



# The Economic Value of Yavapai College



**Y**AVAPAI COLLEGE (YC) creates value in many ways. The college plays a key role in helping students increase their employability and achieve their individual potential. The college draws students to the county, generating new dollars and opportunities for Yavapai County. YC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, YC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

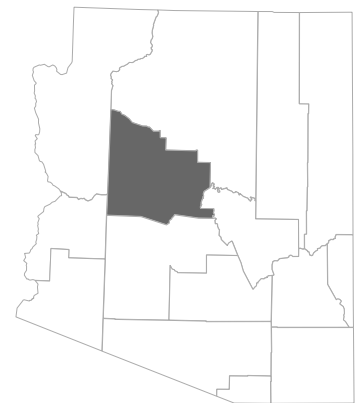
YC influences both the lives of its students and the county economy. The college supports a variety of industries in Yavapai County, serves county businesses, and benefits society as a whole in Arizona from an expanded economy and improved quality of life. Additionally, the benefits created by YC extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by YC on the business community and the benefits the college generates in return for the investments made by its key stakeholder groups—students, taxpayers, and society. The following two analyses are presented:

 **Economic impact analysis**

 **Investment analysis**

All results reflect employee, student, and financial data, provided by the college, for fiscal year (FY) 2021-22. Impacts on the Yavapai County economy are reported under the economic impact analysis and are measured in terms of added income. The returns on investment to students, taxpayers, and society in Arizona are reported under the investment analysis.



Yavapai County, Arizona

YC influences both the **lives of its students** and the **county economy**.



# Economic impact analysis



YC promotes economic growth in Yavapai County through its direct expenditures and the resulting expenditures of students and county businesses. The college serves as an employer and buyer of goods and services for its day-to-day and construction operations. The college's activities attract students from outside Yavapai County, whose expenditures benefit county vendors. In addition, YC is a primary source of higher education to Yavapai County residents and a supplier of trained workers to county industries, enhancing overall productivity in the county workforce.

## Operations spending impact



YC adds economic value to Yavapai County as an employer of county residents and a large-scale buyer of goods and services. In FY 2021-22, the college employed 696 full-time and part-time faculty and staff, 87% of whom lived in Yavapai County. Total payroll at YC was \$43.8 million, much of which was spent in the county for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the college spent \$24.4 million on day-to-day expenses related to facilities, supplies, and professional services (excluding construction expenditures).

YC's day-to-day operations spending added \$43.0 million in income to the county during the analysis year. This figure represents the college's payroll, the multiplier effects generated by the in-county spending of the college and its employees, and a downward adjustment to account for funding that the college received from county sources. The \$43.0 million in added income is equivalent to supporting 685 jobs in the county.

## Construction spending impact



YC invests in construction each year to maintain its facilities, create additional capacities, and meet its growing educational demands. While the amount varies from year to year, these quick infusions of income and jobs have a substantial impact on the county economy. In FY 2021-22, YC's construction spending generated \$1.3 million in added income, which is equivalent to supporting 24 jobs.

## Student spending impact



Around 5% of credit students attending YC originated from outside the county in FY 2021-22, and most of these students relocated to Yavapai County to attend YC. These students may not have come to the county if the college did not exist. In addition, some in-county students, referred to as retained students, would

### Impacts created by YC in FY 2021-22



Operations spending impact

**\$43.0 million**

+



Construction spending impact

**\$1.3 million**

+



Student spending impact

**\$10.2 million**

+



Alumni impact

**\$149.2 million**



Total economic impact

**\$203.7 million**

OR

Jobs supported

**3,315**



have left Yavapai County if not for the existence of YC. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$10.2 million in added income for the county economy in FY 2021-22, which supported 177 jobs in Yavapai County.

## Alumni impact



The education and training YC provides for county residents has the greatest impact. Since the establishment of the college, students have studied at YC and entered the county workforce with greater knowledge and new skills. Today, thousands of former YC students are employed in Yavapai County. As a result of their education from YC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2021-22, YC alumni generated \$149.2 million in added income for the county economy, which is equivalent to supporting 2,428 jobs.

## Total impact

YC added \$203.7 million in income to the Yavapai County economy during the analysis year, equal to the sum of the operations and construction spending impacts; the student spending impact; and the alumni impact. For context, the \$203.7 million impact was equal to approximately 2.2% of the total gross regional product (GRP) of Yavapai County. This contribution that the college provided on its own is larger than the entire Transportation & Warehousing industry in the county.

YC's total impact can also be expressed in terms of jobs supported. The \$203.7 million impact supported 3,315 county jobs, using the jobs-to-sales ratios specific to each industry in the county. This means that one out of every 33 jobs in Yavapai County is supported by the activities of YC and its students. In addition, the \$203.7 million, or 3,315 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of YC and its students and the activities of its alumni in the Retail Trade industry sector supported 416 jobs in FY 2021-22. If the college did not exist, these impacts would not have been generated in Yavapai County.

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### YC impacts by industry (jobs supported)




# Investment analysis



An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. The analysis presented here evaluates YC as an investment from the perspectives of students, taxpayers, and society in Arizona.

## Student perspective

 In FY 2021-22, YC served 9,713 credit and 3,474 non-credit students. In order to attend the college, the students paid for tuition, fees, books, and supplies. They also took out loans and will incur interest on those loans. Additionally, students gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by YC's students in FY 2021-22 amounted to a present value of \$17.7 million, equal to \$9.9 million in out-of-pocket expenses (including future principal and interest on student loans) and \$7.8 million in forgone time and money.

In return for their investment, YC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average YC associate degree graduate from FY 2021-22 will see annual earnings that are \$6,900 higher than a person with a high school diploma or equivalent working in Arizona. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$269.1 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that YC's FY 2021-22 students will receive over their working careers is \$137.2 million.

The students' benefit-cost ratio is 7.8. In other words, for every dollar students invest in YC in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$7.80 in higher future earnings. Annually, the students' investment in YC has an average annual internal rate of return of 29.9%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.6%.

### Students see a high rate of return for their investment in YC



Average annual return for YC students  
**29.9%**



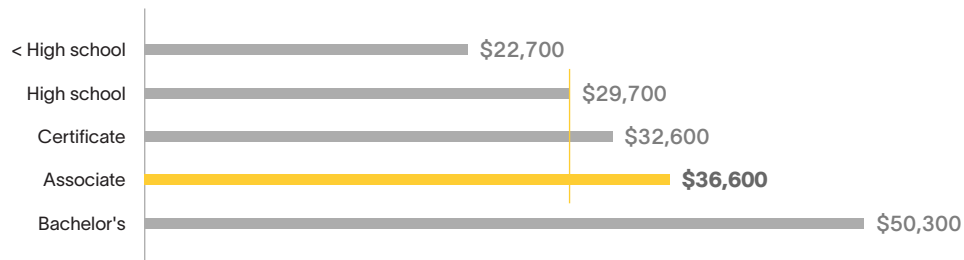
Stock market 30-year average annual return  
**9.6%**



Interest earned on savings account (national deposit rate)  
**0.4%**

Source: Forbes' S&P 500, 1992-2021. FDIC.gov, 2-2022.

The average associate degree graduate from YC will see an increase in earnings of **\$6,900** each year compared to a person with a high school diploma or equivalent working in Arizona.



Source: Lightcast employment data.

## Taxpayer perspective



YC generates substantial benefits for taxpayers. These benefits to taxpayers consist primarily of taxes that the state and local government will collect from the added revenue created in the state. As YC students will earn more, they will make higher tax payments throughout their working lives. Students' employers will also make higher tax payments as they increase their output and purchases of goods and services. By the end of the FY 2021-22 students' working lives, the state and local government will have collected a present value of \$36.0 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of YC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that YC students receive will generate savings in three main categories: 1) healthcare, 2) justice system, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, costs related to the justice system will decrease. YC students will be more employable, so their reduced demand for income assistance such as welfare and unemployment benefits will benefit taxpayers. For a list of study references, contact the college for a copy of the main report. Altogether, the present value of the benefits associated with an education from YC will generate \$3.9 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$39.9 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$57.5 million, equal to the amount of state and local government funding YC received in FY 2021-22.

Total taxpayer benefits amount to **\$39.9 million**, the present value sum of the added tax revenues and public sector savings.

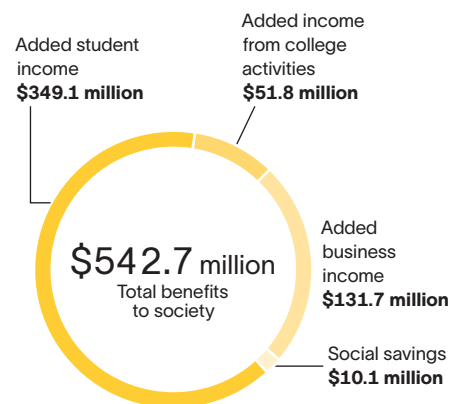
## Social perspective



Society as a whole in Arizona benefits from the presence of YC in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business output (added business income), which raise economic prosperity in Arizona.

Benefits to society also consist of the savings generated by the improved lifestyles of YC students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are distinct from the costs avoided by the taxpayers outlined above. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, obesity, drug abuse, and depression. Justice system savings include avoided costs to the government and society due to less judicial activity. Income assistance savings include reduced welfare and unemployment claims. For a list of study references, contact the college for a copy of the main report.

### Social benefits in Arizona from YC



Source: Lightcast impact model.

Altogether, the social benefits of YC equal a present value of \$542.7 million. These benefits include \$349.1 million in added student income, \$131.7 million in added business income, \$51.8 million in added income from college activities, as well as \$10.1 million in social savings related to health, the justice system, and income assistance in Arizona. People in Arizona invested a present value total of \$83.9 million in YC in FY 2021-22. The cost includes all the college and student costs.

The benefit-cost ratio for society is 6.5, equal to the \$542.7 million in benefits divided by the \$83.9 million in costs. In other words, for every dollar invested in YC, people in Arizona will receive a cumulative value of \$6.50 in benefits. The benefits of this investment will occur for as long as YC's FY 2021-22 students remain employed in the state workforce.

### Summary of investment analysis results

The results of the analysis demonstrate that YC is a strong investment for students and society. As shown, students receive a great return for their investments in a YC education. From the taxpayers' perspective, the benefits generated by the college and its students recover a significant portion of the costs borne by taxpayers and create a wide range of social benefits throughout Arizona.



Student perspective	
Present value benefits <b>\$137.2 million</b>	
Present value costs <b>\$17.7 million</b>	
Net present value <b>\$119.5 million</b>	
Benefit-cost ratio	Rate of return
7.8	29.9%



Taxpayer perspective
Present value benefits <b>\$39.9 million</b>



Social perspective	
Present value benefits <b>\$542.7 million</b>	
Present value costs <b>\$83.9 million</b>	
Net present value <b>\$458.8 million</b>	
Benefit-cost ratio	Rate of return
6.5	n/a*

\* The rate of return is not reported for the social perspective because the beneficiaries are not necessarily the same as the original investors.

# Conclusion

The results of this study demonstrate that YC creates value from multiple perspectives. The college benefits county businesses by increasing consumer spending in the county and supplying a steady flow of qualified, trained workers to the workforce. YC enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The college benefits state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, YC benefits society as a whole in Arizona by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students.



## About the study

Data and assumptions used in the study are based on several sources, including the FY 2021-22 academic and financial reports from YC, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Lightcast's Multi-Regional Social Accounting Matrix model, and a variety of studies and surveys relating education to social behavior. The study applies a conservative methodology and follows standard practice using only the most recognized indicators of economic impact and investment effectiveness. For a full description of the data and approach used in the study, please contact the college for a copy of the main report.

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Lightcast provides colleges and universities with labor market data that help create better outcomes for students, businesses, and communities. Our data, which cover more than 99% of the U.S. workforce, are compiled from a wide variety of government sources, job postings, and online profiles and résumés. Hundreds of institutions use Lightcast to align programs with regional needs, drive enrollment, connect students with in-demand careers, track their alumni's employment outcomes, and demonstrate their institution's economic impact on their region. Visit [lightcast.io/solutions/education](https://lightcast.io/solutions/education) to learn more or connect with us.

