

ENVIRONMENTAL SCAN REPORT 2021-2022

November 2021



Prescott Campus, Bldg 19, Library Commons



Verde Valley Campus, Bldg L, Skilled Trades Center

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



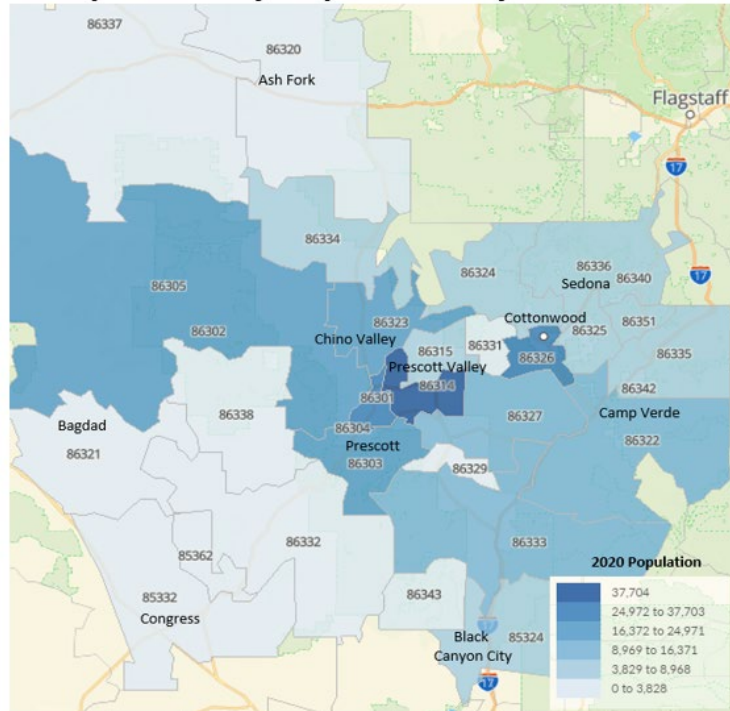
DEMOGRAPHICS

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

POPULATION

The decennial census shows Yavapai County’s 2020 population at 236,209. Yavapai County grew almost 12 percent in the past ten years, matching the growth of the state. The west county grew faster (15.1%) compared to more tepid growth in the east (4.8%) over the last decade.

Yavapai County Population by Location



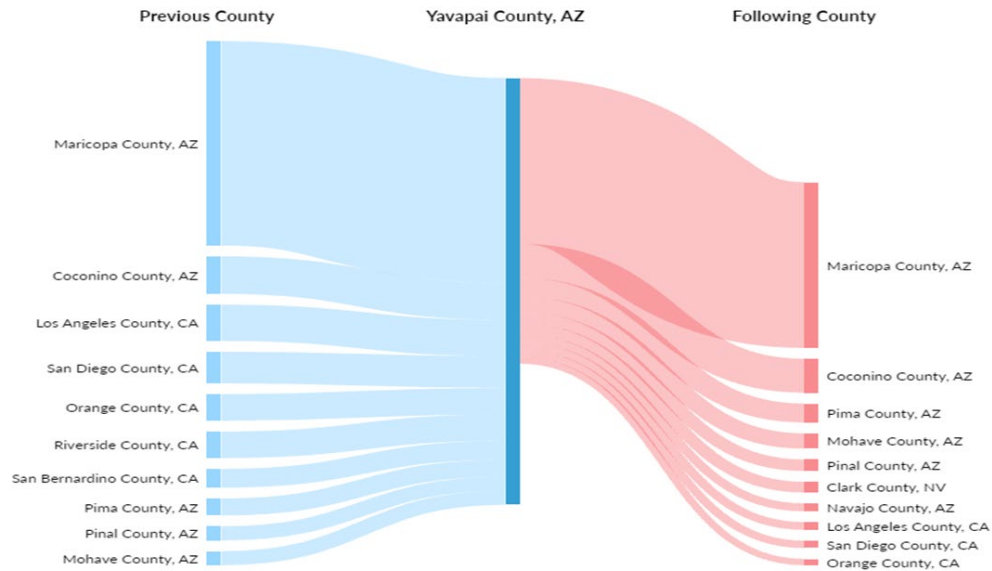
Source: EMSI

Yavapai County Sub Area Population and Net Growth

	2010	2020	Net Growth (2010-2020)	% Growth (2010-2020)
Yavapai County	211,033	236,209	25,176	11.9%
West	146,712	168,797	22,085	15.1%
East	64,321	67,412	3,091	4.8%

Source: U.S. Decennial Census 2010, 2020

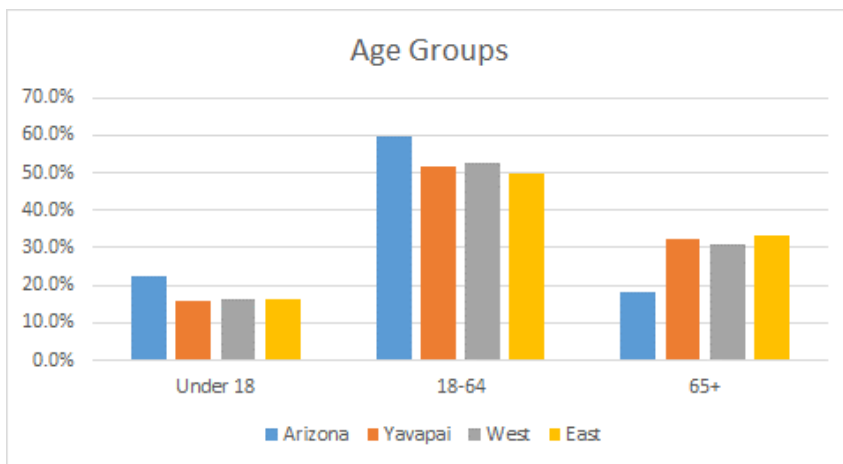
NET MIGRATION



- 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 2019, according to IRS migration data, 12,910 people moved into Yavapai County, while 9,170 moved out of the county.¹ Factors affecting out-migration include low wages, low stock and high-cost housing, and a shortage of medical services.

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. Less than half of the county’s population is prime workforce age (25-64). The west sub-county area has the largest proportion of traditional-age college students (18-24).



Source: U.S. Census, 2020; East and West estimates by IER

Most county growth since 2010 occurred in the age group 65 and over. The under 18 age group declined, while the 18-64 group grew a modest 4 percent. These age trends signal a significant shift for Yavapai College and its curriculum and program offering.

RACE AND ETHNICITY

The overwhelming majority (80%) of Yavapai County residents are White, Non-Hispanic, with a median age of 58. Hispanics make up the next largest group at 15% with a median age of 28, 50% younger than the majority race.

Yavapai County’s minority populations are appreciable younger than the White majority.

Yavapai County Race and Ethnicity

	2010	2020	Net Growth (2010-2020)	% Growth (2010-2020)
POPULATION BY RACE/ETHNICITY				
White alone	172968	183296	10,328	6.0%
Black alone	1104	1415	311	28.2%
Asian alone	1703	2802	1,099	64.5%
American Indian/Alaska Native alone	2981	3588	607	20.4%
Two or More Races	3361	9647	6,286	187.0%
Hispanic or Latino	28728	34390	5,662	19.7%
Some Other Race alone	188	1071	883	469.7%

Source: U.S. Decennial Census 2010, 2020

Yavapai College Median Age

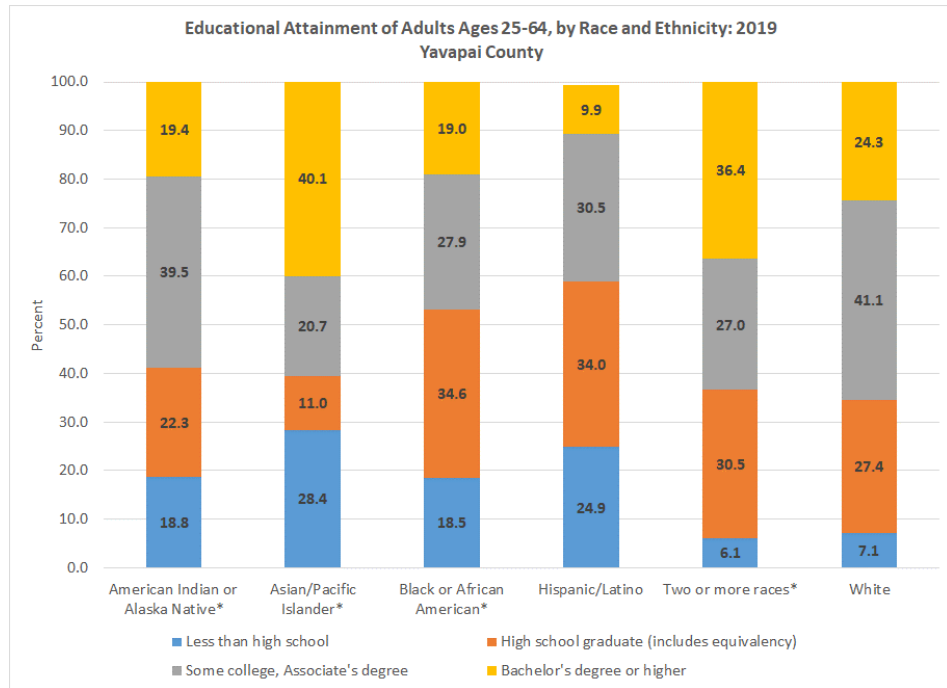
MEDIAN AGE BY ETHNICITY	
Hispanic Median Age	28.3
White Non Hispanic Median Age	57.6

Source: EASI Analytics Inc. 2020

EDUCATIONAL ATTAINMENT

Educational Attainment Workforce Population (Age 25-64)

Source: IPUMS USA, 2015-2019 American Community Survey 5-Year Estimates Micro Dataset

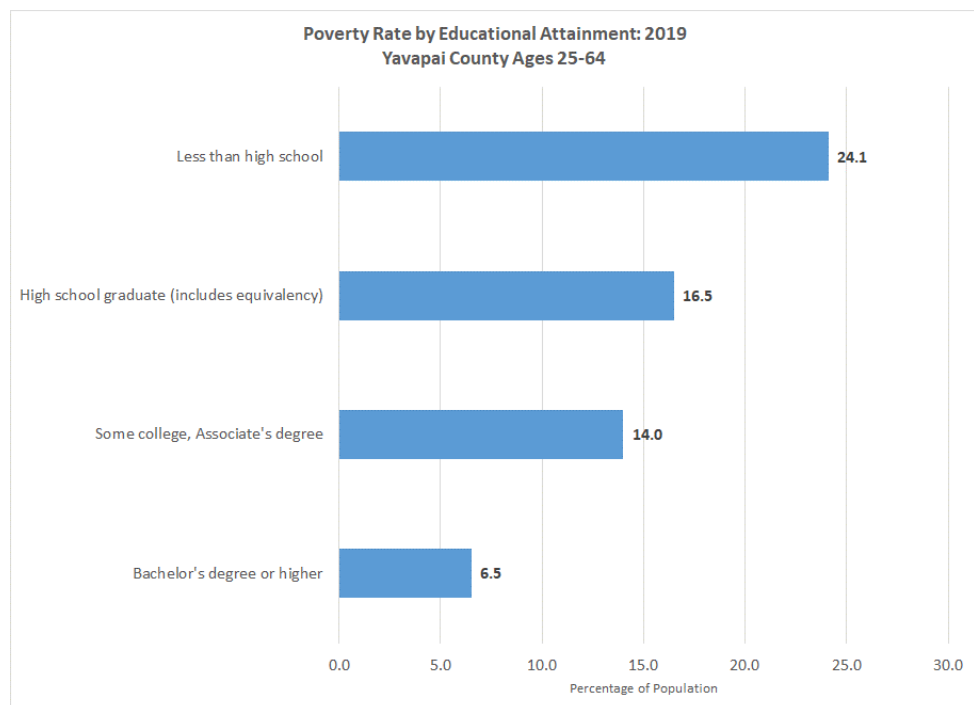


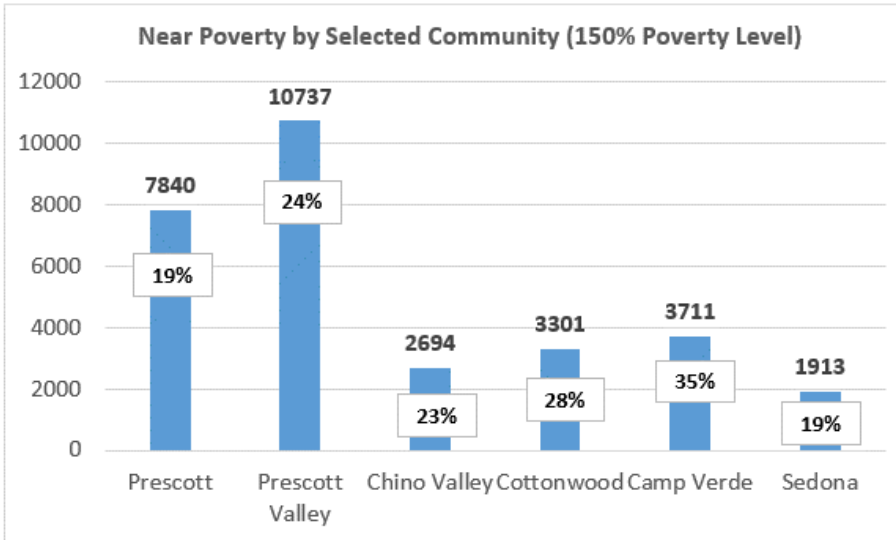
- Examining educational attainment, Hispanic residents continue to lag all other groups. This gap represents an ample opportunity to increase the education levels of Hispanic residents of Yavapai County.

POVERTY

Education and poverty.

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





Poverty Threshold

Family of 4
\$26,500

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

Source: U.S. Census Bureau, 2015-2019 American Community Survey 5-Year Estimates

Yavapai County High Schools Free and Reduced Lunch

Low	21%	Prescott High School
High	82%	Mayor High School
Average	59%	East County (1,303 students)
Average	41%	West County (2,284 students)

Source: School Food Authorities 19-20 for public high schools

Source: Arizona Department of Education 19-20 for charter high schools

- High school free and reduced lunch rates are another indicator of financial challenge. The median free/reduced lunch student percentage at Yavapai County high schools is 49%.

Questions for Consideration

1. Given our demographics, how can YC better reach and better serve the Hispanic community?
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. We know Pell covers tuition and books for those with the greatest need. How does Yavapai College address college cost barriers for community members facing financial hardships not covered by Pell?

SOCIAL AND POLITICAL

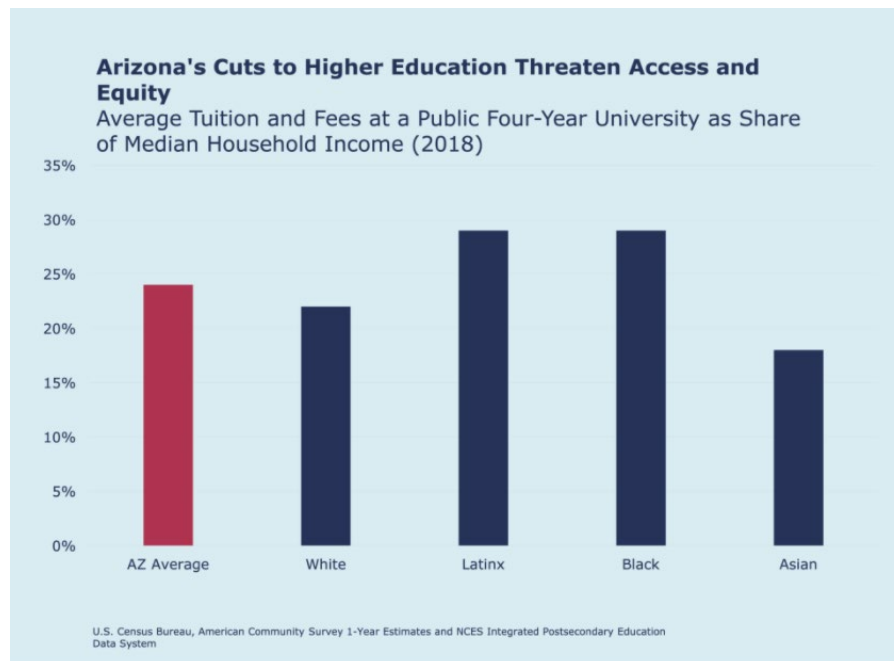
PUBLIC FUNDING FOR HIGHER EDUCATION

Institutions dependent on state and federal funding to support their students and operations must continuously adapt their resources and capabilities according to the shifting sands of political favor. Federal pandemic funds have been a life preserver for some institutions and wholly insufficient for others, and changes in political power and priorities over the next several years may have important implications for whether and to what extent institutions continue to be valued as critical for economic and community growth.

In Arizona, state support of public colleges and universities has fallen short. According to a new report from the Center on Budget and Policy Priorities, between 2008 and 2019 Arizona made more cuts to higher education funding than any other state. After adjusting for inflation, per-student funding for Arizona public colleges and universities is 54.3 percent below 2008 levels.

The state has made deep cuts to public universities and colleges, which have driven up tuition costs, making college less affordable and shifting costs from the state to students and their families. Arizona’s failure to restore funding and invest in higher education over the last decade significantly harms students of color and those with low incomes the most. Since 2008, the average tuition is up by 78 percent or \$5,224 per-student at a four-year public university in Arizona.¹²

Rising college costs place much greater burdens on families of color, who pay much more of their income for college because of longstanding discrimination in employment and wages. The average in-state net price at a public four-year college in 2018 accounted for 29 percent of the median household income for both Black and Latinx households, compared to 24 percent of the Arizona average.

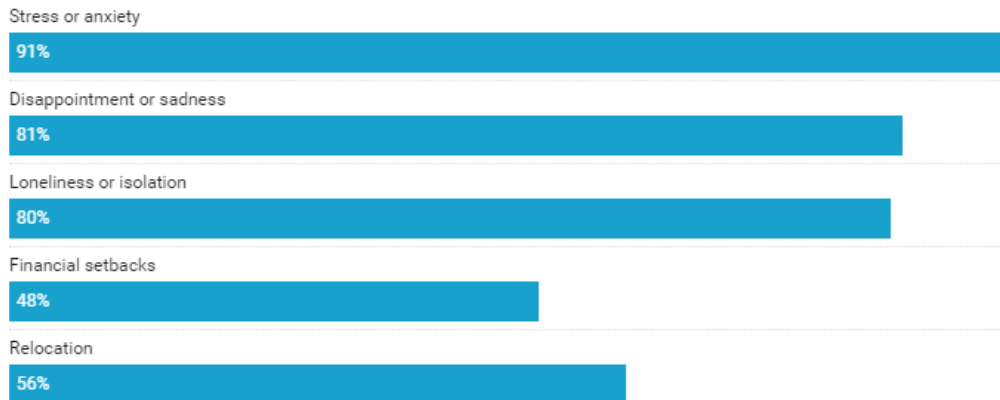


MENTAL HEALTH ISSUES

Already a recurrent concern on campuses, mental health issues have been exacerbated by recent disruptions and changes to our social, political, and educational landscapes and have presented institutions with additional challenges in ensuring the safety and well-being of students and faculty and staff. In many cases, students, faculty, and staff have experienced extended periods of time isolated from family, friends, and colleagues, and worsening economic and political conditions across many local communities have contributed to heightened feelings of worry and stress. Institutions exploring longer-term transformations to their business and/or educational models— particularly changes involving remote or virtual experiences—will also need to explore transformations to their student and employee support models to address the mental health challenges of their communities.

Covid-19's Effects on College Students

In an April 2020 survey of 2,086 college students, the vast majority indicated that Covid-19 had negatively affected their mental health.



Source: Active Minds Spring 2020 Student Survey • Get the data • Created with Datawrapper

According to an April [survey by Active Minds](#), a national mental health advocacy group, 80 percent of college students say the Covid-19 crisis has negatively affected their mental health. One-fifth say it has significantly worsened.¹³

Colleges will have to help students help themselves through this new wave of psychological distress — and they'll have to be careful about the messages they send. They'll need a nuanced approach, offering resilience strategies while recognizing students' grief.

DEMOGRAPHIC CLIFF

Birth rates in the U.S. have declined 50 percent between 1950 and today, with 2020's birth rates setting a record low. Other countries are seeing similar trends. Experts say this pattern has numerous implications. Work, for example, might have to be restructured for fewer employees, with the need for more flexibility around hours and benefits. Housing and health care will have to accommodate an aging population. Education will serve fewer learners, perhaps leading to the closing of educational institutions.

The US fertility rate is declining

In recent years, the number of births per 1,000 women of childbearing age (ages 15 to 44) in the U.S. has been decreasing.

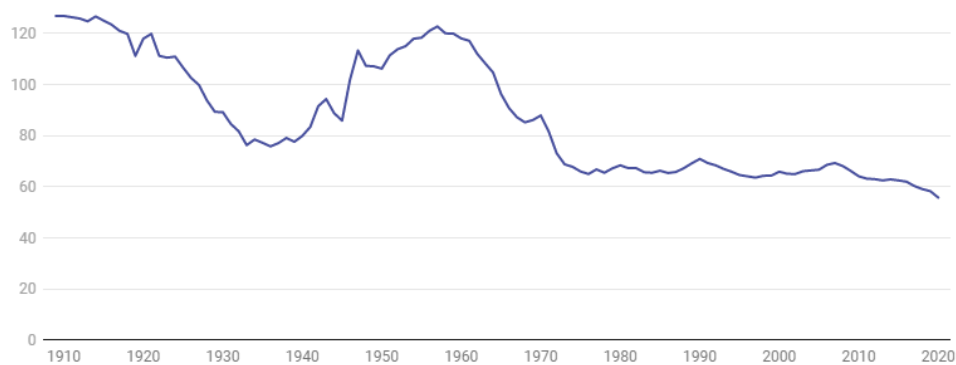


Chart: The Conversation, CC-BY-ND • Source: National Center for Health Statistics • Get the data

Fewer babies and young people and a growing older population will undoubtedly affect future generations. In the U.S., lower fertility rates translate to fewer working-age people and

possible labor shortages in many sectors of the economy. According to the [U.S. Census Bureau](#), the percentage of people age 65 and older has been growing, increasing by one-third since 2010.

Declining fertility rates are a growing concern for educators and policymakers. The so-called “demographic cliff” will inevitably lead to school closings and consolidation, and declining student recruitment and enrollment in the U.S. One projection is that there will be 10% fewer college students in 2054 than today.¹⁴



LEGISLATIVE CHANGES

Four-Year Degrees. The potential for four-year programs at Arizona community colleges became a reality in 2021 with the passing of Arizona Senate Bill 1453.

Regulatory Changes. Recent Department of Education (DOE) changes that went in to effect on July 1, 2021 have added additional requirements for program-level changes triggered by

1. A change in an existing program's method of delivery.
2. An aggregate change of 25 percent or more of the credit hours, or content of a program since the most recent accreditation review.
3. Development of customized pathways or abbreviated or modified courses or programs to:
 - Accommodate and recognize a student's existing knowledge;
 - Close competency gaps between demonstrated prior knowledge.
4. The initiation of a contractual or other arrangements wherein an institution outsources some portion of one or more of its educational programs.

While for-credit offerings have become burdensome by regulatory changes, the new legislation makes it easier and encourages institutions to partner with non-credit and industry entities.

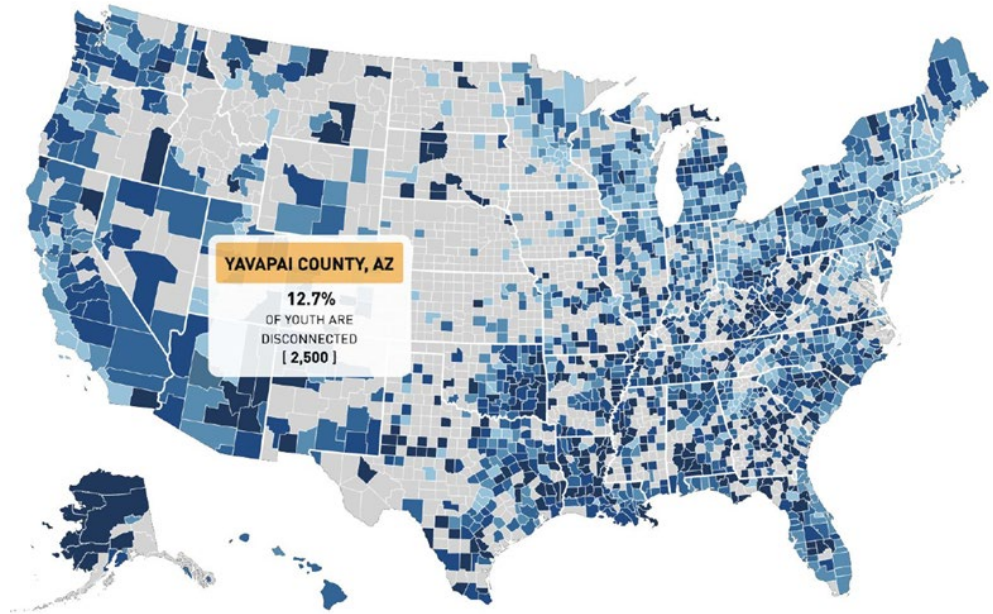
Questions for Consideration

4. How can Yavapai College help elected officials and the public at large better understand the relationship between higher education and economic development? How can we merit additional public funds whether state or local? How can we further diversify our revenue streams?
5. Beyond the CARES team and the recently implemented Single Stop services, are there other services or processes that would help students experiencing mental health issues?
6. YC has begun several initiatives to address the demographic cliff. Are there others we should consider?
7. Which four-year degrees, if any, could YC offer to support local students and local businesses?

ECONOMY AND WORKFORCE

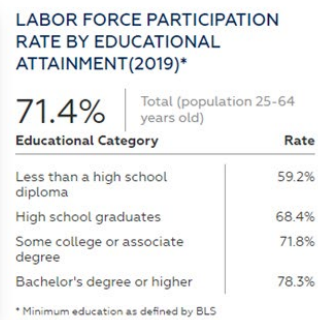
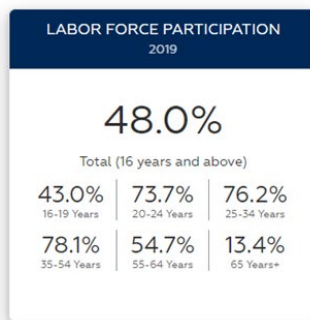
LABOR FORCE

More than 1 in 10 teenagers and young adults (16-24) in Yavapai County are referred to as disconnected; not enrolled in education or employed.² Studies have shown that disconnected youth have a disproportionate share of health and social problems including chronic unemployment, poverty, incarceration, poor health, and early mortality.



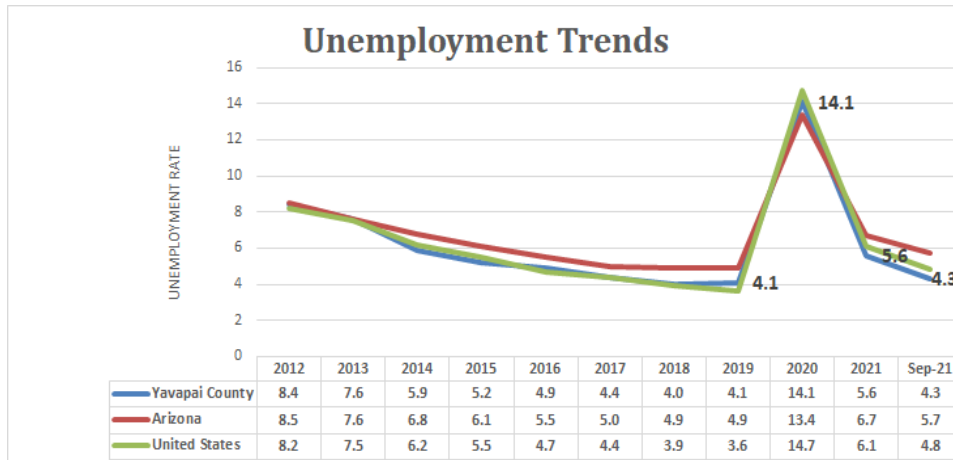
LABOR FORCE

Yavapai County



- Yavapai County's labor force participation rates by all measures are significantly lower than the state's rates. For comparison, Arizona's overall labor participation rate is 12 percentage points higher at 60%—this large difference is reflective of our aging population.³

UNEMPLOYMENT



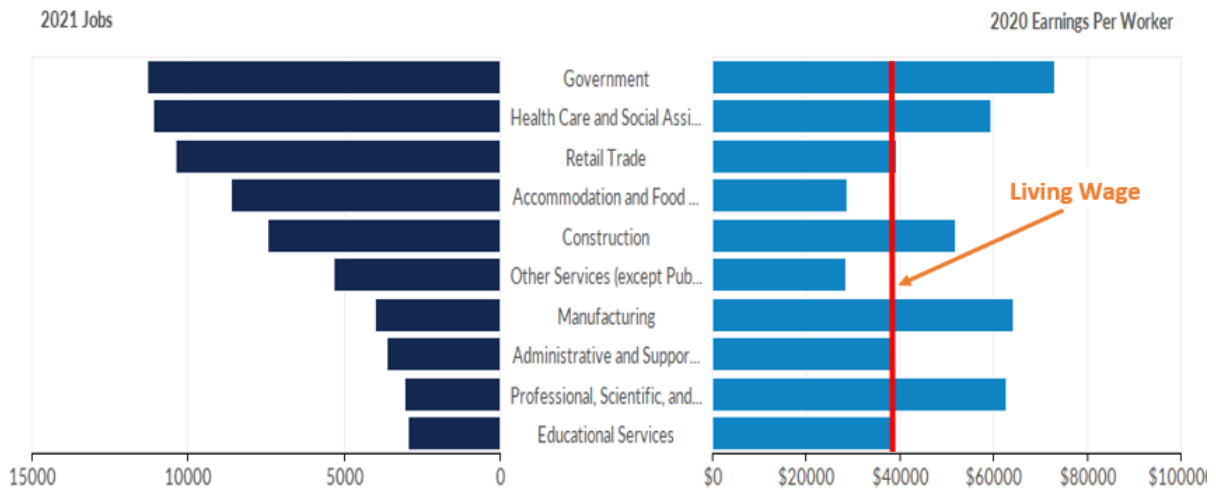
County unemployment has recovered to near pre-pandemic levels. Yavapai’s rate is lower than both the AZ and U.S. unemployment rates.⁴

- The decrease in labor force participation due to Covid-19 suggests that current unemployment rates may understate the share of residents who are out of work.

INDUSTRY ANALYSIS

Yavapai County has the greatest number of laborers in government, healthcare, retail, food and accommodation, and construction. Of these top five sectors, government, health care, and construction provide high wage earnings.

Largest Industry Sectors in Yavapai County 2021



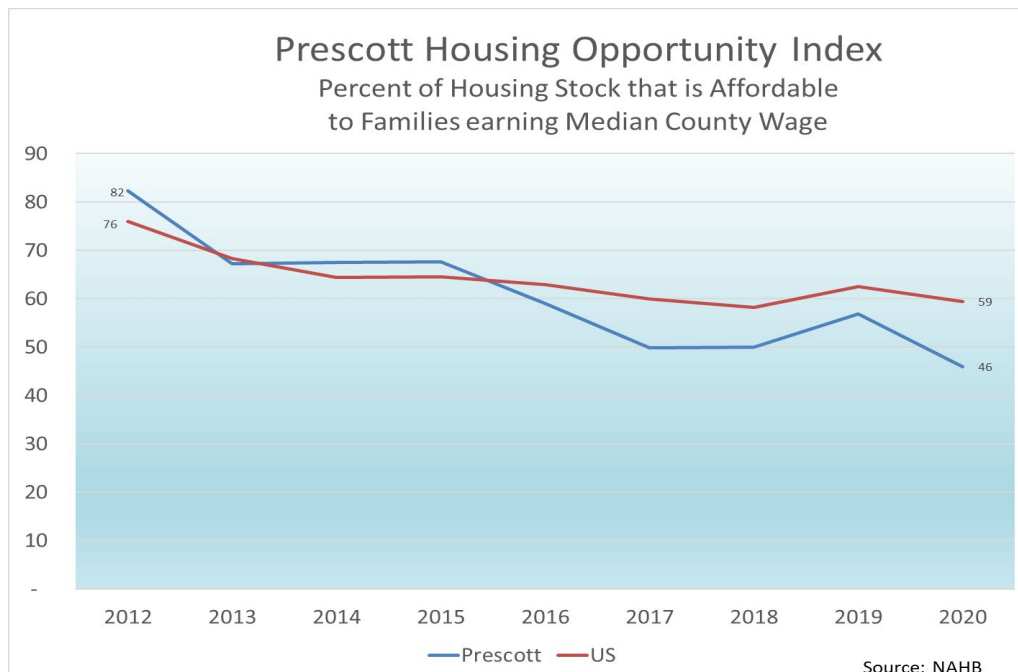
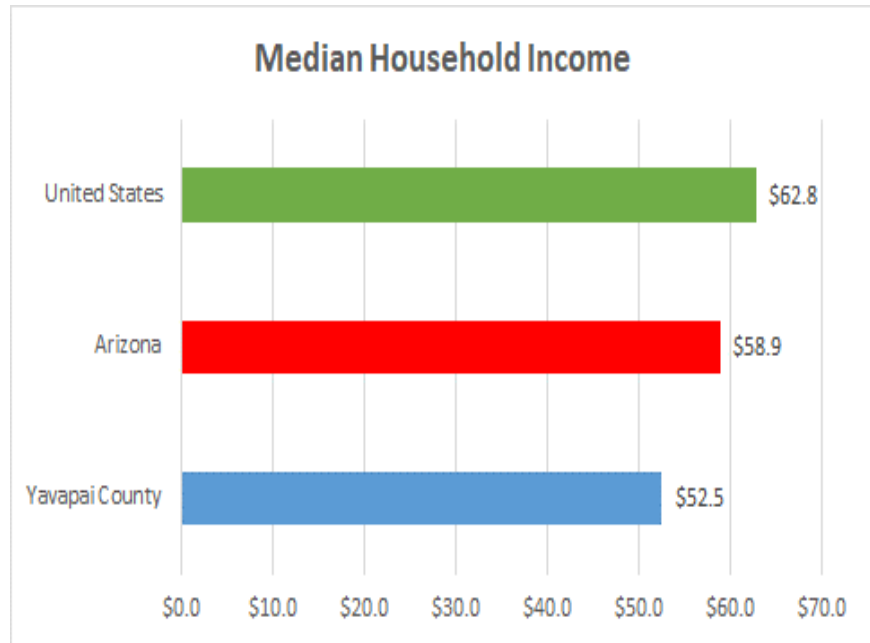
- 5 of County’s top 10 industry sectors have average earnings per worker below the living wage as calculated by the Economic Policy Institute.

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

AFFORDABILITY

Per Zillow, the typical Yavapai County home value is \$451,786, an increase of 34% over last year—and 50% higher than the national average of \$308,220.^{5,6}

Low Household Income. Yavapai County’s median household income of \$50.5 is \$6.4K below the Arizona median household income and \$10.3k 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.⁷



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.

Category	Prescott-Prescott Valley AZ	Phoenix AZ	National Average
Grocery	103.4	95.9	100
Housing	133.4	113.0	100
Utilities	93.7	106.0	100
Transportation	95.7	102.0	100
Health	96.8	88.9	100
Miscellaneous	114.1	94.0	100
Composite	113.6	101.2	100

Source: Council for Community and Economic Research, 2021 Quarter 1.

Questions for Consideration

8. Does YC have the right program mix to serve local, state and national job market? Which 4 year degrees, if any, could YC offer to support local students and local businesses?
9. How can YC help in attracting businesses and jobs in high wage industries like manufacturing and professional, scientific, and technical services?
10. How can YC address affordable housing costs in our county?

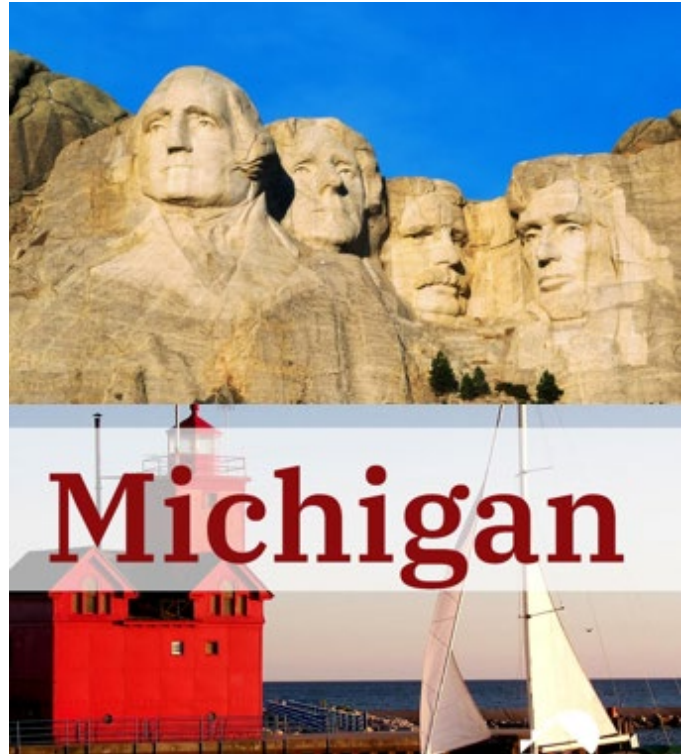
EDUCATION

K-12 EDUCATION TRENDS

There is a national teacher shortage, with many slots being filled by uncredentialed people out of necessity. Part of this has to do with financial pressures. A lack of resources creates high student-teacher ratios (which causes a stressful work environment) and inadequate pay.

Challenged K-12 System.

Attracting and retaining quality teachers is a significant challenge for state k-12 schools. Arizona’s three public universities do not graduate enough students to meet the state’s demand for K-12 teachers. Yavapai County school systems are now regularly recruiting teachers from states like South Dakota and Michigan that produce an over supply of educators. However, the availability and cost of affordable housing in the region is a deterrent for many candidates.



	Arizona Ranking
Teacher Pay*	46th
Expenditures per Student**	47th

*National Education Center's 2018-19 data, analysis business.org

**U.S. Department of Education, National Public Education Financial Survey, 2016

Teacher Pay and K-12 Funding: Arizona teacher pay remains near the bottom nationally. Despite the recent passage of Proposition 208 that raises teacher pay, Yavapai County teachers remain more than \$6,000 below the Arizona average teacher salary.⁸

Arizona’s expenditures per student also rank as one of the lowest in the nation. A challenged K-12 system presents a significant barrier to recruiting top businesses and talent to the area.

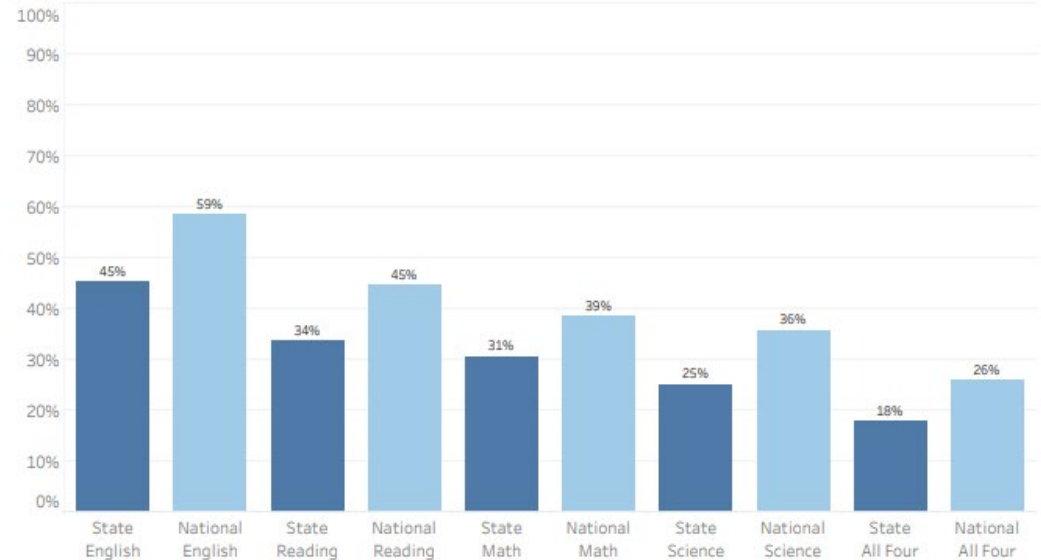
Underprepared Students.

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

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

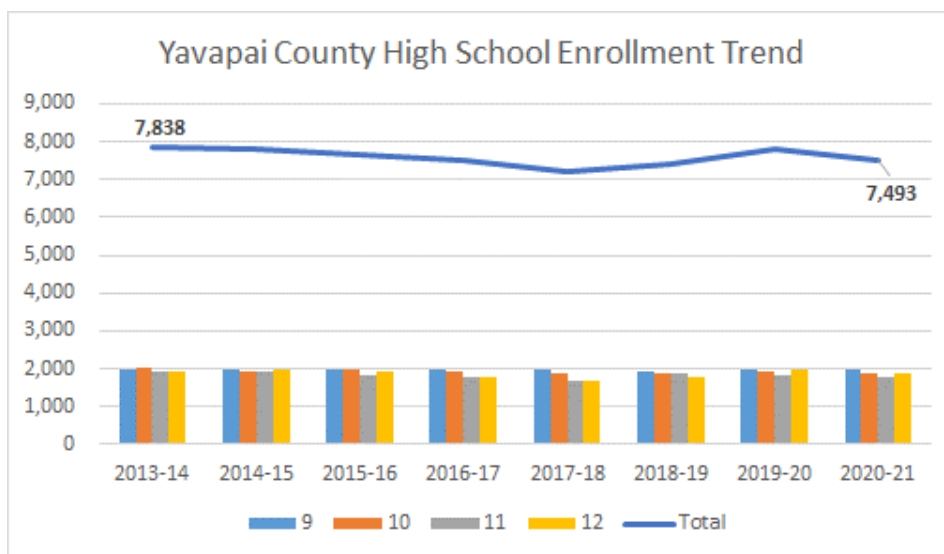
ARIZONA College and Career Readiness Attainment, Participation, and Opportunity

Percent of 2019 ACT-Tested High School Graduates Meeting ACT College Readiness Benchmarks* by Subject



Yavapai County high school enrollments continue to decline.

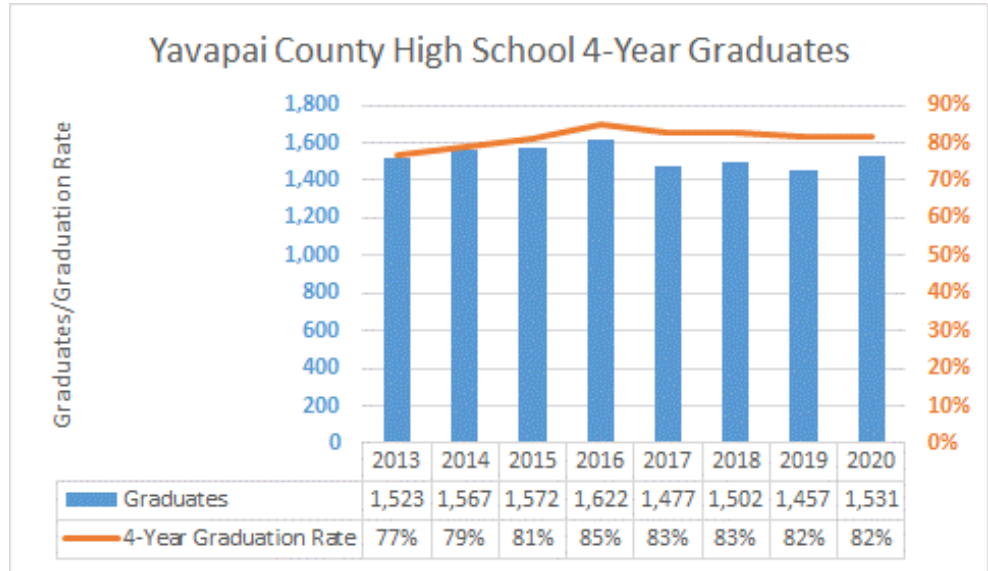
The net decline between 2014 and 2021 was 345 students. The drop represents a compound average annual enrollment drop of nearly 1 percent.



Yavapai County high school graduates.

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. The rising county high school graduation rate (82%) is encouraging and exceeds the Arizona graduation rate of 78%.

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.¹¹



COMPETITION

- Online completion, mainly from companies and institutions that offer multiple semester start dates—many, like Coursera, offer on-demand start dates that can students can complete at their own pace, presenting a threat to YC.



- The Covid-19 pandemic exasperated the growth of online learning options for students. With increased online competition, YC must develop a strategic online direction including standardization, degree pathways, multiple start dates, embedded learning materials, and course success rates on par with face-to-face courses.

- 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 are creating their own curriculum to meet industry needs.



Questions for Consideration

11. Is YC delivering programs the way our students want/ need them? Should we offer more online programs? Short format courses? Bootcamps?
12. Is it time for Yavapai College to explore recruiting students beyond Yavapai County for online and on-ground programs?
13. Should YC explore collaboration with organizations like edX and Coursera to leverage already developed curriculum?
14. 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?
15. Are there ways YC could help our HS partners recruit and retain qualified teachers?
16. How can YC partner with high schools to produce high school graduates who are college-ready?

TECHNOLOGY

REMOTE LEARNING AND WORK

The permanent shift to increased remote work has brought both new challenges and opportunities. Students, faculty, and staff have embraced online meetings and collaborative tools that make connecting to colleagues fast and convenient. The pandemic accelerated the adoption of these tools, and we have seen continued investments by market leaders to make their products stand out amongst the competition. This shift not only has technology companies in fierce competition, but it also has led to increased competition among institutions to attract and retain students while the overall student pool is shrinking. This competition is an opportunity for nimble colleges and universities to rearchitect their offerings to meet students where they are and not rely on old paradigms.

Remote work has also brought many new technological challenges, such as maintaining adequate IT security for off-site employees and ensuring that stakeholders have the necessary resources (e.g., robust broadband connectivity, modern computers) to use the services effectively. Rural areas are still struggling with the lack of sufficient and affordable broadband connections. Advances such as Starlink (<https://www.starlink.com/>) and the continued building of 5G networks is a step in the right direction to solve this issue. Yavapai County is poised to bridge some of the connectivity gaps for rural areas with its new broadband initiative.



IT SECURITY

IT security continues to be a hot topic in higher education. Challenges in securing the remote workforce, the evolving cyber-treat landscape, and the lack of qualified IT security professionals are making it harder for institutions to stay safe in the digital world. While higher education is competing with the private sector for IT security professionals, we also have the opportunity to train the next generation of these specialists. The higher education community and our government partners have made great strides in advancing our IT security posture. Unfortunately, we are battling more prevalent and sophisticated threats from criminal organizations and nation-states.^{15,16}

COST CONTROL- GLOBAL SUPPLY CHAIN



Colleges and universities are feeling the same pressures as the private sector with increased competition for IT professionals and the inability to acquire hardware components due to global supply chain issues. Also, prices for software and cloud services continue to rise as vendors deal with worker shortages and the need to appease shareholders.¹⁷

DIGITAL TRANSFORMATION (DX)

Colleges and universities are embracing the use of data and technology to transform their institutions. They are asking¹⁸:

- How can we use technology to enhance education by utilizing creative new pedagogic strategies to reach and support more students?
- How can we use data to improve the student experience, retention, faculty teaching and advising, course performance, and students' time to completion?
- How can we utilize new technology to streamline our operations and improve our business processes?

Questions for Consideration

17. How will we maintain a robust on-campus experience while creating a robust on-line learning experience that many potential students desire?
18. What Dx projects should the College consider tackling as we look to remain competitive and offer excellent educational opportunities?
19. How can we enhance our efforts to recruit and train the next generation IT professionals?

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⁷Yavapai County Economic Overview, EMSI Q3 2021 Data Set.

⁸Superintendent's Report: Despite failed override, Prescott teachers and students will shine. <https://www.dcourier.com/news/2020/nov/10/howard-despite-failed-override-prescott-teachers-a/>

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¹⁴<https://theconversation.com/expanding-opportunities-for-women-and-economic-uncertainty-are-both-factors-in-declining-us-fertility-rates-162494>

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¹⁸<https://www.educause.edu/showcase-series/how-dx-powers-the-post-pandemic-institution>