

# A PROFILE OF EMPLOYMENT ACROSS INDUSTRIES IN NEW BRUNSWICK 1996-2019



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## **PROJECT TITLE**

A profile of employment across industries in New Brunswick: 1996-2019

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This project is funded by the Government of New Brunswick, Department of Post-Secondary Education, Training and Labour (PETL) through contract #5660.

The analysis presented in this paper was conducted at the New Brunswick Research Data Centre (NBRDC), which is part of the Canadian Research Data Centre Network (CRDCN). The services and activities provided by the NBRDC are made possible by the financial or in-kind support of the SSHRC, the CIHR, the CFI, Statistics Canada, the Government of New Brunswick, and the University of New Brunswick. The views expressed in this paper do not necessarily represent the CRDCN's or that of its partners.

## **HOW TO CITE THIS REPORT**

Boco, E., Leonard, P., & McDonald, T. (2020). A profile of employment across industries in New Brunswick: 1996-2019. Fredericton, NB: New Brunswick Institute for Research, Data and Training.

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## KEY FINDINGS

This report examines employment and industry changes in New Brunswick (NB) over a 20-year period (1996 to 2016) using data from the Canadian Census. It also examines changes over a ten-year period (2009 to 2019) using data from the Labour Force Survey. Results are stratified by CMA/CA<sup>1</sup> and by industry using the North American Industry Classification System.

We observed the following results:

### Population

- ❖ While the New Brunswick population in 2016 was higher than it was in 1996, CMA Saint John and CA Campbellton (NB) were the only cities among other CMAs/CAs to have a lower population in 2016 than in 1996.
- ❖ CA Campbellton (NB) had the largest CA population decline nationwide.
- ❖ Miramichi had the highest dependency ratio in 2016 (36%) while Edmundston had the highest dependency ratio increase of all CMAs/CAs between 2011 and 2016.
- ❖ Moncton, Saint John, and Fredericton are home to 50% of the total population of NB and 51% of the working population (aged 15-64). In 2019, these cities had the highest labour force participation rates in NB – higher than both national and provincial rates.
- ❖ The number of New Brunswickers aged 15-64 declined by 5.1% (3 p.p.<sup>2</sup>) between 2011 and 2016, representing the largest decline in the working-age population between consecutive census years since 1996. In 2016, this group represented 66% of the total population, down 3 p.p. from the previous census year
- ❖ The share of the population aged 55 and over has increased by 16.7% since 1999.

### Labour Force

- ❖ Unemployment in the province has declined by 0.8 p.p. since 2009, compared to a national decline of 2.6 p.p.
- ❖ In 2019, CA Miramichi had the highest unemployment rate in the province (12.4%), while CA Fredericton had the lowest (5.5%).
- ❖ While the population of CA Fredericton has grown (11.8% increase between 2011 and 2016), its participation rate declined by 7.3 p.p. between 2009 and 2010.
- ❖ All employment growth in the last decade has come from within service-based industries, which accounted for 79.1% of employment in NB in 2019, up from 77.9% in 2009 and 75.5% in 1999. The goods-producing sector, on the other hand, has experienced declines across all its industries in the last decade. This sector accounted for 20.9% of employment in NB in 2019, down from 22.1% in 2009 and 24.5% in 1999.

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<sup>1</sup> CMA = Census Metropolitan Area; CA = Census Agglomeration

<sup>2</sup> p.p. = percentage points

## Industry

- ❖ The three industries with the largest share of the working population in NB remain Health Care and Social Assistance; Wholesale and Retail Trade; and Business, Sciences, Finance, and Real Estate. They accounted for 21.5%, 19.8 %, and 18.5%, respectively, of the services-producing sector in 2019.
- ❖ Despite its employment declines, Manufacturing still has the largest share of the working population among other goods-producing industries in the province. In 2019, it had a total employment share of 41% in the goods-producing sector – 1.2 p.p. more than in 2009 and 8 p.p. less than in 1999.
- ❖ The Information, Culture, and Recreation industry had the largest increase in workers over the last decade (2009-2019) at 16.4%, and Wholesale and Retail Trade experienced the largest decline at -6.1%.<sup>3</sup>
- ❖ Across all 1996-2016 Census cycles, cities, towns, and other communities outside NB CMAs/CAs are home to the majority of workers in the goods-producing sector.

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<sup>3</sup> “Other services (except public administration) had the largest decline at -8.3%. However, because the industries included in this category are varied, this report excludes them from comparison.

## INTRODUCTION

Starting in 2001, the New Brunswick (NB) population began to decline as birth rates fell, youth outmigration increased, and the oldest baby boomers (1946-1964) reached retirement age (Government of New Brunswick [GNB], 2012). Though the issue of an aging population is a nationwide concern, New Brunswick should be especially concerned. In 2019, the median age in NB was reported to be 46, about five years above the national average (40.8) and the second highest median age nationwide (Newfoundland and Labrador has the highest, at 47.1) (Statista, 2019).

The aging of the NB population presents several social and economic challenges for governments at all levels. Population aging is known to have a two-pronged effect:

- First, it places stress on government finances from increased spending demands. Demand for resources required to cater to an aging population – i.e. for healthcare – will take its toll.
- Second, implications of policies like the reinstatement of 65 as the age of eligibility for Old Age Security further exacerbate this issue. This exacerbation will stem from slowed economic growth and its effect on government revenue. In other words, as more people age out of the labour force, overall rates of economic growth are reduced, affecting governments' abilities to raise revenue.

Significant shifts have also occurred in New Brunswick's industries. The population employed in the goods-producing sector has declined in NB. Industries like Manufacturing, Agriculture, and Utilities have experienced a steady decline as people retire, leave the province, or switch to careers in service-based industries.<sup>4</sup> The services-producing sector, on the other hand, has experienced employment growth – a trend which has continued for over 20 years, as this report reveals.<sup>5</sup>

Labour Force Survey counts reveal that employment growth has been strongest in service-based industries. From 1999 to 2019, employment in service-based industries grew by 14.8%, compared to a 6.5% decrease in the goods-producing sector.

By 2019, about eight in ten (79.1%) New Brunswickers in the labour force were employed in the service industry, up from 68.9% in 1999. A similar trend exists within the rest of Canada, with 79.7% of the Canadian workforce reporting a job in the service sector in 2016 (StatCan, 2017c).

Per 2016 numbers, publicly funded industries – Education, Health Care and Social Assistance, and Public Administration – have the highest share of employment, with 26% of the NB population reporting careers in those industries. The Wholesale and Retail Trade industries have the second highest share of employment at 17.5%.

In the 2016 Census, an estimated 388,600 New Brunswickers of working age were paid workers or self-employed in the labour force, compared to an estimated 406,500 in 2006.<sup>6,7</sup> Overall, goods-

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<sup>4</sup> These declines could also be a labour demand issue, wherein there are fewer jobs available in these industries.

<sup>5</sup> Slight declines exist between the years 2008 to 2011, 2012 to 2013, and 2015 to 2016.

<sup>6</sup> For the Canadian Census, employment counts are derived using industry sector variables, which categorize a homogenous set of labour market activities into a sector. Work activity is based on a "class of worker" variable that groups respondents into "Paid worker," "Unpaid worker," "Self-employed," and "Not Applicable."

<sup>7</sup> For the Labour Force Survey, "employment" includes the number of persons who, during the reference week, worked for pay or profit, or performed unpaid family work or had a job but were not at work due to one's own illness or disability, personal or family responsibilities, labour dispute, vacation, or other reason. Those persons on layoff and persons without work but who had a job to start at a definite date in the future are not considered employed.

based industries (except for Agriculture) had an overrepresentation of middle-aged workers and an underrepresentation of younger workers. Service-based industries saw the opposite. Publicly funded industries<sup>8</sup> have collectively accounted for the largest share of employment and showed consistent growth in all CMAs/CAs between each census year since 1996.

The prevalence of older workers over younger workers in some service industries can be attributed to experience. For instance, management occupations, health occupations, and business, finance, and administrative occupations have a higher number of middle-aged workers. The high proportion of younger workers in some primary industry occupations could be a result of relatively little formal education requirements for employment. Canada, as a whole, has experienced a rise in GDP contribution from the service industry, exceeding that of the goods/manufacturing industry (RBC Economics, 2017).

Population changes and differences exist by Census Metropolitan Area (CMA) and Census Agglomeration (CA) as well. Some CMAs/CAs have experienced population growth or declines for their overall population and in various industries. This report reveals the extent of these differences, and which CMA or CA is experiencing the biggest changes.

The threat of growing and long-lasting deficits makes the issue of population aging an urgent one.

This report proceeds as follows:

- Section II discusses the methodology.
- Section III discusses population and demography changes.
- Section IV discusses labour force participation.
- Section V shows statistics by industry.
- Section VI shows industry counts by CMA/CA.
- Section VII summarizes findings and provides a conclusion.

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<sup>8</sup> The publicly funded industries include Educational services, Health Care and Social Assistance, and Public Administration.

# METHODOLOGY

This report provides an industry and employment profile for the province of New Brunswick.

Using data from the 1996, 2001, 2006, 2011,<sup>9</sup> and 2016 cycles of the Canadian Census and 1999-2019 data from the Labour Force Survey, we examine employment and labour force changes for NB's industries, Census Metropolitan Areas (CMAs), and Census Agglomerations (CAs) over a 20-year span.

The Canadian Census is a survey program that provides a statistical portrait of the country and its population every five years. Questions in the survey cover sociodemographic and background topics ranging from mobility and migration to households and income. Data from the survey can be used to answer questions on economic conditions, labour market activity, population, demography, and more.

The Labour Force Survey (LFS) dataset provides employment information on Canadians and can be used to investigate employment, unemployment, and labour force participation rates by geographic region and demographic classifications. Information from the LFS is useful for evaluating labour market outcomes and events.

Both Census and Labour Force Survey datasets are used because, while the LFS provides the most recent labour force statistics for the population, the census provides statistics for all seven CMAs/CAs in the province from 1996 to 2016.<sup>10</sup> In other words, while the Labour Force Survey provides the most recent data, it lacks the detailed groupings included in the census.

According to Statistics Canada (2018), a CMA or CA is formed by one or more adjacent municipalities centred in a population centre, known as the core.

A **CMA** is required to have a total population of 100,000, half of which must reside within this core.

A **CA** is required to have a population of 10,000.

This report uses the Canadian Census classification of Moncton and Saint John as CMAs, and Fredericton, Bathurst, Miramichi,<sup>11</sup> Edmundston, and Campbellton as CAs, as depicted below.<sup>12</sup>

**Table 1: CMA and CA Classifications in New Brunswick**

CMA	CA
Moncton	Fredericton
Saint John	Bathurst
	Miramichi
	Edmundston
	Campbellton

<sup>9</sup> The 2011 "Census Cycle" is officially known as the National Household Survey. For the purposes of this report, it will be referred to as the 2011 Census cycle.

<sup>10</sup> The Labour Force Survey only provides information for those aged 15 and over.

<sup>11</sup> CA Miramichi was not considered a CA until the 2006 Census cycle onward.

<sup>12</sup> Please note that the addition of Miramichi as a CA in 2006 affects the "Outside NB CMA/CA" population from 2006 onwards.

Population counts are given for CMA/CA and industry, as well as for employment. Percentage changes and graphics are also provided where needed.

Cities, towns, and other communities outside the seven CMAs/CAs are included under the “Outside NB CMA/CA” classification. It should be noted that “every ten years, after the decennial population census, the LFS undergoes a sample redesign to reflect changes in population characteristics and new definitions of geographical boundaries” (StatCan, 2015).

The CA Campbellton spans both Quebec (QC) and NB, and therefore its population counts are sometimes split by province – CA Campbellton (QC) and CA Campbellton (NB). Parts of this report that mention ‘CA Campbellton’ without the specification of province refer to both the NB and QC parts of Campbellton.

Industries are classified into the services-producing sector and the goods-producing sector using a modified<sup>13</sup> version of the North American Industry Classification System (NAICS). NAICS Canada 2012 is used for this report.

The industries within each sector are listed below:

**Table 2: Industries within the Goods-Producing Sector and Services-Producing Sector**

Goods-Producing Sector	Services-Producing Sector
Agriculture	Wholesale and Retail Trade
Forestry, Fishing, Mining, Quarrying, Oil and Gas	Transportation and Warehousing
Construction and Utilities	Business, Sciences, Finance, and Real Estate
Manufacturing	Educational Services
	Health care and social assistance
	Information, culture and recreation
	Accommodation and food services
	Public Administration
	Other services (except public administration)

This report investigates three timelines: 1996 to 2016 (Canadian Census), 1999 to 2019 (Labour Force Survey), and 2009 to 2019 (Labour Force Survey).

2016 and 2019 are the most recent years for which data is available for each dataset, respectively. For some tables, we present a shortened timeline (2009-2019) because the data for some of the variables of interest in the LFS does not go as far back as 20 years.

Unless otherwise stated, all labour market analysis is done for those aged 15 and over. It should also be noted that the census population counts in this report are based on a 25% sample count as made available by the Research Data Center in Fredericton, NB. This sample includes only those who responded to the long form and therefore excludes individuals living in institutions,

<sup>13</sup> 'Modified' here means some NAICS industry categories were aggregated for purposes of this report.

Canadians living temporarily abroad, members of the Canadian forces outside Canada, and individuals in institutional collective dwellings. The final sample consists of those who declared New Brunswick to be their current province of residence at the time of the census.

## POPULATION CHANGES

As of 2016, New Brunswick had seven CMAs/CAs: Moncton, Saint John, Fredericton, Bathurst, Edmundston, Miramichi, and Campbellton. New Brunswick's major cities – Moncton, Saint John, and Fredericton – are home to about half of the NB labour force. These cities have historically been a hub for NB's working-age professionals. For newcomers and international graduates that choose to stay in NB, one of these three cities is usually home.

**Table 3: CMA/CA Entire Population Count, 1996-2016**

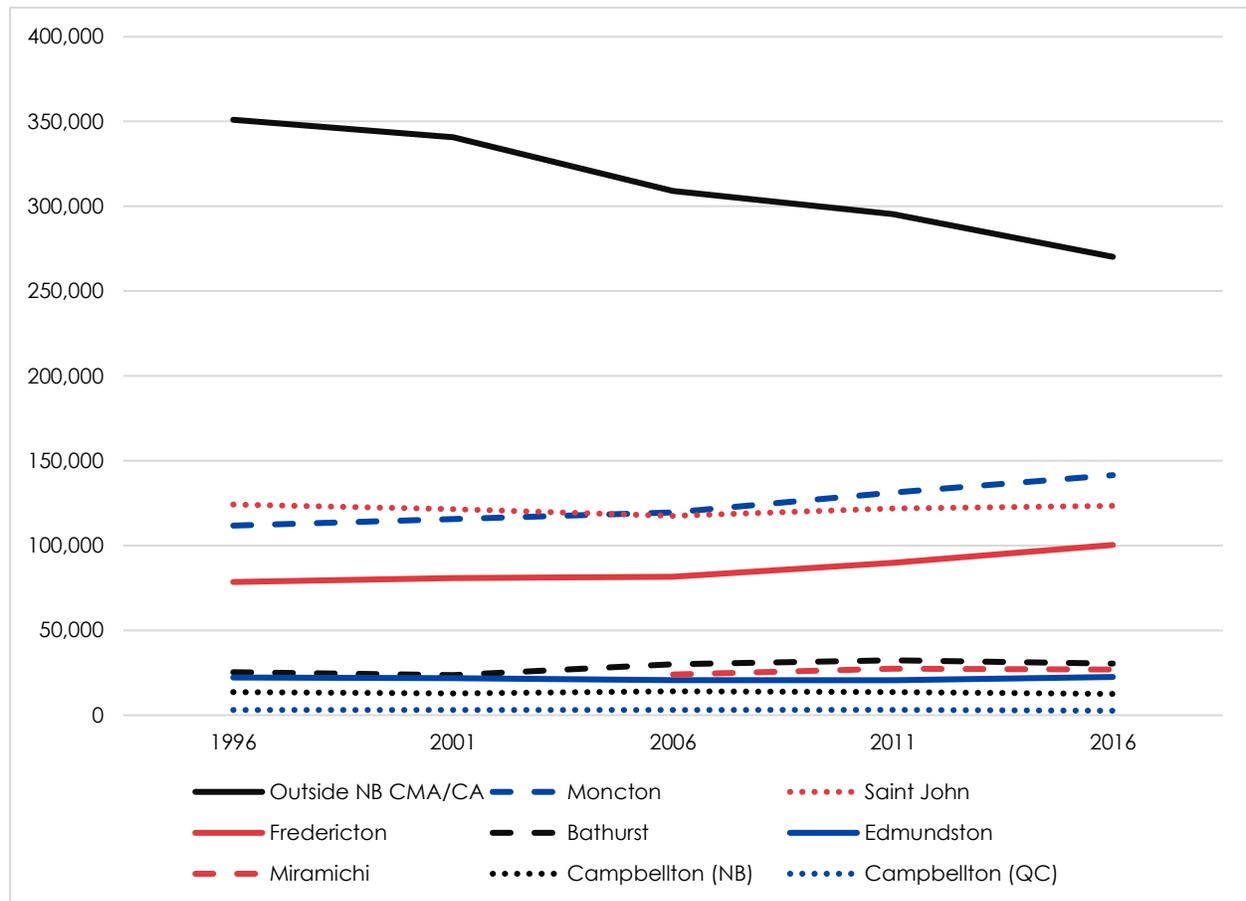
CMA/CA	1996	2001	2006	2011	2016
	<b>Population Counts</b>				
<b>New Brunswick</b>	729,625	719,710	719,650	735,835	730,710
<b>Outside NB CMA/CA<sup>14</sup></b>	351,090	340,755	308,935	295,570	270,290
<b>Moncton</b>	111,795	115,815	119,640	131,250	141,525
<b>Saint John</b>	124,215	121,340	117,530	122,010	123,520
<b>Fredericton</b>	78,530	80,685	81,625	89,795	100,370
<b>Bathurst</b>	25,150	23,630	30,065	32,360	30,265
<b>Edmundston</b>	22,300	21,660	20,740	20,605	22,535
<b>Miramichi<sup>15</sup></b>	.	.	23,980	27,425	27,065
<b>Campbellton (NB)</b>	13,655	12,895	14,090	13,695	12,555
<i>Campbellton (QC)</i>	2,890	2,935	3,050	3,120	2,595

Source: Canadian Census Masterfile (1996 to 2016). Counts are based on current province of residence at the time of the census. Please note that the addition of Miramichi as a CA in 2006 affects the "Outside NB CMA/CA" population from 2006 onwards.

<sup>14</sup> For the purposes of this report, any city that is not a CMA or CA is considered a part of the category "Outside NB CMA/CA."

<sup>15</sup> CA Miramichi was not considered a CA until the 2006 Census Cycle onward.

**Figure 1: Entire Population Trends, by CMA/CA**



Source: Canadian Census Masterfile (1996 to 2016). Counts are based on current province of residence at the time of census. Please note that the addition of the Miramichi as a CA in 2006 affects the population of "Outside NB CMA/CA" population from 2006 onwards.

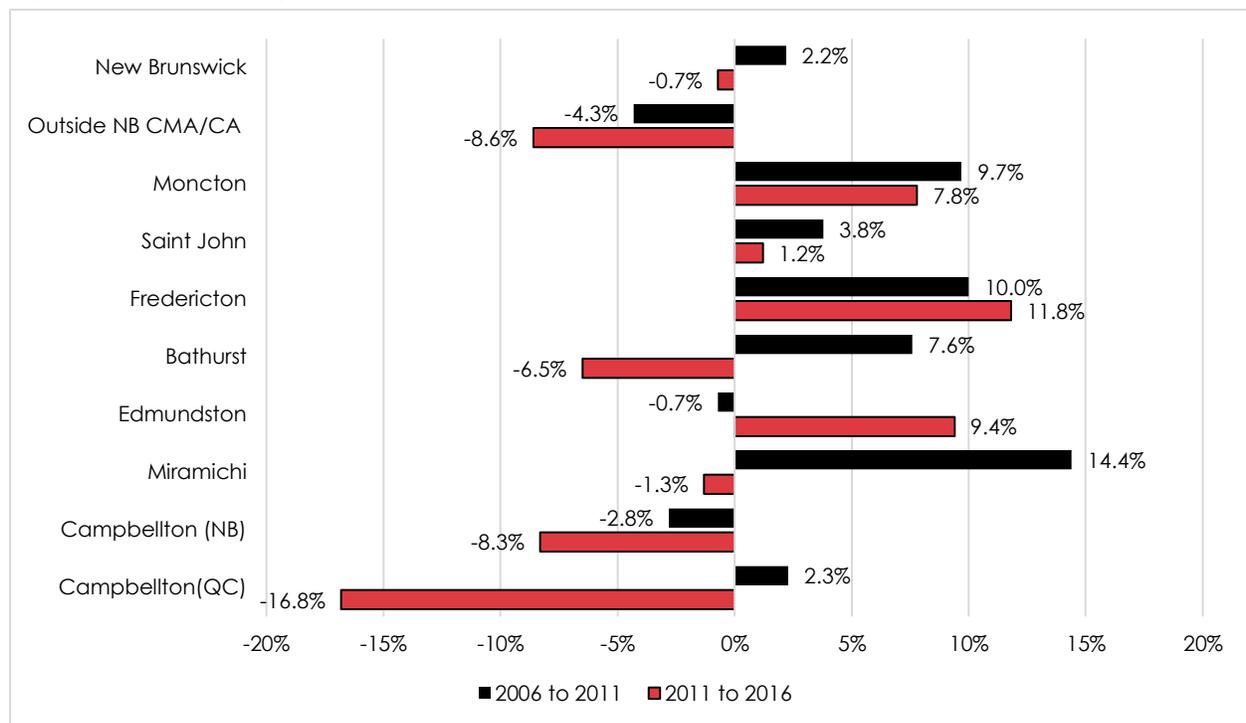
Between the last two census cycles, the overall population of NB declined by 0.7%.

By CMA/CA, CA Campbellton (NB) experienced the largest population decline at 8.3% from 2011 to 2016 – the largest CA decline nationwide (StatCan, 2017a). This followed a 2.8% decline from 2006 to 2011.

CA Fredericton experienced the largest population increase at 11.8% from 2011 to 2016, following a 10% increase from 2006 to 2011.

New Brunswick's population growth, while increasing, is still slower than most of the rest of Canada. Slower population growth in the province can be attributed to net interprovincial migration losses, lower immigration levels, and more death than births in recent years. In 2016, of the 6.6% of Canadians that resided in Atlantic Canada, 2.1% of them lived in NB.

**Figure 2: Entire NB Population Growth Rate, 2006-2011 and 2011-2016**



Source: Canadian Census Masterfile (1996 to 2016). Counts are based on current province of residence at the time of census. Please note that the addition of the Miramichi as a CA in 2006 affects the population of "Outside NB CMA/CA" population in 2006 onwards.

In each census year since 2006, the city of Moncton has consistently been the largest city in NB based on total population. In 2016 alone, it accounted for 19.4% of the province's population – about two percentage points higher than the previous census year and five percentage points higher than in the 1996 Census year.

In 2016, 50% of the NB population (and 51% of the working-age population) lived in the CMAs/CA of Moncton, Saint John, and Fredericton. That same year, 37% of the population lived outside the seven NB CMAs/CAs.

Within the space of each census year since 1996, the number of residents outside the seven CMAs/CAs has declined. This is also true of the working-age population.

Up until 2006, the number of New Brunswickers living outside the seven CMAs/CAs outnumbered the total population of the three main cities, both for the working population and overall population. In 1996, the total working population in the three main cities was about 20,000 less than the total working population of New Brunswickers living outside the seven CMAs/CAs. In 2001, it was about 11,000 less. For the entire NB population, the total count of people living in cities outside the seven CMAs/CAs outnumbered the three main cities by about 36,000. In 2001, it was close to 23,000 more people.

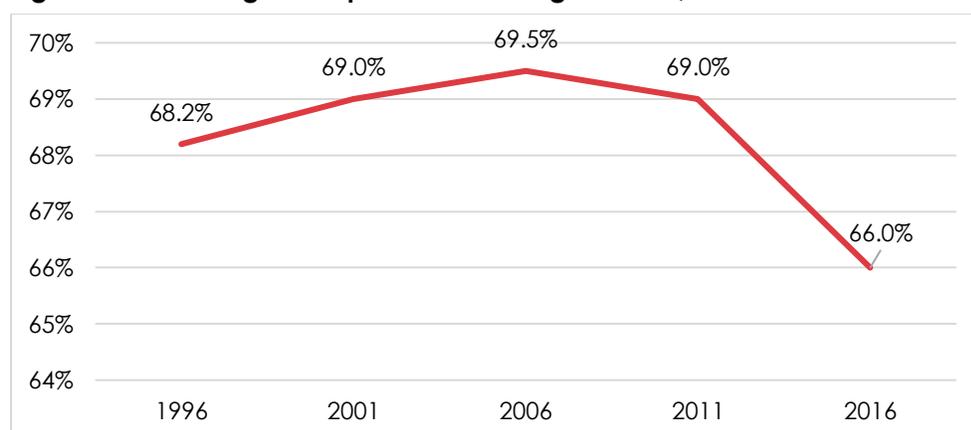
**Table 4: Working-Age Population by CMA/CA, 1996-2016**

CMA/CA	1996	2001	2006	2011	2016
	<b>Working-age population (15-64)</b>				
<b>New Brunswick</b>	497,895	496,840	500,205	508,045	481,985
<b>Outside NB CMA/CA</b>	237,125	232,960	210,245	199,225	174,950
<b>Moncton</b>	77,225	81,530	85,500	92,855	95,495
<b>Saint John</b>	83,655	82,595	81,720	85,245	82,175
<b>Fredericton</b>	55,390	57,090	58,330	63,465	67,955
<b>Bathurst</b>	17,725	16,645	21,305	22,480	19,610
<b>Edmundston</b>	15,760	15,475	14,800	14,580	14,705
<b>Miramichi</b>	-	-	16,500	18,705	17,255
<b>Campbellton (NB)</b>	9,160	8,640	9,700	9,355	8,175
<i>Campbellton (QC)</i>	1,850	1,910	2,105	2,135	1,660

Source: Canadian Census Masterfile (1996 to 2016). Counts are based on current province of residence at the time of census. Please note that the addition of Miramichi as a CA in 2006 affects the "Outside NB CMA/CA" population from 2006 onwards.

The number of New Brunswickers aged 15-64 decreased by 5.1% between 2011 and 2016, representing the largest decline between consecutive census years since 1996. In 2016, this group represented 66% of the total population, down 3 p.p. from the previous census year.

**Figure 3: Percentage of Population in NB aged 15-64, 1996-2016**

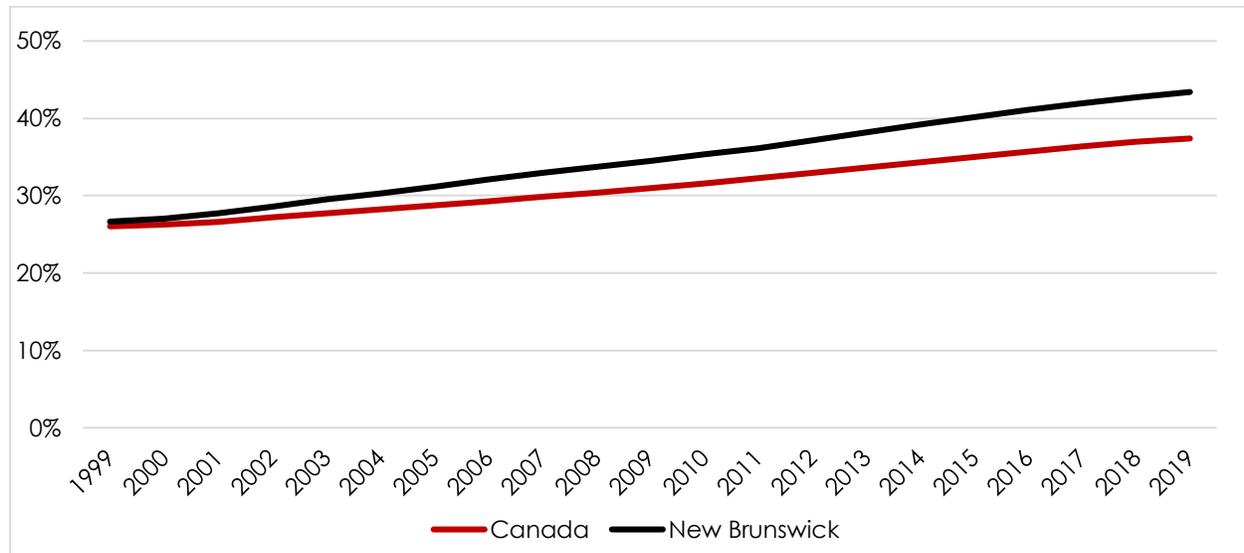


Source: Canadian Census Masterfile (1996 to 2016). Counts are based on current province of residence at the time of the census.

Meanwhile, the number of older workers has increased significantly. Data from the Labour Force Survey (StatCan, 2020) reveals that the share of the working-age population aged 55 and over has increased by 16.7 p.p. in the last two decades. In the early 2000s, both Canada and NB had a similar proportion of their working-age populations aged 55 and over. Last year, however, NB's proportion was 43.4%, and Canada was 37.4%.

Figure 4 (below) depicts the growing gap between the provincial and national share of the working-age population aged 55 and older.

**Figure 4: Share of Working-Age Population 55 Years and Over, 1999-2019**



Source: Statistics Canada (Labour Force Survey), Table: 14-10-0020-01 (formerly CANSIM 282-0004)

The dependency ratio has also risen for every NB CMA/CA between 2011 and 2016 (see Table 5 below).

Dependency ratios show the burden of taxpayers by revealing the proportion of the population that is a considered dependent. Over the study period, dependency ratios in NB ranged between 30% and 34% overall.

The 2016 NB population had the highest dependency ratio for each CMA/CA in NB within the study period. Edmundston experienced the highest dependency ratio increase of all CMAs/CAs between 2011 and 2016, and Miramichi had the highest dependency ratio in 2016. Despite Fredericton having the highest population growth rate between 2011 and 2016, the region experienced a 3 p.p. increase in its dependency ratio at the same time.

**Table 5: Dependency Ratio by CMA/CA, 1996 to 2016**

CMA/CA	1996	2001	2006	2011	2016
	<b>Dependency Ratio<sup>16</sup></b>				
<b>New Brunswick</b>	32%	31%	30%	31%	34%
<b>Outside NB CMA/CA</b>	32%	32%	32%	33%	35%
<b>Moncton</b>	31%	30%	29%	29%	33%
<b>Saint John</b>	33%	32%	30%	30%	33%
<b>Fredericton</b>	29%	29%	29%	29%	32%
<b>Bathurst</b>	30%	30%	29%	31%	35%
<b>Edmundston</b>	29%	29%	29%	29%	35%
<b>Miramichi</b>	-	-	31%	32%	36%
<b>Campbellton (NB)</b>	33%	33%	31%	32%	35%
<i>Campbellton (QC)</i>	36%	35%	31%	32%	36%

Source: Canadian Census Masterfile (1996 to 2016). Counts are based on the current province of residence at the time of census. Please note that the addition of Miramichi as a CA in 2006 affects the "Outside NB CMA/CA" population from 2006 onwards.

<sup>16</sup>Number of dependents (<15 and >64) divided by the total population

## LABOUR FORCE PARTICIPATION

Residents living in the three most populated cities in NB – Moncton, Saint John, and Fredericton – have the highest labour force participation rates.

In 2019, all three cities (CMAs/CA) reported participation rates higher than the national and provincial participation rates. This is despite the 7.3 p.p. participation rate decline in Fredericton between 2009 and 2019. Overall, participation rates have declined for each CMA/CA since 2009, with the largest decline occurring in CA Bathurst (10 p.p.) and the smallest in CA Miramichi (0.2 p.p.).

**Table 6: Labour Force Participation Rates by CMA/CA<sup>17,18</sup>**

CMA/CA	2009	2019	Change (p.p.)
	<b>Participation Rate<sup>19</sup> (%)</b>		
<b>Canada</b>	<b>67.1</b>	<b>65.7</b>	<b>-1.4</b>
<b>New Brunswick</b>	<b>64.2</b>	<b>61.4</b>	<b>-2.8</b>
Moncton	69.4	65.8	-3.6
Saint John	67.1	66.2	-0.9
Fredericton	73.1	65.8	-7.3
Bathurst	60.7	50.7	-10.0
Edmundston	60.6	59.4	-1.2
Miramichi	55.8	55.6	-0.2

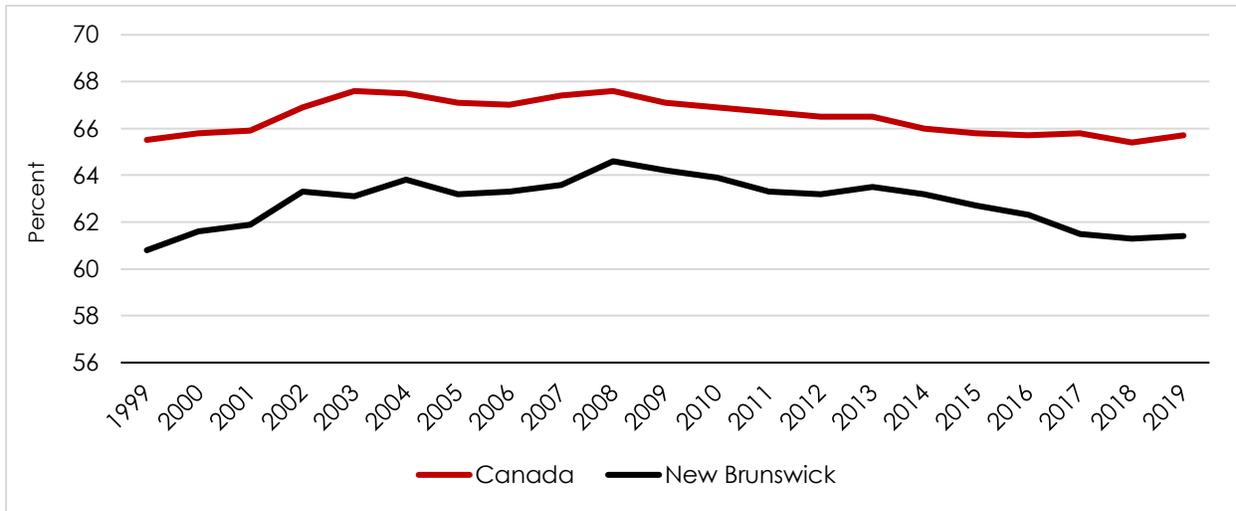
Source: Statistics Canada (Labour Force Survey), Table: 14-10-0096-01 (formerly CANSIM 282-0129) and Table: 14-10-0102-01 (formerly CANSIM 282-0134). Note that the referenced Statistics Canada tables do not include CA Campbellton, and therefore both the CA and the "Outside NB CMA/CA" category are excluded.

<sup>17</sup> Table 14-10-0096-01 (formerly CANSIM 282-0129) and Table 14-10-0102-01 (formerly CANSIM 282-0134) – tables with CMA and CA data – only go as far back as 2001, so a 20-year timeline was not possible. Additionally, CA Campbellton was excluded from the list of CAs in NB in the data table.

<sup>18</sup> According to Statistics Canada, for the Labour Force Survey, "Regular sample rotation within the larger Economic Regions (ERs) that contain these communities may cause the sample size within CA boundaries to vary over time. As a result, data level movements may be due to real change, or they may be due to data variability from changes in sample size."

<sup>19</sup> Participation rates are the proportion of the population aged 15 and over that are labour force participants

**Figure 5: Labour Force Participation Rates**



Source: Statistics Canada (Labour Force Survey), Table: 14-10-0020-01 (formerly CANSIM 282-0004)

In 2019, unemployment rates in NB were highest in CA Miramichi (12.4%) and lowest in CA Fredericton (5.5%). Overall, the unemployment rate for the province declined in the last ten years by 0.8 p.p., compared to a national decline of 2.6 p.p. The three most populated cities in NB had varied results for unemployment over the investigated time period. While CA Fredericton showed no difference in its unemployment rate between 2009 and 2019, CMA Moncton showed a decrease, and CMA Saint John was one of two cities that showed an increase.

**Table 7: Unemployment Rates by CMA/CA<sup>20</sup>**

CMA/CA	2009	2019	Change (p.p.)
<b>Unemployment Rate (%)</b>			
<b>Canada</b>	<b>8.3</b>	<b>5.7</b>	<b>-2.6</b>
<b>New Brunswick</b>	<b>8.7</b>	<b>7.9</b>	<b>-0.8</b>
Moncton	6.3	5.7	-0.6
Saint John	5.7	6.8	1.1
Fredericton	5.5	5.5	0
Bathurst	11.4	9.3	-2.1
Edmundston	8.5	6.3	-2.2
Miramichi	11.7	12.4	0.7

Source: Statistics Canada (Labour Force Survey), Table: 14-10-0096-01 (formerly CANSIM 282-0129) and Table: 14-10-0102-01 (formerly CANSIM 282-0134). Note that the referenced Statistics Canada tables do not include CA Campbellton, and therefore both the CA and the "Outside NB CMA/CA" category are excluded.

<sup>20</sup> CA Campbellton was excluded from the list of CAs in NB in the Labour Force Survey data table.

## INDUSTRY STATISTICS

This section on industry statistics presents results from the Labour Force Survey.

Industries in this section are categorized according to the North American Industry Classification System (NAICS): a comprehensive system encompassing all economic activities. The NAICS has a hierarchical structure – at the highest level, it divides the economy into 20 sectors, and at lower levels, it further distinguishes the different economic activities in which businesses are engaged (StatCan, 2019). This report makes use of two- and three-digit NAICS sector codes in its analysis.

The NB industry landscape has changed in the last two decades (see Figure 6 below). Over the last ten years, the population of the services-producing sector went from accounting for 77.9% of all working persons in 2009 to 79.1% in 2019, a 1.2 p.p. increase.

As expected, the goods-producing sector went from accounting for 22.1% to 20.9% (a 1.2 p.p. decrease) over the same timeframe.

At the start of the decade, the industry with the largest share of the working population was Wholesale and Retail Trade, accounting for 19.8% of the services sector and 15.4% of both sectors. In 2019, this title went to the Health Care and Social Assistance industry, which accounted for 21.5% of the services sector and 17% of both sectors.

Every industry within the goods-producing sector experienced a population decline in the last decade. Agriculture experienced the largest decline at -16.9%, also accounting for the smallest portion of the goods-producing sector: 7.3% in 1999, 8.9% in 2009, and 7.9% in 2019.

Manufacturing remains the goods-producing industry with the highest employment. Its population accounted for 41% of the goods-producing sector in 2019: 1.2 p.p. more than in 2009 and 8 p.p. less than in 1999. Industries in the services-producing sector experienced both declines and increases. The Information, Culture, and Recreation industry had the largest increase in employment in the last decade at 16.4%, and Wholesale and Retail Trade experienced the largest decline at -6.1%.<sup>21</sup>

The three industries with the largest share of the working population within the service sector in NB remain Health Care and Social Assistance, Wholesale and Retail Trade, and Business, Sciences, Finance, and Real Estate. These accounted for 21.5%, 19.8 %, and 18.5%, respectively, of the services-producing sector in 2019. Growth in the service sector is, however, driven chiefly by the public service sector rather than the private service sector (Di Matteo, 2015; Emery & Guo, 2019).

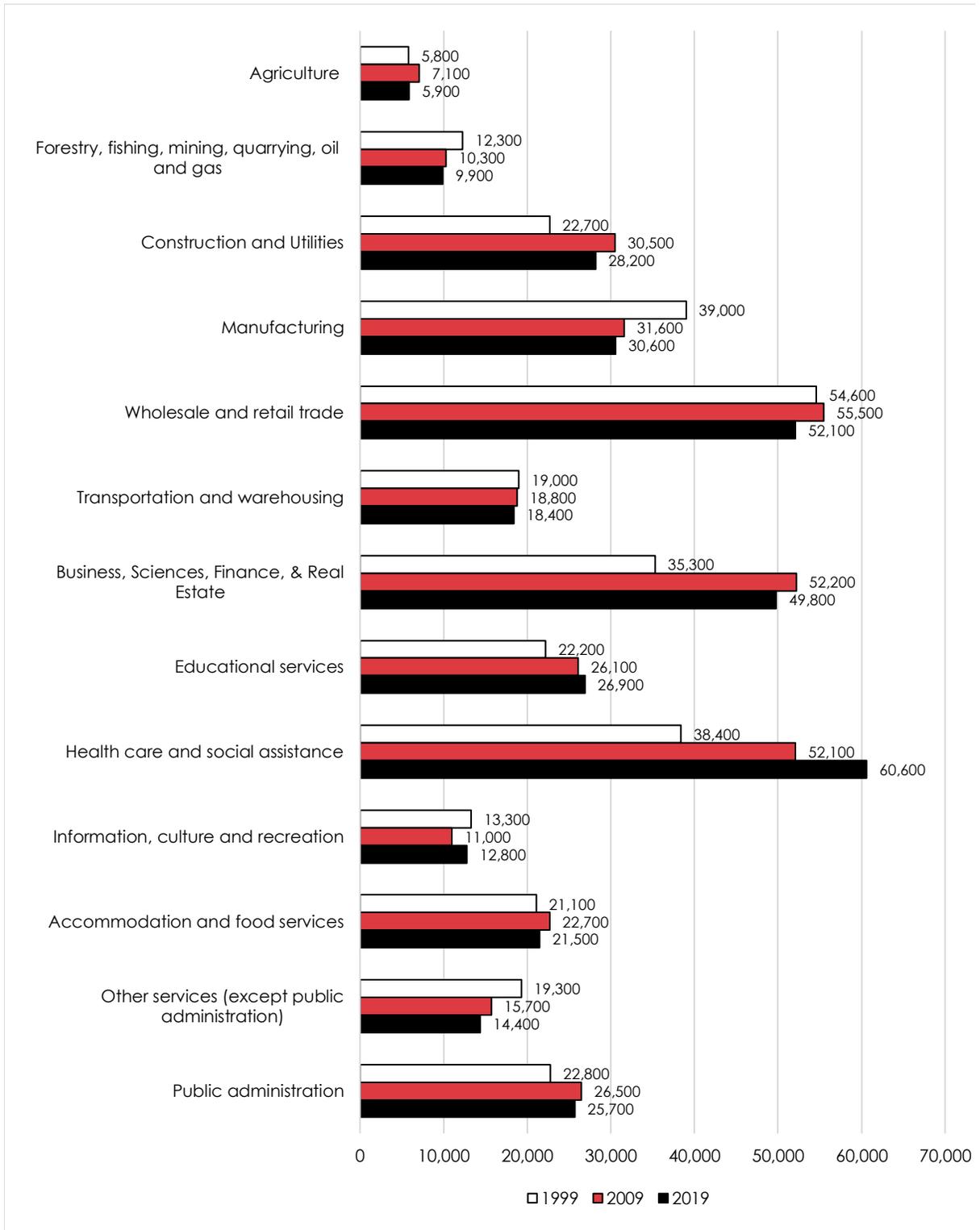
The three smallest services industries remain Information, Culture and Recreation, Transportation and Warehousing, and Accommodation and Food Services.<sup>22</sup> Each accounted for 4.5%, 6.5%, and 7.6% of the sector in 2019.

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<sup>21</sup> "Other services (except public administration)" had the largest decline at -8.3%. However, because the industries included in this category are varied, this report excludes it from comparison.

<sup>22</sup> "Other services (except public administration)" is actually among the three smallest services 'industries' in the province, accounting for 5.6% and 5.1% of the sector in 2009 and 2019, respectively. However, for reasons stated in the footnote above, it is excluded from comparison.

**Figure 6: Number of Persons Employed by Industry in NB (1999, 2009, and 2019)\***



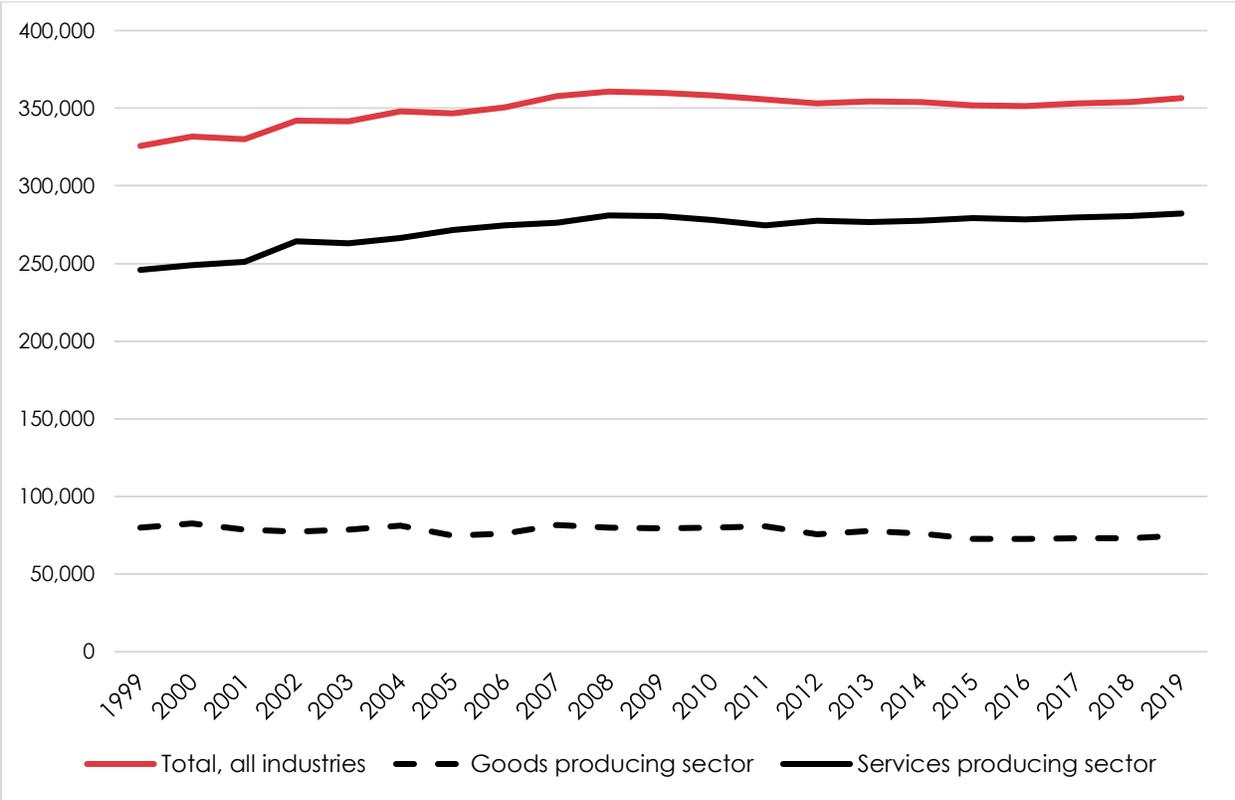
Source: Statistics Canada (Labour Force Survey), Table: 14-10-0023-01 (formerly CANSIM 282-0008)

\*Goods-producing sector industries include Agriculture; Forestry, fishing, mining, quarrying, oil, and gas; Construction and Utilities; and Manufacturing. All other industries in the figure above are in the services-producing sector.

From 1999 to 2019, employment in the services-producing sector grew by 14.8%, compared to a 6.5% decrease in the goods-producing sector.

In 1999, about 7 in 10 (68.9%) New Brunswickers worked in the services-producing sector. In 2019, about 8 out of 10 (79.1%) did.

**Figure 7: Total Employment by Sector**



Source: Statistics Canada (Labour Force Survey): Table: 14-10-0023-01 (formerly CANSIM 282-0008)

## CMA/CA STATISTICS BY INDUSTRY

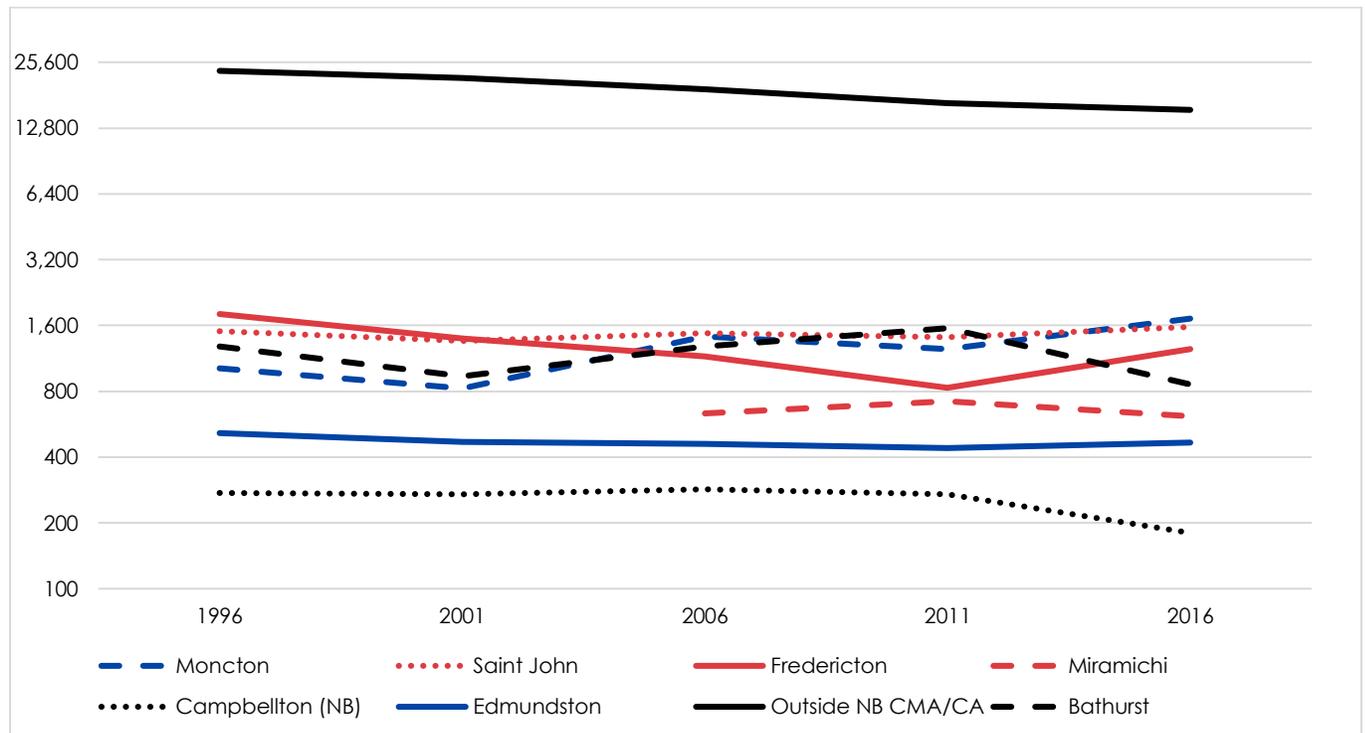
This section presents results from the Canadian Census master files from 1996 to 2016. Employment counts are derived using industry sector variables, which categorize a homogenous set of labour market activities into a sector.<sup>23</sup>

### Goods-Producing Sector

As highlighted in the previous section, all industries within the goods-producing sector experienced a decline in employment within the last decade. Each industry, however, shows trends that vary according to CMA/CA.

For instance, in the 1996 Census, CA Fredericton had the highest number of persons employed in Agriculture, Forestry, Mining, and Oil/Gas Extraction. However, from 2001 to 2011, CMA Saint John had the highest share, and in 2016 CMA Moncton gained the highest share. Ironically, this industry remains CMA Moncton's smallest industry, accounting for 1.6%, 1.9%, and 2% of the city's employed population in 1996, 2006, and 2016, respectively. Meanwhile, cities, towns and other communities Outside NB CMAs/CAs are home to the majority of the people employed in this industry for all census cycles studied.

**Figure 8: Number of Persons Employed in Agriculture, Forestry, Mining, and Oil/Gas Extraction by CMA/CA**



Source: Canadian Census Master file (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used in this graph for a clearer depiction of employment differences by CMA/CA.

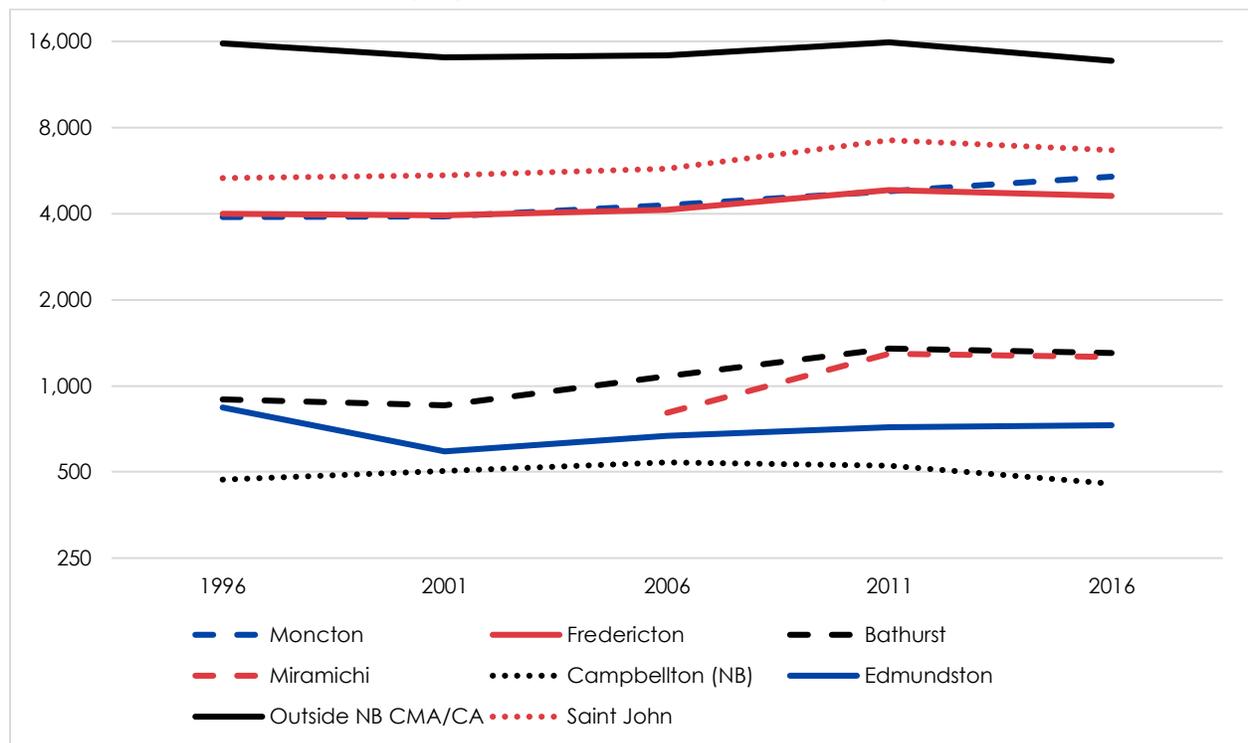
<sup>23</sup> These population counts are based on the CMA/CA where workers reside.

If you pay close attention to the numbers in Figure 8, and certain later graphs, you will notice a logarithmic scale is used. This is due to the large range of data points, which would not all fit into a traditional graph due to the great difference between the highest and lowest numbers presented. Particular attention should be paid to the numbers on the y-axis (left axis), rather than to the visible spacing between the data points.

CA Edmundston and CA Campbellton (NB) are the only CAs that showed decreases in their total share of employment in the Construction and Utilities industry between 1996 and 2016.<sup>24</sup> All other locations – CMAs, CAs, and Outside NB CMAs/CAs – showed increases.

In 2016, CMA Saint John accounted for 19.5% of this industry, CMA Moncton accounted for 15.8%, and CA Fredericton accounted for 13.6%. However, 40.3% of the people employed in this industry reside in cities, towns, and other communities outside NB CMA/CAs.

**Figure 9: Number of Persons Employed in Construction and Utilities by CMA/CA**



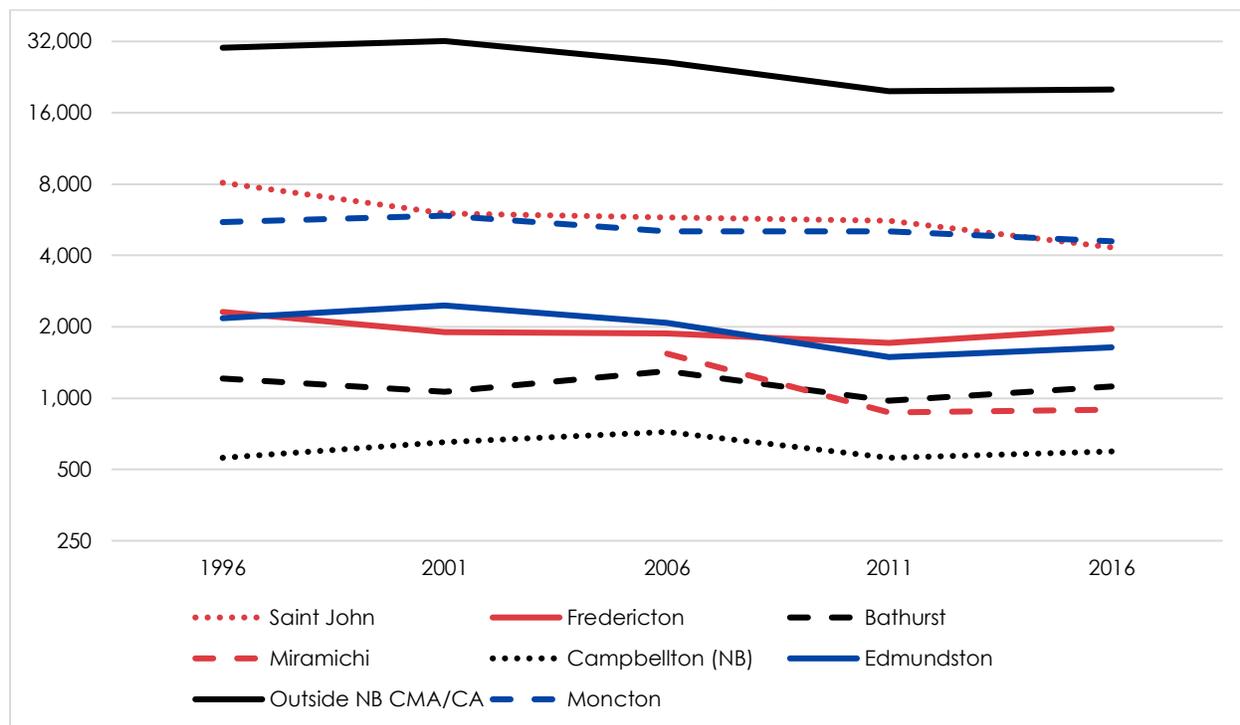
Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used for a clearer depiction of employment differences by CMA/CA.

When counts are compared from 1996 onward, we see that Manufacturing faced the largest decline, specifically outside NB CMAs/CAs. Within this industry, the biggest losses came from Food/Beverage/Tobacco, Paper Manufacturing/Printing, and related support industries.

Except for in 2016, CMA Saint John consistently had the largest share of total employment in Manufacturing, even after losing close to half (46.6%) of its employment population between 1996 and 2016.

<sup>24</sup> CA Miramichi's share of total employment could only be studied from 2006 to 2011.

**Figure 10: Number of Persons Employed in Manufacturing by CMA/CA**



Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used for a clearer depiction of employment differences by CMA/CA.

## Services-Producing Sector

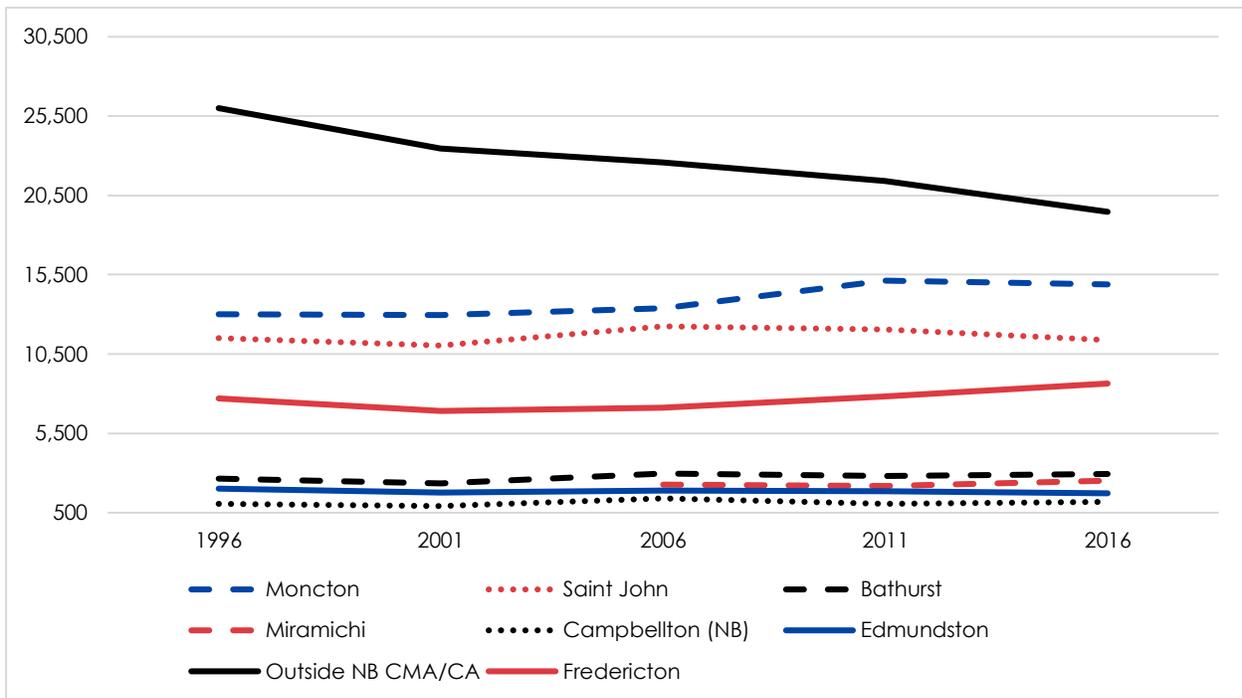
Publicly funded industries – Educational Services, Healthcare and Social Assistance, and Public Administration – have remained the largest industries in the services-producing sector across all CMAs and CAs.

In CMA Moncton, these industries accounted for 26% of total employment in 1996, 25% in 2006, and 26% again in 2016. Wholesale and Retail trade comes in second, with 21% of total employment in 1996, 18% in 2006, and 17.5% in 2016.

CMA Moncton remains the CMA with the highest share of service industries employment in 2016. Meanwhile, cities, towns, and other communities outside NB CMAs/CAs have collectively faced the largest declines across all service industries, especially in the publicly funded industries (Educational Services, Health Care and Social Assistance, and Public Administration), losing over 6,000 employees from 2011 to 2016.

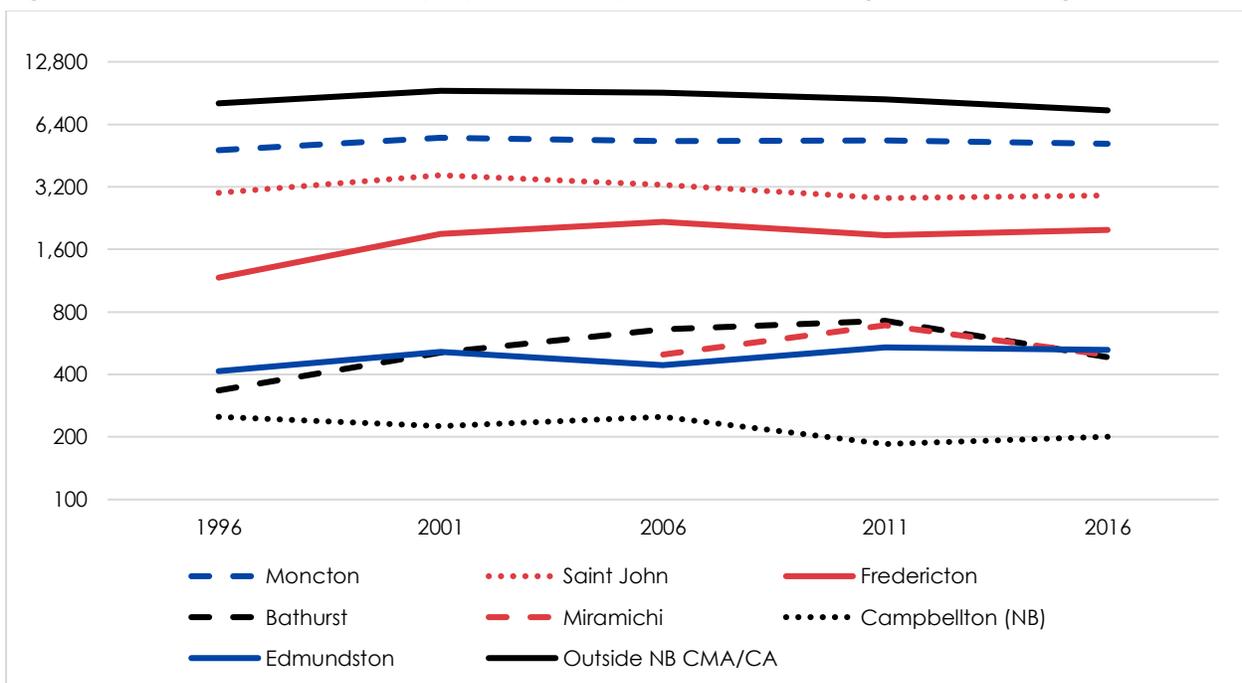
However, for the rest of NB, these publicly funded industries have shown the most consistent growth in all CMAs and CAs. In the Arts, Entertainment, and Recreation industries, CMA Moncton and CA Fredericton show continued increases – from 2001 onward for CMA Moncton and from 2006 onward for CA Fredericton – while CMA Saint John shows the opposite.

**Figure 11: Number of Persons Employed in Wholesale and Retail Trade by CMA/CA**



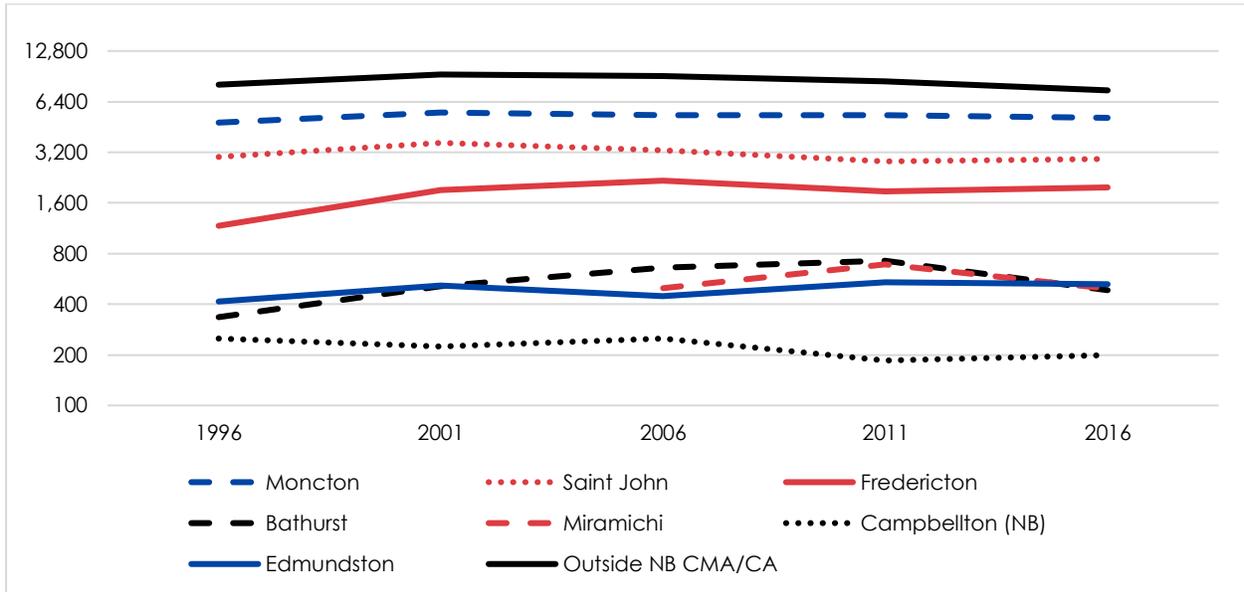
Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used in this graph for a clearer depiction of employment differences by CMA/CA.

**Figure 12: Number of Persons Employed in Transportation and Storage/Warehousing by CMA/CA**



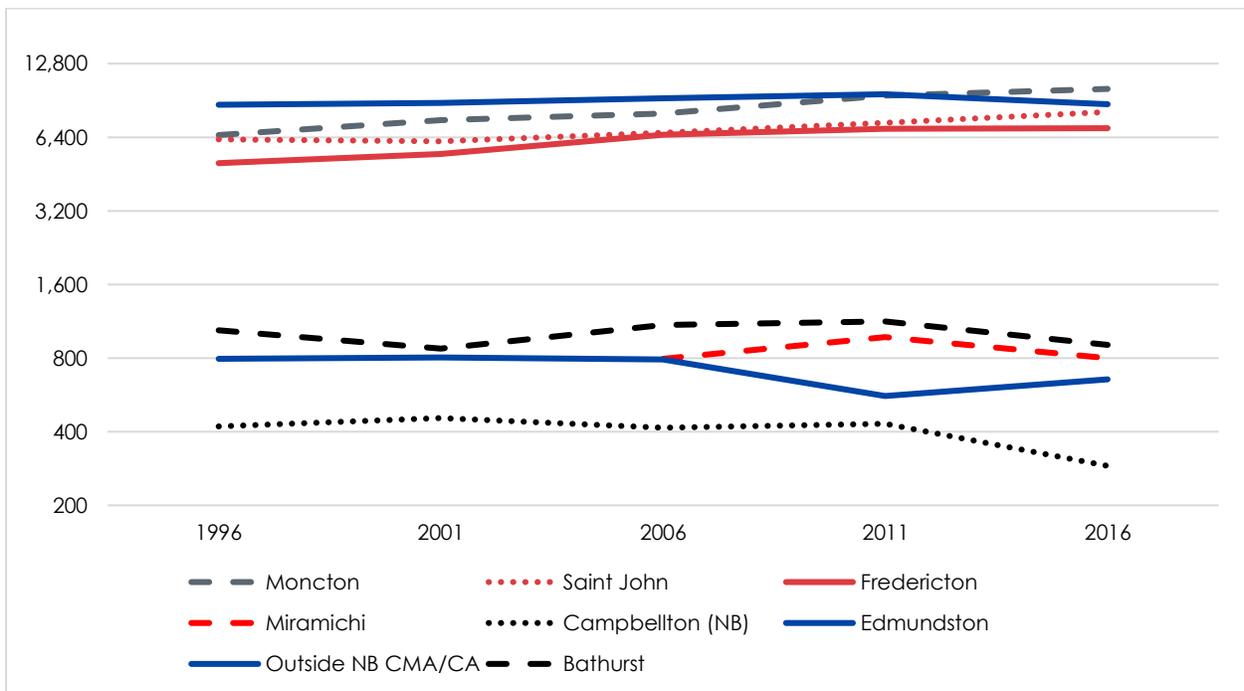
Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used in this graph for a clearer depiction of employment differences by CMA/CA.

**Figure 13: Number of Persons Employed in Entertainment, Cultural, Information, and Recreation by CMA/CA**



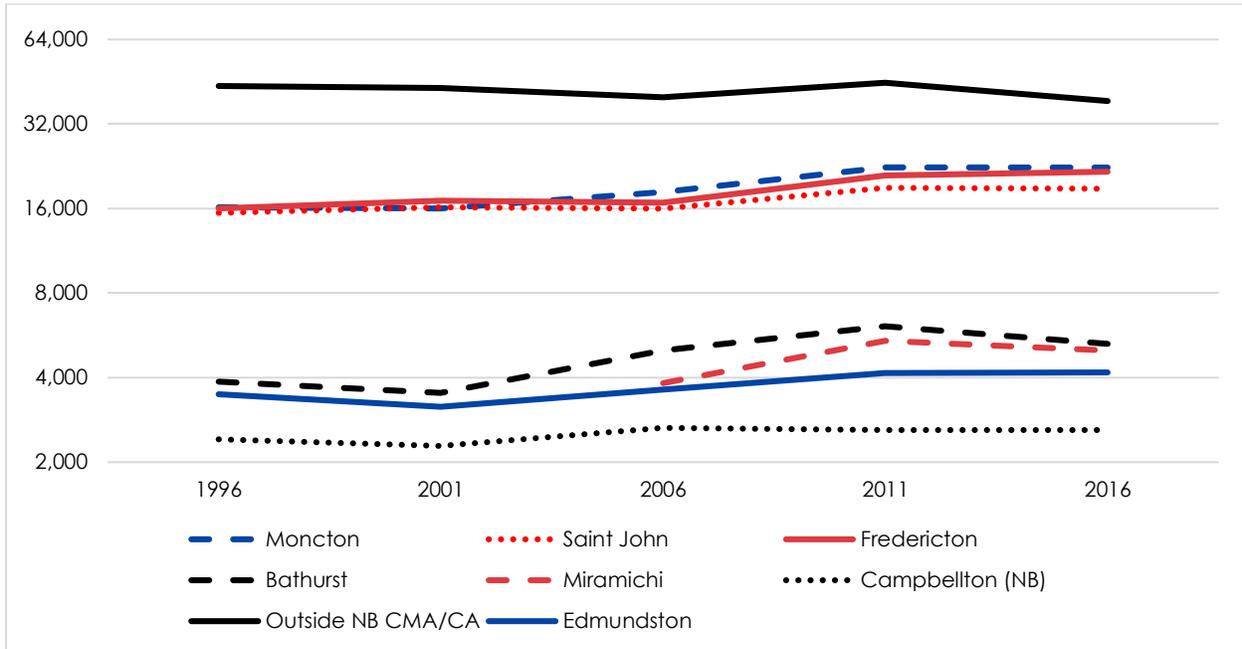
Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used in this graph for a clearer depiction of employment differences by CMA/CA.

**Figure 14: Number of Persons Employed in Business, Sciences, Finance, and Real Estate by CMA/CA**



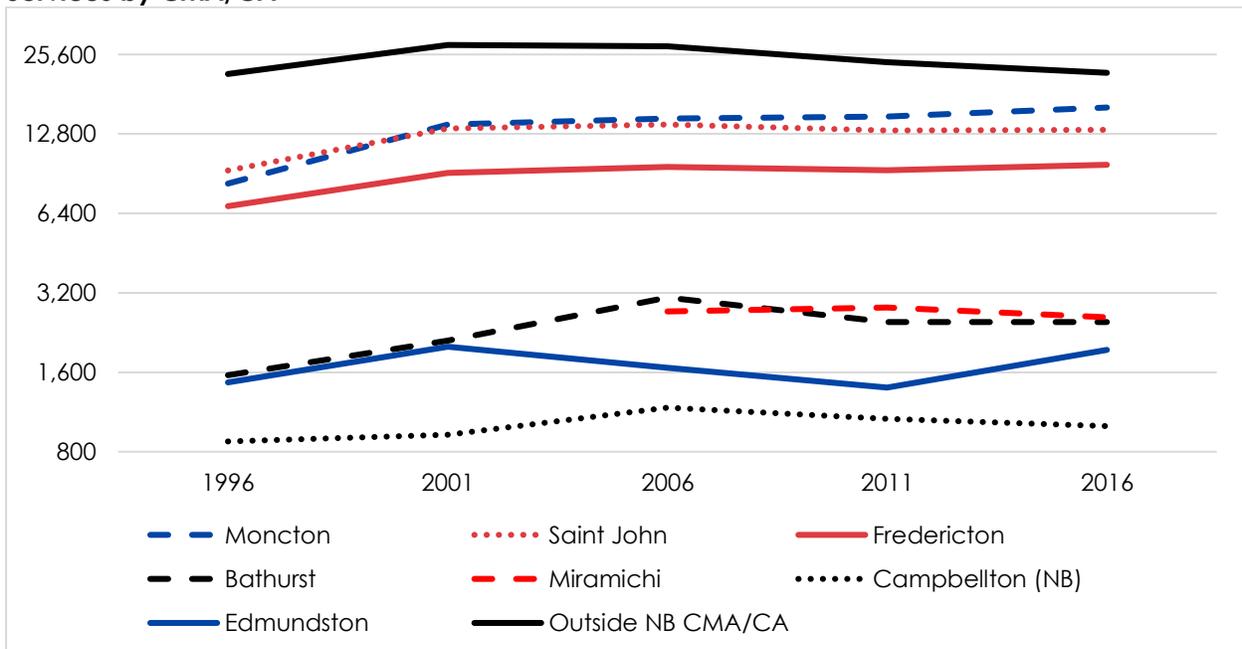
Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used in this graph for a clearer depiction of employment differences by CMA/CA.

**Figure 15: Number of Persons Employed in Educational Services, Healthcare/Social Assistance, and Public Administration by CMA/CA**



Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used in this graph for a clearer depiction of employment differences by CMA/CA.

**Figure 16: Number of Persons Employed in Accommodation, Administrative, Food, and Other Services by CMA/CA**



Source: Canadian Census Masterfile (1996 to 2016). Note: CA Miramichi was not considered a CA in the Canadian Census until 2006. A logarithmic scale is used in this graph for a clearer depiction of employment differences by CMA/CA. "Other services" include but are not limited to Waste Management and Remediation Services. "Other services" are services outside of Public Administration.

## SUMMARY AND CONCLUSION

This report examines 20-year trends in employment in New Brunswick across industry categories and geographic regions. It uses a combination of publicly available data from the Labour Force Survey and the restricted-access master files for the Canadian Census (1996 to 2016), available in the Research Data Centre at the University of New Brunswick.

NB's aging workforce, youth outmigration, intra-provincial migration (see Emery et al., 2019) and low immigration levels are a cause for concern. The percentage of the working-age population aged 55 and over increased by 16.7 p.p. in NB in the last two decades – a noteworthy change, seeing as NB and Canada once had the same proportion of older workers in the workforce, and Canada's 55 and over working population only went up by 11.4%.

NB's three major cities – Moncton, Saint John, and Fredericton – are a bright spot in an otherwise bleak outlook. More than half of the NB working population calls one of these cities home. Between 2011 and 2016, CA Fredericton reported the highest population increase of the province's CMAs/CAs, with an 11.8% increase. In 2016, about 20% of the province's population resided in CMA Moncton, and the CMA's population has increased steadily since then. Labour participation is also high in these cities. While labour force participation rates have declined for both cities since 2009, they still boast a participation rate higher than or on par with the province and the nation as a whole. Of the seven CMAs/CAs in NB, unemployment was lowest in CA Fredericton (5.5%).

NB's smaller cities do not fare as well as the three main cities. In 2019, CA Miramichi had the province's highest unemployment rate (12.5%) (4.5 p.p. higher than the provincial rate and 0.7 p.p. higher than in 2009). CA Bathurst had the largest decrease (-10 p.p.) in participation rates in the last decade. CA Campbellton even suffered the largest CA population decline nationwide between the last two census cycles. Dependency ratios in 2016 were also higher in these cities, with Miramichi having the highest ratio at 36%. That said, it should be noted that despite the population growth in the three main cities between 2011 and 2016, the working-age population in those cities has either declined or not grown as much as the entire population of the city. The same goes for other CAs in the province: growth in the entire population is reduced when limited to those of working age, indicating an increasing taxpayer burden. Despite declines in unemployment within most of NB, participation rates have declined for most CMAs/CAs.

Sector-based and industry-based analyses showed that overall growth in provincial employment came from within the service sector – more from the public service sector than the private service sector (Di Matteo, 2015; Emery & Guo, 2019). Goods-producing industries declined slowly, with about two out of ten New Brunswickers reporting a job in this sector in 2019. Every industry in the goods-producing sector suffered a decline in employment in the last decade, the largest being in Agriculture. Manufacturing remains the largest goods-producing industry in NB.

In the services-producing sector, CMA Moncton was the CMA with the highest share of employment across industries in 2016. Publicly funded industries (specifically, Educational Services, Healthcare and Social Assistance, and Public Administration) had the highest number of employees and showed consistent growth in all CMAs/CAs between each census year since 1996. Cities, towns, and other communities outside NB CMAs/CAs faced the largest declines across all service industries, losing over 6,000 of their population from 2011 to 2016.

A snapshot of the provincial labour force is necessary to guide policy intervention. This report reveals population and industry changes within the last two decades and provides a framework through which more specific analyses of employment in NB can be based.

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