



*Yavapai*  
COLLEGE

YAVAPAI COLLEGE

# ENVIRONMENTAL SCAN REPORT

NOVEMBER 2022

PRESENTED BY  
INSTITUTIONAL EFFECTIVENESS AND RESEARCH

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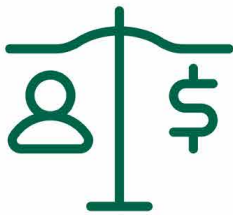
# INTRODUCTION

## ENVIRONMENTAL SCAN PURPOSE

The purpose of the environmental scan is to provide a wide range of information that will enable decision-makers to understand the current context in which we operate, predict future trends, and incorporate this understanding into the college's strategic direction. The report examines the following trends:



## DEMOGRAPHICS



## SOCIAL & POLITICAL



## ECONOMY & WORKFORCE



## EDUCATION



## TECHNOLOGY

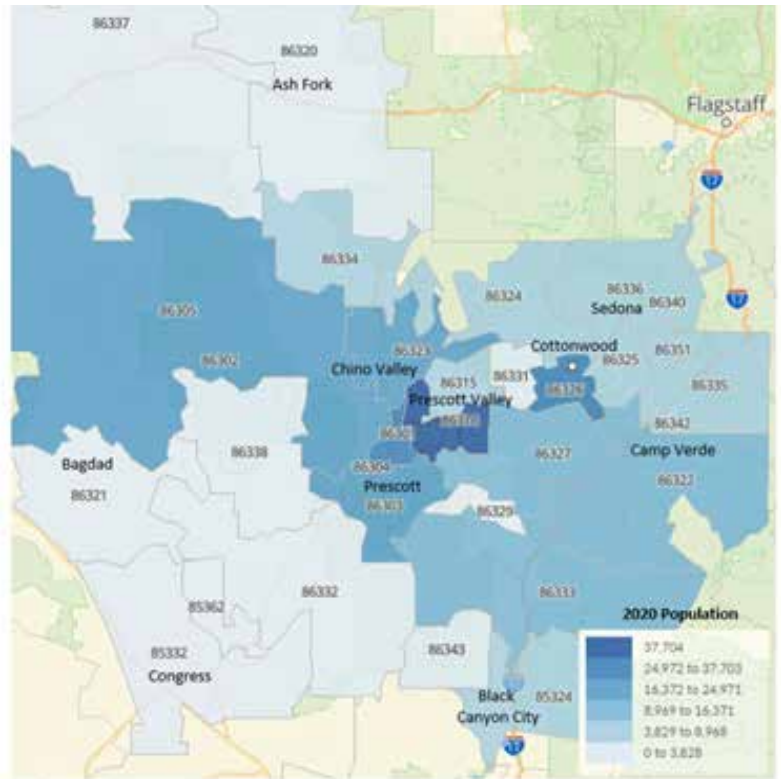
# DEMOGRAPHICS

## YAVAPAI POPULATION BY LOCATION

Yavapai County’s population is spread out over 8,000 square miles, geographically divided by the Mingus Mountain range. The Quad Cities area in the west county and Verde Valley in the eastern portion of the county are the two primary population centers.

## POPULATION

Current population estimates from Lightcast show Yavapai County’s 2022 population at 247,571. Yavapai County is forecasted to grow about 6 percent over the next five years, slightly behind the growth of the state. The west and east county growth rates are similar at 6.0% and 6.8% respectively.



Source: EMSI

	2022	2027	Net Growth (2020-2027)	% Growth (2022-2027)
<b>Yavapai County</b>	247,571	262,938	15,367	6.2%
<b>West</b>	162,593	172,302	9,709	6.0%
<b>East</b>	72,129	77,067	4,938	6.8%
<b>Balance</b>	12,849	13,569	720	5.6%

Source: Lightcast Demographics Q3 2022 Data Set



## AGE GROUPS

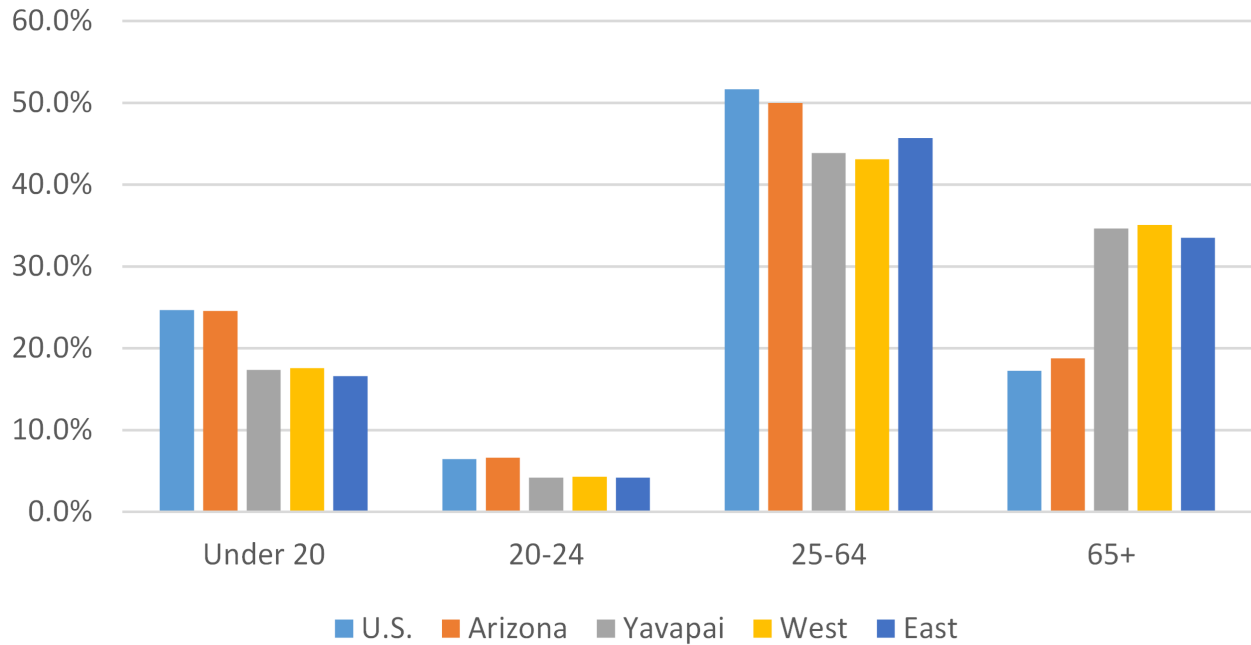
Yavapai County’s share of the population age 65 and older is near twice that of Arizona and the U.S. as a whole. The over 65 populations are consistent between east and west Yavapai County. Forty-four percent of the county’s population is prime workforce age (25-64); the national average is 52%. The west sub-county area has the largest proportion and number of traditional-age college students. In-migration and demographic data confirm that virtually all net growth in the county is in the 65 and older population, intented, school board, and college counselors.

## NET MIGRATION TO/FROM YAVAPAI COUNTY

With a negative birth rate, Yavapai County is dependent on in-migration to grow. Yavapai County experiences significant in-migration; it also has a large out-migration. In 2020, according to IRS migration data, 16,032 people moved into Yavapai County, while 10,165 moved out of the county.<sup>1</sup> Factors affecting out-migration include low wages, low housing stock and high-cost housing, and a shortage of medical services.

County	Inbound Migrations	Outbound Migrations	Net Migrations
Maricopa County, AZ	4,010	2,776	1,234
Coconino County, AZ	789	506	283
Los Angeles County, CA	705	99	606
Orange County, CA	627	107	520
San Diego County, CA	621	131	490
Riverside County, CA	595	81	515
Pima County, AZ	343	342	1
San Bernardino County, CA	328	63	265
Mohave County, AZ	298	213	85
Clark County, NV	242	161	81

## Age Groups



Source: Lightcast Q3 2022

Growth continues in the age group 65 and over. The under 18 age group is forecasted to decline slightly over the next five years. The 18-64 group is estimated to grow a modest 3 percent by 2027. These age trends signal a significant shift for Yavapai College & its curriculum and program offering.

## RACE AND ETHNICITY

The overwhelming majority (79%) of Yavapai County residents are White, Non-Hispanic, with a median age of 59. Hispanics make up the next largest group at 15% with a median age of 29.

### Yavapai County Race and Ethnicity

	2022	2027	Net Growth (2022-2027)	% Growth (2022-2027)
<b>POPULATION BY RACE/ETHNICITY</b>				
White alone	196,414	204,763	8,349	4.3%
Black alone	1,880	2,029	149	7.9%
Asian alone	3,024	3,904	880	29.1%
American Indian/Alaska Native alone	3,375	3,701	326	9.7%
Two or More Races	4,748	5,849	1,101	23.2%
Hispanic or Latino	37,836	42,363	4,527	12.0%
Native Hawaiian or Pacific Islander	294	329	35	11.9%

Source: Lightcast Q3 2022

## EDUCATIONAL ATTAINMENT

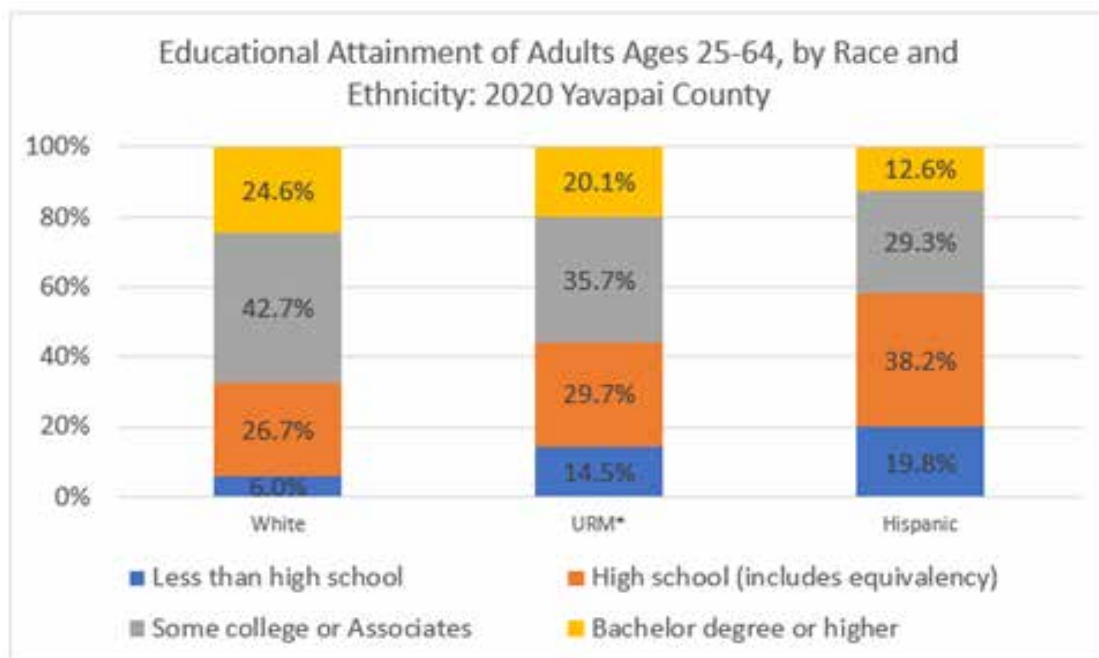
Examining educational attainment, Hispanic residents continue to lag behind all other groups. Nonetheless, progress has been made as the percentage of Hispanics with less than high school has declined by almost five percent since 2018, and those with some college or higher have increased by two percent in the same timeframe. Still, a significant gap exists and represents an ample opportunity for Hispanic residents of Yavapai County to improve their economic circumstances through further education.

For YC to become a Hispanic Serving Institution, Hispanic enrollment of fall, full-time students must reach or exceed 25 percent of the full-time student population. Through improved marketing, outreach, and data collection, Yavapai College has increased its proportion of full-time Hispanic students from 19% to 22% over the past 3 years.

Yavapai County Median Age	
Median Age by Ethnicity	
White alone	58.5
Hispanic or Latino	28.5
Source: EASI estimate 1/1/2021	

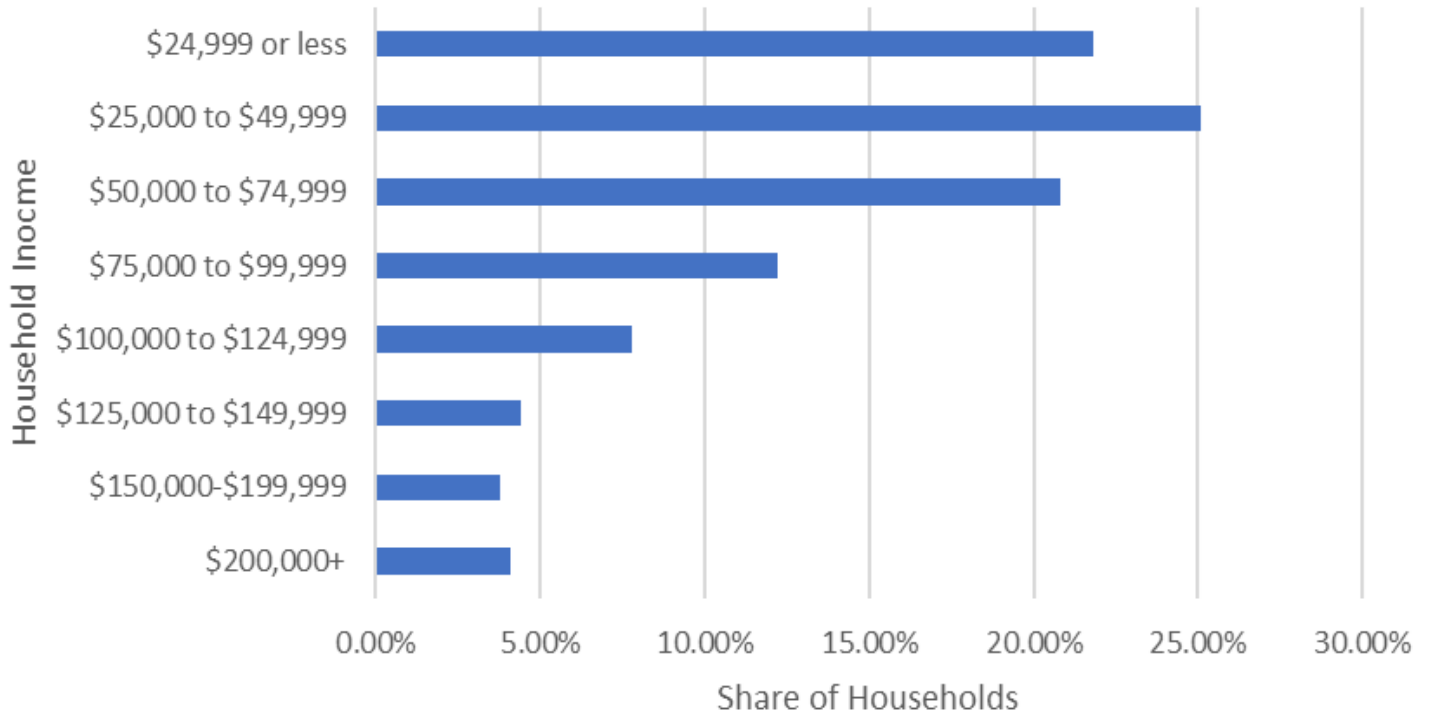
**Educational Attainment Workforce Population (Age 25-64)**

Source: U.S. Census, IPUMS USA, 2016-2020 American Community Survey 5-Year Estimates Micro Dataset



\*Under represented minority population includes Black, Native American, Other race

## Yavapai County 2020 Household Income

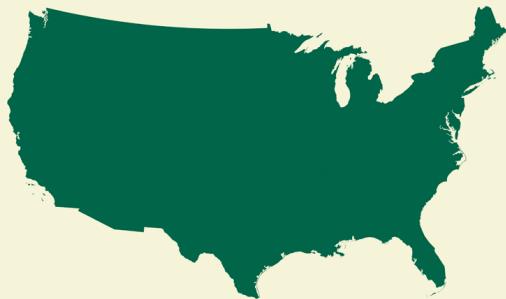


Source: DataUSA.io, Census Bureau ACS 5-year Estimate 2016-2020

### INCOME LEVEL

Yavapai County households continue to lag behind their Arizona and national peers in household income. The income disparity and rising costs in Yavapai County put a signifi-

cant number of residents at risk and weaken the economic fabric. Close to half (47%) of Yavapai County households earn less than \$50K, while only 20% earn 100K or more.



**\$65K**

**Median Household  
Income In The  
United States  
Of America**



**\$61.5K**

**Median  
Household  
Income In  
Arizona**

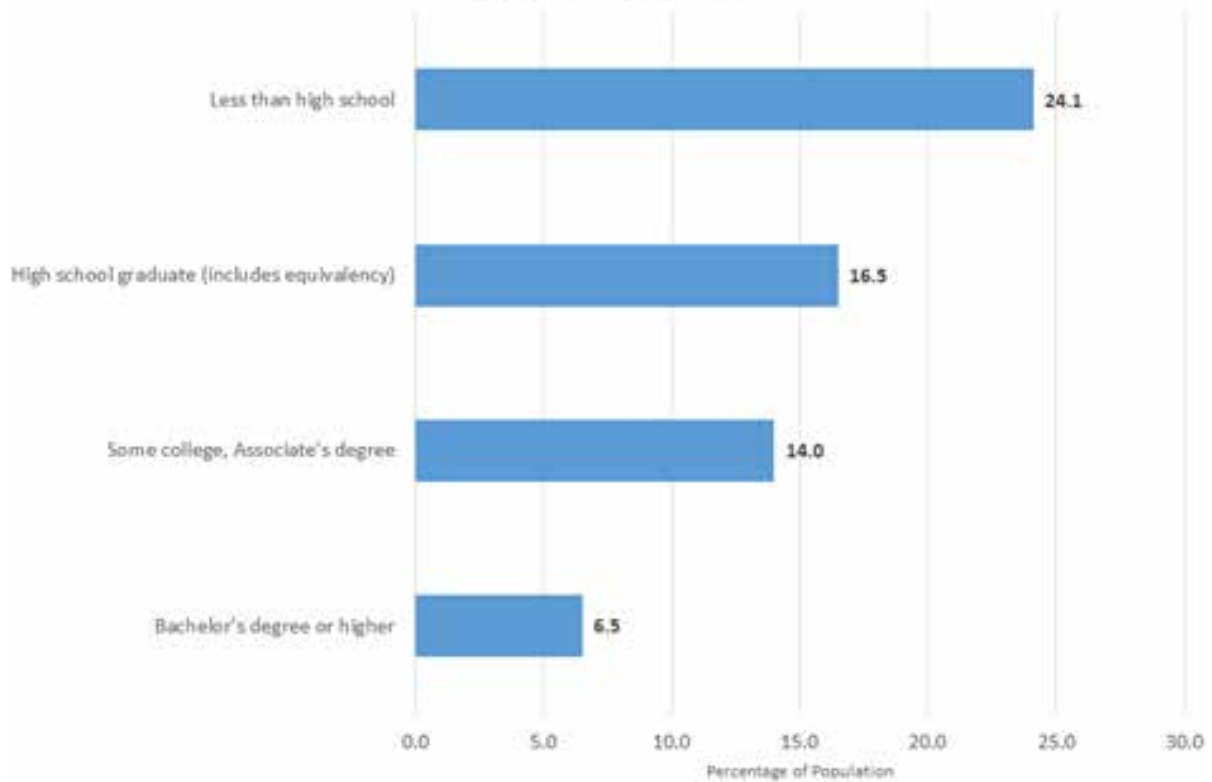


**\$53.3K**

**Median  
Household  
Income In  
Yavapai**



Poverty Rate by Educational Attainment: 2019  
Yavapai County Ages 25-64



## POVERTY THRESHOLD

Family of 4 = \$27,750

More than 1 in 5 County residents live in near poverty or worse

### Education and poverty<sup>2</sup>

There is a direct association between educational attainment and a region's poverty rate. Poverty rates are significantly lower for County residents with a postsecondary credential

Source: U.S. Census Bureau ACS 5-year Estimate 2016-2020

# Yavapai County High Schools Eligibility for Federal Aid Programs<sup>3</sup>

## High School Students Eligible for Federal Funded Programs

### Income Eligibility 1 or 2

Select County High Schools	Percent	Student Count
Prescott High School	24.0%	346
Bradshaw Mountain High School	29.2%	466
Chino Valley High School	45.1%	353
Mayer High School	72.7%	128
Sedona Red Rock Junior/Senior High School	57.4%	273
Mingus Union High School	43.1%	535
Camp Verde High School	53.0%	259

*Income eligibility for federal aid programs funded under the Elementary and Secondary Education Act are another indicator of financial challenge.*

## Questions for Consideration

1. Given our demographics, how can YC better reach, serve, and get more Hispanic students to enroll?
2. How do we improve our recruitment and marketing efforts to entice the 65,000 non-traditional aged residents who do not have a degree?
3. How does Yavapai College address college cost barriers for community members facing financial hardships yet who earn too much to receive Pell grant?
4. How can YC help address the high cost of housing so that it can attract and retain people to fill key positions? What else can YC do to help address the high cost of housing within our service district?
5. How can YC help address the shortage of medical providers?
6. Does YC have the right academic program mix to prepare people with the skills they need to earn a living wage in Yavapai County? In Arizona?
7. Can YC design credit programming to target retirees, or non-credit programming that is profitable?

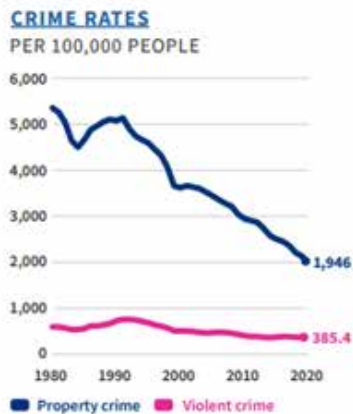


# SOCIAL AND POLITICAL

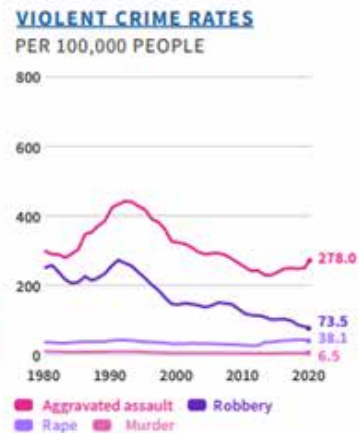
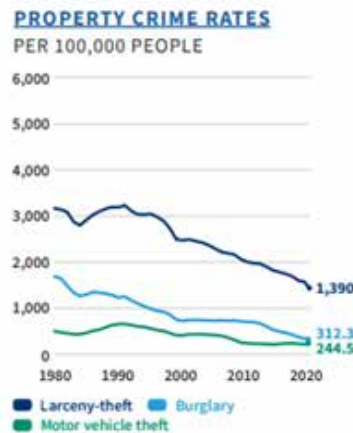
## CRIME & SAFETY

Though top of mind as we head into an election cycle, crime has been trending downward over the past generation through both Republican and Democrat administrations.

Property Crime has been falling more rapidly than Violent Crime. However, domestic terrorism has been on the rise, with Active Shooter incidents increasing across the nation.

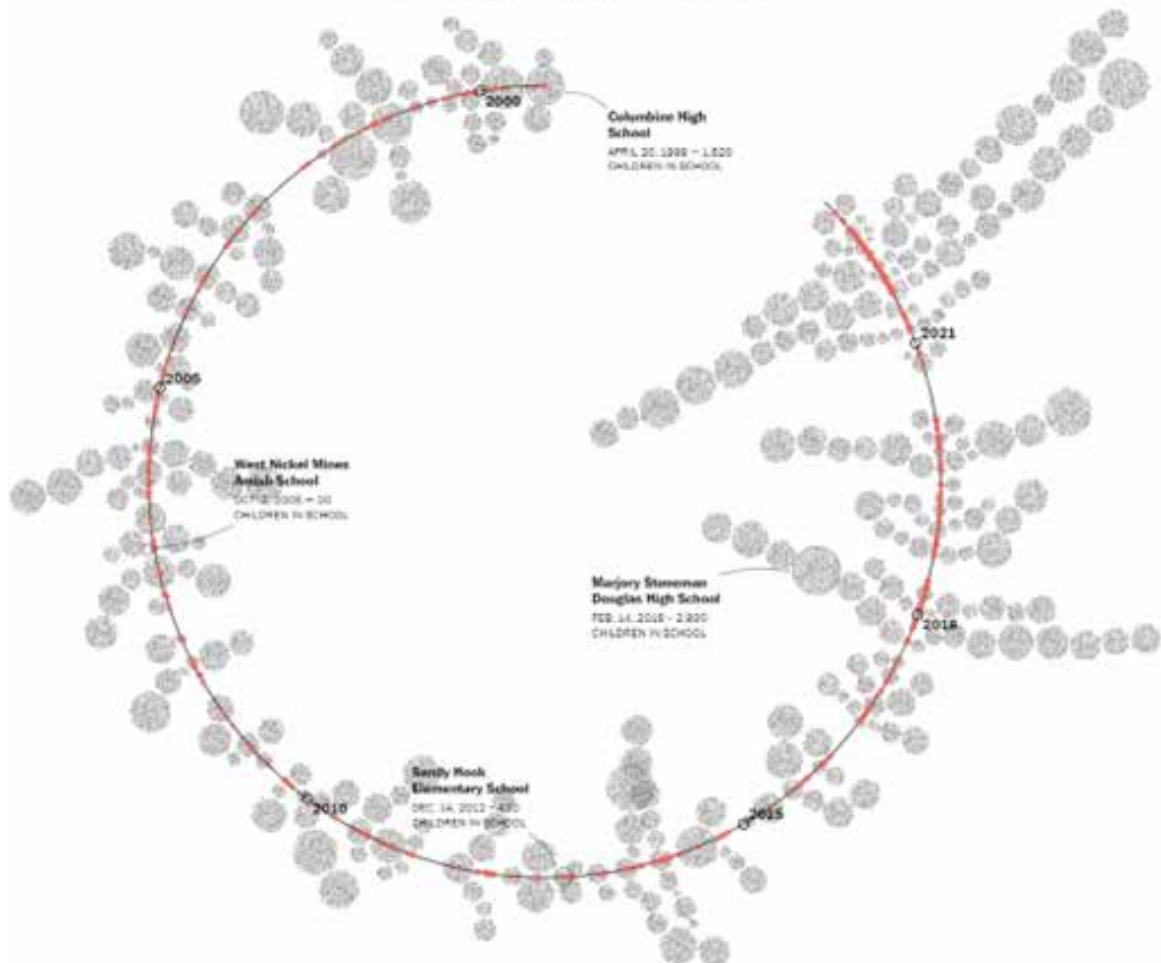


Source: Federal Bureau of Investigation



# More than 320,000 students have experienced gun violence at school since Columbine

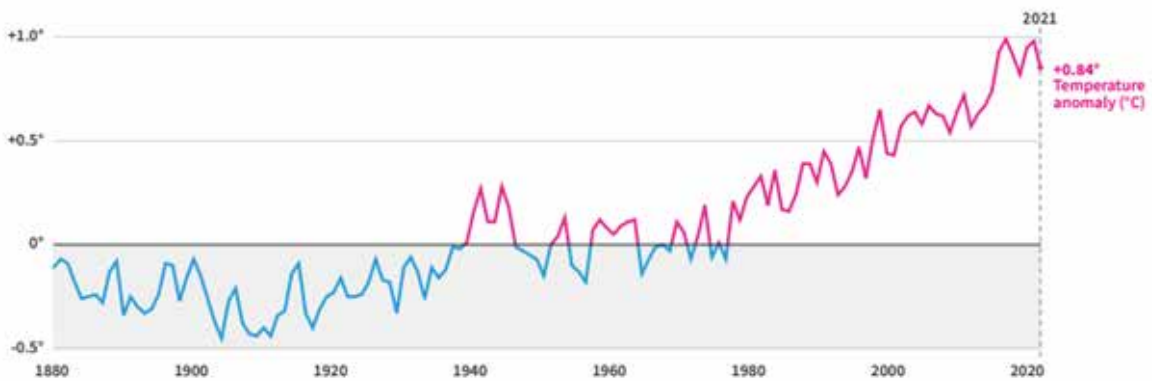
One dot • represents 10 children exposed to gun violence



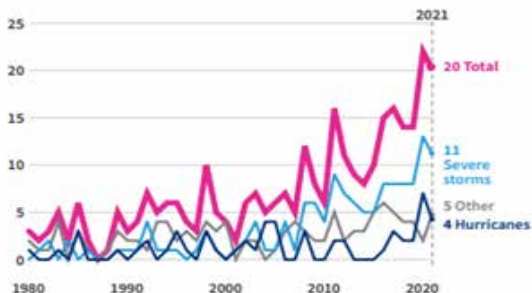
# CLIMATE CHANGE

The Earth is getting hotter, causing billions of dollars of damage per year through natural disasters. Of particular concern in Yavapai County is the risk of wildfires.

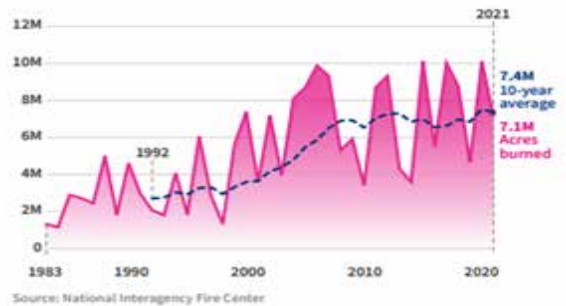
**GLOBAL TEMPERATURE DIFFERENCE FROM 20TH-CENTURY AVERAGE (°C)**



**BILLION-DOLLAR DISASTERS**



**ACRES BURNED IN WILDFIRES**  
ANNUAL AND 10-YEAR AVERAGE



## HEALTH

Due to COVID, the United States experienced the highest mortality rate since WWII, bringing the average life expectancy down 1.8 years. Covid was the 3rd leading cause of death in the US in 2020—only heart disease and cancer caused more deaths.

However, with the advent of effective vaccines and treatments, the spread and severity of COVID appears to be on the decline. As of October 2022, 68% of eligible Americans, 63% of eligible Arizonans, and 52% of eligible Yavapai County residents have been fully vaccinated.

Also, only 8.6% of Americans live without health-care coverage which is near historic lows.

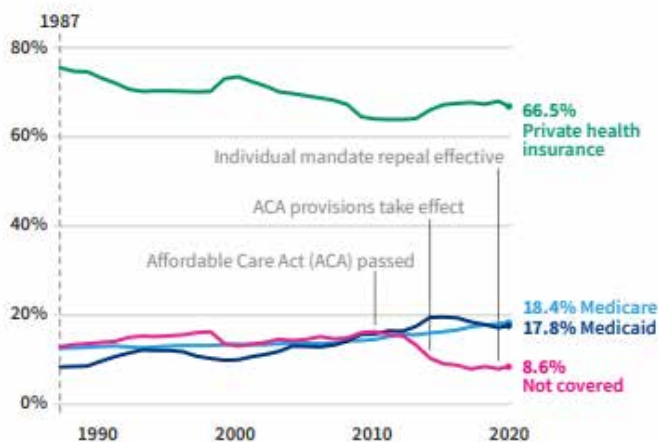
### DEATHS

PER 100,000 PEOPLE



Source: Census Bureau and Centers for Disease Control and Prevention  
Note: 2021 death rate is based on provisional CDC data, current as of May 11, 2022.

### HEALTH INSURANCE COVERAGE



Source: Census Bureau

## MENTAL HEALTH CRISIS

Mental health is top of mind at many higher education institutions right now. A recent survey of 1,700 college students found that 88 percent believe there is a mental health crisis in higher education, with 70 percent of them personally reporting pandemic-related distress or anxiety. The concerns are not limited to students. Nearly one-third of surveyed faculty also report symptoms of depression, and half believe their institutions should be doing more to support mental wellness among faculty and staff.

## PUBLIC PERCEPTION ABOUT HIGHER EDUCATION

The share of Americans who believe colleges and universities have a positive impact on the country has dropped by 14 percentage points since 2020. That's according to the latest results of an annual survey conducted by New America. Since 2017, the organization has been collecting data on Americans' attitudes about the value of education after high school and how that education should be funded.<sup>4</sup>

In this year's survey results shows that about three-fourths of respondents agreed that post-secondary education offers a good return on investment, down from 80 percent in 2020. Yet the partisan divide widened, with 85 percent of Democrats and 69 percent of Republicans viewing it as a good investment, compared to 78 percent of Democrats and 82 percent of Republicans two years ago. Americans also remain divided on who should pay for higher education. Most Democrats (77%) say the government should fund higher education because it's good for society, while the majority of Republicans (63%) say students should pay for post high school education because they benefit from it. Despite the overall agreement on the value of higher education, many Americans are concerned about affordability. Only about half of respondents think Americans can get an affordable, high-quality education after high school.



Under the new law, colleges offering the degrees must approve programs based on specific criteria, including:

- Workforce need
- A financial and administrative analysis of offering the degree program
- Avoiding duplicate programs

## FY 2023 EXECUTIVE BUDGET FOR COMMUNITY COLLEGES

In January the Governor’s Office released their FY 2023 Executive Budget Recommendations. As part of the budget documents, the Executive announced \$30M in federal funding will be used for Arizona Workforce Accelerators at Community Colleges, advanced manufacturing training centers that will empower workers with the skills needed for the jobs of today and the future.

These dollars, distributed through the Arizona Commence Authority (ACA) will be allocated based on an application process developed by the ACA. AC4 continues to be engaged with the ACA on the mechanism to distribute these funds to the colleges. The budget also included one-time funding of \$7M in Rural Community College Aid for the eight rural community college districts and two provisional districts. The one-time supplemental aid allows for the colleges to cover the costs of maintenance, operations, and initiatives. This funding was part of the Executive Budget Recommendations.

## COMMUNITY COLLEGES OFFERING FOUR-YEAR DEGREES

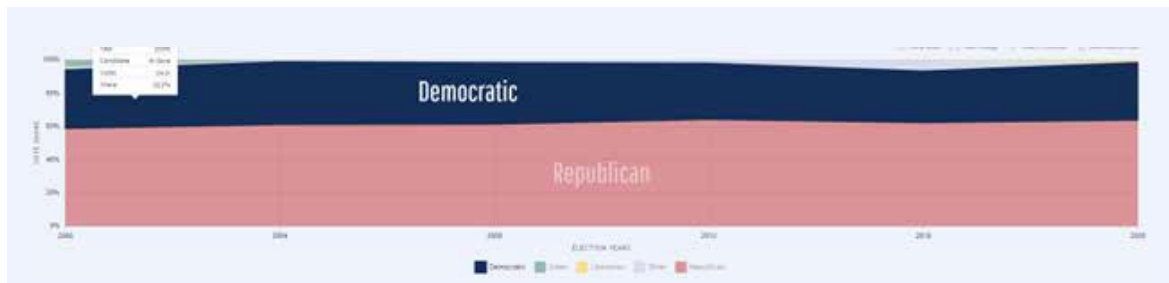
Arizona has now become the 24th state in the country to allow community colleges to offer bachelor’s degrees. Governor Doug Ducey

signed legislation that permits the colleges to have baccalaureate programs and join the growing national movement of two-year institutions offering four-year degrees.

Advocates of community college baccalaureate programs have argued for years that low-income and nontraditional college students, such as older students, those who have children or those who are the first in their families to attend college, are more likely to get bachelor’s degrees if they don’t need to switch to a more expensive four-year university to do so.

The Yavapai College District Governing Board has approved YC’s first baccalaureate degree—a Bachelor of Science (BS) in Business with a concentration in Organizational Management and Leadership. Pending accreditation approval from the Higher Learning Commission, YC will be the first rural community college in Arizona to offer a baccalaureate degree. Also, YC is developing a Bachelor of Science in Nursing (BSN) degree. The target start date for the BSN Nursing program is fall 2024.

Though Arizona is a “purple” state, it varies by county. Yavapai County has a higher population of Republicans, which impacts resident’s views on various issues including taxes and education.



## Questions for Consideration

1. What should YC do to ensure a reasonable level of safety at its campuses and centers?
2. What actions should YC take to lower its carbon emissions to meet the national goal of 50% reduction?
3. How can YC provide additional support to students and employees experiencing mental health crises?
4. What can YC do to promote that Education is both a private good that benefits the individual and a public good that benefits the local economy and society?



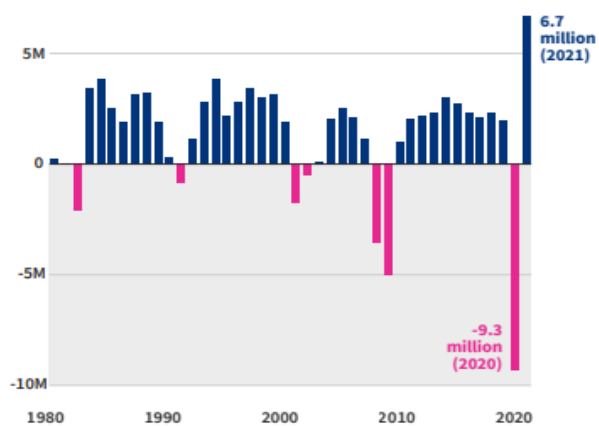


# ECONOMY AND WORKFORCE

## ECONOMY

According to the Pew Trust, the US Economy has recovered all of the jobs lost during the pandemic as of July, 2022; however, the jobs are shifting.

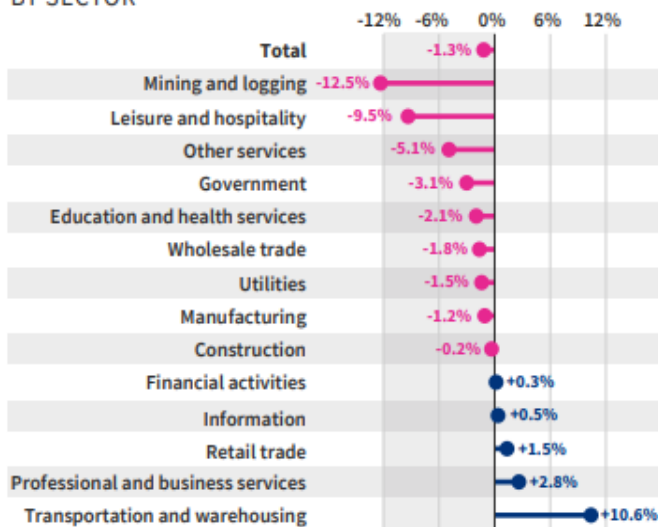
**NET CHANGE IN EMPLOYMENT (JOBS)**



Source: Bureau of Labor Statistics

**PERCENT CHANGE IN EMPLOYMENT (FEB. 2022 VS. FEB. 2020)**

BY SECTOR



Source: Bureau of Labor Statistics  
Note: Seasonally adjusted.

### LABOR FORCE SIZE

August 2022 - Seasonally Adjusted

**107,230**

Labor Force Level

**+2.0%**

Year-over-Year Change

### LABOR FORCE PARTICIPATION

2020

**48.1%**

Total (16 years and above)

41.8%

16-19 Years

70.9%

20-24 Years

76.3%

25-34 Years

80.2%

35-54 Years

55.3%

55-64 Years

14.1%

65 Years+

### LABOR FORCE PARTICIPATION RATE BY EDUCATIONAL ATTAINMENT(2019)\*

**71.4%**

Total (population 25-64 years old)

Educational Category	Rate
Less than a high school diploma	59.2%
High school graduates	68.4%
Some college or associate degree	71.8%
Bachelor's degree or higher	78.3%

\* Minimum education as defined by BLS

## LABOR FORCE

Yavapai County's labor force participation rate (48.1%) continues to be lower than Arizona's (60.1%) and the US (62.2%). This can be mainly attributed to our county's aging population.<sup>5</sup> The overall US participation rate continues to lag pre-pandemic levels for a variety of reasons as families weigh the value of two working parents and boomers retire.

### LABOR FORCE PARTICIPATION RATE

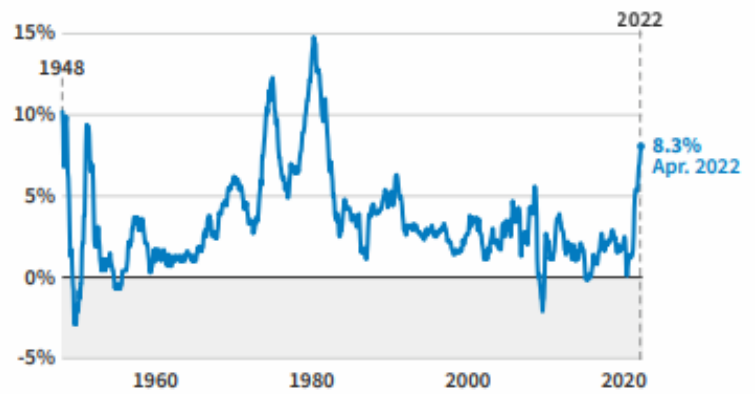


Source: Bureau of Labor Statistics  
Note: Seasonally adjusted.

## INFLATION

Meanwhile, demand accumulated during the pandemic at the same time as supply chains ramped down. As economies re-opened, manufacturing has struggled to keep up as they bring capacity back online, and seek qualified labor from a smaller workforce pool. Combine this with energy uncertainty due to the Russian invasion of the Ukraine and you get high inflation.

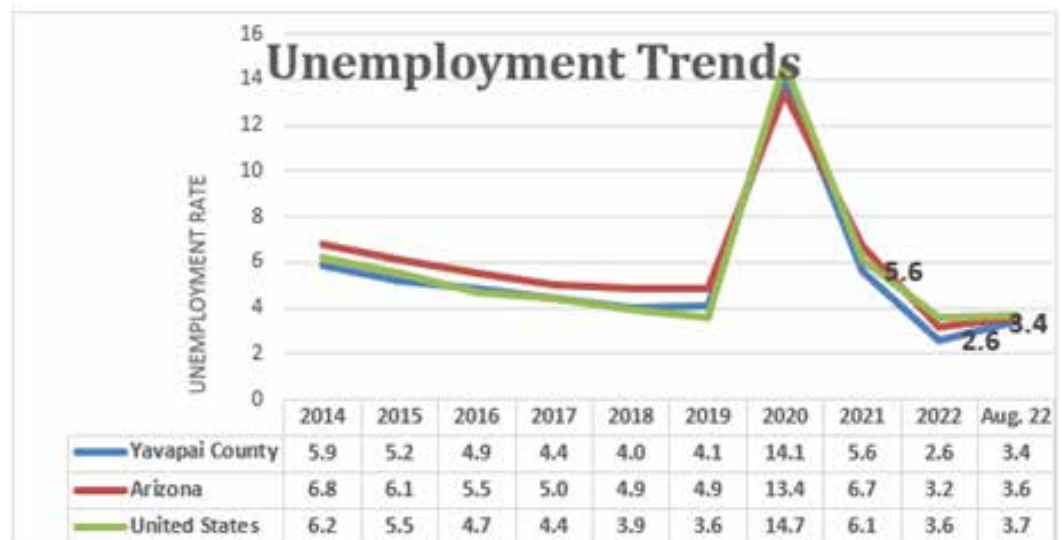
### CONSUMER PRICE INDEX 12-MONTH PERCENT CHANGE (ALL URBAN CONSUMERS)



Source: Bureau of Labor Statistics

## UNEMPLOYMENT

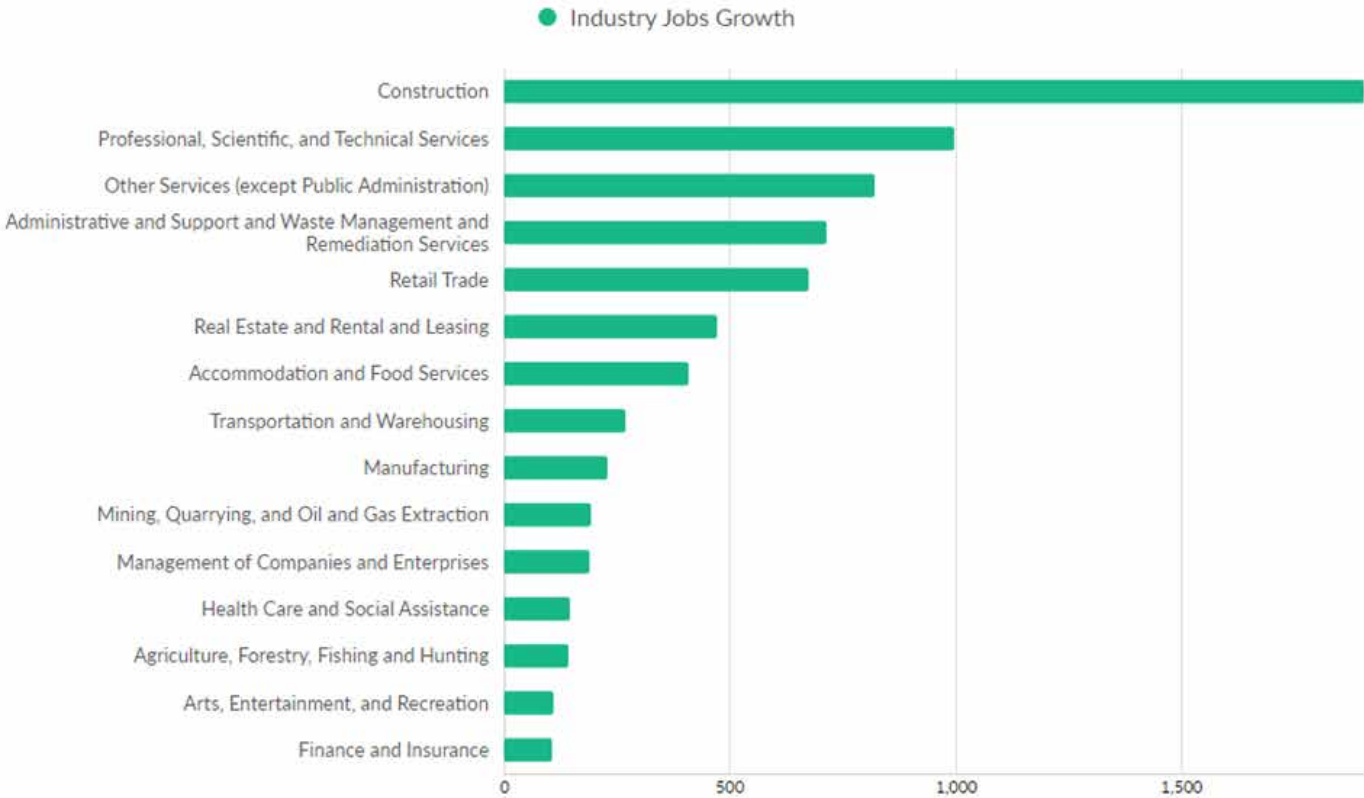
The unemployment rate for Yavapai County, Arizona, and the United States are hovering near all-time lows.<sup>6</sup> However, since bottoming out in March 2022 at 2.6%, Yavapai County has witnessed a significant uptick in recent months to 3.4%.



# INDUSTRY ANALYSIS

Yavapai County has the greatest number of laborers in government, healthcare, retail, food and accommodation, and construction. Of these top ten sectors, only half provide living wage earnings (\$43,787) based on the MIT Living Wage calculator and adjusted for average family size in Yavapai County per the U.S. Census.

Cross-referencing industry sector growth with occupational growth verifies high demand for academic programs in healthcare, management, business, public administration, and construction technology.



Source: Lightcast, Q2 2022



Source: Lightcast, Q2 2022

# AFFORDABILITY

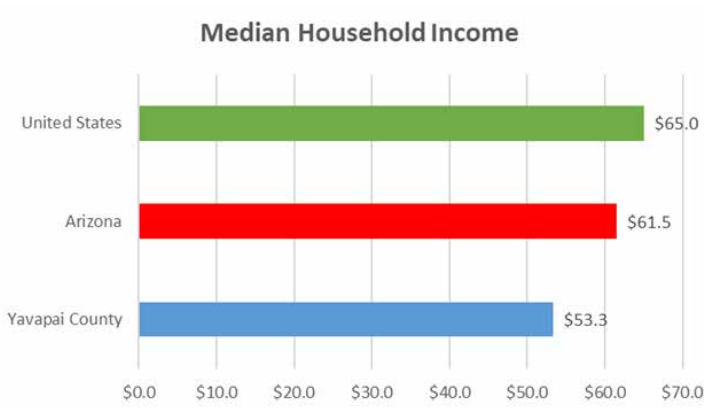
Per Zillow, the typical Yavapai County home value is \$509,506 (August 2022), an increase of 16% over last year—and 50% higher than the Arizona average of \$442,859.

The National Association of Home Builders/Wells Fargo Housing Opportunity Index (HOI) measures the share of homes sold in an area that would have been affordable to a family earning the local median income.

In all, just 28.5% of available homes sold in the first quarter of 2022 were affordable to families earning the County median income of \$53.3K. This represents a sharp drop from the 41.6% of homes that were affordable one year ago.

## HIGH COST OF LIVING

Yavapai County’s higher average cost of living is driven primarily by high housing costs compared to nearby Phoenix and the national average.



**Low Household Income.** Yavapai County’s median household income of \$53.3 is \$8.2K below the Arizona median household income and \$11.7k below the national median. The combination of below-average income and high cost of living, especially housing, presents significant headwinds negatively affecting student and labor force recruitment.

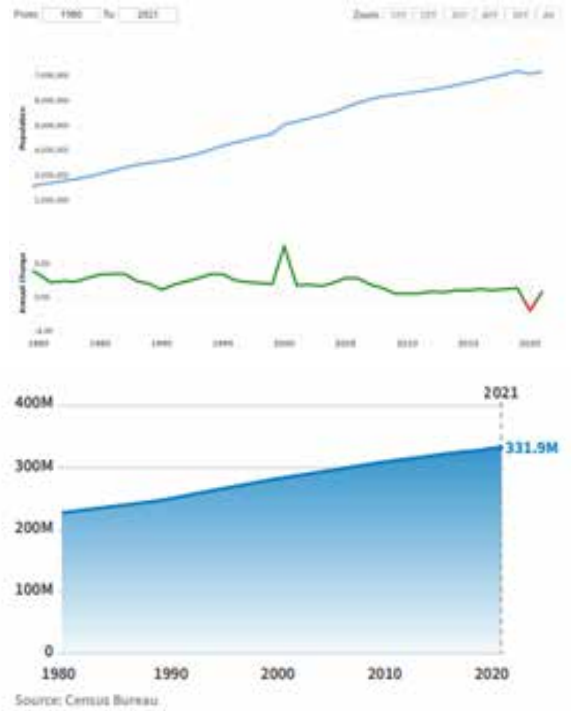
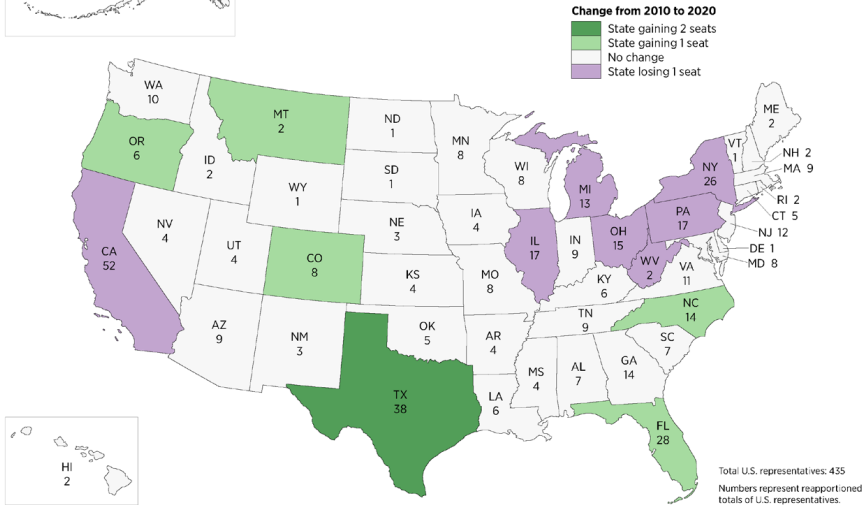


Category	Prescott-Prescott Valley Area	Phoenix-Area	National Average
Grocery	101	98.7	100
Housing	146.9	121.3	100
Utilities	90.5	103.9	100
Transportation	108.2	107.8	100
Health	94.1	97	100
Miscellaneous	113	91.8	100
Composite	117.9	104.8	100

Source: Council for Community and Economic Research, 2022 Q2



### Apportionment of the U.S. House of Representatives Based on the 2020 Census

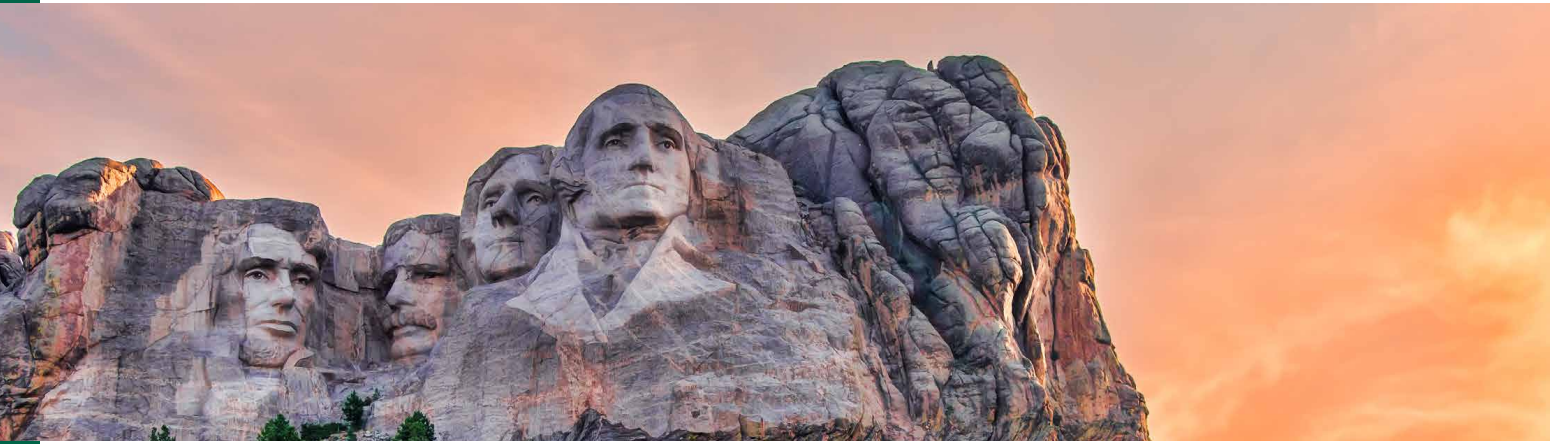


Prescott area real estate agent Cody Anne Yarnes recently shared with the Prescott City Council that in October 2022 there were just 13 homes in the quad-city area that are affordable for those earning the average salary of public service employees like Police or Fire Fighters.

For public school teachers, the choice of affordable homes drops to two.<sup>7</sup> Arizona growth rate over past 40 years of 270% far outpaces 46% growth rate of US. However, AZ kept same number of congressional seats as outcome of 2020 Census.

## Questions for Consideration

1. Does YC have the right program mix to serve local, state and national job markets?
2. How can YC assist in diversifying the county economy by attracting businesses and jobs in high wage industries like manufacturing and professional, scientific, and technical services?
3. How can YC address labor costs for employees as the cost of living in Yavapai County outpaces the high inflation rate?
4. What can YC do to begin to address the high cost of housing for its workforce? For its service district?



# EDUCATION

## K-12 EDUCATION TRENDS

There is a national teacher shortage, with many slots being filled by uncredentialed people out of necessity. Arizona Senate Bill 1159, passed in 2022, allows people without a bachelor’s degree to begin teaching in K-12 schools before finishing their degree. SB 1159 expands the pool of teachers; however, at what cost to instructional quality?

### Where are the teachers?

Attracting and retaining quality teachers is a significant challenge for state k-12 schools.

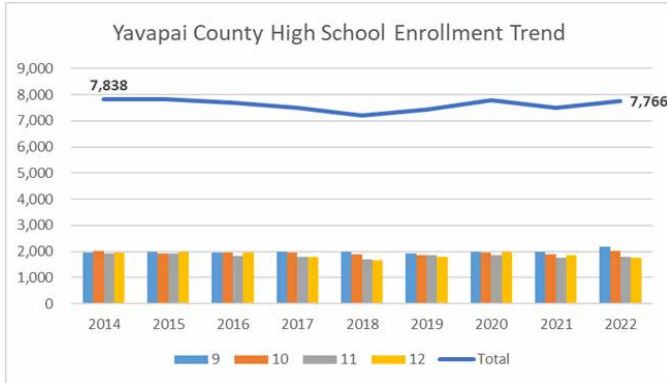
Arizona’s three public universities need to graduate more students to meet the state’s demand for K-12 teachers. Yavapai County school systems are now regularly recruiting teachers from states that produce oversupply of educators. Additionally, many Arizona school districts like Chino Valley, Casa Grande and Bullhead City are recruiting internationally from the Philippines to address their teacher shortages.<sup>8</sup> The region’s lack of affordable housing is a deterrent for many teaching candidates.

### Challenged K-12 System:

Teacher quality impacts student preparedness, and a challenged K-12 system presents a significant barrier to recruiting top businesses and talent to the area. A recent WalletHub study ranks Arizona as the 48th best state to work as a teacher. While teacher pay has increased in recent years, pay remains near the bottom nationally (Arizona 42nd). Arizona’s expenditures per student also rank as one of the lowest in the nation (49th). These factors lead to Arizona having some of the highest teacher turnover in the country.

	Arizona Ranking
<b>Teacher Pay</b>	<b>42nd</b>
<b>Expenditures per Student</b>	<b>49th</b>

Source:  
<https://wallethub.com/edu/best-and-worst-states-for-teachers/7159>

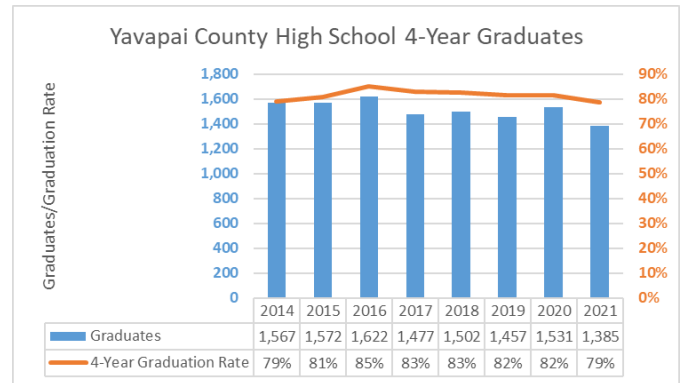


Source: Arizona Department of Education—Four Year Graduation Rate Reports.

## Yavapai County high school enrollments bounce back.

County high school enrollment has nearly returned to pre-pandemic levels. The freshman class (2,195) is the largest in the past ten years, while the senior class is the lowest (1,762).

Despite a small increase in high school enrollments this year, declining birth rates and the aging shift in net migration indicate the number of high school graduates will likely continue to decline moderately over the next five years.



Source: Arizona Department of Education Arizona October 1 Enrollment Reports.

## Yavapai County high school graduates.

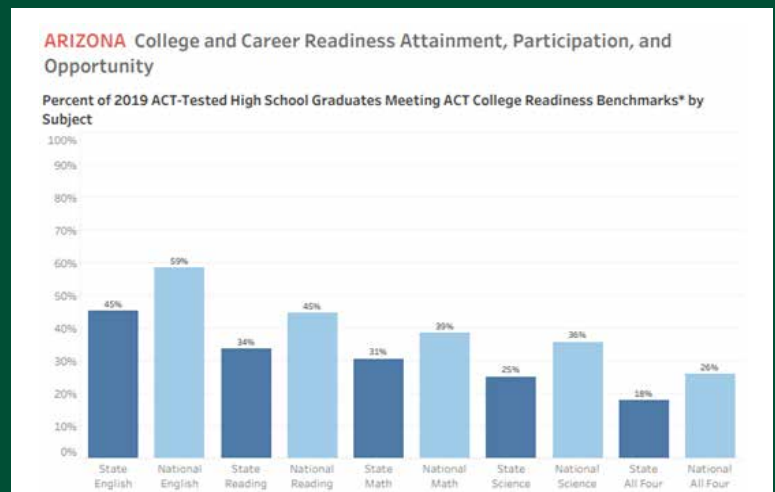
County high school graduates declined sharply in 2021. The four-year graduation rate dropped below 80% for the first time in nine years. The graduation rate and graduate declines were likely impacted by the COVID-19 pandemic.

The Western Interstate Commission for Higher Education projects new high school graduates to drop precipitously beginning in 2025. Declines in the Northeast and Midwest are already well underway and foreshadow graduate trends in the West<sup>11</sup>

## Underprepared Students.

As many as two-thirds of students entering community colleges today require some level of remediation (Cohen & Braver, 2014).

ACT (2020) reports that just 26% of college-bound students met all four college-readiness benchmarks (English, mathematics, reading, and science).<sup>9</sup> For Arizona, only 18%, less than 1 in 5 students meet all four college readiness benchmarks.<sup>10</sup>



## HIGHER EDUCATION

### INCREASE IN NON-TRADITIONAL STUDENTS

Today's college student populations are increasingly nontraditional. The term 'college student' is no longer exclusive to the traditional 18 to 24-year-old matriculating directly from high school. Today's college students are parents, caregivers, full-time employees, and retirees.<sup>12</sup>

These non-traditional learners might be looking to complete their degree, get training for their current job, or upskill for a new one. More often than not, they will have some high school or post-secondary education, work full time, and have to balance their education pursuits with other life responsibilities. Flexibility isn't just something they want – it's what they need.<sup>13</sup>

One of YC's Strategic Pillars is focusing on Adult Learners. Yavapai College's focus is to increase enrollment of adult learners and focus on the 65,000 residents with some college but no degree or certificate.

### DIVERSITY IN HIGHER EDUCATION STUDENTS AND EMPLOYEES

From 1980 through 2016, the proportion of minority students in higher education has grown



**40% of the current undergraduate population at American colleges and universities are nontraditional (CLASP, 2015).**

dramatically, and better aligns with the demographics of the US. (American Council on Education, 2019).

Colleges are trying to better serve these students through new outreach initiatives, tailored support services, and striving to have a workforce whose diversity matches the student body they serve.

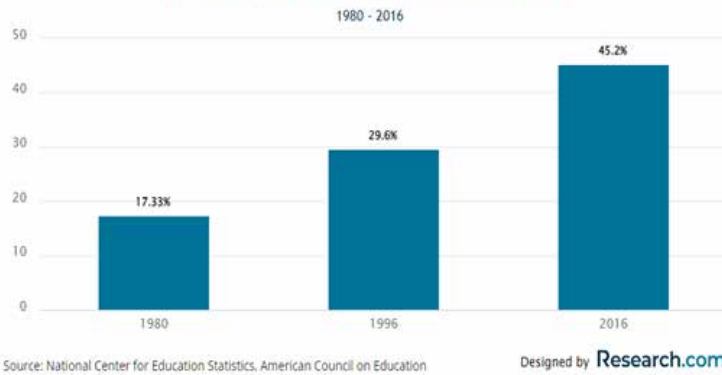
#### Accommodating Non-Traditional Students Trend Highlights.<sup>14</sup>

- Almost 75% of the nearly 20 million students enrolled in higher education are non-traditional students.
- About 59% of nontraditional students have full-time jobs.
- About 31% of nontraditional students have children under 18.





Increase in Number of Student of Color in The US



## COMPETITION

### New Community College Content Providers

Previously, most private competitors' advantages were centered around on-demand course offerings; however, these providers lacked access to critical factors like accreditation and federal financial aid. This has changed with the new provider Outlier.org. Outlier is a private content provider of associate degrees and certificates. Started by the co-founder of Master Class, a non-credit course provider, known for industry-leading star instructors and state of the art online production. Outlier has partnered with Golden Gate University to offer online degrees and certificates. Golden Gate University is a private institution accredited by WASC Senior College and University Commission (WSCUC).

The enrollment data comes as a growing number of students consider alternatives to higher education – both because of tuition costs and data highlighting earnings potential without a degree.

## DECREASE IN ENROLLMENT

Enrollment across all sectors of higher education continued to decline this past semester, extending a trend that began during the coronavirus pandemic, according to new data from the National Student Clearinghouse Research Center. Total enrollment for spring 2022 fell by 4.1 percent. Drawing students back to college will challenge many institutions. The country's economic wounds aren't healed, and two-year schools and some four-year access institutions will see fewer students who can afford college. The strong market for job seekers may also divert some prospective students from schools like community colleges, which have seen particularly devastating enrollment declines.<sup>15</sup>

The Biden administration had been attempting to inject some stability into the higher education system during the pandemic with HEERF grants. The strategy was to help displaced workers get back to work quickly with new skills earned through certificates and credentials that match local workforce needs.

### Competitive Factors

- Top tier faculty from institutions like Princeton, Columbia, DePaul, and the Illinois Institute of Technology teaching online courses.
- Low cost - \$149 per credit hour
- No textbook costs
- Career certificate partners
- Professional and high-level production value online instruction
- Accredited
- Federal Financial Aid eligible
- Large marketing budget

## Outlier.org

Degrees+

Accredited college degree  
Earn an accredited associate degree from prestigious Golden Gate University.  
GOLDEN GATE UNIVERSITY

Career certificate included  
Learn in-demand skills with career certificates from top companies built in.  
IBM

## ASU Piloting 2-Year Associate Degrees

Arizona State University (ASU) is requesting approval from the Arizona Board of Regents to launch a new two-year Associate of Arts in professional studies degree. If approved, ASU will offer the program to three high school groups and districts in Texas, Washington, and at ASU Preparatory Academy serving low-income student populations. Tuition will match ASU's tuition in other areas, so there is no cost advantage to students and their families. Nonetheless, with ASU's name recognition and marketing influence, the offering of Associate Degrees is a threat to community colleges.<sup>16</sup>

- Online competition continues from companies and institutions that offer multiple semester start dates—many, like Coursera, offer on-demand start dates that students can complete at their own pace, presenting a threat to YC.
- State universities with large marketing budgets and unfettered territory are beginning to enter areas such as offering certificates that previously were the domain of community colleges.



### Private competitors as an alternative to traditional higher education are an increasing threat.

- CareerBuilder partnered with Cappella Education to offer a new program called Right Skill—students who are not placed in a new job within 90 days of completing the online program received a full tuition refund.
- LinkedIn Learning offers more than 16,000 courses, many of which offer a skills certificate.
- Coursera and edX are MOOCs offering free online courses by Harvard, MIT, Stanford, and more. Students can pay to earn certificates and micro-degrees.
- Companies like Google and Amazon are creating their own curriculum to meet industry needs.

### What Will Change?

In Arthur Levine's and Scott Van Pelt's book *The Great Upheaval: Higher Education's Past, Present, and Uncertain Future* they forecast five

new realities that will impact higher education's future.

1. Institutional control of higher education will decrease, and the power of higher education consumers will increase.
2. With near universal access to digital devices and the internet, students will seek from higher education the same things they are getting from the music, movie, and newspaper industries.
3. New content producers and distribution will enter the higher education marketplace, driving up institutional competition and consumer choice and driving down prices.
4. The industrial era model of higher education, focusing on time, process, and teaching, will be eclipsed by a knowledge economy successor rooted in outcomes and learning.
5. The dominance of degrees and just-in-case education will diminish; nondegree certifications, and just-in-time education will increase in status and value.



## Questions for Consideration

- 1.** Is YC delivering programs the way our students want/ need them? Should we offer more online programs? Short format courses? Bootcamps? Competency Based Learning?
- 2.** Is it time for Yavapai College to explore recruiting students beyond Yavapai County for unique online and on-ground programs?
- 3.** Should YC explore collaboration with organizations like Outlier, edX, and Coursera to leverage already developed curriculum?
- 4.** Given a shrink in traditional age students how does YC consciously decide who we are, how we are different, and what market needs we are fulfilling?
- 5.** Are there ways YC could help our HS partners recruit and retain qualified teachers?
- 6.** How can YC partner with high schools to produce high school graduates who are college-ready?
- 7.** How can YC expand the Early College initiative, where HS Jr's and Sr's come to a YC campus or center to take all college classes as they earn their HS diploma?
- 8.** Beyond YC's Hispanic outreach efforts, what other steps can be implemented to address student and faculty diversity?
- 9.** Are there other bachelor degrees that YC should be considering?



# TECHNOLOGY

## BIG DATA AND AI

Institutions' on-premises systems such as student information systems (SIS) will lag further and further behind the cloud-based technology advances in other sectors and will be unable to meet the increasingly sophisticated expectations and demands of students, staff, and leaders. The persistence of siloed data sources across functional units and departments will ensure the persistence of analytics outcomes that feel untrustworthy and ineffectual.

Global advancements in big data capabilities, including machine learning and natural language processing, will further accelerate across sectors in the years ahead, requiring new workforce skills and end-user literacies for supporting those capabilities and using those technologies. Institutions will need to make space for new kinds of leaders and professionals with specialized knowledge and skills, and data literacy training and resources will need to be developed for students and

staff. Those institutions with the needed staff and improved end-user literacy will experience more meaningful engagement with and use of their data.

Identified among Gartner's top strategic technology trends for 2022, hyper automation is "a business-driven, disciplined approach that organizations use to rapidly identify, vet, and automate as many business and IT processes as possible" through "the orchestrated use of multiple technologies, tools, or platforms."<sup>36</sup> Robotic process automation, intelligent document processing, artificial intelligence, and machine learning are some of the technologies implemented during hyper automation. By 2024, it's estimated that use of these technologies will replace almost 69 percent of the manager's workload: "AI and emerging technologies will undeniably change the role of the manager and will allow employees to extend their degree of responsibility and influence, without taking on management tasks."<sup>17</sup>

## METAVVERSE

Facebook rebranded as Meta in 2021 with a vision to create a metaverse or an immersive virtual environment that mirrors real life. Education use-cases like students (as avatars) from all over the world attending a world history course and interacting in real-time, and touring famous historical sites like the Karnak Temple in Egypt have been proffered as promises of the metaverse. While experts agree the metaverse is in our future, industry analysts say it is still at the foundational stages of reaching a consensus on its exact meaning, technology requirements, and how to ensure safety and inclusivity for participants. According to information released by chipmaking giant Intel, the metaverse is on its way—but it's going to take a lot more technology than we currently have to make it a reality, and the company plans to be at the forefront of the effort.<sup>17</sup>

According to Raja Koduri, VP of Intel's accelerated computing systems and graphics group, powering the metaverse will require a 1,000-fold improvement in our computational infrastructure. It's uncertain exactly how or when the metaverse will "arrive"; it's a process that will take place incrementally over years or decades. Koduri, though, is highly optimistic. "We believe that the dream of providing a petaflop of compute power and a petabyte of data within a millisecond of every human on the planet is within our reach."<sup>18</sup>



## TECH SALARIES

HR and IT professionals are challenged to keep up with the pace of employee turnover in their organizations. In particular, high turnover rates have led to critical shortages in key positions.

At the recent National Association of College and University Business Officers (NACUBO) conference, compensation was another topic that loomed largely. According to live polling conducted during multiple panels, most attendees did not feel confident about their institution's ability to compete for the staff needed at their college—or its strategies for attracting talent. Many named compensation as a factor and cited the competitive wage race for talent in the private sector.

Beyond the discussion at NACUBO, a new survey of college officials conducted by The Chronicle of Higher Education and Huron Consulting Group found "shallow and weak" candidate pools for openings. According to the study, 78 percent of leaders reported fewer applications for vacancies in the last year, and 82 percent said they'd received "fewer applications from qualified candidates." In a new era where employees have unprecedented power, colleges that want to keep up with the corporate world can no longer count on mission-oriented individuals sticking with higher education.<sup>19</sup>

## Questions for Consideration

1. Where does implementing cloud services fall on YC's list of priorities?
2. What emerging technologies should the College consider exploring as we look to remain competitive?
3. How can we enhance our efforts to recruit and train the next generation IT and tech professionals?



# REFERENCES

<sup>1</sup>IRS Migrations 2020, Lightcast Q2 2022 Data Set.

<sup>2</sup>Educational Attainment and Poverty. Source: U.S. Census, IPUMS USA, 2016-2020 American Community Survey 5-Year Estimates Micro Dataset

<sup>3</sup>[Arizona Department of Education Enrollment 2021-2022. https://www.azed.gov/accountability-research/data](https://www.azed.gov/accountability-research/data)

<sup>4</sup>[More Americans are questioning whether college has a positive impact. https://www.npr.org/2022/07/26/1113816868/more-americans-are-questioning-whether-college-has-a-positive-impact](https://www.npr.org/2022/07/26/1113816868/more-americans-are-questioning-whether-college-has-a-positive-impact)

<sup>5</sup>[Arizona Commerce Authority. https://www.azcommerce.com/oeo/labor-market/labor-force/](https://www.azcommerce.com/oeo/labor-market/labor-force/)

<sup>6</sup>[U.S. Bureau of Labor Statistics, Unemployment Rate in Arizona \[AZUR\], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/AZUR, October 27, 2022.](https://fred.stlouisfed.org/series/AZUR)

<sup>7</sup>[Prescotts high housing costs price many working people out of market, experts say. https://www.dcourier.com/news/2022/oct/26/prescotts-high-housing-costs-price-many-working-pe/](https://www.dcourier.com/news/2022/oct/26/prescotts-high-housing-costs-price-many-working-pe/)

<sup>8</sup>[An American Education: Amid a historic U.S. teacher shortage, a “Most Outstanding Teacher” from the Philippines tries to save a struggling school in rural Arizona, The Washington Post. https://www.washingtonpost.com/nation/2022/10/02/teacher-shortage-bull-head-city-arizona/](https://www.washingtonpost.com/nation/2022/10/02/teacher-shortage-bull-head-city-arizona/)

<sup>9</sup><https://www.act.org/content/act/en/research/reports/act-publications/condition-of-college-and-career-readiness-2019.html>

<sup>10</sup><https://www.act.org/content/dam/act/unsecured/documents/cccr-2019/Arizona-CCCR-2019.pdf>

<sup>11</sup>[Western Interstate Commission for Higher Education, Knocking at the College Door: Projections of High School Graduates, 2016. https://www.wiche.edu/key-initiatives/knocking-at-the-college-door/](https://www.wiche.edu/key-initiatives/knocking-at-the-college-door/)

<sup>12</sup>[https://www.naspa.org/images/uploads/main/Hittepole\\_NASPA\\_Memo.pdf](https://www.naspa.org/images/uploads/main/Hittepole_NASPA_Memo.pdf)

<sup>13</sup><https://www.ecampusnews.com/2022/03/28/3-trends-supporting-the-rise-of-non-traditional-students/>

<sup>14</sup><https://financesonline.com/trends-in-higher-education/>

<sup>15</sup><https://www.cyberseek.org/heatmap.html>

<sup>16</sup><https://www.azcentral.com/story/news/local/arizona-education/2022/09/17/arizona-state-university-may-start-2-year-associate-degree-program/10398588002/>

<sup>17</sup>Trends for Higher Education-Fall 2022 Trends Outside Higher Education. The Society for College and University Training.

<sup>18</sup><https://singularityhub.com/2021/12/17/the-metaverse-will-need-1000x-more-computing-power-says-intel/>

<sup>19</sup><https://www.insidehighered.com/news/2022/07/21/hiring-woes-loom-large-business-officers-conference>

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