



The Economic Value of Cuyahoga Community College

EXECUTIVE SUMMARY



CUYAHOGA Community College (Tri-C) 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 county, generating new dollars and opportunities for Cuyahoga County. Tri-C provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, Tri-C is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by Tri-C 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) 2017-18. Impacts on the Cuyahoga 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 Ohio are reported under the investment analysis.

*The value of Tri-C influences both the **lives of its students** and the **county economy**.*



Economic impact analysis

Tri-C promotes economic growth in Cuyahoga 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 operations. The college's activities attract students from outside Cuyahoga County, whose expenditures benefit county vendors. In addition, Tri-C is a primary source of higher education to Cuyahoga County residents and a supplier of trained workers to county industries, enhancing overall productivity in the county workforce.

Operations Spending Impact



Tri-C adds economic value to Cuyahoga County as an employer of county residents and a large-scale buyer of goods and services. In FY 2017-18, the college employed 3,531 full-time and part-time faculty and staff, 73% of whom lived in Cuyahoga County. Total payroll at Tri-C was \$184.2 million, much of which was spent in the county for groceries, mortgage and rent payments, dining out, and other household expenses. In addition, the college spent \$91.7 million on day-to-day expenses related to facilities, supplies, and professional services.

Tri-C's day-to-day operations spending added \$223.9 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 \$223.9 million in added income is equivalent to supporting 4,016 jobs in the county.

Construction Spending Impact



Tri-C commissioned contractors to build or renovate its facilities in FY 2017-18. The quick infusion of income and jobs that occurred in the county economy as a result of this construction spending is considered short-term due to the one-time nature of such projects. Nonetheless, the college's construction spending had a substantial impact on the county economy in FY 2017-18, equal to \$21.6 million in added income and equivalent to supporting 270 jobs.

Student Spending impact



Around 24% of students attending Tri-C originated from outside the county in FY 2017-18, and some of these students relocated to Cuyahoga County to attend Tri-C. These students may not have

IMPACTS CREATED BY TRI-C
IN FY 2017-18



\$223.9 million
Operations Spending Impact



\$21.6 million
Construction Spending Impact



\$12.2 million
Student Spending Impact



\$1.4 billion
Alumni Impact



\$1.7 billion
TOTAL IMPACT

- OR -

21,500
JOBS SUPPORTED

come to the county if the college did not exist. In addition, some in-county students, referred to as retained students, would have left Cuyahoga County if not for the existence of Tri-C. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$12.2 million in added income for the county economy in FY 2017-18, which supported 207 jobs in Cuyahoga County.

Alumni Impact



The education and training Tri-C provides for county residents has the greatest impact. Since its establishment, students have studied at Tri-C and entered the county workforce with greater knowledge and new skills. Today, hundreds of thousands of former Tri-C students are employed in Cuyahoga County. As a result of their Tri-C educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2017-18, Tri-C alumni generated \$1.4 billion in added income for the county economy, which is equivalent to supporting 17,008 jobs.

Total Impact

Tri-C added \$1.7 billion in income to the Cuyahoga 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 \$1.7 billion impact was equal to approximately 1.8% of the total gross regional product (GRP) of Cuyahoga County. This contribution that the college provided on its own was nearly as large as the entire Arts, Entertainment, & Recreation industry in the county.

Tri-C's total impact can also be expressed in terms of jobs supported. The \$1.7 billion impact supported 21,500 county jobs, using the jobs-to-sales ratios specific to each industry in the county. This means that one out of every 44 jobs in Cuyahoga County is supported by the activities of Tri-C and its students. In addition, the \$1.7 billion, or 21,500 supported jobs, impacted county industries in different ways. Among non-education industry sectors, Tri-C supported the most jobs in the Retail Trade industry sector – supporting 4,005 jobs in FY 2017-18. These are impacts that would not have been generated without the college's presence in Cuyahoga County.

TOP INDUSTRIES IMPACTED BY TRI-C (JOBS SUPPORTED)



One out of every 44 jobs
in Cuyahoga County is
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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 Tri-C as an investment from the perspectives of students, taxpayers, and society in Ohio.

Student perspective



In FY 2017-18, Tri-C served 39,023 credit and 12,534 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 Tri-C's students in FY 2017-18 amounted to a present value of \$252.2 million, equal to \$59.8 million in out-of-pocket expenses (including future principal and interest on student loans) and \$192.4 million in forgone time and money.

In return for their investment, Tri-C's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average Tri-C associate degree graduate from FY 2017-18 will see an increase in earnings of \$10,500 each year compared to a person with a high school diploma or equivalent working in Ohio. Over a working lifetime, the benefits of the associate degree over a high school diploma will amount to an undiscounted value of \$388.5 thousand in higher earnings per graduate. Altogether, Tri-C's FY 2017-18 students will receive \$961.3 million in higher future earnings over their working lives, as a result of their education and training at Tri-C.

STUDENTS SEE A HIGH RATE OF RETURN FOR THEIR INVESTMENT IN TRI-C



16.6%

Average annual return for Tri-C students



10.1%

Stock market 30-year average annual return

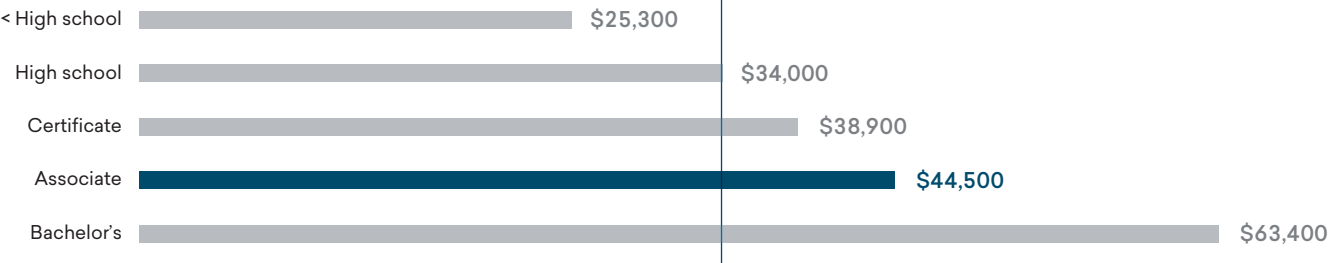


0.8%

Interest earned on savings account (National Rate Cap)

Source: Forbes' S&P 500, 1987-2016. FDIC.gov, 7-2016.

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



Source: Emsi complete employment data.

The students' benefit-cost ratio is 3.8. In other words, for every dollar students invest in Tri-C, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$3.80 in higher future earnings. Annually, the students' investment in Tri-C has an average annual internal rate of return of 16.6%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 10.1%.

Taxpayer perspective



Tri-C 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 Tri-C 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 2017-18 students' working lives, the state and local government will have collected a present value of \$357.9 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of Tri-C students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' Tri-C 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. Tri-C 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 Tri-C education will generate \$23.7 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$381.6 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$202.2 million, equal to the amount of state and local government funding Tri-C received in FY 2017-18. These benefits and costs yield a benefit-cost ratio of 1.9. This means that for every dollar of public money invested in Tri-C in FY 2017-18, taxpayers will receive a cumulative value of \$1.90 over

For every dollar of public money invested in Tri-C, taxpayers will receive a cumulative value of \$1.90 over the course of the students' working lives.



STUDENT PERSPECTIVE

\$961.3 million
Present value benefits

\$252.2 million
Present value costs

\$709.1 million
Net present value

Benefit-cost Ratio	Rate of Return
3.8	16.6%



TAXPAYER PERSPECTIVE

\$381.6 million
Present value benefits

\$202.2 million
Present value costs

\$179.3 million
Net present value

Benefit-cost Ratio	Rate of Return
1.9	4.6%



SOCIAL PERSPECTIVE

\$5.3 billion
Present value benefits

\$563.1 million
Present value costs

\$4.7 billion
Net present value

Benefit-cost Ratio	Rate of Return
9.4	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.

the course of the students’ working lives. The average annual internal rate of return for taxpayers is 4.6%, which compares favorably to other long-term investments in the public and private sectors.

Social perspective



Society as a whole in Ohio benefits from the presence of Tri-C 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 Ohio.

Benefits to society also consist of the savings generated by the improved lifestyles of Tri-C 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.

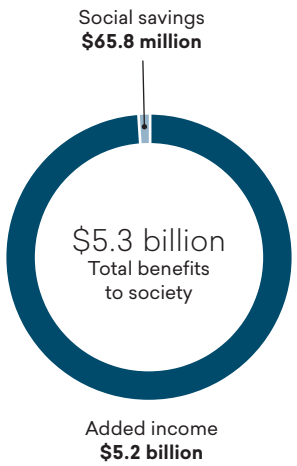
Altogether, the social benefits of Tri-C equal a present value of \$5.3 billion. These benefits include \$5.2 billion in added income through students’ increased lifetime earnings and increased business output, as well as \$65.8 million in social savings related to health, crime, and income assistance in Ohio. People in Ohio invested a present value total of \$563.1 million in Tri-C in FY 2017-18. The cost includes all the college and student costs.

The benefit-cost ratio for society is 9.4, equal to the \$5.3 billion in benefits divided by the \$563.1 million in costs. In other words, for every dollar invested in Tri-C, people in Ohio will receive a cumulative value of \$9.40 in benefits. The benefits of this investment will occur for as long as Tri-C’s FY 2017-18 students remain employed in the state workforce.

Summary of investment analysis results

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

SOCIAL BENEFITS IN OHIO FROM TRI-C



Conclusion

The results of this study demonstrate that Tri-C 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. Tri-C 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, Tri-C benefits society as a whole in Ohio by creating a more prosperous economy and generating a variety of savings through the improved lifestyles of students.

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multiple perspectives.

About the Study

Data and assumptions used in the study are based on several sources, including the FY 2017-18 academic and financial reports from Tri-C, 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.



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