

# DESCRIPTIVE ANALYSIS OF MANUFACTURING EMPLOYMENT AT THE SUB-PROVINCIAL LEVEL IN NEW BRUNSWICK

2010-2020



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Descriptive analysis of manufacturing employment at the sub-provincial level in New Brunswick: 2010-2020

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## Executive Summary

There is a narrative in New Brunswick that the province is falling further and further behind the rest of Canada in terms of economic and population growth, and “catching up” is a nearly impossible task to accomplish. Fortunately, this narrative is not entirely true.

New Brunswick (NB) aims – like all provinces – to obtain levels of growth equal to or surpassing the national average. It struggles in certain areas, such as growing its working-age population. However, research is often so focused on the province’s struggles and areas of greatest need that its leading sectors sometimes fade into the background.

If we are to promote progress and prosperity in the province, there is a need to not only examine our weaknesses but also to better understand our strengths. The more we know about NB’s successes, the more likely we are to replicate them, and to solve any challenges that might be holding them back.

In this report, we aim to do just that by examining one of NB’s greatest strengths: its manufacturing sector.

Manufacturing, which refers to *the physical or chemical transformation of materials or substances into new products* (Government of Canada, 2021), is key to NB’s economic growth. Our manufacturing sector leads the province in exports and accounts for nearly 10% of total employment. In other words, nearly 1 in every 10 employed New Brunswicker works in manufacturing.

Some of the challenges impacting employment and competitiveness in manufacturing include

- short-lived competitive advantages based on price advantage rather than on value
- labour-intensive production to maintain jobs rather than automation
- low wages
- low productivity labour to provide a competitive edge, rather than labour productivity

Addressing these and other challenges requires a detailed understanding of NB’s manufacturing businesses: particularly, their size, employment numbers, and geographic characteristics.

This report examines the NB manufacturing sector and sub-sectors at the sub-provincial level over a ten-year period (2010-2021) using available data on employment and business sizes from Statistics Canada and NBjobs.ca.

More specifically, we divide the province into five regions: Northeast, Northwest, Central, Southeast, and Southwest. We provide a descriptive analysis of manufacturing sub-sectors for

each sub-provincial level. We also classify manufacturers as micro (1-9 employees), small (10-99 employees), medium (100-499 employees), and large (500+ employees).

Drawing on the data and research findings of the JDI research program on Manufacturing Competitiveness in New Brunswick (JDI, n.d.), this report shows where the province's large, medium, small, and micro manufacturers are located, how many there are, and which sub-sectors they involve.

Results are stratified by sub-provincial region and by manufacturing sub-sector and industry using the North American Industry Classification System (NAICS).

## Highlight of Findings

At the sub-provincial level, the manufacturing sector in NB is characterized by a large number of small and micro-sized establishments. However, the large and medium manufacturing establishments employ the majority of workers across NB. The geographic locations of the manufacturing establishments match typical export strategies and are positioned where skilled labour and infrastructure are available.

This information can be used to further guide both research and decision making to assess what enabling policies are required to boost sector growth at the sub-provincial level.

### Location

- Southeast NB has the highest number of **micro** and **small** manufacturing companies.
- Southeast NB also has the highest number of **medium** and **large** establishments together, followed by Southwest NB.
- Northeast NB has the highest number of **large** manufacturing businesses. Central NB has the smallest number.
- The **large** manufacturing establishments with exports based on natural resources are located outside the major urban centres (Fredericton, Moncton, Saint John), which seems to characterize the Northern region specifically and likely reflects the importance of these manufacturers to that region.
- The high density of manufacturing establishments in the three major urban centres is due to the availability of labour and access to core transportation infrastructure.

### Share of Total Employment

- Between 2010 and 2020, manufacturing showed an increasing trend in its contribution to total employment in all sub-provincial regions (10%).
- The manufacturing sector made up the highest share of total industry employment in Northwest NB, followed the Southwest, Northeast, Southeast, and finally Central NB.

## Share of Manufacturing Employment

- **Small** establishments account for most of the growth in manufacturing business numbers. However, they are less important to total employment in manufacturing.
- The highest contributions to manufacturing employment in NB come from **medium** and **large** establishments. Compared to other sectors, manufacturing at the sub-provincial level has more medium and large employers as well. **The NB economy is driven by a small number of large companies.**
- By the end of the study period, sub-provincial shares of manufacturing employment from highest to lowest were as follows:

- |                 |                 |            |
|-----------------|-----------------|------------|
| 1. Southeast NB | 3. Northeast NB | 5. Central |
| 2. Southwest NB | 4. Northwest NB |            |

When we look at manufacturing employment relative to the population size of each region, which reflects which region has relatively more reliance on manufacturing employment, we find that manufacturing employment is particularly important for Northwest NB followed by the Southwest, Southeast, Northeast, and least represented in the Central region.

## Introduction

### The Importance of the Manufacturing Sector to New Brunswick

The manufacturing sector in New Brunswick (NB) is a key contributor to exports, employment, and overall Gross Domestic Product (GDP) in the province. Approximately 8% of employed New Brunswickers work in manufacturing. This share of total employment is not only high within NB but across the other three Atlantic provinces as well, almost reaching national levels in most years (Statistics Canada [StatCan], 2021a).

Like its large share of employment, the manufacturing sector also contributes to a large share of the province's GDP (10%) and accounts for the export of most goods in the province. Likewise, this sector's contribution to GDP is close to the national level and in some years has even been higher (StatCan, 2021f).

Provincial manufacturing shares of GDP appear to have been falling across the board in recent years. For instance, both Ontario and Quebec saw their shares fall from just above 20% in 1997 to 12% and 14%, respectively, in 2018. NB's manufacturing also fell over the same timeframe, from 13% to just below 11% (Emery & Guo, 2019). However, the ranking of the NB manufacturing sector's contribution to GDP rose – from fourth-highest of all the provinces in 1997 to third-highest in 2018.

Compared to the other Atlantic provinces, manufacturing in NB contributed the highest share in GDP at basic prices from 2010 to 2020. Most recently, NB's contribution to GDP from manufacturing was 10% higher than Nova Scotia's, five times higher than Prince Edward Island's, and three times higher than Newfoundland and Labrador's (Emery & Guo, 2019).

### Report Scope and Purpose

In 2020, researchers at the New Brunswick Institute for Research, Data and Training (NB-IRDT) examined data from the Canadian Census and the Labour Force Survey to describe variations in industrial structure across regions of the province of New Brunswick (Boco et al). That work leveraged information on employment and earnings using data from the 1996, 2001, 2006, 2011, and 2016 cycles of the Canadian Census and 1999- 2019 data from the Labour Force Survey. However, it did not inform us about the relative importance of large, medium, and small employers or other characteristics of businesses that might help us understand how the economy is changing over time in different regions of the province.

This report helps address that gap by examining the characteristics of manufacturing establishments in NB using data originally compiled by the JDI Roundtable on Manufacturing Competitiveness in New Brunswick (JDI, n.d.).

We show that while small and medium size establishments account for most manufacturing enterprises in NB, a small number of large employers account for most of the employment in

manufacturing. The economic performance and fates of regions in the province appear to depend on the presence of large manufacturers that also function as exporters.

Of the many industries in NB, we focus mainly on manufacturing because, as Emery and Guo (2019) show, manufacturing in NB has not followed the same path as its counterparts in other advanced economies. For instance, employment and value-added industries have not declined as much as in Maine and Ontario. Whether this resilience is true of all regions in the province, however, is not clear.

Compared to other provinces in the Atlantic region, NB differs in character, with its high concentration of output from certain industries (including food processing, wood products, furniture, fabricated metal products, and miscellaneous manufacturing), its high share of regional exports, and its high dependence on a single foreign market. Yet NB, like the other Atlantic provinces, lags behind the rest of Canada with respect to investment and productivity growth.

NB has lower labour productivity with lower capital intensity of production than provinces outside the Atlantic region that depend on automation and more skilled labour. Thus, the manufacturing sector in NB depends on price advantage. When the exchange rate changes, adjustments in manufacturing are largely accomplished through changes in employment and not value proposition, which carries future risk and threatens the long-term viability of the sector. This could be a symptom of having too many small firms in the sector or functioning as periphery operations for multinational businesses.

Strategies such as relying on temporary foreign workers to maintain competitiveness through low wages are substitutes for investment in machinery, equipment, and digital technologies that replace the missing labour and improve competitiveness by raising labour productivity.

In this report, we look at the NB manufacturing sector at the sub-provincial level, considering the five economic regions of the province. We want to know

- Where manufacturing establishments are spatially concentrated
- What the common size is of these establishments
- What the relative importance of the sector is to employment in the different economic regions (i.e., sub-provincial levels) of NB

We also want to show, based on the available data, where there is a change in the employment or sizes of manufacturing businesses over the past ten years across NB regions.

In the next section, we briefly describe the methodology used in this report. We then present an overview of the province's manufacturing sector in terms of size and employment at large and at the sub-provincial level. Finally, we conclude with a discussion of what these geographic and economic characteristics imply for the NB economy.

## Methodology and Data Sources

Our descriptive analysis of manufacturing sub-sectors at the sub-provincial level in New Brunswick draws mainly on data collected and research conducted by the research program for the JDI Roundtable on Manufacturing Competitiveness in New Brunswick (JDI, n.d.) in 2019 and 2020. This research program collected and analyzed data from manufacturing companies' websites and business directories from 2017 to 2020, and the research team manually validated the data through phone calls and interviews with individual companies.

Total sector business counts and size by employment are taken from Statistics Canada and publicly available data from NBjobs.ca.

### Definitions

Throughout this report, we categorize manufacturing business sizes as follows:

- Micro            1-9 employees
- Small            10-99 employees
- Medium        100-499 employees
- Large            500 or more employees

We look at manufacturing in the five economic regions of NB shown in the map below and categorized as follows:

<p>Source: <a href="https://www.nbjobs.ca/stats/lfs">https://www.nbjobs.ca/stats/lfs</a></p>	Southwest	Saint John, Charlotte, and Kings Counties, Saint John-St. Stephen
	Southeast	Albert, Westmorland, and Kent Counties, Moncton-Richibucto
	Northwest	Carleton, Victoria, and Madawaska Counties, Edmundston-Woodstock
	Northeast	Gloucester, Northumberland, and Restigouche Counties, Campbellton-Miramichi
	Central	Fredericton, Sunbury, Queens, and York Counties, Fredericton-Oromocto

## Analysis and Findings

### Size of the Manufacturing Sector in New Brunswick

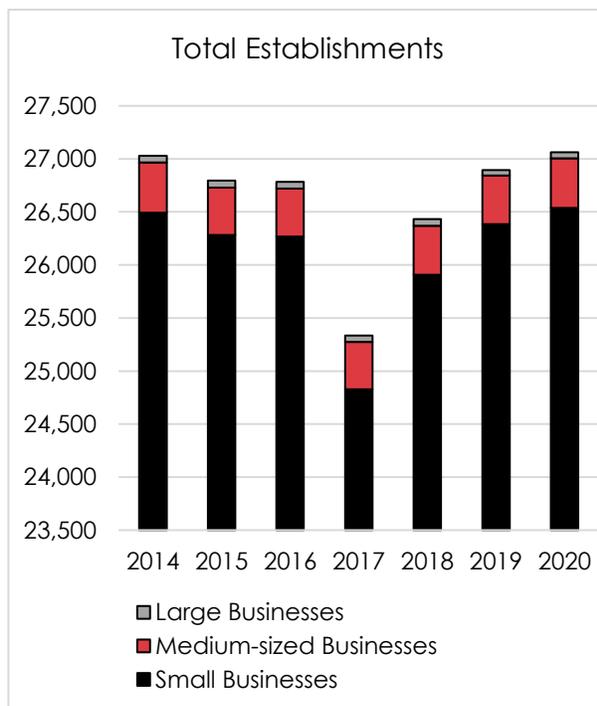
#### By Business Counts

In 2020, there were just over 27,000 businesses in New Brunswick. Ninety-eight percent of NB businesses are small companies that employ fewer than 100 employees, giving NB the second largest number of small and medium-sized businesses in the Atlantic region, after Nova Scotia.

Business counts did not change much for medium and large establishments from 2014-2020, as shown in Figure 1. Rather, small businesses generated most of the changes, but caution must be used when interpreting fluctuations, as Statistics Canada's methods for classifying active and inactive businesses have changed over time (see StatCan, 2015b, footnote 2).

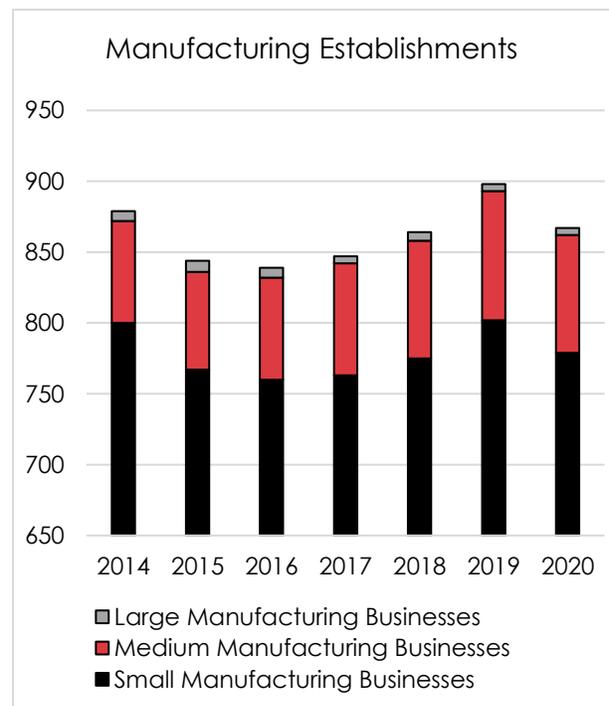
Further, these changes did not come from the manufacturing establishments displayed in Figure 2. Instead, most of the growth in business counts appears to have come from the services sector, mainly from retail trade, construction, health services, and other services (see Figure 3). While small business generated most of the changes within the manufacturing sector, they are less important to total employment (see Figure 2).

**Figure 1: Number of Total Establishments in NB by Size of Employment (2014-2020)**



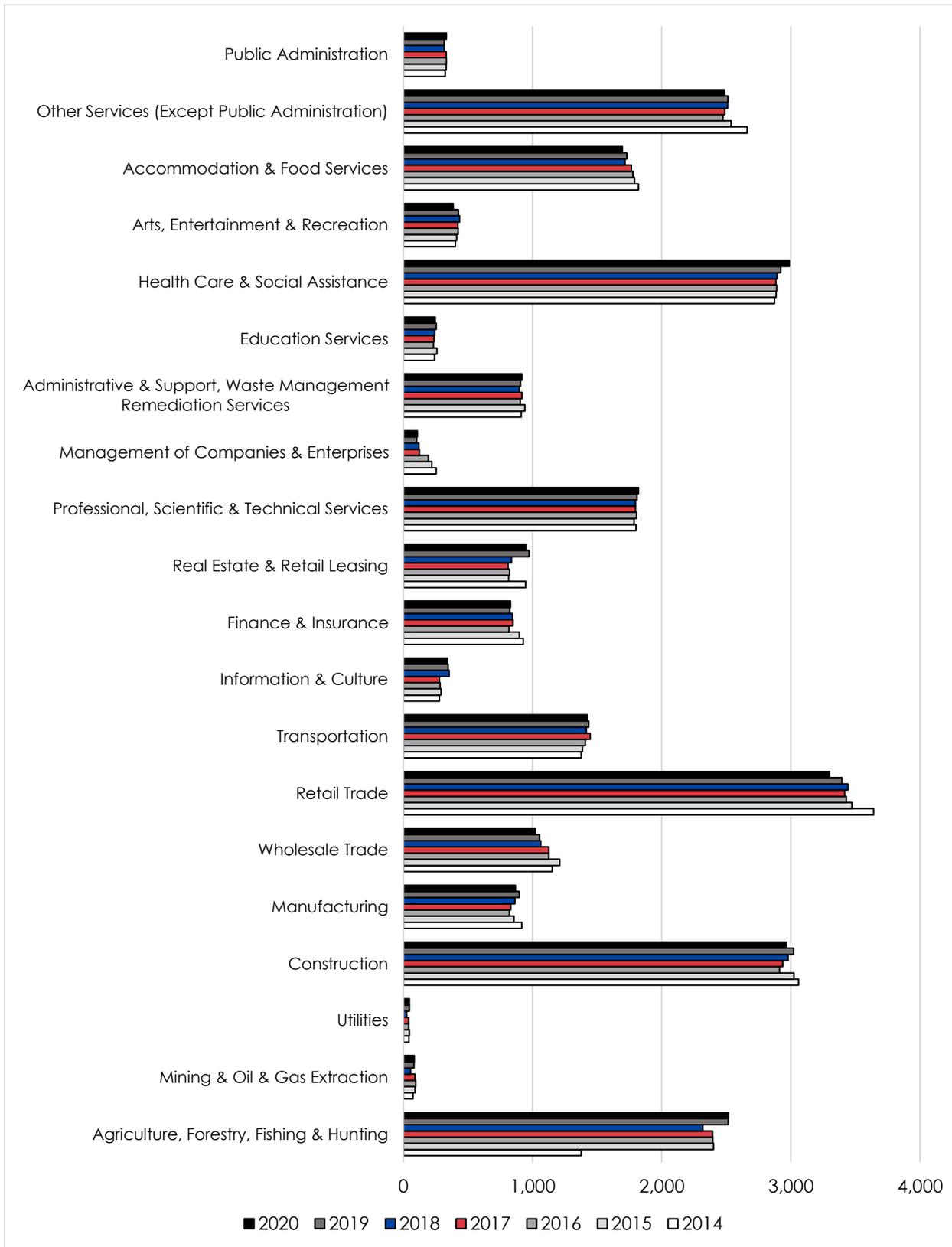
**Source:** Statistics Canada. Table 33-10-0031-01: Businesses by industry and employment, tables for 2015, 2016, 2017, 2018, 2019, authors' calculations.

**Figure 2: Number of Manufacturing Establishments in NB by Size of Employment (2014-2020)**



**Source:** Statistics Canada. Table 33-10-0304-01: Canadian Business Counts, with employees, several years.

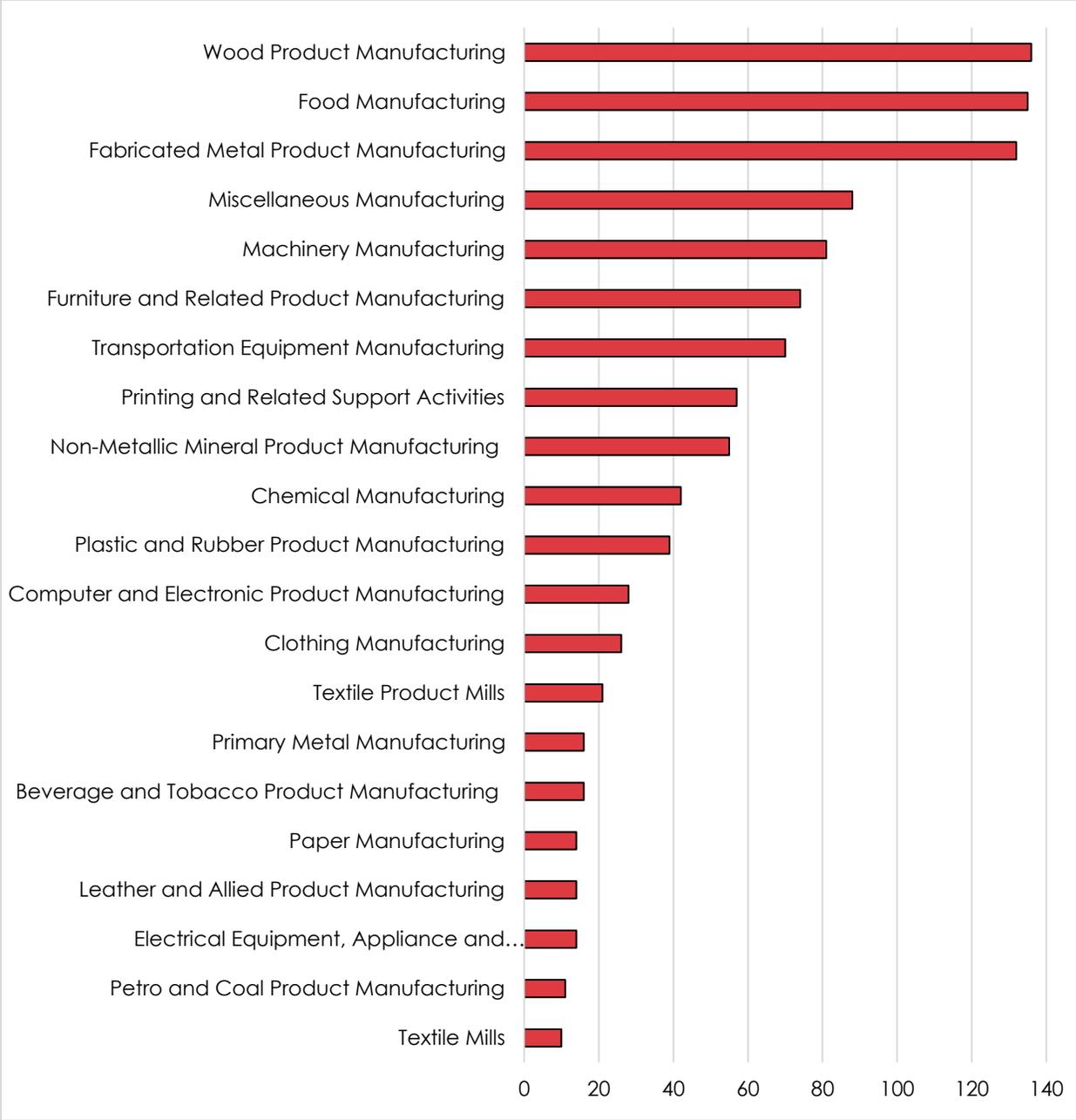
**Figure 3: NB Business Counts by Industry (2014-2020)**



Source: Statistics Canada, Table 33-10-0304-01: Canadian Business Counts, with employees, December 2020.

Figure 4 further displays manufacturing sub-sectors in NB by businesses counts. It shows that manufacturers of wood products, food, and fabricated metal products have the highest number of businesses in the province, while manufacturers of paper, leather products, textile mills, electrical equipment, and petroleum products have the least.

**Figure 4: Manufacturing Establishment Counts in NB by Sub-Sector**



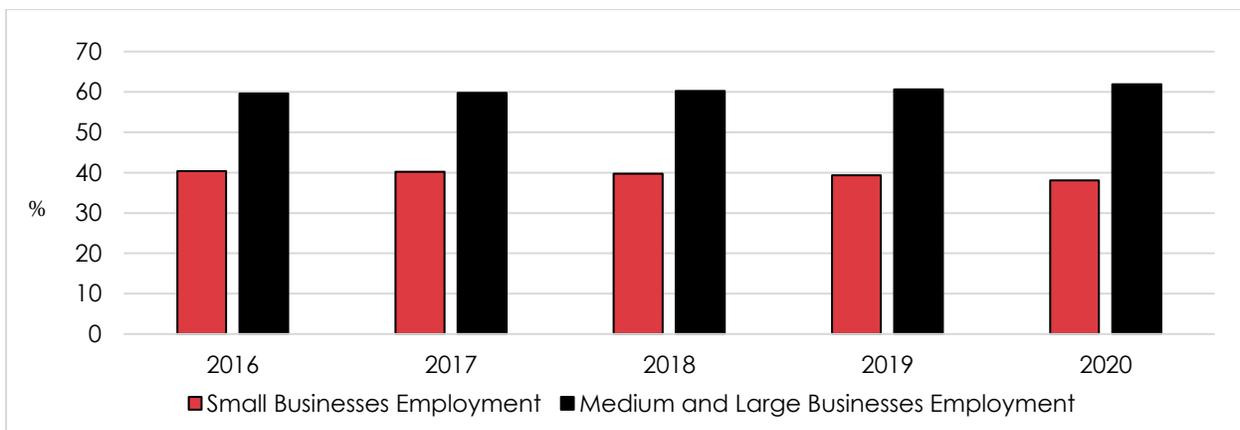
Source: Amachree, Wang, & Yan (2019).

## By Employment

In this section, we show the relation between the size of businesses and employment. A large count of businesses does not necessarily reflect on employment. For example, although paper manufacturing has one of the lowest business counts, Irving Paper is among the top ten employers in the province.

Small businesses made up around 40% or less of total employment in NB from 2016 to 2020, whereas medium and large companies employed around 60%. (Figure 5). Based on this information, one can safely say that the NB economy is driven by a small number of large businesses.

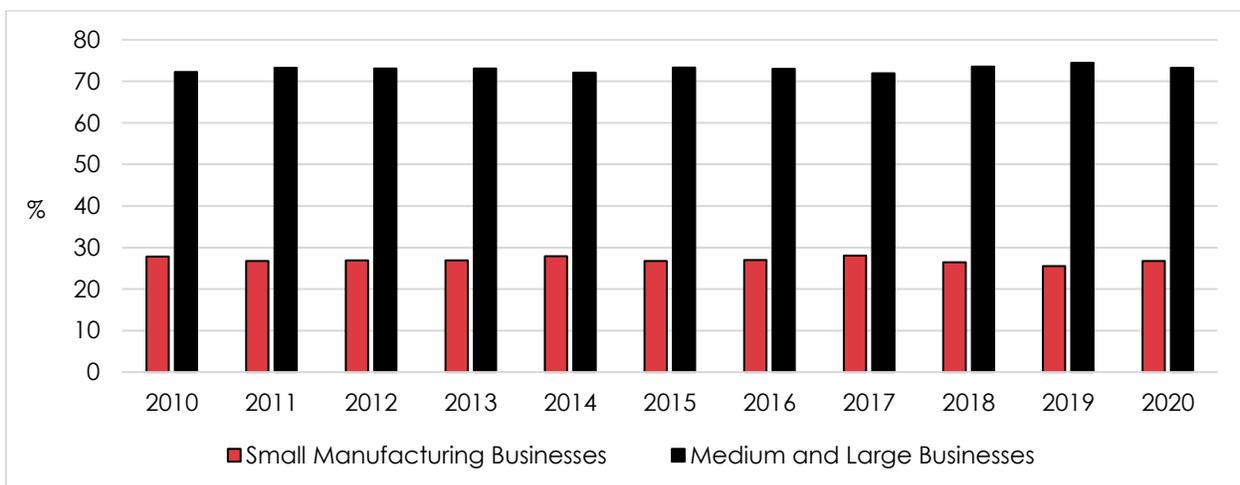
**Figure 5: Business Sector Contribution to Employment by Size of Businesses in NB**



**Source:** Statistics Canada. Table 14-10-0215-01: Employment for all employees by enterprise size, annual.

These findings are further emphasized by the fact that, over the past ten years, medium and large manufacturing companies employed more than 70% of employees in the manufacturing sector (Figure 6).

**Figure 6: Manufacturing Sector Contribution to Employment by Size of Businesses in NB**



**Source:** Statistics Canada. Table 14-10-0215-01: Employment for all employees by enterprise size, annual.

## Overview of the Manufacturing Sector in New Brunswick at the Sub-Provincial Level: Size, Employment, and Location

For the purposes of this report, New Brunswick is divided into five sub-provincial levels, or regions:

- Central (Fredericton – Oromocto)
- Southwest (Saint John - St. Stephen)
- Southeast (Moncton - Richibucto)
- Northeast (Campbellton - Miramichi)
- Northwest (Edmundston - Woodstock)

The most populated regions are the Southeast and Southwest. The least is the Northwest. Table 1 shows an overview of the main economic and employment sectors in each region.

**Table 1: Demographic and Economic Profiles of Sub-Provincial Levels in NB<sup>1</sup>**

Region	Population	Total Employment	Prominent Sectors	Employment By Sector
<b>Fredericton – Oromocto (Central)</b>	142,300	65,400	Professional, Scientific and Technical Services Utilities	Retail and Wholesale Trade (9,500) Professional, Scientific and Technical Services (4,600) Accommodation and Food Services (4,600) Manufacturing (2,900)
<b>Saint John – St. Stephen (Southwest)</b>	172,300	84,300	Utilities Business, Building & Other Support Services	Retail and Wholesale Trade (13,900) Manufacturing (8,700) Business, Building and other Support Services (6,300)
<b>Moncton – Richibucto (Southeast)</b>	216,400	106,000	Information, Culture and Recreation	Retail and Wholesale Trade (18,200)

<sup>1</sup> Public administration, health services, and education sectors are excluded, as they are public services that do not produce goods or services that generate profits or exports.

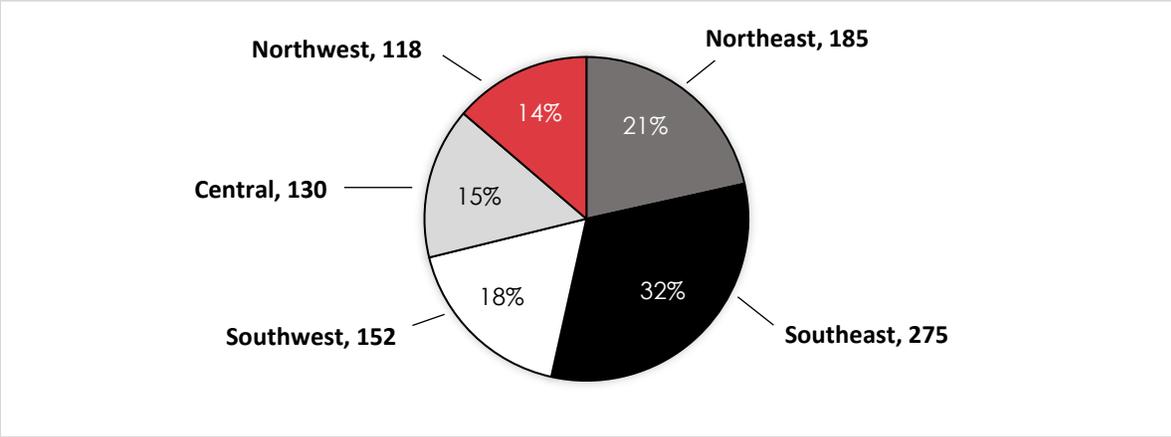
			Finance, Insurance, Real Estate, Rental and Leasing	Construction (7,400) Manufacturing (7,400)
<b>Edmundston – Woodstock (Northwest)</b>	77,000	36,500	Manufacturing Natural Resources	Manufacturing (6,800) Retail and Wholesale Trade (4,900) Transportation and Warehousing (2,800)
<b>Campbellton – Miramichi (Northeast)</b>	151,600	60,800	Natural Resources	Retail and Wholesale Trade (9,700) Manufacturing (5,900) Construction (5,200)

Source: <https://www.nbjobs.ca/sites/default/files/pdf/infographicse-en.pdf>

### Manufacturing Establishments at the Sub-Provincial Level by Size: Counts and Employment

With respect to manufacturing business counts, manufacturing establishments in 2018 were concentrated in the Southeast region, followed by the Northeast, with the Northwest seeing the least representation of the number of manufacturing businesses (Figure 7).

**Figure 7: NB Sub-Provincial Distribution of the Manufacturing Sector by Business Counts (2018)**



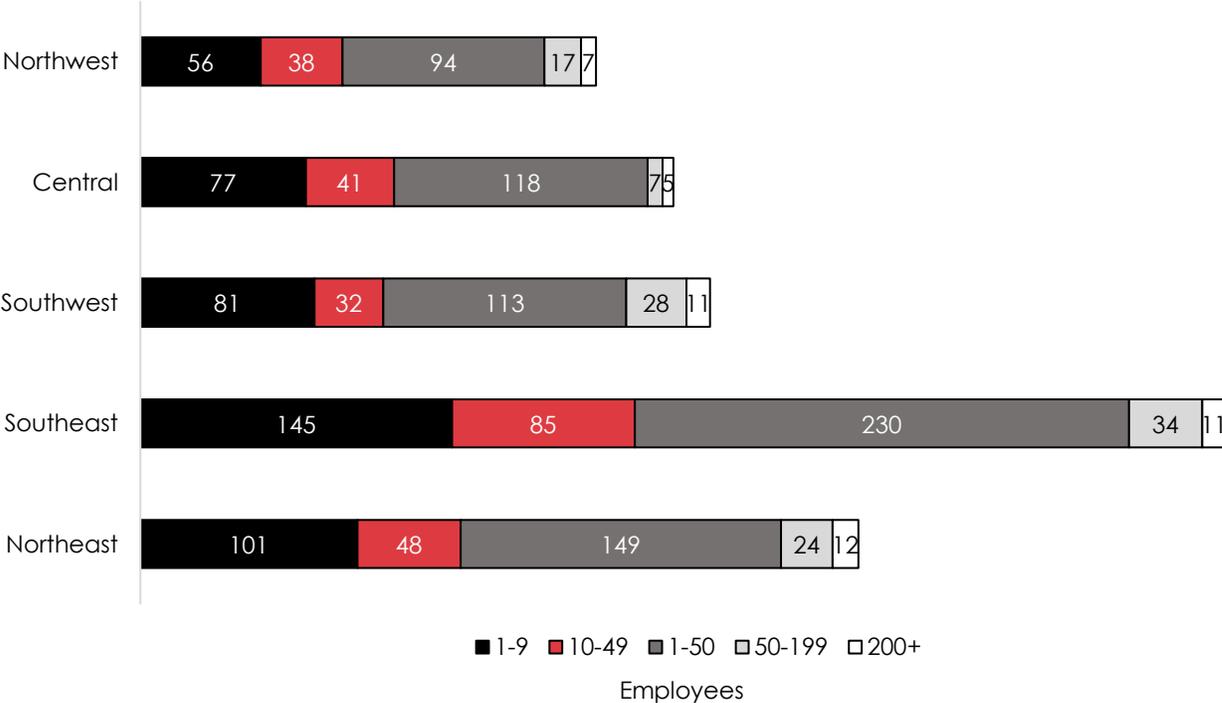
Source: NBjobs.ca (2020).

When we look at the size of manufacturing businesses across all regions the province, we find that most are micro or small establishments. Medium and large manufacturing companies are not equally represented across regions.

The highest number of medium and large companies are in the Southeast (45) followed by the Southwest (39). The smallest number of medium and large manufacturing companies is in the Central region (12). The lowest number of large manufacturing companies alone (i.e., all sizes considered) is also in the Central region (5).

The largest number of large companies is in the Northeast (12). The largest number of small and micro manufacturing companies is in the Southeast (230), followed by the Northeast (149). These are least represented in the Northwest (94) (Figure 8).

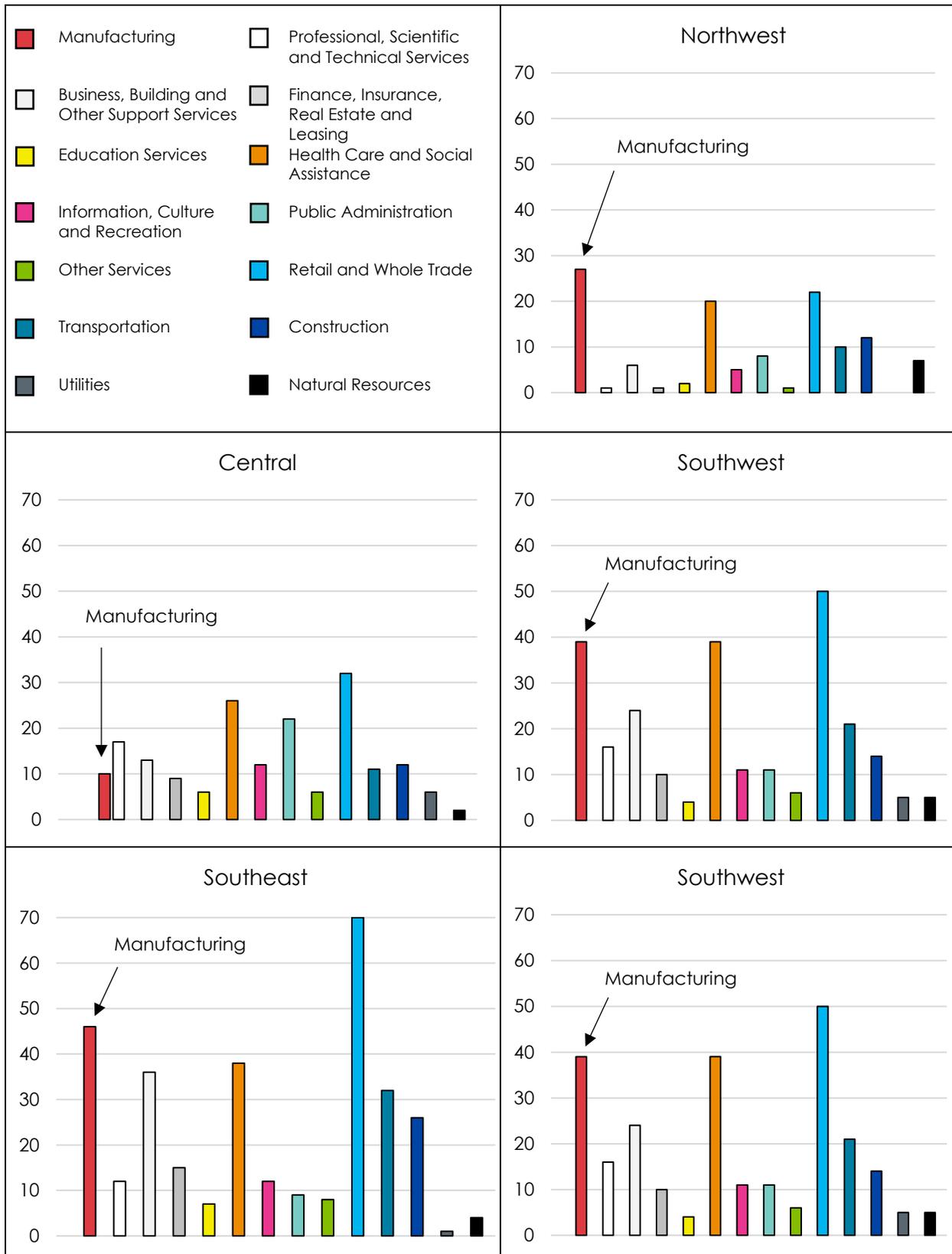
**Figure 8: NB Sub-Provincial Distribution of Manufacturing Businesses by Employment Size (2018)**



Source: NBjobs.ca (2020).

When compared to other sectors at the sub-provincial level, there are more medium and large-sized employers in the manufacturing sector overall (Figure 9). The sector is outperformed, however, by the retail and whole trade sector – mainly in the Southeast, Southwest, and Central regions.

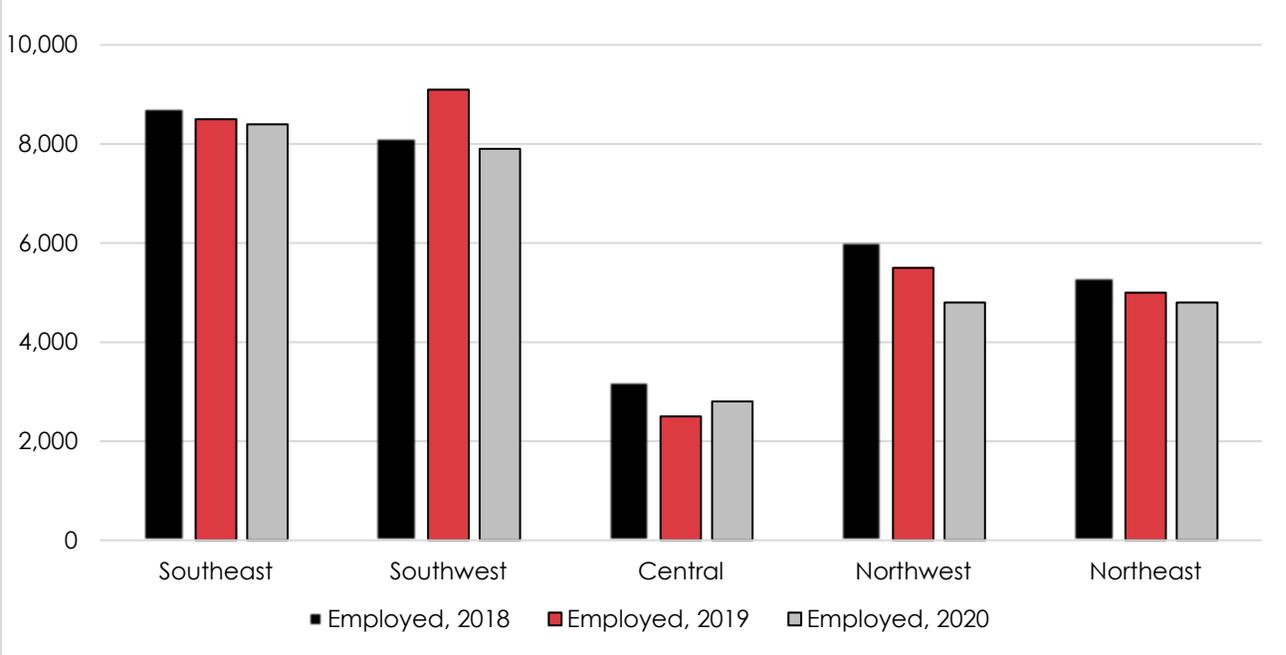
**Figure 9: Sub-Provincial Medium and Large Employers by business counts, All Industries (2019)**



Source: Statistics Canada. Table 14-10-0392-01: Employment by industry, annual (x 1,000)

Figure 10 shows that in addition to the concentration of manufacturing employment in the Southern regions, the average growth rate of manufacturing employment decreased by 3% between 2018-2019 in the South and by around 14% in the other regions.

**Figure 10: NB Regional Distribution of Workers Employed in Manufacturing**



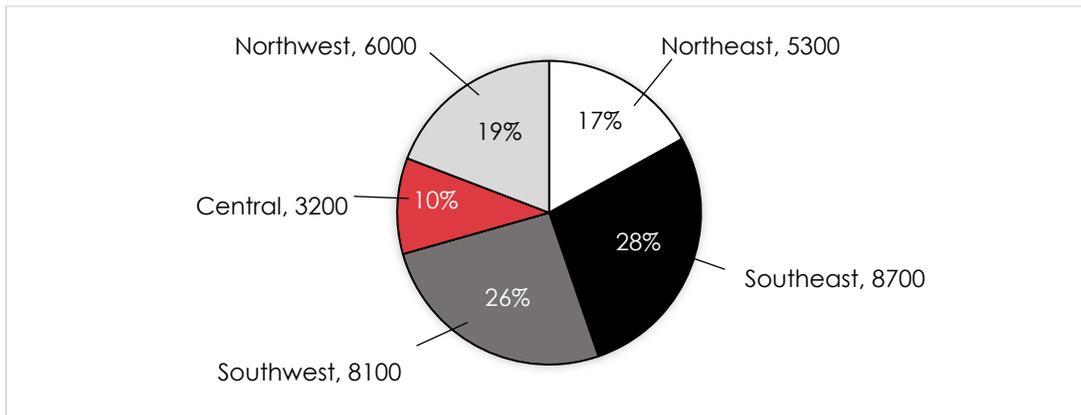
**Source:** Statistics Canada. Table 14-10-0092-01: Employment by industry, annual, provinces and economic regions, inactive (x 1,000).

Figure 11 shows the distribution of manufacturing employment across regions. The Southeast region has the highest share of manufacturing employment (28%), followed by the Southwest (26%) and Northeast (17%). The Central region has the lowest share of manufacturing employment.

These observations are relatively similar to our findings surrounding business counts across NB. The Southeast ranks first in terms of manufacturing business counts and employment, followed by the Southwest.

We also note the importance of large firms by looking at the Southeast – for example, while the number of Southeast establishments represents only 18% of total manufacturing in NB, they employ 26% of workers in the manufacturing sector. On the other hand, the Northeast has 21% of the manufacturing establishments in NB, but these employ only 17% of total workers in the sector.

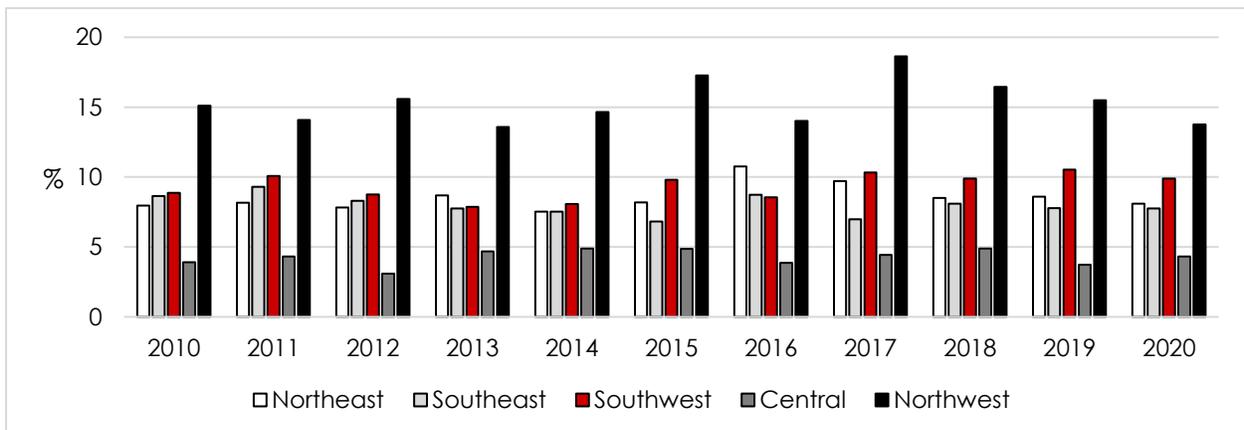
**Figure 11: NB Employment in Manufacturing by Sub-Provincial Region (2018)**



**Source:** based on Statistics Canada. Table 14-10-0092-01: Employment by industry, annual, provinces and economic regions, inactive (x 1,000).

In all sub-provincial regions, manufacturing generally shows an increasing trend in its contribution to total employment. Figure 12 shows the manufacturing sector's share of total employment at the sub-provincial level for the past ten years. Here, we see that the manufacturing sector contributed the highest share of total industry employment in the Northwest, followed by the Southwest, Northeast, and Southeast.

**Figure 12: Sub-Provincial Share of Manufacturing in Total Employment in NB (2010-2020)**



**Source:** Authors' calculations, based on Statistics Canada. Table 14-10-0092-01: Archived – Employment by industry, annual, provinces and economic regions, inactive (x 1,000).

Based on data from the 2016 Census, we calculate manufacturing employment relative to the population and total employment in each region and rank the regions accordingly, as presented in Table 2. We again find that manufacturing employment is concentrated in the Southwest, followed by the Northeast and Southeast, and least represented in the Central region.

**Table 2: Ratio of Manufacturing Employment to Total Population and Total Employment by Region in NB (2020)**

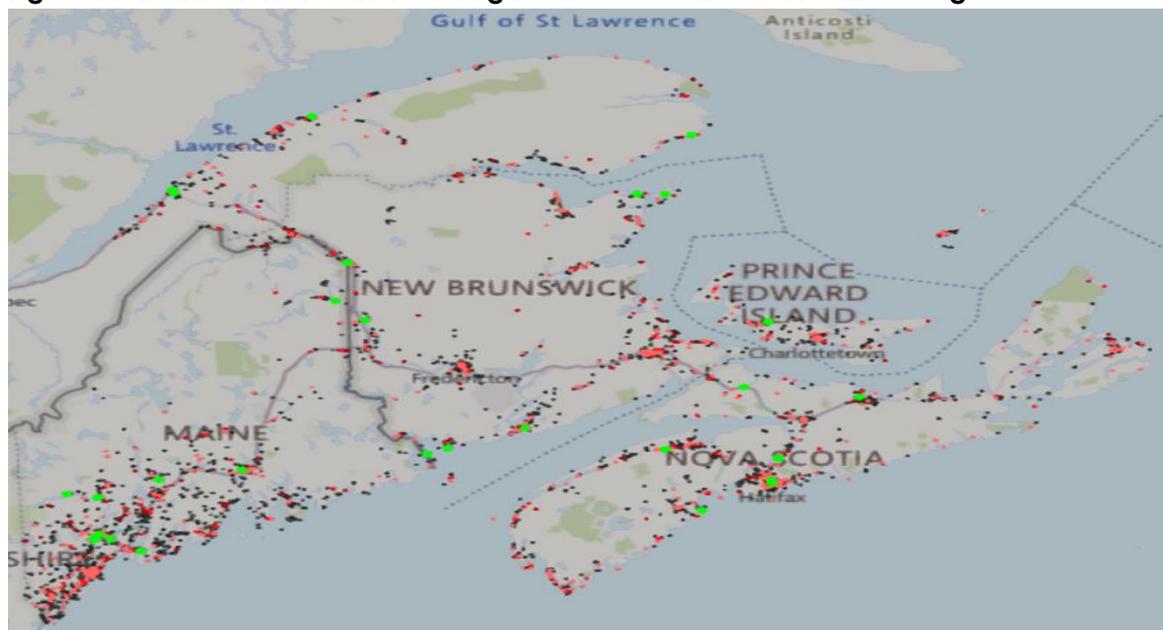
Region	Manufacturing Employment to Total Population (%)	Manufacturing Employment to Total Employment (%)
Central	1.97	3.87
Southwest	4.59	9.62
Southeast	3.88	7.25
Northeast	4.80	8.14
Northwest	6.23	12.97

Source: Authors' calculations, based on NBjobs.ca (n.d.). Regional profile reports.  
<https://www.nbjobs.ca/stats/labourmarket>

### Sub-Provincial Geographic Distribution of Manufacturing Establishments in New Brunswick

When we map manufacturers according to location and numbers of employees, we see that manufacturing establishments are numerous and located throughout the province (Figure 13).

**Figure 13: Distribution of Manufacturing Businesses in NB Sub-Provincial Regions**



Source: Emery & Wang (2020). Below is the categorization of the different sizes, as defined by Emery & Wang (2020).

Label	Manufacturing Business Size	Employment Range
●	Micro	1 to 4
●	Small	5 to 19
●	Medium (Small)	20 to 49
●	Medium (Medium)	50 to 99
●	Medium (Large)	100 to 499
●	Large	500+

The Southern part of NB has more manufacturing businesses than the Northern regions, but there is still a large number in the North. The businesses in the South of the province are spatially concentrated around the Fredericton, Saint John, and Moncton Census Agglomerations / Census Metropolitan Areas (CAs/CMAs), whereas the businesses in the North are mostly located along the coastal areas and bordering regions.

The Fredericton and Moncton areas have a high density of small and medium-sized establishments, while Saint John shares a similar density but also has larger manufacturers. The high density of manufacturing establishment in the province's three major urban centres is due to the availability of labour and access to core transportation infrastructure (McRae, 2020).

Since the mid-2000s, manufacturing establishments are more likely to be located along the Trans-Canada highway. The Trans-Canada contributes to trade facilitation and has strong cost advantages, as plants can be near many sources of supplies since all manufacturing plants today have access to Maine, Quebec, and Nova Scotia. Footloose large firms (i.e., firms with no ties to a location) are increasingly located in leading regions<sup>2</sup> for many reasons, like proximity to customers, wages, productivity, availability of skilled labour, and ease of access to suppliers (Emery & Wang, 2020).

The largest manufacturing employers, which employ 500 or more workers per business, are mostly located away from the urban centres. These are distributed along the coasts and the border with the State of Maine.

Specifically, McCain Foods Canada is situated at Florenceville-Bristol and Saint André along the Trans-Canada Highway, next to Maine.

Connors Bros. Clover Leaf, a food manufacturer specializing in seafood preparation and packaging, is situated at Blacks Harbour along the Bay of Fundy.

Paturel International Inc., a large-sized seafood manufacturer, is situated at Northern Harbour, next to Maine and along the Passamaquoddy Bay.

Another two large-sized seafood manufacturers are situated in the Northeast: Ichiboshi LPC Ltee and L'Association Co-opérative des pêcheurs de l'Île Ltée.

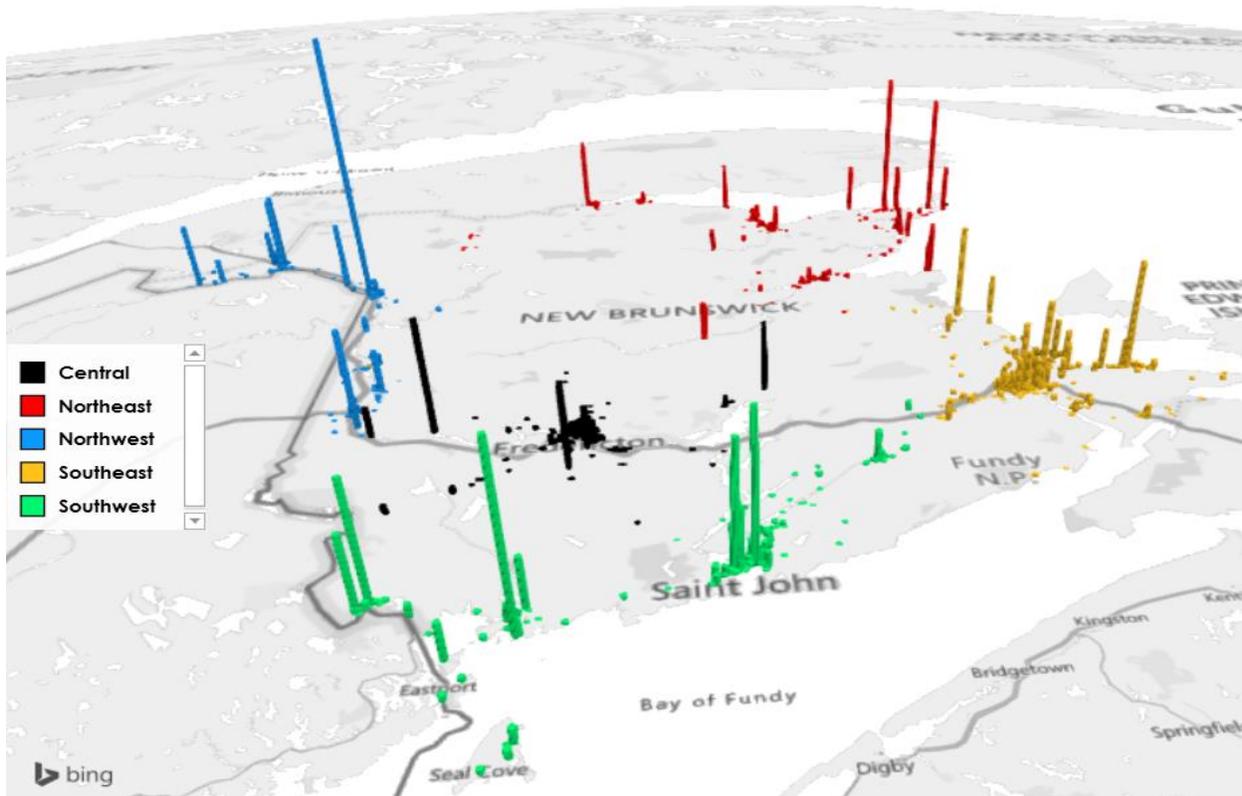
Finally, Irving Paper is located in Saint John.

Figure 14 below maps manufacturing businesses by size and sub-provincial distribution. The size of manufacturing employment at a location is indicated by the height of the bars. The location of the bars indicates the location of an establishment, with the colours showing the five regions of the province.

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<sup>2</sup> Leading regions are advanced due to the availability of skilled labour and large markets.

**Figure 14: NB Manufacturing Businesses by Size of Employment and Sub-Provincial Location**



Source: Emery & Wang (2020).

Figure 15 illustrates the top ten manufacturing employers in red points for each region. The size of the red circles reflects the employment numbers for each manufacturing business.

**Figure 15: Distribution of Top Ten Manufacturing Employers in NB**



Source: Emery & Wang (2020).

The top ten employers in manufacturing in NB consist of eight food manufacturing businesses and two paper manufacturing businesses. The largest manufacturing employers in NB employing 400 to 990 workers are as follows:

**Table 3: Top Ten Employers in Manufacturing in NB**

<b>Employer</b>	<b>Location</b>	<b>Product</b>	<b>Employees</b>
McCain Foods	Saint-André	Food	990
Connors Bros. Clover Leaf	Blacks Harbour	Food	600
Ichiboshi L.P.C. Ltée	Caraquet	Food	600
Irving Paper	Saint John	Paper	500
L'Association Co-opérative des pêcheurs de l'Île Ltée	Lamèque	Food	500
Irving Pulp & Paper Ltd.	Saint John	Paper	420
AV Nackawic	Nackawic	Paper	400
Cape Bald Packers Ltd.	Cap-Pelé	Food	400
Ganong Bros. Ltd.	St. Stephen	Food	400

The location of large manufacturing businesses outside the major urban centres seems to characterize the Northern regions and likely reflects the importance of exporting manufacturers with natural resource feedstocks like fish and timber for production.

Table 4 summarizes where the manufacturing sub-sectors are mostly found in NB.

**Table 4: Sub-Provincial Locations of Manufacturing Sub-Sectors in NB**

<b>Manufacturing Sub-sector</b>	<b>Where Activities Are Concentrated in NB</b>
Fabricated Metal Product Manufacturing	The three largest CMA/CAs in NB (Saint John, Moncton, and Fredericton)
Miscellaneous Manufacturing Businesses	The large CMA/CAs in NB
Machinery Manufacturing Businesses	The CMA/CAs in NB
Furniture and Related Product Manufacturing	The three largest CMA/CAs in NB

Transportation Equipment Manufacturing	The large CMA/CAs in NB
Printing and Related Supporting Activities	Fredericton, Moncton, and Saint John house more than five printing and related supporting activities manufacturing businesses.
Non-Metallic Mineral Product Manufacturing Businesses	Eight regions in NB house more than one Non-Metallic Mineral Product Manufacturing businesses. These are Fredericton, Kingston, Moncton, Saint John, Rexton, Saint Leonard, St. Stephen, and Sussex.
Chemical Manufacturing Businesses	The three main CA/CMAs house three or more chemical manufacturing businesses in NB.

Source: Emery & Wang (2020).

## Conclusion

This report examines ten-year trends in employment in New Brunswick's manufacturing sector, presented at the sub-provincial level. It uses a combination of publicly available data from Statistics Canada and NBjobs.ca and depends heavily on data and previous analysis conducted by the JDI research program on Manufacturing Competitiveness in New Brunswick (JDI, n.d.). We focus on the manufacturing sector because of its importance to the province with respect to exports and employment.

The average growth rate of employment in manufacturing across all economic regions shows a positive trend over the past ten years. Overall, however, our analysis reveals the importance of medium and large establishments, as they employ the highest number of workers in the sector, even though the majority of manufacturing business across all NB regions are considered micro or small establishments.

Between 2018 and 2019, the Southeast region had the highest share of manufacturing employment, followed by the Southwest and Northeast. The Central region had the lowest share of manufacturing employment. In general, the manufacturing sector is concentrated in the province's Southern regions, followed by the Northern regions, and least represented in the Central region.

There is potential for growth in the manufacturing sector in the Northeast, which is worth further study. The Northeast had the second highest average growth rate in manufacturing employment over the last five years. Moreover, the majority of large manufacturing businesses are located in the Northeast.

Most small and micro manufacturing establishments in NB are located in the Southeast. While there is a larger number of these than medium and large establishments, they contribute less to employment in the province.

In the Southern part of NB, there is a high density of manufacturing establishments in the three major urban centres due to the availability of labour and access to infrastructure. In the North, manufacturing establishments are mostly concentrated along the coastal and bordering regions closer to natural resources, suppliers, and export destinations, which is a typical export strategy.

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