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Canadian Institute for Research on Linguistic Minorities

Evolution of Bilingualism in New Brunswick

Report

Dominique Pépin-Filion

with the collaboration of Josée Guignard Noël

For the Office of the Commissioner of Official Languages for New Brunswick

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Canadian Institute for Research on Linguistic Minorities

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Evolution of Bilingualism in New Brunswick

Dominique Pépin-Filion

INTRODUCTION

Bilingualism in the two official languages – English and French – has recently gone back to being a subject of interest in Canada. The topicality of the 50th anniversary of the Royal Commission on Bilingualism and Biculturalism is certainly a factor in this, while new identity issues seem to be closely related to the symbolic and practical rise of bilingualism among Francophones.

Yet the evolution of individual bilingualism seems to be slowing down within the Canadian population¹ as a whole and even stagnating, if not decreasing, in certain parts of the country, including New Brunswick. This historical change, exacerbated in this province, justifies further examination of this matter in this preliminary analysis. New Brunswick is the only province in Canada with legal bilingual status, where English and French have been the official languages of the provincial government since 1969 and where, in addition, the equality of the two linguistic communities was recognized in 1981.

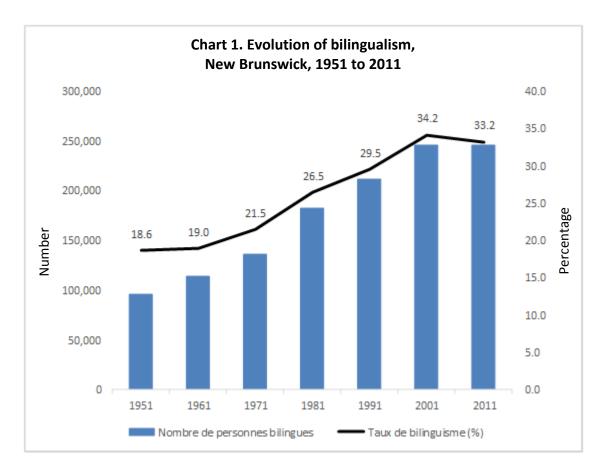
The first two sections of this report take a more detailed look at the changing historical data on bilingualism and knowledge of official languages in the language groups in New Brunswick, which we recently profiled.² The third section presents and discusses the possible impact of schooling on the bilingualism levels of the language groups and, more specifically, the effect of immersion programs among the province's Anglophones.

1. INDIVIDUAL BILINGUALISM: A REVERSAL IN THE HISTORICAL TREND?

The number of bilingual people in New Brunswick more than doubled during the second half of the last century, increasing from fewer than 100,000 people in 1951 to almost 250,000 in 2001, as shown in Chart 1 below (also see Table 1 in the appendix for the exact figures). However, the number of bilingual people has been stagnating since

the early 2000s, and the bilingualism rate now appears to be decreasing slightly because the province's population is growing again. This would be a reversal in the historical trend, as bilingualism had been increasing in this province, and doing so without interruption, since at least 1951.





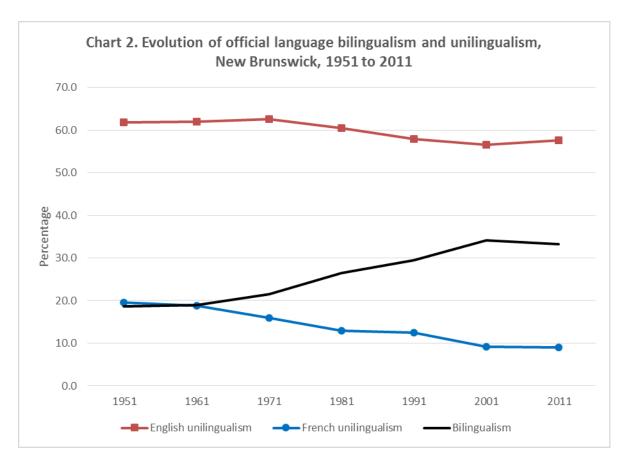
Source: Statistics Canada, censuses of population, 1951, 1961, 1971, 1981, 1991, 2001, and 2011.

Bilingualism, demonstrated by less than one-fifth (19%) of the population in the 1950s and 1960s, increased continuously in terms of weight within the population of New Brunswick throughout the 1960s, 1970s, 1980s, and 1990s, reaching a peak in 2001, when slightly more than one-third (34.2%) of the population reported knowing both English and French. This represents a considerable increase of 15 percentage points (15.2) between 1961 and 2001, for an average growth of almost 4 percentage points (3.8) per decade (Table 1 in appendix).

This upward trend then seems to have reversed itself sometime in the early 2000s,³

such that the only officially bilingual province in Canada saw its bilingualism rate sink below one-third (33.2%) of the population in 2011. Although this was a decrease of less than one percentage point (-0.9) in a decade, it contrasts with advances four times greater observed during the previous 40 years (Chart 1 and Table 1 in appendix).

To understand the evolution of bilingualism, it is instructive to view it in parallel with the evolution of official language unilingualism in New Brunswick, as shown in Chart 2 below.



Source: Statistics Canada, censuses of population, 1951, 1961, 1971, 1981, 1991, 2001, and 2011.

It can be seen that English unilingualism,⁴ which was on the rise in the 1950s and 1960s, started to decline in the 1970s, going from a peak of 62.5% to its lowest point observed (56.5%) in 2001 (Table 2 in appendix). This trend then seems to have reversed itself again in the 2000s, such that English unilingualism returned to the same level in 2011 (57.7%) that it had been at 20 years before (57.9%).

Furthermore, the decrease in French unilingualism that was already underway in the 1950s sped up sharply in the 1960s. French unilingualism decreased by half within the population of New Brunswick, going from just under 2 people in 10 (18.7%) in 1961 to fewer than 1 person in 10 (9.2%) in 2001. However, this decline in French

unilingualism seems to have abated in the 1980s and particularly in the 2000s.

It is therefore this combination of the accelerating decline in French unilingualism starting in the 1960s and the decrease in English unilingualism starting in the 1970s that enables us to understand the upward trend in bilingualism over four decades (Chart 2).

We have seen that, during this period, individual bilingualism underwent exceptional growth of about 15 percentage points, which corresponds to a drop of nearly 10 percentage points (-9.5) in French unilingualism and a decrease of just over 5 points (-5.5) in English unilingualism between 1961 and 2001 (Table 2 in appendix). Unilingual Francophones therefore contributed almost twice as much

to the rise in bilingualism even though they were three to six times less numerous than unilingual Anglophones during that period. If we consider the entire period observed, i.e., 1951 to 2011, the decrease in French unilingualism actually accounts for nearly three-quarters (72.3%) of the increase in bilingualism.

It appears that the reversal in the trend in the 2000s can be explained by the combination of the increase in English unilingualism and the stagnation of French unilingualism (Chart 2).

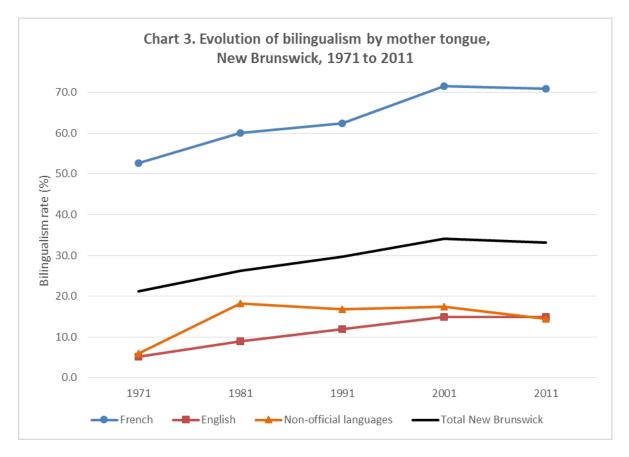
We will come back to these contemporary changes, but it is worth noting that the increase in bilingualism (12.7 percentage points) between 1971 and 2000, or when unilingualism in both official languages in the province was declining, can be attributed both to the decline in English unilingualism (6.0 points) and French unilingualism (6.7 points) (Table 2 in appendix).

This decline in English unilingualism, which represents an average of two percentage points per decade, can probably be attributed in part to the development of immersion programs, as we will see in the third section of this report. Since New Brunswickers with English as their mother tongue are about twice as numerous as Francophones, the evolution of bilingualism by language group should be examined before an attempt is made to identify the possible causes.

2. BILINGUALISM OF LANGUAGE GROUPS: LANGUAGE STATUS AND MINORITY SITUATION

Individual bilingualism rates differ tremendously by language group,^{4,5} and such has been the case in New Brunswick

over the past few decades. The evolution of bilingualism within the province's population as a whole therefore represents an average that hides very different rates depending on the language group, as shown in Chart 3.



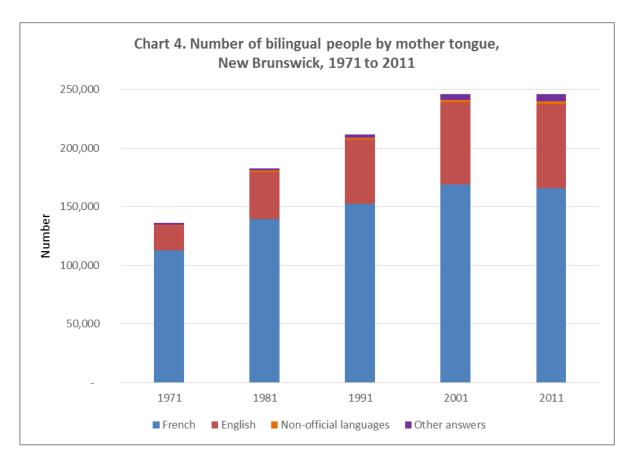
Source: Statistics Canada, censuses of population, 1971, 1981, 1991, 2001, and 2011.

In 1971, more than half (52.6%) of New Brunswickers with French as their mother tongue said they were bilingual, compared with a rate that is 10 times smaller (5.1%) among those with English as their mother tongue (Table 3 in appendix). Bilingualism rates in the province's two official language communities then increased until 2001, to 71.5% among Francophones and 15.0% among Anglophones, before dropping slightly to 71.0% and 14.9%, respectively, in 2011.

The Anglophone bilingualism rate almost tripled, while that of Francophones rose by a third, such that, since 2001, Anglophones are about five times less bilingual than Francophones.

The number of bilingual people in New Brunswick went from 136,000 in 1971 to 246,000 in 2011 (Chart 4 and Table 4). Note that this increase of 110,000 bilingual people since 1971 is equally attributable to the French-language community (52,795, or 48.1%) and the English-language community (50,410, or 45.9%) even though the first is two times smaller.



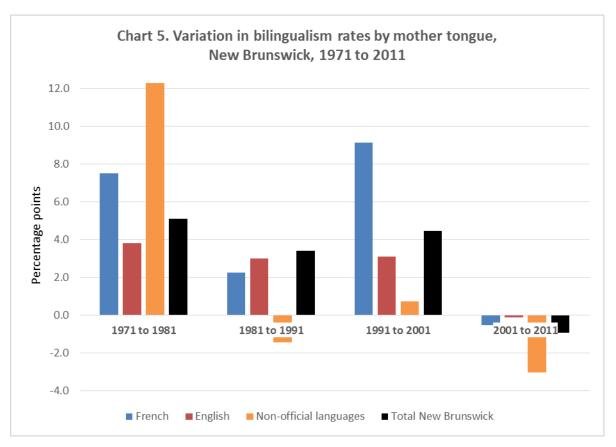


Source: Statistics Canada, censuses of population, 1971, 1981, 1991, 2001, and 2011.

Francophones have represented only onethird of the population of New Brunswick since 1971,4 although they accounted for the vast majority (82.9%) of bilingual people and still represented two-thirds (67.4%) of 2011. The relative rise of them in bilingualism among Anglophones has enabled them to almost double their presence within the ranks of bilingual New Brunswickers, going from 15% of bilingual people in 1971 to 29% in 2011. The gap between Francophones and Anglophones has therefore been closing continuously since 1971, although the pace has been slowing down progressively since the 1980s.

This closing of the gap has actually been on the decline every decade since 1981 and has even seemed on the verge of tapering off entirely since 2001 (Table 4 in appendix).

English-French bilingualism among people whose mother tongue is a non-official language underwent a fairly significant increase in the 1970s, followed by a more gradual decline starting in the 1980s, reaching levels similar to Anglophones since the 2000s (Chart 3). Chart 5 compares the variations in bilingualism among the language groups.



Source: Statistics Canada, Censuses of Population, 1971, 1981, 1991, 2001, and 2011

generalized The decrease in language bilingualism within the three language groups in the 2000s appears at first to affect mostly New Brunswickers with other mother tongues (-3.1 percentage points), or the equivalent of -17.4%, while translating into less than one percent of Francophones (-0.5 point, or -0.7%) and Anglophones (-0.1 point, or -0.9%) (Table 5 in appendix). Yet the number of bilingual allophones increased by one-quarter (27.3%) owing to a phenomenal increase of 54.1% in the population of people whose mother tongue is a non-official language between 2001 and 2011.

Also, the 3.2% increase in the population with English as it mother tongue during this period resulted in a slight increase in the number of bilingual Anglophones (2.2%). While the population with French as its

mother tongue experienced a slight decline of 1.3% between 2001 and 2011, the number of bilingual Francophones dropped slightly more (2.1%).

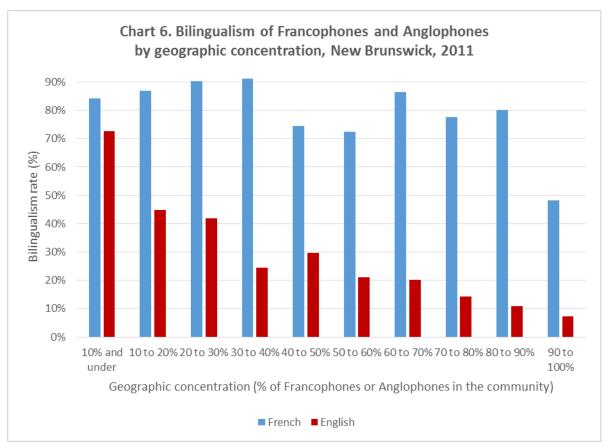
Actually, the number of bilingual people in New Brunswick has been stagnating since the early 2000s, because the increase in the province's population (2.8%) has been cancelled out by an equivalent drop in the bilingualism rate (-2.7%). This decline in the bilingualism rate is the result of a combination of the decline in the Franco-phone population, which is the most bilingual, a decrease in its bilingualism, and the decline in bilingualism among Anglophones and persons whose mother tongue is a non-official language.

The two main factors explaining the persistent gaps between the bilingualism of



the official language communities are probably the status of their language and the extent of their exposure to their second language, which is very often dependent on geographic concentration. It would appear that people in minority situations and speakers of the minority official language – French - are therefore more likely to be bilingual.

Such is the case with respect to geographic concentration in New Brunswick, even for the English language. In fact, the bilingualism rate among New Brunswickers with English as their mother tongue varies almost systematically depending on their weight in the population of their municipality or community.



Source: Statistics Canada, censuses of population, 2011

Anglophones are up to 10 times more likely to be bilingual when they are in a minority situation in a strongly Francophone community than when they live in a very Anglophone community. Their bilingualism rate reaches 72.7% when they make up 10% or less of the local population, compared with a bilingualism rate of 7.3% when they live in communities where they represent more than 90% of the local population, which is the case for the majority of Anglophones (57.1%). The population with

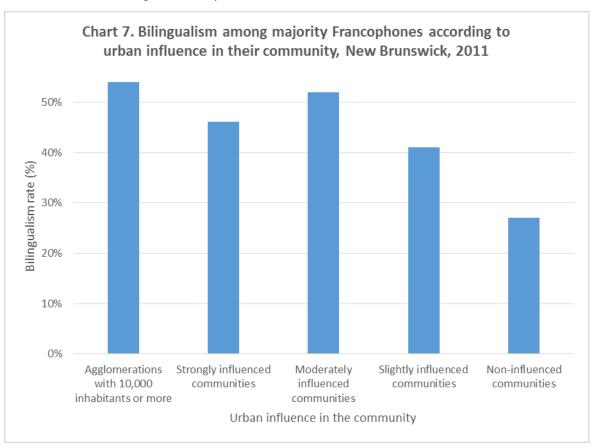
English as its mother tongue is indeed concentrated geographically, since 80% of Anglophones in New Brunswick live in municipalities or communities where they make up more than 80% of the population. Yet they present the highest provincial bilingualism rate among Anglophones outside Quebec,⁴ which can be explained by the strong presence of Francophones combined with the improved status of the French language and official provincial and federal bilingualism, including immersion

programs.

Among Francophones, the two factors combine differently such that the effect of geographic concentration seems to be tempered by that of the favourable status of the majority language. Their bilingualism rates are slightly higher in minority situations (83.6%) but, unlike Anglophones, the rates remain just as high even when Francophones live in decreasingly minority situations (Chart 6 and Table 6 in appendix). Note that thev are also relatively concentrated, since 70% of Francophones live in a municipality or community where they make up at least 70% of the population. This imbalance reflects a persistent difference in real status between the province's two official languages. Indeed, there is a significant decrease in the bilingualism rate among Francophones

(48.2%) only when they live in a very majority situation, that is, when they make up at least 90% of the population of their municipality or community, which is nonetheless the case for at least 39% of them. Moreover, it appears that the bilingualism rate among Francophones in strong majority situations also varies between urban (51.8%) and rural (40.1%) contexts.

Chart 7 shows that bilingualism decreases again by half the further away a community is from the influence of urban centres, going from one Francophone person in two (54.0%) in strongly Francophone agglomerations of more than 10,000 inhabitants to almost one person in four (27.0%) in communities that are just as Francophone but without an urban influence.



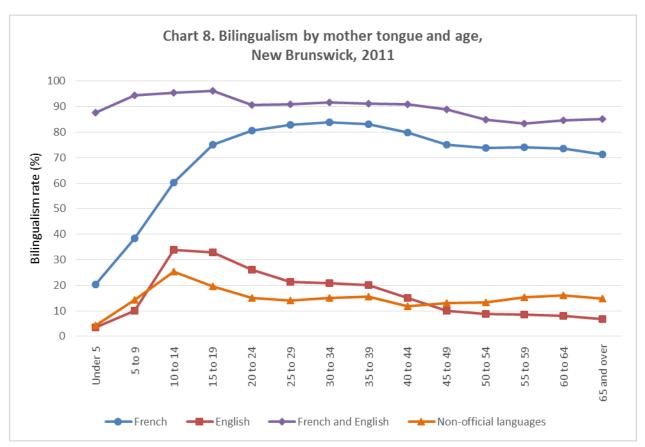
Source: Statistics Canada, censuses of population, 2011



This variation from single to double may reflect the effects of the age structure of populations that are farther away from centres, the impact of a less diversified economic structure on the socioeconomic status of these rural populations, and the extent of the cultural presence of the French language, according to the regions.⁷ Further research would be necessary to confirm this.

3. FRENCH IMMERSION AND BILINGUALISM

As we saw in the second section, language status and amount of exposure to the second language as a result of geographic concentration are determinants of bilingualism. We will see that bilingualism increases as well according to family context as well as during the school years, 4.6 as shown in Chart 8.



Source: Statistics Canada, censuses of population, 2011

People reporting both English and French as first languages are added to the analysis to illustrate the influence of a typical bilingual family context in exogamous families, which are becoming more and more common, that is, families with an Anglophone parent and a Francophone parent. Although this is not yet always the case in New Brunswick, an increasing number of parents in mixed couples are choosing to pass on both official languages to their children,⁴ who then

acquire very high levels of bilingualism before they even reach school age.8

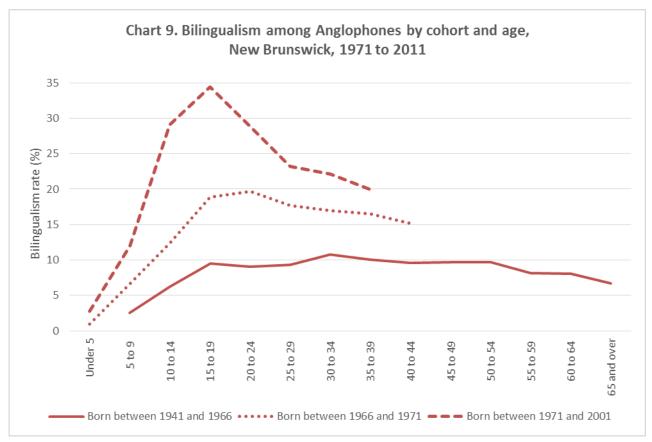
Bilingualism increases during the school years in all language groups and even reaches its highest level at that time in three language groups. This applies to almost all young people (96.2%) aged 15 to 19 with two official first languages, about one-third of Anglophones aged 10 to 14 (34.0%) and 15 to 19 (32.9%), and one-quarter (25.3%) of

allophones aged 10 to 14 (Table 8 in appendix). These results are consistent with findings indicating that Anglophones and allophones outside Quebec learn French mainly at school,4 whereas Francophones in New Brunswick acquire English through contact with those around them, as well as through the media and cultural products. and must continue to learn English until they enter the job market,8 achieving their level of bilingualism (83.9%) between the ages of 30 and 34. On the contrary, bilingualism in the other language groups seems to decrease when they make the transition from school to the labour market, particularly for Anglophones who seem to lose their French with the passage of time after the age of 20.4

Note as well that a recent decrease in bilingualism among young Anglophone

adults was observed between 2006 and 2011 (Table 8 in appendix). A similar decrease was observed between 2001 and 2011 among young Francophone adults, as well as among Francophones nearing the end of their careers, i.e., those aged 45 to 59.

A recent longitudinal study notes that young people who took French immersion are about 10 times more likely to be bilingual.⁶ More than half (57%) of young non-Francophones outside Quebec who took French immersion reported still being able to carry on a conversation in French at age 21, compared with only 6% of those who did not take immersion.⁶ Chart 9 illustrates the effect of the development of second-language immersion programs in New Brunswick in the mid-1970s.

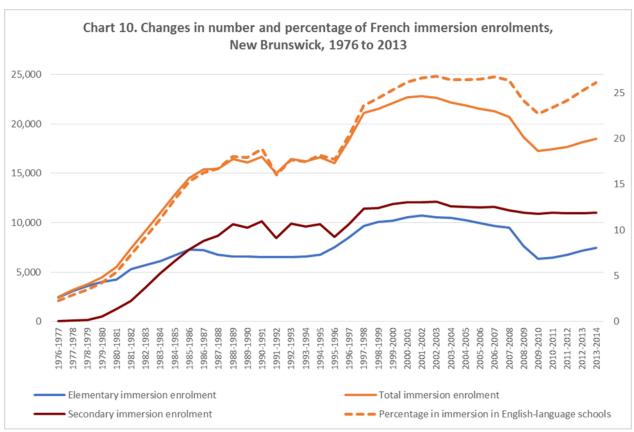


Source: Statistics Canada, censuses of population, 1971, 1981, 1986, 1991, 1996, 2001, 2006, and 2011.

The middle curve represents the first cohorts of Anglophone students who had partial access to French immersion programs as these were gradually being implemented. The cohorts born since 1971 had access to immersion programs throughout their elementary and secondary school years and therefore present bilingualism rates that are clearly higher than those of their predecessors and that remain higher even after age 20. Generally, the effects of immersion programs seem to remain long after the school years are over, despite the loss of the second language among some. The largest increases in bilingualism among Anglophones reported in the last census correspond to the arrival of the first immersion cohorts in the

35-to-39 and 40-to-44 age groups.² Bilingualism has therefore almost doubled among those in their late 30s, going from 10.5% in 2001 to 20% in 2011. The increase was about 50% in the 40-44 age group, i.e., the very first cohort, which had only partial access to immersion programs while these were being developed (see Table 9).

We can get an even better understanding of the contribution of French immersion programs to Anglophone bilingualism by examining the enrolment figures for these programs since they were first established in the mid-1970s, almost 40 years ago (Chart 10).



Sources : Statistique Canada, EEEPS et EEPS. Ministère de l'Éducation et du Développement de la petite enfance, GNB.

Enrolments increased considerably during the different periods of immersion program expansion, despite stagnation in the late 1980s to the mid-1990s and even a decline in the 2000s.⁹ This contemporary decrease in numbers can be attributed first to the drop in the number of students in New Brunswick⁷ rather than to a decline in the



popularity of these programs, as shown by percentage of enrolments that continued until 2008. The more significant drop in numbers and percentage then observed between 2008 and 2010 is a direct consequence of the reform of the early French immersion program, which came into effect in 2008 in the province's Englishlanguage schools. This unusual decline is concentrated mainly at the elementary level. as shown in Chart 10. The most significant decline in bilingualism among Anglophones reported in the censuses in the 2000s affects children aged 5 to 9 among whom the bilingual rate dropped by more than a third between 2006 and 20112 (see Chart 8 and Table 8 in appendix).

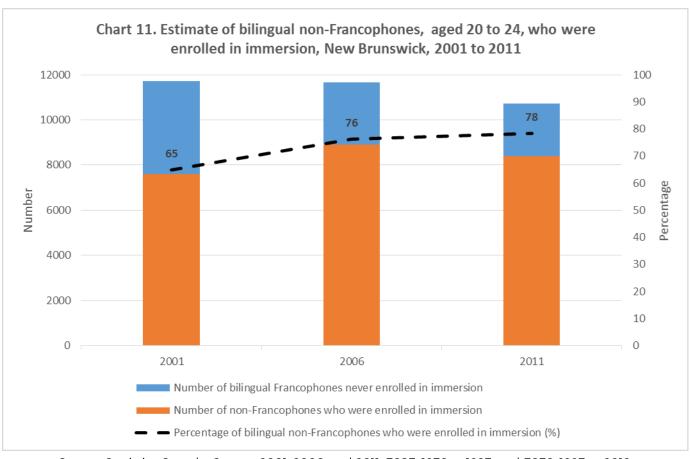
The age of entry and consequently the amount of time spent in an immersion program are however directly related to the level of bilingualism achieved. 10 During the previously mentioned longitudinal study,6 three-quarters (75.8%) of young non-Francophones outside Quebec who took French immersion for at least seven years prior to age 15 reported being able to carry on a conversation in both official languages at age 21, compared with 41% who took immersion for fewer than seven years. If we consider these results in the light of the high rates of program changes in secondary school, it seems obvious that early entry into French immersion in elementary school, even in kindergarten, is more likely to foster bilingualism among Anglophones.

More than a quarter of enrolments in English-language schools were therefore in immersion from the early to mid-2000s, despite the population decline (Chart 10 and Table 10). These appear to be the highest participation rates in French immersion programs observed outside Quebec. When programs are accessible, there is every indication that Anglophones in the province are continuing to participate in them in large numbers. The potential for an increase in bilingualism in New Brunswick has been, in

this case, limited by political decisions rather than by population decline.

We can gain a more direct appreciation of the contribution of French immersion programs to Anglophone and allophone bilingualism by estimating the percentage of bilingual non-Francophones who took immersion. The data available enable us to make such an estimate for the last three censuses for the 20-to-24 age group, i.e., the one that has just completed high school.¹²

According to this estimate, in 2001, about two-thirds (65%) of bilingual Anglophones and allophones between the ages of 20 and 24 had been enrolled in immersion (Chart 11 and Table 11 in appendix). This percentage then appears to have increased as a result of the rise in the immersion program participation rate in the second half of the 1990s (Chart 10 and Table 10 in appendix), with about three-quarters of bilingual Anglophones and allophones aged 20 to 24 having taken immersion, or 76% and 78%, respectively, in 2006 and 2011, despite the decline in this age group (Chart 11).



Source: Statistics Canada, Census, 2001, 2006, and 2011, ESSE, 1976 to 1997, and ESES, 1997 to 2012

It seems clear that the contribution of immersion programs to the evolution of bilingualism in New Brunswick has been growing, at least since the mid-1990s, the effects of which can be seen in the data for the 2000s. We can therefore estimate that. since the mid-2000s. French immersion has contributed to the bilingualism of threequarters of young bilingual Anglophone adults. We have seen that the number of bilingual people just barely remained steady since 2001, so it can be concluded that, if not for immersion programs, the number of bilingual people would already have started to decrease in New Brunswick.

The results of this section confirm that French immersion programs have therefore

contributed to the rise in Anglophone bilingualism since they were implemented, and even more significantly since the 1990s. These results also seem to indicate that structural changes such as mass education and urbanization may have gone hand in hand with the development of immersion programs and the rise in bilingualism, particularly in the 1970s and 1980s. Further research may clarify this, but it is unlikely that this changes the general finding that clearly emerges from these preliminary results.

CONCLUSION

This study has shown that the evolution of bilingualism is a complex phenomenon influenced by a number of concurrent factors, with real status of official languages. geographic concentration of language groups and second-language exposure. urban and rural character, as well as family context, languages of schooling, and access to second-language educational programs being the main ones considered in this analysis. The relevance of New Brunswick's case has proved to be justified in this regard, given the diversity of its language situations.

The analysis of the evolution of past census data on the bilingualism of the language groups and official language unilingualism make it possible to conclude that the historical upward trend of bilingualism reversed itself in the previous decade, in all language groups, while the number of bilingual people stayed the same owing to an equivalent increase in the population of New Brunswick. The recent decline in bilingualism results from a combination of the slight decline in the Francophone population, which is the most bilingual, the decrease in bilingualism among young Anglophone and Francophone adults and Francophones aged 45 to 59, the decline in bilingualism among non-Francophone children of primary school age observed since immersion reform, and the decline among people whose mother tongue is a non-official language.

The number of bilingual people had previously more than doubled in the province since the middle of the last century following the increase in Francophone bilingualism and then the increase in Anglophone bilingualism between 1971 and 2001. This increase enabled Anglophones to double their presence within the bilingual population, although they are still five times less bilingual than Francophones. Ultimately, appears that the French-speaking community has accounted for nearly threequarters of the rise in bilingualism in New Brunswick.

The previous increase in Anglophone bilingualism is attributable mainly to the generations born after the mid-1960s, whose bilingualism rose considerably during their school years. French immersion programs became increasingly popular at that time, and they remain so despite the population decline and reform delaying access to them. French immersion programs have therefore contributed more and more to Anglophone bilingualism, and it appears that some of their effects continue to be present long after the school years are over. French immersion therefore seems to have contributed to the bilingualism of threequarters of young bilingual Anglophone adults in the province since the mid-2000s.

However, a few reservations should be expressed about the methodological limitations of this analysis. The use of census cross-sectional data to reconstruct the evolution of cohorts over time has obvious merits but also some major limitations that we were unable to correct. The comparability of administrative data over long periods, such as immersion program enrolments, is certainly affected by changes in data collection. This might even be the case with the language data from the 2011 census.13 The estimate of the number of bilingual people who took immersion is based on hypotheses and extrapolations limited by the availability of data. Type of immersion program and structural factors such as progressive mass education and urbanization of the population of New Brunswick could not be taken into account with the data that were used. Also, the many factors influencing the evolution bilingualism were not taken into account simultaneously. The interpretation of the results presented and future research should take these limitations into account. A survey of bilingualism within the population of New Brunswick would help to address these limitations. while providing further explanations.

NOTES AND REFERENCES

- ¹ Jean-François Lepage and Jean-Pierre Corbeil, The evolution of English-French bilingualism in Canada from 1961 to 2011 (Ottawa: Statistics Canada, 2013).
- Dominique Pépin-Filion, Profile Linguistic Situation in New Brunswick, prepared for the Commissioner of Official Languages for New Brunswick (Moncton: Canadian Institute for Research on Linguistic Minorities, 2013).
- Réjean Lachapelle and Jean-François Lepage, Languages in Canada: 2006 Census (Ottawa: Statistics Canada, 2010).
- ⁴ Official language unilingualism refers to people knowing only English or only French, whether or not they know or do not know any non-official languages.
- ⁵ Mary Allen, Youth Bilingualism in Canada (Ottawa: Statistics Canada, Centre for Educational Statistics, 2008).
- ⁶ Jean-François Lepage, Camille Bouchard-Coulombe and Brigitte Chavez, Portrait of Official-Language Minorities in Canada: Francophones in New Brunswick (Ottawa: Statistics Canada, 2011).
- Rodrigue Landry and Réal Allard, A sociolinguistic profile of New Brunswick francophones (Moncton: Centre de recherche et de développement en éducation, Université de Moncton, 1994).
- Rodrigue Landry, Petite enfance et autonomie culturelle. Là où le nombre le justifie...V (Moncton: Institut canadien de recherche sur les minorités linguistiques, 2010).
- ⁹ The comparison of enrolments over time may be affected by changes in data collection.
- ¹⁰ In fact, "Forty years of research and evaluation have identified four interrelated variables that affect second-language attainment in school settings: age of entry to the program, the degree of intensity of language instruction, the total cumulative time spent in the target language, and the pedagogical approach to language

- teaching." See Joseph Dicks and Paula Lee Kristmanson, "French Immersion: When and Why?." in The State of French-Second-Language Education in Canada 2008 / L'état de l'enseignement du français langue seconde au Canada de l'an 2008 (Ottawa: Canadian Parents for French, 2008), p. 16.
- ¹¹ Canadian Council on Learning. French-Immersion Education in Canada (N.p.: CCL, 2007).
- ¹² The estimate was obtained by applying to the number of non-Francophones in the 20to-24-year-old age group in the censuses the average of the French immersion participation rates observed during their school years in the surveys of elementary and secondary enrolments (ESSE and ESES) of adjusting Statistics Canada. for the immersion cohort attrition factor at that time, and then applying the bilingualism rate observed at age 21 among young non-Francophones outside Quebec who were enrolled in immersion (Allen, 2008), Since this national bilingualism rate is probably lower than New Brunswick's, the estimate actually under-estimates the number and percentage of bilingual Anglophones and Brunswick allophones in who took immersion. The estimate is therefore a conservative one and could even be revised upwards once new data specific to New Brunswick become available.
- ¹³ For a detailed analysis of the factors affecting the comparability of language data among censuses, see Statistics Canada, Methodology Document on the 2011 Census Language Data (Ottawa: Statistics Canada, 2013).



APPENDICES

Table 1. Number of bilingual people and bilingualism rates in New Brunswick, 1951 to 2011

									Varia	tion	
French and English bilingualism ¹	1951	1961	1971	1981	1991	2001	2011	1951 to 1961	1961 to 2001	2001 to 2011	1951 to 2011
Bilingualism rate											
(%)	18.6	19.0	21.5	26.5	29.5	34.2	33.2	0.3	15.2	-0.9	14.6
Number of											
bilingual people	96,095	113,495	136,115	182,550	211,525	245,865	245,885	17,400	132,370	20	149,790
Population of											
New Brunswick	515,697	597,936	634,555	689,370	716,495	719,710	739,900	82,239	121,774	20,190	224,203

Sources: Statistics Canada, censuses of population, 1951, 1961, 1971, 1981, 1991, 2001, and 2011.

^{1.} Includes all people who reported knowing both official languages, with or without other non-official languages.

Table 2. Official la	nguage	bilingua	ilism an	d unilir	ngualisr	n rates	in New	Brunswi	ck, 1951	to 2011
	1951	1961	1971	1981	1991	2001	2011		Variation	
	%	%	%	%	%	%	%	1961 to 2001	1971 to 2001	1951 to 2011
Knowledge of official languages	100.0	100.0	100.0	100.0	100.0	100.0	100.0			
French and English bilingualism ¹	18.6	19.0	21.5	26.5	29.5	34.2	33.2	15.2	12.7	14.6
French only ²	19.5	18.7	15.9	13.0	12.5	9.2	9.0	-9.5	-6.7	-10.6
English only ²	61.8	62.0	62.5	60.5	57.9	56.5	57.7	-5.5	-6.0	-4.1
Neither French nor English	0.1	0.2	0.1	0.1	0.1	0.1	0.1	-0.2	0.0	0.1

Source: Statistics Canada, censuses of population, 1951, 1961, 1971, 1981, 1991, 1996, 2001, 2006, and 2011.

^{1.} Includes all people who reported knowing both official languages, with or without other non-official languages.

^{2.} Includes all people who reported knowing only this official language, alone or with other non-official languages.

Table 3. Bilingualism rates by mother tongue in New Brunswick, 1971 to 2011

	1971	1981	1991	2001	2011		Vari	ation	
Mother tongue ¹	%	%	%	%	%	1971 to 1981	1981 to 1991	1991 to 2001	2001 to 2011
French	52.6	60.1	62.4	71.5	71.0	7.5	2.3	9.1	-0.5
English	5.1	8.9	11.9	15.0	14.9	3.8	3.0	3.1	-0.1
Non-official languages	6.0	18.2	16.8	17.5	14.5	12.3	-1.5	0.7	-3.1
Total New Brunswick	21.2	26.3	29.7	34.2	33.2	5.1	3.4	4.5	-0.9

Source: Statistics Canada, censuses of population, 1971, 1981, 1986, 1991, 1996, 2001, 2006, and

Table 4. Number and proportion of bilingual people by mother tongue in New Brunswick, 1971 to 2011

	1971	1981	1991	2001	2011		Variation	
Mother tongue	Number	Number	Number	Number	Number	1971 to 2001	2001 to 2011	1971 to 2011
French ¹	112,900	139,300	152,467	169,170	165,695	56,270	(3,475)	52,795
Proportion (%)	82.9	76.3	72.1	68.8	67.4	51.3	-49.9	48.1
English ¹	20,900	40,150	54,433	69,750	71,310	48,850	1,560	50,410
Proportion (%)	15.4	22.0	25.7	28.4	29.0	44.5	22.4	45.9
Non- official								
languages ¹	500	1,550	1,600	2,090	2,660	1,590	570	2,160
Proportion (%)	0.4	0.8	0.8	0.9	1.1	1.4	8.2	2.0
Other responses	1,815	1,550	3,025	4,860	6,220	3,045	1,360	4,405
Proportion (%)	1.3	0.8	1.4	2.0	2.5	2.8	19.5	4.0
Total New	1.5	0.0		2.0	2.0	2.0	13.3	1.0
Brunswick	136,115	182,550	211,525	245,865	245,885	109,750	20	109,770
Proportion (%)	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Statistics Canada, censuses of population, 1971, 1981, 1986, 1991, 1996, 2001, 2006, and 2011.

Totals do not always correspond exactly owing to random rounding of data.



^{1.} Includes single responses only.

^{1.} Includes single responses only.

Table 5. Number of bilingual people and bilingualism rates by mother tongue in New Brunswick, 2001 to 2011

	2001	2011	Variati	on
Mother tongue				%
French ¹	236,665	233,530	-3,135	-1.3
Number of bilingual people	169,170	165,695	(3,475)	-2.1
Bilingualism rate (%)	71.5	71.0	-0.5	-0.7
English ¹	465,170	479,930	14,760	3.2
Number of bilingual people	69,750	71,310	1,560	2.2
Bilingualism rate (%)	15.0	14.9	-0.1	-0.9
Non-official languages ¹	11,935	18,395	6,460	54.1
Number of bilingual people	2,090	2,660	570	27.3
Bilingualism rate (%)	17.5	14.5	-3.1	-17.4
Other responses	5,945	8,040	2,095	35.2
Number of bilingual people	4,860	6,220	1,360	28.0
Bilingualism rate (%)	81.7	77.4	-4.4	-5.4
Total New Brunswick	719,710	739,900	20,190	2.8
Number of bilingual people	245,865	245,885	20	0.0
Bilingualism rate (%)	34.2	33.2	-0.9	-2.7

Source: Statistics Canada, censuses of population, 2001 and 2011.

Totals do not always correspond exactly owing to random rounding of data. 1. Includes single responses only.



Table 6. Bilingualism rates by mother tongue and geographic concentration of the community in New Brunswick, 2011

	Geo	graphic co	oncentratio	on (percen	tage of peo	ple with thi	is mother to	ongue in th	e commu	nity)
	10% and under	10% to 20%	20% to 30%	30% to 40%	40% to 50%	50% to 60%	60% to 70%	70% to 80%	80% to 90%	90% to 100%
Mother tongue ¹	%	%	%	%	%	%	%	%	%	%
English	72.7	44.8	41.9	24.4	29.7	21.0	20.1	14.3	10.8	7.3
French	84.2	86.9	90.3	91.2	74.5	72.4	86.4	77.6	80.0	48.2

Source: Statistics Canada, Census of Population,

1. Includes single responses only.

Table 7. Bilingualism rates among majority Francophones¹ by urban or rural community in New Brunswick, 2011

	Geographic o	concentration
	Under 90%	90% to 100%
Urban and rural character	%	%
Urban communities	84.4	51.8
Rural communities	81.1	40.1
Urban influence in the community		
Metropolitan area > 100,000 inhabitants	81.6	-
Agglomerations of > 50,000 inhabitants	92.9	-
Agglomerations of > 10 000 inhabitants	75.8	54.0
Strongly influenced communities	86.8	46.2
Moderately influenced communities	86.0	52.0
Slightly influenced communities	82.8	41.0
Non-influenced communities	75.4	27.0
Total New Brunswick	83.6	48.2

Source: Statistics Canada, Census of Population, 2011.

1. People whose mother tongue is French. Includes single responses only.

	1971	1981	1991	2001	2006	2011			Variatio	n	
Mother tongue ¹	%	%	%	%	%	%	1971- 2001	2001- 2006	2006- 2011	2001-2011	1971- 2011
French	52.6	60.1	62.4	71.5	F	71.0	18.9	F	F	-0.5	18.4
Under 5	16.0	13.5	11.4	19.4	F	20.3	3.4	F	F	0.9	4.4
5 to 9	23.0	29.8	26.3	33.7	F	38.4	10.7	F	F	4.6	15.3
10 to 14	38.4	50.3	52.3	54.6	F	60.3	16.2	F	F	5.7	21.9
15 to 19	61.9	60.4	68.0	75.3	F	75.0	13.4	F	F	-0.3	13.1
20 to 24	69.5	72.0	71.8	84.8	F	80.5	15.3	F	F	-4.2	11.1
25 to 29	76.9	76.8	69.3	84.2	F	82.8	7.3	F	F	-1.4	5.9
30 to 34	68.6	73.2	75.2	83.8	F	83.9	15.2	F	F	0.1	15.3
35 to 39	62.4	74.7	72.9	78.3	F	83.2	15.9	F	F	4.9	20.8
40 to 44	70.5	76.7	73.2	79.0	F	79.8	8.5	F	F	0.8	9.3
45 to 49	69.3	74.2	73.6	79.5	F	75.1	10.2	F	F	-4.4	5.8
50 to 54	71.4	68.7	70.6	78.5	F	73.8	7.1	F	F	-4.7	2.4
55 to 59	54.8	71.0	70.3	78.3	F	74.1	23.5	F	F	-4.1	19.3
60 to 64	67.5	66.7	64.2	73.5	F	73.6	6.0	F	F	0.1	6.1
65 and over	52.3	56.4	59.2	66.6	F	71.2	14.3	F	F	4.6	18.9
English	5.1	8.9	11.9	15.0	16.0	14.9	9.9	1.0	-1.2	-0.1	9.8
Under 5	1.0	3.1	1.7	3.5	2.9	3.4	2.5	-0.6	0.6	-O.1	2.4
5 to 9	2.5	9.4	8.6	15.8	16.7	10.1	13.2	1.0	-6.6	-5.6	7.6
10 to 14	5.3	12.3	27.7	30.5	33.2	34.0	25.2	2.7	0.8	3.5	28.7
15 to 19	9.0	12.1	33.8	34.6	35.2	32.9	25.6	0.6	-2.3	-1.7	23.9
20 to 24	4.4	9.7	19.7	30.3	30.8	26.2	25.9	0.5	-4.6	-4.2	21.7
25 to 29	9.4	11.3	9.7	23.8	24.4	21.4	14.3	0.6	-3.0	-2.4	12.0
30 to 34	3.8	9.2	10.9	16.9	23.3	20.9	13.1	6.4	-2.4	4.0	17.1
35 to 39	5.2	11.1	9.1	10.5	16.5	20.0	5.3	6.0	3.5	9.5	14.8
40 to 44	6.2	9.3	9.1	9.9	10.6	15.1	3.7	0.7	4.5	5.2	9.0
45 to 49	5.5	9.2	8.6	9.8	9.7	9.9	4.3	-0.1	0.2	0.1	4.4
50 to 54	5.6	8.8	7.5	9.6	10.2	8.8	4.0	0.7	-1.4	-0.7	3.3
55 to 59	6.8	6.4	6.9	7.4	8.7	8.5	0.6	1.3	-0.2	1.0	1.7
60 to 64	4.9	4.6	4.8	7.5	8.2	8.0	2.7	0.6	-0.2	0.4	3.1
65 and over	4.2	5.2	4.1	4.6	6.8	6.7	0.4	2.2	-0.2	2.0	2.5

Source: Statistics Canada, censuses of population, 1971, 1981, 1991, 2001, 2006, and 2011.

N/A: not available.



^{1.} Includes single responses only.

F: Unreliable. According to studies on data certification, the statistics from the 2006 Census on knowledge of official languages may have underestimated the "French and English" category and overestimated the "French only" category, particularly for the Francophone population, and consequently, the population as a whole. More information about this is presented in the Languages Reference Guide.

Table 9. Anglophone biling	gualism rates¹ by cohort ar	nd age in New Brunswick, 1971 to 2011

	Under 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 and over
Average rate for cohort	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Born between 1941 and 1966	n/a	2.5	6.3	9.5	9.0	9.3	10.8	10.0	9.6	9.7	9.7	8.2	8.1	6.7
Born between 1966 and 1971	1.0	6.7	12.3	18.9	19.7	17.7	16.9	16.5	15.1	n/a	n/a	n/a	n/a	n/a
Born between 1971 and 2001	2.7	12.0	29.1	34.4	28.8	23.2	22.1	20.0	n/a	n/a	n/a	n/a	n/a	n/a
Average rate	1.9	7.1	15.9	20.9	19.2	16.8	16.6	15.5	12.3	9.7	9.7	8.2	8.1	6.7

Source: Statistics Canada, censuses of population, 1971, 1981, 1986, 1991, 1996, 2001, 2006, and 2011 1. People whose mother tongue is English. Includes single responses only.

N/A : Not available.

Source: Statistics Canada, ESSE, 1976 to 1997, and ESES, 1997 to 2011. Department of Education, GNB, 2012 and 2013.

6,321

6,456

6.744

7,142

7,475

2009-2010

2010-2011

2011-2012

2012-2013

2013-2014

10,914

10,995

10,938

10,969

11,023



75,975

74,577

73,125

71,955

70,935

-1.7

-1.8

-1.9

-1.6

-1.4

17,235

17,451

17,682

18,111

18,498

22.7

23.4

24.2

25.2

26.1

Table 11. Estimate of bilingual non-Francophones aged 20 to 24 who were enrolled in immersion, New Brunswick, 2001 to 2011

	2001	2006	2011
Non-Francophones ¹ aged 20 to 24	34,065	33,290	32,995
Number of bilingual people	11,710	11,660	10,715
Number of bilingual people who were enrolled in immersion ²	7,600	8,900	8,400
Percentage of bilingual people who were enrolled in immersion ² (%)	65	76	78

Source: Statistics Canada, censuses of population, 2001, 2006, and 2011. ESSE, 1976 to 1997, and ESES, 1997 to 2012.

^{1.} People whose mother tongue is English or a non-official language. Without allocation of multiple responses.

^{2.} These estimates are based on hypotheses and extrapolations limited by data availability.