



The Economic Value of Northern Lakes College



NLC SERVICE REGION

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

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

This study measures the economic impacts created by NLC 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**

NLC influences both the lives of its students and the regional economy.

All results reflect employee, student, and financial data, provided by the college, for fiscal year (FY) 2021-22. Impacts on the NLC 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 Alberta are reported under the investment analysis.

* For the purposes of this analysis, the NLC Service Region is comprised of the Athabasca-Barrhead-Westlock, Central Peace-Notley, Lesser Slave Lake, and Peace River electoral districts.

Economic impact analysis



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

Operations spending impact



NLC adds economic value to the NLC Service Region as an employer of regional residents and a large-scale buyer of goods and services. In FY 2021-22, the college employed faculty and staff equivalent to 223 full-time employees, 70% of whom lived in the NLC Service Region. Total payroll at NLC was \$23.3 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 \$11.1 million on day-to-day expenses related to facilities, supplies, and professional services.

NLC's day-to-day operations spending added \$25.4 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 \$25.4 million in added income is equivalent to supporting 258 jobs in the region.

Student spending impact



Around 48% of credit students attending NLC originated from outside the region in FY 2021-22, and some of these students relocated to the NLC Service Region to attend NLC. 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 NLC Service Region if not for the existence of NLC. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$1.3 million in added income for the regional economy in FY 2021-22, which supported 16 jobs in the NLC Service Region.

Impacts created by NLC in FY 2021-22



Operations spending impact

\$25.4 million

+



Student spending impact

\$1.3 million

+



Alumni impact

\$185.7 million



Total economic impact

\$212.5 million

OR

Jobs supported

2,210



Impact of indigenous students

Indigenous students are an important part of the NLC community. In FY 2021-22, NLC served 1,103 self-identified Indigenous students. Many of these Indigenous students are from the NLC Service Region, though some migrated into the region to attend. 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. Indigenous student spending in FY 2021-22 generated \$1.2 million in added income for the regional economy.

It is estimated that 67% of Indigenous students remain in the region after finishing their time at NLC. Today, thousands of these students are employed in the NLC Service Region, receiving higher earnings and increasing the productivity of the businesses that employ them. In FY 2021-22, these active alumni generated \$125.7 million in added income for the economy.

Alumni impact



The education and training NLC provides for regional residents has the greatest impact. Since its establishment, students have studied at NLC and entered the regional workforce with greater knowledge and new skills. Today, thousands of former NLC students are employed in the NLC Service Region. As a result of their NLC educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2021-22, NLC alumni generated \$185.7 million in added income for the regional economy, which is equivalent to supporting 1,936 jobs.

Total impact

NLC added \$212.5 million in income to the NLC Service Region 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 \$212.5 million impact was equal to approximately 2.5% of the total gross regional product (GRP) of the NLC Service Region. This contribution that the college provided on its own is as large as the entire Accommodation & Food Services industry in the region.

NLC's total impact can also be expressed in terms of jobs supported. The \$212.5 million impact supported 2,210 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 31 jobs in the NLC Service Region is supported by the activities of NLC and its students. In addition, the \$212.5 million, or 2,210 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, NLC's activity and alumni in the Health Care & Social Assistance industry sector supported 390 jobs in FY 2021-22. These are impacts that would not have been generated without the college's presence in the NLC Service Region.

Top industry impacts (jobs supported)



One out of every 31 jobs in NLC Service Region is supported by the activities of NLC 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 NLC as an investment from the perspectives of students, taxpayers, and society in Alberta.

Student perspective



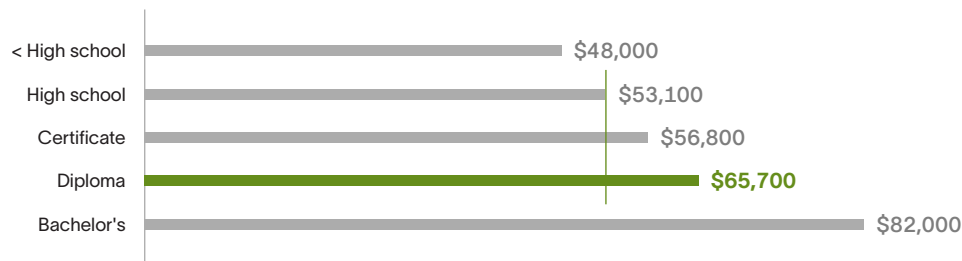
In FY 2021-22, NLC served 2,020 credit students. In order to attend the college, the students paid for tuition, fees, books, and supplies. Additionally, students gave up money they would have otherwise earned had they been working instead of attending college. The total investment made by NLC's students in FY 2021-22 amounted to a present value of \$35.2 million, equal to \$8.9 million in out-of-pocket expenses and \$26.3 million in forgone time and money.

In return for their investment, NLC's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average NLC diploma graduate from FY 2021-22 will see an increase in earnings of \$12,600 each year compared to a person with a high school diploma or equivalent working in Alberta. Over a working lifetime, the benefits of the diploma over a high school diploma will amount to an undiscounted value of \$428.4 thousand in higher earnings per graduate. Altogether, NLC's FY 2021-22 students will receive \$59.7 million in higher future earnings over their working lives, as a result of their education and training at NLC.

The students' benefit-cost ratio is 1.7. In other words, for every dollar students invest in NLC, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$1.70 in higher future earnings. Annually, the students' investment in NLC has an average annual internal rate of return of 12.8%.



The average diploma graduate from NLC will see an increase in earnings of **\$12,600** each year compared to a person with a high school diploma or equivalent working in Alberta.



Source: Derived from data supplied by Statistics Canada and the Lightcast CRIO model.

Taxpayer perspective



NLC 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 NLC 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 2021-22 students' working lives, the provincial government will have collected a present value of \$39.6 million in added tax revenue.

Benefits to taxpayers also consist of savings generated by the improved lifestyles of NLC students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' NLC educations will generate savings in three main categories: 1) health-care, 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. NLC 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 NLC education will generate \$1.8 million in savings to provincial taxpayers.

Total taxpayer benefits amount to \$41.3 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$34.6 million, equal to the amount of provincial government funding NLC received in FY 2021-22. These benefits and costs yield a benefit-cost ratio of 1.2. This means that for every dollar of public money invested in NLC in FY 2021-22, taxpayers will receive a cumulative value of \$1.20 over the course of the students' working lives. The average annual internal rate of return for taxpayers is 3.5%, which compares favorably to other long-term investments in the public and private sectors.

For every dollar of public money invested in NLC, taxpayers will receive a cumulative value of **\$1.20** over the course of the students' working lives.

Social perspective



Society as a whole in Alberta benefits from the presence of NLC 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 Alberta.

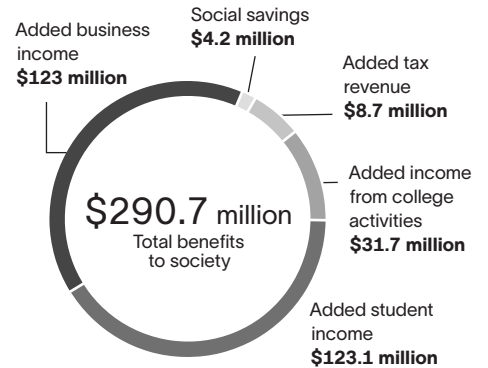
Benefits to society also consist of the savings generated by the improved lifestyles of NLC students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are 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 NLC equal a present value of \$290.7 million. These benefits include \$286.5 million in added income through students' increased lifetime earnings and increased business output, as well as \$4.2 million in social savings related to health, crime, and income assistance in Alberta. People in Alberta invested a present value total of \$62.5 million in NLC in FY 2021-22. These costs include all college and student costs.

The benefit-cost ratio for society is 4.7, equal to the \$290.7 million in benefits divided by the \$62.5 million in costs. In other words, for every dollar invested in NLC, people in Alberta will receive a cumulative value of \$4.70 in benefits. The benefits of this investment will occur for as long as NLC's FY 2021-22 students remain employed in the provincial workforce.

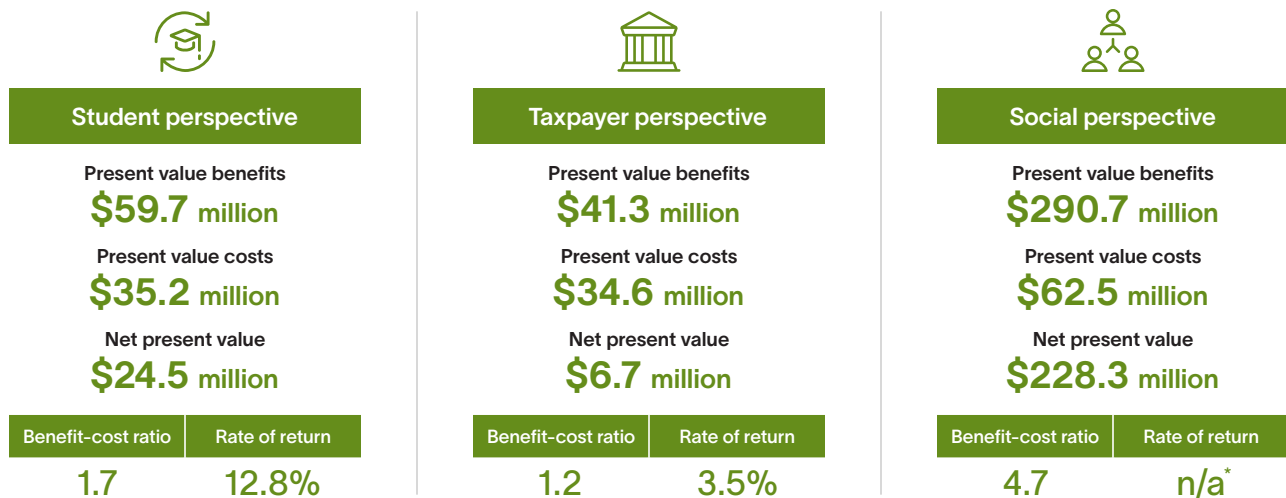
Social benefits in Alberta from NLC



Source: Lightcast impact model.

Summary of investment analysis results

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



* 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 NLC 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. NLC 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, NLC benefits society as a whole in Alberta 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 NLC, 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 NLC for a copy of the main report.

The results of this study demonstrate that NLC creates value from **multiple perspectives.**



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