

The Economic Value of Loyalist College of Applied Arts and Technology





LOYALIST COLLEGE OF APPLIED ARTS AND TECHNOLOGY (Loyalist College) creates value in many ways. The college plays a key role in helping students increase their employability and achieve their individual potential. It facilitates new research developments and draws students to the region, generating new dollars and opportunities for the Loyalist Service Region.¹ Loyalist College provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, Loyalist College is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

Loyalist College influences both the lives of its students and the regional economy. The college supports a variety of industries in the Loyalist Service Region, serves regional businesses, and benefits the provincial government through increased tax revenues and public sector savings. The benefits created by Loyalist College even extend to society as a whole in Ontario, which benefits from an expanded economy and improved quality of life.

This study measures the economic impacts created by Loyalist College 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) 2022-23. Impacts on the Loyalist Service Region 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 Ontario are reported under the investment analysis.



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

¹ For the purposes of this analysis, the Loyalist Service Region is comprised of Hastings County, Lennox & Addington County, Northumberland County, and Prince Edward County.



Economic impact analysis

Loyalist College promotes economic growth in the Loyalist Service Region 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 and research operations. The college's activities attract students from outside the Loyalist Service Region, whose expenditures benefit regional vendors. In addition, Loyalist College is a primary source of postsecondary education to Loyalist Service Region residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

Operations spending impact



Loyalist College adds economic value to the Loyalist Service Region as an employer of regional residents and a large-scale buyer of goods and services. In FY 2022-23, the college employed faculty and staff equivalent to 675 full-time employees (excluding research employees), 81% of whom lived in the Loyalist Service Region. Total payroll at Loyalist College was \$55.6 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 \$27.6 million on day-to-day expenses related to facilities, supplies, and professional services (excluding research expenditures).

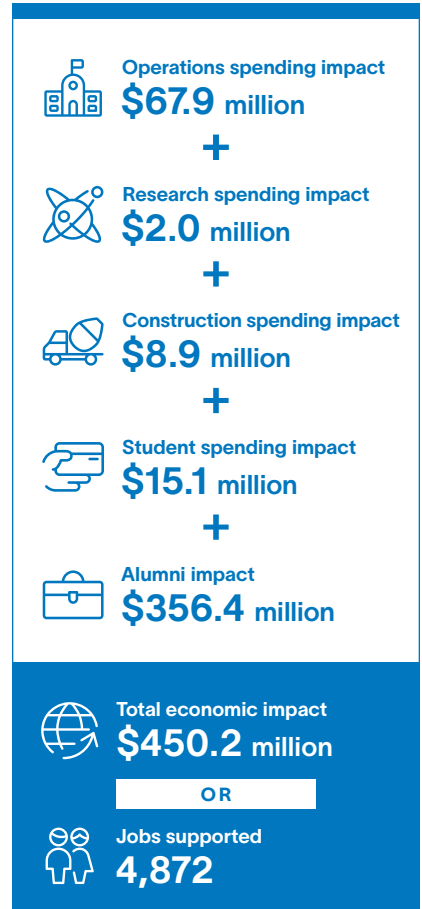
Loyalist College's day-to-day operations spending added \$67.9 million in income to the region during the analysis year. This figure represents the college's payroll, the multiplier effects generated by the in-region spending of the college and its employees, and a downward adjustment to account for funding that the college received from regional sources. The \$67.9 million in added income is equivalent to supporting 799 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. In FY 2022-23, Loyalist College spent \$1.6 million on payroll to support research activities. This, along with \$490 thousand in other research spending, created a net total of \$2.0 million in added income for the regional economy. This added income is equivalent to supporting 23 jobs.

Impacts created by
Loyalist College in FY 2022-23



Construction spending impact



Loyalist College spends millions on construction each year to maintain its facilities, create additional capacities, and meet its growing educational demands. While the amount varies from year to year, this spending generates a short-term infusion of spending and jobs in the regional economy. The quick infusion of income and jobs that occurred in the regional 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 regional economy in FY 2022-23, equal to \$8.9 million in added income and equivalent to supporting 78 jobs.

Student spending impact



Around 66% of credit students attending Loyalist College originated from outside the region in FY 2022-23, and some of these students relocated to the Loyalist Service Region to attend Loyalist College. 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 Loyalist Service Region if not for the existence of Loyalist College. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$15.1 million in added income for the regional economy in FY 2022-23, which supported 239 jobs in the Loyalist Service Region.

Impact of Indigenous and international students

Indigenous and international students are an important part of the Loyalist College community. In FY 2022-23, Loyalist College served 131 self-identified Indigenous students,² along with 1,967 international students. These students brought new money to the regional economy or retained money in the region through their spending on housing, food, and other living expenses. In FY 2022-23, Indigenous student spending generated \$497.9 thousand in added income for the regional economy, along with international student spending generating \$10.9 million.

It is estimated that 50% of Indigenous students and 60% of international students remain in the region after finishing their time at Loyalist College. Today, many of these students are employed in the Loyalist Service Region, receiving higher earnings and increasing the productivity of the businesses that employ them. In FY 2022-23, Indigenous alumni generated \$10.2 million in added income for the regional economy, along with international alumni generating \$12.6 million.

² Indigenous student identification is self-reported, but not all Indigenous students choose to self-identify. As such, the numbers presented here represent the best efforts to capture the important impact Indigenous students have had and continue to have in the community.



Alumni impact



The education and training Loyalist College provides for regional residents has the greatest impact. Since its establishment, students have studied at Loyalist College and entered the regional workforce with greater knowledge and new skills. Today, thousands of former Loyalist College students are employed in the Loyalist Service Region. As a result of their Loyalist College educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2022-23, Loyalist College alumni generated \$356.4 million in added income for the regional economy, which is equivalent to supporting 3,733 jobs.

Total impact

Loyalist College added \$450.2 million in income to the Loyalist Service Region economy during the analysis year, equal to the sum of the operations, research, and construction spending impacts; the student spending impact; and the alumni impact. For context, the \$450.2 million impact was equal to approximately 3.0% of the total gross regional product (GRP) of the Loyalist Service Region. This contribution that the college provided on its own is larger than the entire Accommodation & Food Services industry in the region.

Loyalist College's total impact can also be expressed in terms of jobs supported. The \$450.2 million impact supported 4,872 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 28 jobs in the Loyalist Service Region is supported by the activities of Loyalist College and its students. In addition, the \$450.2 million, or 4,872 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, Loyalist College's activity and alumni in the Health Care & Social Assistance industry sector supported 900 jobs in FY 2022-23. These are impacts that would not have been generated without the college's presence in the Loyalist Service Region.

Top industry impacts (jobs supported)



One out of every 28 jobs in the Loyalist Service Region is supported by Loyalist College and its students.



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 Loyalist College as an investment from the perspectives of students, taxpayers, and society in Ontario.

Student perspective



In FY 2022-23, Loyalist College served 3,878 credit and 4,105 non-credit students. In order to attend the college, the students paid for tuition, fees, books, and supplies. Additionally, students gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by Loyalist College's students in FY 2022-23 amounted to a present value of \$144.5 million, equal to \$66.7 million in out-of-pocket expenses and \$77.8 million in forgone time and money.

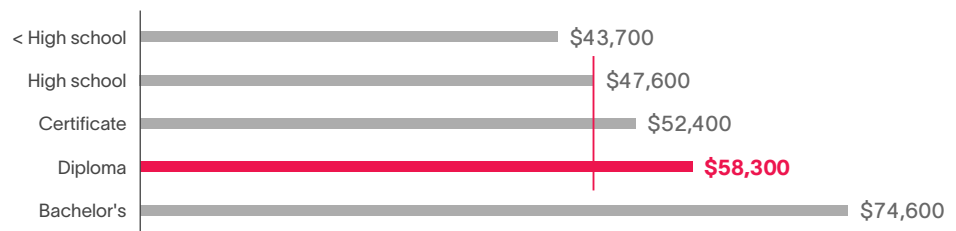
In return for their investment, Loyalist College's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average Loyalist College diploma graduate from FY 2022-23 will see an increase in earnings of \$10,700 each year compared to a person with a high school diploma or equivalent working in Ontario. Over a working lifetime, the benefits of the diploma over a high school diploma will amount to an undiscounted value of \$438.7 thousand in higher earnings per graduate. Altogether, Loyalist College's FY 2022-23 students will receive \$179.2 million in higher future earnings over their working lives, as a result of their education and training at Loyalist College.

The students' benefit-cost ratio is 1.2. In other words, for every dollar students invest in Loyalist College, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$1.20 in higher future earnings. Annually, the students' investment in Loyalist College has an average annual internal rate of return of 9.1%.



Average earnings by education level at career midpoint

The average diploma graduate from Loyalist College will see an increase in earnings of **\$10,700** each year compared to a person with a high school diploma or equivalent working in Ontario.



Source: Lightcast employment data

Taxpayer perspective



Loyalist College generates more in tax revenue than it takes. These benefits to taxpayers consist primarily of taxes that the provincial government will collect from the added revenue created in the province. As Loyalist College students 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 2022-23 students' working lives, the provincial government will have collected a present value of \$140.3 million in added tax revenue.

Benefits to taxpayers also consist of savings generated by the improved lifestyles of Loyalist College students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' Loyalist College educations will generate savings in three main categories: 1) healthcare, 2) crime, and 3) income assistance. Improved health will lower students' demand for 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 reduced victim costs. Loyalist College 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 Loyalist College education will generate \$7.5 million in savings to provincial taxpayers.

Total taxpayer benefits amount to \$147.8 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$29.6 million, equal to the amount of provincial government funding Loyalist College received in FY 2022-23. These benefits and costs yield a benefit-cost ratio of 5.0. This means that for every dollar of public money invested in Loyalist College in FY 2022-23, taxpayers will receive a cumulative value of \$5.00 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 30.2%, which compares favorably to other long-term investments in the public and private sectors.

For every dollar of public money invested in Loyalist College, taxpayers will receive a cumulative value of **\$5.00** over the course of the students' working lives.

Social perspective



Society as a whole in Ontario benefits from the presence of Loyalist College in two major ways. Primarily, society benefits from an increased economic base in the province. This is attributed to higher student earnings and increased business output, which raise economic prosperity in Ontario.

Benefits to society also consist of the savings generated by the improved lifestyles of Loyalist College 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, and mental illness. Crime

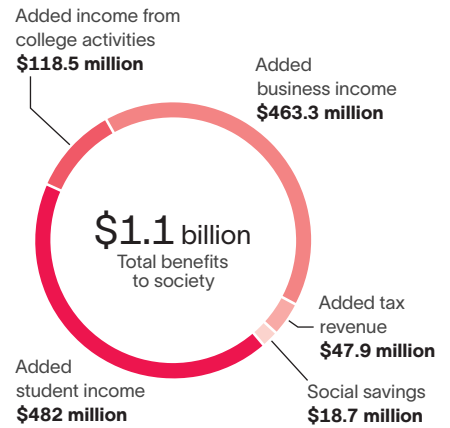


savings include reduced criminal justice system expenditures, lower victim costs, and increased productivity of individuals who are working rather than spending time in custody. Income assistance savings include the reduced demand for employment insurance benefits and employment-related social assistance. For a list of study references, contact the college for a copy of the main report.

Altogether, the social benefits of Loyalist College equal a present value of \$1.1 billion. These benefits include \$463.3 million in added business income, \$47.9 million in added tax revenue, \$118.5 million in added income from college activities, and \$482.0 million in added student income, as well as \$18.7 million in social savings related to health, crime, and income assistance in Ontario. People in Ontario invested a present value total of \$167.0 million in Loyalist College in FY 2022-23. These costs include all college and student costs.

The benefit-cost ratio for society is 6.8, equal to the \$1.1 billion in benefits divided by the \$167.0 million in costs. In other words, for every dollar invested in Loyalist College, people in Ontario will receive a cumulative value of \$6.80 in benefits. The benefits of this investment will occur for as long as Loyalist College's FY 2022-23 students remain employed in the provincial workforce.

Social benefits in Ontario from Loyalist College






Source: Lightcast impact model

Summary of investment analysis results

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

Summary of investment analysis results

 Student perspective		 Taxpayer perspective		 Social perspective	
Present value benefits	\$179.2 million	Present value benefits	\$147.8 million	Present value benefits	\$1.1 billion
Present value costs	\$144.5 million	Present value costs	\$29.6 million	Present value costs	\$167.0 million
Net present value	\$34.7 million	Net present value	\$118.2 million	Net present value	\$963.4 million
Benefit-cost ratio	1.2	Benefit-cost ratio	5.0	Benefit-cost ratio	6.8
Rate of return	9.1%	Rate of return	30.2%	Rate of return	n/a*

* The rate of return is not reported for the social perspective because the beneficiaries are not necessarily the same as the original investors.

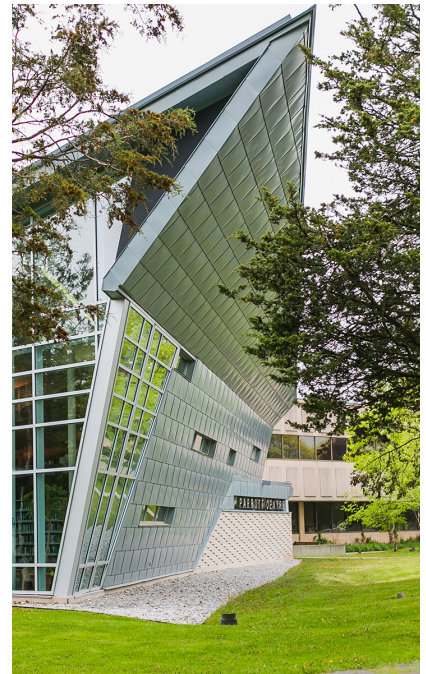
Conclusion

*The results of this study demonstrate that Loyalist College 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. Loyalist College enriches the lives of students by raising their lifetime earnings and helping them achieve their individual potential. The college benefits provincial taxpayers through increased tax receipts and a reduced demand for government-supported social services. Finally, Loyalist College benefits society as a whole in Ontario 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 2022-23 academic and financial reports from Loyalist College, industry and employment data from Statistics Canada, outputs of Lightcast's Canadian Regional Input-Output model, and a variety of studies and surveys relating education to social behaviour. The study applies a conservative methodology and follows standard practice using only the most recognized indicators of investment effectiveness and economic impact. For a full description of the data and approach used in the study, please contact Loyalist College for a copy of the main report.



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