



The Economic Value of Danville Community College



DANVILLE COMMUNITY COLLEGE (DCC) 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 DCC Service Area.* DCC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, DCC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

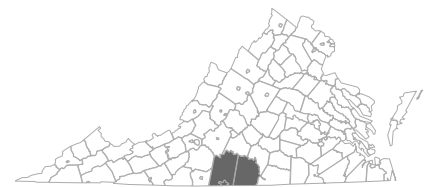
DCC influences both the lives of its students and the regional economy. The college supports a variety of industries in the DCC Service Area, serves regional businesses, and benefits society as a whole in Virginia from an expanded economy and improved quality of life. Additionally, the benefits created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

This study measures the economic impacts created by DCC 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 DCC and the Virginia Community College System (VCCS), for fiscal year (FY) 2021-22. Impacts on the DCC Service Area 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 Virginia are reported under the investment analysis.



The DCC Service Area, Virginia

DCC influences both the **lives of its students** and the **regional economy**.

* For the purposes of this analysis, the DCC Service Area is comprised of Danville City, Halifax, and Pittsylvania Counties.

Economic impact analysis



DCC promotes economic growth in the DCC Service Area 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 DCC Service Area, whose expenditures benefit regional vendors. In addition, DCC is one of the primary sources of higher education to the DCC Service Area residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

Operations spending impact



DCC adds economic value to the DCC Service Area as an employer of regional residents and a large-scale buyer of goods and services. In FY 2021-22, the college employed 239 full-time and part-time faculty and staff, 77% of whom lived in the DCC Service Area. Total payroll at DCC was \$11.2 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 \$17.4 million on day-to-day expenses related to facilities, supplies, and professional services.

DCC's day-to-day operations spending added \$15.1 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 \$15.1 million in added income is equivalent to supporting 281 jobs in the region.

Impacts created by DCC in FY 2021-22



Operations spending impact

\$15.1 million

+



Student spending impact

\$1.1 million

+



Alumni impact

\$101.9 million



Total economic impact

\$118 million

OR

Jobs supported

1,869



Student spending impact



Around 6% of students attending DCC originated from outside the region in FY 2021-22, and some of these students relocated to the DCC Service Area to attend DCC. 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 DCC Service Area if not for the existence of DCC. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$1.1 million in added income for the regional economy in FY 2021-22, which supported 21 jobs in the DCC Service Area.

Alumni impact



The education and training DCC provides for regional residents has the greatest impact. Since the establishment of the college, students have studied at DCC and entered the regional workforce with greater knowledge and new skills. Today, thousands of former DCC students are employed in the DCC Service Area. As a result of their education from DCC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2021-22, DCC alumni generated \$101.9 million in added income for the regional economy, which is equivalent to supporting 1,567 jobs.

DCC alumni spotlight: Alan Dalton

50th year in photography industry, Alan Dalton Photography

"I think DCC is a tremendous asset for our community, just for all the services that they provide. Not only the educational wise ones, but just the foundation. As I said before, the relationships that are established there."



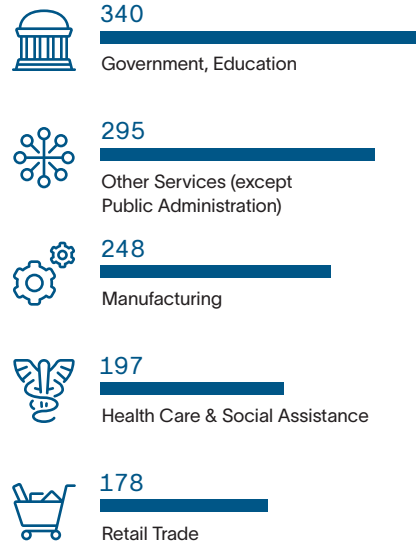
Total impact

DCC added \$118 million in income to the DCC Service Area 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 \$118 million impact was equal to approximately 2.0% of the total gross regional product (GRP) of the DCC Service Area. This contribution that the college provided on its own is nearly as large as the entire Professional & Technical Services industry in the region.

DCC's total impact can also be expressed in terms of jobs supported. The \$118 million impact supported 1,869 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 36 jobs in the DCC Service Area is supported by the activities of DCC and its students. In addition, the \$118 million, or 1,869 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of DCC and its students and the activities of its alumni in the Health Care & Social Assistance industry sector supported 197 jobs in FY 2021-22. If the college did not exist, these impacts would not have been generated in the DCC Service Area.

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DCC impacts by industry (jobs supported)



DCC student life on campus: Amber Nocilla

What is your favorite place on campus and why?

"My favorite place on campus would have to be the Foundation Hall. It is beautiful and upstairs has an area we can just sit, get some studying in, and work on group projects."





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 DCC as an investment from the perspectives of students, taxpayers, and society in Virginia.

Student perspective



In FY 2021-22, DCC served 3,134 credit and 315 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 DCC's students in FY 2021-22 amounted to a present value of \$4 million, equal to the sum of \$5.1 million in out-of-pocket expenses (including future principal and interest on student loans) and \$8 million in forgone time and money and offset by the \$9.1 million in residual aid paid directly to students.

In return for their investment, DCC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average DCC associate degree graduate from FY 2021-22 will see annual earnings that are \$4,400 higher than a person with a high school diploma or equivalent working in Virginia. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$189,200 in higher earnings per graduate. The present value of the cumulative higher future earnings that DCC's FY 2021-22 students will receive over their working careers is \$49.9 million.

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



Average annual return for DCC students
34.5%



Stock market 30-year average annual return
9.6%

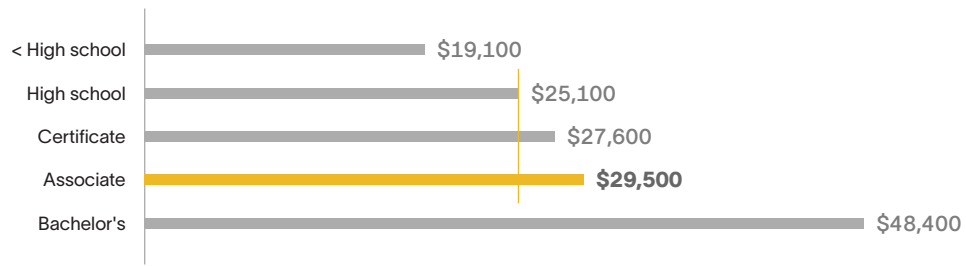


Interest earned on savings account (national deposit rate)
0.4%

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



The average associate degree graduate from DCC will see an increase in earnings of **\$4,400** each year compared to a person with a high school diploma or equivalent working in Virginia.



Source: Lightcast employment data.

The students' benefit-cost ratio is 12.6. In other words, for every dollar students invest in DCC in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$12.60 in higher future earnings. Annually, the students' investment in DCC has an average annual internal rate of return of 34.5%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.6%.

Taxpayer perspective



DCC 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 Virginia. As DCC 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 \$13.9 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of DCC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that DCC 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. DCC 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 DCC will generate \$2 million in savings to state and local taxpayers.

For every dollar of public money invested in DCC, taxpayers will receive a cumulative value of **\$1.10** over the course of the students' working lives.

Total taxpayer benefits amount to \$16 million, the present value sum of the added tax revenue and public sector savings. Taxpayer costs are \$14 million, equal to the amount of state and local government funding DCC received in FY 2021-22. These benefits and costs yield a benefit-cost ratio of 1.1. This means that for every dollar of public money invested in DCC in FY 2021-22, taxpayers will receive a cumulative present

value of \$1.10 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 0.9%, which compares favorably to other long-term investments in the public sector.

DCC alumni spotlight: Kristen Harris

Second-generation photographer, Alan Dalton Photography

"It was much more affordable for me to go to DCC, than a four-year college. I also was able to receive scholarships from local businesses."



Social perspective

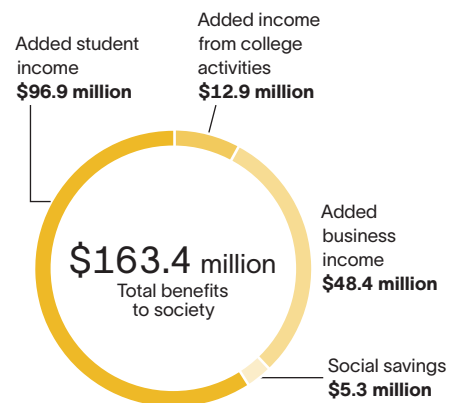


Society as a whole in Virginia benefits from the presence of DCC in two major ways. Primarily, society benefits from an increased economic base in Virginia. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business output (added business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

Benefits to society also consist of the savings generated by the improved lifestyles of DCC 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.

Altogether, the social benefits of DCC equal a present value of \$163.4 million. These benefits include \$96.9 million in added student income, \$48.4 million in added business income, \$12.9 million in added income from college activities, as well as \$5.3 million in social savings related to health, the justice system, and income assistance in Virginia. People in Virginia invested a present value total of \$29.9 million in DCC in FY 2021-22. The cost includes all the college and student costs.

Social benefits in Virginia from DCC

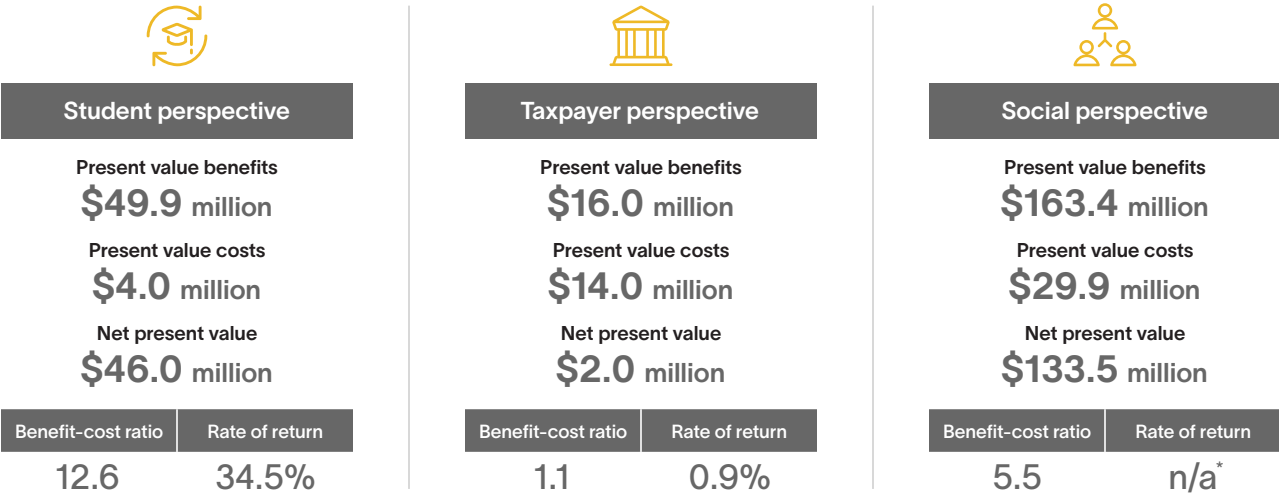


Source: Lightcast impact model.

The benefit-cost ratio for society is 5.5, equal to the \$163.4 million in benefits divided by the \$29.9 million in costs. In other words, for every dollar invested in DCC, people in Virginia will receive a cumulative value of \$5.50 in benefits. The benefits of this investment will occur for as long as DCC's FY 2021-22 students remain employed in the Virginia workforce.

Summary of investment analysis results

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



* 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 DCC 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. DCC 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, DCC benefits society as a whole in Virginia 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 DCC, VCCS, 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.

The results of this study demonstrate that DCC 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.