



# The Economic Value of Coast Mountain College



**C** OAST MOUNTAIN COLLEGE (CMTN) 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 Northcoast/Nechako.\* CMTN provides students with the education, training, and skills they need to have fulfilling and prosperous careers. Furthermore, CMTN is a place for students to meet new people, increase their self-confidence, and promote their overall health and well-being.

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

This study measures the economic impacts created by CMTN 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:



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

-  **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 Northcoast/Nechako 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 British Columbia are reported under the investment analysis.

\* For the purposes of this analysis, Northcoast/Nechako is comprised of parts of the Nechako/Bulkley Valley and North Coast census divisions.



CMTN promotes economic growth in Northcoast/Nechako 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 Northcoast/Nechako, whose expenditures benefit regional vendors. In addition, CMTN is a primary source of postsecondary education to Northcoast/Nechako residents and a supplier of trained workers to regional industries, enhancing overall productivity in the regional workforce.

## Operations spending impact



CMTN adds economic value to Northcoast/Nechako as an employer of regional residents and a large-scale buyer of goods and services.

In FY 2019-20, the college employed faculty and staff equivalent to 221 full-time employees, 98% of whom lived in Northcoast/Nechako. Total payroll at CMTN was \$22.2 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 \$12 million on day-to-day expenses related to facilities, supplies, and professional services.

CMTN's day-to-day operations spending added \$31.5 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 \$31.5 million in added income is equivalent to supporting 348 jobs in the region.

## Student spending impact



Around 11% of students attending CMTN originated from outside the region in FY 2019-20, and some of these students relocated to Northcoast/Nechako to attend CMTN. 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 Northcoast/Nechako if not for the existence of CMTN. While attending the college, these relocated and retained students spent money on groceries, accommodation, transportation, and other household expenses. This spending generated \$6.6 million in added income for the regional economy in FY 2019-20, which supported 115 jobs in Northcoast/Nechako.

### IMPACTS CREATED BY CMTN IN FY 2019-20



Operations spending impact

**\$31.5 million**



Student spending impact

**\$6.6 million**



Alumni impact

**\$100.8 million**



TOTAL ECONOMIC IMPACT

**\$138.9 million**

OR

Jobs supported

**1,532**

## Alumni impact



The education and training CMTN provides for regional residents has the greatest impact. Since its establishment, students have studied at CMTN and entered the regional workforce with greater knowledge and new skills. Today, thousands of former CMTN students are employed in Northcoast/Nechako. As a result of their CMTN educations, the students receive higher earnings and increase the productivity of the businesses that employ them. In FY 2019-20, CMTN alumni generated \$100.8 million in added income for the regional economy, which is equivalent to supporting 1,069 jobs.

## Total impact

CMTN added \$138.9 million in income to the Northcoast/Nechako 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 \$138.9 million impact was equal to approximately 3.5% of the total gross regional product (GRP) of Northcoast/Nechako. This contribution that the college provided on its own is larger than the entire Accommodation & Food Services industry in the region.

CMTN's total impact can also be expressed in terms of jobs supported. The \$138.9 million impact supported 1,532 regional jobs, using the jobs-to-sales ratios specific to each industry in the region. This means that one out of every 25 jobs in Northcoast/Nechako is supported by the activities of CMTN and its students. In addition, the \$138.9 million, or 1,532 supported jobs, stemmed from different industry sectors. Among non-education industry sectors, CMTN's activity and alumni in the retail trade industry sector supported 339 jobs in FY 2019-20. These are impacts that would not have been generated without the college's presence in Northcoast/Nechako.

### TOP INDUSTRY IMPACTS (JOBS SUPPORTED)





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 CMTN as an investment from the perspectives of students, taxpayers, and society in British Columbia.

## Student perspective



In FY 2019-20, CMTN served 1,661 credit and 3,093 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 CMTN's students in FY 2019-20 amounted to a present value of \$27.1 million, equal to \$6.9 million in out-of-pocket expenses and \$20.2 million in forgone time and money.

In return for their investment, CMTN's students will receive a stream of higher future earnings that will continue to grow throughout their working lives. For example, the average CMTN diploma graduate from FY 2019-20 will see an increase in earnings of \$10,500 each year compared to a person with a high school diploma or equivalent working in British Columbia. Over a working lifetime, the benefits of the diploma over a high school diploma will amount to an undiscounted value of \$346.5 thousand in higher earnings per graduate. Altogether, CMTN's FY 2019-20 students will receive \$42.6 million in higher future earnings over their working lives, as a result of their education and training at CMTN.

The students' benefit-cost ratio is 1.6. In other words, for every dollar students invest in CMTN, in the form of out-of-pocket expenses and forgone time and money, they will receive a cumulative value of \$1.60 in higher future earnings. Annually, the students' investment in CMTN has an average annual internal rate of return of 11.4%.



The average diploma graduate from CMTN will see an increase in earnings of **\$10,500** each year compared to a person with a high school diploma or equivalent working in British Columbia.



Source: Derived from data supplied by Statistics Canada and the Emsi Burning Glass CRIO model.

## Taxpayer perspective



CMTN 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 CMTN 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 2019-20 students' working lives, the provincial government will have collected a present value of \$33.4 million in added tax revenue.

Benefits to taxpayers also consist of savings generated by the improved lifestyles of CMTN students and the corresponding reduced government services. Education is statistically correlated with a variety of lifestyle changes. Students' CMTN 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. CMTN 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 CMTN education will generate \$1.3 million in savings to provincial taxpayers.

Total taxpayer benefits amount to \$34.7 million, the present value sum of the added taxes and public sector savings. Taxpayer costs are \$29.7 million, equal to the amount of provincial government funding CMTN received in FY 2019-20. These benefits and costs yield a benefit-cost ratio of 1.2. This means that for every dollar of public money invested in CMTN in FY 2019-20, 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 3.6%, which compares favorably to other long-term investments in the public and private sectors.

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

## Social perspective



Society as a whole in British Columbia benefits from the presence of CMTN 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 British Columbia.

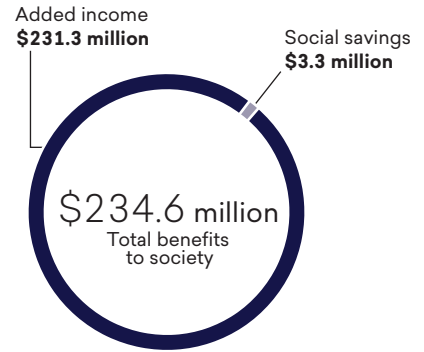
Benefits to society also consist of the savings generated by the improved lifestyles of CMTN students. As discussed in the previous section, education is statistically correlated with a variety of lifestyle changes that generate social savings. Note that these costs are avoided by the consumers but are 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 CMTN equal a present value of \$234.6 million. These benefits include \$231.3 million in added income through students' increased lifetime earnings and increased business output, as well as \$3.3 million in social savings related to health, crime, and income assistance in British Columbia. People in British Columbia invested a present value total of \$55.9 million in CMTN in FY 2019-20. These costs include all college and student costs.

The benefit-cost ratio for society is 4.2, equal to the \$234.6 million in benefits divided by the \$55.9 million in costs. In other words, for every dollar invested in CMTN, people in British Columbia will receive a cumulative value of \$4.20 in benefits. The benefits of this investment will occur for as long as CMTN's FY 2019-20 students remain employed in the provincial workforce.

SOCIAL BENEFITS IN BRITISH COLUMBIA FROM CMTN



Source: Emsi Burning Glass impact model.

### Summary of investment analysis results

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

STUDENT PERSPECTIVE		TAXPAYER PERSPECTIVE		SOCIAL PERSPECTIVE	
Present value benefits <b>\$42.6 million</b>		Present value benefits <b>\$34.7 million</b>		Present value benefits <b>\$234.6 million</b>	
Present value costs <b>\$27.1 million</b>		Present value costs <b>\$29.7 million</b>		Present value costs <b>\$55.9 million</b>	
Net present value <b>\$15.5 million</b>		Net present value <b>\$5.1 million</b>		Net present value <b>\$178.7 million</b>	
Benefit-cost ratio <b>1.6</b>	Rate of return <b>11.4%</b>	Benefit-cost ratio <b>1.2</b>	Rate of return <b>3.6%</b>	Benefit-cost ratio <b>4.2</b>	Rate of return <b>n/a*</b>

\* 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 CMTN 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. CMTN 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, CMTN benefits society as a whole in British Columbia 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 CMTN, industry and employment data from Statistics Canada, outputs of Emsi Burning Glass'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 CMTN for a copy of the main report.

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



Emsi Burning Glass provides colleges and universities with labour 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.