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CENTRE FOR THE STUDY OF LIVING STANDARDS

# Richer and Fairer: New Brunswick Income Trends, 1976-2019

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## Fairer: New Brunswick Income Trends, 1976-2019

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## Fairer: New Brunswick Income Trends, 1976-2019

#### **Abstract**

This report provides a detailed analysis of income trends in New Brunswick over the past four decades. Although income was much lower in New Brunswick than at the national level between 1981 and 2019, the gap narrowed over that period thanks to stronger growth in income in New Brunswick. By 2019, the size of the income gap had fallen to 23 per cent based on real GDP per capita, to 12 per cent based on personal income (which includes government transfers), and to 10 per cent based on personal disposable income (which includes government transfers and tax). The income gap between New Brunswick and Canada also shrank as measured per economic unit (economic families and unattached individuals) between 1976 and 2019. From 2000 to 2019, a period of strong real income growth in both New Brunswick and Canada, the gap between the rich and poor in New Brunswick also narrowed, as after-tax income inequality decreased and poverty rates fell. On the other hand, the wealth gap between Canada and New Brunswick widened between 1999 and 2019.

## Fairer: New Brunswick Income Trends, 1976-2019

#### **Executive Summary**

The objective of this report is to provide a detailed analysis of income trends in New Brunswick compared to those in Canada as a whole. The report is divided into three major parts. Part one provides a detailed overview of income trends in New Brunswick from 1976 to 2019. Part two explores trends in wealth. Lastly, part three looks at trends in housing affordability.

Examining trends in real per capita GDP, personal income and personal disposable income reveals that these three income measures were lower in New Brunswick than in Canada as a whole between 1981 and 2019. As a result of stronger growth rates between 1981 and 2019 and between the subperiods 1981-2000 and 2000-2019, the gap between the New Brunswick levels and the corresponding national levels of income narrowed over those four decades. However, the stronger growth rates in per capita income measures in New Brunswick relative to Canada were largely due to the province's weaker population growth. Key trends in the three income measures include:

- New Brunswick's real GDP per capita rose at a compound annual rate of 2.21 per cent between 1981 and 2000, 0.64 points above the national rate. Consequently, New Brunswick's real GDP per capita rose from 68.1 per cent of the national average in 1981 to 76.8 per cent of the national average in 2000. Subsequently, over the 2000-2008 period, growth in New Brunswick's GDP per capita dropped to 2.08 per cent per year, down 0.13 points from the 1981-2000 rate but 0.78 points above the national rate. Between 2008 and 2019, New Brunswick's real GDP per capita grew by only 0.11 per cent per year, 0.50 points below the national rate. As a result, New Brunswick's real GDP per capita fell from 81.6 per cent of national GDP per capita in 2008 to 77.3 per cent in 2019.
- New Brunswick's real personal income per capita increased by 1.77 per cent per year over the 1981-2000 period, outpacing the national rate by 0.74 points. As a result, New Brunswick's real personal income per capita rose from 79.0 per cent of the national average in 1981 to 82.3 per cent of the national average in 2000. In the following period, between 2000 and 2008, New Brunswick's real personal income per capita growth picked up to 2.22 per cent, 0.64 points above the national rate. New Brunswick's real personal income per capita growth then fell to 0.85 per cent per year between 2008 and 2019, 0.11 points above the national rate. By 2019, New Brunswick's real personal income per capita was 87.6 per cent of national personal income per capita, up 8.6 points from the proportion in 1981.
- New Brunswick's real personal disposable income per capita increased at a compound annual rate of 1.47 per cent from 1981 to 2000, 0.69 points above the national rate. Consequently, New Brunswick's real personal disposable income per capita rose from 74.5 per cent of the national average in 1981 to 84.8 per cent of the national average in 2000. New Brunswick's real personal disposable income per capita growth then accelerated to 2.14 per cent per year (0.4 points above the national rate) between 2000

and 2008, before falling to 1.08 per cent per year (0.25 points above the national rate) over the 2008-2019 period.

Analyzing average and median income by economic unit (economic families and individuals not in an economic family) reveals that in both New Brunswick and Canada, the last quarter of the 20<sup>th</sup> century was a period of weak income growth and rising income inequality. The first 19 years of the 21<sup>st</sup> century then saw a significant improvement in income growth and a relative stabilization of inequality. New Brunswick outperformed the national average in terms of average and median after-tax income growth in the overall 1976-2019 period and between 1976 and 2000. However, average and median after-tax income in New Brunswick grew slightly slower than the average and median after-tax income at the national level between 2000 and 2019. Key findings relating to trends in after-tax income include:

- Average and median after-tax income in New Brunswick were consistently lower than the national average and median between 1976 and 2019. However, as a result of stronger growth in average and median after-tax income in New Brunswick, the gaps between the New Brunswick and the national levels narrowed over the period. New Brunswick's average after-tax income rose from 83.4 per cent of the national average in 1976 to 84.7 per cent in 2019. New Brunswick's median after-tax income rose from 86.8 per cent of the national median in 1976 to 89.7 per cent in 2019.
- Between 1976 and 2000, average after-tax income in New Brunswick grew at a weak compound annual rate of 0.22 per cent, outpacing the even weaker national rate (0.08 per cent). Over the 2000-2019 period, average after-tax income growth in New Brunswick picked up to 1.07 per cent per, 0.10 points below the national rate (1.17 per cent).
- New Brunswick's median after-tax income fell by 0.13 per cent per year between 1976 and 2000, while national median after-tax income fell at a faster rate (0.29 per cent per year). Between 2000 and 2019, growth in New Brunswick's median after-tax income picked up to 1.10 per cent per year, slightly below the national rate (1.14 per cent per year).
- In New Brunswick and nationally, median after-tax income was lower than average after-tax income over the 1976-2019 period. This reflects after-tax income inequality, as disproportionately high incomes at the top end skew average income upward. Examining median after-tax income as a proportion of average after-tax income reveals that although income inequality increased in both New Brunswick and nationally between 1976 and 2000, it was relatively stable thereafter. As well, for most of the 1976-2019 period, income inequality was less in New Brunswick than in Canada as a whole.

Examining trends in the Gini coefficients of adjusted market income, total income and after-tax income reveals that in New Brunswick and in Canada as a whole, the Gini coefficients increased over the last quarter of the 20<sup>th</sup> century — indicating rising income inequality — and stabilized thereafter. Key findings relating to the Gini coefficient are highlighted here:

• For most of the 1976-2000 period, New Brunswick's Gini coefficient of market income was greater than Canada's, indicating that before taxes and transfers, income distribution

was more unequal in New Brunswick than in Canada as a whole. On the other hand, by 2019, New Brunswick's Gini coefficient of market income was slightly lower than the Canadian coefficient. New Brunswick's Gini coefficient of market income fell from 104.7 per cent of the Canadian coefficient in 1976 to 97.9 per cent in 2019.

- Measuring the impact of transfers by taking the absolute difference between the Gini
  coefficient of market income and the Gini coefficient of total income shows that
  government transfers had a stronger equalizing effect in New Brunswick than in Canada
  as a whole. On the other hand, the equalizing effect of taxes on New Brunswick's Gini
  coefficient was weaker than that on the national average during most of the 1976-2019
  period.
- For most of the 1976-2019 period, New Brunswick's Gini coefficient of adjusted after-tax income was lower than that of Canada, indicating that after-tax income inequality was weaker in New Brunswick. In 2019, New Brunswick's Gini coefficient of after-tax income was 90.3 per cent of the Canadian coefficient.

Examining the shares of after-tax income (including capital gains) that went to high-income tax filers in New Brunswick and Canada between 1982 and 2018 reveals trends in income inequality that are consistent with those observed in earlier sections of the paper. In both New Brunswick and Canada, the shares of after-tax income that went to the top 5 per cent, 1 per cent and 0.1 per cent of tax filers increased from 1982 to 2000. The shares belonging to these income groups then decreased from 2000 to 2018 in Canada, while the shares of all these groups except that of the top 0.1 per cent decreased over the same period in New Brunswick. Another key finding was that the shares of after-tax income that went to high-income tax filers in Canada exceeded the corresponding New Brunswick shares over the entire 1982-2018 period. As well, the threshold values for the New Brunswick high-income groups were consistently lower than the Canadian thresholds between 1982 and 2018. More specifically:

- The share of after-tax income that went to the top 0.1 per cent income group in New Brunswick rose from 1.7 per cent (70.8 per cent of the national share of 2.4 per cent) in 1990 to 2.2 per cent (53.7 per cent of the national share) in 2000. In 2019, 2.5 per cent of after-tax income went to the top 0.1 per cent income group in New Brunswick (69.4 per cent of the national share).
- The share of after-tax income that went to the top 1 per cent income group in New Brunswick rose from 5.5 per cent (87.3 per cent of the national share) in 1982 to 7.3 per cent (68.9 per cent of the national share) in 2000. The share then decreased to 7.1 per cent (72.4 per cent of the national share) in 2018.
- In nominal terms, the threshold to be in the top 0.1 per cent income group in New Brunswick rose from \$147,400 (61.7 per cent of the national threshold) in 1990 to \$374,900 (54.4 per cent of the national threshold) in 2018.
- The threshold to be in the top 1 per cent income group in New Brunswick rose from \$41,300 (79.4 per cent of the national threshold) in 1982 to \$136,900 (70.4 per cent of the national threshold) in 2018.

Examining trends in poverty between 1976 and 2019 shows that poverty in New Brunswick fell over the period and improved relative to the national average. In particular:

- Over the 1976-2019 period in New Brunswick, the low-income cut-off after tax poverty rate fell from 15.5 per cent (119.2 per cent of the national rate) in 1976 to 4.5 per cent (69.2 per cent of the national rate) in 2019. The low-income measure after tax decreased from 20.3 per cent (156.2 per cent of the national rate) in 1976 to 14.9 per cent (123.1 per cent of the national rate) in 2019.
- In 2019, the official poverty rate for New Brunswick was 9.4 per cent, the third lowest poverty rate of the provinces. Between 2006 and 2019, the 2008-base market basket measure poverty rate for New Brunswick fell by 11.4 percentage points, from 19.2 per cent to 7.8 per cent.
- The 2008-base market basket measure poverty rate for persons under 18 fell from 26.7 per cent to 10.7 per cent between 2008 and 2019, a decrease of 16.0 points in only 13 years.

The review of trends in social assistance in New Brunswick between 2001 and 2019 shows that the proportion of New Brunswick's population that received social assistance decreased from 7.1 per cent in 2001 to 4.6 per cent in 2019. The report then looks at the adequacy of welfare income for four household types in 2019. For all four household types, the maximum welfare income was far below the Market Basket Measure threshold. New Brunswick ranked in the bottom half of the provinces for the adequacy of welfare income of all but one of the four household types.

Trends in wealth are analyzed between 1999 and 2019. In this report, the concept of wealth is based on "net worth" that is, the amount that economic units would have left over if they sold all their assets and paid off all their debt. This analysis reveals that although the income gap between New Brunswick and Canada narrowed over the first 19 years of the 21<sup>st</sup> century, the wealth gap between the two jurisdictions widened between 1999 and 2019. Key findings include:

- Between 1999 and 2019, average and median net worth of economic units in New Brunswick increased (by 1.94 per cent per year and by 3.92 per cent per year, respectively). However, both average and median net worth of economic units in New Brunswick fell as proportions of the Canadian variables. Average net worth fell from 70.7 per cent of the national average in 1999 to 52.0 per cent in 2019. Median net worth in New Brunswick fell from 77.5 per cent of the national median in 1999 to 56.1 per cent of the national median in 2019.
- New Brunswick had the lowest average and median values of assets of all the provinces in 2019. New Brunswick had the lowest average debt and the fifth lowest median debt of all the provinces in 2019.

The report closes by examining housing affordability between 2000 and 2019. Using four measures of housing affordability, this analysis highlights that, compared to the national average, housing is much more affordable in New Brunswick. Furthermore, according to three of the four

measures, housing affordability generally improved slightly in New Brunswick over the first two decades of the 21<sup>st</sup> century. The fourth measure showed a slight deterioration in housing affordability in New Brunswick over the 2000-2019 period, largely due to an increase in prices for resale housing.

- The proportion of households in New Brunswick spending 30 per cent or more of their income on housing fell from 19.0 per cent in 2005 to 16.6 per cent in 2015, the lowest proportion of all the provinces and 6 percentage points below the national average of 23.6 per cent.
- In 2019, the average annual rent for a two-bedroom apartment in New Brunswick cost 12.8 per cent of pre-tax median census family income, tied for the lowest proportion of all the provinces and 1.5 points below the national average. This proportion was down 1.5 points from 14.3 per cent in 2000.
- The proportion of wages full-time workers aged 15 to 24 spent on a one-bedroom apartment fell from 27.9 per cent in 2008 to 26.6 per cent in 2019, the lowest proportion of all the provinces.
- The ratio of MLS average residential prices to median census family pre-tax income rose from 2.12 to 1 in 2000 to 2.27 to 1 in 2019.
- Between 2000 and 2019 in New Brunswick, increases in nominal average and median after-tax both outpaced the increase in the new housing price index and the increase in costs for both rented and owned accommodation, suggesting that housing became more affordable in New Brunswick over the 2000-2019 period. On the other hand, nominal average and median after-tax income growth lagged behind growth in the MLS average residential price, suggesting that resale housing units became less affordable in New Brunswick over the 2000-2019 period.

Table 1: Real Income Disparities Between New Brunswick and Canada, 1981, 2000 and 2019

Variable		1981		2000			2019		
	NB	CA	NB/CA	NB	CAN	NB/CA	NB	CA	NB/CA
GDP Per Capita (chained 2012 dollars)	23,920	35,108	68.1	36,220	47,172	76.8	43,209	55,922	77.3
GDP Per Worker (chained 2012 dollars)	65,572	77,078	85.1	81,978	98,069	83.6	92,960	110,732	84.0
Personal Income Per Capita (2012 dollars)	22,152	30,876	71.7	30,913	37,542	82.3	40,456	46,165	87.6
Personal Disposable Income Per Capita (2012 dollars)	15,495	20,791	74.5	20,438	24,099	84.8	27,230	30,298	89.9
Median After-Tax Income (all economic units) (2019 dollars)	45,800	54,600	83.9	45,800	50,700	90.3	56,400	62,900	89.7
Average After-Tax Income (all economic units) (2019 dollars)	51,400	60,600	84.8	53,400	61,900	86.3	65,400	77,200	84.7
Average After Tax Income of the Top 1% (2019 dollars)*	155,666	217,005	71.7	218,997	384,478	57.0	263,140	431,958	60.9
Average After-Tax Income of the Bottom 10% (2019 dollars)	10,200	10,700	95.3	9,800	8,200	119.5	12,100	11,400	106.1
Gini Coefficient of Adjusted Market Income	0.424	0.369	114.9	0.438	0.439	99.8	0.412	0.421	97.9
Gini Coefficient of Adjusted Total Income	0.319	0.313	101.9	0.333	0.362	92.0	0.306	0.338	90.5
Gini Coefficient of Adjusted After-Tax Income	0.290	0.285	101.8	0.291	0.317	91.8	0.270	0.299	90.3
LICO	15.0	11.6	129.3	9.2	12.5	73.6	4.5	6.5	69.2
LIM	20.5	12.0	170.8	14.8	12.8	115.6	14.9	12.1	123.1
MBM (2006 (2008- base), 2015 and 2019 (2018-base))	19.2	15.6	123.1	16.1	14.5	111.0	9.4	10.1	93.1

## Fairer: New Brunswick Income Trends, 1976-2019

#### Introduction<sup>1</sup>

This report aims to provide a detailed analysis of income trends in New Brunswick compared to Canada as a whole. Income is a key determinant of living standards. To properly compare living standards in New Brunswick to those in other provinces, however, it is necessary to also compare the cost of living across provinces. Unfortunately, Statistics Canada calculates only the change in the cost of living in each province, through the Consumer Price Index, and not the absolute level. The absence of data on the level of the cost of living across Canada is a limitation of the report. The data in this report is based on nominal income trends deflated by the provincial Consumer Price Index.

The report is divided into three major parts. Part one — by far the largest — examines income trends from 1976 to 2019. Part two provides an overview of trends in wealth between 1999 and 2019. Finally, part three explores trends in housing affordability between 2000 and 2019.

Part one has five sections. Section I overviews trends in real per capita GDP, personal income and personal disposable income. Section II then outlines trends in average and median after-tax income by examining the link between after-tax income and market income. Section III discusses income distribution and inequality through the lens of income distribution by decile and quintile, the Gini coefficient and top income earners. Section IV explores trends in poverty, while section V looks at trends in social assistance.

Part two is divided into four sections. Section I of part two examines trends in average and median net worth, assets and debt. Section II provides a brief overview of the major components of assets in New Brunswick, while section III overviews the components of debt in the province. Section IV of part two outlines trends in net worth by after-tax income quintile.

Finally, part three of the report reviews trends in housing affordability. The first section of part three uses four measures to assess housing affordability in New Brunswick. The second section relates income trends analyzed earlier in the report to trends in housing affordability.

<sup>&</sup>lt;sup>1</sup> This report was written by Nettie Bonsall under the supervision of Dr. Andrew Sharpe. The database for the report is posted with the report at [link to be inserted once created].

#### Part One: Income Trends in New Brunswick, 1976-2019

## I. GDP Per Capita, Personal Income Per Capita and Personal Disposable Income Per Capita, 1981-2019

In recent years, there has been much debate about regional income disparities across Canada. This section examines trends in real GDP per capita, real personal income per capita and real personal disposable income per capita. From 1981 to 2019, New Brunswick's per capita real GDP, personal income and personal disposable income were consistently lower than the national averages (Chart 2). However, New Brunswick outperformed Canada as a whole in terms of compound annual growth for all three measures between 1981 and 2019 and between two subperiods: 1981-2000 and 2000-2019. As a result, the income gap between New Brunswick and the Canadian average has narrowed.

#### A. Real GDP Per Capita

Comparing the level and growth of the total value of the goods and services produced per person in New Brunswick with the Canadian average illustrates the persistent, but narrowing, income gap. As shown in Panel A of Chart 1, between 1981 and 2019, New Brunswick's real GDP per capita rose at a compound annual rate of 1.57 per cent, 0.34 points above the national rate (1.23 per cent). Between 1981 and 2000, New Brunswick's real GDP per capita grew by 2.21 per cent per year, outpacing the national average by 0.64 points (Panel B of Chart 2).

The 2000-2019 period was a period of much weaker growth for both New Brunswick and Canada as a whole. Over the first eight years of the 21<sup>st</sup> century, New Brunswick's real GDP per capita growth rate dropped to 2.08 per cent per year, 0.78 points above the national rate (Panel C of Table 2). Between 2008 and 2019, New Brunswick's real GDP per capita rose at a weak compound annual rate of 0.11 per cent, 0.50 points below the national rate.

New Brunswick's superior performance in terms of GDP per capita growth relative to Canada reflects a greater gap between population and GDP growth in the province. Between 1981 and 2019, New Brunswick's real GDP per capita grew at a compound annual rate of 1.82 per cent, 2.34 points below the national rate. On the other hand, New Brunswick's population grew by only 0.25 per cent per year. There was a gap of 1.57 points between New Brunswick's GDP growth and the province's population growth. On the other hand, there was a gap of only 1.24 points between Canada's GDP growth and the country's population growth.

The 2000-2019 period was a period of much weaker growth for both New Brunswick and Canada as a whole. Panel C of Chart 1 shows that between 2000 and 2019, New Brunswick's real GDP capita growth dropped to 0.94 per cent per year, less than half its pre-2000 rate, but still slightly stronger than growth observed at the national level (0.90 per cent per year).

New Brunswick's real GDP per capita was consistently lower than the national average between 1981 and 2019. However, as a result of stronger growth in New Brunswick's real GDP per capita, the gap between the two levels narrowed over the period. In 1981, New Brunswick's

real GDP per capita was \$23,920 (in 2012 constant dollars), 68.1 per cent of the national average (Panel A and Panel D of Chart 2).

Between 1981 and 2000, New Brunswick's real GDP per capita generally rose as a proportion of national GDP per capita (though not consistently); in 2000, New Brunswick's real GDP per capita was 76.7 per cent of national GDP per capita. New Brunswick's real GDP per capita as a proportion of national real GDP per capita reached a peak of 83.5 per cent in 2009. New Brunswick's real GDP per capita then fell as a proportion of national real GDP per capita until the proportion hit 77.0 per cent in 2014. The proportion then rose until it reached 78.1 per cent in 2017 before falling slightly to 77.3 per cent in 2019, when New Brunswick's real GDP per capita was \$43,209.

#### **B.** Real Personal Income Per Capita

Personal income (now called "household" income in Statistics Canada data) is defined as the income of all households and includes compensation of employees (by far the most important component), net mixed income, property income received and current transfers received.<sup>2</sup> As was the case with real GDP per capita, New Brunswick's real personal income per capita was consistently lower than the national average during the 1981-2019 period, but, overall, the gap between the two levels narrowed as a result of stronger growth in New Brunswick's real personal income per capita. Another similarity between the two measures of income was that they both grew more slowly in New Brunswick and nationally in the post-2000 period than in the pre-2000 period. As well, as was the case with real GDP per capita, New Brunswick's stronger performance relative to Canada reflected weaker population growth in the province. Canada's real personal income per capita grew at a faster rate than did New Brunswick's real personal income per capita, but, as a result of much weaker population growth in New Brunswick, New Brunswick's real personal income per capita growth outpaced the national average.

New Brunswick's real personal income per capita grew at a compound annual rate of 1.60 per cent — 0.54 points above the national rate — between 1981 and 2000 (Panel B of Chart 1). Over the 2000-2008 period, growth in New Brunswick's real personal income per capita picked up to 2.22 per cent per year, 0.64 points above the national rate of 1.58 per cent (Panel C of Table 1). Between 2008 and 2019, New Brunswick's real personal income per capita growth dropped to 0.85 per cent per year (less than one half of the 2000-2008 rate), but it remained above the national rate (0.74 per cent per year).

In 1981, New Brunswick's real personal income per capita was \$22,152, or 71.7 per cent of national personal income per capita. By 2000, New Brunswick's real personal income per capita had climbed to 82.3 per cent of the national average. In 2019, New Brunswick's real personal income per capita was \$40,456, 87.6 per cent of the national average.

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<sup>&</sup>lt;sup>2</sup> For definitions of the components of household income, see <a href="https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=1227573&CVD=1227573&CLV=0&MLV=1">https://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=1227573&CVD=1227573&CLV=0&MLV=1</a> &D=1

#### C. Real Personal Disposable Income Per Capita

The trends were similar for growth in real per capita personal disposable income, which includes all income and government transfers, minus taxes paid. While national real personal disposable income per capita exceeded the New Brunswick level over the measurement period, stronger growth in New Brunswick's real personal disposable income per capita resulted in the province's personal disposable income per capita as a proportion of the Canadian average rising by 15.4 percentage points between 1981 and 2019, from 74.5 per cent to 89.9 per cent.

One can argue that real personal disposable income per capita is the aggregate income measure that best captures living standards. Hence, the increase in New Brunswick's real personal income per capita as a proportion of the national average suggests that living standards in New Brunswick improved relative to the national average over the 1981-2019 period.

However, in contrast to the fall-off in growth in real per capita GDP and personal income post-2000, real personal disposable income per capita growth picked up after 2000 relative to the 1981-2000 period. Between 1981 and 2000, New Brunswick's real personal disposable income per capita grew at a compound annual rate of 1.47 per cent, 0.69 points above the national rate of 0.78 per cent (Panel B of Chart 1). Real personal disposable income per capita growth rose slightly to 1.52 per cent in New Brunswick over the 2000-2019 period (Panel C of Chart 1). The Canadian rate saw a greater improvement post-2000, narrowing the gap between the two growth rates to 0.31 per cent.

Looking at the data in more detail, between 1981 and 1989, New Brunswick's real personal disposable income per capita grew at a compound annual rate of 2.57 per cent, nearly double the national rate of 1.33 per cent (Panel C of Table 2). Real personal disposable income per capita growth then slowed to 0.67 per cent per year in New Brunswick and to 0.38 per cent per year in Canada between 1989 and 2000.

Between 2000 and 2008, real personal disposable income per capita growth picked up in both New Brunswick and Canada; New Brunswick's real personal disposable income per capita grew at a compound annual rate of 2.14 per cent, 0.40 points above the national rate (1.74 per cent per year). Growth fell off after the recession; between 2008 and 2019, New Brunswick's real personal disposable income per capita grew at a compound annual rate of 1.08 per cent (just over half of its 2000-2008 rate), slightly above the national rate (0.83 per cent per year).

In 1981, New Brunswick's real personal disposable income per capita was \$15,495, 74.5 per cent of the national average. New Brunswick's real personal disposable income per capita had climbed to 82.1 per cent of the national average by 1989 (an increase of 7.6 percentage points from the 1981 proportion). In 2000, New Brunswick's real personal disposable income per capita was 84.8 per cent of the national average. In 2019, New Brunswick's real personal disposable income per capita was \$27,230, 89.9 per cent of the national average.

Table 2: Growth in New Brunswick's and Canada's Real GDP, Personal Income and Personal Disposable Income, 1981-2019 (Compound Annual Growth Rates)

Panel A: Real GDP, Personal Income and Personal Disposable Income

Compound	`	illions of	Real Personal Income		Real Personal	
Annual	chained 20	12 dollars)			Disposab	le Income
Growth				ı		ı
Rate	CA	N.B.	CA	N.B.	CA	N.B.
1981-2019	2.34	1.82	2.17	1.85	2.11	1.75
1981-2000	2.71	2.53	2.17	2.09	1.91	1.79
2000-2019	1.98	1.12	2.18	1.61	2.30	1.71
1981-1989	2.54	3.25	2.71	3.24	2.17	3.08
1989-2000	2.86	2.01	1.68	1.27	1.68	0.86
2000-2008	2.32	2.01	2.60	2.16	2.77	2.08
2008-2019	1.74	0.47	1.88	1.22	1.96	1.44

Panel B: Population Growth in New Brunswick and in Canada

Compound Annual	CA	N.B.
Growth Rate		
1981-2019	1.10	0.25
1981-2000	1.12	0.32
2000-2019	1.07	0.18
1981-1989	1.19	0.50
1989-2000	1.08	0.19
2000-2008	1.01	-0.06
2008-2019	1.12	0.36

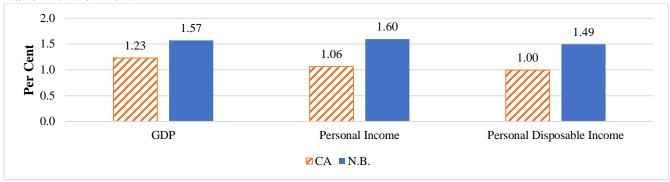
Panel C: Real Per Capita GDP, Personal Income and Personal Disposable Income

i anci C. Real I el Capita GDI, i el sonal income anu i el sonal Disposable income								
Compound	GDP (m	illions of	Real Personal Income		Real Personal			
Annual	chained 20	12 dollars)			Disposable Income			
Growth								
Rate	CA	N.B.	CA	N.B.	CA	N.B.		
1981-2019	1.23	1.57	1.06	1.60	1.00	1.49		
1981-2000	1.57	2.21	1.03	1.77	0.78	1.47		
2000-2019	0.90	0.93	1.09	1.43	1.21	1.52		
1981-1989	1.64	2.74	1.57	2.72	1.33	2.57		
1989-2000	1.52	1.82	0.65	1.08	0.38	0.67		
2000-2008	1.30	2.08	1.58	2.22	1.74	2.14		
2008-2019	0.61	0.11	0.74	0.85	0.83	1.08		

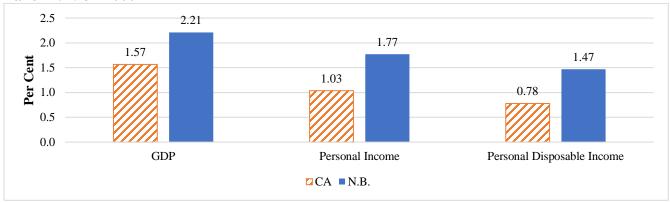
Sources: GDP: Statistics Canada, Table: 36-10-0222-01; Personal income: Statistics Canada, Table 36-10-; Personal disposable income: Statistics Canada, Table 36-10-0224-01; CPI: Statistics Canada. Table 18-10-0005-01; Population: Statistics Canada, Table 17-10-0005-01

Chart 1: Growth in New Brunswick's and Canada's Real Per Capita GDP, Personal Income, and Personal Disposable Income, 1981-2019 (Compound Annual Growth Rates)

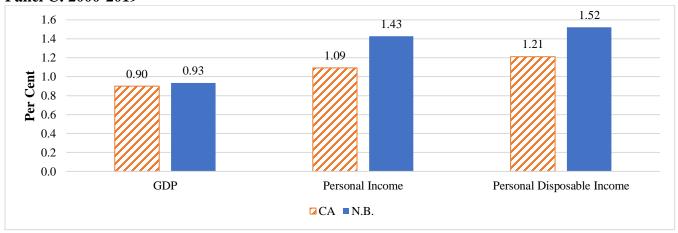
Panel A: 1981-2019



Panel B: 1981-2000



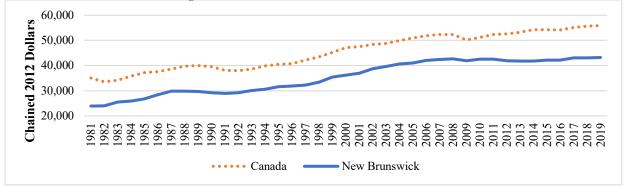
Panel C: 2000-2019



Sources: GDP: Statistics Canada, Table: 36-10-0222-01; Personal income: Statistics Canada, Table 36-10-; Personal disposable income: Statistics Canada, Table 36-10-0224-01; CPI: Statistics Canada. Table 18-10-0005-01; Population: Statistics Canada, Table 17-10-0005-01

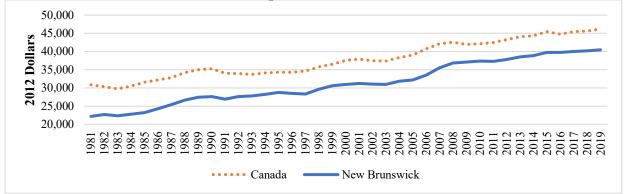
Chart 2: Trends in Real GDP per Capita and Personal Income Per Capita in New Brunswick and in Canada, 1981-2019

Panel A: Real GDP Per Capita in New Brunswick and in Canada



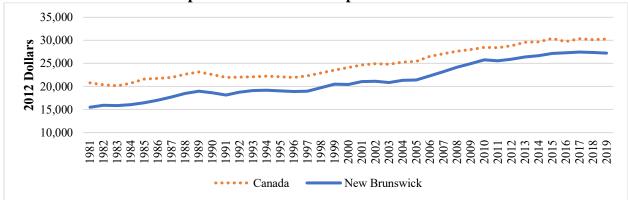
Sources: GDP: Statistics Canada, Table 36-10-0222-01; Population: Statistics Canada, Table 17-10-0005-01

Panel B: Real Personal Income Per Capita in New Brunswick and in Canada

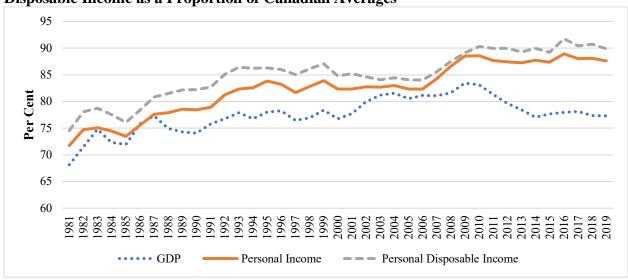


Sources: Personal income: Statistics Canada, Table 36-10-0226-01; CPI: Statistics Canada, Table 18-10-0005-01; Population: Statistics Canada, Table 17-10-0005-01

Panel C: Real Personal Disposable Income Per Capita in New Brunswick and in Canada



Sources: Personal disposable income: Statistics Canada, Table 36-10-0224-01; CPI: Statistics Canada, Table 18-10-0005-01; Population: Statistics Canada, Table 17-10-0005-01



Panel D: New Brunswick's Per Capita Real GDP, Personal Income and Personal Disposable Income as a Proportion of Canadian Averages

Sources: GDP: Statistics Canada, Table 36-10-0222-01; Personal income: Statistics Canada, Table 36-10-0226-01; Personal disposable income: Statistics Canada, Table 36-10-0224-01; CPI: Statistics Canada. Table 18-10-0005-01; Population: Statistics Canada, Table 17-10-0005-01

#### D. Decomposition of GDP Per Capita

GDP per capita can be decomposed into GDP per worker and the employment rate. In other words, an increase in GDP per capita can be due to an increase in GDP per worker (a measure of labour productivity), an increase in the employment rate (that is, the number of workers as a share of the population 15 and over) or a combination of both. For New Brunswick, much of the narrowing of the income gap with Canada as a whole over the past four decades has been due to an increase in the employment rate, although growth in labour productivity has played a role in the past 20 years.

As noted earlier, between 1981 and 2000, New Brunswick's real GDP per capita grew at a compound annual rate of 2.21 per cent, outpacing the national rate by 0.64 points. Consequently, New Brunswick's real GDP per capita rose from 68.1 per cent of national GDP per capita in 1981 to 76.8 per cent of national GDP per capita in 2000. Over the same period, New Brunswick's GDP per worker rose at a compound annual rate of 1.18 per cent, 0.10 points below the national rate (1.28 per cent) (Panel A of Table 3). Consequently, New Brunswick's GDP per worker fell from 85.1 per cent of the national average in 1981 to 83.6 per cent of the national average in 2000 (Panel C of Table 3). Hence, none of the reduction in the gap between GDP per capita in New Brunswick and GDP per capita at the national level between 1981 and 2000 was due to productivity growth in New Brunswick.

On the other hand, the share of workers in both the population 15 and over and that under 15 in New Brunswick rose as proportions of the national averages over the 1981-2000 period, leading to the share of workers in New Brunswick's population rising from 80.1 per cent of the national share in 1981 to 91.9 per cent of the national share in 2000. Thus, the reduction of the gap between New Brunswick's GDP per capita and national GDP per capita was entirely due to

an increase in the share of workers in New Brunswick's total population as a proportion of the corresponding national share.

Developments were somewhat different during the 2000-2019 period. Between 2000 and 2019, New Brunswick's GDP per capita rose at a compound annual rate of 0.93 per cent, 0.03 points above the national rate. As a result, New Brunswick's GDP per capita rose from 76.8 per cent of national GDP per capita in 2000 to 77.3 per cent in 2019. Over the same period, New Brunswick's GDP per worker grew at a compound annual rate of 0.66 per cent, slightly outpacing growth in national GDP per worker by 0.02 points. Consequently, New Brunswick's GDP per worker rose from 83.6 per cent of the national average in 2000 to 84.0 per cent in 2019. Thus, stronger labour productivity growth in New Brunswick relative to the national average helped to reduce the gap between GDP per capita in New Brunswick and GDP per capita at the national level over the 2000-2019 period.

An increase of 4.0 points in employment in New Brunswick as a share of the population under 15 as a share of the national share (from 98.2 per cent in 2000 to 102.2 per cent in 2019) also contributed to narrowing the gap between GDP per capita in New Brunswick and national GDP per capita between 2000 and 2019. On the other hand, the number of workers as a share of the population 15 and over in New Brunswick fell 0.2 points as a proportion of the national average (from 90.5 per cent in 2000 to 90.3 per cent in 2019), lessening New Brunswick's gain relative to Canada.

Table 3: GDP Per Capita and Related Variables, New Brunswick and Canada, 1981-2019

Panel A: Growth in GDP Per Capita and Related Variables (Compound annual growth rates)

Compound	GDP Per Capita		Employment		GDP per Worker		Population		Population 15	
Annual							Und	er 15	and (	Older
Growth										
Rate	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.
1981-2019	1.23	1.57	1.37	0.89	0.96	0.92	0.22	-1.17	1.31	0.59
1981-2000	1.57	2.21	1.41	1.34	1.28	1.18	0.32	-1.36	1.33	0.78
2000-2019	0.90	0.93	1.33	0.45	0.64	0.66	0.11	-0.97	1.28	0.40

**Panel B: Employment Relative to Population** 

Per	Employr	nent as a	a Share of Persons		Share of Persons		Employment as a		Employment as a	
Cent	Share	of the	Under 15 in the		15 and Older in		Share of		Share of	
	Total Population		Total Po	pulation	the Total		Population 15		Population Under	
					Popu	lation	and (	Older	1	5
	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.
1981	45.5	36.5	22.3	24.7	77.7	75.3	58.6	48.5	204.3	147.5
2000	48.1	44.2	19.2	17.9	80.8	82.1	59.5	53.8	250.9	246.5
2019	50.5	46.5	16.0	14.4	84.0	85.6	60.1	54.3	316.1	323.0

Panel C: GDP Per Capita and Related Variables in New Brunswick as a Share of Canadian Variables

Per	GDP Per	GDP per	Employment	Share of	Share of	Employment	Employment
Cent	Capita	Worker	as a Share of	Persons	Persons 15	as a Share of	as a Share of
			the Total	Under 15 in	and Older in	Population	Population
			Population	the Total	the Total	15 and Older	Under 15
				Population	Population		
1981	68.1	85.1	80.1	110.9	96.9	82.7	72.2
2000	76.8	83.6	91.9	93.5	101.5	90.5	98.2
2019	77.3	84.0	92.0	90.1	101.9	90.3	102.2

Source: Statistics Canada. GDP: Table 36-10-0222-01; Population: Table 17-10-0005-01; Employment:

Table 14-10-0287-03

#### II. Average and Median After-Tax Income of Economic Units, 1976-2019

Another way to look at income trends is to examine average and median income for "economic units" — that is average and median income based on the number of economic families and individuals (as opposed to income per capita). Average total income is similar to personal income per capita, and average after-tax income is similar to personal disposable income per capita. Average market income is roughly comparable to GDP per capita, as neither includes transfer payments.

This section examines trends in average and median after-tax income between 1976 and 2019 using data from the Canadian Income Survey, as found in Statistics Canada's Table 11-10-0190-01. Similar to the trends for growth in income per capita, average and median after-tax income grew slightly faster in New Brunswick than the national average during the overall period and between 1976 and 2000, reducing the income gap between the two jurisdictions. On the other hand, both average after-tax income growth and median after-tax income growth in New Brunswick were slightly below the national rates between 2000 and 2019.

In both New Brunswick and Canada, the last quarter of the 20<sup>th</sup> century was a period of weak income growth and rising income inequality. The first 19 years of the 21<sup>st</sup> century then saw a significant improvement in income growth and a relative stabilization of inequality. This section examines these trends using Statistics Canada estimates (in 2019 constant dollars) of average and median market income, government transfers, total income, income tax and after-tax income for the 1976-2019 period. Market income is total income before transfers and tax; total income after transfers but before tax; and after-tax income is income after transfers and tax. The estimates for Canada do not include the territories.

Statistics Canada defines economic families (or attached individuals) as a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law, adoption or a foster relation. Persons not in an economic family (or unattached individuals) are defined as persons living either alone or with others to whom they are unrelated, such as roommates or a lodger. This section of the report discusses only trends in income for all economic units together (that is, an aggregate of economic families and persons not in an economic family).

For a breakdown of income by economic family type, see Appendix III. However, it is important to note that in both New Brunswick and Canada, the increase in the share of persons not in an economic family in the total population depressed overall average and median income growth, because economic unit income is much lower among persons not in an economic family than it is among economic families. This did not affect per capita income growth. In 1976, 6.5 per cent of New Brunswick's population was not in an economic family (Chart 3). That share had risen to 11.9 percent by 2000 and to 15.7 per cent by 2019. In 1976, persons not in an economic family accounted for 20.7 per cent of the total number of family or household units (economic families and persons not in economic family).

The same trend can be seen in Canada as a whole. In 1976, 8.8 per cent of Canada's population was not in an economic family, but that share had risen to 13.6 per cent by 2000 and to 15.9 per cent by 2019. In 1976, persons not in an economic family accounted for 25.2 per of the total number of family or household units (economic families and persons not in economic family) in Canada. This share had increased to 32.8 per cent by 2000 and to 36.6 per cent by 2019.

Chart 3: Growing Share of Persons Not in an Economic Family in New Brunswick and Canada, 1976-2019

Source: Statistics Canada, Table 11-10-0190-01

#### A. Average After-Tax Income of Economic Units

#### i. Trends in Average After-Tax Income

Both New Brunswick and Canada performed poorly in terms of average after-tax income growth in the last quarter of the 20<sup>th</sup> century, though New Brunswick fared slightly better than Canada as a whole. Between 1976 and 2000, average real after-tax income (of all economic units, taken together) in New Brunswick rose at a weak compound annual rate of 0.22 per cent

per year (Panel A of Table 4). Average after-tax income growth was even weaker at the national level, at a rate of 0.08 per cent per year (Panel B of Table 4).

Income growth picked up dramatically from 2000 to 2019 in both New Brunswick and Canada. Average real after-tax income for economic units rose 1.07 per cent per year in New Brunswick and 1.17 per cent per year in Canada between 2000 and 2019.

Chart 4: Growth in Average Income in New Brunswick and in Canada, 1976-2019 (Compound Annual Growth Rates)

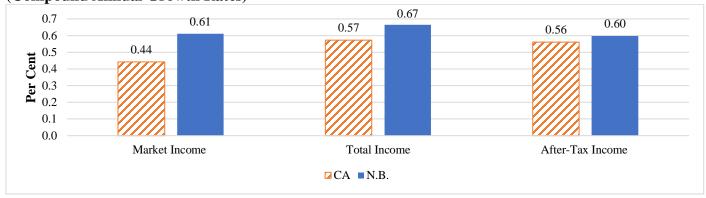
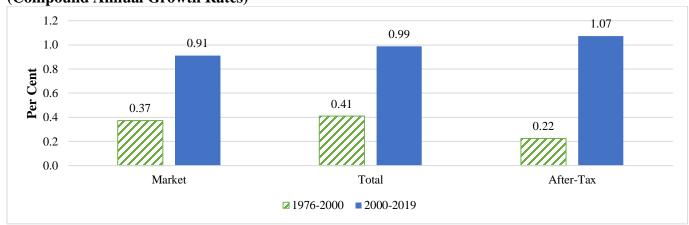


Chart 5: Growth in Average Income in New Brunswick, 1976-2000 and 2000-2019 (Compound Annual Growth Rates)



Source: Statistics Canada, Table 11-10-0190-01

In level terms, average after-tax income of all economic units in New Brunswick was consistently lower than the national level from 1976 to 2019 (Panel A and Panel B of Chart 6 and Panel A of Chart 7). However, the gap has narrowed slightly over time as a result of stronger growth in New Brunswick. The average after-tax income of all economic units in New Brunswick increased from 83.4 per cent of the national average in 1976 to 84.7 per cent in 2019, after varying between a minimum of 82.9 per cent (in 2005, 2006, 2008 and 2015) and a maximum of 89.3 per cent (in 1993). In 1976, average after-tax income in New Brunswick was \$50,600 (in 2019 constant dollars), or 83.4 per cent of the national average (\$60,700). Between 1976 and 2000, average after-tax income in New Brunswick varied between a minimum of 83.3 per cent (in 1983) and a maximum of 89.3 per cent (in 1993) of the national average. In 2000,

average after-tax income in New Brunswick was \$53,400, or 86.3 per cent of the national average (\$61,900). By 2019, average after-tax income in New Brunswick had risen to \$65,400, or 84.7 per cent of the national average (\$77,200).

Table 4: Annual Growth Rate of Average Income, Government Transfers, and Tax, New Brunswick and Canada, All Economic Units, 1976-2019 (Compound Annual Growth Rates)

Panel A: Average Income in New Brunswick

Average	Market	Government	Total Income	Income Tax	After-Tax
	Income	Transfers			Income
1976-2019	0.61	0.94	0.67	1.07	0.60
1976-2000	0.37	0.60	0.41	1.47	0.22
2000-2019	0.91	1.37	0.99	0.56	1.07

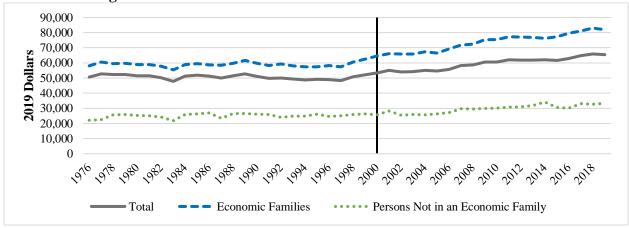
Panel B: Average Income in Canada

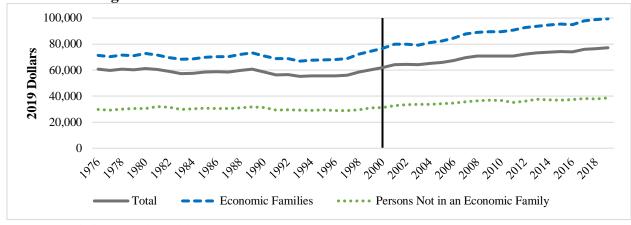
Average	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income
1976-2019	0.44	1.68	0.57	0.63	0.56
1976-2000	0.12	1.73	0.28	1.25	0.08
2000-2019	0.85	1.63	0.94	-0.14	1.17

Source: Statistics Canada, Table 11-10-0190-01

Chart 6: Average After-Tax Income in New Brunswick and in Canada, 1976-2019 (2019 Constant Dollars)

Panel A: Average After-Tax Income in New Brunswick





Panel B: Average After-Tax Income in Canada

Source: Statistics Canada, Table 11-10-0190-01

Chart 7: New Brunswick Average After-Tax Income as a Proportion of Canadian After-Tax Income, All Economic Units, 1976-2019



Source: Statistics Canada, Table 11-10-0190-01

#### ii. Components of Average After-Tax Income

Market income is income before taxes and transfers; it includes employment income, net investment income and private retirement income. Market income is by far the most important component of after-tax income. In both New Brunswick and Canada, the large increases in average after-tax income growth in the first 19 years of the 21<sup>st</sup> century compared with the last quarter of the 20<sup>th</sup> century were primarily due to increases in the average market income growth. Weaker growth in average income tax also contributed to the pickup between the two periods in both New Brunswick and Canada, while stronger growth in government transfers further contributed to the pickup in growth in New Brunswick (Table 4).

In 2019, average market income for all economic units in New Brunswick was 97.6 per cent of average after-tax income because government transfers exceeded income tax; government transfers represented 20.8 per cent of average after-tax income, while income tax represented only 18.3 per cent (Panel A of Table 5). The reverse was true for Canada overall in 2019. That is, income tax represented a greater share of average after-tax income than did

government transfers (19.0 per cent versus 15.7 per cent), so market income represented over 100 per cent (namely 103.4 per cent) of after-tax income (Panel B of Table 5).

From 1976 to 2000, average market income in New Brunswick grew at a compound annual rate of 0.37 per cent (Panel A of Table 4). Average government transfers grew at 0.60 per cent per year, boosting total income growth to 0.41 per cent per year. However, average income tax grew at 1.47 per cent per year, outpacing growth in average government transfers and reducing average after-tax income growth to 0.22 per cent per year.

Between 2000 and 2019, government transfers increased more quickly, while growth in income tax slowed, contributing to average market income growth in New Brunswick of 0.91 per cent per year, up 0.54 points from the 1976-2000 rate. Relative to the pre-2000 period, growth in average government transfers more than doubled between 2000 and 2019, reaching 1.37 per cent per year and boosting total income growth to 0.99 per cent per year. On the other hand, average income tax grew 0.56 per cent per year, down 0.91 points from the 1976-2000 rate. Consequently, average after-tax income grew at a compound annual rate of 1.07 per cent, up 0.85 points from the rate between 1976 and 2000.

While growth in New Brunswick's average market income and its total income (market income plus transfers) continued to outperform the national averages between 2000 and 2019 (by 0.06 points per year and 0.05 points per year, respectively), average after-tax income growth in New Brunswick was slightly below the national rate over the period (1.07 per cent per year versus 1.17 per cent per year).

Chart 8 illustrates the components of average income in New Brunswick as proportions of the components of average income at the national level. The following key trends emerge from Chart 8 and Table 4:

- The average market income in New Brunswick rose from 74.4 per cent of the national average in 1976 to 79.9 per cent of the national average in 2019.
- Higher average government transfers in New Brunswick narrowed the gap between the average total incomes in New Brunswick and Canada. Lower average tax rates in New Brunswick further narrowed the gap between the average after-tax incomes.
- Average government transfers in New Brunswick were consistently greater than the national average during the 1976-2019 period. However, as a result of stronger growth in average government transfers at the national level, the gap between the two averages narrowed over the measurement period.
  - Average government transfers in New Brunswick fell from 154.2 per cent of the national average in 1976 to 118.0 per cent in 2000.
  - In 2019, average government transfers in New Brunswick amounted to \$13,600, 112.4 per cent of the national average (down 41.8 points from the proportion in 1976).
- In contrast to the trends observed in average government transfers between 1976 and 2019, average income tax in New Brunswick was consistently below the Canadian

average, and average income tax in New Brunswick rose as a proportion of the Canadian average.

- Average income tax in New Brunswick rose from 69.7 per cent of the national average in 1976 to 71.5 per cent in 2000.
- o In 2019, the average income tax in New Brunswick was \$12,000, 81.6 per cent of the national average.

Table 5: Average Income, Tax, and Government Transfers for All Economic Units in New Brunswick and Canada, 1976, 2000 and 2019 (2019 constant dollars)

Panel A: Average Income in New Brunswick

Average	1976	Share of	2000	Share of	2019	Share of
		After-Tax		After-Tax		After-Tax
		Income		Income		Income
		(%)		(%)		(%)
Market	49,100	97.0	53,700	100.6	63,800	97.6
Income						
Government	9,100	18.0	10,500	19.7	13,600	20.8
Transfers						
Total Income	58,200	115.0	64,200	120.2	77,400	118.3
Income Tax	7,600	15.0	10,800	20.2	12,000	18.3
After-Tax	50,600	100.0	53,400	100.0	65,400	100.0
Income						

Panel B: Average Income in Canada

Average	1976	Share of	2000	Share of	2019	Share of
		After-Tax		After-Tax		After-Tax
		Income		Income		Income
		(%)		(%)		(%)
Market	66,000	108.7	68,000	109.9	79,800	103.4
Income						
Government	5,900	9.7	8,900	14.4	12,100	15.7
Transfers						
Total Income	71,900	118.5	76,900	124.2	91,900	119.0
Income Tax	11,200	18.5	15,100	24.4	14,700	19.0
After-Tax	60,700	100.0	61,900	100.0	77,200	100.0
Income						

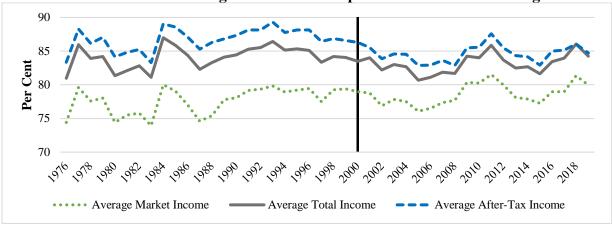
Panel C: Average Income in New Brunswick as a Proportion of Average Income in Canada

Average	1976	Share of After-Tax	2000	Share of After-Tax	2019	Share of After-Tax
		Income (%)		Income (%)		Income (%)
Market Income	74.4	82.1	79.0	83.3	79.9	91.3
Government Transfers	154.2	1903.5	118.0	951.2	112.4	846.5
Total Income	80.9	82.0	83.5	77.9	84.2	83.5
Income Tax	67.9	441.2	71.5	339.9	81.6	506.1
After-Tax Income	83.4	100.0	86.3	100.0	84.7	100.0

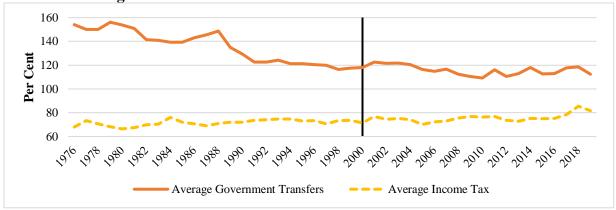
Source: Statistics Canada, Table 11-10-0190-01

Chart 8: New Brunswick Average Income, Government Transfers, and Tax as a Proportion of Canadian Averages, 1976-2019

Panel A: New Brunswick Average Income as a Proportion of Canadian Average Income



Panel B: New Brunswick Average Government Transfers and Tax as a Proportion of Canadian Averages



Source: Statistics Canada, Table 11-10-0190-01

#### iii. Average Income of Economic Units Compared to Personal Income Per Capita

Despite the similarity between real personal income per capita and average total income of economic units, in New Brunswick, real personal income per capita grew at much faster rates both before and after 2000 (Table 6). This occurred despite the fact population growth outpaced the growth of economic units by 0.05 points between 1981 and 2019 (the population grew by 0.25 per cent per year, while the number of economic units rose by 0.20 per cent per year). The faster growth in real personal income per capita may be explained by the fact that the share of persons under 15 in New Brunswick's total population fell by 10.3 points between 1981 and 2019. (Since persons under 15 do not contribute to output, a decrease in the share of persons under 15 in the total population has a positive effect on output per capita.) Since personal income is measured per capita and average total income is measured per economic unit, personal income per capita would have benefited more from the decrease in the share of persons under 15 in the total population. The gap between the growth rates of the two income measures may also have been partly due to the increasing share of persons not in an economic family over the past four decades (and the resulting effect of depressing average income growth for economic units).

Between 1981 and 2000, average total income grew at a compound annual rate of 0.46 per cent, less than one-third the growth rate of personal income per capita (1.77 per cent) (Table 6). The gap between the two growth rates narrowed between 2000 and 2019; average total income grew at 0.99 per cent per year in the 2000-2019 period, while personal income per capita grew 1.43 per cent per year.

Real personal disposable income per capita and average after-tax income for all economic units both showed a pickup in income growth between the 1981-2000 period and the post-2000 period. Real personal disposable income per capita advanced at a compound annual rate of 1.52 per cent between 2000 and 2019, up 0.05 points from 1.47 per cent in the 1981-2000 period. On the other hand, average after-tax income growth increased by 0.87 points, from 0.20 per cent per year in 1981-2000 to 1.07 per cent per year in 2000-2019. The pickup in real personal disposable income growth after 2000 was much smaller than that in average after-tax real income growth because personal disposable income growth was much stronger than average after-tax income growth in the 1981-2000 period.

Moreover, both average after-tax income and personal disposable income per capita were consistently lower than the corresponding national averages between 1981 and 2019. However, while New Brunswick's personal disposable income per capita broadly rose as a proportion of the Canadian average, average after-tax income in New Brunswick rose and fell as a proportion of the Canadian average before reaching 84.7 per cent in 2019, virtually unchanged from the proportion in 1981 (84.8 per cent).

Table 6: Growth in Average Total and After-Tax Income of Economic Units, Personal Income Per Capita and Personal Disposable Income Per Capita, New Brunswick, 1981-2019 (Compound Annual Growth Rates)

Compound	Average Total	Personal Income	Average After-	Personal
Annual Growth	Income of	Per Capita	Tax Income of	Disposable
Rate	Economic Units		Economic Units	Income Per
				Capita
1981-2019	0.73	1.60	0.64	1.49
1981-2000	0.46	1.77	0.20	1.47
2000-2019	0.99	1.43	1.07	1.52
1981-1989	0.87	2.72	0.31	2.57
1989-2000	0.17	1.08	0.12	0.67
2000-2008	0.91	2.22	1.17	2.14
2008-2019	1.05	0.85	1.00	1.08

Sources: Average total income and average after-tax income: Statistics Canada, Table 11-10-0190-01; Personal income: Statistics Canada, Table 36-10-0226-01; Personal disposable income: Statistics Canada, Table 36-10-0224-01; CPI: Statistics Canada. Table 18-10-0005-01; Population: Statistics Canada, Table 17-10-0005-01

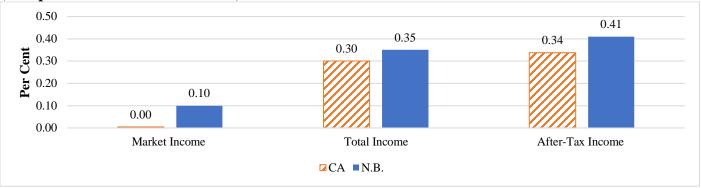
#### **B.** Median After-Tax Income of Economic Units

#### i. Trends in Median After-Tax Income

In both New Brunswick and Canada, growth in median after-tax income was weaker than growth in average income from 1976 to 2000, reflecting rising income inequality over the period. After accounting for inflation, median income actually fell over the 1976-2000 period (by 0.13 per cent per year in New Brunswick and by 0.29 per cent per year in Canada, as shown in Panels A and B of Table 7). Overall median after-tax income decreased despite positive growth for income of economic families and income of persons not in an economic family. As noted earlier, this occurred because the increase in the share of persons not in an economic family in the total populations of both New Brunswick and Canada depressed total income growth.

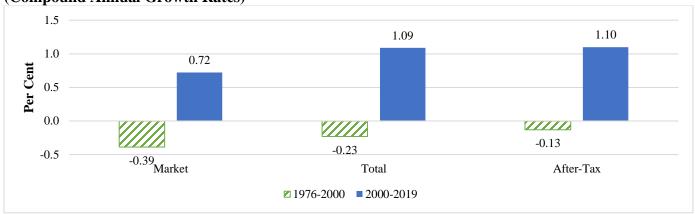
As was the case with average real after-tax income, median real after-tax income growth experienced a major rebound in the first 19 years of the 21<sup>st</sup> century in both New Brunswick and Canada. After dropping between 1976 and 2000, the median after-tax income then increased between 2000 and 2019, rising by 1.10 per cent per year in New Brunswick and by 1.14 per cent per year in Canada.

Chart 9: Growth in Median Income in New Brunswick and in Canada, 1976-2019 (Compound Annual Growth Rates)



Source: Statistics Canada, Table 11-10-0190-01

Chart 10: Growth in Median Income in New Brunswick, 1976-2000 and 2000-2019 (Compound Annual Growth Rates)



Source: Statistics Canada, Table 11-10-0190-01

In 1976, median after-tax income in New Brunswick was \$47,200 (in 2019 constant dollars), 86.8 per cent of the national median (\$54,400). Median after-tax income in New Brunswick reached \$45,800 in 2000, a decrease from its 1976 level, but an increase as a proportion of the national median. The median after-tax income in New Brunswick rose from 86.8 per cent of the national median in 1976 to 89.7 per cent in 2019, after varying between a minimum of 81.0 per cent (in 1983) and a maximum of 92.3 per cent (in 1994). In 2019, median after-tax income in New Brunswick was \$56,400.

Table 7: Annual Growth Rate of Median Income, Government Transfers, and Tax, New Brunswick and Canada, All Economic Units, 1976-2019 (Compound Annual Growth Rates)

Panel A: Median Income in New Brunswick

Median	Market	Government	Total Income	Income Tax	After-Tax
	Income	Transfers			Income
1976-2019	0.10	2.24	0.35	1.02	0.41
1976-2000	-0.39	2.08	-0.23	1.30	-0.13
2000-2019	0.72	2.45	1.09	0.66	1.10

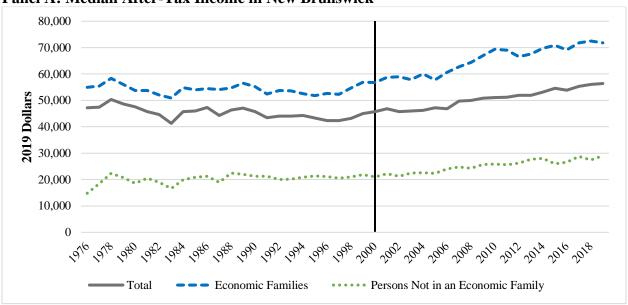
Panel B: Median Income in Canada

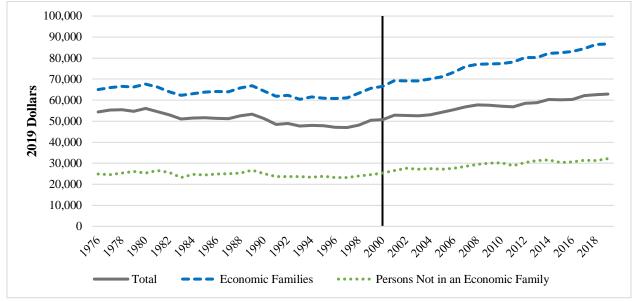
Median	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income
1976-2019	0.00	2.90	0.30	0.22	0.34
1976-2000	-0.55	1.82	-0.22	0.67	-0.29
2000-2019	0.71	4.28	0.96	-0.33	1.14

Source: Statistics Canada, Table 11-10-0190-01

Chart 11: Median After-Tax Income in New Brunswick and in Canada, 1976-2019 (2019 Constant Dollars)

Panel A: Median After-Tax Income in New Brunswick

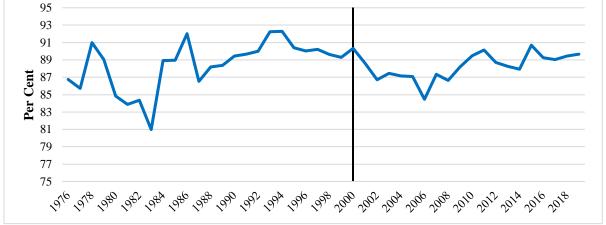




Panel B: Median After-Tax Income in Canada

Source: Statistics Canada, Table 11-10-0190-01





Source: Statistics Canada, Table 11-10-0190-01

#### ii. Components of Median After-Tax Income

As was the case for average after-tax income, the pickup in median after-tax income growth between the 1976-2000 and 2000-2019 periods was driven by an increase in median market income growth in both New Brunswick and Canada as a whole. Stronger growth in median government transfers and weaker growth in median income tax also contributed to the pickup in median after-tax income growth between the two periods.

In 2019, median market income in New Brunswick was 83.3 per cent of median after-tax income because government transfers exceeded income tax; government transfers represented 21.6 per cent of median after-tax income and median income tax only 12.1 per cent (Panel A of

Table 8). Median government transfers also exceeded median income tax at the national level, though by less, leading to median market income accounting for 92.7 per cent of median after-tax income nationally (Panel B of Table 5).

Between 1976 and 2000, median market income in New Brunswick decreased by 0.39 per cent per year (Panel A of Table 7). Median government transfers grew 2.08 per cent per year, lessening the decrease in median total income to 0.23 per cent per year. Median after-tax income fell by 0.13 per cent per year. Canada's median after-tax income fell at an even faster rate (0.29 per cent per year) as a result of a larger decline in median market income and a smaller increase in median government transfers at the national level.

From 2000 to 2019, median market income in New Brunswick increased at a compound annual rate of 0.72 per cent, up 1.11 points from the negative rate over the 1976-2000 period. Median government transfers grew by 2.45 per cent per year, up 0.37 points from the pre-2000 period and boosting median total income growth to 1.09 per cent per year, up 1.32 points from the pre-2000 period. On the other hand, median income tax grew at 0.66 per cent per year, down 0.64 points from the 1976-2000 rate. Overall, between 2000 and 2019, median after-tax income grew by 1.10 per cent per year, up 1.23 points from the negative growth over the 1976-2000 period.

Median market income in New Brunswick grew at virtually the same rate as the growth in median market income at the national level (0.71 per cent per year) between 2000 and 2019. However, growth in median government transfers was much stronger at the national level (4.28 per cent per year), and the median income tax fell by 0.33 per cent per year at the national level. Consequently, New Brunswick's median after-tax income growth was slightly below the national rate (1.10 per cent versus 1.14 per cent per year).

Chart 11 and Table 8 show that, as was the case for average income, median market income in New Brunswick was lower than the national median over the entire 1976-2019 period. However, also consistent with trends in average income, higher median government transfers in New Brunswick narrowed the gap between the median total incomes, and lower median taxes furthered narrowed the gap between the median after-tax incomes. These trends are highlighted below.

- The median market income in New Brunswick rose from 77.3 per cent of the national median in 1976 to 80.6 percent of the national median in 2019.
- As observed for average income, higher median government transfers narrowed the gap between the median total incomes in New Brunswick and Canada, and lower median taxes furthered narrowed the gap between median after-tax incomes.
- Median government transfers in New Brunswick were greater than median government transfers at the national level over the entire 1976-2019 period (Panel D of Chart 11).
  - o Median government transfers in New Brunswick increased from 195.8 per cent of national median transfers in 1976 to 208.1 per cent in 2000.
  - o Between 1976 and 2000, New Brunswick government transfers as a proportion of Canadian government transfers reached a peak of 310.0 per cent in 1988.

- o In 2019, median government transfers in New Brunswick were \$12,200, 148.8 per cent of national median transfers.
- Median income tax in New Brunswick was lower than the national median throughout the 1976-2019 period, but the gap between the two medians narrowed as a result of stronger growth in median income tax in New Brunswick.
  - The median income tax in New Brunswick rose from 63.8 per cent of the Canadian median in 1976 to 74.1 per cent in 2000.
  - o In 2019, the median income tax in New Brunswick was \$6,800, 89.5 per cent of the national median.

Table 8: Median Income, Tax, and Government Transfers for All Economic Units in New Brunswick and in Canada, 1976, 2000 and 2019 (2019 constant dollars)

Panel A: Median Income in New Brunswick

Median	1976	Share of After-Tax	2000	Share of After-Tax	2019	Share of After-Tax
		Income (%)		Income (%)		Income (%)
Market Income	45,000	95.3	41,000	89.5	47,000	83.3
Government Transfers	4,700	10.0	7,700	16.8	12,200	21.6
Total Income	54,800	116.1	51,800	113.1	63,700	112.9
Income Tax	4,400	9.3	6,000	13.1	6,800	12.1
After-Tax Income	47,200	100.0	45,800	100.0	56,400	100.0

Panel B: Median Income in Canada

Median	1976	Share of	2000	Share of	2019	Share of
		After-Tax		After-Tax		After-Tax
		Income		Income		Income
		(%)		(%)		(%)
Market	58,200	107.0	51,000	100.6	58,300	92.7
Income						
Government	2,400	4.4	3,700	7.3	8,200	13.0
Transfers						
Total Income	62,600	115.1	59,400	117.2	71,200	113.2
Income Tax	6,900	12.7	8,100	16.0	7,600	12.1
After-Tax	54,400	100.0	50,700	100.0	62,900	100.0
Income						

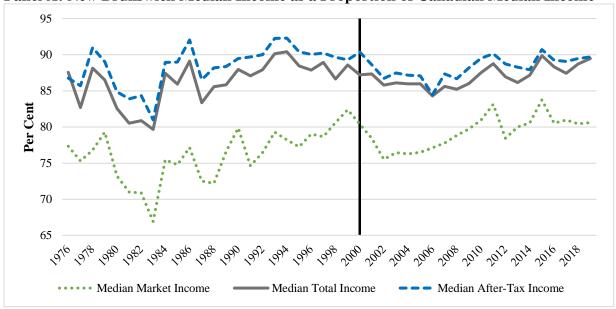
Panel C: Median Income in New Brunswick as a Proportion of Median Income in Canada

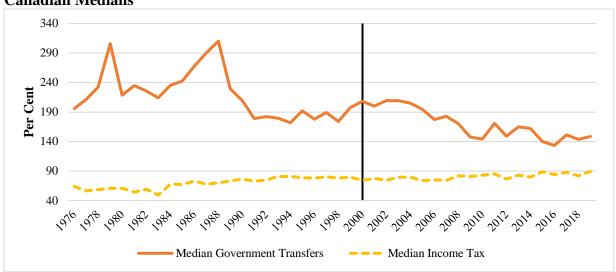
Median	1976	Share of	2000	Share of	2019	Share of
		After-Tax		After-Tax		After-Tax
		Income		Income		Income
		(%)		(%)		(%)
Market	77.3	89.1	80.4	89.0	80.6	89.9
Income						
Government	195.8	225.7	208.1	230.4	148.8	165.9
Transfers						
Total Income	87.5	100.9	87.2	96.5	89.5	99.8
Income Tax	63.8	73.5	74.1	82.0	89.5	99.8
After-Tax	86.8	100.0	90.3	100.0	89.7	100.0
Income						

Source: Statistics Canada, Table 11-10-0190-01

Chart 13: New Brunswick Median Income, Government Transfers, and Tax as a Proportion of Canadian Medians, 1976-2019

Panel A: New Brunswick Median Income as a Proportion of Canadian Median Income





Panel B: New Brunswick Median Government Transfers and Tax as a Proportion of Canadian Medians

Source: Statistics Canada, Table 11-10-0190-01

#### C. Average After-Tax Income Compared to Median After-Tax Income

Chart 14 shows that in both New Brunswick and Canada, average income has been consistently higher than median income since 1976. This difference stems from the fact that disproportionately high incomes at the top end of the income distribution skew average income upward. However, for much of the 1976-2019 period, the difference was greater in Canada than in New Brunswick, reflecting greater inequality at the national level. In 1976, median after-tax income was 93.3 per cent of average after-tax income in New Brunswick, while the equivalent Canadian proportion was 3.7 percentage points lower, at 89.6 per cent (Chart 14). By 2000, median after-tax income had fallen to 85.8 per cent of average after-tax income in New Brunswick, and the Canadian proportion had fallen to 81.9 per cent. The decrease in median after-tax income in New Brunswick and in Canada reflected rising income inequality between 1976 and 2000.

The decline in the Canadian proportion was relatively steadier between 1976 and 2000; the New Brunswick proportion saw comparatively more pronounced peaks and troughs. As a result of similar growth rates for average and median after-tax income, median income was relatively stable as a proportion of average income in both New Brunswick and Canada between 2000 and 2019. Indeed, after fluctuating between a minimum of 82.6 per cent in 2011 and a maximum of 88.6 per cent in 2015, median after-tax income reached 86.2 per cent of average after-tax income in New Brunswick in 2019, a slight increase of 0.4 percentage points from the 2000 proportion, but still 7.1 percentage points below the 1976 proportion. The Canadian proportion decreased slightly to 81.5 per cent in 2019. The 4.7 percentage point gap between the New Brunswick and Canadian proportions indicates that there was less after-tax income inequality in New Brunswick than in Canada as a whole in 2019.

The gap between the median after-tax income as a proportion of average after-tax income in New Brunswick and the corresponding Canadian proportion was largest in 2015, when there

was a gap of 7.6 points between the two proportions. This is consistent with the fact that 2015 also saw the largest gap between the Gini coefficients of after-tax income in New Brunswick and Canada. In other words, the difference between after-tax income inequality in New Brunswick and in Canada was greatest in 2015. The Gini coefficient is discussed part B of section III of the report.

100
95
85
80
75
13<sup>16</sup> 13<sup>18</sup> 13<sup>18</sup>

Chart 14: Median After-Tax Income as a Proportion of Average After-Tax Income in New Brunswick and in Canada, 1976-2019

Source: Statistics Canada, Table 11-10-0190-01

### III. Income Distribution and Inequality, 1976-2019

This section aims to shed light on who has benefited from the income growth discussed in sections I and II of the report. To this end, this section first analyzes trends in income by decile and quintile. Next, the report examines trends in the Gini coefficient. Finally, this section overviews trends in the after-tax income of top income earners.

### A. Income by Decile and Quintile, 1976-2019

Examining average after-tax income growth and the shares of income held by the different income quintiles and deciles helps to shed light on trends in income inequality in New Brunswick and Canada. Between 1976 and 2000 in New Brunswick, growth in average after-tax income was stronger for the bottom quintile — that is, for the 20 per cent of economic units with the lowest after-tax income — than the top quintile. However, the share of income that went to the top quintile still increased more in absolute terms. Income inequality worsened even more at the national level; the share of after-tax income that went to the bottom quintile decreased, while the share that went to the top quintile increased. Inequality was relatively more stable over the 2000-2019 period; in New Brunswick and nationally, the shares of after-tax income received by all give quintiles remained within 0.5 percentage points of their pre-2000 levels. Both the rising

inequality in the 1976-2000 period and the relative stabilization of inequality post-2000 are consistent with the trends observed in section II.

#### i. Average After-Tax Income by Decile

Income growth between 1976 and 2000 was strongest for the 10 per cent of economic units in New Brunswick with the lowest after-tax income — that is, the bottom decile. The average after-tax income of all economic units rose at a compound annual rate of 1.66 per cent for the bottom decile and at 0.65 per cent for the top decile (Panel A of Chart 15). On the other hand, the average after-tax income of the fourth and fifth deciles fell by 0.02 per cent and 0.13 per cent per year, respectively.

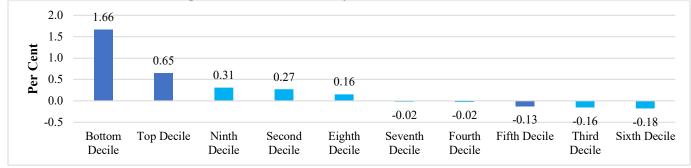
In contrast, at the national level, for all economic units, the top decile had the strongest average after-tax income growth, increasing at a compound annual rate of 0.48 per cent (0.17 points below the growth rate for the top decile in New Brunswick), while after-tax income actually dropped for the lowest decile and the fifth decile (by 0.39 per cent per year and 0.32 per cent per year, respectively) (Panel C of Chart 15). The lowest decile saw the weakest performance of all ten deciles during the 1976-2000 period.

Between 2000 and 2019, average after-tax income growth for the bottom decile of economic units in New Brunswick slowed to 1.12 per cent per year, down 0.54 points from the 1976-2000 rate but still stronger than the growth for the highest decile. On the other hand, growth picked up for the fifth and top deciles, which had compound annual growth rates of 1.12 per cent and 1.03 per cent, respectively. Overall, in terms of income growth, the poor in New Brunswick outperformed the rich between 1976 and 2019.

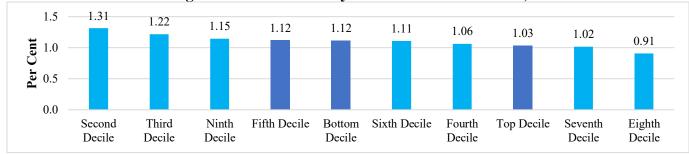
At the national level, relative to the pre-2000 period, growth picked up for the bottom decile between 2000 and 2019, unlike in New Brunswick. Specifically, with a compound annual growth rate of 1.75 per cent, the average after-tax income of the bottom decile grew at the fastest rate of all the deciles at the national level and outpaced the growth in the average after-tax income of the bottom decile in New Brunswick by 0.63 points. Meanwhile, growth also picked up for the fifth and top deciles in Canada between 2000 and 2019.

# Chart 15: Growth in Average After-Tax Income by Selected Deciles in New Brunswick and in Canada, All Economic Units, 1976-2019 (Compound Annual Growth Rates)

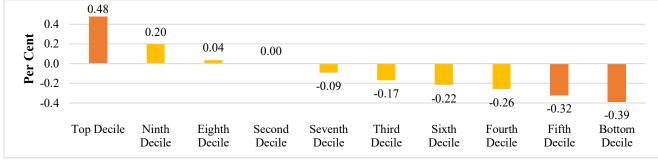
Panel A: Growth in Average After-Tax Income by Decile in New Brunswick, 1976-2000



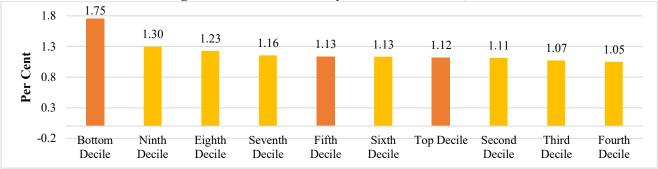
Panel B: Growth in Average After-Tax Income by Decile in New Brunswick, 2000-2019



Panel C: Growth in Average After-Tax Income by Decile in Canada, 1976-2000



Panel D: Growth in Average After-Tax Income by Decile in Canada, 2000-2019



Source: Statistics Canada, Table 11-10-0192-01

The average after-tax income of the lowest decile in New Brunswick nearly doubled between 1976 and 2019, increasing from \$6,600 to \$12,100 (in 2019 dollars) (Panel A of Table 9). The average after-tax income of the bottom decile in New Brunswick rose from 73.3 per cent to 106.1 per cent of the national average over the period (Panel B of Table 6). The fifth decile saw its average after-tax income increase from \$42,900 to \$51,400, or from 86.3 per cent to 90.2 per cent of the national average. The average after-tax income of the top decile rose from \$115,400 to \$163,900, or from 76.3 per cent to 78.2 per cent of the national average.

Table 9: Average After-Tax income by Selected Decile, New Brunswick and Canada, 1976, 2000 and 2019 (2019 Constant Dollars)

Panel A: Average After-Tax Income by Selected Decile in New Brunswick and Canada

	· · · · · · · · · · · · · · · · · · ·		J				
Decile	19	1976		2000		2019	
	CA	N.B.	CA	N.B.	CA	N.B.	
Bottom	9,000	6,600	8,200	9,800	11,400	12,100	
Fifth	49,700	42,900	46,000	41,600	57,000	51,400	
Тор	151,300	115,400	169,700	134,800	209,700	163,900	

Panel B: Average After-Tax Income in New Brunswick as a Proportion of Average After-Tax Income in Canada

Decile	1976	2000	2019
Bottom	73.3	119.5	106.1
Fifth	86.3	90.4	90.2
Тор	76.3	79.4	78.2

Source: Statistics Canada, Table 11-10-0192-01

#### ii. Average After-Tax Income by Quintile

Between 1976 and 2000 in New Brunswick, the after-tax income of the bottom quintile grew at a compound annual rate of 0.69 per cent, the strongest growth of all five quintiles over the period (Panel A of Chart 16). On the other hand, the average after-tax income of both the second and third quintiles decreased during the 1976-2000 period (by 0.08 per cent per year and 0.16 per cent per year, respectively). The average after-tax income of the fourth quintile grew 0.07 per cent per year, while average after-tax income for the fifth quintile grew 0.51 per cent per year.

In contrast, with a compound annual rate of 0.37 per cent, the highest quintile experienced the strongest average after-tax income growth in Canada in the 1976-2000 period (Panel B of Chart 16). On the other hand, the average after-tax incomes of the other four quintiles fell over the period. In particular, the average income of the bottom quintile fell by 0.11 per cent per year.

For both New Brunswick and Canada, growth was stronger and more balanced among quintiles in the 2000-2019 period, reflecting both the pickup in income growth and the relative

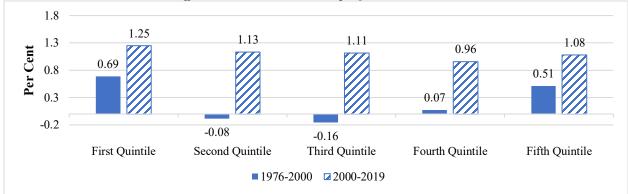
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<sup>&</sup>lt;sup>3</sup> See database Table xx for the average after-tax income of the other seven deciles.

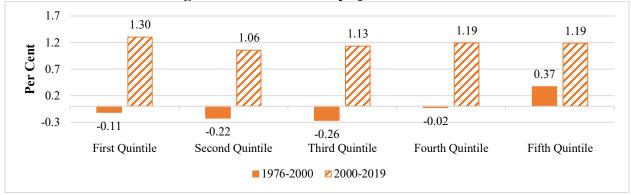
stabilization of after-tax income inequality observed in section II. Another similarity during the first 19 years of the 21<sup>st</sup> century was that the lowest quintile enjoyed the strongest income growth in both New Brunswick and Canada. Average after-tax income for the lowest quintile grew at a compound annual rate of 1.25 per cent in New Brunswick and of 1.30 per cent in Canada.

Chart 16: Growth in Average After-Tax Income by Quintile in New Brunswick and in Canada, All Economic Units, 1976-2019 (Compound Annual Growth Rates)

Panel A: Growth in Average After-Tax Income by Quintile in New Brunswick



Panel B: Growth in Average After-Tax Income by Quintile in Canada



Source: Statistics Canada, Table 11-10-0192-01

The average after-tax income of the bottom quintile in New Brunswick increased by nearly 50 per cent between 1976 and 2000, rising from \$12,3000 (83.4 per cent of the national average) to \$18,350 (equal to the national average) (Panel A and Panel B of Table 7 and Chart 17). The average after-tax income of the third quintile saw a weaker relative increase over the 1976-2000 period, rising from \$47,400 (87.1 per cent of the national average) to \$56,350 (89.1 per cent of the national average). The fifth quintile saw its average after-tax income increase from \$98,800 (79.4 per cent of the national average) to \$136,900 (80.4 per cent of the national average).

Table 10: Average After-Tax income by Quintile, New Brunswick and Canada, 1976, 2000 and 2019 (2019 Constant Dollars)

Panel A: Average After-Tax Income by Quintile in New Brunswick and Canada

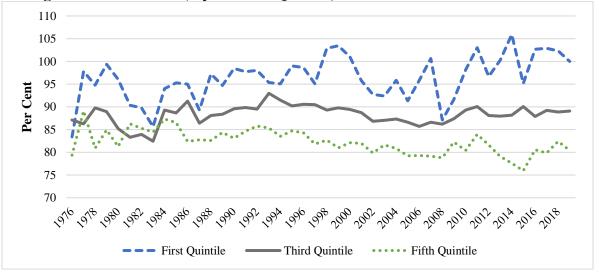
Quintile	19	76	20	00	20	19
	CA	N.B.	CA	N.B.	CA	N.B.
First	14,750	12,300	14,350	14,500	18,350	18,350
Quintile						
Second	35,000	30,800	33,200	30,200	40,550	37,400
Quintile						
Third	54,400	47,400	51,050	45,650	63,250	56,350
Quintile						
Fourth	75,100	63,850	74,700	65,000	93,600	77,900
Quintile						
Fifth	124,450	98,800	136,000	111,650	170,200	136,900
Quintile						

Panel B: Average After-Tax Income in New Brunswick as a Proportion of Average After-Tax Income in Canada

Quintile	1976	2000	2019
First Quintile	83.4	101.0	100.0
Second Quintile	88.0	91.0	92.2
Third Quintile	87.1	89.4	89.1
Fourth Quintile	85.0	87.0	83.2
Fifth Quintile	79.4	82.1	80.4

Source: Statistics Canada, Table 11-10-0192-01

Chart 17: New Brunswick Average After-Tax Income as a Proportion of Canadian Average After-Tax Income, by Selected Quintile, 1976-2019



Source: Statistics Canada, Table 11-10-0192-01

#### iii. Income Shares by Decile

Between 1976 and 2000 in New Brunswick, the share of after-tax income that went to the bottom decile rose from 1.3 per cent to 1.8 per cent, an increase of 0.5 percentage points, or 46.2 per cent, the largest relative increase of the ten deciles (Panel A of Table 11). On the other hand, the top decile saw its share of after-tax income increase 2.4 points, from 22.8 per cent to 25.2 per cent, the largest absolute increase of the ten deciles. Hence, the ratio of the share of after-tax income held by the top decile to the share held by the bottom decile decreased from 17.5 to 1 in 1976 to 14.0 to 1 in 2000.

At the national level, between 1976 and 2000, the share of after-tax income that went to the lowest decile decreased by 0.2 points, from 1.5 per cent to 1.3 per cent, while the share of after-tax income that went to the top decile increased by 2.5 points, from 24.9 per cent to 27.4 per cent (Panel A of Table 11). Hence, the ratio of the share of after-tax income held by the top decile to the share held by the bottom decile increased from 16.6 to 1 in 1976 to 1 to 21.1 to 1 in 2000, 7.1 points above the ratio in New Brunswick.

Decile distribution of after-tax income was relatively more stable in terms of the distribution of the shares of income during the 2000-2019 period, consistent with the relative stabilization of income inequality observed in section II. In New Brunswick, the shares of after-tax income that went to the deciles all varied within 0.4 points of the shares in 2000. The lowest decile saw its share of after-tax income increase 0.1 points to 1.9 percent, while the highest decile saw its share of after-tax income decrease 0.1 points to 25.1 per cent. A similar stabilization was observed at the national level. The share of after-tax income that went to the bottom decile increased by 0.2 points to 1.5 per cent (0.4 points below the share of the bottom decile in New Brunswick), while the share of after-tax income that went to the top decile decreased by 0.2 points to 27.2 per cent (2.1 points above the share of the top decile in New Brunswick).

Table 11 Share of Total After-Tax Income in New Brunswick and Canada, by Decile, 1976, 2000 and 2019

Panel A: Share of After	r-Tax	Income	by Decile
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Decile	1976		2000		2019	
	CA	N.B.	CA	N.B.	CA	N.B.
Lowest	1.5	1.3	1.3	1.8	1.5	1.9
Decile						
Fifth	8.2	8.5	7.4	7.8	7.4	9.4
Decile						
Highest	24.9	22.8	27.4	25.2	27.2	25.1
Decile						

Panel B: Share After-Tax Income in New Brunswick as a Proportion of the Share of After-Tax Income in Canada, by Decile

Decile	1976	2000	2019
Lowest Decile	86.7	138.5	126.7
Fifth Decile	103.7	105.4	106.8
Top Decile	91.6	92.0	92.3

Source: Statistics Canada, Table 11-10-0192-01

#### iv. Income Shares by Quintile

In Canada, the shares of after-tax income received by all but the highest quintile decreased between 1976 and 2000. In New Brunswick, both the bottom and the top quintiles saw their share of after-tax income increase, but despite the fact that the average after-tax income grew at a faster rate for the bottom quintile, the fifth quintile enjoyed an increase of 2.8 percentage points in its share of after-tax income, 2.3 points higher than the 0.5-point increase experienced by the bottom quintile (Table 12). This disparity is consistent with the rise in income inequality examined in section II.

Between 1976 and 2000, the share of after-tax income that went to the top quintile in New Brunswick increased by 2.8 percentage points, from 39.0 per cent to 41.8 per cent (Panel A of Table 13). This increase was virtually identical to the 2.9-point increase to share of after-tax income that went to the top quintile at the national level, from 41.0 per cent to 43.9 per cent.

The bottom quintiles in both New Brunswick and Canada accounted for 4.9 per cent of total after-tax income in 1976. However, between 1976 and 2000, the share of after-tax income that went to the bottom quintile in New Brunswick increased by 0.5 points to 5.4 per cent, while the corresponding Canadian share decreased by 0.3 points to 4.6 per cent.

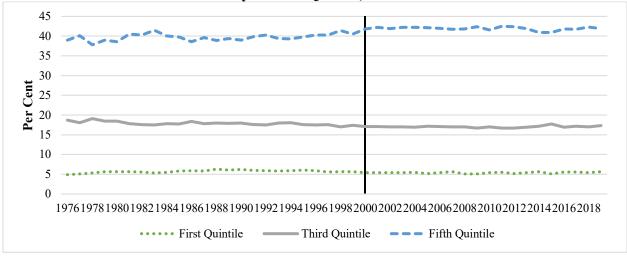
Between 2000 and 2019, the shares of after-tax income by quintile were relatively more stable in both New Brunswick and Canada, reflecting the stabilization of income inequality observed in section II and the similar growth rates in after-tax income of the five quintiles. The largest percentage point change was experienced by the fourth quintile in New Brunswick, whose share decreased by 0.5 percentage points. The share of after-tax income that went to the bottom quintile in New Brunswick increased by 0.3 points to 5.7 per cent, 0.9 points above the corresponding Canadian share. The middle quintile saw its share of after-tax income rise by 0.2 points to 17.3 per cent, 0.9 points above the corresponding national share. The share of after-tax income claimed by the top quintile in New Brunswick reached 41.9 per cent in 2019, up 0.1 points from the share in 2000 and 2.2 points below the corresponding national share (44.1 per cent).

The bottom four quintiles in New Brunswick accounted for greater shares of New Brunswick after-tax income than the corresponding Canadian quintiles did for Canadian after-tax income for the majority of the 1976-2019 period. In contrast, the share of after-tax income claimed by the fifth quintile in Canada exceeded the corresponding New Brunswick share for

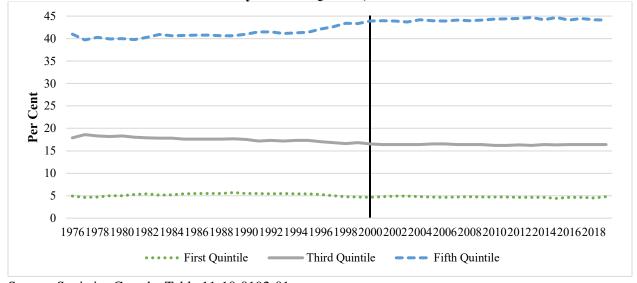
most of the measurement period. Both these trends are consistent with the lower inequality in New Brunswick observed in section II.

## Chart 18: Share of After-Tax Income by Selected Quintile in New Brunswick and Canada, 1976-2019

Panel A: Share of After-Tax Income by Selected Quintile, New Brunswick



Panel B: Share of After-Tax Income by Selected Quintile, Canada



Source: Statistics Canada, Table 11-10-0192-01

Table 12: Percentage Point Change in Share of After-Tax Income in New Brunswick and Canada, by Quintile, 1976-2019

Percentage	First Quintile		Second		Third		Fou	ırth	Fifth Q	uintile
Point Change	-		Quintile Quii		intile Quintile		ntile			
	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.
1976-2019	-0.1	0.8	-1.1	-0.7	-1.5	-1.4	-0.5	-1.4	3.1	2.9
1976-2000	-0.3	0.5	-0.9	-0.9	-1.4	-1.6	-0.7	-0.9	2.9	2.8
2000-2019	0.2	0.3	-0.2	0.2	-0.1	0.2	0.2	-0.5	0.2	0.1

Source: Statistics Canada, Table 11-10-0192-01

Table 13: Share of Total After-Tax Income in New Brunswick and Canada, by Decile and Quintile, 1976, 2000 and 2019

Panel A: After-Tax Income by Quintile

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Quintile	19	76	2000		2019				
	CA	N.B.	CA	N.B.	CA	N.B.			
First	4.9	4.9	4.6	5.4	4.8	5.7			
Quintile									
Second	11.6	12.2	10.7	11.3	10.5	11.5			
Quintile									
Third	17.9	18.7	16.5	17.1	16.4	17.3			
Quintile									
Fourth	24.8	25.2	24.1	24.3	24.3	23.8			
Quintile									
Fifth	41.0	39.0	4.6	41.8	44.1	41.9			
Quintile									

Panel B: Share After-Tax Income in New Brunswick as a Proportion of the Share of After-Tax Income in Canada, by Decile

Quintile	1976	2000	2019
First Quintile	100.0	117.4	118.8
Second Quintile	105.2	105.6	109.5
Third Quintile	104.5	103.6	105.5
Fourth Quintile	101.6	100.8	97.9
Fifth Quintile	95.1	95.2	95.0

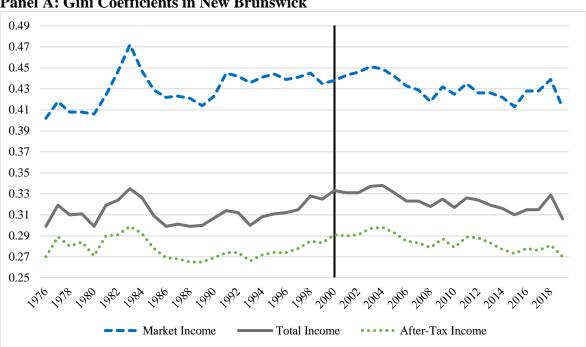
Source: Statistics Canada, Table 11-10-0192-01

#### B. Gini Coefficient of Adjusted Incomes, 1976-2019

This section of the report examines trends in the Gini coefficient, the most widely used measure of income inequality. The Gini coefficient is essentially equal to the area between the line of perfect inequality and the Lorenz curve, divided by the area beneath the line of perfect inequality. The Gini coefficient ranges between zero and one, where zero represents perfect equality (that is, income is evenly distributed among all members of the population), and one represent perfect inequality (that is, one member of the population receives all the income). Hence, the higher the Gini coefficient, the more unequal the distribution of income.

Statistics Canada provides Gini coefficients for adjusted market, total and after-tax income. The estimates for Canada do not include the territories.<sup>5</sup> In both New Brunswick and Canada as a whole, the Gini coefficients increased (though not steadily) over the last quarter of the 20<sup>th</sup> century — indicating rising income inequality — and stabilized thereafter. In New Brunswick, the Gini coefficient of after-tax income was the same in 2019 as it was in 1976.

Chart 19: Gini Coefficients of Adjusted Incomes in New Brunswick and Canada, 1976-2019



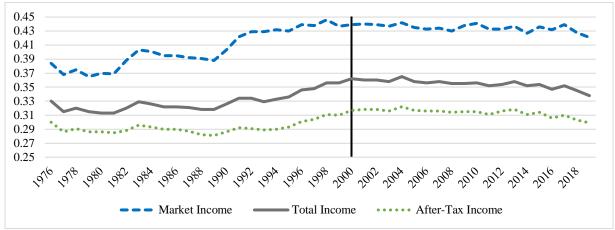
Panel A: Gini Coefficients in New Brunswick

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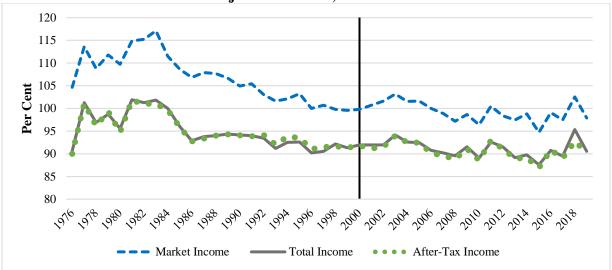
<sup>&</sup>lt;sup>4</sup> The Lorenz curve plots shares of the population against the corresponding shares of income accounted for by each share of the population. The population is sorted in ascending order of income.

<sup>&</sup>lt;sup>5</sup> After-tax income is adjusted to take into account the economies of scale present in larger households. Adjusted after-tax income is calculated by dividing the household after-tax income by the square root of the household size. For details, see <a href="https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=252278">https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=252278</a>.

Panel B: Gini Coefficients in Canada



Panel C: New Brunswick Gini Coefficients of Adjusted Incomes as Proportions of Canadian Gini Coefficients of Adjusted Incomes, 1976-2019



Source: Statistics Canada, Table 11-10-0134-01

Table 14: Gini Coefficients of Adjusted Incomes in New Brunswick and Canada, 1976, 2000 and 2019

Panel A: Gini Coefficients in New Brunswick and Canada

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Adjusted Income	1976		2000		2019			
	CA	N.B.	CA	N.B.	CA	N.B.		
Market Income	0.384	0.402	0.439	0.438	0.421	0.412		
Total Income	0.330	0.299	0.362	0.333	0.338	0.306		
After-Tax Income	0.300	0.270	0.317	0.291	0.299	0.270		

Panel B: Gini Coefficients in New Brunswick as Proportions of Gini Coefficients in Canada

Adjusted Income	1976	2000	2019
Market Income	104.7	99.8	97.9
Total Income	90.6	92.0	90.5
After-Tax Income	90.0	91.8	90.3

Source: Statistics Canada, Table 11-10-0134-01

#### i. The Gini Coefficient of Adjusted Market Income

For most of the 1976-2000 period, New Brunswick's Gini coefficient of market income was greater than Canada's (by an average of about eight per cent) (Chart 17), meaning that before taxes and transfers, income distribution was more unequal in New Brunswick than in Canada as a whole. In 1976, New Brunswick's Gini coefficient of market income was 0.402, 104.7 per cent of the national average. By 2000, New Brunswick's Gini coefficient of market income had increased by 0.036 points, to 0.438. Between 1976 and 2000, the Gini coefficient of market income reached a peak of 0.472 in 1983. With the Gini coefficient of market income in New Brunswick at 117.1 per cent of the Canadian coefficient, 1983 also marked the greatest difference between New Brunswick's Gini coefficient of market income and that of Canada. After 1983, the Gini coefficient of market income in New Brunswick decreased almost consistently until it reached 0.414 in 1989. By 1991, the Gini coefficient of market income had climbed back up to 0.445. For the remainder of the 20<sup>th</sup> century, the Gini coefficient was relatively stable, varying between 0.435 and 0.445.

The Gini coefficient of market income increased more dramatically in Canada in the pre-2000 period; it rose 0.055 points, from 0.348 in 1976 to 0.439 in 2000. As a result, the gap between the two coefficients narrowed over this period. Canada's Gini coefficient of market income reached that of New Brunswick in 1996 (when both coefficients were equal to 0.439) and exceeded it in 1998.

The increase in market income inequality observed in New Brunswick and Canada between 1976 and 2000 was consistent with the much weaker growth in median market income compared to average market income over the same period (-0.39 per cent per year versus 0.37 per cent in New Brunswick, and -0.55 per cent per year versus 0.12 per cent in Canada).

New Brunswick's Gini coefficient of market income decreased by 0.026 points from 0.438 in 2000 to 0.412 in 2019, such that in 2019, the Gini coefficient of market income was 0.010 points above the 1976 level of the coefficient. Canada's Gini coefficient of market income decreased less than did New Brunswick's from 2000 to 2019 (it decreased by 0.018 points, reaching 0.421 in 2019). In 2019, New Brunswick's Gini coefficient of market income was 97.9 per cent of the Canadian Gini coefficient or market income. In other words, before taxes and transfers, income was slightly less unequally distributed in New Brunswick than in Canada as a whole in 2019.

#### ii. The Gini Coefficient of Adjusted Total Income

In both New Brunswick and Canada, the Gini coefficient of total income is lower than the coefficient of market income because of the equalizing effect of government transfers (Chart 17). Government transfers had a stronger equalizing effect on the New Brunswick Gini coefficient than on the Canadian coefficient. Consequently, the Gini coefficient of total income was smaller in New Brunswick for most of the 1976-2019 period, indicating that after transfers and before taxes, income was more equally distributed in New Brunswick than in Canada as a whole.

In 1976, the impact of transfers on the New Brunswick Gini coefficient was nearly double that of the impact of transfers on the Canadian coefficient (0.103 points versus 0.054 points). As a result, New Brunswick's Gini coefficient of total income was 0.299, 90.6 per cent of the national coefficient. However, while government transfers continued to have a stronger equalizing effect on the New Brunswick Gini coefficient than on the Canadian Gini coefficient, the gap narrowed significantly between 1976 and 2000. By 2000, the impact of transfers on the New Brunswick Gini coefficient of market income was 136.4 per cent of the impact on the Canadian coefficient (0.105 points versus 0.077 points).

In addition, because the impact of government transfers increased between 1976 and 2000, the Gini coefficient of total income rose less than the Gini coefficient of market income in both New Brunswick and Canada. New Brunswick's Gini coefficient of total income rose 0.034 points (0.002 points less than the coefficient of market income), from 0.299 in 1976 to 0.333 in 2000. The impact of government transfers increased more in Canada, leading to an increase in the coefficient of total income 0.023 points lower than the increase in the coefficient of market income.

The Gini coefficient of total income was relatively more stable over the 2000-2019 period than it was between 1976 and 2000 in both New Brunswick and Canada because both the Gini coefficients of market income and the impacts of transfers were more stable over the period. In 2019, the impact of transfers on New Brunswick's Gini coefficient of market income was 127.7 per cent of the impact of transfers on the Canadian coefficient (0.106 points versus 0.083 points). In other words, in 2019, government transfers continued to have a stronger equalizing effect on the distribution of total income in New Brunswick than on the distribution of total income at the national level.

In 2019, New Brunswick's Gini coefficient of total income was 0.306, down 0.027 points from the value of the coefficient in 2000. Hence, after transfers and before taxes, income was somewhat more equally distributed in New Brunswick in 2019 compared to 2000. The national Gini coefficient of total income was 0.032 points higher than that in New Brunswick, at 0.338, down 0.36 points from the value of the coefficient in 2000.

#### iii. The Gini Coefficient of Adjusted After-Tax Income

Taxes pull the Gini coefficient of after-tax income below the Gini coefficient of total income because taxes are disproportionately paid by people in the top half of the income distribution. However, in both New Brunswick and Canada, the impact of taxes on the Gini

coefficient was weaker than the impact of transfers on the coefficient (Chart 19). Between 1976 and 2000, New Brunswick's Gini coefficient of after-tax income rose 0.021 points, from 0.270 to 0.291. The impact of taxes on reducing the Gini coefficient was generally stronger in Canada than in New Brunswick in the pre-2000 period (Panel C of Chart 20). Canada's Gini coefficient of after-tax income increased by 0.017 points, from 0.300 in 1976 to 0.317 in 2000.

In New Brunswick, 41.7 per cent of the 0.036-point increase in the Gini coefficient of market income between 1976 and 2000 was offset by increased government transfers (0.002 points) and increased income taxes (0.013 points). In Canada, 69.1 per cent of the 0.055-point increase in the Gini coefficient of market income between 1976 and 2000 was offset by increased government transfers (0.023 points) and increased income taxes (0.015 points).

Despite overall having a greater Gini coefficient of market income and a weaker equalizing effect of taxes, New Brunswick generally had a lower Gini coefficient of after-tax income in the 1976-2000 period as a result of the stronger equalizing effect of transfers discussed above. The greater equality in after-tax income distribution in New Brunswick reflected in the Gini coefficient is consistent with the fact that the gap between average and median after-tax income was generally smaller in New Brunswick than in Canada, as discussed in section II.

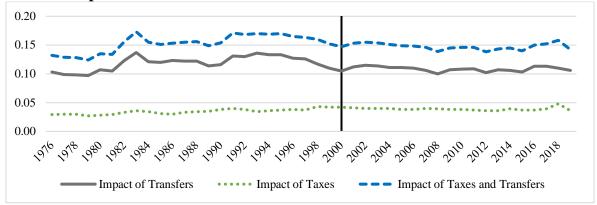
In 1976, New Brunswick's Gini coefficient of after-tax income was 10.0 per cent lower than Canada's coefficient (Chart 18). New Brunswick's Gini coefficient of after-tax income shot up to 101.0 per cent of Canada's coefficient in 1977 before falling back below it in 1978. From 1981 to 1983, New Brunswick's Gini coefficient of after-tax income again exceeded Canada's. In 1984, New Brunswick's coefficient dipped below Canada's, and it has remained below it since.

From 2000 to 2019, New Brunswick's Gini coefficient of after-tax income decreased by 0.021 points, from 0.291 to 0.270, the value of the coefficient in 1976. Between 2000 and 2019, New Brunswick's Gini coefficient of after-tax income reached a peak of 0.298 in 2004. The coefficient then decreased until it hit 0.279 in 2008 and then rose and fell within a range of 0.02 points for the remainder of the period. Canada's Gini coefficient of after-tax income decreased by 0.018 points, from 0.317 points in 2000 to 0.299 points in 2019.

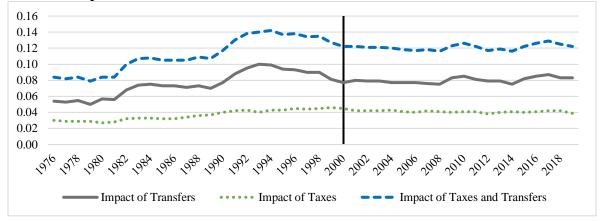
As a result of the slightly stronger decrease in New Brunswick's coefficient post-2000, the gap between the two coefficients widened slightly over the 2000-2019 period; New Brunswick's Gini coefficient of after-tax income was 90.3 per cent of Canada's coefficient in 2019, down 1.5 percentage points from the 2000 proportion. In other words, income inequality decreased slightly in both New Brunswick and Canada in the 2000-2019 period, and the decrease was slightly greater in New Brunswick.

# Chart 20: Impact of Taxes and Transfers on the Gini Coefficient in New Brunswick and in Canada, 1976-2019

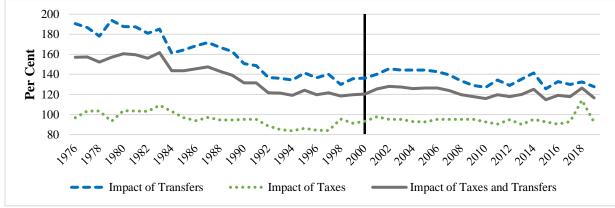
Panel A: Impact of Taxes and Transfers on the Gini Coefficient in New Brunswick



Panel B: Impact of Taxes and Transfers on the Gini Coefficient in Canada



Panel C: Impact of Taxes and Transfers on the Gini Coefficient in New Brunswick as a Proportion of the Impact of Taxes and Transfers on the Gini Coefficient in Canada



Source: Statistics Canada, Table 11-10-0134-01

### C. Top Income Earners, 1982-2018

#### i. Shares of Income of Top Income Earners

In both New Brunswick and Canada, the shares of after-tax income (including capital gains) that went to the top 5 per cent, 1 per cent and 0.1 per cent of tax filers increased from 1982 to 2000 (Chart 21). The shares belonging to these income groups then decreased from 2000 to 2018 in Canada, while the shares of all these groups except that of the top 0.1 per cent decreased over the same period in New Brunswick. This follows the trends in income inequality observed in earlier sections of the paper: inequality increased towards the end of the 20<sup>th</sup> century and then stabilized or even decreased after 2000. The Canadian top income earner shares consistently exceeded the corresponding New Brunswick shares. This is consistent with the fact that the median after-tax income in New Brunswick as a proportion of the average after-tax income in New Brunswick exceeded the Canadian proportion between 1982 and 2018, as discussed in part C of section II, and that New Brunswick's Gini coefficient of after-tax income was generally lower than Canada's, as discussed in part B of section III.

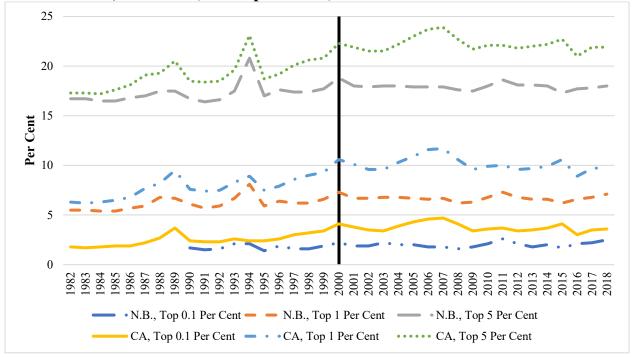
Between 1982 and 2000, the share of after-tax income that went to the top 5 per cent of tax filers in New Brunswick rose 2.1 points from 16.7 per cent to 18.8 per cent (Table 15 and Chart 21). The share of the top 1 per cent rose 1.8 points from 5.5 per cent to 7.3 per cent (86 per cent of the increase in the top 5 per cent share). Data for the top 0.1 per cent income group were not available until 1990. From 1990 to 2000, the share of the top 0.1 per cent rose 0.5 points from 1.7 per cent to 2.2 per cent.

In 1982, the shares of after-tax income that went to high-income earners in Canada exceeded the corresponding New Brunswick shares for all three income groups discussed above (Chart 21). Between 1982 and 2000, the gap widened; the percentage point increases of the Canadian shares between 1982 and 2000 were more than double those of the corresponding New Brunswick shares. The top 5 per cent of Canadian tax filers saw their share of after-tax income increase by 5.0 percentage points from 17.3 per cent to 22.3 per cent. The share of the top 1 per cent increased 4.3 points from 6.3 per cent to 10.6 per cent. From 1990 to 2000, the share of the top 0.1 per cent rose 1.7 points from 2.4 per cent to 4.1 per cent.

The share of after-tax income accounted for by the top 0.1, 1 and 5 per cent income groups reached peaks in 1994 in New Brunswick and local maximums in Canada. The 1994 spikes correspond with the end of the \$100,000 lifetime capital gains exemption.

Compared to the pre-2000 period, the shares of after-tax income that went to top income earners in New Brunswick and Canada were relatively stable between 2000 and 2018. In 2018, the top 5 per cent of New Brunswick tax filers claimed 18.0 per cent of total after-tax income (a decrease of 0.8 percentage points from the 2000 share). The share of the top 1 per cent fell slightly to 7.1 per cent (0.2 percentage below the 2000 share). In contrast, at 2.5 per cent, the share of the top 0.1 per cent was up 0.3 percentage points from its 2000 level. At the national level, in 2018, 3.6 per cent of after-tax income went to the top 0.1 per cent of tax filers (down 0.5 points from 2000); 9.8 per cent went to the top 1 per cent (down 0.8 points from 2000); and 12.9 per cent went to the top 5 per cent (down 0.4 points from 2000).

Chart 21: Share of Total After-Tax Income of High-Income Tax Filers in Canada and in New Brunswick, 1982-2018 (with Capital Gains)



Note: Data for the top 0.1 per cent group in New Brunswick were not available before 1990.

Source: Statistics Canada, Table 11-10-0056-01

Table 15: Percentage Point Change in the Share of After-Tax Income of High-Income Tax Filers in New Brunswick and Canada, 1982-2018 (with Capital Gains)

Percentage		Income Group							
Point Change	Top 0.1 Per Cent		Top 1 Per Cent		Top 5 Per Cent				
	CA	N.B.	CA	N.B.	CA	N.B.			
1982-2018*	1.2	0.8	3.5	1.6	4.6	1.3			
1982-2000**	1.7	0.5	4.3	1.8	5.0	2.1			
2000-2018	-0.5	0.3	-0.8	-0.2	-0.4	-0.8			
2000-2008	0.0	-0.6	0.0	-1.1	0.4	-1.2			
2008-2018	-0.5	0.9	-0.8	0.9	-0.8	0.4			

<sup>\*</sup>Top 0.1 Per Cent Income Group, 1990-2018

Source: Statistics Canada, Table 11-10-0056-01

<sup>\*\*</sup>Top 0.1 Per Cent Income Group, 1990-2000

Table 16: Share of After-Tax Income of High-Income Tax Filers in New Brunswick and Canada, 1982-2018 (with Capital Gains)

Panel A: Share of After-Tax Income

Share of After-	Income Group							
Tax Income	Top 0.1 Per Cent		Top 1 Per Cent		Top 5 Per Cent			
	CA	N.B.	CA	N.B.	CA	N.B.		
1982*	2.4	1.7	6.3	5.5	17.3	16.7		
2000	4.1	2.2	10.6	7.3	22.3	18.8		
2018	3.6	2.5	9.8	7.1	21.9	18.0		

<sup>\*</sup>Top 0.1 Per Cent Income Group, 1990

Panel B: Share of After-Tax Income of New Brunswick High-Income Groups as a Proportion of the Share of After-Tax Income of Canadian High-Income Groups

	Income Group					
	Top 0.1 Per Cent   Top 1 Per Cent   Top 5 Per C					
1982*	70.8	87.3	96.5			
2000	53.7	68.9	84.3			
2018	69.4	72.4	82.2			

<sup>\*</sup>Top 0.1 Per Cent Income Group, 1990

Source: Statistics Canada, Table 11-10-0056-01

### ii. High-Income Thresholds

Panel A of Chart 20 displays the nominal after-tax threshold values for the New Brunswick high-income groups. The threshold values for the New Brunswick high-income groups were consistently lower than the Canadian thresholds between 1982 and 2018. This is not surprising, given the fact that the average income is lower in New Brunswick. Data for the top 0.1 per cent income group threshold were not available before 1990. Throughout the 1990-2018 period, the difference in threshold values was largest between the top 0.1 per cent income groups; the threshold for the top 0.1 per cent group in New Brunswick never exceed 67 per cent of the Canadian threshold (Panel B of Chart 22).

In 1990, one needed an after-tax income of at least \$147,400 (in current dollars) to be in the top 0.1 per cent of New Brunswick tax filers (Panel A of Chart 22). This represented 61.7 per cent of the national threshold for the 0.1 per cent income group (Panel B of Chart 22). The after-tax income threshold for the top 0.1 per cent income group in New Brunswick as a proportion of the national threshold reached a peak of 66.8 per cent in 1994. In 2004, the threshold fell to 44.5 per cent of the Canadian threshold, meaning that the minimum income required to be in the top 0.1 per cent in New Brunswick was less than half that required to be in the top 0.1 per cent in Canada. In 2009, the proportion rose back above 50 per cent. The proportion then varied by year before reaching 54.4 per cent in 2018, when the New Brunswick threshold was \$374,900.

In 1982, the threshold for the top 1 per cent income group in New Brunswick was

\$41,300, or 79.4 per cent of the national threshold. The proportion reached a peak of 80.3 per cent in 1995 and a minimum of 64.0 per cent in 2007. In 2018, New Brunswick threshold was \$136,900, or 70.4 per cent of the Canadian threshold.

The threshold to be in the top 5 per cent in New Brunswick was \$27,700, or 85.5 per cent of the national threshold, in 1982. Between 1982 and 2018, the threshold varied between a minimum of 77.9 per cent (in 2007) and a maximum of 87.3 per cent (in 1984) of the Canadian threshold. In 2018, the threshold for the top 5 per cent income group in New Brunswick was \$82,400, or 80.4 per cent of the Canadian threshold.

Table 17: High-Income Group Thresholds in New Brunswick and Canada, After-Tax Income Including Capital Gains, 1982, 2000 and 2018 (Current dollars)

Panel A: High-Income Group Thresholds in New Brunswick and Canada

Threshold	Income Group							
Value	Top 0.1 Per Cent		Top 1 Per Cent		Top 5 Per Cent			
	CA	N.B.	CA	N.B.	CA	N.B.		
1982*	238,900	147,400	52,000	41,300	32,400	27,700		
2000	441,900	242,300	113,700	83,700	59,500	49,900		
2018	688,900	374,900	194,500	136,900	102,500	82,400		

<sup>\*</sup>Top 0.1 Per Cent Income Group, 1990

Panel B: High-Income Group Thresholds in New Brunswick as Proportions of Canadian High-Income Group Thresholds

Per Cent	Top 0.1 Per Cent	Top 1 Per Cent	Top 5 Per Cent
1982*	61.7	79.4	85.5
2000	54.8	73.6	83.9
2018	54.4	70.4	80.4

<sup>\*</sup>Top 0.1 Per Cent Income Group, 1990

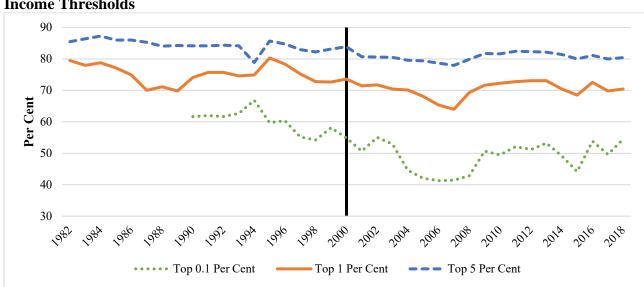
Source: Statistics Canada, Table 11-10-0056-01

Chart 22: High-Income Group Thresholds in New Brunswick and in Canada, After-Tax Income Including Capital Gains, 1982-2019 (Current dollars)

N.B., Top 0.1 Per Cent
N.B., Top 1 Per Cent
N.B., Top 5 Per Cent
CA, Top 0.1 Per Cent
CA, Top 5 Per Cent

Panel A: High-Income Group Thresholds in New Brunswick and Canada

Note: Data for the top 0.1 per cent group were not available before 1990.



Panel B: New Brunswick High-Income Thresholds as Proportions of Canadian High-Income Thresholds

Note: Data for the top 0.1 per cent group were not available before 1990.

Source: Statistics Canada, Table 11-10-0056-0

### IV. Poverty, 1976-2019

This section briefly examines trends in poverty in New Brunswick and Canada. Statistics Canada produces three measures of low income or poverty: low-income cut-offs (LICOs), low-income measures (LIMs) and Market Basket Measures (MBMs). National poverty rates do not include the territories. In August 2018, the federal government adopted the Market Basket Measure as the official method of calculating the poverty rate and set targets for its decline (Heisz, 2019). For this reason, the Market Basket Measure is the main measure used in this report. Any reference to the other two poverty measures are explicitly labelled.

## A. Low-Income Cut-Offs After Tax and the Low-Income Measure After Tax, 1976-2019

The low-income cut-offs (LICOs) after tax are "income thresholds below which a family will likely devote a larger share of its after-tax income [to] the necessities of food, shelter and clothing than the average family." On the other hand, the low-income measure (LIM) after tax is considered to be more of a relative poverty measure; the LIM is "set at 50 [per cent] of adjusted median household income."

Both the LICO and the LIM poverty rates for New Brunswick decreased significantly between 1976 and 2019. However, the decline in the LICO poverty rate was larger. From 1976 to 2019, the LICO for New Brunswick fell from 15.5 per cent to 4.5 per cent, a drop of 80.0 per cent, or 11.0 percentage points (Panel A of Chart 26). In contrast, the LIM decreased by only 26.6 per cent (or 5.4 percentage points), from 20.3 per cent to 14.9 per cent. This discrepancy in trends is explained by the difference in the poverty measures. With real income growth (which was documented in New Brunswick in section II of part one of the report), absolute poverty measures such as the LICO fall. Relative poverty measures such as the LIM do not change if the overall income distribution remains unchanged.

The LICO and the LIM poverty rates for Canada were both lower than the corresponding New Brunswick rates in 1976 (both rates were equal to 13.0 per cent for Canada in 1976, as shown in Panel B of Chart 26). Between 1976 and 2019, the LICO for New Brunswick fell from 119.2 per cent of the national rate to 69.2 per cent of the national rate (Panel C of Chart 26). New Brunswick was tied with Prince Edward Island for the third lowest LICO poverty rate in 2019 (Chart 23).

The LIM poverty rate for New Brunswick fell from 156.2 per cent of the national rate in 1976 to 123.1 per cent of the national rate in 2019. In 2019, the LIM poverty rate for New

<sup>6</sup> For a detailed analysis in recent trends in poverty and social assistance in Canada, see Inez Hillel's 2020 report (for the Centre for the Study of Living Standards) "Holes in the Social Safety Net: Poverty, Inequality and Social Assistance in Canada" at <a href="http://www.csls.ca/reports/csls2020-06.pdf">http://www.csls.ca/reports/csls2020-06.pdf</a>. Section D of Appendix IV of Hillel's report examines trends in poverty in New Brunswick, and Section D of Appendix V examines trends in social assistance in New Brunswick. Part V of this report is heavily based on and in parts directly updated from Hillel's report.

7 Statistics Canada L on income statistics by age, say and connemic family type. Table 11, 10,0135,01.

<sup>&</sup>lt;sup>7</sup> Statistics Canada, Low income statistics by age, sex and economic family type, Table 11-10-0135-01, https://www150.statcan.gc.ca/t1/tbl1/en/cv.action?pid=1110013501

Brunswick exceeded the national rate by 3.6 percentage points and was the third highest LIM poverty rate of the provinces (Chart 24).

9 8.1 7.4 8 7.0 6.5 6.3 7 6.0 Per Cent 6 5 4 3 4.5 4.5 4.4 4.4 Saskatillewan Kova Scolia Prince Edward Island Kew Brusswick Rendered and Jahrador

Chart 23: LICO Poverty Rate by Province, Canada, 2019 (Per Cent of Persons Living in Poverty)

Source: Statistics Canada, Table 11-10-0135-01

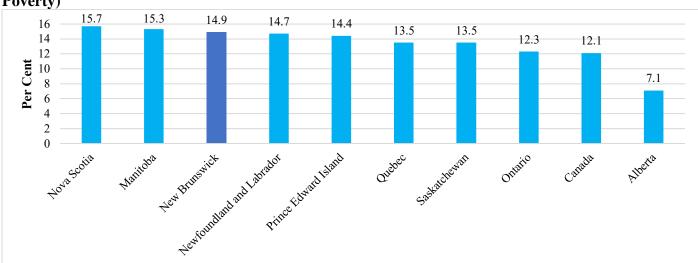


Chart 24: LIM Poverty Rate by Province, Canada, 2019 (Per Cent of Persons Living in Poverty)

Source: Statistics Canada, Table 11-10-0135-01

#### B. Market Basket Measure, 2006-2019

The Market Basket Measure is based on the cost of a specified basket of goods and services representing a modest, basic standard of living. Statistics Canada defines it as "a measure of low income which is based on the cost of a basket of goods and services that individuals and families require to meet their basic needs and achieve a modest standard of living. Wherever individuals and families are living across the country, if they cannot afford the

cost of this basket of goods and services in their community, they will be considered to be living below Canada's Official Poverty Line." Unlike the LIM and LICO poverty measures, the MBM measure was available only from 2006.

In 2020, Statistics Canada rebased the MBM from 2008 to 2018. Estimates for the 2018-base MBM measure poverty rates were available only from 2015, while estimates for the 2008-base MBM were available from 2006. Poverty rates are higher under the 2018-base MBM than under the 2008-base MBM because of methodological changes that resulted in higher MBM thresholds. In other words, the new basket is more expensive than the old basket. The update in the cost of shelter was the largest contributor to the increase in the threshold. The cost of shelter in the 2008-base MBM is based on data from the 2006 census. Although prices are adjusted in line with inflation, the cost of shelter has risen much more. The 2018-base MBM uses 2016 census data as a base and more accurately reflects the current cost of shelter in Canada.

#### i. Trends in the Market Basket Measure

Data for the 2018-base Market Basket Measure extends back only to 2015. Between 2015 and 2019, the 2018-base MBM for New Brunswick dropped from 16.1 per cent to 9.4 per cent, a decrease of 41.6 per cent (6.7 percentage points). Consequently, New Brunswick went from having the third highest to the third lowest MBM poverty rate of the provinces and from exceeding the national rate to lying below it (Chart 25). The decrease in New Brunswick's 2018-base MBM between 2015 and 2019 was the largest relative decrease and the second largest absolute decrease of all the provinces.

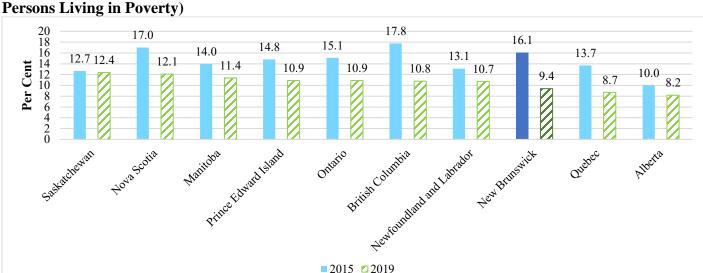


Chart 25: 2018-Base MBM Poverty Rate by Province, Canada, 2015 and 2019 (Per Cent of Persons Living in Poverty)

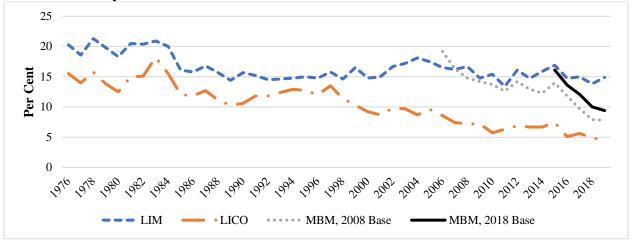
Source: Statistics Canada, Table 11-10-0135-01

<sup>&</sup>lt;sup>8</sup> The definition of the MBM is available at <a href="https://www150.statcan.gc.ca/n1/pub/75f0002m/75f0002m2019009-eng.htm">https://www150.statcan.gc.ca/n1/pub/75f0002m/75f0002m2019009-eng.htm</a>.

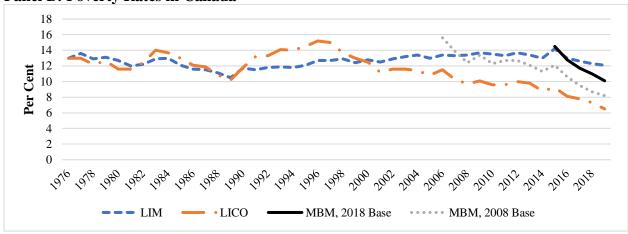
<sup>&</sup>lt;sup>9</sup> For details on the methodological changes made to the MBM, see <a href="https://www150.statcan.gc.ca/n1/pub/75f0002m/75f0002m2020002-eng.htm">https://www150.statcan.gc.ca/n1/pub/75f0002m/75f0002m2020002-eng.htm</a>.

Chart 26: LICO, LIM and MBM Poverty Rates for New Brunswick and Canada, All Persons, 1976-2019 (Per Cent of Persons Living in Poverty)

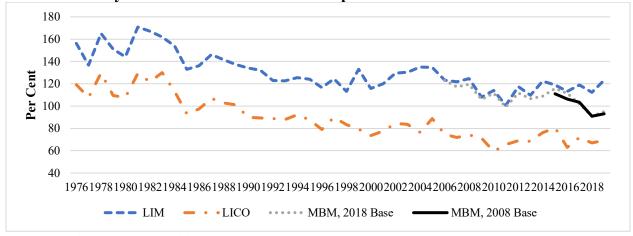
Panel A: Poverty Rates in New Brunswick



Panel B: Poverty Rates in Canada



Panel C: Poverty Rates in New Brunswick as Proportions of the Canadian Rates



Source: Statistics Canada, Table 11-10-0135-01

#### ii. MBM Poverty Rates by Economic Unit

In both New Brunswick and Canada, the MBM poverty rates were significantly higher for unattached individuals than for persons in economic families over the measurement periods (Chart 27). It is important to note that poverty is measured on an individual basis, unlike income for economic units, which is measured per economic family or unattached individual. Poverty declined significantly for both types of economic units in both New Brunswick and Canada. Unattached individuals experienced larger absolute decreases in poverty, while persons in economic families experienced larger relative decreases in poverty. In 2006, poverty rates for both types of economic units were higher in New Brunswick, but by 2019, both the 2008- and the 2018-base MBM poverty rates for unattached individuals were lower in New Brunswick (by 3.2 points and 1.4 points, respectively); the 2008-base poverty rate for economic families was slightly higher than the national rate (by 0.2 points), and the 2018-base poverty rate for economic families was slightly lower than the national rate (by 0.5 points).

In 2006, 39.7 per cent of unattached individuals in New Brunswick were below the 2008-base MBM threshold. At 15.8 per cent, the poverty rate for persons in economic families was less than half the rate for unattached individuals. The corresponding national rates were lower in 2006, but there was a similar disparity between the two types of economic units: 33.6 per cent of unattached individuals were in poverty, while only 12.5 per cent of persons in economic families were in poverty. Between 2006 and 2019, the poverty rate for unattached individuals in New Brunswick decreased by 51.4 per cent (20.4 percentage points), from 39.7 per cent in 2006 to 19.3 per cent in 2019, 3.2 points below the national rate (22.5 per cent). Persons in economic families experienced a larger relative decrease: poverty decreased by 63.9 per cent (10.1 percentage points), from 15.8 per cent to 5.7 per cent, 0.2 points above the national rate (5.5 per cent).

Similarly, the 2018-base MBM poverty rates declined for unattached individuals and persons not in an economic family in both New Brunswick and Canada between 2015 and 2019. The 2018-base MBM poverty rate for unattached individuals in New Brunswick fell by 32.2 per cent (11.8 percentage points), from 36.6 per cent to 24.8 per cent, 1.4 points below the national rate in 2019. As was the case for the 2008-base MBM rates, persons in economic families in New Brunswick saw a larger relative decrease in poverty but a smaller absolute decrease: the poverty rate for economic families in New Brunswick fell by 46.3 per cent (5.7 percentage points), from 12.3 per cent to 6.6 per cent, 0.5 points below the national rate in 2019.

Table 18: Change in MBM Poverty Rates by Economic Unit in New Brunswick and Canada, 2006-2019

Panel A: Change in MBM Poverty Rates in New Brunswick

Change	Persons in Economic Families			n an Economic nily
	2018 Base	2008 Base	2018 Base	2008 Base
% Change: 2006-2019	-	-63.9	-	-51.4
% Change: 2015-2019	-46.3	-45.7	-32.2	-42.6
PP Change: 2006-2019	-	-10.1	-	-20.4
PP Change: 2015-2019	-5.7	-4.8	-11.8	-14.3

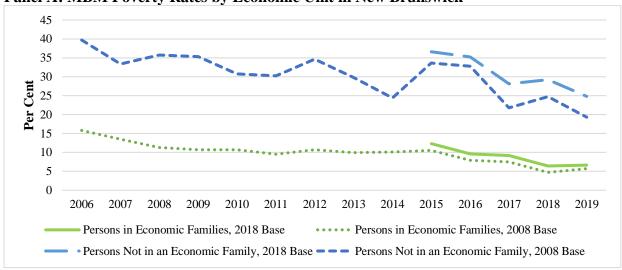
Panel B: Change in MBM Poverty Rates in Canada

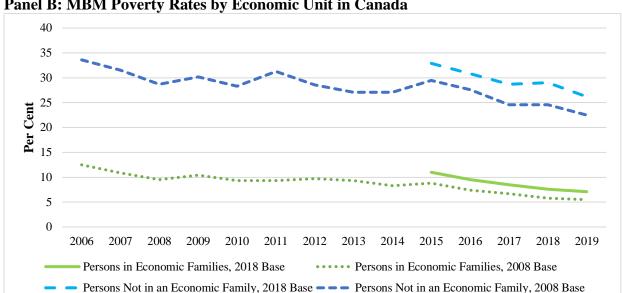
Change	Persons in Economic Families			n an Economic nily
	2018 Base	2008 Base	2018 Base	2008 Base
% Change: 2006-2019	-	-56.0	-	-33.0
% Change: 2015-2019	-35.5	-37.5	-20.4	-23.7
PP Change: 2006-2019	-	-7.0	-	-11.1
PP Change: 2015-2019	-3.9	-3.3	-6.7	-7.0

Source: Statistics Canada, Table 11-10-0135-01

Chart 27: MBM Poverty Rates by Economic Unit in New Brunswick and Canada, 2006-2019 (Per Cent of Persons Living in Poverty)

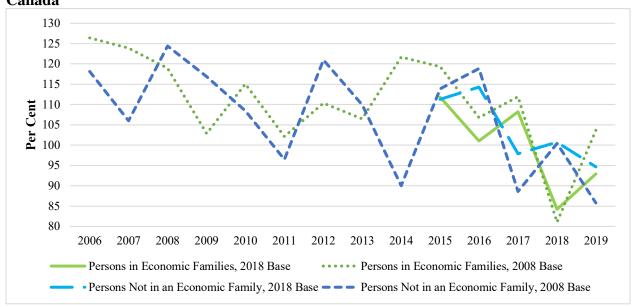






Panel B: MBM Poverty Rates by Economic Unit in Canada

Panel C: MBM Poverty Rates in New Brunswick as Proportions of MBM Poverty Rates in Canada



Source: Statistics Canada, Table 11-10-0135-01

#### iii. MBM Poverty Rates by Age Group

Over their respective measurement periods, the 2008-base and the 2018-base MBM poverty rates both decreased overall and for three age groups: children (persons under 18), working-age persons (18-64) and seniors (persons 65 and over). In 2019, seniors had by far the lowest poverty rate in both New Brunswick and Canada (Panel C of Chart 28). In New Brunswick, persons under 18 had the highest poverty rate, while in Canada, working-age persons had the highest poverty rate (Panel A and Panel B of Chart 28). In New Brunswick, 5.6 per cent of seniors were below the 2018-base MBM threshold in 2019. The national rate was slightly

lower, at 5.4 per cent. Working-age persons had a poverty rate of 9.9 per cent in New Brunswick and of 11.6 per cent in Canada in 2019. Children had a poverty rate of 12.4 per cent in New Brunswick and of 9.7 per cent in Canada.

The 2008-base MBM poverty rate for persons under 18 in New Brunswick generally exceeded the national rate between 2006 and 2019. In 2006, 26.7 per cent of persons under 18 in New Brunswick were below the MBM threshold, while 19.2 per cent of persons under 18 in Canada were below the threshold. The gap narrowed between 2006 and 2011; by 2011, the poverty rate for persons under 18 in New Brunswick was 14.1 per cent, slightly below the national rate of 14.3 per cent. New Brunswick's rate then began to rise again, until it reached 17.8 per cent in 2013. From 2015 to 2018, New Brunswick's MBM rate for persons under 18 began to fall again, until it reached 7.9 per cent in 2018 (when the national rate was slightly higher, at 8.2 per cent). In 2019, the rate jumped back up to 10.7 per cent, 3.1 percentage points above the national rate (7.6 per cent) but down 16.0 points from 2006. This was the largest absolute decrease of the three age groups over the 2006-2019 period in New Brunswick.

The 2018-base MBM poverty rate for persons under 18 in New Brunswick was higher than the national rate between 2015 and 2019. In 2015, 20.3 per cent of persons under 18 in New Brunswick were below the 2018-base MBM threshold. The national rate was 3.9 points lower, at 16.4 per cent. The 2018-base MBM poverty rate for persons under 18 in New Brunswick reached a minimum of 11.5 per cent in 2018 before climbing back up to 12.4 per cent in 2019, when the national rate was 2.7 points lower, at 9.7 per cent.

In 2006, 18.8 per cent of persons between the ages of 18 and 64 in New Brunswick were below the 2008-base MBM threshold, while 16.0 per cent of Canadians in the same age group were below the threshold. The New Brunswick rate dipped below the national rate in 2011, when the New Brunswick rate was 13.3 per cent and the national rate 13.5 per cent. The rates remained very close until 2015, New Brunswick's rate jumped to 15.3 per cent, 1.9 points above the national rate (13.4 per cent). New Brunswick's poverty rate for persons aged 18 to 64 dipped below the national rate in 2017 and has remained below it since. In 2019, 8.5 per cent of persons aged 18 to 64 in New Brunswick were below the 2008-base MBM threshold, while 9.7 per cent of working-age Canadians were below the threshold.

The 2018-base MBM for persons 18 to 64 years old in New Brunswick decreased from 16.5 per cent in 2015 to 9.9 per cent in 2019 (a decrease of 40.0 per cent, or 6.6 percentage points). This was the largest absolute decrease of the three age groups between 2015 and 2019 in New Brunswick. The national rate was 1.7 points higher, at 11.6 per cent in 2019.

In both New Brunswick and Canada, seniors had lower poverty rates than persons below 65 over the measurement periods. As shown in Panel C of Chart 28, in 2006, 10.6 per cent of persons over 64 were below the 2008-base MBM threshold in New Brunswick, while the Canadian rate was 3.0 points lower (at 7.6 per cent). New Brunswick's rate reached the national rate in 2008 (when both rates were equal to 6.2 per cent). The percentage of seniors below the 2008-base MBM climbed back above the national percentage in 2007. New Brunswick's rate continued to increase until 2012, when it reached 9.6 per cent, 4.3 points above the national rate (5.3 per cent). Between 2012 and 2014, New Brunswick's rate fell 3.6 points (it hit 6.0 per cent

in 2014). The rate then jumped up 3.0 points to 9.0 per cent in 2015 before falling until it reached a minimum of 2.7 per cent in 2018. In 2019, the rate rose to 3.5 per cent, slightly below the national rate of 3.6 per cent.

Table 19: MBM Poverty Rates by Age Group in New Brunswick and Canada, 2006-2019 Panel A: MBM Poverty Rates

Per Cent	< 18		18 - 64		65 +	
	CA	N.B.	CA	N.B.	CA	N.B.
2006 (2018 base)	19.2	26.7	16.0	18.8	7.6	10.6
2015 (2008 base)	13.3	15.1	13.4	15.3	5.1	9.0
2015 (2018 base)	16.4	20.3	15.7	16.5	7.0	10.8
2019 (2008 base)	7.6	10.7	9.7	8.5	3.6	3.5
2019 (2018 base)	9.7	12.4	11.6	9.9	5.4	5.6

Panel B: MBM Poverty Rates in New Brunswick as Proportions of MBM Poverty Rates in Canada

Per Cent	< 18	18 - 64	65 +
2006 (2018 base)	139.1	117.5	139.5
2015 (2008 base)	113.5	114.2	176.5
2015 (2018 base)	123.8	105.1	154.3
2019 (2008 base)	140.8	87.6	97.2
2019 (2018 base)	127.8	85.3	103.7

Source: Statistics Canada, Table 11-10-0135-01

Table 20: Change in MBM Poverty Rates by Age Group in New Brunswick and Canada, 2006-2019

Panel A: Change in MBM Poverty Rates in New Brunswick

Change	< 18		18 - 64		65 +	
	2018	2008	2018	2008	2018	2008
	Base	Base	Base	Base	Base	Base
% Change: 2006-2019	-	-59.9	-	-54.8	-	-67.0
% Change: 2015-2019	-38.9	-29.1	-40.0	-44.4	-48.1	-61.1
PP Change: 2006-2019	-	-16.0	-	-10.3	-	-7.1
PP Change: 2015-2019	-7.9	-4.4	-6.6	-6.8	-5.2	-5.5

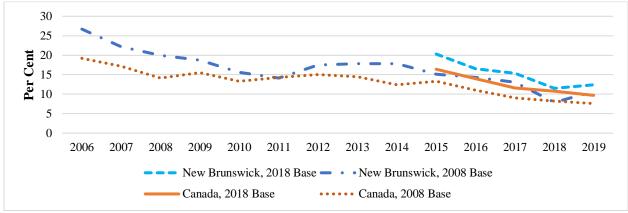
Panel B: Change in MBM Poverty Rates in Canada

Change	< 18		18 - 64		65 +	
	2018	2008	2018	2008	2018	2008
	Base	Base	Base	Base	Base	Base
% Change: 2006-2019	-	-60.4	-	-39.4	-	-52.6
% Change: 2015-2019	-40.9	-42.9	-26.1	-27.6	-22.9	-29.4
PP Change: 2006-2019	-	-11.6	-	-6.3	-	-4.0
PP Change: 2015-2019	-6.7	-5.7	-4.1	-3.7	-1.6	-1.5

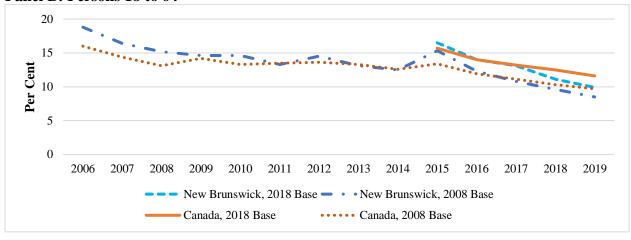
Source: Statistics Canada, Table 11-10-0135-01

Chart 28: MBM Poverty Rates by Age Group for New Brunswick and Canada, 2006-2019 (Per Cent of Persons Living in Poverty)

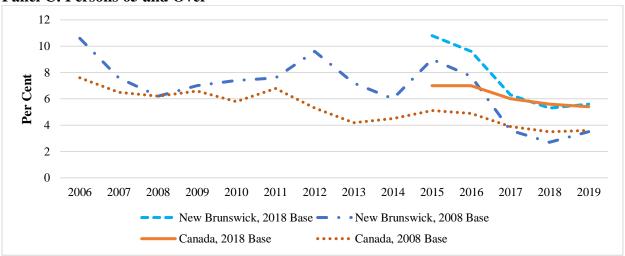
Panel A: Persons Under 18



Panel B: Persons 18 to 64



Panel C: Persons 65 and Over

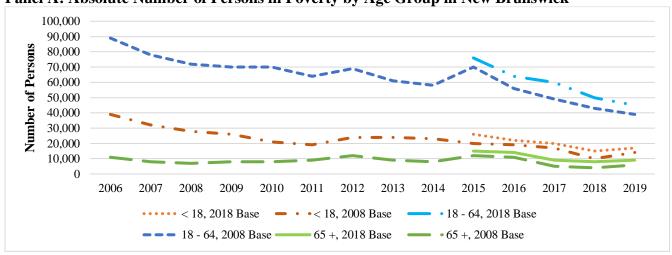


#### iv. Share of Persons Below the MBM Threshold by Age Group

In 2019, according to the 2018-base MBM, there were 70,000 persons living in poverty in New Brunswick, accounting for 1.9 per cent of all persons in poverty in Canada. There were 45,000 persons aged 18 to 64 below the 2018-base MBM threshold, accounting for 64 per cent of the population living in poverty in New Brunswick. At the national level, persons aged 18 to 64 made up 72 per cent of the total population living in poverty (Panel B and Panel C of Chart 29). There were 17,000 children in poverty in New Brunswick, accounting for 24 per cent of people living in poverty in New Brunswick. Children made up only 18 per cent of those in poverty nationally. Seniors accounted for the lowest shares of the population in poverty, with shares of 13 per cent in New Brunswick (9,000 persons) and 9 per cent in Canada, respectively.

Between 2006 and 2019, the number of persons living in poverty in all three age groups fell in absolute terms in New Brunswick (Panel A of Chart 29). According to the 2008-base MBM, the number of children in poverty as a share of the total number of persons in poverty in New Brunswick fell from 28.1 per cent in 2006 to 24.1 per cent in 2019. The share of children decreased more at the national level, falling from 26.3 per cent to 17.6 per cent. In contrast, working-age adults saw their share of total poverty increase in New Brunswick and in Canada as a whole; in New Brunswick, the share increased from 64.0 per cent to 67.2 per cent, while the share increased from 67.5 per cent to 74.6 per cent at the national level. Seniors saw their share increase from 7.9 per cent to 10.3 per cent in New Brunswick and from 6.2 per cent to 7.8 per cent nationally. The increase in seniors as a share of total persons in poverty was at least partially due the large increase in the share of persons 65 and older in the total population (14.5 per cent in 2006 versus 21.3 per cent in 2019 in New Brunswick and 13.3 per cent in 2006 versus 17.5 per cent in 2019 in Canada).

Chart 29: Share of Persons in Poverty by Age Group in New Brunswick and in Canada, 2006-2019



Panel A: Absolute Number of Persons in Poverty by Age Group in New Brunswick

Panel B: Share of Persons in Poverty by Age Group in New Brunswick 80 70 60 Per Cent 50 40 30 20 10 0 2016 2006 2007 2009 2010 2011 2012 2013 2014 2015 2017 2018 2019 • 18 - 64, 2018 Base ••• < 18, 2018 Base **- ⋅ <** 18, 2008 Base ■ 18 - 64, 2008 Base — -65 +, 2018 Base • 65 +, 2008 Base

80 70 60 **Per Cent** 50 40 30 20 10 0 2013 2006 2007 2008 2009 2010 2011 2012 2014 2015 2016 2017 2018 2019 •• < 18, 2018 Base **- ⋅** < 18, 2008 Base • 18 - 64, 2018 Base 18 - 64, 2008 Base -65 +, 2018 Base • 65 +, 2008 Base

Panel C: Share of Persons in Poverty by Age Group in Canada

Source: Statistics Canada, Table 11-10-0135-01

## V. Social Assistance, 2001-2019

This section examines trends in social assistance between 2001 and 2019. The per cent of the population receiving social assistance (the dependency rate) is an indication of hardship and living standards. A higher dependency rate suggests lower living standards.

#### i. Social Assistance Programs in New Brunswick, 2001-2019

New Brunswick has two distinct social assistance programs. <sup>10</sup> The Transitional Assistance Program (TAP) is the standard program. The Extended Benefits Program (EBP) is intended for individuals who have a disability. The TAP is less sensitive to the business cycle as the EBP is less sensitive to new job opportunities. Indeed, the TAP saw more significant variation in the number of cases over the 2001-2019 period. The number of cases in the TAP fell

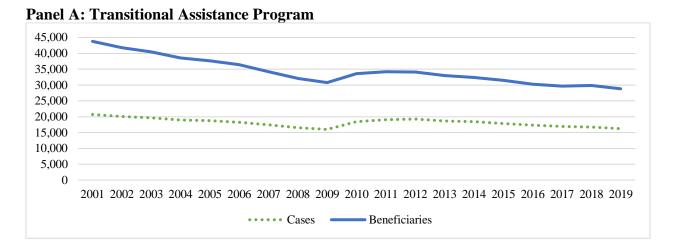
<sup>&</sup>lt;sup>10</sup> A third program, the Interim Assistance Program (IAP), was terminated in 2010. The AIP provided low benefits but high wage exemptions as it was designed for persons who were expected to be self-reliant in little time.

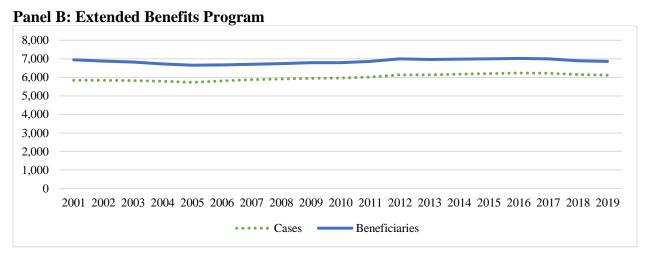
from 20,705 in 2001 to 16,251 in 2019, a decrease of 22 per cent. On the other hand, the number of cases in the EBP rose from 5,837 in 2001 to 6,121 in 2019, an increase of 4.9 per cent.

In 2019, 4.6 per cent of New Brunswick's population was a beneficiary of either of the two social assistance programs (Panel C of Chart 30). There were 16,251 cases and 28,810 individuals in the standard program (Panel A of Chart 31). There were 6,121 cases and 6,854 beneficiaries in the extended benefit program (Panel B of Chart 30). The similarity between the number of cases and beneficiaries in the EBP indicates that in most cases the filer did not have a dependent or a partner.

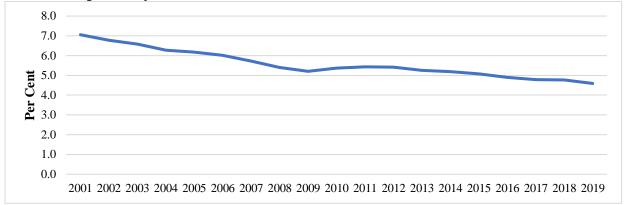
Between 2001 and 2019, the dependency rate (the number of beneficiaries of social assistance as a share of the population) decreased 2.46 points, from 7.06 per cent to 4.59 per cent (Panel C of Chart 30). In other words, the share of New Brunswick's population that received social assistance decreased between 2001 and 2019.

Chart 30: Social Assistance Cases and Beneficiaries in New Brunswick, 2000-01 – 2018-19



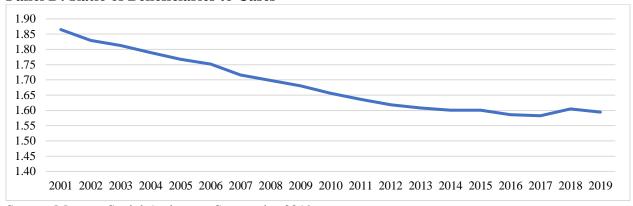






Note: The dependency rate is the number of beneficiaries of social assistance as a share of the population.

Panel D: Ratio of Beneficiaries to Cases



Source: Maytree Social Assistance Summaries 2019

#### ii. Welfare Adequacy, 2019

Table 21 compares the maximum 2019 total annual welfare incomes for four household types to the corresponding MBM threshold. Total welfare income includes basic social assistance payments, recurring additional social assistance payments, federal and provincial child benefits, GST/GHT credit and provincial tax credits or benefits (Laidley and Aldridge, 2020:33). Welfare adequacy is defined by Maytree as the maximum annual benefit a person would qualify for as a percentage of the MBM threshold. For all four household types, the maximum welfare income was far below the MBM threshold. In fact, all four example households would have had an income below 75 per cent of the MBM, meaning that they would have been classified as living in deep income poverty. The maximum total welfare income for a single person considered employable was \$7,131, only 33 per cent of the MBM threshold. Single persons with a disability received up to \$9,843 (46 per cent of the MBM threshold) in welfare income. Single parents with one child received the highest total welfare income relative to the MBM threshold; they received up to \$20,111, or 67 per cent of the MBM threshold. Couples with two children received up to \$26,723, or 63 per cent of the MBM threshold.

Table 21: Adequacy of Social Assistance in New Brunswick, 2019

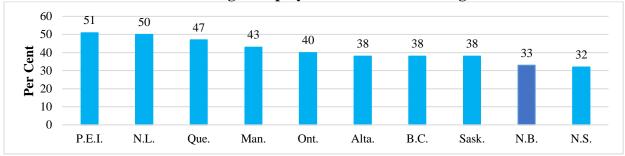
Adequacy Indicator	Single Person Considered Employable	Single Person with a Disability	Single Parent, One Child	Couple, Two Children
Total Welfare Income	\$7,131	\$9,843	\$20,111	\$26,723
MBM Threshold (Moncton)	\$21,374	\$21,374	\$30,227	\$42,748
Welfare Income Minus MBM Threshold	-\$14,243	-\$11,531	-\$10,117	-\$16,025
Welfare Income as % of MBM	33%	46%	67%	63%

Source: Laidley and Aldridge (2020). "Welfare in Canada, 2019." Maytree

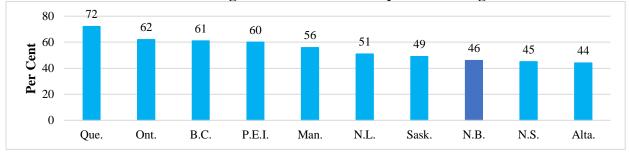
Chart 31 displays welfare adequacy by province and by household type in 2019. New Brunswick ranked second last for single persons considered employable, third last for both single adults with a disability and couples with two children and fifth for single parents with a child.

Chart 31: Welfare Adequacy by Province and by Household Type, 2019

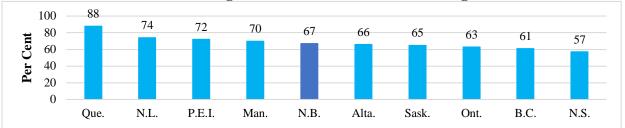
Panel A: Welfare Income for Single Employable Adult as Percentage of MBM



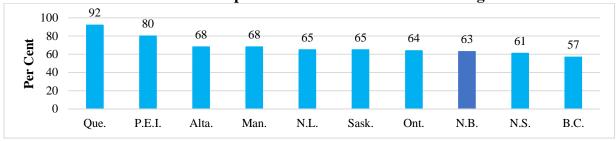
Panel B: Welfare Income for Single Adult with Disability as Percentage of MBM



Panel C: Welfare Income for Single Parents with Child as Percentage of MBM



Panel D: Welfare Income for Couples with Two Children as Percentage of MBM



Source: Laidley and Aldridge (2020). "Welfare in Canada, 2019." Maytree.

# Part Two: Wealth, 1999-2019

Although the income gap between New Brunswick and Canada narrowed over the first 19 years of the 21<sup>st</sup> century, the wealth gap between the two jurisdictions widened between 1999 and 2019. The concept of wealth is based here on "net worth" — that is, the amount that households, or economic units, would have left over if they sold all their assets and paid off all their debt. Data in this section are taken from Statistics Canada's Survey of Financial Security, which was done in 1999, 2005, 2012, 2016 and 2019.

#### I. Trends in Average and Median Net Worth, 1999-2019

#### A. Average Net Worth

Overall, between 1999 and 2019, the average net worth of economic units in New Brunswick grew at a compound annual rate of 1.94 per cent, 1.76 points below the national rate (3.70 per cent) (Chart 33). The lower overall growth rate during these two decades was largely the result of decreases in average net worth in New Brunswick between 1999 and 2006 and between 2016 and 2019. In contrast, at the national level, average net worth increased between all the years in which the Survey of Financial Security took place.

Average net worth in New Brunswick was significantly lower than the Canadian average between 1999 and 2019. This is consistent with the fact that average after-tax income in New Brunswick was lower than the Canadian average throughout the 1976-2019 period. In 1999, the average net worth of households in New Brunswick was \$258,100 (in 2019 constant dollars), 72.3 per cent of average net worth in Canada and the second lowest average net worth of all the provinces (Chart 32). In 2019, average net worth in New Brunswick was \$378,800, falling to

51.3 per cent of the average net worth at the national level and the lowest average net worth of all the provinces.

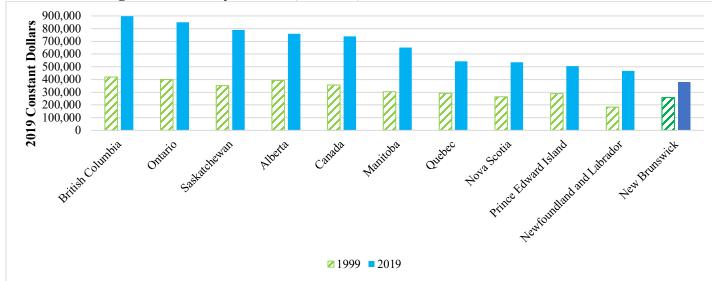


Chart 32: Average Net Worth by Province, Canada, 1999 and 2019

Source: Statistics Canada, Table 11-10-0016-01

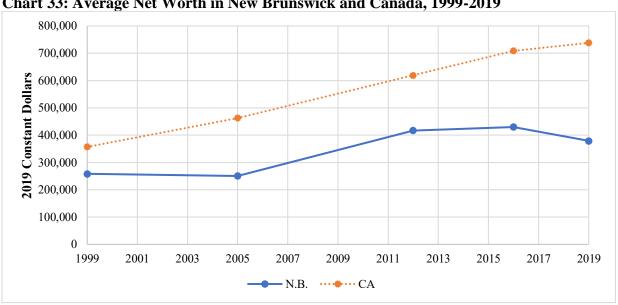


Chart 33: Average Net Worth in New Brunswick and Canada, 1999-2019

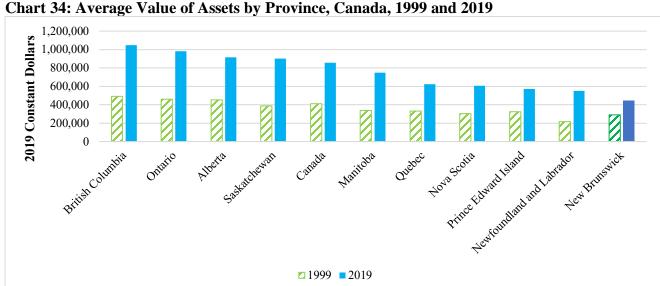
Source: Statistics Canada, Table 11-10-0016-01

#### i. Average Assets

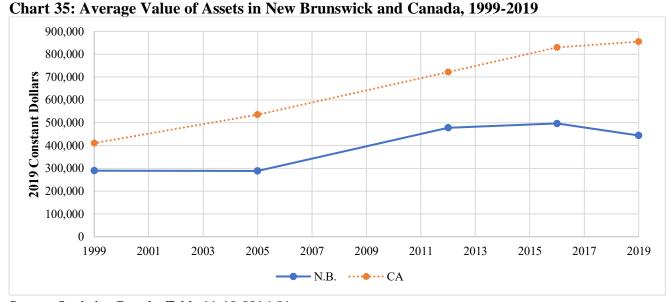
Between 1999 and 2019, the average value of total assets of economic units in New Brunswick increased by 2.16 per cent per year, 1.58 points below the national rate (3.74 per cent) (Chart 35). Most of this increase occurred between 2005 and 2012, when the average value of assets in New Brunswick rose by 7.48 per cent per year. This growth between 2005 and 2012

helped to offset the drops in the average value of household assets in New Brunswick between the Survey of Financial Security in 1999 and in 2005 and between the surveys in 2012 and 2019. In contrast, the average value of assets for Canadian economic units overall increased between all survey years over the 1999-2019 period.

In 1999, the average value of assets in New Brunswick was \$290,100, 70.7 per cent of the national average and the second lowest average of the provinces. In 2019, the average value of assets in New Brunswick was \$444,700, up about 53 per cent from 1999 but down to 52.0 per cent of the national average. New Brunswick had the lowest average value of assets of all the provinces in 2019 (Chart 34).



Source: Statistics Canada, Table 11-10-0016-01



#### ii. Average Debt

Between 1999 and 2016, the average debt of New Brunswick economic units rose at a compound annual rate of 4.23 per cent, 0.40 points below the national rate (4.63 per cent) (Chart 37). Average debt then fell by 0.82 per cent per year between 2016 and 2019. At the national level, average debt fell at a nearly identical rate between 2016 and 2019 (0.80 per cent per year).

In contrast to New Brunswick's poor performance in terms of the average value of economic unit assets between 1999 and 2019, the province had relatively low average debt compared to the other provinces over the period. In 1999, average debt in New Brunswick was \$44,800, 56.2 per cent of the national average and the second smallest average debt of the provinces. In 2019, average debt in New Brunswick was \$88,400, up nearly 50 per cent from 1999 but down to 52.7 per cent of the national average. New Brunswick had the lowest average debt of the provinces in 2019 (Chart 36).

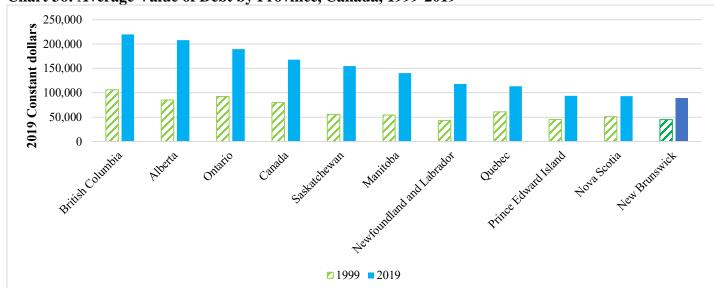


Chart 36: Average Value of Debt by Province, Canada, 1999-2019

Source: Statistics Canada, Table 11-10-0016-01

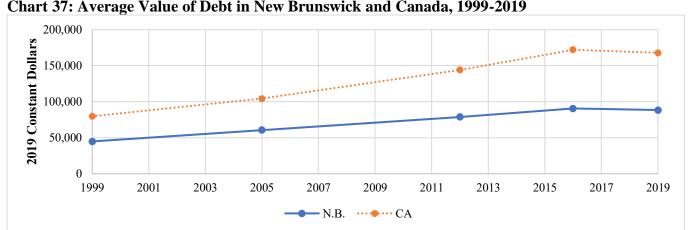
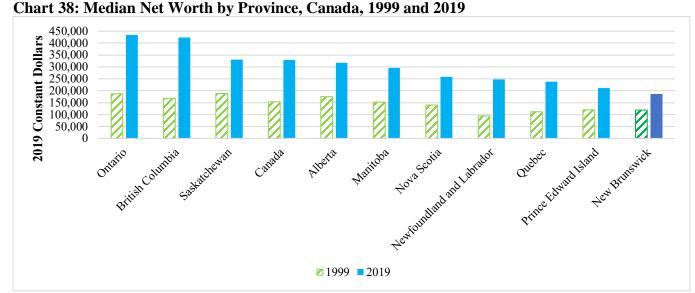


Chart 37: Average Value of Debt in New Brunswick and Canada, 1999-2019

#### **B.** Median Net Worth

Similar to trends in average net worth, although the median net worth of New Brunswick households increased between 1999 and 2019, the gap between median net worth in New Brunswick and at the national level widened over the period. Between 1999 and 2012, median net worth in New Brunswick increased at a compound annual rate of 3.92 per cent, 0.61 points below the national rate (Chart 39). Median net worth in New Brunswick then fell by 3.76 per cent per year between 2012 and 2016, while the national median continued to rise. Between 2016 and 2019, median net worth in New Brunswick rose by 3.31 per cent per year, outpacing the national rate by 1.49 points.

In 1999, the median net worth of economic units in New Brunswick was \$118,700, 77.5 per cent of the national median and the third lowest median net worth of all the provinces. In 2019, median net worth in New Brunswick was \$185,000, 56.1 per cent of the national median and the lowest median net worth of the provinces (Chart 38).



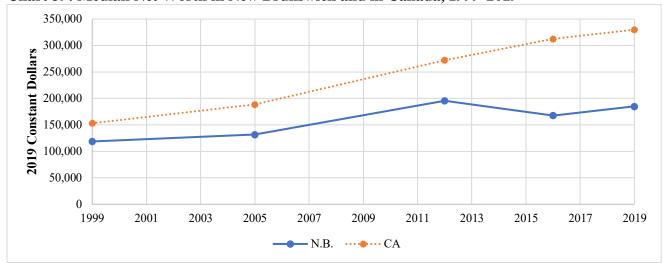


Chart 39: Median Net Worth in New Brunswick and in Canada, 1999-2019

Source: Statistics Canada, Table 11-10-0016-01

#### i. Median Assets

In 1999, the median value of household assets in New Brunswick was \$162,500, 69.3 percent of the national median and the second lowest median value of assets of all the provinces (Chart 40 and Chart 41). The median value of assets in New Brunswick decreased slightly between 1999 and 2005 (0.26 per cent per year) before rising by 8.08 per cent per year between 2005 and 2012, outpacing the national rate by 2.94 points. New Brunswick's median value of assets then fell again between 2012 and 2016 before increasing again between 2016 and 2019. In contrast, at the national level, median assets increased between all the years in which the Survey of Financial Security took place. In 2019, the median value of assets in New Brunswick was \$265,000, 55.6 per cent of the national median and the lowest median value of assets of all the provinces.

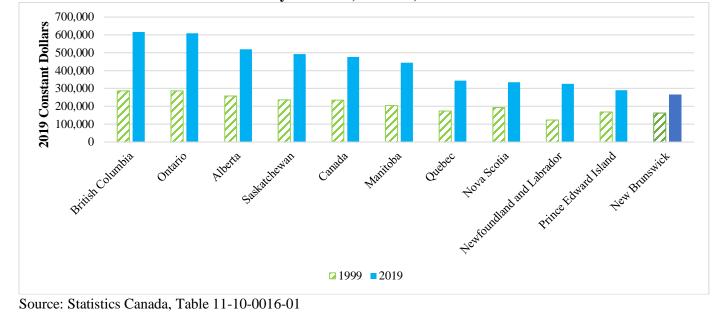


Chart 40: Median Value of Assets in by Province, Canada, 1999 and 2019

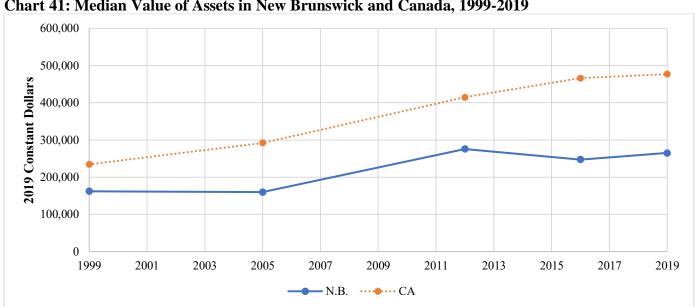


Chart 41: Median Value of Assets in New Brunswick and Canada, 1999-2019

Source: Statistics Canada, Table 11-10-0016-01

#### ii. Median Debt

The median value of household debt in New Brunswick was lower than the national median during all Survey of Financial Security years between 1999 and 2019. In 1999, the median value of debt in New Brunswick was \$29,300, 71.5 per cent of the national median and the fourth lowest median value of debt of all the provinces (Chart 42 and Chart 43). Between 1999 and 2019, median debt in New Brunswick rose at a compound annual rate of 2.91 per cent, 0.42 points below the national rate. Consequently, in 2019, the median value of debt in New

Brunswick was \$52,000, 65.8 per cent of the national median and the fifth lowest median value of debt of all the provinces.

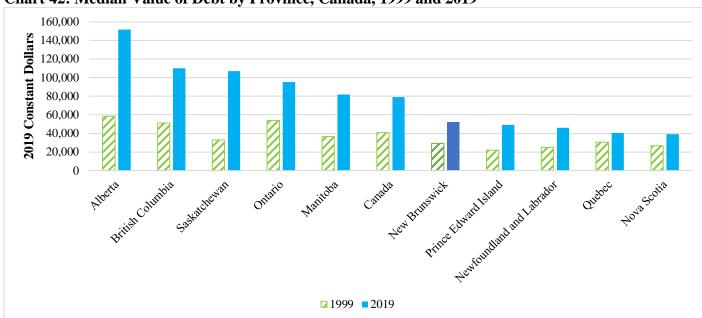


Chart 42: Median Value of Debt by Province, Canada, 1999 and 2019

Source: Statistics Canada, Table 11-10-0016-01

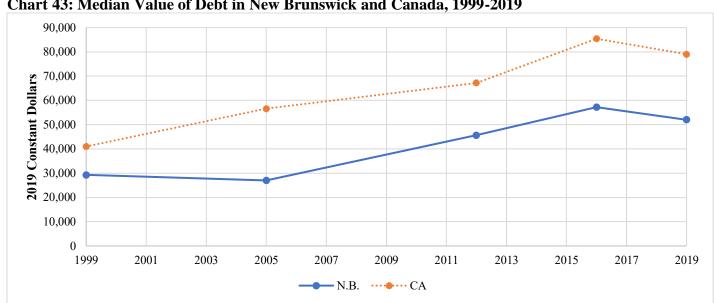


Chart 43: Median Value of Debt in New Brunswick and Canada, 1999-2019

#### **II.** Components of Assets

Total assets are divided into four main components: private pension assets, non-pension financial assets, non-financial assets (mainly real estate and vehicles) and equity in business. <sup>11</sup> In 1999, non-financial assets made up the largest share of total assets in New Brunswick (45.3 per cent), followed by private pension assets (35.2 per cent), then equity in business (11.1 per cent), and finally non-pension financial assets (8.3 per cent). By 2019, private pension assets had become the leading component (46.2 per cent), followed by non-financial assets (42.3 per cent), then non-pension financial assets (8.6 per cent), and finally equity in business (2.9 per cent). Employer-sponsored Registered Pension Plans (EPPs) were the largest individual component of assets in New Brunswick, accounting for 35.7 per cent of total assets. In 2019, the median value of EPPs in New Brunswick was \$196,400, 119.1 per cent of the national median. Real estate followed with the second largest share of total assets, at 32.5 per cent. The median value of assets in real estate in New Brunswick was \$155,000, only 38.8 per cent of the national median.

The breakdown of assets was different at the national level in 2019. In particular, at 51.4 per cent, non-financial assets made up the largest share of the total value of assets at the national level, exceeding the share of non-financial assets in total value of assets in New Brunswick by 9.1 points. This was largely due to the fact that real estate accounted for 46.0 per cent of the value of total assets at the national level but only 32.5 per cent of the total value of assets in New Brunswick. This is consistent with the fact that house prices are much lower in New Brunswick than the national average, as will be discussed in part three of this report.

Furthermore, at the national level, private pension assets accounted for only 29.0 per cent of total assets, 17.2 percentage points below the share of private pension assets in the total assets in New Brunswick. This was due to the fact that EPPs accounted for 35.7 per cent of total assets in New Brunswick but only 18.5 per cent of total assets in Canada.

#### III. Components of Debt

Total debt is divided into mortgage debt and non-mortgage debt, which is composed of line of credit, credit card and installment debt, student loans, vehicle loans, and other debt. In 2019, mortgage debt made up 67.6 per cent of total debt in New Brunswick. The leading component of non-mortgage debt was vehicle loans, which accounted for 16.5 per cent of total debt.

Mortgage debt accounted for the majority of total debt in both New Brunswick and Canada in all Survey of Financial Security years between 1999 and 2019. Moreover, the share of mortgage debt in total debt increased between 1999 and 2019 in both New Brunswick and Canada (by 7.9 percentage points and 3.4 percentage points, respectively). That said, mortgage debt made up a larger share of total debt at the national level. Mortgage debt accounted for between 59.0 per cent (in 2005) and 67.6 per cent (in 2019) of total debt in New Brunswick. At the national level, mortgage debt made up between 75.3 per cent (in 2005) and 80.8 per cent (in

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<sup>&</sup>lt;sup>11</sup> For details, see

2019) of total debt. The lower share of mortgage debt in total debt in New Brunswick is consistent with the fact the house prices in New Brunswick are lower than the national average.

In 2019, the median value of mortgage debt in New Brunswick was \$96,000, 50.5 per cent of the national median. Between 1999 and 2019, the median value of mortgage debt in New Brunswick varied between 47.4 per cent (in 2016) and 53.8 per cent (in 2005) of the national median.

#### IV. Net Worth by After-Tax Income Quintile

This section examines net worth by after-tax income quintile. Unsurprisingly, the data show a positive correlation between after-tax income quintiles and net worth. That is, the higher the after-tax income quintile, the higher the total net worth. That said, the relationship is not perfect. In particular, the relationship between after-tax income and wealth varies by age. For example, seniors tend to have a higher average net worth but a lower average income than younger age groups because they have had many years to accumulate wealth and because a significant number of persons begin to leave the workforce around age 65.

#### A. Average Net Worth by After-tax Income Quintile

Between 1999 and 2019 in New Brunswick, the average net worth of the fifth quintile (the 20 per cent of economic units with the highest after-tax income) grew at a compound annual rate of 2.56 per cent, the strongest growth of all five quintiles over the period (Chart 44). The average net worth of the first quintile grew by 2.19 per cent per year, the second strongest growth of the five quintiles. The second quintile saw the weakest growth in its average net worth, at a rate of 0.96 per cent per year. The average net worth of the third and fourth quintiles grew by 1.23 per cent and 1.65 per cent per year, respectively.

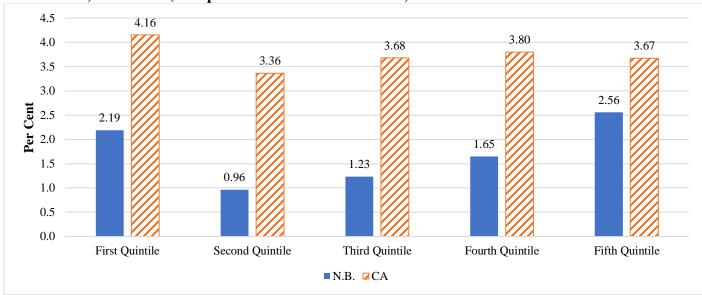
Growth in average net worth was much stronger at the national level between 1999 and 2019. The first quintile saw the strongest growth in its average net worth, at 4.16 per cent per year, 1.96 points above the growth in the average net worth of the first quintile in New Brunswick. For the other four quintiles, average net worth growth ranged from 3.36 per cent per year (for the second quintile) to 3.80 per cent per year (for the fourth quintile). The largest relative gap between average net worth growth by quintile in Canada in New Brunswick was between the second quintiles; the second quintile in Canada grew at more than three times the rate that did the second quintile in New Brunswick.

Unsurprisingly, the average net worth of all five after-tax income quintiles in New Brunswick was much lower than the average net worth of the corresponding after-tax income quintile at the national level. The gaps between average income by quintile in New Brunswick and in Canada widened significantly between 1999 and 2019 as a result of the stronger growth rates experienced by the quintiles at the national level.

The average net worth of the bottom after-tax income quintile increased by about 54 per cent from \$61,500 (63.2 per cent of the national average) in 1999 to \$94,900 (43.2 per cent of the national average) in 2019 (Panel A and Panel B of Table 22). The third quintile saw its average

net wealth rise from \$242,700 (84.0 per cent of the national average) in 1999 to \$310,200 (52.1 per cent of the national average) in 2019. The average net worth of the fifth quintile increased by about 66 per cent from \$535,500 (67.4 per cent of the national average) to 887,400 (54.3 per cent of the national average).

Chart 44: Growth in Average Net Worth by After-Tax Income Quintile, New Brunswick and Canada, 1999-2019 (Compound Annual Growth Rates)



Source: Statistics Canada, Table 11-10-0057-01

Table 22: Average Net Worth by After-Tax Income Quintile, New Brunswick and Canada, 1999 and 2019

Panel A: Average Net Worth (Thousands of 2019 constant dollars)

Average Net	First Quintile		Second Quintile		Third Q	uintile	Fourth Q	uintile	Fifth Quintile		
Worth	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.	
1999	97.3	61.5	197.6	136.1	288.9	242.7	407.0	314.9	794.4	535.5	
2019	219.7	94.9	383.0	164.9	595.4	310.2	858.3	436.9	1,634.8	887.4	

Panel B: Average Net Worth in New Brunswick as a Proportion of the Average Net Worth in Canada

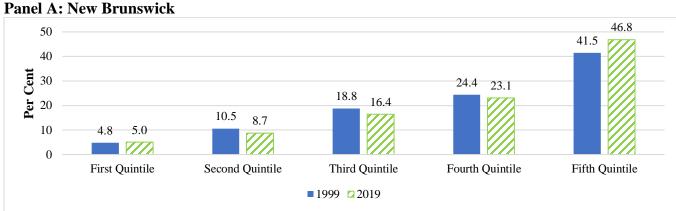
Per Cent	First	Second	Third	Fourth	Fifth
	Quintile	Quintile	Quintile	Quintile	Quintile
1999	63.2	68.9	84.0	77.4	67.4
2019	43.2	43.1	52.1	50.9	54.3

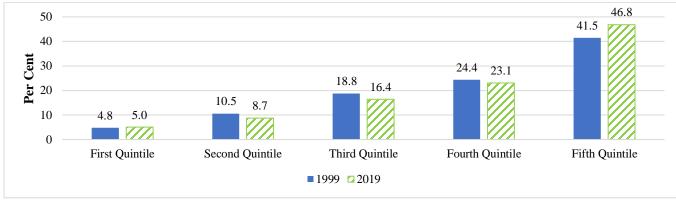
#### B. Share of Net Worth by After-Tax Income Quintile

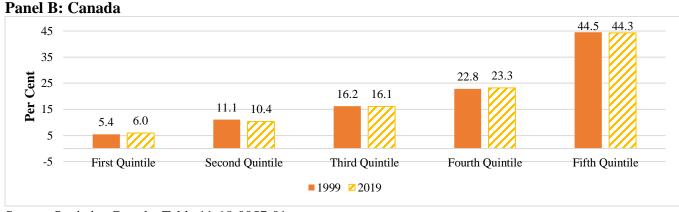
In New Brunswick, the share of net worth belonging to the fifth after-tax income quintile increased from 41.5 per cent in 1999 to 46.8 per cent in 2019 (Panel A of Chart 45). The first quintile saw its share of net worth increase, from 4.8 per cent in 1999 to 5.0 per cent in 2019. On the other hand, the shares of net worth belonging to the other three quintiles all fell between 1999 and 2019.

At the national level, the share of wealth belonging to the fifth after-tax income quintile decreased slightly, from 44.5 per cent in 1999 to 44.3 per cent in 2019 (Panel B of Chart 45). The second and third quintiles also saw modest declines in their shares of net worth. In contrast, the shares of wealth belonging to the first and fourth quintiles rose slightly over the 1999-2019 period. The share of net worth belonging to the first quintile increased from 5.4 per cent to 6.0 per cent.

Chart 45: Share of Total Net Worth by After-Tax Income Quintile, New Brunswick and Canada, 1999 and 2019







# Part Three: Housing Affordability, 2000-2019

This part of the report relates the findings about trends in income and income distribution to housing affordability. Housing affordability is an important component of living standards.

#### I. Housing Affordability Measures, 2000-2019

There are several different measures of housing affordability. For the most part, the measures analyzed in this report tell a similar story: housing is more affordable in New Brunswick than in Canada as a whole. Housing affordability has generally improved in New Brunswick over the last two decades, although not when the sole cost measure is MLS resale housing prices.

According to the Canada Mortgage and Housing Corporation, housing is considered affordable if it costs less than 30 per cent of a household's pre-tax income. By this metric, New Brunswick was the most affordable province in 2005, 2010 and 2015. In 2015, 16.6 per cent of households in New Brunswick spent 30 per cent or more of their income on housing (Database Table xx). This was the lowest proportion of all the provinces and 6 percentage points below the national average of 23.6 per cent (Chart 46). Moreover, the per cent of New Brunswick households spending 30 per cent or more of their income on housing in 2015 was down 2.4 percentage points (12.6 per cent) from 2005, the second largest relative and absolute improvement in affordability of the provinces.

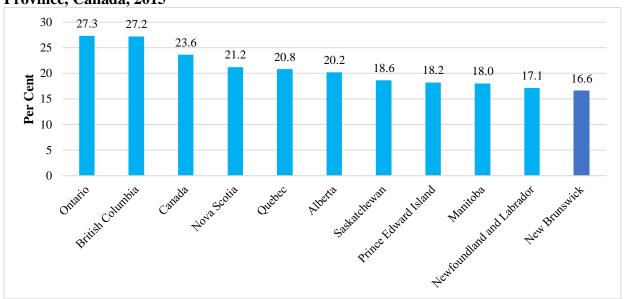


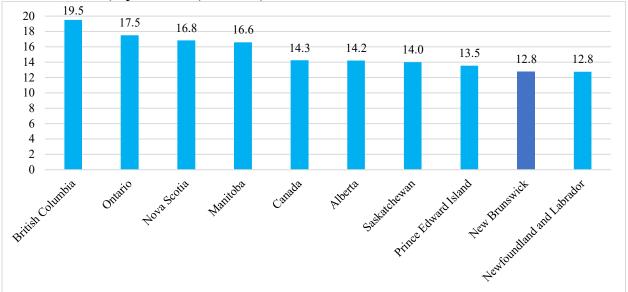
Chart 46: Per Cent of Households Spending 30% or More of Their Income on Housing by Province, Canada, 2015

Source: Statistics Canada, 2016 census data, catalogue no. 98-400-X2016228

Another measure of housing affordability is the average annual rent for a two-bedroom apartment as a per cent of pre-tax median income (median total income) of census families. Census families include couples living in the same dwelling with or without children and single parents

living with one or more children (it is a narrower definition than that of economic families, which also include, for example, co-resident siblings). In 2000, the average annual rent for a two-bedroom apartment in New Brunswick cost 14.3 per cent of pre-tax median income, 1.0 points below the national average (Database Table xx). By 2010, this proportion had fallen to 12.9 per cent, a decrease of 1.4 points (9.8 per cent), the second largest relative and absolute decrease of all the provinces. Between 2010 and 2019, this proportion fell by an additional 0.1 points (0.7 per cent), reaching 12.8 per cent in 2019, 1.5 points below the national average (14.3 per cent). New Brunswick was tied with Newfoundland and Labrador for the lowest proportion of the provinces in 2019 (Chart 47).

Chart 47: Average Annual Rent of a Two-Bedroom Apartment as a Per Cent of Pre-Tax Median Income, by Province, Canada, 2019



Sources: average rent: Canada Mortgage and Housing Corporation, Housing Market Information Portal at <a href="https://www03.cmhc-schl.gc.ca/hmip-pimh/en#TableMapChart/1/1/Canada">https://www03.cmhc-schl.gc.ca/hmip-pimh/en#TableMapChart/1/1/Canada</a>; median total income: Statistics Canada, Table 11-10-0009-01

A third measure of housing affordability is the proportion of wages that full-time workers aged 15 to 24 spend on a one-bedroom apartment. At 26.6 per cent, New Brunswick was the most affordable province in Canada in 2019 and was 6.7 percentage points below the national average of 33.3 per cent (Chart 48). This proportion was down 1.3 points (4.9 per cent) from 27.9 per cent in 2008, indicating a slight improvement in in the affordability of apartments for persons aged 15 to 24 (Database Table xx). New Brunswick was tied with Nova Scotia for second largest relative decrease in the proportion from 2008 to 2019.

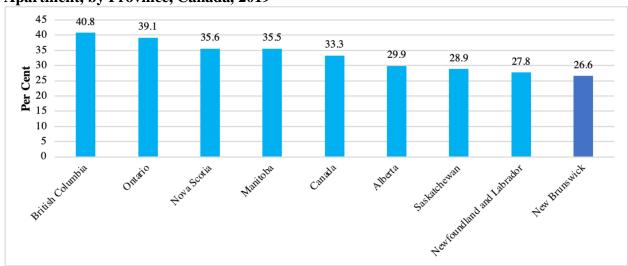


Chart 48: Proportion of Wages Full-Time Workers Aged 15-24 Spend on a One-Bedroom Apartment, by Province, Canada, 2019

Sources: price of a one-bedroom apartment: Canada Mortgage and Housing Corporation. Housing Market Information Portal at <a href="https://www03.cmhc-schl.gc.ca/hmip-pimh/en#TableMapChart/1/1/Canada">https://www03.cmhc-schl.gc.ca/hmip-pimh/en#TableMapChart/1/1/Canada</a>; average wages: Statistics Canada, Table 14-10-0340-01

A fourth measure of housing affordability examined in this report is the ratio of MLS average residential prices to median census family pre-tax income. The Canadian Real Estate Association (CREA) produces data on the Multiple Listing Service (MLS) average annual residential prices. The MLS average residential prices are calculated by dividing the total dollar volume of sales in a given year by the total number of sales during that same year. These data are based on resale residential housing activity. Data for New Brunswick were available from 2000 to 2019, while data for Canada were available only from 2000 to 2017.

Consistent with the first three measures of housing affordability, the ratio of MLS average residential prices to median census family pre-tax income indicates that housing is much more affordable in New Brunswick than it is on average in Canada. However, unlike the other three measures, this measure suggests a slight deterioration in housing affordability in New Brunswick between 2000 and 2019, although the national deterioration was much worse. In 2000, there was a 2.12 to 1 ratio between the MLS average residential price and the median pre-tax census family income in New Brunswick (Chart 49). The national ratio was almost 50 per cent greater, at 3.23 to 1. In 2017, the New Brunswick ratio was 2.21 to 1, while the Canadian ratio was 5.89 to 1. In other words, the gap between housing affordability in New Brunswick and at the national level widened between 2000 and 2017. In 2019, the ratio was 2.27 to 1 in New Brunswick, up 0.15 points from 2000.

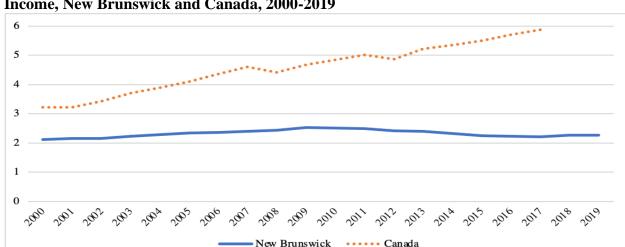


Chart 49: Ratio of MLS Average Residential Prices to Median Pre-Tax Census Family Income, New Brunswick and Canada, 2000-2019

Sources: Income: Statistics Canada, Table 11-10-0009-01; MLS average residential prices: CREA special request

### II. Relationship Between Income and Housing Affordability, 2000-2019

Increased income is part of the solution to housing affordability, but when housing supply is not perfectly elastic, increased income can also lead to increased housing prices. Moreover, the analysis in section I of this part of the report showed that, even though income in New Brunswick is lower than the national average, housing is more affordable in the province.

Between 2000 and 2019, the shelter components of the Consumer Price Index in New Brunswick increased by 42.8 per cent. The shelter index has two major components: rented accommodation (which includes rent, insurance, and maintenance and repairs) and owned accommodation (which includes homeowners' replacement cost, mortgage interest, property tax, insurance, and maintenance and repairs). The cost of rented accommodation increased by 21.0 per cent between 2000 and 2019, while owned accommodation rose by 36.3 per cent (Panel A of Chart 50). Meanwhile, the new housing price index (including house and land) increased by 30.3 per cent in New Brunswick from 2000 to 2019. Overall, however, the CPI rose by 43.3 per cent over the 2000-2019 period, outpacing the price increases in rented and owned accommodation and those in new housing (Database Table xx).

At the national level, from 2000 to 2019, the CPI shelter index increased by 51.2 per cent, 8.4 points above the increase in the New Brunswick index over the period. The price increases for both rented accommodation and owned accommodation at the national level exceeded those in New Brunswick (29.2 per cent versus 21.0 per cent for rented accommodation and 55.9 per cent versus 36.3 per cent for owned accommodation) (Panel B of Chart 50). The CPI rose 43.3 percent over the 2000-2019 period. Hence, while the price of rented accommodation lagged behind inflation at the national level, in contrast to the trends observed in New Brunswick, increases in

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<sup>&</sup>lt;sup>12</sup> Shelter also includes water, fuel and electricity.

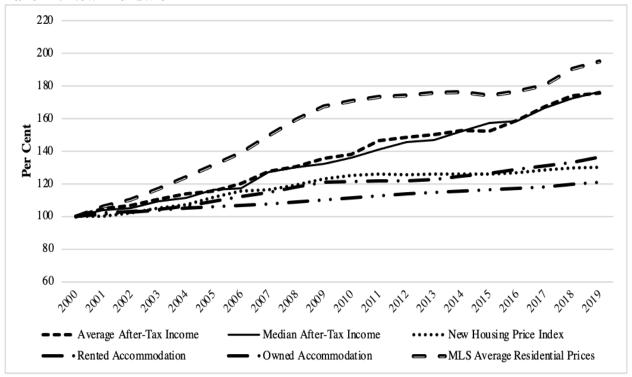
the new housing prices and in the prices of rental accommodation both exceeded the CPI increase at the national level between 2000 and 2019.

Comparing the growth of MLS average residential prices to the growth of nominal average and median income suggests a deterioration of the affordability of home ownership in both New Brunswick and Canada. Between 2000 and 2019 in New Brunswick, the MLS average residential price increased by 95.0 per cent from \$91,624 to \$178,651. Thus, the rate of price increase for resale homes was more than double that of the overall price increases, more than four times that of rented accommodation, more than two-and-a-half times that of owned accommodation and more than triple that of new housing units. The MLS average residential price increased at an even faster rate at the national level after 2000. In Canada, the MLS average residential price from \$164,050 in 2000 to \$500,000 in 2017, an increase of 204.8 per cent (more than twice the increase in the MLS average residential price in New Brunswick between 2000 and 2019).

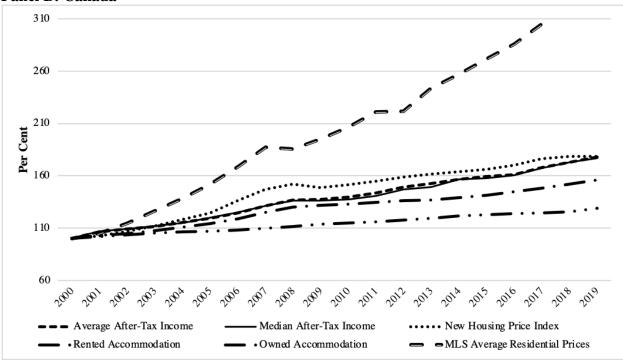
Meanwhile, the average nominal after-tax income of economic units (families and individuals) in New Brunswick rose by 75.5 per cent and the median after-tax income by 76.5 per cent between 2000 and 2019. These increases exceeded the price increases in rented and owned accommodation and in the new housing price index, suggesting that housing became more affordable in New Brunswick over the 2000-2019 period. On the other hand, nominal average and median after-tax income growth lagged behind growth in the MLS average residential price (by 19.5 points and 18.5 points, respectively). This suggests that resale housing units became less affordable in New Brunswick over the 2000-2019 period.

At the national level, between 2000 and 2019, nominal average and median after-tax income grew by 77.8 per cent and 76.9 per cent, respectively. Nominal average and median after-tax income growth outpaced growth in rented accommodation (29.2 per cent) and in owned accommodation (55.9 per cent). However, unlike in New Brunswick, in Canada, growth in average and median nominal after-tax income fell slightly short of growth in the new housing price index (78.2 per cent) over the 2000-2019 period. As was the case in New Brunswick, growth in the MLS average residential price outpaced that in nominal average and median after-tax income between 2000 and 2017. However, the gap was much wider at the national level (the increase in the MLS average residential price was more than triple the increases in nominal average and median-after tax income in Canada), indicating that affordability of resale homes deteriorated more in Canada.

Chart 50: Income to Housing Cost Growth in New Brunswick and Canada, 2000-2019 Panel A: New Brunswick







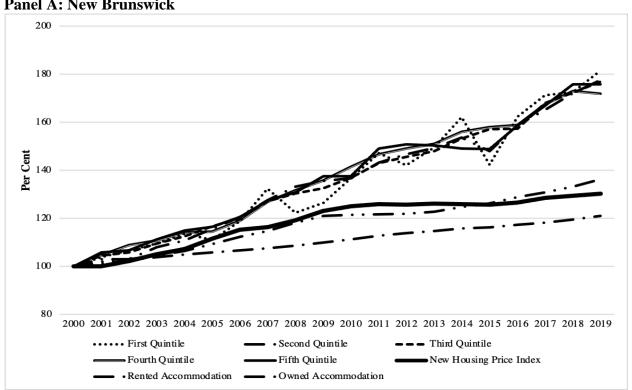
Sources: Income: Statistics Canada, Table 11-10-0190-01; CPI, rented accommodation and owned accommodation: Statistics Canada, Table 18-10-0005-01; New housing price index: Statistics Canada, Table 18-10-0205-01; MLS average residential prices: CREA special request

A deterioration in housing affordability carries more gravity for low-income households than it does for high-income households. For high-income households, a decrease in housing affordability implies a change to less desirable housing. On the other hand, for low-income households, a deterioration in housing affordability may imply a change to housing of poor quality or even homelessness.

In New Brunswick, the growth of the nominal average after-tax income of all quintiles exceeded that of the new housing price index and that of both rental accommodation and owned accommodation over the 2000-2019 period (Panel A of Chart 51). However, as was the case for average income, all quintiles had smaller increases in income than the price increase in the MLS average residential price.

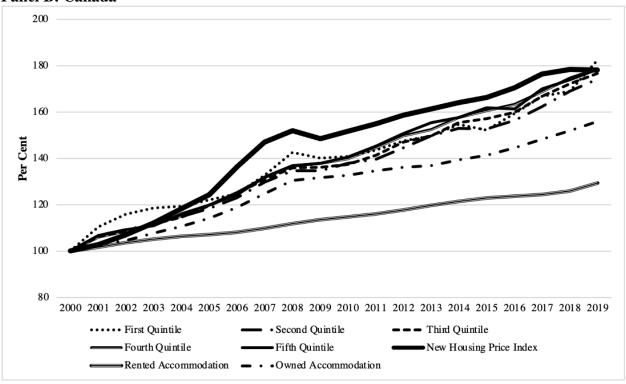
At the national level, growth of the nominal average after-tax income of all quintiles exceeded that of both rented accommodation and owned accommodation between 2000 and 2019 (Panel B of Chart 51). The first, fourth and fifth quintiles saw their nominal after-tax income growth slightly outpace the growth of the new housing price index, but the second and third quintiles saw their income growth lag slightly behind the growth of the new housing price index. All quintiles had smaller increases in income than the increase in the MLS average residential price between 2000 and 2017. As was the case for average income, the gap between the increase in the MLS average residential price and the increases in the income of the quintiles was much larger in Canada than in New Brunswick over the 2000-2017 period.

Chart 51: Nominal Average After-Tax Income Compared to the New Housing Price Index and to the Consumer Price Index, New Brunswick and Canada, 2000-2019 (2000=100)



Panel A: New Brunswick

Panel B: Canada



Source: Income: Statistics Canada, Table 11-10-0190-01; Rented accommodation and owned accommodation: Statistics Canada, Table 18-10-0005-01; New housing price index: Statistics Canada, Table 18-10-0205-01

#### **Conclusion**

This report has provided a detailed analysis of trends in income and wealth in New Brunswick compared to Canada as a whole. On all three measures of per capita income, the gap between New Brunswick and Canada narrowed significantly between 1981 and 2019. Similarly, average and median after-tax income both rose as a proportion of their national equivalents over the 1976-2019 period. Although income inequality increased over the last quarter of the 20<sup>th</sup> century, it stabilized thereafter. Key findings include:

- Between 1981 and 2019, real per capita GDP, personal income and personal disposable
  income were lower in New Brunswick than in Canada as a whole. However, as a result of
  stronger growth rates in New Brunswick, the gap between the New Brunswick levels and
  the corresponding national levels narrowed over the period.
- In both New Brunswick and Canada, the last quarter of the 20<sup>th</sup> century was a period of weak income growth and rising income inequality. The first 19 years of the 21<sup>st</sup> century then saw a significant improvement in income growth and a relative stabilization of inequality.
- New Brunswick outperformed the national average in terms of average and median after-tax income growth in the overall 1976-2019 period and between 1976 and 2000.
   However, growth in average and median after-tax income was slightly slower in New Brunswick than at the national level between 2000 and 2019.
- In New Brunswick and in Canada as a whole, Gini coefficients increased over the last quarter of the 20<sup>th</sup> century indicating rising income inequality and then stabilized. For most of the 1976-2019 period, New Brunswick's Gini coefficient of adjusted aftertax income was lower than that of Canada, meaning that after-tax income inequality was weaker in New Brunswick.
- Poverty rates in New Brunswick decreased significantly between 1976 and 2019.
- Although average and median wealth increased in New Brunswick between 1999 to 2019, the wealth gap between the province and Canada widened over the period.
- Housing affordability is an important indicator of living standards. Housing was more
  affordable in New Brunswick than in Canada overall throughout the first couple of
  decades of the 21<sup>st</sup> century. Moreover, New Brunswick saw some improvement in all
  measures of housing affordability except the ratio of MLS average residential prices to
  median income (this measure deteriorated slightly in the province, though by less than it
  did at the national level).

This report has thoroughly analyzed income trends in New Brunswick between 1976 and 2019. However, further research is needed to better understand these trends, particularly their effect on living standards in the province.

#### Research Addenda

In studying income trends in New Brunswick, this paper aimed to gain insight into living standards in the province. However, further research is needed to explain certain trends and to expand on understanding of living standards in New Brunswick.

A first important question is why national accounts-based income measures increased much more rapidly than did income per economic unit. One possible explanation for this is the large fall in share of those aged under 15 in the total population of New Brunswick between 1981 and 2019, as it would have benefited per capita income measures more than per economic unit income measure. The gap in growth rates may also have been impacted by the effect of the increase of the share of persons not in economic families in the total population depressing the average income growth of economic units. Future research is needed to verify these hypotheses and explore other possible explanations.

A major limitation of this report is that it does not compare the absolute levels of cost of living across provinces because data were not available. To better understand the implications of the income trends examined in this report for the standard of living in New Brunswick compared with that in the rest of Canada, research is needed to determine the absolute levels of the cost of living across provinces.

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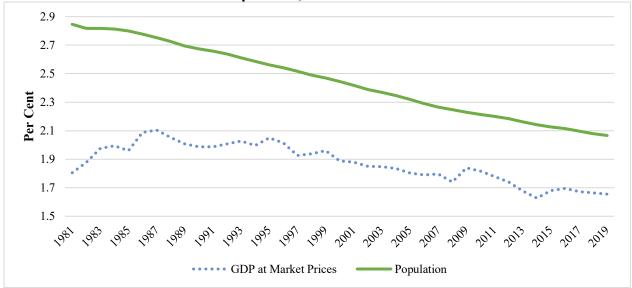
# **Appendices**

# Appendix I: Components of Income-Based GDP, 1981-2019

Appendix I briefly examines trends in the components of New Brunswick's GDP using data from the Provincial and Territorial Gross Domestic Product by Income and by Expenditure Accounts.

Chart A1 shows that New Brunswick's share of the Canadian population exceeded New Brunswick's share of Canada's nominal GDP between 1981 and 2019. New Brunswick's share of Canada's nominal GDP reached a peak of 2.10 per cent in 1987 (when New Brunswick represented 2.75 per cent of Canada's population) before falling (though not consistently) for the rest of the period. In 2019, New Brunswick accounted for 2.07 per cent of Canada's population but only 1.65 per cent of Canada's nominal GDP. The shares of all the major components of New Brunswick's GDP except for taxes less subsidies on products and imports fell between 1981 and 2019.





Sources: Population, Statistics Canada, Table 17-10-0005-01; GDP, Statistics Canada, Table 36-10-0221-01

#### i. Compensation of Employees

As was the case at the national level, compensation of employees represented by far the largest share of New Brunswick's GDP over the measurement period. Compensation of employees is defined as "the total remuneration, in cash or in kind, payable by an enterprise to an employee in return for work done by the latter during the accounting period" (SNA 2008, page 131). Compensation of employees is broken down into two components: wages and salaries (by far the more important component); and employers' social contributions. Overall, between 1981 and 2019, compensation of employees grew at a compound annual rate of 4.34 per cent in New

Brunswick, 0.34 points below compound annual GDP growth of 4.71 per cent (Table A2). As a result, the share of compensation of employees in New Brunswick's GDP fell from 58.9 per cent in 1981 to 51.5 per cent in 2019 (Panel A of Table A1). Labour compensation in New Brunswick also decreased as a share of national labour compensation, from 2.0 per cent in 1981 to 1.7 per cent in 2019 (Panel C of Table A1).

Between 1981 and 1989 in New Brunswick, compensation of employees grew at a compound annual rate of 7.57 per cent, slightly faster than the national rate of 7.50 per cent (Table A2). Growth of labour compensation in New Brunswick dropped below the national rate to 3.69 per cent per year between 1989 and 2000. Between 2000 and 2008, growth of compensation of employees in New Brunswick picked up to 4.41 per cent per year, but it remained below the national rate (5.07 per cent per year). Growth of compensation of employees dropped to 2.63 per cent per year in New Brunswick and to 3.34 per cent per year at the national level between 2008 and 2019.

In 1981, compensation of employees in New Brunswick was worth \$3,921 million, or 58.9 per cent of New Brunswick's GDP and 1.99 per cent of national compensation of employees (Panel A and Panel C of Table A1). Compensation of employees represented a smaller share of national GDP (53.4 per cent, as shown in Panel B of Table A1). By 2000 in New Brunswick, labour compensation had risen to \$10,474 million, or 50.13 per cent of New Brunswick's GDP and 1.90 per cent of national compensation of employees. New Brunswick's share of national compensation of employees continued to fall between 2000 and 2019. In 2019, labour compensation was worth \$19,688 million in New Brunswick, or 51.5 per cent of New Brunswick's GDP and 1.67 per cent of national labour compensation.

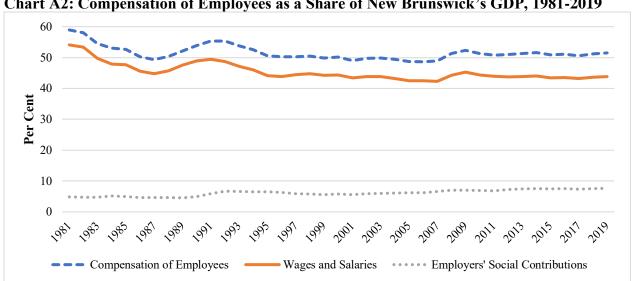


Chart A2: Compensation of Employees as a Share of New Brunswick's GDP, 1981-2019

#### ii. Gross Operating Surplus and Gross Mixed Income

The second and third most important components of GDP are gross operating surplus and gross mixed income, respectively. Gross operating surplus and gross mixed income are defined as "the surplus or deficit accruing from production before taking account of any interest, rent or similar charges payable on financial assets or natural resources borrowed or rented by the enterprise, or any interest, rent or similar receipts receivable on financial assets or natural resources owned by the enterprise" (SNA 2008, page 132). Gross operating surplus refers to the surplus (or deficit) of an incorporated enterprise, while gross mixed income refers to the surplus (or deficit) of an unincorporated enterprise.

Between 1981 and 1989, gross operating surplus in New Brunswick grew at a compound annual rate of 8.44 per cent, 0.96 points above the national rate (7.48 per cent). Growth in gross operating surplus dropped in both New Brunswick and Canada between 1989 and 2000, but the decline was greater in New Brunswick: between 1989 and 2000, New Brunswick's gross operating surplus grew 5.44 per cent per year, while national gross operating surplus grew 5.91 per cent per year. Growth continued to slow in New Brunswick but picked up at the national level between 2000 and 2008. Between 2008 and 2019, grow in gross operating surplus growth fell to 1.66 per cent per year in New Brunswick and to 2.16 per cent per year at the national level.

Between 1981 and 2019, gross operating surplus accounted for between 19.28 per cent (in 1992) and 29.99 per cent (in 2006) of New Brunswick's GDP. The share of gross operating surplus in national GDP fell within a similar range over the period (gross operating surplus accounted for between 19.21 per cent (in 1992) and 28.90 per cent (in 2008) of Canada's GDP). In 1981, gross operating surplus in New Brunswick was worth \$1,669 million, or 25.09 per cent of New Brunswick's GDP and 1.91 per cent of national GDP. The share of gross operating surplus in national GDP was slightly lower, at 23.69 per cent. In 2019, New Brunswick's gross operating surplus was \$9,203 million, or 24.07 per cent of New Brunswick's GDP and 1.52 per cent of national GDP.

Gross mixed income is much smaller than gross operating surplus; gross mixed income was less than half of gross operating surplus for the majority of the measurement period. Between 1981 and 2000, New Brunswick's gross mixed income grew at a compound annual rate of 5.58 per cent, below both New Brunswick's GDP growth and national gross mixed income growth (which were 6.21 per cent per year and 5.82 per cent per year, respectively). Growth of New Brunswick's gross mixed income fell 2.31 points to 3.27 per cent per year between 2000 and 2019.

In 1981, New Brunswick's gross mixed income was \$834 million, or 12.54 per cent of New Brunswick's GDP and 1.83 per cent of national GDP. In 2019, New Brunswick's gross mixed income was \$4,317 million, or 11.29 per cent of New Brunswick's GDP and 1.59 per cent of national GDP.

### iii. Taxes Less Subsidies on Production, Products and Imports

Taxes less subsidies on production, products and imports represent the smallest share of GDP in New Brunswick and nationally. Taxes less subsidies on production, products and imports are defined as "taxes payable or subsidies receivable on goods or services produced as outputs and other taxes or subsidies on production, such as those payable on the labour, machinery, buildings or other assets used in production" (SNA 2008, page 131). The share of taxes less subsidies on production in New Brunswick's nominal GDP fell from 4.31 per cent in 1981 to 3.80 per cent in 2019. In contrast, the share of taxes less subsidies on products and imports in New Brunswick's GDP rose from 0.15 per cent in 1981 to 9.34 per cent in 2019. Most of the increase took place between 1981 and 1989, as shown in Panel A of Chart A3. At the national level, the share of taxes less subsidies on products and imports rose from 4.43 per cent in 2019, while the share of taxes less subsidies on products and imports rose from 6.18 per cent in 1981 to 6.65 per cent in 2019.

Table A1: Components of Nominal GDP (Income-Based) in New Brunswick and Canada, 1981, 1989, 2000, 2008 and 2019

Panel A: Components of New Brunswick's Nominal GDP (Millions of current dollars)

	Compensa	tion of	Gross Operating		Gross Mixed		Taxes Less		Taxes Less		Statistical		GDP at
	Employ	rees	Sur	plus	Income		Subsidies on		Subsidies on		Discrepancy		Market
							Production		Products and				Prices
		•							Imports				
	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share	Value	Share	
		of GDP		of GDP		of GDP		of GDP		of GDP		of GDP	
1981	3,921	58.9	1,669	25.1	834	12.5	287	4.3	10	0.2	-70	-1.1	6,652
1989	7,029	52.1	3,192	23.7	1,675	12.4	390	2.9	1,255	9.3	-56	-0.4	13,484
2000	10,474	50.1	5,714	27.3	2,342	11.2	659	3.2	1,687	8.1	17	0.1	20,893
2008	14,793	51.3	7,678	26.6	2,979	10.3	979	3.4	2,394	8.3	19	0.1	28,842
2019	19,688	51.5	9,203	24.1	4,317	11.3	1,454	3.8	3,573	9.3	1	0.0	38,236

Panel B: Components of Canada's Nominal GDP

	Compen Empl		Gross Operating Surplus		Gross Mixed Income		Taxes Less Subsidies on Production		Taxes Less Subsidies on Products and Imports		Statistical Discrepancy		GDP at Market Prices
	Value	Share of GDP	Value	Share of GDP	Value	Share of GDP	Value	Share of GDP	Value	Share of GDP	Value	Share of GDP	
1981	196,780	53.4	87,282	23.7	45,485	12.3	15,674	4.3	22,765	6.2	372	0.1	368,358
1989	350,860	52.2	155,393	23.1	85,136	12.7	30,021	4.5	51,090	7.6	-921	-0.1	671,579
2000	552,023	49.9	292,184	26.4	133,236	12.0	51,032	4.6	78,615	7.1	-1,019	-0.1	1,106,071
2008	819,727	49.5	478,958	28.9	188,491	11.4	67,543	4.1	101,996	6.2	326	0.0	1,657,041
2019	1,176,732	50.9	606,115	26.2	271,871	11.8	102,457	4.4	153,695	6.7	-158	0.0	2,310,712

Panel C: New Brunswick's Nominal GDP as a Share of Canada's Nominal GDP, by Component, 1981, 1989, 2000, 2008 and 2019

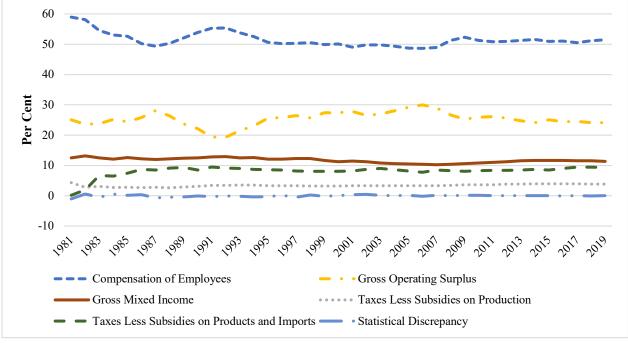
Per Cent	Compensation of	Gross Operating	Gross Mixed	Taxes Less	Taxes Less	GDP at Market
	Employees	Surplus	Income	Subsidies on	Subsidies on	Prices
				Production	Products and Imports	
1981	1.99	1.91	1.83	1.83	0.04	1.81
1989	2.00	2.05	1.97	1.30	2.46	2.01
2000	1.90	1.96	1.76	1.29	2.15	1.89
2008	1.80	1.60	1.58	1.45	2.35	1.74
2019	1.67	1.52	1.59	1.42	2.32	1.65

Table A2: Growth of Nominal GDP in New Brunswick and Canada, by Component, 2981-2019 (Compound Annual Growth Rate)

							30111p0110110, 2 × 01 2012 (30111p001110 11111100 310 1101 11010)					
Compound	Compensation of		Gross Operating		Gross Mixed		Taxes Less		Taxes Less		GDP at Market	
Annual	Empl	oyees	Sur	plus	Income		Subsidies on		Subsidies on		Prices	
Growth							Produ	action	Produc	cts and		
Rate									Imports			
	N.B.	CAN	N.B.	CAN	N.B.	CAN	N.B.	CAN	N.B.	CAN	N.B.	CAN
1981-2019	4.34	4.82	4.60	5.23	4.42	4.82	4.36	5.06	16.73	5.15	4.71	4.95
1981-2000	5.31	5.58	6.69	6.57	5.58	5.82	4.47	6.41	30.98	6.74	6.21	5.96
2000-2019	3.38	4.06	2.54	3.92	3.27	3.83	4.25	3.74	4.03	3.59	3.23	3.95
1981-1989	7.57	7.50	8.44	7.48	9.11	8.15	3.91	8.46	82.95	10.63	9.23	7.80
1989-2000	3.69	4.21	5.44	5.91	3.09	4.16	4.88	4.94	2.73	4.00	4.06	4.64
2000-2008	4.41	5.07	3.76	6.37	3.05	4.43	5.07	3.57	4.47	3.31	4.11	5.18
2008-2019	2.63	3.34	1.66	2.16	3.43	3.39	3.66	3.86	3.71	3.80	2.60	3.07

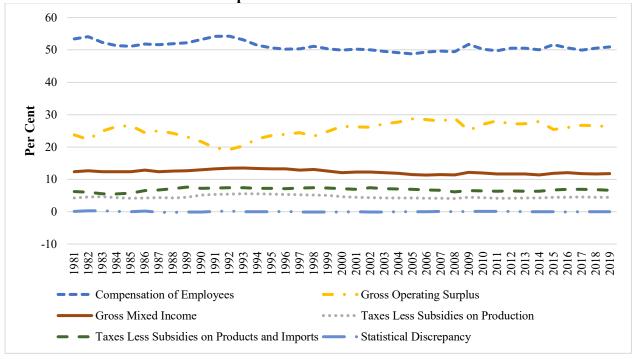
Chart A3: Share of Individual Components of Nominal GDP (Income-Based), New Brunswick, Total Economy, 1981-2019

Panel A: Share of Individual Components of New Brunswick's GDP



Source: Statistics Canada, Table 36-10-0221-01

Panel B: Share of Individual Components of Canada's GDP



## Appendix II: Trends in Average and Median After-Tax Income of Economic Families and Unattached Individuals in New Brunswick and in Canada, 1976-2019

#### I. After-Tax Income of Economic Families

Table A5 provides the compound annual growth rates of average and median income of economic families in New Brunswick and in Canada.

#### A. Average After-Tax Income of Economic Families

#### i. Trends in Average After-Tax Income of Economic Families

As was the case for all economic units, the average after-tax income of economic families in New Brunswick grew at a faster rate than the average after-tax income of economic families at the national level over the 1976-2019 period and between 1976 and 2000. Between 1976 and 2000, the average after-tax income of economic families in New Brunswick grew at a compound annual rate of 0.45 per cent, outpacing the national rate by 0.13 points (Panel A and Panel B of Table A5). On the other hand, between 2000 and 2019, the average after-tax income of economic families in New Brunswick rose by 1.26 per cent per year, 0.11 points below the national rate (1.37 per cent per year).

In 1976, the average after-tax income of economic families in New Brunswick was \$58,000, 81.5 per cent of the national average. In 2019, the average after-tax income of economic families in New Brunswick was \$81,900, 82.4 per cent of the national average. Between 1976 and 2019, the average after-tax income of economic families in New Brunswick varied between a minimum of 80.6 per cent (in 2014) and a maximum of 86.8 per cent (in 1993) of the national average.

#### ii. Components of Average After-Tax Income of Economic Families

During the 1976-2000 period, average market income for economic families in New Brunswick grew 0.66 per cent per year. Average government transfers grew 0.56 per cent per year, and total income grew 0.65 per cent per year. Average income tax grew at 1.72 per cent per year, reducing after-tax income growth to 0.45 per cent per year.

Between 2000 and 2019, the average market income of economic families in New Brunswick rose at a compound annual rate of 1.07 per cent, up 0.41 points from the 1976-2000 rate. Average government transfers to economic families grew at 1.69 per cent per year (up 1.13 points from the 1976-2000 rate), boosting average total income growth to 1.16 per cent per year (up 0.51 points from the 1976-2000 rate). On the other hand, average income tax grew by 0.70 per cent per year (down 1.02 points from the 1976-2000 rate), reducing average after-tax income growth to 1.26 per cent per year.

While the growth of average market income of economic families in New Brunswick continued to outpace that of economic families at the national level over the 2000-2019 period, growth in average government transfers was stronger at the national level, and growth in average income tax was weaker at the national level. Consequently, average after-tax income growth at the national level outpaced that in New Brunswick by 0.11 points.

#### **B.** Median After-Tax Income of Economic Families

#### i. Trends in Median After-Tax Income of Economic Families

Overall, between 1976 and 2019, the median after-tax income of economic families in New Brunswick grew at a compound annual rate of 0.63 per cent, 0.04 points below the national rate. Between 1976 and 2000, the median after-tax income of economic families in New Brunswick grew at a compound annual rate of 0.14 per cent, much weaker than the growth rate of the average after-tax income of economic families in New Brunswick but slightly stronger than the growth rate of the median after-tax income of economic families at the national level (0.09 per cent) (Panel C and Panel D of Table A3). Growth in the median after-tax income of economic families in New Brunswick picked up to 1.24 per cent per year between 2000 and 2019 but fell short of the corresponding national growth rate (1.40 per cent per year). The growth rate of median after-tax income between 2000 and 2019 was nearly identical to that of average after-tax income over the period (1.26 per cent per year). This was consistent with the relative stabilization of after-tax income inequality over the period.

In 1976, the median after-tax income of economic families in New Brunswick was \$54,900, 84.3 per cent of the national median. In 2019, the median after-tax income of economic families in New Brunswick was \$71,800, 82.8 per cent of the national median.

#### ii. Components of Median After-Tax Income of Economic Families

The median market income of economic families in New Brunswick grew at a compound annual rate of 0.14 per cent between 1976 and 2000. Median government transfers to economic families in New Brunswick grew by 2.06 per cent per year, boosting total income growth to 0.21 per cent per year. On the other hand, the median income tax collected from economic families increased by 1.32 per cent per year, reducing median after-tax income growth to 0.14 per cent per year.

From 2000 to 2019, the median market income of economic families in New Brunswick grew at a compound annual rate of 0.85 per cent, up 0.71 points from the 1976-2000 rate. Growth in median government transfers also picked up, increasing to 3.18 per cent per year over the period and boosting median total income growth to 1.20 per cent per year. In contrast, median income tax rose by 0.82 per cent per year, down 0.50 points from the 1976-2000 rate.

Compound annual growth in median market income and in median government transfers was stronger at the national level, while growth in median income tax was weaker at the national level during the 2000-2019 period. These three factors contributed to the national growth rate of

the median after-tax income of economic families outpacing that in New Brunswick by 0.16 points between 2000 and 2019.

Similar to the trends observed for all economic units, the median after-tax income of economic families in New Brunswick fell as a proportion of the average after-tax income of economic families in New Brunswick between 1976 and 2000 before becoming relative more stable over the 2000-2019 period. The median after-tax income of economic families in New Brunswick fell from 94.7 per cent of the average after-tax income of economic families in 1976 to 87.9 per cent in 2000, mirroring the increase in after-tax income inequality observed at the level of all economic units in section II. In 2019, the median after-tax income of economic families in New Brunswick was 87.7 per cent of the average after-tax income, only 0.02 points below the proportion in 2000, consistent with the relative stabilization of inequality observed for all economic units.

Table A3: Annual Growth Rate of Average and Median Income, Government Transfers, and Tax for Economic Families in New Brunswick and in Canada, 1976-2019 (Compound Annual Growth Rates)

Panel A: Average Income in New Brunswick

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Average	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income				
1976-2019	0.84	1.06	0.87	1.27	0.81				
1976-2000	0.66	0.56	0.65	1.72	0.45				
2000-2019	1.07	1.69	1.16	0.70	1.26				

Panel B: Average Income in Canada

Average	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income
1976-2019	0.68	1.83	0.79	0.85	0.78
1976-2000	0.41	1.68	0.52	1.46	0.32
2000-2019	1.02	2.03	1.13	0.08	1.37

#### **Panel C: Median Income in New Brunswick**

Median	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income
1976-2019	0.45	2.55	0.64	1.10	0.63
1976-2000	0.14	2.06	0.21	1.32	0.14
2000-2019	0.85	3.18	1.20	0.82	1.24

#### Panel D: Median Income in Canada

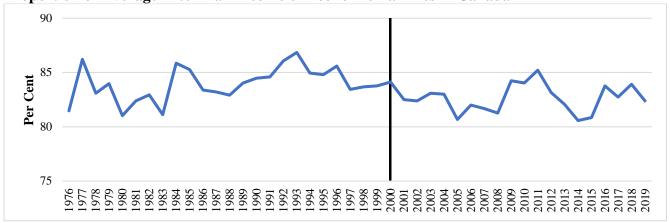
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Median	Market	Government	Total Income	Income Tax	After-Tax					
	Income	Transfers			Income					

1976-2019	0.45	3.16	0.63	0.56	0.67
1976-2000	0.06	2.12	0.22	1.00	0.09
2000-2019	0.94	4.49	1.17	0.00	1.40

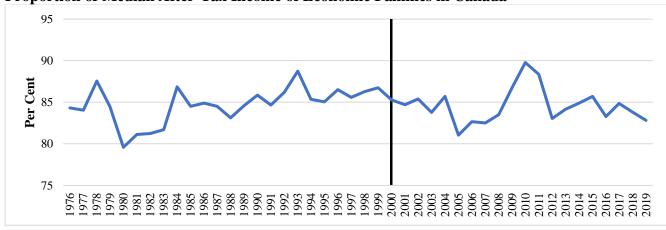
Source: Statistics Canada, Table 11-10-0190-01

Chart A4: After-Tax Income of Economic Families in New Brunswick as a Proportion of After-Tax Income of Economic Families in Canada, 1976-2019

Panel A: Average After-Tax Income of Economic Families in New Brunswick as a Proportion of Average After-Tax Income of Economic Families in Canada



Panel B: Median After-Tax Income of Economic Families in New Brunswick as a Proportion of Median After-Tax Income of Economic Families in Canada



Source: Statistics Canada, Table 11-10-0190-01

#### II. After-Tax Income of Persons Not in an Economic Family

#### A. Average After-Tax Income of Persons Not in an Economic Family

i. Trends in Average After-Tax income of Persons Not in an Economic Family

Growth in the average after-tax income of unattached individuals in New Brunswick outpaced that in the average after-tax income of unattached individuals at the national level over the 1976-2019 period and during the 1976-2000 and 2000-2019 subperiods. Between 1976 and 2000, the average after-tax income of unattached individuals in New Brunswick grew at a compound annual rate of 0.60 per cent, 0.39 points above the national rate. During the 2000-2019 period, growth in the average after-tax income of unattached individuals in New Brunswick picked up to 1.39 per cent per year, outpacing the national rate by 0.26 points.

In 1976, the average after-tax income of unattached individuals in New Brunswick was \$22,2000, 74.7 per cent of the national average. In 2019, the average after-tax income of unattached individuals in New Brunswick was \$33,300, 86.3 per cent of the national average. Notably, the gap between average income in New Brunswick and at the national level was larger among unattached individuals than among economic families in 1976 but smaller among unattached individuals than among economic families in 2019.

#### ii. Components of Average After-Tax Income of Persons Not in an Economic Family

The average market income of unattached individuals in New Brunswick grew at a compound annual rate of 0.55 per cent between 1976 and 2000. Average government transfers grew by 1.24 per cent per year, boosting total income growth to 0.74 per cent per year. Average income tax increased by 1.92 per cent per year, reducing average after-tax income growth to 0.60 per cent per year.

Between 2000 and 2019, the average market income of unattached individuals in New Brunswick rose at a compound annual rate of 1.71 per cent, nearly triple the pre-2000 rate. On the other hand, average government transfers grew at a weaker rate and average income tax at a stronger rate than between 1976 and 2000. However, the large improvement in average market income growth was enough to drive a 0.79-point increase in average after-tax income growth relative to the 1976-2000 period.

Average market, total and after-tax income growth for unattached individuals in New Brunswick outpaced the corresponding national rates during both the 1976-2000 and the 2000-2019 periods.

#### B. Median After-Tax Income of Persons Not in an Economic Family

#### i. Trends in Median After-Tax Income of Persons Not in an Economic Family

In contrast to the trends observed for economic families, growth in the median after-tax income of unattached individuals in New Brunswick outperformed growth in the average after-tax income between 1976 and 2019 and between the subperiods 1976-2000 and 2000-2019. Between 1976 and 2000, the median after-tax income of unattached individuals in New Brunswick grew at a compound annual rate of 1.47 per cent, 1.40 points above the national rate (0.07 per cent) (Panel C and Panel D of Table A4). During the 2000-2019 period, growth in the median after-tax income of unattached individuals in New Brunswick rose to 1.71 per cent per year, 0.43 points above the national rate (1.28 per cent per year).

In 1976, the median after tax income of unattached individuals in New Brunswick was \$14,800, 59.4 per cent of the national median. Between 1976 and 2019, the median after-tax income of unattached individuals in New Brunswick nearly doubled, reaching \$29,000 (90.1 per cent of the national median) in 2019.

#### ii. Components of Median After-Tax Income of Persons Not in an Economic Family

Between 1976 and 2000, the median market income of unattached individuals in New Brunswick grew at a compound annual rate of 0.61 per cent. In contrast, the median market income of unattached individuals fell by 0.64 per cent per year at the national level. Median government transfers grew by 1.52 per cent per year for unattached individuals in New Brunswick, boosting total income growth to 1.73 per cent per year. On the other hand, the median income tax rose at a compound annual rate of 7.59 per cent between 1978 and 2000, reducing median after-tax income growth to 1.47 per cent per year.

During the 2000-2019 period, the median market income of unattached individuals in New Brunswick grew at a compound annual rate of 2.78 per cent, more than four and a half times the rate over the 1976-2000 period. On the other hand, growth in median government transfers slowed slightly to 1.46 per cent per year, while the median income tax rose by 2.94 per cent per year (down 4.65 points from the pre-2000 rate).

Median market, total and after-tax income growth for unattached individuals in New Brunswick outperformed the corresponding national rates between 1976 and 2000 and between 2000 and 2019.

Table A4: Annual Growth Rate of Average and Median Income, Government Transfers, and Tax for Persons Not in an Economic Family in New Brunswick and in Canada, 1976-2019 (Compound Annual Growth Rates)

**Panel A: Average Income in New Brunswick** 

Average	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income
1976-2019	1.06	1.04	1.06	1.84	0.95
1976-2000	0.55	1.24	0.74	1.92	0.60
2000-2019	1.71	0.80	1.46	1.75	1.39

Panel B: Average Income in Canada

Average	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income
1976-2019	0.48	1.60	0.66	0.97	0.61
1976-2000	0.14	2.27	0.46	1.93	0.21
2000-2019	0.92	0.75	0.90	-0.24	1.13

Panel C: Median Income in New Brunswick

Median	Market Income	Government Transfers			After-Tax Income	
1976-2019*	1.56	1.49	1.81	5.41	1.58	
1976-2000**	0.61	1.52	1.73	7.59	1.47	
2000-2019	2.78	1.46	1.90	2.94	1.71	

<sup>\*</sup>Median Income Tax, CAGR: 1978-2019 \*\*Median Income Tax, CAGR: 1978-2000

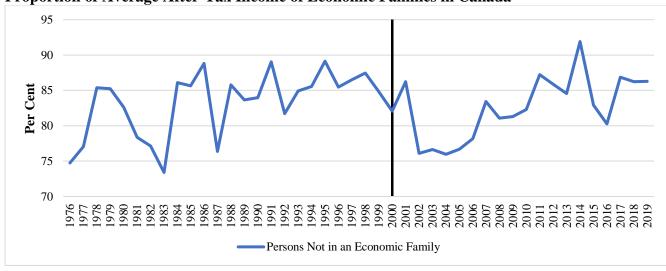
Panel D: Median Income in Canada

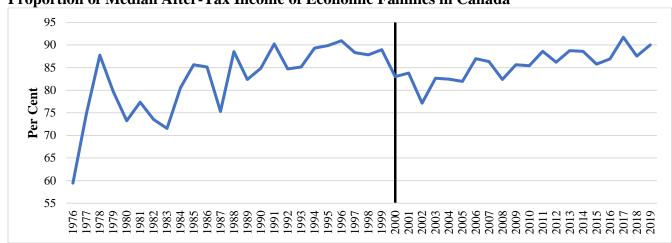
Median	Market Income	Government Transfers	Total Income	Income Tax	After-Tax Income
1976-2019*	0.37	4.03	0.69	3.28	0.60
1976-2000**	-0.64	3.94	0.21	5.79	0.07
2000-2019	1.66	4.12	1.29	0.19	1.28

<sup>\*</sup>Median Government Transfers, CAGR:1980-2019 \*\*Median Government Transfers, CAGR:1980-2000 Source: Statistics Canada, Table 11-10-0190-01

Chart A5: After-Tax Income of Unattached Individuals in New Brunswick as a Proportion of After-Tax Income of Unattached Individuals in Canada, 1976-2019

Panel A: Average After-Tax Income of Unattached Individuals in New Brunswick as a Proportion of Average After-Tax Income of Economic Families in Canada





Panel B: Median After-Tax Income of Unattached Individuals in New Brunswick as a Proportion of Median After-Tax Income of Economic Families in Canada

Source: Statistics Canada, Table 11-10-0190-01

### III. Average After-Tax Income Compared to Median After-Tax Income, Economic Families and Persons Not in an Economic Family

In 1976, the median after-tax income of economic families in New Brunswick was 94.7 per cent of the average after-tax income of economic families. Among unattached individuals, the corresponding proportion was much lower, at 66.7 per cent. This difference indicates that in 1976 in New Brunswick, after-tax income was less equally distributed among unattached individuals than it was among economic families.

Between 1976 and 2000, the gap between the median and average after-tax incomes of economic families widened. In 2000, the median after-tax income was 87.9 per cent of the average after-tax income, down 6.8 points from the proportion in 1976. The widening gap between the median and average after-tax incomes of economic families between 1976 and 2000 is consistent with the rising inequality observed at the level of all economic units over the period. In contrast, the gap between the median and average after-tax incomes of persons not in an economic family narrowed between 1976 and 2000. In 2000, the median after-tax income of unattached individuals was 82.0 per cent of the average after-tax income, up 15.3 points from the proportion in 1976. The narrowing gap between the median and average after-tax incomes of unattached individuals indicates that after-tax income inequality among unattached individuals declined over the 1976-2000 period.

Between 2000 and 2019, the proportions were relatively more stable among both economic families and unattached individuals, consistent with the relative stabilization of after-tax income inequality observed among all economic units over the period. In 2019, the median after-tax income of economic families was 87.7 per cent of the average after-tax income, down 0.02 points from the proportion in 2000. The median after-tax income of u attached individuals was 87.1 per cent of the average after-tax income, up 5.1 points from the proportion in 2000.

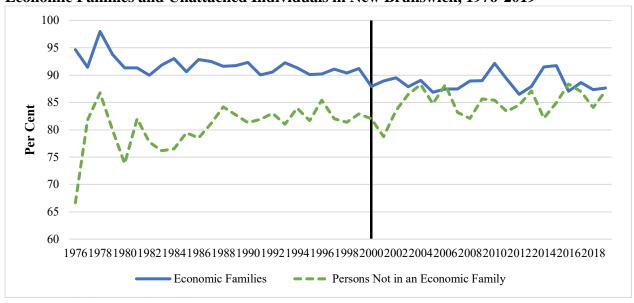


Chart A6: Median After-Tax Income as a Proportion of Average After-Tax Income, Economic Families and Unattached Individuals in New Brunswick, 1976-2019

Source: Statistics Canada, Table 11-10-0190-01

# Appendix III: Average After-Tax Income of Economic Families and Persons Not in an Economic Family by Decile and Quintile in New Brunswick and Canada, 1976-2019

### I. Average After-Tax Income by Decile, Economic Families and Persons Not in an Economic Family

Between 1976 and 2000, the average after-tax income of the lowest decile of economic families in New Brunswick grew at a compound annual rate of 0.88 per cent, outpacing the growth of the average after-tax income of the fifth and highest deciles by 0.78 points and 0.09 points, respectively (Panel A of Chart A7) In contrast, at the national level, the highest decile saw the strongest growth over the 1976-2000 period (Panel B of Chart A7).

Relative to the 1976-2000 period, average after-tax income growth picked up for the lowest, fifth and highest deciles of economic families between 2000 and 2019. The average after-tax income of the lowest decile of economic families in New Brunswick grew at a compound annual rate of 1.48 per cent, while the average after-tax income of the fifth decile grew by 1.35 per cent per year, and the average after-tax income of the highest decile grew by 1.09 per cent per year.

Similar to trends observed for economic families, growth in the average after-tax income of the lowest decile of unattached individuals in New Brunswick outperformed growth in the fifth and highest deciles between 1977 and 2000. Between 1977 and 2000, the lowest decile of unattached individuals in New Brunswick saw its average after-tax income rise at a compound annual rate of 4.89 per cent, much stronger than the growth seen by the fifth decile (0.90 per cent) and the highest decile (0.35 per cent) (Panel C of Chart A7). The lowest decile of

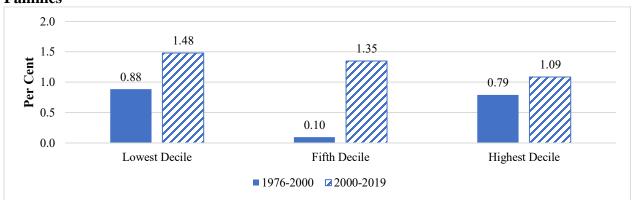
unattached individuals also outperformed the fifth and highest deciles at the national level, but by less (Panel D of Chart A7).

Between 2000 and 2019, the lowest decile of unattached individuals in New Brunswick saw the compound annual growth rate of its average after-tax income fall to 1.93 per cent, while the fifth and highest deciles both saw their average after-tax incomes increase at faster rates relative to the pre-2000 rates. However, the lowest decile continued to outperform the fifth and highest deciles over the 2000-2019 period.

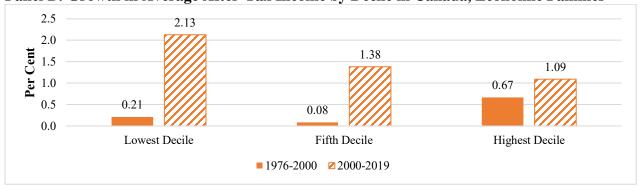
In both New Brunswick and Canada as a whole, after-tax income was relatively more evenly distributed among economic families than among unattached individuals between 1977 and 2019. Throughout the entire period, the share of the after-tax income of all economic families that went to the lowest decile of economic families was greater than the share of the after-tax income of all unattached individuals that went to the lowest decile of unattached individuals that went to the highest decile of unattached individuals was greater than the share of the after-tax income of all economic families that went to the highest decile of economic families.

### Chart A7: Growth in Average After-Tax Income by Decile in New Brunswick and in Canada, 1976-2019 (Compound Annual Growth Rates)

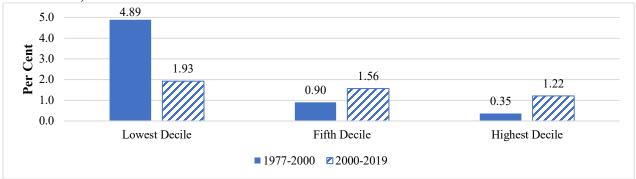
Panel A: Growth in Average After-Tax Income by Decile in New Brunswick, Economic Families



Panel B: Growth in Average After-Tax Income by Decile in Canada, Economic Families



Panel C: Growth in Average After-Tax Income by Decile in New Brunswick, Unattached Individuals, 1977-2019



Panel D: Growth in Average After-Tax Income by Decile in Canada, Unattached Individuals

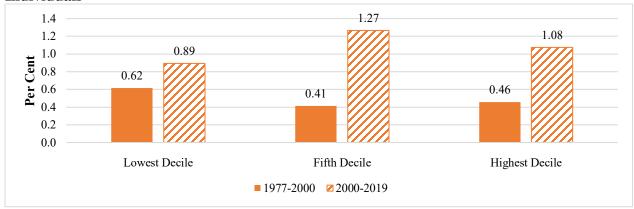
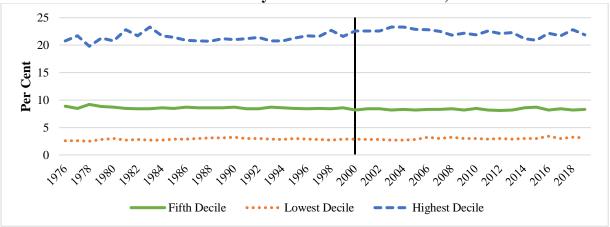
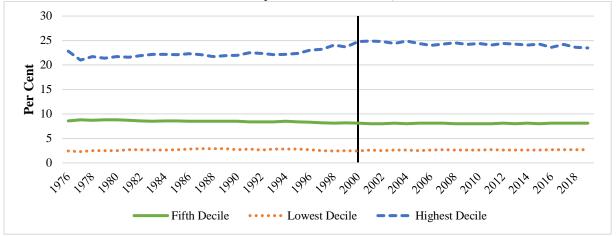


Chart A8: Share of After-Tax Income by Decile, New Brunswick and Canada, 1976-2019

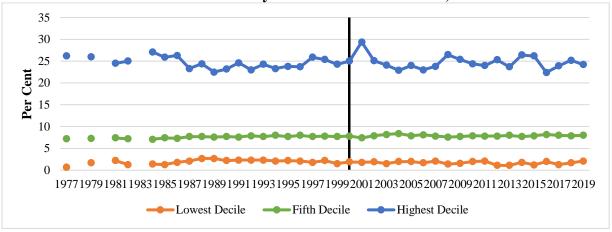
Panel A: Share of After-Tax Income by Decile in New Brunswick, Economic Families



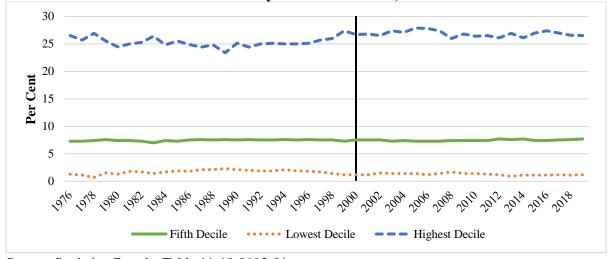




Panel C: Share of After-Tax Income by Decile in New Brunswick, Unattached Individuals



Panel D: Share of After-Tax Income by Decile in Canada, Unattached Individuals



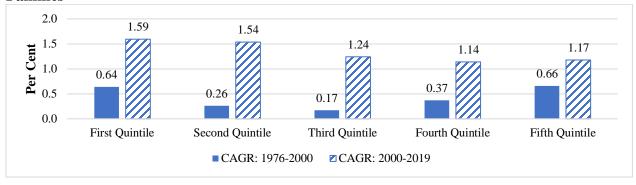
### II. Average After-Tax Income by Quintile, Economic Families and Persons Not in an Economic Family

For economic families in both New Brunswick and Canada, between 1976 and 2000, the fifth quintile experienced the strongest growth. In contrast, for persons not in an economic family in both New Brunswick and Canada, individuals in the second quintile saw the highest growth rate in the pre-2000 period, followed by the first quintile (Chart A7). Therefore, in both New Brunswick and Canada, the overall increase in income inequality in the last quarter of the 20<sup>th</sup> century would have been primarily driven by economic families.

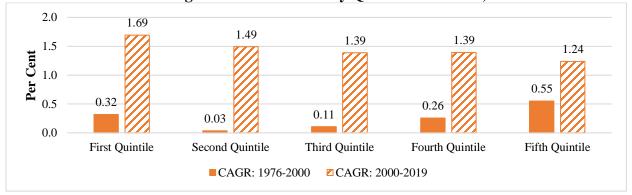
In both New Brunswick and Canada, for both economic families and persons not in an economic family, all quintiles experienced much stronger after-tax income growth after 2000 than before 2000.

### Chart A9: Growth in Average After-Tax Income by Quintile in New Brunswick and in Canada, 1976-2019 (Compound Annual Growth Rates)

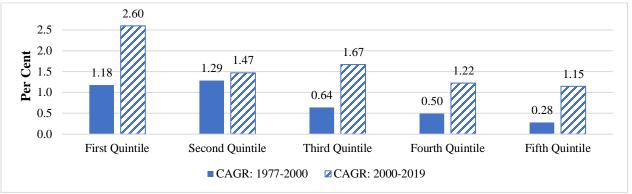
Panel A: Growth in Average After-Tax Income by Quintile in New Brunswick, Economic Families



Panel B: Growth in Average After-Tax Income by Quintile in Canada, Economic Families



Panel C: Growth in Average After-Tax Income by Quintile in New Brunswick, Unattached Individuals



Note: Data were not available for unattached individuals in 1976.

Panel D: Growth in Average After-Tax Income by Quintile in Canada, Unattached Individuals

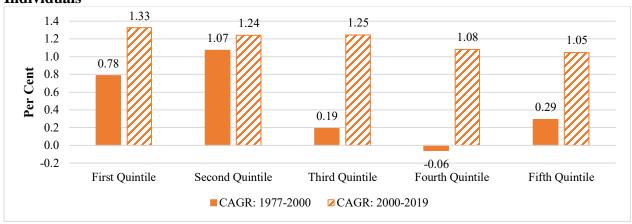
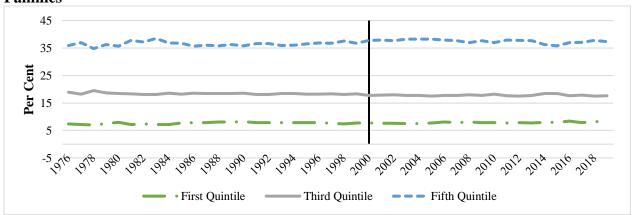
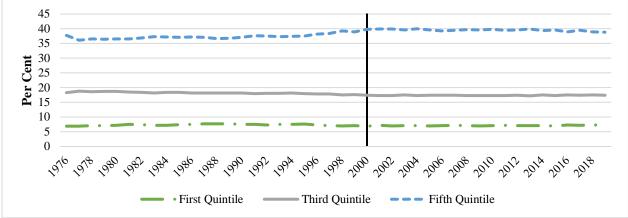


Chart A10: Share of After-Tax Income by Quintile, New Brunswick and Canada, 1976-2019

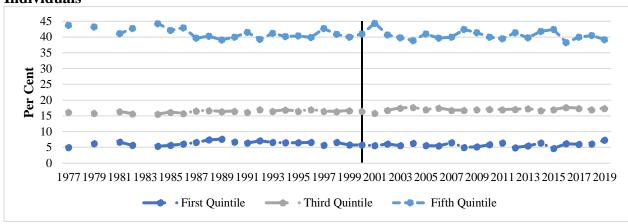
Panel A: Panel A: Share of After-Tax Income by Quintile in New Brunswick, Economic Families







Panel C: Share of After-Tax Income by Quintile in New Brunswick, Unattached Individuals



Panel D: Share of After-Tax Income by Quintile in Canada, Unattached Individuals

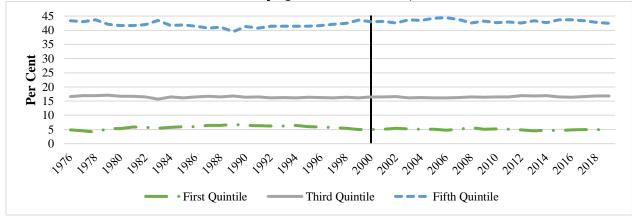


Table A5: Percentage Point Change in Share of After-Tax Income in New Brunswick and Canada, by Quintile

Panel A: Percentage Point Change in Share of After-Tax Income of Economic Families in New Brunswick and Canada, by Ouintile

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Percentage	First Quintile		Second		Third		Fourth		Fifth Quintile	
Point			Quintile		Quintile		Quintile			
Change	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.
1976-2019	0.4	0.9	-0.6	0.2	-0.9	-1.3	-0.2	-1.0	1.1	1.4
1976-2000	0.0	0.3	-0.9	-0.5	-0.9	-1.2	-0.2	-0.4	2.1	1.9
2000-2019	0.4	0.6	0.3	0.7	0.0	-0.1	0.0	-0.6	-1.0	-0.5

Panel B: Percentage Point Change in Share of After-Tax Income of Unattached Individuals in New Brunswick and Canada, by Ouintile

Percentage	First Quintile		Second		Third		Fourth		Fifth Quintile	
Point Change			Quintile		Quintile		Quintile			
	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.	CA	N.B.
1976-2019*	0.4	2.3	1.8	2.2	0.2	1.2	-1.4	-1.0	-0.9	-4.6
1976-2000**	0.1	0.8	1.6	1.9	-0.1	0.3	-1.3	-0.3	-0.3	-2.8
2000-2019	0.3	1.5	0.2	0.3	0.3	0.9	-0.1	-0.7	-0.6	-1.8

<sup>\*</sup>New Brunswick, 1977-2019

Source: Statistics Canada, Table 11-10-0192-01

Table A6: Real Average After-Tax Income (2019 Constant Dollars) and Share of Total After-Tax Income in New Brunswick and Canada, by Quintile, 1976, 2000 and 2019

Panel A: Economic Families in New Brunswick

Quintile	19	76	20	00	20	2019		
	Average	Share of	Average	Share of	Average	Share of		
	Income	Total	Income	Total	Income	Total		
		Income		Income		Income		
First Quintile	21,550	7.4	25,100	7.7	33,900	8.3		
Second Quintile	40,000	13.7	42,600	13.2	56,900	13.9		
Third Quintile	54,800	18.9	57,100	17.7	72,150	17.6		
Fourth Quintile	69,550	24.0	76,000	23.6	94,300	23.0		
Fifth Quintile	104,350	35.9	122,150	37.8	152,500	37.3		

<sup>\*\*</sup>New Brunswick, 1977-2000

Panel B: Economic Families in Canada

Quintile	1976		2000		2019	
	Average	Share of	Average	Share of	Average	Share of
	Income	Total	Income	Total	Income	Total
		Income		Income		Income
First Quintile	24,650	6.9	26,600	6.9	36,600	7.3
Second Quintile	47,900	13.5	48,300	12.6	64,000	12.9
Third Quintile	65,050	18.3	66,750	17.4	86,750	17.4
Fourth Quintile	84,200	23.6	89,600	23.4	116,550	23.4
Fifth Quintile	133,950	37.7	152,900	39.8	193,100	38.8

Panel C: Unattached Individuals in New Brunswick

Quintile	1977		2000		2019	
	Average	Share of	Average	Share of	Average	Share of
	Income	Total	Income	Total	Income	Total
		Income		Income		Income
First Quintile	5,650	5.0	7,400	5.8	12,050	7.3
Second Quintile	12,450	11.1	16,700	13.0	22,050	13.3
Third Quintile	18,200	16.2	21,100	16.5	28,900	17.4
Fourth Quintile	26,950	23.9	30,200	23.6	38,050	22.9
Fifth Quintile	49,200	43.8	52,450	41.0	65,150	39.2

Panel D: Unattached Individuals in Canada

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Quintile	1976		2000		2019		
	Average	Share of	Average	Share of	Average	Share of	
	Income	Total	Income	Total	Income	Total	
		Income		Income		Income	
First Quintile	7,250	4.9	7,900	5.0	10,150	5.3	
Second Quintile	15,000	10.1	18,200	11.7	23,000	11.9	
Third Quintile	24,800	16.6	25,650	16.5	32,450	16.8	
Fourth Quintile	37,300	25.1	37,300	23.8	45,750	23.7	
Fifth Quintile	64,400	43.3	67,150	43.0	81,850	42.4	

#### Appendix IV: MBM Average Poverty Gap Ratio by Age Group

The average poverty gap ratio reflects the depth of poverty among households. The poverty gap ratio is the amount by which a household's disposable income falls below the poverty line as a percentage of the low-income threshold. This measure is sensitive to the distribution of the population below the poverty line. If a large number of pf persons are close to the poverty line, an increase in income for this group will move them over the poverty line and increase considerably the average gap. In other words, a reduction in poverty may cause a greater poverty gap. This appears to have occurred since 2015.

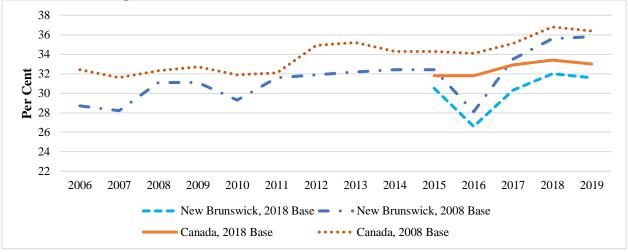
As shown in Panel A of Appendix Chart 11, in 2019, according to the 2018-base MBM, the average poverty gap ratio for New Brunswick was 31.6 per cent, 1.4 points below the national gap (30.0 per cent). Working-age adults experienced the highest average poverty gap in New Brunswick and nationally; the average poverty gap for persons 18 to 64 was 35.8 per cent in New Brunswick and 36.8 per cent at the national level (Panel C of Chart A11). The average poverty gap for New Brunswick children was 30.7 per cent, 5.1 per cent above the national gap (25.6 per cent), as shown in Panel B of Chart 29. Seniors had the lowest average poverty gap in New Brunswick and at the national level; the average poverty gap ratio for seniors was 12.3 per cent in New Brunswick and 5.6 points higher (17.9 per cent) in Canada as a whole (Panel D of Chart 28).

Between 2006 and 2019, the average poverty gap ratio increased for all age groups in New Brunswick. The average poverty gap for the total population in New Brunswick increased 24.7 per cent (7.1 percentage points), from 28.7 per cent in 2006 to 35.8 per cent in 2019. Children experienced the largest increase in the average poverty gap between 2006 and 2019; the average poverty gap for children increased 40.4 per cent (9.5 percentage points), from 23.5 per cent to 33.0 per cent. In contrast, the average poverty gap for children decreased slightly (by 0.7 per cent) at the national level. Consequently, the average poverty gap for children in New Brunswick was below the national average in 2006 but had climbed above it by 2019.

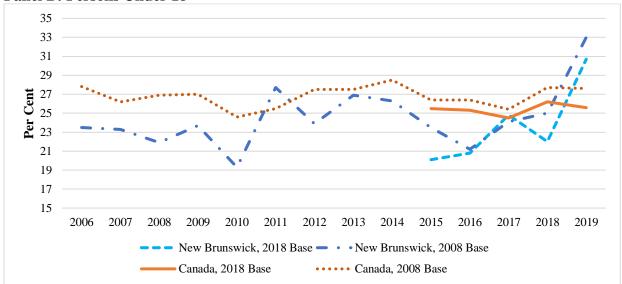
Working-age persons in New Brunswick saw their average poverty gap increase 22.2 per cent (7.2 percentage points), from 32.5 per cent in 2006 to 39.7 per cent in 2019. Nationally, the average poverty gap of working-age adults increased less (by 11.8 per cent, or 4.7 percentage points), but it remained above the New Brunswick gap, reaching 39.9 per cent in 2019. Seniors in New Brunswick experienced the weakest increase in their average poverty gap ratio; the average poverty gap for seniors increased 2.6 per cent (0.4 percentage points), from 15.5 per cent in 2006 to 15.9 per cent in 2019. On the other hand, at the national level, seniors saw the greatest increase in their average poverty gap ratio (the average poverty gap increased 39.5 per cent, or 6.6 percentage points, from 16.7 per cent to 23.3 per cent).

Chart A11: Average Poverty Gap Ratio by Age Group in New Brunswick and Canada, 2006-2019

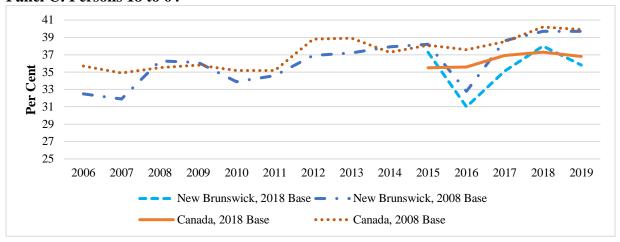




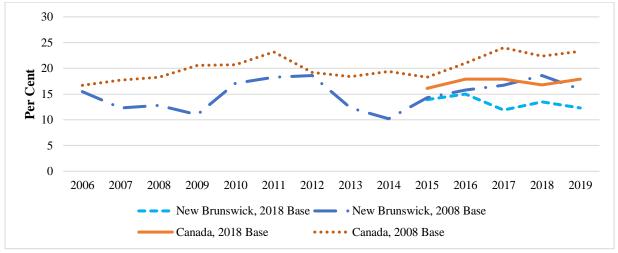
#### Panel B: Persons Under 18



Panel C: Persons 18 to 64



Panel D: Persons 65 and Over



Source: Statistics Canada, Table 11-10-0135-01

Chart A12 illustrates the average poverty gap ratio in New Brunswick as a proportion of the Canadian average between 2006 and 2019. As shown in Panel A of Chart 29, New Brunswick's average poverty gap ratio was consistently lower than the national average over the measurement period, but the gap had narrowed by 2019. In 2006, the average poverty gap ratio in New Brunswick was 88.6 per cent of the national average. This proportion reached a minimum of 82.4 per cent in 2016 before rising to 98.4 per cent according to the 2008-base MBM (and to 95.8 per cent according to the 2018-base MBM) in 2019.

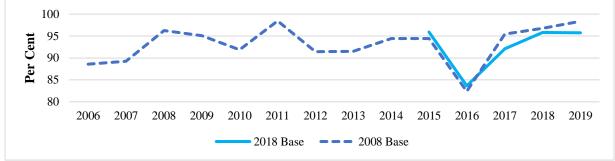
Panel B of Chart A12 shows that New Brunswick children had a lower average poverty gap than children at the national level for most of the 2006-2019 period, but their average gap jumped above the national average in 2011 (when it was 108.6 per cent of the national gap) and again in 2019 (when it was 119.6 per cent of the national gap according to the 2008-base MBM and 119.9 per cent of the national gap according to the 2018-base MBM).

According to the 2008-base MBM, the average poverty gap of working-age adults in New Brunswick varied between 87.2 per cent (in 2016) and 102.3 per cent (in 2008) of the national average (Panel C of Chart A12). In 2019, the average poverty gap for working-age adults in New Brunswick was 97.3 per cent of the national average (according to the 2018-base MBM).

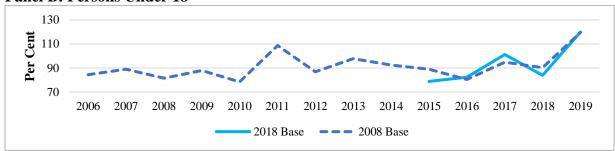
Seniors in New Brunswick had a lower average poverty gap than did seniors nationally over the entire 2006-2019 period (Panel D of Chart A12). According to the 2008-base MBM, the average poverty gap of seniors in New Brunswick varied between 52.6 per cent (in 2014) and 96.9 per cent (in 2012) of the national average (Panel D of Chart A12). In 2019, the average poverty gap for New Brunswick seniors was 68.7 per cent of the national average (according to the 2018-base MBM).

Chart A12: Average Poverty Gap Ratio in New Brunswick as a Proportion of the Canadian Average, by Age Group, 2006-2019

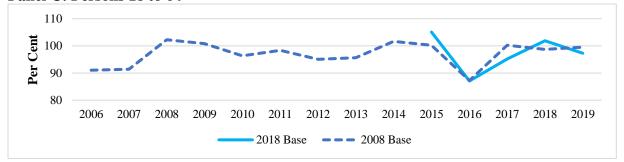




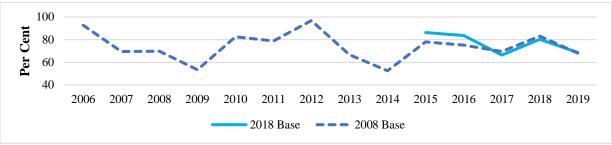
Panel B: Persons Under 18



Panel C: Persons 18 to 64



Panel D: Persons 65 and Over



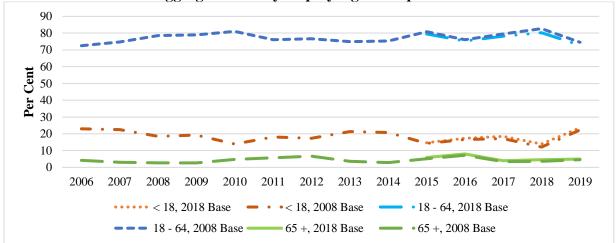
Source: Statistics Canada, Table 11-10-0135-01

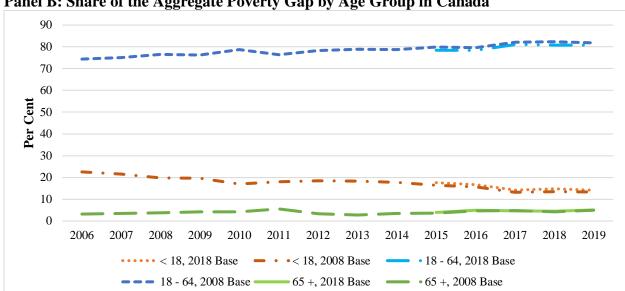
The share of the aggregate poverty gap accounted for by each age group is calculated by multiplying the average poverty gap for an age group by the total number of persons in poverty in the that age group and then dividing the result by the total poverty gap. In both Canada and New Brunswick, the majority of the aggregate poverty gap was attributable to working-age persons between 2006 and 2019, as shown in Chart A13. In 2019, working-age adults accounted for 72.8 per cent of the poverty gap in New Brunswick and 80.8 per cent of the gap at the national level. Children accounted for the second largest share of the gap, at 23.6 per cent in New Brunswick and 14.1 per cent nationally. The smallest share of the gap was attributable to seniors, who accounted for 5.0 per cent in New Brunswick and 5.1 per cent at the national level.

Between 2006 and 2019, the share of the aggregate poverty gap attributable to working-age adults increased by 2.8 per cent (2.1 percentage points), from 72.5 per cent to 74.6 per cent (Panel A of Chart A13). Nationally, working-age adults experienced a greater increase in their share of the poverty gap; the share of the national poverty gap attributable to persons 18 to 64 increased 9.9 per cent (7.4 percentage points), from 74.4 per cent to 81.7 per cent (Panel B of Chart A13).

Chart A13: Share of the Aggregate Poverty Gap by Age Group in New Brunswick and in Canada, 2006-2019

Panel A: Share of the Aggregate Poverty Gap by Age Group in New Brunswick





Panel B: Share of the Aggregate Poverty Gap by Age Group in Canada