



The Economic Value of Queens College

EXECUTIVE SUMMARY

QUEENS College (QC) creates value in many ways. The college plays a key role in helping students increase their employability and achieve their individual potential as pursuant by its commitment outlined in the City University of New York Mission “*The city university is of vital importance as a vehicle for the upward mobility of the disadvantaged in the city of New York... The mission of Queens College is to prepare students to become leading citizens of an increasingly global society.*”¹ Furthermore, the college facilitates new research and assists in the development of new companies and also draws visitors and students to the region, generating new dollars and opportunities for the New York City (NYC) Metropolitan Area.²

QC provides students with the education, training, and skills they need to have fulfilling and prosperous careers. As a result, QC is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

QC influences both the lives of its students and the regional economy. The college supports a variety of industries in the NYC Metropolitan Area, serves regional businesses, and—by generating economic activity and improving the overall quality of life—advances the society of New York. The benefits created by QC even extend to the state and local government through increased tax revenues and public sector savings.

This study measures QC’s economic impacts 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:

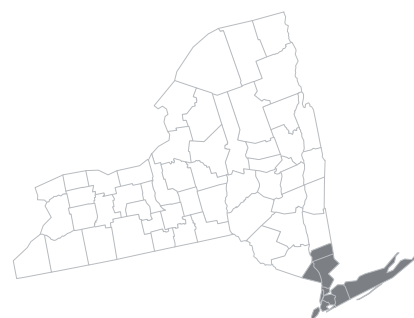


Economic impact analysis



Investment analysis

All results reflect employee, student, and financial data, provided by the college, for fiscal year (FY) 2017-18. Impacts on the NYC Metropolitan 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 New York are reported under the investment analysis.



THE NYC METROPOLITAN AREA

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



¹ New York Consolidated Laws, Education Law – EDN §6201 (2015).

² For the purposes of this analysis, the NYC Metropolitan Area comprises the following counties: Bronx, Kings, Nassau, New York, Putnam, Queens, Richmond, Rockland, Suffolk, and Westchester.



Economic impact analysis

IMPACTS CREATED BY
QC IN FY 2017-18

QC promotes economic growth in the NYC Metropolitan Area through its direct expenditures and the resulting expenditures of faculty and staff, visitors, students, and regional businesses. The college itself serves as an employer and buyer of goods and services for its day-to-day and research operations. Numerous start-up and spin-off companies have formed as a result of programs and knowledge at QC. The college's activities attract researchers, visitors and students from outside the NYC Metropolitan Area, whose expenditures benefit regional vendors. In addition, QC is a primary source of higher education to the NYC Metropolitan Area residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

Operations spending impact



QC adds economic value to the NYC Metropolitan Area as an employer of regional residents and a large-scale buyer of goods and services. In FY 2017-18, the college employed 2,979 full-time and part-time faculty and staff (excluding research employees), 95% of whom lived in the NYC Metropolitan Area. Total payroll at QC was \$223.4 million (excluding payroll from research employees), 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 \$50.7 million on day-to-day expenses related to facilities, supplies, and professional services (excluding research expenditures).

QC's day-to-day operations spending added \$276.1 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 annual impact of \$276.1 million in added income is equivalent to supporting 3,402 jobs in the region.

Research spending impact



Research activities impact the economy by employing people and requiring the purchase of equipment and other supplies and services. QC received 63 invention disclosures and produced 6 licenses in FY 2017-18.

In FY 2017-18, QC spent \$7.3 million on payroll to support research activities. This, along with \$9.4 million in other research spending, created a net total of \$11 million in added income for the regional economy. This added income is equivalent to supporting 131 jobs.



\$276.1 million
Operations Spending impact



\$11.0 million
Research Spending Impact



\$3.0 million
Capital Spending Impact



\$35.8 million
Start-up & Spin-off Company Impact



\$1.8 million
Visitor Spending Impact



\$23.1 million
Student Spending Impact



\$1.5 billion
Alumni Impact



\$1.8 billion
TOTAL IMPACT

- OR -

16,862
JOBS SUPPORTED

Capital spending impact



QC invests in capital spending each year to maintain its facilities, create additional research capacities, and meet its growing educational demands. During FY 2017-18, QC spent a total of \$8.5 million of the projected \$189.3 million allocated to the various construction projects. While the amount varies from year to year, these quick infusions of income and jobs have a substantial impact on the regional economy. QC's FY 2017-18 capital spending generated \$3 million in added income, which is equivalent to supporting 37 jobs.

Start-up and spin-off company impact



QC creates an exceptional environment that fosters innovation and entrepreneurship, evidenced by the number of QC start-up and spin-off companies launched in the region. Start-up companies, created specifically to license and commercialize QC technology or knowledge, have a strong and clearly defined link to QC. Spin-off companies, created and fostered through college programs or faculty and alumni, have a clear but weaker link to QC.

In FY 2017-18, QC start-up and spin-off companies added \$35.8 million in income to the NYC Metropolitan Area economy, which is equivalent to supporting 129 jobs.

Visitor spending impact



Thousands of visitors from outside the region were attracted to QC during the analysis year to attend commencement, sports events, and other activities sponsored by the college. While in the region, visitors spent money for lodging, food, transportation, and other personal expenses. The off-campus expenditures of the college's out-of-region visitors generated a net impact of \$1.8 million in added income for the regional economy in FY 2017-18. This \$1.8 million in added income is equivalent to supporting 19 jobs.

Student spending impact



QC fulfills its mission of serving the community, with its enrollment primarily comprised of NYC Metropolitan Area residents. In FY 2017-18, QC served 829 credit students originating from outside the service region. These students relocated to the NYC Metropolitan Area to attend the college. In addition, a portion of QC students, referred to as retained students, would have left the NYC Metropolitan Area if not for the existence of QC. The money that these students spent toward living expenses in the NYC Metropolitan Area is attributable to QC. While attending the college, these



QC faculty and staff impact

Fourteen CUNY Distinguished Professors teach at QC and eight out of ten of all full-time faculty have a doctorate. QC students learn from leaders in their fields, among them Fulbright fellows, Guggenheim Award recipients, and grantees of the National Institutes of Health. The impact of QC's renowned faculty and staff can't be quantified purely in dollars; however, in economic terms, of the \$287.0 million in added income from the operations spending and the research spending impacts to the NYC Metropolitan Area in FY 2017-18, **\$275.7 million³** is from QC faculty and staff alone. Attracting and retaining researchers, professors, and many professionals to the NYC Metropolitan Area retains payroll dollars in the region, as much of it is spent on goods and services, generating additional economic activity.

3 This impact is included within the operations and the research spending impacts and thus should not be summed.

QC provides essential support for innovation

Created with the goal of offering space to startup firms, the Tech Incubator at QC hosts public workshops on topics related to technology. The incubator also holds an annual competition, Pitch Fest, in which would-be entrepreneurs submit a proposal for the company they hope to create. Top finishers win cash prizes and help in developing their products or services.

relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$23.1 million in added income for the regional economy in FY 2017-18, which supported 301 jobs in the NYC Metropolitan Area.

Alumni impact



The education and training QC provides for regional residents has the greatest impact. QC fulfills its mission by primarily serving in-region students. Nearly 70% of all students are from the Borough of Queens. Today, thousands of these former students are employed in the NYC Metropolitan Area, with nearly 85% of graduates staying in the region and contributing to the brain gain of the NYC Metropolitan Area.

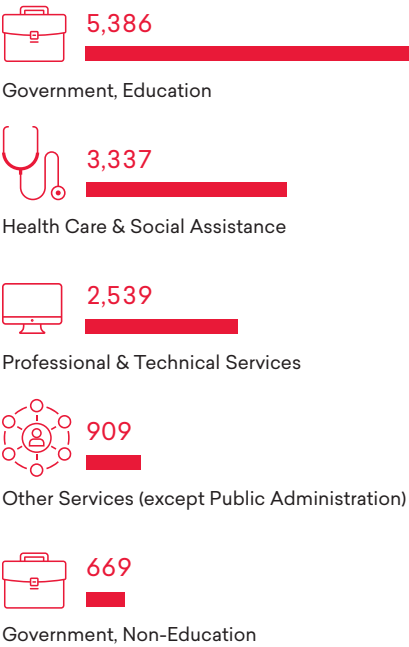
As a result of their QC educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2017-18, QC alumni generated \$1.5 billion in added income for the regional economy, which is equivalent to supporting 12,843 jobs.

Total impact

QC added an annual impact of \$1.8 billion in income to the NYC Metropolitan Area economy during the analysis year, equal to the sum of the operations, research, and capital spending impacts, the start-up and spin-off company impact, the visitor and student spending impacts, and the alumni impact. For context, the \$1.8 billion impact was equal to approximately 0.1% of the total gross regional product (GRP) of the NYC Metropolitan Area.

QC’s total impact can also be expressed in terms of jobs supported. The \$1.8 billion impact supported 16,862⁴ regional jobs, using the jobs-to-sales ratios specific to each industry in the region. In addition, the \$1.8 billion, or 16,862 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, QC’s spending and alumni in the Health Care & Social Assistance industry sector supported 3,337 jobs in FY 2017-18. These are impacts that would not have been generated without the college’s presence in the NYC Metropolitan Area.

QC IMPACTS BY TOP INDUSTRY (JOBS SUPPORTED)



4 The sample to the right shows the QC impacts by top industries in terms of jobs supported, another 4,022 jobs are distributed over multiple industries and can be viewed in detail in Chapter 2, Table 2.15 of the Main Report.



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 QC as an investment from the perspectives of students, taxpayers, and society in New York.

Student perspective



In FY 2017-18, QC served 24,363 credit and 2,877 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 QC's students in FY 2017-18 amounted to a present value of \$290.2 million, equal to \$88.8 million in out-of-pocket expenses (including future principal and interest on student loans) and \$201.4 million in forgone time and money. Only 7% of QC students take out loans, with the average amount of a QC student loan in FY 2017-18 at \$4,945.⁵

In return for their investment, QC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average QC bachelor's degree graduate from FY 2017-18 will see annual earnings that are \$34,500 higher than a person with a high school diploma or equivalent working in New York. Over a working lifetime, the benefits of the bachelor's degree over a high school diploma will amount to an undiscounted value of \$1.5 million in higher earnings per graduate. The present value of the cumulative higher future earnings that QC's FY 2017-18 students will receive over their working careers is \$1.6 billion.

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



17.9%

Average annual return for QC students



9.9%

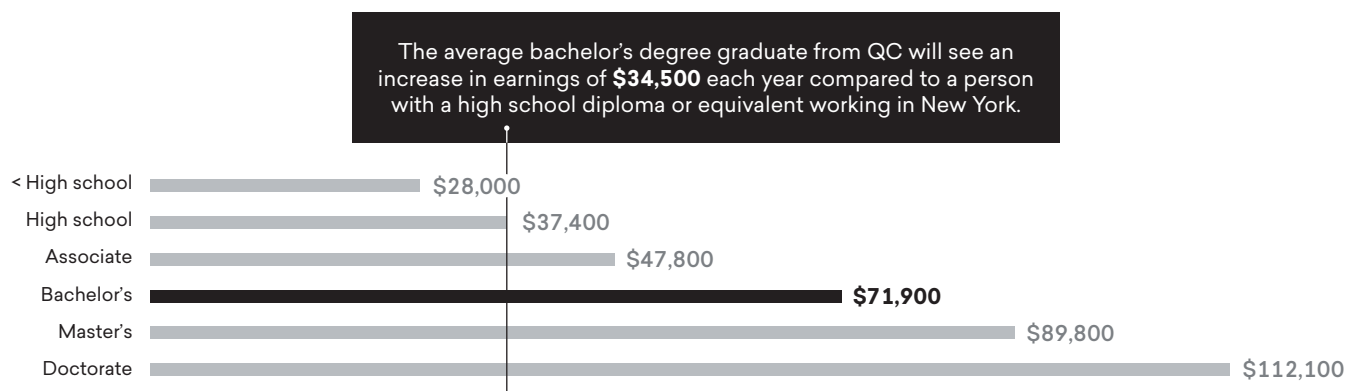
Stock market 30-year average annual return



0.8%

Interest earned on savings account (National Rate Cap)

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



Source: Emsi employment data.

⁵ Tuition cost, financial aid, debt and value evaluation for Queens College (City University of New York) Tuition and Financial Aid, cited by <https://www.prepscholar.com/sat/s/colleges/Queens-College-City-University-of-New-York-tuition-financial-aid>.

The students' benefit-cost ratio is 5.5. In other words, for every dollar students invest in QC, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$5.50 in higher future earnings. Annually, the students' investment in QC has an average annual internal rate of return of 17.9%, which is impressive compared to the U.S. stock market's 30-year average rate of return of 9.9%. QC students see, on average, a payback period of 7.1 years, meaning 7.1 years after their initial investment of foregone earnings and out-of-pocket costs.

Taxpayer perspective



QC 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 QC 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 \$509.3 million in added taxes.

Benefits to taxpayers will also consist of savings generated by the improved lifestyles of QC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' QC educations will generate savings in three main categories: 1) health care, 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. QC 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 QC education will generate \$108.6 million in savings to state and local taxpayers.

Total taxpayer benefits amount to \$617.9 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$127 million, equal to the amount of state and local government funding QC received in FY 2017-18.

*For every dollar of public money invested in QC, taxpayers will receive a cumulative value of **\$4.90** over the course of the students' working lives.*



STUDENT PERSPECTIVE

\$1.6 billion
Present value benefits

\$290.2 million
Present value costs

\$1.3 billion
Net present value

Benefit-cost ratio	Rate of return
5.5	17.9%



TAXPAYER PERSPECTIVE

\$617.9 million
Present value benefits

\$127 million
Present value costs

\$490.9 million
Net present value

Benefit-cost ratio	Rate of return
4.9	13.3%



SOCIAL PERSPECTIVE

\$5.1 billion
Present value benefits

\$517.2 million
Present value costs

\$4.6 billion
Net present value

Benefit-cost ratio	Rate of return
9.9	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.

These benefits and costs yield a benefit-cost ratio of 4.9. This means that for every dollar of public money invested in QC in FY 2017-18, taxpayers will receive a cumulative value of \$4.90 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 13.3%, which compares favorably to other long-term investments in the public and private sectors.

Social perspective



Society as a whole in New York benefits from the presence of QC 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 New York.

Benefits to society also consist of the savings generated by the improved lifestyles of QC 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. Health care 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.

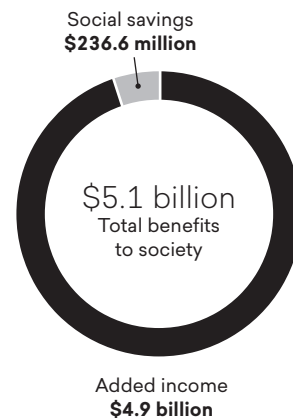
Altogether, the social benefits of QC equal a present value of \$5.1 billion. These benefits include \$4.9 billion in added income through students' increased life-time earnings and increased business output, as well as \$236.6 million in social savings related to health, crime, and income assistance in New York. People in New York invested a present value total of \$517.2 million in QC in FY 2017-18. The cost includes all the college and student costs.

The benefit-cost ratio for society is 9.9, equal to the \$5.1 billion in benefits divided by the \$517.2 million in costs. In other words, for every dollar invested in QC, people in New York will receive a cumulative value of \$9.90 in benefits. The benefits of this investment will occur for as long as QC's FY 2017-18 students remain employed in the state workforce.

Summary of investment analysis results

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

SOCIAL BENEFITS IN NEW YORK FROM QC



QC enhances community well-being

QC uses its facilities to support the diverse population of its home borough. Recent public events on the campus have included New York State's first Veterans Resource Fair; a Black Business Expo that highlighted African American-owned companies and enabled their representatives to network with students; CUNY Pridefest, which included an LGBTQIA+ expo; and just last fall, the College Fair for Young Men, which attracted more than 2,000 high school students, most of them young men of color.

QC plays an active role in supporting New York youth and their future

Our students play active roles in outreach efforts. Participants in the college's Big Buddy program volunteer to mentor children from homeless families and accompany the youngsters on field trips to museums and parks they might not visit otherwise. Accounting majors donate their time to a clinic that prepares tax returns for low- and middle-income wage earners. Graduate students in areas such as psychology, special education, and speech language pathology get hands-on training by working with clients in on-campus programs supervised closely by faculty.

Conclusion

The results of this study demonstrate that QC 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. QC 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, QC benefits society as a whole in New York 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 2017-18 academic and financial reports from QC, 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 QC creates value from
multiple perspectives.



Emsi is a labor market analytics firm that integrates data from a wide variety of sources to serve professionals in higher education, economic development, workforce development, talent acquisition, and site selection. Emsi is a leading provider of economic impact studies and labor market data to educational institutions in the U.S. and internationally. Since 2000, Emsi has completed over 2,000 economic impact studies for institutions across three countries. For more information about Emsi's products and services, visit www.economicmodeling.com.