



SANTA ANA COLLEGE

School of Continuing Education

Analysis of the Economic Impact and Return on Investment of Education

THE **ECONOMIC VALUE** OF THE

CENTENNIAL EDUCATION CENTER

October 2019



Executive summary

The Centennial Education Center (CEC) creates value in many ways. The center plays a key role in helping students increase their employability and achieve their individual potential. The center draws students to the city, generating new dollars and opportunities for the City of Santa Ana.* The CEC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, the CEC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

The CEC influences both the lives of its students and the local economy. The center supports a variety of industries in the City of Santa Ana, serves local businesses, and benefits society as a whole in California from an expanded economy and improved quality of life. The benefits created by the CEC even extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by the CEC on the business community and the benefits the center 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 Rancho Santiago Community College District (RSCCD) for fiscal year (FY) 2018-19. Impacts on the City of Santa Ana 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.

* The City of Santa Ana consists of the following zip codes: 92701, 92702, 92703, 92704, 92705, 92706, 92707, 92708, 92711, 92728, 92735, and 92799.



Economic impact analysis

The CEC promotes economic growth in the City of Santa Ana through its direct expenditures and the resulting expenditures of students and local businesses. The center serves as an employer and buyer of goods and services for its day-to-day operations. The center’s activities attract students from outside the City of Santa Ana, whose expenditures benefit local vendors. In addition, the CEC is a source of higher education to the City of Santa Ana residents and a supplier of trained workers to local industries, enhancing overall productivity in the local workforce.

OPERATIONS SPENDING IMPACT

The CEC adds economic value to the City of Santa Ana as an employer of local residents and a large-scale buyer of goods and services. In FY 2018-19, the center employed 319 full-time and part-time faculty and staff, 19% of whom lived in the City of Santa Ana. Total payroll at the CEC was \$12.5 million, much of which was spent in the city for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the center spent \$846.8 thousand on day-to-day expenses related to facilities, supplies, and professional services.

The CEC’s day-to-day operations spending added \$13.3 million in income to the city during the analysis year. This figure represents the center’s payroll, the multiplier effects generated by the in-city spending of the center and its employees, and a downward adjustment to account for funding that the center received from local sources. The \$13.3 million in added income is equivalent to supporting 324 jobs in the city.

STUDENT SPENDING IMPACT

Some in-city students, referred to as retained students, would have left the City of Santa Ana if not for the existence of the CEC. While attending the center, these retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$2.7 million in added income for the local economy in FY 2018-19, which supported 48 jobs in the City of Santa Ana.

IMPACTS CREATED BY CEC IN FY 2018-19	
ADDED INCOME	JOBS
\$13.3 million	324
Operations spending impact	
\$2.7 million	48
Student spending impact	
\$208.9 million	2,077
Alumni impact	
\$224.9 million	2,450
Total impact	

ALUMNI IMPACT

The education and training the CEC provides for local residents has the greatest impact. Since its establishment, students have studied at the CEC and entered the local workforce with greater knowledge and new skills. Today, thousands of former students from the CEC are employed in the City of Santa Ana. As a result of their educations at CEC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2018-19, alumni from the CEC generated \$208.9 million in added income for the local economy, which is equivalent to supporting 2,077 jobs.

TOTAL IMPACT

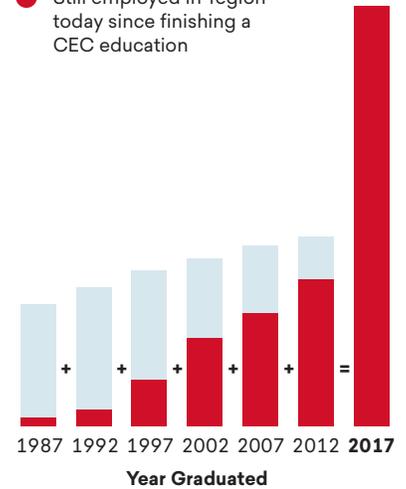
The CEC added \$224.9 million in income to the City of Santa Ana economy during the analysis year, equal to the sum of the operations spending impact, the student spending impact, and the alumni impact. For context, the \$224.9 million impact was equal to approximately 0.9% of the total gross regional product (GRP) of the City of Santa Ana. This contribution that the center provided on its own was larger than the entire Arts, Entertainment, & Recreation industry in the city.

The total impact of the CEC can also be expressed in terms of jobs supported. The \$224.9 million impact supported 2,450 local jobs, using the jobs-to-sales ratios specific to each industry in the city. In addition, the \$224.9 million, or 2,450 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, the CEC's spending and alumni in the Professional & Technical Services industry sector supported 378 jobs in FY 2018-19. These are impacts that would not have been generated without the center's presence in the City of Santa Ana.



CEC ALUMNI WORKING IN-REGION TODAY

- Retired, out-migrated since finishing a CEC education
- Still employed in-region today since finishing a CEC education



TOP INDUSTRIES IMPACTED BY THE CEC

TOTAL INCOME (MILLIONS)	JOBS
\$28.7	179
Manufacturing	
\$28.1	378
Professional & Technical Services	
\$24.4	94
Wholesale Trade	
\$23.9	318
Health Care & Social Assistance	
\$23.8	354
Retail Trade	
\$96.0	1,126
All other industries	
\$224.9	2,450
Total impact	

Investment analysis

An investment analysis evaluates the costs associated with a proposed venture against its expected benefits. If the benefits outweigh the costs, then the investment is financially worthwhile. The analysis presented here considers the CEC as an investment from the perspectives of students, taxpayers, and society in California.

STUDENT PERSPECTIVE

In FY 2018-19, the CEC served 7,738 students. Students paid for their books and supplies but did not have to pay tuition. They also gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by the CEC's students in FY 2018-19 amounted to a present value of \$34.5 million, equal to \$452.7 thousand in out-of-pocket expenses for books and supplies and \$34.1 million in forgone time and money.

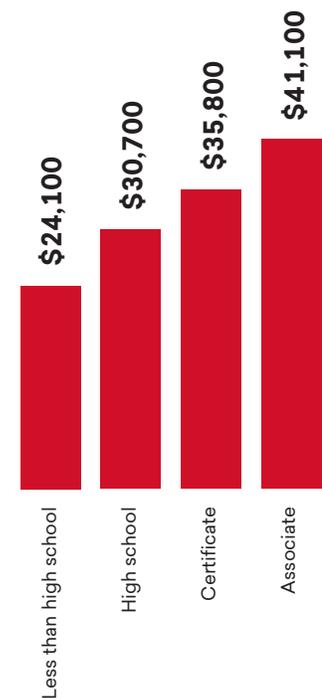
In return for their investment, the CEC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average certificate degree graduate from the CEC from FY 2018-19 will see an increase in earnings of \$5,100 each year compared to a person with a high school diploma or equivalent working in California. Over a working lifetime, the benefits of the certificate degree over a high school diploma will amount to an undiscounted value of \$137.7 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that the CEC's FY 2018-19 students will receive over their working careers is \$124.4 million.

The students' benefit-cost ratio is 3.6. In other words, for every dollar students invest in the CEC, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$3.60 in higher future earnings. Annually, the students' investment in the CEC has an average annual internal rate of return of 22.9%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

TAXPAYER PERSPECTIVE

The CEC generates more in tax revenue than it takes. 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 students from the CEC 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 2018-19 students' working lives, the

AVERAGE EARNINGS BY EDUCATION LEVEL AT CAREER MIDPOINT IN CALIFORNIA



Source: Emsi complete employment data.

state and local government will have collected a present value of \$30.4 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of students from the CEC and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The CEC students' educations will generate savings in three main categories: 1) healthcare, 2) crime, and 3) income assistance. Improved health will lower students' demand for national health care services. In addition, students will be less likely to interact with the criminal justice system, resulting in a reduced demand for law enforcement and victim costs. The CEC 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 center for a copy of the main report. Altogether, the present value of the benefits associated with a CEC education will generate \$10.7 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$41.1 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$20.8 million, equal to the amount of state and local government funding the CEC received in FY 2018-19. These benefits and costs yield a benefit-cost ratio of 2.0. This means that for every dollar of public money invested in the CEC in FY 2018-19, taxpayers will receive a cumulative value of \$2.00 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 7.7%, which compares favorably to other long-term investments in the public and private sectors.

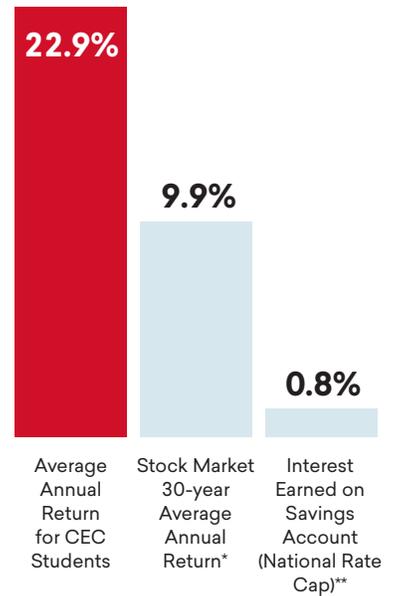
SOCIAL PERSPECTIVE

Society as a whole in California benefits from the presence of the CEC in two major ways. Primarily, society benefits from an increased economic base in the state. This is attributed to higher student earnings and increased business output, which raise economic prosperity in California.

Benefits to society also consist of the savings generated by the improved lifestyles of students from the CEC. 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. Savings related to crime include reduced security expenditures and insurance administration, lower victim costs, and reduced expenditures by the criminal justice system. Income assistance savings include reduced welfare and unemployment claims. For a list of study references, contact the center for a copy of the main report.

Altogether, the social benefits of the CEC equal a present value of \$500.3 million. These benefits include \$486.2 million in added income through students' increased

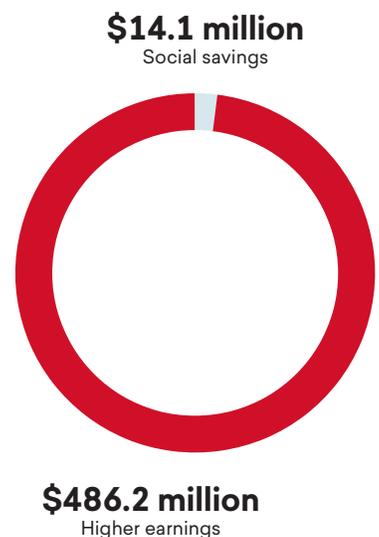
STUDENT RATE OF RETURN



* Forbes' S&P 500, 1989-2018.

** FDIC.gov, 6-2019.

PRESENT VALUE OF HIGHER EARNINGS AND SOCIAL SAVINGS IN CALIFORNIA



lifetime earnings and increased business output, as well as \$14.1 million in social savings related to health, crime, and income assistance in California. People in California invested a present value total of \$47.9 million in the CEC in FY 2018-19. The cost includes all the center and student costs.

The benefit-cost ratio for society is 10.4, equal to the \$500.3 million in benefits divided by the \$47.9 million in costs. In other words, for every dollar invested in the CEC, people in California will receive a cumulative value of \$10.40 in benefits. The benefits of this investment will occur for as long as the CEC’s FY 2018-19 students remain employed in the state workforce.

SUMMARY OF INVESTMENT ANALYSIS RESULTS

The results of the analysis demonstrate that the CEC is a strong investment for all three major stakeholder groups—students, taxpayers, and society. As shown, students receive a great return for their investments in a CEC education. At the same time, taxpayers’ investment in the CEC 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	\$124.4 million	\$41.1 million	\$500.3 million
Costs	\$34.5 million	\$20.8 million	\$47.9 million
Net present value	\$89.9 million	\$20.3 million	\$452.4 million
Benefit-cost ratio	3.6	2.0	10.4
Rate of return	22.9%	7.7%	N/A

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



Conclusion

The results of this study demonstrate that the CEC creates value from multiple perspectives. The center benefits local businesses by increasing consumer spending in the city and supplying a steady flow of qualified, trained workers to the workforce. The CEC enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The center benefits state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, the CEC 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 2018-19 academic and financial reports from RSCCD, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Emsi'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 center for a copy of the main report.



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