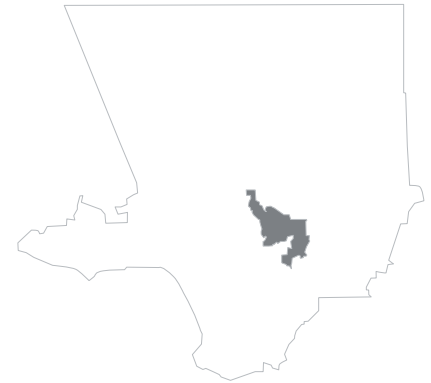




The Economic Value of Pasadena City College

EXECUTIVE SUMMARY



PASADENA AREA COMMUNITY
COLLEGE DISTRICT IN
LOS ANGELES COUNTY, CA

PASADENA City College (PCC) 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 region, generating new dollars and opportunities for the Pasadena Area Community College District (PACCD).^{*} PCC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, PCC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by PCC 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) 2018-19. Impacts on the PACCD 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.

^{*} For the purposes of this analysis, the PACCD is comprised of the following zip codes in Los Angeles County: 91001, 91006, 91007, 91731, 91011, 91103, 91105, 91101, 91104, 91106, 91107, 91770, 91108, 91024, 91030, and 91780.

PCC influences both the
lives of its students and the
regional economy.



Economic impact analysis

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

Operations spending impact



PCC adds economic value to the PACCD as an employer of regional residents and a large-scale buyer of goods and services. In FY 2018-19, the college employed 1,528 full-time and part-time faculty and staff, 33% of whom lived in the PACCD. Total payroll at PCC was \$162 million, much of which was spent in the region for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the college spent \$85.8 million on day-to-day expenses related to facilities, supplies, and professional services.

PCC's day-to-day operations spending added \$177.2 million in income to the region during the analysis year. This figure represents the college's payroll, the multiplier effects generated by the in-region spending of the college and its employees, and a downward adjustment to account for funding that the college received from regional sources. The \$177.2 million in added income is equivalent to supporting 1,602 jobs in the region.

Student spending impact



Around 65% of students attending PCC originated from outside the region in FY 2018-19, and some of these students relocated to the PACCD to attend PCC. These students may not have come to the region if the college did not exist. In addition, some in-region students, referred to as retained students, would have left the PACCD if not for the existence of PCC. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$16.4 million in added income for the regional economy in FY 2018-19, which supported 288 jobs in the PACCD.

IMPACTS CREATED
BY PCC IN FY 2018-19



\$177.2 million
Operations Spending Impact



\$16.4 million
Student Spending Impact



\$407.8 million
Alumni Impact



\$601.4 million
TOTAL IMPACT

- OR -

5,964
JOBS SUPPORTED

Alumni impact



The education and training PCC provides for regional residents has the greatest impact. Since its establishment, students have studied at PCC and entered the regional workforce with greater knowledge and new skills. Today, thousands of former PCC students are employed in the PACCD. As a result of their PCC educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2018-19, PCC alumni generated \$407.8 million in added income for the regional economy, which is equivalent to supporting 4,074 jobs.

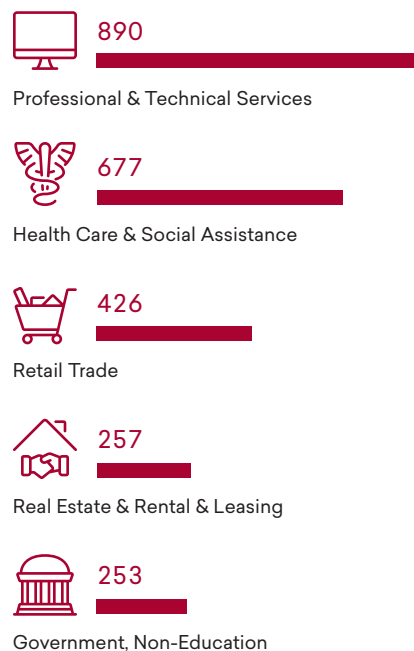
Total impact

PCC added \$601.4 million in income to the PACCD 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 \$601.4 million impact was equal to approximately 1.8% of the total gross regional product (GRP) of the PACCD. This contribution that the college provided on its own was twice as large as the entire Utilities industry in the region.

One out of every 54 jobs in the
*PACCD is supported by the activities
of PCC and its students.*

PCC's total impact can also be expressed in terms of jobs supported. The \$601.4 million impact supported 5,964 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 54 jobs in the PACCD is supported by the activities of PCC and its students. In addition, the \$601.4 million, or 5,964 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, PCC's spending and alumni in the Professional & Technical Services industry sector supported 890 jobs in FY 2018-19. These are impacts that would not have been generated without the college's presence in the PACCD.

PCC IMPACTS BY INDUSTRY (JOBS SUPPORTED)





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

Student perspective



In FY 2018-19, PCC served 36,419 credit and 3,894 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 PCC's students in FY 2018-19 amounted to a present value of \$225.9 million, equal to \$58.7 million in out-of-pocket expenses (including future principal and interest on student loans) and \$167.2 million in forgone time and money.

In return for their investment, PCC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average PCC associate degree graduate from FY 2018-19 will see annual earnings that are \$10,500 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 \$430.5 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that PCC's FY 2018-19 students will receive over their working careers is \$954.5 million.

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN PCC



17.4%

Average annual return for PCC students



9.9%

Stock market 30-year average annual return

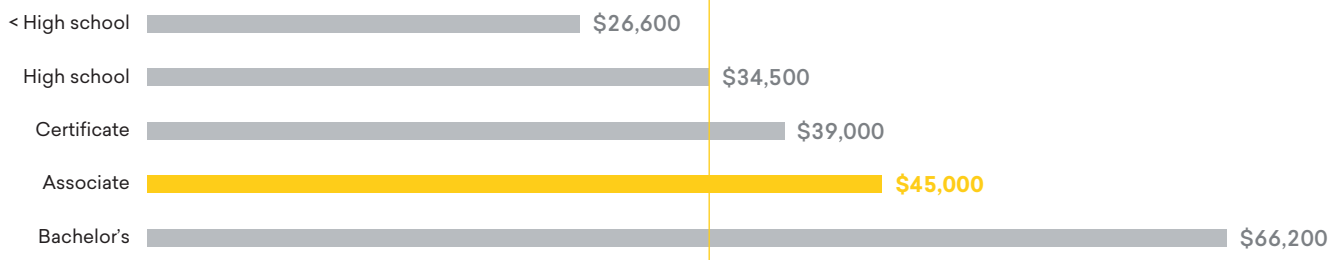


0.8%

Interest earned on savings account (National Rate Cap)

Source: Forbes' S&P 500, 1989-2018. FDIC.gov, 6-2019.

The average associate degree graduate from PCC will see an increase in earnings of **\$10,500** each year compared to a person with a high school diploma or equivalent working in California.



Source: Emsi employment data.

The students' benefit-cost ratio is 4.2. In other words, for every dollar students invest in PCC, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$4.20 in higher future earnings. Annually, the students' investment in PCC has an average annual internal rate of return of 17.4%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%.

Taxpayer perspective



PCC 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 PCC 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 2018-19 students' working lives, the state and local government will have collected a present value of \$283.5 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of PCC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students'

PCC 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. PCC 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 a PCC education will generate \$43.7 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$327.2 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$165.1 million, equal to the amount of state and local government funding PCC received in FY 2018-19. These benefits and costs yield a benefit-cost ratio of 2.0. This means

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



STUDENT PERSPECTIVE

\$954.5 million
Present value benefits

\$225.9 million
Present value costs

\$728.6 million
Net present value

Benefit-cost ratio	Rate of return
4.2	17.4%



TAXPAYER PERSPECTIVE

\$327.2 million
Present value benefits

\$165.1 million
Present value costs

\$162 million
Net present value

Benefit-cost ratio	Rate of return
2.0	5.7%



SOCIAL PERSPECTIVE

\$4.4 billion
Present value benefits

\$447.1 million
Present value costs

\$3.9 billion
Net present value

Benefit-cost ratio	Rate of return
9.8	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.

that for every dollar of public money invested in PCC 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 5.7%, 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 PCC 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 PCC 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. 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 college for a copy of the main report.

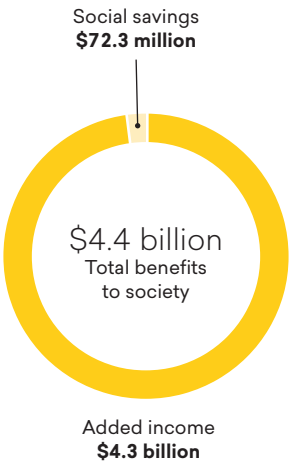
Altogether, the social benefits of PCC equal a present value of \$4.4 billion. These benefits include \$4.3 billion in added income through students' increased lifetime earnings and increased business output, as well as \$72.3 million in social savings related to health, crime, and income assistance in California. People in California invested a present value total of \$447.1 million in PCC in FY 2018-19. The cost includes all the college and student costs.

The benefit-cost ratio for society is 9.8, equal to the \$4.4 billion in benefits divided by the \$447.1 million in costs. In other words, for every dollar invested in PCC, people in California will receive a cumulative value of \$9.80 in benefits. The benefits of this investment will occur for as long as PCC's FY 2018-19 students remain employed in the state workforce.

Summary of investment analysis results

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

SOCIAL BENEFITS IN CALIFORNIA FROM PCC



Conclusion

The results of this study demonstrate that PCC creates value from multiple perspectives. The college benefits regional businesses by increasing consumer spending in the region and supplying a steady flow of qualified, trained workers to the workforce. PCC 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, PCC 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 PCC, 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 college for a copy of the main report.

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



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