

The Economic Value of the University of New Brunswick Frequently Asked Questions October 6, 2015

What is the objective of the report?

The report aims to assess the economic impact of UNB on the provincial economy and the benefits generated by the university in return for the investment made by its key stakeholder groups: students, society and taxpayers. The approach was twofold, beginning with an economic impact analysis of UNB on the provincial business community in New Brunswick and then using a standard investment analysis to determine how money spent on UNB performs as an investment over time.

What year(s) does this study reflect?

The data provided by UNB is from FY 2013-14.

Why did UNB commission this study?

While UNB's value to its province is larger than simply its economic impact, understanding that dollars and cents value is an important asset to understanding the university's value as a whole. This report aims to evaluate UNB's value to the New Brunswick economy from the perspectives of economic impact and investment analysis.

Who conducted the study?

This study was conducted by Economic Modeling Specialists International, a leading provider of economic impact studies and labour market data to educational institutions, workforce planners and regional developers in North America and the UK. Since 2000, EMSI has completed over 1,200 economic impact studies for educational institutions in four countries. For more information about EMSI and its products and services, visit www.economicmodeling.com.

What is an economic impact analysis?

Economic impact analysis quantifies the impact from a given economic event – in this case, the presence of the institution – on the economy of a specified region.

What types of impact were used to estimate the results of this economic impact survey?

Economic impact analyses use different types of impacts to estimate the results. Frequently used is the sales impact, which comprises the change in business sales revenue in the economy as a result of increased economic activity. However, much

of this sales revenue leaves the economy and overstates actual impacts. A more conservative measure – and the one employed in this study – is the income impact, which assesses the change in gross provincial product, or GPP.

Income may be further broken out into the labor income impact, which assesses the change in employee compensation; and the non-labour income impact, which assesses the change in income business profits. Another way to state the income impact is job equivalents, a measure of the number of average-wage jobs that would be required to support the change in income.

What is investment analysis?

Investment analysis is a standard method for determining whether or not an existing or proposed investment is economically viable. This methodology is appropriate in situations where a stakeholder puts up a certain amount of money with the expectation of receiving benefits in return, where the benefits that the stakeholder receives are distributed over time, and where a discount rate must be applied in order to account for the time value of money.

How is the New Brunswick economy impacted by UNB?

The New Brunswick economy is impacted by UNB a variety of ways. The university is an employer and buyer of goods and services. It attracts monies that would not have otherwise entered the provincial economy through its day-to-day operations, its research activities and expenditures of its out-of-province students and visitors. Further, it fosters the development of new start-up and spin-off companies and provides students with the knowledge, skills, and abilities they need to become productive citizens and contribute to the overall output of the province.

What is UNB's impact on the New Brunswick economy?

The study found that UNB generates a total economic impact of \$1.2 billion on the provincial economy, represented in the sum of several different impacts, including:

- The **university's operations** spending impact of **\$194 million**
- The direct **research** spending impact of **\$32.2 million**
- The **start-up and spin-off companies** impact of **\$48.1 million**
- The **student** spending impact of **\$18.9 million**
- The **visitor** spending impact of **\$1.3 million**
- The **alumni** impact of **\$949.9 million**

How does UNB's operations spending impact New Brunswick's economy?

All of UNB's employees live in New Brunswick. Employee earnings count as part of the province's overall income, while their spending for groceries, apparel and other household expenditures helps support local businesses. In addition to being an

employer, UNB is also a purchaser of supplies and services. Many of UNB's vendors are located in New Brunswick, creating a ripple effect that generates still more jobs and income throughout the economy.

How does UNB's research contribute to New Brunswick's economy?

UNB conducts 75 per cent of the research done in New Brunswick. Research and innovation play an important role in driving the New Brunswick economy. Some indicators of innovation are the number of research publications, invention disclosures, new patent applications and license agreements. Over the last four years, UNB published 9,980 research articles, received 54 invention disclosures, filed 91 new Canadian patent applications, and produced 21 licenses. Without the research activities of UNB, this level of innovation and sustained economic growth would not have been possible.

How does UNB's involvement in start-up and spin-off companies impact New Brunswick's economy?

UNB creates an exceptional environment that fosters innovation and entrepreneurship, evidenced by the number of start-up and spin-off companies related to UNB created in the province. In FY 2013-14 there were 22 start-up companies and 10 spin-off companies related to UNB that were active in New Brunswick.

How does UNB's student spending impact New Brunswick's economy?

A total of 3,337 of UNB's students relocated to New Brunswick to attend the university in FY 2013-14. These students spent money at provincial businesses to purchase groceries, rent accommodation, pay for transportation and so on. The expenditures of UNB's out-of-province students supported provincial jobs and created new income in the provincial economy.

How does UNB's visitor spending impact New Brunswick's economy?

Thousands of visitors came to UNB to participate in various activities, including commencement, alumni events and orientation. Approximately 16,294 out-of-province visitors attended events hosted by UNB in FY 2013-14. These visitors spend money in the province for accommodation, food, transportation, shopping, entertainment, etc.

How do UNB alumni impact the New Brunswick economy?

UNB's greatest economic impact stems from the education, skills training and career enhancement that it provides. Since it was established, the university has supplied skills training to students who have subsequently entered or re-entered the provincial workforce. As these skills accumulate, the stock of human capital in New Brunswick

expands, boosting the competitiveness of existing industries, attracting new industries and generally enlarging overall output.

How many people are employed at UNB?

1,991 full-time equivalent employees were employed at UNB in FY 2013-14.

What is UNB's annual revenue?

UNB's annual revenue for FY 2013-14 was \$330.7 million.

- Tuition and mandatory fees: \$82,297,383 (24.9%)
- Provincial grants and contracts: \$127,527,118 (38.6%)
- Federal grants and contracts: \$28,135,068 (8.5%)
- Other non-government revenue: \$92,703,902 (28.0%)

What are UNB's annual expenditures?

UNB's total expenditures for FY 2013-14 were \$292,537,673.

- Salaries and benefits: \$184,452,854 (63.1%)
- Amortization of property and equipment: \$12,718,063 (4.3%)
- All other expenditures: \$95,366,756 (32.6%)

How many students attend UNB?

UNB served 10,618 credit students and 175 non-credit students in the 2013-14 reporting year.

- Bachelor's degree: 8,933
- Master's degree: 1,244
- Doctorate degree: 441
- All other: 175

How many UNB graduates stay in New Brunswick after graduation?

53 per cent of students remain in New Brunswick, while 47 per cent settle outside the province.

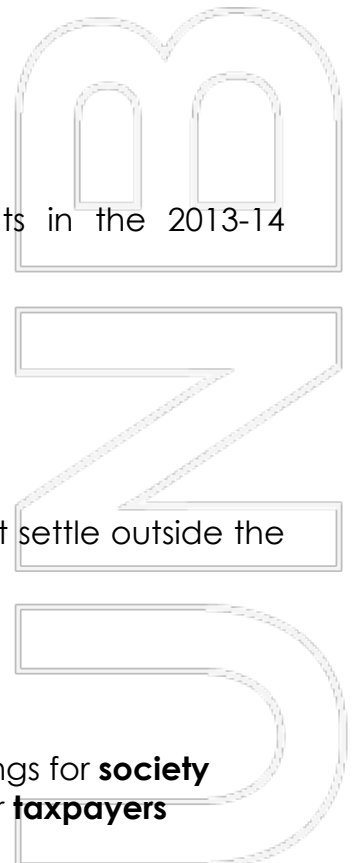
What is the return on investment for UNB's stakeholders?

For every \$1 spent:

- **\$2.80** is returned in lifetime earnings for **students**
- **\$2.80** is returned in added provincial income and social savings for **society**
- **\$2.10** is returned in added taxes and public sector savings for **taxpayers**

How does this rate of return affect the stakeholders involved?

This study shows that UNB is an attractive investment to its major stakeholders: students, society and taxpayers. Rates of return for students invariably exceed alternative investment opportunities. At the same time, provincial government can



take comfort in knowing that its expenditure of taxpayer funds creates a wide range of positive benefits and, perhaps more importantly, actually returns more to government budgets than it costs. Without these increased tax receipts and public sector savings, provided by the educational activities of UNB and its students, provincial government would have to raise taxes to make up for lost revenues and added costs.

How do students benefit from UNB?

Analyzing the benefits and costs of education from the perspective of students is the most obvious form of investment analysis this study considers. Generally students enter university because their goal is to improve their career pathway and therefore lifetime earnings potential. They realize this is their future payoff for giving up time and money to go to the university today. The cost component of the analysis thus comprises the monies students pay (in the form of tuition and fees and forgone time and money), and the benefit component focuses on the extent to which the students' earnings increase as a result of their education.

How long does it take for students to recoup their initial investment?

The payback period is defined as the length it takes to entirely recoup the initial investment. UNB students have, on average, a payback period of 10.2 years on their forgone earnings and out-of-pocket costs.

How does society benefit from UNB?

Society as a whole in New Brunswick benefits from the education that UNB provides through the income that students create in the province and through the savings that they generate through their improved lifestyles. In the process of absorbing the newly-acquired skills of UNB students, not only does the productivity of New Brunswick's workforce increase, but so does the productivity of its physical capital and assorted infrastructure. Students earn more because of the skills they learned while attending the university, and businesses earn more because student skills make capital more productive. This in turn raises profits and other business property income.

Society also benefits from UNB in social savings. Education is statistically associated with a variety of lifestyle changes that generate social savings, also known as external or incidental benefits of education. These represent the avoided costs that would have otherwise been drawn from private or public resources absent the education provided by UNB.

Social benefits break down into three main categories: health savings, crime savings and income assistance savings. Health savings include medical costs, lost productivity and other effects associated with smoking, alcoholism, obesity and

mental illness. Crime savings consists of avoided costs to the justice system (i.e. police protection, judicial and legal and corrections), avoided victim costs and benefits stemming from the added productivity of individuals who would have otherwise been incarcerated. Income assistance savings comprise avoided costs due to the reduced number of claims for employment insurance and other forms of employment-related social assistance.

How do taxpayers benefit from UNB?

Taxpayers benefit from added tax revenue, reducing the demand for government-supported social services and the government benefit from improved productivity among government employees. A rate of return of 11.1 per cent, means that UNB not only pays its own way, but it also generates a surplus that provincial government can use to fund other programs.

How do UNB's rates of return compare to those of other universities?

This report is not intended to be a vehicle for comparing UNB with other publicly funded institutions in the province or elsewhere. This report is intended to provide pertinent information about the extent to which UNB impacts the provincial economy and generates a return on investment.

Differences between the results for UNB and those of other institutions do not necessarily indicate that one institution is doing a better job than another. Results are a reflection of location, student body profile and other factors that have little or nothing to do with the relative efficiency of the institutions. For this reason, comparing results between institutions or using the data to rank institutions is strongly discouraged.

What's next? What recommendations does this study make?

This report is useful in establishing a benchmark for future analysis, but is limited in its ability to put forward recommendations on what UNB can do next. The implied assumption is that the university can effectively improve its results if it increases the number of students it serves, helps students to achieve their educational goals and remains responsive to employer needs in order to ensure that students find meaningful jobs after exiting. Establishing a strategic plan for achieving these goals, however, is not the purpose of this report.

Later this Fall, UNB will release a Capital Impact Assessment.