POPULATION NB

Income Evolution of Population Segments



PREPARED BY

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At first glance

OVERVIEW

<u>Purpose</u>

The objective of this report is to identify vulnerable groups in New Brunswick (NB) by analyzing income status over time. Quantifying labour market outcomes in terms of the economic success of various groups will provide decision makers with evidence that could be used to inform the future delivery of targeted policies and programs.

Major Points

- The gap between male and female median income in New Brunswick has been shrinking over the past 20 years, narrowing to \$11,887 as of 2016.
- Youth aged 15 to 24 have the lowest levels of income nearly half that of the second-lowest income level (by age group) in NB.
- Female lone parents are the lowest earners of the province's economic family types, earning \$13,506 less than male lone parents in 2016.
- New Brunswickers that have not graduated from high school earned less in 2016 than they did in 1996 by \$2,769 annually, after adjusting for inflation.
- In 2016, immigrants had a lower income than non-immigrants in NB for the first time since 1996, having earned an average of \$31,627 in 1996 and \$29,390 in 2016.



Low income is a significant contributing factor to vulnerability to social, educational, and health issues. By identifying vulnerable groups based on income level, we hope to produce evidence that can be used to inform the future delivery of government programs that target identified vulnerable groups.

To this end, this report investigates the income evolution of different population segments in New Brunswick and across the Atlantic provinces over time, adjusting for inflation. The economic outcomes of the province's population are compared by various criteria, both within NB and interprovincially. The purpose of this study is to quantify the economic outcomes of various groups to identify areas of income stagnation.

Using topic-based Census tabulations from 1996 to 2016, we adjusted New Brunswick's median total income values for inflation and compared income levels by sex, age group, family type, highest educational attainment, occupation, and immigrant status.

To demonstrate how NB is performing across population segments, relative to neighbouring provinces and Canada as a whole, we also compared NB's median total income in 2016 to that of the Atlantic Provinces and Canada.



<u>Sex</u>

Figure 1: Median Total Income in NB (1996-2016), by Sex (2016 constant dollars)

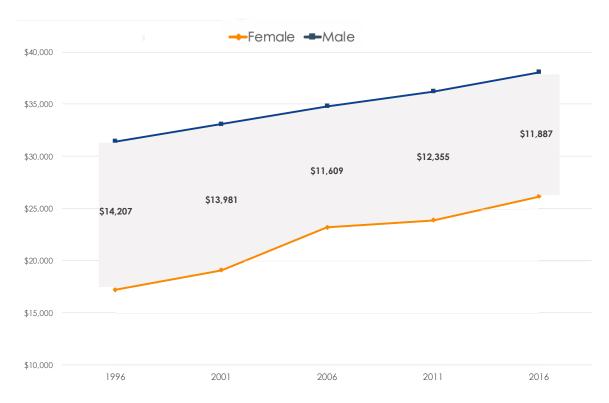


Figure 1 shows the evolution of the median total income of male and female residents of NB from 1996 to 2016 (in 2016 constant dollars). The data labels represent the gender wage gap that has been shrinking over the past 20 years but which was still present in 2016, with females earning a median income of \$11,887 less than their male counterparts.

Figure 2: Median Total Income in Canada and the Atlantic Provinces in 2016, by Sex

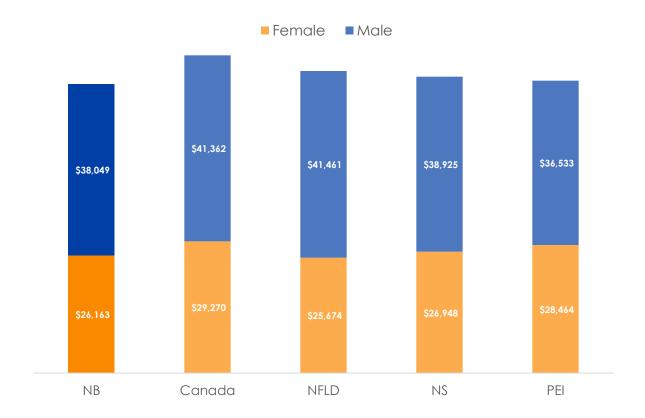


Figure 2 compares the 2016 median total income of male and female residents of the Atlantic provinces to the national average. The income disparity between males and females is similar across the Atlantic provinces, as well as at the national level.

Females in New Brunswick earned slightly less than the national median income, making \$26,163 versus the national average of \$29,270. Males in New Brunswick also earned less than the national median income, making \$38,049, compared to \$41,362. Females in the province earn closer to the national median income than males, with a wage difference of \$3,107 (for females) compared to a difference of \$3,313 (for males).

Age Groups

Figure 3: Median Total Income in NB, by Age (2016 constant dollars)

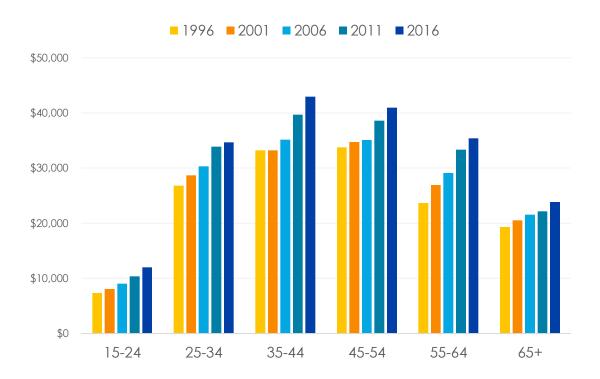


Figure 3 shows that the median total income in NB has been trending upwards for all age groups. Individuals aged 15 to 24 have the lowest income of all age groups by a large margin and earned nearly half the income of the next lowest earning group (the 65+ age group) in 2016. The significantly lower income of this age group may be explained by the fact that it is unlikely young people will work full-time hours while in school. Further, this demographic may be entering the labour force for the first time, which suggests the possibility that they are employed in lower-paying entry-level positions.

Figure 4: 2016 Median Total Income in the Atlantic Provinces and Canada, by Age

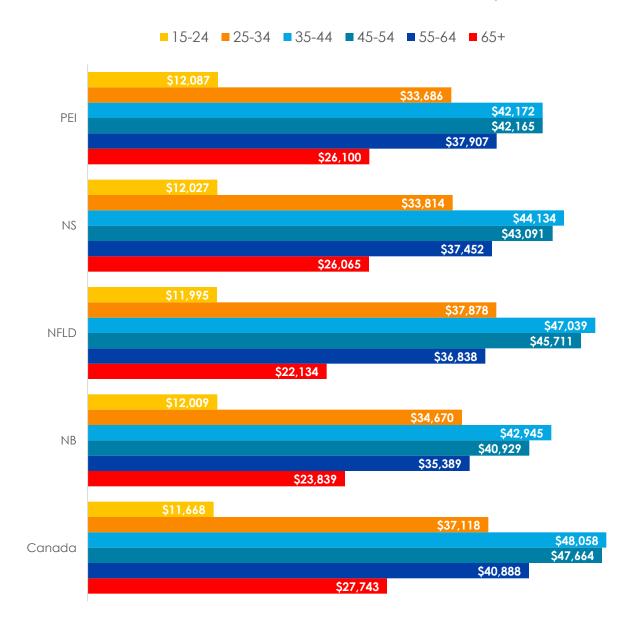
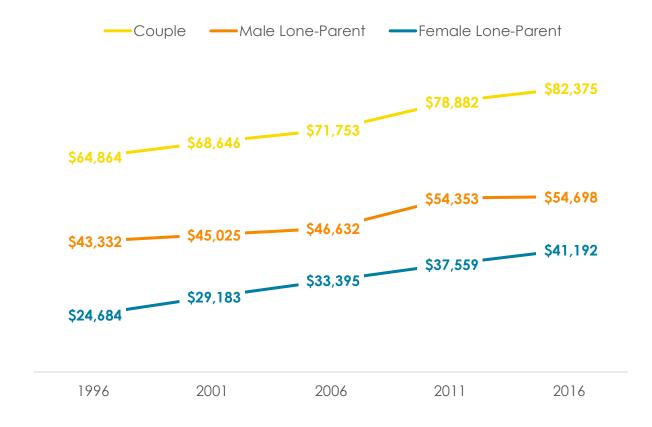


Figure 4 compares the median total income of individuals in the Atlantic provinces with the national average, according to age group. Individuals aged 15 to 24 in New Brunswick, Prince Edward Island, and Nova Scotia have a higher median income than the national average.

Family Type

Figure 5: Median Total Income in NB, by Family Type (2016 constant dollars)



According to Figure 5, the highest earning family type in NB is couples, with two-parent households earning more income than families comprised of lone parents.

Male lone parents have consistently earned more than female lone parents over the past 20 years. However, the difference between the median income of the two lone-parent family types narrows when adjusted for inflation. In 2016, males earned \$13,506 more than females, while in 1996 they earned \$18,648 more than females.

Figure 6: 2016 Median Total Family Income in the Atlantic Provinces and Canada, by Economic Family Type

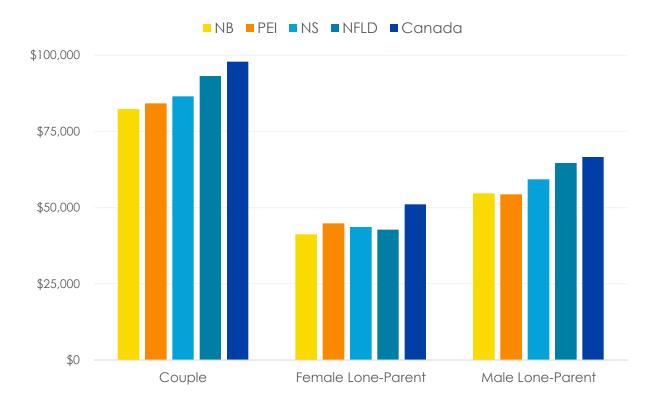
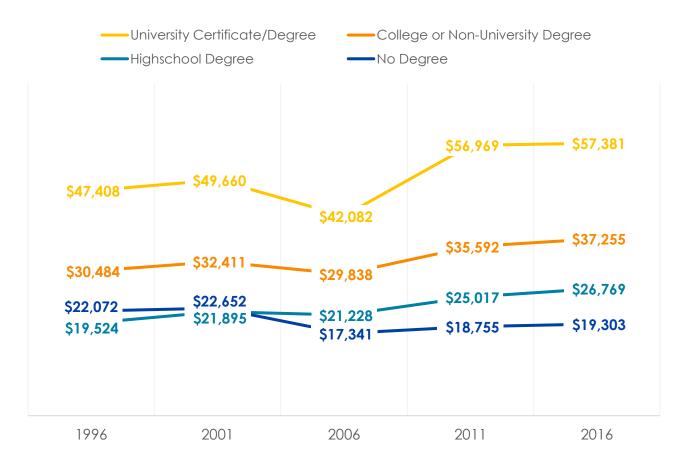


Figure 6 compares median family incomes across the Atlantic provinces with the national average – distinguishing between economic family types. New Brunswick has the lowest median income for couple families and female lone-parent families, and the second-lowest median income for male lone-parent families. Additionally, all the Atlantic provinces have a lower median income than the national average for each economic family type.

Education

Figure 7: Median Total Income in NB, by Highest Educational Attainment (2016 constant dollars)



Earning \$2,769 less in 2016 than they did in 1996, individuals in the No Degree educational category represent the only educational attainment group that has not seen income growth over the past 20 years.

On the other hand, after a noticeable dip (from 2001-2006) in the rate of income growth for all education types, those with a university degree saw the highest income growth: \$15,299 in the last 10 years. The income gap between those with a high school degree and a university degree has increased from a difference of \$27,884 in 1996 to a difference of \$30,612 in 2016.

Figure 8: 2016 Median Total Income in the Atlantic Provinces and Canada, by Highest Educational Attainment

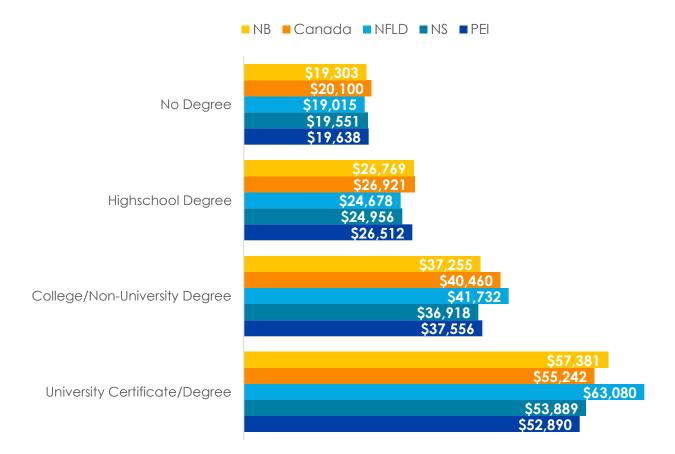


Figure 8 shows that New Brunswickers with no degree and those with a high school degree have a median total income similar to the national average and the median total incomes in the other Atlantic provinces. New Brunswickers with a university degree have the second-highest median total income among the Atlantic provinces, at \$57,381, which is second only to that of Newfoundland and Labrador and still higher than the national average.

Occupation

Figure 9: Median Total Income in NB (2011-2016), by Occupation (2016 constant dollars)



Figure 9 showcases income evolution in NB by occupation type. Natural resources and agriculture had the largest median income growth, represented by an increase of \$18,910 from 2011 to 2016. The only occupation type that experienced a decrease in median income was the Art, culture, recreation, and sport category, at a loss of \$10,663. This occupation type was also the lowest earning group in NB in 2016.

Figure 10: 2016 Median Total Income in the Atlantic Provinces and Canada, by Occupation

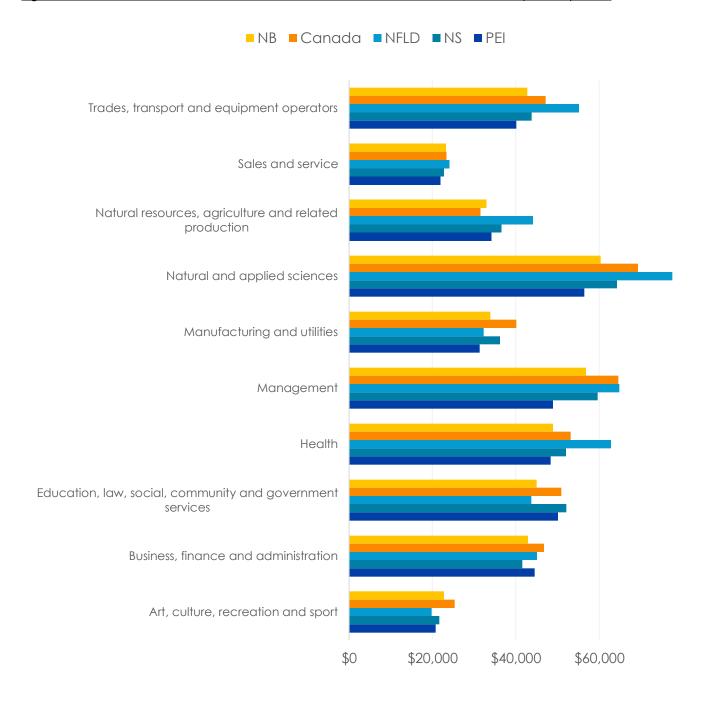
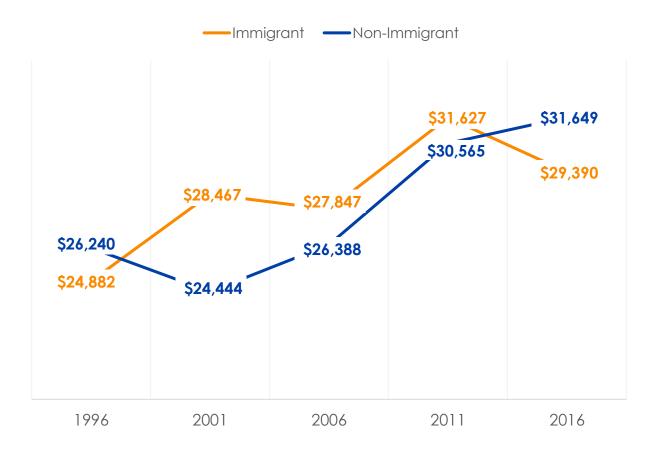


Figure 10 further investigates median total income by occupation by providing comparisons across the Atlantic provinces and Canada. The only occupation type in which New Brunswickers and workers in the other Atlantic provinces earned more than Canada's median income was Natural resources, agriculture, and related production, earning \$1,534 more than the national average. NB is also narrowly below the national average in the Sales and service industry, at \$23,250, compared to the Canadian average of \$23,338. Nonetheless, these occupation types make up two of the three lowest earning groups in NB.

Immigrant Status

Figure 11: Median Total Income in New Brunswick, by Immigrant Status (2016 constant dollars)



As demonstrated in Figure 11, non-immigrant median total income in NB experienced a decline in 1996 but has been trending upwards since 2001. Meanwhile, the immigrant population's median income has seen fluctuations in growth between 1996 and 2016. Adjusting for inflation, we see that one decline occurred in 2006, and a larger noticeable dip of \$2,237 occurred in 2016.

In 2016, median income of the non-immigrant population was higher than that of the immigrant population for the first time since 1996, with a difference of \$2,259.

Figure 12: 2016 Median Total Income in the Atlantic Provinces and Canada, by Immigrant Status



Figure 12 compares the median total income of the Atlantic provinces in 2016 with the national average, according to immigrant status. New Brunswick's immigrants have a similar median total income to immigrants in Nova Scotia and Canada as a whole. The gap between immigrant and non-immigrant income is smaller in NB as compared to the national average, with NB immigrants earning \$2,259 less than non-immigrants, compared to the national difference of \$6,630.



The objective of this report was to identify the low-income groups that comprise New Brunswick's vulnerable populations. This was accomplished by investigating income evolution across various population segments from 1996 to 2016 and adjusting for inflation.

We discovered that females earned less income than males by \$11,887 in 2016, but we also observed that the gap in income between males and females has been converging over time. There is a similar convergence in income levels between female lone parents and male lone parents, though the gap is narrowing more slowly and has a wider disparity, with female lone parents earning \$13,506 less than male lone parents in 2016.

Youth aged 15-24 have consistently been the lowest earning age group between 1996 and 2016, earning nearly half the income of the next lowest earning age group (those 65 and older). However, this is to be expected since the younger age group is likely to earn less than those who have been in the workforce longer.

The income gap between university graduates and high school graduates has increased in New Brunswick over time. Earning levels correlate with education levels; thus, the lowest educated New Brunswickers (i.e. high school degree recipients and below) are also the lowest earning individuals. Additionally, those who do not have a high school degree have seen a decline in income over time, even when accounting for inflation.

New Brunswickers in occupations related to Art, culture, recreation, and sports were the primary group to experience an income decline from 2011 to 2016. They were the lowest earning occupation group in NB in 2016, at an income of \$22,471, with those in Sales and services trailing closely behind. Despite individuals in Natural resources, agriculture, and related production fields earning \$1,534 above the national average, this group was still the third lowest earning occupation type in 2016.

Immigrants in NB earned less than non-immigrant population in 2016 by \$2,259, after experiencing an income decline from 2011 to 2016. With more people migrating to NB in recent years, a larger portion of the immigrant population is likely to be entering a new labour market. Hence, it is likely that a larger portion of the immigrant population is initially occupying entry-level, lower-income positions, decreasing the median income of the group.

This report's findings create an informed snapshot of New Brunswick's economic demographics over time, along with a comparison to the Atlantic provinces and Canada at large. The data presented herein demonstrates which groups are NB's most vulnerable, as well as possible explanations that can be used to inform policy decisions. In future analysis, multivariate comparisons may be utilized to further investigate the impacts of sex and age on education and occupation, and immigrant status on income.

REFERENCES

Figure 1

2001 Census Topic-Based Tabulation 97F0020XCB2001001; 2011 National Household Survey Data Table 99-014-X2011040; 2016 Census Data Table 98-400-X2016113

Figure 2

2016 Census Data Table 98-400-X2016113

Figure 3

2001 Census Topic-Based Tabulation 97F0020XCB2001001; 2011 National Household Survey Data Table 99-014-X2011040; 2016 Census Data Table 98-400-X2016113

Figure 4

2016 Census Data Table 98-400-X2016113

Figure 5

2001 Census Topic-based Tabulation 97F0020XCB2001093; 2006 Census Topic-based Tabulation 97-563-XCB2006018; 2011 National Household Survey Data Table 99-014-X2011038; 2016 Census Data Table 98-400-X2016128

Figure 6

2016 Census Data Table 98-400-X2016128

Figure 7

2001 Census Topic-Based Tabulation 97F0020XCB2001001; 2006 Census Topic-Based Tabulation 97-563-XCB2006011; 2001 National Household Survey Table 99-014-X2011041; 2016 Census Data Table 98-400-X2016260

Figure 8

2016 Census Data Table 98-400-X2016260

Figure 9

2011 National Household Survey Data Table 99-014-X2011042; 2016 Census Data Table 98-400-X2016302

Figure 10

2016 Census Data Table 98-400-X2016302

Figure 11

2001 Census Topic-based Tabulation 97F0020XCB2001044; 2006 Census Topic-based Tabulation 97-563-XCB2006006; 2011 National Household Survey Data Table 99-010-X2011045; 2016 Census Data Table 98-400-X2016205

Figure 12

2016 Census Data Table 98-400-X2016205