

THE GRAND CANYON STATE | ESTABLISHED 1912 | 6th LARGEST STATE BY AREA: 113,998 SQ MI

15 COUNTIES: APACHE COUNTY | COCHISE COUNTY | COCONINO COUNTY | GILA COUNTY | GRAHAM COUNTY | GREENLEE COUNTY | LA PAZ COUNTY

MARICOPA COUNTY | MOHAVE COUNTY | NAVAJO COUNTY | PIMA COUNTY | PINAL COUNTY | SANTA CRUZ COUNTY | YAVAPAI COUNTY | YUMA COUNTY



BUILDING

# ARI ZONA'S WORK FORCE

**2025**  
117th REPORT

BACKGROUND REPORT

ESTIMATED POPULATION 7,582,384 | 7th FASTEST JOB GROWTH RATE, YEAR-OVER-YEAR, IN THE COUNTRY (2024)



Arizonans from many communities across the state will participate in 2025 in Arizona Town Hall programs on the topic of “Building Arizona’s Workforce.”

An essential element to the success of these consensus-driven discussions is this background report, which is provided to all participants before each program. Maricopa Community Colleges coordinated this informative background material in partnership with diverse professionals and practitioners from around the state who contributed their time and talent to this effort. Together they have created a unique resource for a full understanding of the topic.

We thank the report’s authors for sharing their wealth of knowledge and professional talents. Our deepest gratitude also goes to Daniel Barajas, Chief Officer of Workforce and Economic Development, and Jennifer Kaufman Fourness, Program Director for Workforce Development at Maricopa Community Colleges, who marshaled authors, created content, and served as editors of the report.

After the culmination of various programs, including community and future leaders town halls, the background report will be combined with consensus recommendations of participants into a Final Report. This Final Report will be available to the public on the Arizona Town Hall website and will be widely distributed and promoted throughout Arizona. The background report and recommendations will be used as a resource, a discussion guide, and an action plan on how best to address workforce development in Arizona.

Sincerely,

Gregory Falls  
Board Chair, Arizona Town Hall  
[www.aztownhall.org](http://www.aztownhall.org)

# BUILDING ARIZONA'S WORKFORCE BACKGROUND REPORT

T H E 1 1 7 <sup>th</sup> A R I Z O N A T O W N H A L L

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**Special thanks** to the leadership and staff of the Maricopa Community Colleges: Dr. Eddie Genna, Interim Senior Vice Chancellor of External Affairs; Lindsey Wilson, Chief Marketing and Communications Officer; Britt Lewis, Manager of Content and Production; Tom Kaczor, Creative Services Manager; and Sean Layton, Copywriter, for their work in developing this report.

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# I N M E M O R Y

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## SHIRLEY ANN AGNOS

June 24, 1938 – February 12, 2025

Shirley Agnos served as Arizona Town Hall's President for 42 years, was a dedicated civic and community leader, and left a legacy of creating solutions through fact-based community discussions that have impacted every aspect of life in Arizona.



## FREDERICK H. ROSENFELD

October 16, 1937 – March 3, 2025

Fred Rosenfeld served for decades as a member of Arizona Town Hall's Research Committee. He regularly contributed his encyclopedic knowledge of Arizona law and history to the content of the reports.





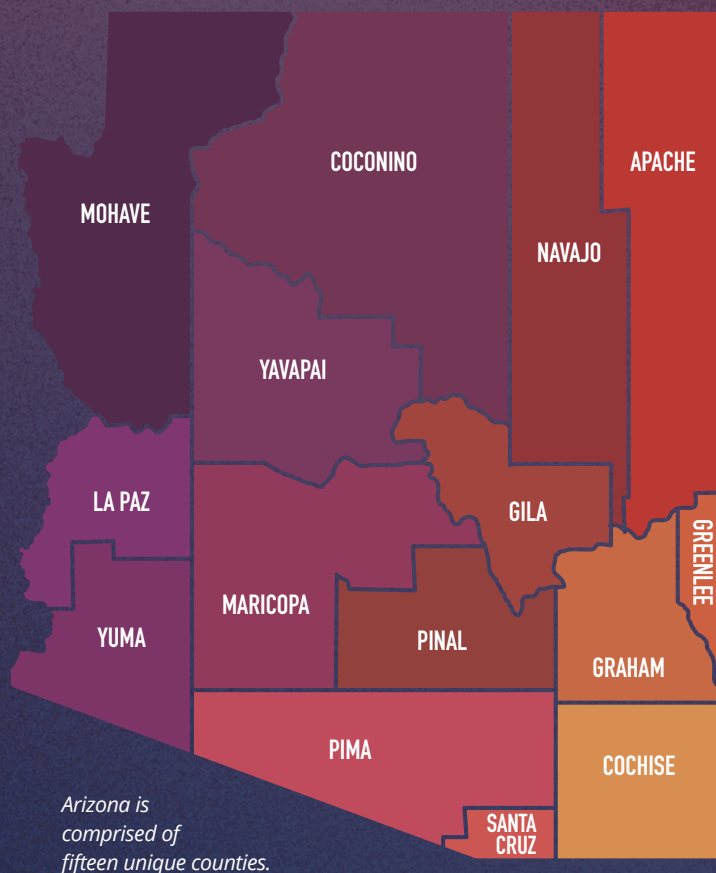
# BUILDING ARIZONA'S WORKFORCE

## BACKGROUND REPORT

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# PREFACE

## ARIZONA AND THE WORLD ARE EXPERIENCING TREMENDOUS DEMOGRAPHIC AND TECHNOLOGICAL CHANGES.

As Baby Boomers continue to retire, a significant structural shift is underway—leaving in its wake some major challenges: how to fill critical jobs, create and scale the workforce of tomorrow, and support and sustain vibrant economies and communities amid this historic and systemic shift.

As one of the nation's fastest-growing states, Arizona is already confronting these grand challenges.

This background report offers an overview of trends and transitions through the lens of workforce development—a term commonly used yet difficult to singularly define.

For the purpose of this report, we define workforce development as “the workforce education and skills training activities directly connected to the hiring and skills needs of the business community that result in quality jobs”—a definition sourced from the U.S. Economic Development Administration.

Simply stated, workforce development means workers are being prepared to fill current and future jobs—a process that requires analysis of the necessary skills, knowledge, and abilities to be successful in specific job functions.

The goal of this background report is to create an informed resource for community and statewide Arizona Town Hall discussions related to workforce opportunities and challenges that will help guide us through these historic times.

**To this end, it will provide the reader with authoritative information, data elements, and questions to provoke thought and solutions-oriented approaches for all Arizonans.**





## CHAPTER 1

# WORKFORCE DEVELOPMENT IN ARIZONA — GROWTH AND NEED

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**DEVELOPING A WORKFORCE FOR ANY SPECIFIC REGION OR INDUSTRY IS A UNIQUE PROCESS. THERE IS NO SINGULAR PLAYBOOK THAT CAN GUIDE THIS WORK.**

However, one element that remains constant for any successful workforce development strategy is the engagement of a broad ecosystem of stakeholders, including employers, educational institutions, governments, and professional and non-profit organizations. (We will describe this in detail later in the report.)

It's important to note that workforce development is not the same as economic development—with the latter being a system designed to encourage business and job growth. In contrast, the former system works to ensure individuals have the education, skills, and training needed to obtain employment opportunities.

Economic development often serves as the precursor to workforce development. The two are closely intertwined but rely on unique structures and have different needs.

Workforce development needs can be analyzed geographically by examining the needs of a nation, state, or region or by exploring and analyzing the needs of a specific industry. No matter where the analysis begins, what must follow is a keen understanding of what it takes for people to be “work-ready.”

**ADDRESSING  
HOW TO BEST  
CREATE THE  
WORKFORCE  
WE NEED WILL  
BE CRITICAL  
TO ARIZONA'S  
FUTURE.**



## WHY IS WORKFORCE DEVELOPMENT SUCH AN IMPORTANT TOPIC FOR ARIZONA? IN SHORT, THE ANSWER IS GROWTH.

Arizona's economy is growing—emphasizing the need for skilled and qualified talent to meet the demand.

Whether it be existing small businesses or large-scale corporations relocating to or already established in Arizona, the key questions are the same: Where will I find workers to meet my needs? Where will this talent come from?

### TO ILLUSTRATE THIS GROWTH, WE PRESENT THE FOLLOWING RELEVANT AND NOTABLE LABOR MARKET STATISTICS.

### FROM OCTOBER 2024 TO NOVEMBER 2024, ARIZONA'S NOT-SEASONALLY ADJUSTED (NSA) NONFARM EMPLOYMENT\* **ROSE BY 31,600 JOBS (1.0%).**

Arizona's major sectors recorded the following job changes\*\*:

- [+] Trade, Transportation, and Utilities (**18,200 jobs**)
- [+] Health Care and Social Assistance (**4,500 jobs**)
- [+] Government (**3,300 jobs**)
- [+] Leisure and Hospitality (**3,000 jobs**)
- [+] Manufacturing (**2,500 jobs**)
- [+] Professional and Business Services (**2,500 jobs**)
- [+] Information Technology (**500 jobs**)

Source: AZ State Office of Economic Opportunity

The Arizona forecast calls for sustained job growth at rates above that of the U.S. and is **expected to accelerate to 2.9% in 2024, up from 2.6% in 2023**. This is well above current job growth rates in the preliminary nonfarm payroll data because the U.S. Bureau of Labor Statistics preliminary benchmark suggested that they will revise the Arizona data up significantly in March 2025. In order to accommodate this, the 2024 nonfarm payroll data in the Arizona projections are forecast estimates, not published historical data.



### ARIZONA'S CURRENT POPULATION IS THE PRODUCT OF DECADES OF RAPID GROWTH.

Arizona is among the top 10 states for overall growth percentage and a top four state for increase by sheer number

of new citizens. The source of growth is migration from other states. **Net domestic migration over the past 10 years is responsible for 99% of Arizona's population growth.**

[+] **Maricopa County will have the greatest increase in population, both by percentage and by number**

[+] Pinal, Yuma, and Yavapai Counties will grow robustly

[-] Navajo and Apache Counties will likely contract

\* "Not-seasonally adjusted" (NSA) means that no adjustments have been made to the job numbers to account for seasonal fluctuations like summer break and holiday hiring. "Non-farm" indicates that all jobs have been included from every sector except Agriculture.

\*\* "Job change" numbers account for the number of jobs both added and removed from each sector. All sectors in the list above reflect net growth, meaning more jobs were added than removed. Net loss would be reflected by a negative number.



The natural birth rate in Arizona will not replenish the death rate, and the

number of persons turning 18 (as a percentage of the total population) is projected to decrease through 2050—meaning that the population is aging, and **migration of an adult population will be the sole source of growth into the foreseeable future.**



## FURTHER DISCUSSION

Given the distinction between workforce and economic development, what are the advantages and disadvantages for workforce development, particularly as economic development stimulates the need for more workforce? For example, is there a fiscal challenge that occurs?

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There are different challenges relating to workforce development for rural, urban, and tribal areas in Arizona. What are some of the challenges for each?

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## CHAPTER 2

# U.S. DEMOGRAPHIC AND STRUCTURAL CHANGES— PROFOUND SHIFTS

### WE ARE SEEING A DRAMATIC REDUCTION IN THE NUMBER OF PEOPLE IN THE U.S. WORKFORCE

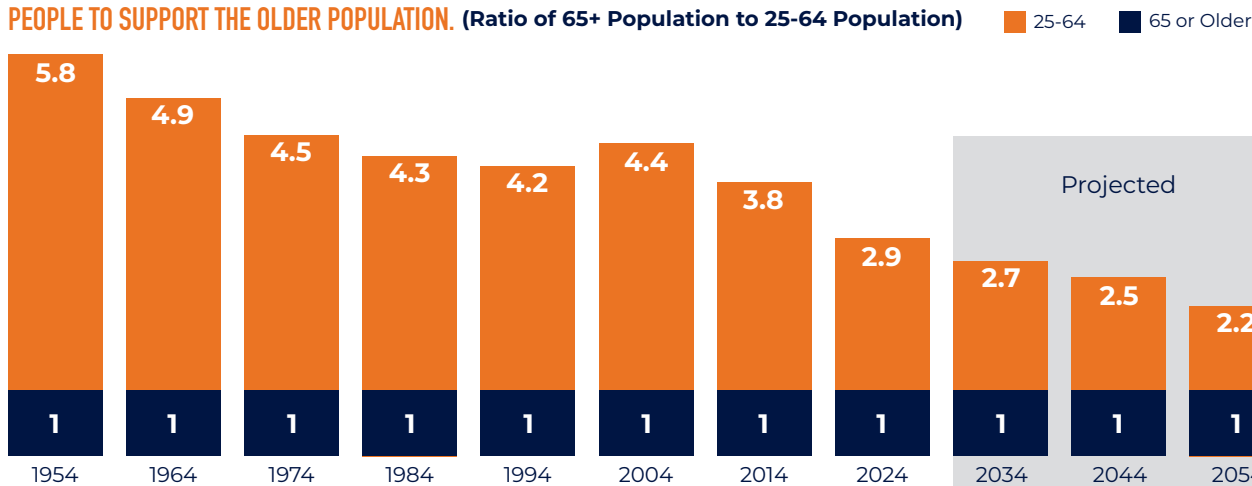
In previous decades, the U.S. labor market was flush with workers. Companies could fill positions from large pools of highly qualified applicants. Competition for jobs was fierce, and people were willing to make personal sacrifices to obtain highly sought-after jobs. The ball was in the employers' court.

We are now seeing a seismic shift because of a dramatic reduction in the number of people in the U.S. workforce. Birth rates are decreasing, and experts project this will continue until 2050. In addition, Baby Boomer retirements are leaving huge gaps in the workforce.

As a result of the COVID-19 pandemic, the labor force participation rate\* has also decreased significantly. Exacerbating the issue, the longer people were out of work during and immediately after the pandemic, the further they fell behind in maintaining relevant skills, making it even harder to find jobs and fill critical workforce gaps.

While the pandemic contributed significantly to the decline in labor participation rates, it is only one piece of a larger puzzle. An unintended consequence of Baby Boomers' financial success is that many of their children can rely on them for support and housing, leading to even lower workforce participation rates.

### EVERY YEAR THERE ARE FEWER WORKING-AGE PEOPLE TO SUPPORT THE OLDER POPULATION. (Ratio of 65+ Population to 25-64 Population)



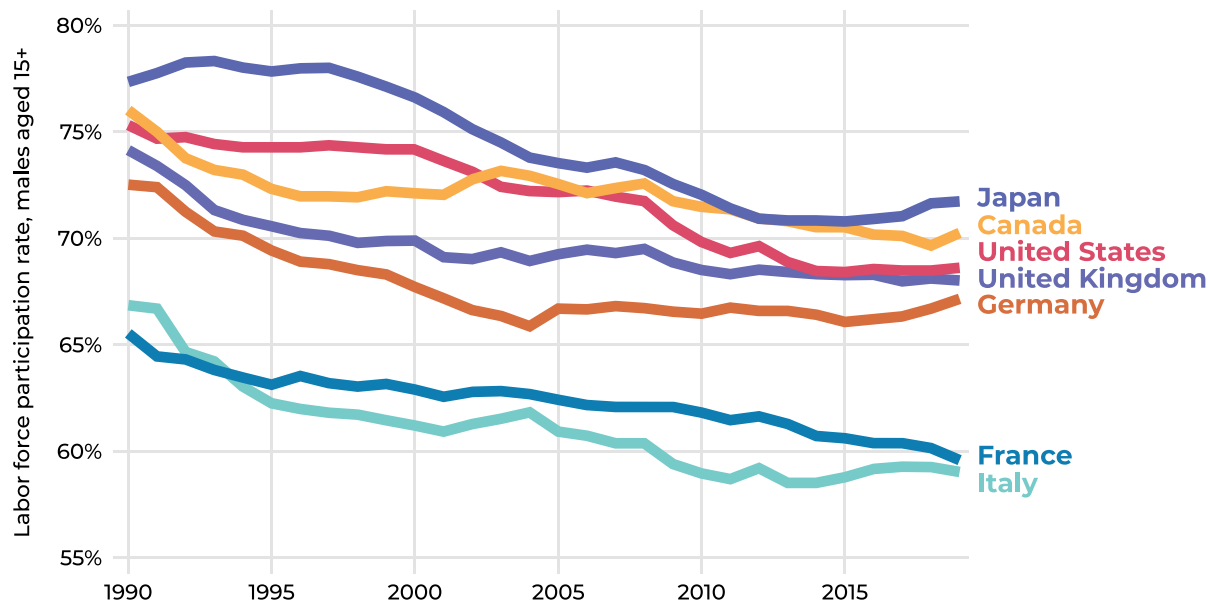
Source: Congressional Budget Office

Additionally, the opioid crisis and increased incarceration rates—particularly among men—are further shrinking the labor pool. According to Lightcast, a global leader in labor market analytics, we are in the midst of what they call “the rising storm.”

**COMPARING THE TWO GRAPHICS BELOW HELP SHED LIGHT ON THE REASON WHY EMPLOYERS ARE HAVING A DIFFICULT TIME FILLING POSITIONS IN THE SKILLED TRADES.**

## DECLINING MALE LABOR FORCE PARTICIPATION IN G7 COUNTRIES

Male labor force participation rate for total population ages 15+ in G7 countries, 1990-2020

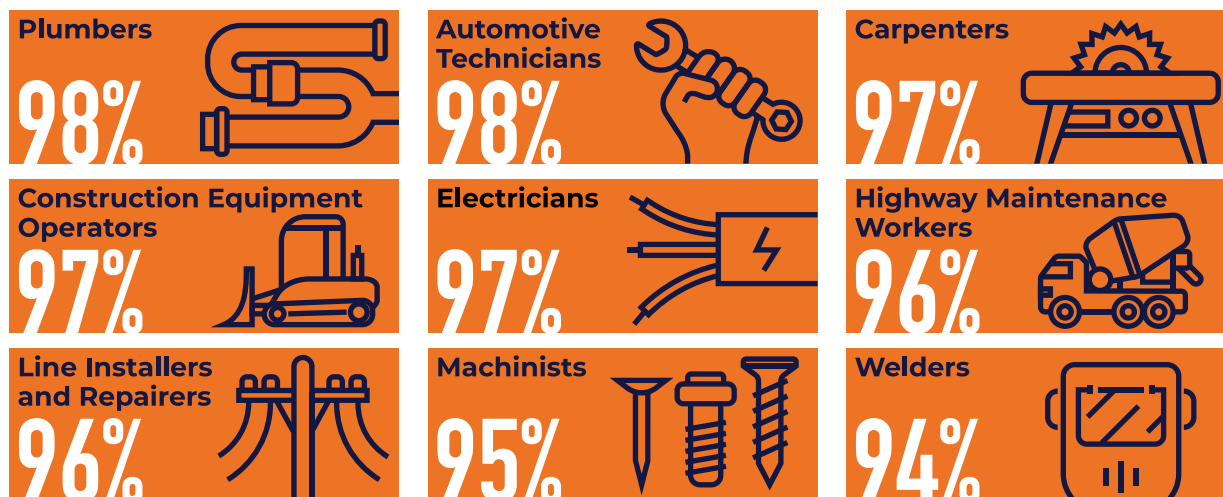


Source: Labor force participation rate, male (% of total population ages 15+) (modeled ILO estimate), International Labour Organization, ILOSTAT database.

## MANY OCCUPATIONS IN THE SKILLED TRADES RELY ON A WORKFORCE THAT IS OVER 90% MALE.

% Male by Occupation (4-digit SOC), 2024

Source: Lightcast



ANOTHER REALITY OF TODAY'S WORKFORCE IS THAT WE NOW HAVE FIVE GENERATIONS WORKING SIDE BY SIDE. EACH ONE HAS ITS STRENGTHS AND CHALLENGES. THE BEST EMPLOYERS WILL FIND WAYS TO LEAN INTO THE STRENGTHS OF EACH GENERATION AND CREATE AN ENVIRONMENT WITH OPPORTUNITIES FOR EVERYONE TO THRIVE.

## GENERATIONAL DIFFERENCES IN THE WORKPLACE

### TRADITIONALISTS | Born: 1925 - 1945

**Dependable | Straightforward | Tactful | Loyal**

<b>Shaped by:</b> The Great Depression, World War II, radio, and movies	<b>Motivated by:</b> Respect, recognition, providing long-term value to the company	<b>Communication style:</b> Personal touch, handwritten notes instead of email	<b>Worldview:</b> Obedience over individualism; age equals seniority; advancing through the hierarchy
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### BABY BOOMERS | Born: 1946 - 1964

**Optimistic | Competitive Workaholic Team-Oriented**

<b>Shaped by:</b> Vietnam War, Civil Rights Movement, Watergate	<b>Motivated by:</b> Company loyalty, teamwork, duty	<b>Communication style:</b> Whatever is most efficient, including phone calls and face-to-face	<b>Worldview:</b> Achievement comes after paying one's dues; sacrifice for success	<b>49%</b> Baby Boomers who expect to or already are working past age 70 or do not plan to retire.
				<b>10,000</b> Baby Boomers reach retirement age every day

### GENERATION X | Born: 1965 - 1980

**Flexible | Informal | Skeptical | Independent**

<b>Shaped by:</b> The AIDS epidemic, the fall of the Berlin Wall, the dot-com boom	<b>Motivated by:</b> Diversity, work-life personal-professional interests rather than the company's interests	<b>Communication style:</b> Whatever is most efficient, including phone calls and face-to-face	<b>Worldview:</b> Favoring diversity; quick to move on if their employer fails to meet their needs; resistant to change at work if it affects their personal lives	<b>55%</b> Start up founders who are Xers - the highest percentage
				<b>By 2028</b> Gen Xers will outnumber Baby Boomers.

### MILLENNIALS | Born: 1981 - 2000

**Competitive | Civic- and Open-Minded | Achievement-Oriented**

<b>Shaped by:</b> Columbine, 9/11, the internet	<b>Motivated by:</b> Responsibility, the quality of their manager, unique work experiences	<b>Communication style:</b> IMs, texts, and email	<b>Worldview:</b> Seeking challenge, growth, and development; a fun work life and work-life balance; likely to leave an organization if they don't like change	<b>75%</b> Percentage of global workforce to be made up of Millennials by 2025
				<b>18% men</b> Millennials ages 25-34 living at home with their parents.
				<b>12% women</b>

### GENERATION Z | Born: 2001 - 2020

**Global | Entrepreneurial | Progressive | Less Focused**

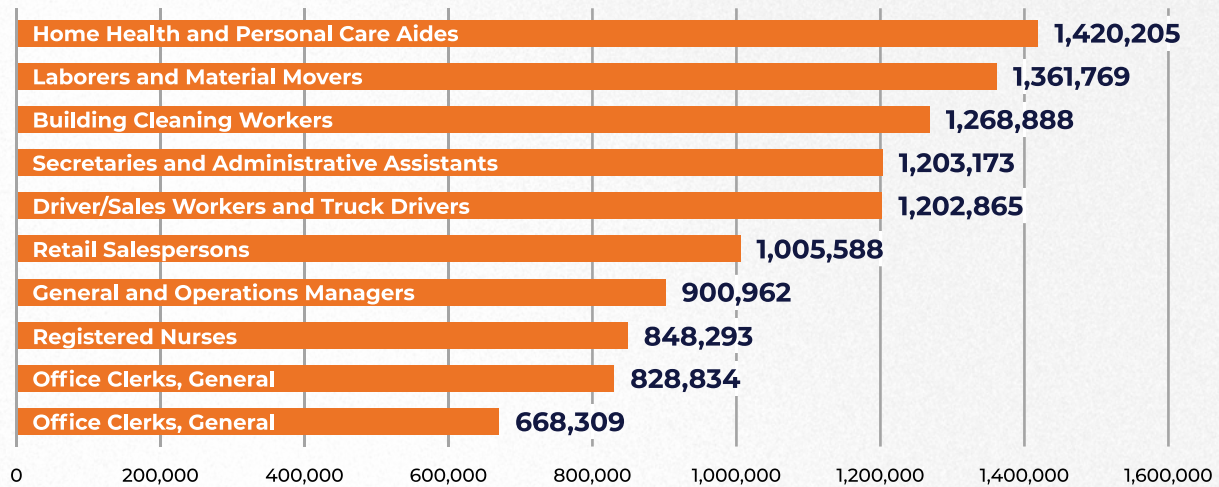
<b>Shaped by:</b> Life after 9/11, the Great Recession, access to technology from a young age	<b>Motivated by:</b> Diversity, personalization, individuality, creativity	<b>Communication style:</b> Social media, texts, IMs	<b>Worldview:</b> Self-identify as digital device addicts; value independence and individuality; prefer to work with Millennial managers, innovative coworkers, and new technologies	<b>67%</b> Gen Zers who want to work at companies where they can learn skills to advance their careers.
				<b>80%</b> Gen Zers who believe government and employers should subsidize, pay full tuition or provide direct training for students.

Source: <https://www.purdueglobal.edu/education-partnerships/generational-workforce-differences-infographic/>



## MILLIONS OF CRITICAL JOBS ARE FILLED BY PEOPLE AT OR NEAR RETIREMENT AGE.

### Top 10 Occupations (4-Digit SOC) With the Highest Number of Workers Age 55+



Source: <https://lightcast.io/resources/research/the-rising-storm>

At a minimum, however, all employers must acknowledge that change is necessary to attract and retain workers—utilizing the strengths and meeting the needs and desires of all the generations currently active in the workforce.

The data and trends make one thing crystal clear: We do not have enough qualified people to fill available jobs.

As the labor pool shrinks, the most severe shortages are in technical and trade jobs, and among essential workers

who kept industries running during the pandemic. This massive shift in workforce demographics will have lasting effects on our daily lives and some of the short term challenges we experienced during the pandemic will become permanent.

As people begin to retire from the occupations, and positions are not filled due to the shrinking labor pool, access to these services and conveniences will decrease.

# FURTHER DISCUSSION

How are you seeing demographic shifts playing out in your community?

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As a consumer, have you already experienced a decline in the availability of certain services due to staffing shortages?

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## CHAPTER 3

# ARIZONA'S WORKFORCE TODAY— LABOR FORCE TRENDS



THE DEMOGRAPHIC CHANGES AND CHALLENGES INTRODUCED IN THE LAST CHAPTER ARE ALREADY AT PLAY IN ARIZONA. IN THIS CHAPTER, WE WILL ANALYZE ARIZONA'S CURRENT AND FUTURE LABOR FORCE, TO INCLUDE:

- Statewide and region-specific employment projections
- Current and future labor force participation rates
- Talent and education needs and gaps
- Rural and urban population and workforce opportunities and gaps



ACCORDING TO THE ARIZONA STATE OFFICE OF ECONOMIC OPPORTUNITY'S 2023–2033 EMPLOYMENT PROJECTIONS, ARIZONA'S 2033 PROJECTION HIGHLIGHTS INCLUDE:

- Total Arizona employment is projected to grow 1.3% annually (14.2% total growth) from 2023–2033
- This growth equates to 486,348 new jobs over the 10-year period, reaching a total of 3,921,138 jobs by 2033
- Arizona's employment growth is projected to outpace the overall U.S. rate. Industries with the highest projected annual growth rates include:
  - » Health Care and Social Assistance: 2.6% annual growth, adding approximately 13,753 jobs each year—the largest gain among industries
  - » Construction: 2.2% annual growth
  - » Manufacturing: 1.5% annual growth

*Source: Arizona Office of Economic Opportunity*

VERY PRACTICALLY, WE THEN RECOGNIZE THAT  
EMPLOYMENT, AS FORECASTED, IS GROWING FOR ARIZONA.  
DO (OR WILL) WE HAVE THE PEOPLE?

**To continue with the Office of Economic Opportunity's demographic analysis, here is some telling data related to Arizona's population demographics:**

- Arizona's population is projected to continue to grow, but at lower rates in future decades
- Migration has been the main driver of growth and will become the sole driver
- Population change has been very uneven among Arizona counties and this is projected to continue
- The dramatic and sustained decline in births after 2007 has long-lasting impacts on population age structure

As this data demonstrates, Arizona's population will continue to grow, and migration—which has been the main driver of such growth—is projected to become the only driver of growth in the future. What does this mean for Arizona and its communities?

Additionally, the data suggests that population growth is uneven in many Arizona counties. Provided below is a graph that demonstrates population trends by Arizona county for the years 2010, 2020, and 2050. It is immediately evident that some counties have a population growth trajectory while others are projected to shrink.

Pinal County, for example, is slated to grow by 134%—a trend that is already beginning to manifest itself given large-scale manufacturing investments, supported by its proximity to the I-10 and its location between Maricopa and Pima counties. On the contrary, Navajo and Apache counties are projected to decrease in population size. How is Arizona monitoring these trends and supporting counties and communities in need?

## Population Change and Projected Change of AZ Counties 2010-2020-2050



County	2010 Population	2020 Population	Numeric Change, 2010 to 2020	Percent Change, 2010 to 2020
Maricopa	3,817,117	4,420,568	603,451	15.8%
Greenlee	8,437	9,563	1,126	13.3%
Pinal	375,770	425,264	49,494	13.2%
Yavapai	211,033	236,209	25,176	11.9%
Coconino	134,421	145,101	10,680	7.9%
Mohave	200,186	213,267	13,081	6.5%
Pima	980,263	1,043,433	63,170	6.4%
Yuma	195,751	203,881	8,130	4.2%
Graham	37,220	38,533	1,313	3.5%
Santa Cruz	47,420	47,669	249	0.5%
Gila	53,597	53,272	-325	-0.6%
Navajo	107,449	106,717	-732	-0.7%
Cochise	131,346	125,447	-5,899	-4.5%
Apache	71,518	66,021	-5,497	-7.7%
La Paz	20,489	16,557	-3,932	-19.2%
<b>Arizona</b>	<b>6,392,017</b>	<b>7,151,502</b>	<b>759,485</b>	<b>11.9%</b>

County	2020 Census Population	Projected 2050 Population	Numeric Change, 2020 to 2050	Percent Change, 2020 to 2050
Pinal	425,264	994,166	568,902	134%
Maricopa	4,420,568	6,186,149	1,765,581	40%
Yuma	203,881	284,184	80,303	39%
Yavapai	236,209	324,077	87,868	37%
Mohave	213,267	289,152	75,885	36%
Graham	38,533	46,271	7,738	20%
Pima	1,043,433	1,249,828	206,395	20%
Greenlee	9,563	10,908	1,345	14%
Santa Cruz	47,669	53,226	5,557	12%
Coconino	145,101	159,964	14,863	10%
Cochise	125,447	131,941	6,494	5%
Gila	53,272	55,025	1,753	3%
La Paz	16,557	16,758	201	1%
Navajo	106,717	99,574	-7,143	-7%
Apache	66,021	60,098	-5,923	-9%
<b>Arizona</b>	<b>7,151,502</b>	<b>9,961,322</b>	<b>2,809,820</b>	<b>39%</b>

*U.S. Census Bureau, Census 2010 and Census 2020, OEO, Population Projections, 2022 Edition*



To give further context to the changes in county population, provided below by the Office of Economic Opportunity (OEO) is the Projected County Employment Change, 2023-2033. As indicated on the graph, both the percentage change and numeric changes forecasted are most significant in Maricopa County, which is projected to account for 82.7% of Arizona job gains from 2023 to 2033.

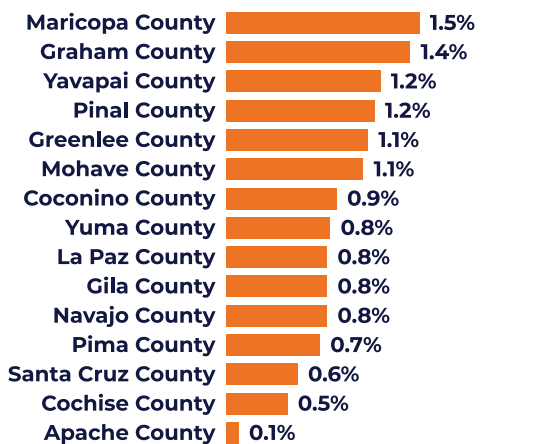
To this end, while the numeric value demonstrates positive growth for each county, the disparity of growth between the urban (Maricopa and Pima) and rural counties (i.e., Santa Cruz and Gila) are remarkable. What do these disparities mean related to urban versus rural Arizona?

Further, the OEO has documented that the dramatic and sustained decline in Arizona births after 2007 will have long-lasting impacts on population age structure.

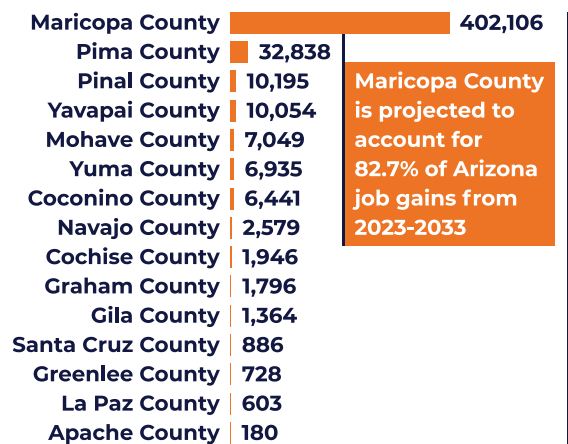
For example, those born in 2007 will reach the age of 18 in 2025, age 25 in 2032, and age 43 in 2050. This demonstrates that given the employment needs of the future, there are not enough Arizona births at present to sustain the workforce of the future. As shared earlier in the report, the OEO has already stated that demographic shifts and Arizona population growth is significantly impacted by migration to Arizona. What does this mean for “native” Arizonans, and what do these effects have on our communities?

## PROJECTED COUNTY EMPLOYMENT CHANGES

### Arizona County Employment 2023-2033 Annualized Percent Change



### Arizona County Employment 2023-2033 Total Numeric Change



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



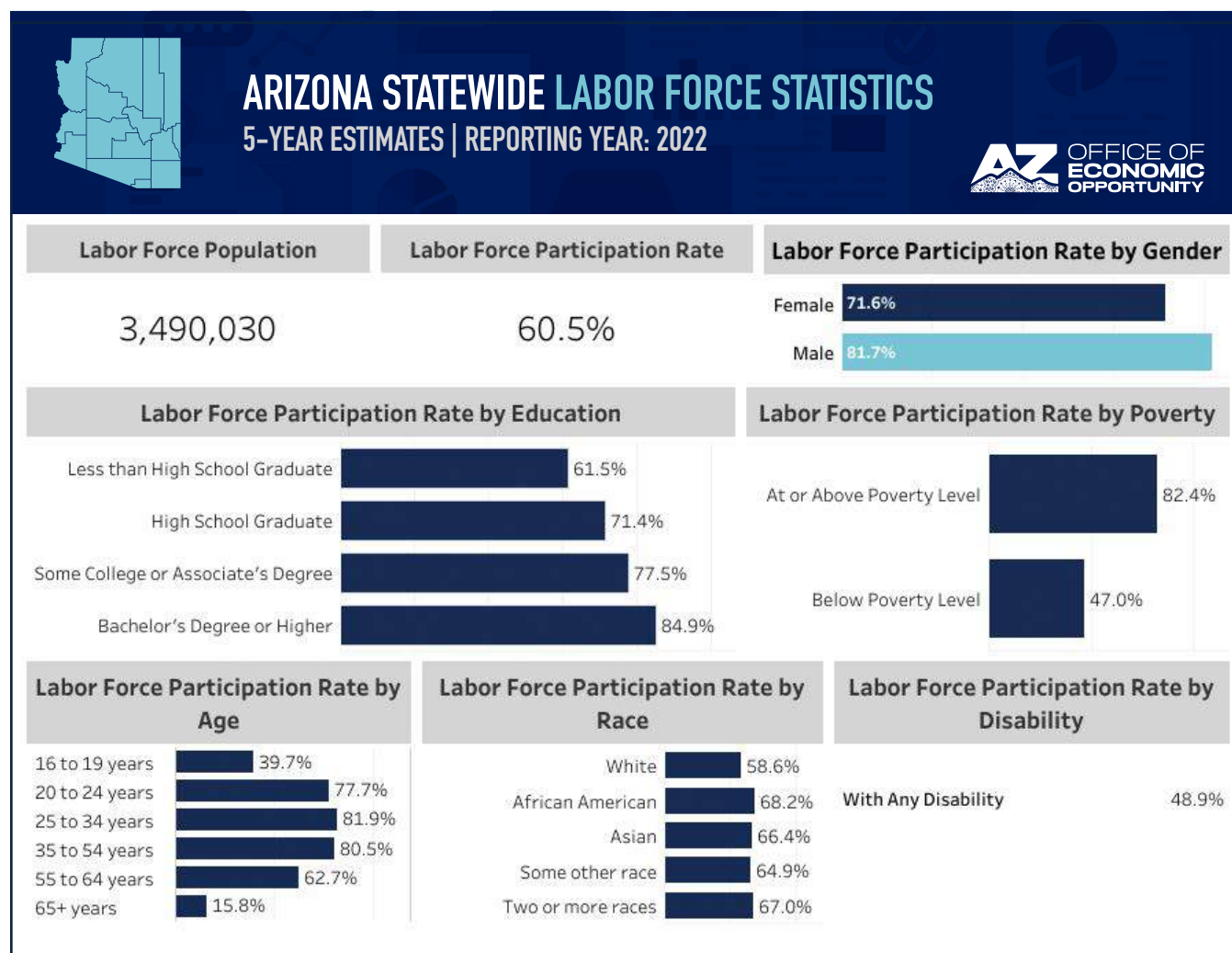
Continuing our overview of Arizona's current labor force, we now examine employment and unemployment data for Arizona and its counties, as provided by the OEO through the 2022 Local Area Unemployment Survey Program (<https://oao.az.gov/labor-market/labor-force>).

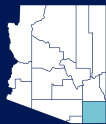
This data is intended to provide a holistic overview of key factors related to employment in Arizona and selected counties, including:

- Labor force population (individuals able to work) and labor force participation (percentage currently employed)
- Educational attainment rates among employed individuals
- Employment distribution by age
- Employment distribution by race
- Percentage of employed individuals with a declared disability

An overview of Arizona's 2022 statewide labor force statistics are presented below.

County-specific data for Cochise, Maricopa, Mohave, Pima, Yavapai, and Yuma counties are presented separately on the pages that follow.





## COCHISE COUNTY LABOR FORCE STATISTICS

5-YEAR ESTIMATES | REPORTING YEAR: 2022



### Labor Force Population

51,074

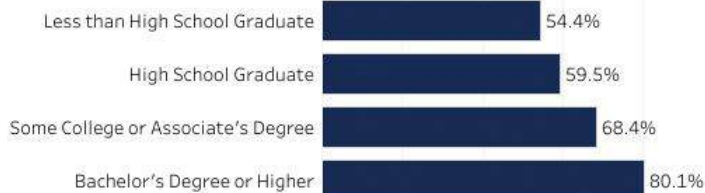
### Labor Force Participation Rate

50.1%

### Labor Force Participation Rate by Gender



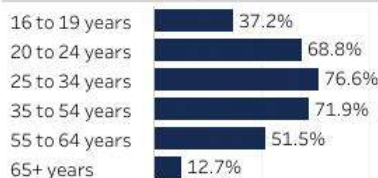
### Labor Force Participation Rate by Education



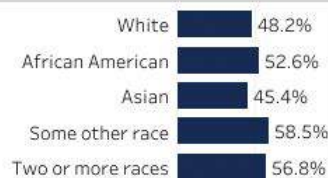
### Labor Force Participation Rate by Poverty



### Labor Force Participation Rate by Age

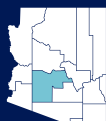


### Labor Force Participation Rate by Race



### Labor Force Participation Rate by Disability

With Any Disability 44.0%



## MARICOPA COUNTY LABOR FORCE STATISTICS

5-YEAR ESTIMATES | REPORTING YEAR: 2022



### Labor Force Population

2,291,310

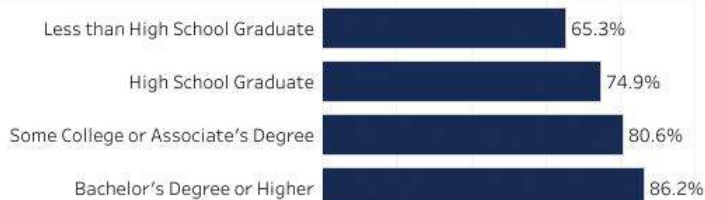
### Labor Force Participation Rate

65.0%

### Labor Force Participation Rate by Gender



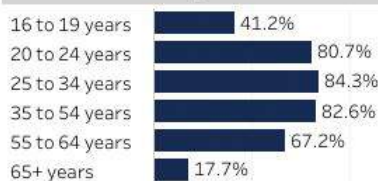
### Labor Force Participation Rate by Education



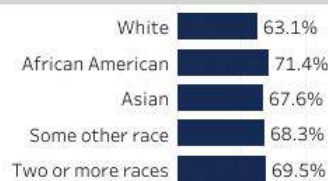
### Labor Force Participation Rate by Poverty



### Labor Force Participation Rate by Age



### Labor Force Participation Rate by Race



### Labor Force Participation Rate by Disability

With Any Disability 52.6%





## MOHAVE COUNTY LABOR FORCE STATISTICS

5-YEAR ESTIMATES | REPORTING YEAR: 2022



### Labor Force Population

82,109

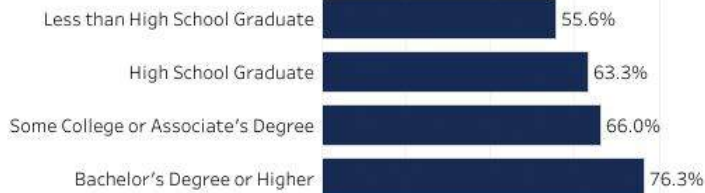
### Labor Force Participation Rate

44.8%

### Labor Force Participation Rate by Gender



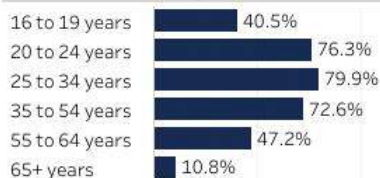
### Labor Force Participation Rate by Education



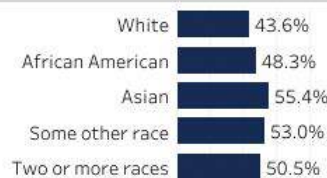
### Labor Force Participation Rate by Poverty



### Labor Force Participation Rate by Age



### Labor Force Participation Rate by Race



### Labor Force Participation Rate by Disability

With Any Disability 35.7%



## PIMA COUNTY LABOR FORCE STATISTICS

5-YEAR ESTIMATES | REPORTING YEAR: 2022



### Labor Force Population

499,249

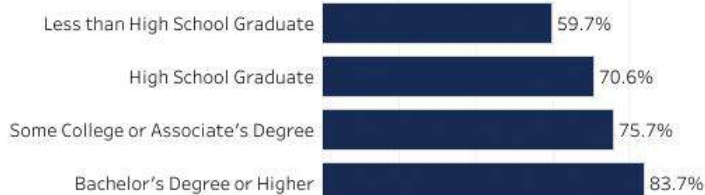
### Labor Force Participation Rate

58.4%

### Labor Force Participation Rate by Gender



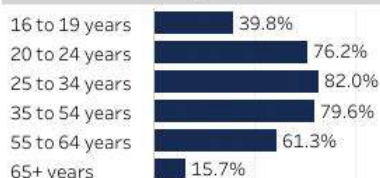
### Labor Force Participation Rate by Education



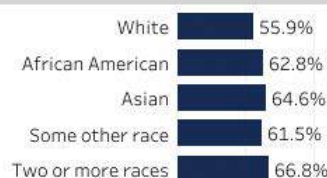
### Labor Force Participation Rate by Poverty



### Labor Force Participation Rate by Age

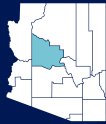


### Labor Force Participation Rate by Race



### Labor Force Participation Rate by Disability

With Any Disability 48.6%



## YAVAPAI COUNTY LABOR FORCE STATISTICS

5-YEAR ESTIMATES | REPORTING YEAR: 2022



### Labor Force Population

99,921

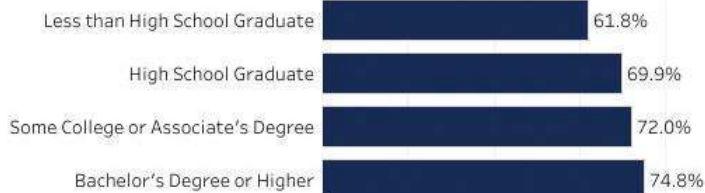
### Labor Force Participation Rate

48.7%

### Labor Force Participation Rate by Gender



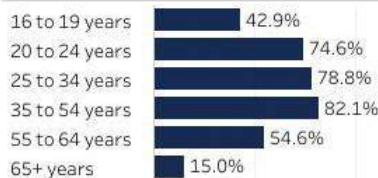
### Labor Force Participation Rate by Education



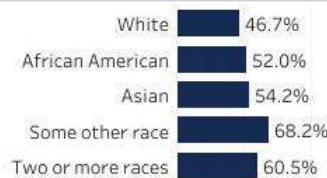
### Labor Force Participation Rate by Poverty



### Labor Force Participation Rate by Age



### Labor Force Participation Rate by Race



### Labor Force Participation Rate by Disability

With Any Disability 41.5%



## YUMA COUNTY LABOR FORCE STATISTICS

5-YEAR ESTIMATES | REPORTING YEAR: 2022



### Labor Force Population

85,563

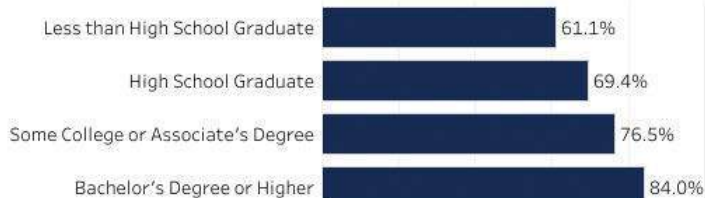
### Labor Force Participation Rate

53.9%

### Labor Force Participation Rate by Gender



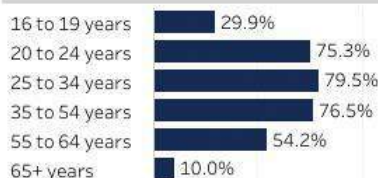
### Labor Force Participation Rate by Education



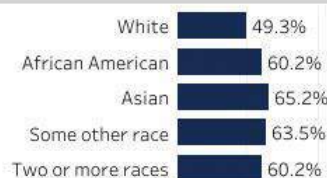
### Labor Force Participation Rate by Poverty



### Labor Force Participation Rate by Age



### Labor Force Participation Rate by Race



### Labor Force Participation Rate by Disability

With Any Disability 43.2%

# FURTHER DISCUSSION

How are demographic changes impacting whether people live in urban, rural, or tribal Arizona?

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What actions could be taken to support economic vitality in rural communities?

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How do Arizona's labor force statistics factor into conversations about workforce?

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What impact does educational attainment have on labor force participation?

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The Office of Economic Opportunity highlights that those aged 55 to 64 represent 62.7% of the active working population. What does this mean for Arizona?

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# CHAPTER 4

## WORKFORCE ECOSYSTEM— OVERVIEW

A FUNDAMENTAL UNDERSTANDING OF THE WORKFORCE DEVELOPMENT ECOSYSTEM IS ESSENTIAL WHEN IDENTIFYING CRITICAL STAKEHOLDERS IN ANY WORKFORCE ENVIRONMENT. WITHIN THIS ENVIRONMENT ARE WORKFORCE STAKEHOLDERS THAT PLAY CRUCIAL ROLES IN ADVANCING WORKFORCE DEVELOPMENT INITIATIVES.

BELOW, YOU WILL FIND DESCRIPTIONS AND EXAMPLES FOR CRITICAL COMPONENTS THAT CAN DRAMATICALLY CONTRIBUTE TO THE SUCCESS OF ANY WORKFORCE DEVELOPMENT STRATEGY.

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### COMPONENTS OF THE WORKFORCE DEVELOPMENT ECOSYSTEM

#### Business and Industry

Business and industry play a vital role in the workforce development ecosystem, primarily by hiring and employing the workforce being developed. Beyond employment, businesses define the skills, abilities, and competencies required for jobs, shaping curriculum and training programs.

Regardless of size or location—whether small or large businesses, urban or rural—their input informs educational and training initiatives. Their needs drive the development of programs and the necessary support and investment in building a robust educational infrastructure.

#### Government

Government entities play a substantial role in supporting workforce development. This includes various levels of government, such as the State of



Arizona (Governor's Office, the Arizona Commerce Authority, the State Office of Economic Opportunity), city and town governments, elected officials, and the legislature. Through policy and legislation, governments play a vital role providing resources and creating a favorable environment for workforce development stakeholders.

A key program in Arizona is Arizona@Work, part of the federal Workforce Innovation and Opportunity Act. This program helps job seekers find employment and employers find qualified workers by offering job search assistance, resume and cover letter support, career counseling, and training opportunities. Arizona@Work in-person support sites and services are available in every Arizona county and region.

**More information:**  
<https://arizonaatwork.com/>



## Economic Development

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Economic development stakeholders work to attract and grow businesses while advocating for their region's economic competitiveness. These stakeholders include organizations such as the Greater Yuma Economic Development Corporation and the City of Tucson Office of Economic Initiatives.

Most Arizona cities, towns, and regions have an office of economic development. These organizations often coordinate efforts by sharing business priorities, initiatives, and strategies, including indus-

try sector insights, labor market data, and workforce development connections. To this end, workforce developers, including education providers such as community colleges, collaborate with their economic development partners to forecast training and employment needs.

### **More information:**

<https://greateryuma.org/>

<https://www.tucsonaz.gov/Departments/Office-of-Economic-Initiatives>

## Community-Based Organizations

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Community-based organizations work to alleviate poverty and empower low-income families in communities throughout Arizona.

A key example is the Arizona Department of Economic Security (DES), which supports workforce development by removing barriers for Arizonans in need of assistance. DES refers to county and regional service providers as Community Action Agencies. DES's Division of Community Assistance and Development contracts directly with Community Action Agencies and the Arizona Community Action Association, which provide services such as utility and mortgage assistance, eviction or foreclosure prevention, rental deposits, and emergency shelter.

Additionally, DES also oversees the Community Action Network, chiefly composed of community action agencies, which collaborates with state and local governments to provide:

- Employment assistance
- Educational support
- Income management
- Housing assistance
- Emergency services
- Nutritional programs
- Coordination among anti-poverty programs
- Pathways to self-sufficiency

These agencies frequently partner with education providers, such as community colleges, to deliver training programs that enhance employment opportunities and quality of life.

**More information:** <https://des.az.gov/CommunityActionAgencies>



## Education


Education and training providers, as defined by Arizona@Work, offer workforce-related training to prepare job seekers for employment. These providers include public and private institutions, with services available across Arizona.

Key educational institutions include:

- High schools and Career and Technical Education Districts (CTEDs)
- Community colleges
- Private colleges and training providers
- Public universities (Arizona State University, University of Arizona, and Northern Arizona University)

A critical component of Arizona's workforce development infrastructure is its community college system, coordinated by the Arizona Community College Coordinating Council. Arizona's community college system is comprised of 10 community college districts, representing 19 community colleges statewide:

- **Arizona Western College (Yuma and La Paz Counties)**
- **Central Arizona College (Pinal County)**
- **Cochise College (Cochise County)**
- **Coconino Community College (Coconino County)**
- **Eastern Arizona College (Thatcher, Globe, Payson)**
- **Mohave Community College (Mohave County)**
- **Northland Pioneer College (Navajo and Apache Counties)**
- **Pima Community College (Pima County)**
- **Yavapai College (Yavapai County)**
- **Maricopa Community Colleges (Maricopa County)**
  - » Chandler-Gilbert Community College
  - » Estrella Mountain Community College
  - » GateWay Community College
  - » Glendale Community College
  - » Mesa Community College
  - » Paradise Valley Community College
  - » Phoenix College
  - » Rio Salado College
  - » Scottsdale Community College
  - » South Mountain Community College

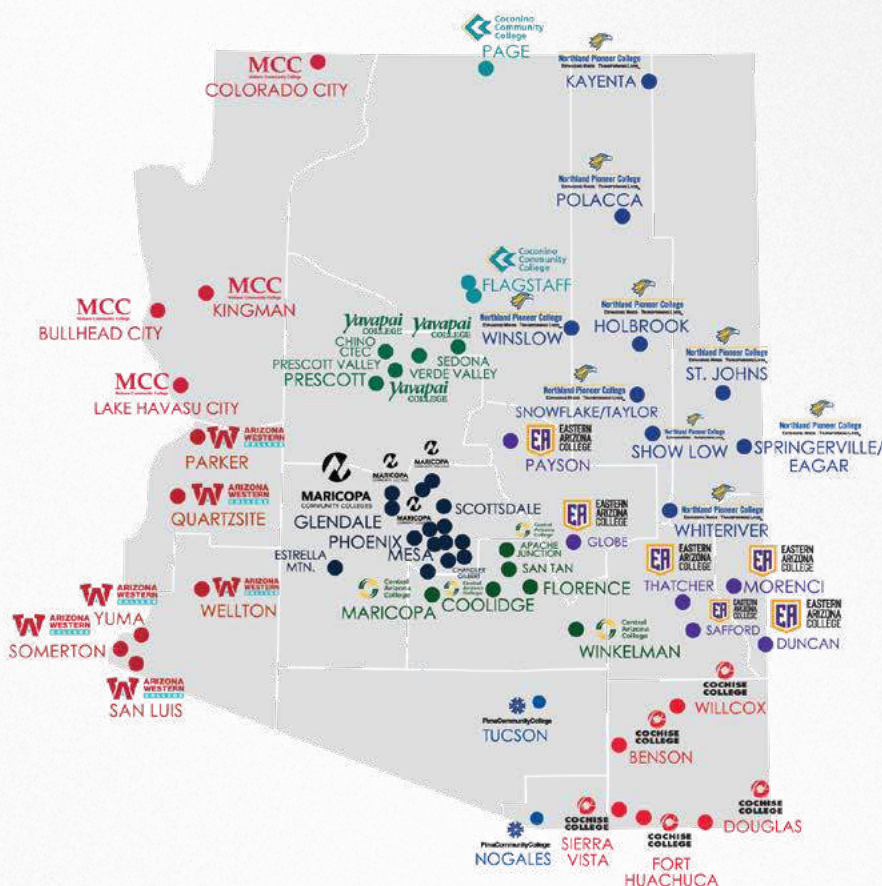


**ARIZONA'S EDUCATION  
SYSTEM PLAYS A  
CENTRAL ROLE IN  
SOLVING WORKFORCE  
NEEDS BY EQUIPPING  
INDIVIDUALS WITH THE  
SKILLS NEEDED TO  
SUCCEED.**



# azCommunity Colleges

10 COLLEGE DISTRICTS | 296,919 STUDENTS



Community colleges serve as essential workforce development partners by focusing on advocacy and partnerships.

- Advocacy: workforce training, university transfer, early college programs, and economic and community development
- Partnerships: collaborations with industry and government to advance workforce development and promote economic initiatives

By aligning with business and industry needs, government policies, economic strategies, and community-based programs, Arizona's education system plays a central role in solving workforce needs by equipping individuals with the skills needed to succeed in their jobs.

More information:

<https://arizonacommunitycolleges.org/arizona-community-college-coordinating-council/>





## CHAPTER 5

# INDUSTRY SECTORS

**DEVELOPING A WORKFORCE FOR ANY SPECIFIC REGION OR INDUSTRY IS A UNIQUE PROCESS. THERE IS NO SINGULAR PLAYBOOK THAT CAN GUIDE THIS WORK.**

Understanding how industries and businesses are classified based on their activities and missions is essential. These classifications, commonly known as industry sectors, provide a broad framework for economic analysis. Sector examples include

manufacturing, information technology, healthcare, financial services, agriculture, and mining, among others.

To illustrate, the manufacturing sector includes

businesses, such as Intel, Taiwanese Semiconductor Manufacturing Corporation (TSMC), LG, and Boeing—each operating in a specific segment.

It's also important to note that within an industry sector, there can exist multiple industries or segments. For example, the manufacturing sector includes the semiconductor, electric vehicle, battery storage, and aerospace segments. The information technology sector includes software development, computer networking, and cybersecurity segments.

### Industry Sectors in Arizona

The prominence of specific industry sectors varies across Arizona. For instance, agriculture is a dominant industry in Yuma County, while mining plays a significant role in Greenlee County. In contrast, other industry sectors like healthcare are essential across the state. As a result, industry rankings and priority sectors can differ depending on whether the analysis focuses on a local, regional, or statewide perspective.

With this in mind, according to the Arizona Office of Economic Opportunity, the following sectors rank among the top for employment in Arizona:

- Healthcare
- Construction
- Manufacturing
- Professional and Technical Services
- Finance and Insurance
- Transportation and Warehousing
- Wholesale Trade
- Educational Services
- Real Estate
- Arts, Entertainment, and Recreation

*Source: Arizona Office of Economic Opportunity, Industry Rankings (2023, Quarter 3)*



THE WORKFORCE ARIZONA COUNCIL (WAC) IS TASKED WITH IMPLEMENTING THE GOVERNOR'S STRATEGIC VISION FOR WORKFORCE DEVELOPMENT.

ONE OF THE WAC'S RESPONSIBILITIES IS TO CREATE AND MAINTAIN A LIST OF IN-DEMAND INDUSTRY SECTORS BY COLLABORATING WITH EMPLOYERS AND UTILIZING LABOR MARKET DATA.

Likewise, Local Workforce Development Boards (LWDB) are responsible for the same at a local level. These lists are used to prioritize resource allocations, including Workforce Innovation and Opportunity Act (WIOA) funding.



## KEY SECTORS ACROSS ARIZONA

### Flagstaff, Arizona

- Tourism
- Bioscience & Healthcare
- Environmental Technologies
- Digital/E-commerce
- Retail
- Craft Brewing
- Manufacturing
- Aerospace & Astronomy

The City of Flagstaff Economic Development Department:  
<https://www.chooseflagstaff.com/>

### Lake Havasu City, Arizona

- Agriculture
- Arts & Entertainment
- Biotechnology & Biosciences
- Food Processing
- Healthcare
- High-Tech Manufacturing
- Logistics

Partnership for Economic Development:  
<https://www.lakehavasu.org/>

### Nogales, Arizona

- Transportation
- Logistics
- Distribution
- Produce
- Manufacturing
- Hospitality
- Construction
- Healthcare
- Government
- Education

Economic Development Foundation:  
<https://www.nogales.com/>

### Safford, Arizona

- Retail & Service Business
- Mining
- Agriculture
- Education
- Medical
- Light Manufacturing

City of Safford:  
<https://cityofsafford.us/149/Economic-Development>

### Sahuarita, Arizona

- Aerospace and Photonics
- Healthcare
- Mining
- Advanced Manufacturing & Technology
- International Business

Town of Sahuarita:  
<https://sahuaritaaz.gov/567/Economic-Development>

### Show Low, Arizona

- Natural Resources
- Business Entrepreneurship
- Light Manufacturing
- Medical Advancement
- Tourism and Hospitality
- Filmmaking

City of Show Low: <https://www.showlowaz.gov/o/cosl/page/economic-development>

### Yuma, Arizona

- Agriculture
- Business
- Aerospace and Defense
- Resources and Manufacturing
- Transportation and Commerce
- Sustainable Energy
- US and Mexico: Industrial & Logistics

Greater Yuma Economic Development Corporation:  
<https://www.greateryuma.org/>



## Arizona Industry Jobs Forecasting and Workforce Implications

Now that we have provided a statewide overview of local industry sectors, we invite deeper analysis into four key sectors—Construction, Healthcare, Manufacturing, and Agriculture—looking at employment trends and labor challenges for each.

Courtesy of the Lightcast labor market information tool, the table below presents data related to the number of jobs in Arizona in 2023, projections for 2030, and the projected percent change during that period of time, in addition to average earnings.

*NAICS Code: 4 Digit	Description	2023 Jobs	2030 Jobs	2023-2030 Change	2023-2030 % Change	Average Earnings Per Job
2361	Residential Building Construction	22,504	25,681	3,177	14%	\$93,622
2362	Nonresidential Building Construction	22,688	29,448	6,760	30%	\$112,059
6211	Offices of Physicians	70,413	81,100	10,687	15%	\$119,133
6216	Home Healthcare Services	28,432	35,667	7,235	25%	\$48,966
6231	Nursing Care Facilities (Skilled Nursing Facilities)	15,324	17,114	1,790	12%	\$62,192
5232	Residential Intellectual and Developmental Disability, Mental Health, and Substance Abuse Facilities	14,962	17,555	2,593	17%	\$55,893
3332	Industrial Machinery Manufacturing	2,228	2,709	481	22%	\$160,864
3344	Semiconductor and Other Electronic Component Manufacturing	25,645	27,555	1,910	7%	\$175,886
3361	Motor Vehicle Manufacturing	4,515	5,539	1,024	23%	\$131,746
3364	Aerospace Product and Parts Manufacturing	31,905	35,512	3,607	11%	\$148,079
3391	Medical Equipment and Supplies Manufacturing	9,274	10,868	1,594	17%	\$115,982
1110	Crop Production	7,921	7,603	-318	-4%	\$62,634
1151	Support Activities for Crop Production	9,196	8,369	-827	-9%	\$52,578

\*NAICS: North American Industry Classification System

Note that Construction, Healthcare and Social Assistance, and Manufacturing are projected to experience growth through 2030, while Agriculture is expected to see a decline in jobs during the same period. As you continue reading this chapter, consider how these job projections align with broader industry trends and economic factors.



## Focus on Construction

Arizona's construction industry experienced significant growth in 2024, driven by substantial investments in large-scale projects, including public infrastructure developments and private sector investments, positioning Arizona as a burgeoning hub for construction activities.

### Employment Trends and Labor Challenges:

- Construction employment in Arizona reached 217,100 in August 2024, reflecting a 2% increase from the previous year and a 23% rise since February 2020.
- Despite this growth, skilled labor shortages remained a challenge. A national survey found that 74.2% of construction markets struggled to find skilled workers, a trend reflected in Arizona.
- This labor scarcity led to increased labor costs and project delays, impacting the timely completion of construction projects.

*Source: Arizona Contractor License Center*



### Employer Spotlight: Sundt Construction



With Arizona's construction sector facing expansion issues and workforce shortages, industry leaders like Sundt Construction are stepping up to bridge the skills gap.

Sundt, an Arizona-based company established in 1929, employs carpenters, pipefitters, concrete workers, and heavy equipment operators. Sundt is committed to workforce development and actively engages Arizona's youth to enter meaningful careers in construction.

#### Some of their efforts in 2024 include the following:

- **Arizona High School Counselor Event**

In September 2024, Sundt hosted approximately 40 Arizona high school counselors at its training campus. Counselors learned about construction careers and participated in hands-on activities, including operating mini excavators, virtual welding, and a nail-driving competition. This immersive experience equipped them with valuable information to help guide students into construction careers.

- **Williams High School Pre-Apprenticeship Partnership**

In August 2024, Sundt launched a pre-apprenticeship program. The initiative, spearheaded by James Busch, Sundt's Craft Pipeline Manager, included lab setup, instructor certification, and curriculum review in diesel technology and welding.

The program is already seeing increased student engagement and cross-curricular learning, resulting in improved math scores. In 2025, Sundt will be looking at other opportunities for high school partnerships.

- **Central Arizona College**

Since 2017, Sundt and Central Arizona College have partnered to offer apprenticeship and certificate programs for community college students, who receive hands-on training, certification, and valuable job experience. This award-winning program serves as a model for industry and education collaboration to prepare students for successful careers in construction.



## Focus on Healthcare

Healthcare remains Arizona's fastest-growing sector, projected to grow by nearly 30% by 2033. However, the industry faces significant workforce shortages, creating challenges in meeting the state's healthcare demands.

### AZ Health Workforce

The AZ Health Workforce website defines the shortage as a critical gap between the number of qualified healthcare professionals—doctors, nurses, allied health providers, and support staff—and the growing healthcare needs of Arizona's population.

#### Key Findings from AZ Health Workforce:

- Arizona ranks 9th in the nation for most Health Professional Shortage Areas (HPSAs).
- 82 of Arizona's 126 primary care HPSAs are designated as medically underserved, with 29 areas having a population-to-primary care physician ratio greater than 5,000:1—or no primary care physician at all.
- By 2032, due to population growth, Arizona is projected to be short 4,679 registered nurses, 412 nurse practitioners, and 4,131 physicians.
- Arizona has fallen below the national average for workers in almost all healthcare professions.

Source: AZ Health Workforce



### Spotlight on Mohave County

A 2024 article by the University of Arizona's College of Public Health explored the impact of the healthcare workforce crisis on Mohave County, one of Arizona's more rural counties. The findings are summarized below:

A summary of the article illustrates how Mohave County's inherent challenges to find, fill, and retain workforce talent is a microcosm for all of Arizona's rural areas.

### Challenges in Rural Healthcare Staffing

- Arizona ranks among the top five states with the most severe healthcare staffing shortages, with its rural counties being highly affected (Arizona State Board of Nursing).
- Medically underserved areas in Mohave County include Lake Havasu City, Bullhead City, Kingman, Golden Valley, Colorado City, and the Hualapai Tribe.
- Mohave County hospitals are unable to operate at full capacity due to workforce shortages, leaving beds unused and patients being transferred to outside areas.



Sector	Historic Change (2013-2023)		Projected Change (2023-2033)	
	Numeric Change	% Change (Annual)	Numeric Change	% Change (Annual)
<b>Health Care and Social Assistance</b>	<b>250,502</b>	<b>6.4%</b>	<b>275,056</b>	<b>5.3%</b>
Ambulatory Health Care Services	63,621	3.7%	69,746	2.9%
Hospitals	22,592	2.1%	25,659	1.9%
Nursing and Residential Care Facilities	22,592	2.2%	20,050	2.9%
Social Assistance	11,880	4.5%	22,073	2.6%

Healthcare and Social Assistance employment is projected to increase by 2.6% annually from 2023-2033

- Projected growth is lower than the 2013-2023 growth rate of 3.2%
- Growth will be driven, in part, by population growth and an aging population



Dan Derksen, director of the Arizona Center for Rural Health, points to Arizona's rapid population growth as a major contributor to the shortage.

**"States that have grown rapidly, like Arizona, have gotten further and further behind on their graduate medical education or their residency slots."**

Phil Fitzgerald, CEO for Havasu Regional Medical Center (HRMC) in Lake Havasu City and Valley View Regional Medical Center in Bullhead City, cites the high cost of living as one factor causing the chronic labor shortage in his region. To address this, Fitzgerald said that he has met with developers in the area to discuss building affordable housing.

HRMC has also tried to create more medical education and residency positions by partnering with Mohave Community College and Arizona State University.

**"We put together a very robust nurse extern program. I think we've hired more than 68 nurses this year alone,"** Fitzgerald said.

Nursing positions have been some of the hardest to fill in Arizona. Kathy Malloch, grant consultant for the Arizona State Board of Nursing (AZBN), warns that one element contributing to the shortage crisis is nurses being overworked:

**"They get burned out and are leaving the profession," Malloch said. "We think we'll have a shortage of about 25,000 nurses in the next five years."**

AZBN implemented the Student Nurse/New Graduate Clinical Placements and Preceptor Training Pilot Grant Program last year, which provides funds to healthcare institutions that implement a nursing preceptor program. The Arizona Health Care Cost Containment System (AHCCCS) is funding the program with \$25 million annually for three years.

Currently, over \$20 million has been allocated, with HRMC being one of the recipients.

**"It has been a challenge over the last three years," Fitzgerald said. "It's still going to continue to be a challenge. This is a hard-to-recruit area. It's hard to bring people into the rural area. It's not only bringing them in, but how do we make sure that they stay here and they are a part of our community."**

Excerpt from:

*Healthcare Workforce Shortage: how it affects Mohave County and what legislators are doing about it*

<https://crh.arizona.edu/news/healthcare-workforce-shortage-how-it-affects-mohave-county-and-what-legislators-are-doing>



## Healthcare Education Solutions

To address Arizona's healthcare crisis, Maricopa Community Colleges received \$25.7 million in funding from the Arizona Health Care Cost Containment System (AHCCCS) to create a statewide partnership with five Arizona community college systems, including:

- Arizona Western College
- Coconino Community College
- Eastern Arizona College
- Mohave Community College
- Northland Pioneer College

With a focus on retaining the current workforce, the funding supports advanced training and career development opportunities for the Home and Community-Based Services (HCBS) and Long-Term Care (LTC) workforce through scholarships and tuition assistance.

## Behavioral Health Workforce Demonstration Pilot Program

With Arizona's demand for mental health and social services professionals expected to increase by 40% over the next decade—compared to 16% nationwide—Maricopa Community Colleges is expanding Arizona's behavioral health workforce by offering degree and certificate programs across its 10 colleges—leading to a 37% enrollment increase in its healthcare programs.

### Program expansion highlights include:

- Glendale Community College: Enhanced student recruitment, retention, and completion services
- Mesa Community College: Certificate of Completion (CCL) in Applied Behavioral Science
- Phoenix College: CCL in Foundations of Behavioral Sciences
- Rio Salado College: CCL in Foundations of Behavioral Sciences
- South Mountain Community College: BS in Behavioral Sciences (exceeded its initial enrollment goal with 864 students)

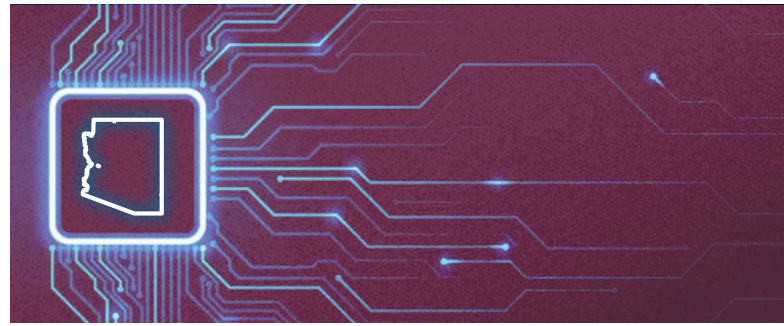
**MARICOPA COMMUNITY COLLEGES' INVESTMENT IN BEHAVIORAL HEALTH TRAINING PROGRAMS AND SERVICES IS A CRUCIAL STEP TOWARD MEETING ARIZONA'S MENTAL HEALTHCARE DEMANDS.**

## Focus on Advanced Manufacturing—Semiconductor

Advanced manufacturing is a priority for Arizona, fueled by the nation's push to reshore production and strengthen domestic supply chains. Large-scale federal investments in manufacturing, including the 2022 passage of the CHIPS and Science Act, have played a key role in this effort, generating significant investment in semiconductor manufacturing, job creation, and local economic growth.

To date, the Department of Commerce has announced over \$30 billion in proposed CHIPS-related private sector investments supporting 23 projects in 15 states. Arizona has emerged as a major beneficiary, as industry leaders such as Intel, the Taiwanese Semiconductor Manufacturing Company (TSMC), and Amkor construct plants in the state. These large-scale investments in big industry also create a ripple effect by stimulating growth in supply chain businesses, infrastructure, and support services, including housing and transportation.

This growth accelerates the demand for skilled talent. According to the State Office of Economic Opportunity, Arizona's total employment is projected to grow by 16.2% by 2033.



While the semiconductor industry has garnered great attention, it represents just one facet of Arizona's broader advanced manufacturing ecosystem. Other industry segments include:

- Electric vehicles
- Aerospace and defense
- Battery storage
- Medical device manufacturing

These industries, and others, are impacting both urban and rural communities, reinforcing the need for a trained workforce to sustain Arizona's position as a leader in advanced manufacturing.

*Further reading:*

<https://www.commerce.gov/news/blog/2024/08/two-years-later-funding-chips-and-science-act-creating-quality-jobs-growing-local>



INDUSTRY HIGHLIGHT: MANUFACTURING	Historic Change (2013-2023)		Projected Change (2023-2033)	
	Numeric Change	% Change (Annual)	Numeric Change	% Change (Annual)
Sector				
Manufacturing	35,151	2.0%	31,504	1.5%
Transportation Equipment Manufacturing	9,953	2.9%	5,983	1.4%
Computer and Electronic Product Manufacturing	-2,676	-0.7%	5,607	1.5%
Chemical Manufacturing	4,324	6.2%	3,928	3.5%
Miscellaneous Manufacturing	3,380	2.8%	3,106	2.0%
Food Manufacturing	4,220	3.1%	2,405	1.4%
Fabricated Metal Product Manufacturing	4,180	2.1%	2,289	1.0%
Machinery Manufacturing	2,526	3.4%	1,902	1.9%
Plastics and Rubber Products Manufacturing	1,740	3.6%	1,745	2.6%
Electrical Equipment, Appliance, and Component Manufacturing	1,067	3.3%	1,650	3.6%
Beverage and Tobacco Product Manufacturing	2,525	5.6%	1,526	2.3%





## A KEY INITIATIVE ADDRESSING THE PROJECTED SEMICONDUCTOR WORKFORCE DEMAND IS THE FUTURE48 WORKFORCE ACCELERATORS, LED BY THE ARIZONA COMMERCE AUTHORITY.

As advanced manufacturing continues to evolve with new and emerging technologies, many workforce challenges are still taking shape. (Interestingly, given the need to build a fabrication plant, the most immediate labor shortage is in construction workers.)

According to Oxford Economics and the Semiconductor Industry Association's 2023 report, "Chipping Away, Assessing and Addressing the Labor Market Gap Facing the U.S. Semiconductor Industry," the semiconductor sector is projected to add approximately 115,000 new jobs nationally by 2030—with 85,000 of these in technical roles. However, when factoring in retirements and attrition, the total hiring for technical roles rises to 238,000 positions nationwide. This demand leaves an estimated labor market gap in the semiconductor industry of up to 70,000 workers, underscoring a critical talent shortage.

As an emerging semiconductor hub, Arizona faces this challenge. In response, the Arizona Governor's Office, the Arizona Commerce Authority, and the State Office of Economic Opportunity are leveraging investments to expand workforce training, educational infrastructure, and awareness programs.

A key initiative addressing this projected workforce demand is the Future48 Workforce Accelerators, led by the Arizona Commerce Authority. These accelerators are creating partnerships between community colleges and industry leaders to offer customized training for jobs in advanced manufacturing, semiconductor production, battery manufacturing, aerospace and defense, and other in-demand fields.

The following community colleges have received funding to develop advanced manufacturing accelerators:

- Arizona Western College
- Central Arizona College–Apache Junction
- Mohave Community College
- Maricopa Community Colleges
- Central Arizona College–Casa Grande

These accelerators are designed to build capacity for entry-level and mid-level technicians, who will make up the bulk of Arizona's existing and future advanced manufacturing workforce. By aligning education with industry needs, these programs ensure that Arizona remains a competitive leader in this high-tech sector.



### Focus on Agriculture

Agriculture has long been the backbone of Arizona's prosperity and economic strength. According to the Arizona Department of Agriculture, "...long before Arizona was a state, and before there was a United States, agriculture thrived in the region. Agriculture's history in the Grand Canyon State stretches back more than 4,000 years. Archaeological records show Indigenous people growing gardens to sustain their families."

Today, Arizona's climate and soil support the cultivation of hundreds of food crops and the raising of livestock, with the state exporting vegetables, fruit, nuts, wheat, hay, cotton, eggs, beef, and milk across the United States and to 70 countries worldwide.



## Arizona's Agribusiness System

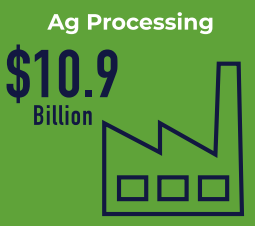
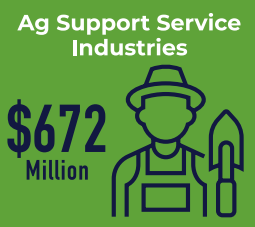
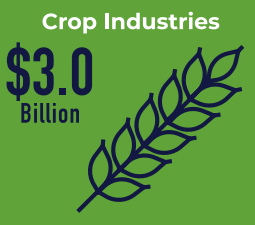
A November 2024 study by the University of Arizona's College of Agriculture and Life Sciences highlights the key contributions of Arizona's agribusiness system to Arizona's economy.

### Economic Contribution of Arizona Agriculture

- \$30.9 billion in economic activity (sales) in 2022.

**TOTAL CONTRIBUTION**  
**\$30.9 BILLION**

### Direct Contribution – \$20.2 billion



## Agriculture's Employment and Labor Income Contribution

- Directly and indirectly supported more than 126,000 full- and part-time jobs, employing more than 160,000 unique workers.
- Generated \$7.2 billion in labor income, including workers' wages, salaries, and benefits and business owner income.
- A significant portion of this labor income—\$3.3 billion—supported non-agribusiness industries through indirect and induced effects:
  - » \$135 million paid to employees in hospitals and physician offices
  - » \$66 million paid to workers in retail food and beverage stores
  - » \$70 million paid to employees in the real estate industry.

## Agricultural Industry Highlights

- 16,710 farm operations in Arizona
- 25.5 million acres of land (35% of Arizona's total land area) managed by Arizona farmers and ranchers
- \$24.2 billion in farm assets (land, buildings, and machinery)
- The top 5% of farms account for 97% of total agricultural sales
- The top 114 farms generate 75% of all agricultural sales
- Maricopa, Pinal, and Yuma produce 81% of the state's agricultural sales
- These same three counties ranked in the top 1% among all U.S. counties in total agricultural sales.
- 79% of Arizona farms and ranches report sales of less than \$25,000
- 89% of Arizona farms are operated by families, individuals, or partnerships
- Arizona has the highest percentage of female agricultural producers in the country (48%)
- Among Native Americans and Alaska Natives, Arizona has the highest share of Indigenous producers in the country (56%)



## Labor Shortage

A persistent labor shortage is one of the most pressing challenges facing Arizona's agricultural sector, especially in rural communities. Complex factors contributing to this crisis include demographic shifts, regulatory hurdles, and career opportunities outside of agriculture.

The entire agricultural industry is grappling with labor challenges as a result of:

- **An aging workforce:** The average age of Arizona's farm producers is approaching 60, with fewer young people entering the industry.<sup>1</sup>
- **Rural depopulation:** Economic opportunities in urban areas are drawing people away from rural communities, shrinking the available labor pool.
- **Competition from other industries:** Labor shortages in construction and manufacturing are creating competition for agricultural workers.
- **Immigration policies and regulations:** Tightened restrictions on agricultural visas and work permits have limited the availability of foreign workers, exacerbating the labor shortage.

*Further reading:*

*Top Challenges for Modern Agriculture*

<https://vlsci.com/blog/top-issues-in-agriculture-2024/>

## Immigration

Among these labor challenges, immigration policies have had a profound impact on Arizona's agricultural workforce. According to a University of Arizona Agriculture Cooperative Extension report, "...while the influx of workers crossing the border is often viewed negatively in political discourse...this labor supply is crucial for Arizona's agricultural productivity."<sup>2</sup>

Arizona's Yuma County has been hit particularly hard by agricultural labor shortages, with media reports indicating: "For decades, the U.S. has exported more

goods than it imported, but that trend is shifting fast, and it is raising concerns about the long-term sustainability of the country's agriculture."<sup>3</sup>

According to the Arizona Farm Bureau, this trend is due in part to ongoing labor shortages causing more products to be produced in Mexico and other places.

The U.S. Department of Agriculture reports that from 2013 to 2023:

- U.S. agricultural exports increased by 2.1% annually, while imports grew by 5.8%
- This shift resulted in a negative trade balance in three of the last 10 fiscal years.

Additionally, according to Congress.gov, over 310,000 visas were issued under the H-2A temporary agricultural workers program in 2023. All but about 26,000 of those went to workers from Mexico.

## Potential Solutions for Arizona's Agricultural Labor Shortage

To sustain the future of Arizona's agricultural industry, excerpts and industry leaders (Farmonaut) are advocating for strategic solutions:

- Adopting precision agriculture technology: Reducing labor dependence through automation
- Offering competitive wages and benefits: Improving worker retention and attracting new talent
- Investing in workforce training programs: Developing a skillful local labor force through community college and technical education programs
- Advocating for comprehensive immigration reform: Expanding access to work visas and streamlining the H-2A process to ensure a reliable workforce

<sup>1</sup>2022 Census of Agriculture impacts the next generations of farmers. (2023, February 22). <https://www.usda.gov/about-usda/news/blog/2023/02/22/2022-census-agriculture-impacts-next-generations-farmers>

<sup>2</sup>Farmonaut. (2024, November 22). Arizona's Agricultural Boom: \$30.9 Billion Economic Impact and Growing Trade with Mexico - Farmonaut®. <https://farmonaut.com/usa/arizonas-agricultural-boom-30-9-billion-economic-impact-and-growing-trade-with-mexico/>

<sup>3</sup>Rangel, A. (2025, February 15). Yuma agriculture labor shortage leading to increased imports. <https://www.azfamily.com>. <https://www.azfamily.com/2025/02/15/yuma-agriculture-labor-shortage-leading-increased-imports/>



FURTHER  
**DISCUSSION**

What can be done from a policy and regulation perspective to support workforce needs?

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How does Arizona continue to prioritize agriculture?

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## CHAPTER 6

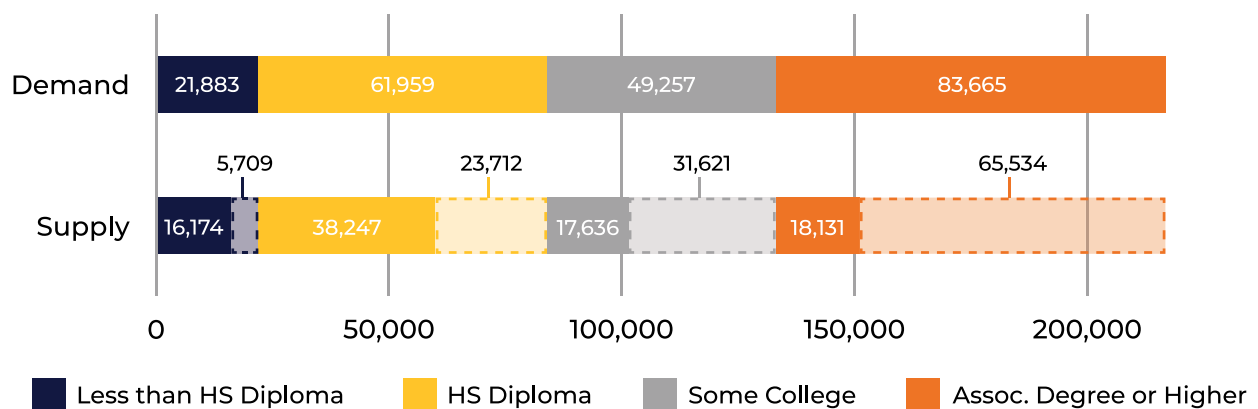
# EDUCATION & TRAINING

### YESTERDAY'S SKILLS NO LONGER HOLD CURRENCY IN TODAY'S LABOR MARKET.

For years, educational institutions and other career training models—K-12 schools, community colleges, universities, Career and Technical Education Districts, trade schools, and apprenticeships—have been evolving program content and delivery modes to meet changing workforce needs. Programs have been redesigned to emphasize skill-specific training to close workforce gaps rather than degree completion while still recognizing the value of traditional degrees as part of long-term career growth.

Short-term and non-credit programs, boot camps, online and hybrid courses, and credit for prior learning have become common offerings, providing flexible pathways for students and professionals. Data drawn from the Arizona Office of Economic Opportunity and the U.S. Bureau of Labor Statistics underscores why Arizona must support the development of a skilled and educated workforce at multiple levels to meet employment demands.

## Arizona Workforce Annual Supply from Local Communities vs Demand



Source: Occupation Demand: Arizona OEO 2023-2032 Occupation Projections (Exits and Growth Only) and BLS Occupational Statistics OEWS matching each occupation with educational attainment of those currently holding each position (2023 series).



It's important to acknowledge that our workforce needs people with entry, middle, and advanced-level skills. It makes no more sense for someone with a bachelor's degree to be in a job that only requires a high school diploma as it does to have an unqualified candidate in a role that requires more advanced qualifications. However, we must ensure that we do not create systems that perpetuate the idea that some people are "college material" while others are not. To do so, we must continue to build career and college pathways with stackable credentials that allow individuals to enter the pathway from wherever they are in their personal journey.

## RETAIL TRAINING AND EDUCATION

Retail training and education starts with foundational skills or credentials that can help you obtain a retail job.

Additional training and education will support you in advancing your career in retail. At the top are the Bachelor degree programs in Arizona that are focused on retail.



Source: AZRetailCareers <https://azretailcareers.com/>

Employers have an important role in this model and must encourage and support the continued development of their employees for it to work. RetailWorks AZ provides an excellent example of stackable credentials available in retail.

According to the Center for the Future of Arizona's Education Progress Meter, the percentage of Arizona students graduating from high school in four years was 77% in 2022, yet only 48% of those graduates enrolled in college the following semester.

With a wide range of postsecondary education and training options available, it is critical to assess which programs best align with workforce needs. Whether for credit or non-credit, in-person or online, traditional semester-based or short-term, the curriculum must be designed to equip students with the skills that businesses demand in today's job market.

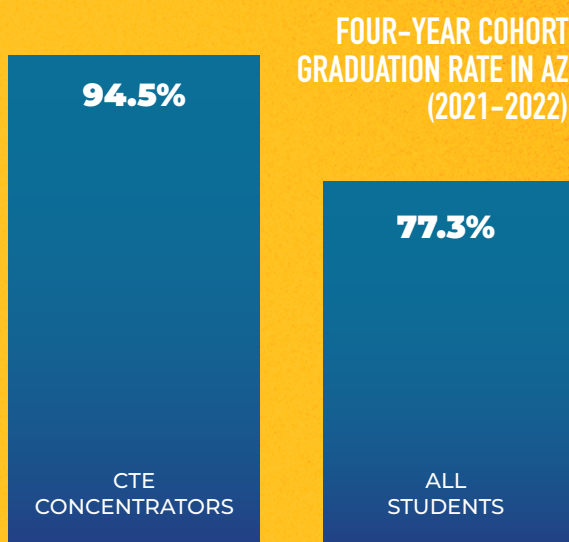
## Career and Technical Education (CTE) Programs

Career and Technical Education (CTE) programs play a vital role in preparing students for in-demand careers by aligning education with industry needs. Offered through Arizona's high schools, Career and Technical Education Districts (CTEDs), and community colleges, these programs are developed in partnership with business and industry leaders to ensure students gain critical skills to fill workforce needs.

According to the Association for Career and Technical Education, CTE programs can fill gaps in some of Arizona's key industries, such as:

- Aerospace and defense
- Manufacturing
- Bioscience and healthcare
- Film and digital media

Beyond filling critical workforce gaps, CTE programs offer significant benefits to students. Participants are more engaged in their education, graduate high school at higher rates, earn industry-recognized credentials, and secure rewarding, family-sustaining careers.



Source: CTE in Arizona  
<https://www.acteonline.org/wp-content/uploads/2024/05/Arizona-CTE-Fact-Sheet-2024.pdf>

**THE IMPORTANCE  
OF EMPLOYER  
ENGAGEMENT CANNOT  
BE UNDERSTATED.  
SUCH PARTNERSHIPS  
HELP BOOST PROGRAM  
CAPACITY, UPDATE  
AND ALIGN COURSE  
CURRICULUM,  
PROVIDE CRUCIAL  
PROFESSIONAL  
DEVELOPMENT  
OPPORTUNITIES FOR  
EDUCATORS AND  
MUCH MORE.**

Source: *The State of Career Technical Education*  
[https://careertech.org/wp-content/uploads/sites/default/files/State-of-CTE\\_Employer-Engagement\\_FINAL.pdf](https://careertech.org/wp-content/uploads/sites/default/files/State-of-CTE_Employer-Engagement_FINAL.pdf)



## Non-Degree Credentials

Rigid, either-or thinking can cloud our vision regarding the necessary steps to fill Arizona's workforce gaps. Too often, people frame career pathways as an either-or choice—that is, preparing for a job or pursuing a college degree, with “college” assumed by many to mean a four-year degree.

However, the reality is that the best college and career pathways are designed to incorporate both college and career education, building from one level to the next in a complementary fashion, allowing multiple entry and exit points throughout a person's life.

Non-degree credentials (NDCs) provide a model that allows people to enhance their education incrementally while simultaneously improving their career opportunities. Research from the National Skills Coalition shows that those who have earned NDCs have higher employment rates and increased annual earnings, though these results can vary by industry, gender, and race.

### Defining Non-Degree Credentials

In its most basic form, an NDC is any postsecondary credential beyond a high school diploma (or its equivalent) that falls outside of the parameters of a degree program. NDCs can vary in programmatic length, credits earned, and postsecondary provider. They are conferred after successful completion of one or more academic or training courses or an evaluation of skills. Generally, NDCs validate that a certain set of competencies or skills have been adequately mastered by the credential holder. They are important not only for workers wishing to demonstrate their experience and knowledge, but for employers looking to assess the competencies and skills of current and potential employees. NDCs generally include the following credential categories:

- **CERTIFICATES**, which are awarded by an education institution based on completion of all requirements for a program of study, including coursework and tests. They are not time limited and do not need to be renewed.
- **INDUSTRY CERTIFICATIONS**, which are awarded by a certification body (not a school or government agency) based on an individual demonstrating, through an examination process, that they have acquired the designated knowledge, skills, and abilities to perform a specific occupation or skill. It is time-limited and may be renewed through a re-certification process.
- **APPRENTICESHIP CERTIFICATES**, which are earned through work-based learning and postsecondary earn-and-learn models. They are applicable to industry trades and professions. Registered apprenticeship certificates meet defined national standards.
- **OCCUPATIONAL LICENSES**, which permit the holder to practice in a specified field. An occupational license is awarded by a government licensing agency based on pre-determined criteria. The criteria may include some combination of degree attainment, certifications, certificates, assessment, apprenticeship programs, or work experience. Licenses are time-limited and must be renewed periodically.
- **BADGES AND MICROCREDENTIALS**, which are an emerging category of credentials that validate the mastery of a skill or competency. They are offered through shorter-term learning programs, are linked to in-demand skills, and can often be aggregated or stacked with similar badges or microcredentials.

*Source: The Non-Degree Credential Quality Imperative*

[https://nationalskillscoalition.org/wp-content/uploads/2023/07/The-NDCQ-Imperative-report\\_fnl2-1.pdf](https://nationalskillscoalition.org/wp-content/uploads/2023/07/The-NDCQ-Imperative-report_fnl2-1.pdf)



## Industry-Recognized Credentials in Arizona

Arizona has several entities that evaluate both degree and non-degree credentials, including the Arizona Department of Education, ARIZONA@WORK, and the state's community college districts. While each organization uses different evaluation methods, common elements include direct input from employers and labor market information from sources such as the U.S. Bureau of Labor Statistics.

**Arizona Department of Education.** The Arizona Department of Education maintains a comprehensive list of CTE industry credentials. Currently, a high school, CTED, or Arizona community college must submit an application for a credential to be considered. Approved credentials allow CTEDs to meet legislative funding requirements, while high schools can generate points in Arizona's College and Career Readiness Index (School A-F) for students who obtain an approved credential.

Visit <https://www.azed.gov/cte/cte-industry-credentials> for the full list of approved credentials and background information.



**ARIZONA@WORK.** Through a network of Eligible Training Providers—including community colleges, trade schools, private postsecondary providers, and professional organizations—ARIZONA@WORK maintains a list of education and training programs for job seekers that is aligned with in-demand occupations as decided by the Local Workforce Investment Boards.

For more information, visit:  
<https://www.azjobconnection.gov/training>

**Arizona Community College Districts.** Arizona's 10 community college districts, with 61 locations across the state, play a critical role in preparing students to be job-ready and training or retraining workers to fit workforce needs. To help meet regional workforce needs, each district maintains a close relationship with its regional employers and workforce agency partners to offer:

- Short-term certificates
- Associate and baccalaureate degrees
- Apprenticeships, microcredentials, and badges to fill skills gaps

More information on each community college district and their offerings can be found at:  
<https://arizonacommunitycolleges.org/>

## Workforce-Specific Credentialing Programs

While further research is needed to create a comprehensive list of employer-preferred credentials, several workforce-specific credentialing programs are already making a significant impact across Arizona, including:

**Ready Tech Go.** This program, available at four Arizona community colleges, offers Automated Industrial Technology courses that build upon one another. Participants can earn their first certification and be job-ready in as little as two weeks, with opportunities to earn additional certifications and an associate degree in two years.

Developed in partnership with the Arizona Office of Economic Opportunity and major companies like Boeing, Intel, Lucid, and TSMC, Ready Tech Go helps address Arizona's growing demand for advanced manufacturing professionals.

For more information, visit:  
<https://oeo.az.gov/readyytechgoaz/learners>





### **Freeport-McMoRan Skilled Trades Program.**

Education Forward Arizona, Freeport-McMoRan, and nine Arizona Community Colleges are launching a new skilled trades program designed to prepare students for careers in the mining industry. Beginning in Spring 2025, eligible full-time students can apply for a four-semester scholarship program to earn a Certificate of Completion or an Associate of Applied Science degree in one of six critical technical areas. This scholarship will provide selected participants with tuition, education, training, a paid summer internship, and job placement with Freeport-McMoRan.

For more information, visit:

<https://educationforwardarizona.org/futurewithfreeport/>

### **Community Partner Upskilling Scholarship.**

Launching in Spring 2025, Cochise College's new Community Partner Upskilling Scholarship offers a valuable opportunity for Cochise County employers to invest in their workforce. This program enables businesses to partner with the college to provide educational training and skill development opportunities for their employees through a tuition and fee match program of up to \$5,000 per employer per academic year.

This upskilling and reskilling initiative helps businesses stay competitive while enabling employees to advance their careers.

For more information, visit:

<https://www.cochise.edu/academics/job-and-workforce-training/index.html>

### **Arizona Western College 10-week HVAC**

**Certification Program.** Starting in Spring 2025, Arizona Western Entrepreneurial College, in collaboration with ARIZONA@WORK, will offer a 10-week occupational certification program in Heating, Ventilation, & Air Conditioning (HVAC).

The HVAC Helper 1 Certificate program will equip students with the foundation skills needed for an entry-level position in the air conditioning and refrigeration industry. Participants will gain hands-on experience in HVAC system operation, equipment handling, installation practices, and troubleshooting techniques.

Upon completion of the program, students will earn the HVAC Helper 1 certification and be prepared to pass two key industry certification exams:

- Ready to Work Certificate (North American Technical Excellence)
- EPA Section 608 (Environmental Protection Agency)

These credentials provide a competitive edge to those entering the workforce and ensure compliance with industry standards.

For more information, visit:

<https://www.azwestern.edu/degrees-and-certificates/occupational-certificate/heating-ventilation-air-conditioning-hvac-helper>



## Apprenticeships

Apprenticeships offer a practical and affordable way to earn while you learn, allowing individuals to gain postsecondary education and industry-recognized credentials while earning a competitive wage.

While traditionally associated with (and still essential to) skilled trades like carpentry, electrical work, and plumbing, apprenticeships are evolving and have expanded into cutting-edge industries and high-demand careers, including:

- Cybersecurity technicians
- Data scientists
- Dental assistants
- Teachers

As the workforce continues to evolve, apprenticeships offer hands-on learning, career advancement, and a direct path to well-paying jobs across a growing range of industries.

For more information from the Arizona Department of Economic Security Apprenticeship Office, visit: <https://des.az.gov/services/employment/apprenticeship-program>

## THE MANY BENEFITS OF **APPRENTICESHIPS**

### APPRENTICE BENEFITS



- [+] FOOT-IN-THE-DOOR
- [+] LOW OR NO STUDENT DEBT
- [+] BECOME AN EXPERT IN YOUR FIELD
- [+] CAREER ADVANCEMENT OPPORTUNITIES
- [+] INTERNATIONALLY-RECOGNIZED CREDENTIALS

### EMPLOYER BENEFITS

- [+] REDUCED TURNOVER RATES
- [+] LOYAL EMPLOYEES
- [+] HIGHLY SKILLED EMPLOYEES
- [+] HIGHER PRODUCTIVITY



Source: The Arizona Apprenticeship Program  
<https://www.youtube.com/watch?v=oPZKWQeLrGs>



# ACCORDING TO COLLEGE SUCCESS ARIZONA, INCREASING COLLEGE ATTAINMENT TO 60% WOULD ADD \$3.5 BILLION IN PERSONAL INCOME AND TAX REVENUE TO THE STATE ECONOMY.

Source: *The Arizona We Want: The Decade Ahead*  
[https://www.arizonafuture.org/media/unfojhmh/  
cfa\\_arizona\\_we\\_want\\_the\\_decade\\_ahead\\_digital.pdf](https://www.arizonafuture.org/media/unfojhmh/cfa_arizona_we_want_the_decade_ahead_digital.pdf)

## Early Career Literacy and Dual Enrollment

While the majority of this chapter has focused on education and training for high school students and beyond, the foundation for career literacy and career education begins much earlier.

The Arizona Department of Education Career Literacy initiative (K-8 Career Literacy | Arizona Department of Education) provides a specific curriculum for career awareness in grades K-5 and career exploration for grades 6-8. This program helps students develop professional skills and make informed career choices from an early age, setting the stage for future success.

Dual enrollment provides opportunities for high school students to earn college credit for classes that count toward both high school graduation and college degree requirements. According to a report by the Helios Education Foundation, “students who participate in dual enrollment are more than two times as likely to attend college when compared to their peers who do not participate in dual enrollment. They also have an increased likelihood of persisting in their postsecondary studies.”<sup>2</sup>

The bottom line, as outlined in the Billions to Gain report, is that “the economic benefits of postsecondary education—for individuals, communities, and Arizona—are undeniable.”<sup>3</sup> Every level of education achieved strengthens both Arizona’s workforce and economy, creating opportunities for individuals and businesses alike.

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<sup>1</sup>Education in Arizona | Center for the Future of Arizona. (n.d.). <https://www.arizonafuture.org/progress-meters/education/>

<sup>2</sup>Roig, V., Roig, J. L., Aripoli, D., Fernandez, M., Herndon, T., Humphrey, C., Luna, P. J., Manager, V. O., Morfessis, I. T., Rice, L., Sastre, M., Swanson, J., Wheeler, S., Helios Education Foundation, Perrault, P. G., Abt Associates, Morales, K. L., Arizona State University, Hedberg, E., . . . Hickox, I. (2023). Dual enrollment in Arizona High Schools — Participation rates and Effects on College-Going Patterns. In Helios Education Foundation. [https://www.helios.org/media/  
m5oegog2/brief-dual-enrollment-in-az-update-date-february-2023.pdf](https://www.helios.org/media/m5oegog2/brief-dual-enrollment-in-az-update-date-february-2023.pdf)

<sup>3</sup>Perrault, P., Nickel, R., Helios Education Foundation, Belfield, C. R., Morales, K. L., Nickel, R., Hickox, I., & Kurtenbach, K. (2023). *Billions to Gain: The economic benefits of investing in a more Educated Arizona*. [https://www.helios.  
org/media/lwbpy4uc/brief-the-economic-benefits-of-investing-in-a-more-educated-arizona.pdf](https://www.helios.org/media/lwbpy4uc/brief-the-economic-benefits-of-investing-in-a-more-educated-arizona.pdf)

# FURTHER DISCUSSION

Historically, in many industries and occupations, employers have used bachelor’s degree attainment as an indicator of job readiness. Are there other educational pathways that might also work?

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What industries are most prevalent in your area? Do individuals in your area have access to stackable credential education models in those industries to fill entry, middle, and advanced job openings?

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## CHAPTER 7

# WHO WILL TEACH?

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### WITHOUT TEACHERS, ARIZONA CANNOT SUSTAIN A STRONG WORKFORCE PIPELINE IN ANY FIELD.

It is widely recognized that teachers have a significant impact on their students. Teachers who are well-trained, supported, motivated, respected, and fairly compensated can ignite passions; instill knowledge, pride, and confidence; and inform career and education pathways.

However, both nationally and in Arizona, maintaining a quality educator workforce remains a struggle, and without teachers, Arizona cannot sustain a strong workforce pipeline in any field.

#### Challenges

Recruitment and retention of teachers is challenging. Low wages, lack of respect and support, poor working conditions, and burnout are among the reasons that schools struggle to attract new teachers and retain the teachers they do have.

Many Arizona school districts recruit teachers from across the country, but these recruitment efforts do not come close to meeting demand. At the same time, other states successfully lure Arizona teachers away with higher salaries.

In an attempt to close this widening gap, Arizona schools have expanded recruitment efforts worldwide. For example, in 2023, Littleton Elementary School District in Avondale brought in 26 teachers from countries including Columbia, Kenya, the Philippines, and Spain, providing them with temporary housing, transportation assistance, and other support. <sup>1</sup>

In response to the crisis, Arizona Governor Katie Hobbs established the Educator Retention Task Force in 2023 to better understand and formulate recommendations for improvement—resulting in the following important data points. <sup>2</sup>

- Arizona ranks second to last for wage competitiveness
- Educators in the state have seen a decline in pay of 6 percent over the past decade (adjusted for inflation)
- Arizona struggles with one of the highest teacher turnover rates in the country
- As of September 2022, 68% of teaching positions were either vacant a few weeks into the school year or filled by individuals not meeting standard teacher requirements



The Educator Retention Task Force Report is a comprehensive and highly recommended resource that provides a deep dive into the challenges of Arizona's K-12 educator pipeline. However, the shortage of qualified teachers is not solely a K-12 issue. Community colleges and universities also struggle to maintain faculty positions due to compensation concerns, an aging workforce, and an inability to hire full-time faculty due to unpredictable funding.

Career and Technical Education (CTE) and other professional programs offered at high schools, community colleges, and universities face additional hurdles. These programs are designed to prepare students for in-demand jobs and fill specific work gaps. In fields such as Healthcare, Information Technology, and Advanced Manufacturing, it is typically more lucrative for professionals to work in industry roles than it is to teach.

Additionally, in emerging fields such as Cybersecurity and Artificial Intelligence, a shortage of professionals for existing jobs makes recruiting qualified candidates as educators even more difficult—particularly in rural areas. Transitioning from industry to teaching also requires significant training and support to ensure effective instruction.

While the list of challenges is daunting, a great deal of research and best practices are emerging in each of the identified challenge areas to improve the educator pipeline.

## Strategies for Increasing Teacher Pay

Across the nation, states are experimenting with different pay structures in the K-12 system to increase pay to attract and retain teachers. The Educator Retention Task Force report highlights several effective approaches:

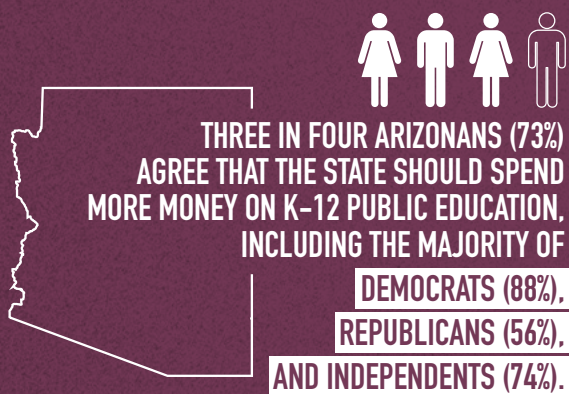
- **Experience-based Pay:** Seventeen states implement teacher salary schedules to determine pay based on years of teaching experience. (Arizona is not among them.)
- **Performance-based Pay:** Texas is a leader in performance-based pay. The Teacher Incentive Allotment (TIA) provides between \$3,000 and \$32,000 per year to identified teachers based on performance and other characteristics, such as high-need areas, rural district campuses, and student population demographics.
- **Differential Pay:** Districts offer higher pay for difficult-to-fill positions based on the location or the subject matter. Utah school districts offer up to \$7,000 annually to effective teachers in high-poverty K-8 schools, funded by the state and the school districts.

## Educator Preparation Programs

Arizona has 283 educator preparation programs (EPPs) across 30 institutions categorized into three types of pathways in the Governor's Education Retention Task Force Research and Analysis Report, including the traditional higher education route and two additional routes for individuals who already have a bachelor's degree.

However, not all programs yield the same results in terms of completion rates, job placement, and long-term retention. Some educators suggest that an analysis of these programs is necessary to determine which are yielding the best results.

Research also shows that mentoring and induction programs significantly influence teacher satisfaction and retention, particularly in the early years of teaching.



Source: *The Arizona We Want—The Decade Ahead*



## Promising Practices in Faculty Recruitment and Retention

In response to faculty shortages in Career and Technical Education, Arizona's community colleges have explored innovative models to find and retain skilled CTE instructors, including the following:

- **Supplemental Faculty Model** (Mohave Community College): Based on the Western Governors University model, this approach utilizes lead faculty supervising supplemental faculty, who work 19.5 hours per week for industry-aligned pay, receive support from full-time lab assistants, and are required to be credentialed per the Higher Learning Commission (HLC). Since implementation, three supplemental faculty have transitioned into full-time roles.
- **Compensation** (Arizona Western College and Yavapai College): This initiative ensures competitive compensation that reflects the value of expertise in critical areas.

To attract faculty in high-demand fields, Arizona Western College attempts to match industry compensation by offering up to a 35% increase above posted pay for faculty positions in fields such as Healthcare, EMS, Paramedicine, and Fire Science.

Professional administrators are being hired with responsibilities that include both teaching and administrative duties on a higher pay scale than faculty.

Due to the high cost of living in Yavapai County, Yavapai College offers relocation compensation, including a higher relocation amount for faculty in high-demand fields. It also offers a sign-on bonus for a 3-year commitment and provides stipends to full-time faculty for extra duties when funds are available.

Yavapai College also revamped the Nursing pay schedule, which has reduced the rate of turnover.

**U.S. NURSING SCHOOLS  
TURNED AWAY 65,766  
QUALIFIED APPLICATIONS  
FROM BACCALAUREATE  
AND GRADUATE NURSING  
PROGRAMS IN 2023 DUE  
TO AN INSUFFICIENT  
NUMBER OF FACULTY,  
CLINICAL SITES,  
CLASSROOM SPACE,  
CLINICAL PRECEPTORS,  
AND BUDGET  
CONSTRAINTS.**

*Source: American Association  
of Colleges of Nursing*

**While these promising practices have had some impact, educators contributing to this report make it clear that recruiting and retaining teachers in Arizona, at all levels and all subject areas, remain a major challenge and concern.**

<sup>1</sup> Warren, J. (2023, August 16). ABC15 Arizona in Phoenix (KNXV). ABC15 Arizona in Phoenix (KNXV). <https://www.abc15.com/news/back-to-school/littleton-elementary-school-district-welcomes-26-international-teachers>

<sup>2</sup> Katie Hobbs, Morrison Institute for Public Policy, The Hunt Institute, & Arizona State University. (2023). *The Governor's Educator Retention Task Force: Research and Analysis*. <https://azgovernor.gov/sites/default/files/educator-retention-task-force-research-and-analysis-report.pdf>



# FURTHER DISCUSSION

*As of September 2022, 68% of teaching positions were either vacant a few weeks into the school year or filled by individuals not meeting standard teacher requirements.*

Is this statistic surprising to you? What are your thoughts?

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How do the statistics shared about the teaching profession in Arizona impact expectations that student performance will improve?

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Are you aware of incentives that your area schools offer to attract and retain teachers?

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## Introduction

Access to affordable housing plays an essential role in creating a diverse, productive, and stable workforce. Research shows that affordable housing, or housing that costs 30% or less of household income, boosts local economies, increases earning potential for workers, and supports job creation and retention.<sup>1</sup> Additionally, access to housing that is affordable positively impacts worker performance and productivity, which leads to more effective workforce production and economic growth.<sup>2</sup>

**Currently, Arizona is experiencing a housing challenge.** Limited housing supply and increasingly high housing costs substantially impact workers' ability to buy, rent, or maintain secure housing.<sup>3</sup> Arizona's lack of affordable and accessible housing poses significant challenges and implications for the future of the workforce and local economy. This chapter will examine how the availability, affordability, and accessibility of housing affects the workforce in Arizona and will provide potential solutions for the future.

## Arizona's Housing Landscape

Once considered an affordable place to live, Arizona has become increasingly less affordable, with fewer accessible housing options.<sup>4</sup> Following the Great Recession of 2008 and the COVID-19 pandemic, the housing market in Arizona has shifted considerably, yielding serious consequences for the state's growing population.<sup>5</sup>

Home to over 7,500,000 people and ranking 12<sup>th</sup> in the nation for fastest growing population in 2023, Arizona has experienced exponential growth in the last decade.<sup>6</sup> While the population has continued to increase across the state, the housing supply has lagged in comparable growth.<sup>7</sup> During the Great Recession of 2008, the construction of new homes slowed in Arizona and never recovered enough to adequately account for the growing population, resulting in a significant housing shortage.<sup>8</sup> **In 2022, the Arizona Department of Housing estimated a shortage of 270,000 homes across the state.**<sup>9</sup>

Further contributing to the lack of available housing, exclusionary zoning practices in Arizona favor single-family homes over more affordable, higher-density options, such as duplexes, triplexes, and apartment complexes.<sup>10</sup> Single-family homes require more land to house fewer people in one area, whereas multi-family homes can use the same land to build housing structures that safely house a high number of occupants.<sup>11</sup> Many Arizona cities zone around 50% of their land to single-family use, compared to only 10-15% for multi-family use, limiting the number of available units and worsening the housing shortage.<sup>12</sup>

The lack of available housing became particularly evident during the 2020 pandemic when vacancy rates, or the number of available housing units, decreased in Arizona, making it even more difficult for people to find available units. In 2021, the rental vacancy rate was 4.8% compared to 14.9% in 2010.<sup>13</sup> In 2021, the vacancy rate of "for sale" properties was 0.8% compared to 3.2% in 2010.<sup>14</sup>

Insufficient housing options have created higher demands and increased pricing for both homeowners and renters across the state. **Median home sale prices have increased 57 percent in the last 5 years.**<sup>15</sup> In December 2024, the median sale price was \$451,100.<sup>16</sup> Rental prices increased 53 percent from August 2017 to August 2023.<sup>17</sup> According to a 2024 report from the National Low Income Housing Coalition, the monthly rent in Arizona for a moderately priced one-bedroom is \$1,417, and the monthly rent for a moderately priced two-bedroom apartment is \$1,700.<sup>18</sup> Understanding the implications of unaffordable and unavailable housing within the context of the workforce is imperative to address the current housing issues and prepare for the future.

# Phoenix was ranked



**in the  
nation for**

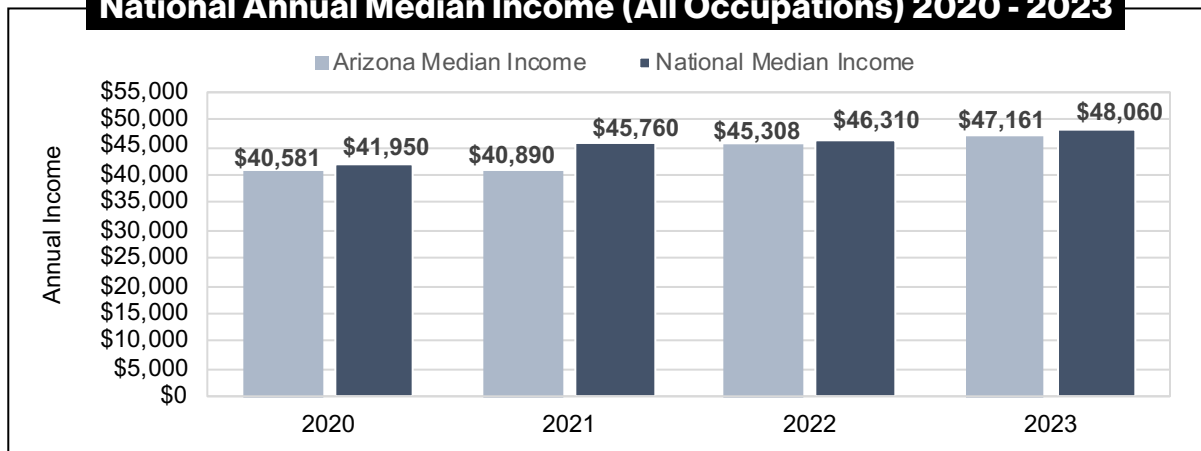
**fastest growing  
population in 2023**

Source: "Economic Indicators,"  
Arizona Office of Economic Opportunity, accessed January 13, 2025  
<https://oeo.az.gov/economic-indicators>

## A Snapshot of the Arizona Workforce

Arizona's workforce consists of more than 3 million workers, with the state experiencing positive job growth (i.e., the number of jobs created minus number of jobs lost) since 2020.<sup>19</sup> **While the labor force has continued to grow and evolve to meet economic demands, worker's wages remain insufficient for the changing housing market.** Between 2020 and 2023, the annual median wage in Arizona (adjusted for cost of living) was consistently lower than the national annual median wage.<sup>20</sup>

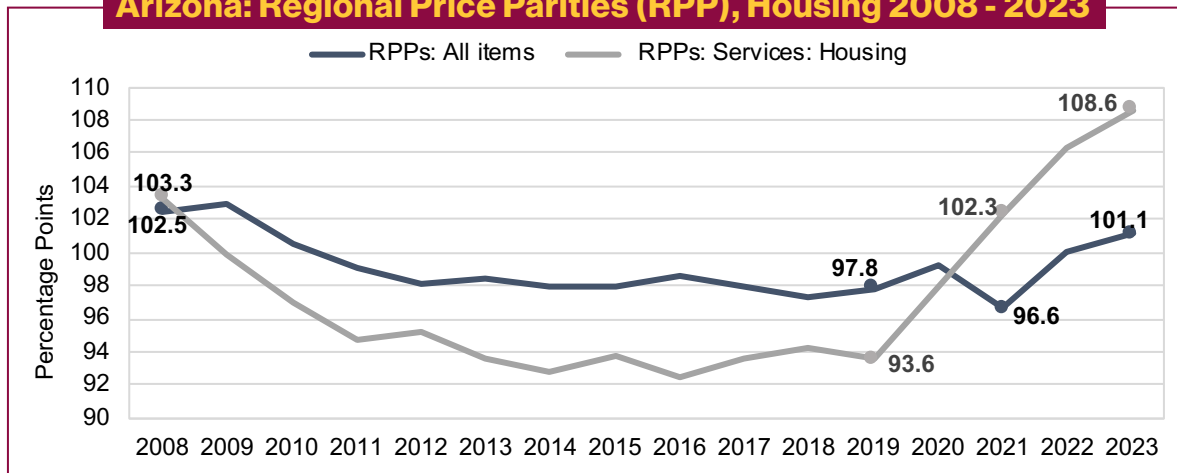
### Arizona Annual Median Income (All Occupations) v. National Annual Median Income (All Occupations) 2020 - 2023



Source: Bureau of Labor Statistics, 2020-2023 State Occupational Employment and Wage Estimates; Bureau of Labor Statistics, 2020-2023 National Occupational Employment and Wage Estimates.

In addition to earning lower annual median wages compared to workers' nationally, Arizona workers are also paying more for housing. Regional price parities (RPPs) compare the state price level of goods and services, including housing rents, to the national average (baseline of 100 percent).<sup>21</sup> States with a lower cost of living have RPPs below 100, while those with higher costs have RPPs above 100.<sup>22</sup> RPPs reveal that the cost of housing (rent prices) in Arizona has increased substantially since 2019 (15 percentage points). **In 2021, Arizona's RPP for housing rents surpassed the national price level for the first time since 2008.**<sup>23</sup>

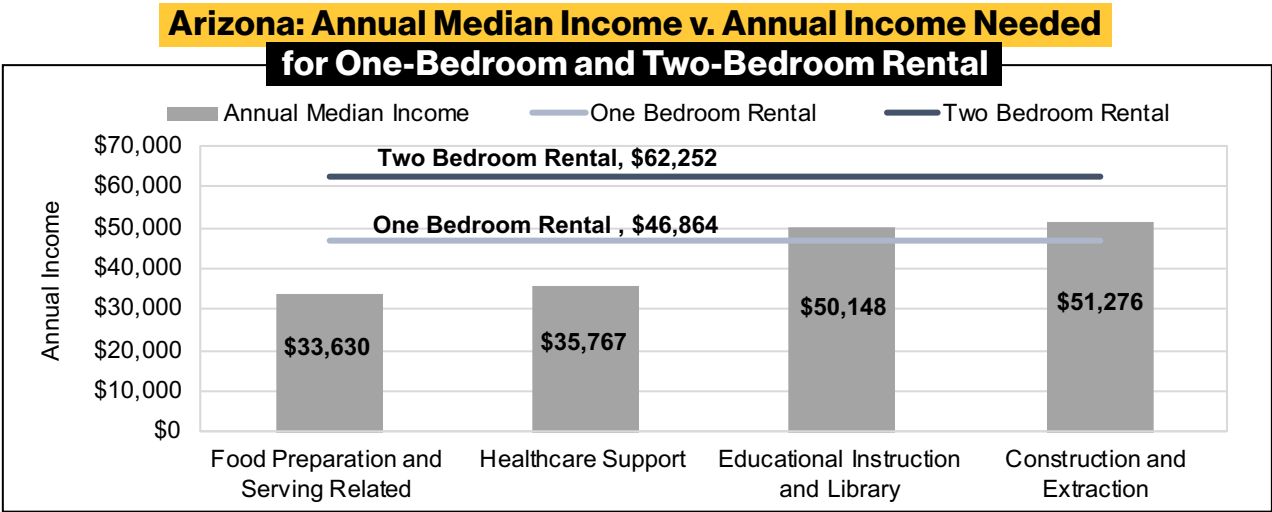
### Arizona: Regional Price Parities (RPP), Housing 2008 - 2023



Source: Bureau of Labor Statistics, 2008-2023 State Regional Price Parities.



The following figure examines the median annual wages (adjusted for cost of living) of four prominent Arizona workforce industries compared to average rental costs in 2023. Of the four industries, two industries have a median annual wage that meets the annual income needed for a one-bedroom apartment at Fair Market Rent (rent that is calculated at the 40th percentile of gross rents for typical, non-subsidized rental units)<sup>24</sup> None of the four industries meet the median annual income needed for a two-bedroom apartment at Fair Market Rent.<sup>25</sup>



Source: Bureau of Labor Statistics, 2023 State Occupational Employment and Wage Estimates; National Low-Income Housing Coalition One-Bedroom and Two-Bedroom Incomes.

## The Intersections of Housing and Workforce

The barriers to obtaining affordable housing do not impact all workers equally. The intersections of housing and workforce are dynamic and multifaceted. There are increased financial, physical, and mental burdens for workers in more demanding and dire situations, such as workers with low wages, workers who commute long distances, and workers in rural areas.<sup>26</sup>

High housing costs require workers in low-wage industries to spend a greater portion of their income on housing, often exceeding 30% of their household income – the percentage at which people are considered to be cost-burdened.<sup>27</sup> Additionally, given the inadequate housing supply, low-wage workers are limited as to where they can live, making it more difficult to access better job opportunities with higher wages.<sup>28</sup> The National Low Income Housing Coalition estimates that an affordable rent for a full-time worker earning minimum wage (\$14.35) in Arizona is \$746 per month. To afford a modest one-bedroom apartment at Fair Market Rent, a full-time minimum wage worker would have to work 76 hours per week.<sup>29</sup> Insufficient wages combined with high housing costs create an affordability mismatch, leading to serious inequities for workers.<sup>30</sup>

Workers who are priced out and cannot afford to live near where they work are burdened with long travel times and higher transportation costs that can negatively impact their quality of life.<sup>31</sup> Research shows that workers with longer commute times face higher levels of stress and fatigue, lower job satisfaction, and poorer mental health.<sup>32</sup> Longer commute times can also reduce productivity and impede retention, especially among low-wage and moderate-wage workers, which negatively affects organizational performance and increases overall operating costs for employers.<sup>33</sup>

Perpetuated by more persistent levels of poverty, limited housing supply, and a lack of necessary infrastructure for improvements, workers in rural areas face unique challenges to accessing quality and affordable housing.<sup>34</sup> Lesser wide-scale development and high construction costs limit housing options in rural communities.<sup>35</sup> Without affordable and adequate housing options, workers in rural areas live in substandard conditions, industries are unable to sustain a stable workforce, and economic growth is hindered.<sup>36</sup>

## Rural Spotlight: Problem Solving in Action

To address rural housing needs in Arizona, towns, employers, and nonprofit organizations across the state have implemented workforce housing solutions. While these solutions may not holistically and sustainably address the housing challenge in Arizona, they demonstrate problem solving in action and offer valuable considerations for short and long-term solutions.

### Patagonia, Arizona | Santa Cruz County

Community Homes of Patagonia (CHOP), a community based nonprofit organization, is building sustainable and affordable housing designed to maintain residents in Patagonia and supply housing to households who cannot afford to live where they work.<sup>37</sup> Housing includes one-, two-, and three-bedroom homes, as well as a community area and a community garden.<sup>38</sup> The homes will be constructed using cost-effective materials and managed under a community land trust, allowing residents to purchase the homes at a more affordable price and build financial equity and ownership.<sup>39</sup> The project began in 2024 and will be completed in phases.<sup>40</sup>

### Chino Valley, Arizona | Yavapai County

The Chino Valley Unified School District offers affordable housing options to district teachers and employees.<sup>41</sup> The “Teacher Housing Project” was initiated in 2023 to attract and retain Chino Valley School District employees, using grant funding from the Arizona Department of Education and land owned by the Chino Valley School District to build 10 one-bedroom, 375 square foot homes.<sup>42</sup> Rent is priced at \$550 per month for each unit.<sup>43</sup> According to the district superintendent, housing is meant to be temporary, while staff establish themselves in the community and build savings to eventually find more permanent housing.<sup>44</sup>

### Morenci, Arizona | Greenlee County

Freeport-McMoRan offers affordable housing to employees working in the Morenci Mines, the largest copper mining operation in North America.<sup>45</sup> The townsite is comprised of 1,600 homes, with diverse spaces and styles, as well as a business plaza, healthcare complex, fitness center, parks, stables, recreational facilities and school district.<sup>46</sup> Housing is granted on a first-come first-serve basis, and the waiting period ranges from a few months to a few years.<sup>47</sup> Rent begins at \$200 a month for a studio and goes up to \$500 a month for a four-bedroom/two-bathroom home.<sup>48</sup>

### Peridot, Arizona and Globe, Arizona | Gila County

San Carlos Apache Healthcare, also known as Inee’ Baa Gowah, offers affordable housing options to healthcare providers and employees.<sup>49</sup> Housing is available “on-campus,” across from the hospital, or at a secondary location, known as Dream Manor, located in Globe, Arizona, 30 minutes from the hospital campus.<sup>50</sup> The San Carlos Apache Healthcare Corporation purchased Dream Manor, previously an inn with 35 rooms, two kitchens, a banquet facility, and a gym, in 2021 to improve the retention of healthcare providers and staff.<sup>51</sup>





## Sustainable Solutions

Implementing and funding wide-scale, multi-faceted, and sustainable housing solutions in Arizona is imperative to address the housing challenge and maintain a stable and secure workforce. Research shows that intentionally expanding affordable housing, investing in housing subsidy programs, and offering employer assisted housing are potential solutions that address the lack of affordable housing and bolster the workforce in the state.<sup>61</sup>

**Affordable housing.** Strategically and intentionally expanding affordable housing can improve workers' housing security and support a more sustainable, efficient, and productive workforce. The Jobs-Housing Fit model is an approach to addressing the mismatch between where people live and where they work, with a focus on making housing more affordable and accessible for workers.<sup>52</sup> The model advocates for the creation of affordable housing in areas with high job growth, as well as the development of mixed-use communities where housing, employment, and services are integrated.<sup>53</sup> This approach can help reduce the disparity between housing costs and wages, specifically in rapidly growing areas where the cost of living outpaces the income growth.<sup>54</sup> By using the Jobs-Housing Fit model to expand affordable housing, Arizona decisionmakers can better align housing development with the demand for labor in specific areas to ensure that workers can access secure housing close to their jobs.

**Housing subsidy programs.** Government housing subsidy programs can significantly benefit the workforce, making affordable housing more accessible to low- and moderate-income workers who are cost-burdened by housing prices.<sup>55</sup> Subsidies, such as rental assistance, downpayment assistance, and tax credits, can help bridge the gap between what workers can afford and the market rate for housing, ensuring that more people have access to stable living conditions.<sup>56</sup> By lowering the cost burden on renters and homeowners, government funds can help reduce housing instability and foster a more stable workforce.<sup>57</sup> Additionally, these subsidies can incentivize private developers to build more affordable housing, increasing the overall supply and helping to alleviate the housing shortage.<sup>58</sup>

**Employer-assisted housing.** Employer-assisted housing programs can provide significant benefits to the workforce in Arizona by offering workers more affordable and convenient housing options close to their places of employment. Employer-assisted housing programs, such as down payment assistance, tax credits, and rented housing units, have been shown to reduce commuting times and costs and enhance worker mental well-being and productivity.<sup>59</sup> Offering housing assistance can also improve recruitment efforts for employers – especially in areas with costly housing markets – and foster a more loyal and stable workforce.<sup>60</sup>



# Conclusion

With a lack of affordable and accessible housing, Arizona's workforce faces significant challenges employing and retaining workers. Addressing the housing challenge in Arizona requires a multifaceted approach that takes into consideration the diverse and intersectional needs of workers, communities, and industries across the state. To sustain a healthy and resilient workforce, housing solutions must continue to adapt as demographic, economic, and market conditions shift.

By staying informed about the evolving landscape of housing issues and considering innovative solutions, stakeholders and decisionmakers have the opportunity to develop policies that address both the immediate and long-term needs of Arizona's workforce.



**A commitment to  
affordable and  
accessible housing  
will not only  
help workers find  
stable living situations  
but also ensure  
Arizona's employers  
have access to the  
talent they need  
to drive the state's  
economy forward.**



1 "Why We Care," National Low Income Housing Coalition, accessed December 16, 2024, <https://nlhlc.org/explore/issues/why-we-care/>, "Barriers to Affordable Housing," U.S. Department of Housing and Urban Development (HUD), accessed December 16, 2024, [https://www.hud.gov/program\\_offices/comm\\_planning/affordable\\_housing\\_barriers/overview](https://www.hud.gov/program_offices/comm_planning/affordable_housing_barriers/overview).

2 Aaron Shroyer and Veronica Gaitán, "Four Reasons Why Employers Should Care About Housing," Housing Matters The Urban Institute, September 2019, <https://housingmatters.urban.org/articles/four-reasons-why-employers-should-care-about-housing/>; "Why Is Productivity Important?," Bureau of Labor Statistics, accessed December 16, 2024, <https://www.bls.gov/k12/productivity-101/content/why-is-productivity-important/>.

3 "State of Housing in Arizona," Arizona Research Center for Housing Equity and Sustainability, August 2024, <https://morrisinstitute.asu.edu/sites/default/files/2024-08/state-of-housing-in-arizona-mr.pdf>.

4 Angela Gonzales, "Arizona now one of 10 least affordable states for homebuyers, new data shows," Phoenix Business Journal, March 6, 2024, [https://www.bizjournals.com/phoenix/news/2024/03/06/arizona-among-least-affordable-states-homebuyers.html?utm\\_source=sybm&utm\\_medium=pr&utm\\_campaign=star](https://www.bizjournals.com/phoenix/news/2024/03/06/arizona-among-least-affordable-states-homebuyers.html?utm_source=sybm&utm_medium=pr&utm_campaign=star); Paul Hoffman, "Revealed: The Most Affordable U.S. States to Buy a Home in 2024," BestBrokers, April 3, 2024, <https://www.bestbrokers.com/2024/03/05/revealed-the-most-affordable-u-s-states-to-buy-a-home-in-2024/>.

5 Robert Dietz, "A Decade of Home Building: The Long Recovery of the 2010s," National Association of Home Builders, January 6, 2020, <https://evenonhousing.org/2020/01/a-decade-of-home-building-the-long-recovery-of-the-2010s/>; "Population Projections," Arizona Office of Economic Opportunity, accessed December 16, 2024, <https://oeo.az.gov/population/projections/>; "Fiscal Year 2022 Annual Report," Arizona Department of Housing, accessed December 16, 2024, [https://housing.az.gov/sites/default/files/ADOH\\_FY2022\\_Annual\\_Report.pdf](https://housing.az.gov/sites/default/files/ADOH_FY2022_Annual_Report.pdf).

6 "Economic Indicators," Arizona Office of Economic Opportunity, accessed January 13, 2025, <https://oeo.az.gov/economic-indicators>.

7 "State of Housing in Arizona," Arizona Research Center for Housing Equity and Sustainability, August 2024, <https://morrisinstitute.asu.edu/sites/default/files/2024-08/state-of-housing-in-arizona-mr.pdf>.

8 Robert Dietz, "A Decade of Home Building: The Long Recovery of the 2010s," National Association of Home Builders, January 6, 2020, <https://evenonhousing.org/2020/01/a-decade-of-home-building-the-long-recovery-of-the-2010s/>.

9 "Fiscal Year 2022 Annual Report," Arizona Department of Housing, accessed December 16, 2024, [https://housing.az.gov/sites/default/files/ADOH\\_FY2022\\_Annual\\_Report.pdf](https://housing.az.gov/sites/default/files/ADOH_FY2022_Annual_Report.pdf).

10 Ashlee Tzigianuk, Brian Irvine, Alison Cook-Davis, and Liza C. Kurtz, "Exclusionary Zoning: A Legal Barrier to Affordable Housing," Morrison Institute for Public Policy, May 2022, [https://morrisinstitute.asu.edu/sites/default/files/exclusionary\\_zoning\\_legal\\_barrier\\_to\\_affordable\\_housing.pdf](https://morrisinstitute.asu.edu/sites/default/files/exclusionary_zoning_legal_barrier_to_affordable_housing.pdf).

11 Ashlee Tzigianuk, Brian Irvine, Alison Cook-Davis, and Liza C. Kurtz, "Exclusionary Zoning: A Legal Barrier to Affordable Housing," Morrison Institute for Public Policy, May 2022, [https://morrisinstitute.asu.edu/sites/default/files/exclusionary\\_zoning\\_legal\\_barrier\\_to\\_affordable\\_housing.pdf](https://morrisinstitute.asu.edu/sites/default/files/exclusionary_zoning_legal_barrier_to_affordable_housing.pdf).

12 Ashlee Tzigianuk, Brian Irvine, Alison Cook-Davis, and Liza C. Kurtz, "Exclusionary Zoning: A Legal Barrier to Affordable Housing," Morrison Institute for Public Policy, May 2022, [https://morrisinstitute.asu.edu/sites/default/files/exclusionary\\_zoning\\_legal\\_barrier\\_to\\_affordable\\_housing.pdf](https://morrisinstitute.asu.edu/sites/default/files/exclusionary_zoning_legal_barrier_to_affordable_housing.pdf).

13 "Table 3. Rental Vacancies Rates by State," US Census Bureau, Housing and Vacancy Surveys, 2023, <https://www.census.gov/housing/hvs/data/prevnann.html>; For rent vacancy rate is defined as the "vacant year-round units for rent" out of the combined total of "renter occupied units," "vacant year-round units rented but awaiting occupancy," and "vacant year round units for rent." It does not include seasonal units." Definitions and Examples," US Census Bureau, accessed December 16, 2024, <https://www.census.gov/housing/hvs/definitions.pdf>.

14 "Table 4. Homeowner Vacancies Rates by State," US Census Bureau, Housing and Vacancy Surveys, 2023, <https://www.census.gov/housing/hvs/data/prevnann.html>; Homeowner vacancy rate is defined as the "vacant year-round units for sale only" out of the combined total of "owner occupied units," "vacant year-round units sold but awaiting occupancy," and "vacant year-round units for sale only." It does not include seasonal units." Definitions and Examples," US Census Bureau, accessed July 24, <https://www.census.gov/housing/hvs/definitions.pdf>.

15 "Arizona Housing Market," Redfin, accessed January 13, 2025, <https://www.redfn.com/state/Arizona/housing-market>.

16 "Arizona Housing Market," Redfin, accessed January 13, 2025, <https://www.redfn.com/state/Arizona/housing-market>.

17 Alex Horowitz and Tushar Kansal, "Restrictive Zoning Is Raising Housing Costs and Homelessness in Arizona," Pew Charitable Trusts, December 7, 2023, <https://www.pewtrusts.org/en/research-and-analysis/articles/2023/12/07/restrictive-zoning-is-raising-housing-costs-and-homelessness-in-arizona>.

18 "Out of Reach 2024," National Low Income Housing Coalition, 2024, [https://nlhlc.org/sites/default/files/cor/2024\\_OOR-arizona.pdf](https://nlhlc.org/sites/default/files/cor/2024_OOR-arizona.pdf).

19 "Arizona - May 2023 OEWS State Occupational Employment and Wage Estimates (All Occupations)," U.S. Bureau of Labor Statistics (BLS), accessed January 13, 2025, [https://www.bls.gov/oes/current/oes\\_az.htm](https://www.bls.gov/oes/current/oes_az.htm); "Arizona Job Growth Data," Center for the Future of Arizona, accessed January 13, 2025, <https://www.arizonafuture.org/progress-meters/jobs/job-growth/>.

20 "May 2020 State Occupational Employment and Wage Estimates: Arizona," U.S. Bureau of Labor Statistics (BLS), March 31, 2021, [https://www.bls.gov/oes/2020/may/oes\\_az.htm](https://www.bls.gov/oes/2020/may/oes_az.htm); "May 2020 National Occupational Employment and Wage Estimates," U.S. Bureau of Labor Statistics (BLS), March 31, 2021, [https://www.bls.gov/oes/2020/may/oes\\_nat.htm](https://www.bls.gov/oes/2020/may/oes_nat.htm); "May 2021 State Occupational Employment and Wage Estimates: Arizona," U.S. Bureau of Labor Statistics (BLS), March 31, 2022, [https://www.bls.gov/oes/2021/may/oes\\_az.htm](https://www.bls.gov/oes/2021/may/oes_az.htm); "May 2020 National Occupational Employment and Wage Estimates," U.S. Bureau of Labor Statistics (BLS), March 31, 2022, [https://www.bls.gov/oes/2021/may/oes\\_nat.htm](https://www.bls.gov/oes/2021/may/oes_nat.htm); "May 2022 State Occupational Employment and Wage Estimates: Arizona," U.S. Bureau of Labor Statistics (BLS), April 25, 2023, [https://www.bls.gov/oes/2022/may/oes\\_az.htm](https://www.bls.gov/oes/2022/may/oes_az.htm); "May 2022 National Occupational Employment and Wage Estimates," U.S. Bureau of Labor Statistics (BLS), April 25, 2023, [https://www.bls.gov/oes/2022/may/oes\\_nat.htm](https://www.bls.gov/oes/2022/may/oes_nat.htm); "May 2023 State Occupational Employment and Wage Estimates: Arizona," U.S. Bureau of Labor Statistics (BLS), April 3, 2024, [https://www.bls.gov/oes/current/oes\\_az.htm](https://www.bls.gov/oes/current/oes_az.htm); "May 2023 National Occupational Employment and Wage Estimates," U.S. Bureau of Labor Statistics (BLS), April 3, 2024, [https://www.bls.gov/oes/current/oes\\_nat.htm](https://www.bls.gov/oes/current/oes_nat.htm); "SARPP Regional Price Parities by State," U.S. Bureau of Economic Analysis (BEA), accessed January 13, 2025, [https://apps.bea.gov/table/?ReqID=708step-1&q=\\*1qbo69\\*&q=MIEVmkzyNzc4Myx4NmZtMOTMODIX>C3469BJNNFTMZc2ODYNXlNMCM44JLWzTfGDFYXlIbIRhmYMSlQWLClxmDEIXsxblkhAmY9XFZWELIClwllOssWv2tGF02SlwYwlldlFslEOXIJSWslwYwMDClmJAYmlSJlwpRC3PrpyYlFlEXISxlblVuaXCRbz22fwYhc3ZYsllsklxidmYsc\\_vdJlF5lWVhclIsDwyWMCDlmiJAMylMlSJlwpMJElCYmDIldlFslW-VWhchJZ2lulwIlPEIXSxblllyXfRWskllwITKVI9](https://apps.bea.gov/table/?ReqID=708step-1&q=*1qbo69*&q=MIEVmkzyNzc4Myx4NmZtMOTMODIX>C3469BJNNFTMZc2ODYNXlNMCM44JLWzTfGDFYXlIbIRhmYMSlQWLClxmDEIXsxblkhAmY9XFZWELIClwllOssWv2tGF02SlwYwlldlFslEOXIJSWslwYwMDClmJAYmlSJlwpRC3PrpyYlFlEXISxlblVuaXCRbz22fwYhc3ZYsllsklxidmYsc_vdJlF5lWVhclIsDwyWMCDlmiJAMylMlSJlwpMJElCYmDIldlFslW-VWhchJZ2lulwIlPEIXSxblllyXfRWskllwITKVI9).

21 "Regional Price Parities by State and Metro Area," U.S. Bureau of Economic Analysis (BEA), December 12, 2024, <https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area>.

22 "Regional Price Parities by State and Metro Area," U.S. Bureau of Economic Analysis (BEA), December 12, 2024, <https://www.bea.gov/data/prices-inflation/regional-price-parities-state-and-metro-area>.

23 "SARPP Regional Price Parities by State," U.S. Bureau of Economic Analysis (BEA), accessed January 13, 2025,

- BUILDING ARIZONA'S WORKFORCE

## CHAPTER 9

# OTHER PRACTICAL CONCERNS— TRANSPORTATION AND CHILD CARE

**VEHICLE TRAVEL ON ARIZONA'S HIGHWAYS INCREASED BY 32% FROM 2000–2017, COMPARED TO A 17% INCREASE NATIONALLY OVER THAT SAME TIME PERIOD.**

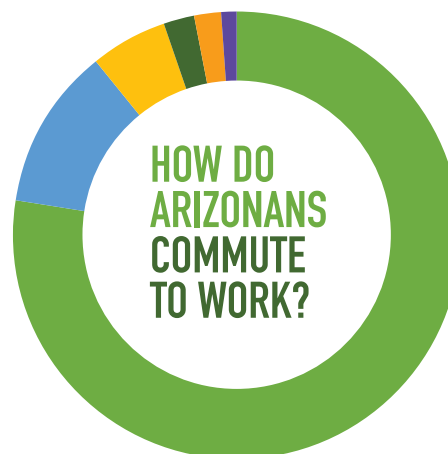
As Arizona's growth rate continues, as demonstrated in this report, transportation continues to be among the many variables contributing to Arizona's workforce development challenges.

In general, given its geography, size, counties, and communities, Arizona simply faces a challenge of distance—vast distances between work and educational opportunities, further compounded by the state's lack of transportation infrastructure.

Many low-income workers find it difficult to own and maintain a reliable vehicle—a challenge that is only made worse by a lack of public transportation in nearly every part of our state, both urban and rural.

Understanding how Arizonans commute to work highlights these challenges. Arizonans are highly dependent on motor vehicles, according to the Arizona Infrastructure 2020 Report Card by the American Society of Civil Engineers. Their report data shows that 89.2% of Arizonans drive alone or carpool to get to work, while 5.2% walk, use public transportation, or bike, and the remainder work from home.

Vehicle travel on Arizona's highways increased by 32% from 2000–2017, while vehicle travel increased nationally by 17%. Similarly, Arizona's population has



- 77.5% | Drive Alone
- 11.7% | Carpool
- 5.6% | Work at Home
- 2.2% | Walk
- 2.0% | Use Public Transportation
- 1.0% | Bike

grown by 37% from 2000–2017, while the United States' population grew by 15%.

While challenges to access personal and public transportation can be felt in the urban areas of Arizona, this challenge is more significant for our rural communities. Research conducted by the University of Arizona details the depth and breadth of the issue:





“The rural regions in Arizona especially within the Sonoran Desert have much more limited transportation infrastructure compared to the urban areas and need to cover much greater distances between human settlements. The rural area is sparsely populated with less than 11 percent of the total population in Arizona according to the 2020 United States census (Koch, Drake, Derksen, et al., 2023). The majority of rural roads are dirt or poorly surfaced; their use can be challenging, especially during poor weather (Digital, n.d.). In addition, rural transport systems are relatively undeveloped, thus making access even more difficult, especially for those without private means. For instance, in one of the community assessments conducted in the rural counties of Apache, Coconino, Navajo, and Yavapai, 17% of the residents reported that due to a lack of public transportation, access to healthcare, education, and even employment opportunities were affected (Moise & Kelly, 2005). It might therefore foster feelings of isolation, whether social or economic, since individuals living in rural areas have lower access to essential services like health, education, and job opportunities.”

*Source: Addressing Transportation Barriers to Improve Healthcare Access in Arizona, Saige Samantha Jensen, University of Arizona.*

## Promising Practices

Arizona’s transportation challenges are leading to some promising solutions, including workforce training programs that extend to rural communities and the growing investment in broadband technology to offset the need to commute.

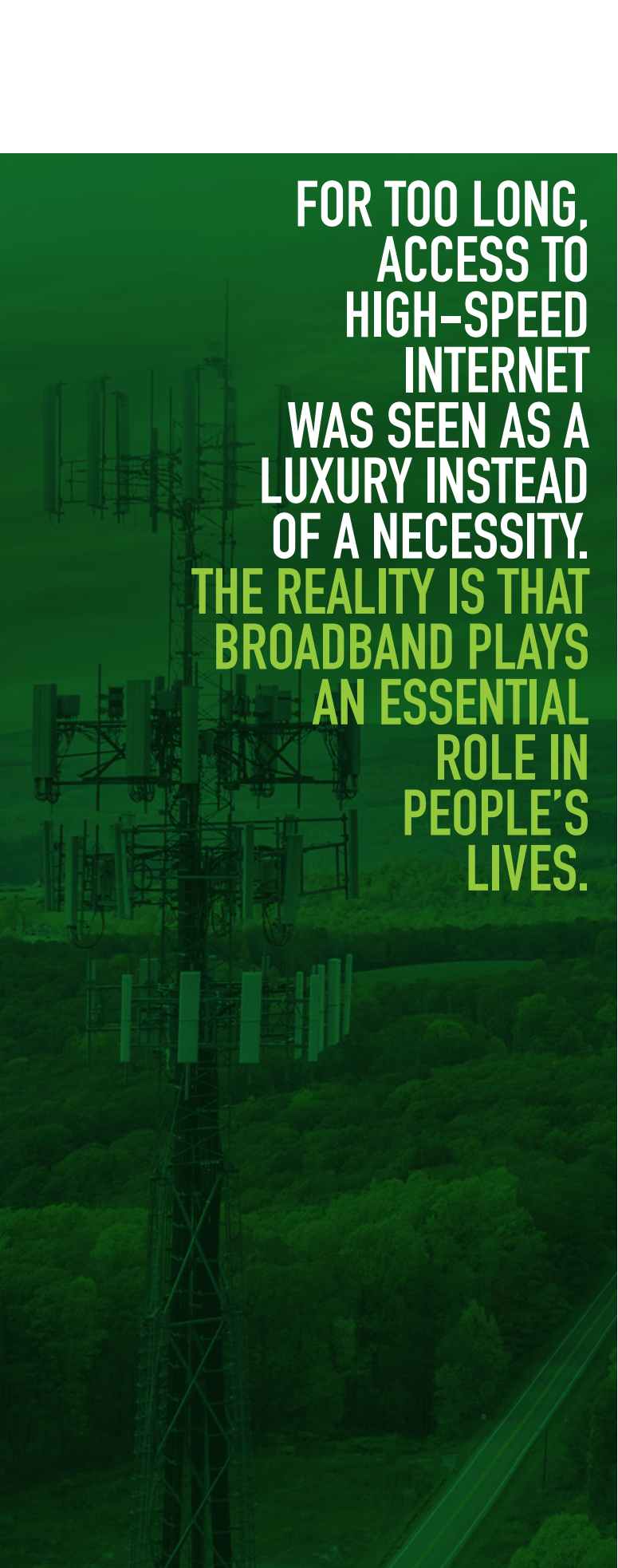
In February 2025, the Maricopa County Board of Supervisors approved the extension of a free accelerated job training program, Workforce 2 You, in three rural communities—Queen Creek, Wickenburg, and Gila Bend—serving youth, dislocated workers, veterans, among others.

Workforce 2 You is a program that creates employment opportunities for Arizonans who can’t easily access traditional workforce training. The program also provides participants with transportation, supplies, and resources such as ESL (English as a Second Language) programs as needed.

The program’s expansion is indicative of the growing demand for accessible career training and resources and job placement programs in Arizona’s rural areas, particularly for in-demand industries such as healthcare and manufacturing.

*Source: Maricopa County Extends Workforce Program in Rural Communities*





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## Broadband Solution

Another opportunity that may alleviate some of the challenges to Arizona's transportation woes is the state's investment in broadband technology infrastructure, which has the potential to enable remote job and workforce opportunities.

So how does Arizona move to provide broadband services opportunity, with the required infrastructure, to both rural and urban residents?

Originating with the Department of Commerce's National Telecommunications and Information Administration (NTIA) funding in August of 2024, the federal government has approved Arizona's Initial Proposals for the Broadband Equity, Access, and Deployment (BEAD) program, part of the "Internet for All" initiative.

These investments are now a catalyst for developing a technological infrastructure in the state that is sorely needed for its citizens.

"For too long, access to high-speed Internet was seen as a luxury instead of a necessity," said Governor Katie Hobbs. "The reality is that broadband plays an essential role in people's lives. Whether it is access to education, basic healthcare services, applying for jobs, working remotely or starting a small business, Internet connectivity is a necessity. Delivering equitable and reliable Internet services for every Arizonan has been a priority for me from day one and I look forward to continuing these critical efforts to improve broadband access and connect all Arizonans."<sup>1</sup>

With greater investment in broadband, Arizona could further enhance its telework profile, which has evolved over the last decade in the Phoenix region—ranking 10th nationally for its current share of remote workers out of the total workforce.<sup>2</sup>

For additional information about Arizona's investment in broadband, visit <https://www.azcommerce.com/broadband>.

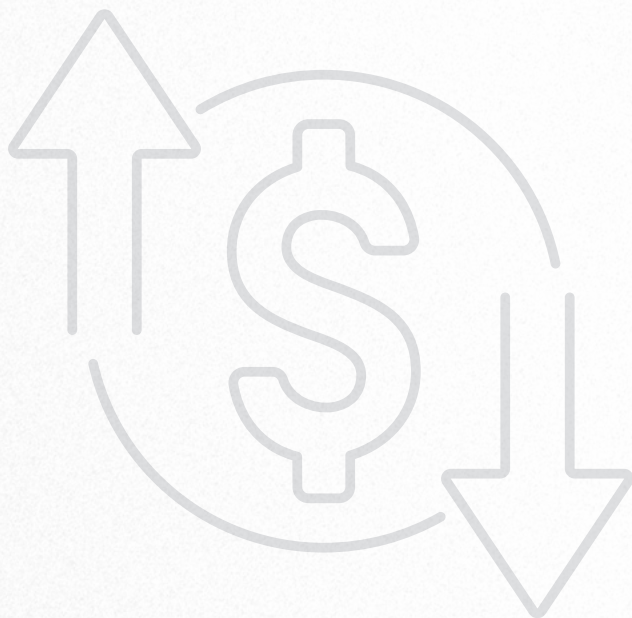


## Child Care/Caregiving

Appropriately described as the “workforce behind the workforce,” accessible, affordable, and high-quality child care must be available in order for parents to work. Additionally, while this report does not provide a deep dive into caregiving broadly, care for family members who are aging and those with disabilities is a related area of concern that is growing and cannot be ignored.

Arizona is in a child care crisis. An in-depth survey and subsequent report by ReadyNation, an organization of business executives committed to bipartisan investments in children as the future workforce, bring to light a number of compelling statistics:

- **Access:** About half (48 percent) of Arizona residents live in a child care “desert,” where there are more than three children under age 5 for every licensed child care slot. Availability is especially limited for families who have infants and toddlers, have low incomes, work non-traditional hours, or live in rural areas.
- **Affordability:** Infant care in a center in Arizona averages \$14,040 per year, more than the \$12,183 cost for in-state public college tuition. This high cost makes child care unaffordable for many families, particularly those with low incomes despite available subsidies.



**ARIZONA  
IS IN A CHILD CARE  
CRISIS. IT IS NOT JUST A  
PROBLEM FOR PARENTS  
AND FAMILIES—IT  
IS ALSO TAKING A  
TOLL ON BUSINESSES,  
TAXPAYERS, AND  
ARIZONA'S  
ECONOMY.**

Additionally, a study conducted by the American Institutes for Research concluded that for those “...who work nontraditional or extended hours, who live in rural areas, and who need care for children with special needs is particularly challenging, and in many cases care options are simply not available.”<sup>3</sup>

Reflecting on the earlier chapter, “Who Will Teach,” in which we acknowledge the problematically low wages for K-16 teachers, wages for qualified child care staff is even worse. According to 2023 data from the U.S. Department of Labor, the average hourly wage for child care workers in Arizona was \$17.15. For comparison, the MIT Living Wage Calculator determined that the hourly living wage in Arizona in 2023 for one adult caring for one child was approximately \$40.00.



This crisis is not just a problem for parents and families—it is also taking a toll on businesses, taxpayers, and Arizona's overall economy.

- **Families lose an average of \$6,320 per working parent** in lost earnings and in more time looking for work. Across the 474,000 parents of children birth to age 5 in Arizona, this burden costs \$3 billion per year.
- **Businesses lose an average of \$2,020 per working parent** in reduced revenue and in extra hiring costs. In aggregate, the annual burden on Arizona businesses is \$958 million.
- **Taxpayers lose an average of \$1,530 per working parent** in lower income tax and sales tax revenue. In aggregate, this amounts to \$725 million each year in Arizona.
- **The total cost of these losses is \$4.7 billion each year.**

Source: *The Economic Impacts of Insufficient Child Care Cost Arizona \$4.7 Billion Annually*: [https://strongnation.s3.amazonaws.com/documents/1740/5678dd3f-a838-4e54-9654-8db30c7bac34.pdf?1701287345&inline;filename=%20The%20Economic%20Impacts%20of%20Insufficient%20Child%20Care%20Cost%20Arizona%20\\$4.7%20Billion%20Annually.pdf%22](https://strongnation.s3.amazonaws.com/documents/1740/5678dd3f-a838-4e54-9654-8db30c7bac34.pdf?1701287345&inline;filename=%20The%20Economic%20Impacts%20of%20Insufficient%20Child%20Care%20Cost%20Arizona%20$4.7%20Billion%20Annually.pdf%22)

**FINALLY, ACCORDING TO A READYNATION SURVEY, CHILD CARE PROBLEMS WERE REPORTED AS CONTRIBUTORS OF LOST WAGES, WORK ABSENTEEISM, AND WORK PRODUCTIVITY.**

## Lower effort and productivity at work

Due to child care problems, over the past three months, have you:



## Less time at work

As a result of child care problems, have you ever:







## Promising Initiatives

EPIC (Executives Partnering to Invest in Children) is a nonprofit organization founded by business leaders to engage with the business community on child care efforts. EPIC helps employers understand the child care needs of their current and prospective workforce and identify and implement solutions that support their employees and their business. After operating solely in Colorado for 15 years, EPIC announced the official launch with Arizona employers and business community partners in 2025.

Working in partnership with First Things First, the Arizona Chamber of Commerce and Industry, and three regional United Way partners (Valley of the Sun, Tucson & Southern Arizona and Northern Arizona), EPIC will lead the creation of Arizona-specific solutions based on the model and successes in Colorado.

 <b>Addressing Child Care Challenges to Attract and Retain Top Talent</b>		
Challenge	Solution	Outcome
Community Hospital of Grand Junction, with a workforce of 1,300, faced challenges in attracting and retaining top talent in part due to a county-wide shortfall of 4,000 child care slots. Recognizing that child care was a major hurdle for many current and prospective employees, the hospital sought a viable solution.	To develop an on-site child care facility, Community Hospital partnered with EPIC. EPIC provided support throughout the process, including financial modeling, strategic advice, and guidance on developing the operator RFP.	The hospital collaborated with a local early childhood operator eager to expand and utilized a vacant plot of land on the hospital campus. This initiative resulted in the creation of 100 new child care spots for children aged 6 weeks to 6 years old. Adventure Academy opened in September 2023, primarily serving the children of Community Hospital employees, while also offering slots to families throughout Mesa County. This new facility has significantly bolstered the hospital's ability to attract and retain top talent by addressing a critical community need.

 <b>Transforming Underutilized Space into a Vital Community Resource</b>		
Challenge	Solution	Outcome
During the pandemic, Mile High United Way realized that their conference space was underutilized. Seeking to make a more meaningful impact with their facility, they envisioned repurposing the space for a beneficial employee and community benefit.	Mile High United Way partnered with EPIC to explore the best use for their available space. EPIC conducted a comprehensive feasibility assessment, provided facility and financial modeling, and managed a blinded operator RFP process to identify the ideal partner.	In June 2024, the Sparks Center opened its doors. This new child care center now serves 60 children, primarily infants and toddlers, from both employee families and the wider community. Operated in partnership with a local provider, the Sparks Center stands as a testament to innovative space utilization and community support.

Source: Executives Partnering to Invest In Children

[https://www.google.com/url?q=https://www.epicimpact.org/&sa=D&source=docs&ust=1743668149890190&usg=AOvVaw2r5dmLi8mXakFhRg\\_ig6tQ](https://www.google.com/url?q=https://www.epicimpact.org/&sa=D&source=docs&ust=1743668149890190&usg=AOvVaw2r5dmLi8mXakFhRg_ig6tQ)



Bright Futures AZ, an initiative proposed by Governor Hobbs in January 2025, seeks to build a cost-sharing model for children ages birth to five to include the State of Arizona, employers, and employees. Through this public-private partnership, the state will match employer contributions for child care up to \$400 per month per child for eligible families.

For example:

- The employer contributes \$400
- The state contributes \$400 per month per child, providing \$800 to a family with two children towards their child care expenses
- The family would contribute the remaining amount for their child care tuition

First Things First will work with interested employers to operationalize this model and manage the payments.

Similar models have proven successful in other states, demonstrating higher levels of employee retention. In Arizona, this model could reduce the cost of child care by two-thirds for participating families. An ongoing investment of \$3 million from the General Fund has been requested to support this program.

*Source: Bright Futures AZ Public Private Partnership Overview*

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<sup>1</sup>Biden-Harris administration approves Arizona's "Internet for All" initial proposal | National Telecommunications and Information Administration. (n.d.). <https://www.ntia.gov/press-release/2024/biden-harris-administration-approves-arizonas-internet-all-initial-proposal>

<sup>2</sup>COMMERCIALCafe. (2024, October 12). Here's how work from home in Metro Phoenix has evolved over 10 years. AZ Big Media. <https://azbigmedia.com/lifestyle/heres-how-work-from-home-in-metro-phoenix-has-evolved-over-10-years/>

<sup>3</sup>Manship, K., Weinberg, E., Wallace, L., Burroughs, N., Muenchow, S., Laird, K., Stagner, N., Anthony, J., Bishop, A., & Blankenship, C. (2024). Expanding child care in Arizona. In AIR.ORG. <https://osi.az.gov/sites/default/files/2025-01/expanding-child-care-in-arizona-aca-final-report-5-31-2024.pdf>



# FURTHER DISCUSSION

How does Arizona capitalize on models of taking education and work to the communities where talent exists?

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How does technology and remote work create opportunities for employers to gain the workforce they need?

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## CHAPTER 10

# TALENT PIPELINE— HIDDEN WORKERS AND QUALITY JOBS

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### THE GOAL OF THIS BACKGROUND REPORT IS TO ADDRESS A PRESSING QUESTION: WHERE CAN WE FIND WORKERS TO FILL JOB OPENINGS?

As discussed earlier, ensuring that educational institutions offer relevant education and training is one strategy for preparing a skilled workforce. However, we can't ignore the fact that the labor pool is significantly smaller today than in previous decades and is expected to continue shrinking.

This chapter offers tangible actions employers can implement to expand their workforce and improve retention.

#### The Hidden Workforce

As companies struggle to find talent, new hiring approaches are emerging to connect them with unemployed or underemployed people actively looking for work who often get overlooked.

Traditionally, hiring systems—both human and automated— have filtered out applicants due to gaps in employment history, lack of formal education, or missing certifications. This screening process was intended to remove unqualified candidates, but it also inadvertently excluded many capable workers.

A new approach to hiring that is gaining traction aims to expand applicant pools by eliminating biases and other self-imposed limitations.

The research report “Hidden Workers: Untapped Talent” defines the hidden workforce as individuals who want to work but are filtered out of hiring consideration.

Hidden workers do not represent a homogeneous group. They include:

- Caregivers
- Veterans
- Immigrants and refugees
- Individuals with physical disabilities
- Neurodivergent individuals
- People with mental health challenges
- People from disadvantaged backgrounds
- Formerly incarcerated individuals
- Those lacking tractional qualifications



## ADOPTING MORE INCLUSIVE HIRING PRACTICES HAS PROVEN SUCCESSFUL FOR SOME BUSINESSES, INCREASING CANDIDATE POOLS AND LEADING TO SUCCESSFUL HIRES.

Companies that hire hidden workers were 36% less likely to face talent and skills shortages compared to companies that do not. Furthermore:

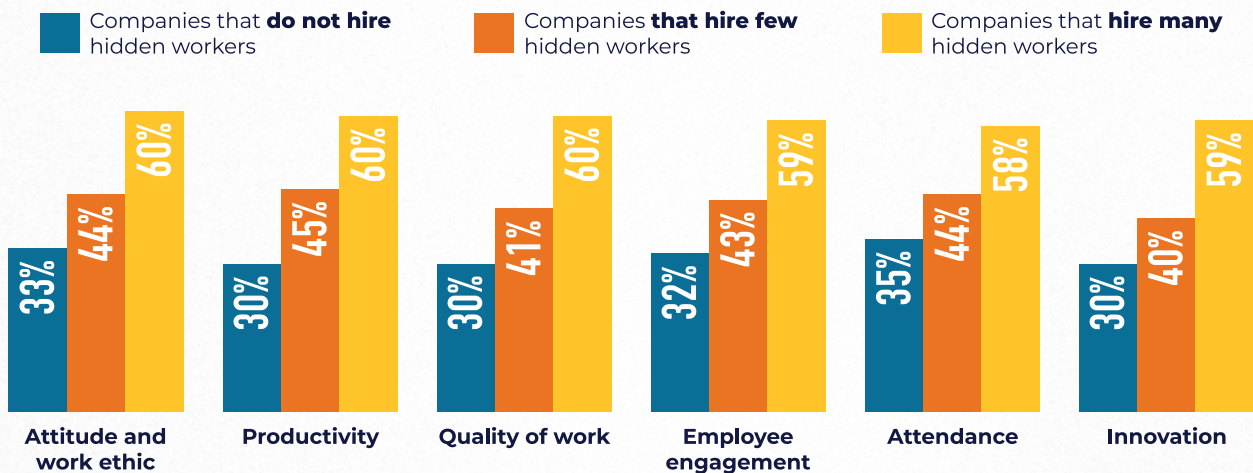
**38%** less likely to face challenges finding workers with the necessary experience

**44%** less likely to face challenges finding workers with the necessary skills

**36%** more likely to find candidates who have the right attitude/motivation

Source: <https://www.accenture.com/content/dam/accenture/final/a-com-migration/pdf/accenture-uncover-missed-talent-pools-improve-diversity.pdf>

### Employers report high performance of hidden workers



\*Percent of respondents selecting that the performance of hidden workers is "Significantly better" or "Better" than traditional sources of talent


Source: <https://www.accenture.com/content/dam/accenture/final/a-com-migration/pdf/accenture-uncover-missed-talent-pools-improve-diversity.pdf>



## STRATEGIES FOR ENGAGING THE HIDDEN WORKFORCE

The “Hidden Workers” report recommends several strategies to help employers tap into this overlooked talent pool:

- **Revising job descriptions.** Most companies continuously add new requirements and preferences to existing job descriptions without reevaluating the qualifications needed for the role.
- **Using affirmative rather than negative filters.** Hiring systems typically eliminate candidates based on missing credentials. A more logical and inclusive approach focuses on identifying applicants with relevant skills and experiences.
- **Establishing new metrics for evaluating talent acquisition.** Instead of emphasizing and rewarding minimizing hiring costs, metrics should focus on and judge how long it takes new employees to become productive, employee retention rates, and career advancement.
- **Reframing hiring hidden workers from a social responsibility to an ROI strategy.** When a company designates a group of workers for special recruitment, it signals that its recruiting processes are failing to reach them and that the usual candidate criteria are being waived. This can undermine the legitimacy of these workers among colleagues, potentially impacting their confidence and performance. It also overlooks the success many employers have had in addressing skills shortages by hiring hidden workers.
- **Targeting hidden worker segments best suited to your organization.** By focusing on specific sub-populations of hidden workers, companies can customize training and accommodations to accelerate new hire productivity. It also allows recruiters, HR professionals, supervisors, and co-workers to become familiar with these workers’ needs. Additionally, concentrating on a few segments enables companies to develop strong relationships with skills providers, educators, social entrepreneurs, and support agencies that offer specialized resources. It also ensures that companies are better positioned to navigate legal, administrative, or regulatory issues associated with employing these workers.
- **Adopting a customer-experience mindset to recruitment and onboarding.** Most hidden workers (84%) report that the application phase is challenging. To address this, companies can take a user experience (UX) approach to redesign their application process, ensuring that skills and credential requirements are clearly outlined from the start and that the timetable and decision-making criteria are clear. Expanding partnerships to include skills providers that hidden workers rely on is also crucial. For example, while 35% of middle-skilled workers primarily seek employment through job centers, only 26% of employers prioritize these centers—highlighting a missed opportunity to connect.



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IS: ALL GROWTH IN THE LABOR  
FORCE SINCE 2019 CAN  
BE ATTRIBUTED TO  
FOREIGN-BORN  
WORKERS.**

Source: The Rising Storm, a Lightcast Demographic Drought: <https://lightcast.io/resources/research/the-rising-storm>

Source: Hidden Workers: Untapped Talent  
<https://www.hbs.edu/managing-the-future-of-work/Documents/research/hiddenworkers09032021.pdf>



## Quality Jobs

Offering quality jobs is essential if companies want to attract and keep workers. This includes competitive wages, greater advancement opportunities, supportive family leave policies, and access to quality healthcare and caregiving resources.

A 2020 Gallup Arizona Survey found that while many Arizona workers were satisfied with their jobs, satisfaction dropped to 50% or below among lower-income employees in several key areas, such as benefits, career growth, education or training, pay equity, and promotion opportunities.

Additionally, the survey found that 27% of Arizona parents indicated the high cost of childcare prevented them from working or attending school, while 22% responded that the limited availability of childcare had the same outcome. These figures increased among low-income respondents, particularly Black Arizonans, “more than half of whom (54%) say the cost of childcare is keeping them from going back to work or school.”

**Please indicate your level of agreement with each of the following: The cost of childcare is preventing me from going back to work or school.**

**The limited availability of childcare is preventing me from going back to work or school.**

% Agree, among Arizonans with children 18 or under

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The Arizona We Want: The Decade Ahead

	Cost of childcare	Limited availability of childcare
<b>ARIZONANS OVERALL</b> with children 18 and under	<b>27%</b>	<b>22%</b>
<b>Income \$60,000+</b>	<b>18%</b>	<b>12%</b>
<b>Income under \$60,000</b>	<b>36%</b>	<b>35%</b>
<b>American Indian parents</b>	<b>21%</b>	<b>25%</b>
<b>Asian parents</b>	<b>33%</b>	<b>33%</b>
<b>Black parents</b>	<b>54%</b>	<b>48%</b>
<b>Latino parents</b>	<b>29%</b>	<b>26%</b>
<b>White parents</b>	<b>23%</b>	<b>16%</b>

## Remote Work Opportunities

Expanding remote and hybrid work opportunities is another strategy for increasing workforce participation across hidden worker populations while also broadening the geographic talent pool.

Inherently flexible, remote work is ideal for individuals who require adaptable schedules, such as caregivers and people with disabilities. Offering remote work often means an employer must rethink traditional employee management and productivity measurement. When done well, the payoff can extend beyond just an increased pool of applicants. Employers may see higher employee satisfaction, improved retention, and significant cost savings on expenses like office space, utilities, and commuting.

While remote work may seem best suited for industries such as information technology and business services, most companies have roles in fields like marketing, sales, administration, finance, and technology that can transition successfully into remote or hybrid positions.



## Upskilling and Reskilling

As the world of work continues to evolve rapidly, employers should look to their existing talent to stay competitive. Incorporating upskilling and reskilling models can help organizations adapt to new challenges while maximizing potential.

In their Reskilling Toolkit, the U.S. Office of Personnel Management (OPM) defines “reskilling” and “upskilling”:

- **Reskilling.** Training individuals who have shown they have the aptitude to learn in a completely new occupation.
- **Upskilling.** Training individuals in the same occupation but in a new way. For example, if automation overtakes certain job duties, train that individual in new work.

Both approaches offer significant benefits. As the OPM report highlights, “continuous reskilling and upskilling contributes to fostering a culture of continuous learning.” Not only do these methods allow employers to make space for the use of newer and better technologies, but training and development also serve as an important retention tool.

## Women

In 2024, women’s labor force participation in the U.S. reached an all-time high. However, persistent challenges continue to limit further growth. Many women experience career interruptions due to caregiving responsibilities for children and aging parents. In addition, barriers, such as the lack of affordable, high-quality healthcare and childcare, limited access to sick and family leave, and low wages—particularly in fields dominated by women, such as childcare and elementary education—continue to restrict the participation of women in the workforce.

Employers that offer benefits such as pre-tax flexible spending accounts, resources for child and family care, and family sick leave are more likely to attract and retain workers, especially women. These initiatives are also likely to lead to increased productivity and reduced absenteeism.

## Immigrants

In the United States—and Arizona, in particular—immigrants play a significant role in sustaining the labor force.



According to the Lightcast report, “The Rising Storm,” the U.S. labor force grew more than 2% between the last quarter of 2019 and the first half of 2024—but this growth was driven by immigration. The report states: “In that time, the US-born labor force lost 73,000 people, while the foreign-born labor force grew by 3.77 million.”

In Arizona, immigrants make up 16.1 percent of the labor force. Annually, over 928,000 immigrants in Arizona contribute \$27 billion to the state’s economy through their earnings alone. Given this substantial impact, it is essential to recognize the significance of immigrants in the workforce. Policies and practices that exclude or disadvantage immigrants could have devastating economic consequences.

Certain industries are particularly dependent upon immigrant workers, such as healthcare, agriculture, and STEM fields. As Arizona and the U.S. face workforce shortages, immigration reform is critical to the continued health of their economies. It is also worth noting that with aging populations and low birth rates affecting economies worldwide, the U.S. must remain competitive as other countries compete for global talent.



## Formerly Incarcerated

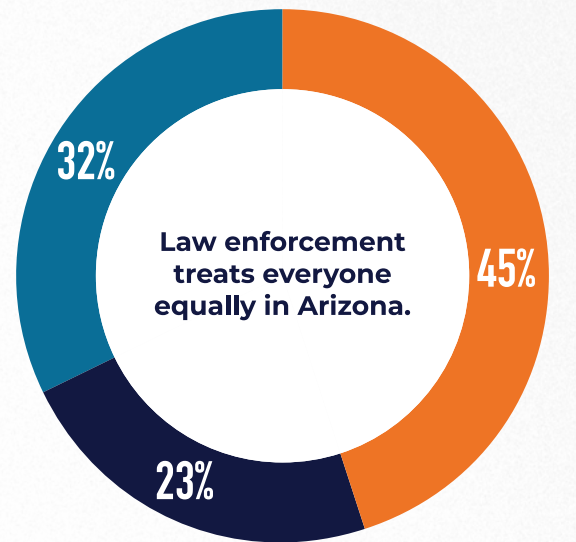
Arizona has the fifth-highest incarceration rate in the United States, disproportionately affecting communities of color. According to the ACLU, Black people constitute 5% of Arizona's population but account for 15% of its inmates, while Latinx or Hispanics account for 32% of the state's population yet constitute 40% of the incarcerated population.

The effects of these high rates of incarceration extend beyond those directly affected—taxpayers and employers also feel the impact. Arizona would benefit from strategies to reduce incarceration rates to keep people in the workforce and strengthen workforce reentry programs to prepare those who are transitioning back into society.

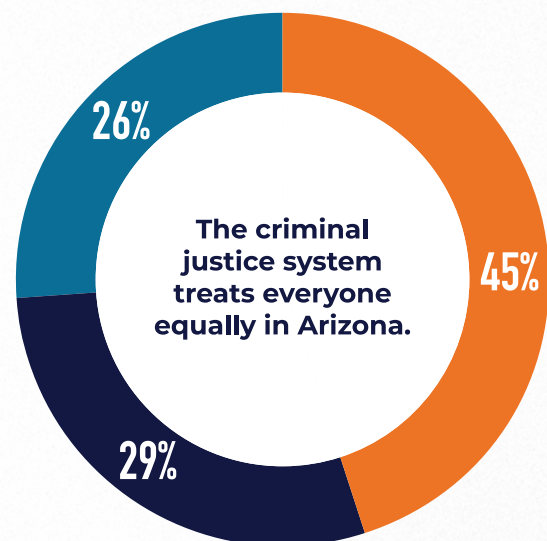
One positive development has been the expansion of Pell Grants for eligible incarcerated students, which is expected to increase the number of inmates participating in approved postsecondary education programs. Education is a powerful tool in reducing recidivism while improving employment outcomes for formerly incarcerated individuals. Between 2016 and 2022, the "Second Chance Pell Experiment" allowed incarcerated students in U.S. state and federal prisons to earn nearly 12,000 credentials, paving the way for better job placement and higher earning potential upon release.

According to Vera, a national organization dedicated to ending mass incarceration, greater access to postsecondary education dramatically reduces recidivism rates—making participants in these programs 48% less likely to re-offend. Vera estimates that these programs have the potential to cut annual state prison spending by as much as \$365 million. (A Monumental Shift: Restoring Access to Pell Grants for Incarcerated Students)

Investing in education and re-entry programs benefits formerly incarcerated individuals and strengthens Arizona's workforce and economy.



■ % Agree ■ % Neutral ■ % Disagree



Source: [https://www.arizonafuture.org/media/unfojhmh/cfa\\_arizona\\_we\\_want\\_the\\_decade\\_ahead\\_digital.pdf](https://www.arizonafuture.org/media/unfojhmh/cfa_arizona_we_want_the_decade_ahead_digital.pdf)



## Retirees

According to the research report “Hidden Workers: Untapped Talent,” roughly 1 million retirees in the U.S. possess the skills and experience to fill workforce gaps. Many of these individuals could be enticed back into the workforce under the right conditions. Also, some who retired during the COVID-19 pandemic made the decision earlier than planned due to the circumstances and are now looking to come back to work.

Today, retirees are “unretiring” for a variety of reasons, including social engagement, financial need, or building additional wealth for the future. Still, others are working for mission-driven purposes, self-fulfillment, to give back to their community, or to support and inspire the next generation. Employers looking to tap into this talent pool should assess their workforce needs and highlight these factors in job postings to appeal to retirees.

Companies wanting to attract retirees should consider offering flexible, part-time roles and those that minimize physical labor. Additionally, some retirees are hesitant to reenter the workforce due to worries about how earnings may negatively impact their Social Security benefits. Organizations like AARP can provide guidance to employers about structuring positions with salary guardrails to avoid a negative impact on retirees.

*Further reading:*

*Why More Retirees Are Going Back to Work*

<https://www.aarp.org/work/careers/retirees-returning-to-work/>





## Artificial Intelligence and Automation

Artificial Intelligence (AI) and automation are reshaping industries, sparking both concern and excitement about the future of work. While some fear that AI will replace human jobs at an unprecedented pace, others see it as a tool to boost productivity, efficiency, and cost savings. However, AI and automation are not a one-size-fits-all solution to workforce challenges—especially when it comes to addressing critical labor shortages.

AI excels at automating repetitive tasks, streamlining processes, and supporting decision-making. In healthcare, for example, AI can analyze patient histories to assist in diagnosis and treatment recommendations, but it cannot replace the human touch in patient care. In construction, AI can optimize project planning, resource allocation, and quality control, but it cannot replace skilled tradespeople to pour foundations, frame walls, or install roofing. Many of the most in-demand jobs require human skills—problem-solving, creativity, empathy, and adaptability—that AI simply cannot replicate.

As industries grapple with labor shortages, they may be tempted to over-rely on AI instead of investing in hidden worker populations—such as retirees, caregivers, veterans, immigrants, and the formerly incarcerated. Overlooking these workers in favor of automation not only misses an opportunity to tap into a vast, capable talent pool but also risks widening economic and social disparities. Hidden workers bring experience, reliability, and a diverse set of skills that complement, rather than compete with, technology.

Instead of viewing AI as a replacement for human workers, businesses can focus on integrating automation in ways that enhance human potential—pairing technology with policies that create pathways for overlooked talent to contribute meaningfully to the workforce. A truly future-ready workforce is one that values both innovation and inclusivity.



<sup>1</sup>Francis, S., Gallup, Inc., Center for the Future of Arizona, & Klein, E. (2021). *The Arizona we want: the decade ahead*. [https://www.arizonafuture.org/media/unfajhmb/cfa\\_arizona\\_we\\_want\\_the\\_decade\\_ahead\\_digital.pdf](https://www.arizonafuture.org/media/unfajhmb/cfa_arizona_we_want_the_decade_ahead_digital.pdf)

<sup>2</sup>Francis, S., Gallup, Inc., Center for the Future of Arizona, & Klein, E. (2021). *The Arizona we want: the decade ahead*. [https://www.arizonafuture.org/media/unfajhmb/cfa\\_arizona\\_we\\_want\\_the\\_decade\\_ahead\\_digital.pdf](https://www.arizonafuture.org/media/unfajhmb/cfa_arizona_we_want_the_decade_ahead_digital.pdf)

<sup>3</sup>U. S. Office of Personnel Management. (n.d.). *Reskilling toolkit*. <https://www.opm.gov/policy-data-oversight/workforce-restructuring/reshaping/accelerating-the-gears-of-transformation/reskilling-toolkit.pdf>

<sup>4</sup>Lightcast. (n.d.). *The rising storm, a lightcast demographic drought . . .* Lightcast. <https://lightcast.io/resources/research/the-rising-storm>

<sup>5</sup>Immigrants in Arizona - American Immigration Council. (n.d.). American Immigration Council. <https://map.americanimmigrationcouncil.org/locations/arizona>

<sup>6</sup>Arizona Center for Economic Progress. (2023, October 6). *Immigrant labor fuels U.S. and Arizona economy - the Arizona Center for Economic Progress*. The Arizona Center for Economic Progress. <https://azeconcenter.org/immigrant-labor-fuels-u-s-and-arizona-economy/>

<sup>7</sup>Immigrants in Arizona - American Immigration Council. (n.d.). American Immigration Council. <https://map.americanimmigrationcouncil.org/locations/arizona>

<sup>8</sup>Arizona Center for Economic Progress. (2023, October 6). *Immigrant labor fuels U.S. and Arizona economy - the Arizona Center for Economic Progress*. The Arizona Center for Economic Progress. <https://azeconcenter.org/immigrant-labor-fuels-u-s-and-arizona-economy/>

<sup>9</sup>Kendrick, C., & Lomio, R. (2023, February 24). *We are holding Arizona accountable for the needless suffering and deaths of incarcerated people* | ACLU. American Civil Liberties Union. <https://www.aclu.org/news/criminal-law-reform/we-are-holding-arizona-accountable-for-the-needless-suffering-and-deaths-of-incarcerated-people>

<sup>10</sup>Castro, E., Mimms, L. F., Howard, M., & Zolensky, R. (2024, February 13). *Improving prison education programs: Experts discuss the expansion of Pell Grants for incarcerated students*. Brookings. <https://www.brookings.edu/articles/improving-prison-education-programs-experts-discuss-the-expansion-of-pell-grants-for-incarcerated-students>

## FURTHER DISCUSSION

What new strategies or specific subpopulations outlined in this report are a good fit for recruiting and hiring needs?

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If you are currently looking for work, or reflecting on a time when you were looking for work, would any of the strategies outlined in this report have made your search easier or more successful?

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Employers that implement innovative recruitment and retention efforts often build a positive word-of-mouth reputation that attracts applicants. Can you name an employer in your community who has done this?

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# SUMMARY

## CHAPTER 1: WORKFORCE DEVELOPMENT IN ARIZONA—GROWTH AND NEED

Arizona's economy is growing—emphasizing the need for skilled and qualified talent to meet the demand. Such growth is evident in notable labor market data provided by the U.S. Bureau of Labor Statistics. As Arizona continues to grow and evolve, addressing how to build a skilled workforce to meet its future demands will be essential to the state's ongoing success.

### FURTHER

### DISCUSSION

- » Given the distinction between workforce and economic development, what are the advantages and disadvantages for workforce development, particularly as economic development stimulates the need for more workforce? For example, is there a fiscal challenge that occurs?
- » There are different challenges relating to workforce development for rural, urban, and tribal areas in Arizona. What are some of the challenges for each?

## CHAPTER 2: U.S. DEMOGRAPHIC AND STRUCTURAL CHANGES—PROFOUND SHIFTS

Recent demographic shifts have upended the once employer-dominated U.S. labor market. A shrinking workforce—driven by declining birth rates, retirements, and pandemic impacts—has led to critical shortages in technical and trade jobs, as well as among essential workers. Moreover, a multi-generational workforce with differing values challenges traditional hiring practices. Combined, these trends foreshadow a “rising storm” of economic challenges.

### FURTHER

### DISCUSSION

- » How are you seeing demographic shifts playing out in your community?
- » As a consumer, have you already experienced a decline in the availability of certain services due to staffing shortages?

## ADDRESSING HOW TO BEST CREATE THE WORKFORCE WE NEED WILL BE CRITICAL TO ARIZONA'S FUTURE.

## CHAPTER 3: ARIZONA'S WORKFORCE TODAY—LABOR FORCE TRENDS

Total Arizona employment is forecasted to grow 14.2% by 2033, adding 486,348 jobs. However, migration has now become the primary driver of labor force growth, with declining birth rates, uneven county growth, and disparities in labor participation across multiple demographics further undermining workforce sustainability. This prompts questions about how the state will reconcile these challenges to ensure a sufficient future labor force.

### FURTHER

#### DISCUSSION

- » How are demographic changes impacting whether people live in urban, rural, or tribal Arizona?
- » What actions could be taken to support economic vitality in rural communities?
- » How do Arizona's labor force statistics factor into conversations about workforce?
- » What impact does educational attainment have on labor force participation?
- » The Office of Economic Opportunity highlights that those aged 55 to 64 represent 62.7% of the active working population. What does this mean for Arizona?

## CHAPTER 4: WORKFORCE ECOSYSTEM—OVERVIEW

A successful workforce ecosystem involves collaboration among business and industry, government entities, economic development stakeholders, community-based organizations, and educational institutions. Businesses inform skill requirements; governments create supportive policies and resources; economic developers attract businesses and align workforce needs; community-based organizations alleviate barriers; and education providers—particularly community colleges—equip individuals with essential skills aligned with employment demands.

### FURTHER

#### DISCUSSION

- » How do workforce components vary by region? How well are rural, urban and tribal areas served by these different components?
- » How do components of the workforce development ecosystem work together? Where are their opportunities for greater collaboration or impact?
- » What policies or practices would incentivize the different components of the workforce development system to collaborate better?

## CHAPTER 5: INDUSTRY SECTORS

Arizona's key industry sectors—including healthcare, construction, and manufacturing—are experiencing substantial growth alongside critical workforce challenges. Regional differences influence industry priorities statewide, while widespread labor shortages and skill gaps remain major concerns. Addressing these issues requires targeted workforce development strategies to sustain economic stability across Arizona.

### FURTHER

#### DISCUSSION

- » What can be done from a policy and regulation perspective to support workforce needs?
- » How does Arizona continue to prioritize agriculture?



## CHAPTER 6: EDUCATION & TRAINING

Many of Arizona's education and training models now emphasize flexible, skill-specific programs—such as short-term certificates, apprenticeships, and online courses—to directly address workforce demands at all skill levels. Integrating stackable credentials and traditional degrees offers accessible, continuous career advancement opportunities. Strong partnerships between educators and employers align curricula closely with industry needs, benefiting both workers and businesses.

### FURTHER

#### DISCUSSION

- » Historically, in many industries and occupations, employers have used bachelor's degree attainment as an indicator of job readiness. Are there other educational pathways that might also work?
- » What industries are most prevalent in your area? Do individuals in your area have access to stackable credential education models in those industries to fill entry, middle, and advanced job openings?

## CHAPTER 7: WHO WILL TEACH?

Arizona faces a severe educator shortage characterized by low wages, poor working conditions, and high turnover, which undermines overall workforce development. Recruitment efforts—including hiring teachers internationally—are not keeping pace with demand. Strategies such as performance-based, differential, and experience-based pay offer promising solutions. However, substantial systemic challenges remain across K-12, community colleges, and universities.

### FURTHER

#### DISCUSSION

- » *As of September 2022, 68% of teaching positions were either vacant a few weeks into the school year or filled by individuals not meeting standard teacher requirements.*  
Is this statistic surprising to you? What are your thoughts?
- » How do the statistics shared about the teaching profession in Arizona impact expectations that student performance will improve?
- » Are you aware of incentives that your area schools offer to attract and retain teachers?

## CHAPTER 8: HOUSING AND WORKFORCE

Access to affordable housing plays an essential role in creating a diverse, productive, and stable workforce. Currently, limited housing supply and increasingly high housing costs are substantially impacting workers' ability to buy, rent, or maintain secure housing in Arizona. Innovative solutions and affordable housing policies that address Arizona's short-term and long-term housing needs, such as employer-assisted housing programs and housing subsidies, can help ensure Arizona's employers have access to the talent they need to drive the state's economy forward.

### FURTHER

#### DISCUSSION

- » What impact does housing supply have on meeting Arizona's workforce needs?
- » What housing solutions work best for Arizona's urban, rural, and tribal areas?

## CHAPTER 9: OTHER PRACTICAL CONCERNS—TRANSPORTATION AND CHILD CARE

Arizona faces workforce challenges due to inadequate transportation infrastructure, affecting both urban and rural communities. Promising initiatives—like the expansion of the job training program, Workforce 2 You, and broadband technology investments—offer solutions by improving accessibility and enabling remote opportunities. Additionally, addressing Arizona’s child care crisis through efforts such as Bright Futures AZ is critical to reducing economic losses and supporting workforce participation.

### FURTHER

#### DISCUSSION

- » How does Arizona capitalize on models of taking education and work to the communities where talent exists?
- » How does technology and remote work create opportunities for employers to gain the workforce they need?

## CHAPTER 10: TALENT PIPELINE—HIDDEN WORKERS AND QUALITY JOBS

Employers facing labor shortages can fill jobs by tapping into the overlooked “hidden workforce”—including caregivers, veterans, immigrants, retirees, and formerly incarcerated individuals—by adopting inclusive hiring practices; flexible, remote work; and quality job conditions. Upskilling current employees and thoughtfully integrating AI can further address talent shortages and boost workforce retention.

### FURTHER

#### DISCUSSION

- » What new strategies or specific subpopulations outlined in this report are a good fit for recruiting and hiring needs?
- » If you are currently looking for work, or reflecting on a time when you were looking for work, would any of the strategies outlined in this report have made your search easier or more successful?
- » Employers that implement innovative recruitment and retention efforts often build a positive word-of-mouth reputation that attracts applicants. Can you name an employer in your community who has done this?

**ADOPTING MORE INCLUSIVE HIRING PRACTICES HAS  
PROVEN SUCCESSFUL FOR SOME BUSINESSES, INCREASING  
CANDIDATE POOLS AND LEADING TO SUCCESSFUL HIRES.**



# GLOSSARY OF TERMS

## **Arizona@Work system**

This program is part of the Workforce Innovation and Opportunity Act (WIOA) and helps job seekers find employment and employers find qualified workers. Arizona@Work offers services such as job search assistance, resume and cover letter writing, counseling, and training opportunities.

## **Arizona Governor's Workforce Cabinet**

This cabinet works to align state agencies, executive departments, and other resources to better achieve the state's workforce goals. The cabinet is guided by the priorities of the Workforce Arizona Council and the Governor.

## **Arizona Local Workforce Areas**

There are 12 Arizona Local Workforce Areas, each with a Local Workforce Development Board. They are: City of Phoenix, Coconino County, Maricopa County, Mohave/La Paz Counties, Arizona Tribal Workforce (19 Tribal Nations), Northeastern Arizona, Pima County, Pinal County, Santa Cruz County, Southeastern Arizona, Yavapai County, and Yuma County.

## **Business**

A distinct group, or individual, of productive or profit-making enterprises.

## **Business Size Classifications**

- Micro: Any company that typically has four employees or less
- Small: Any company that has less than 100 employees
- Medium: Any company that has between 100 and 499 employees
- Big: Any company that has 500 or more employees

## **Economic Development**

Creating the conditions for economic growth and improved quality of life by expanding the capacity of individuals, businesses, and communities to maximize the use of their talents and skills to support innovation, job creation, and private investment.

*U.S. Economic Development Administration—Bureau of the U.S. Department of Commerce*

<https://www.eda.gov/about/economic-development-glossary>

*U.S. Department of Education—Office of Career, Technical, and Adult Education*

*Perkins State Plans and Data Explorer*

## **H3 Jobs**

Jobs with high demand, high skill, and high wage.

## **In-demand Industries, Arizona**

Arizona, via the Workforce Arizona Council—Strategic Plan 2023-2027, has defined/designated the following most in-demand industries:

- Construction
- Finance and Insurance
- Healthcare and Social Assistance
- Transportation and Warehousing
- Manufacturing
- Information Technology
- Retail

AZ WAC Strategic Plan 2023-2027: [https://arizonaatwork.com/sites/default/files/2023-09/2023%20Strategic%20Plan\\_5.pdf](https://arizonaatwork.com/sites/default/files/2023-09/2023%20Strategic%20Plan_5.pdf)

## **Industry Sector(s)**

A means of broadly classifying industry and businesses given their similar activities and missions, often referred to as industry sectors. Examples of these industry sectors are the manufacturing sector, information technology sector, healthcare sector, financial services sector, agriculture sector, mining sector, etc.

### **Local Workforce Development Boards (LWDB)**

Local Workforce Development Boards focus on addressing the workforce development needs specific to the state as part of their respective Local Workforce Areas. Their primary purpose is to oversee and coordinate workforce development efforts at the local level to support the economic well-being of their communities.

### **North American Industry Classification System (NAICS)**

The North American Industry Classification System is the standard used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy.

*Census.gov*

<https://www.census.gov/>

### **Non-traditional Fields**

Occupations or fields of work, such as careers in computer science, technology, and other current and emerging high-skill occupations, for which individuals from one gender comprise less than 25 percent of the individuals employed in each such occupation or field of work.

*Source: Perkins Policy, Carl D. Perkins Career and Technical Education Act of 2006*

### **Quality Job**

A job that exceeds the local prevailing wage for an industry in the region and includes basic benefits, such as paid leave, health insurance, and a retirement/savings plan, and/or is unionized. Quality jobs help employees develop the skills and experiences necessary to advance along a career path.

### **Race/Ethnicity**

One of five categories of race: American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White; and one of two categories of ethnicity: "Hispanic or Latino" and "Not Hispanic or Latino."

*Source: Perkins Policy, Carl D. Perkins Career and Technical Education Act of 2006*

### **Workforce Development**

Workforce education and skills training activities directly connected to the hiring and skills needs of the business community.

### **Workforce Innovation and Opportunity Act (WIOA)**

The Workforce Innovation and Opportunity Act (WIOA) provides funding and guidelines for employment and job training programs. It aims to enhance workforce development, improve access to education and job opportunities, and align workforce services with the needs of employers and job seekers.

WIOA Identifies "Core" Programs:

- Title I: Adult, Dislocated Worker, Youth programs
- Title II: Adult Education
- Title III: Wagner-Peyser Employment Services
- Title IV: Vocational Rehabilitation

### **Workforce Arizona Council/Arizona (State) Workforce Development Board**

Plays a pivotal role in workforce development by engaging in strategic planning, policy development, oversight, and accountability for workforce programs. It utilizes labor market data and collaborates with employers and educational institutions to align workforce initiatives with the state's economic needs. Additionally, it influences the allocation of workforce development funds, evaluates program effectiveness, and advises state leaders on related policies, thus working to enhance the state's workforce and economic vitality.

This council is responsible for developing, implementing, and modifying the state's workforce plan. The council is made up of representatives from industry, community, labor organizations, local and state government, and the state legislature.

### **Work-based Learning**

An instructional strategy that enhances classroom learning by connecting it to the workplace.

*Source: Perkins Policy, Carl D. Perkins Career and Technical Education Act of 2006*



# WORKS CITED

- 2022 Census of Agriculture impacts the next generations of farmers. (2023, February 22). <https://www.usda.gov/about-usda/news/blog/2023/02/22/2022-census-agriculture-impacts-next-generations-farmers>
- Arizona Center for Economic Progress. (2023, October 6). Immigrant labor fuels U.S. and Arizona economy - the Arizona Center for Economic Progress. The Arizona Center for Economic Progress. <https://azeconcenter.org/immigrant-labor-fuels-u-s-and-arizona-economy/>
- Biden-Harris administration approves Arizona's "Internet for All" initial proposal | National Telecommunications and Information Administration. (n.d.). <https://www.ntia.gov/press-release/2024/biden-harris-administration-approves-arizonas-internet-all-initial-proposal>
- Castro, E., Mimms, L. F., Howard, M., & Zolensky, R. (2024, February 13). Improving prison education programs: Experts discuss the expansion of Pell Grants for incarcerated students. Brookings. <https://www.brookings.edu/articles/improving-prison-education-programs-experts-discuss-the-expansion-of-pell-grants-for-incarcerated-students>
- COMMERCIALCafe. (2024, October 12). Here's how work from home in Metro Phoenix has evolved over 10 years. AZ Big Media. <https://azbigmedia.com/lifestyle/heres-how-work-from-home-in-metro-phoenix-has-evolved-over-10-years/>
- Education in Arizona | Center for the Future of Arizona. (n.d.). <https://www.arizonafuture.org/progress-meters/education/>
- Farmonaut. (2024, November 22). Arizona's Agricultural Boom: \$30.9 Billion Economic Impact and Growing Trade with Mexico - Farmonaut®. <https://farmonaut.com/usa/arizonas-agricultural-boom-30-9-billion-economic-impact-and-growing-trade-with-mexico/>
- Francis, S., Gallup, Inc., Center for the Future of Arizona, & Klein, E. (2021). The Arizona we want: the decade ahead. [https://www.arizonafuture.org/media/unfojhmh/cfa\\_arizona\\_we\\_want\\_the\\_decade\\_ahead\\_digital.pdf](https://www.arizonafuture.org/media/unfojhmh/cfa_arizona_we_want_the_decade_ahead_digital.pdf)
- Immigrants in Arizona - American Immigration Council. (n.d.). American Immigration Council. <https://map.americanimmigrationcouncil.org/locations/arizona>
- Katie Hobbs, Morrison Institute for Public Policy, The Hunt Institute, & Arizona State University. (2023). The Governor's Educator Retention Task Force: Research and Analysis. <https://azgovernor.gov/sites/default/files/educator-retention-task-force-research-and-analysis-report.pdf>
- Kendrick, C., & Lomio, R. (2023, February 24). We are holding Arizona accountable for the needless suffering and deaths of incarcerated people | ACLU. American Civil Liberties Union. <https://www.aclu.org/news/criminal-law-reform/we-are-holding-arizona-accountable-for-the-needless-suffering-and-deaths-of-incarcerated-people>
- Lightcast. (n.d.). The rising storm, a lightcast demographic drought . . . Lightcast. <https://lightcast.io/resources/research/the-rising-storm>
- Manship, K., Weinberg, E., Wallace, L., Burroughs, N., Muenchow, S., Laird, K., Stagner, N., Anthony, J., Bishop, A., & Blankenship, C. (2024). Expanding child care in Arizona. In AIR.ORG. <https://osi.az.gov/sites/default/files/2025-01/expanding-child-care-in-arizona-aca-final-report-5-31-2024.pdf>
- Perrault, P., Nickel, R., Helios Education Foundation, Belfield, C. R., Morales, K. L., Nickel, R., Hickox, I., & Kurtenbach, K. (2023). Billions to Gain: The economic benefits of investing in a more Educated Arizona. <https://www.helios.org/media/lwbpv4uc/brief-the-economic-benefits-of-investing-in-a-more-educated-arizona.pdf>
- Rangel, A. (2025, February 15). Yuma agriculture labor shortage leading to increased imports. <https://www.azfamily.com>. <https://www.azfamily.com/2025/02/15/yuma-agriculture-labor-shortage-leading-increased-imports/>
- Roig, V., Roig, J. L., Aripoli, D., Fernandez, M., Herndon, T., Humphrey, C., Luna, P. J., Manager, V. O., Morfessis, I. T., Rice, L., Sastre, M., Swanson, J., Wheeler, S., Helios Education Foundation, Perrault, P. G., Abt Associates, Morales, K. L., Arizona State University, Hedberg, E., . . . Hickox, I. (2023). Dual enrollment in Arizona High Schools — Participation rates and Effects on College-Going Patterns. In Helios Education Foundation. <https://www.helios.org/media/m5oegog2/brief-dual-enrollment-in-az-update-date-february-2023.pdf>
- U. S. Office of Personnel Management. (n.d.). Reskilling toolkit. <https://www.opm.gov/policy-data-oversight/workforce-restructuring/reshaping/accelerating-the-gears-of-transformation/reskilling-toolkit.pdf>
- Warren, J. (2023, August 16). ABC15 Arizona in Phoenix (KNXV). ABC15 Arizona in Phoenix (KNXV). <https://www.abc15.com/news/back-to-school/littleton-elementary-school-district-welcomes-26-international-teachers>



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