



NORTH ORANGE COUNTY
COMMUNITY COLLEGE DISTRICT

Executive Summary

JUNE 2023

ORANGE COUNTY
REGIONAL CONSORTIUM

WORKFORCE
DEVELOPMENT ALLIANCE



California Community Colleges



The Economic Value of the North Orange County Community College District

Sponsored by Strong Workforce Orange County Regional Consortium funding.



The data used to generate the findings within this report reflect extraordinary circumstances caused by the national COVID-19 Pandemic. From a financial perspective, the colleges may have seen an increase in expenditures related to quickly transitioning to online or hybrid education and spending on equipment and staff related to the health and welfare of faculty and students. One-time funding may have been received by the colleges through the CARES Act which included the Higher Education Emergency Relief Fund grant. Additionally, students were directly impacted over this period. Rapid changes in the modality of the colleges' programs can have an impact on students' persistence and completion rates. Changes in income and employment can have adverse effects on a student's ability to maintain enrollment or their choice to enroll in college. Childcare availability, health, and safety considerations may have also had adverse effects on enrollment. Lastly, a number of economic indicators used within this report may be reflective of broader changes to the economy during this time, such as unemployment rates and changes in wages.

THE NORTH ORANGE COUNTY COMMUNITY COLLEGE DISTRICT

(NOCCCD) creates value in many ways. The colleges play a key role in helping students increase their employability and achieve their individual potential. The colleges retain students in the county, generating new dollars and opportunities for Orange County. The colleges provide students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, the colleges are places for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

NOCCCD influences both the lives of students and the county economy. The colleges support a variety of industries in Orange County, serve county businesses, and benefit society as a whole in California from an expanded economy and improved quality of life. Additionally, the benefits created by NOCCCD extend to the state and local government through increased tax revenues and public sector savings.

This study measures the economic impacts created by NOCCCD on the business community and the benefits the colleges generate in return for the investments made by their 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 district, for fiscal year (FY) 2020-21. Impacts on the Orange 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.



Orange County, California

NOCCCD influences both the **lives of students** and the **county economy**.

Economic impact analysis



NOCCCD promotes economic growth in Orange County through its direct expenditures and the resulting expenditures of students and county businesses. The colleges serve as employers and buyers of goods and services for their day-to-day and construction operations. The colleges' activities retain students in Orange County, whose expenditures benefit county vendors. In addition, the colleges are primary sources of higher education to Orange County residents and suppliers of trained workers to county industries, enhancing overall productivity in the county workforce.

Operations spending impact



NOCCCD adds economic value to Orange County as an employer of county residents and a large-scale buyer of goods and services. In FY 2020-21, the colleges employed 2,550 full-time and part-time faculty and staff, 80% of whom lived in Orange County. Total payroll at NOCCCD was \$253.2 million, much of which was spent in the county for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the colleges spent \$144.6 million on day-to-day expenses related to facilities, supplies, and professional services.

NOCCCD's day-to-day operations spending added \$376.1 million in income to the county during the analysis year. This figure represents the colleges' payroll, the multiplier effects generated by the in-county spending of the colleges and their employees, and a downward adjustment to account for funding that the colleges received from county sources. The \$376.1 million in added income is equivalent to supporting 3,244 jobs in the county.

Construction spending impact



NOCCCD invests in construction each year to maintain facilities, create additional capacities, and meet 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 2020-21, NOCCCD's construction spending generated \$64.5 million in added income, which is equivalent to supporting 668 jobs.

Student spending impact



Some in-county students, referred to as retained students, would have left Orange County if not for the existence of NOCCCD. While attending the colleges, these retained students spent money on groceries, accommodation,

Impacts created by NOCCCD in FY 2020-21



Operations spending impact
\$376.1 million

+



Construction spending impact
\$64.5 million

+



Student spending impact
\$85.5 million

+



Alumni impact
\$1.5 billion



Total economic impact
\$2.0 billion

OR

Jobs supported
19,769



transportation, and other household expenses. This spending generated \$85.5 million in added income for the county economy in FY 2020-21, which supported 1,182 jobs in Orange County.

Alumni impact



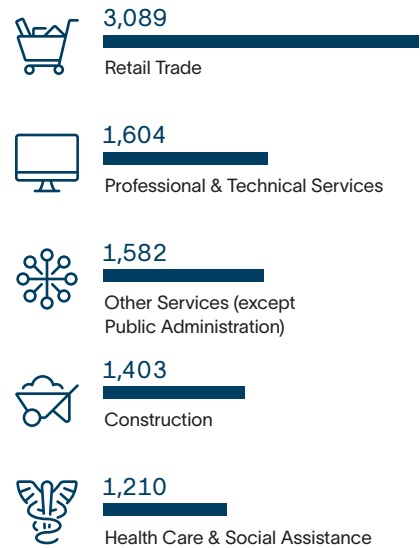
The education and training the colleges provide for county residents has the greatest impact. Since the colleges were established, students have studied at NOCCCD and entered the county workforce with greater knowledge and new skills. Today, hundreds of thousands of former NOCCCD students are employed in Orange County. As a result of their education from NOCCCD, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2020-21, NOCCCD alumni generated \$1.5 billion in added income for the county economy, which is equivalent to supporting 14,676 jobs.

Total impact

NOCCCD added \$2.0 billion in income to the Orange 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 \$2.0 billion impact was equal to approximately 0.7% of the total gross regional product (GRP) of Orange County. This contribution that the colleges provided on their own was nearly as large as the entire Food and Beverage Stores industry in the county.

NOCCCD's total impact can also be expressed in terms of jobs supported. The \$2 billion impact supported 19,769 county jobs, using the jobs-to-sales ratios specific to each industry in the county. This means that one out of every 118 jobs in Orange County is supported by the activities of the colleges and their students. In addition, the \$2 billion, or 19,769 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of NOCCCD and their students and the activities of their alumni in the Retail Trade industry sector supported 3,089 jobs in FY 2020-21. If the colleges did not exist, these impacts would not have been generated in Orange County.

NOCCCD impacts by industry (jobs supported)



One out of every 118 jobs in Orange County is supported by the activities of the colleges and their students.

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 evaluates NOCCCD as an investment from the perspectives of students, taxpayers, and society in California.

Student perspective



In FY 2020-21, NOCCCD served 51,090 credit and 16,992 non-credit students. In order to attend the colleges, 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 NOCCCD students in FY 2020-21 amounted to a present value of \$180.2 million, equal to \$52.5 million in out-of-pocket expenses (including future principal and interest on student loans) and \$127.7 million in forgone time and money.

In return for their investment, NOCCCD's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average NOCCCD associate degree graduate from FY 2020-21 will see annual earnings \$10,200 higher than a person with a high school diploma or equivalent working in California. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$387.6 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that NOCCCD's FY 2020-21 students will receive over their working careers is \$1.1 billion.

The students' benefit-cost ratio is 6.2. In other words, for every dollar students invest in an education at NOCCCD in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$6.20 in higher future earnings. Annually, the students' investment in NOCCCD has an average annual internal rate

Students see a high rate of return for their investment in NOCCCD



Average annual return for NOCCCD students
20.1%



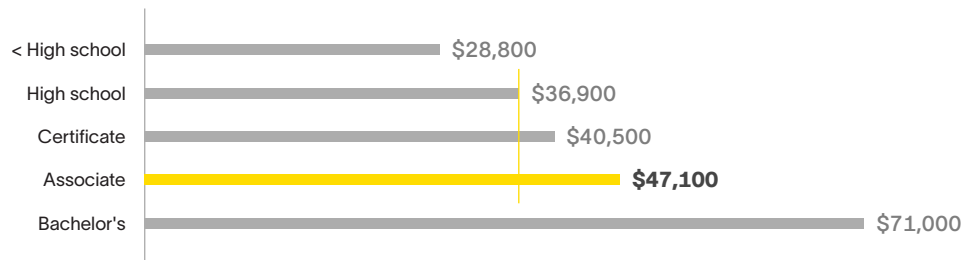
Stock market 30-year average annual return
10.5%



Interest earned on savings account (National Rate Cap)
0.8%

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

The average associate degree graduate from NOCCCD will see an increase in earnings of **\$10,200** each year compared to a person with a high school diploma or equivalent working in California.



Source: Lightcast employment data.

of return of 20.1%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.5%.

Taxpayer perspective



NOCCCD 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 NOCCCD 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 2020-21 students' working lives, the state and local government will have collected a present value of \$518.1 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of NOCCCD students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that NOCCCD 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. NOCCCD 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 NOCCCD for a copy of the main report. Altogether, the present value of the benefits associated with an education through NOCCCD will generate \$89 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$607.1 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$308.5 million, equal to the amount of state and local government funding NOCCCD received in FY 2020-21. These benefits and costs yield a benefit-cost ratio of 2.0. This means that for every dollar of public money invested in NOCCCD in FY 2020-21, taxpayers will receive a cumulative present value of \$2.00 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 3.7%, which compares favorably to other long-term investments in the public sector.

For every dollar of public money invested in NOCCCD, taxpayers will receive a cumulative value of **\$2.00** over the course of the students' working lives.

Social perspective



Society as a whole in California benefits from the presence of NOCCCD 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 California.

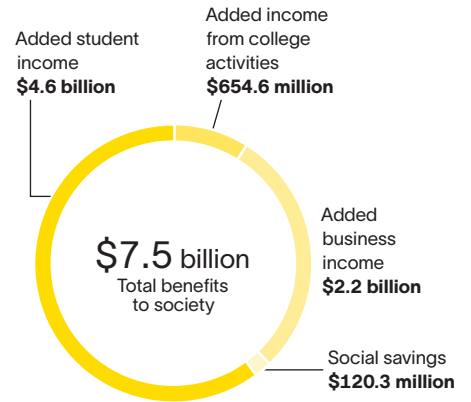


Benefits to society also consist of the savings generated by the improved lifestyles of NOCCCD students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but 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 NOCCCD for a copy of the main report.

Altogether, the social benefits of NOCCCD equal a present value of \$7.5 billion. These benefits include \$4.6 billion in added student income, \$2.2 billion in added business income, \$654.6 million in added income from colleges' activities, as well as \$120.3 million in social savings related to health, the justice system, and income assistance in California. People in California invested a present value total of \$664.4 million in NOCCCD in FY 2020-21. The cost includes all the colleges' expenditures and student costs.

The benefit-cost ratio for society is 11.3, equal to the \$7.5 billion in benefits divided by the \$664.4 million in costs. In other words, for every dollar invested in NOCCCD, people in California will receive a cumulative value of \$11.30 in benefits. The benefits of this investment will occur for as long as NOCCCD's FY 2020-21 students remain employed in the state workforce.

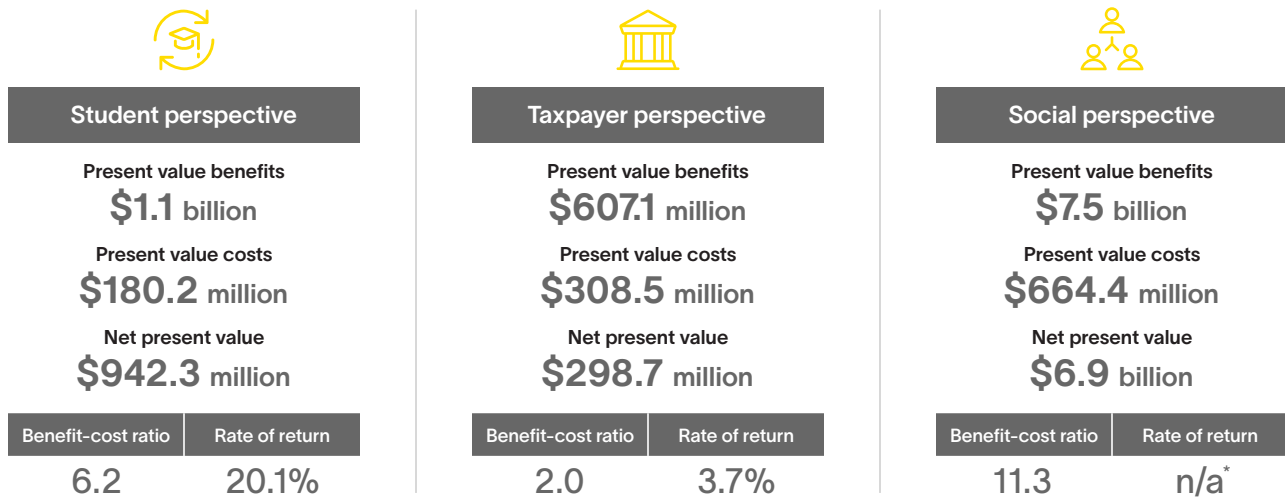
Social benefits in California from NOCCCD



Source: Lightcast impact model.

Summary of investment analysis results

The results of the analysis demonstrate that NOCCCD 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 an education through NOCCCD. At the same time, taxpayers' investment in NOCCCD returns more to government budgets than it costs and creates a wide range of social benefits throughout California.



* 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 NOCCCD creates value from multiple perspectives. The colleges benefit county businesses by increasing consumer spending in the county and supplying a steady flow of qualified, trained workers to the workforce. NOCCCD enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The colleges benefit state and local taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, NOCCCD 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 2020-21 academic and financial reports from NOCCCD, 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 district for a copy of the main report.

The results of this study demonstrate that NOCCCD creates value from **multiple perspectives.**



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 to learn more or connect with us.