line Supervisors of Production and Operating Workers	Mechanical	Critical Thinking	Oral Expression
27-1024	Graphic Designers	Design	Reading Comprehension	Oral Expression
11-3051	Industrial Production Managers	Production and Processing	Monitoring	Deductive Reasoning
51-4041	Machinists	Mechanical	Operation Monitoring	Control Precision
49-9071	Maintenance and Repair Workers, General	Mechanical	Equipment Maintenance	Information Ordering
29-1123	Physical Therapists	Education and Training	Reading Comprehension	Oral Expression
47-4061	RailTrack Laying and Maintenance Equipment Operators	Mechanical	Operation Monitoring	Control Precision
29-1141	Registered Nurses	Psychology	Social Perceptiveness	Problem Sensitivity
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	Sales and Marketing	Critical Thinking	Oral Expression

Source: Arizona Department of Administration's Office of Employment and Population Statistics

How to Use LMI Data

How should I use this data?

- **Craft your question carefully** – the more muddled the question, the more difficulty you will have in finding the answer
- **Become familiar with different data sets (or someone who is)** – there is no one place to find all the data you need
- **Know the limitations of your data set** – it's easy to accidentally misuse data and draw erroneous conclusions
- **Use more than one source of data** – don't lock yourself into a single estimate, consider all of the available data to get the most accurate picture

“A single model is no substitute for judicious consideration of the various indicators”

-Federal Reserve

How can labor market information data help companies & job seekers?

- Occupation Questions
 - What is considered a competitive wage for a particular occupation?
 - What is the turnover rate for a particular occupation?
- Labor Supply Questions
 - What is the potential labor supply level for a city?
 - What is the potential labor supply level for a city worksite?
 - What are the demographics of the workers in that area?
 - What is the education level of a population in a city?

How can labor market information data help companies & job seekers?

- Industry Questions
 - How many firms in my industry are already located in that region?
 - What is the average wage for my industry?
 - What are the characteristics of the new hires in that industry?

Example Question 1:

What is competitive wage for web developers?

1. Go to Employment and Population Statistics <https://laborstats.az.gov/>
2. Select
 - a) Data by BLS Program
 - b) Occupational Employment Statistics (OES)
 - c) 2014 Occupational Employment & Wage Estimates
 - d) Coconino County---2014 Occupational Employment & Hourly Wage Estimates (info on more than 300 occupations)
3. Look up occupation: (SOC 15-1134) Web Developers

Coconino County---2013 Occupational Employment & Hourly Wage Estimates

Occ. Code	Occupational Title	Mean Wage	10 th Percentile Wage	25 th Percentile Wage	Median Percentile Wage	75 th Percentile Wage	90 th Percentile Wage	Rounded Employment
15-1134	Web Developers	\$25.77	\$17.82	\$19.82	\$23.89	\$28.94	\$40.04	30

Example Question 2:

What is the expected turnover rate for web developers?

1. Go to Employment and Population Statistics <https://laborstats.az.gov/>
2. Select
 - a) Data by Topic
 - b) Employment Forecasts
 - c) Occupation Projections data
 - d) 2014-2016 Statewide Occupation Forecast Tables & Graphs
3. Look up occupation: (SOC 15-1134) Web Developers
4. Divide Openings Due Separations (101) by Total Openings (237) to get a turnover rate of 42.6%

Example Question 3:

What is the potential labor supply level **in** Flagstaff City?

1. Go to Employment and Population Statistics <https://laborstats.az.gov/>
2. Select
 - a) Data by BLS Program
 - b) Local Area Unemployment
 - c) LAUS Tables – City Unemployment Report
 - d) Click to display or hide list of files
 - e) 2015 City Unemployment Report
3. Look up Flagstaff City: April 2015 Labor Force – **40,354**

Organization & Contact Information

LMI Data Products & Services

(include but not limited to)

Products

- Employment Estimates
- Unemployment Rate Estimates
- Wage & Income Estimates
- Industry Projections
- Occupation Projections
- Other Publications

Services

- Labor Market Analysis
- Presentation: Regional Analysis
- Presentation: Using/Understanding Labor Market data
- Presentation: Using Web-Based Data Tools
- Specialized Models/Analysis

Arizona Department of Administration

Employment and Population Statistics

Contact Information

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Email: labor.info@azstats.gov

Thank You!
Any Questions?