



# Summary Report

Labour Market Participation of Post-Secondary  
Graduates by Field and Level of Study



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## Project Title

Labour market participation of post-secondary graduates by field and level of study

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## How to Cite This Product

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[Read the Full Report](#)



## Why is This Study Important?

Post-secondary education plays an important role in shaping New Brunswick's workforce. For graduates, it can open the door to better job opportunities, higher earnings, and more stable careers. For the province, having more people with advanced skills helps support local industries and strengthens the economy. As NB continues to face challenges like an aging population, youth leaving the province, and labour shortages, making the most of locally-trained talent is becoming even more important.

However, having a strong labour supply depends not only on the number of graduates but also on whether they move into occupations that make use of their education. While education is generally linked with better employment prospects and higher earnings, many graduates enter jobs that do not fully match their training. These mismatches can affect earnings, job satisfaction, and the province's ability to retain skilled workers. Understanding how different fields of study and levels of education relate to real labour market outcomes can help reveal where NB is meeting its workforce needs and where gaps may remain. These insights matter for students planning their careers, for institutions designing programs, and for policymakers working to strengthen the province's talent pipeline.

This study helps build that understanding by examining the labour market outcomes of individuals who completed their highest post-secondary credential at an NB college or university between 2005 and 2016. Using linked administrative data from the Postsecondary Student Information System (PSIS) and the 2016 Canadian Census, it looks at the types of occupations graduates enter, how these patterns vary across fields and credentials, and how earnings compare with those of high school graduates.

Together, these insights offer a clearer picture of how post-secondary education supports NB's workforce and where opportunities may exist to strengthen the alignment between education and employment.



## How Was This Study Completed?

To undertake this study, we used linked administrative data from the Postsecondary Student Information System with 2016 Census data to observe the employment outcomes of graduates who completed their highest credential at a public college or university in NB between 2005 and 2016 - and who reported living in NB at the time of the 2016 Census. Graduates who pursued further education after completing a college diploma or bachelor's degree were excluded.

Occupations were grouped using the National Occupational Classification (NOC), and fields of study were categorized using Statistics Canada's Classification of Instructional Programs - Primary Grouping (CIP-PG). To explore how education relates to labour market outcomes, we used regression analysis to examine two key areas: the types of occupations post-secondary graduates enter and how their earnings compare with those of high school graduates. Separate models were estimated for males and females, and for college diploma and bachelor's degree holders, while accounting for factors such as age group, marital status, visible minority status, and work patterns. More details are available in the [full report](#).



## Limitations

While reading the results, it's important to keep a few limitations in mind. Because the study groups occupations and fields of study into broad categories, some differences within those groups may not be visible in the results. Programs or jobs that look similar on paper can vary in meaningful ways the data don't fully capture.

The analysis also relies on information from the 2016 Census, which provides only a snapshot at that time. Some individuals were still enrolled in their studies in 2016, and their results may reflect temporary student employment rather than long-term career outcomes. Graduates who completed their studies shortly before 2016 also may appear to have weaker outcomes simply because they had less time in the labour market. Earnings and job stability often improve with experience, so results for these more recent graduates should be interpreted with that context in mind.

# What Were the Most Common Fields of Study?

No single field of study can be considered the “most popular” overall.

This is because male and female graduates tended to cluster in different fields. The fields of study with the highest share of male graduates had a low proportion of females; and the fields with the highest share of females had a low proportion of males.

This was true at both the college and bachelor’s levels:



## Architecture, Engineering, and Related Technologies

This male-dominated field accounted for over two-thirds of male college graduates - the largest share overall.

College graduates in this field:

➡ **68%** of men vs. **5%** of women

Bachelor’s graduates in this field:

➡ **16%** of men vs. **1%** of women

## Health and Related Fields

This female-dominated field accounted for the largest share of both female college and bachelor’s graduates.

College graduates in this field:

➡ **36%** of women vs. **3%** of men

Bachelor’s graduates in this field:

➡ **30%** of women vs. **9%** of men

**Business, Management and Public Administration** was less polarized.

This field of study included a large share of female college graduates and male bachelor’s graduates, with smaller sex-based gaps at each education level.

↳ College graduates in this field: **35%** of women and **10%** of men

Bachelor’s graduates in this field: **25%** of men and **16%** of women

# What Career Paths Did These Graduates Follow?



**High school graduates** were largely employed in Sales and Services.

*This field employed 51% of females and 30% of males. A large share of males (26%) also worked in Trades, Transport and Equipment Operator jobs - an area with few females (3%).*

**College graduates** largely worked in Health and in Trades.

*While Sales and Service roles were the second most common for this group, the largest share of females worked in Health (27%), and the largest share of males worked in Trades, Transport and Equipment Operator roles (41%). However, these fields saw a large sex-based gap - with few men in Health and few women in Trades.*

**Bachelor's graduates** largely worked in Education, Law, and Social, Community and Government Services.

*This field employed 30% of females and 20% of males. Sales and Service jobs were much less common at this education level.*

## Predicted Employment Outcomes: Highlight of Regression Results

Graduates who studied in STEM fields or Health and Related Fields are the most likely to work in occupations typically associated with their post-secondary training.

- ↳ Male and female Health graduates at all education levels have **at least a 50% likelihood** of working in Health - with female bachelor's graduates having the highest probability (**81%**).
- ↳ Male STEM graduates at both education levels have a high probability (**over 60%**) of working in areas related to their degrees. While female graduates still have a good likelihood (**over 30%**), this sex gap is notable.

# How Do Graduates' Earnings Differ?

We used a statistical model to compare the earnings of college and bachelor's graduates to the earnings of high school graduates - paying close attention to different earnings premiums for different fields of study.

Here's what we learned:



In nearly every field of study, bachelor's graduates earned more than high school graduates of the same sex, and these premiums were usually larger than those observed for college graduates.



College premiums varied more across fields of study and were lower, overall, than for university graduates.



Overall, we learned that **field of study matters**. The size of graduates' earnings premiums differed widely across disciplines - and between men and women.

**Architecture, Engineering & Related Technologies** showed some of the strongest earnings advantages for men, especially at the bachelor's level.



<b>College</b> premiums	for males: <b>12%</b>	for females: <b>12%</b>
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<b>Bachelor's</b> premiums	for males: <b>73%</b>	for females: <b>109%</b>
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**Health and Related Fields** also showed large premiums, especially for bachelor's women.



<b>College</b> premiums	for males: <b>58%</b>	for females: <b>33%</b>
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<b>Bachelor's</b> premiums	for males: <b>50%</b>	for females: <b>121%</b>
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## Conclusions

These results offer a useful snapshot of how post-secondary graduates were participating in the NB labour market as of 2016 - the most recent year for which linked data were available. However, much has changed since then. It's likely that the COVID-19 pandemic, shifts in economic conditions, rising in-migration, and new uncertainties in global trade have all reshaped the labour market in ways that may influence more recent graduate outcomes. As newer data linkages become available, it will be important to revisit these patterns to understand how they are evolving.

Even so, several clear themes emerge. Completing a bachelor's degree was associated with higher earnings than stopping at high school or college, but the size of this advantage depended heavily on what graduates studied. For instance, fields with strong pipelines into high paying scientific or professional roles (like Architecture, Engineering, and Related Technologies or Health and Related Fields) showed more substantial returns. College credentials tended to provide more consistent alignment between training and occupation, especially in technical and hands-on fields, though the associated earnings premiums were generally smaller than those observed for bachelor's graduates. This highlights the distinct roles that college and university programs play in preparing graduates for different segments of the labour market.

Sex-based patterns also shaped graduates' trajectories. Women's concentration in health and education programs and men's presence in STEM and technical fields influenced both the occupations graduates entered and the earnings they received, contributing to occupational segregation across the province.

As 2021 and eventually 2026 data linkages become available, continued research will be essential for understanding how these relationships are shifting and how educational pathways can best support strong and equitable outcomes for graduates.



## Questions? Contact Us

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