CUYAMACA
·COLLEGE·

Executive Summary

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The Economic Value of Career and Technical Education at Cuyamaca College



Reflects FY 2023-24

Lightcast



CAREER AND TECHNICAL EDUCATION[1] (CTE) at Cuyamaca College creates value in many ways. The college plays a key role in helping CTE students increase their employability and achieve their individual potential. The college draws students to the county, generating new dollars and opportunities for San Diego County. Cuyamaca College's CTE provides students with the training and skills they need to have fulfilling and prosperous careers. Furthermore, Cuyamaca College is a place for CTE students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

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



San Diego County, California

Cuyamaca College's CTE influences both the **lives of its students** and the **county economy**.

Economic impact analysis

Investment analysis

All results reflect employee, student, and financial data, provided by the college, for fiscal year (FY) 2023-24. Impacts on the San Diego 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 California are reported under the investment analysis.

1 Career and Technical Education (CTE) is defined at the course level and includes courses coded A-C (Apprenticeship, Advanced Occupational, and Clearly Occupational).

Economic impact analysis

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

Operations spending impact

Cuyamaca College's CTE adds economic value to San Diego County as an employer of county residents and a large-scale buyer of goods and services. In FY 2023-24, the college employed 446 full-time and part-time CTE faculty and staff, 99% of whom lived in San Diego County.[2] Total payroll at Cuyamaca College was $18.6 million, much of which was spent in the county on groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the college's CTE spent $11.6 million on expenses related to facilities, supplies, and professional services (excluding construction).[3]

Cuyamaca College's CTE operations spending added **$26.8 million** in income to the county during the analysis year. This figure represents the college's CTE payroll, the multiplier effects generated by the in-county spending of the college's CTE and its employees, and a downward adjustment to account for funding received from county sources. The $26.8 million in added income is equivalent to supporting **481 jobs** in the county.

Construction spending impact

Cuyamaca College invests in capital projects each year to maintain its CTE facilities, create additional capacities, and meet growing educational demands.[4] 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 2023-24, Cuyamaca College's CTE-related construction spending generated **$9.9 million** in added income, which is equivalent to supporting **90 jobs**.

Impacts created by Cuyamaca College's CTE in FY 2023-24

Operations spending impact
$26.8 million

+

Construction spending impact
$9.9 million

+

Student spending impact
$32.1 million

+

Alumni impact
$128.5 million

Total economic impact
$197.4 million

OR

Jobs supported
2,165

2 Due to data limitations, the number of faculty and staff was estimated using a proportion based on CTE credits.

3 Due to data limitations, revenue and expenditure data were estimated using a proportion based on CTE credits.

4 Due to data limitations, construction expenditure data were estimated using a proportion based on CTE credits.

Student spending impact

Around 20% of CTE students attending Cuyamaca College originated from outside the county in FY 2023-24, and nearly all of these students relocated to San Diego County to attend Cuyamaca College. These students may not have come to the county if the college's CTE did not exist. In addition, some in-county CTE students, referred to as retained students, would have left San Diego County if not for the existence of Cuyamaca College's CTE. While attending the college, these relocated and retained CTE students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated **$32.1 million** in added income for the county economy in FY 2023-24, which supported **420 jobs** in San Diego County.

Alumni impact

The education and training Cuyamaca College's CTE provides for county residents has the greatest impact. Since the establishment, students have studied at Cuyamaca College's CTE and entered the county workforce with greater knowledge and new skills. Today, many of Cuyamaca College's former CTE students are employed in San Diego County. As a result of their education from Cuyamaca College's CTE, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2023-24, Cuyamaca College's CTE alumni generated **$128.5 million** in added income for the county economy, which is equivalent to supporting **1,174 jobs**.

Total impact

Cuyamaca College's CTE added **$197.4 million** in income to the San Diego 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.

Cuyamaca College's CTE total impact can also be expressed in terms of jobs supported. The $197.4 million impact supported **2,165 county jobs**, using the jobs-to-sales ratios specific to each industry in the county. In addition, the $197.4 million, or 2,165 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of Cuyamaca College's CTE and its students and the activities of its alumni in the Health Care & Social Assistance industry sector supported 204 jobs in FY 2023-24. If the college's CTE did not exist, these impacts would not have been generated in San Diego County.

Cuyamaca College's CTE impact by industry (jobs supported)



The **$197.4 million** total impact supported **2,165 county jobs**.

Investment analysis

An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. The analysis presented here evaluates Cuyamaca College's CTE as an investment from the perspectives of students, taxpayers, and society in California. As with the economic impact analysis, this analysis considers only FY 2023-24 activities.

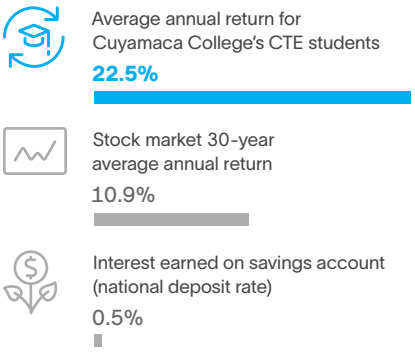
Student perspective

In FY 2023-24, Cuyamaca College served 5,365 CTE students. CTE 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 Cuyamaca College's CTE students in FY 2023-24 amounted to a present value of $21.0 million, equal to $4.3 million in out-of-pocket expenses (including future principal and interest on student loans) and $16.7 million in forgone time and money.

In return for their investment, Cuyamaca College's CTE students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average Cuyamaca College CTE associate degree graduate from FY 2023-24 will see annual earnings that are $10,100 higher than a person with a high school diploma or equivalent working in California. Over a working lifetime, the benefits of an associate degree over a high school diploma will amount to an undiscounted value of $383,800 in higher earnings per graduate. The present value of the cumulative higher future earnings that Cuyamaca College's FY 2023-24 CTE students will receive over their working careers is $153.6 million.

The CTE students' benefit-cost ratio is 7.3. In other words, for every dollar CTE students invest in Cuyamaca College in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of $7.30 in higher future earnings. Annually, the CTE students' investment in Cuyamaca College has an average annual internal rate of return of 22.5%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.9%.

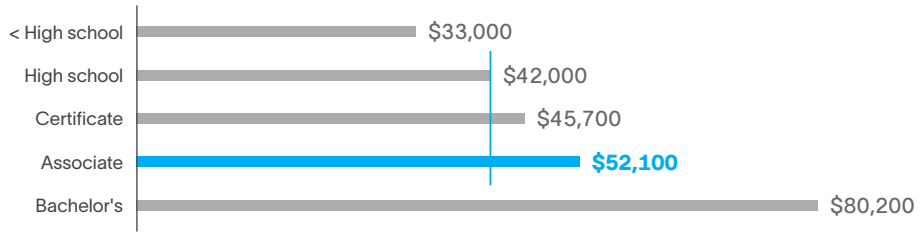
CTE students see a high rate of return for their investment in Cuyamaca College



Source: Forbes' S&P 500, 1994-2025; FDIC.gov, January 2024

Average earnings by education level at career midpoint

The average CTE associate degree graduate from Cuyamaca College will see an increase in earnings of **$10,100** each year compared to a person with a high school diploma or equivalent working in California.



Source: Lightcast employment data

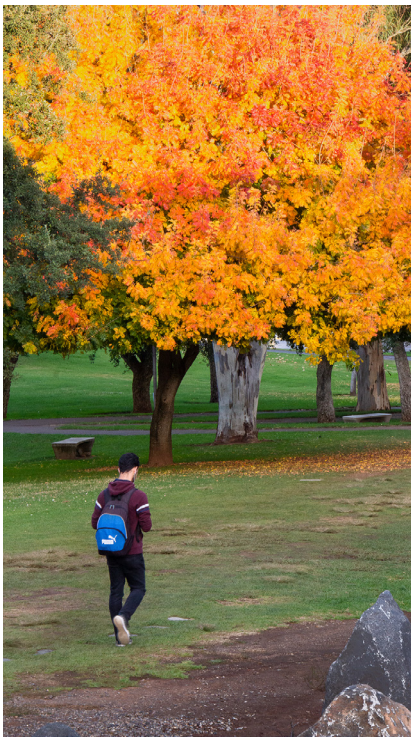
Taxpayer perspective

Cuyamaca College's CTE generates more in tax revenue than it receives. 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 Cuyamaca College's CTE 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 2023-24 CTE students' working lives, the state and local government will have collected a present value of $53.4 million in added taxes.

> For every dollar of public money invested in Cuyamaca College's CTE, taxpayers will receive a cumulative value of **$1.70** over the course of the students' working lives.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of Cuyamaca College's CTE students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that Cuyamaca College's CTE students receive will generate savings in three main categories: 1) health care, 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. Cuyamaca College's CTE students will be more employable, so their reduced demand for income assistance such as welfare and unemployment benefits will benefit taxpayers.[5] Altogether, the present value of the benefits associated with an education from Cuyamaca College's CTE will generate $9.7 million in savings to state and local taxpayers.

Total taxpayer benefits amount to $63.1 million, the present value sum of the added tax revenue and public sector savings. Taxpayer costs are $37.0 million, equal to the amount of state and local government funding Cuyamaca College's CTE received in FY 2023-24. These benefits and costs yield a benefit-cost ratio of 1.7. This means that for every dollar of public money invested in Cuyamaca College's CTE in FY 2023-24, taxpayers will receive a cumulative present value of $1.70 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 4.2%, which compares favorably to other long-term investments in the public sector.



Social perspective

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

Benefits to society also consist of the savings generated by the improved lifestyles of Cuyamaca College's CTE students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings.

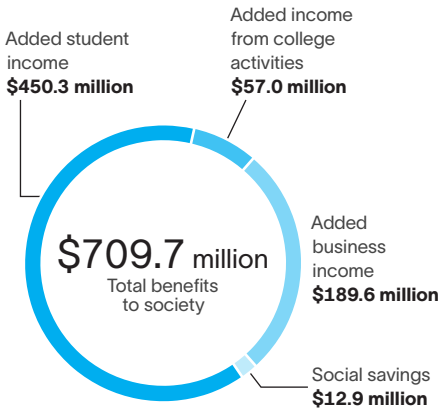
5 For a list of study references, contact the San Diego & Imperial Regional Consortium for a copy of the main report completed for the community colleges in San Diego County.

Note that these costs are avoided by the consumers but are distinct from the costs avoided by the taxpayers outlined above. Health care savings include avoided medical costs associated with smoking, obesity, substance 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.

Altogether, the social benefits of Cuyamaca College's CTE equal a present value of $709.7 million. These benefits include $450.3 million in added student income, $189.6 million in added business income, $57.0 million in added income from college CTE activities, as well as $12.9 million in social savings related to health, the justice system, and income assistance in California. People in California invested a present value total of $67.0 million in Cuyamaca College's CTE in FY 2023-24. The cost includes all the college's CTE expenditures and student costs.

The benefit-cost ratio for society is 10.6, equal to the $709.7 million in benefits divided by the $67.0 million in costs. In other words, for every dollar invested in Cuyamaca College's CTE, people in California will receive a cumulative value of $10.6 in benefits. The benefits of this investment will occur for as long as Cuyamaca College's FY 2023-24 CTE students remain employed in the state workforce.

Social benefits in California from Cuyamaca College's CTE



Source: Lightcast impact model

Summary of investment analysis results

The results of the analysis demonstrate that Cuyamaca College's CTE is a strong investment for all three major stakeholder groups—students, taxpayers, and society. As shown, CTE students receive a great return for their investments in an education from Cuyamaca College. At the same time, taxpayers' investment in Cuyamaca College's CTE returns more to government budgets than it costs and creates a wide range of social benefits throughout California.

Summary of investment analysis results

Student perspective		Taxpayer perspective		Social perspective	
Present value benefits	$153.6 million	Present value benefits	$63.1 million	Present value benefits	$709.7 million
Present value costs	$21.0 million	Present value costs	$37.0 million	Present value costs	$67.0 million
Net present value	$132.6 million	Net present value	$26.1 million	Net present value	$642.7 million
Benefit-cost ratio	7.3	Benefit-cost ratio	1.7	Benefit-cost ratio	10.6
Rate of return	22.5%	Rate of return	4.2%	Rate of return	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 Cuyamaca College's CTE creates value from ***multiple perspectives****.*

The college's CTE benefits businesses in the county by increasing consumer spending in the county and supplying a steady flow of qualified, trained workers to the workforce. Cuyamaca College's CTE 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, Cuyamaca College's CTE benefits society as a whole in California 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 2023-24 academic and financial reports from Cuyamaca College, 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 San Diego & Imperial Regional Consortium for a copy of the main report completed for the community colleges in San Diego County.

Lightcast

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