

Two anguages: It's good for business

UPDATE OF THE 2015 STUDY ON THE ECONOMIC BENEFITS AND POTENTIAL OF BILINGUALISM IN NEW BRUNSWICK

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Executive Summary

In 2015, we published a study titled “*Two languages: it’s good for business*¹.” During the past four years, more up to date data has become available, particularly Statistics Canada’s 2016 Census. The present study aims at, presenting a brief overview of these recent studies, present an updated picture of the situation in New Brunswick and – considering this new information – revisit our 2015 analysis.

Bilingualism, defined here as the ability to speak French and English, is a distinct comparative advantage for New Brunswick. As will be shown in this report, bilingualism has been key to the development of several the province’s important industries.

In our 2015 study, we identified eight important economic benefits arising from New Brunswick’s bilingualism advantage. These advantages are still relevant four years later. We again present these eight advantages, adding a ninth.

NINE ECONOMIC BENEFITS ARISING FROM NEW BRUNSWICK’S BILINGUALISM ADVANTAGE

- ⇒ **Benefit #1: The bilingual workforce has been a key reason why New Brunswick has attracted big corporate players including ExxonMobil, Xerox, IBM, FedEx, UPS, RBC, TD Insurance, Unilever and SNC-Lavalin to set up in the province.**
 - New Brunswick has a customer contact centre and back office industry generating \$1.5 billion worth of interprovincial and international export revenue annually for the province. The province also has the highest proportion of people employed in this industry compared to all other provinces.
 - Of the 15,205 people employed in the New Brunswick administrative services sector, only 31.4 percent speak both English and French. The rest speak either English (66.2 percent) or French (2.4 percent) only. The development of the customer contact centre and back office industry in New Brunswick has benefitted thousands of unilingual New Brunswickers.
- ⇒ **Benefit #2: Bilingualism has led to the development of a vibrant language industry in the province.**
 - We have the second highest concentration of translators, terminologists and interpreters in the workforce among the 10 provinces across Canada.
 - There are 420 New Brunswickers employed in the industry group Translation and Interpretation Services.
- ⇒ **Benefit #3: Bilingualism has been key to developing the Quebec market for trade and investment.**
 - The ability to serve the Quebec market in French is one of the key reasons why New Brunswick firms can build their markets in Quebec.
 - On a per capita basis, no other province generates more export revenue from Quebec than does New Brunswick.
 - Between 2011 and 2015, New Brunswick generated nearly \$1.2 billion worth of services revenue per year from the Quebec market. On a per capita basis, only Ontario generates more services sector revenue from Quebec than does New Brunswick.

¹ Desjardins, Pierre-Marcel and David Campbell. 2015, *Two languages: It’s good for business*. Fredericton: Office of the Commissioner of Official Languages for New Brunswick. 42 pages. <http://officiallanguages.nb.ca/newsroom/press-releases/two-languages-its-good-business>.

- New Brunswick’s transportation sector also derives significant revenue from Quebec. Between 2011 and 2015, the transportation and related services sector generated an average \$170 million in revenue per year.
- ⇒ **Benefit #4: Bilingualism has been a major reason why national finance and insurance firms are serving their customers across the country from New Brunswick.**
 - According to a recent study, half of insurance carriers in New Brunswick are serving markets outside the province. The survey asked insurance carriers to describe the value proposition for their New Brunswick operations. The bilingual workforce was one of the top cited reasons why the firms were expanding in the province.
 - Being able to serve Francophone customers has been a key reason why the insurance carriers have expanded their employment in the province by 168 percent between 2006 and 2018.
 - Because of the province’s bilingual workforce, New Brunswick has attracted the back offices and customer support centres for a number of Canada’s national banks.
- ⇒ **Benefit #5: Bilingualism has been key to developing the Quebec market for New Brunswick’s professional services.**
 - New Brunswick ranks last among the 10 provinces across Canada for interprovincial professional services revenue. By contrast, New Brunswick ranks third among the 10 provinces for professional services export revenue from the Quebec market, when adjusted for population size. It is clear the province’s bilingualism enables increased professional services-based trade in the Quebec market.
- ⇒ **Benefit #6: Bilingualism has been an important reason why New Brunswick has been able to attract significant tourism revenue from the Quebec market.**
 - In 2015, the accommodation and food services sector generated revenues of \$154.81 per capita from Quebec tourists (classified as interprovincial export revenue). This was second behind Prince Edward Island in the amount of revenue generated from Quebec in this sector adjusted for the size of the population. It was nearly twice as much revenue compared to Ontario and three times as much compared to Nova Scotia, still on a per capita basis.
- ⇒ **Benefit #7: Bilingualism has been an important reason why New Brunswick has attracted national and international post-secondary students to study in the province.**
 - New Brunswick ranks 5th among the 10 provinces in Canada for interprovincial export revenue from the educational services sector (students bringing revenue to the province).
 - In 2017-2018, New Brunswick’s universities had 12 percent international students.
- ⇒ **Benefit #8: Bilingualism has been an important reason why New Brunswick has attracted a higher share of bilingual immigrants compared to most other provinces.**
 - In 2011, 22,6 percent of immigrants living in New Brunswick spoke both English and French, which is 77.6 percent above the national average.
- ⇒ **Benefit #9: Bilingualism represents for New Brunswick a unique comparative advantage in Canada to allow the province to tackle its demographic challenges**
 - The official bilingualism status allows New Brunswick to positively differentiates itself to potential commercial partners.
 - Potential migrants with a knowledge of English and French will know that this characteristic will be a benefit on New Brunswick’s labour market and will be valued by employers.

Summary of demographic characteristics:

- Percentage of New Brunswickers who are bilingual: 35.5%
- Percentage of New Brunswickers aged 15-44 who are bilingual: 41.6%
- Percentage of young Anglophones (10 to 34 years of age) who are bilingual: 28.2%.
- Bilingual workers are more highly concentrated in services occupations where knowledge of the two languages is an important skill (e.g. health care, education, business and finance).

Economic benefits of bilingualism:

- **Industry attraction:** Bilingualism has been a major reason why dozens of national and international firms have set up national business services centres/back offices in New Brunswick. These industries employ thousands of New Brunswickers and contribute upwards of \$1 billion worth of wages and salaries every year. However, only 25-30 percent of workers in this sector are bilingual meaning that non-bilingual residents are also benefitting from these companies and the employment opportunities they bring to the province.
- **The development of important industries** such as engineering services, information technologies, telecommunications and language-based industries have all benefitted from New Brunswick's bilingual workforce.
- **Export development:** On a per capita basis, New Brunswick generates far more export revenue from Quebec than any other province (2.5 times as much as Ontario). The province's bilingualism has also helped foster international trade but there is more work to be done (see below).
- **Tourism development:** Bilingualism has been a key asset in the development of the tourism industry.
- **International student attraction:** Bilingualism has helped the province grow its international post-secondary education student population.
- **Immigrant attraction:** Bilingualism has been beneficial to the province's immigrant attraction efforts. In 2016, there were nearly 1,800 immigrants and non-permanent residents with French as their first official language who arrived in Canada after 2011.

Looking to the future: Leveraging our bilingualism for economic development

Long term economic growth is tied to a jurisdiction's comparative advantages. New Brunswick has strong forestry and fishing industries and has developed a large aquaculture industry because of geographic and industrial advantages in these areas. The province is focusing on cybersecurity, cannabis and other industries where it has developed distinct comparative advantages over other jurisdictions.

In a world where the competition for global investment, export development and the attraction of immigrant workers, entrepreneurs and international students has never been more pronounced, New Brunswick needs to focus its development efforts in areas where it has clear strengths.

There is more that could be done to leverage our bilingualism into economic benefits and long term, sustainable comparative advantage. Bilingualism could be an important tool:

- To develop international export markets.
- To attract international students (secondary and post-secondary).
- To attract entrepreneurs.
- To attract companies where the ability to speak French and English is an advantage.
- To attract more Francophone tourists.
- To attract immigrants.
- To develop key sectors of the economy where bilingualism is an advantage such as business services, information technology and language industries.

Recommendation:

The creation of an industry/government council with the objective of further leveraging the economic benefits of bilingualism.

New Brunswick has a team of experts working together to develop the cybersecurity industry. There is a team in place to develop the province's Smart Grid capabilities into new economic opportunities. Other industries from fishing to forest products and ICT (information and communications technologies) have coordinated public and private sector people working to ensure these sectors are strong and vibrant for the future.

We need the same focus on bilingualism. An effective strategy that leverages our strengths in this area to attract more investment, entrepreneurs, exports, tourists, immigrants and international students could help bring the province back to sustained economic and population growth.

1. Introduction

Bilingualism is more than ever one of New Brunswick's principal competitive differentiators. The province is blessed with natural resources such as the forest, fish and other attributes. Just as these resources have contributed to the economic growth of New Brunswick, bilingualism has been responsible for substantial levels of business investment and job creation over the past decades. Sectors strongly linked to New Brunswick's bilingual workforce include customer contact centres, regional head offices and language industries. Yet, little has been published to document this contribution.

To, at least partly, address this gap, we published in 2015 *Two languages: it's good for business*². During the past four years, more up to date data has become available, particularly Statistics Canada's 2016 Census. Furthermore, pertinent studies have been published. The present study aims at presenting a brief overview of these recent studies, presenting an updated picture of the situation in New Brunswick and – considering this new information – revisiting our 2015 analysis.

A bilingual workforce offers New Brunswick a competitive advantage that many jurisdictions do not have, particularly in North America. It helps develop markets in Canada and around the world. As we illustrated in our 2015 study and as we again show, bilingualism is an important asset that needs to be leveraged to develop strategic industries such as educational services and tourism and emerging sectors such as artificial intelligence. In addition, it can contribute to the increase of immigration. Being an officially bilingual province also sends a message of tolerance and inclusiveness, an element that positively contributes to economic development according to Richard Florida's *creative class* approach³.

One could initially conclude that the benefits of bilingualism are reaped by those with knowledge of both official languages. This is not the case. Firms that have come to New Brunswick to benefit from the bilingual workforce only need a limited number of bilingual employees. This is particularly true of the customer contact centre industry, which is included in the Statistics Canada "administrative and support services" sector. While 38.7% of the province's workforce is bilingual, only 31.4% of workers in this sector have a knowledge of both French and English. At the same time, in the sector 66.2% of the workers have a knowledge of English only while the percentage is 56.8% for the entire provincial economy. We thus have a greater proportion of unilingual anglophones in the sector than in the overall labour market. The result is that for every bilingual job created by these firms, we have two jobs requiring competence in English only.

Our report has five sections. After the introduction, we offer a brief review of the literature since our 2015 study. The third section offers a profile of bilingualism in the province. The fourth demonstrates the economic benefits to New Brunswick from having a comparative advantage because of bilingualism. In our final section, we propose some ways New Brunswick could leverage bilingualism to generate additional economic development in the future.

² Desjardins, Pierre-Marcel and David Campbell. 2015, *Two languages: It's good for business*. Fredericton: Office of the Commissioner of Official Languages for New Brunswick. 42 pages. <http://officiallanguages.nb.ca/newsroom/press-releases/two-languages-its-good-business>.

³ Florida, Richard. 2002. *The Rise of the Creative Class*. New York: Basic Books.

2. Review of the literature

Two studies, both by the Conference Board of Canada, were published in 2018 and concluded that bilingualism had beneficial economic impacts. The first Conference Board study (2018, p.4), for *l'Assemblée de la francophonie de l'Ontario*⁴, recognizes the important potential of francophone markets: “French is one of the most widely spoken languages in the world. According to the Organisation internationale de la Francophonie (OIF), at least [300⁵] million people speak French. [...] By 2065, the number of people who speak French is expected to exceed 1 billion.” The authors of the study (The Conference Board, 2018. p. 4) argue that “[o]ne of the advantages of bilingualism is the additional bilateral trade opportunities that it offers.” They estimate (Conference Board, 2018, p. 27) that “[e]ven though Ontario shows a clear preference for trading with the United States and Anglophone countries, the location quotients demonstrate that Ontario’s Francophonie has encouraged trade with Francophone countries. Based on the location quotients of the other provinces, we estimate that Ontario exports to Francophone countries would have been \$58 million less, and imports would have been \$1.4 billion less. The difference between imports and exports is attributed to the import of pharmaceuticals from Switzerland. In 2017, close to 96% of those products were destined for Ontario.” The authors conclude that: “[g]iven that Ontario is a new member of the OIF, the impact of that membership is not yet clear. Ontario’s participation in the OIF could increase the province’s trade opportunities” (The Conference Board, 2018, p. 37). The second Conference Board Study analyzes the individual benefits of bilingualism⁶. It confirms that there are positive impacts, both in Québec and in other provinces. The knowledge of both official languages increases one’s labour market prospects.

3. Profile of bilingualism in New Brunswick

New Brunswick is Canada’s only officially bilingual province. In this third section, we present the profile of bilingualism in New Brunswick, at times compared to the Canadian average or the situation in other provinces and territories. Using the most recent data available from Statistics Canada (ex: the 2016 Census), we present bilingualism at the provincial level, by age, educational achievement and profession economic sectors, offering trends since our previous study.

3.1 Percentage of adult population with knowledge of English and French

New Brunswick is – as was the case for 2011 – second amongst Canadian provinces with respect to the percentage of its adult population that is bilingual. This is defined as those reporting in Statistics Canada’s Census as having a knowledge of English and French (Figure 1). Québec is first with nearly half its population being bilingual (49.5%). New Brunswick with 35.5% of its adult population being bilingual nearly doubles the Canadian

⁴ The Conference Board of Canada. 2018. *Ontario, Trade and the Advantages of English-French Bilingualism*. Prepared by l’Assemblée de la francophonie de l’Ontario. Ottawa: The Conference Board of Canada. 44 pages.

<https://monassemblee.ca/wp-content/uploads/2018/05/Rapport-bilinguisme-conference-board-Version-anglophone.pdf>

⁵ <http://observatoire.francophonie.org/qui-parle-francais-dans-le-monde/>

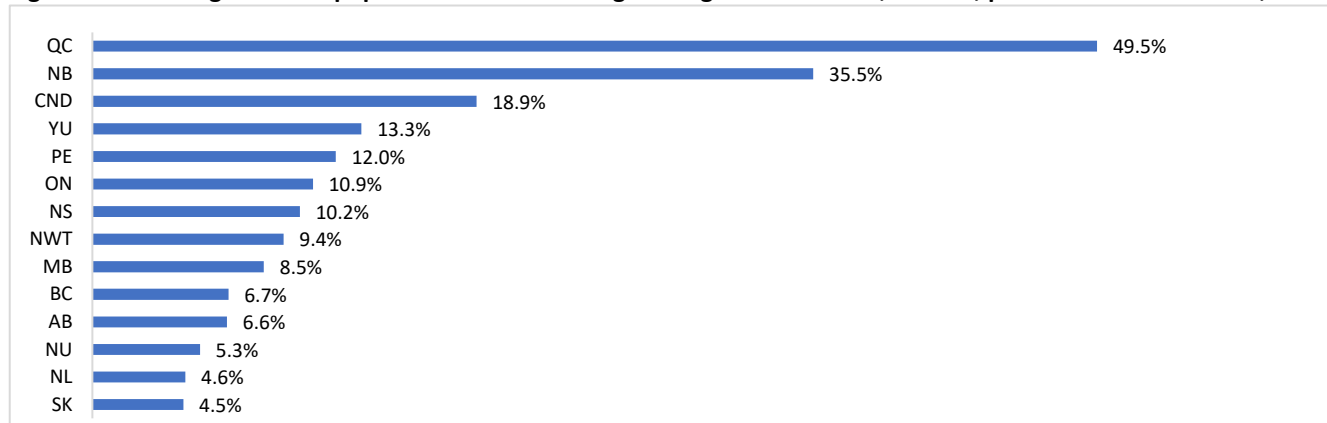
⁶ The Conference Board of Canada. 2018. *Le bilinguisme anglais-français hors Québec : un portrait économique des bilingues au Canada*. Prepared for l’Association des collèges et universités de la francophonie Canadienne. Ottawa : The Conference Board of Canada. 70 pages. https://acufc.ca/wp-content/uploads/2019/01/Etude-Bilinguisme_Conference-Board_2018.11.pdf.

average of 18.9%. The percentage of bilingual adults in New Brunswick has increased by 1.1% between 2011 and 2016 (Figure 2).

We find that 15.5% of New Brunswickers whose mother tongue is English are bilingual (Figure 3), far above the Canadian average, and putting New Brunswick second amongst the Canadian provinces. While 72.4% of New Brunswickers whose mother tongue is French are bilingual (Figure 4), a percentage far above the national average, this percentage puts the province in the next to last place amongst Canadian provinces. 91.2% of New Brunswickers who indicated in the Census that their mother tongue was both English and French are bilingual, slightly above the national average (Figure 5). Finally, 15.9% of New Brunswick with a mother tongue other than English or French are bilingual, again above the Canadian average (Figure 6).

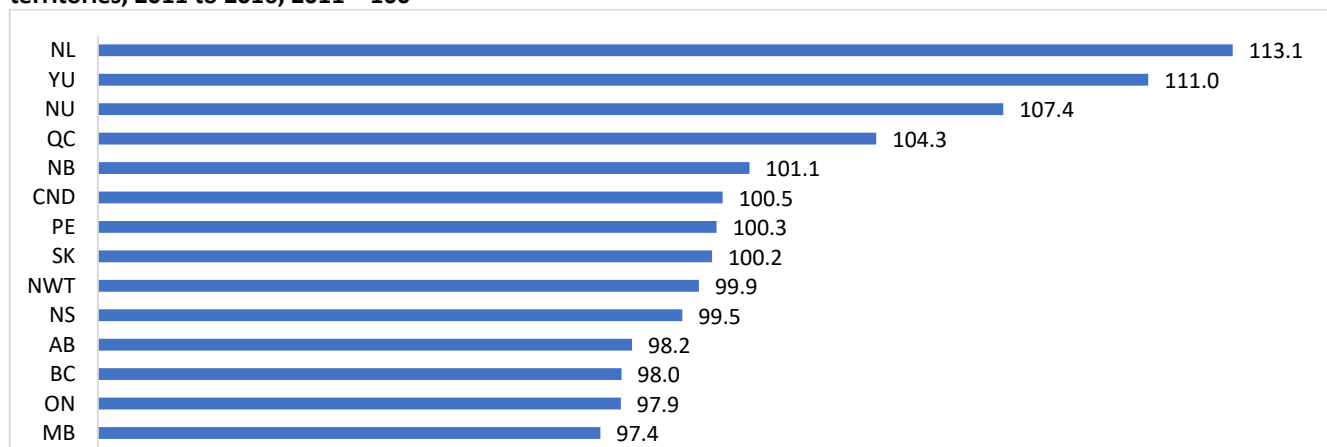
The percentage of New Brunswickers whose mother tongue is French who are bilingual has increased by 5.1% between 1996 and 2016 but has increased by 11.4% for those whose mother tongue is English (Figures 7 and 8). For those whose mother tongue is both English and French, it has increased by 2% (Figure 9) and for those whose mother tongue is other than English or French, the percentage has decreased slightly (Figure 10).

Figure 1: Percentage of adult population with knowledge of English and French, Canada, provinces and territories, 2016



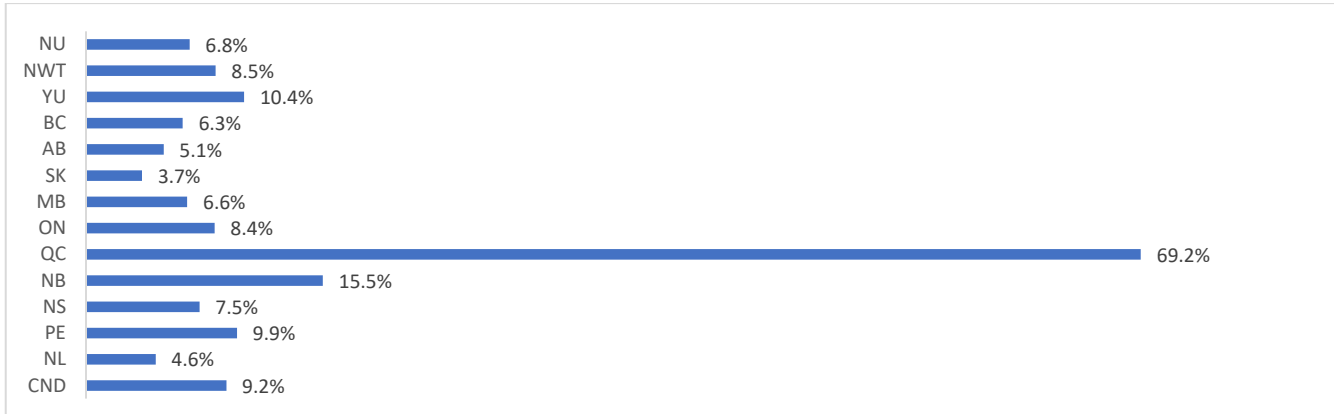
Source: Statistics Canada Census 2016.

Figure 2: Evolution of percentage of adult population with knowledge of English and French, Canada, provinces and territories, 2011 to 2016, 2011 = 100



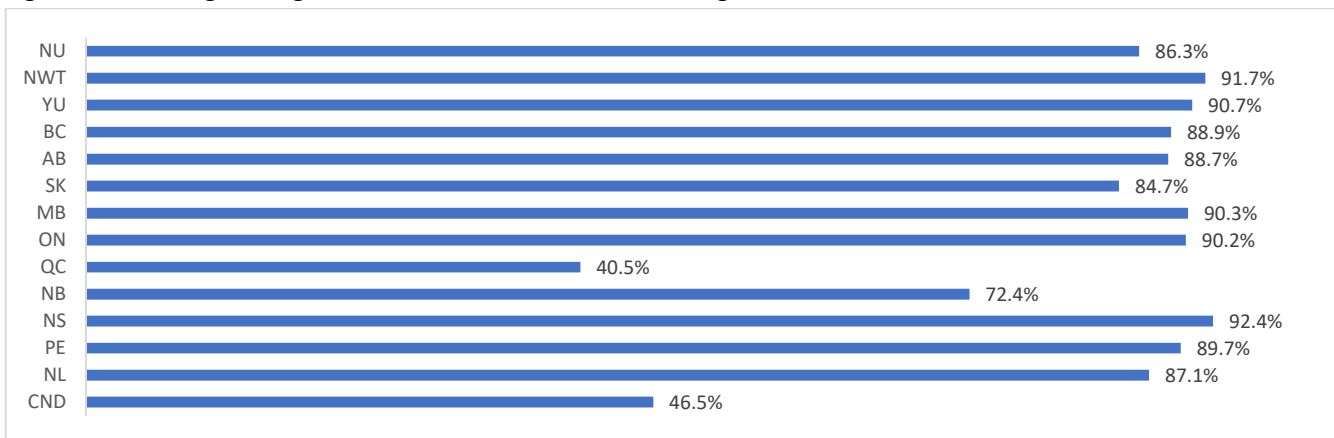
Source: Statistics Canada Census 2016 and National Household Survey 2011

Figure 3: Knowledge of English and French Based on Mother Tongue: English, Canada, Provinces and Territories, 2016



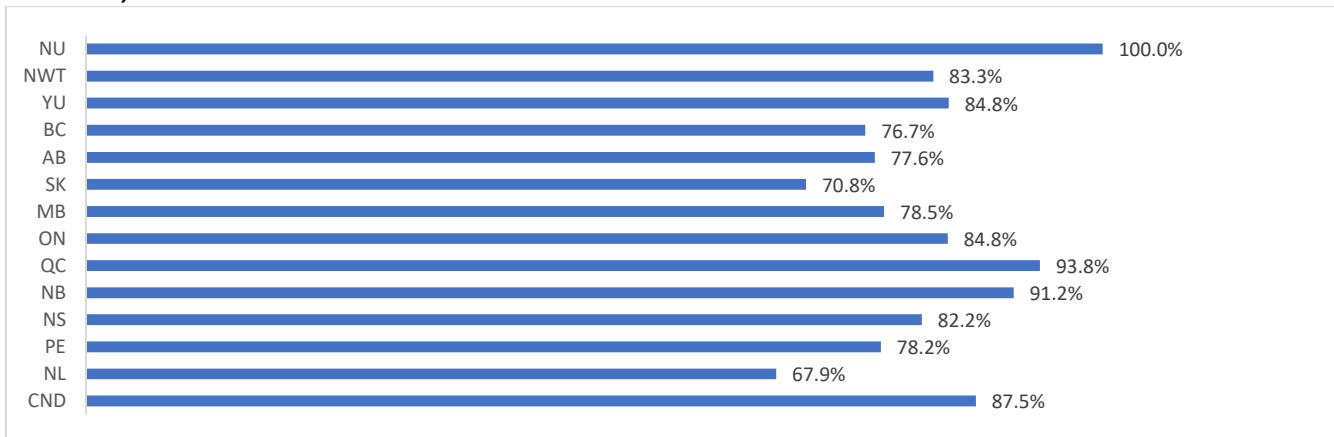
Source: Statistics Canada Census 2016.

Figure 4: Knowledge of English and French Based on Mother Tongue: French, Canada, Provinces and Territories, 2016



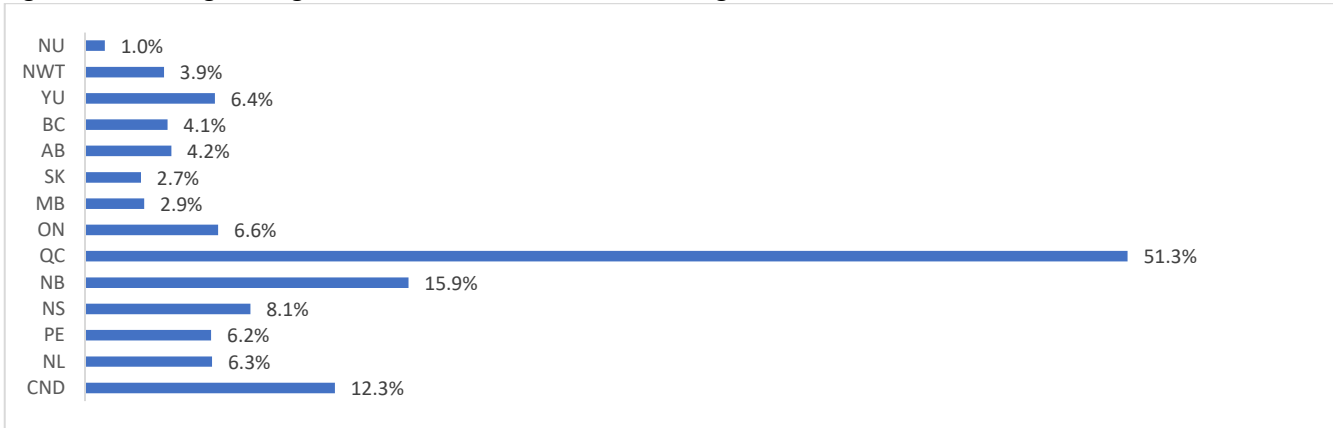
Source: Statistics Canada Census 2016.

Figure 5: Knowledge of English and French Based on Mother Tongue: English and French, Canada, Provinces and Territories, 2016



Source: Statistics Canada Census 2016.

Figure 6: Knowledge of English and French Based on Mother Tongue: Other, Canada, Provinces and Territories, 2016



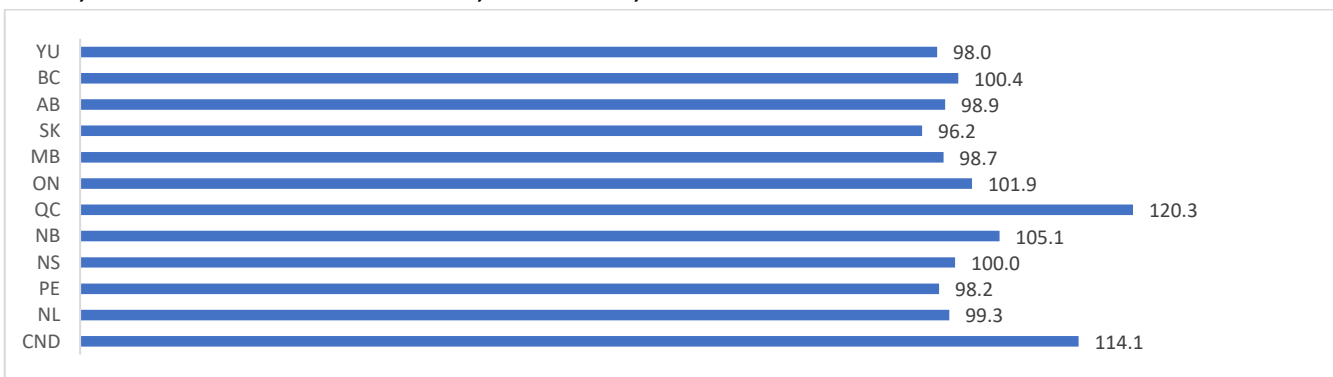
Source: Statistics Canada Census 2016.

Figure 7: Evolution of percentage of adult population with knowledge of English and French Based on Mother Tongue: English, Canada, Provinces and Territories, 1996 to 2016, 1996 = 100⁷



Source: Statistics Canada Census 2016 and 1996.

Figure 8: Evolution of percentage of adult population with knowledge of English and French Based on Mother Tongue: French, Canadian Provinces and Territories, 1996 to 2016, 1996 = 100⁸

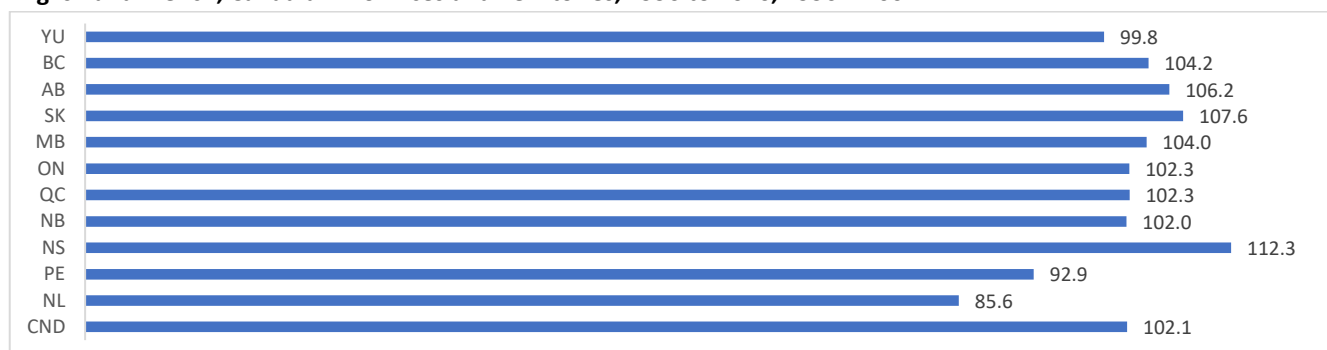


Source: Statistics Canada Census 2016 and 1996.

⁷ The Northwest Territories and Nunavut are not included as Nunavut was created in 1999 and we do not have separated data for 1996.

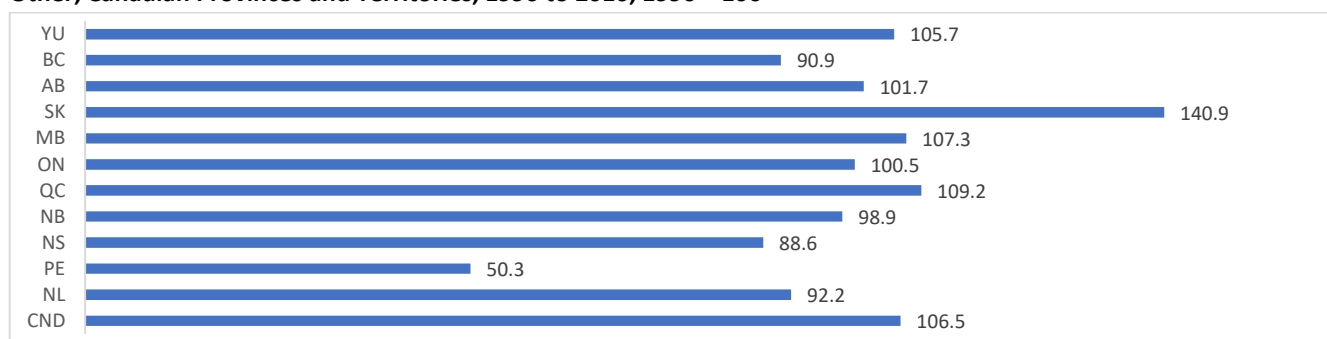
⁸ The Northwest Territories and Nunavut are not included as Nunavut was created in 1999 and we do not have separated data for 1996.

Figure 9: Evolution of percentage of adult population with knowledge of English and French Based on Mother Tongue: English and French, Canadian Provinces and Territories, 1996 to 2016, 1996 = 100⁹



Source: Statistics Canada Census 2016 and 1996.

Figure 10: Evolution of percentage of adult population with knowledge of English and French Based on Mother Tongue: Other, Canadian Provinces and Territories, 1996 to 2016, 1996 = 100¹⁰



Source: Statistics Canada Census 2016 and 1996.

3.2 Bilingualism by age

The proportion of bilingualism decreases with age, both in New Brunswick and Canada (Figure 11). For all age groups, the level of bilingualism in New Brunswick is generally about twice the level in Canada. It is noteworthy that the level of bilingualism amongst New Brunswickers less than 45 years of age is above the provincial average while it is the opposite for all age categories above 45 years of age. This means that New Brunswick will continue to become more bilingual.

The percentage of bilingual individuals, by age group, has generally increased between 2011 and 2016 (Figure 12). The two exceptions are the 55 to 64 years of age and the 25 to 34 years of age. Comparing these results to those of our 2015 study, we have consistent results. In our previous study, the exceptions were the age groups of 45 to 54 years of age and 15 to 24 years of age. We thus have two cohorts moving through the years where we have a lower percentage of bilingualism than the previous cohort.

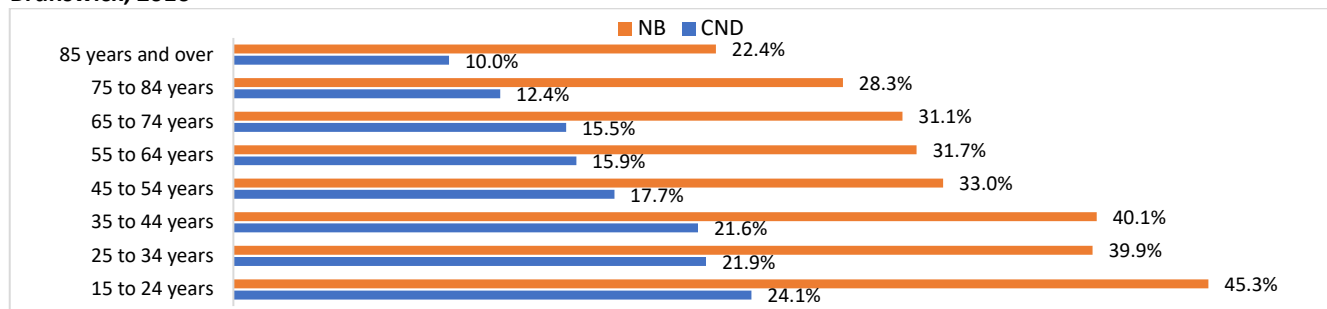
The percentage of New Brunswickers whose mother tongue is English and are bilingual is much higher for the younger cohorts (Figure 13). Between 10 and 24 years of age, we have about a third who are bilingual. The

⁹ The Northwest Territories and Nunavut are not included as Nunavut was created in 1999 and we do not have separated data for 1996.

¹⁰ The Northwest Territories and Nunavut are not included as Nunavut was created in 1999 and we do not have separated data for 1996.

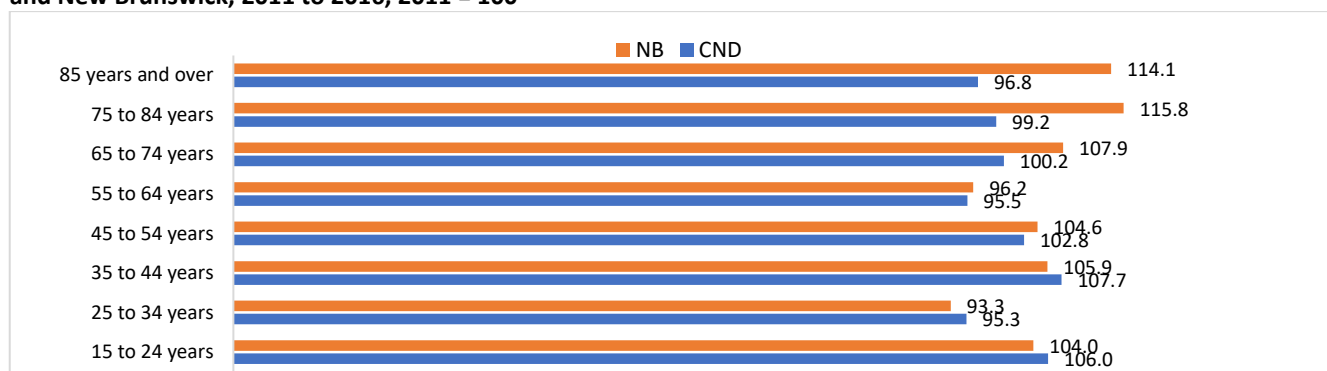
percentage goes down to approximately 20% between 25 and 44 years of age and decreases further as the age group is older. For New Brunswickers whose mother tongue is French, the percentage is significantly higher for all age groups (Figure 14).

Figure 11: Percentage of adult population with knowledge of English and French by age categories, Canada and New Brunswick, 2016



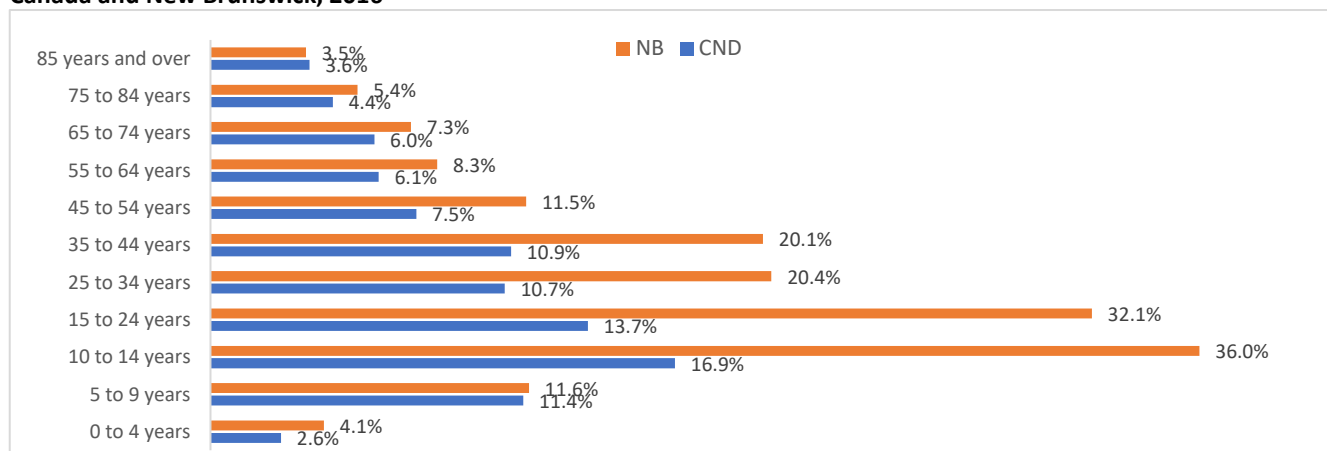
Source: Statistics Canada Census 2016.

Figure 12: Evolution of percentage of adult population with knowledge of English and French by age categories, Canada and New Brunswick, 2011 to 2016, 2011 = 100



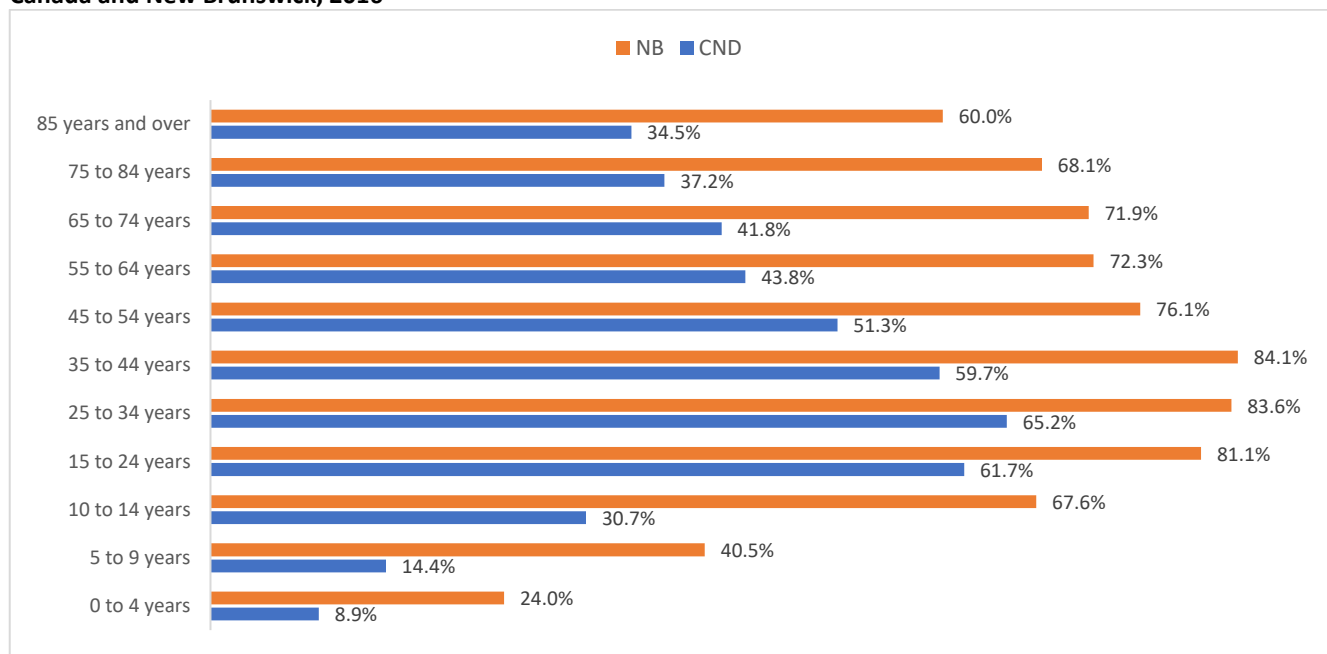
Source: Statistics Canada Census 2016 and National Household Survey 2011

Figure 13: Percentage of population with knowledge of English and French Based on Mother Tongue (English) and Age, Canada and New Brunswick, 2016



Source: Statistics Canada Census 2016.

Figure 14: Percentage of population with knowledge of English and French Based on Mother Tongue (French) and Age, Canada and New Brunswick, 2016

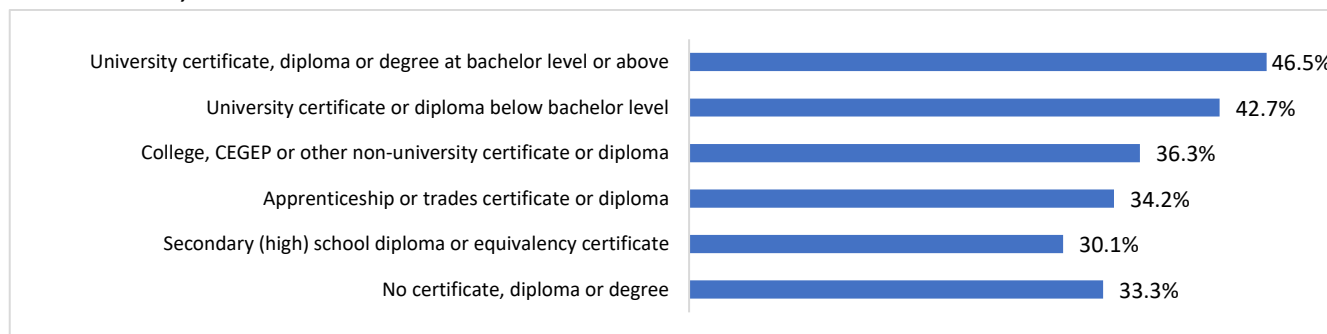


Source: Statistics Canada Census 2016.

3.3 Bilingualism by educational achievement

For 2016, as was the case for 2011, we find that bilingualism is generally correlated with educational achievement (Figure 15). The higher the level of educational achievement category, the higher the proportion of bilingual individuals. We again find that the exception is for the group of adults with no certificate, diploma or degree, where we have a higher percentage of bilingual individuals than for the group with a high school diploma or equivalency certificate. The proportion of bilingual individuals in this group of adults with no certificate, diploma or degree is more than two and a half times the national average (Figure 16).

Figure 15: Percentage of adults (15 years +) with knowledge of English and French by educational achievement levels, New Brunswick, 2016

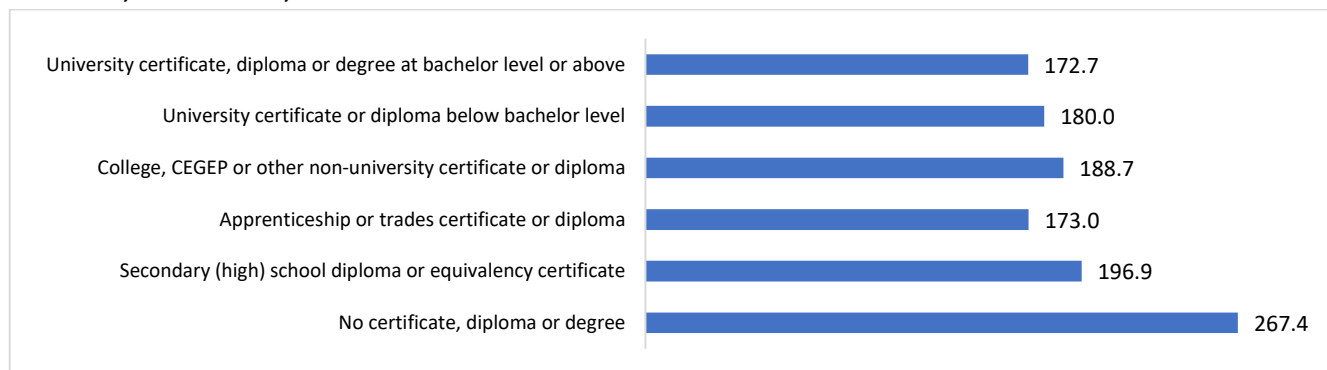


Source: Statistics Canada Census 2016.

Between 2011 and 2016, the percentage of bilingual adults, based on their educational achievement, has fluctuated both in New Brunswick and in Canada (Figure 17). In New Brunswick, it has increased significantly for those with a university certificate or diploma below bachelor level, for those with no certificate, diploma or degree and, to a lesser extent, for those with an apprenticeship or trades certificate or diploma or with a

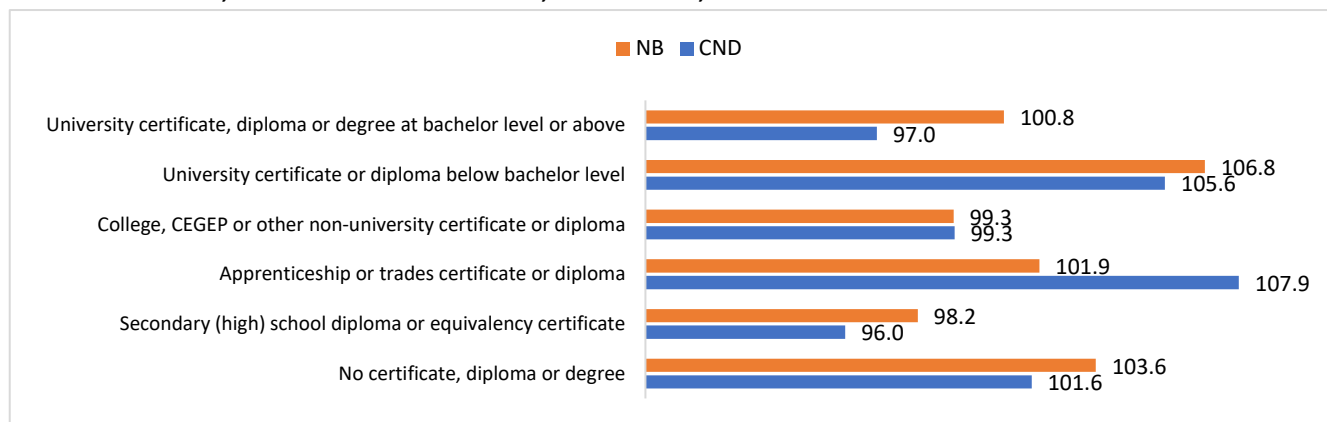
university certificate, diploma or degree at bachelor level or above. It has decreased for those with a college, CEGEP or other non-university certificate or diploma or with a secondary (high) school diploma or equivalency certificate. We can also see that New Brunswick offers existing and potential employers a significant pool of qualified bilingual workers. The Canadian trend was generally not very different than the trend in New Brunswick, although in all categories New Brunswick had a much higher percentage of bilingual workers.

Figure 16: Percentage of adults (15 years +) with knowledge of English and French by educational achievement, New Brunswick, Canada = 100, 2016



Source: Statistics Canada Census 2016.

Figure 17: Evolution of percentage of adults (15 years +) with knowledge of English and French by educational achievement levels, Canada and New Brunswick, 2011 to 2016, 2011 = 100

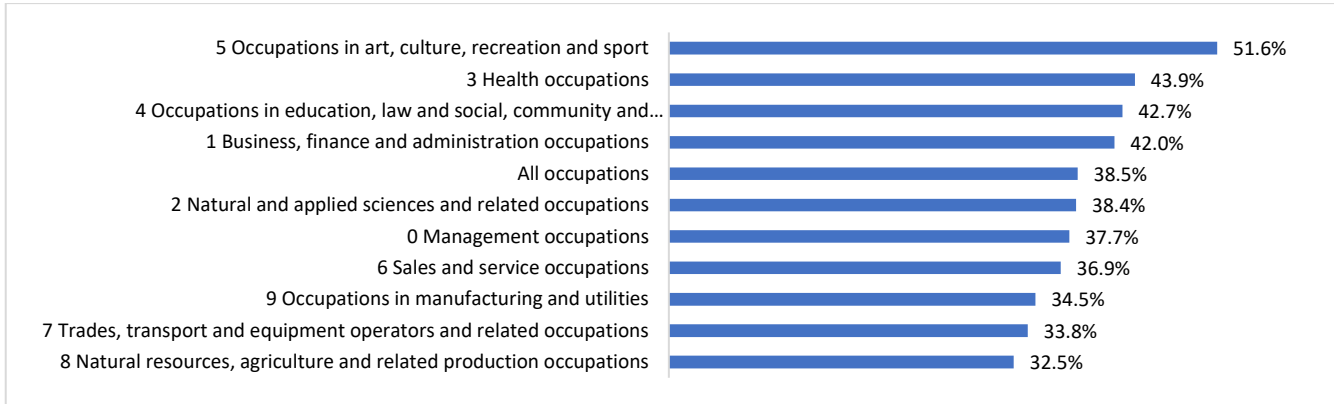


Source: Statistics Canada Census 2016.

3.4 Bilingualism by profession

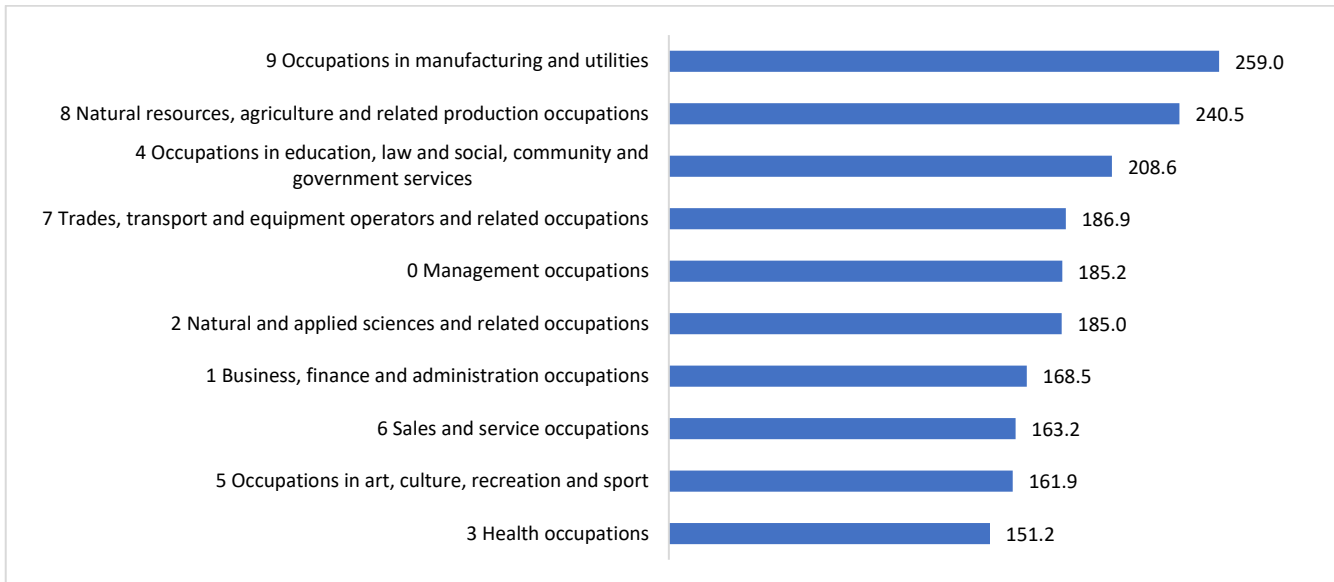
The proportion of bilingual workers varies amongst professions (Figure 18). In occupations in art, recreation and sport, we find more than half of the workers (51.6%) are bilingual, while approximately a third are bilingual in natural resources, agriculture and related production occupations (32.5%), trades, transport and equipment operations and related operations (33.8%) and occupations in manufacturing and utilities (34.5%). Interestingly, compared to the Canadian average, those three categories have a much higher proportion of bilingual workers in New Brunswick (Figure 19). Health occupations is the category where the difference between the proportion in New Brunswick and Canada is the lowest, yet still 51.2% higher. We find that there have been fluctuations between 2011 and 2016 in New Brunswick, but these fluctuations generally follow the national trends (Figure 20).

Figure 18: Percentage of adults (15 years +) with knowledge of English and French by profession, New Brunswick, 2016



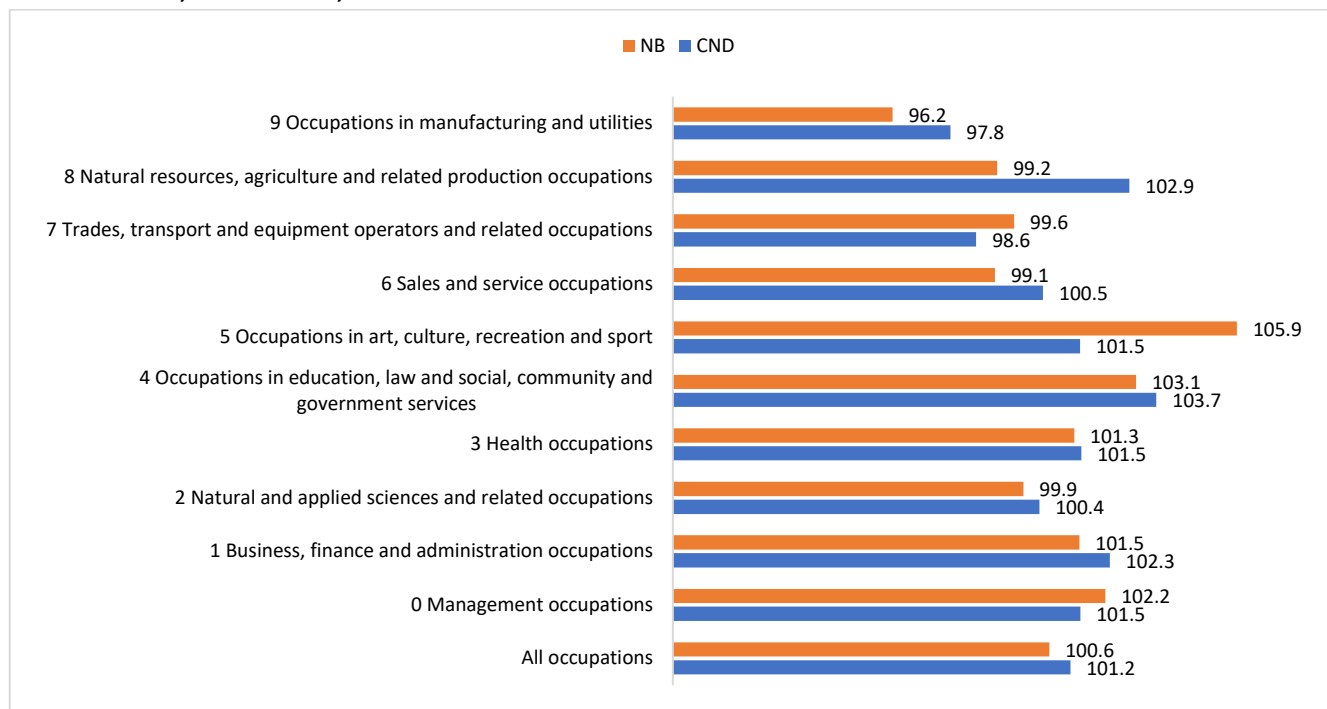
Source: Statistics Canada Census 2016.

Figure 19: Percentage of adults (15 years +) with knowledge of English and French by profession, New Brunswick, Canada = 100, 2016



Source: Statistics Canada Census 2016.

Figure 20: Evolution of percentage of adults (15 years +) with knowledge of English and French by profession, Canada and New Brunswick, 2011 to 2016, 2011= 100



Source: Statistics Canada Census 2016 and National Household Survey 2011

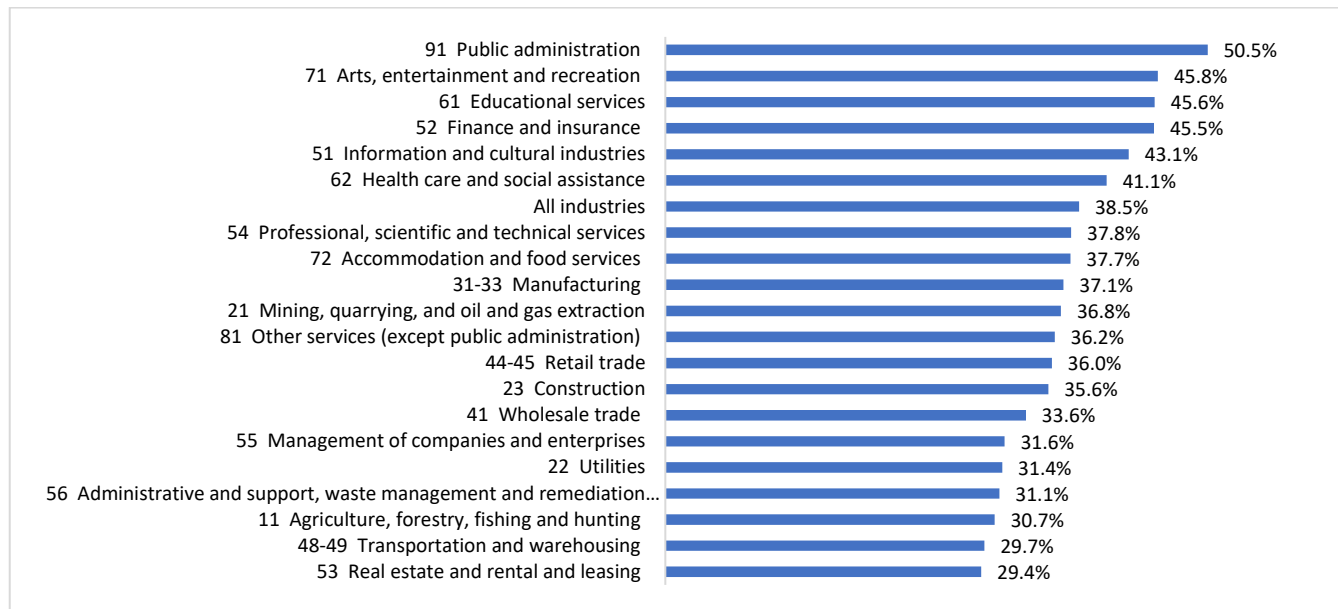
3.5 Bilingualism by economic sectors

As for professions, results for economic sectors vary with respect to the proportion of bilingual workers (Figure 21). Six of New Brunswick’s 20 economic sectors (NAICS¹¹ 2-digit) have a proportion of bilingual workers above the provincial average (38.5%). These are public administration (50.5%), arts, entertainment and recreation (45.5%), educational services (45.6%), finance and insurance (45.5%), information and cultural industries (43.1%) and health care and social assistance (41.1%). Agriculture, forestry, fishing and hunting (30.7%), transportation and warehousing (29.7%) and real estate and rental and leasing (29.4%) have the lowest proportion of bilingual workers.

Compared to Canada, New Brunswick has more bilingual workers in all sectors (NAICS 2-digit) (Figure 22). As we indicated earlier, this is an attractive characteristic for existing and potential employers. The sector with the highest proportion of bilingual workers compared to the Canadian average is mining, quarrying, and oil and gas extraction, followed by agriculture, forestry, fishing and hunting and by construction. Using 3-digit NAICS data (Figure 44, Appendix A) confirms these results: New Brunswick has more than five times the proportion of bilingual workers in this sector, compared to the national average. This could in part reflect the high number of Francophones commuting to western Canada to work in the oil and gas sector.

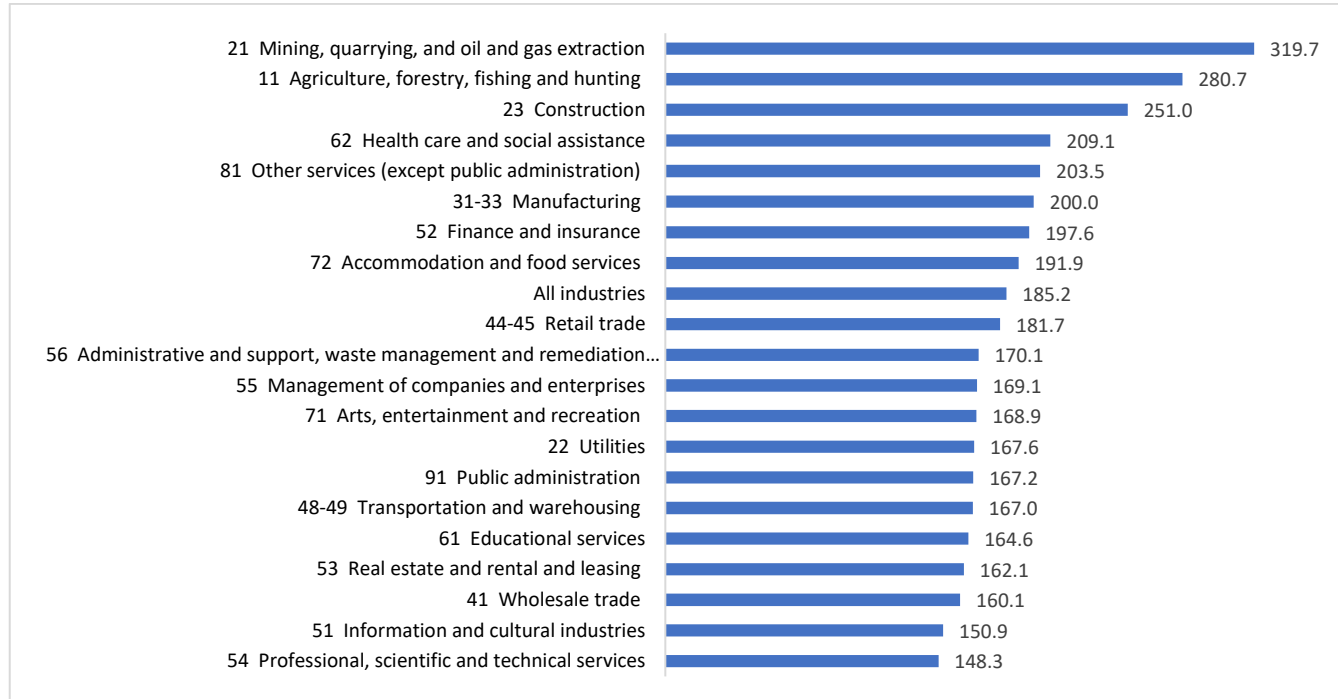
¹¹ “The North American Industry Classification System (NAICS) is an industry classification system developed by the statistical agencies of Canada, Mexico and the United States. Created against the background of the North American Free Trade Agreement, it is designed to provide common definitions of the industrial structure of the three countries and a common statistical framework to facilitate the analysis of the three economies. [...] It has a hierarchical structure. At the highest level [the 2-digit level], it divides the economy into 20 sectors. At lower levels, it further distinguishes the different economic activities in which businesses are engaged.” <http://www.statcan.gc.ca/subjects-sujets/standard-norme/naics-scian/2012/introduction-eng.htm>

Figure 21: Percentage of employees with knowledge of English and French by Sector (NAICS 2-digit), New Brunswick, 2016



Source: Statistics Canada Census 2016.

Figure 22: Relative concentration of employees with knowledge of English and French by Sector (NAICS 2-digit), New Brunswick compared to Canada (Canada = 100), 2016



Source: Statistics Canada Census 2016.

Public Administration in New Brunswick: Not the highest relative proportion of bilingual workers

New Brunswick being the only officially bilingual province in Canada, one could expect a relatively high percentage of bilingual workers in that sector. As was the case in our previous study, we find that the proportion is in fact relatively lower than the provincial average, when compared to the Canadian average (Figure 22). In fact, 13 of the other 19 sectors (other than public administration) have a relative proportion of bilingual workers higher – comparing the presence in New Brunswick and in Canada as a whole – than the public administration sector.

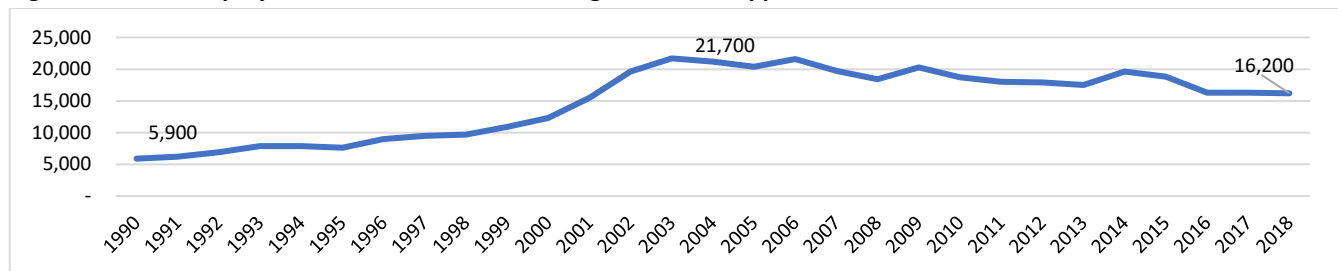
4. Economic benefits of bilingualism

New Brunswick has benefited from its status as a bilingual province. It has attracted investment, increased trade, tourism and immigration. This fourth section presents some of these benefits, while section 5 will expand on the potential for bilingualism to support economic development in the province in the future.

4.1 Bilingualism and attracting national contact centres and back offices

In May 2017, TD announced plans for a new call centre in Dieppe¹². It opened in January 2019¹³. The centre will have 1015 jobs, 575 of them call centre jobs and 440 will be “high-skilled finance jobs.” This is a trend that we had predicted and hoped for in our 2015 study. As important as this is, it is not a first for New Brunswick, but what is interesting is that the sector is increasing the “skill level” present. In the 1990s, New Brunswick’s bilingual workforce, excellent telecommunications network and competitive operating cost environment attracted over 40 national and international customer contact centres and back office operations. Corporate players such as ExxonMobil, Xerox, IBM, FedEx, UPS, RBC, Unilever and SNC-Lavalin set up in the province. The industry group which includes much of the customer contact centre and back office employment is the “business, building and other support services” sector. Between 1990 and 2003, this industry group added nearly 16,000 workers in the province (Figure 23). New Brunswick’s share of the national industry rose from 1.9% in 1990 to 3.6% in 2003. With some consolidation and technical change, the number of workers has decreased, but as we can see with the opening of the TD centre in Dieppe, it remains a very important sector for the provincial economy.

Figure 23: Total employment in the business, building and other support services sector, New Brunswick, 1990-2018



Source: Statistics Table 14-10-0023-01

As was the case with the 2011 National Household Survey, the 2016 Census provides another source of data which illustrates the importance of this industry for the provincial economy. There were 10,775 people who listed their occupation as a customer and information services representative. Relative to the size of our economy, no other province had a bigger presence, more than 60% above the national average (Figure 24).

In our 2015 study, we had several quotes indicating that bilingualism was an important reason why these firms chose New Brunswick. We present them again, adding one from the TD Dieppe announcement:

“Bilingualism is extremely important in Canada. It gives us great flexibility having a bilingual workforce and offers us many options. We deal with our clients in many languages, principally English and French,” said [Colleen Johnston, a TD senior executive].¹⁴

¹² <https://www.theglobeandmail.com/report-on-business/new-brunswick-says-new-td-call-centre-in-moncton-will-create-575-jobs/article35099531/>

¹³ <https://huddle.today/new-td-centre-in-dieppe-will-open-in-january-with-150-employees/>

¹⁴ <https://www.acadienouvelle.com/actualites/2017/05/24/banque-creeait-575-emplois-a-moncton/>

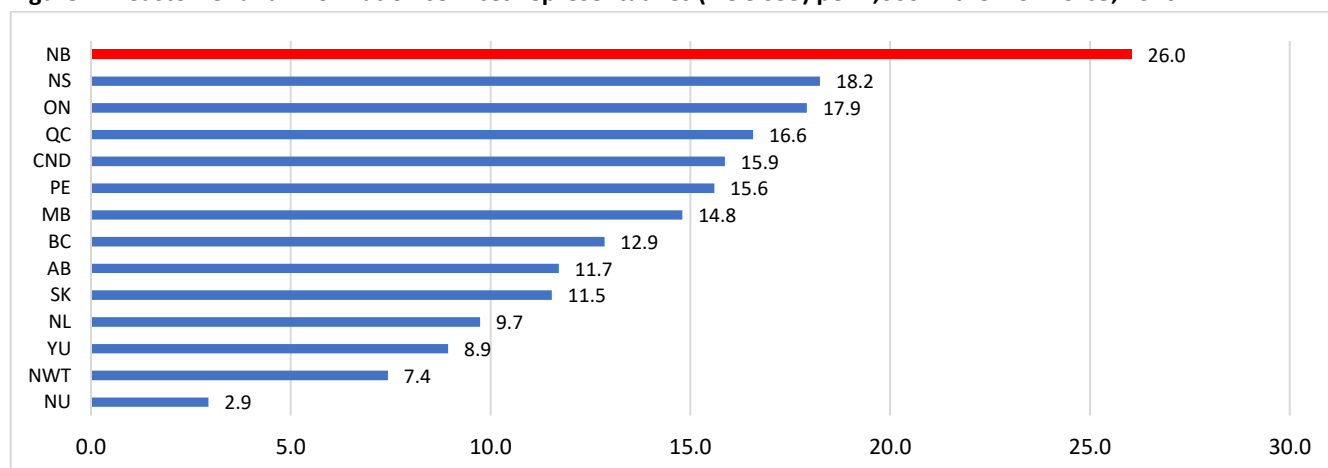
“To provide service that meets the needs of customers across Canada, you need a dedicated, capable and bilingual workforce. ING DIRECT found that workforce in Moncton, New Brunswick and established a contact center there in July 2011 – their first one in Atlantic Canada.¹⁵”

Derek Vanstone, Air Canada's vice-president, corporate strategy and government affairs, noted a main reason to expand the company's Saint John customer service call centre in 2014 was to expand its ability to service English and French markets across Canada. He said, “We are thrilled to be expanding our customer service call centre in Saint John...” “This is great news for our customers as we continue to improve our response times and overall bilingual service levels.”¹⁶

“Located in Moncton, the [RBC] contact center is the largest of its kind in Atlantic Canada – 800 employees provide bilingual sales and service support and advice to clients.¹⁷”

“... the chief operating officer of Rogers Cable, John Tory, has identified the presence of a bilingual workforce to explain his company's new investment [600 job contact centre] in Moncton...¹⁸” [Translation]

Figure 24: Customer and information services representatives (NOC 655) per 1,000 in the workforce, 2016



Source: Statistics Canada Census 2016.

Although these industries were indeed attracted here in large part because of bilingualism, at the same time virtually all the firms do not require most of the staff to be bilingual: “Just as you don’t need to speak French for every call centre position, nor do you have to speak English for every job.¹⁹” In fact, many only require 25-30 percent to speak both languages – meaning that the population of New Brunswick that does not speak French has also benefitted directly from the positive economic impacts of bilingualism.

¹⁵ Invest NB. 2014. *ING Direct*. Case studies. www.investnb.ca/casestudies/ing-direct/.

¹⁶ Invest NB. “Air Canada adding employees at Saint John Customer Service Call Centre.” April 14, 2014. http://www2.gnb.ca/content/gnb/en/news/news_release.2014.04.0376.html

¹⁷ Invest NB. 2014. *The Royal Bank of Canada banks on New Brunswick*. Case Studies. www.investnb.ca/casestudies/royal-bank-of-canada/

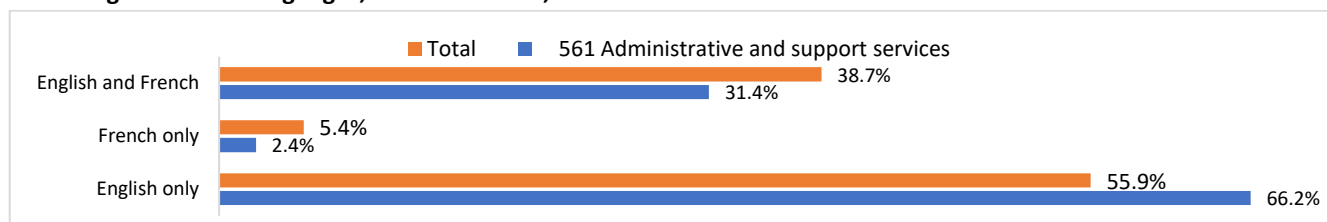
¹⁸ Ricard, Philippe. 2002. « Rogers créera 600 emplois à Moncton. » *L’Acadie Nouvelle*. February 13, 2002. p. 5.

¹⁹ Foster, James. 2007. “Students bridge language barrier.” *Times & Transcript*. June 30, 2007. P. B1.

Figure 25 presents the breakdown of workers in the administrative and support services (NAICS 561²⁰) by knowledge of official languages. Of the 15,205 workers in the industry, 10,065 speak only English and another 360 speak only French. There were 4,780 who indicated that they could speak both English and French, or 31.4% of the total.

A significant percentage of the 10,065 workers in this sector who can only speak English would not have their job if this industry was not attracted to New Brunswick, thanks in part to bilingualism.

Figure 25: Employment in NAICS 561 Administrative and support services by knowledge and Total of all Industries by Knowledge of official languages, New Brunswick, 2016



Source: Statistics Canada Census 2016.

Table 1: Per capita export revenue from the administrative and support and head office, waste management and remediation services sector, 2015²¹

| | Interprovincial per capita export revenue | International per capita export revenue | Total per capita export revenue | Canada = 100 |
|---------------------------|---|---|------------------------------------|--------------|
| Canada | \$696 | \$403 | \$1,100 | |
| Newfoundland and Labrador | \$367 | \$71 | \$438 | 39,8 |
| Prince Edward Island | \$1,041 | \$101 | \$1,142 | 103,9 |
| Nova Scotia | \$367 | \$272 | \$639 | 58,1 |
| New Brunswick | \$2,005 | \$168 | \$2,173 | 197,6 |
| Quebec | \$524 | \$342 | \$865 | 78,7 |
| Ontario | \$780 | \$652 | \$1,432 | 130,2 |
| Manitoba | \$616 | \$158 | \$775 | 70,4 |
| Saskatchewan | \$609 | \$111 | \$720 | 65,5 |
| Alberta | \$965 | \$112 | \$1,077 | 97,9 |
| British Columbia | \$449 | \$292 | \$741 | 67,4 |

Source: Statistics Canada, Table 12-10-0088-01

Employment is not the only source of data to illustrate the importance of this industry. Interprovincial and international services export data from Statistics Canada show that it had a very positive impact on New Brunswick's trade in services. In 2015, the most recent year for which we have statistics, the administrative and support and head office, waste management and remediation services sector generated \$1.5 billion worth of interprovincial export revenue and another \$128 million worth of international exports for a total of \$1.65 billion.

²⁰ Examples of sub-sectors found in NAICS 561, aside from contact centres, are investigation and security services and services to buildings and dwellings.

²¹ This sector includes "telephone call centres" (56142), but also subsectors such as "credit bureaus" (56145), "employment services" (5613), "travel arrangement and reservation services" (5615) and "investigation and security services" (5616)

When we consider the province’s population, we find that New Brunswick generates twice as much export revenue from the sector compared to Canada as a whole (Table 1). If we focus on interprovincial export revenues, we find that the province generates nearly three times the national average. New Brunswick is by far the province which generates the greatest amount of export revenues from this industry, on a per capita basis.

4.2 Bilingualism and regional economic benefits within New Brunswick

Bilingualism generates job creation in all regions of the province. Using occupational data from the 2016 Census, we find that most of New Brunswick’s urban centres have a higher concentration of workers in the administrative and customer services roles compared to the national workforce. The exception is Campbellton, which is only slightly below the Canadian average (0.98) (Figure 26). These results are from a location quotient analysis (LQ), which compares employment intensity in various jurisdictions compared to the national labour market. In Figure 26, we combine the eight administrative occupations of Table 2 to produce a location quotient for New Brunswick and its seven urban centres. On a relative basis, Moncton has 72 percent more people working in these than the national average. Across the province, it is 27 percent more. Results presented in Table 2 indicate that a total of 24,390 worked in these occupations in New Brunswick in 2016. Table 3 shows the location quotient for each of the eight occupational groups for New Brunswick and its seven urban centres.

Figure 26: Administrative Occupational Location Quotient, 2016, Canadian labour market = 1.00 (See list of occupations included in Table 2)



Source: Statistics Canada Census 2016.

Table 2: Employment by Occupation – Selected services occupations where bilingualism is a key advantage, 2016*

| Occupational group: | New Brunswick | Moncton CMA | Saint John CMA | Fredericton CA | Bathurst CA | Miramichi CA | Campbellton (NB) | Edmundston CA |
|---|---------------|-------------|----------------|----------------|-------------|--------------|------------------|---------------|
| 121 Administrative services supervisors | 1845 | 560 | 300 | 200 | 25 | 60 | 35 | 35 |
| 1241 Administrative assistants | 5785 | 1000 | 770 | 855 | 310 | 210 | 85 | 300 |
| 143 Financial, insurance & related admin. support workers | 4550 | 1220 | 835 | 680 | 225 | 145 | 50 | 90 |
| 1454 Survey interviewers and statistical clerks | 640 | 115 | 80 | 70 | 20 | 25 | 10 | 15 |
| 2282 User support technicians | 1375 | 305 | 390 | 285 | 35 | 45 | 10 | 25 |
| 5125 Translators, terminologists and interpreters | 330 | 150 | 30 | 40 | 10 | 10 | - | - |
| 6551 Customer services reps. - financial institutions | 1705 | 525 | 225 | 195 | 40 | 30 | 20 | 50 |
| 6552 Other customer and information services reps. | 8160 | 2995 | 1965 | 970 | 250 | 355 | 90 | 185 |
| Total – Selected services occupations | 24390 | 6870 | 4595 | 3295 | 915 | 880 | 300 | 700 |

*The Census publishes employment levels in increments of five.

Source: Statistics Canada Census 2016.

Table 3: Location Quotient for Selected Services Occupations, 2016, Canadian labour market = 1.00

| Occupational group: | New Brunswick | Moncton CMA | Saint John CMA | Fredericton CA | Bathurst CA | Miramichi CA | Campbellton (NB) | Edmundston CA |
|---|---------------|-------------|----------------|----------------|-------------|--------------|------------------|---------------|
| 121 Administrative services supervisors | 0,99 | 1,44 | 0,94 | 0,74 | 0,36 | 0,91 | 1,17 | 0,62 |
| 1241 Administrative assistants | 1,12 | 0,93 | 0,88 | 1,14 | 1,60 | 1,16 | 1,03 | 1,91 |
| 143 Financial, insurance & related admin. support workers | 1,00 | 1,29 | 1,09 | 1,03 | 1,32 | 0,91 | 0,69 | 0,65 |
| 1454 Survey interviewers and statistical clerks | 1,53 | 1,32 | 1,13 | 1,15 | 1,27 | 1,71 | 1,50 | 1,18 |
| 2282 User support technicians | 1,54 | 1,64 | 2,57 | 2,20 | 1,04 | 1,44 | 0,70 | 0,92 |
| 5125 Translators, terminologists and interpreters | 0,92 | 2,02 | 0,50 | 0,77 | 0,75 | 0,80 | 0,00 | 0,00 |
| 6551 Customer services reps. - financial institutions | 1,09 | 1,61 | 0,85 | 0,86 | 0,68 | 0,55 | 0,80 | 1,05 |
| 6552 Other customer and information services reps. | <u>1,85</u> | <u>3,26</u> | <u>2,62</u> | <u>1,51</u> | <u>1,51</u> | <u>2,29</u> | <u>1,28</u> | <u>1,38</u> |
| LQ for eight occupations combined | 1,27 | 1,72 | 1,41 | 1,18 | 1,27 | 1,31 | 0,98 | 1,20 |

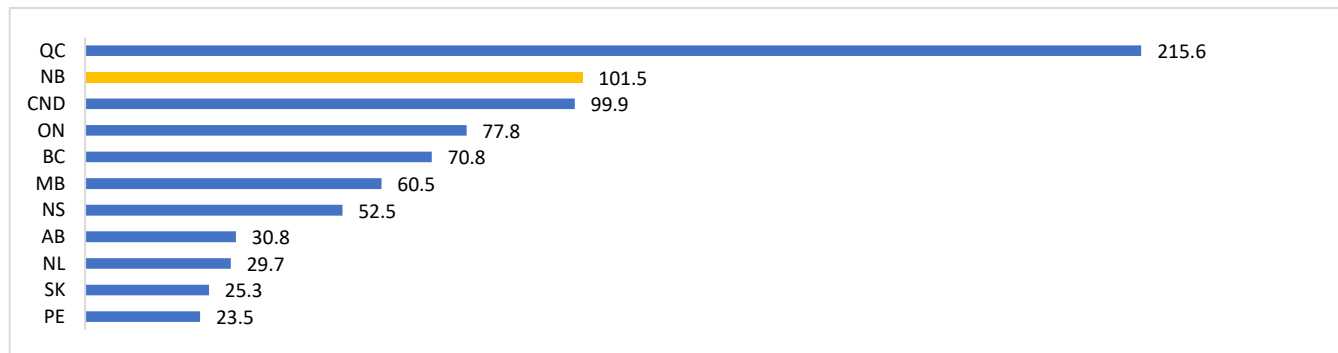
Source: Statistics Canada Census 2016.

4.3 Bilingualism and language industries

The *Canadian Association de l'industrie de la langue/language industry association* (AILIA) suggests that language industries can be grouped into three broad categories: translation (including interpretation), language technologies and language training²².

Québec leads on this industry in Canada with 49 percent of the national total of workers in the occupational group NOC 5125 Translators, terminologists and interpreters. It is followed by Ontario with 29.6%. However, New Brunswick ranks second in the country when we adjust for population size – the only province with Québec above the national average (Figure 27). We thus have 420 people employed in the occupational group NOC 5125 translators, terminologists and interpreters.

Figure 27: Translators, terminologists and interpreters (NOC 5125) per 100,000 in the workforce, Canada and Provinces, 2016



Source: Statistics Canada Census 2016.

²² <https://www.ailia.ca/en/the-industry>

Although not included in these figures as they are in universities, New Brunswick has several institutions that are language based and are nationally and internationally renowned by, consequently, making language an exported service. These include the *Canadian Institute for Research on Linguistic Minorities*²³, the *Centre de traduction et de terminologie juridiques*²⁴, and the *International Observatory on Language Rights*²⁵.

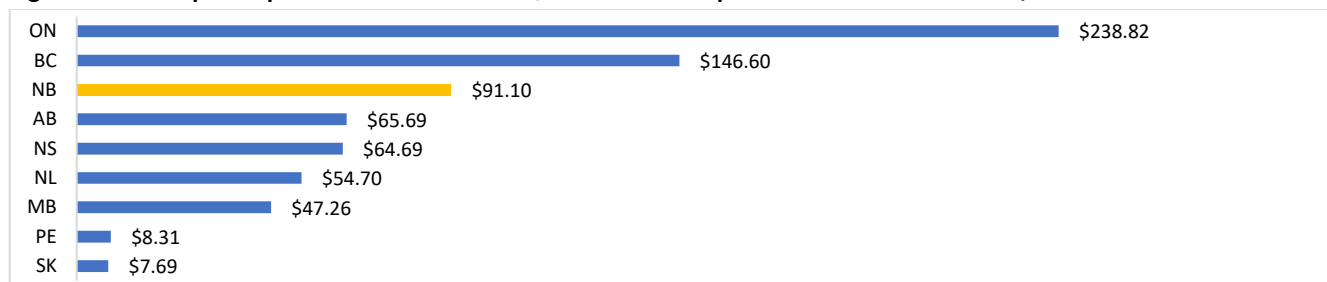
Being Canada’s only officially bilingual province, New Brunswick should perform better on this front. We should strive to create a critical mass to develop language industry cluster based on our competitive advantage.

4.4 Bilingualism and professional services exports

Language is not only an exported service it is also an essential tool used by exporters of “more traditional” goods and services. Exporting in markets using similar languages increases the chances of success²⁶. A recent study by The Conference Board of Canada concludes that “Bilingual Canada trades much more with French-speaking countries than Less Bilingual Canada.”²⁷

In 2015, New Brunswick ranked last amongst the 10 provinces across Canada for interprovincial professional services revenues. Professional services include such activities as engineering, architectural, legal and marketing services. On a per capita basis, interprovincial export revenues for the sector were not even at 50% of the national average. By contrast, New Brunswick ranks third amongst Canadian provinces for professional services revenue from the Québec market. The province’s bilingualism clearly contributes to this result on the Québec market.

Figure 28: Per capita export revenue from the Quebec market – professional services sector, 2015



Source: Statistics Canada, Table 12-10-0088-01

4.5 Using bilingualism to province insurance services across Canada

New Brunswick has attracted an increasing amount of insurance industry back office and customer service support activity in recent years, in addition to firms who have their headquarters in the province, such as Medavie, Assumption Life and Acadie Vie. These activities are more than strictly contact centres and constitute what some could characterize as a cluster. One of the main reasons insurance firms such as The Co-operators in

²³ <https://icrml.ca/en/home>

²⁴ <http://www.cttj.ca/>

²⁵ <https://www.droitslinguistiques.ca/>

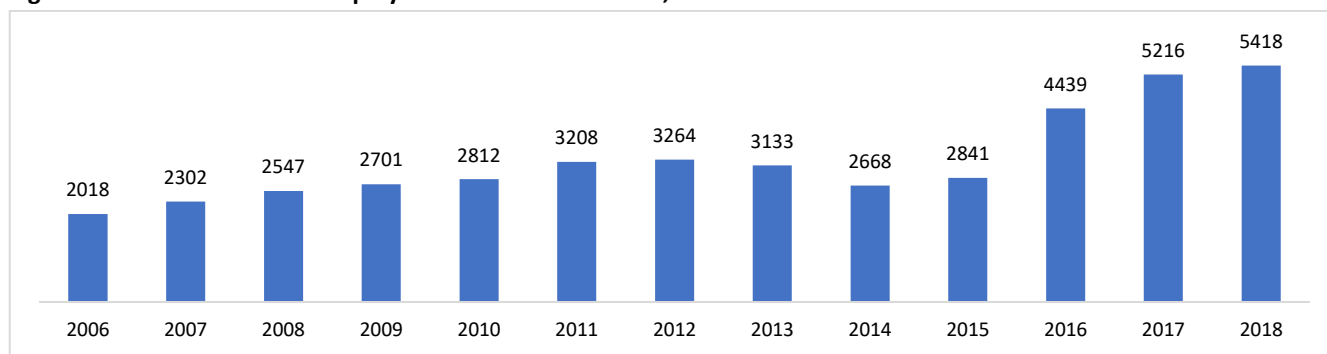
²⁶ See, for example, The Conference Board of Canada. 2018. *Ontario, Trade and the Advantages of English-French Bilingualism*. Prepared for l’Assemblée de la francophonie de l’Ontario. Ottawa: The Conference Board of Canada. 44 pages. <https://monassemblee.ca/wp-content/uploads/2018/05/Rapport-bilinguisme-conference-board-Version-anglophone.pdf>, and Desjardins, Pierre-Marcel. 2003. *Atlantic Canada’s Exports, with a Focus on SMEs and Rural Regions*. Maritime Collection. Moncton: Canadian Institute for Research on Regional Development. P. 104.

²⁷ The Conference Board of Canada. 2013. *Canada, Bilingualism and Trade*. Presented to RDÉE Canada, CEDEC and Industry Canada. P. 36.

Moncton and TD Insurance in Saint John have expanded in New Brunswick has been to take advantage of the bilingual workforce. A 2011 study published by the Insurance Bureau of Canada found that 47 percent of the New Brunswick insurance carrier operations generated export revenue – mostly by providing back office and customer services to clients across Canada²⁸. According to the study, four insurance firms in New Brunswick attributed more than 50 percent of their employment to markets outside the province. Several firms said they handle overflow claims management and customer service for markets in Quebec, Ontario and western Canada. The survey asked insurance carriers to describe the value proposition for their New Brunswick operations. The bilingual workforce was one of the top cited reasons why the firms were expanding in the province.

Being able to serve Francophone customers has been a key reason why the insurance carriers have expanded their employment in the province by 168 percent between 2006 and 2018 (Figure 29).

Figure 29: Insurance carrier employment in New Brunswick, 2006-2018

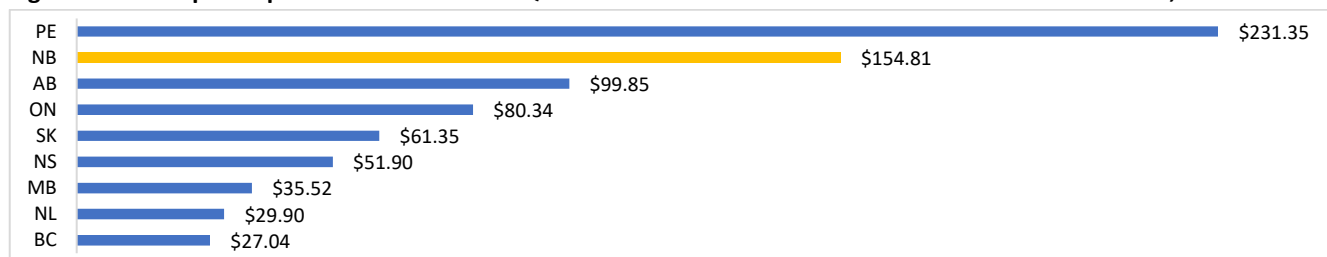


Source: Statistics Canada, Table 14-10-0202-01

4.6 Bilingualism and tourism

Québec tourists come to New Brunswick because of its geography and its unique tourism assets, but also because of the ability to be served in the language of their choice. As an example, in 2015 the accommodation and food services sector in New Brunswick generated \$154.81 per capita from Québec, a number stable for the past five years. It is second only to Prince Edward Island amongst Canadian provinces (Figure 30). It was nearly double the amount generated in Ontario – another Québec neighbour – and three times the amount generated in Nova Scotia, again on a per capita basis.

Figure 30: Per capita export revenue from the Quebec market – accommodation and food services sector, 2015



Source: Statistics Canada, Table 12-10-0088-01

²⁸ Source: Insurance Bureau of Canada. New Brunswick’s Insurance Industry: An Economic Growth Engine (2011).

4.7 Bilingualism and post-secondary education

New Brunswick's post-secondary education institutions are not bilingual, but they operate in a bilingual environment. This characteristic can be attractive for potential students.

New Brunswick ranks third amongst Canadian provinces with respect to per capita interprovincial export revenues in education services and fifth in international export revenues in the same sector (Table 4). A third of the province's university students come from outside New Brunswick: 22.5% come from other provinces while 12% come from other countries (Table 5). Data is not available at the university level or on a linguistic basis for Canadian students. On the other hand, data is available on a university basis for international students (Table 6). We can see that in 2017-2018, the percentage of international students varied from 3.5% at the Shippagan Campus of the Université de Moncton to 16.4% at the Moncton Campus of the Université de Moncton. In our previous study we found that between 2009-2010 and 2013-2014 the proportion of international students had increased on all university campuses in the province. It is not the case between 2013-2014 and 2017-2018. In fact, only St. Thomas University experienced an increase in international students (Table 7). This was accompanied by a decrease of national students on all campuses except for the Shippagan campus of the Université de Moncton. Although the number of international students has decreased, they remain a significant part of the province's university population and the source of potential growth in the future.

A strategy to develop trade with Francophonie countries should tap the network of alumni of New Brunswick post-secondary institutions from those countries: they could be our best ambassadors.

Table 4: Education services export revenue by province, 2015

| | <i>Interprovincial exports</i> | | <i>International exports</i> | | <i>Total export revenue</i> | |
|----|--------------------------------|-------------------|------------------------------|-------------------|-----------------------------|-------------------|
| | <u>\$Million</u> | <u>Per Capita</u> | <u>\$Million</u> | <u>Per Capita</u> | <u>\$Million</u> | <u>Per Capita</u> |
| PE | \$ 10,70 | \$ 74,12 | \$ 23,20 | \$ 160,70 | \$ 33,90 | \$ 234,82 |
| NS | \$ 139,10 | \$ 148,25 | \$ 78,60 | \$ 83,77 | \$ 217,70 | \$ 232,02 |
| ON | \$ 464,60 | \$ 34,02 | \$ 1 514,80 | \$ 110,91 | \$ 1 979,40 | \$ 144,93 |
| BC | \$ 145,80 | \$ 30,72 | \$ 421,90 | \$ 88,91 | \$ 567,70 | \$ 119,63 |
| NB | \$ 46,00 | \$ 60,56 | \$ 43,80 | \$ 57,66 | \$ 89,80 | \$ 118,22 |
| AB | \$ 198,30 | \$ 48,18 | \$ 140,90 | \$ 34,23 | \$ 339,20 | \$ 82,41 |
| SK | \$ 44,80 | \$ 40,07 | \$ 29,40 | \$ 26,29 | \$ 74,20 | \$ 66,36 |
| QC | \$ 127,00 | \$ 15,56 | \$ 354,80 | \$ 43,46 | \$ 481,80 | \$ 59,02 |
| NL | \$ 16,40 | \$ 31,04 | \$ 10,50 | \$ 19,87 | \$ 26,90 | \$ 50,91 |
| MB | \$ 27,00 | \$ 20,99 | \$ 34,10 | \$ 26,51 | \$ 61,10 | \$ 47,49 |

Source: Statistics Canada, Table 12-10-0088-01

New Brunswick's public community colleges are starting to attract more French-speaking students. There are now hundreds of French-speaking students at the Collège communautaire du Nouveau-Brunswick and other college level educational institutions across the province. These students represent an important source of economic activity and, more importantly, are prime candidates to stay after graduation and fill gaps in the labour market.

Table 5: Total Enrollment in New Brunswick Universities, Province of Origin and International Students, 2012-2013 to 2016-17

| | 2012-2013 | 2013-2014 | 2014-2015 | 2015-2016 | 2016-2017 |
|-------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Canadian/Permanent Residents | 19372 | 18430 | 17566 | 16889 | 16627 |
| Newfoundland and Labrador | 204 | 227 | 203 | 197 | 209 |
| Prince Edward Island | 506 | 524 | 496 | 472 | 457 |
| Nova Scotia | 1587 | 1534 | 1469 | 1480 | 1483 |
| New Brunswick | 15016 | 14153 | 13323 | 12736 | 12383 |
| Québec | 426 | 411 | 437 | 439 | 433 |
| Ontario | 920 | 903 | 933 | 934 | 975 |
| Manitoba | 47 | 46 | 49 | 52 | 62 |
| Saskatchewan | 41 | 38 | 40 | 46 | 41 |
| Alberta | 240 | 237 | 244 | 240 | 266 |
| British Columbia | 186 | 164 | 160 | 171 | 180 |
| Nunavut | 6 | 5 | 4 | 1 | 6 |
| Northwest Territories | 6 | 9 | 7 | 3 | 2 |
| Yukon | 163 | 160 | 71 | 92 | 107 |
| Outside Canada | 17 | 7 | 16 | 14 | 10 |
| Unknown | 7 | 12 | 14 | 12 | 13 |
| International | 2609 | 2793 | 2652 | 2505 | 2283 |
| Total | 21981 | 21223 | 20118 | 19394 | 18910 |

Source: http://www.mphec.ca/media/158835/enr_table7_2016_2017_e.pdf

Table 6: Total Enrollment in New Brunswick Universities, International Students, 2013-2014 to 2017-18

| | 2013-2014 | | 2014-2015 | | 2015-2016 | | 2016-2017 | | 2017-2018 | |
|--|-----------|------------|-----------|------------|-----------|------------|-----------|------------|-----------|------------|
| | # | % of total | # | % of total | # | % of total | # | % of total | # | % of total |
| Campus universitaire de Moncton | 787 | 16.9% | 806 | 18.1% | 818 | 19.3% | 727 | 18.1% | 643 | 16.4% |
| Campus universitaire de Shippagan | 32 | 6.8% | 43 | 9.2% | 21 | 5.1% | 18 | 4.3% | 21 | 3.9% |
| Campus universitaire d'Edmundston | 39 | 7.1% | 38 | 7.6% | 31 | 6.8% | 33 | 6.5% | 28 | 5.8% |
| Mount Allison University | 231 | 9.3% | 230 | 9.3% | 207 | 8.8% | 215 | 9.4% | 178 | 8.1% |
| St. Thomas University | 121 | 5.2% | 141 | 6.4% | 126 | 6.1% | 134 | 6.7% | 151 | 7.7% |
| University of New Brunswick – Fredericton | 1033 | 12.6% | 963 | 12.1% | 890 | 11.4% | 834 | 10.9% | 870 | 11.8% |
| University of New Brunswick – Saint John | 550 | 22.0% | 441 | 20.2% | 412 | 19.7% | 322 | 15.7% | 314 | 14.7% |

Source: http://www.mphec.ca/media/175136/Enr_Table5_2017-2018E.pdf

Table 7: Growth in Total Enrollment in New Brunswick Universities, National and International Students, 2013-2014 to 2017-18

| | National Students | International Students |
|---|-------------------|------------------------|
| Campus universitaire de Moncton | -15.8% | -18.3% |
| Campus universitaire de Shippagan | 18.1% | -34.4% |
| Campus universitaire d'Edmundston | -11.5% | -28.2% |
| Mount Allison University | -10.5% | -22.9% |
| St. Thomas University | -18.5% | 24.8% |
| University of New Brunswick – Fredericton | -9.5% | -15.8% |
| University of New Brunswick – Saint John | -6.3% | -42.9% |
| New Brunswick Total | -11.1% | -21.1% |

Source: http://www.mphec.ca/media/158835/enr_table7_2016_2017_e.pdf and http://www.mphec.ca/media/175136/Enr_Table5_2017-2018E.pdf

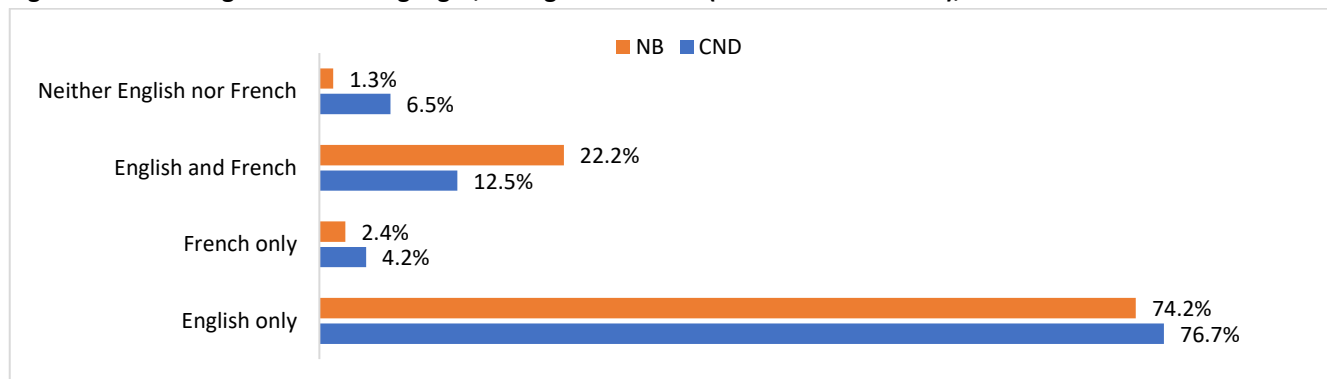
4.8 Bilingualism and immigrant attraction

In 2011, 22.6% of immigrants (born outside Canada) living in New Brunswick spoke both English and French, 77.6% above the national average (Figure 31). Only 1.3% spoke neither English nor French, a percentage well below the national average. Immigrants are thus integrating in New Brunswick's bilingual society. Bilingualism (English and French) for many of them does not constitute a barrier to moving to New Brunswick.

Furthermore, there were approximately 2,465 immigrants living in New Brunswick in 2011 who indicated that French was their mother tongue. New Brunswick ranks fifth among the 10 provinces for the total number of francophone immigrants. However, adjusted for population size, New Brunswick ranks second behind Quebec with 33 francophone immigrants living in the province out of every 10,000 residents. In the five-year period 2006 to 2011 there were 500 francophone immigrants who settled in Canada and were living in New Brunswick in 2011.

It is clear New Brunswick is having more success attracting and retaining Francophone immigrants than most other provinces, but the level of immigration is still well below the national average. In other words, New Brunswick is home to 3.4 percent of Canada's Francophone population but only 1.1 percent of Francophone immigrants.

Figure 31: Knowledge of official languages, Immigrants in 2011 (Born outside Canada), Canada and New Brunswick



Source: Statistics Canada National Household Survey 2011

4.9 Bilingualism and trade with Québec

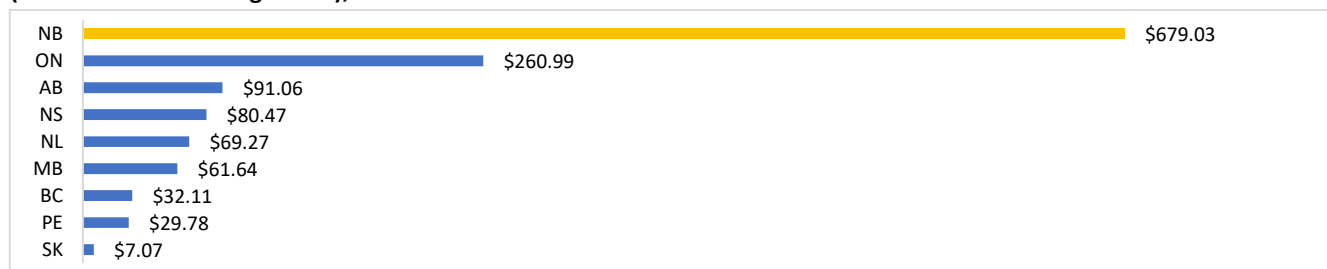
There is strong evidence that bilingualism has helped New Brunswick export to Québec. Statistics Canada data indicates that in 2015 New Brunswick exported for a value of over \$3.7 billion to Québec. Over the five-year period between 2011 and 2015, the average annual export revenue generated from the Québec market was \$4.1 billion. On a per capita basis, no other province generates more export revenue from Québec than does New Brunswick.

Commodities do represent an important part of New Brunswick's exports to Québec, but so do services. Between 2011 and 2015, New Brunswick's services exports to Québec generated on average more than \$1.2 billion yearly. On a per capita basis, only Ontario generates more revenues from services exports to Québec.

The customer contact centre sector discussed in section 4.1 generates significant revenues from the Québec market. Revenues from exports to Québec from the administrative and support and head office, waste management and remediation services sector was worth \$515 million in 2015. While we do not have more disaggregated data, we know that the bulk of these revenues comes from the administrative and support sector. This represents bilingual New Brunswickers doing business with Québec businesses and residential customers from customer contact centres. As we can see in Figure 32, on a per capita basis, New Brunswick generates more than two and a half times the revenues from exports to Québec from this sector as second place Ontario.

New Brunswick's transportation sector also derives significant export revenues from the Québec market. Between 2011 and 2015, the sector generated an average of \$170 million in revenue per year. On a per capita basis, this puts New Brunswick a close second to Manitoba amongst Canadian provinces (\$251.62 vs \$247.23) and well ahead of the Canadian average of \$146.51.

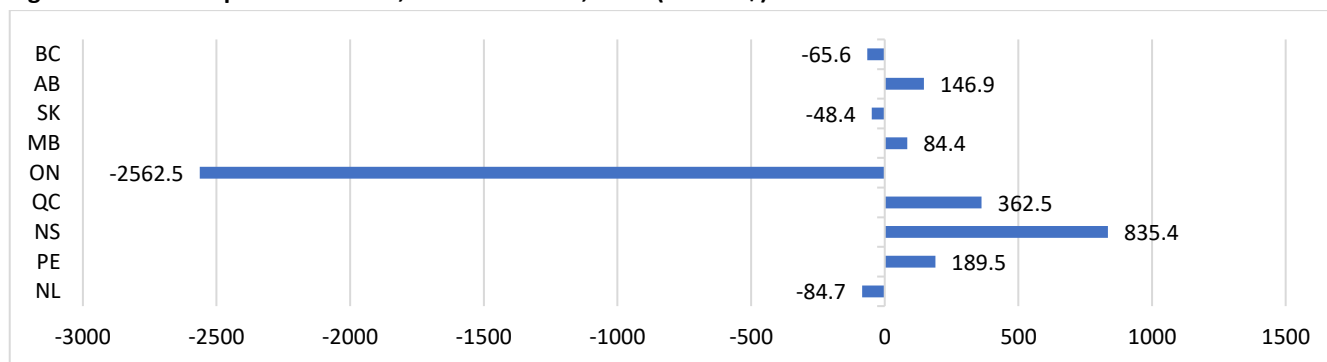
Figure 32: Per capita export revenue from the Quebec market - administrative and support and head office sectors (includes waste management), 2015



Source: Statistics Canada, Table 12-10-0088-01

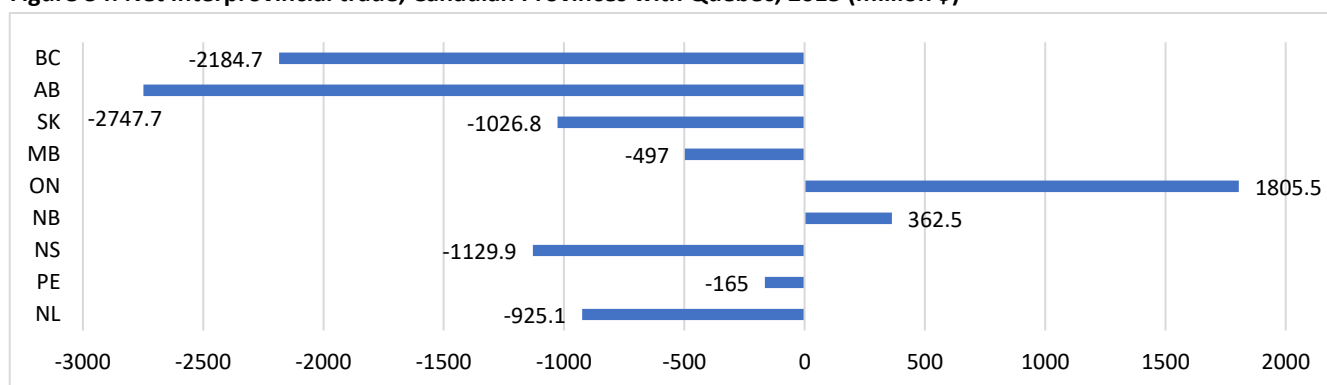
New Brunswick's presence on the Québec market is significant. New Brunswick has its second biggest trade surplus with Québec (Figure 33). In 2011, it was the largest. In fact, in 2015, only two provinces had a trade surplus with Québec, Ontario and New Brunswick (Figure 34), as was the case in 2011. On a per capita basis, New Brunswick's trade surplus is 3.6 times bigger than Ontario's.

Figure 33: Net interprovincial trade, New Brunswick, 2015 (million \$)



Source: Authors' Calculations from Statistics Canada, Table 12-10-0088-01

Figure 34: Net interprovincial trade, Canadian Provinces with Québec, 2015 (million \$)



Source: Authors' Calculations from Statistics Canada, Table 12-10-0088-01

4.10 Bilingualism and trade with La Francophonie

New Brunswick is very dependent on the United States market for its international exports. In 2018, the province exported more than \$11 billion of goods to the United States, which represented 90% of the province's international goods exports. For the same year, Canadian exports to the United States represented 75% of the country's international goods exports. We know that our dependency on the U.S. market can make us vulnerable. Member countries of *La Francophonie* represent an interesting market for the geographical diversification of our international exports as well as a means to grow our total exports.

New Brunswick is a member of *La Francophonie*²⁹. Created in 1970, it has 54 regular members, 7 associate members and 27 members with an observer status.

New Brunswick's exports to members of *La Francophonie* represent only 1% of total exports, compared to 2.1% for Canada as a whole (Table 8). If we exclude the United States from the calculations, the share increases to 8.5% for Canada and 10% for New Brunswick. As cultural similarity has a positive impact on international trade, we can assume that bilingualism in New Brunswick is an important factor to explain the province's success on members of *La Francophonie*'s markets³⁰. The data does indicate that the province is present on markets of *La Francophonie* countries, but also suggests that our presence could be increased.

²⁹ <https://www.francophonie.org/>

³⁰ Desjardins, Pierre-Marcel. 2003. *Atlantic Canada's Exports, with a Focus on SMEs and Rural Regions*. Maritime Collection. Moncton: Canadian Institute for Research on Regional Development. 128 pages.

Table 8: Francophonie’s Share in Canada’s and New Brunswick’s Goods Exports, 2013

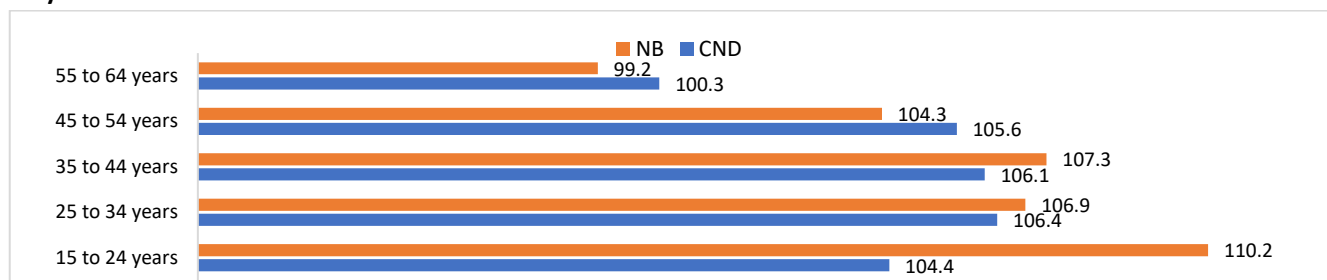
| | Percentage of Total Goods Exports to Francophonie Members | Percentage of Total Goods Exports to Francophonie Members, Excluding United States from Calculations |
|---------------|---|--|
| Canada | 2.1% | 8.5% |
| New Brunswick | 1.0% | 10.0% |

Source: authors’ calculations from Industry Canada Trade Data Online.

4.11 The bilingual occupational labour market

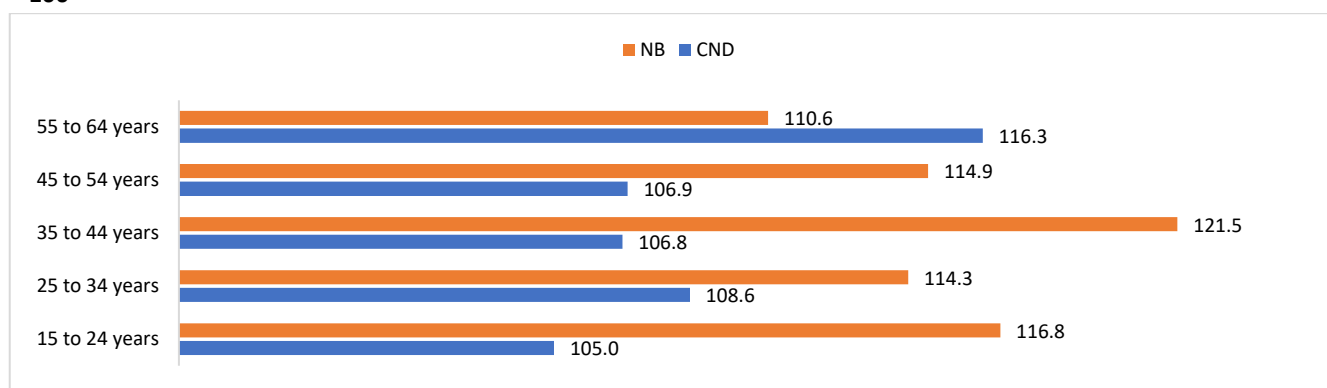
Bilingualism is a skill valued in the marketplace in the same way as education or specific occupational skills. This skill has provided positive labour market benefits. From the 2016 Census data, we find that workers with knowledge of English and French generally have a higher participation rate than workers with a knowledge of only English (Figure 35) or only French (Figure 36). The difference is generally higher for New Brunswick than for Canada as a whole. This difference has generally not changed much between 2011 and 2016 when compared to workers with a knowledge of English only (Figure 37), but more with workers with knowledge of only French, where the difference mostly decreased (Figure 38).

Figure 35: Participation rate advantage, English and French vs English only, Canada and New Brunswick, 2016, English only = 100



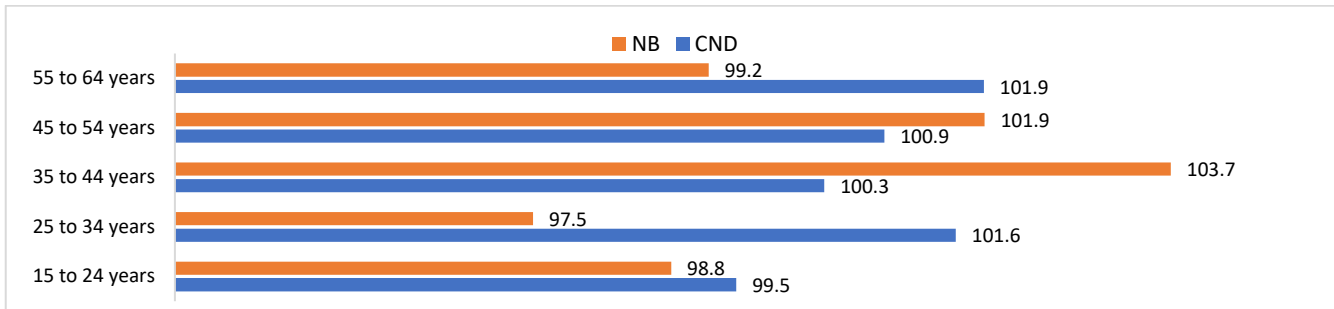
Source: Statistics Canada Census 2016.

Figure 36: Participation rate advantage, English and French vs French only, Canada and New Brunswick, 2016, French only = 100



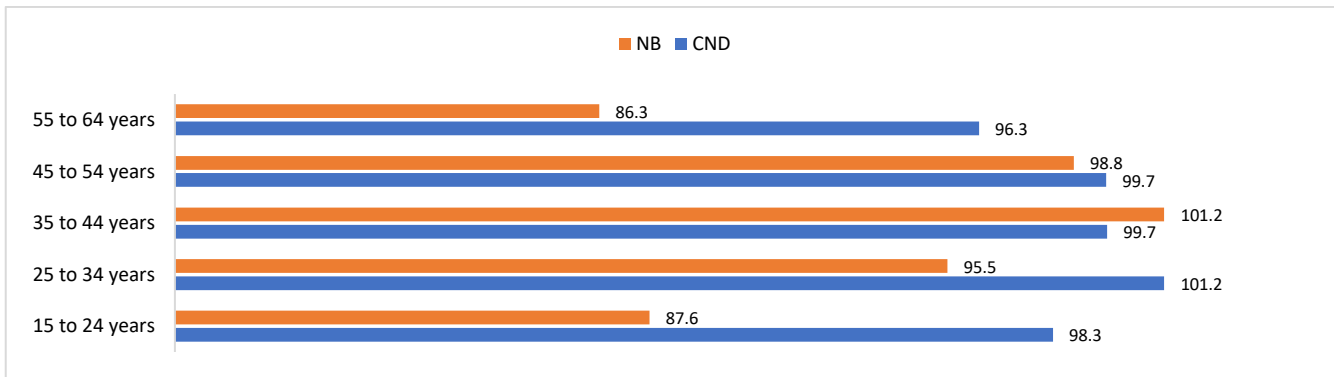
Source: Statistics Canada Census 2016.

Figure 37: Variation of participation rate advantage, English and French vs English only, Canada and New Brunswick, 2011 vs 2016, 2011 = 100



Source: Statistics Canada Census 2016 and National Household Survey 2011

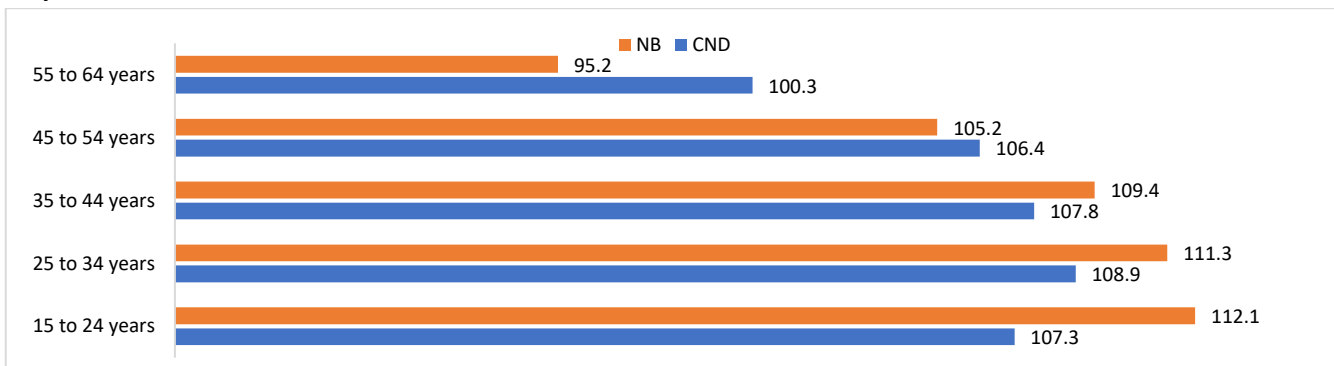
Figure 38: Variation in participation rate advantage, English and French vs French only, Canada and New Brunswick, 2011 vs 2016, 2011 = 100



Source: Statistics Canada Census 2016 and National Household Survey 2011

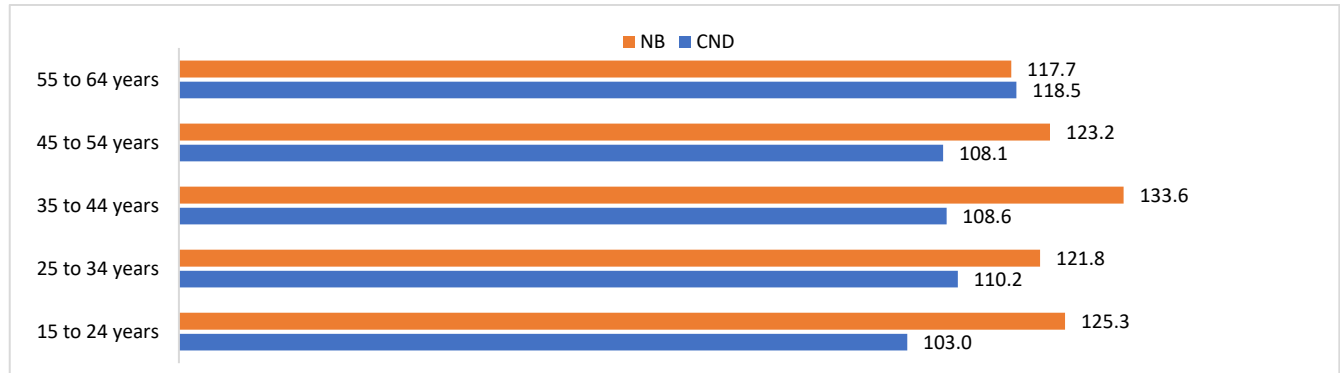
Results for employment rate (percentage of adult population with a job) are similar to those for the participation rate (Figures 39 and 40). The only occurrence where the rate is lower for bilingual workers is for the age category 55 to 64 years of age compared to workers with knowledge of English only. The difference is generally greater in New Brunswick than in Canada as a whole, especially for younger workers. The difference has essentially stayed the same between 2011 and 2016 compared to workers with knowledge of English only (Figure 41) but decreased when compared to workers with knowledge of French only (Figure 42).

Figure 39: Employment rate advantage, English and French vs English only, Canada and New Brunswick, 2016, English only = 100



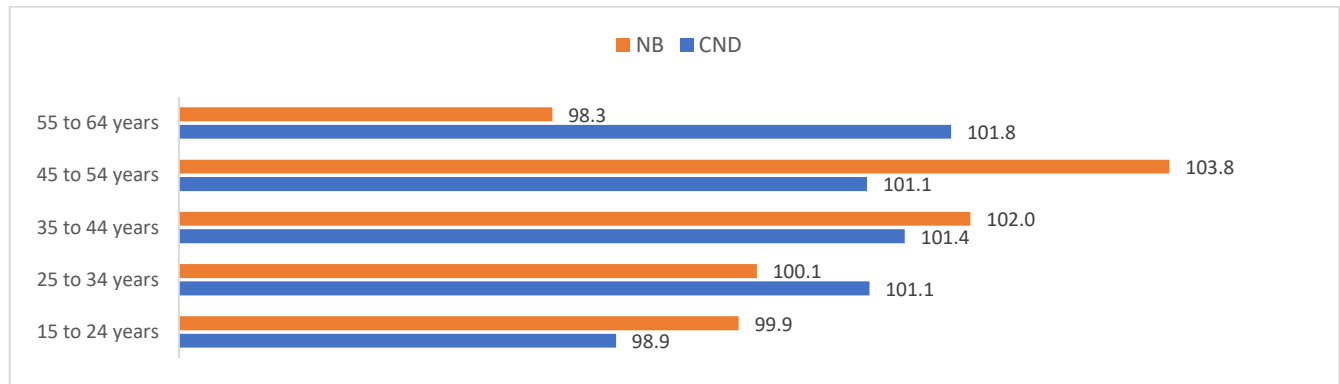
Source: Statistics Canada Census 2016.

Figure 40: Employment rate advantage, English and French vs French only, Canada and New Brunswick, 2016, French only = 100



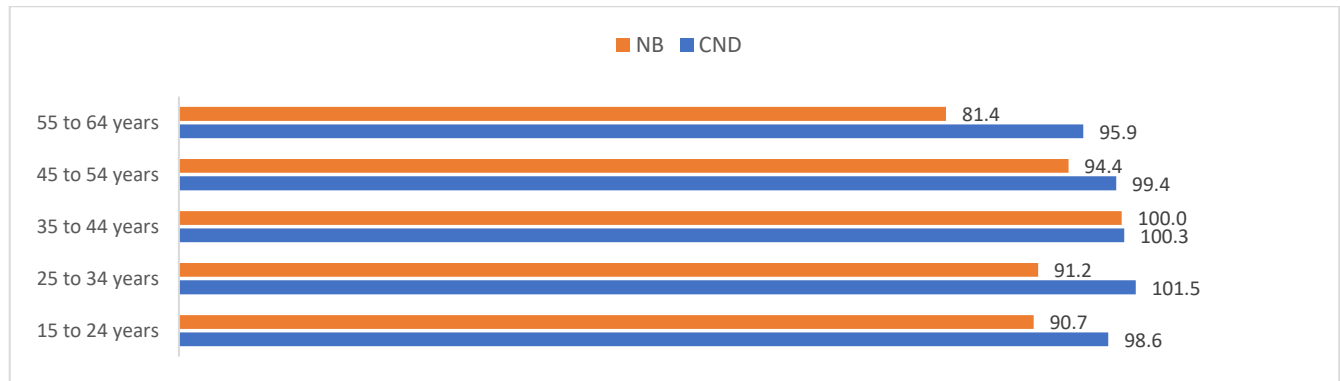
Source: Statistics Canada Census 2016.

Figure 41: Variation of employment rate advantage, English and French vs English only, Canada and New Brunswick, 2011 vs 2016, 2011 = 100



Source: Statistics Canada Census 2016 and National Household Survey 2011

Figure 42: Variation in employment rate advantage, English and French vs French only, Canada and New Brunswick, 2011 vs 2016, 2011 = 100



Source: Statistics Canada Census 2016 and National Household Survey 2011

5. Future economic opportunities: Leveraging bilingualism 2.0

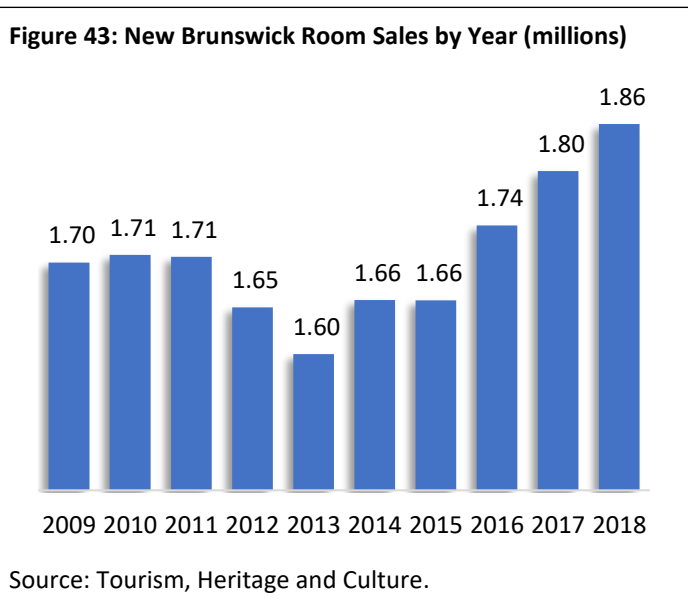
In our 2015 study, we had identified 6 future opportunities. Much of what we wrote then remains pertinent today. We will thus present several of the elements from our previous report. In this report, we add two future opportunities.

We have seen in previous sections of this study that New Brunswick has generated economic benefits from its bilingual population and labour markets including the attraction of national customer contact centres and back offices, the development of language industries and the fostering of interprovincial and international export opportunities. We have concluded that there is a potential to use this key competitive advantage to further economic development in New Brunswick in the years ahead. We can refer to a 2009 study that estimated that in Switzerland, multilingualism (as there are four official languages in Switzerland) accounted for 10 percent of the country's gross domestic product (GDP) ³¹. There are many components to these opportunities. Some are linked to activities in the "new economy" sectors, such as contact centres, language industries or artificial intelligence. Other are relevant in traditional sectors such as forestry or the fisheries where the bilingual salesforce facilitates market development in many provinces and countries where communicating in the customer's language improves export potential.

5.1 Future opportunity: Attracting more Francophone tourists

After many years of little growth, the tourism sector in New Brunswick is starting to expand again. As an indication of this growth, accommodations services room sales in the province have been rising each year since 2015 (Figure 43).

According to Destination Canada, the number of tourists from France to Canada increased by five percent in 2018 to 604,166 arrivals, the first time in history the number has surpassed 600,000. Over 275 million people speak French around the world and New Brunswick's bilingualism gives the province an additional advantage when determining which markets to target.



Another important opportunity related to tourism is related to the attraction of bilingual workers for the industry. The Tourism Industry Association of New Brunswick has indicated that a growing shortage of workers is a potentially significant barrier to the industry's growth potential. When recruiting people to the province, potential immigrants (workers and entrepreneurs) can be told that the ability to speak French and English is an important benefit in New Brunswick.

³¹ Grin, François, Claudio Sfreddo et François Vaillancourt. 2009. *Langue étrangère dans l'activité professionnelle (« LEAP »)*. Programme national de recherche 56 : Multilinguisme et compétences linguistiques en Suisse. Rapport final de recherche. 53 pages.

5.2 Future opportunity: Customer contact centres and social media

In our previous study, we indicated that New Brunswick has the largest customer contact and back office industry in Canada as a share of its total employment. However, the structure of the industry is changing. More transactions are occurring online and there is less need for telephone-based customer service agents. However, there is a growing demand for Internet-based customer interaction through email, Web chats and social media. Several the province's customer contact centres are adapting, and employees are now communicating through these innovative methods. This is still relevant today. As we saw with the TD announcement presented in section 4.1, New Brunswick remains an attractive destination for such centres.

In the future, a different skill set will be increasingly required. Social media connections require writing and keyboard skills. This can be additionally challenging in a bilingual environment where the customer service agent is required to write quickly and with high quality.

However, the ability to service English and French clients through email, Web chats and social media should represent the next generation of the industry and New Brunswick should work to take advantage of this evolution. Workers will need to be trained with a broader set of skills and technologies. One could even argue that having a certain number of employees speaking other languages such as Spanish could further enhance the sector's growth potential in New Brunswick.

In the future there may be fewer workers in the customer contact and back office industry, but they will be higher paid and servicing customers across many different channels.

5.3 Future opportunity: Language industries and information technologies

Our findings for the language industries and information technologies also remain pertinent today. New Brunswick still has a very large language industry, adjusted for population size. However, it is still true that our firms are small and lack the scale to aggressively develop new markets. In addition, there have not been many firms developing innovative new services and technologies for the industry from New Brunswick.

The new Canada and European Union (EU) Comprehensive Economic and Trade Agreement (CETA) whose implementation started in 2017 opens the important \$26 billion European translation market to local translation and interpretation industry. Other technology-enabled language industries (such as telephone-based interpreting which is one of the fastest growing segments) also hold potential for New Brunswick translators and interpreters.

There are multiple entrepreneur incubation centres around the province that could be used to support the development of language-based technologies. In addition, the province could be doing much more to attract technology entrepreneurs from Francophone countries. These entrepreneurs could be attracted to New Brunswick to develop North American markets from here.

5.4 Future opportunity: international trade and investment

As we discussed in section 4.10, New Brunswick is dependent on the U.S. market for our international markets. Only 10% of our international export revenues come from other countries. A review of twelve countries that have significant French-speaking populations (primary or secondary language) shows that New Brunswick generated \$112 million worth of merchandise exports in 2018 (Table 9). Only about 0.9% of the province's total exports go to these countries (Table 10).

When compared to other provinces, New Brunswick ranked ninth out of tenth amongst Canadian provinces. New Brunswick should be more deliberate in its efforts to develop Francophone markets. Québec has trade and investment offices located in multiple Francophone countries³². New Brunswick does not. There is an opportunity for increased exports to members of La Francophonie as can be observed in Table 10. The province's presence in these markets is often insignificant. New Brunswick should take advantage of its membership in La Francophonie to increase trade relations.

Table 9: Value of international goods exports to countries with significant French-Speaking populations, 2018*

| | Value of Exports (2018) | Per Capita |
|-----------|-------------------------|------------------|
| NL | \$ 565 717 802 | \$ 1 070,70 |
| SK | \$ 855 134 876 | \$ 764,76 |
| QC | \$ 3 958 898 910 | \$ 484,97 |
| PE | \$ 48 069 436 | \$ 332,96 |
| BC | \$ 1 060 431 845 | \$ 223,46 |
| NS | \$ 178 103 299 | \$ 189,82 |
| ON | \$ 2 552 060 651 | \$ 186,86 |
| AB | \$ 642 952 496 | \$ 156,21 |
| NB | \$ 112 477 375 | \$ 148,07 |
| MB | \$ 147 098 828 | \$ 114,34 |

*Countries included are: Belgium, Egypt, France, Haiti, Libya, Mauritius, Morocco, Romania, Switzerland, Tunisia, Ukraine and Vietnam. Source: Industry Canada Trade Data Online.

Table 10: New Brunswick's Goods Exports to Selected Francophonie Members, 2018

| Country | \$ | Share of Canadian Total |
|--|--------------------------|-------------------------|
| Belgium | \$ 62 210 315 | 1,7% |
| Benin | \$ 659 235 | 2,1% |
| Bulgaria | \$ 561 501 | 0,2% |
| Burkina Faso | \$ 9 956 | 0,0% |
| Cameroon | \$ 52 479 | 0,1% |
| Congo (formerly Brazzaville) | \$ 834 545 | 5,1% |
| Congo (formerly Zaire) | \$ 5 652 | 0,0% |
| Côte-d'Ivoire | \$ 342 679 | 0,8% |
| Dominica | \$ 428 312 | 4,6% |
| Egypt | \$ 2 797 406 | 0,7% |
| France (incl. Monaco, French Antilles) | \$ 18 624 665 | 0,5% |
| Haiti | \$ 16 121 537 | 24,8% |
| Lebanon | \$ 6 056 805 | 5,2% |
| Libya | \$ 190 725 | 0,4% |
| Morocco | \$ 1 387 849 | 0,3% |
| Niger | \$ 18 500 | 0,4% |
| Romania | \$ 1 255 341 | 0,6% |
| Rwanda | \$ 13 500 | 0,3% |
| Saint Lucia | \$ 1 386 789 | 16,5% |
| Switzerland | \$ 621 886 | 0,0% |
| Togo | \$ 229 883 | 0,9% |
| Tunisia | \$ 693 381 | 1,5% |
| Turks and Caicos Islands | \$ 16 701 | 0,4% |
| Turkey | \$ 93 205 675 | 7,0% |
| Ukraine | \$ 68 239 | 0,0% |
| Vietnam | \$ 8 506 031 | 0,8% |
| Total All Countries | \$ 12 632 320 438 | 2,2% |

Source: Industry Canada Trade Data Online.

³² <http://www.mrif.gouv.qc.ca/en/ministere/representation-etranger>

Trade is not the only element in play. Foreign direct investment opportunities as well as immigrant investor/entrepreneur attraction should be part of the provincial government's strategy. These two activities can stimulate more two-way trade with Francophone countries. New Brunswick has not been particularly successful in attracting investment from French-speaking countries. Québec and Ontario attract the lion's share but even Nova Scotia has successfully attracted French firms such as Michelin, LaFarge and Composites Atlantic (a subsidiary of France-based Sogerma). New Brunswick trade development agencies need to make the development of these markets a priority and they need to have the resources to achieve this goal.

5.5 Future opportunity: Economic ties with Québec

As discussed in section 4.9, bilingualism in New Brunswick has been an important tool in the development of Québec as an important export market for New Brunswick goods and services. Several untapped opportunities remain. Statistics Canada data reveals that between 2011 and 2015 New Brunswick exported a total of \$38 million worth of arts, entertainment and recreation services to Québec. Despite not having the language skills or geographic proximity, Nova Scotia exported for \$118.2 million.

Another sector where New Brunswick's performance could be improved is for the information and cultural services sector. On a per capita basis, amongst Canadian provinces, only Prince Edward Island exported less to Québec in 2015. Between 2011 and 2015, New Brunswick exported an average of \$18.9 million per year for information and cultural services to Québec.

The government and economic development agencies should determine potential Quebec markets for services and look for ways to leverage our language skills and historical ties to build those markets. There could be more potential to develop customer service, back office, IT support and engineering services support for the Quebec market from New Brunswick by leveraging our bilingualism.

5.6 Future opportunity: Educational services

New Brunswick's bilingualism is also an opportunity to attract Francophone and bilingual students from across Canada and around the world. As shown in Section 4.7 above, New Brunswick already ranks 3rd among the 10 provinces in Canada for interprovincial export revenue from the educational services sector (students bringing revenue to the province). This should be extended to reach broader Francophone markets.

Every \$10 million in increased revenue to New Brunswick's university sector supports 126 full time equivalent (FTE) jobs, \$6.5 million worth of labour income and approximately \$2.4 million worth of tax revenue for governments. In addition, these post-secondary international students become a source of talent for New Brunswick industries.

As discussed above, college-level training is a fast-growing opportunity and it also provides an important source of workers to fill gaps in the labour market. Further, the high school system in New Brunswick is attracting more international students (English and French) on short term study programs. This also provides a potential pool of future workers while generating economic benefits during the period of study.

5.7 Future opportunity: Artificial intelligence

Many sectors are increasingly developing artificial intelligence. Language recognition, for example, is an important component of artificial intelligence: the interaction between customers and computers enabled to serve them thanks to artificial intelligence is in the customer's language. There is thus an opportunity for New Brunswick to develop an expertise in the language component of artificial intelligence.

Just like contact centres which need to be cognizant of language variations – even in a given language with regional and local variances – artificial intelligence technology will offer opportunities for business development. Cooperation between language industry experts and artificial intelligence experts in New Brunswick could foster a competitive advantage which could reap huge dividends in this growing field.

5.8 Future opportunity: Immigration

New Brunswick should also use its bilingualism to draw more Francophone and bilingual immigrants and immigrant entrepreneurs. Demographic challenges require the province to attract more immigrants. Data for 2011 indicates that 22.2% of New Brunswick’s immigrants spoke both English and French, nearly twice the national average (Figure 41). We can thus assume that bilingualism in New Brunswick is an attractive characteristic for potential immigrants. New Brunswick should be even more aggressive marketing its status as the only officially bilingual province in Canada to attract more immigrants to help it face its demographic challenge.

6. Conclusion: Enhancing the economic benefits from bilingualism

Our conclusion has not changed from our 2015 study. New Brunswick needs new growth industries. Most of the top line economic indicators such as GDP growth, employment and population growth have been flat or in decline. The bilingual workforce and the province's commitment to ensuring public services are available in both official languages could be an important tool to help foster new economic growth. As outlined above there are several opportunities, but deliberate steps need to be taken to ensure they are developed.

Recommendation: The creation of an industry/government council with the objective of further leveraging the economic benefits of bilingualism.

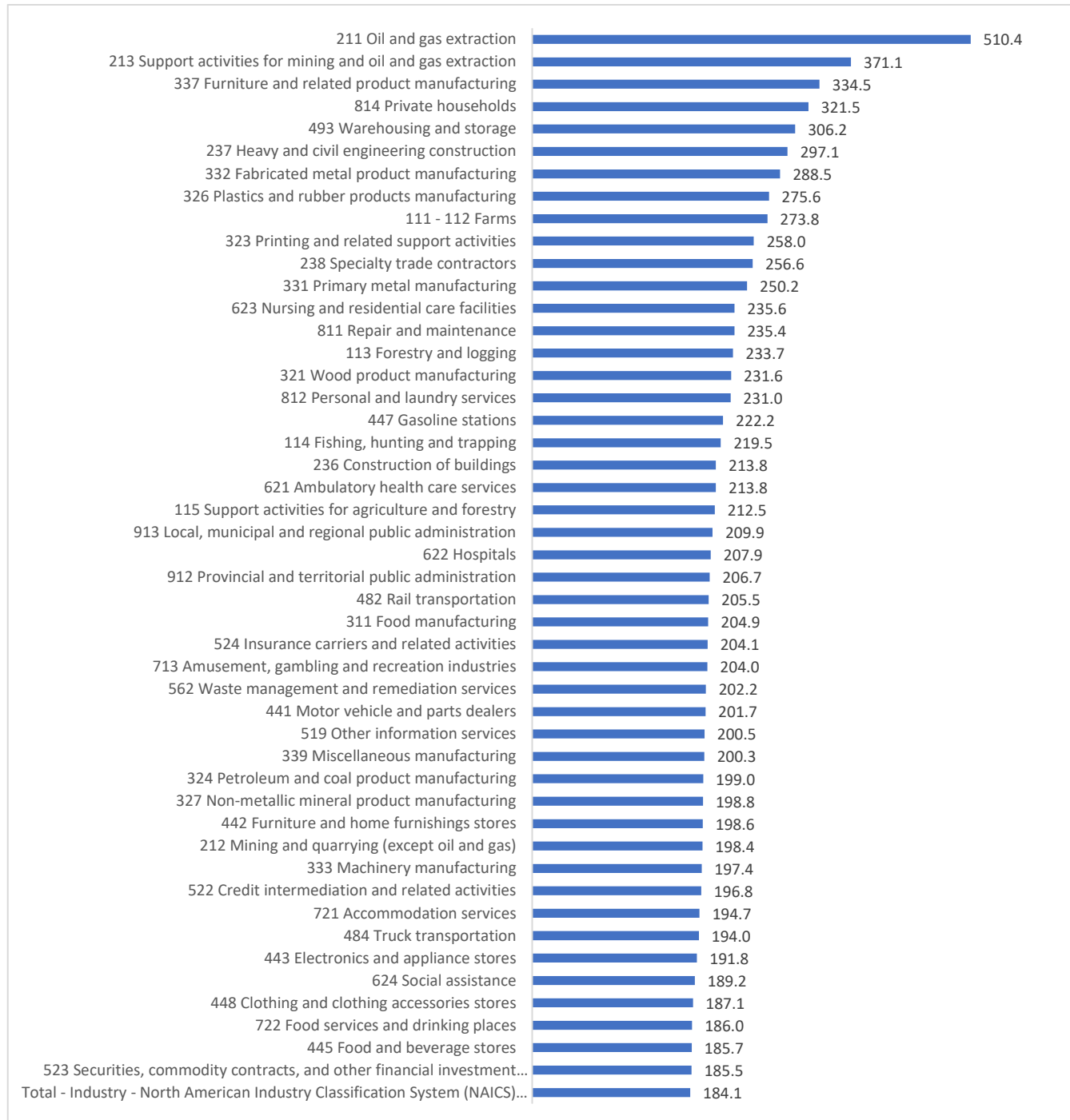
Our study has highlighted many economic benefits of bilingualism and has identified areas with additional potential. The creation of an industry/government council with a mandate of identifying concrete measures to increase the benefits of bilingualism is desirable. The council could contribute to the development of industries for which bilingualism is a key factor and to increasing exports to francophone markets in Canada and abroad. This council should also be responsible for a strategy to accompany and support businesses that want to contribute to enhancing the province's competitive advantage generated by bilingualism. This strategy could be successfully incorporated in a branding exercise for New Brunswick.

The council should also be a key player in the province's efforts to maximize the benefits for New Brunswick of the Francophonie's economic strategy³³. This is especially true for the strategy's second axis which aims at reinforcing the francophone economic space to make it fertile for trade, cooperation and solidarity.

³³ http://www.francophonie.org/IMG/pdf/sommet_xv_strategie_economique_2014.pdf

Appendix A: Detailed charts – Relative importance of bilingualism by industrial sector

Figure 44: Relative importance of bilingual employees by industrial sector (NAICS 3-digit), New Brunswick vs Canada, 2016, Canada = 100 (sectors above provincial average, excluding sectors with less than 100 employees)



Source: Statistics Canada Census 2016.

Figure 45: Relative importance of bilingual employees by industrial sector (NAICS 3-digit), New Brunswick vs Canada, 2016, Canada = 100 (sectors below provincial average, excluding sectors with less than 100 employees)



Source: Statistics Canada Census 2016.

Appendix B: Definitions

Bilingual: In our study, bilingual refers to knowledge of English and of French.

Educational achievement: Refers to the highest level of schooling that a person has reached. At the primary and secondary school level, educational attainment refers to the number of grades completed. At the post-secondary level, it refers to institutions attended and certificates, degrees or diplomas obtained

Employment rate: Percentage of adult population (15 years+) employed.

Export revenue: Revenues from export sales.

Francophonie, La: The International Organisation of La Francophonie was created in 1970. Its mission is to embody the active solidarity between its 80 member states and governments (57 members and 23 observers), which together represent over one-third of the United Nations' member states and account for a population of over 890 million people, including 220 million French speakers. <http://www.francophonie.org/Welcome-to-the-International.html>

International exports: Sales of goods or services outside the country.

Interprovincial exports: Sales of goods or services in other provinces or territories, but not outside the country.

Knowledge of English: Refers to whether the person can conduct a conversation in English. For a child who has not yet learned to speak, this includes languages that the child is learning to speak at home.

<http://www.statcan.gc.ca/concepts/definitions/language-langue04-eng.htm>

Knowledge of French: Refers to whether the person can conduct a conversation in French. For a child who has not yet learned to speak, this includes languages that the child is learning to speak at home.

<http://www.statcan.gc.ca/concepts/definitions/language-langue04-eng.htm>

The National Occupational Classification (NOC): The nationally accepted taxonomy and organizational framework of occupations in the Canadian labour market. <http://www.statcan.gc.ca/subjects-sujets/standard-norme/noc-cnp/2011/introduction-eng.htm>

North American Industry Classification System (NAICS): An industry classification system developed by the statistical agencies of Canada, Mexico and the United States. Created against the background of the North American Free Trade Agreement, it is designed to provide common definitions of the industrial structure of the three countries and a common statistical framework to facilitate the analysis of the three economies. [...]It has a hierarchical structure. At the highest level [the 2-digit level], it divides the economy into 20 sectors. At lower levels, it further distinguishes the different economic activities in which businesses are engaged." <http://www.statcan.gc.ca/subjects-sujets/standard-norme/naics-cian/2012/introduction-eng.htm>

Participation rate: Percentage of adult population (15 years+) either employed or looking for a job.