



Summary Report

Graduate Retention in New Brunswick:
2019 and 2020 Cohort Update

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NB-IRDT

New Brunswick Institute for
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Project Title

Graduate retention in New Brunswick: 2019 and 2020 cohort update

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P0049: Retention of New Brunswick Students

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Why is This Study Important?

New Brunswickers are familiar with stories of student out-migration: "Once our students graduate from college or university, they leave -- because there are better jobs and higher wages elsewhere."

This circulating narrative can be alarming for families who worry their siblings or children will move away, and it is equally worrisome for policy makers who are attempting to address the problems of an aging population by attracting more young, working professionals and their families to settle in the province.

To understand whether these stories provide an accurate picture of New Brunswick's post-secondary graduates and their decisions, researchers at NB-IRDT have been exploring the topic of student retention in the province. Their previous work^{1,2} shows that New Brunswickers who study in-province are more likely to stay after graduation -- 97% of NB college graduates and 89% of NB university graduates are still in the province 1 year later. Since around 80% of New Brunswickers who pursue higher education choose to stay and study in the province in a given year, this is good news!

However, the population of New Brunswick is always changing. In recent years, change has been even more rampant, with the COVID-19 pandemic impacting factors like population mobility and remote work opportunities. Because the world around us keeps changing, we believe it is important to revisit research and update results so New Brunswickers have access to the most up-to-date information about the province they live in.

This report updates earlier research by using new data on post-secondary graduates who graduated from New Brunswick colleges and universities in 2019 and 2020 to see if retention rates have been changing in recent years.



How Was This Study Completed?

To undertake this study, researchers at NB-IRDT used linked university data from the Maritime Provinces Higher Education Commission (MPHEC) and college data directly from the college institutions with Citizen Data holdings at NB-IRDT. The inclusion of MPHEC data is new to this report, as earlier research used data provided by the universities. Post-graduation retention in NB is determined by Medicare eligibility status in the Citizen Data.

This report analyzes the retention rates of post-secondary graduates from publicly funded colleges and universities in NB for the 2010-2020 graduation cohorts, with a specific focus on the 2019 and 2020 cohorts. It presents results according to sex, previous residence, field of study, level of education, and educational institution. In particular, it looks at graduates' retention rates 1, 3, 5, and 10 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, this report counts the termination of Medicare status prior to graduation as a departure, while the previous work¹ only considered termination post-graduation. This change in methodology likely accounts for a small decrease in retention rates in this report.

Further, technical errors in the data (such as missing or mismatched information on name, date of birth, and gender) could lead to lower matching rates for graduates from outside Canada, which likely results in the underestimation of retention rates for these graduates.

Matching Rates - Education and Medicare Data

Why are Matching Rates Important?

The matching rate shows the proportion of graduates included in both

- 1) College and MPHEC data 2) Citizen (Medicare) data

Matching graduate information in both data sets allows us to see who graduated from a post-secondary institution in NB and who was/is considered an NB resident. In this way, we can estimate the retention of graduates in NB.



Then (2018) vs. Now (2019 & 2020)

	2018	2019	2020	
University Matching Rates	76.6%	77.0%	77.6%	+1.0
College Matching Rates	93.5%	94.5%	92.9%	-0.6



The growth in matching rates for university graduates is likely driven by a **big increase** in matching rates for **graduates from outside Canada**: from 69.2% to 76.1%.

+6.9

Changes in Medicare (2017)

- In 2017, Medicare began to be issued to international students. While this likely plays a role in the increase in matching rates, the matching rates for international students are still below those of NB students.
- While it's possible some international students did not switch to Medicare, or left NB shortly after graduation, this lower matching rate could also be due to technical errors in the data: like inconsistent information on students' name, date of birth, or gender.
- In other words, the matching rate for international graduates **may actually be higher** than it looks!



Retention Rates - 2019 and 2020 Graduate Cohorts

In this update, college graduates continue to have higher retention rates than their university counterparts.

College Graduates

1 Year Later

2018	90.0%	
2019	91.1%	↑
2020	88.3%	↓

University Graduates

1 Year Later

2018	67.0%	
2019	67.9%	↑
2020	69.8%	↑



Female college and university graduates also continue to show higher retention rates than their male counterparts.

Institutions with the Highest Graduate Retention - 2019 and 2020

- **UdeM** has the highest 1-year university graduate retention rates for 2019 (79.3%) and 2020 (82.3%).
- **NBCC** has the highest 1-year college graduate retention rates for 2019 (91.7%) and 2020 (90.0%).

By Previous Residence



The highest 1-year retention for university graduates from NB was among UNB graduates.

The highest 1- and 3-year retention for college graduates from NB was among CCNB graduates.

The highest 3-year retention for university graduates from NB was among UdeM graduates.

The highest 1- and 3-year retention for university graduates from outside Canada was among UdeM graduates.

Retention Rates - 2019 and 2020 Graduate Cohorts

What about Canadian Graduates from Outside New Brunswick?

This research relies on using matched data to estimate graduate retention rates. Unfortunately, graduates from other Canadian provinces have relatively low matching rates: around **26%** overall.

Since most residents of other provinces who are studying in NB will be covered by their home province's public health insurance system, unmatched data include many out-of-province residents who leave NB after graduation.



It is important to keep these low matching rates in mind when considering the findings below:

- The highest 1-year retention for university graduates from other provinces was for STU graduates: **20.0%** in 2019 and **26.3%** in 2020.
- The highest 1-year retention for college graduates from other provinces was for NBCC graduates: **22.2%** in 2019 and **14.3%** in 2020.

Retention by Field of Study

University graduates from nursing programs have the highest 1-year retention rates: **82.2%** for 2019 and **93.6%** for 2020.



College graduates from education and personal support programs have the highest 1-year retention rates: both had **100.0%** for 2019 and **~92.5%** for 2020.



Conclusions

Overall, the addition of 2019 and 2020 data to previous research on graduate retention in New Brunswick¹ shows an increase in the university matching rates between education data and Medicare data in 2019 and 2020, along with an increase in college matching rates in 2019 followed by a decrease in 2020.

While the increase in university matching rates could be due to the issuance of Medicare data to international students in 2017, it should be noted that the matching rates for international graduates themselves is likely lower than it should be. This may be due to missing or mismatched information in the education and Medicare data. In turn, this could mean that the retention rates we see for graduates from outside Canada appear lower than is actually the case. It would be good to approach these findings as an underestimation.

Many results in this study are similar to those in the previous work.¹ College graduates still have higher retention rates than university graduates, and female graduates still have higher retention rates than males.

That being said, the increase in 1-year university retention rates in 2019 and 2020 is a positive finding in this update, and next year's update should help clarify if this is a continuing trend. Given the occurrence of the COVID-19 pandemic in 2020, it will be interesting to add even more COVID-era data on the 2021 graduating cohort to see if the pandemic itself may have impacted graduates' decisions to stay in or move away from New Brunswick.

References

1. Bhuiyan, E. M., Daigle, B., McDonald, T., & Miah, P (2021). College & university graduate retention in New Brunswick: 2010 - 2018.
2. Boco, E., Leonard, P., & McDonald, T. (2021). Retention, attraction, and labour market outcomes of post-secondary graduates in New Brunswick.