

# Industry and Occupation Employment Projections 2014-2024



OFFICE *of* ECONOMIC OPPORTUNITY<sub>1</sub>

# Definitions:

- **Industry Employment Projections** are based on the State or local area's past industry employment trends and are refined by a review of current economic developments that affect employment within each industry
- **Occupational Employment Projections** estimate the changes in occupational employment over time resulting from industry growth, technological changes, and other factors

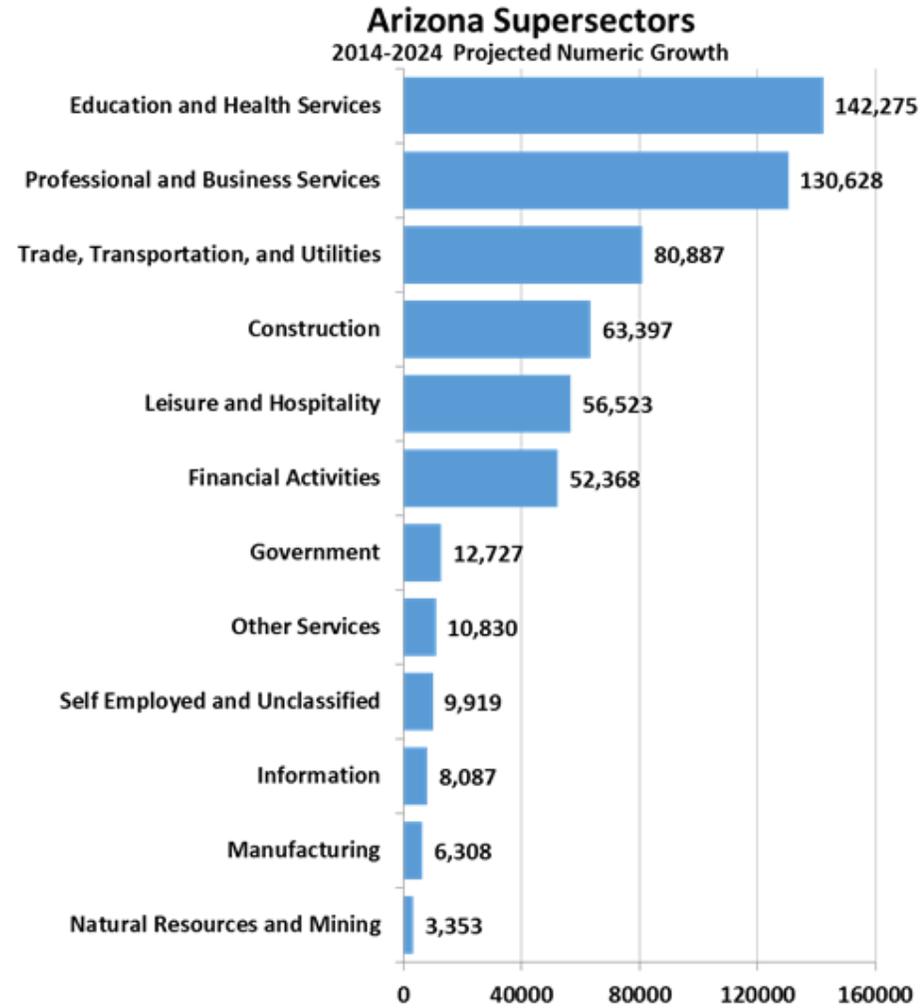
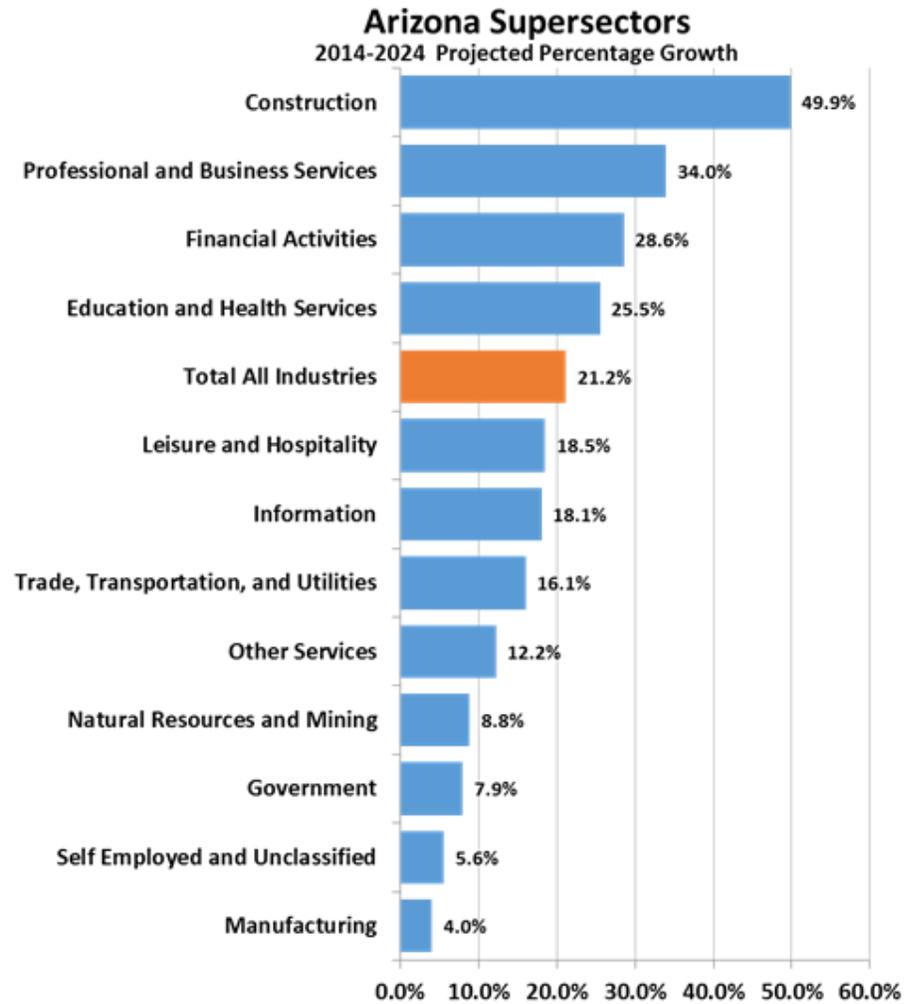
# Definitions:

- The State and sub-state area Long-Term projections are for a 10-year period
- The projections are revised every two years to maintain currency and incorporate economic changes that occur in the State and local areas
- Preliminary employment projections are produced using various economic models
  - The methods and economic models are provided to all state Labor Market Information programs to insure consistent methodology and outcomes across the nation

# Summary:

- Arizona employment is projected to increase by 577,302 jobs (21.2% growth) through 2024
- Arizona's population is projected to increase by 119,362 people (1.5% growth) through 2024.
- The Phoenix Metro Area (Maricopa and Pinal Counties) is projected to record 81% of the employment growth
- Employment within the Tucson Metro Area and remaining counties (Balance of State) are projected to increase by 14.4% and 13.6%, respectively
- Construction (49.9% growth), Professional and Business Services (34.0% growth), Financial Activities (28.6% growth) and Education and Health Services (25.5% growth) are all projected to grow at a faster rate than the economy as a whole

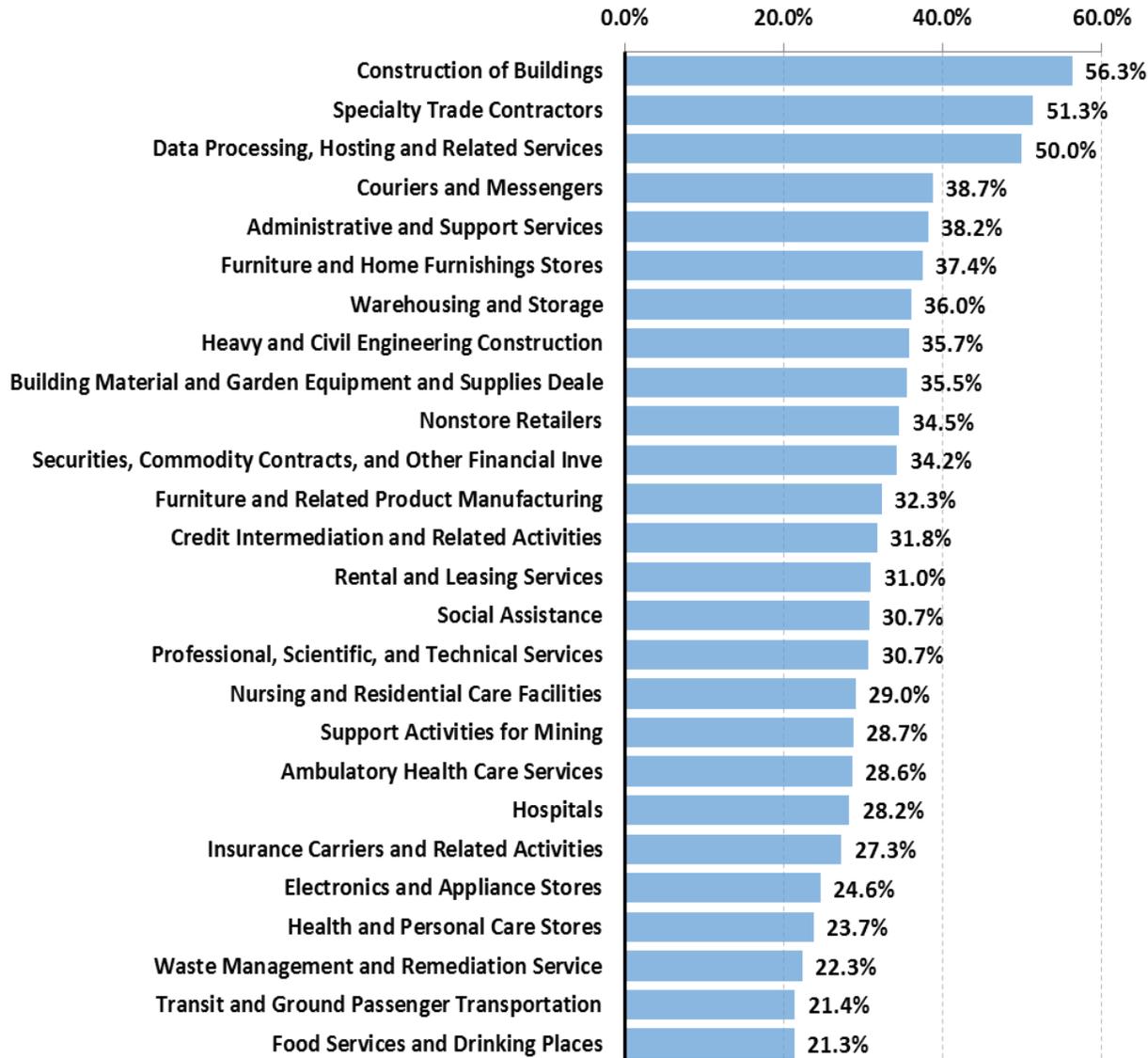
# Industry Projections



All twelve supersectors are projected to record positive employment growth over the ten-year period

# Industry Projections

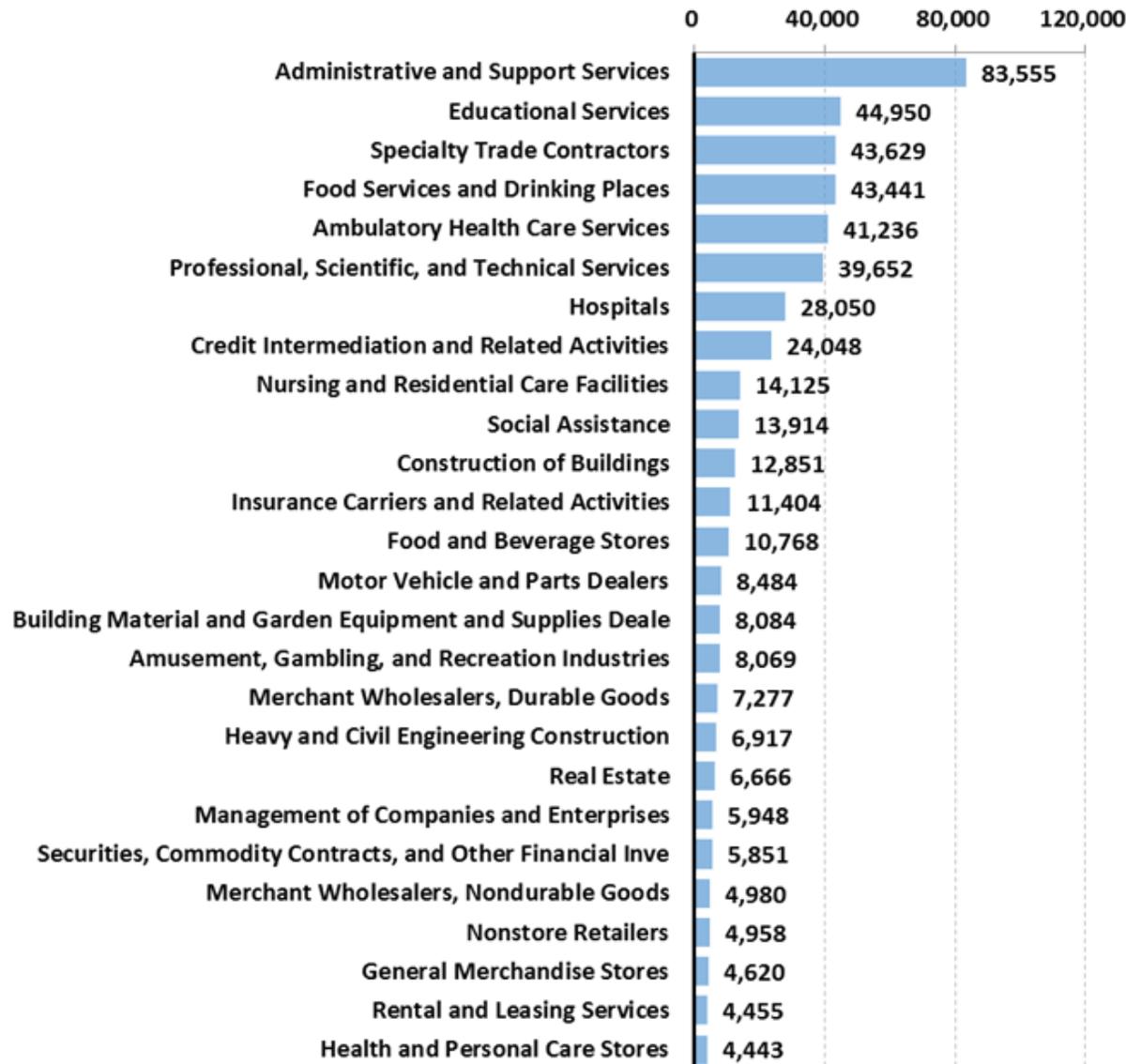
## Arizona Minor Industries Projected to Grow Faster than All Industries from 2014-2024



- In Arizona, 26 sectors are projected to grow at a faster rate than the average rate for all industries combined
- The top three subsectors are projected to gain 50.0% or more over the next ten years

# Industry Projections

## Arizona Top 26 Projected Minor Industry Growth 2014-2024

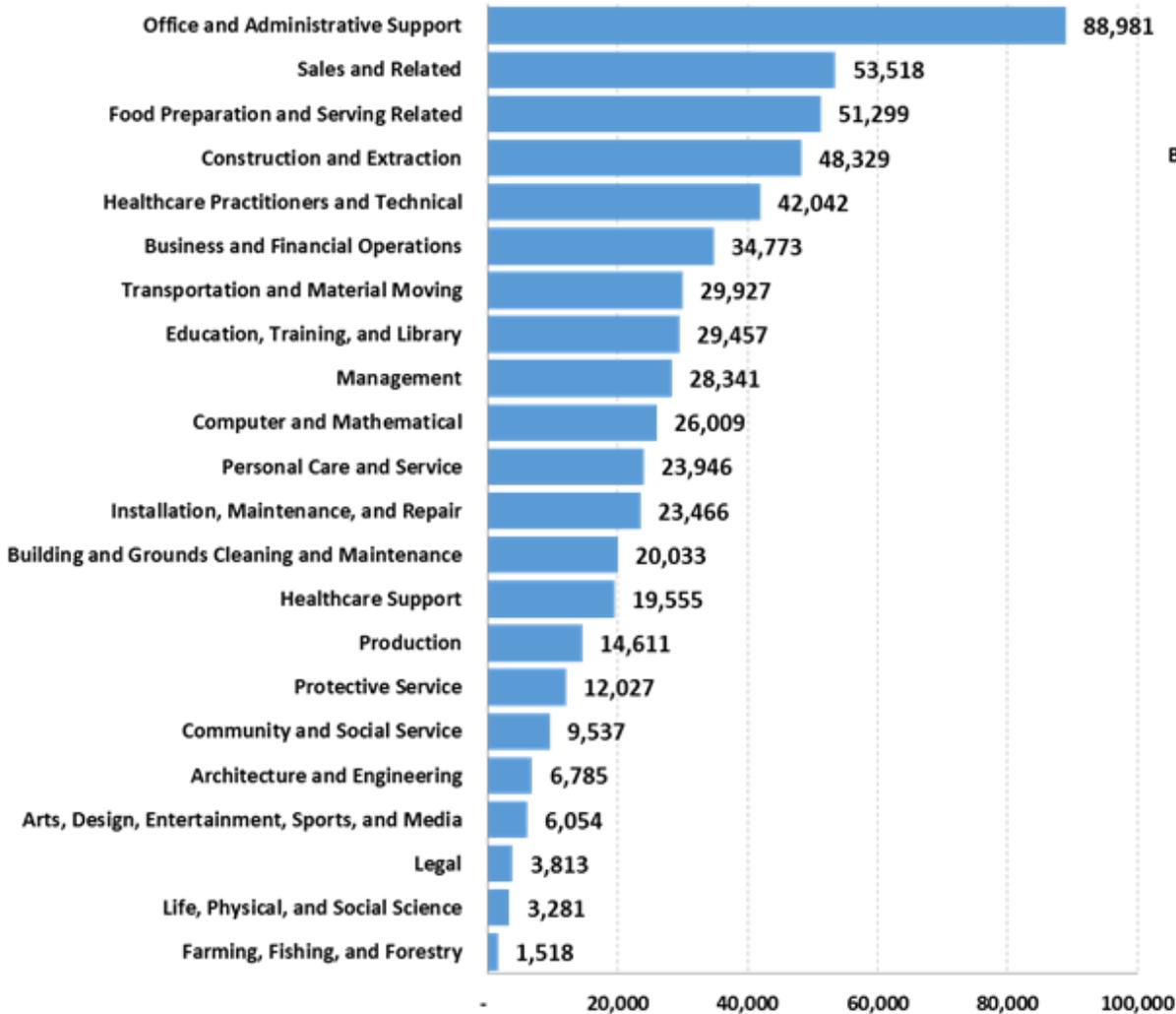


- The largest projected numeric growth will occur in the Administrative and Support Services subsector
- This subsector provides support services to other organizations and industries
- Occupations found in this subsector include Janitors, Office Clerks, Security Guards, Etc.
- Educational Services includes businesses that provide instruction and training

# Occupational Projections

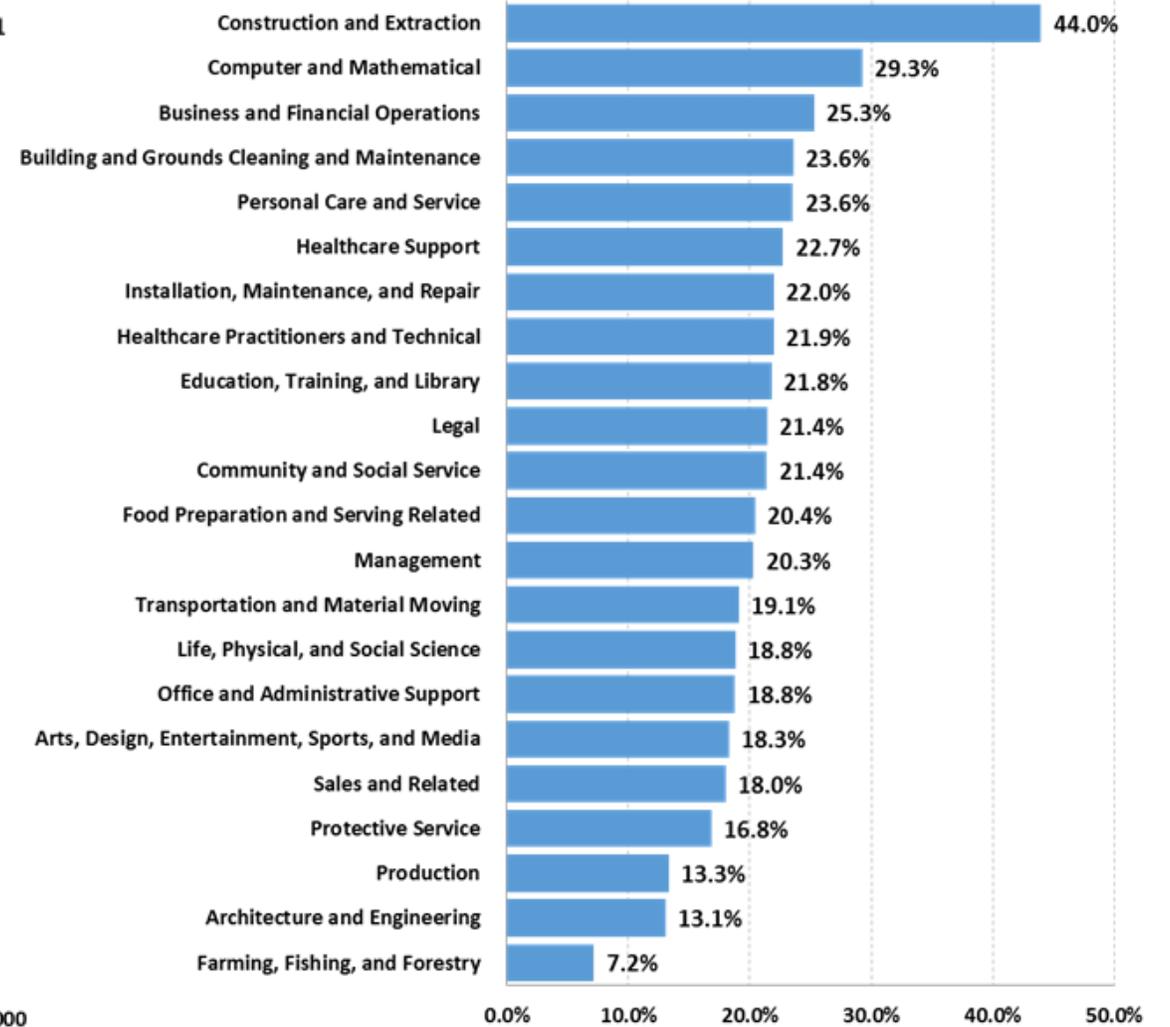
## Arizona Major Occupational Groups

2014 - 2024 Total Numeric Change



## Arizona Major Occupational Groups

2014 - 2024 Total Percentage Change



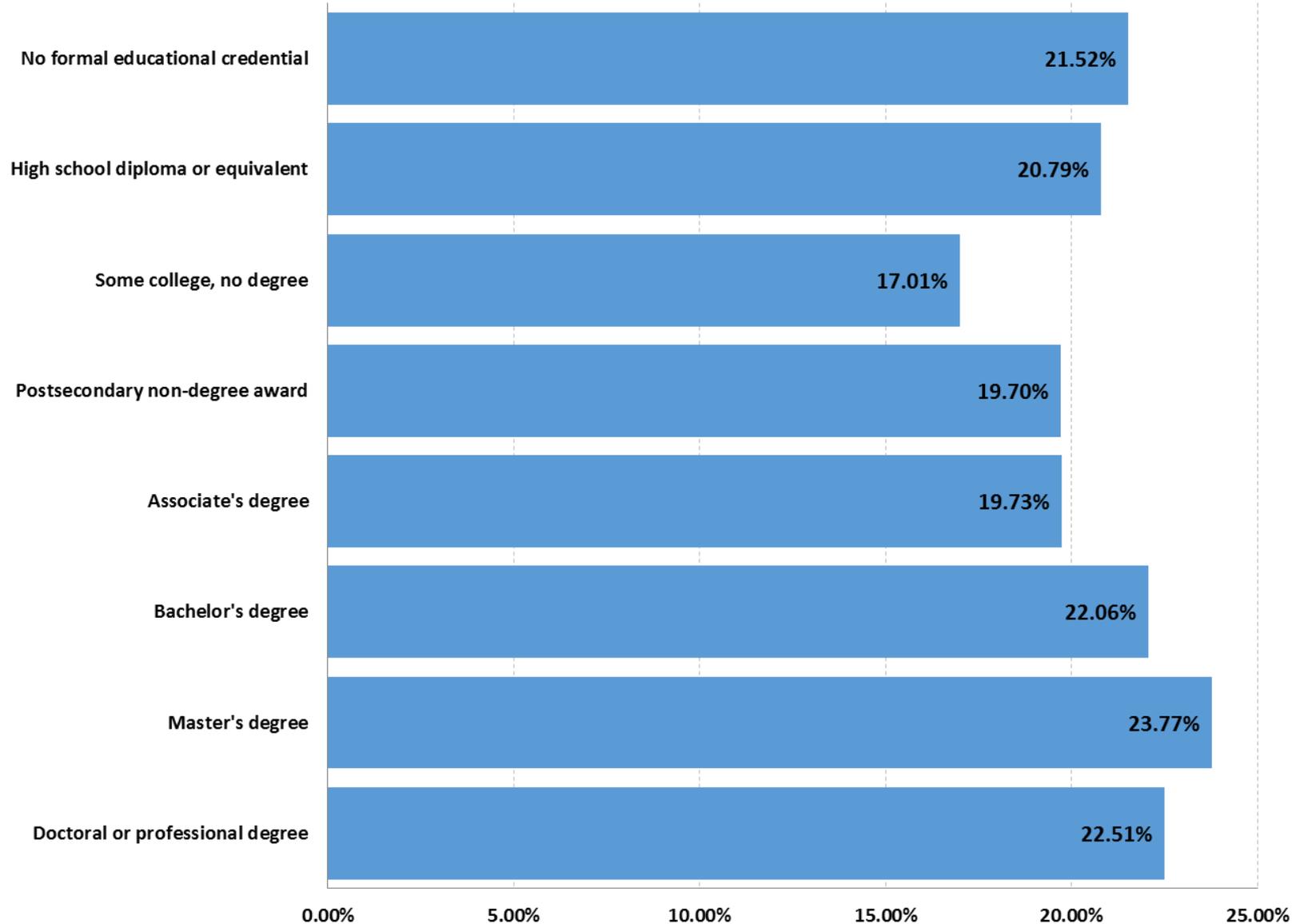
- Over half of Arizona's occupational job growth is projected to occur in six major occupational groups
- Occupational groups differ from industry sectors because they capture what the worker is actually doing in the job

# Occupational Projections

Occupational Share Changes 2014-2024					
SOC Code	SOC Titles	2014 Estimated	2024 Projected	Difference	Numeric Growth
47-0000	Construction and Extraction	4.03%	4.79%	0.76%	48,329
15-0000	Computer and Mathematical	3.26%	3.48%	0.22%	26,009
13-0000	Business and Financial Operations	5.04%	5.21%	0.17%	34,773
39-0000	Personal Care and Service	3.73%	3.80%	0.07%	23,946
37-0000	Building and Grounds Cleaning and Maintenance	3.11%	3.18%	0.06%	20,033
29-0000	Healthcare Practitioners and Technical	7.02%	7.07%	0.05%	42,042
31-0000	Healthcare Support	3.15%	3.19%	0.04%	19,555
49-0000	Installation, Maintenance, and Repair	3.91%	3.94%	0.03%	23,466
25-0000	Education, Training, and Library	4.95%	4.98%	0.03%	29,457
21-0000	Community and Social Service	1.63%	1.64%	0.00%	9,537
23-0000	Legal	0.65%	0.65%	0.00%	3,813
19-0000	Life, Physical, and Social Science	0.64%	0.63%	-0.01%	3,281
27-0000	Arts, Design, Entertainment, Sports, and Media	1.22%	1.19%	-0.03%	6,054
11-0000	Management	5.12%	5.08%	-0.04%	28,341
35-0000	Food Preparation and Serving Related	9.21%	9.15%	-0.06%	51,299
45-0000	Farming, Fishing, and Forestry	0.78%	0.69%	-0.09%	1,518
33-0000	Protective Service	2.62%	2.52%	-0.09%	12,027
53-0000	Transportation and Material Moving	5.75%	5.65%	-0.10%	29,927
17-0000	Architecture and Engineering	1.90%	1.78%	-0.13%	6,785
51-0000	Production	4.02%	3.76%	-0.26%	14,611
41-0000	Sales and Related	10.88%	10.60%	-0.28%	53,518
43-0000	Office and Administrative Support	17.37%	17.03%	-0.34%	88,981

## Arizona Occupations by Minimum Education Requirement

2014 - 2024 Total Percentage Change (Growth Rate)

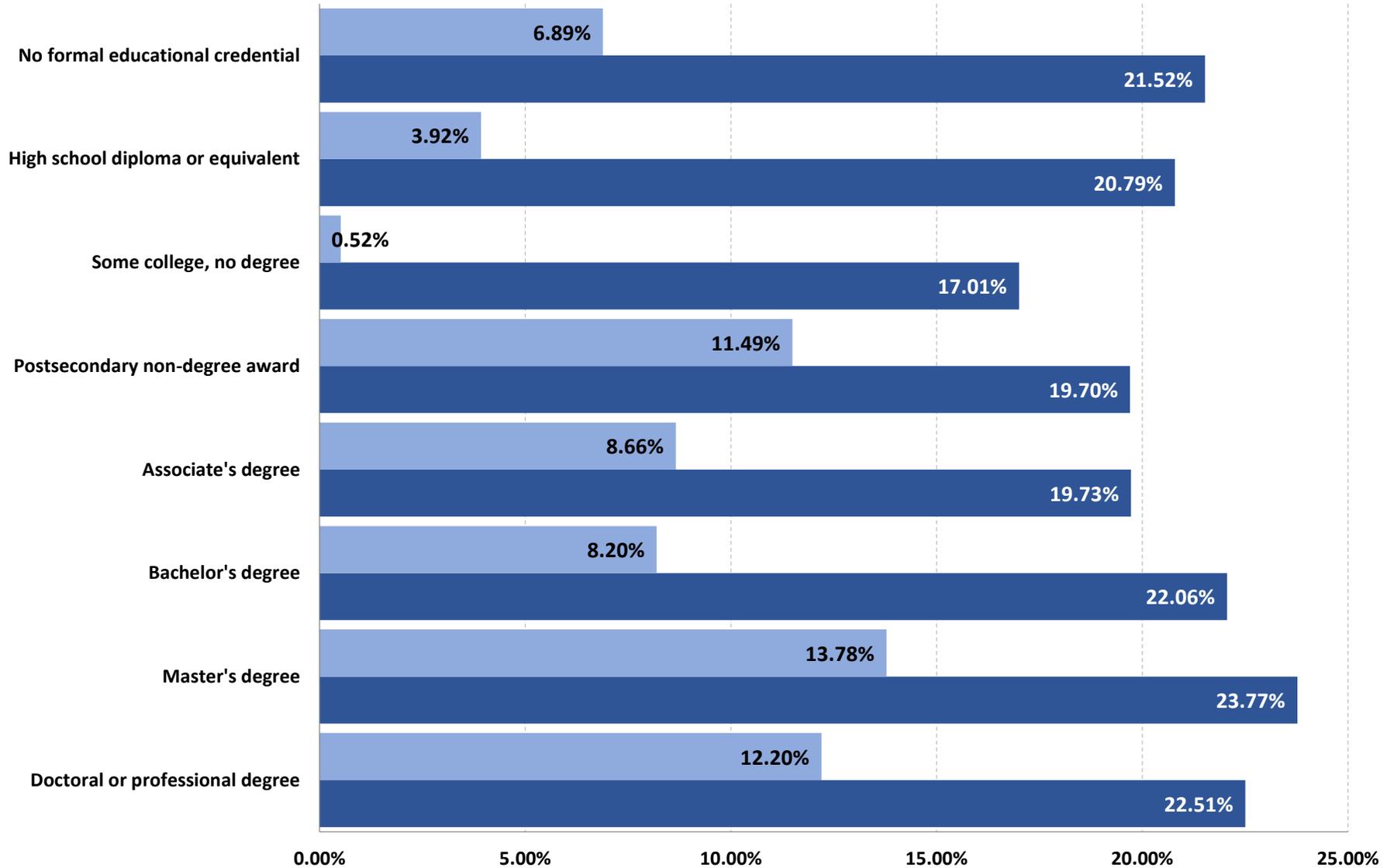


# Occupational Projections

## US and Arizona Occupation Growth by Minimum Education Requirement

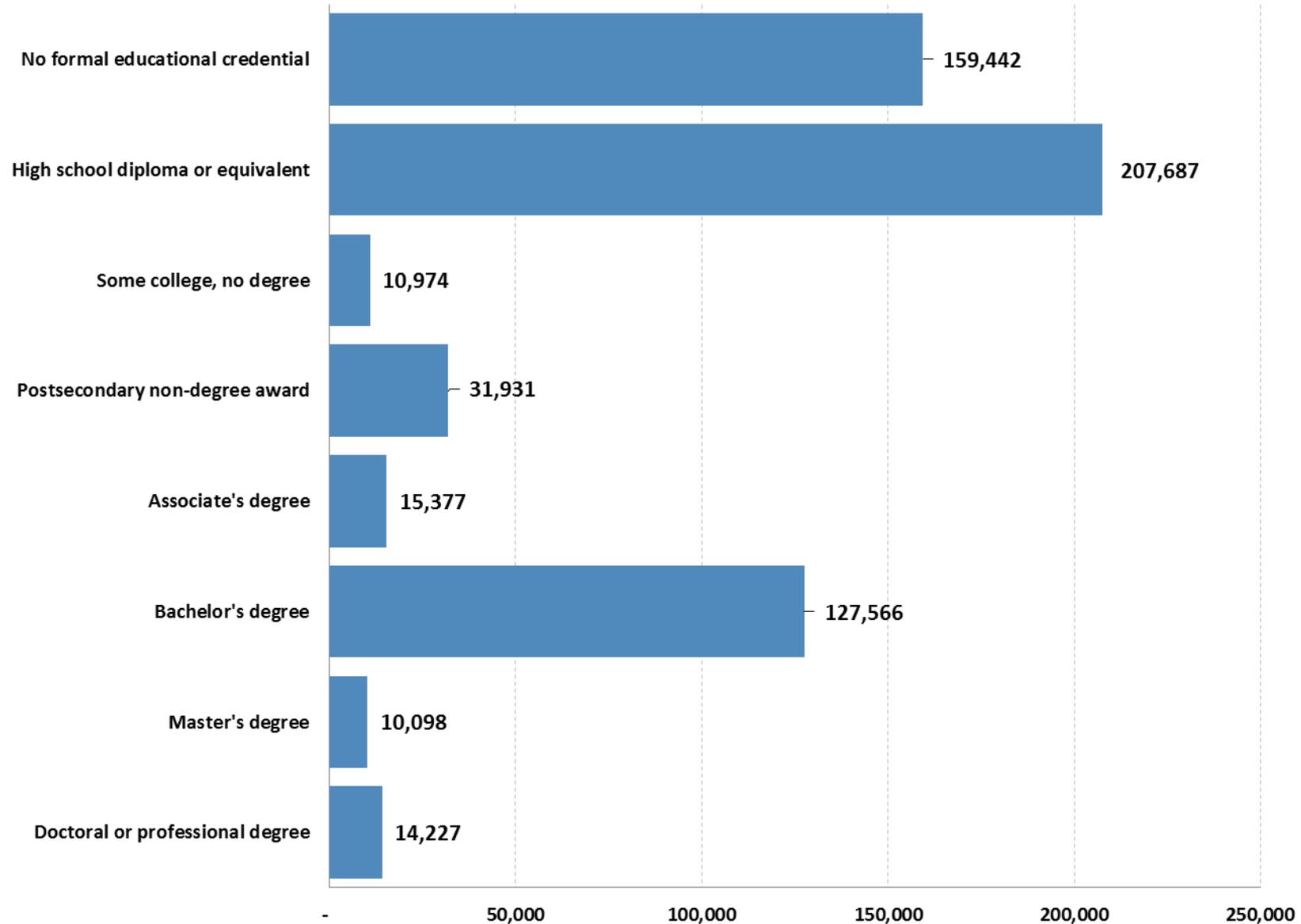
2014 - 2024 Total Percentage Change (Growth Rate)

■ US Percent Change ■ AZ Percent Change



## Arizona Occupations by Minimum Education Requirement

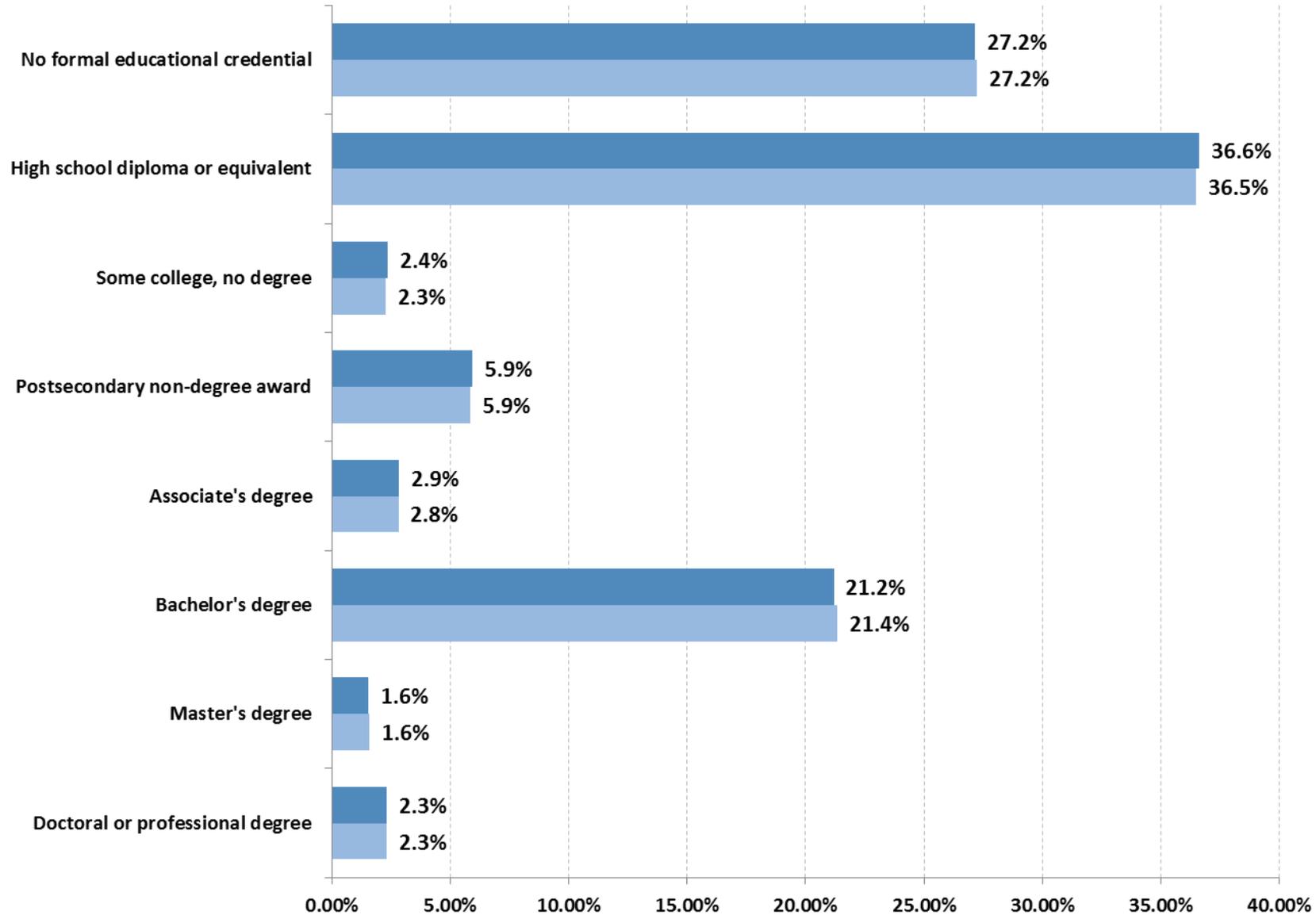
2014 - 2024 Total Numeric Change



## Arizona Share of Occupations by Minimum Education Requirement

2014 & 2024 Employment Share

■ 2014 Estimated ■ 2024 Projected

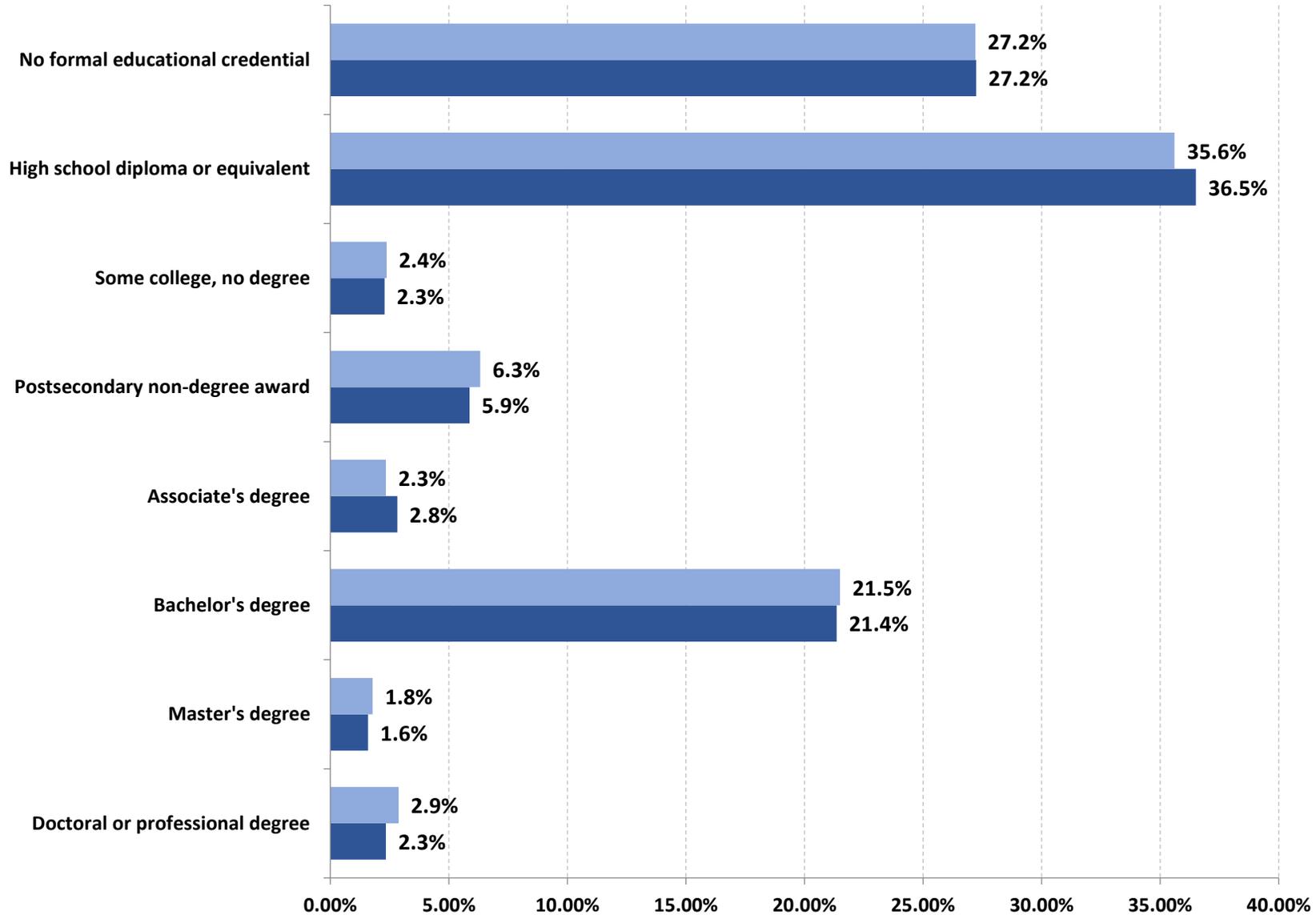


# Occupational Projections

## US and Arizona Share of Total Occupations by Minimum Education Requirement

2024 Employment Share

US 2024 Projected AZ 2024 Projected



# Industry Projections Methodology: Data Included

- Industry Projections Estimates **Include:**
  - Nonfarm employment by subsector group (3-digit NAICS)
  - Self-employed workers who work for profit or fees in their own business, profession, trade, or farm
  - Unpaid family workers who work without pay for 15 or more hours per week on a farm or in a business operated by a member of the household to whom they are related by birth or marriage
  - Private household workers employed as domestic workers whose primary activities are to maintain the household

# Industry Projections Methodology: Data Included (cont.)

- Industry Projections Estimates **Exclude**:
  - Farm employment in establishments engaged in growing crops, raising animals, harvesting fish and other animals from a farm, ranch, or natural habitats

# Industry Projections Methodology: Data Sources

- Principal Data Source:
  - The Quarterly Census of Employment and Wages (QCEW) data represent the universe of employment by industry and county
    - The Office of Economic Opportunity utilizes the data as reported to employment tax programs, most notably the Unemployment Insurance Tax program

# Industry Projections Methodology: The Process

- Analysts follow a nationally specified methodical process to develop industry projections including:
  - Constructing a historical industry series for each industry located in the area using QCEW employment data sources
    - The final year of the historical data becomes the Base Year of the projection period
  - Processing the historical times series through BLS projections software that utilizes a variety of economic models to produce the initial Target Year projections by industry
  - Reviewing the initial projection for each industry and select the best economic model's projection based on prior historical growth rates, knowledge of the economy, and comparisons to other forecasts

# Industry Projections Methodology: Economic Assumptions

- The institutional framework of the U.S. economy will not change radically
- Recent technological and scientific trends will continue
- The long-term employment patterns will continue in most industries
- Federal, state, and local government agencies are expected to operate under budgetary constraints
- No major events will occur that will significantly alter the industrial structure of the economy, the occupational staffing patterns, or the rate of long-term growth
- Population growth rates and age distributions will not differ significantly from Office of Economic Opportunity projections presently available
- Attitudes toward work, education, income, and leisure will not change significantly

# Occupation Projections Methodology: Data Sources

- Occupational Staffing Patterns
  - OES survey responses are summarized by industry and matched to a NAICS code for the State and sub-state areas
  - Statewide responses or another area's responses are substituted in cases where local OES responses are not available
- Industry Employment Projections
  - Primary data source used to project changes in occupational employment

# Occupation Projections Methodology: The Process

- Analysts follow a nationally specified methodical process to develop occupation projections
  - Match the base year industry employment with the OES staffing patterns to produce occupational base year employment by industry sector
  - Apply change factors to the occupational base year employment to produce the target year staffing patterns
    - Change factors reflect projected shifts in occupational usage within particular industries
    - The BLS conducts special studies to produce the change factors
  - Match target year industry employment to the target year staffing patterns to produce occupational employment projections by industry sector
  - Sum data by occupation across all industries for the base and target year occupational estimates

# Occupation Projections Methodology: The Process (cont.)

- Calculate replacement needs for each occupation
  - Replacement needs estimate the number of job openings created when workers retire or permanently leave an occupation and need to be replaced
  - The BLS develops replacement rates using occupational employment data from the Current Population Survey (CPS)
  - Calculate the difference between the base year occupational estimates and the target year projections.
    - This difference represents the new jobs resulting from industry growth and from changes in staffing patterns