



Summary Report

Post-Secondary Graduates' Province of
Study, Post-Graduation Residence in
New Brunswick, and Labour Market
Outcomes (2011-2016)

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Project Title

Post-secondary graduates' province of study, post-graduation residence in New Brunswick, and labour market outcomes (2011-2016)

Principal Investigators

Dr. Herb Emery, Vaughan Chair in Regional Economics, UNB
Dr. Ted McDonald, Director, NB-IRDT

Research Team

Eton Boco, Data Analyst, NB-IRDT

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Why is This Study Important?

The population of New Brunswick is aging, and it is believed that by 2038, 28% of the population will be over age 65.¹ This means nearly one-third of the population will likely be retired or nearing retirement and will require support from a shrinking tax base.

New Brunswick has been working to address this issue by growing its working-age population, especially the number of skilled and educated young workers living in the province. One key group the province wants to retain is its post-secondary graduates - a group whose much-needed skills also make it more mobile across the country.

Previous research at NB-IRDT^{2,3} shows that New Brunswickers who study in-province are more likely to stay after graduation. Thankfully, New Brunswickers love their province's colleges and universities - so much so that, in a given year, around 80% of New Brunswickers pursuing higher education choose to stay and study in the province. However, this still means that 20% of university- and college-bound students leave to study elsewhere.

This report investigates where this group of mobile students goes and whether they return once they graduate - and, most importantly, what factors may be influencing their decisions to return or stay away, such as personal and family characteristics and earnings potential.

Understanding graduates' decisions whether to return, and seeing if there are earning differences for New Brunswickers who return versus those who don't, will help determine the next steps policy makers should take to boost the province's young, educated working population and help pave the way for future provincial success.



How Was This Study Completed?

To undertake this study, researchers at NB-IRDT used linked university and college registrar data from the Postsecondary Student Information System (PSIS) dataset with tax data from the T1 family file (tax returns). New Brunswick residents are determined by their declared province of residence at the time of admission to a post-secondary institution. Returning graduates (and their retention rates) are determined by their declared province of taxation in the years following graduation.

This report analyzes the mobility decisions and earnings of NB residents after they graduate from post-secondary studies for the 2011-2016 graduation years. It presents graduate counts, return rates, and median incomes according to gender, field of study, level of study, and region of study. In particular, it looks at graduates' locations and earnings 1, 3, and 5 years after graduation to show short- and longer-term changes in outcomes.



Limitations

While reading the results on the next pages, it is important to remember that there are certain limitations to this study. For instance, variables indicating program of study are not available for all graduates, and the data does not allow us to identify study programs that are offered remotely, as well as programs with "seats" for students in different provinces - in these cases, New Brunswick residents may appear to be studying out-of-province while actually residing in New Brunswick.

Similarly, a graduate may not necessarily be living in their declared province of taxation. Graduates who did not consistently file taxes for 5 years following graduation are excluded from the study.

What Are The Key Findings?

Roughly 80% of New Brunswickers pursuing post-secondary education graduate from a college or university in New Brunswick.



Of the remaining **20%**, the majority graduate from a school in Atlantic Canada.

Only **2%** graduate from Western Canada.

- The proportion of New Brunswick college- and university-goers is split almost evenly, with slightly more than half graduating from a college in the province and slightly less than half graduating from a university.
- Graduate students (**50%**) are more likely than undergraduate (**25%**) and college (**10%**) students to graduate from institutions outside NB.



This may be due to program availability, as only 3 NB universities are authorized to award graduate degrees.

- Graduates of Physical and Life Sciences programs are the **most likely** to graduate from an institution outside NB.
- Education graduates are the **least likely** to graduate from an institution outside NB.

Certain demographics are associated with an increased likelihood of **graduating from a school outside NB:**

Gender	Age	Socioeconomic Status	Marital Status
Female	30 Years +	High	Unmarried

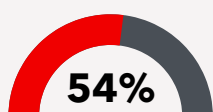


Returning Students and Retention Rates

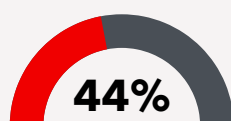
Slightly **over half** the graduates who complete their post-secondary studies at institutions outside NB return to NB after graduation within one year.

Five years later, **less than half** are still in NB.

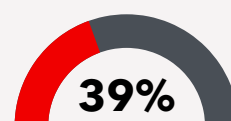
Retention rates of returning graduates (2011-2016 cohorts)



1 year later



3 years later



5 years later



Despite the proportion of graduates who return, NB is still seeing a **net loss** of university and college educated graduates each year.

- Relative to undergraduates, graduate-level students in Education, Math, Computer and Information Sciences, and Health and Related Fields are **more likely** to return to NB after graduation.
- By study province, graduates from Ontario universities are the **least likely** to return to NB within 3 years of graduation.

Interestingly, many of the same demographics associated with an increased likelihood of graduating from a school outside NB are also associated with a higher likelihood of **returning to NB** after graduation.

Gender

Female

Age

30 Years +

**Socioeconomic
Status**

High

**Marital
Status**

Married



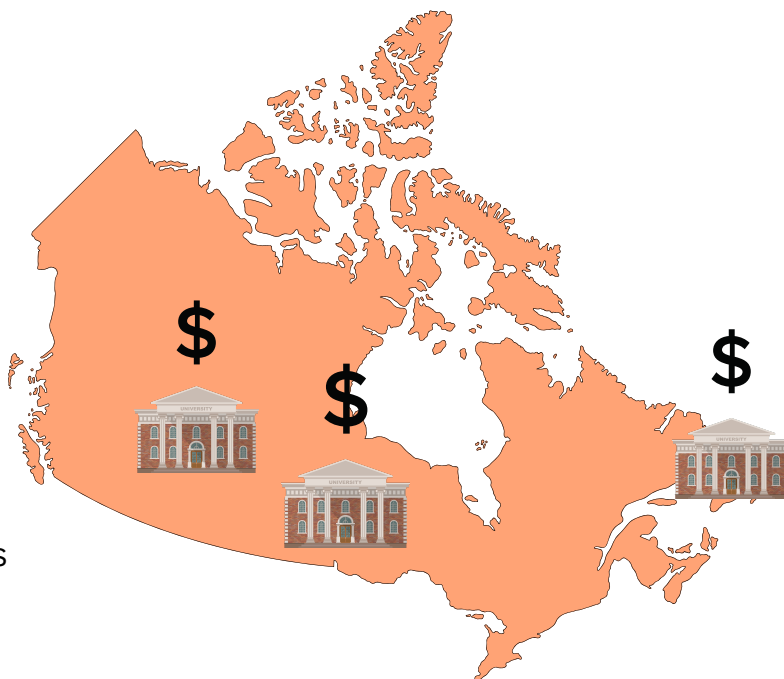
Earnings Differences

At first glance, it appears as though New Brunswickers earn more if they graduate from a university outside NB, but these findings are likely based on small sample sizes in the data.

NB residents' earnings after graduation are not determined by the province in which they attended university.

Instead, existing earnings differences are due to other factors, like a graduate's

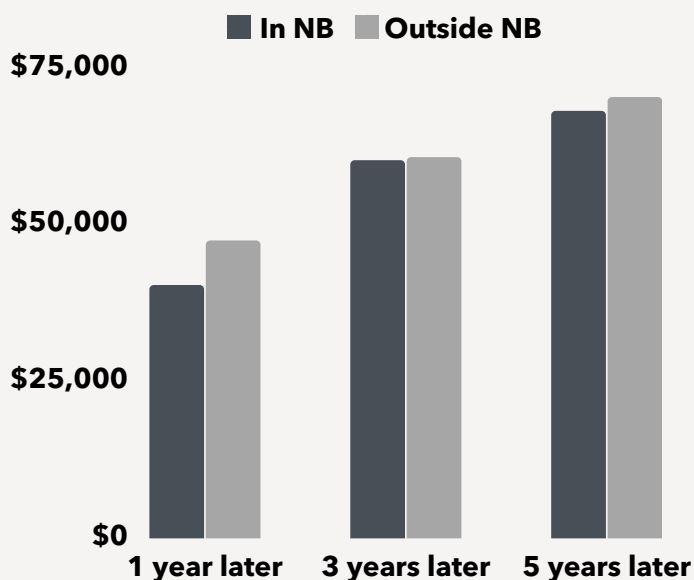
- demographic characteristics
- field of study
- level of study
- years of work experience



Likewise, New Brunswickers are not necessarily "better off" if they work in another province, even if they may earn a higher income:

Depending on where a New Brunswicker resides after graduation, wages offered often reflect the cost of living of their city of residence.

This better explains the earnings differences between graduates residing in NB versus other provinces after graduation.



Conclusions

Results show that more than half of NB residents who graduate from out-of-province institutions return to NB within a year of graduation.^{2,3} Yet, despite the returning and retained graduates, there is still a net loss of university- and college-educated graduates in NB.

Research shows outmigration in Atlantic Canada is greatest among the most-needed demographic, as 60 percent of net migration losses are people between the ages of 20 and 44 years of age.⁴

If the goal of the NB government is to increase the population/workforce, encouraging more NB students to study in NB institutions rather than outside NB is a step in the right direction. However, if the goal is to get more graduates in the province with lower cost to the public treasury, more New Brunswickers should be encouraged to leave the province, with the knowledge that half of them will return within a year of graduation.

For instance, training nurses is expensive for the NB government. Rather than increasing the number of seats in NB nursing programs, perhaps encouraging nursing students to complete their degrees outside NB would be an avenue to having more nurses in the province.

References

1. Statistics Canada. (2023, January 18). Projected population, by projection scenario, age and sex, as of July 1 (x 1,000) (Table no. 17-10-0057-01). Ottawa, ON: Statistics Canada. <https://doi.org/10.25318/1710005701-eng>
2. Bhuiyan, E. M., Daigle, B., McDonald, T., & Miah, P (2021). College & university graduate retention in New Brunswick: 2010 - 2018.
3. Boco, E., Leonard, P., & McDonald, T. (2021). Retention, attraction, and labour market outcomes of post-secondary graduates in New Brunswick.
4. McMahon F. (2021). Low levels of economic freedom chasing young people away from Atlantic Canada: Op-ed [Internet]. Fraser Institute. Retrieved February 3, 2022, from <https://www.fraserinstitute.org/article/low-levels-of-economic-freedom-chasing-young-people-away-from-atlantic-canada>