



The Economic Value of Rappahannock Community College



RAPPAHANNOCK COMMUNITY COLLEGE (RCC) creates value in many ways. The college plays a key role in helping students increase their employability and achieve their individual potential. The college retains students in the region, generating new dollars and opportunities for the RCC Service Area.* RCC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, RCC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

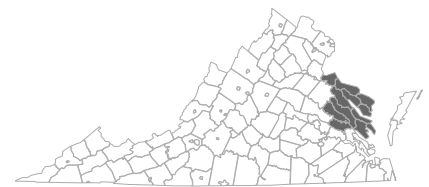
RCC influences both the lives of its students and the regional economy. The college supports a variety of industries in the RCC Service Area, serves regional businesses, and benefits society as a whole in Virginia from an expanded economy and improved quality of life. Additionally, the benefits created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

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

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

* For the purposes of this analysis, the RCC Service Area is comprised of Essex, Gloucester, King and Queen, King George, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Richmond, and Westmoreland Counties.

Economic impact analysis



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

Operations spending impact



RCC adds economic value to the RCC Service Area as an employer of regional residents and a large-scale buyer of goods and services. In FY 2021-22, the college employed 274 full-time and part-time faculty and staff, 76% of whom lived in the RCC Service Area. Total payroll at RCC was \$13.9 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 \$9.9 million on day-to-day expenses related to facilities, supplies, and professional services.

RCC's day-to-day operations spending added \$16 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 \$16 million in added income is equivalent to supporting 296 jobs in the region.

Student spending impact



Some in-region students, referred to as retained students, would have left the RCC Service Area if not for the existence of RCC. While attending the college, these retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$688.8 thousand in added income for the regional economy in FY 2021-22, which supported 14 jobs in the RCC Service Area.

Alumni impact



The education and training RCC provides for regional residents has the greatest impact. Since the establishment of the college, students have studied at RCC and entered the regional workforce with greater knowledge and new skills. Today, thousands of former RCC students are employed in the RCC Service Area. As

Impacts created by RCC in FY 2021-22



Operations spending impact

\$16.0 million

+



Student spending impact

\$0.7 million

+



Alumni impact

\$82.5 million



Total economic impact

\$99.2 million

OR

Jobs supported

1,527



a result of their education from RCC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2021-22, RCC alumni generated \$82.5 million in added income for the regional economy, which is equivalent to supporting 1,218 jobs.

Total impact

RCC added \$99.2 million in income to the RCC 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 \$99.2 million impact was equal to approximately 1.2% of the total gross regional product (GRP) of the RCC Service Area. This contribution that the college provided on its own is nearly as large as the entire Arts, Entertainment, & Recreation industry in the region.

RCC's total impact can also be expressed in terms of jobs supported. The \$99.2 million impact supported 1,527 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 56 jobs in the RCC Service Area is supported by the activities of RCC and its students. In addition, the \$99.2 million, or 1,527 supported jobs, stemmed from different industry sectors. For instance, among non-education industry sectors, the spending of RCC and its students and the activities of its alumni in the Health Care & Social Assistance industry sector supported 242 jobs in FY 2021-22. If the college did not exist, these impacts would not have been generated in the RCC Service Area.

RCC impacts by industry (jobs supported)



One out of every 56 jobs in the RCC Service Area is supported by the activities of RCC and its students.

Workforce engagement: Damarius Pollard

Using the knowledge gained in RCC's welding program, Damarius Pollard devised an ingenious temperature resistant, shock absorbing and portable cargo liner that can be used in cargo trailers and vehicles of varying sizes. Damarius knew his invention could help other truck hauling companies and got his cargo liner patented and manufactured. Damarius's cargo liner has already gotten the attention of three manufacturers who will be producing the product.





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

Student perspective



In FY 2021-22, RCC served 3,259 credit and 771 non-credit students. In order to attend the college, the students paid for tuition, fees, books, and supplies. They also gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by RCC's students in FY 2021-22 amounted to a present value of \$12.2 million, equal to \$7.5 million in out-of-pocket expenses and \$4.7 million in forgone time and money.

In return for their investment, RCC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average RCC associate degree graduate from FY 2021-22 will see annual earnings that are \$12,200 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 \$512,400 in higher earnings per graduate. The present value of the cumulative higher future earnings that RCC's FY 2021-22 students will receive over their working careers is \$91.8 million.

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



Average annual return for RCC students
24.7%



Stock market 30-year average annual return
9.6%

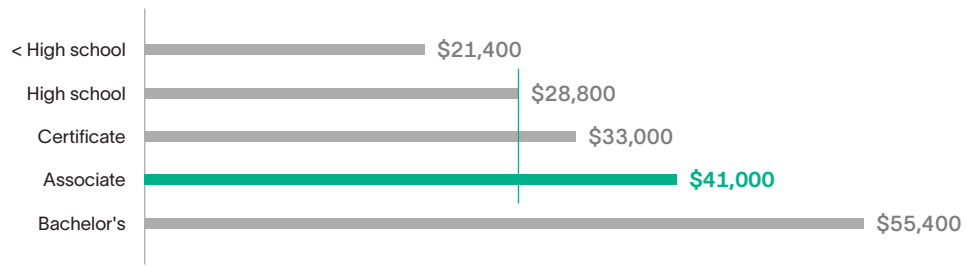


Interest earned on savings account (national deposit rate)
0.4%

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



The average associate degree graduate from RCC will see an increase in earnings of **\$12,200** 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 7.5. In other words, for every dollar students invest in RCC in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$750 in higher future earnings. Annually, the students' investment in RCC has an average annual internal rate of return of 24.7%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.6%.

Taxpayer perspective



RCC 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 RCC 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 \$21.7 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of RCC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The education that RCC 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. RCC 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 RCC will generate \$1.9 million in savings to state and local taxpayers.

For every dollar of public money invested in RCC, taxpayers will receive a cumulative value of **\$2.30** over the course of the students' working lives.

Total taxpayer benefits amount to \$23.7 million, the present value sum of the added tax revenue and public sector savings. Taxpayer costs are \$10.5 million, equal to the amount of state and local government funding RCC received in FY 2021-22. These benefits and costs yield a benefit-cost ratio of 2.3. This means that for every dollar of public money invested in RCC in FY 2021-22, taxpayers will receive a cumulative

present value of \$2.30 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 5.3%, which compares favorably to other long-term investments in the public sector.

Alumni success: Bobbie Blair

Bobbie Blair enrolled at RCC to become certified as an Emergency Medical Technician (EMT). Thanks to the "Senior Citizen Higher Education Act" Blair says that the tuition waiver "made it possible for her to get into RCC for EMT school. On Social Security it would've been very difficult—if not impossible—to pay for classes." She finished her EMT Basic in 2013 and EMT Intermediate level training in 2015.



Social perspective



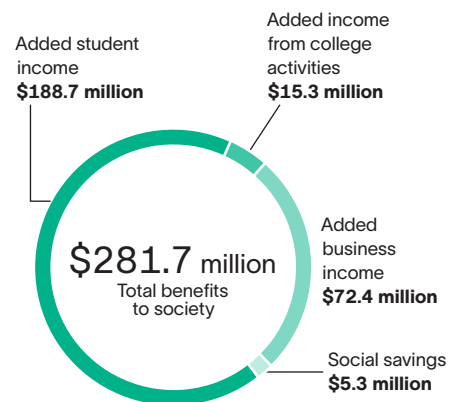
Society as a whole in Virginia benefits from the presence of RCC in two major ways. Primarily, society benefits from an increased economic base in Virginia. This is attributed to the added income from students' increased lifetime earnings (added student income) and increased business output (added business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

Benefits to society also consist of the savings generated by the improved lifestyles of RCC 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 RCC equal a present value of \$281.7 million. These benefits include \$188.7 million in added student income, \$72.4 million in added business income, \$15.3 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 \$30.6 million in RCC in FY 2021-22. The cost includes all the college and student costs.

The benefit-cost ratio for society is 9.2, equal to the \$281.7 million in benefits divided by the \$30.6 million in costs. In other words, for every dollar invested in RCC, people in Virginia will receive a cumulative value of \$9.20 in benefits. The benefits of this investment will occur for as long as RCC's FY 2021-22 students remain employed in the Virginia workforce.

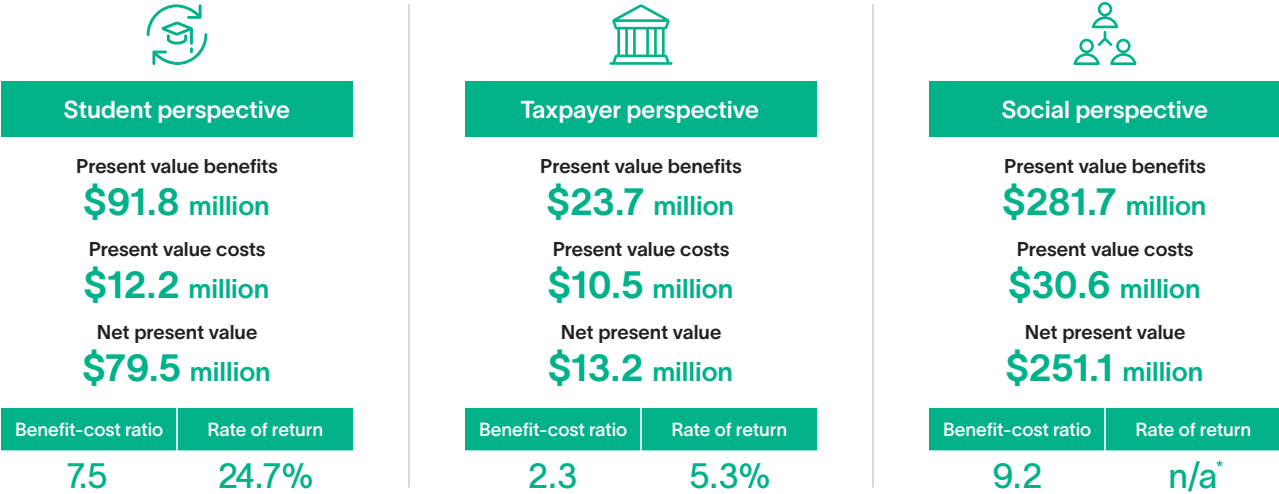
Social benefits in Virginia from RCC



Source: Lightcast impact model.

Summary of investment analysis results

The results of the analysis demonstrate that RCC 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 RCC. At the same time, taxpayers’ investment in RCC 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.

RCC community engagement: the Remote Area Medical

The Remote Area Medical (RAM)—a major nonprofit of free pop-up clinics—coordinated with RCC to provide a free health clinic at the Richmond County Elementary School in November 2022. Nursing, medical, and dental students from RCC, William and Mary, the University of Virginia, Duke, Penn State and other schools played an important role. The clinic served 211 people who received over \$100,000 in free medical, dental, and vision services.

Conclusion

The results of this study demonstrate that RCC 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. RCC 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, RCC 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 RCC, 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.

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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.