



# The Economic Value of Carteret Community College



**C**ARTERET COMMUNITY COLLEGE (CARTERET CC) 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 county, generating new dollars and opportunities for Carteret County. Carteret CC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, Carteret CC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by Carteret CC 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) 2019-20. Impacts on the Carteret 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 North Carolina are reported under the investment analysis.



CARTERET COUNTY, NC

Carteret CC influences both the **lives of its students** and the **county economy**.

# ECONOMIC IMPACT ANALYSIS



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

## Operations spending impact



Carteret CC adds economic value to Carteret County as an employer of county residents and a large-scale buyer of goods and services. In FY 2019-20, the college employed 425 full-time and part-time faculty and staff, 67% of whom lived in Carteret County. Total payroll at Carteret CC was \$12.7 million, much of which was spent in the county for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the college spent \$7.4 million on day-to-day expenses related to facilities, supplies, and professional services.

Carteret CC's day-to-day operations spending added \$15.4 million in income to the county during the analysis year. This figure represents the college's payroll, the multiplier effects generated by the in-county spending of the college and its employees, and a downward adjustment to account for funding that the college received from county sources. The \$15.4 million in added income is equivalent to supporting 466 jobs in the county.

## Construction spending impact



Carteret CC invests in construction each year to maintain its facilities, create additional capacities, and meet its 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 2019-20, Carteret CC's construction spending generated \$1.8 million in added income, which is equivalent to supporting 40 jobs.

### IMPACTS CREATED BY CARTERET CC IN FY 2019-20



Operations spending impact

**\$15.4 million**



Construction spending impact

**\$1.8 million**



Student spending impact

**\$2.7 million**



Alumni impact

**\$36.8 million**



**TOTAL ECONOMIC IMPACT**

**\$56.8 million**

OR

Jobs supported

**1,348**

## Student spending impact



Some in-county students, referred to as retained students, would have left Carteret County if not for the existence of Carteret CC. While attending the college, these retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$2.7 million in added income for the county economy in FY 2019-20, which supported 63 jobs in Carteret County.

## Alumni impact



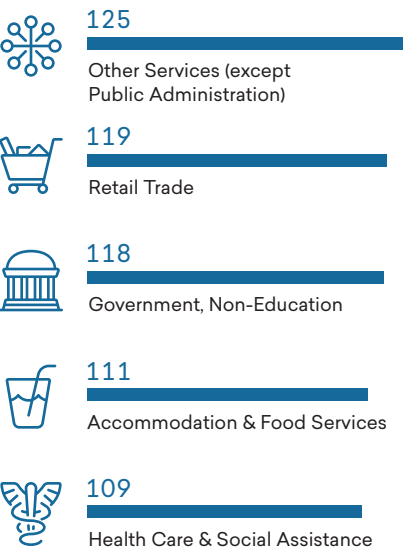
The education and training Carteret CC provides for county residents has the greatest impact. Since its establishment, students have studied at Carteret CC and entered the county workforce with greater knowledge and new skills. Today, thousands of former Carteret CC students are employed in Carteret County. As a result of their education from Carteret CC, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2019-20, Carteret CC alumni generated \$36.8 million in added income for the county economy, which is equivalent to supporting 779 jobs.

## Total impact

Carteret CC added \$56.8 million in income to the Carteret 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 \$56.8 million impact was equal to approximately 2.4% of the total gross regional product (GRP) of Carteret County. This contribution that the college provided on its own is larger than the entire Utilities industry in the county.

Carteret CC's total impact can also be expressed in terms of jobs supported. The \$56.8 million impact supported 1,348 county jobs, using the jobs-to-sales ratios specific to each industry in the county. This means that one out of every 27 jobs in Carteret County is supported by the activities of Carteret CC and its students. In addition, the \$56.8 million, or 1,348 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, Carteret CC's spending and alumni in the Other Services (except Public Administration) industry sector supported 125 jobs in FY 2019-20. If the college did not exist, these impacts would not have been generated in Carteret County.

### CARTERET CC IMPACTS BY INDUSTRY (JOBS SUPPORTED)



**One out of every 27 jobs** in Carteret County is supported by the activities of Carteret CC and its students.



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 Carteret CC as an investment from the perspectives of students, taxpayers, and society in North Carolina.

## Student perspective



In FY 2019-20, Carteret CC served 1,749 credit and 3,058 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 Carteret CC's students in FY 2019-20 amounted to a present value of \$14.7 million, equal to \$2.3 million in out-of-pocket expenses and \$12.4 million in forgone time and money.

In return for their investment, Carteret CC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average Carteret CC associate degree graduate from FY 2019-20 will see annual earnings that are \$7,300 higher than a person with a high school diploma or equivalent working in North Carolina. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$284.7 thousand in higher earnings per graduate. The present value of the cumulative higher future earnings that Carteret CC's FY 2019-20 students will receive over their working careers is \$90.9 million.

The students' benefit-cost ratio is 6.2. In other words, for every dollar students invest in Carteret CC 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.

### STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN CARTERET CC



Average annual return for Carteret CC students

**27.2%**



Stock market 30-year average annual return

10.6%

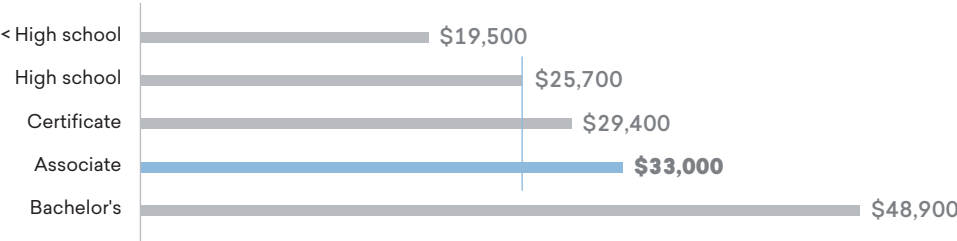


Interest earned on savings account (National Rate Cap)

0.8%

Source: Forbes' S&P 500, 1991-2020. FDIC.gov, 6-2021.

The average associate degree graduate from Carteret CC will see an increase in earnings of **\$7,300** each year compared to a person with a high school diploma or equivalent working in North Carolina.



Source: Emsi Burning Glass employment data.

Annually, the students' investment in Carteret CC has an average annual internal rate of return of 27.2%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.6%.

## Taxpayer perspective



Carteret CC 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 Carteret CC 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 2019-20 students' working lives, the state and local government will have collected a present value of \$23.9 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of Carteret CC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. The educations that Carteret CC 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. Carteret CC 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 Carteret CC education will generate \$1.7 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$25.6 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$18 million, equal to the amount of state and local government funding Carteret CC received in FY 2019-20. These benefits and costs yield a benefit-cost ratio of 1.4. This means that for every dollar of public money invested in Carteret CC in FY 2019-20, taxpayers will receive a cumulative present value of \$1.40 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 2.8%, which compares favorably to other long-term investments in the public and private sectors.

For every dollar of public money invested in Carteret CC, taxpayers will receive a cumulative value of **\$1.40** over the course of the students' working lives.

## Social perspective



Society as a whole in North Carolina benefits from the presence of Carteret CC 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 North Carolina.

Benefits to society also consist of the savings generated by the improved lifestyles of Carteret CC students. As discussed in the previous section, education

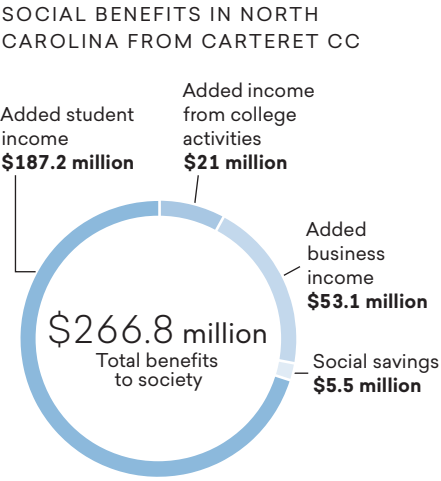
is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are distinct from the costs avoided by the taxpayers outlined above. Healthcare savings include avoided medical costs associated with smoking, alcohol dependence, 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 Carteret CC equal a present value of \$266.8 million. These benefits include \$187.2 million in added student income, \$53.1 million in added business income, \$21.0 million in added income from college activities, as well as \$5.5 million in social savings related to health, crime, and income assistance in North Carolina. People in North Carolina invested a present value total of \$37.8 million in Carteret CC in FY 2019-20. The cost includes all the college and student costs.

The benefit-cost ratio for society is 7.1, equal to the \$266.8 million in benefits divided by the \$37.8 million in costs. In other words, for every dollar invested in Carteret CC, people in North Carolina will receive a cumulative value of \$7.10 in benefits. The benefits of this investment will occur for as long as Carteret CC’s FY 2019-20 students remain employed in the state workforce.

### Summary of investment analysis results

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



Source: Emsi Burning Glass impact model.

STUDENT PERSPECTIVE		TAXPAYER PERSPECTIVE		SOCIAL PERSPECTIVE	
<div>Present value benefits</div> <div>\$90.9 million</div> <div>Present value costs</div> <div>\$14.7 million</div> <div>Net present value</div> <div>\$76.2 million</div>		<div>Present value benefits</div> <div>\$25.6 million</div> <div>Present value costs</div> <div>\$18 million</div> <div>Net present value</div> <div>\$7.7 million</div>		<div>Present value benefits</div> <div>\$266.8 million</div> <div>Present value costs</div> <div>\$37.8 million</div> <div>Net present value</div> <div>\$229 million</div>	
Benefit-cost ratio	Rate of return	Benefit-cost ratio	Rate of return	Benefit-cost ratio	Rate of return
6.2	27.2	1.4	2.8%	7.1	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 Carteret CC creates value from multiple perspectives. The college benefits county businesses by increasing consumer spending in the county and supplying a steady flow of qualified, trained workers to the workforce. Carteret CC 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, Carteret CC benefits society as a whole in North Carolina 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 2019-20 academic and financial reports from Carteret CC, industry and employment data from the U.S. Bureau of Labor Statistics and U.S. Census Bureau, outputs of Emsi Burning Glass'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 Carteret CC creates value from **multiple perspectives.**



Emsi Burning Glass provides colleges and universities with labor market data that helps 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 Emsi Burning Glass 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 [economicmodeling.com/higher-education](https://economicmodeling.com/higher-education) to learn more or connect with us.