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Language Projections for Canada, 2011 to 2036

by René Houle and Jean-Pierre Corbeil

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^{p} preliminary
^{r} revised
x suppressed to meet the confidentiality requirements of the *Statistics Act*
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F too unreliable to be published
* significantly different from reference category ($p < 0.05$)

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Cautionary note

Readers are reminded that this language projection exercise comprises two objectives: 1) to measure the future sensitivity of the evolution of certain language characteristics and practices to specific demographic and demolinguistic phenomena (including immigration), using four indicators or variables; and 2) to provide a plausible range of growth of the major language groups or speakers defined by various criteria, in Canada and its regions.

This report aims to meet these two objectives. In this vein, we selected three key scenarios to measure the repercussions of recent immigration trends on the language characteristics and practices of the Canadian population. The results of 13 additional scenarios measure in other factors, such as bilingualism, internal migration, language composition of immigrants or the composition of immigrants by country of birth, that can influence future language characteristics and practices.

Moreover, the choice of assumptions and scenarios is not intended to predict the future, but rather to provide data users with a portrait of the Canadian population in the medium and long terms if certain conditions were met. Because it is impossible to know the future, several scenarios were developed to identify a broad range of plausible possibilities in light of the data and past trends, among others. For this reason, users of these projections are encouraged to consider the entire range of results rather than to look for a more likely scenario. Keep in mind also that the objective of the projections is to produce plausible results for now to 2036, rather than short-term, cyclical indicators of Canada's language situation.

As with any prospective exercise, these projections have certain limitations with regard to, for example, data sources, adjustments to the base population and the methods chosen. These limitations are documented in greater detail in this report as well as in Demosim: An Overview of Methods and Data Sources, Demosim 2017 (Statistics Canada 2017a).

Other sources of uncertainty, including those relating to the variance associated with certain projection parameters as well as the albeit low variability associated with the random processes inherent to microsimulation, could affect the projection results. For these reasons, and to avoid giving the impression of too high an accuracy level, the results presented below have been rounded to the nearest thousand.

Lastly, for the purposes of consistency with other Statistics Canada products, the concepts used in this report are based on those used in the 2011 National Household Survey. They therefore reflect the most recent changes in the choice of definitions.

Highlights

Evolution of language groups

- Based on the three main projection scenarios selected, the English-, French- and other- (non-official language) mother-tongue populations should increase between 2011 and 2036. The English-mother-tongue population could reach between 22.8 million and 23.7 million, the French-mother-tongue population between 7.5 million and 7.8 million, and the other-mother-tongue population between 10.7 million and 13.8 million by 2036.
- The demographic weight of the English-mother-tongue population in Canada could decline from 58.7% in 2011 to between 52% and 56% in 2036, while the weight of the French-mother-tongue population could fall from 21.3% in 2011 to 17% or 18% in 2036.
- The other-mother-tongue population would see the most growth in both Quebec and the rest of Canada, largely due to immigration, which should be the main driver of population growth in Canada between now and 2036. In 2036, the other-mother-tongue population could account for 26% to 31% of the total Canadian population, compared with 20% in 2011.
- According to the three main projection scenarios, the English-mother-tongue population could be between 808,000 and 853,000 in 2036 in Quebec, compared with 652,000 in 2011. It would be a little lower in the event of an interprovincial migration similar to 1996-2001 period. In the rest of Canada, it could increase from 19.5 million in 2011 to between 22.0 million and 22.8 million by 2036.
- The share of the English-mother-tongue population could either grow or decline in Quebec (from 8.2% in 2011 to between 7.9% and 8.8% in 2036), but decrease in the rest of Canada (from 74% in 2011 to between 65% and 69% in 2036).
- The French-mother-tongue population in Quebec could be between 6.6 million and 6.8 million by 2036, compared with 6.3 million in 2011. In Canada outside Quebec, it should decrease from 989,000 in 2011 to between 886,000 and 942,000 in 2036 according to the three main projection scenarios, but could grow to more than one million people in the event of an interprovincial migration similar to 1996-2001 period.
- The demographic weight of the French-mother-tongue population should decline both in Quebec (from 79% in 2011 to between 69% and 72% in 2036, in all three scenarios) and in the rest of Canada (from 3.8% in 2011 to approximately 2.7% in 2036). Other scenarios with different internal migration patterns show that the decrease in the demographic weight of the French-mother-tongue population in Canada outside Quebec could be more modest.
- The evolution of the language group populations, when defined by the language spoken most often at home (home language), should be similar to the evolution of the mother-tongue populations. By 2036, the English-home-language population could account for between 64% and 67% of the country's total population. The French-home-language population, in turn, could represent 18%, and the non-official-home-language population, between 15% and 18%.
- In Canada outside Quebec, the English-home-language population should increase to between 26 million and 28 million in 2036, up from 22.4 million in 2011. However, its relative demographic weight could be between 79% and 83% in 2036, compared with 85% in 2011. In Quebec, the English-home-language population could increase to 1.2 million in 2036, in all scenarios, an increase over 858,000 in 2011. Its demographic weight could also rise from 10.7% in 2011 to roughly 12.6% by 2036.
- The French-home-language population could grow in Quebec to between 7 million and 7.3 million in 2036 from its 2011 level of 6.5 million. It could represent between 74% and 76% of the total provincial population, down from 81.6% in 2011. In Canada outside Quebec, this population would increase from 620,000 in 2011 to between 632,000 and 651,000 in 2036, except in the low-immigration scenario, which would see a decline (595,000 in 2036). Its relative weight in the total Canadian population outside Quebec would be 1.8% or 1.9% in 2036, compared with 2.4% in 2011.
- The projections indicate that the population whose first official language spoken (FOLS) is English could increase from 25.9 million in 2011 to between 31.9 million and 35.3 million in 2036 throughout Canada. Its weight in the total Canadian population would also rise, from 75.4% in 2011 to 77.8% in 2036.

- The English FOLS population could grow in the coming years, both in Quebec and in Canada outside Quebec. In Quebec, its demographic weight could increase from 13.6% in 2011 to between 16.3% and 17.5% in 2036. This increase would result from both international immigration and adoption of English as the language spoken most often at home by part of the other-mother-tongue population living in Quebec. In Canada outside Quebec, it could grow from 94.2% to about 95% in all scenarios.
- Throughout Canada, the French FOLS population could increase from 7.8 million in 2011 to between 8.6 million and 9.2 million in 2036, but its demographic weight could decline, from 23% in 2011 to below 21% in 2036 (with slight scenario-specific variations).
- In Quebec, the French FOLS population could reach between 7.6 and 8.1 million in 2036, up from 6.8 million in 2011. It would also increase in Canada outside Quebec by 2036, except in the low-immigration scenario. Accordingly, from just over 1 million in 2011, it could either decrease to 973,000 or increase to 1.1 million by 2036.
- In Quebec, the French FOLS population would account for around 82% of the total population in 2036, down from 85.4% in 2011. In Canada outside Quebec, its relative weight would represent 3.0% or 3.1% of the total population in 2036, down from 3.9% in 2011. The decrease would be more modest, or 3.6%, in the event of an interprovincial migration similar to 1996-2001 period.

The provinces and territories outside Quebec

- In the provinces outside Quebec and in the territories, the English-speaking population, whether defined by mother tongue, language spoken most often at home or FOLS, should increase between 2011 and 2036, except in Atlantic Canada.
- The demographic weight of the English-mother-tongue and English-home-language populations could decrease in all provinces and territories, while the English FOLS population could increase.
- According to the main projection scenarios, the French-speaking population (whether defined by mother tongue, language spoken most often at home or FOLS) could decrease in a number of provinces outside Quebec. The biggest decreases could occur in the Atlantic provinces and in Manitoba. Conversely, Ontario, Alberta and British Columbia could see their French-speaking populations increase, primarily when considering the language spoken most often at home and FOLS.
- The demographic weight of the French-speaking populations could decline in the majority of provinces outside Quebec, regardless of the language group definition applied.

Language groups – population composition

- According to the projection scenarios, both the English- and French-speaking populations should see an increase in the share of the population aged 65 years and older and a slight decrease in the share of the population aged 0 to 14 years between 2011 and 2036.
- As in 2011, the English FOLS population is expected to be more ethnically diverse in 2036—measured here by the proportion of first- and second-generation immigrants (i.e., immigrants and their children)—than the French FOLS population. In the English FOLS population in Canada, 48% to 53% could have an immigrant background in 2036, up from 44% in 2011. In the French FOLS population, between 26% and 31% could have an immigrant background in 2036, up from 15% in 2011.

Evolution of the knowledge of official languages in Canada

- The projection results indicate that between 2011 and 2036, the number of Canadians able to speak French could increase from 10.2 million to 12.5 million (high-immigration scenario), 12.2 million (reference scenario) or 11.7 million (low-immigration scenario).
- In relative terms, this change would be characterized by a decrease in the percentage of the French-speaking population, from 29.8% (2011 NHS) to 27.9% (reference scenario), 28.4% (low-immigration scenario) or 27.6% (high-immigration scenario) in 2036.
- This evolution could vary greatly in Quebec—the only predominantly francophone province—and Canada outside Quebec. The proportion of French speakers in Quebec, which was 94.4% in 2011, would remain

relatively stable through 2036, ranging from 93.2% in the high-immigration scenario to 93.9% in the low-immigration scenario.

- In Canada outside Quebec, while the French-speaking population would grow in number (from 2.7 million in 2011 to between 3.0 million and 3.3 million in 2036), its demographic weight could decline from 10.2% to between 9.3% and 9.5% over the same period according to the main three projection scenarios.
- In Quebec and in all of Canada, the English-speaking population should grow in both number and percentage. The relative share of English speakers could rise from 86% in 2011 to between 88.7% and 88.9% in 2036.
- While this percentage would remain relatively stable in Canada outside Quebec (from 97.6% in 2011 to between 97.4% and 98.0% in 2036), significant growth could occur in Quebec.
- In Quebec, the English-speaking population could increase from its 2011 NHS level of 3.8 million to between 5.3 million and 5.7 million in 2036. It would see its demographic weight rise from 47.6% in 2011 to over 57.5%.

Evolution of English–French bilingualism

- The projection results show that by 2036, the number of people who can conduct a conversation in both of Canada's official languages could increase from 6 million in 2011 to between 7.7 million (low-immigration scenario) and 8.3 million (high-immigration scenario).
- The English–French bilingualism rate in Canada could increase from 17.5% in 2011 to between 18.4% and 18.8% in 2036.
- During the projection period, English–French bilingualism could move in opposite directions in Quebec and the rest of Canada.
- While in 2011, 43% of Quebec's population reported being able to conduct a conversation in both official languages, this proportion could reach 52% in 2036, an increase of 9 percentage points, regardless of the immigration scenario. By contrast, outside Quebec, this rate could vary between 9.2% and 9.6% in 2036, down from 9.8 % in 2011.
- In Quebec, the number of people able to speak both English and French could rise from 3.4 million in 2011 to between 4.6 million and 5 million in 2036, an overall growth rate ranging from just under 35% to 44%.
- The strongest growth in English–French bilingualism in Canada could occur in Quebec's French-mother-tongue population, rising from just under 39% in 2011 to close to 49% in 2036.
- In Canada outside Quebec, nearly 2.6 million people were able to speak English and French in 2011. This number is likely to increase by 509,000 to 731,000 (according to the immigration scenarios applied) to between just under 3.1 million and 3.3 million in 2036, a growth rate of between 20% and nearly 29%.
- The growing demographic weight represented by immigrants in the Canadian population and their lower rate of English–French bilingualism—compared with the Canadian-born population and in the scenarios applied—should exert downward pressure on the bilingualism rate in all of Canada.
- While immigrants with English as their first official language spoken exert downward pressure on English–French bilingualism in Canada (particularly due to a lower rate of bilingualism than the Canadian-born English-speaking population), immigration is not the only factor responsible for the overall decline.
- The erosion, even the loss of bilingualism among the English-speaking population, is common among young people living in regions where there is little contact between the English- and French-speaking populations. This full or partial loss would appear to occur once they leave secondary school.
- Our alternative scenarios reveal that, by hypothetically doubling the number of 5- to 14-year-olds in the English-speaking population who can speak both official languages and in maintaining the retention of their second-language skills, the bilingualism rate in the entire English-speaking population in Canada outside Quebec could be 13.6% in 2036, more than twice the level observed in 2011.
- In such a scenario, the rate of English–French bilingualism across Canada could be roughly 24% in 2036, nearly 6 percentage points more than what would be observed if second-language skills were not maintained.

Language Projections for Canada, 2011 to 2036

By **René Houle** and **Jean-Pierre Corbeil**

Introduction

On the eve of the 150th anniversary of Confederation, in 2017, Canada can be described as a nation of great ethnic, linguistic and cultural diversity. We owe this rich diversity largely not only to the international immigration that we have seen over the decades, particularly since the beginning of the last century, but also to the presence of Aboriginal peoples (First Nations people, Métis and Inuit) on the territory long before the arrival of the first European settlers. The 200 or so languages that are spoken or understood, which include at least some sixty Aboriginal languages, and just as many ethnic or cultural origins declared on recent censuses, are a testament to Canada's diversity.

The expansion of linguistic diversity of the population reflects the fact that the country's two official languages—English and French—have exerted a strong pull as languages of convergence and integration into Canadian society, particularly as languages of work, education and the delivery of government services to the public.[1]

At the time of the 1871 Census[2]—the first census conducted after Confederation—Canadians of British and French origin represented respectively 61% and 31% of the country's population. In 2011, while 20% of the Canadian population reported a mother tongue other than English or French, close to 9 out of 10 of these individuals reported speaking English or French at home.

This duality, which defines the legislative framework of language planning in Canada, is validated by the fact that, despite the diverse language practices and characteristics that have arisen out of immigration-based population growth, the country's two official languages remain key vectors for integrating into and becoming fully contributing members of Canadian society.[3]

International immigration is the main driver of Canadian population growth.[4] The primary effect it has had on the language situation is increasing the population for whom neither English nor French is their mother tongue or home language. In addition, the geographic and linguistic make-up of international immigrants has a direct impact on the demolinguistic balance between English and French across the country, such that the vast majority of immigrants are far more likely to adopt English as the main language in Canada outside Quebec. Nationally, this influence is further exacerbated by the fact that Quebec—home to the vast majority of Canada's French-speaking population—receives less than its share of the immigrant population in relation to its demographic weight in the country. For example, in 2011, Quebec was the province of residence of 14.4% of the country's immigrants, whereas its population represented 23.6% of the Canadian population.[5]

In the 25 years leading up to the 2011 Census and the 2011 National Household Survey, Canada admitted an average of 230,000 immigrants per year. During that period, the demographic weight of the population whose mother tongue was neither English nor French rose from 12.5% to 20.6%,[6] whereas the weight of the French-mother-tongue population fell from 25.1% to 21.7%, and the weight of the and English-mother tongue population declined from 62.3% to 57.8%.

In 1986, the English-mother-tongue population represented close to 10.4% of the Quebec population, whereas the other-mother-tongue population (other than English or French) accounted for 6.8% of the population. However, in 2011, there were considerably more individuals with an other mother tongue than with English as their mother

1. Nearly 50 years ago, in October 1967, Book I of the Report of the Royal Commission on Bilingualism and Biculturalism recommended that the federal Parliament adopt official languages legislation. The *Official Languages Act*, which conferred on English and French the status of "official languages of Canada for all matters relating to Parliament and the Government of Canada" (section 2) and "equality of status as well as equal rights and privileges with regard to their use in all institutions of Parliament and the Government of Canada" was finally adopted in 1969.
2. The 1901 Census was the first census to ask Canadians a question about their mother tongue as well as their ability to speak English or French.
3. In 2011, nearly all workers in Canada (98.7%) reported using English or French at work, either most often or on a regular basis.
4. See the *Report on the Demographic Situation in Canada* (2016) (http://www.statcan.gc.ca/pub/91-209-x/91-209-x2016001-eng.htm).
5. In the 2011 NHS, 19.2% of immigrants who had arrived in the country within the previous five years were living in Quebec. Furthermore, note that from year 1992-1993 to year 2011-2012, Quebec has received an average of 39,560 immigrants per year, which represented 16.8 % of the average annual number of immigrants who came to Canada during the period (Immigration, Refugees and Citizenship Canada 1986-2015).
6. The population whose mother tongue or home language is other than English or French is very heterogeneous and comprises over 200 distinct language groups. In 2011, the most frequently reported mother tongue was Punjabi, spoken by 460,000 people, or 1.4% of the country's population, a proportion much smaller than the demographic weight of the population whose mother tongue or home language is English or French.

(12.8% compared with 8.3%). Moreover, French was the mother tongue of less than 79% of the population in 2011, down 4 percentage points from 1986.

In Canada outside Quebec, the population with French as a mother tongue and even as its first official language spoken grew by more than 60,000 people in 25 years. However, its demographic weight decreased from 5% in 1986 to 4% in 2011.

As we will see later in our study, "other" languages are generally more prevalent as a mother tongue than as the home language. In 2011, while more than one in five had a mother tongue other than English or French, 12.6% of the Canadian population reported speaking a language other than English or French most often at home. This observation attests in part to the scope of the penetration of official languages in the homes of the "other mother tongue" population. This compared with 8.1% in Quebec and 14.0% in Canada outside Quebec.

With regard to knowledge of the country's official languages, the number of people who are able to conduct a conversation in English and French grew by 1.7 million in the 25 years preceding the 2011 NHS, to 5.8 million. This translated into a rise in the bilingualism rate across the country from 16.2% to 17.5%, which was mainly attributable to the Quebec population. In fact, the growth of the bilingual English-French population was higher in Quebec than in the rest of Canada. In 2011, 57.4% of the English-French bilingual population was living in Quebec, compared with 54.9% in 1986. Furthermore, the growth observed from 1986 to 2011 across the country masks a decline of the bilingualism rate between 2001 and 2011 in Canada outside Quebec, which went from 10.3% to 9.7%.[7]

As for knowledge of French, the minority official language across the country, 10 million people could conduct a conversation in French in 2011, compared with 8 million 25 years earlier. However, in terms of relative share, this represented a decline from 32% to just under 30%.[8]

Given that the size and share of the immigrant population stand to grow over the next 25 years,[9] how will the language situation and characteristics of the country's population change? Aside from international immigration, what demographic factors are likely to have the strongest influence on this change? How will the country's demolinguistic balance between the English- and French-speaking populations evolve? How might the size and share of the population that are able to speak both official languages change? This study will attempt to answer these questions, among others.

The first chapter of our study presents a brief review of the literature and earlier work on projections of the language situation in Canada, and Quebec in particular. We will then demonstrate how the methodology chosen for our language projections—microsimulation—is different from the method generally used in the past (macrosimulation using the component method) and the advantages we stand to gain from it. The first chapter also discusses the main language indicators or variables from the census or the 2011 National Household Survey used in this study, and compares them with other available language data on projections of the language situation in Canada. We will conclude this chapter by presenting and justifying the various scenarios used in our language projections.

The second chapter presents the demographic factors and dimensions that have influenced the evolution of the country's language situation over the past 40 years and the ones that are likely to shape it between now and 2036. We will present the roles and influence of immigration (levels and composition by geolinguistic origin), natural increase (births minus deaths), internal migration, as well as intragenerational and intergenerational linguistic mobility.

The third chapter of our study presents the results of our projections of the evolution of the language situation in Canada from 2011 to 2036. Specifically, we look at the mother tongue, language spoken most often at home and the first official language spoken of Canadians, and examine and present a number of alternative scenarios.

The fourth chapter examines and measures the potential influence that each factor presented in Chapter 2 could have on the evolution of language groups between now and 2036, as presented in Chapter 3. This chapter also presents the results of the evolution of language transfers (also called shifts) of Canadians; in other words, when individuals speak a language other than their mother tongue most often at home.

7. See Lepage and Corbeil (2013).
8. Because of adjustment for net undercoverage and the fact that the population is not identical in the two data sources, the results for knowledge of French in the 2011 NHS (29.8%) are slightly lower than those from the 2011 Census of Population (30.1%).
9. For more on this topic, see the analytical report *Immigration and Diversity: Population Projections for Canada and its Regions, 2011 to 2036* (Statistics Canada 2017a).

The fifth chapter deals with changes in knowledge of official languages and, more specifically, the evolution of English-French bilingualism in Canada and in various regions. It also discusses the evolution of the ability to conduct a conversation in French, a minority official language in Canada. We will highlight some of the factors that have, in recent decades, shaped the current status of English-French bilingualism in the country, and others that are likely to influence its development going forward. The evolution of bilingualism is examined in light of a number of scenarios regarding immigration rates, the bilingualism rates of immigrants upon arrival in Canada, and the rates of bilingualism retention among young people over time.

Lastly, the sixth chapter in our study presents an overview of the relationship between linguistic diversity and linguistic duality in Canada from 2011 to 2036. This final section sheds light on the link between a population growth driven mainly by a highly diverse immigrant population whose mother tongue is other than English or French, and the changes in the number and demographic weight of English and French speakers in Canada.

Chapter 1 Context and methods

1.1 What projections can and cannot show us

Can an analysis of the evolution of the language characteristics and behaviours in Canada over the past 25 years provide an overview of their possible evolution between now and 2036? If we were to answer yes, this would suggest, on the one hand, that we have a full and detailed understanding of the factors that influence or will influence this evolution and, on the other, that past demolinguistic trends and the mechanisms that produced them are indicative of the population's future language portrait. However, this is not exactly the case. Of course, in the field of demography—and demolinguistics in particular—the interrelations between the underlying phenomena of demographic change within a society can usually be understood. It is also possible to explain the large processes that affect the structure of populations. Natural increase (births minus deaths); international, interprovincial and intraprovincial migration; and intergenerational and intragenerational linguistic mobility are all factors that allow us to explain the evolution of language communities or groups.

Lachapelle and Henripin referred to these scientifically-oriented projections that deal with a population's *demographic past* likely to bind and limit the future as the "predetermined future." So, while it is possible to apply a certain number of "mobility" assumptions or "transitions," in a broader sense, to a known initial population structure, nothing guarantees that these "transitions" will repeat themselves in the future. Indeed, many demographic events or transitions are relatively stable or evolve slowly (e.g., a language's rate of transmission or mortality). Others, however, are more volatile and marked by uncertainty, making it particularly difficult to forecast a population's evolution in the short and medium terms. These changing phenomena require the development of multiple assumptions for their projection, to the extent that they are likely to affect the demographic change in the projected populations. The (international or intranational) geographic mobility of populations is an example of this. It is sensitive to various economic condition effects and can therefore influence such demolinguistic phenomena as net intergenerational and intragenerational linguistic mobility. Political decisions and action can also influence the evolution of certain demographic factors. The identification of national immigration thresholds, receiving refugees, changes in immigration policies or family-related policies are good examples of this.[10]

That being said, and as emphasized by Termote (2011, p. 62), despite these cyclical variations, in many cases demographic trends are particularly heavy and difficult to reverse due to the weight of the past and the fact that a population's initial structure often exerts great inertia. This is especially true when we examine how the age structure of a given language group might influence this group's future migration models, as older populations, for example, are less likely to migrate.

This study presents the results of demographic projections, not predictions (see the study "Immigration and Diversity: Population Projections for Canada and its Regions, 2011 to 2036", Statistics Canada 2017a), as it is not within our power to foresee the demolinguistic future of the Canadian population, or of the population of a particular province. As we will see later on, instead, these projections make it possible to examine and shed light on what the demolinguistic future might look like should the developed assumptions and scenarios be true. For example, there is no way of knowing if fertility will increase in the future or what this increase would be. Nor do we know how many new immigrants Canada will accept in 20 years or how these immigrants will be distributed throughout the country. That said, based on the chosen assumptions (low or high fertility, low or high migration, same or different immigration composition, etc.) and the examined scenarios (combinations of assumptions), it is possible to present a plausible range for the situation's evolution and for the factors likely to influence it, and to quantify the sensitivity of this evolution to the different scenarios.

1.2 Previous language projection exercises

Contrary to the work carried out in the area of demographic projections, little work has been done in the past on demolinguistic projections. Termote is an exception, having led no fewer than five forecasting exercises in almost 20 years (1994, 1996, 1999, 2008, 2011) based on the 1986, 1991, 1996, 2001 and 2006 censuses.

While Maheux (1968) and Charbonneau, Henripin and Légaré (1973) conducted a few forecasting studies on the francophone population of Canada and Quebec in particular, Lachapelle and Henripin (1980) were the first to

10. According to Termote (2011), internal migration (interprovincial and interregional) is the main source of errors in the forecasts for certain geographic areas, because of its unstable nature that can be attributed to changing economic conditions.

produce demolinguistic projection results for Canada. Because of the very limited computerized methods and available language data at the time, other than mother-tongue census data, Lachapelle and Henripin were only able to use the information on home language collected during the 1971 Census. As a result, the projected initial demographic structure was limited to four variables: age, region, mother tongue and home language. Furthermore, three regions were chosen: Montréal, Quebec excluding Montréal and Canada outside Quebec.

For their part, Termote and Gauvreau (1988) developed demolinguistic projections for Quebec and its regions using data on home language from the 1971 and 1981 censuses, as the 1976 Census did not include a question on the language spoken at home. Moreover, these authors started from an initial structure characterized by a period of exceptional interprovincial migration, as we will see later in our study.

Prior to the release of Termote's first forecasting exercise in 1994, three other forecasting exercises were conducted on the Montréal region (Benjamin and Baillargeon 1977; Veltman 1989; Paillé, 1990). It should be noted that Veltman examined a high number of linguistic mobility assumptions that demonstrated the phenomenon's limited relative influence. Paillé's work, however, essentially focused on the evolution of the French-mother-tongue population on the Island of Montréal.

While all these exercises were carried out using a traditional projection model based on aggregate data (cohort-component model), Sabourin and Bélanger (2014, 2015) opted for a microsimulation approach. Basing themselves on the work of Bélanger and Caron-Malenfant (2005) as well as Caron-Malenfant, Lebel and Martel (2010), and using the 2006 Census population as an initial structure, they projected mother tongue and language spoken most often at home with a certain number of fertility, mortality, internal- and international-migration, and intragenerational- and intergenerational-language-transfer assumptions and scenarios.[11]

1.3 Project what, project whom? Which projected language characteristics?

All projection exercises related to language in Canada use a certain number of assumptions and axioms. Projecting the evolution of language characteristics and behaviours, even the language situation, based on census data or, in the case of our study, 2011 National Household Survey data, forces us to acknowledge, from the outset, that these projections are inevitably limited by the available information on the topic, even though it is already very detailed in Canada compared with international practices.

Not only does the Canadian census (or the 2011 NHS) include seven questions or sub-questions on language, but with regard to language statistics, Canada is one of the few countries in the world to collect information on each of the "fields" recommended by the United Nations: a) mother tongue, b) usual language (defined as the language currently spoken, or most often spoken, by the individual in his or her present home), and c) ability to speak one or more designated languages (United Nations, 2009).[12]

The question on mother tongue, which has remained pretty much the same since the 1941 Census, was worded as follows in the Census and the 2011 NHS:

"What is the language that this person first learned at home in childhood and still understands?

If this person no longer understands the first language learned, indicate the second language learned."

In 2011, the question on the language spoken most often at home was worded as follows:

"What language does this person speak most often at home?"

Finally, the question on knowledge of English and French has changed little since the 1971 Census. In 2011, it was worded as follows:

"Can this person speak English or French well enough to conduct a conversation?"

Four possible answers are given: English only, French only, English and French, Neither English nor French. This is a subjective question, the answer to which depends on the assessment of the respondent—and undoubtedly in many cases one person in the household fills out the questionnaire for everyone.

11. Sabourin and Bélanger (2014) also projected knowledge of official languages but found discrepancies with respect to recent trends.
12. *Principles and Recommendations for Population and Housing Censuses*, Statistical Papers, Series M / N°67/Rev.2, United Nations, New York, 2009.

Despite this abundance of information on this topic in Canada, having data on the languages used at work (main or secondary language) or the secondary use of one or more languages at home, for example, does not necessarily allow their use for projection purposes. This would also be the case if we had detailed data on language use in the public sphere (in stores, services to the population, etc.). This is largely because of the complexity of integrating them with a projection model based on a multitude of factors and characteristics that interact with one another. In other words, the number of interdependent transitions is generally the main factor that causes a problem, as well as the availability of data on each of these transitions.[13] For example, to project the secondary use of a language at home, we need to better understand all the factors and conditions that cause an individual to start (or stop) speaking this language as a secondary language and be able to model and predict each of these factors that may interact with one another. These factors may include such elements as language use outside the home (at work, at school, with friends, etc.), migration from one province to another, change of employment, meeting a spouse, language spoken as a secondary language prior to emigrating to Canada, and so on. Furthermore, the changes to the multiple responses on these practices over time fluctuate and are difficult to foresee.[14] Lastly, the language(s) used at work in areas where there is contact between different languages is (are) generally associated with specific industry sector and profession characteristics; such information is very difficult to project and not available in the Demosim model.[15]

Regarding our initial question, i.e., what we are projecting, it would be arrogant to believe we can project the overall "language situation" from now until 2036 based on the considered transitions and initial structure used. Indeed, "language situation" implies a set of complex interlinguistic relationships and dynamics that cannot fully be taken into account by census data or large-scale surveys. The same holds true for the idea of knowing whom we are projecting. In this regard, the choice of terms and criteria used to define the language communities or groups is always partially arbitrary. Their use must therefore take into account the fact that their generally accepted meaning is not completely neutral, and that they do not make it possible to fully grasp the complexity of the reality they serve to define.

In our study, we repeatedly use the notion of language group. This many-faceted notion is necessarily limited, even though it is heuristic in nature. For example, we refer to the people reporting the same mother tongue and living within a given territory as a specific language group because of this common trait. The same is true if we use the criterion of language spoken most often at home (main home language) instead, or that of the first official language spoken (FOLS), which we will discuss below. Some might prefer to define a group based on the predominant use of one language in the public sphere, or even based on the ability to conduct a conversation in a given language. This is the criterion used by the International Organisation of La Francophonie to define the world's francophone communities.[16]

Lachapelle (1991) defines a language group as a grouping of human beings who share certain linguistic affinities. We could also talk about a group of people who share certain specific characteristics associated with language or with a particular language. We know these "linguistic affinities" [17] may be based on a multitude of criteria—demographic, sociological, political, cultural, etc.

In certain cases, and for simplification purposes, groups are even defined based on criteria they do not share with other communities. For example, a growing number of people's mother tongue or main home language *is neither English nor French*, the country's official languages. In this sense, the only linguistic affinity, so to speak, shared among them is the fact that neither English nor French is their mother tongue or home language. When the focus is on English or French, and because almost 200 languages are reported in the census, common practice has generally been to refer to those other languages as "non-official languages." In French, the term *langue tierce* is increasingly used to refer to languages other than English or French. This group of languages comprises both Aboriginal and immigrant languages.[18]

13. The term "transition" generally refers to an individual going from state x to state y. For example, in terms of language, a transition could be used to mean starting to speak a language other than one's mother tongue most often at home (or starting to speak again in one's mother tongue) or acquiring (or losing) a second language.
14. Over time, not only are the changes to the multiple responses to census questions on language extremely unstable over time for the same individual (see Houle, Corbeil and Nault, Statistics Canada 2013), but, from one census to another, we also observe transitions (or permutations) between "language spoken most often" and "another language spoken regularly," such as stating that two languages are spoken equally in one census, then stating that one language is spoken most often and another regularly in the following census, and vice versa.
15. Please refer to section 1.4 below and the publication Statistics Canada, 2017b.
16. See the publication *La langue française dans le monde 2014*. OIF Nathan editions, Paris, 2014.
See also the publication *Mesurer la francophonie et identifier les francophones : inventaire critique des sources et des méthodes*, directed by Bruno Maurer, 2nd International Seminar on observation methodologies of the French language (October 2014), archives contemporaines editions, Paris, 2015.
17. These affinities may include speaking (or being able to speak) a common language (group of speakers), using the same language at work, having the same language of instruction, reading a common language, etc.
18. See Houle, 2012.

In addition to the terms "francophone" and "anglophone", the term "allophone" is also widely used, particularly in Quebec, to refer to this "other" language group. This term was created during the Commission of Inquiry on the Position of the French Language and on Language Rights in Québec (1968–1972). This neologism, from the Greek allos ("other") and phônê ("voice," "sound"), usually refers to any person whose mother tongue or main home language is a language other than English or French.[19] The term has gradually made its way into political, scientific and even vernacular discourse, especially in Quebec, but it is also perceived by some as being tinged with essentialism ("being" allophone as opposed to "being" anglophone or francophone).

Our study will therefore intentionally avoid talking about anglophone, francophone or allophone communities or groups. Instead, we will talk about French-, English- or other-language groups, or official-language or non-official-language groups, and we will always specify the criterion to which these terms refer. Specifically, we are projecting, from now until 2036, the numbers and the relative shares for the groups whose mother tongue or language spoken most often at home is French, English or another language (also referred to as a third language).[20] We will also project the number and percentage for populations whose FOLS is English or French, as well as populations able to conduct a conversation in English or French.

1.3.1 Language questions used for projection purposes

Why project populations by mother tongue, main home language and FOLS?

First, because of their availability since the beginning of the 20th century and their more widespread use since the 1960s,[21] data on mother tongue have made it possible to study the evolution and the situation of different language groups throughout the country. In fact, for many years, the notion of mother tongue has been the main criterion used to designate French-, English- or other-language groups in Canada and in Quebec in particular. This choice stems from historical considerations. Not only have mother-tongue-based statistics long had the advantage of being approximately comparable for more than half a century, but section 23 of the 1982 Charter of Rights and Freedoms also uses the criterion of mother tongue as one of the conditions allowing parents to send their children to primary or secondary school in the minority official language.

However, the mother tongue of individuals gives no information on their use of the languages. In its 1967 report, the Royal Commission on Bilingualism and Biculturalism (Laurendeau-Dunton) stated that the census data on mother tongue were a generation behind the facts and suggested that information on the usual language of Canadians be gathered. The Commission called for the addition of a question to the census, which "would deal precisely with the main language of each Canadian, and would enable us to tell which language he speaks most often at home and at work." [22] In the 1971 Census, Statistics Canada acted on this suggestion by adding a question on the language spoken most often at home. Essentially, this choice resulted from the fact that the Commission believed it would be useful to obtain information on the current use of the languages, which would complement the information obtained through the question on the first language learned in childhood (Lachapelle 1991).

The question on the language spoken most often at home, added to the census questionnaire in 1971, therefore gathered information on the main language used in the family or private sphere. Also, combining it with the information on mother tongue made it possible to study the transfer phenomenon (or language shifts), that is, the adoption of a language other than the mother tongue as the main home language. Furthermore, because the language spoken most often at home is generally the language transmitted to children (Lachapelle 1991; Marmen and Corbeil 2004; Lachapelle and Lepage 2010), adding it to the census would make it possible to study and measure the phenomena of intergenerational and intragenerational linguistic mobility.

For its part, the question on knowledge of either English or French—also a census question since 1901—made it possible to measure English–French bilingualism and, during the first decades of the 20th century in particular, knowledge of English, the language of trade and business, among French Canadians and new immigrants with a mother tongue other than English or French (Houle and Cambron-Prémont 2015).

19. Please see the Grand dictionnaire terminologique of the Office québécois de la langue française: www.granddictionnaire.com.
20. Given the extremely large number of languages that make up the non-official-language group, our study does not offer any projections for any of these languages individually.
21. Even though the census has had a question on mother tongue and on the knowledge of English and French since 1901, most specialists prioritized ethnic origin as the main ethnocultural variable and marker of identity; this continued until the 1961 Census.
22. See page 18 from the Report of the Royal Commission on Bilingualism and Biculturalism. 1967. General Introduction. Book I: The Official Languages. Ottawa, Queen's Printer.

Because of the surge and diversification in international immigration since the mid-1980s, with more and more immigrants coming from non-European countries and a very high majority having a mother tongue other than English or French (other mother tongue),[23] the question arose as to what the approach should be with regard to these new citizens to determine the official language in which they are likely to request services from and communicate with the federal government. Several government actors and stakeholders began to wonder about these individuals' "first official language." The longer these immigrants stay in Canada, the more they tend to use English or French at home or at work, and less than 2% of the Canadian population reports no knowledge of English or French from one census to the next.[24]

At the request of the federal government, the Treasury Board in particular, in 1989 Statistics Canada defined different variants of the notion of "first official language spoken (FOLS)" to estimate the francophone (Canada and each province outside Quebec) and anglophone (Quebec) minority populations. Statistics Canada (1989) stated that "depending on the assumptions used and the order in which the three linguistic variables [knowledge of the official languages, mother tongue and language spoken most often at home] of the [1986] census are taken into account, a number of values may be obtained."

In December 1991, the method, called method I, adopted by the federal government was included in the Official Languages (Communications with and Services to the Public) Regulations. Section 2 of the Regulations describes the method used to determine the FOLS, namely the first of the two variants presented in *Population Estimates by First Official Language Spoken* (Statistics Canada 1989), "which method gives consideration, firstly [and successively], to knowledge of the official languages, secondly, to mother tongue, and thirdly, to language spoken in the home."[25]

As mentioned in this publication, the notion of FOLS comprises two specific dimensions. On the one hand, the epithet "spoken" refers to the ability to conduct a conversation in the first language in question. On the other hand, the adjective "first" has two distinct meanings. Among the population whose mother tongue is English or French, it designates the first language learned in childhood (mother tongue). However, among people whose mother tongue is neither English nor French, the term first official language instead designates their primary official language, the one that they know best at the time of the census or the one spoken most often at home.

Application of the FOLS to the Quebec situation certainly has heuristic value when measuring the language that the other-mother-tongue population is most likely to use in the public sphere, or is more comfortable using to communicate. So, during the Survey on the Vitality of Official-Language Minorities (SVOLM) conducted by Statistics Canada in 2006 in collaboration with 10 or so federal government departments and agencies, it was discovered that of the adults in the census metropolitan area of Montréal, where an overwhelming majority of Quebecers with English as the FOLS is concentrated, 94% of the English FOLS population reported being more comfortable communicating in English than in French, whereas 95% of the French FOLS population reported being more comfortable speaking in this language. Projecting the population up to 2036 based on the criterion of FOLS can therefore provide useful and relevant information, provided that, for a significant portion of the other-mother-tongue population, this criterion does not correspond to main home language but rather to the official language with which it is more comfortable.

1.4 What the Demosim microsimulation model can do

Demosim is a microsimulation model created and maintained by Statistics Canada and used to make demographic projections of many characteristics of Canada's population, for example, generation status, visible minority group, Aboriginal identity and mother tongue.[26]

Like traditional projection models (i.e., cohort-component models), this model uses the components method; however, instead of projecting aggregates of individuals or cohorts, it projects one individual at a time (microsimulation). The base population of the current Demosim version was derived from 2011 National Household Survey (NHS) microdata files, adjusted to take into account net census undercoverage and incompletely enumerated reserves in the NHS.[27]

23. In the 1971 Census, 38 languages were reported. German, Italian, Ukrainian, Aboriginal languages (with the exception of Inuit languages) and Dutch were the five most common non-official mother tongues reported. In 2011, of the 200 languages reported, Punjabi, Chinese (n.o.s.), Spanish, Italian and German were the five most common non-official mother tongues reported.
24. For more information on the diversity of immigrant languages during the 2011 National Household Survey, see Houle (2012).
25. The other proposed variant, called method II, reversed the order in which data on mother tongue and on language spoken most often at home were taken into account (see Statistics Canada 1989).
26. See Statistics Canada (2017b) for the list of projected variables.
27. See Statistics Canada 2017b. Please also refer to text box no. 1 for a general overview of the reasons why language projections were made based on 2011 NHS.

Box 1. Base population: National Household Survey

The data for the base population are taken from the 2011 National Household Survey (NHS), adjusted for net undercoverage. The three language variables projected using Demosim (as well as the variable derived from FOLS) were also asked in the 2011 Census. However, other than the three language variables, the 2011 Census, although sent to every home in Canada, included only a few demographic variables such as sex, date of birth (age) and marital status. Unlike the 2011 NHS, the census that same year did not include any questions on immigrant status or year of immigration, internal migration, highest level of education, etc. The 2011 NHS was thus used as the base population for the details it provides on the composition of the Canadian population at the beginning of the projection period.

Cohort models have generally been used to project only one language variable at a time, either mother tongue or language spoken most often at home. However, with the current version of Demosim, we can project three language variables simultaneously and generate a fourth language variable during the projection. Mother tongue, language spoken most often at home, knowledge of official languages and FOLS are the four variables projected by Demosim.

Microsimulation makes it possible to project these language variables, which, thanks to the available data sources and the estimation methods used, are supported by numerous other sociodemographic variables. The projection parameters for changes in each of the three language variables are calculated, for the most part, using logistic regressions (binomial and multinomial), which take into account the effect of many sociodemographic (schooling, age, generation status, etc.) variables that are projected at the same time.

In our study, the approach to project the language variables comprises the following elements:

- Two sets of models enable the initial assignment (or transmission) of language characteristics to newborns based on the mother's[28] characteristics (intergenerational linguistic mobility), namely mother tongue, language spoken most often at home and knowledge of official languages. Mother tongue and language spoken most often at home are simultaneously transmitted to the child through a first set of models, whereas knowledge of official languages is assigned through the second set of models.[29]
- Two other sets of models measure individual language changes from birth to age 50 (intragenerational linguistic mobility), i.e., changes in the language spoken most often at home and changes in the knowledge of official languages.
- These four series of models are stratified by region of residence, immigrant status, language spoken most often at home and, if applicable (for transitions), mother tongue and knowledge of official languages. Stratification generates more homogeneous subpopulations and enables a greater number of interactions between these subpopulations and the models' independent variables.
- Once assigned to children at birth, mother tongue does not change during an individual's life.
- Language spoken most often at home and knowledge of official languages can change over a lifetime, producing language transfers (or shifts), proficiency in the official languages, English–French bilingualism or unilingualism.
- The independent variables taken into account by the models include age, sex, education level, region of residence, English–French bilingualism, mother tongue, generation and, specifically for immigrants, duration of residence in Canada, age at landing and region of birth. These variables determine the parameters for the linguistic mobility of each subpopulation defined at the stratification stage.
- The intrinsic correlation between the language variables is taken into account by the stratification by language characteristics and the inclusion of mother tongue and/or English–French bilingualism in the list of independent variables of each initial assignment model (transmission) and transition model.
- Demosim calculates and updates the FOLS during the projection based on knowledge of official languages, mother tongue and language spoken most often at home.

28. Parameters of intergenerational transmission allow to take into account the type of union through the mother's characteristics. For more information, see Statistics Canada, 2017b.
29. For more information on how characteristics are assigned to new immigrants, readers are invited to consult Statistics Canada, 2017b.

The microsimulation approach therefore simultaneously and consistently projects a very large number of characteristics, including four language characteristics, for each individual. This approach captures changes in the population's demographic composition that occur during the projection, and takes into account the differential behaviours of individuals based on their characteristics.

The entire estimation mechanism for linguistic mobility is made possible by access to 2011 NHS microdata on the one hand (see Box 2) and, on the other hand, by the availability to Statistics Canada of record linkages for the 2001 and 2006 censuses as well as record linkages for the 2006 and 2011 censuses. The NHS data are used to assign language characteristics to newborns, and the linkages make it possible to identify the main individual language change flows (e.g., for a given individual, learning a language, transitioning toward a new main home language, etc.). The 2001–2006 linkage made it possible to model the changes in the language spoken most often at home, whereas the 2006–2011 linkage was used to model changes in the knowledge of official languages (see Box 3).

Box 2 Comparability of the 2011 NHS language data

The Methodological Document on the 2011 Census Language Data (Houle and Corbeil 2013) brought to light the fact that compared with the 2001 and 2006 censuses (long-form questionnaires), the 2011 Census underestimates the relative share of mother tongues and languages other than English or French spoken most often at home. In 2011, basic language information was collected with a short questionnaire that had only 10 questions, instead of the 53 questions asked in the long-form questionnaire in 2006, which had this unexpected effect on the answers to the questions on mother tongue and language spoken most often at home. However, knowledge of official languages does not seem to have been affected by the questionnaire change, nor was the derived variable of FOLS.

As the NHS language counts were weighted to reflect the 2011 Census counts, the NHS data on mother tongue and language spoken most often at home also produce numbers that cannot be compared with previous censuses. Though the NHS, which is used as the base population for Demosim, was corrected for net undercoverage, it was not corrected to make the language variables comparable with previous censuses. However, we made sure that the projection of language variables was consistent with past trends, regardless of the bias caused by the questionnaire change between 2006 and 2011 (see Box 3).

To compensate for the comparability problems, we examined the changes observed between 2001 and 2006. This approach stemmed from the question we asked ourselves of whether the 2011 NHS could be used without risk to estimate the parameters of the transmission of language characteristics from mothers to newborns. These parameters were calculated with the 2006 Census and the 2011 NHS, respectively, and the results showed there was no significant difference between the two: the tests conducted using either parameter set showed no major difference in the projected numbers for the different language groups.

Box 3 Using linkages to estimate intragenerational mobility parameters

The transition rates for the language spoken most often at home and knowledge of official languages were estimated using regression models. Two separate census linkages were used for this purpose: a linkage between the 2001 and 2006 censuses, and one between the 2006 and 2011 censuses. For the transitions in the language spoken most often at home, we used the linkage between the 2001 and 2006 censuses and not the one between 2006 and 2011 because of the gaps in the comparability of the results for this variable between 2006 and 2011.

However, the linkage between the 2006 and 2011 censuses was used to estimate the transition parameters for knowledge of official languages, despite the questionnaire difference. This linkage has two major advantages compared with the linkage between the 2001 and 2006 censuses. First, the linkage method and quality are superior: the resulting linkage rate was 70%. Second, because the 2011 Census (short-form questionnaire) had the three language variables of interest to us, we were able to link the 2006 long-form questionnaire and the 2011 short questionnaire, which made it possible to considerably increase the linked population size to 4.5 million people. A test with the linkage between 2001 and 2006 confirmed the soundness of this choice.

The linkages make it possible to distinguish many single flows of linguistic mobility (intra- and intergenerational, acquisition or loss of knowledge of an official language) made up of a combination of two origin language characteristics observed during a given census and a destination language characteristic observed five years later at the next census.[30] Linkages make it possible to isolate all the gross mobility flows and disaggregate the population into subgroups that may display their own language practice behaviours. As Termote said so well, "the more the population is disaggregated into homogeneous categories, the more reliable the forecast will be," [translation] (Termote 2011, p. 71), which is perfectly relevant for subpopulations defined by their language characteristics.

Intragenerational mobility parameters were estimated using 20 regression models for the mobility of language spoken most often at home representing 90% of all transitions, and 28 models for the mobility (acquisition or loss) of knowledge of official languages making up 97% of all individual transitions.

What holds true for language changes is also true for the assignment of language characteristics to children at birth (transmission). Mother-child intergenerational flows were disaggregated much like the language change flows, and for the same reasons. Modelling for these flows more or less involves the same independent variables as the change models, which ensures consistency between the two forms of mobility. Overall, the parameters for the transmission of home language and mother tongue were estimated using 10 regression models, and those for initial knowledge of official languages, with 12 regression models.

Compared with the cohort method, microsimulation considerably increases the analytical potential of projections, especially the ability to target the evolution of language characteristics in certain subpopulations (e.g., French-speaking immigrants living outside Quebec) or certain phenomena (e.g., language transfers). Microsimulation also offers more possibilities and flexibility for the development of assumptions and scenarios on future population trends.

1.5 Scenarios analyzed in our study

For our language projections, 16 scenarios were analyzed, including nine base scenarios largely modelled on those presented in the report *Immigration and Diversity: Population Projections for Canada and its Regions, 2011 to 2036* and six scenarios prepared specifically for this language projection exercise which will support certain specific aspects of the analysis.

The assumptions of the nine base scenarios analyzed in our study are presented in Table 1.1.[31] These nine scenarios have a different reference period for the measurement of internal migration than the scenarios used for the diversity and immigration projection. In the diversity and immigration projection, internal migration was derived from 2001 and 2006 census data and the 2011 National Household Survey (NHS). In the language projections, internal migration was derived from the 2006 Census and the NHS only. The reason for this is, from 1996 to 2001, internal mobility was exceptional for Quebec's French-speaking populations. Indeed, during this period, the economic context prompted a large number of French-mother-tongue Quebecers to leave the province and settle mainly in Ontario, Alberta and British Columbia.[32] This exceptional internal migration pattern from 1996 to 2001 led us to develop a specific scenario for it (see below).

The reference scenario (Scenario 1.1) and the low and high immigration scenarios (1.3 and 1.4) are used extensively in this report. The base scenarios also include four other scenarios that differ from the reference scenario by only one component: immigration level (Scenario 1.2, zero immigration after 2016), geographic distribution of immigrants (Scenarios 1.5 and 1.6) and country of origin of immigrants (Scenario 1.7). These last four scenarios are analyzed in Chapter 3. Immigration is one of the demographic factors that has a major influence on the demographic evolution of language groups in Canada (see Chapter 2). The zero immigration after 2016 scenario is only theoretical and implausible, but it makes it possible to illustrate the "absolute" effect of the international immigration phenomenon on the evolution of Canada's language portrait.

30. Changes in home language are estimated for subgroups made up of a given mother tongue and language spoken most often at home, whereas changes in knowledge of official languages are estimated for subgroups made up of a language spoken most often at home and of one of the knowledge of official languages categories (English only, French only, English and French, neither English nor French).
31. These scenarios and the assumptions for the different components that combine to form these scenarios are explained in more detail in the report *Immigration and Diversity: Population Projections for Canada and its Regions, 2011 to 2036 (Statistics Canada 2017a).*
32. Chapter 2 presents the historical evolution of interprovincial migration of language groups in greater detail.

Two additional scenarios have an effect on not only the international immigration component, but also the fertility level and life expectancy, resulting in (Scenarios 1.8 and 1.9) a weak growth scenario and a strong growth scenario. These two scenarios are also analyzed in Chapter 3.

Scenarios 1.10 and 1.11 illustrate the effect of changes in the internal migration pattern. Scenario 1.10 illustrates that, relative to the surrounding periods, internal migration from 1996 to 2001 was characterized by an increase in interprovincial migration of French-speaking people from Quebec to the rest of Canada. This scenario, which is favourable to French-speaking populations outside Quebec even though it was exceptional in the 25 years before 2011, has a certain heuristic value given that it occurred just 15 or so years prior; it therefore does not seem impossible that it would repeat itself under certain conditions. Scenario 1.11 incorporates internal migration for the periods 1996 to 2001, 2001 to 2006 and 2006 to 2011.

Note that "the reference scenario is designated as such not because of its better predictive capacity (…), but because it is a central scenario on which the other scenarios were constructed." (Statistics Canada 2017a, p. 19) The reference scenario combines, among other things, an average immigration level of 8.3 immigrants per 1,000 population,[33] a provincial or territorial distribution of new immigrants upon arrival (representative of the distribution observed between July 2010 and June 2015), medium emigration, a medium fertility rate of 1.67 children per woman, medium growth in life expectancy, internal migration models representative of the average observed during the 2001-to-2006 and 2006-to-2011 periods, changes in language spoken most often at home observed during the 2001-to-2006 period and, lastly, changes in the knowledge of official languages observed during the 2006-to-2011 period. Furthermore, note that the transmission or assignment of language characteristics to newborns, i.e., mother tongue, language spoken most often at home and knowledge of official languages, is based on the 2011 NHS.

33. While the literature on the evolution of immigration in Canada often refers to the number of immigrants admitted each year, assumptions on the level of immigration are expressed here, as well as in the majority of work carried out in the area of population projections, as a rate of per 1,000 population. This stems from the fact that a constant rate of immigrants, i.e., 8.3 immigrants per 1,000 population, will not represent the same number of immigrants every year since this number will depend on the size of the Canadian population each year. Thus, a rate of 8.3 immigrants per 1,000 population in 2011 represented 277,000 immigrants, while in 2036 it would represent close to 350,000 immigrants per year.

Table 1.1
Main assumptions of the base scenarios analyzed in the report

Scenario	Immigration	Fertility	Life expectancy	Internal migration
1.1. Reference	Composition by country of birth: 2010/11 to 2014-15. Geographic distribution of immigrants upon arrival: 2010/11 to 2014-15. Rate: 8.33 / 1,000	Total fertility rate (TRF) of 1.67.Constant differential fertility	Average growth.Constant differential mortality	Estimated average rate 2001 and 2006 and 2006 and 2011
1.2. Zero immigration	Reference for the period 2011 to 2016. No immigration from 2017 to 2036			
1.3. Low immigration	Reference, except: Rate: 5.0 / 1,000			
1.4. High immigration	Reference, except: Rate: 10.0 / 1,000			
1.5. Alternative geographic distribution of immigrants upon arrival (2005/06 to 2009/10)	Reference, except: Geographic distribution of immigrants upon arrival: 2005/06 to 2009/10			
1.6. Alternative geographic distribution of immigrants upon arrival (2000/01 to 2004/05)	Reference, except: Geographic distribution of immigrants upon arrival: 2000/01 to 2004/05			
1.7. Alternative distribution of immigrants by country of birth (2005/06 to 2009/10)	Reference, except: Composition by country of birth: 2005/06 to 2009/10			
1.8. Low growth	Reference, except: Rate: 5.0 / 1,000	TRF of 1.53. Constant differential fertility	Low growth. Constant differential mortality	
1.9. Strong growth	Reference, except: Rate: 10.0 / 1,000	TRF of 1.88. Constant differential fertility Constant differential fertility	Strong growth. Constant differential mortality	
1.10 Internal migration patterns based on 2001	Reference	Reference	Reference	Estimated average rate between 1996 and 2001
1.11. Internal migration patterns based on 2001, 2006 and 2011	Reference	Reference	Reference	Estimated average rate between 1996 and 2001, 2001 and 2006 and 2006 and 2011

Five other scenarios, based on the assumptions of the reference scenario, were developed specifically for the language projections. These scenarios are analyzed in Chapters 3 and 4.

These scenarios differ from the reference scenario only by one component: the transition rate for the knowledge of official languages (Scenarios 2.1, 2.2 and 2.3), the language composition of immigration (Scenarios 2.4) and the intergenerational transmission rate of French outside Quebec (Scenario 2.5). Table 1.2 presents a summary description of each of the five scenarios.

The purpose of the English–French bilingualism scenarios (Scenarios 2.1 to 2.3) is to test the effect that certain changes in acquisition and retention rates (which could result, for example, from an increase in the number of students registered in a French-as-second-language program and from measures designed to promote a higher maintenance of second language skills) could have on the evolution of English–French bilingualism in Canada between now and 2036. With scenario 2.1, we first examined the assumption under which learning rate of the other official language could double among children aged 5 to 14 in Canada outside Quebec. We know that bilingualism is growing during this period of life, and doubling the odds of becoming bilingual, or at least increasing them, is not in itself totally unrealistic.

We then asked ourselves, with Scenario 2.2, to what extent maintaining learned bilingualism among English-speakers after age 18 could contribute to raising the entire Canadian population's level of bilingualism. Lepage and Corbeil (2013) showed that bilingualism peaks when young English-speakers outside Quebec attend school, but this skill then erodes as they age. Certain measures or mechanisms could undoubtedly encourage more young English-speaking adults in Canada outside Quebec to maintain their English–French bilingualism. Chapter 5

discusses the significant increase in French-immersion program attendance in Canada outside Quebec, which tends to lead to higher retention of French skills than attending regular second-language programs.

Scenario 2.3 combines hypotheses developed specifically for scenarios 2.1 and 2.2 presented above. It is therefore a scenario that is generally favorable to the growth of bilingualism in the country.

Scenario 2.4 is a simulation of the number of French-speaking immigrants (by first official language spoken) required each year from 2017 to 2036 to hold the demographic weight of minority French-speaking populations in each province constant at the 2016 level. We calculated the number of immigrants needed to stop the weight of the French-speaking population, non-immigrants and immigrants combined, from declining starting from a reference point in time. As immigration from 2011 to 2016 is already complete and has been integrated into Demosim, we began our simulation as of 2017.

Scenario 2.5 refers to changes in behaviour in the French-speaking populations in Canada outside Quebec. We know that language transfers to English are significant in these populations and that transmission of French to children is incomplete (see Chapter 2). If the French-speaking population in Canada outside Quebec had almost complete transmission rate to French, what effect would this have on the demographic dynamics of their community? An almost complete transmission level equals the transmission rate observed among endogamous couples of over 90%.[34] This scenario is purely theoretical, as such behaviours change very slowly. Nonetheless, it makes it possible to estimate the importance of the phenomenon of intergenerational linguistic mobility on the evolution of the French-language population in Canada outside Quebec by 2036.

Table 1.2
Main assumptions of the 5 scenarios specifically developed for the language projections

Scenario	Description
2.1. Doubling the odds of the population aged 5 to 14 becoming bilingual	The odds of becoming bilingual estimated by the change models for the knowledge of official languages are doubled among the population aged 5 to 14.
2.2. Retention of bilingualism among the English-speaking population outside Quebec from 17 years of age	From 17 years of age, the English FOLS population residing outside Quebec and who are bilingual remain so permanently. These people cannot make a transition from bilingual to unilingual.
2.3. Doubling the odds of becoming bilingual and retention of bilingualism	Combination of the two previous scenarios.
2.4 Simulation of the number of immigrants whose FOLS is French needed to maintain the weight of the French-speaking populations (FOLS) outside Quebec	Calculation of the number of immigrants needed to stop the weight of the French FOLS population outside Quebec from declining, from 2017. The simulation modifies the language composition of immigration without increasing the number of immigrants in relation to the reference scenario, with a view to generating the number of French-speaking immigrants sought. Because the proportion of the French FOLS population is not projected downward between 2017 and 2036, Newfoundland and Labrador and the territories are excluded from the simulation.
2.5. Almost complete transmission rates applied to the French-speaking populations in Canada excluding Quebec	The almost complete language transmission rates of mothers whose language spoken most often at home is English or French were applied to mothers with the same language profile in Canada outside Quebec. The transmission rates of mothers with a non-official home language or English- or French-speaking mothers are unchanged.

Note: For each scenario, the assumptions relating to the other components are identical to the reference scenario assumptions.

34. As we pointed out earlier, the reference scenario takes into account the rate of French transmission observed in the 2011 NHS. Although Demosim cannot project the composition of endogamous or exogamous linguistic unions, the transmission rates used indirectly take into account the differential intergenerational mobility observed in mothers living in exogamous situations or otherwise.

Chapter 2 Factors affecting past and recent changes in language groups in Canada

The evolution of Canada's language situation and dynamics depends on a number of factors which, for the most part, are the same as those that drive the population's general demographic evolution. Consequently, the evolution of language groups depends on natural increase (births minus deaths), internal migration (interprovincial and intraprovincial) and international migration (immigration minus emigration). In addition to the above factors, there is linguistic mobility, which encompasses intergenerational (transmission of a language to children) and intragenerational (language transfer or substitution in an individual) linguistic mobility.

This section of the study offers an overview of the relatively recent historical evolution of each of these factors and the part they play in the evolution of the country's demolinguistic dynamics and the major language groups. First, we examine the differences in the evolution of fertility rates by language group, then the linguistic continuity from generation to generation. Because of the influence of these two factors on the age distribution (and therefore aging) of language groups, we then present a portrait of these age structures by language group. Lastly, we discuss international and interprovincial migration as well as language transfers.

The study of the changes in language groups and dynamics has traditionally been based on the criterion of mother tongue or home language to define language communities. In keeping with this tradition, this chapter mainly presents information based on the mother tongue criterion. However, given that in addition to these two variables, we also have information on knowledge of official languages and that it is among Demosim's variables, we also present information about Canadians' first official language spoken (FOLS) when relevant.

Lastly, the approach used in this chapter will focus on the evolution of these factors across the country, in Quebec and in Canada outside Quebec. When relevant, we will present provincial information.

2.1 Fertility

When combined with intergenerational linguistic mobility, fertility enables us to consider one of the key factors in demolinguistic evolution: linguistic reproduction (Lachapelle and Lepage 2010). This factor helps to gauge a large part of the evolution of the age structure (or age distribution) of the country's language groups.

In Canada, the French-speaking population has historically had higher fertility rates than other language groups, at least until the mid-1960s.[35] Unlike other groups, the growth of the French-speaking population was long driven by natural increase rather than by international immigration.

While the total fertility rate (TFR), or the average number of children per woman, of the French-mother-tongue population in Canada was 3.66 during the five-year period from 1961 to 1966, it fell below the replacement level of 2.10 during the five-year period from 1971 to 1976 (1.85).[36] By comparison, the TFR of the English-mother-tongue population was a little lower between 1961 and 1966 (3.48) and declined to 1.95 a decade later. As for the population with an other mother tongue—whose TFR was very similar to the English-speaking population's TFR during the first period—it was only as of the 1981-to-1986 period that its fertility rate dropped below the level of two children per woman. Since then, the TFR of the French-speaking population has hovered around 1.5, except for the 1991-to-1996 period, when it was 1.64. The TFR for the English-speaking population was around 1.6 to 1.7, and the TFR for the other-mother-tongue population hovered around 1.8. As Table 2.1 shows, over the year preceding the 2011 Census and NHS, the TFRs of these three groups were 1.67, 1.59 and 1.85, respectively.[37]

Differential fertility by language group also varied differently in Quebec versus Canada outside Quebec. Aside from the decade from 1991 to 2001, French-mother-tongue women in Quebec generally had slightly lower fertility rates than their counterparts in other provinces. These gaps were quite significant between 1956 and 1971, insofar as the TFR fell from 4.2 to 2.3 in Quebec, while in the other provinces, the TFR fell from 5.0, or even 6.0, to close to 3.0. Similarly, while the TFR of francophone women in Quebec and Ontario fell below the replacement level (2.1)

35. Because only Quebec collects annual statistics on civil status by language (number of births by mother's language and age), we need to use census data to get an overview of fertility by language group in the country. See Lachapelle and Lepage (2010) and Termote (2011).
36. Lachapelle and Lepage (2010).
37. Unlike the fertility rates for five-year periods prior to 2001, which are based on data on the number of children under age 5 from each census, the fertility rates presented in Table 2.1 were calculated using data on the number of children under age 1 from the 2011 Census and NHS and the 2006 and 2001 censuses. The results produced through these two methods are very similar.

beginning in the period from 1971 to 1976, it began decreasing in the other provinces as of 1976—and from 1986 in Saskatchewan. In general, the drop in fertility among francophone women in Canada outside Quebec since the mid-1950s was more drastic than it was in Quebec. In almost 20 years (beginning with the 1956-to-1961 period), the average number of children per woman decreased nearly threefold.

Since 2001, the average number of children per French-mother-tongue woman in Canada outside Quebec rose slightly, to 1.65 between 2010 and 2011. The change was quite similar to that observed among francophone Quebeckers, whose TFR reached 1.67 during the same period.

The TFR among English-mother-tongue women in provinces outside Quebec was generally lower than their francophone counterparts until the early 1980s. The situation reversed beginning in the period of 1981 to 1986 because of the faster decline in fertility among the latter group. Between 2010 and 2011, the TFR among anglophone women outside Quebec was 1.59. Meanwhile, anglophone women in Quebec have historically had a lower fertility rate than that of their counterparts in other provinces and territories. Between 2010 and 2011, this group's TFR was 1.46.

Lastly, while the average number of children per woman whose mother tongue is other than English or French was lower than that of the two former groups between 1956 and 1966, it was systematically higher because of changes in source countries for immigration and, to a lesser extent, the high fertility of Aboriginal women. Furthermore, while the TFR of other-mother-tongue women in Quebec was long below that of their counterparts in Canada outside Quebec, the situation began to reverse in the 1991-to-1996 period.[38] Between 2010 and 2011, the former had a TFR of 2.11, compared with 1.8 for the latter.

Table 2.1 shows the TFR by women's mother tongue and FOLS for Canada, Quebec and Canada outside Quebec in the year prior to each Census from 2001 to 2011. It shows that because of their higher fertility rate, other-mother-tongue women drive up the TFR of anglophone and francophone women when using FOLS as the definition criterion. Furthermore, the TFR is increasing most among the English-speaking population of Quebec if one takes into account the FOLS criterion to define English-speaking and French-speaking populations. This primarily stems from the fact that the proportion of other-mother-tongue individuals within the population for whom English is the FOLS is the larger of the language groups studied here.

Table 2.1
Total fertility rate according to mother tongue and first official language spoken, Canada, Quebec and Canada outside Quebec, 2001 to 2011

	Canada			Quebec			Canada outside Quebec		
	2001	2006	2011	2001	2006	2011	2001	2006	2011
	fertility rate[1]								
Mother tongue									
English or English and other language	1.52	1.58	1.59	1.40	1.46	1.46	1.52	1.59	1.59
French or French and other language	1.40	1.51	1.67	1.41	1.50	1.67	1.41	1.55	1.65
Other languages only	1.78	1.84	1.85	1.87	2.09	2.11	1.77	1.79	1.80
First official language spoken									
English	1.57	1.63	1.64	1.55	1.67	1.63	1.57	1.63	1.64
French	1.43	1.55	1.72	1.43	1.55	1.73	1.43	1.53	1.69
Neither English nor French	2.60	2.94	2.62	3.45	3.79	3.89	2.51	2.82	2.40

1. See the glossary for a complete definition of this indicator.
Note: The population has been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 2001 and 2006 and 2011 National Household Survey.

2.2 Intergenerational linguistic continuity

As Lachapelle and Lepage (2010, p. 84) point out, fertility below the replacement level, even in the absence of migration,

"does not necessarily, in the short or medium term, lead to a decline in population due, first, to a decrease in mortality and, second, to a favourable age structure maintained for some decades by a population with a strong fertility rate in the recent past."

38. Lachapelle and Lepage (2010).

In addition to the low fertility rate, the incomplete transmission or non-transmission of the mother's (or father's) mother tongue to children generally contributes to the aging of French-speaking populations in Canada outside Quebec.

Taking into account children under the age of five living in a two-parent or single-parent family headed by a woman—which represents over 97% of families—and looking at the ratio between the number of children with a given mother tongue and the number of children whose mother has that mother tongue, we can calculate an intergenerational language continuity index (ILCI) (Lachapelle and Lepage 2010, p. 86).

For any given language, an ILCI higher than 1 means that there are more children to whom the language has been transmitted as a mother tongue than children whose mother has that mother tongue. This also means that this language was transmitted not only by mothers for whom it is their mother tongue, but also by mothers for whom it is not.[39] If we take the example of English in Canada, the continuity index is higher than 1 because English was transmitted as a mother tongue to children whose mother had either French or another language as mother tongue. Conversely, an ILCI below 1 means that a certain proportion of mothers have not transmitted that language as a mother tongue to their children. Except for English-speaking Quebeckers, this is a phenomenon generally observed among minority groups and populations.

Table 2.2 shows that across the country, between 2006 and 2011, the intergenerational continuity index of French between mothers and children is very close to 1, whereas it is around 1.21 for English and 0.62 for other languages. In other words, these recent results mean that there are 21% more English-mother-tongue children than children whose mother has English as a mother tongue, and that there are 38% fewer other-mother-tongue children than children whose mother has a mother tongue other than English or French. These children have therefore been transmitted either English or French.

In Canada outside Quebec, the French-mother-tongue ILCI was 0.79 from 2006 to 2011. This level has generally hovered around 0.70 for the past half century, although it has been increasing somewhat since the 1990s. This increase shows that despite a significant rise in exogamy[40] among the francophone population for more than 40 years, there has been a slight increase in the transmission of French to children. This is chiefly explained by the increase in knowledge of French among spouses in exogamous couples for whom French is not their mother tongue (Corbeil and Lafrenière 2010; Lachapelle and Lepage 2010). However, the number of French-mother-tongue children outside Quebec for the 2006 to 2011 period is nevertheless 21% lower than the number of children whose mother has French as her mother tongue. This proportion is obviously much higher outside New Brunswick and Ontario.

The rate of non-transmission of other mother tongues (other than English or French) to children has always been higher in Canada outside Quebec than in Quebec. Until the mid-1980s, in Canada outside Quebec, roughly one in two children whose mother had a mother tongue other than English or French was transmitted this language; in Quebec it was seven or even eight children out of ten.[41] During the 2006-to-2011 period, the ILCI for non-official languages was 0.61 in Canada outside Quebec and 0.65 in Quebec.

Lastly, Table 2.2 reflects the fact that despite its minority status in Quebec and strong concentration on the Island of Montréal, the intergenerational transmission rate of English was historically fairly similar to that outside the province, at least until the mid-1970s. The decline in this index between 1976 and 1986 is probably due to the many anglophone Quebeckers who moved to other provinces during this time (negative net migration of 148,000).[42] Beginning in 1986, the ILCI of English as a mother tongue gradually increased, exceeding that of other provinces and territories. In 2011, this index was 1.29 in Quebec, compared with 1.21 in Canada outside Quebec. This means that there were close to 29% more English-mother-tongue children than children whose mother had English as a mother tongue. Historically always higher than that of French and other languages, this index points to the appeal of English, not only in Canada, but also on the continent and internationally.

39. More precisely, the index reflects a net balance. As such, for a given language, an index above 1 does not necessarily mean that all mothers with that mother tongue transmitted it to their children, but rather that the number of women who transmitted it without it being their mother tongue exceeds the number who have this language as mother tongue and did not transmit it to their children.
40. In this context, exogamous (or mixed-language) couples means unions in which the spouses do not have the same mother tongue.
41. One of the explanations for the higher transmission rate of non-official languages in Quebec could be the historically more limited appeal of French, the majority language, among the other-mother-tongue population, particularly until the mid-1970s and before the adoption of the Charter of the French Language (see Lachapelle and Lepage 2010).
42. This does not rule out a constant transmission rate over time. For example, if a high percentage of other-mother-tongue women transmit English and their demographic weight rises more rapidly, then a consistent transmission rate will result in a rising ILCI for English. This also applies to French.

Table 2.2
Intergenerational language continuity index, Canada, Quebec and Canada outside Quebec, 1971 to 2011

	Language		
	English	French	Other
Five year period	intergenerational language continuity index[1]		
Canada			
1971 to 1976	1.16	0.95	0.45
1976 to 1981	1.13	0.97	0.51
1981 to 1986	1.11	0.97	0.52
1986 to 1991	1.12	0.97	0.57
1991 to 1996	1.13	0.98	0.61
1996 to 2001	1.15	1.00	0.61
2001 to 2006	1.16	1.00	0.66
2006 to 2011	1.21	1.06	0.62
Quebec			
1971 to 1976	1.15	1.01	0.69
1976 to 1981	1.09	1.01	0.71
1981 to 1986	1.07	1.02	0.72
1986 to 1991	1.12	1.03	0.70
1991 to 1996	1.14	1.03	0.71
1996 to 2001	1.18	1.05	0.67
2001 to 2006	1.22	1.05	0.72
2006 to 2011	1.29	1.10	0.65
Canada outside Quebec			
1971 to 1976	1.16	0.69	0.42
1976 to 1981	1.13	0.73	0.48
1981 to 1986	1.11	0.74	0.49
1986 to 1991	1.12	0.70	0.55
1991 to 1996	1.13	0.69	0.59
1996 to 2001	1.15	0.72	0.60
2001 to 2006	1.15	0.73	0.65
2006 to 2011	1.21	0.79	0.61

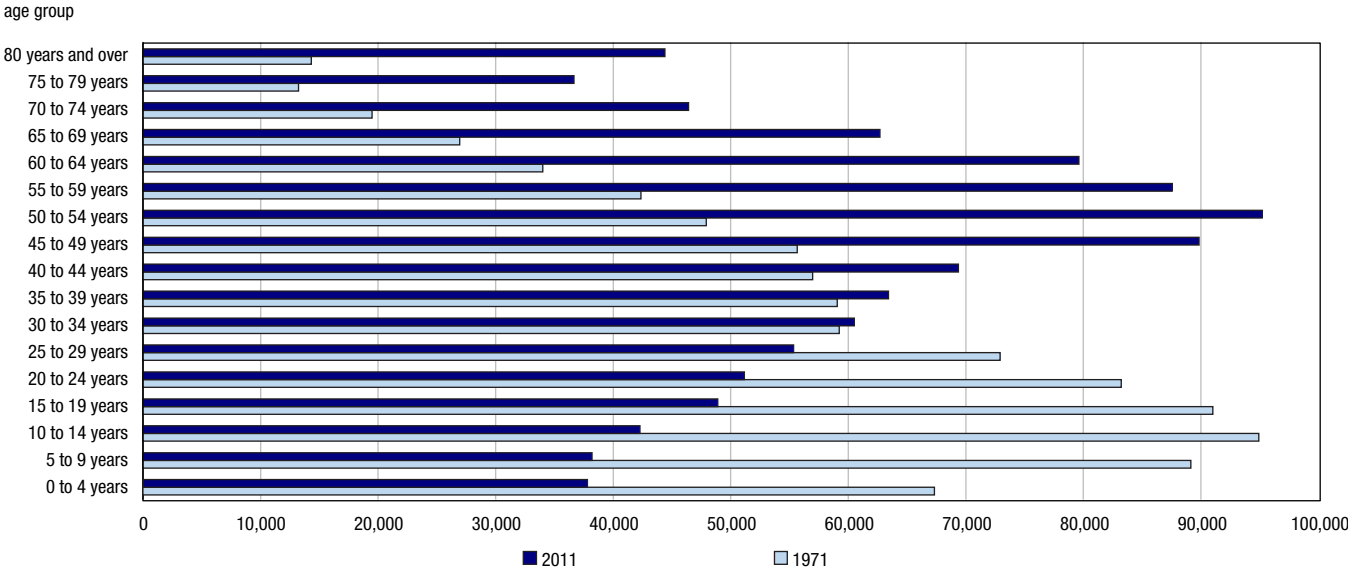
1. See the glossary for a complete definition of this indicator.
Sources: Lachapelle, Réjean and Jean-François Lepage. 2010. Languages in Canada, *2006 Census*. Canadian Heritage and Statistics Canada, Canadian Heritage catalogue nº. CH3-2/8-2010, and calculations by the authors for the 2011 Census of population.

2.3 Population age distribution

The age structure or distribution of a given language population is the result of past demographic and demolinguistic phenomena and ordinarily offers an overview of certain aspects of the future evolution of that population.

For Canada outside Quebec, Chart 2.1 reflects the fact that the age structure of the French-mother-tongue population has completely transformed since 1971. This population is now older, not only because of a TFR below the replacement level, but also because of incomplete transmission of French from parents to children (ILCI of 0.7). This Chart shows that the size of the baby-boomer generation (people who were between the ages of 5 and 25 in 1971), was fairly similar in 2011, at which point this generation was 45 to 70 years of age. However, the subsequent generation did not fully replace this cohort.

Chart 2.1
Age distribution of the population with French as their mother tongue, Canada outside Quebec, 1971 and 2011

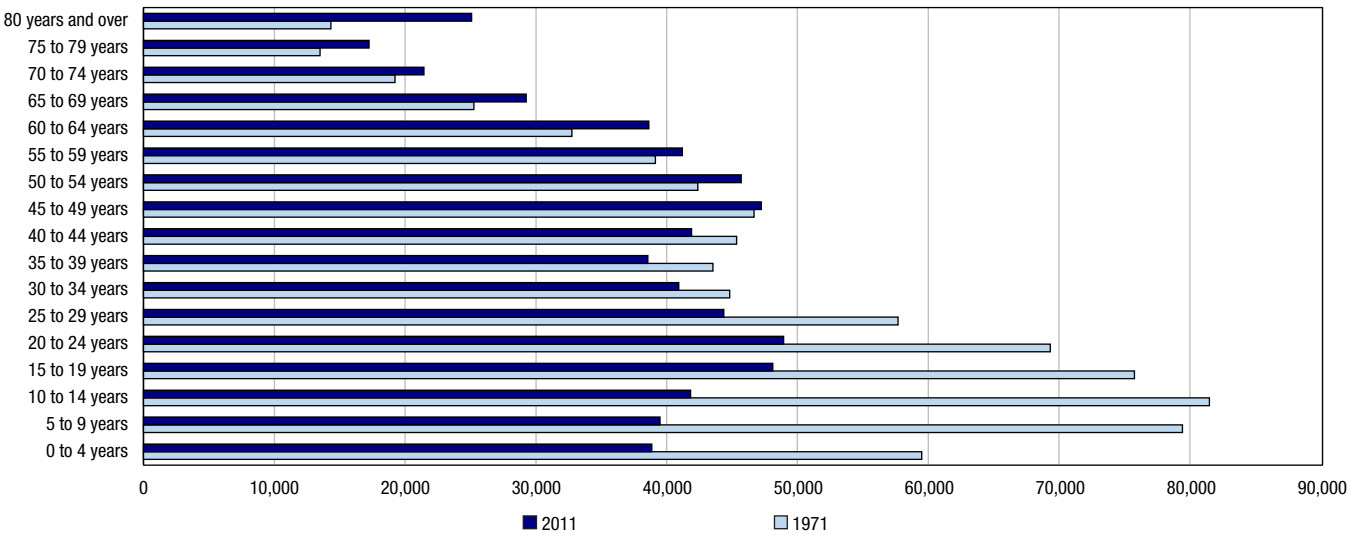


Sources: Statistics Canada, censuses of population, 1971 and 2011.

The English-mother-tongue population in Canada outside Quebec, as was noted in light of the change in fertility rates, has not been spared from aging. Nonetheless, with an ILCI somewhere between 1.11 and 1.21 for over a half century, and because of international immigration, it has a population of people under 30 considerably larger than that of the French-mother-tongue population.

In Quebec, the evolution of the age distribution of the English-mother-tongue population was very different from that of the French-speaking population in Canada outside Quebec. While in 1971 their age distribution was fairly similar, major net migration losses among the anglophone population between 1971 and 2001, and particularly 1971 to 1986, meant that the 1971 baby-boomer generation had shrunk by around 40% in 2011 (Chart 2.2). Furthermore, these major net migration losses were not completely offset by high intergenerational language continuity rates.

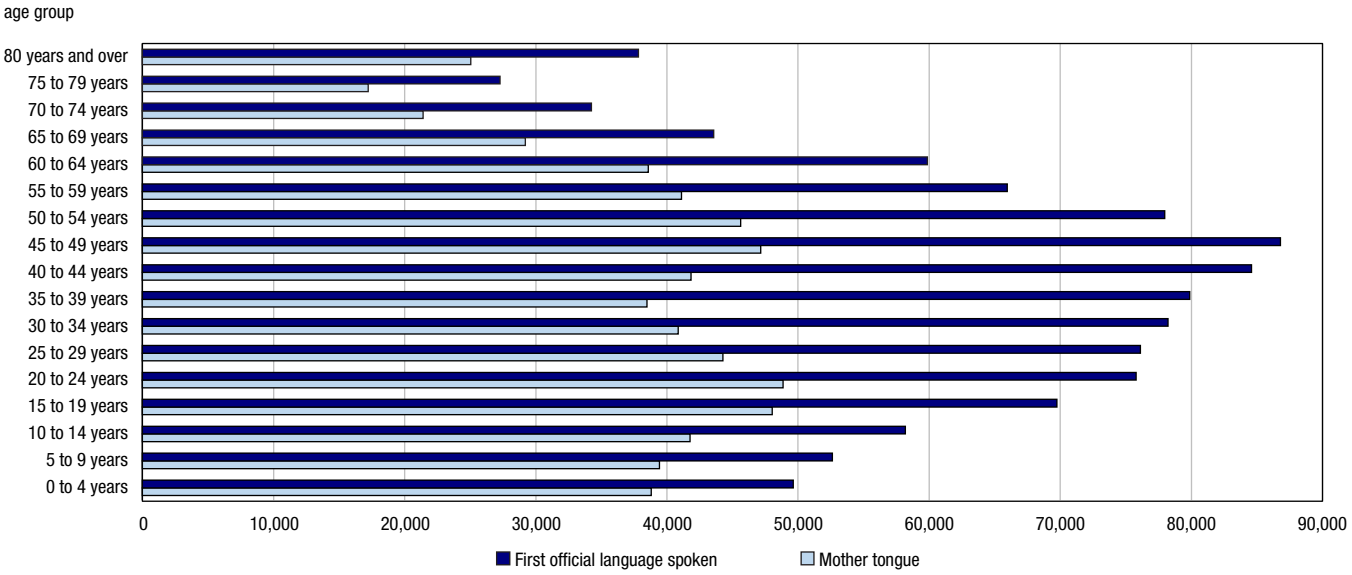
Chart 2.2
Age distribution of the population with English as their mother tongue, Quebec, 1971 and 2011



Sources: Statistics Canada, censuses of population, 1971 and 2011.

The age distributions of Canada's major language groups can vary depending on the criteria used to define them, particularly when it comes to official language minorities. For example, the age structure of the English FOLS population in Quebec is very different from that of the English-mother-tongue population. As Chart 2.3 shows, the first group is much larger than the second. This is mainly due to the many cases of language transfers and substitutions in favour of that language, combined with the consequences of major net migration losses in the English-mother-tongue population during the 1970s. It is also due to the fact that, notwithstanding the significant reversal observed since the mid-1980s, many immigrants only speak English when they arrive in Quebec. Lastly, the average age of immigrants upon arrival combined with the fact that many English FOLS immigrants' mother tongue is not English partly explains the major size difference between the populations depending which of these definition criteria is used, for the 25-to-55 age groups.

Chart 2.3
Age distribution of the population with English as their mother tongue and the population with English as their first official language spoken, Quebec, 2011



Source: Statistics Canada, 2011 Census of Population.

Outside Quebec, given that the French FOLS population largely has French as a mother tongue, there is relatively little difference in the age distribution of the francophone population defined by either of these criteria. In Canada outside Quebec, although 22% of the English FOLS population does not have English as a mother tongue, the age distribution of the two populations is fairly similar.

Note also that 92% of the French FOLS population in Quebec has French as a mother tongue. The age distribution according to either criteria is fairly similar, despite a higher representation among the 30-to-49 age groups within the French FOLS population. This result is mainly due to the fact that, as is the case in Canada outside Quebec, immigrants who settle in Quebec are over-represented among this age group.

2.4 International immigration

We previously noted that international immigration has a strong influence on the evolution of the country's language situation and dynamics. The report *Immigration and Diversity: Population Projections for Canada and its Regions, 2011 to 2036* shows the growth in the immigrant population over the decades.

In the 30 years between the 1981 Census and the 2011 National Household Survey, the population born in Canada has grown by almost 5.5 million, for a total growth rate of 27%. The immigrant population across the country grew by 2.9 million, a 76.3% increase.

Two key immigration-related factors have helped transform the linguistic landscape and dynamics of the country. The first is because of the fact that among the provinces that receive the vast majority of immigrants to the

country (Ontario, Quebec, British Columbia and Alberta), only Quebec has a francophone majority. Yet, Quebec's population is growing at a slower rate than all other main provinces that receive immigrants.

Between 1981 and 2011, Quebec's immigrant population grew almost 87%, while growth in its non-immigrant population was only 14.4%. In Canada outside Quebec, these proportions are 75% and 32.2% respectively. It should also be noted that while the demographic weight of Quebec within Canada was 23.5% in 2011, only 10% of the some 4.2 million second-generation Canadians lived in Quebec. This result is essentially due to the evolution in the demographic weight of the immigration population in Quebec versus that of the country as a whole.

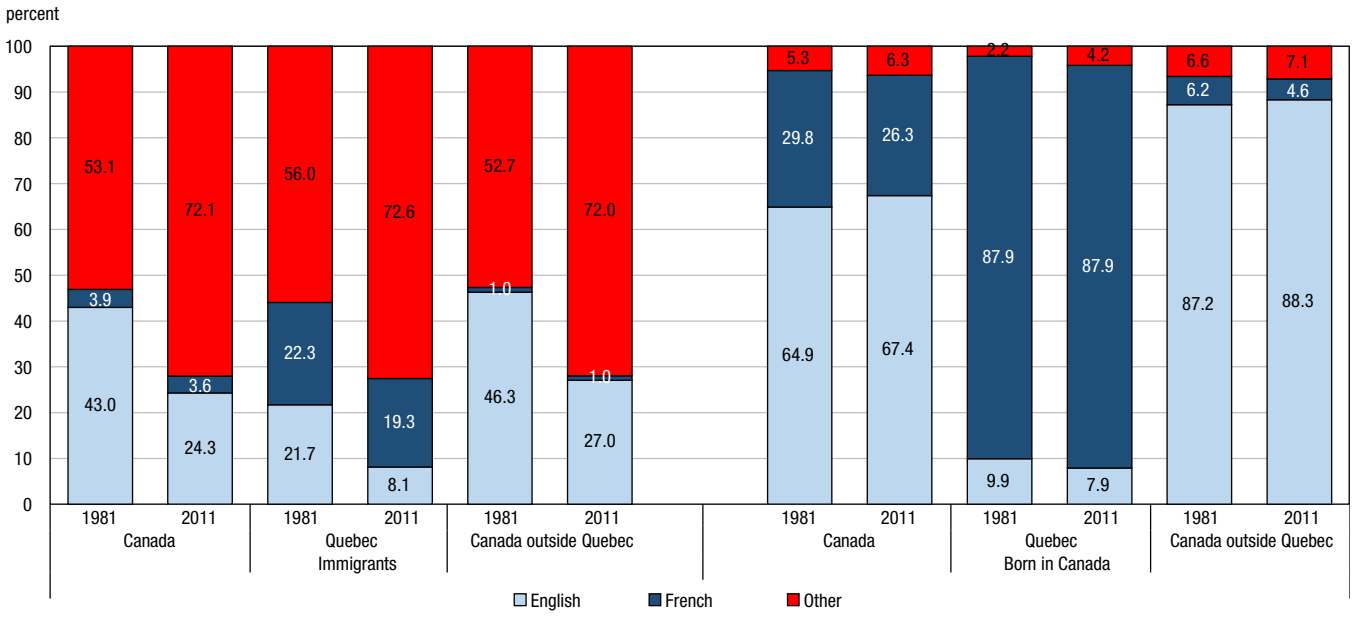
During the 30 years preceding the 2011 NHS, the demographic weight of Quebec within Canada dropped from 26.4% to 23.5%. As for the change in the share of the immigrant population of Quebec within the country's entire immigrant population, it remained much lower than the province's demographic weight within Canada.

The second key immigration-related factor to changes in the country's language dynamics is the evolution of the linguistic composition of international immigration, a phenomenon addressed above. Here, we will use two defining criteria to illustrate this evolution: mother tongue and FOLS.

As Chart 2.4 shows, there was significant growth in the other-mother-tongue group among the immigrant population between 1981 and 2011, both in Quebec and in Canada outside Quebec. This growth occurred alongside a drop in the English-mother-tongue population share. In Quebec, English was the mother tongue for close to 21.7% of the immigrant population in 1981, a proportion that had dropped to 8.1% by 2011. In Canada outside Quebec, the weight of the English-mother-tongue population also dropped from 46.3% to 27.0% during that period. Meanwhile, the share of the French-mother-tongue population outside Quebec remained stable at 1% of the immigrant population, drastically lower than the weight of the French-mother-tongue population born in the country, which dropped from 6.2% to 4.6% during those 30 years.

Among the population born in Canada, English and French are by far the predominant languages. Throughout the country, the demographic weight of French as a mother tongue dropped from 29.8% to 26.3%, while the English-mother-tongue population share rose from 64.9% to 67.4%. In Quebec, the relative share of the French-mother-tongue population born in the country remained stable at 87.9%.

Chart 2.4
Mother tongue of the immigrant population and the population born in Canada, Canada, Quebec and Canada outside Quebec, 1981 and 2011



Sources: Statistics Canada, 1981 Census of population and 2011 National Household Survey.

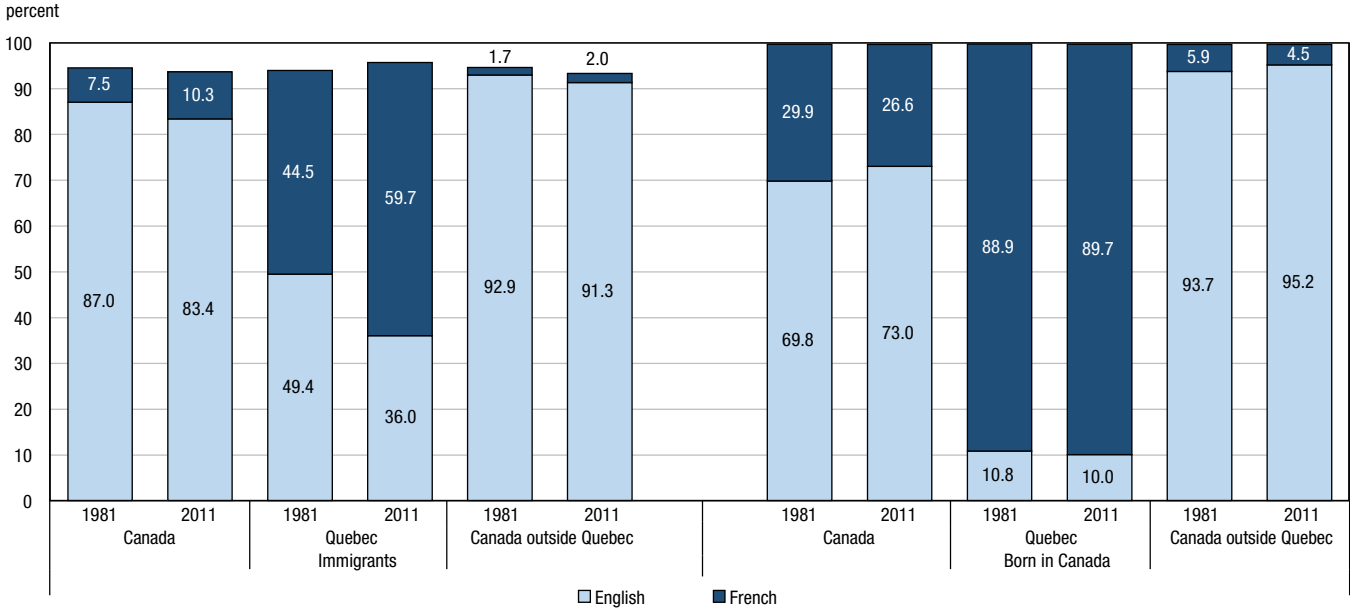
While statistics on mother tongue provide insight into the evolution of the language composition and diversity of the Canadian population, they generally offer only a partial overview of the population's FOLS and particularly of the official language likely to be used in public or to obtain services by members of the other-mother-tongue population. Chart 2.5 shows the evolution in Canadians' FOLS between 1981 and 2011. It also shows that in 1981

almost 30% of the population born in the country had French as a FOLS, whereas this was the case for only 7.5% of immigrants. In 2011, these proportions were 26.6% and 10.3% respectively.

It was Quebec that saw the most striking change between 1981 and 2011. First, the demographic weight of the French FOLS immigrant population grew from 44.5% to 59.7% in 30 years, while that of the anglophone population dropped from 49.4% to 36.0%. This evolution is due to a number of factors, including the Quebec government's adoption of immigration policies promoting the selection of immigrants with knowledge of French or geolinguistic origins[43] close to French. Second, the proportion of immigrants with English as a FOLS is much greater than the share of Quebec's English FOLS population born in the country, which remained more or less stable at 10% during this period.

Outside Quebec, the share of the French-speaking immigrant population has changed little, growing from 1.7% to 2.0%, while that of the population born in the country dropped from 5.9% to 4.5%.

Chart 2.5
First official language spoken by the immigrant population and the population born in Canada, Canada, Quebec and Canada outside Quebec, 1981 and 2011



Sources: Statistics Canada, 1981 Census of population and 2011 National Household Survey.

2.5 Place of birth and interprovincial migration

Like international immigration, interprovincial migration can change a population's linguistic composition and dynamics. Of course, interprovincial migration of English-speaking populations in Canada outside Quebec does little to change the linguistic dynamics of majority groups, because of the predominance of English. However, among francophone populations, interprovincial migration can have a strong influence on their numbers and demographic weight. For example, in 2011, 26.5% of the population of Alberta born in Canada whose first official language was English was from another province or from the territories, compared with 54% of the francophone population. In British Columbia, these proportions were 22.4% and 60.9%, respectively.

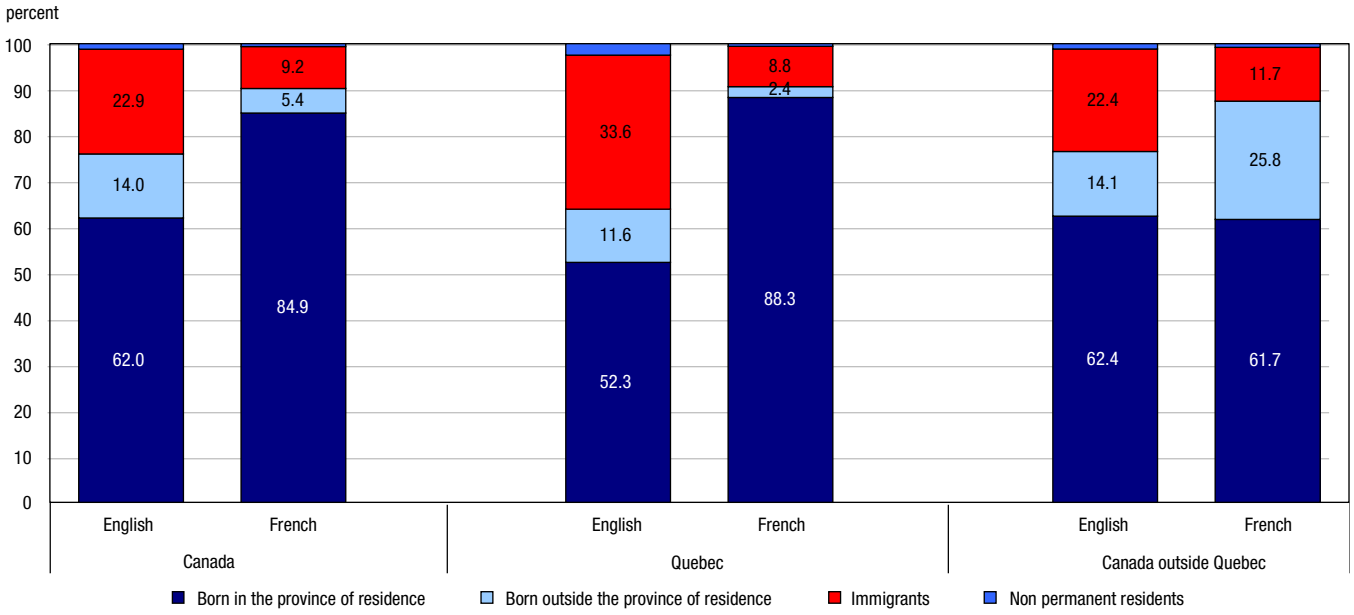
In another scenario, in 2011, 7.2% of the anglophone population of Ontario born in Canada was from another province or territory, compared with 25.5% of its francophone population. That is to say that in a number of provinces or territories outside Quebec, francophone populations are fed by interprovincial migration.

43. Meaning from a country within the Francophonie, a country where French is an official language or a country close to the Francophonie (such as North African countries, mainly Morocco, Algeria and Tunisia). The expression "country close to the Francophonie" was suggested by Richard Marcoux, Professor and Director of the Observatoire démographique et statistique de l'espace francophone (ODSEF) at Laval University. This expression was derived mainly because the North African countries, former French colonies that do not have French as an official language and do not belong to the Francophonie, nevertheless have a large population of French speakers. According to the OIF (2014), Morocco, Algeria and Tunisia combined could have close to 28 million francophones. Furthermore, the proportion of newcomers to Quebec with a knowledge of French upon arrival more than doubled between the late 1980s and 2011, from 28% to 63% (Immigration, Refugees and Citizenship Canada, 1986-2015).

In Quebec, interprovincial migration among the anglophone population is relatively higher than that of the francophone population. In fact, in 2011, 11.6% of the anglophone population born in Canada came from another province or from a territory, compared with only 2.4% of the francophone population.

Chart 2.6 shows the relative share of interprovincial migration and international immigration in the makeup of official language groups in the country. It shows that in Quebec, immigrants (33.6%) and interprovincial migrants (11.6%) together represented just under half the English-speaking population in 2011, compared with under 12% of the French-speaking population. Outside Quebec, the share of provincial and international migrants are also different between the two groups: more than a quarter of the francophone population was born in a province or territory other than the one they reside in, compared with 14% of the anglophone population.

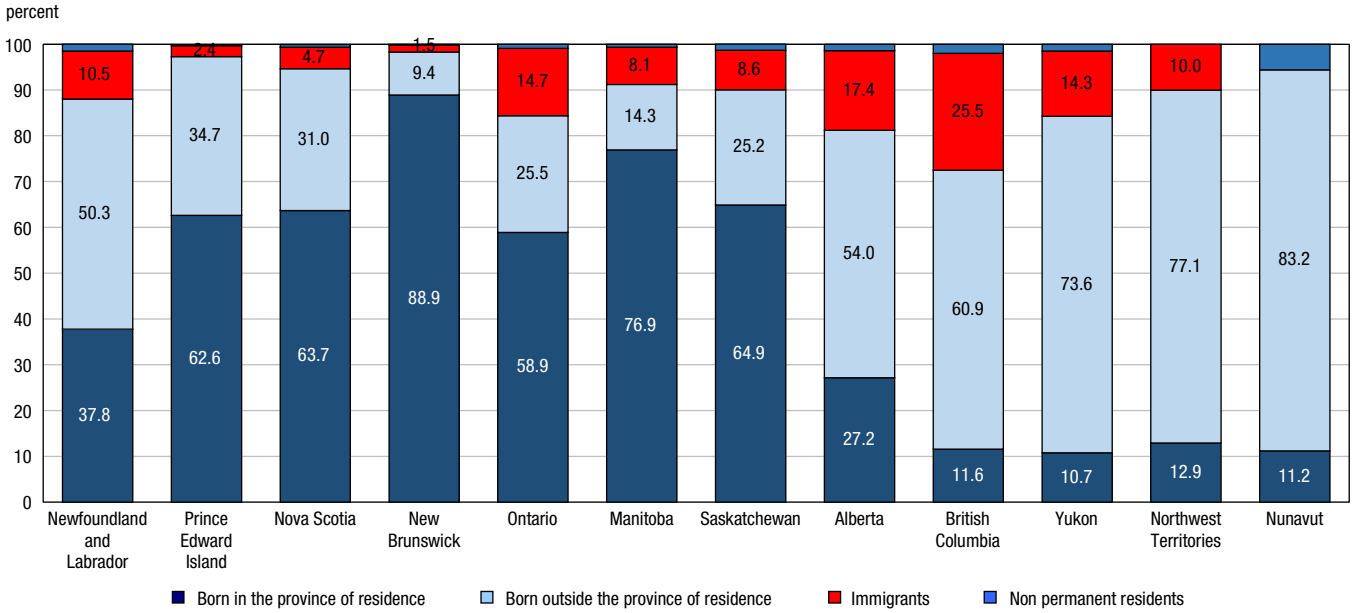
Chart 2.6
Place of birth of the population by first official language spoken, Canada, Quebec and Canada outside Quebec, 2011



Source: Statistics Canada, 2011 National Household Survey.

Among the francophone population outside Quebec, these proportions vary considerably between provinces and territories (Chart 2.7). For example, French-speaking populations in Newfoundland and Labrador, Alberta, British Columbia and the territories mostly hail from the provinces, whereas only 9.4% of the francophone population of New Brunswick was born outside the province.

Chart 2.7
Place of birth of the population with French as their first official language spoken by province, Canada outside Quebec, 2011



Source: Statistics Canada, 2011 National Household Survey.

The data on interprovincial migrations of francophone populations between 2006 and 2011 confirms that the highest net migration occurs in provinces and territories in which the share of the population born elsewhere in the country is significant.[44]

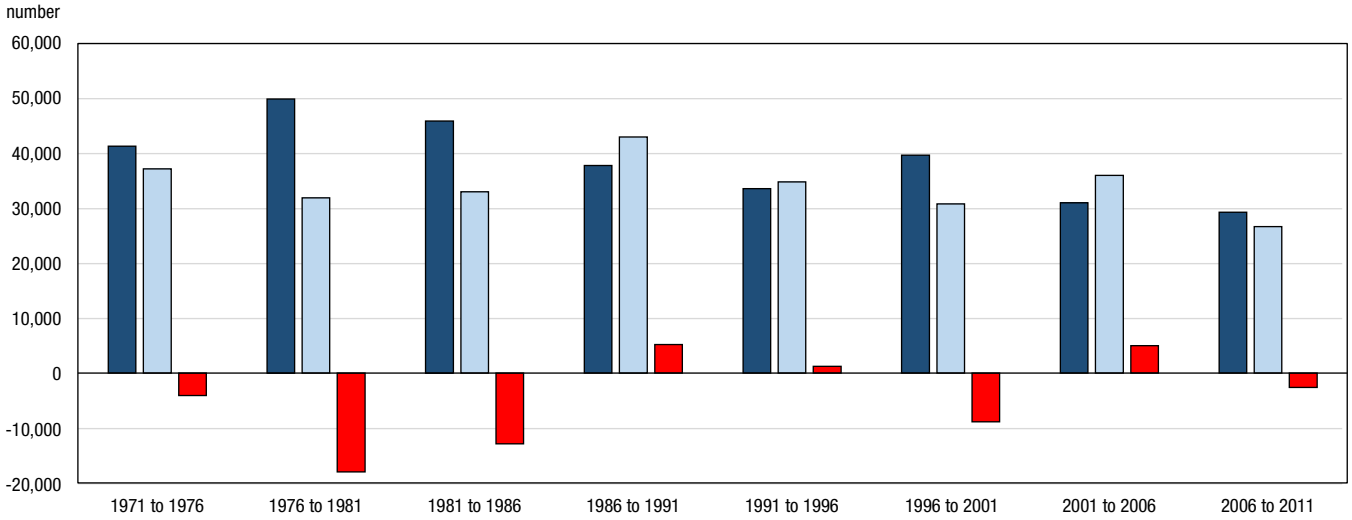
A study of the migratory movements of francophone populations across the country shows that in each of the provinces and territories most of these populations generally come from Quebec. As such, in 2011, almost 40% of the country's francophone population who resided in another province or territory five years earlier came from Quebec. Likewise, 74% of people who settled in Ontario during this period lived in Quebec in 2006, whereas 54% of people from another province or territory who settled in Quebec came from Ontario. That said, the contribution of Quebec's francophone population to certain provinces and territories does not lie solely in interprovincial migration, but also in the fact that, as Chart 2.7 indicates, a sizable proportion of the francophone population of these provinces and territories is originally from Quebec.

Chart 2.8a shows that between the early 1970s and 2011, the Quebec French-mother-tongue population declined (-35,000 people) in its migratory exchanges with the rest of the country, a situation resulting mainly from more substantial migratory losses suffered in the mid-1970s and mid-1980s (-30,000).

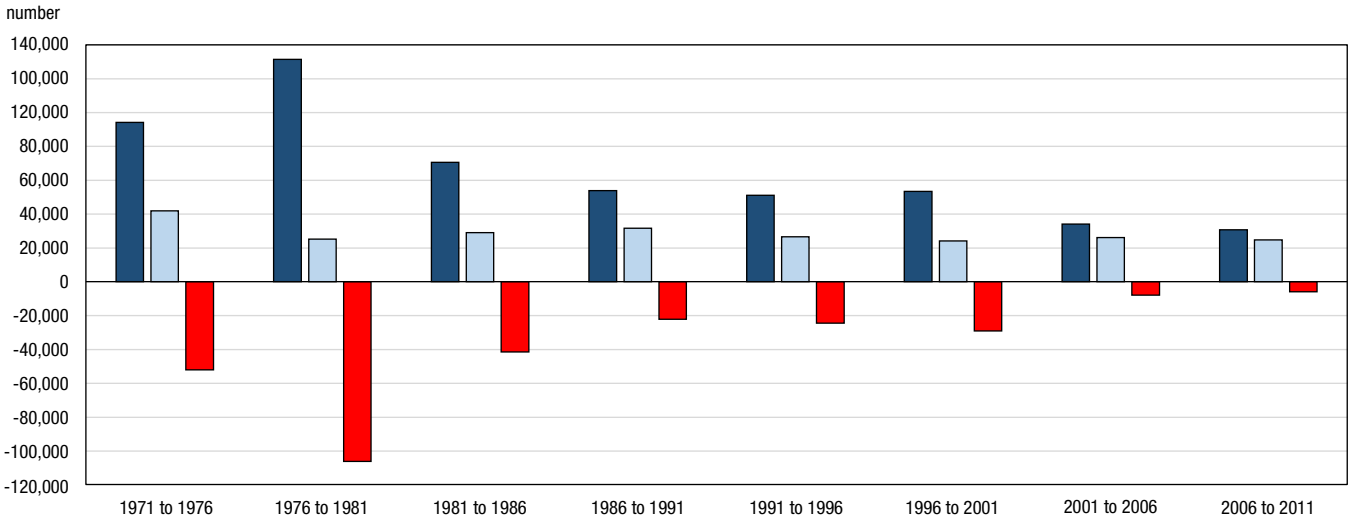
With respect to the English-mother-tongue population (Chart 2.8b), its migratory deficit is far greater than that of the francophone population. In fact, between 1971 and 2011, 519,000 anglophones left Quebec for other provinces or territories, whereas 229,000 settled there, for a negative net migration of 290,000 people, including close to 159,000 between 1971 and 1981. In other words, this migratory deficit represented almost 37% of that population in 1971. These results largely explain why the age distribution of the anglophone population in 2011 (Chart 2.3) had the structure it did. In the decade leading up to the National Household Survey, the number of English-mother-tongue individuals who left Quebec dropped considerably. As such, while net migration for this population was -29,000 between 1996 and 2001, it dropped to -8,000 and -5,900 respectively during the two following five-year periods.

44. However, the results presented in Chart 2.7 are the product of decades of demographic events and not only internal and international migration.

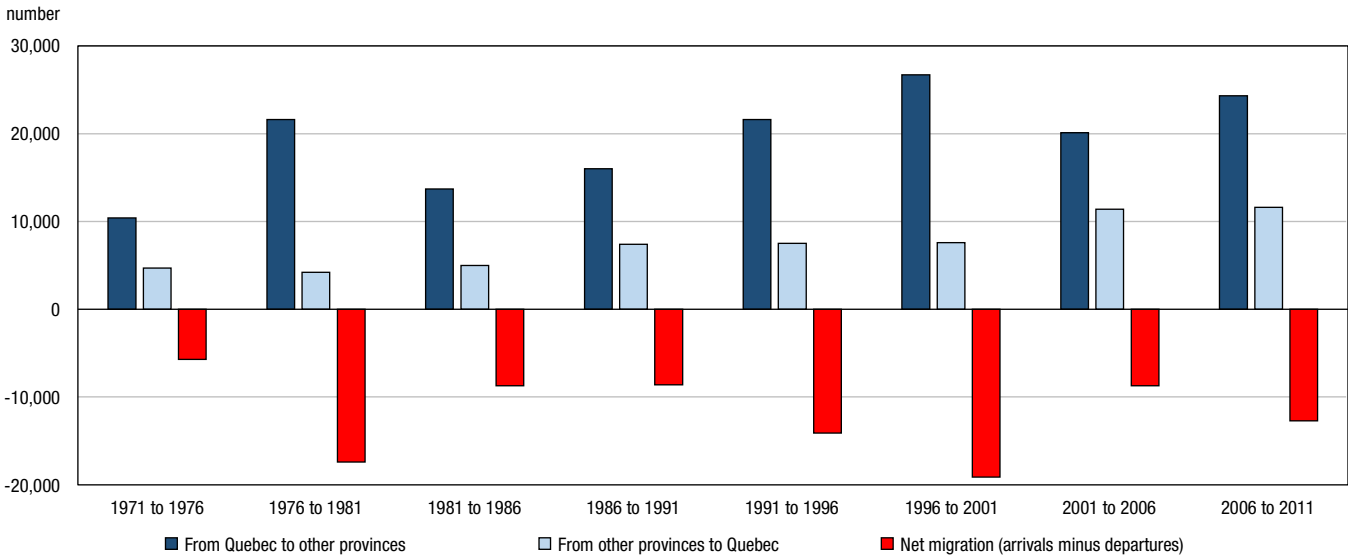
Chart 2.8
Interprovincial migration between Quebec and other provinces and territories, 1971 to 2011
a) Population with French as their mother tongue



b) Population with English as their mother tongue



c) Population with a mother tongue other than English or French



Sources: Statistics Canada, censuses of population, 1976 to 2006 and 2011 National Household Survey.

Finally, for each five-year period since 1971, net migration for the other-mother-tongue population has always been negative (Chart 2.8c). In other words, there were consistently more other-mother-tongue individuals who left Quebec for other provinces or territories than people who settled in Quebec. This negative net migration was -95,000 between 1971 and 2011, or three times less than the net migration of the English-mother-tongue population. For the period from 2006 to 2011, net migration was -12,700.

These statistics on net interprovincial migration by mother tongue differ from those based on FOLS. Net migration (negative) of the English FOLS population is indeed higher than that of the English-mother-tongue population. First, it is known that people who speak only English are typically more likely to leave Quebec. Second, because many of them have a third language as a mother tongue, the use of the FOLS criterion to define the anglophone population results in higher net migration. Furthermore, during the 2006–2011 period, the net migration of the English FOLS population was - 16,780, compared with - 4,035 for the French-mother-tongue population.

2.6 Language transfers

When looking at the demographic phenomena of fertility, mortality and international and interprovincial migration, language transfer can directly or indirectly influence the evolution of the language groups in question, depending on the criteria used to define them.

When the language groups are defined based on the mother tongue criterion, language transfers do not affect their inclusion in or exclusion from this community. However, since the home language is generally the mother tongue transferred to children, language transfer is often a precursor of change.

If the FOLS criterion is used to define a language group, language transfers will not affect inclusion in or exclusion from this community, except in very specific cases. In general, since this criterion is based first on knowledge of one of the official languages and, in cases of English–French bilingualism, on mother tongue, only situations where both official languages are known by other-mother-tongue individuals take into account language transfer to estimate the size of these groups.[45]

Lastly, when the definition of language groups is based on the home language criterion, language transfers clearly play a more significant role than when other criteria are used. That said, as we will see later, even in these situations, the relative significance of language transfers is highly variable, and even fairly marginal in certain cases.

Aside from the criteria used to define language communities, the point at which the transfer occurs in the migratory or linguistic paths of individuals must also been considered when studying language transfers. On one hand, among Canadian-born individuals, the vast majority of language transfers take place before age 40, and, in many cases, before age 20.[46] Furthermore, the “cohabitation” period—when a couple lives together—often corresponds to the period when the home language crystallizes, so to speak. On the other hand, among immigrants, many language transfers occur before they arrive in the country. This can result from a complex migratory path during which individuals adopt the main language of the receiving country where they lived before coming to Canada. It can also result from adopting English or French as the home language in the country of birth before emigrating to Canada. For example, this is more widespread among immigrants from countries where English or French have official status or where their presence is on account of a colonial heritage.[47]

During the 2011 National Household Survey, there were close to 187,000 people with English as a mother tongue, or 1% of this language group, who had adopted another language as the home language. For the French-mother-tongue population, there were 457,000 cases of language transfer, for a rate of 6.6%, while for the other-mother-tongue population, the phenomenon was observed among close to 2.5 million people, or 37.6%. Note also that cases of language transfer among the English-mother-tongue population break down almost equally between French and one of the non-official languages, while among the two other groups, they were essentially toward English.

Two things should be pointed out here. First, in the case of transfers among francophone or anglophone populations, the proportions of language transfers are higher among the immigrant population. In the case of other-mother-tongue populations, adopting another home language is more common among the population born

45. Refer to http://www12.statcan.gc.ca/census-recensement/2011/ref/dict/pop034-eng.cfm for an explanation of the method used to derive the First official language spoken.
46. See Termote (2011) and Corbeil and Houle (2013).
47. See Corbeil and Houle (2013).

in the country (56%) than among the immigrant population (32%). Second, transfer rates are lower among recent immigrants than among immigrants who have been here for a number of years or even decades.

Table 2.3
Proportion of the population who have made a language transfer, by mother tongue, Canada, Quebec, Canada outside Quebec, 1981 and 2011

	Mother tongue					
	English		French		Other	
	1981	2011	1981	2011	1981	2011
	percentage					
Canada						
Total	**0.8**	**1.0**	**5.5**	**6.4**	**43.8**	**37.6**
Immigrants	1.9	3.3	16.8	17.2	37.1	32.0
Born in Canada	0.7	0.8	5.2	6.1	56.9	56.1
Quebec						
Total	**7.5**	**11.8**	**1.6**	**1.4**	**29.8**	**35.7**
Immigrants	6.8	13.7	9.0	7.9	28.2	32.3
Born in Canada	7.6	11.6	1.4	1.2	33.5	45.3
Canada outside Quebec						
Total	**0.5**	**0.6**	**28.8**	**39.8**	**46.0**	**37.9**
Immigrants	1.5	2.8	45.5	48.3	38.6	32.0
Born in Canada	0.4	0.4	28.2	39.3	60.2	58.3

Sources: Statistics Canada, 1981 Census of population and 2011 National Household Survey.

Among the other-mother-tongue immigrant population having arrived since 1981 that lived in the country in 2011, that is, a population of a little more than 3.5 million, there were some 895,890 cases of language transfers. This is an annual average of slightly fewer than 30,000 transfers. Furthermore, some of them no doubt occurred before their arrival in the country. For example, of the some 1.2 million immigrants who arrived in the country in the five years before the 2011 NHS, 17% spoke a language other than their mother tongue most often at home. It is generally understood that it is highly unlikely that all these language transfers would have happened over such a short period from the time of their arrival in the country.

In Canada outside Quebec, around 360,000 French-mother-tongue individuals (39.4%)[48] reported English as the home language in 2011. By comparison, some 38% of the other-mother-tongue population had made such a transfer. Note that in 1981, almost 29% of those with French as a mother tongue reported speaking English as a home language.

We have pointed out that while people who made a language transfer in Canada outside Quebec almost universally adopted English, the majority language, as their home language, the situation in Quebec is different with respect to the adoption of French, the language of the majority of the population. It is well known that the vast majority of other-mother-tongue immigrants who arrived in the country before the 1980s and who experienced a language transfer adopted English, whereas those who arrived later tended to increasingly adopt French. And yet, as we will show in a moment, the latter result does not mean that these transfers all occurred in Quebec, far from it; they resulted from Quebec's immigration policies that tend to favour immigrants with an understanding of French.

In 2011, around 12% of the English-mother-tongue population in Quebec had had a language transfer, mainly to French, compared with 1.4% of the French-mother-tongue population.[49] Among the other-mother-tongue population, some 353,000 people (35.7%) had had a language transfer, 52% of them toward French. In other words, while almost 79% of the population of Quebec had French as a mother tongue in 2011, barely more than one in two other-mother-tongue individuals who adopted a home language other than their mother tongue chose French. This is essentially because before the 1980s, other-mother-tongue immigrants in Quebec were much more likely to adopt English as the language most often spoken at home.[50]

Among other-mother-tongue immigrants who arrived in the country since 1981 and who were living in Quebec in 2011, some 151,000 (29.4%) had had a language transfer, almost 7 out of 10 toward French. As Termote showed

48. This proportion differs from the 39.8 % presented in Table 2.3, since it does not include the 3,500 French-mother-tongue individuals who speak a language other than English or French most often at home.
49. In absolute numbers, this represented around 66,000 people whose mother tongue is English and 83,700 people whose mother tongue is French.
50. Then, because of Quebec immigration policies that favoured the selection of immigrants who had a knowledge of French upon arrival, a significant reversal of this trend was observed.

(2011, 2008), even with such an indirect approach to estimating the number of transfers, the total number of so-called "lifelong"[51] language transfers by this population in the past 30 years can be pinned at around 5,000 per year, 3,600 of them toward French. Given the number of immigrants Quebec receives each year, in the long term, the number of language transfers toward French recorded has little impact on the increase in the demographic weight of the population that adopts this language as the language most often spoken at home.[52]

Furthermore, many of these transfers occurred before arrival in the country. Using data from the Survey on the Vitality of Official-Language Minorities conducted by Statistics Canada in 2006, Corbeil and Houle (2013, 2014) demonstrated that almost three-quarters of language transfers toward English by the other-mother-tongue population in Greater Montréal occurred in Canada, either by immigrants after their arrival in Canada or by the second-generation population. Most transfers to French (53%) took place before immigrants' arrival to the country. Taking into account only immigrants who had had a language transfer toward French of English, the proportion of those who had completed the transfer before their arrival in the country was 62% in the case of French, compared with 47% in the case of English.

2.7 Overview

The factors likely to influence changes in the country's various language communities are many and varied. We have seen that fertility, intergenerational language mobility, international immigration and interprovincial migration[53] played an important role in shaping the linguistic landscape observed in 2011. Furthermore, the influence of intragenerational language mobility—or language transfers—on the evolution of the country's language groups ranged from marginal in some cases, to major in others. In fact, this factor had little effect on the French-speaking population in Quebec, but a significant one on the evolution of the same population in the rest of Canada. Similarly, the adoption of English by other-mother-tongue populations as their home language was of great benefit to the English-speaking populations in both Quebec and the rest of the country.

In the 25 years leading up to the 2011 National Household Survey, immigration gradually became the main driver of population growth. In the context of low fertility rates, as well as incomplete intergenerational transmission of the minority language—especially in minority French communities in the rest of Canada—the influence and relative importance of immigration should continue to grow until 2036.

Chapter 3 presents the possible evolution of language groups between 2011 and 2036 based on mother tongue, the home language and first official language spoken.

51. In other words, transfers that took place at some point in an individual's life, because we cannot know at what age the transfer took place.
52. As an alternative to the use of "lifelong" transfers, Termote (2011, p. 51) examines language mobility by period by following cohorts of individuals from one census to another. According to this approach, barely 3,000 language transfers per year were toward French in Quebec between 2001 and 2006.
53. The following chapter also takes into account the influence of subprovincial migration in the possible change in the language situation in certain regions of the country.

Chapter 3 Population projections by language group

This section of our study presents an overview of the projection results for the future evolution of the Canadian population based on three language characteristics: mother tongue, language spoken most often at home (home language) and first official language spoken (FOLS). For the first two characteristics, three main language groups can be identified: English; French; and other than English or French (non-official language group). The results by FOLS focus on Canada's two official language groups, English and French. For all three language characteristics, a small residual group—the "English and French" group—was redistributed equally between the English- and French-speaking populations.[54]

We first present recent trends for the three main indicators for each language group in Quebec and in the rest of Canada. The next section looks at how these language groups might evolve between now and 2036 in Canada, in Quebec, and in Canada outside Quebec. We discuss Quebec separately from the rest of Canada due to its particular official-languages dynamic, whereby a French-speaking majority coexists with a significant English-speaking minority (with English as a mother tongue, language spoken most often at home or FOLS). The same perspective is then applied to our analysis of the rest of Canada, a region characterized by a majority English-speaking population and a substantial French-speaking minority.

Our projections then shift to the provinces (except Quebec) and territories (combined to form a single entity). Each of the three main language groups (English, French, non-official) is presented according to its language characteristics. Next, we look at the four main areas of contact between Canada's English- and French-speaking populations: the Montréal CMA, the Ottawa–Gatineau CMA, Eastern Ontario and New Brunswick.

Our results are presented in terms of the general changes to population numbers and especially to the demographic weight of populations by language characteristic, based on a comparison of three international immigration scenarios through which a plausible range of evolution can be established for the populations, drawing on recent trends (Statistics Canada 2017a). Alternative projection scenarios test different assumptions on the level and composition of immigration, the rate of transmission of French, and internal migration for official-language populations in Canada and the provinces. A specific scenario was developed to answer the following question: how many new French-speaking immigrants would it take to maintain the demographic weight of the francophone minority populations at their current levels (in 2016) instead of decreasing?

3.1 Recent trends

Different series illustrating recent evolution trends for the official language groups from 1971 to 2011 are presented in Table 3.1 (numbers in thousands) and Charts 3.1 and 3.2 (percentages), which focus on official language majorities and minorities in Quebec and the rest of Canada.

Regardless of the characteristic considered, official language majorities—the French-speaking population in Quebec and the English-speaking population in the rest of Canada—represent at least 70% of the total population. However, significant differences between the two have been observed. In 2011, for example, the total English-speaking population in Canada outside Quebec was between 18.7 million (mother tongue) and 23.8 million (FOLS), while the French-speaking population in Quebec fluctuated between 6.2 million (mother tongue) and 6.7 million (FOLS) (Table 3.1). A discrepancy and a distinct recent evolution have also been observed between the three language characteristics in Canada outside Quebec. The English-speaking population there is greater when defined by first official language spoken (FOLS), somewhat lower when defined by language spoken most often at home (home language); and at its lowest when defined by mother tongue. In 1971, the maximum difference between the three characteristics was 14 percentage points (Chart 3.1) or close to 2.5 million people; by 2011, the gap had widened to 20 percentage points or 5 million people. The demographic weight of the English-speaking population has been steadily declining since 1981 for mother tongue and since 1991 for home language. Conversely, the English FOLS population—as a percentage of the total population—edged up from just over 92% in 1971 to just over 94% in 2011. In absolute numbers, the English FOLS population in Canada outside Quebec grew by over 10 million, a growth rate of 53.3% over the 1971-to-2011 period.

54. This group represents no more than 0.5% of the total population throughout the projection period, regardless of the scenario. For the justification and the method used to redistribute the English- and French-language populations, see Lachapelle and Lepage (2010: 8-9); for the definition and method used to calculate FOLS, see http://www12.statcan.gc.ca/census-recensement/2011/ref/dict/pop034-eng.cfm

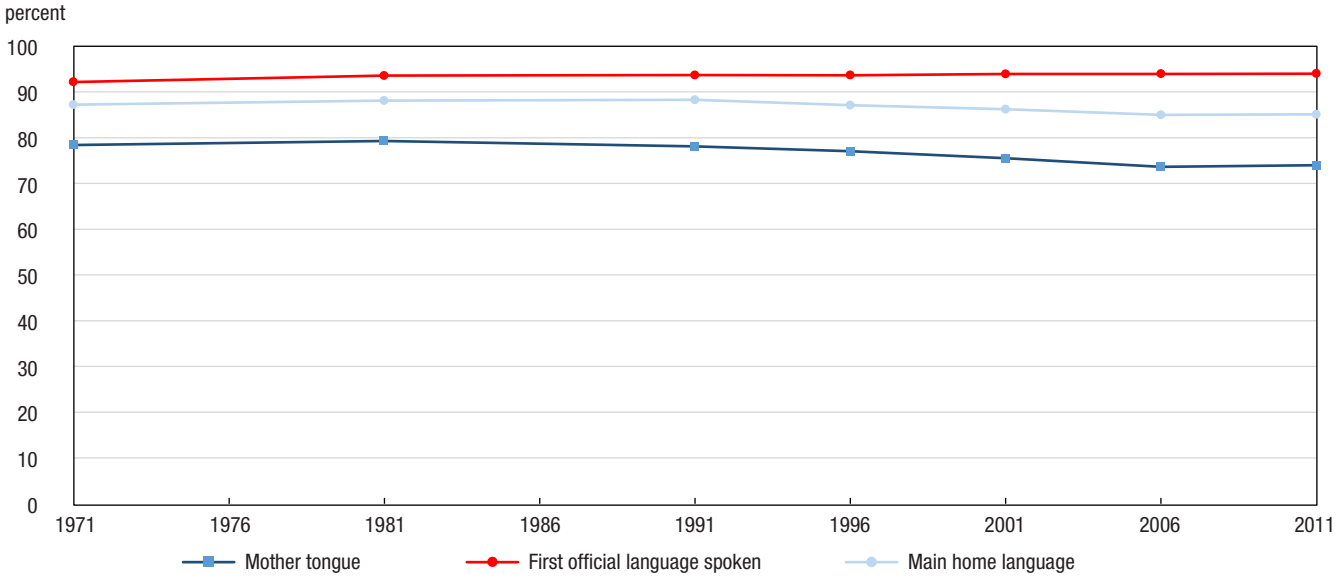
Table 3.1
English-speaking and French-speaking population, by majority or minority status, Canada outside Quebec and Quebec, 1971 to 2011

Year	Mother tongue	Main home language	First official language spoken
	number (thousands)		
Official language majority			
Canada outside Quebec – English			
1971	11,893	13,200	14,329
1981	14,056	15,617	16,576
1991	15,773	17,826	18,914
1996	17,036	19,244	20,694
2001	17,804	20,317	22,125
2006	18,339	21,147	23,376
2011	19,458	22,382	24,767
Quebec – French			
1971	4,735	4,734	4,972
1981	5,248	5,257	5,431
1991	5,595	5,669	5,844
1996	5,839	5,939	6,135
2001	6,018	6,148	6,363
2006	6,067	6,252	6,517
2011	6,308	6,525	6,830
Official language minority			
Quebec - English			
1971	771	866	992
1981	695	809	890
1991	633	777	904
1996	640	791	939
2001	622	791	955
2006	631	824	1,020
2011	652	858	1,090
Canada outside Quebec - French			
1971	896	654	956
1981	928	666	908
1991	979	638	969
1996	998	635	996
2001	1,032	644	1,034
2006	1,025	634	1,041
2011	989	620	1,017

Note: The population counts for 1996 to 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1971 to 2006 and 2011 National Household Survey.

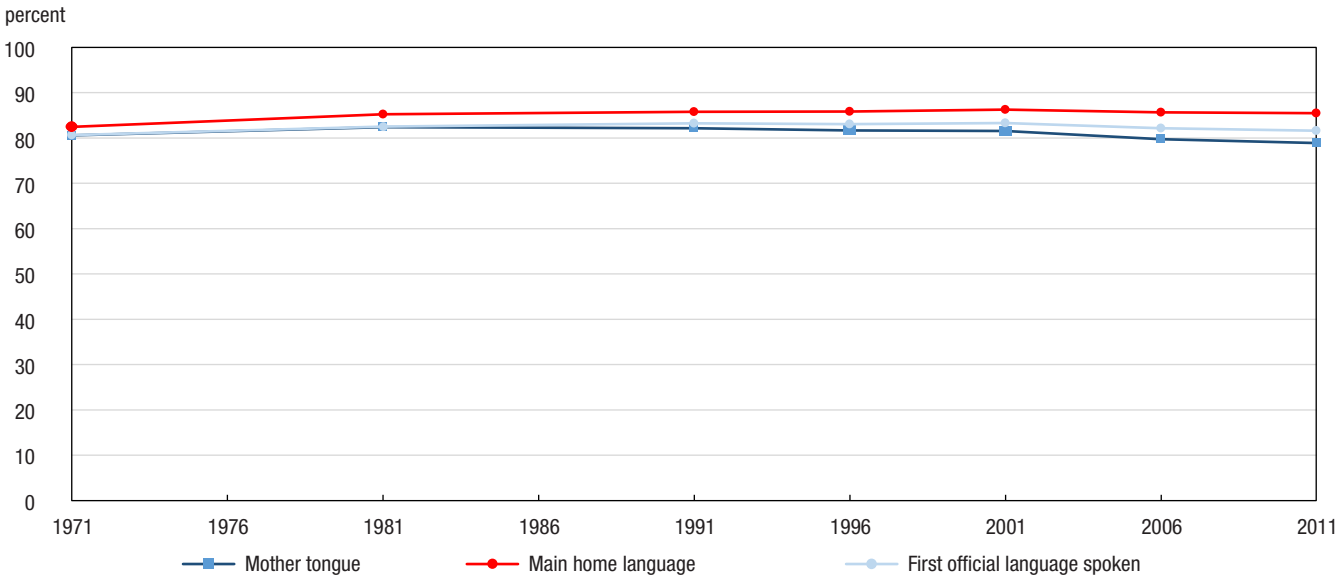
Immigration has played a key role in the recent evolution of the English-speaking population in Canada outside Quebec. The main factors here are the rise in immigration in the late 1980s and the steady stream of immigrants to Canada since (between 150,000 and 250,000 annually, the majority of whom settle outside Quebec). On one hand, the size and linguistic composition of the immigrant population—a group whose mother tongue is generally other than English or French—have decreased the weight of the English-speaking population, defined by mother tongue and home language. On the other, these developments confirm the role of English as the main language of integration and convergence outside Quebec. Generalized learning of English, language transfers toward English and a strong propensity to adopt English over French account for the discrepancies between the trends noted for each of the three characteristics. These factors also explain why, despite high non-official language immigration, the demographic weight of the English-speaking population defined by FOLS has continued to rise.

Chart 3.1a
English official language majority populations, by three linguistic characteristics, Canada outside Quebec, 1971 to 2011



Note: The percentages for 1996 to 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1971 to 2006 and 2011 National Household Survey.

Chart 3.1b
French official language majority populations, by three linguistic characteristics, Quebec, 1971 to 2011

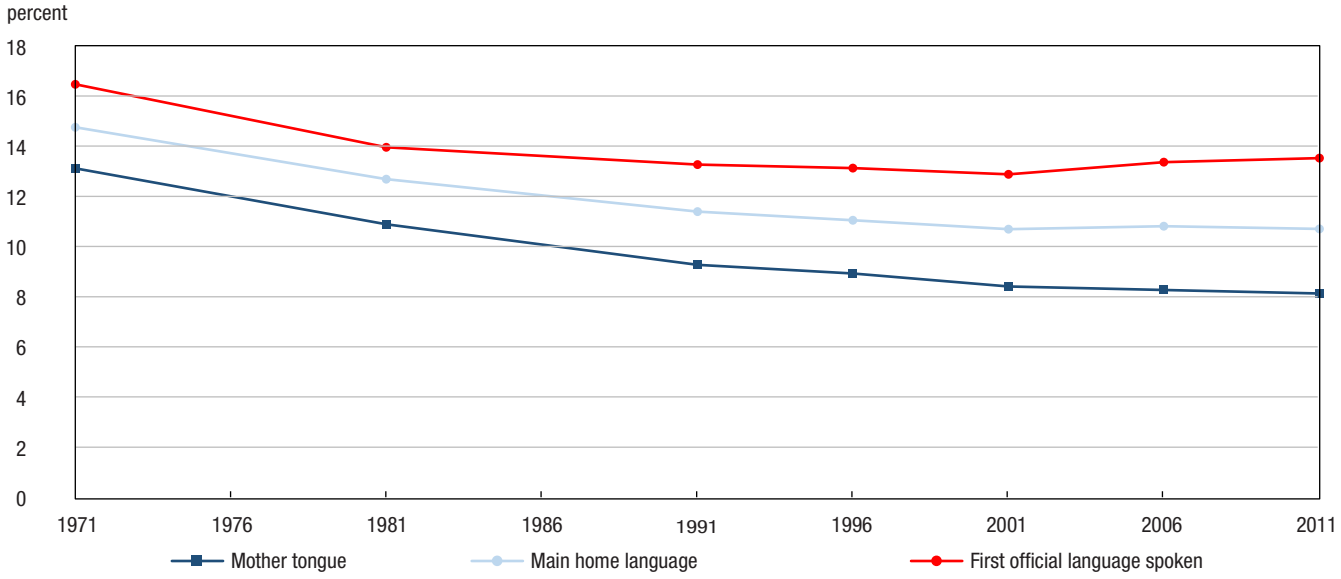


Note: The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1971 to 2006 and 2011 National Household Survey.

In Quebec, the evolution of the French-speaking majority is similar to that of the English-speaking majority outside Quebec, and for the same reasons. However, over the projection period, growth in the French-speaking population (between 28% and 32%) has been slower than that of the English-speaking population in the rest of Canada (between 48% and 53%). Moreover, and contrary to the evolution of the English FOLS population in Canada outside Quebec, the demographic weight of the French FOLS population in Quebec has declined slightly since 2001, although it was still above 85% in 2011.

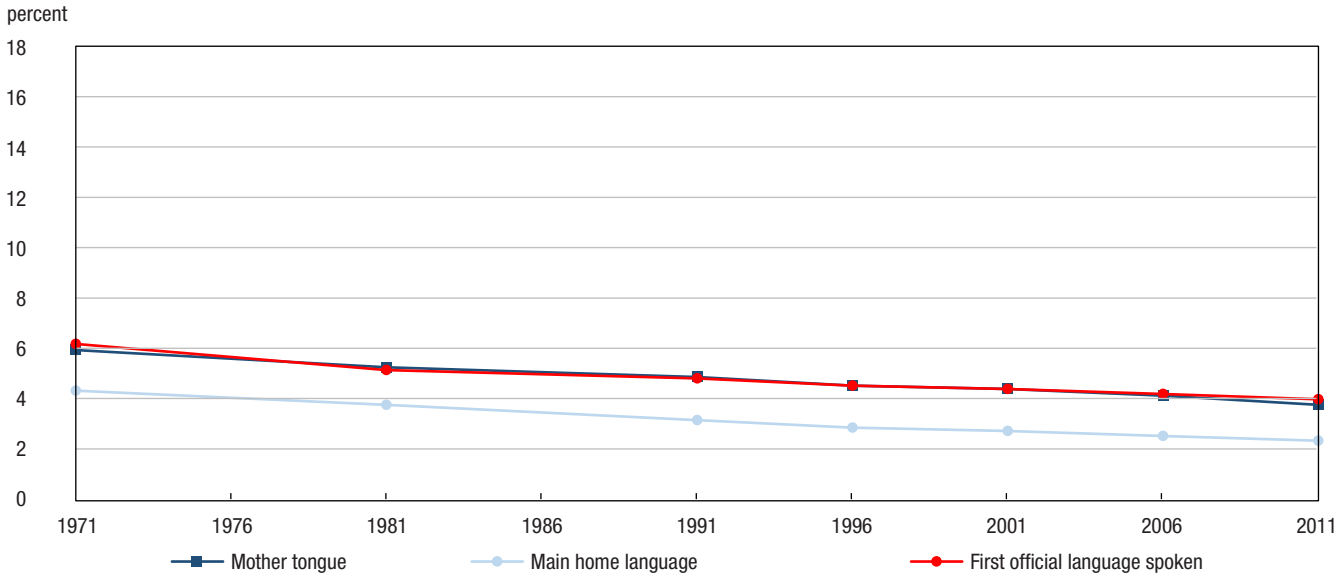
Immigrants and their children integrate linguistically into Quebec differently than in the rest of Canada. In Quebec, both the French- and English-speaking populations benefit from the language transfers and, generally speaking, linguistic mobility of the non-official-language population. However, linguistic mobility affects the two official-language populations differently. Approximately 55% of language transfers among the non-official-language population in Quebec are toward French and 45% toward English (see Chapter 2). Since there are far fewer anglophones than francophones in the province, the upward impact on the demographic weight is far more significant for the English-speaking population than for the French-speaking population (Chart 3.2).

Chart 3.2a
English official language minority populations, by three linguistic characteristics, Quebec, 1971 to 2011



Note: The percentages for 1996 to 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1971 to 2006 and 2011 National Household Survey.

Chart 3.2b
French official language minority populations, by three linguistic characteristics, Canada outside Quebec, 1971 to 2011



Note: The percentages for 1996 to 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1971 to 2006 and 2011 National Household Survey.

Regarding how linguistic mobility in the non-official-language population impacts the official language groups, the situation of the English-speaking population in Quebec is comparable to the rest of Canada, if different in terms of its evolution. During each intercensal period since the early 1970s, Quebec's English-mother-tongue population experienced net negative interprovincial migration to the benefit of the other provinces (see Chapter 2 and Lachapelle and Lepage 2010),[55] while its total population either decreased or grew only slightly during the intercensal periods between 1971-to-1981 and 1996-to-2001. While the number of English-speakers has increased since 2001 for all three language characteristics, the population's relative weight in the total Quebec population has still declined over the entire period, with the exception of FOLS since 2001.

Lastly, despite increases to its mother-tongue and FOLS populations between 1971 and 2011, the French-speaking minority outside Quebec has decreased steadily over the same period as a percentage of the total population. In 1971, the French FOLS population of Canada outside Quebec was just over 6% (956,000 people); by 2011, this figure had fallen to below 4% (1,016,000 people). Similar numbers and percentages apply to the criterion of mother tongue. Language transfers toward English contribute to decreasing the weight of the French-speaking population outside Quebec, and in two ways: directly, by eroding the French-home-language population, whose weight (2.4% in 2011) is clearly below the weight of the mother tongue and FOLS populations; and indirectly, through incomplete intergenerational transmission of French.[56] Conversely, almost equal numbers (and weight) of the French-mother-tongue and FOLS populations indicate a low rate of language transfer toward French by the non-official mother-tongue population (see Chapter 2).

In Quebec as in the rest of Canada, the non-official-language population has experienced sustained growth for a number of years now, due to immigration. In 1971, 13% of the Canadian population had a non-official language mother tongue; by 2011, this figure was closer to 20%, which represented a population of 6.8 million in 2011 (data not shown). As we have seen, this trend has affected the evolution of the official language populations. If current immigration targets are maintained, it should continue to affect the general composition of the population by language characteristics (mother tongue, language spoken most often at home, FOLS).

3.2 Canada, Quebec and Canada outside Quebec

As mentioned above, the population projections for Canada, Quebec and Canada outside Quebec have been presented for mother tongue, language spoken most often at home (home language) and first official language spoken (FOLS), in that order.

3.2.1 Mother tongue

At the time of the 2011 National Household Survey (NHS), Canada's English-mother-tongue population was approximately 20.1 million; its French-mother-tongue population, 7.3 million; and its "other"-mother-tongue population, 6.9 million. As a percentage of the total population, the English-mother-tongue group represented 58.7%, the French-mother-tongue group, 21.3% and the "other"-mother-tongue group, 20% in 2011.

The projection scenarios indicate that the populations of all three language groups would grow between 2011 and 2036, but at an uneven rate (Table 3.2). In terms of numbers, the English-mother-tongue population could rise from 20.1 million in 2011 to between 22.8 and 23.7 million in 2036. The high-immigration scenario places this figure highest, at 23.7 million; the reference scenario puts it at 23.4 million; and the low-immigration scenario, 22.8 million.

The French-mother-tongue population is also expected to grow between 2011 and 2036, regardless of the scenario. From 7.3 million in 2011, it could attain between 7.5 and 7.8 million by 2036.

Growth could be strongest in the "other"-mother-tongue group, driven primarily by immigration. Between 2011 and 2036, the arrival of hundreds of thousands of immigrants annually (immigration rate of 8 per thousand based on the reference scenario) would directly account for this. According to the high-immigration scenario, the "other"-mother-tongue group should double by 2036, increasing from 6.9 million in 2011 to a little more than 13.8 million. Growth in the other two scenarios, if somewhat less pronounced, should remain high, far above that of the English- and French-mother-tongue populations.

55. Lachapelle and Lepage examine the period from 1971 to 2006. Between 2006 and 2011, this trend continued despite having weakened considerably since 2001–2006.
56. Based on the 2011 Census, Vézina and Houle (2014) calculated a French transmission rate of 50% in Canada outside Quebec (compared with 97% in Quebec) among couples where at least one parent was a native French speaker. The rate outside Quebec varies, however, by about 30% and 91% respectively based on whether one or both parents are native French speakers. See also Chapter 2 on this topic.

One consequence of these differentiated evolutions is that the non-official mother tongue population, when taken as a whole, could outnumber the French-mother-tongue population during the initial years of projection. That being said, the composition of the former remains very heterogeneous. In addition to the two official languages, the 2011 Census reported over 200 non-official languages as a mother tongue or home language, none of which individually outnumbers the number of English- or French-speakers in Canada. According to the Census, the largest non-official language group in 2011 was Punjabi (single responses), with 430,705 people, followed in numerical order by Chinese (n.o.s.[57]), Spanish, Italian and German.[58] Our projections were unable to isolate the specific evolution of Aboriginal and immigrant languages.

A second impact concerns how these changes may affect the relative weight of each of Canada's three main mother-tongue groups. As a percentage of the total population, both the English-mother-tongue and French-mother-tongue populations would decrease (Table 3.2 and Chart 3.3). Thus, by the end of the projection period, the English-mother-tongue population would represent between 52% and 56% of Canada's total population (its weight was 59% in 2011 and 63.1% in 1986). The relative weight of the French-language group—a group that accounted for just over one-quarter (25.2%) of Canada's total population in 1986—would decrease in all three scenarios. In 2011, the French-mother-tongue population represented 21.3% of the national population; by 2036, it could represent around 17% or 18%.

Table 3.2
Population by mother tongue, by three projection scenarios, Canada, Quebec and Canada outside Quebec, 2011 and 2036

	2036 (projected)				2036 projected)			
	2011 (adjusted)	Reference	Low immigration	High immigration	2011 (adjusted)	Reference	Low immigration	High immigration
	population (thousands)				percent			
Canada								
English	20,110	23,387	22,821	23,685	58.7	53.4	55.6	52.3
French	7,297	7,679	7,513	7,777	21.3	17.5	18.3	17.2
Other	6,866	12,759	10,734	13,842	20.0	29.1	26.1	30.6
Quebec								
English	652	836	808	853	8.2	8.7	8.8	8.6
French	6,308	6,756	6,627	6,836	78.9	70.1	72.1	69.0
Other	1,034	2,046	1,762	2,223	12.9	21.2	19.2	22.4
Canada outside Quebec								
English	19,458	22,551	22,013	22,833	74.0	66.0	69.1	64.5
French	989	922	886	942	3.8	2.7	2.8	2.7
Other	5,833	10,713	8,972	11,618	22.2	31.3	28.2	32.8

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Only the relative demographic weight of the non-official mother-tongue population was projected to increase during the period studied. Accounting for close to 12% of the total Canadian population in 1986 and 20% in 2011, the group's relative weight was expected to rise to between 26% and 31% by 2036.

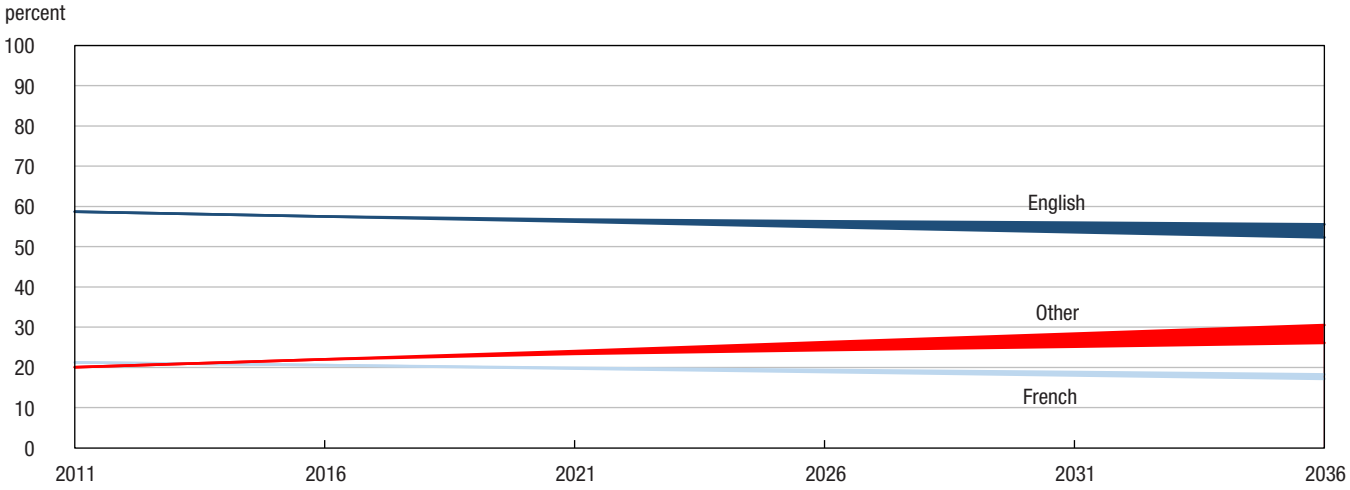
The main mother-tongue groups should evolve similarly both in Quebec and in Canada outside Quebec. Between 2011 and 2036, all three language group populations should increase in all three scenarios, except with regard to the French-speaking population outside Quebec, which should decrease. However, the demographic weight (percentage of the total population) of the English- and French-speaking groups should decrease by 2036, with the exception of the English-speaking population in Quebec, whose weight should increase slightly. Indeed, Quebec's English-mother-tongue population (652,000 in 2011) should increase to either 808,000 or 853,000 by 2036, depending on the scenario. By contrast, the relative weight of Quebec's French-mother-tongue population (79% in 2011) could decline to between 69% and 72% by 2036. This corresponds to the projected increase from 6.3 million people in 2011 to between 6.6 and 6.8 million in 2036. The highest growth would occur in the high-immigration scenario.

In the rest of Canada, the weight of the French-mother-tongue population could fluctuate, from 3.8% in 2011 to approximately 2.8% in 2036, while that of the English-mother-tongue population could decline from 74% in 2011 to between 65% and 69% in 2036, depending on the scenario. The French-mother-tongue population would

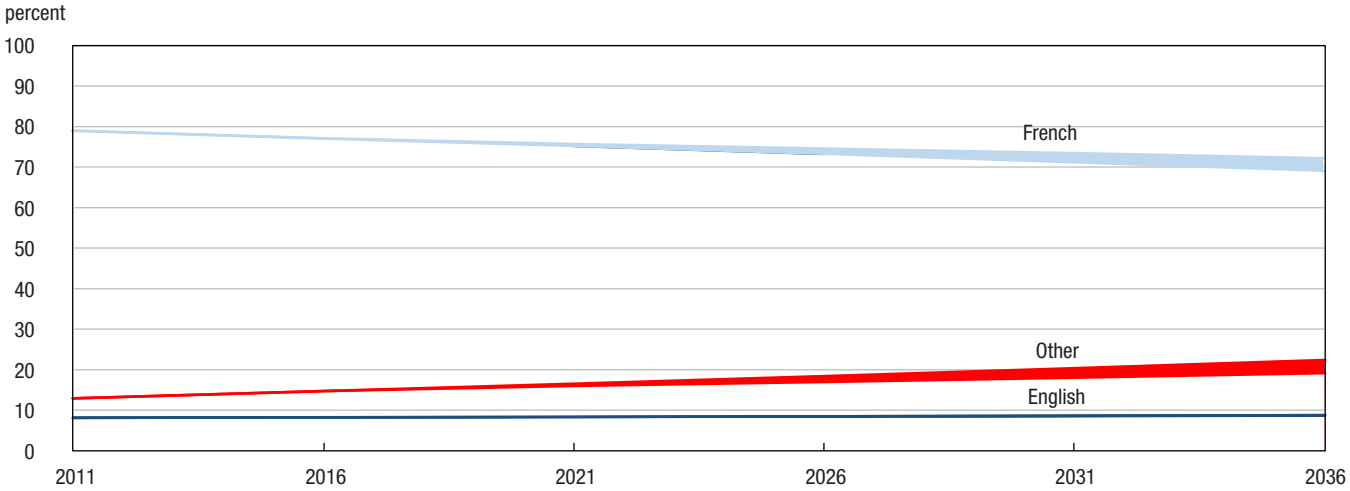
57. The initialism n.o.s. is defined as "not otherwise specified", that is to say, Chinese.
58. In total, 22 immigrant languages were reported in the 2011 Census by more than 100,000 people. An Aboriginal mother tongue was reported by slightly more than 213,000 respondents, 83,475 of whom spoke Cree.

decline during this period, from 990,000 in 2011 to between 890,000 and 942,000 in 2036, according to the three scenarios. As for the English-mother-tongue population, its numbers are projected to reach over 22 million in all three projection scenarios.

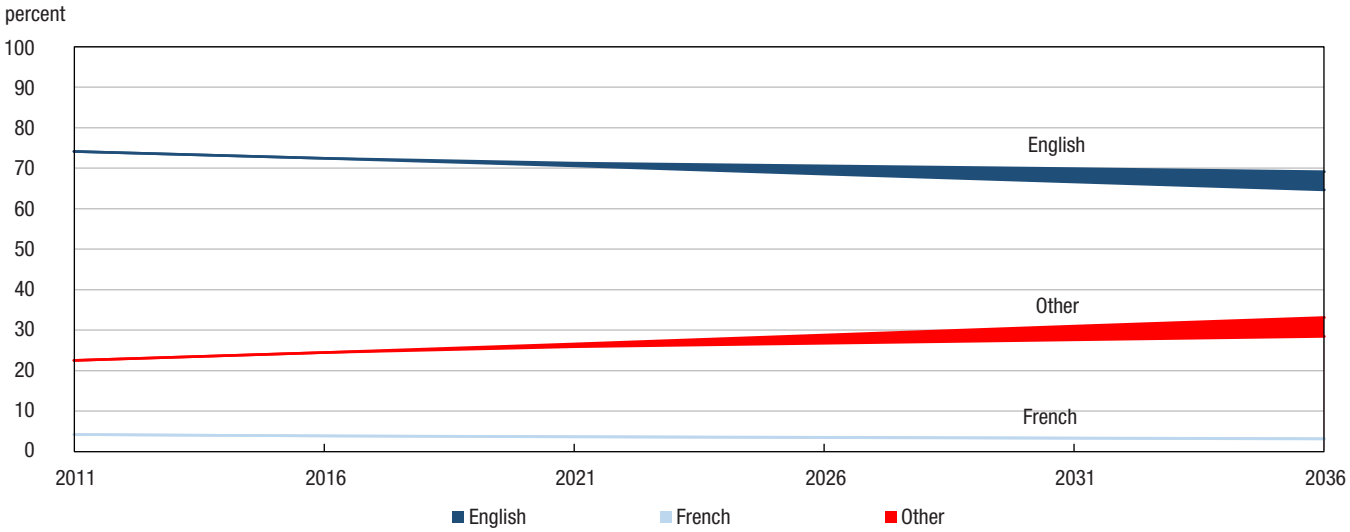
Chart 3.3
Population by mother tongue, by three projection scenarios, 2011 to 2036
a) Canada



b) Quebec



c) Canada outside Quebec



Notes: The shaded area indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

The highest growth would be in the non-official mother-tongue population, expected to increase in number and as a proportion of the total population both in Quebec and in Canada outside Quebec. In Quebec, for example, the reference and high-immigration scenarios have this population more than doubling by 2036. The reference scenario would project an increase of from just over one million in 2011 to slightly more than two million by 2036; the high-immigration scenario would place the 2036 number even higher, at 2.2 million. In percentages, the group would account for between 19% and 23% of Quebec's population in 2036, compared with just under 13% in 2011, an increase of 6 to 10 percentage points in 25 years.

In the rest of Canada, the non-official mother-tongue group could also double between 2011 and 2036, according to the high-immigration scenario. Its relative weight in the Canadian population outside Quebec would rise from 22% in 2011 to 28% in the low-immigration scenario and to 33% in the high-immigration scenario.

3.2.2 Language spoken most often at home[59]

When defined based on language spoken most often at home (home language), the Canadian population should evolve in parallel with the mother-tongue populations, but at different levels. While a person's mother tongue remains invariable throughout their lifetime, their home language is liable to evolve over time as a result of language transfer. Such changes mean that the numbers and proportions of groups defined by mother tongue and home language do not correspond exactly.[60] Still, the evolution of both groups is not without similarities, since the main thrusts propelling their demographic dynamics over time—immigration and natural increase (births minus deaths)—are the same.

In 2011, the population that reported speaking English most often at home represented 67.8% of the total Canadian population (59% based on mother tongue) or 23.2 million individuals. The projection indicates an approximately 20% increase over 25 years, bringing this population to between 27.5 million and 29.2 million by 2036. Conversely, the weight of this group should decrease by 2036, to approximately 65% in 2016, under the reference and high-immigration scenarios, and decrease by 1 percentage point in the low-immigration scenario (Table 3.3 and Chart 3.4).

The population that reported speaking French most often at home is also expected to grow between 2011 and 2036, but at a slower pace than the population whose home language is English, increasing from 7.1 million in 2011 to between 7.6 and 8.0 million in 2036. However, its percentage of the total Canadian population could fall over the projection period, from 21% in 2011 to less than 19% by 2036, regardless of the scenario. In this sense, its evolution closely shadows that of the French-mother-tongue population.

Table 3.3
Population by language spoken most often at home, by three projection scenarios, Canada, Quebec and Canada outside Quebec, 2011 and 2036

		2036 (projected)				2036 (projected)		
	2011 (adjusted)	Reference	Low immigration	High immigration	2011 (adjusted)	Reference	Low immigration	High immigration
Language spoken most often at home	population (thousands)				percent			
Canada								
English	23,240	28,603	27,486	29,189	67.8	65.3	66.9	64.4
French	7,145	7,800	7,553	7,951	20.8	17.8	18.4	17.6
Other	3,888	7,422	6,030	8,164	11.3	16.9	14.7	18.0
Quebec								
English	858	1,217	1,167	1,247	10.7	12.6	12.7	12.6
French	6,525	7,168	6,958	7,300	81.6	74.4	75.7	73.6
Other	611	1,253	1,072	1,365	7.6	13.0	11.7	13.8
Canada outside Quebec								
English	22,382	27,386	26,319	27,942	85.2	80.1	82.6	78.9
French	620	632	595	651	2.4	1.8	1.9	1.8
Other	3,278	6,169	4,958	6,799	12.5	18.0	15.6	19.2

Notes: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

59. "Home language" is also used to denote the language most often spoken at home.
60. Thus, the English-speaking population tends to win in language transfers while the non-official language tends to lose. The French-speaking population tends to win in Quebec and lose elsewhere in Canada.

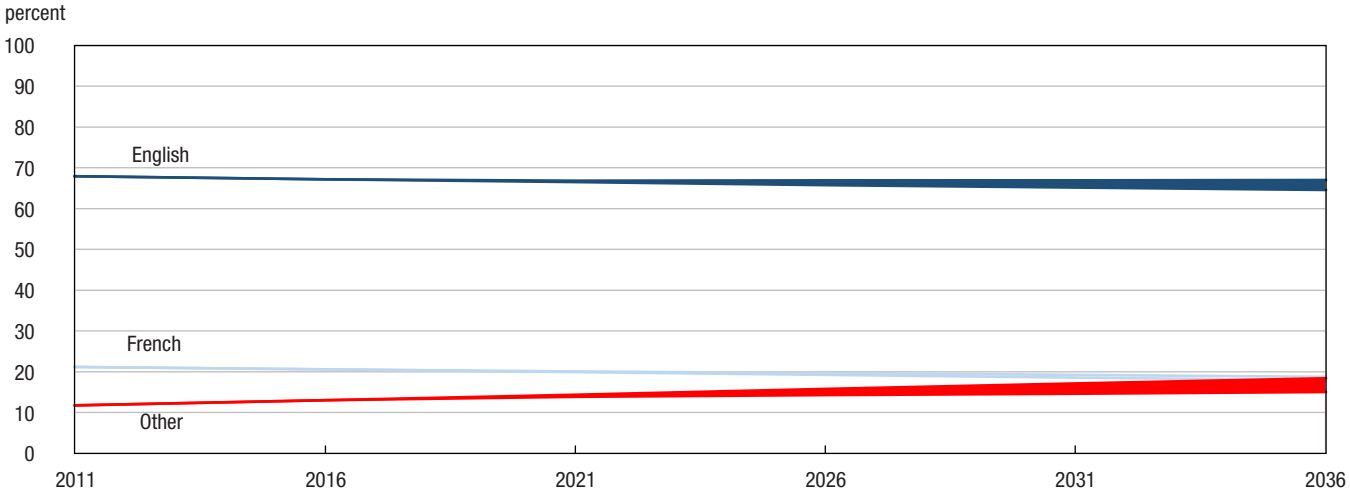
Lastly, the demographic weight of the group that reported speaking a non-official language at home is also expected to increase as much as 5 percentage points in the reference and high-immigration scenarios, or over 2 percentage points in the low-immigration scenario. In 2011, just over 11% of the Canadian population spoke a non-official language most often at home; by 2036, this could vary between 15% and 18%.

In Quebec, the demographic weight of the French-home-language population could decrease from 82% in 2011 to approximately 75% by 2036, with a few scenario-specific variations. By contrast, the weight of the English-home-language population could increase slightly, going from 11% in 2011 to 13% in 2036 in the three projection scenarios.[61] The weight of the non-official home language population should increase more quickly, from 7.6% in 2011 to more than 11.5% in 2036 and up to 14% in the high-immigration scenario.

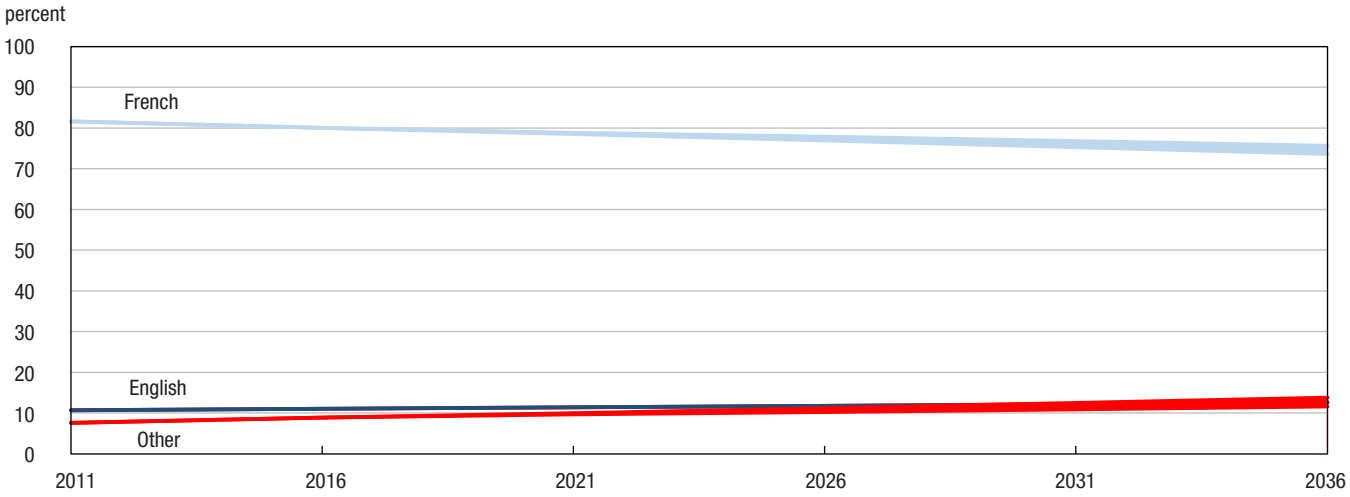
61. Keep in mind that these scenarios assume a fixed linguistic makeup for immigration.

Chart 3.4
Population by language spoken most often at home, by three projection scenarios, Canada, 2011 to 2036

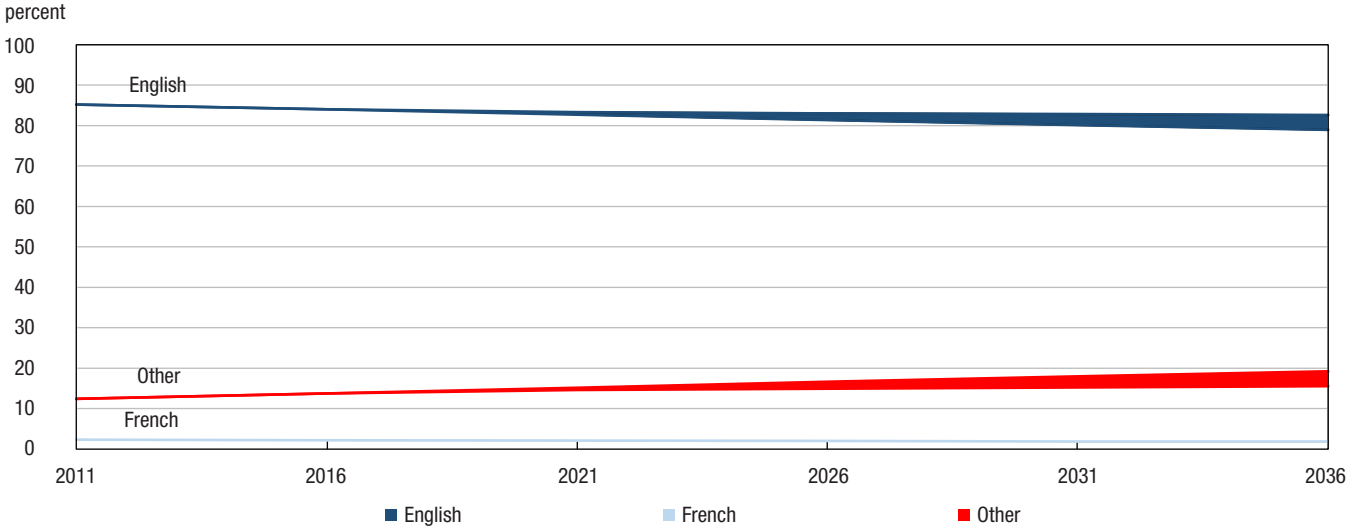
a) Canada



b) Quebec



c) Canada outside Quebec



Notes: The shaded area indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Outside Quebec, the relative weight of the English- and French-home-language populations is liable to decrease over the projection period. The weight of the population who spoke English most often at home should decrease from 85% in 2011 to approximately 80% in 2036 according to the reference scenario, to 83% according to the low-immigration scenario, and to 79% in the high-immigration scenario. While the French-home-language population could vary from 620,000 in 2011 to between 595,000 (low-immigration scenario) and 651,000 (high-immigration scenario) by 2036, its relative weight could decline at virtually the same rate in all scenarios, from 2.4% in 2011 to 1.9%. Conversely, the weight of the non-official home language population should increase during the projection period, to between 16% and 19% in 2036, depending on the scenario. This would be due to an increase of between 30% and 60% in the size of its population during the projection period, depending on the scenario. In 2011, this population of nearly 3.3 million accounted for 12.5% of the total population of Canada outside Quebec.

3.2.3 First official language spoken (FOLS)

The criterion of first official language spoken (FOLS) is particularly useful for identifying Canada's official language communities, whether they constitute a majority or minority in their respective areas, since it integrates the non-official mother tongue population, particularly immigrants (see Chapter 1). Any language that constitutes a majority in a given area has an advantage in the public space. This is true of Canada as a whole, where the majority language is English. Quebec is distinct from the rest of Canada inasmuch as its majority language is French; however, English is still very much present in the private and public spheres, particularly in Montréal. We will look at language evolution according to status in Canada as a whole, in Quebec and in Canada outside Quebec, referring to majorities and minorities in terms of the country's two official languages.

The projection shows that the two FOLS populations would evolve differently between 2011 and 2036, mainly due to the positive contribution of international immigration to the English FOLS population.[62] The latter is expected to increase in the coming years, going from 25.9 million in 2011 to between 31.9 and 35.3 million in 2036, depending on the projection scenario (Table 3.4). Its weight in the Canadian population would increase from 75.4% in 2011 to 77.8% in 2036, in all three scenarios. These percentages surpass those projected for the mother tongue and home language populations. The increased weight would be specific to the FOLS population inasmuch as the other two measures indicate a decrease in the percentage of the English-language group over the projection period.

Table 3.4
Population by first official language spoken, by three projection scenarios, Canada, Quebec and Canada outside Quebec, 2011 and 2036

		2036 (projected)				2036 (projected)		
	2011 (adjusted)	Reference	Low immigration	High immigration	2011 (adjusted)	Reference	Low immigration	High immigration
First official language spoken	population (thousands)				percent			
Canada								
English	25,857	34,098	31,899	35,254	75.4	77.8	77.7	77.8
French	7,847	8,954	8,577	9,182	22.9	20.4	20.9	20.3
Quebec								
English	1,090	1,658	1,538	1,733	13.6	17.2	16.7	17.5
French	6,830	7,912	7,604	8,103	85.4	82.1	82.7	81.8
Canada outside Quebec								
English	24,767	32,440	30,361	33,521	94.2	94.9	95.3	94.7
French	1,017	1,042	973	1,079	3.9	3.0	3.1	3.0

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

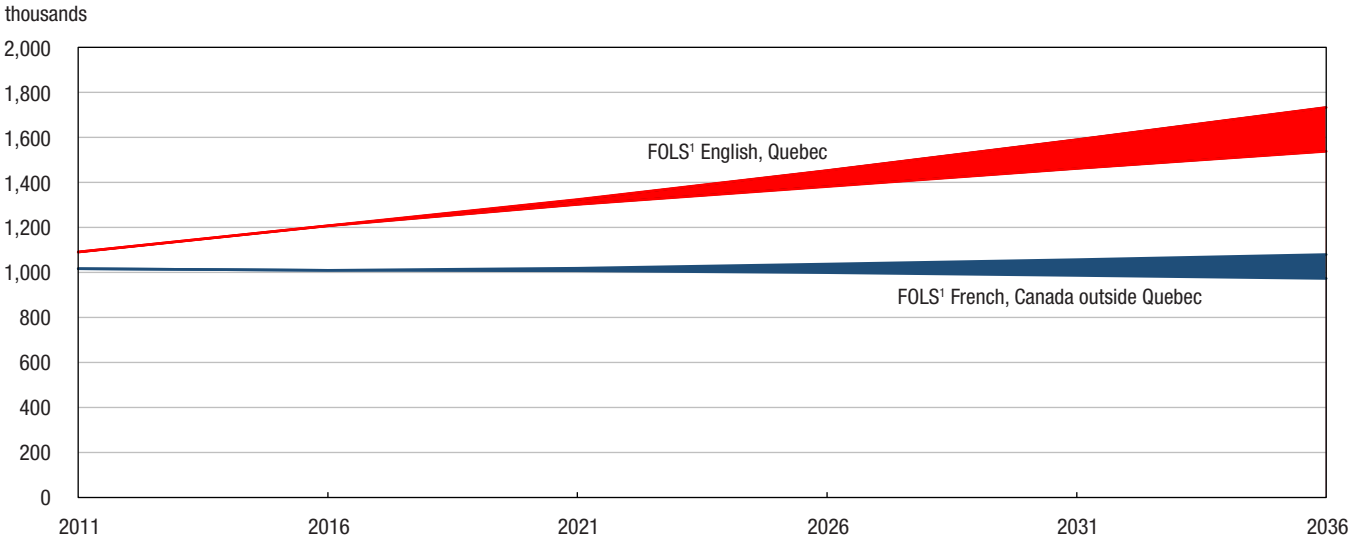
As with mother tongue and home language, the weight of the French FOLS population within Canada could decline by 2036, falling from 23% in 2011 to below 21% in 2036 with minor scenario-specific variations. This is despite the increase to its numbers, which should rise from 7.8 million in 2011 to between 8.6 and 9.2 million in 2036.

The differences between the three language group measures and their evolution over time are complex. Because of this, we need to distinguish between the two situations represented by Quebec (majority francophone) and the rest of Canada (majority anglophone).

62. The FOLS population results omit the "neither English nor French" residual group. In 2011, the weight of this group accounted for only 1.7% of Canada's total population. According to the 2036 projections, it should at best remain stable (high-immigration scenario) or decrease (low-immigration and reference scenarios). The numbers from the "English and French" group, in turn, were redistributed between the two main language groups.

The weight of these four populations would evolve differently between 2011 and 2036 depending on the projection scenario applied. In Quebec, the English-language minority is expected to grow by 25% to 35% over the period, reaching between 1.5 and 1.7 million by 2036. As a result, its relative weight would increase from 14% in 2011 to between 16% and 17% by 2036. In contrast, the weight of the French-language minority population outside Quebec could decrease during the same period, despite its expected increase in terms of numbers to between 970,000 and 1.1 million. In all three scenarios, the weight of this group, which was close to 4% in 2011, could fall to 3% by 2036. In terms of numbers, the two official language minorities, nearly on par in 2011 (1,090,000 for the English FOLS population in Quebec and 1,017,000 for the French FOLS population in Canada outside Quebec), should diverge significantly by 2036 (Chart 3.5). From 74,000 in 2011, the difference between the two could reach 600,000 in favour of the English-language minority in Quebec by 2036.

Chart 3.5
Size of official language minority population, by three projection scenarios, Quebec and Canada outside Quebec, 2011 to 2036



1. "FOLS" is the acronym for "first official language spoken"..
Notes: The shaded area indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

The weight of the majority-official-language population in Canada outside Quebec (English FOLS) could increase slightly during the projection period (from just over 94% in 2011 to around 95% by 2036), due in part to significant growth of its population, from 24.8 million in 2011 to between 30.4 million and 33.5 million by 2036. By contrast, the weight of this same population defined by mother tongue and home language could decrease during the same period.

Quebec's French FOLS population is expected to grow more rapidly than the French-mother-tongue and home language populations. From 6.8 million in 2011, it could reach between 7.5 million (low-immigration scenario) and 8 million (high-immigration scenario) by 2036. However, despite this growth, its relative weight in the total population would still decrease during the projection period, from 85.4% in 2011 to 83% or slightly less in 2036, depending on the scenario. The French-mother-tongue and French-home-language groups could follow the same trend.

3.3 Provinces and territories outside Quebec

The provinces and territories differ considerably in terms of the linguistic composition of their populations. For example, New Brunswick stands out for its relatively large French-mother-tongue population (31.4% in 2011). Similarly, the non-official-language population has a significantly higher demographic weight in regions west of Quebec than in the Maritime provinces.

This section presents the situation and evolution of each of the three language groups for all provinces and territories except Quebec. The results in terms of numbers of the mother tongue, home language and first official

language spoken (FOLS) groups are presented in the appendix tables A.3.1 to A.3.3, while charts 3.6 through 3.8 on the following pages illustrate the projected changes to their relative demographic weights.

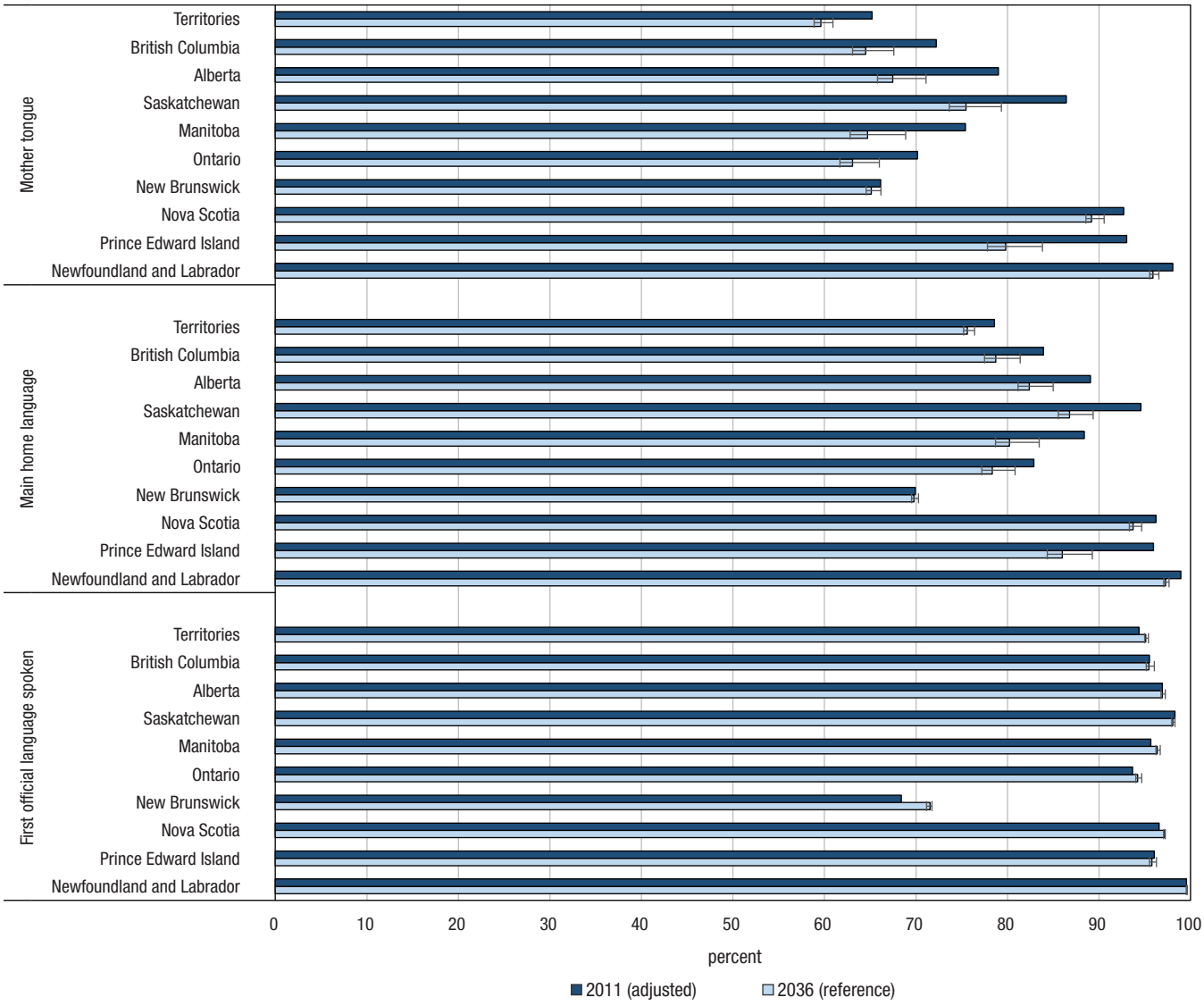
3.3.1 English-speaking population

In 2011, Ontario, followed by British Columbia and Alberta, posted the largest number of people with English as a mother tongue in Canada outside Quebec; the territories and Prince Edward Island had the smallest. All three projection scenarios suggest that, by 2036, the English-mother-tongue population would increase in Ontario, in every province west of it and in the territories (Appendix Table A.3.1). Accordingly, Ontario's English-mother-tongue population is expected to increase from over 9 million in 2011 to approximately 10.5 million in 2036. Alberta is expected to have the second-highest English-mother-tongue population, with a population count of 4.0 million to 4.2 million by 2036. Conversely, the English-mother-tongue populations in the four Atlantic provinces could decline, regardless of the scenario. In addition, the English-home language and FOLS populations in three Atlantic provinces (Newfoundland and Labrador, Nova Scotia and New Brunswick) should decrease between 2011 and 2036.

The weight of the English-speaking group would vary according to the definition criterion and a well-defined gradient. As described in the previous section, in nearly all the provinces and for the territories as a whole, the English-speaking population is larger when defined in terms of the first official language spoken and smaller when identified by mother tongue; home language sits somewhere between the two. Only New Brunswick is the exception: in 2011, its English-home language population was slightly larger than its English FOLS population (69.9% versus 68.4%). The exception can be explained by New Brunswick's considerable French-mother-tongue population, whose language transfers toward English add to the population that most often speaks English at home.[63] The gradient between the three language characteristics observed in the provinces is expected to continue in 2036 according to the three projection scenarios, and possibly even include New Brunswick (Chart 3.6).

63. In 2011, just over 27,000 New Brunswickers who reported French as their mother tongue spoke English the most often at home, for a language transfer rate of 11.4%.

Chart 3.6
English-speaking population, by three linguistic characteristics and three projection scenarios, provinces (outside Quebec) and territories, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

The projection indicates that the relative weight of the English-mother-tongue and home language populations should decrease between 2011 and 2036 in the three scenarios. In some provinces, the decline could be more than 10 percentage points, according to the reference and high-immigration scenarios. The provinces showing the sharpest decline would be Prince Edward Island and the four provinces west of Ontario, with a few variations depending on scenario and whether the population was defined by mother tongue or home language. Prince Edward Island presents the most extreme case: according to the reference scenario, its English-mother-tongue population could decrease from 93% in 2011 to 80% in 2036, while its English-home language population could fall from 96 % to 86% over the same period. This decline is accentuated in the high-immigration scenario.

Conversely, the weight of the English FOLS population should rise between 2011 and 2036 in most of the provinces and in the territories. However, in most cases, this increase would amount to less than 1 percentage point.[64]

64. With the exception of New Brunswick, in 2011 the English FOLS population already accounted for 90% to 95% of the provincial and territorial population totals. Such high percentages necessarily limit opportunities for future growth.

These developments are not expected to substantially alter the overall picture of the English-speaking population in Canada outside Quebec presented in 2011. As in 2011, three provinces should stand out by 2036 for their high proportion of English speakers (mother tongue and home language): Newfoundland and Labrador, Prince Edward Island and Nova Scotia. According to all projection scenarios, the population of these three provinces should make up between 80% and 90% of the total population in 2036. In the seven other provinces and territories, the corresponding percentages should not for the most part exceed 85%. The differences among the provinces are due to non-official language population dynamics, mainly driven by international immigration, as well as the presence of a large French-speaking population in New Brunswick[65]. In all cases, the English-speaking populations in the provinces and territories outside Quebec, including New Brunswick, benefit from language transfers and the fact that for the majority of immigrants, English is the language of convergence and integration.

3.3.2 French-speaking population

The size of the French-mother-tongue populations varies from province to province. In 2011, Newfoundland and Labrador posted the lowest French-mother-tongue population, at 2,000 persons. Prince Edward Island and the territories each had fewer than 6,000 French-speakers (5,200 and 3,000 respectively). In contrast, Ontario and New Brunswick had the largest French-mother-tongue populations outside Quebec (517,000 and 239,000 respectively). The French-home-language and FOLS populations are equally variable according to province but differ in terms of their population counts. The home language population counts are consistently lower than those of the mother tongue, while the FOLS numbers are roughly on par across the country, with the notable exception of Ontario. For example, the French-speaking population in New Brunswick in 2011 was defined as follows: 239,000 persons by mother tongue, 218,000 by home language and 238,000 by FOLS. The French-home-language population accounted for 92% of the mother tongue population, while the FOLS population was just slightly lower than the mother tongue population (Appendix Tables A.3.1 to A.3.3).

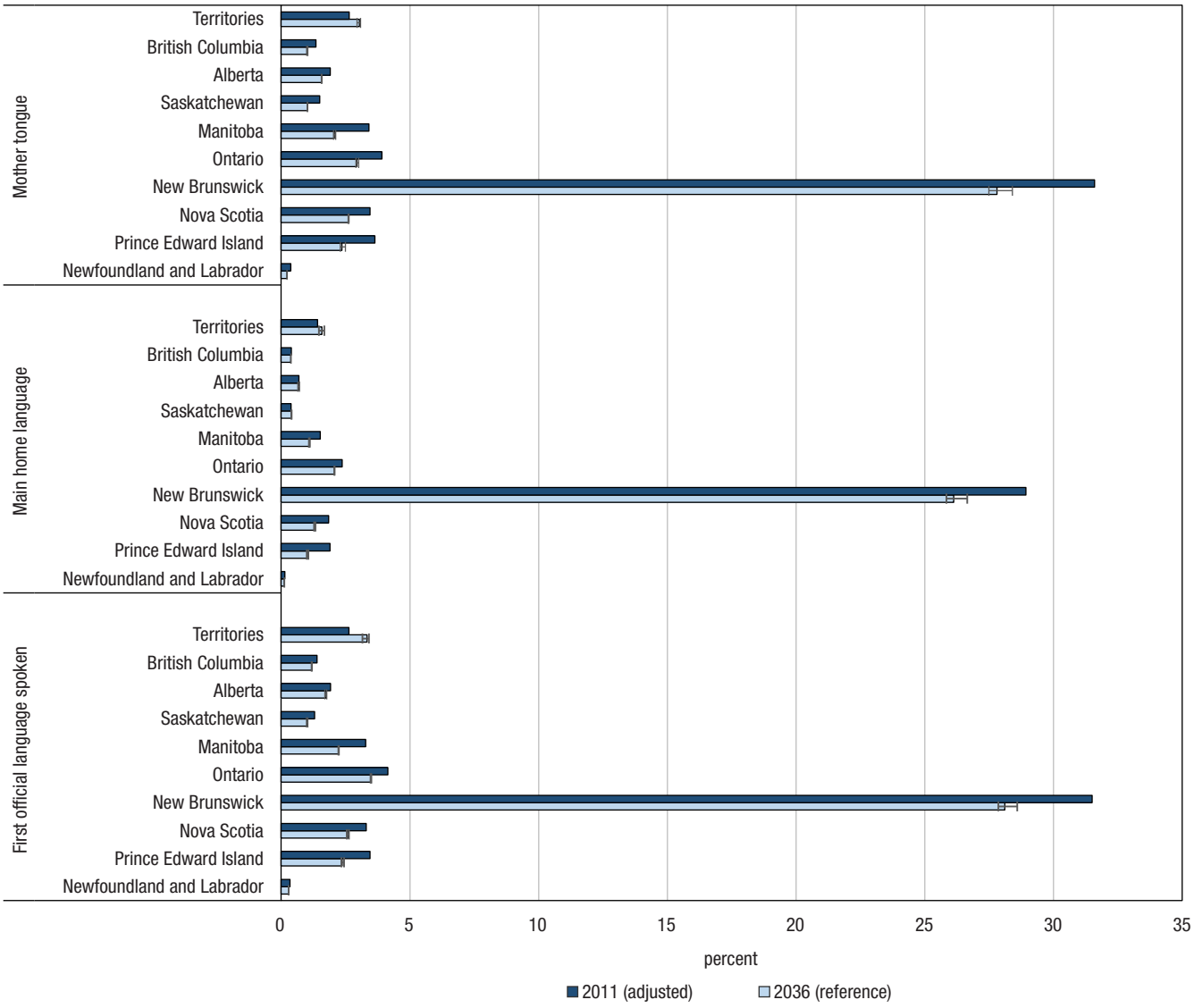
By 2036, the size of these populations is expected to vary unevenly from province to province. The number of French-mother-tongue residents could decline in five provinces between 2011 and 2036: Prince Edward Island, Nova Scotia, New Brunswick, Manitoba and Saskatchewan. The three Maritime provinces would also see their French-home-language and FOLS populations decrease by 2036 in all projection scenarios. The (negative) growth rates over the period would range from -20% to -40% in Prince Edward Island, Nova Scotia and New Brunswick.

In terms of numbers, between 2011 and 2036, the French-speaking populations of Newfoundland and Labrador, Manitoba and Saskatchewan could remain stable or slightly increase. The French-speaking populations of Ontario, Alberta, British Columbia and the territories should grow steadily between 2011 and 2036 in all three projection scenarios. Growth would be highest in Alberta and the territories, with a growth rate somewhere between 25% and over 50% in the reference scenario. In the provinces, the highest growth (or smallest decline) would be observed for the French-home-language population.

The relative share of the French-speaking population varies according to the language characteristic applied. It is lowest when defined based on language spoken most often at home, higher when according to mother tongue and FOLS. This situation distinguishes the French-speaking population from its English counterpart and attests to the attraction of English as a home language among French-speakers living outside Quebec (Chart 3.7).

65. The special character of New Brunswick is clear when FOLS is used to define the language groups. Unlike provinces and territories whose English FOLS populations should account for over 90% of the total population by 2036, the weight of New Brunswick's English FOLS population should be roughly 70% due to its large French-speaking population.

Chart 3.7
French-speaking population, by three linguistic characteristics and three projection scenarios, provinces (outside Quebec) and territories, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

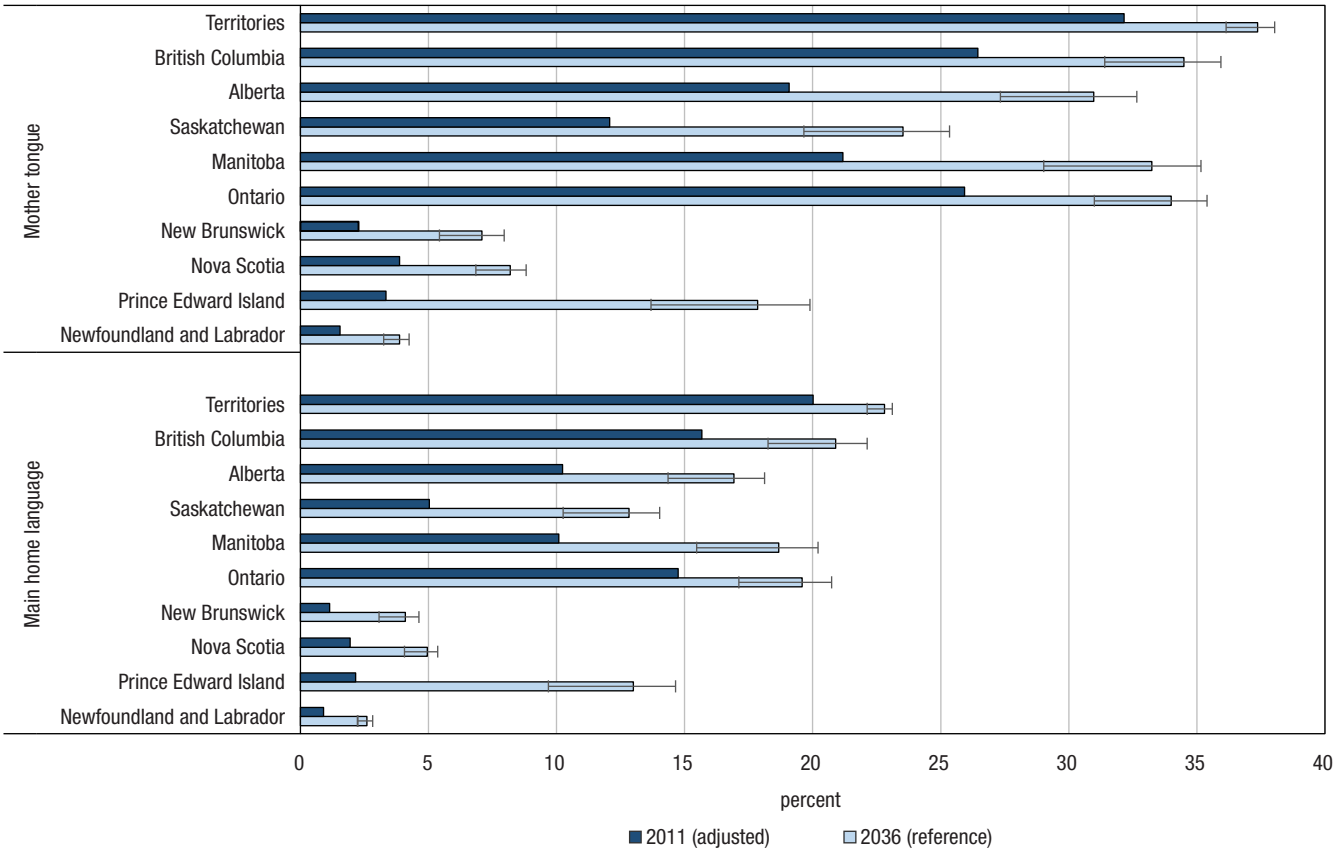
Apart from New Brunswick, the French-speaking population in all provinces and territories was less than 5% in 2011, whether defined by mother tongue, home language or FOLS (Chart 3.7). Barring a few exceptions, the proportion of French-speakers in the total population is expected to decrease by 2036 in all three projection scenarios. The main exceptions are Newfoundland and Labrador and the territories, where the weight of the French-mother-tongue population could increase due to internal migration. Still, these developments should not alter the overall picture produced in 2011: by 2036, the proportion of French-speakers outside Quebec should still represent less than 5% of the total population, except in New Brunswick. There, the weight of the French-speaking population could decline in all three scenarios and for all language characteristics (mother tongue, home language, FOLS). For example, from around 31.5% in 2011, the proportion of both the French mother tongue and FOLS groups in relation to the total population would fall to 29% or below by 2036.

3.3.3 Non-official-language population

Due to immigration, the non-official mother tongue population should increase everywhere outside Quebec between 2011 and 2036 in the three projection scenarios. In the high-immigration scenario, this population

could double in several provinces by 2036. In Ontario and British Columbia, the non-official-mother-tongue population could represent just over 31% of the total population in the low-immigration scenario and 35% or 36% according to the high-immigration scenario by 2036 (Chart 3.8). This population could also see rapid growth in the four Atlantic provinces, even in the low-immigration scenario, though it should not exceed 10% in three of the four provinces by 2036.

Chart 3.8
Population with a language other than English or French, by two linguistic characteristics and three projection scenarios, provinces (outside Quebec) and territories, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Due to language transfer (mainly toward English), in 2011 the weight of the non-official-language population in the provinces and territories was lower when defined by home language than by mother tongue. This could still be the case in 2036 according to the three projection scenarios. In 2011, the gap between the two groups was almost double, and the projections indicate that this would remain the same in 2036. In Ontario, for example, 15% of the 2011 total population reported a non-official language as their language spoken most often at home, while 26% reported it as their mother tongue. According to the projection scenarios, these percentages could reach between 17% and 21% for home language and between 31% and 35% for mother tongue by 2036.

The three scenarios have significant incremental impacts on the non-official-language population projections. This is because the non-official-language population is mainly fuelled by international immigration, the primary demographic component used to distinguish the three scenarios.

3.4 Areas of contact

Four areas of contact were considered: the Montréal and Ottawa–Gatineau census metropolitan areas, Eastern Ontario (except for Ottawa) and New Brunswick.

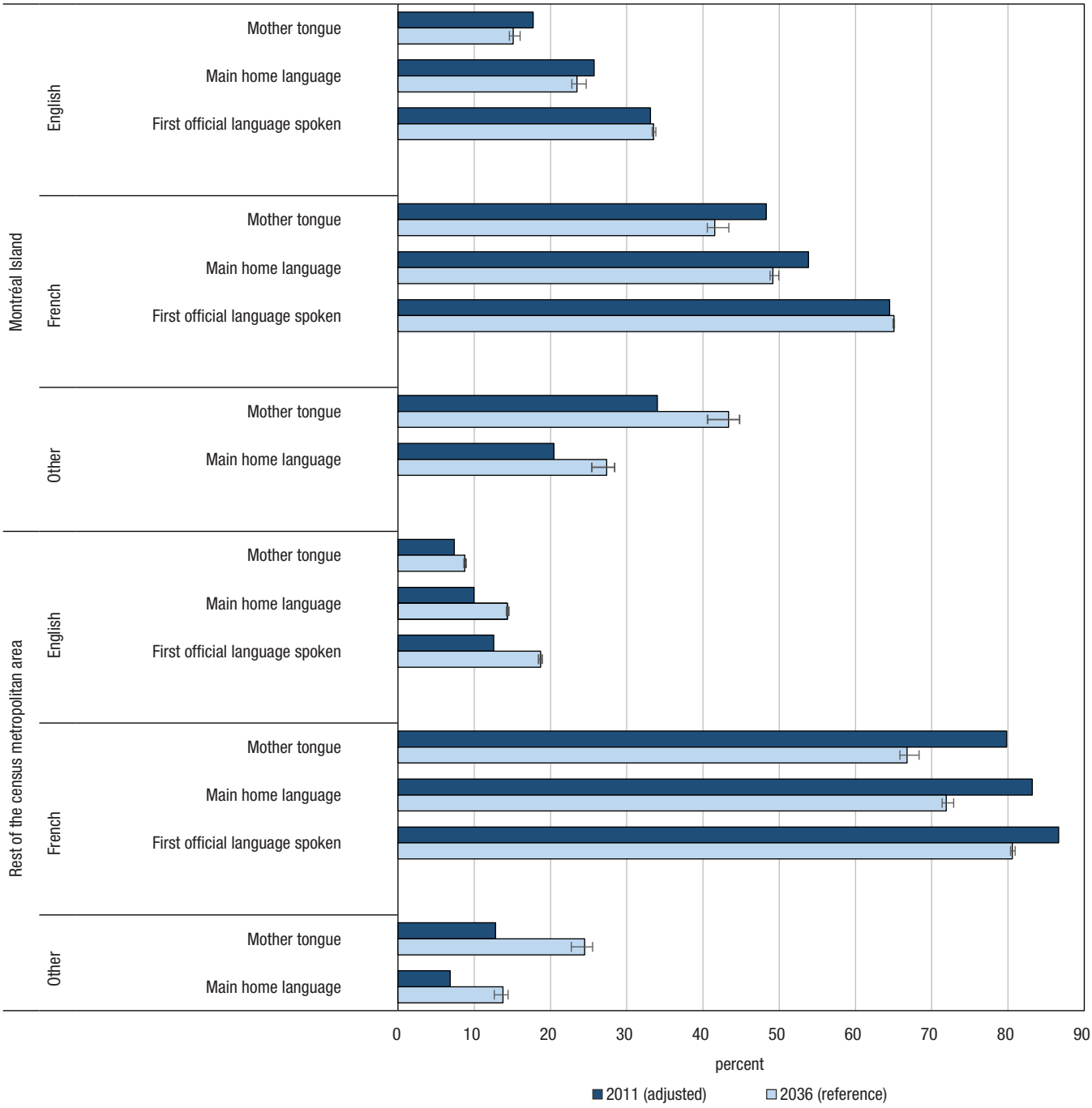
3.4.1 Montréal census metropolitan area

In 2011, the majority of the Montréal census metropolitan area (CMA) population was French-speaking, with 64.3% citing French as their mother tongue, 68.7% as home language and 75.7% as FOLS. The weight of the CMA's English-speaking population varied between 12.5% and 22.7% depending on language characteristic. The non-official-language population represented 23% of the CMA's population by mother tongue and almost half by home language (13%).

The projections indicate that by 2036, the weight of the CMA's French-speaking population should decrease in all three scenarios and for all three language characteristics, albeit less sharply for FOLS due to the proportion of the non-official mother-tongue population that adopts French (Chart 3.9). By contrast, the CMA's English-speaking population should increase in all three projection scenarios, mainly with respect to home language and FOLS. Since the Montréal CMA welcomes—and should continue to welcome—a significant number of immigrants, the weight of the non-official-language population would increase accordingly in all scenarios. By 2036, its proportion of the CMA population could reach over 30% for mother tongue and around 20% for home language.

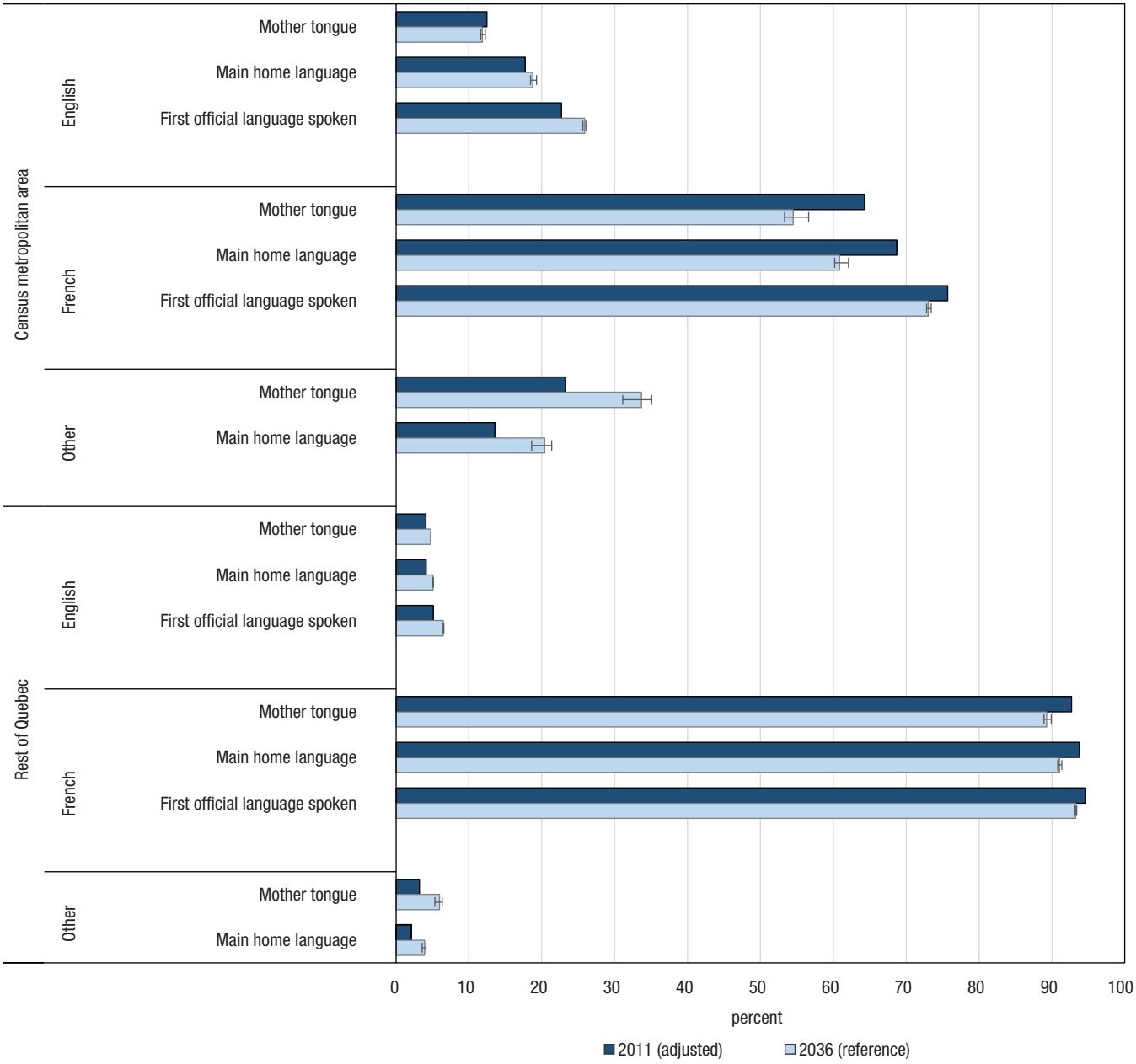
Montréal's urban dynamic is marked by the growth of suburbs like Laval, Longueuil and Terrebonne located mainly (though not exclusively) off Montréal Island. In 2011, the CMA population was more or less equally distributed between those living on Montréal Island (49.3%) and those living off the Island (50.7%).

Chart 3.9a
English, French and other language populations, by three linguistic characteristics and three projection scenarios, Montréal Island and rest of the Montréal census metropolitan area, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Chart 3.9b
English, French and other language populations, by three linguistic characteristics and three projection scenarios, census metropolitan area of Montréal and rest of Quebec, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Montréal Island

During the projection period, the three language groups are expected to have different settlement patterns on and off Montréal Island. The weight of the English- and French-speaking populations on the Island could decline between 2011 and 2036, according to all three projection scenarios.

The French-mother-tongue population, which in 2006 and in 2011 already no longer represented a majority of the Island's population (48%), could see its weight fall to under 44% in 2036. According to the high-immigration scenario, this group could represent only 41% of the Island's population. The French-home-language population could also see its weight decrease to roughly 50% of the Island's total population by 2036, a decrease of 2 to 4 percentage points in 25 years. However, the French FOLS population could increase by half a percentage point, from 64.5% in 2011 to 65.0% in 2036, according to all three projection scenarios. Despite a decrease in the weight of the French-speaking population by mother tongue and home language, the increase in the Island's non-official mother-tongue population would favour an increase in the weight of the French FOLS population. This is mainly due to Quebec's immigrant selection process that puts the focus on knowledge of French. This means that about two-thirds of the Montréal Island population would tend mainly toward French by 2036, despite a French-mother-tongue population that could account for only 41% to 43%.

Montréal Island's English-speaking population could also see its weight decrease between 2011 and 2036, in both the English-mother-tongue and home language populations. Depending on the scenario, the weight of the Island's English-mother-tongue population could fall from 18% in 2011 to around 15% or 16% in 2036. However, when looking at FOLS, the English-speaking population residing on Montréal Island would maintain its relative weight at around 34%.

Conversely, mainly due to immigration, the Island's non-official mother-tongue population is expected to gain roughly 10 percentage points over the projection period, or slightly less in the low-immigration scenario. This group could represent 43% of the total population by 2036, putting it on par with or even slightly higher than the French-mother-tongue population. In the high-immigration scenario, the difference between the two language groups could attain 4 percentage points (40.6% for the French-mother-tongue population compared with 44.8% for the non-official mother tongue population[66]). The non-official home language population stands to gain 5 to 8 percentage points depending on the projected scenario.

Off Montréal Island

In recent years, the Montréal CMA's urban dynamic has been marked by growth in the English-speaking and non-official-language populations living in the suburbs, located mainly off the Island (Termote 2011). This trend is expected to continue until 2036, according to the three projection scenarios. The non-official mother tongue population could account for between 23% and 26% of the total off-Island population in 2036, an increase of more than 10 percentage points compared with 2011. The non-official home language population, in turn, could double over the projection period, rising from 6.8% in 2011 to just over 14% in 2036 in the high-immigration scenario. Growth would be somewhat lower in the reference and low-immigration scenarios.

The demographic weight of the Montréal CMA's English-speaking population living off the Island could generally remain shy of 20%, despite an increase in its percentages. In this sense, growth is expected be greater for the English home language and FOLS populations than for the English-mother-tongue population. This trend is due in part to the attraction of English for certain non-official mother-tongue populations, particularly the language transfers that these groups make toward English.

Consequently, and following on recent trends, the relative weight of the Montréal CMA French-speaking population living off the Island is expected to continue to decline throughout the projection period. Nonetheless, it is still expected to constitute the majority of the CMA's total off-Island population in 2036, at 67%, 72% and 81% respectively for mother tongue, home language and FOLS, according to the reference scenario.

Distribution of the population on and off the Montréal Island

The relative distribution of the Montréal CMA population between the Island and the surrounding suburbs is not expected to change significantly between 2011 and 2036. As previously mentioned, the overall CMA population is divided more or less evenly between on- and off-Island residents.

66. As mentioned previously, the non-official-language population is extremely heterogeneous in terms of its composition by mother tongue; it is difficult to imagine that any one language group in this category could come to outnumber the French-speaking population in the short to medium term.

The percentage of both the English- and non-official-language populations living off the Island should edge up to between 35% and 40% for all language characteristics and scenarios. Conversely, the percentages of their on-Island counterparts should edge down by 2036 (Table 3.5).

Table 3.5
Distribution of English, French and other languages, by three linguistic characteristics and three projection scenarios, census metropolitan area of Montréal, 2011 and 2036

				2036 (projected)		
			2011 (adjusted)	Reference	Low immigration	High immigration
	Characteristic	Region	percent			
English	Mother tongue	Montréal Island	70.0	62.0	61.3	62.4
		Outside of Montréal Island	30.0	38.0	38.7	37.6
		Census metropolitan area	100.0	100.0	100.0	100.0
	Main home language	Montréal Island	71.5	60.8	60.0	61.2
		Outside of Montréal Island	28.5	39.2	40.0	38.8
		Census metropolitan area	100.0	100.0	100.0	100.0
	First official language spoken	Montréal Island	72.0	62.9	61.9	63.5
		Outside of Montréal Island	28.0	37.1	38.1	36.5
		Census metropolitan area	100.0	100.0	100.0	100.0
French	Mother tongue	Montréal Island	37.0	37.1	36.0	37.7
		Outside of Montréal Island	63.0	62.9	64.0	62.3
		Census metropolitan area	100.0	100.0	100.0	100.0
	Main home language	Montréal Island	38.6	39.3	37.7	40.2
		Outside of Montréal Island	61.4	60.7	62.3	59.8
		Census metropolitan area	100.0	100.0	100.0	100.0
	First official language spoken	Montréal Island	42.0	43.3	41.5	44.4
		Outside of Montréal Island	58.0	56.7	58.5	55.6
		Census metropolitan area	100.0	100.0	100.0	100.0
Other	Mother tongue	Montréal Island	72.1	62.7	61.2	63.3
		Outside of Montréal Island	27.9	37.3	38.8	36.7
		Census metropolitan area	100.0	100.0	100.0	100.0
	Main home language	Montréal Island	74.4	65.3	64.1	66.0
		Outside of Montréal Island	25.6	34.7	35.9	34.0
		Census metropolitan area	100.0	100.0	100.0	100.0

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

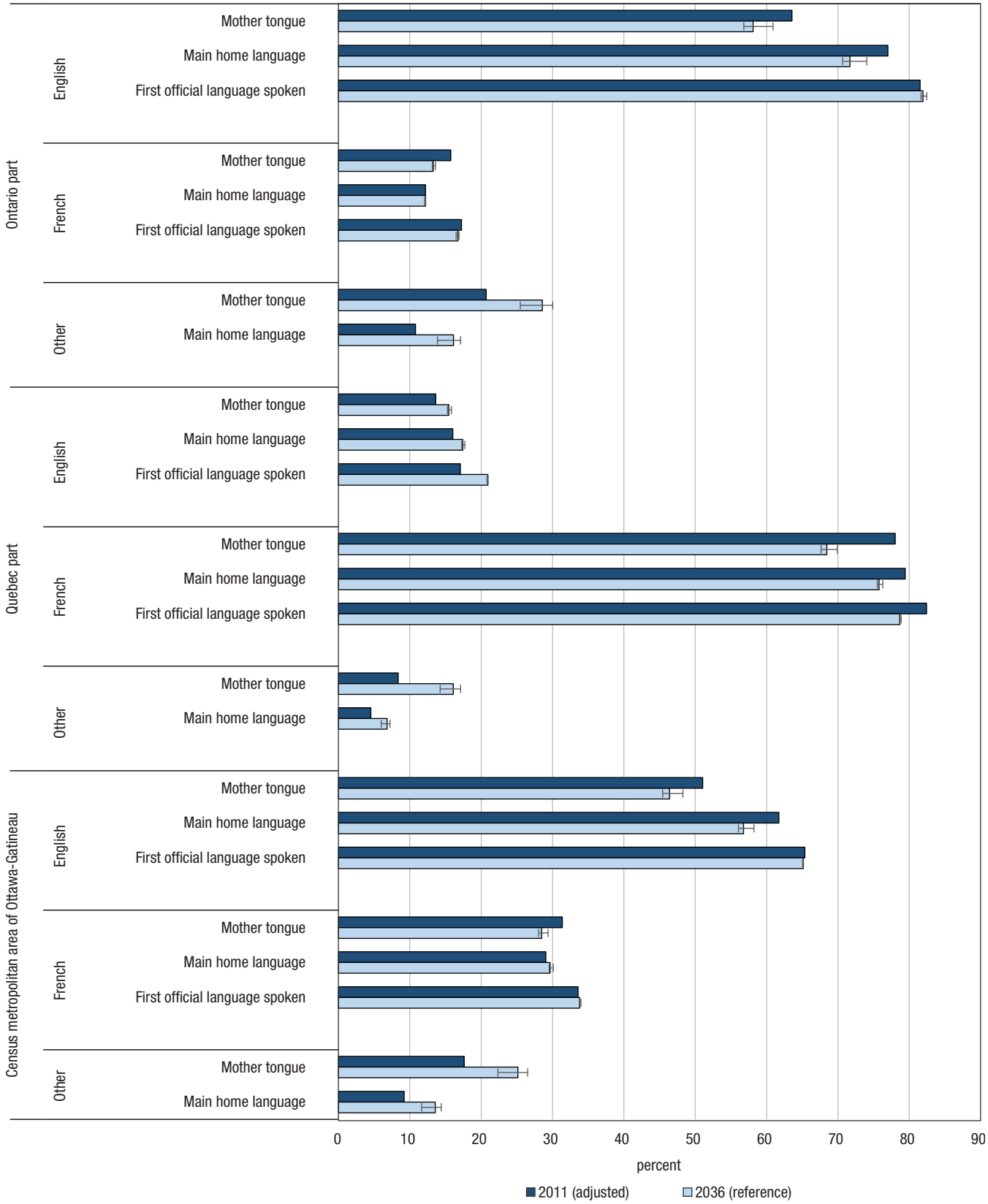
The geographic distribution of the French-speaking population should remain relatively stable between 2011 and 2036. Overall, however, by 2036 the English-speaking and non-official-language populations are expected to continue to live predominantly on the Island and the French-speaking population, predominantly off the Island.

3.4.2 Ottawa–Gatineau census metropolitan area

The Ottawa–Gatineau CMA has the distinction of straddling two official-language populations: Ontario, where the majority is English-speaking, and Quebec with its French-speaking majority. This affects the language composition of both urban areas. In 2011, 63.6% of the population in the Ontario part of the CMA had an English mother tongue, 77% spoke English most often at home, and over 81% reported English as their first official language spoken. In the Quebec part, 78% of the population had a French mother tongue, almost 80% spoke French most often at home, and close to 83% had French as their first official language spoken.

Between 2011 and 2036, the projected demographic evolution of these language groups within each entity composing the CMA are marked by three noteworthy trends (Chart 3.10). The first, which is by no means unique to the Ottawa–Gatineau CMA, is the expected increase in the weights of the mother-tongue and non-official home language populations. This trend should occur in all three scenarios and in both the Ontario and Quebec parts of the CMA.

Chart 3.10
English, French and other language populations, by three linguistic characteristics and three projection scenarios, census metropolitan area of Ottawa-Gatineau, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

The second trend is the anticipated decline in the demographic weight of the English-speaking population in the Ontario part and the French-speaking population in the Quebec part of the CMA between 2011 and 2036. The percentage that the English-mother-tongue population represents in the Ontario part of the CMA could decrease to between 58% and 61% in 2036 (64% in 2011). The trend would be similar for the language spoken most often at home, namely a decrease of 3 to 6 percentage points during the projection period. However, the weight of the English-speaking population based on FOLS would be stable at around 82%. The French FOLS population in the Quebec part is also expected to decrease, though it should remain above 80% in the three projection scenarios.

A third trend could lead to an increase in the percentage represented by the English-speaking population in the Quebec part of the CMA, whether by mother tongue, home language or FOLS. In 2036, 21% of the population of the Quebec part of the CMA would be English-speaking based on FOLS, and more than 15% based on mother tongue.

Changes to language group distribution between the Ontario and Quebec parts of the CMA should affect the three language groups. The English-speaking population's distribution between the two geographic entities favoured the Ontario part in 2011, with approximately 93% of the English-speaking population having lived on the Ontario side and 7% on the Quebec side in 2011, compared with approximately 91% and 9%, respectively, in 2036.

The distribution of the French-speaking population should change regardless of language characteristic and scenario (Table 3.6). By 2036, this population should decrease in the Ontario part and increase by the same proportion in the Quebec part, and would predominantly live in the Quebec part, in proportions ranging from 64% (FOLS) to 71% (home language).

Table 3.6
Distribution of English, French and other languages, by three linguistic characteristics and three projection scenarios, census metropolitan area of Ottawa–Gatineau, 2011 and 2036

				2036 (projected)		
			2011 (adjusted)	Reference	Low immigration	High immigration
	Characteristic	Region	percent			
English	Mother tongue	Ottawa	93.3	90.8	90.8	90.8
		Gatineau	6.7	9.2	9.2	9.2
		Census metropolitan area	100.0	100.0	100.0	100.0
	Main home language	Ottawa	93.5	91.6	91.5	91.6
		Gatineau	6.5	8.4	8.5	8.4
		Census metropolitan area	100.0	100.0	100.0	100.0
	First official language spoken	Ottawa	93.4	91.2	91.0	91.2
		Gatineau	6.6	8.8	9.0	8.8
		Census metropolitan area	100.0	100.0	100.0	100.0
French	Mother tongue	Ottawa	37.6	33.9	33.3	34.1
		Gatineau	62.4	66.1	66.7	65.9
		Census metropolitan area	100.0	100.0	100.0	100.0
	Main home language	Ottawa	31.5	29.8	28.9	30.1
		Gatineau	68.5	70.2	71.1	69.9
		Census metropolitan area	100.0	100.0	100.0	100.0
	First official language spoken	Ottawa	38.5	35.9	34.9	36.4
		Gatineau	61.5	64.1	65.1	63.6
		Census metropolitan area	100.0	100.0	100.0	100.0
Other	Mother tongue	Ottawa	88.1	82.4	82.1	82.4
		Gatineau	11.9	17.6	17.9	17.6
		Census metropolitan area	100.0	100.0	100.0	100.0
	Main home language	Ottawa	87.7	86.2	85.6	86.3
		Gatineau	12.3	13.8	14.4	13.7
		Census metropolitan area	100.0	100.0	100.0	100.0

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

In 2011, the non-official-language population was based predominantly in the Ontario part of the Ottawa–Gatineau CMA (88%). This percentage should decrease by 2036. In 2011, 12% of the "other"-mother-tongue population lived in the Quebec part; by 2036, this percentage could reach 18% due to immigration and cross-border migration.

3.4.3 Ontario's French-speaking regions (excluding Ottawa)

This area of contact between the English- and French-speaking populations was specifically defined for our study. It comprises two regions: the Greater Sudbury CMA; and non-CMA census divisions (CD) in Ontario whose French FOLS population percentage is equal to or greater than 20% (Caron-Malenfant 2015). These CDs are Stormont, Dundas and Glengarry, Prescott and Russell, Nipissing, Sudbury, Timiskaming and Cochrane. The two regions are presented separately below.

The region overall can be characterized by the language composition of its population. In 2011, over 95% of the population in French-speaking regions of Ontario was English- or French-speaking, with the majority (64%) reporting English as their mother tongue and 31% reporting French (Tables 3.7 and 3.8). The non-official-language population was thus vastly in the minority, particularly in terms of language spoken most often at home (1.7% in 2011), a reflection of the region's extremely low rate of immigration.

Table 3.7
English, French and other language speaking population, by three linguistic characteristics and three projection scenarios, francophone regions of Ontario, 2011 and 2036

				2036 (projected)		
			2011 (adjusted)	Reference	Low immigration	High immigration
	Characteristic		number (thousands)			
Francophone Ontario	**Total population**		**556**	**512**	**509**	**514**
	English	Mother tongue	358	357	355	357
		Main home language	424	407	405	408
		First official language spoken	386	379	376	381
	French	Mother tongue	171	134	134	134
		Main home language	123	97	97	97
		First official language spoken	169	133	132	133
	Other	Mother tongue	27	22	20	23
		Main home language	9	8	7	9
Greater Sudbury	**Total population**		**165**	**153**	**151**	**153**
	English	Mother tongue	112	111	111	111
		Main home language	136	128	127	128
		First official language spoken	123	119	118	120
	French	Mother tongue	42	34	34	34
		Main home language	25	22	22	22
		First official language spoken	42	33	33	33
	Other	Mother tongue	11	8	7	8
		Main home language	4	3	3	3
Rest of francophone Ontario	**Total population**		**390**	**360**	**357**	**361**
	English	Mother tongue	245	245	244	246
		Main home language	287	279	278	280
		First official language spoken	262	260	258	261
	French	Mother tongue	129	100	100	100
		Main home language	98	75	75	75
		First official language spoken	127	100	99	100
	Other	Mother tongue	16	14	13	15
		Main home language	6	5	5	6

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table 3.8
Percent of English-, French- and other- language speaking population, by three linguistic characteristics and three projection scenarios, francophone regions of Ontario, 2011 and 2036

				2036 (projeced)		
			2011 (adjusted)	Reference	Low immigration	High immigration
	Characteristic		percent			
Francophone Ontario	English	Mother tongue	64.4	69.6	69.8	69.5
		Main home language	76.2	79.5	79.6	79.4
		First official language spoken	69.4	74.0	73.9	74.1
	French	Mother tongue	30.8	26.2	26.3	26.1
		Main home language	22.1	18.9	19.0	18.9
		First official language spoken	30.4	25.9	26.0	25.8
	Other	Mother tongue	4.9	4.2	3.9	4.4
		Main home language	1.7	1.6	1.4	1.7
Greater Sudbury	English	Mother tongue	68.0	72.9	73.2	72.7
		Main home language	82.6	83.9	84.1	83.8
		First official language spoken	74.6	78.3	78.2	78.3
	French	Mother tongue	25.6	22.0	22.2	21.9
		Main home language	15.2	14.2	14.3	14.2
		First official language spoken	25.2	21.6	21.7	21.5
	Other	Mother tongue	6.4	5.1	4.6	5.4
		Main home language	2.2	1.9	1.7	2.1
Rest of francophone Ontario	English	Mother tongue	62.8	68.2	68.3	68.1
		Main home language	73.6	77.6	77.7	77.5
		First official language spoken	67.2	72.2	72.1	72.3
	French	Mother tongue	33.0	27.9	28.1	27.8
		Main home language	25.0	20.9	21.0	20.9
		First official language spoken	32.6	27.7	27.8	27.6
	Other	Mother tongue	4.2	3.8	3.6	4.0
		Main home language	1.4	1.5	1.3	1.6

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

In 2011, the weight of the English-speaking population was higher in Greater Sudbury than in the non-CMA French-speaking areas, with respective English FOLS populations of 75% and 67%; similar differences were observed in the English-speaking mother tongue and home language populations. The opposite was true of the French-speaking population, whose weight was higher in the non-CMA French-speaking areas than in Greater Sudbury. Specifically, 33% of the non-CMA French-speaking populations reported French as their first official language spoken in 2011, compared with 26% in Greater Sudbury.

On the whole, Ontario's French-speaking areas outside Ottawa are expected to experience a population decline between 2011 and 2036 (Tables 3.7). In 2011, their total population was 556,000; this could fall to below 515,000 in 2036, regardless of the projection scenario. The decline is expected to occur in both sub-regions, mainly as a result of a dwindling French-speaking population. To take mother tongue as an example, the size of the French-speaking population could decline by more than 35,000 over the projection period, dropping from 171,000 in 2011 to 134,000 in 2036. In this sense, the Greater Sudbury French-speaking population could decline by 8,000 and that of the non-CMA French-speaking areas, by 29,000. Over the same period, both the English-speaking and non-official-language populations would remain relatively stable or decrease slightly. Similar trends are expected in the home language and FOLS populations, with the exception of the English-home-language population, which could fall by roughly 16,000 between 2011 and 2036.

In relative terms, between 2011 and 2036 both the English-speaking and non-official language groups in the two sub-regions are likely to see their demographic weight increase in all three projection scenarios (Table 3.8). By contrast, the percentage represented by the French-speaking population could decrease in all three projection scenarios—a direct consequence of the projected future decline in the number of French-speakers. In Greater Sudbury, all three projection scenarios indicate that the French-mother-tongue and FOLS populations could fall from their 2011 level of 25% to 22% in 2036. In the non-CMA French-speaking areas, the decline should be somewhat more pronounced, with the French-mother-tongue and FOLS populations falling from 33% in 2011 to approximately 28% in 2036, a loss of roughly 5 percentage points.

Overall, the two regions should undergo similar change, brought about by the overall population decline, on the one hand, and the low immigration rate compared with other parts of Ontario on the other. Their respective French-speaking populations should decrease in terms of both number and percentage for all language characteristics and in all scenarios.

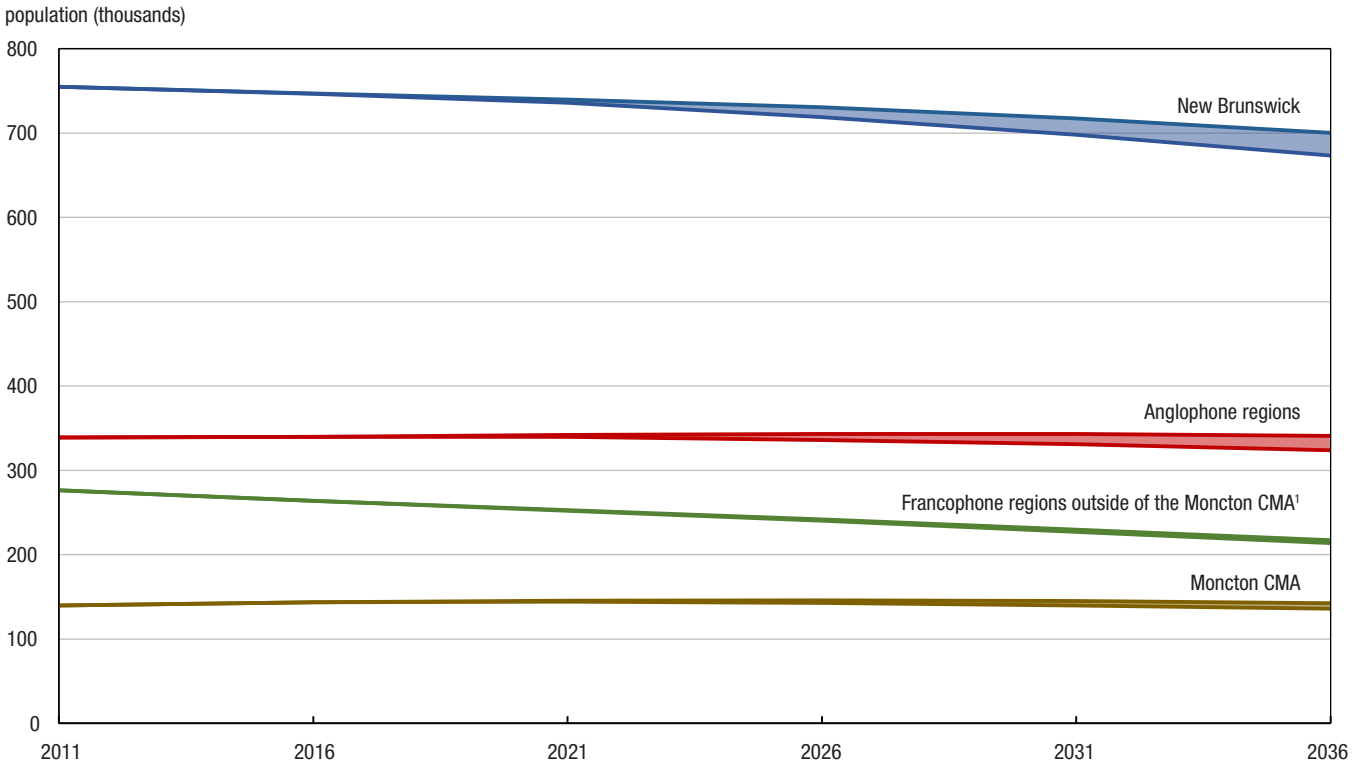
3.4.4 New Brunswick

New Brunswick has a large French-speaking population. In terms of absolute numbers, it is Canada's third-largest after Quebec and Ontario. In relative terms, New Brunswick places second after Quebec. It is also the province where the respective weights of the two official language groups are closest, at 66% and 32% for the English- and French-mother-tongue populations respectively. From this standpoint, it bears similarities to Ontario's French-speaking areas outside Ottawa, whose percentages are nearly identical (64% and 31%).

For the purposes of our language projections, we have defined two French-speaking regions in New Brunswick: the Moncton CMA and the non-CMA francophone regions. The latter comprise the province's census divisions (CD) with a French FOLS population equal to or higher than 20% (Caron-Malenfant 2015) of Westmorland, Kent, Northumberland, Victoria, Madawaska, Restigouche and Gloucester. In 2011, 63% of the population in the non-CMA had French as their mother tongue or as their FOLS, and 62% spoke French most often at home. In the Moncton CMA, these percentages were 34% and 29% respectively. The rest of the province, including the cities of Fredericton and Saint John, are mostly anglophone, with English being the mother tongue of 93% of the population.

According to the three scenarios, the provincial population could decline during the projection period (Chart 3.11), from 755,000 in 2011 to 700,000 in 2036 in the high-immigration scenario or to 673,000 in the low-immigration scenario. While the non-CMA French-speaking population could decrease by approximately 60,000 in all three scenarios, the population of the other two regions (English-speaking areas/Moncton CMA) would remain relatively stable, with slight upward or downward variations depending on the scenario. This means that the province's overall population decline would occur primarily in the non-CMA francophone regions.

Chart 3.11
Total population of New Brunswick and its three regions, by three scenarios, 2011 to 2036



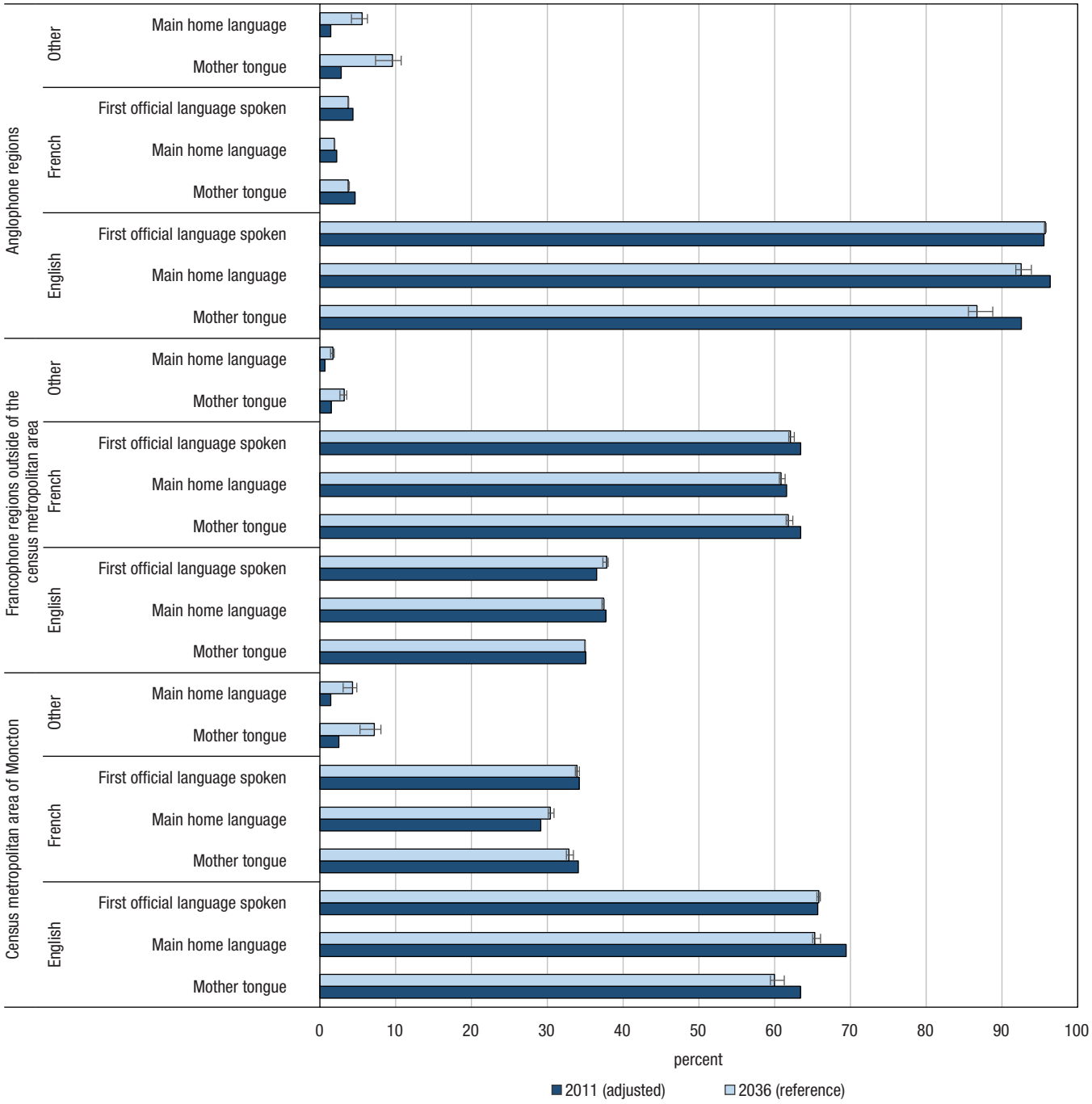
1. "CMA" is the acronym for "census metropolitan area".
Notes: The shaded area indicates the interval between the minimum and maximum projections for all scenarios combined.
The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Its language group dynamics would be characterized by a drop in the relative weight of the English-speaking population in the province's three sub-regions, even in the English-speaking areas where it constitutes a majority (Chart 3.12). There is only one exception to this general trend: in the English-speaking areas, the English FOLS population would remain at its 2011 level of 95.5%.

The weight of the French-speaking population could fall by 1 or 2 percentage points in the three regions, regardless of the language characteristic considered.

The weight of the non-official-language population, in turn, would substantially increase in all three regions by 2036; however, it should not exceed 10% of the population in any scenario.

Chart 3.12
English, French and other language populations, by three linguistic characteristics and three projection scenarios, New Brunswick, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

3.5 Official-language populations

This section presents the results of a set of nine projection scenarios to 2036 for the English- and French-speaking populations. In addition to the three immigration scenarios used so far,[67] two alternative scenarios focus on

67. For more information on the base population and the different assumptions related to these scenarios (immigration, fertility, mortality, internal migration, etc.) that were developed for these projections, see Statistics Canada (2016a and 2016b).

the effect of total population growth, four address assumptions regarding immigration levels, distribution and composition by country of birth of immigrants, two focus on internal migration patterns and one addresses the rates of French transmission rates outside Quebec.

Tables 3.9 and 3.10 focus respectively on the English-speaking population and the French-speaking population defined by FOLS. In the appendix, these same tables are presented for the populations defined by mother tongue and the language spoken most often at home (Tables A.3.4 to A.3.7). Overall, the English FOLS population, in terms of number and demographic weight, should increase between 2011 and 2036 in all provinces and territories, even in New Brunswick and Quebec where the weight of the French-speaking population is significantly higher than elsewhere in Canada. The percentage that the English FOLS population could represent should not vary significantly in 2036, according to the scenarios presented in Table 3.9. The theoretical scenario of zero international migration after 2016 presents the most significant increase in the weight of the English-speaking populations, except in Quebec and New Brunswick, but would also produce the lowest population growth.

Table 3.9
Population with English as first official language spoken, by different projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036

		2036 (projected)											
	2011 (adjusted)	Zero immi-gration	Refer-ence	Low immi-gration	High immi-gration	Low growth	High growth	Internal migration 1996 to 2001	Internal migration 1996 to 2011	Distribution of immigration 2000 to 2005	Distribution of immigration 2005 to 2010	Composition of immigration 2005 to 2010	Almost complete transmission of French
	number (thousands)												
Newfoundland and Labrador	522	467	481	475	484	464	503	373	441	476	477	481	476
Prince Edward Island	138	142	167	157	172	153	178	161	161	147	161	167	165
Nova Scotia	911	836	891	869	902	847	940	898	893	874	889	891	884
New Brunswick	517	455	494	479	502	467	523	491	491	473	486	494	489
Quebec	1,090	1,311	1,658	1,538	1,733	1,499	1,806	1,512	1,613	1,660	1,687	1,674	1,664
Ontario	12,398	13,091	15,798	14,785	16,323	14,283	17,127	16,219	15,940	16,648	16,111	15,787	15,685
Manitoba	1,177	1,270	1,633	1,495	1,704	1,452	1,776	1,604	1,627	1,436	1,551	1,631	1,621
Saskatchewan	1,046	1,157	1,404	1,310	1,454	1,273	1,520	1,264	1,351	1,223	1,277	1,406	1,391
Alberta	3,661	4,721	5,904	5,464	6,133	5,316	6,398	6,197	6,007	5,371	5,552	5,884	5,856
British Columbia	4,290	4,621	5,524	5,185	5,700	4,969	6,057	5,265	5,438	5,556	5,625	5,513	5,490
Territories	106	133	145	141	147	136	154	127	140	139	141	145	145
Canada outside Quebec	24,767	26,895	32,440	30,361	33,521	29,361	35,177	32,598	32,489	32,343	32,271	32,397	32,203
Canada	**25,857**	**28,206**	**34,098**	**31,899**	**35,254**	**30,860**	**36,982**	**34,110**	**34,103**	**34,003**	**33,958**	**34,072**	**33,867**
	percent												
Newfoundland and Labrador	99.6	99.7	99.6	99.6	99.6	99.6	99.5	99.4	99.6	99.6	99.6	99.6	99.3
Prince Edward Island	96.0	97.1	95.8	96.3	95.5	96.2	95.5	95.8	95.8	96.9	96.1	95.8	95.0
Nova Scotia	96.6	97.4	97.1	97.2	97.1	97.2	97.1	96.7	97.1	97.2	97.1	97.1	96.6
New Brunswick	68.4	70.5	71.5	71.2	71.7	71.1	71.7	71.2	71.4	71.0	71.3	71.5	70.5
Quebec	13.6	15.7	17.2	16.7	17.5	16.7	17.5	16.3	17.2	17.2	17.3	17.4	17.2
Ontario	93.7	95.5	94.2	94.7	94.0	94.7	94.0	93.6	94.2	93.9	94.1	94.2	93.6
Manitoba	95.7	97.3	96.4	96.7	96.2	96.7	96.2	96.0	96.4	96.8	96.5	96.3	95.8
Saskatchewan	98.3	98.8	98.1	98.3	97.9	98.3	97.9	98.1	98.1	98.5	98.4	98.0	97.5
Alberta	96.9	97.8	96.9	97.2	96.8	97.2	96.8	96.7	97.0	97.2	97.1	96.8	96.3
British Columbia	95.5	97.2	95.4	96.0	95.2	96.1	95.2	94.8	95.5	95.4	95.2	95.3	95.0
Territories	94.4	95.8	95.1	95.4	95.0	95.4	95.0	94.1	95.1	95.5	95.4	95.1	94.9
Canada outside Quebec	94.2	96.0	94.9	95.3	94.7	95.3	94.7	94.4	94.9	94.7	94.8	94.8	94.3
Canada	**75.4**	**77.5**	**77.8**	**77.7**	**77.8**	**77.6**	**77.9**	**77.9**	**77.8**	**77.7**	**77.5**	**77.8**	**77.3**

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

The minor variations in the weight of the English-speaking population from one scenario to the next are attributable to the high attraction of English for the non-official-language population across Canada, regardless of the demographic factors of growth (particularly immigration and fertility). Except in Quebec, immigrants tend heavily to learn English, and among those who have neither English nor French as their mother tongue, language transfers are mainly toward English.

In Quebec, the size and relative demographic weight of the English FOLS population should increase between 2011 and 2036, according to all the scenarios. Specifically, the percentage represented by the English-speaking population based on FOLS could increase to between 15.7% and 17.5 % in 2036, up from 13.6% in 2011. If we exclude the scenario that assumes zero immigration after 2016, the 1996–2001 internal migration scenario would produce the lowest percentage (16.3%). This period saw quite significant migration from Quebec to the rest of Canada, not only for the French-speaking population, but also for the English-speaking population (see Chapter 2).

By mother tongue, the scenario based on the 1996–2001 internal migration would produce a decrease in weight of the English-speaking population in Quebec, which would fall from 8.2% in 2011 to 7.9% in 2036 (Table A.3.4). The other scenarios reveal that its weight should be between 8.4% and 8.8%, and even 9% according to the scenario that assumes zero immigration after 2016.

When defined by FOLS, the demographic weight of the French-speaking population within the total population of the provinces should decrease between 2011 and 2036, regardless of the scenario. However, this would not be the case in the territories (Table 3.10). Moreover, the percentage of the French FOLS population would remain largely consistent across all scenarios. With the exception of Newfoundland and Labrador, New Brunswick and Quebec, the decline could be substantial in most provinces. In Manitoba, it could range from 0.5 to 1 percentage point, depending on the scenario; in the rest of Canada outside Quebec, the decline could be about half a percentage point. While these figures appear small, it should be kept in mind that the percentages observed in 2011 were already low. For example, a decrease of 1 percentage point would represent a relative decline in the weight of the French FOLS population of about 30% in Manitoba, 40% in Saskatchewan and 20% in Nova Scotia.

Table 3.10
Population with French as first official language spoken, by different projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036

		2036 (projected)											
	2011 (adjusted)	Zero immi-gration	Refer-ence	Low immi-gration	High immi-gration	Low growth	High growth	Internal migration 1996 to 2001	Internal migration 1996 to 2011	Distribution of immigration 2000 to 2005	Distribution of immigration 2005 to 2010	Composition of immigration 2005 to 2010	Almost complete transmission of French
	number (thousands)												
Newfoundland and Labrador	2	1	1	1	1	1	2	2	2	1	1	1	3
Prince Edward Island	5	4	4	4	4	4	4	4	4	4	4	4	5
Nova Scotia	31	21	24	23	24	22	25	28	25	23	24	24	29
New Brunswick	238	190	194	192	195	188	203	196	195	192	194	194	202
Quebec	6,830	7,019	7,912	7,604	8,103	7,414	8,417	7,676	7,845	7,914	7,998	7,892	7,948
Ontario	548	467	585	542	609	525	636	710	621	617	599	576	687
Manitoba	40	28	38	34	40	34	41	43	39	33	36	37	48
Saskatchewan	14	11	15	13	15	13	16	13	14	12	13	15	22
Alberta	72	77	106	95	112	94	116	134	114	97	101	107	141
British Columbia	63	54	69	63	72	61	76	90	76	69	71	69	93
Territories	3	4	5	5	5	5	5	6	5	5	5	5	5
Canada outside Quebec	1,017	856	1,042	973	1,079	946	1,125	1,228	1,096	1,053	1,047	1,033	1,234
Canada	**7,847**	**7,875**	**8,954**	**8,577**	**9,182**	**8,360**	**9,543**	**8,903**	**8,941**	**8,967**	**9,046**	**8,925**	**9,182**
	percent												
Newfoundland and Labrador	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.5	0.4	0.3	0.3	0.3	0.6
Prince Edward Island	3.5	2.6	2.4	2.4	2.3	2.5	2.3	2.5	2.6	2.6	2.4	2.4	3.1
Nova Scotia	3.3	2.4	2.6	2.5	2.6	2.6	2.6	3.1	2.8	2.6	2.6	2.6	3.1
New Brunswick	31.5	29.4	28.1	28.6	27.9	28.6	27.9	28.5	28.3	28.8	28.4	28.2	29.1
Quebec	85.4	83.9	82.1	82.7	81.8	82.7	81.7	83.0	82.4	82.1	82.0	81.9	82.1
Ontario	4.1	3.4	3.5	3.5	3.5	3.5	3.5	4.1	3.7	3.5	3.5	3.4	4.1
Manitoba	3.3	2.2	2.2	2.2	2.2	2.2	2.2	2.6	2.3	2.3	2.2	2.2	2.8
Saskatchewan	1.3	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.5
Alberta	1.9	1.6	1.7	1.7	1.8	1.7	1.8	2.1	1.8	1.8	1.8	1.8	2.3
British Columbia	1.4	1.1	1.2	1.2	1.2	1.2	1.2	1.6	1.3	1.2	1.2	1.2	1.6
Territories	2.6	2.9	3.3	3.2	3.4	3.2	3.3	4.2	3.5	3.1	3.2	3.3	3.5
Canada outside Quebec	3.9	3.1	3.0	3.1	3.0	3.1	3.0	3.6	3.2	3.1	3.1	3.0	3.6
Canada	**22.9**	**21.6**	**20.4**	**20.9**	**20.3**	**21.0**	**20.1**	**20.3**	**20.4**	**20.5**	**20.7**	**20.4**	**21.0**

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Of all the scenarios, the one based on the 1996–2001 internal migration, a period marked by significant interprovincial migration from Quebec to Ontario, Alberta and British Columbia, would produce one of the highest French FOLS populations outside Quebec (more than 1.2 million, compared with the reference scenario of just over 1 million). This internal migration scenario would suggest a variation in the relative weight of the French FOLS population outside Quebec, decreasing from 3.9% in 2011 to 3.6% in 2036, compared with 3% in the reference scenario in 2036.

According to the scenario of internal migration patterns based on the 2011 NHS and the 2001 and 2006 censuses, the French-speaking population living outside Quebec could reach almost 1.1 million in 2036, an increase of 80,000 people since 2011. During the same period, the demographic weight of the French FOLS population in Canada outside Quebec would fall from 3.9% in 2011 to 3.2% in 2036.

Given the importance of intergenerational transmission, the application of transmission rates reproducing an almost complete transmission of French to French-speaking populations outside Quebec would have of course a positive effect on the growth of the weight of the French-speaking populations in four provinces (Newfoundland and Labrador, Saskatchewan, Alberta, British Columbia) and in the territories. In Alberta, for example, the weight of the French FOLS population would rise from 1.9% (2011) to 2.3% (2036) in this scenario, rather than falling to 1.7% or 1.8% in most of the other scenarios. For Canada outside Quebec, the application of these transmission rates would allow the French-speaking population to grow in number (from 1,017,000 in 2011 to 1,234,000 in 2036),

but would not prevent its weight in the total population from declining, though to a lesser degree than in most of the other scenarios. As a result, in the almost complete French transmission scenario, the weight of the French FOLS population could be 3.6% in 2036, compared with 3.1% in most of the other scenarios. This shows how important the intergenerational transmission phenomenon is for the evolution of this language group

3.6 French-language minorities outside Québec

One of the issues raised by these projections concerns the demographic dynamics of Canada's French-speaking populations, particularly outside Quebec. As we have seen throughout this chapter, the weight of the French-speaking population in Canada, regardless of how it is defined, should decline over the next 25 years according to the various projection scenarios presented thus far.

Knowing that the level and composition of immigration could be modified, we have used Demosim to project the number of French-speaking immigrants (FOLS) required each year between 2017 and 2036 in order to keep the weight of French-speaking minority populations in each province constant with the 2016 levels. Essentially, this amounts to calculating the number of immigrants required to keep the weight of the French-speaking population (non-immigrants and immigrants combined) from declining from a reference point in time. Since immigration from 2011 to 2016 has already taken place and been integrated into Demosim,[68] we started our simulation in 2017. The projection components (except for composition of immigration) were drawn from the reference scenario. The total number of immigrants admitted to Canada and their provincial distribution during the simulation therefore correspond to the levels provided by the reference scenario; the simulation does not alter these two parameters. What it does change is the language composition of immigrants, though without increasing their numbers in relation to the reference scenario, in order to generate the desired number of French-speaking immigrants. Note that, since their French FOLS populations are not expected to decline in percentage terms between 2017 and 2036, Newfoundland and Labrador and the territories were excluded from the simulation.

The simulation shows that the required number of French-speaking immigrants could vary significantly from the numbers projected in the reference scenario. Prince Edward Island presents the most extreme situation. To maintain the weight of its French FOLS population, Prince Edward Island should multiply its projected number of French FOLS immigrants by 13.9 in order to attain the target (Table 3.11). Four other provinces—Nova Scotia, New Brunswick, Manitoba and Saskatchewan—would need to at least double their anticipated number of French-speaking immigrants to do the same. Elsewhere, the target numbers would be relatively lower. The expected number of immigrants would need to be multiplied by just 1.2 in Alberta, and 1.5 in both Ontario and British Columbia, representing respective increases of 20% and 50%.

Table 3.11
Simulation of the number and percentage of French-speaking immigrants (FOLS[1]) required to maintain the 2016 weight of the French-speaking population (according to the FOLS), for each year, provinces (excluding Newfoundland and Labrador and Quebec), and Canada outside Quebec, 2017 to 2036

	Population with French as their first official language spoken in 2016	Projected immigrants with French as their first official language spoken		Required number of immigrants with French as their first official language spoken			
Province	percent	number (thousands)	share of total immigration (%)	number (thousands)	share of total immigration (%)	required ratio/ projected	distribution (%)
Prince Edward Island	3.1	1	0.5	3	7.3	13.9	1.1
Nova Scotia	3.1	2	3.7	7	10.2	2.9	2.4
New Brunswick	30.9	7	11.4	22	35.2	3.3	7.9
Ontario	3.9	107	4.1	156	6.0	1.5	56.7
Manitoba	3.0	7	1.8	29	7.3	4.2	10.6
Saskatchewan	1.2	4	1.3	8	2.7	2.1	2.8
Alberta	1.8	21	2.2	25	2.7	1.2	9.2
British Columbia	1.3	17	1.8	26	2.7	1.5	9.4
Total Canada outside Quebec	**3.7**	**165**	**3.1**	**275**	**5.1**	**1.7**	**100.0**

1. "FOLS" is the acronym for "first official language spoken".
Source: Statistics Canada, Demosim, 2016.

Overall, the demographic context and regional immigration-related disparities mean that some provinces would need to accommodate a sufficient annual number of French-speaking immigrants that s much higher than

68. The most recent IRCC statistics on permanent residents and the immigration plan for 2016 were incorporated into the projection.

expected to stem the decline in their French-speaking populations. In total, however, according to the simulation based on the reference scenario, 5.1% of the immigrants who settle outside Quebec between 2017 and 2036 would need to have French as their first official language spoken, compared with 3.1% in the reference scenario. This percentage would vary greatly by province, from more than 35% in New Brunswick to less than 3% in three Western provinces. In all cases, the result of this simulation would translate into a higher percentage of French-speaking immigrants.

3.7 Overview

Future trends in how language will evolve in Canada between 2011 and 2036 can be summarized quite succinctly. The population sizes of the three main language groups should increase over the next 25 years, but at different rates. The only exceptions to this trend would be the English- and French-speaking populations in the Atlantic provinces, which could decline, regardless of the language characteristic (mother tongue, home language or FOLS) or immigration scenario considered.[69]

The French-speaking population should show the weakest growth in all three groups, both in and outside Quebec, with its demographic weight declining as a result. In Canada outside Quebec, the French-home-language population does not benefit from language transfers. Rather, part of its population tends to adopt English as the language most often used at home. Moreover, the results show that the total French FOLS population outside Quebec could grow from 68,000 to 168,000 in 25 years, effectively outstripping the growth of the French-mother-tongue population, which in turn could rise to between 8,000 and 64,000 persons depending on the projection scenario.

The English-speaking population should evolve along similar lines, but with a few specific characteristics. This population benefits largely from language transfers and from the fact that English is the main language of convergence and integration outside Quebec. The projection results show that the English FOLS population should grow in both size and percentage across Canada, except in the Atlantic provinces, while the English-mother-tongue and home language populations, as a percentage of the total population, should see a slight decline.

The results show that the variation in the absolute number of immigrants in the three projection scenarios presented to date should generally have a limited impact on the relative demographic weight of Canada's official language groups, both in Quebec and in the rest from Canada. Of course, in terms of its weight, immigration has a major impact on population growth in Canada and on the ethnocultural and linguistic diversification of the Canadian population (Statistics Canada, 2017a). However, the variation of the immigration rate within the range produced by the three projection scenarios has only a minor effect on the official language population's distribution, regardless of the definition criterion applied. This situation is different for the non-official-language population: essentially dependent on immigration for renewal, it is far more sensitive to the scenarios.

Nonetheless, all three scenarios indicate that the non-official-language population should continue to increase both in number and percentage throughout the projection period.

As well as immigration, other factors play into the country's language composition, including composition of immigration (by country of birth, etc.) and interprovincial migration. Scenarios developed specifically for our language projections that take these factors into account have been presented.

Interprovincial migration should negatively impact the growth of Quebec's population across all language groups. By the same token, it would positively affect population growth in the rest of Canada. However, the impact could be far more significant on the French-speaking population outside Quebec than on the other two groups, due to the small size of the former. Internal migration could partially offset the negative contributions of natural increase and linguistic mobility, both of which slow the growth of French-language minority communities.

Results from the alternative scenarios developed for these language projections have shown that the demographic weight of French-speaking minorities in Canada is sensitive not just to the level of immigration, but also to internal migration, albeit to varying degrees. There are also differences between the provinces. However, only the scenarios whose assumptions included internal migration patterns similar to those observed between 1996 and 2001—resulting from economic growth conditions that spurred migration to Ontario, Alberta and British Columbia—would project an increase in the weight of the French-speaking population in four or five provinces and

69. In Newfoundland and Labrador, the French-speaking populations by mother tongue and first official language spoken should nonetheless increase.

the territories. To simply maintain the weight of the French-speaking population in each province, some provinces would need to boost their number of French-speaking immigrants well in excess of the numbers projected over the next few years in the reference scenario.

Chapter 4 The composition of language groups, 2011 to 2036

The factors likely to influence how the composition of language groups evolves between now and 2036 are many and complex. This chapter explores these factors. First, as background, we will present the components of population growth of language groups in Quebec and the rest of Canada. Age pyramids and age structure indicators are included to illustrate the evolution of age structure in the language groups between 2011 and 2036. We will then examine the changes in the composition of the English first official language spoken (FOLS) and French FOLS populations by generation status. Specifically, the purpose of this section will be to bring to light the growing ethnocultural diversity (immigrants and second-generation individuals) within the two official language groups, on account of international immigration. Lastly, we will examine language transfers to English and French that which occur when individuals adopt a language other than their mother tongue as the language spoken most often at home.

4.1 Language groups' components of population growth

Four components contribute to population growth of language groups: natural increase, net internal migration, net international migration and net linguistic mobility. Natural increase is the difference between the number of births and deaths in a population. When it is negative, there are more deaths than births. Internal migration in a province or any given geographic area is the difference between the number of in-migrants from another part of the country and the number of out-migrants who move to elsewhere in the country. Net international migration refers to the number of new immigrants who have moved to the country minus the number of emigrants, or those who have left the country to return to their country of birth or to settle in another country. Lastly, net linguistic mobility is the difference between, on one hand, the number of people who join a language group as a result of learning one or more official language or changing the language spoken most often at home, and, on the other, the number of people who no longer belong to this language group for the same reasons.

The previous chapter analysed scenarios that varied the components one at a time, either by the size or the composition of international migration, internal migration or the rate of transmission of French. This highlighted the impact that the evolution of these components could have on the demographic dynamics of language groups. This section briefly examines the possible evolution of the components themselves between 2011 and 2036.

The components of population growth do not have the same magnitude from scenario to scenario and language groups as defined by mother tongue, home language or the first official language spoken. However, a common point in these scenarios and various definition criteria, is the importance of net international migration. To illustrate the importance of each component of the demographic growth of language groups, these components are presented in language groups defined according to the first official language spoken.

According to all the projection scenarios, the language groups—defined by FOLS—should grow at different rates between 2011 and 2036 (Table 4.1). The English FOLS population living in Quebec should see the fastest growth, followed by the English FOLS population in the rest of Canada (respectively, 13.7 and 10.7 per thousand annually between 2011 and 2036, as per the reference scenario). The French-speaking populations should show a slower growth rate.

Table 4.1
Mean annual growth rate by first official language spoken, by three immigration projection scenarios, Canada outside Quebec and Quebec, 2011 to 2036

	Reference	Low immigration	High immigration
	rate per thousand		
Canada outside Quebec			
French	1.0	-1.7	2.4
English	10.7	8.1	12.0
Quebec			
French	5.9	4.3	6.8
English	16.5	13.6	18.2

Note: The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

According to the three immigration scenarios, net international migration is expected to be the main contributor to growth of the English and French FOLS populations in Quebec and the rest of Canada between 2011 and 2036. None of the three other components should surpass it, however, some variation exists in these trends, depending on the scenario considered.

The English FOLS population in Canada outside Quebec should see an increase in its total population between 2011 and 2036 on account of all four components, with net international immigration and natural increase playing the biggest role.

Net international migration should account for the largest share of total French FOLS population growth in Canada outside Quebec, while the contribution of natural increase would be negative. On account of the population aging characterizing minority French-language communities (see Chapter 2), the number of recorded deaths in these communities is high. Moreover, the transmission of French is incomplete, such that the number of children with the same mother tongue as their mothers is not as high as it could be in a complete language transmission situation (see Chapter 2). The reference scenario suggests this negative natural increase could persist throughout the projection period. The rate of natural increase and the rate of net linguistic mobility between 2011 and 2036 should be negative.

The English- and French-speaking populations in Quebec are expected to grow over the next 25 years and at a faster rate than their respective counterparts outside Quebec.[70] As in the rest of Canada, growth in Quebec would stem mainly from international immigration. However, both language groups should lose a share of their populations to an increase in internal migration, due to a mobility towards the other provinces.

According to the reference scenario, the population growth components are expected to differentially affect the development of the English- and French-speaking populations in Quebec. Whereas net linguistic mobility is likely to contribute positively to English-speaking population growth (FOLS) linguistic mobility should have virtually no impact on the growth rate of the French FOLS population (0.048 per thousand annually) over the same period.

We could see a negative balance in natural increase for French-speaking populations both inside and outside Quebec, whereas the balance should be positive for the English-speaking populations. In fact, natural increase of the French FOLS population in Quebec should become negative at some point during the projection period (2031 under the reference scenario), whereas natural increase in the English FOLS population is expected to remain positive throughout the projection period.

In 2036, as in 2011, immigration should continue to contribute the largest share of population growth in Canada's language groups (defined by FOLS) while internal migration and linguistic mobility could have more limited impact. Linguistic mobility should benefit English FOLS populations only. Internal migration should positively impact the growth of populations outside Quebec only, and this positive effect should be more pronounced for the French-speaking population.

70. Table 4.1 is a classic example of Simpson's Paradox. While the growth of the English FOLS and French FOLS populations is stronger in Quebec than in the rest of Canada, the rate of total population growth in Canada outside Quebec is higher than in Quebec. This is because the population share of each of these groups is very different in the two geographic regions. In Canada outside Quebec, the population share of English FOLS was 94.2% in 2011 compared with 3.9% for the French FOLS population. In Quebec, the situation was the reverse, with respective percentages of 13.6% and 85.5%. In both regions, total population growth is mainly a factor of growth observed in the majority population; in other words, the English-speaking population in Canada outside Quebec, and the French-speaking population in Quebec.

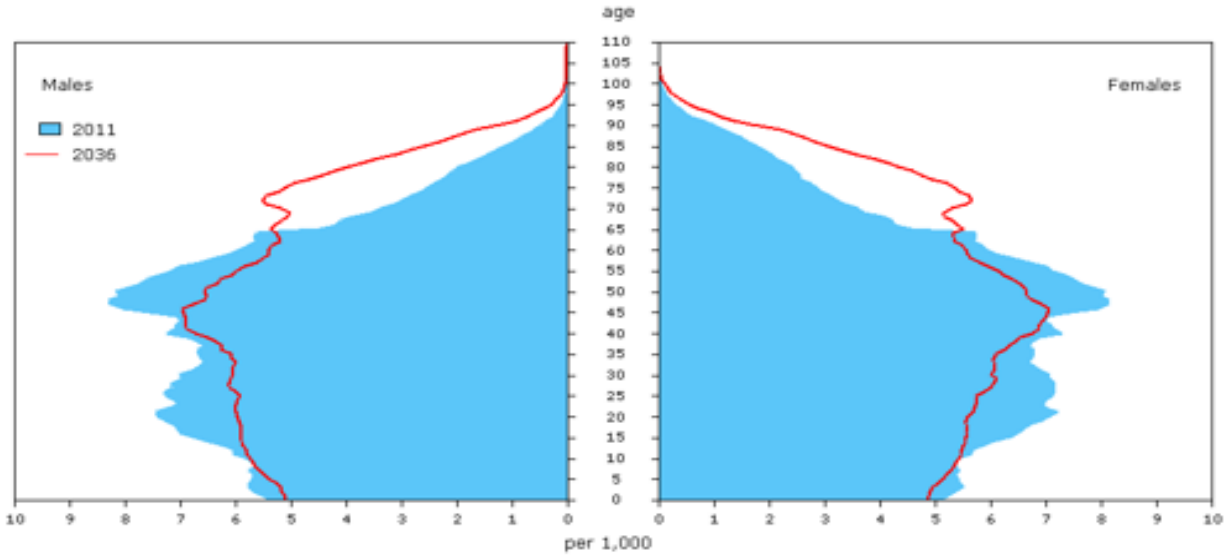
4.2 The evolution of age structures

Population pyramids provide a unique graphic representation of the age and sex structure of a population, and, as we saw in Chapter 2, this information can prove useful in interpreting the demographic situation of a given language group. The four pyramids below allow us to compare the age structures of the English FOLS and French FOLS populations in Quebec and in Canada outside Quebec, and illustrate the aging population in each population between 2011 and 2036, as the percentage of persons aged 65 or over rises (Charts 4.1 and 4.2). The pyramids for Canada outside Quebec do not necessarily reflect the situation of any given province. In fact, most provinces' age structures differ markedly from those shown for Canada outside Quebec. This is the case for Newfoundland and Labrador, Prince Edward Island, Nova Scotia, Manitoba, Saskatchewan, Alberta, British Columbia and the territories (charts not showed). In these provinces, the bases of the French FOLS population pyramids are substantially narrower than those of the English FOLS pyramids in both 2011 and 2036, under the reference scenario. Conversely, in Ontario and New Brunswick, the pyramids are similar to those of Canada outside Quebec, which is explained by the fact that these two provinces, alone, account for more than 75% of the French FOLS population living in Canada outside Quebec in both 2011 (77.4%) and 2036 (76.5%) under the reference scenario.

The English-speaking populations were younger than the French-speaking populations in 2011 and would remain so in 2036. The median age of the English FOLS population was 38.9 years in 2011 and should reach 42.8 years in 2036 for Canada as a whole under the reference scenario. The difference between the English-speaking populations in Quebec and the rest of Canada are negligible (Table 4.2).

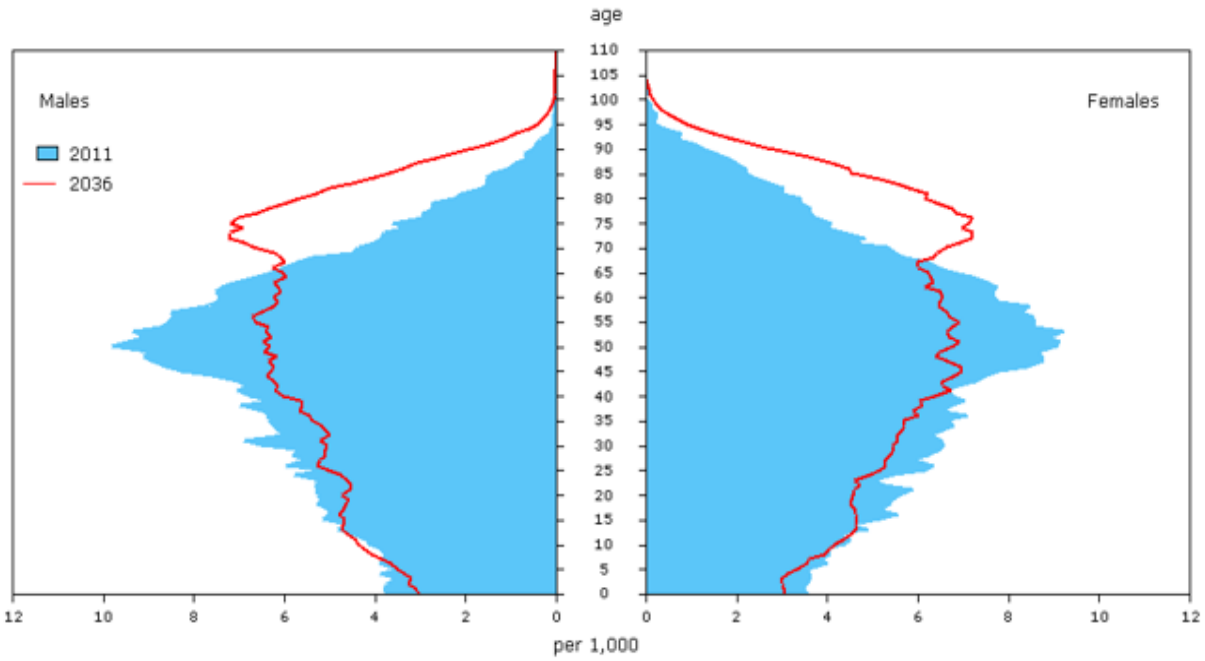
The median age of the French-speaking populations in Canada broke the 40-year mark in 2011 and could reach over 45 years in 2036 under the reference scenario. The French-speaking population living outside Quebec, however, was the oldest age structure of all groups, as indicated by the particularly narrow base of its pyramid. In 2036, the median age of the French FOLS population living outside Quebec would be close to 50 years, which means that half the population would be 50 years or older and the other half under the age of 50. In Quebec, the median age would be 46 years.

Chart 4.1a
Age pyramid, by the first official language spoken (English), reference scenario, Canada outside Quebec, 2011 and 2036



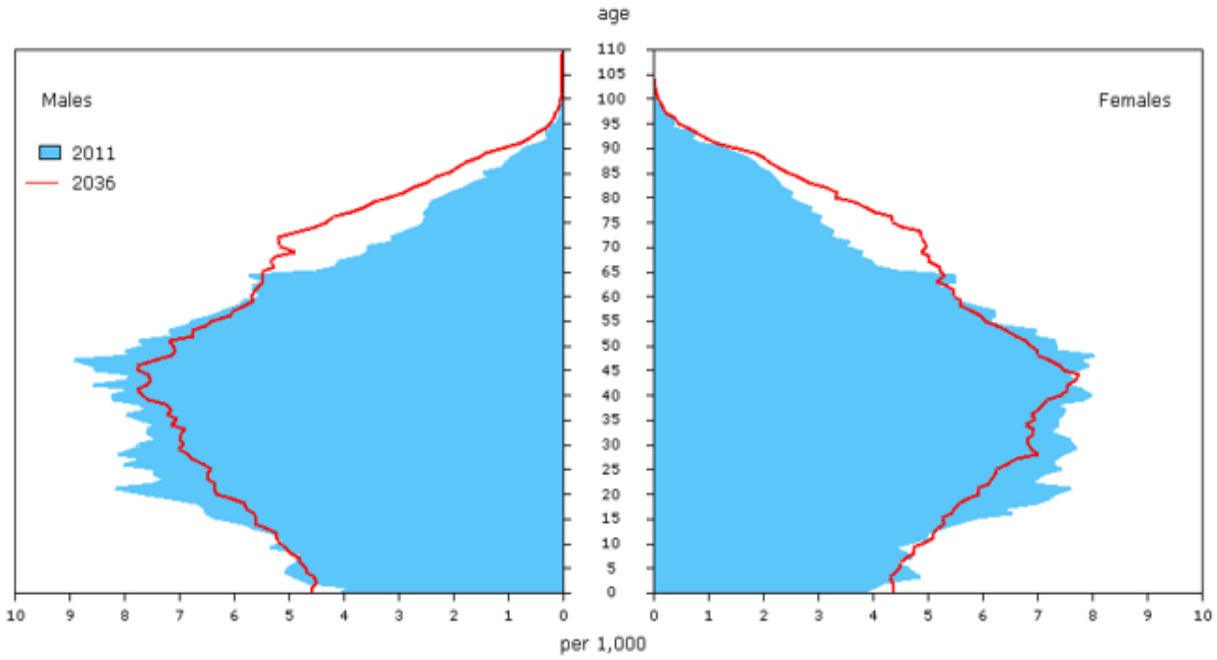
Note: The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Chart 4.1b
Age pyramid, by the first official language spoken (French), reference scenario, Canada outside Quebec, 2011 and 2036



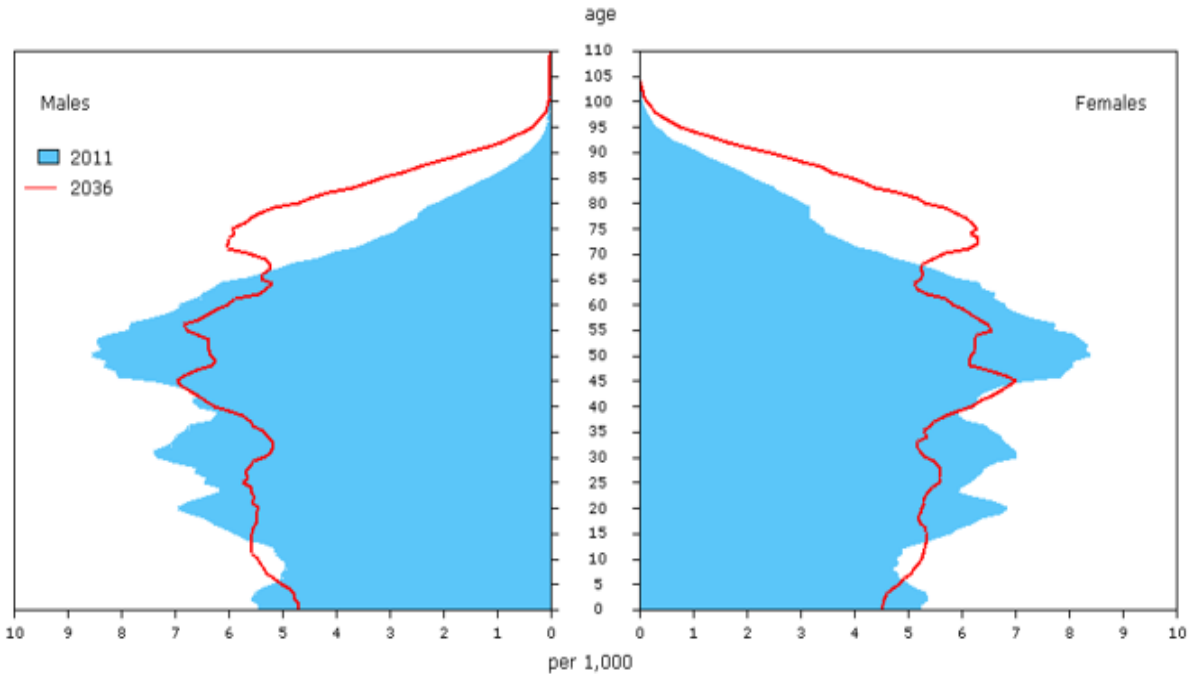
Note: The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Chart 4.2a
Age pyramid, by the first official language spoken (English), reference scenario, Quebec, 2011 and 2036



Note: The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Chart 4.2b
Age pyramid, by the first official language spoken (French), reference scenario, Quebec, 2011 and 2036



Note: The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table 4.2
Median age, by location of residence, first official language spoken and three projection scenarios, 2011 and 2036

		2036 (projected)		
	2011 (adjusted)	Reference	Low immigration	High immigration
	median age			
Canada				
English	38.9	42.8	43.9	42.3
French	42.3	46.1	47.2	45.6
Canada outside Quebec				
English	38.9	42.9	44.0	42.4
French	45.8	50.1	51.9	49.1
Quebec				
English	39.3	41.9	43.0	41.4
French	41.7	45.7	46.6	45.1

Note: The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

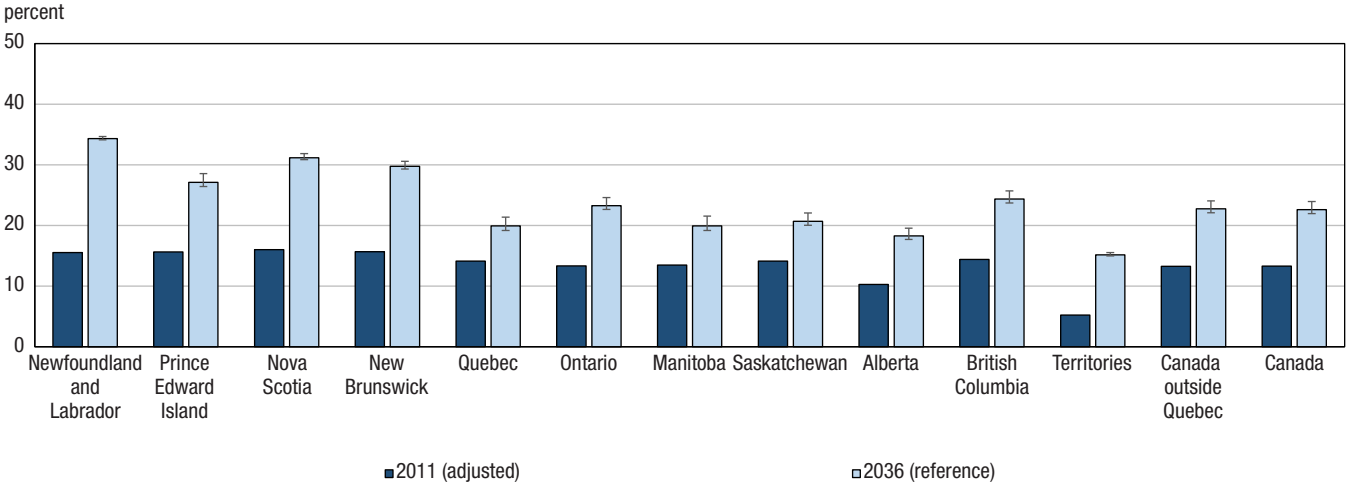
The proportion of the population aged 65 or over—an age structure indicator—is presented in Chart 4.3 for the two FOLS language groups in 2011 and 2036 by province of residence. In the French-speaking population living outside Quebec, the proportion of people 65 or over numbered 18% in 2011, compared with 13.3% for the English-speaking population. In Quebec, there was only a 1.5 percentage-point difference between these two groups; specifically, 14.1% for the French FOLS population and 15.6% for the English FOLS population. Meanwhile, the interprovincial differences among English and French-speaking populations alike were pronounced in 2011. However, the reference projection scenario suggests an increase in population aging in both groups and across all provinces between 2011 and 2036, with the exception of the French language population living in Saskatchewan. In this province, the decrease in the percentage of the population aged 65 or over is due to the fact that, in 2011, this percentage was relatively high while the proportion of young people was relatively low, and that the projection predicts a notable increase in the percentage of youth attributable to immigration of French-speakers.

The proportion of people aged 65 or over in certain provinces could double in both English- and French-speaking populations. In New Brunswick, for example, the percentage of seniors could rise from 17% in 2011 to over 37% in 2036 for the French FOLS population and from 16% to around 30% for the English FOLS population. The Atlantic provinces had the highest proportions of people aged 65 or older in 2011, which should still be the case in 2036.

An aging population is associated not only with a higher percentage of seniors among the total population, but also with a lower proportion of youth. The percentage of the population aged 0 to 14 years is thus another indicator of population age structure (Chart 4.4). Here, the aging of the French-speaking populations outside Quebec is demonstrated by a smaller percentage of youth aged 0 to14 years among the population compared with English-speaking populations. Between 2011 and 2036, this indicator is not expected to vary as systematically or rapidly as the proportion of seniors, which could double in some provinces. Across the country, the proportion of youth could fall in some cases, rise in others or even remain relatively stable. In the Atlantic provinces, population aging could manifest in a relative decrease in the population of young people between 2011 and 2036. The gap between the English- and French-speaking populations, already sizable in 2011, is expected to persist in 2036 in all three projection scenarios. In most other provinces, the share of youth should remain stable or vary only very slightly, especially among English-speaking populations. In general, the gap between English- and French-speaking populations is expected to be maintained between now and 2036, such that the former should have higher percentages of youth aged 0 to 14 years than the latter groups.

Chart 4.3a

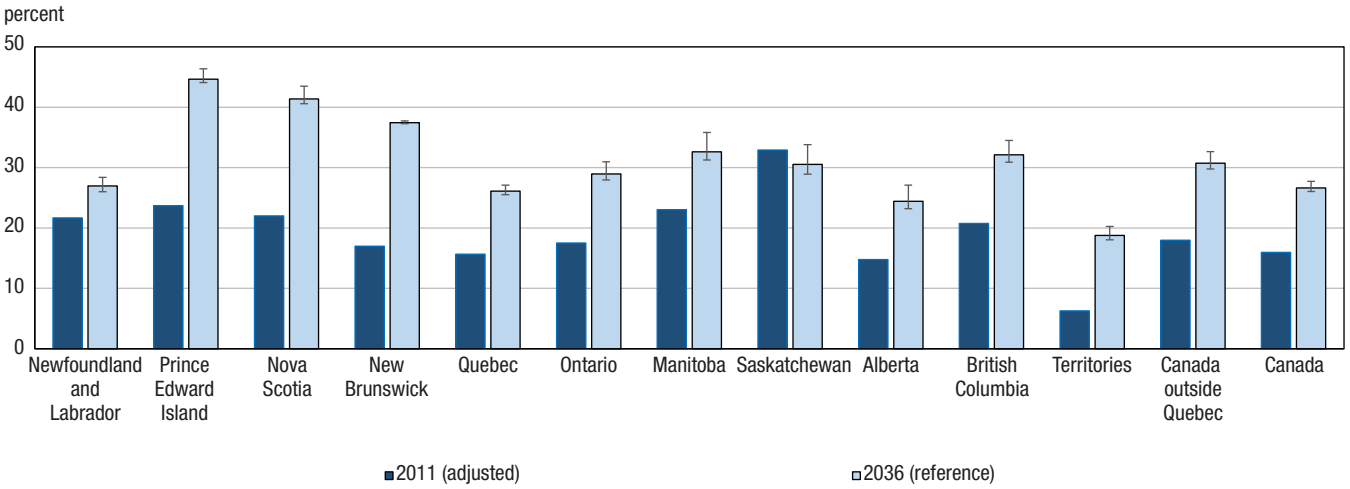
Percent of the population 65 years of age or older with English as their first official language spoken, by region of residence, three projection scenarios, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

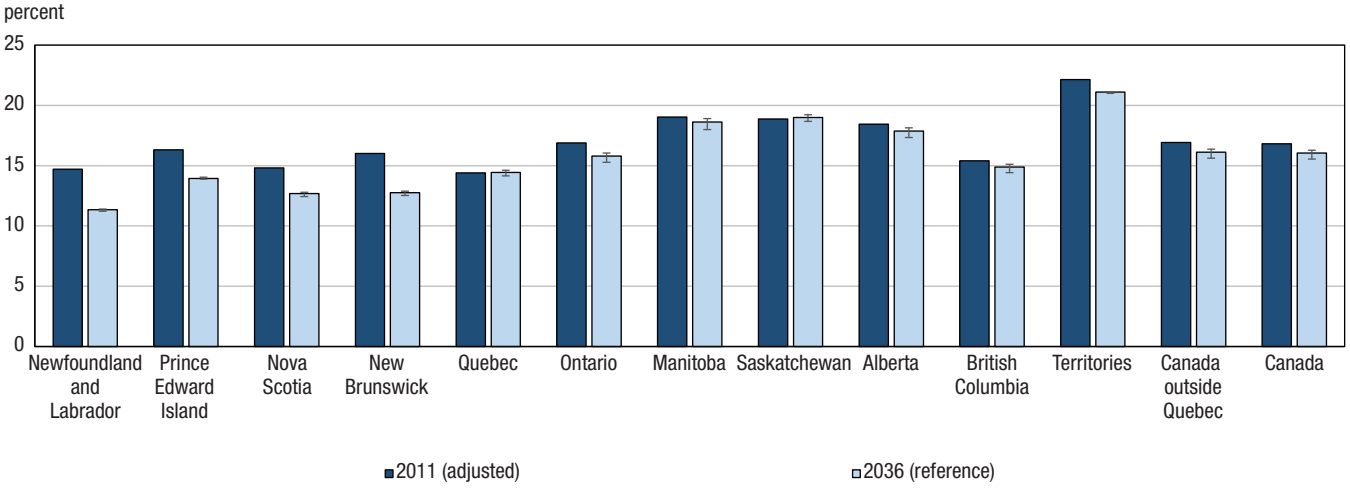
Chart 4.3b

Percent of the population 65 years of age or older with French as their first official language spoken, by region of residence, three projection scenarios, 2011 and 2036



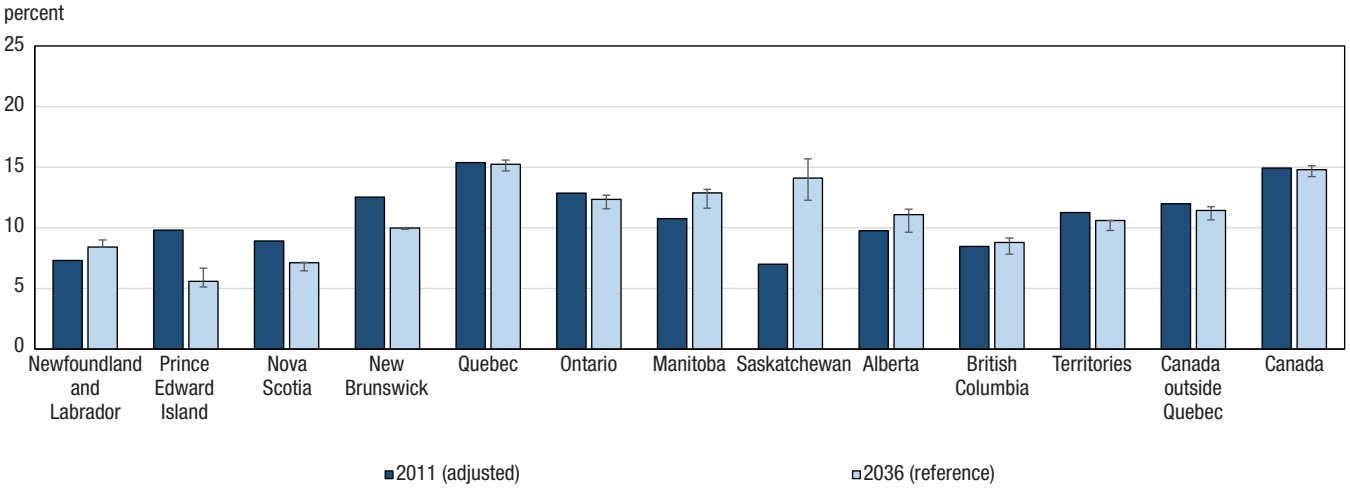
Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Chart 4.4a
Percent of the population aged 0 to 14 years with English as their first official language spoken, by region of residence, three projection scenarios, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Chart 4.4b
Percent of the population aged 0 to 14 years with French as their first official language spoken, by region of residence, three projection scenarios, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

4.3 Ethnocultural diversity in the official language groups

Immigration is expected to impact the size and evolution of Canada's official language groups. It should also change the socioeconomic composition of these two language groups. The percentage of immigrants and their children within a given population is a measure of the population's socioeconomic composition and, more specifically, is an indicator of ethnocultural diversity (Statistics Canada 2017a). In this section, we will examine the changes in the share of immigrants and second-generation individuals (i.e., children of immigrants) in English FOLS and French FOLS populations across the provinces and territories between 2011 and 2036.[71]

Table 4.3 presents the English FOLS and French FOLS populations by generation status in 2011 and 2036, for Canada, Quebec and Canada outside Quebec, as well as the growth rate for the period, according to three projection scenarios. An immigrant is a first-generation person, and children who are born in Canada to immigrant parents are second-generation individuals. The latter group includes children of couples in which at least one of the spouses is an immigrant. Lastly, third generation or higher comprises everyone in the population who is born in Canada to two parents who were also born in Canada. Table 4.3 does not include non-permanent residents.

In 2011, the third generation or higher group numbered the largest in Canada as a whole, Quebec and Canada outside Quebec for both English FOLS and French FOLS populations. This trend is expected to remain stable in the next 25 years, with the exception of the English FOLS population in Quebec. Specifically, in the Quebec English-language group, the immigrant population in 2036 should, in all three projection scenarios, number between 525,000 and 700,000, which would surpass both the second- and third-generation-or-higher populations, which could number just over 500,000.

Table 4.3 also reveals that the size of the English FOLS population should increase in all three immigrant groups in Canada, Quebec and Canada outside Quebec. In contrast, there could be negative growth in the third-generation-or-higher French FOLS population. The weakest rates are expected in Canada outside Quebec, where this population could decrease by approximately 200,000 between 2011 and 2036, by all three projection scenarios' estimates. This change would result from a combination of negative natural increase and negative linguistic mobility.

The immigrant and second-generation populations should see the strongest growth, independent of projection scenario, and the increases should be most marked among the French FOLS group. Specifically, the immigrant French FOLS population is expected to double in size in Canada, Quebec and Canada outside Quebec, under the reference and high-immigration scenarios. Outside Quebec, the French-speaking immigrant population, which numbered 120,000 in 2011, could reach between 230,000 and 320,000 in 2036, depending on the projection scenario, representing a growth rate of just over 90% according to the high-immigration scenario.

71. The projection results by mother tongue were also examined, but are not presented here. The conclusions that can be drawn from the analyses are similar to the ones presented in detail in this section. The main difference between the two series of results is that the percentage of immigrants and second-generation individuals in the English-mother-tongue and French-mother-tongue populations is lower if we consider the populations by first official language spoken.

Table 4.3
Total population and total growth of first official language groups, by generation status, three projection scenarios, Canada, Quebec and Canada outside Quebec, 2011 and 2036

	2011 (adjusted)	2036 (projected)			Projected growth, 2011 to 2036		
		Reference	Low immigration	High immigration	Reference	Low immigration	High immigration
	population (thousands)				rate (percent)		
First official language spoken - English							
Canada							
Immigrant	5,902	10,090	8,239	11,063	52.4	33.0	60.8
Second generation	5,468	7,550	7,113	7,750	32.0	26.1	34.5
Third generation or higher	14,176	15,959	16,046	15,941	11.8	12.4	11.7
Quebec							
Immigrant	366	632	527	697	53.3	36.1	62.2
Second generation	296	478	454	489	46.9	42.2	49.2
Third generation or higher	401	510	517	509	24.0	25.4	23.7
Canada outside Quebec							
Immigrant	5,536	9,458	7,712	10,366	52.3	32.8	60.7
Second generation	5,172	7,072	6,659	7,261	31.0	25.1	33.6
Third generation or higher	13,775	15,449	15,529	15,432	11.5	12.0	11.3
First official language spoken - French							
Canada							
Immigrant	721	1,629	1,321	1,814	77.3	58.8	86.2
Second generation	469	1,011	926	1,056	73.2	65.5	77.0
Third generation or higher	6,608	6,245	6,259	6,242	-5.7	-5.4	-5.7
Quebec							
Immigrant	601	1,342	1,095	1,495	76.2	58.2	85.3
Second generation	396	888	813	929	76.6	69.0	80.5
Third generation or higher	5,793	5,626	5,640	5,623	-2.9	-2.7	-3.0
Canada outside Quebec							
Immigrant	120	287	227	319	82.2	61.8	91.0
Second generation	73	123	113	127	50.4	42.8	53.7
Third generation or higher	815	619	619	618	-27.5	-27.3	-27.5

Notes: Permanent residents have been excluded from this Table.
The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

The second-generation population should also experience rapid growth between 2011 and 2036, with doubling of French FOLS populations in Canada and Quebec, under the reference and high-immigration scenarios. In Quebec, for example, the population of children of immigrants should rise from its 2011 levels of around 400,000 to between 815,000 and a little over 930,000 in 2036, depending on the projection scenario considered.

One of the consequences of these changes is that there would be a shift in the two official language groups' composition by generation status. Charts 4.5 and 4.6 present the population shares represented respectively by the immigrant and second-generation populations and the population with an immigration background (the sum of immigrants and their Canadian-born children) in the English and French language groups in 2011, as well as the weight they could represent in 2036 under the three projection scenarios.

These two charts show that immigration should differentially impact the population composition of the English FOLS and French FOLS groups. In the English FOLS group, there should be a systematic increase in the immigrant population share across all provinces and territories of residence (Chart 4.5). For Canada as a whole, nearly 23% of the English-speaking population were immigrants in 2011, and this percentage could rise to between 26% and 31% in 2036. The Quebec English FOLS group was the population with the largest share of immigrants in 2011, at 33.6%. In 2036, this percentage should rise to between 34% and over 40%, and this population would remain the one with the highest share of immigrants. Four provinces should see immigrant population shares between 24% and 34%, namely Ontario, Manitoba, Alberta and British Columbia.

As for the second-generation cohort, its share in the English FOLS population would not grow as rapidly as the immigrant group, and could even fall in three western provinces, namely Manitoba, Saskatchewan and British Columbia. It is again within the Quebec English-speaking population where the share of second-generation immigrants would be the highest in 2036 under all projection scenarios, at around 29%.

The population with an immigration background (i.e., the sum of immigrants and the second generation) which, in 2011, represented over 40% of the English FOLS population in Canada as well as three provinces (Quebec,

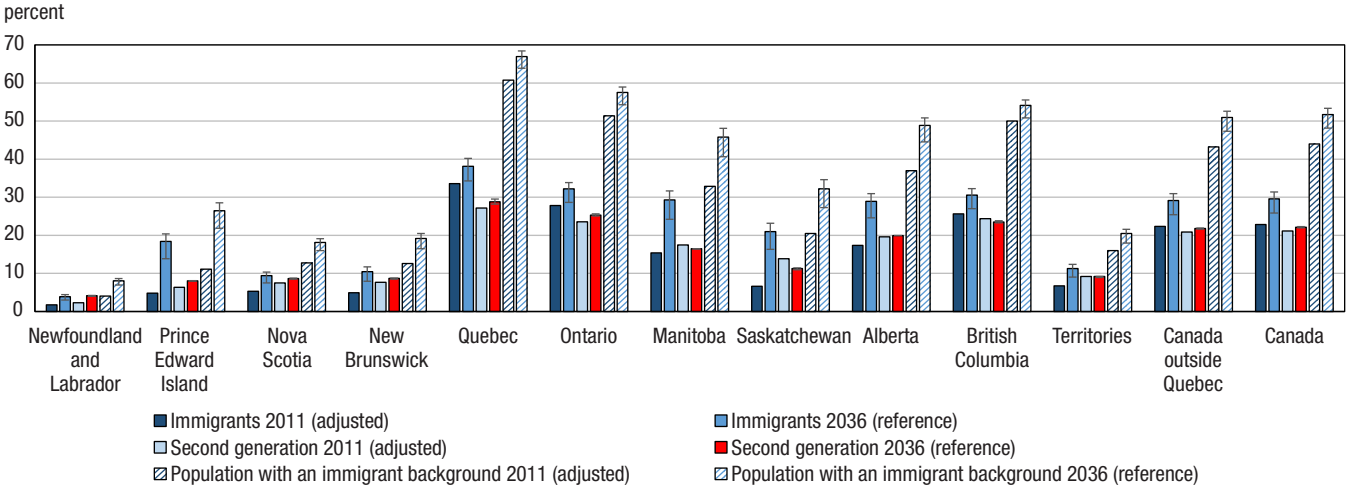
Ontario and British Columbia), should rise by 2036. Manitoba and Alberta could surpass the 40% mark in 2036, and Ontario and British Columbia reach between 50% and 60%, while the share of the population with an immigration background in Quebec's English FOLS population could be somewhere around 60% to 70% by the end of the projection period. In the Atlantic provinces and territories, percentages should rise significantly yet remain lower than in other regions of the country.

Future immigration trends are expected to have a marked impact on the generation composition of the French FOLS population (Chart 4.6). As we saw above, the numbers of third-generation-or-higher immigrants in the French-speaking population should see a negative increase between 2011 and 2036, which means that net immigration, which should be positive over the same period, stands to play a major role in the dynamic of this population. Moreover, the French-speaking immigrant and second-generation populations are expected to grow more rapidly than their English-speaking counterparts, which should accentuate the gap between the two language groups in terms of generation composition. According to the data in Chart 4.8, we should see a notable increase in the share of the French FOLS population with an immigration background across all regions of Canada in all three projection scenarios. These increases, which are higher than those projected for the English FOLS population, should similarly be borne out in the immigrant population share and, to a lesser extent, the second-generation population share (except in Saskatchewan).

In Newfoundland and Labrador, Prince Edward Island, Nova Scotia and Saskatchewan, the immigrant population share within the French FOLS group could multiply threefold under the low-immigration scenario and fourfold under the high-immigration scenario (except in Newfoundland and Labrador). The most extreme example is that of Saskatchewan: in 2011, immigrants made up 8.7% of the French FOLS population, a percentage that could rise to between 35% and 44% in 2036. However, the percentages of immigrants are expected to remain lower in Prince Edward Island, Nova Scotia, New Brunswick and Quebec than in other regions. In New Brunswick in particular, the immigrant population in 2036 should represent 2.7% to 3.9% of the total French FOLS population in this province. In Quebec, the immigrant population share should be between 14% and 18% in 2036. Higher percentages are projected for the other provinces, ranging from 30% in Ontario to 40% in Alberta. For Canada outside Quebec, the immigrant population share among minority French-speaking populations is expected to be between 23% and 30% in 2036.

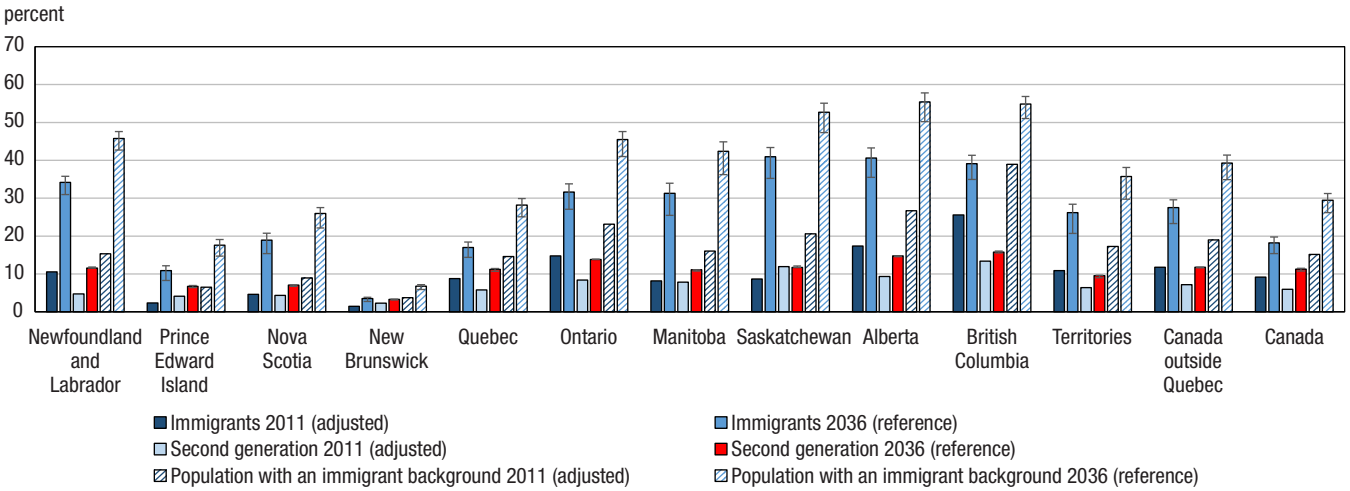
The second-generation population share in the French FOLS group is also expected to rise between 2011 and 2036 in the three projection scenarios. However, the increase should be less pronounced. In total, the percentage represented by the population with an immigration background among the French FOLS population in Canada could reach somewhere between 26% and 31% in 2036, compared with 15% seen in 2011. Such increases would be observed in most provinces and territories, owing to the combined effect of rising immigrant and second-generation populations, on the one hand, and declining third-generation and higher populations, on the other. In Newfoundland and Labrador, Ontario, Saskatchewan, Alberta and British Columbia, the generation composition of the French-speaking population in 2036 should thus be comparable to that of the English population in provinces where the share of the population with an immigration background is highest.

Chart 4.5
Population with English as their first official language spoken, by generation status and three projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Chart 4.6
Population with French as their first official language spoken, by generation status and three projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

4.4 Language transfers

The home language dynamic in Canada, Quebec and Canada outside Quebec is strongly influenced by the pull exerted by the majority languages—and, in the case of Quebec, English as the minority language—on other languages. As such, in 2011, 80% of the population spoke the majority language of their region of residence most often at home, i.e., French in Quebec and English in the rest of Canada. In Canada as a whole, 65% of the population reported speaking English, the country's majority language, most often at home in 2011. This contrasts with the finding that the percentage of the population that identified the majority language as their mother tongue was below 80% in Quebec and in Canada outside Quebec, and below 60% in Canada as a whole. The differences in population size by home language and mother tongue are explained by the phenomenon of language transfers, or shifts.

Language transfers or shifts are a particular form of linguistic mobility that mainly affect a population by home language and, to a lesser extent, FOLS. They also indirectly shape population by mother tongue, insofar as the language transmitted to children is often determined by the language both parents speak at home (see Chapter 2). A language transfer occurs when a person adopts as the home language a language other than his or her mother tongue.

The French language situation in Canada requires that we examine Quebec separately from the rest of Canada. In Quebec, just as in 2011, the population share whose language spoken most often at home is French in 2036 should remain higher than that whose mother tongue is French, in all three projection scenarios. Outside Quebec, the reverse situation prevailed in 2011 and should continue to be observed throughout the projection period: the French-speaking population size and share is expected to remain smaller than that of the French-mother-tongue population between 2011 and 2036, under the three projection scenarios.

At the pan-Canadian level, the pull of English, the country's majority language, is such that a sizable proportion of the population with a non-official language as its mother tongue tends to adopt English as the language spoken most often at home, mainly as a result of exogamous marriage[72] or children. A certain number of people having a non-official language as mother tongue also adopt French as the language spoken most often at home. This situation is mainly observed in Quebec (see Chapter 2), and the percentages are much smaller than for English. In 2011, 92% of language transfers among the non-official-mother-tongue population were toward English, and 8% were toward French, for 2.9 million and 260,000 transfers, respectively (Table 4.4).

In Canada outside Quebec, over 99% of language transfers among the non-official-mother-tongue population were toward English, compared with less than 1% toward French in 2011. In addition, English exerts a significant pull on the French-mother-tongue population. The 2011 NHS revealed that, outside Quebec, 41% of the French-mother-tongue population had adopted English as the language spoken most often at home (see Chapter 2). By comparison, only a minute share of the English-mother-tongue population in Canada outside Quebec had transferred toward French, specifically, less than 0.2%.

In Quebec, French is the majority language and the main language of convergence, but, given its status, English also exerts a strong pull among those whose mother tongue is other than English, especially in the Montréal area. Specifically, in 2011, among the language transfers that occurred in the non-official-mother-tongue population, 54% were toward French and 46% were toward English (see Chapter 2).

We will examine four notable language transfer pathways (or currents): transfers toward English from French-mother-tongue and non-official-mother-tongue persons living outside Quebec; and language transfers toward English or toward French by non-official-mother-tongue persons living in Quebec. In total, these transfers represented around 95% of all language shifts recorded in the country in 2011, and this percentage should be maintained in 2036 (last line of Table 4.4).

Table 4.4
Projected number of language transfers by mother tongue and language of transfer, by three projection scenarios, Canada outside Quebec and Quebec, 2011 and 2036

				2036 (projected)		
			2011 (adjusted)	Reference	Low immigration	High immigration
Region of residence	Mother tongue	Language of transfer	thousands			
Canada outside Quebec	French[1]	Transfer towards English	383	336	327	340
	Other[1]		2,607	4,712	4,138	5,011
	English	Transfer towards French	21	21	21	22
	Other		15	56	45	62
Quebec	French	Transfer towards English	74	119	118	119
	Other[1]		198	276	267	282
	English	Transfer towards French	67	75	74	75
	Other[1]		237	441	409	461
Projected percentage of four principle corridor transfers			95.1	95.5	95.2	95.6

1. Indicates the four main corridors transfers.
Note: The population for 2011 has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

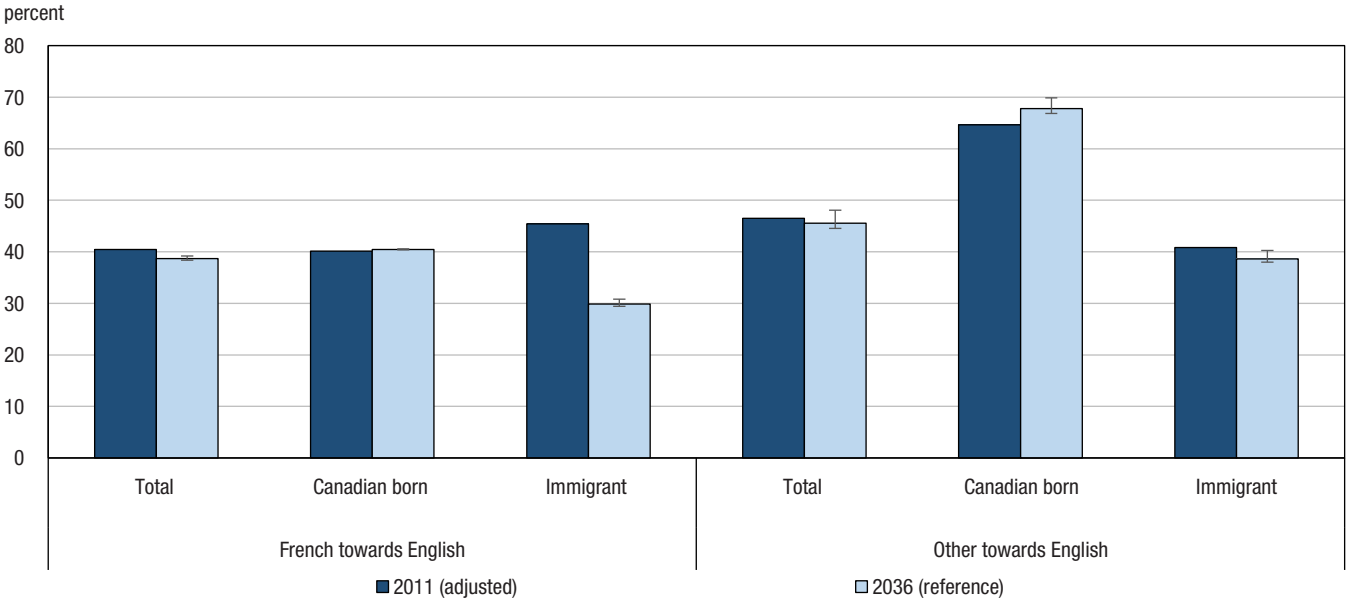
72. As English is by far the main language of work and education, in the case of children, it tends to progressively penetrate the family environment.

In Canada outside Quebec, the language transfer rates[73] toward English among the French-mother-tongue and non-official-mother-tongue populations were comparable in 2011, at 41% and 47%, respectively (Chart 4.7). Our projections indicate that the transfer rate in the French-mother-tongue population should decrease from 2011 until 2036, under all three projection scenarios, to around 38% or 39% at the end of the projection period. In the case of the non-official-mother-tongue population, the evolution of the transfer rate would depend on immigration levels. Under the low-immigration scenario, the transfer rate could reach close to 48%, and under the high-immigration scenario, it could drop to 45%.

Among these two populations, the extent and rate of language transfer are explained by differences in language behaviours between the Canadian-born population and immigrants. The transfer rates toward English among the Canadian-born population and French-mother-tongue immigrants were relatively similar to each other in 2011, at 40% and 45%, respectively. However, this quasi-parity situation could change, depending on the projection scenario. In 2036, while the transfer rate of the non-immigrant French-mother-tongue population would have barely moved from 2011 rates under the three scenarios, the transfer rate of immigrants could drop by nearly 15 percentage points, to around 30%. Just like the projected stability of transfer rates among the Canadian-born population, this rapid change is but an extension of recent trends, as shown in Chart 4.8. It is explained in part by the selection of French-speaking immigrants, of whom a growing percentage come from countries where French is the official or national language (sometimes among other languages), particularly in Africa (Houle, Pereira and Corbeil 2014).

Among the Canadian-born non-official-mother tongue population in Canada outside Quebec, close to 65% spoke English most often at home in 2011. In 2036, this transfer rate could rise to between 67% and 70%. The transfer rate of the immigrant non-official-mother-tongue population is markedly lower than that of their Canadian-born counterparts: it was at 41% in 2011 and, in all three projection scenarios, should vary little over the projection period to reach 40% or less in 2036. Overall, the projection suggests that the language transfer rate toward English in Canada outside Quebec should drop between 2011 and 2036, except among Canadians having a non-official mother tongue.

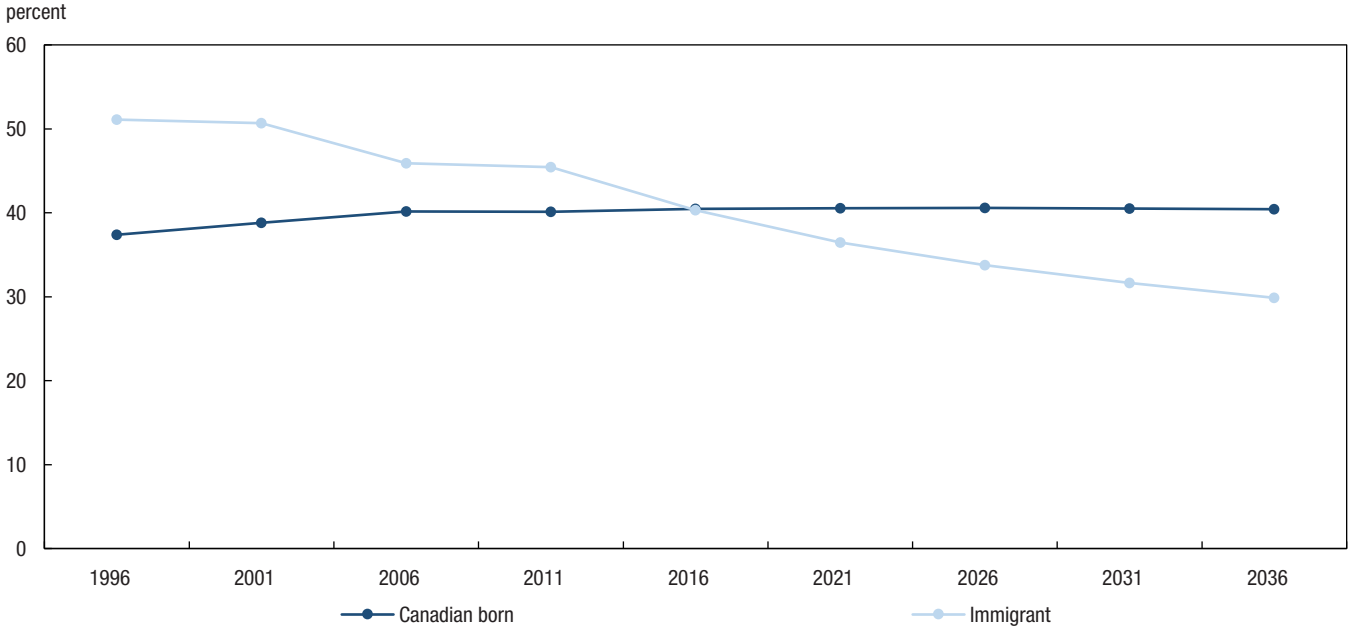
Chart 4.7
Language transfer rate towards English for population with French as their mother tongue and mother tongue other than English or French, by immigrant status, three projection scenarios, Canada outside Quebec, 2011 and 2036



Note: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

73. The language transfer rate is the ratio between the population whose language spoken most often at home is not their mother tongue and the total population of that mother tongue (the rates are calculated based on reports of single-language use).

Chart 4.8
Language transfer rate towards English for population with French as their mother tongue, by immigrant status, reference scenario, Canada outside Quebec, 1996 to 2036



Note: The percentages for 2006 and 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1996 to 2006, 2011 National Household Survey and Demosim, 2016.

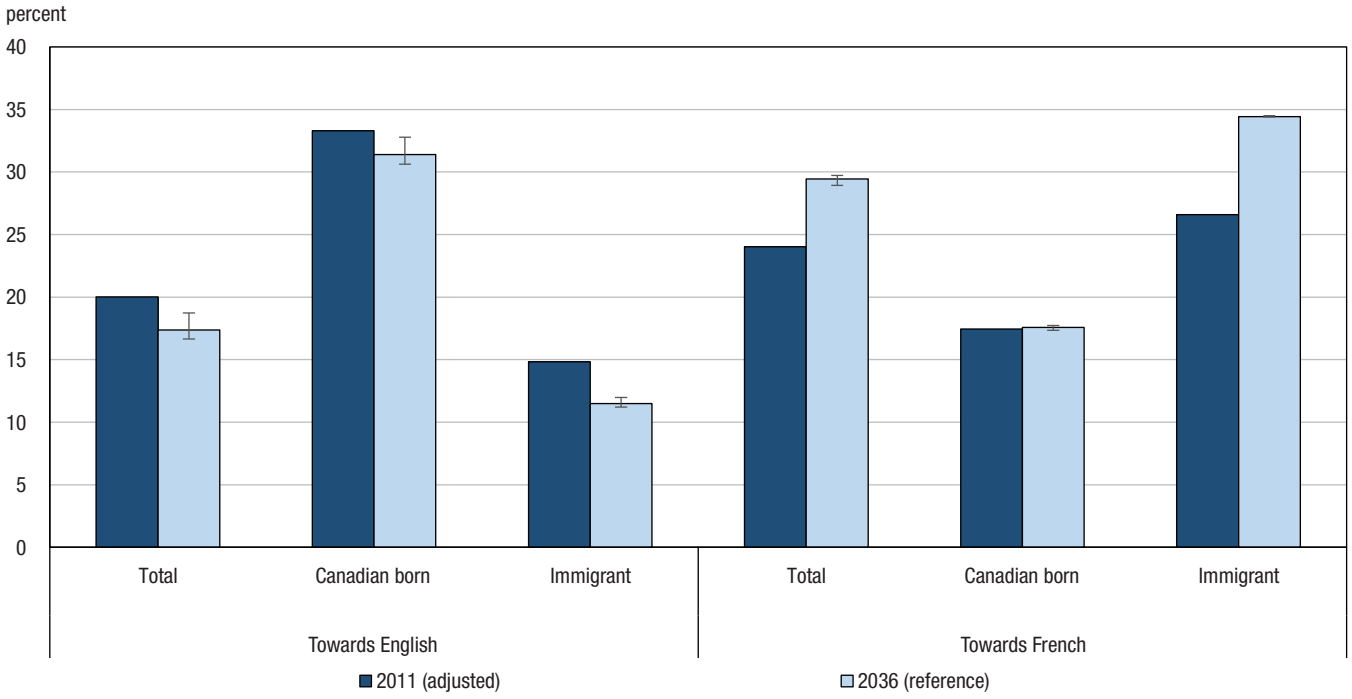
In Quebec in 2011, close to 70% of language transfers involved the non-official-mother-tongue population, immigrants and non-immigrants combined.[74] The main issue is whether the direction of these transfers is toward English or French.[75] In 2011, the language transfer rates were 20% toward English and 24% toward French. Between 2011 and 2036, the gap between these two language "destinations" should widen (Chart 4.9). In all three projection scenarios, the transfer rate toward French from the non-official-mother-tongue group in Quebec could reach between 29% or 30% in 2036, an increase from 2011, while the transfer rate toward English could range between 17% and 19%, down from 2011. As a result, the gap between the two rates (4 percentage points in 2011) in favour of French could be more pronounced in 2036 and range from 10 and 13 percentage points, depending on the projection scenario.

The language transfer rates among the Quebec population with a non-official language as its mother tongue vary greatly depending on immigrant status, as well as by transfer direction (toward English or French). First, the transfer rate of this population is generally about the same in Quebec as in Canada outside Quebec, when all language transfers are taken together. In 2011, the transfer rate of this group in Canada outside Quebec was 46.4%, compared with 43.8% in Quebec (see Chapter 2). In 2036, the two rates should be similar, but the rate in Quebec is expected to slightly surpass the rate for Canada outside Quebec. Specifically, depending on the projection scenario, the transfer rate of the non-official-mother-tongue population should reach between 44% and 47% in Canada outside Quebec and between 45% and 48% in Quebec in 2036.

The gap between the transfer to English and to French in the non-official-mother-tongue population living in Quebec could widen in both the immigrant and Canadian-born populations. The transfer rate toward English was markedly higher among the Canadian-born than among immigrants in 2011 (33.5% and 15.2%, respectively). However, the transfer rate toward French was higher among immigrants than among non-immigrants (27% and 18%, respectively). By 2036, the transfer rate toward English should decline and the rate toward French should rise in all three projection scenarios. That said, the majority of transfers among the Canadian-born non-official-mother-tongue population in Quebec should still be toward English in 2036, while the majority of transfers among the immigrant population should be toward French, on account of the recent increase in immigration.

74. Moreover, among the English-mother-tongue population living in Quebec, language transfers were mostly toward French in 2011 (close to 90%), for a transfer rate of 12% toward French, which is expected to remain relatively stable between 2011 and 2036. The transfer rate toward English among the French-mother-tongue population in Quebec was 1.4% in 2011.
75. However, Corbeil and Houle (2014) demonstrated that a substantial share of other-mother-tongue immigrants living in Montréal had already made a language transfer toward French and, to a lesser extent, toward English, before arriving in Canada.

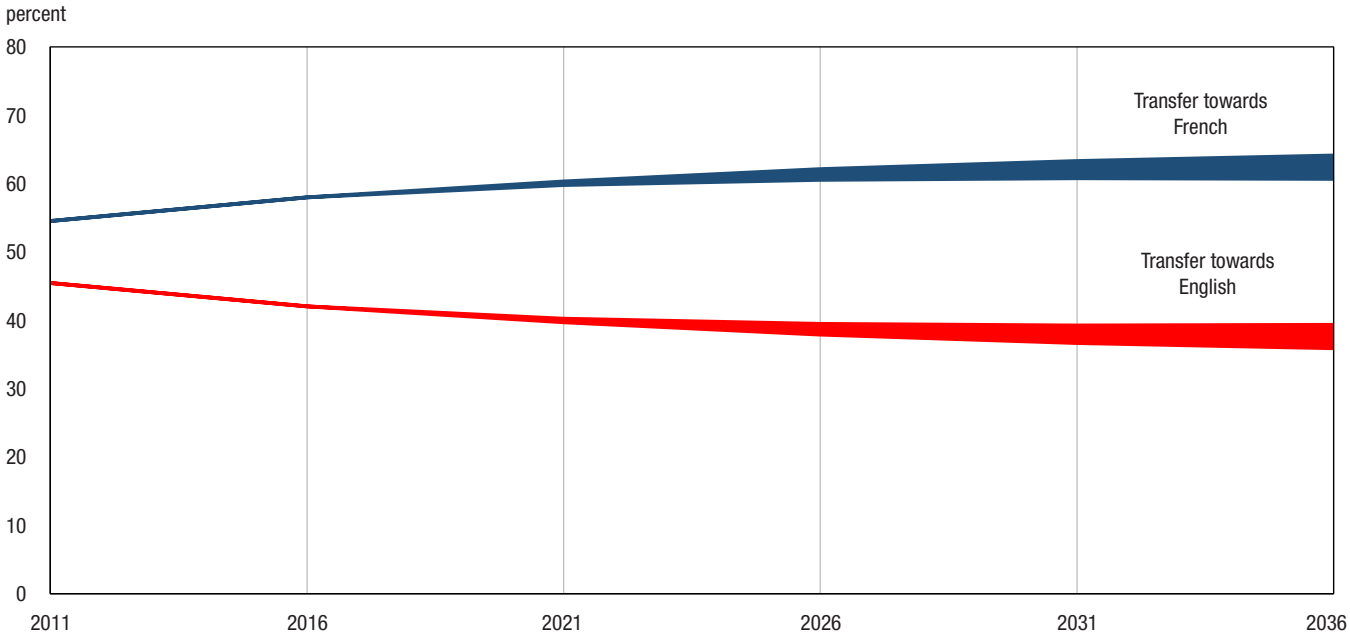
Chart 4.9
Language transfer rate towards English and French for population with a mother tongue other than English or French, by immigrant status, three projection scenarios, Quebec, 2011 and 2036



Notes: The symbol ⊢ indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

One of the consequences of these trends is that the number of language transfers made by the non-official-mother-tongue population in Quebec should continue to be mainly toward French between 2011 and 2036. As we have seen, in 2011, 54% of these transfers were toward French and 46% were toward English. The projection suggests that the gap between the two directions could grow in the coming years (Chart 4.10). In 2036, the share of transfers toward French could rise to between 61% (low-immigration scenario) and 64% (high-immigration scenario), while transfers toward English should drop by the same extent to between 36% and 39%, under the high and low immigration scenarios, respectively.

Chart 4.10
Distribution of language transfer towards English and French, population with a mother tongue other than English and French, three projection scenarios, Quebec, 2011 and 2036



Notes: The shaded area indicates the interval between the minimum and maximum projections for all scenarios combined.
The percentages for 2011 are based on population counts that have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

In short, the projections show that language transfer rates could change relatively quickly over time. Moreover, Quebec is expected to see the fastest change, in the form of a progressive direction shift in the non-official-mother-tongue population from transfers to English to transfers toward French, in the immigrant and non-immigrant populations alike.

Despite this significant change in the direction of language transfers, the results clearly show that linguistic mobility could play a rather negligible role in the evolution of Quebec's French-speaking population and a significant positive role in the province's English-speaking population.

4.5 Overview

Similar to trends in recent years, the increase in diversity in Canada's language groups in coming years should mainly stem from net international immigration. Natural increase, internal migration and linguistic mobility should also play a role in language groups' replacing themselves, but these effects are expected to vary from one region to another. The English- and French-mother-tongue populations should replace themselves mainly through natural increase, whereas growth in the non-official-mother-tongue population should be mainly attributable to international immigration. Owing to the incomplete transmission of non-official languages (Harrison 1997; Turcotte 2006; Houle 2011), the number of births by non-official-mother-tongue mothers do not translate into the same number of children having a non-official language as a mother tongue.

In addition, international immigration should play a predominant role in the growth of official language populations (defined by FOLS) in Canada. In fact, these populations are expected to comprise a larger proportion of immigrants and second-generation individuals in 2036 than was observed in 2011, under all projection scenarios. The French FOLS population should see the largest increase in immigrant and second-generation population share, compared with other groups.

Language transfers (and linguistic mobility, more generally) as well as internal migration should mainly impact the growth of minority language groups. In Canada outside Quebec, the French-speaking population should see its overall growth slow (without necessarily becoming negative) owing to language transfers that would essentially benefit the English-speaking population (by home language and FOLS). The same growth component could cause an increase in the English-speaking population in Quebec.

Chapter 5 Evolution of the knowledge of official languages and of English–French bilingualism

In the 2011 Census, 5.8 million Canadians reported being able to conduct a conversation in both of the country's official languages, a bilingualism rate of 17.5%. This rate, which increased steadily for decades from 1961 to 2001 (from 12.2% to 17.7%), stagnated and even declined between 2001 and 2011.

The increase in English–French bilingualism observed in Quebec did not offset the decline. While Quebec's bilingualism rate rose from 40.8% to 42.6%, a drop was observed in the rest of the country (from 10.3% to 9.7%). Between 2001 and 2011, the number of bilingual people in Quebec increased by 421,000, compared with just 143,000 in all the other provinces and territories.[76]

The decline in the rate of English–French bilingualism outside Quebec between 2001 and 2011 is mainly due to the fact that its total population increased 12.4% during this period, and the bilingual population's growth rate was half that (6.1%). Meanwhile, Quebec's population grew 9.7%, while the size of its bilingual population grew 14.5%.

In this chapter, we will begin by presenting the evolution of the Canadian population's knowledge of official languages over the past 25 years. We will shed light on the number of people and the percentages of the population who know only English, only French, both official languages or who cannot speak either language. In the second section, we will present some of the factors that influenced the evolution of English–French bilingualism, in particular during the 25 years leading up to the 2011 National Household Survey (NHS), as well as the factors that are likely to have an influence in the future. Third, we will present results on the likely evolution of the knowledge of official languages in the country between 2011 and 2036 and, in particular, on the evolution and growth rates of English–French bilingualism between now and 2036, in Canada, the different provinces and all the territories. Fourth, we will present results for certain regions where there is contact between languages. The fifth section of this chapter presents the differential evolution of bilingualism by mother tongue. The subsequent sections cover the link between the level of bilingualism and age, and differential bilingualism based on sex and immigrant status. The final section of this chapter focuses on the evolution of bilingualism among young people and proposes scenarios to maintain this bilingualism over time.

5.1 Historical evolution of the knowledge of official languages in Canada

In the four decades leading up to the 2011 Census and National Household Survey, the number of Canadians reporting they could conduct a conversation in English or French increased. However, in relative terms, the proportion of the population able to speak French started dropping as of the 1986 Census (32%), to close to 30% in 2011. For its part, the proportion of the population able to conduct a conversation in English was 80.5% in 1971 and reached 86% in 2011 (see Table 5.1).

In Quebec, the number of people able to speak French rose from 5.3 million in 1971 to close to 7.5 million in 2011, an increase from 88.5% to 94.4% of the population in relative terms.[77] Knowledge of English increased steadily during the same period, from 2.3 million to approximately 3.8 million. Furthermore, in 2011, 47.6% of the Quebec population could speak English, compared with 38.1% in 1971.

Lastly, in Canada outside Quebec, the ability to speak English remained stable at close to 98% between 1971 and 2011, a period during which the size of this population increased from 15 million to 25.6 million, for a growth rate of 70%. The size of the French-speaking population grew from 1.4 million to 2.7 million, for a growth rate of 85%. However, the relative share of French speakers remained stable, hovering around 10.0% and 10.8%.

It should be noted that, during the 2011 NHS, of the country's two official languages, 4.2 million Canadians could speak only French. They represented 12.3% of the overall population, and 97.3% of them lived in Quebec. Also in 2011, 23.5 million Canadians, or 68.4% of the Canadian population, could speak only English. Of this number, 98.4% lived outside Quebec.

76. According to 2011 National Household Survey data adjusted for net undercoverage, between 2001 and 2011, the bilingual population could have increased by 414,000 in Quebec and by 136,650 in Canada outside Quebec.
77. The strongest growth in the percentage of French speakers in Quebec was observed between 1971 and 1981 (from 88.5% to 92.5%), a period characterized by the departure of many people from Quebec to the rest of Canada, including a significant number of people who could speak only English.

Table 5.1
Population by knowledge of official languages, Canada, Quebec, Canada outside Quebec, 1971 to 2011

		Knowledge of official languages											
		French only		English only		English and French		Neither English nor French		Knowledge of French		Knowledge of English	
Regions	Total	number	%	number	%	number	%	number	%	number	%	number	%
Canada													
1971	21,568,310	3,879,255	18.0	14,469,540	67.1	2,900,155	13.4	319,360	1.5	6,779,410	31.4	17,369,695	80.5
1981	24,083,495	3,987,245	16.6	16,122,895	66.9	3,681,960	15.3	291,395	1.2	7,669,205	31.8	19,804,855	82.2
1986	25,022,005	3,957,730	15.8	16,716,900	66.8	4,056,160	16.2	291,215	1.2	8,013,890	32.0	20,773,060	83.0
1991	26,994,035	4,110,300	15.2	18,106,760	67.1	4,398,655	16.3	378,320	1.4	8,508,955	31.5	22,505,415	83.4
1996	28,528,100	4,079,080	14.3	19,134,245	67.1	4,841,310	17.0	473,465	1.7	8,920,390	31.3	23,975,555	84.0
2001	29,639,035	3,946,525	13.3	20,014,645	67.5	5,231,575	17.7	446,290	1.5	9,178,100	31.0	25,246,220	85.2
2006	31,241,030	4,141,851	13.3	21,129,945	67.6	5,448,850	17.4	520,384	1.7	9,590,701	30.7	26,578,795	85.1
2011 (Census)	33,121,175	4,165,015	12.6	22,564,670	68.1	5,795,570	17.5	595,920	1.8	9,960,585	30.1	28,360,240	85.6
2011 (National Household Survey)	34,273,205	4,225,835	12.3	23,458,095	68.4	6,003,385	17.5	585,885	1.7	10,229,220	29.8	29,461,480	86.0
Quebec													
1971	6,027,765	3,668,015	60.9	632,515	10.5	1,663,790	27.6	63,445	1.1	5,331,805	88.5	2,296,305	38.1
1981	6,369,065	3,826,605	60.1	426,240	6.7	2,065,105	32.4	51,115	0.8	5,891,710	92.5	2,491,345	39.1
1986	6,454,490	3,808,560	59.0	369,065	5.7	2,226,745	34.5	50,115	0.8	6,035,305	93.5	2,595,810	40.2
1991	6,810,300	3,958,930	58.1	373,755	5.5	2,412,985	35.4	64,630	0.9	6,371,915	93.6	2,786,740	40.9
1996	7,045,075	3,951,710	56.1	358,505	5.1	2,660,590	37.8	74,270	1.1	6,612,300	93.9	3,019,095	42.9
2001	7,125,575	3,831,350	53.8	327,040	4.6	2,907,700	40.8	59,490	0.8	6,739,050	94.6	3,234,740	45.4
2006	7,435,900	4,010,881	53.9	336,784	4.5	3,017,863	40.6	70,375	0.9	7,028,744	94.5	3,354,648	45.1
2011 (Census)	7,815,955	4,047,175	51.8	363,860	4.7	3,328,725	42.6	76,195	1.0	7,375,900	94.4	3,692,585	47.2
2011 (National Household Survey)	7,993,125	4,109,915	51.4	372,495	4.7	3,434,840	43.0	75,870	0.9	7,544,755	94.4	3,807,335	47.6
Canada outside Quebec													
1971	15,540,545	211,240	1.4	13,837,025	89.0	1,236,365	8.0	255,915	1.6	1,447,605	9.3	15,073,390	97.0
1981	17,714,430	160,640	0.9	15,696,655	88.6	1,616,855	9.1	240,280	1.4	1,777,495	10.0	17,313,510	97.7
1986	18,567,515	149,170	0.8	16,347,835	88.0	1,829,410	9.9	241,100	1.3	1,978,580	10.7	18,177,245	97.9
1991	20,183,735	151,370	0.7	17,733,005	87.9	1,985,670	9.8	313,690	1.6	2,137,040	10.6	19,718,675	97.7
1996	21,483,025	127,370	0.6	18,775,740	87.3	2,180,720	10.2	399,195	1.9	2,308,090	10.7	20,956,460	97.5
2001	22,513,460	115,175	0.5	19,687,605	87.4	2,323,875	10.3	386,800	1.7	2,439,050	10.8	22,011,480	97.8
2006	23,805,125	130,970	0.6	20,793,160	87.3	2,430,985	10.2	450,010	1.9	2,561,955	10.8	23,224,145	97.6
2011 (Census)	25,305,220	117,840	0.5	22,200,810	87.7	2,466,845	9.7	519,725	2.1	2,584,685	10.2	24,667,655	97.5
2011 (National Household Survey)	26,280,080	115,920	0.4	23,085,600	87.8	2,568,545	9.8	510,015	1.9	2,684,465	10.2	25,654,145	97.6

Note: The population has been adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1951, 1961, 1971, 1981, 1991, 1996, 2001, 2006 and 2011, and 2011 National Household Survey.

5.2 Factors likely to influence the evolution of English–French bilingualism between now and 2036

Over the decades, the Canadian population able to conduct a conversation in both of the country's official languages has grown, but its demographic weight has increased more slowly. During the 1971 Census, 2.9 million people reported being bilingual, accounting for 13.4% of the population; this number was close to 4.1 million (16.2%) in 1986 and 5.8 million (17.5%) in 2011.

In the 25 years between the 1986 Census and the 2011 Census and National Household Survey, the Canadian population's rate of English–French bilingualism increased by 1.3 percentage points. Furthermore, the share of the population with knowledge of only French dropped from 15.8% to 12.3%, whereas that of the population with knowledge of only English rose from 66.8% to 68.1%.

Between 1971 and 1981, the growth rate of the bilingual population was more than double that of the overall Canadian population. Conversely, the latter was only slightly higher than that of the bilingual population between 2001 and 2011, a period characterized by high immigration levels.

Over the past 25, or even 40, years, many factors contributed to the evolution of bilingualism, and some of these factors allow us to develop assumptions and scenarios for the likely evolution of bilingualism rates in the coming quarter century.

Further to the work of the Royal Commission on Bilingualism and Biculturalism (also called the Laurendeau-Dunton Royal Commission), English–French bilingualism became a lot more prevalent, as the value of and enrolment in Frenchimmersion and regular French-as-a-second-language programs in public English-language schools outside Quebec increased significantly (Lepage and Corbeil 2013).

In 2011, close to 86% of bilingual Canadians lived in Quebec, Ontario and New Brunswick. For the most part, these are Canadians who live in the "bilingual belt" (Joy 1967) that surrounds the mainly French-speaking regions of Quebec and the parts of Ontario and New Brunswick that border Quebec and separate these regions from the country's essentially English-speaking ones.

Quebec's bilingualism rate increased significantly between 1971 and 1981, from 27.6% to 32.4%. This growth is largely due to the significant increase in bilingualism among the province's English-mother-tongue population during this period, from 39% to 56%. The numerous departures of Quebecers whose mother tongue was English for other provinces (approximately 226,000)[78] and the Quebec English-speaking population's interest in learning French were significant contributors to this increase. More recently, between 2001 and 2011, English–French bilingualism among Quebec's French-speaking population increased significantly, and the use of both languages in the workplace increased as well. Recent studies have also shown that young people whose mother tongue is French are increasingly interested in learning English and using it (or both English and French) in their daily activities (Pagé et al. 2014). [79]

Without a doubt, international immigration is the main driver of Canadian population growth. In their study on the evolution of English–French bilingualism between 1961 and 2011, Lepage and Corbeil (2013) showed that international immigration growth, in particular between 2001 and 2011, is contributing to the stagnation, or even the decline, of English–French bilingualism in certain regions of the country, mainly in Canada outside Quebec.

Between 2001 and 2011, approximately 250,000 immigrants on average settled in the country each year. The mother tongue of the vast majority (77%) of these immigrants was neither English nor French, and approximately 10% had knowledge of both official languages when they arrived in Canada. At the time of the 2011 NHS, 4.9% of immigrants in Canada outside Quebec had knowledge of both official languages, compared with 48.8% in Quebec. [80]

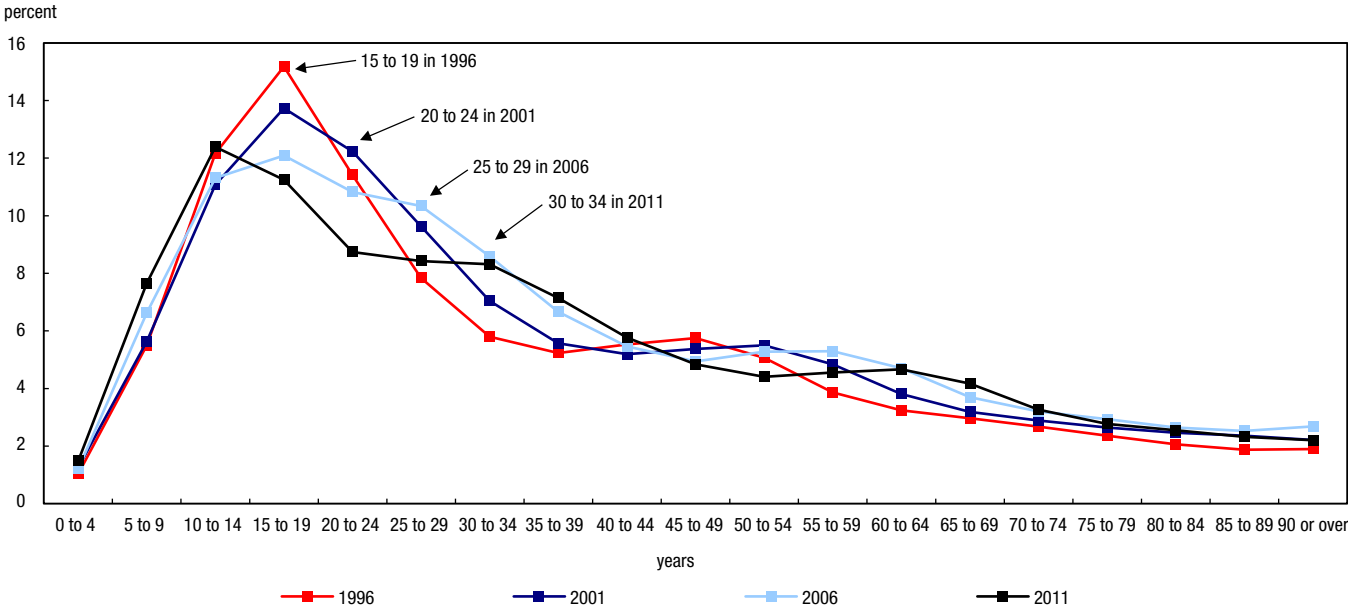
The immigrant population's rate of English–French bilingualism is generally lower than that of the population born in Canada, in particular because most immigrants arrive in Canada as adults, at an age when learning languages is not as easy. Consequently, adult immigrants are less likely to learn both official languages than people born in Canada. Furthermore, for many, learning French means learning a third or even a fourth language. [81]

Regarding the learning of a second language among young people, we know that, in Canada outside Quebec, young English-speakers aged 15 to 19 are generally more bilingual than their counterparts in other age groups. Indeed, at the end of high school, they are more likely to be able to conduct a conversation in both official languages. However, as can be seen in Chart 5.1, the bilingualism rate of young English-speakers aged 15 to 19 fell from 15.2% to 11.2% between 1996 and 2011. Furthermore, this skill erodes with the passage of time after graduation, generally because there are not enough opportunities to use the second language. As such, the bilingualism rate of the cohort of young people aged 15 to 19, which was 15.2% in 1996, dropped to 11.2% five years later when they were 20 to 24 years of age, then to 10.3% in 2006 when they were 25 to 29, and so on. [82]

78. When the approximately 67,000 people who moved to Quebec from other provinces during this period are taken into account, net migration resulting from the migratory exchanges between Quebec and the other provinces for the English-mother-tongue population was 158,500 people.
79. Referring to the Conseil supérieur de la langue française study carried out in 2008 by St-Laurent, Pagé (2014) states that "contact with new young Quebeckers is probably one of the factors that contributed to opening young people to the world. While the participants in the [2008] study believe that it is important to have a command of French in Quebec, they have a different relationship with English and other languages than previous generations. Rather than seeing those languages as a threat to life in French in Quebec, they consider them to be assets in their lives. In the workplace, for example, most young people confirmed using mainly French, but occasionally English. In the context of globalization of the economy, use of English is inevitable and in no way threatens their identity as francophone workers. These young workers have established a utilitarian relationship with English."
80. At the time of the 2011 NHS, among the other-mother-tongue population who were English–French bilingual, 208,070 lived in Canada outside Quebec and 347,795 lived in Quebec. However, among the entire immigrant population, 513,270 immigrants in Quebec could communicate in both official languages, compared with 370,390 in the rest of the country. Moreover, in 2011, 42.2% of immigrants in Quebec could speak at least three languages, compared with 4.9%, 4.1% and 3.5% of immigrants in Ontario, Alberta and British Columbia, respectively.
81. The situation is different among young people between 10 and 19 years. For example, there was practically no difference in the English–French bilingualism rates of immigrants and Canadian-born youth in Ontario (15.3% vs. 15.9%), in British Columbia (10.1% vs. 9.8%) and in Alberta (11.0% vs. 12.2%). However, because most immigrants arrive in Canada as adults, there is a smaller proportion of immigrants among the population of bilingual young people than among the entire population. At the time of the 2011 NHS, young immigrants who were English–French bilingual made up 13.3%, 11.7% and 13% of the bilingual population aged 10 to 19 years in Ontario, Alberta and British Columbia, respectively. Immigrants represented 28.5%, 18.0% and 27.5%, respectively, of the entire population of these three provinces. Quebec stands out from these three provinces, in that young immigrants aged 10 to 19 years had an English–French bilingualism rate of 56.8% in 2011, compared with 41.2% of Canadian-born youth.
82. For more information on this topic, please see Lepage and Corbeil (2013).

The loss of second-language skills among young English speakers means that the evolution of the rate of English–French bilingualism within the English-speaking population is tending to stagnate or even decline. We know that young people who are part of a French-immersion program at an English-language school for several consecutive years or an intensive French-as-a-second-language program tend to maintain their bilingualism longer than those in regular second-language programs (Allen 2008). It remains to be seen if the ongoing enthusiasm for French-immersion programs, which saw enrolment growth of 30% between 2003 and 2013, increases bilingualism over time, or if other factors exert pressure in the opposite direction.

Chart 5.1
English-French bilingualism rate by age group, population with English as first official language spoken, Canada outside Quebec, 1996 to 2011



Sources : Statistics Canada, censuses of population, 1996 to 2011.

5.3 Likely evolution of the knowledge of official languages and English–French bilingualism between now and 2036 in Canada

5.3.1 Evolution of the knowledge of French in Canada

The projection results show that between 2011 and 2036, the Canadian population able to speak French could increase from 10.2 million people to 12.5 million people. This number could be 11.7 million in the low immigration scenario, 12.2 million in the reference scenario and 12.5 million in the high immigration scenario. In relative terms, this evolution would be characterized by a drop from 29.8% at the time of the 2011 NHS to 27.9% in 2036 in the reference scenario (28.4% with low immigration and 27.6% with high immigration).

In Quebec, the number of French speakers, which was 7.5 million during the 2011 NHS, could increase to 9 million in the reference scenario (8.6 million and 9.2 million in the low and high immigration scenarios, respectively). The proportion of French speakers in Quebec, which was 94.4% of the population in 2011, would remain relatively stable between now and 2036, ranging between 93.2% in a high immigration scenario and 93.9% in a low immigration scenario.

In Canada outside Quebec, despite the potential increase in the number of French speakers (from 2.7 million in 2011 to between 3 million and 3.3 million in 2036), their demographic weight could drop from 10.2% to between 9.3% and 9.5% during this period.

As for the ability to speak English, the English-speaking population should grow in both number and percentage, not only in Canada as a whole but also in Quebec. The relative share of English speakers, which was 86% in 2011, would be between 88.7% and 88.9%. While the percentage would remain relatively stable in Canada outside Quebec (from 97.6% in 2011 to between 97.4% and 98% in 2036), Quebec would experience significant growth.

The number of English speakers in this province could rise from 3.8 million at the time of the 2011 NHS to between 5.3 million and 5.7 million in 2036. This would represent an increase in this population's demographic weight from 47.6% in 2011 to between 57.6% and 57.8%, depending on the immigration scenario considered. Note that while the size of the Quebec population would grow 20.6% between 2011 and 2036 in the reference scenario (15.1% and 24.0% in the low and high immigration scenarios, respectively), the growth rate of the number of English speakers during this same period would be 46.2% (39.2% and 50.5% in the low and high immigration scenarios, respectively). As we will see in the next section, this growth will mainly be driven by people who are able to conduct a conversation in both of the country's official languages.

5.3.2 Evolution of the bilingualism rate

All other things being equal, the results of these language projections show that in 25 years, the number of people able to conduct a conversation in both of Canada's official languages could increase from 6 million people in 2011 to between 7.7 million (low immigration scenario) and 8.3 million people (high immigration scenario) in 2036. The country's English–French bilingualism rate, which was 17.5% in 2011, could be between 18.3% and 18.8% in 2036 (see Table 5.2).[83]

Table 5.2
Projection of the English-French bilingualism rate, by province and territories, three projection scenarios, 2011 and 2036

		2036 (projected)		
	2011 (adjusted)	Reference scenario	Low immigration scenario	High immigration scenario
Provinces and territories	percentage			
Total	**17.5**	**18.5**	**18.8**	**18.3**
Newfoundland and Labrador	4.5	5.8	5.8	5.8
Prince Edward Island	12.5	12.6	13.2	12.4
Nova Scotia	10.4	10.1	10.1	10.1
New Brunswick	33.4	33.9	34.4	33.6
Quebec	43.0	52.0	52.2	51.8
Ontario	11.0	10.2	10.4	10.1
Manitoba	8.6	7.9	8.2	7.8
Saskatchewan	4.5	4.8	4.9	4.8
Alberta	6.6	6.4	6.5	6.4
British Columbia	6.9	6.7	6.9	6.7
Territories	8.7	9.8	9.7	9.8

Note: The population has been adjusted for net undercoverage.
Sources: Statistique Canada, 2011 National Household Survey and Demosim, 2016.

According to these projections, the evolution of English–French bilingualism during this period would move in opposite directions if we consider the Quebec situation apart from that of the rest of Canada. So, while 43% of the Quebec population reported being able to conduct a conversation in both of the country's official languages in 2011, this proportion could be between 51.8% and 52.2% in 2036 depending on the immigration scenario —an increase of 9 percentage points. Outside Quebec, this rate, which was 9.8% in 2011, could fall to between 8.9% and 9.2% in 25 years.

In terms of numbers, in 2011, close to 2.6 million people could speak English and French in Canada outside Quebec. This number is likely to increase by 373 000 to 592 000, depending on the immigration scenario, reaching slightly more than 2.9 million to slightly fewer than 3.2 million people in 2036, for a growth rate ranging between 14.5% and to 23.1%. In Quebec, the number of people able to speak English and French could increase from 3.4 million in 2011 to between 4.8 million and 5.1 million in 2036, for an overall growth rate ranging between 39.7% and 49.6%.

5.3.3 Growth rate of Canada's bilingual population at the provincial and territorial level

The projected evolution of Canada's bilingualism rates between 2011 and 2036 is clearly influenced by the differentials in bilingual and non-bilingual population growth. Depending on the immigration scenarios considered, the non-bilingual Canadian population could grow 17.9% (low immigration scenario) to 30.9% (high immigration scenario) between now and 2036. As for the size of the country's bilingual population, it could grow 28.9% (low immigration scenario) to 38.2% (high immigration scenario). In other words, a major contributor to the projected

83. Table A.5.1 in the appendix shows the numbers and proportions for each province and the territories for 2011 and 2036.

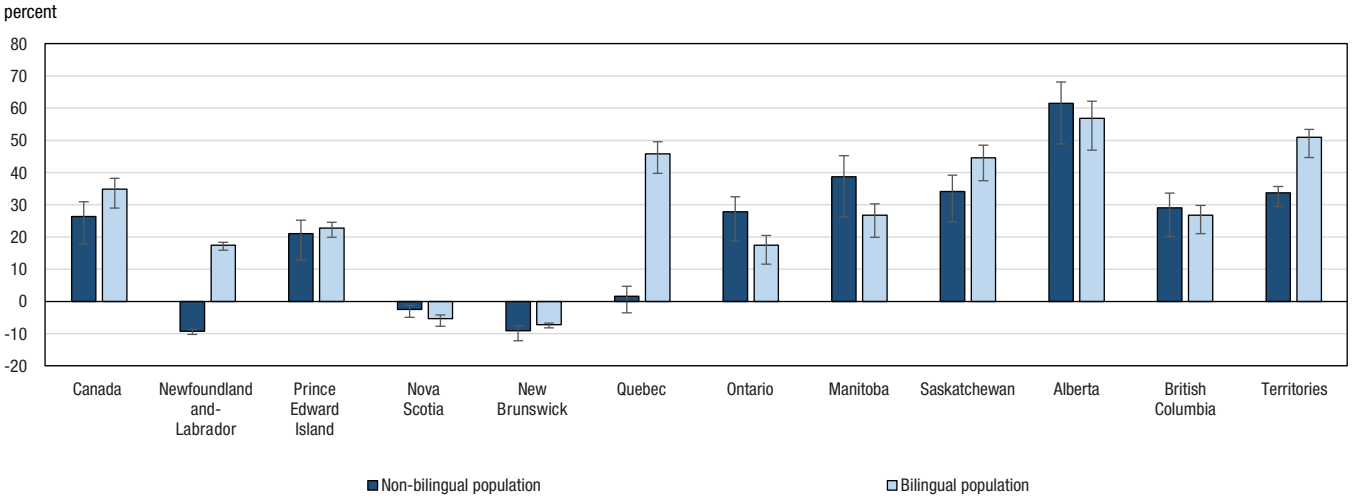
growth of the country's bilingualism rate between 2011 and 2036 would be the fact that the bilingual population's growth rate should be slightly higher than that of the non-bilingual population, regardless of the immigration scenario considered.

In Canada outside Quebec, the non-bilingual population's growth rate should be greater than that of the bilingual population. Therefore, in the reference scenario, between 2011 and 2036, the non-bilingual population could grow 31.2%, compared with a growth rate of 20.1% for the bilingual population. The growth rates of the non-bilingual population could be 22.0% and 35.9% in the weak and strong growth scenarios, respectively, compared with 14.5% and 23.1% for the bilingual population.

Chart 5.2 illustrates the differential growth rates by province. It shows that Quebec should play a major role in the growth of bilingualism in Canada. While the non-bilingual population could increase 1.6% to 4.7% between 2011 and 2036, or even decrease by 3.5% in a context of low immigration, the growth rate of the bilingual population could be between 40% and 50%, depending on the immigration scenario considered. Conversely, the non-bilingual population in Ontario, the country's most populous province and the destination of four out of ten immigrants to Canada, should grow faster than its bilingual population.

It should be noted that Nova Scotia and New Brunswick, which together welcome just 1.5% of the country's immigrants, are the only two provinces where both the non-bilingual and bilingual populations are expected to decline.[84]

Chart 5.2
Growth rate of the English-French bilingual and non-bilingual populations in Canada, by province and territories, 2011 and 2036



Note : The population has been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

5.3.4 Evolution of bilingualism in certain regions

In 2011, 86% of the 6 million Canadians who could conduct a conversation in French and in English lived in Quebec, Ontario or New Brunswick. This situation is not expected to change between now and 2036. As can be seen in Table 5.3, which presents the regions where more than half of the country's bilingual population is, the Quebec part of the Ottawa–Gatineau CMA should remain the most bilingual region in the country with a rate around 67%, which is an increase of 3 percentage points from the rate observed in 2011. The bilingualism rate in the Ontario part of the Ottawa–Gatineau CMA, which was 38% in 2011, should remain relatively stable between now and 2036, regardless of the immigration scenario considered.

The Montréal CMA, both on the Island of Montréal and in the rest of the CMA, should continue to come in a close second to the Quebec part of the Ottawa–Gatineau CMA. The Montréal CMA is unique because, historically, bilingualism has always been much more prevalent on the Island of Montréal than in the rest of the metropolitan

84. Although the numbers are small, the considerable growth rate that the bilingual population in all the territories could see, compared with the unilingual population, would primarily be attributable to the interprovincial migration (particularly from Quebec) of workers more likely to be bilingual and more educated.

area. For example, in 2011, the bilingualism rate on the Island was 58.5%, while it was 50.5% in the rest of the CMA. In 2036, the difference between the English–French bilingualism rates of these two "regions" should be very small, depending on the immigration scenario considered. The off-Island bilingualism rate is expected to increase by approximately 10 percentage points, which is the highest increase among the regions under study. This would be due to the migration to the north and south suburbs of the population whose first official language spoken (FOLS) is not French, and to the increase in bilingualism within the French-speaking population.

Table 5.3
Projection of English-French bilingualism rate in some regions with interlinguistic contacts, Quebec, Ontario and New Brunswick, three projection scenarios, 2011 and 2036

		2036 (projected)		
	2011 (adjusted)	Reference scenario	Low immigration scenario	High immigration scenario
Regions	percentage			
Montréal metropolitan area, outside Montréal Island	50.5	60.3	60.9	60.0
Montréal Island	58.5	62.0	63.6	61.2
Ottawa-Gatineau (Quebec part)	64.1	67.0	67.7	66.7
Greater Sudbury	38.1	37.6	37.8	37.4
Ontario outside metropolitan areas, francophone regions	43.1	44.1	44.2	44.0
Ottawa-Gatineau (Ontario part)	38.0	37.7	38.3	37.4
Moncton	46.2	44.6	45.2	44.3
New Brunswick outside metropolitan areas, francophone regions	49.4	55.9	56.2	55.6
Rest of New Brunswick	15.2	15.6	15.9	15.5

Note: The population has been adjusted for net undercoverage.
Sources: Statistique Canada, 2011 National Household Survey and Demosim, 2016.

The French-speaking regions of New Brunswick and Ontario outside the metropolitan areas should also see an increase in their populations' bilingualism between 2011 and 2036. The rate of English–French bilingualism in New Brunswick's French-speaking regions could increase from 49.4% to approximately 56%, while that of Ontario's French-speaking regions would increase from 43% to approximately 44%.

The English–French bilingualism rate should decline in the CMAs of Toronto and Vancouver, where almost half of immigrants to Canada settled in 2011. In 2011, 7.8% of Toronto's population and 7.3% of Vancouver's population could conduct a conversation in both official languages. In 2036, these rates could be between 6.8% and 7.1% in Toronto and between 6.5% and 6.9% in Vancouver.

5.3.5 Differential evolution of bilingualism by mother tongue

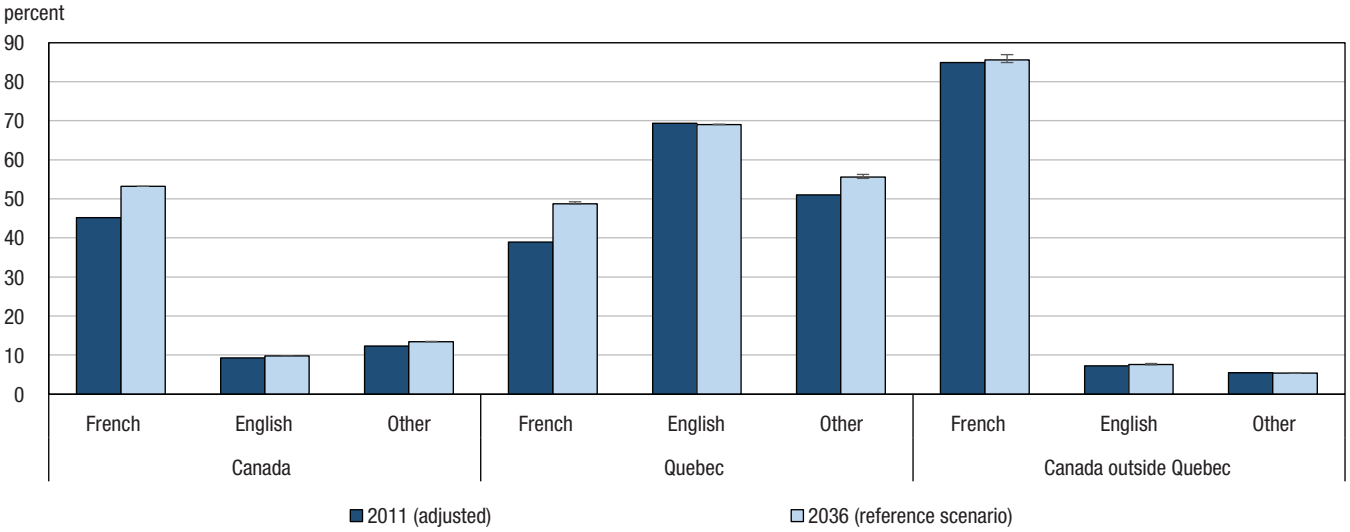
The growth of English–French bilingualism in Canada varies depending on individuals' mother tongue or FOLS. Historically, the bilingualism rates of minority-language groups, i.e., English-speaking people in Quebec and French-speaking people in the rest of Canada, are higher than those of the majority-language groups (Houle and Corbeil 2016).

According to our microsimulation, nationwide, the bilingualism rate of the French-mother-tongue population, which was 45% in 2011, could increase by more than 8 percentage points to 53% in 2036, regardless of the immigration scenario. However, that of the English-mother-tongue population would change only slightly compared with its current level of 9.3%, reaching 9.8%. Meanwhile, the rate of English–French bilingualism of the population whose mother tongue is neither French nor English, which was 12.3% in 2011, could rise to 13.5% based on the reference scenario (13.3% in a high-immigration scenario and 14.0% in a low-immigration scenario).

Quebec's French-mother-tongue population would have the strongest growth in English–French bilingualism in Canada, from a rate of just under 39% in 2011 to almost 49% in 2036. The English-mother-tongue population's bilingualism rate, however, should vary only slightly over the next 25 years, settling around 70% (compared with 69.3% at the time of the 2011 NHS). Lastly, the English–French bilingualism rate of the other-mother-tongue population (population whose mother tongue is neither French nor English), which was 51% in 2011, could reach 54.7% to 56.8%, depending on the immigration scenario examined (Chart 5.3).

In Canada outside Quebec, the rates of English–French bilingualism should vary slightly. Regardless of the immigration scenario, the bilingualism rate of the English-mother-tongue population, which was 7.2% in 2011, could be close to 7.6% in 2036. Similarly, bilingualism rates should be relatively stable among the two other major groups, at 5.5% for the other-mother-tongue population and 85% for the French-speaking population.

Chart 5.3
Projection of English-French bilingualism rate, by mother tongue, Canada, Quebec and Canada outside Quebec, 2011 and 2036



Note: The 2011 proportions are calculated with the population adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

In short, in 2011, the French-mother-tongue population outside Quebec and the English-mother-tongue population in Quebec had the highest bilingualism rates, followed by the French-mother-tongue population in Quebec. This situation should remain the same between now and 2036.[85]

5.3.6 Evolution of English–French bilingualism and age

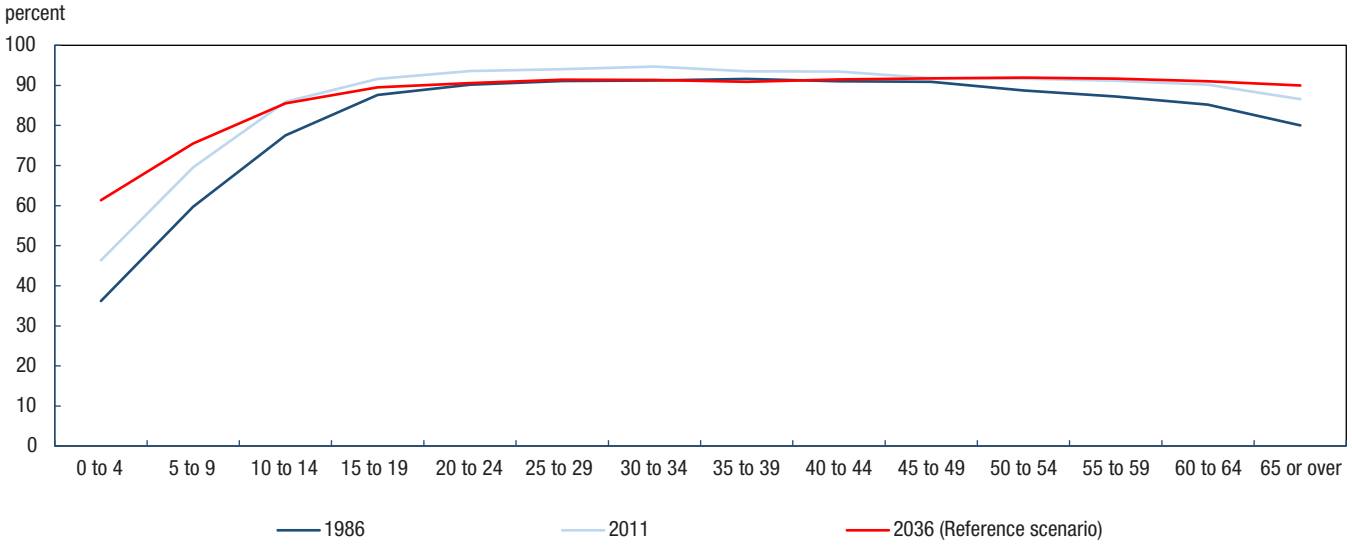
The ability to conduct a conversation in both of the country's official languages is generally influenced by age, and this relationship varies significantly depending on place of residence (Quebec vs. outside Quebec) and first language, be it the mother tongue or FOLS.

The following charts present the evolution of bilingualism rates by age group between 1986 and 2011, and between 2011 and 2036 (reference scenario). The 1996 rates are also presented for English speakers in Canada outside Quebec, as that is when they were at their highest; they have dropped by almost 4 percentage points since.

Outside Quebec, the portrait of bilingualism by age group within the French FOLS population should remain practically unchanged by 2036, with the exception of an increase in the under-10 age group. This possible increase in bilingualism among this age group seems to be the continuation of a phenomenon observed between 1986 and 2011.

85. The evolution of bilingualism rates by mother tongue is quite similar to that projected based on FOLS. However, when the relative share of other-mother-tongue populations with an immigration background is significant, within linguistic minorities in particular, certain differences are observed depending on the definition criteria. For example, within Quebec's English-speaking population, 69.3% of those whose mother tongue was English reported being bilingual in 2011, compared with 65.7% of those whose FOLS was English.

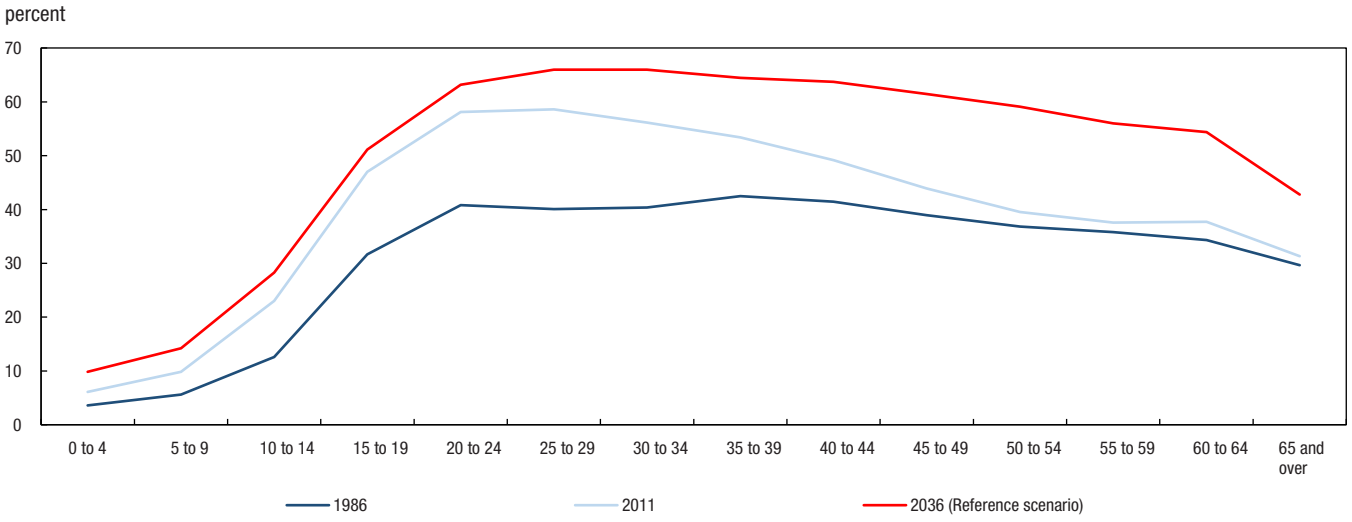
Chart 5.4
English-French bilingualism rate by age group, population with French as first official language spoken, Canada outside Quebec, 1986, 2011 and 2036



Note: The 2011 proportions are calculated with the population adjusted for net undercoverage.
Sources: Statistics Canada, census of population, 1986, 2011 National Household Survey and Demosim, 2016.

As for Quebec's French-speaking population, including those whose mother tongue is French as well as those whose FOLS is French, significant increases could be observed among the population aged 25 years and older. Chart 5.5 shows that the bilingualism rate observed in 2011 among 25- to 29-year-olds in this language group should translate into a similar rate in 2036 in the group aged 50 to 54 years. In other words, contrary to what we saw 25 years ago, the Quebec population over age 35 should be much more bilingual than the previous generation, since the English skills of French-speaking Quebeckers erode little over time. Among the English FOLS population in Quebec, the bilingualism rate should remain unchanged from 2011 (data not shown), with the exception of an increase among the 65-and-older population, which could go from 48% in 2011 to 62% in 2036. English-speaking youth between 10 and 19 years of age should still have the highest bilingualism rate in the province (82%).

Chart 5.5
English-French bilingualism rate by age group, population with French as first official language spoken, Quebec, 1986, 2011 and 2036

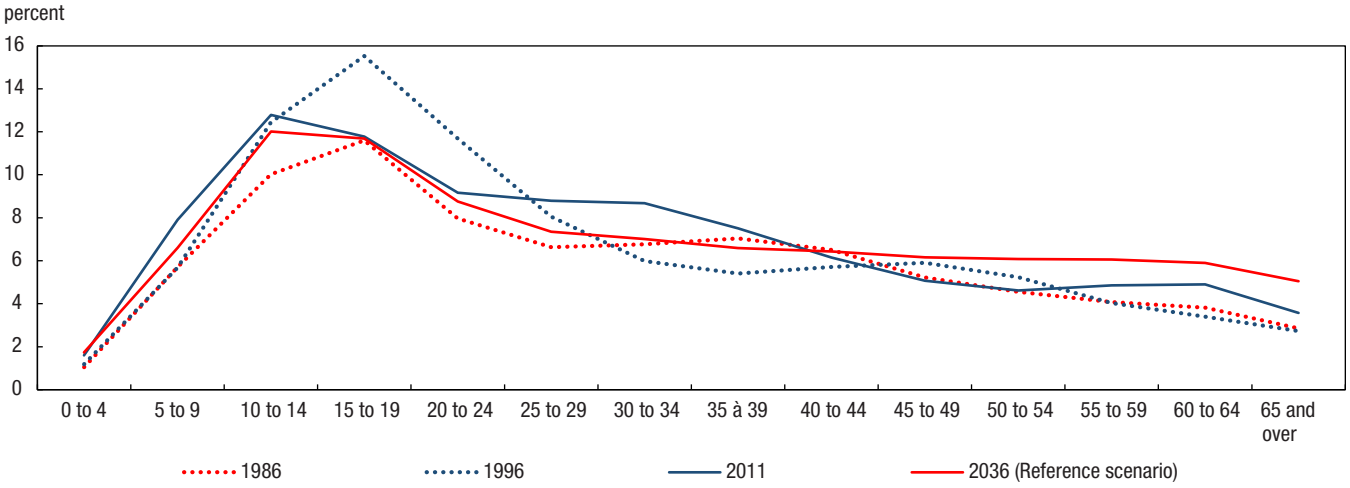


Note: The 2011 proportions are calculated with the population adjusted for net undercoverage.
Sources: Statistics Canada, census of population, 1986, 2011 National Household Survey and Demosim, 2016.

As for the English-speaking population (FOLS) in Canada outside Quebec, while the rate of 15.5% observed in 1996 among those aged 15 to 19 was 4 percentage points higher than the rate observed in 1986, the 2011 rate fell back to the 1986 level (Chart 5.6). In 2036, 15- to 19-year-olds would have about the same rate, i.e., between 11.5% in the high immigration scenario and 12.0% in the low immigration scenario. Furthermore, this rate should decline among the 10-to-14 age group. The relative share of young bilingual people within this age group, which was 12.8% in 2011, could drop to 11.9% in 2036 in a context of high immigration and to 12.3% in a context of low immigration.

Chart 5.6 also shows how the 2036 rate of English–French bilingualism among the English-speaking population aged 20 to 40 should be lower than that observed in 2011. This phenomenon would be the result of a combination of several phenomena, including the fact that the share of immigration within the unilingual English-speaking population, in particular among the population aged 25 to 60, is expected to grow. However, it should be noted that the decline of bilingualism within these age groups is mainly driven by the population born in Canada and by the foreign-born population who arrived in Canada before the age of 15 (generation 1.5). This decline could probably stem from the erosion of skills that begins when involvement with the school system ends.

Chart 5.6
English-French bilingualism rate by age group, population with English as first official language spoken, Canada outside Quebec, 1986, 1996, 2011 and 2036



Note: The 2011 proportions are calculated with the population adjusted for net undercoverage.
Sources: Statistics Canada, censuses of population, 1986 and 1996, 2011 National Household Survey and Demosim, 2016.

5.3.7 English–French bilingualism by sex: Differential rates by place of residence and language

Historically, English–French bilingualism rates in Canada have varied not only by age group, FOLS or place of residence, but also by sex. For example, we know that in Canada outside Quebec, the higher propensity of English FOLS girls and young women to attend a French immersion program usually results in higher bilingualism rates in this group, at least between the ages of 10 and 30 years.

In 1986, differential bilingualism rates varied considerably by age and sex. In Quebec, English-speaking girls and young women aged 5 to 25 had higher bilingualism rates than their male counterparts. But starting at age 30, there was a significant difference in men's favour, possibly because historically, more men have been in the labour market and their daily exposure to the second language increased as a result.

Within Quebec's French-speaking population, little difference was observed between young men and women under 20 years of age, mainly because they all learned English as a second language in school. As was the case with their English-language counterparts, the fact that there are more francophone men in the labour market contributed to their level of bilingualism being much higher than that of women at the time, from the age when they began to work. Lastly, among the English-speaking population outside Quebec in 1986, a difference in the bilingualism rate in favour of girls and young women was in large part observed within the school-age population

and among those under 30 years of age. In other words, skill erosion and the absence of opportunities to use the second language contributed to levelling these differences downward.

In light of these results observed 25 years before the 2011 Census and NHS, the questions now are: How have these differences evolved since? How are they likely to evolve in the next quarter century?

In addition to the results seen in the previous section on the possible decline in bilingualism between now and 2036 within the English-speaking population in Canada outside Quebec, the differences in favour of women should persist. Contrary to what is observed among men, the bilingualism rate of English-speaking women over the age of 40 could remain higher than those observed in 2011.

In Quebec, the differences between men and women observed in 2011 within the French-speaking population 25 years and older decreased significantly compared with the differences observed at the time of the 1986 Census. Similarly, these differences are very likely to continue decreasing, not only because of the regular use of English in the workplace in Quebec, but also as a consequence of more women in the labour market.

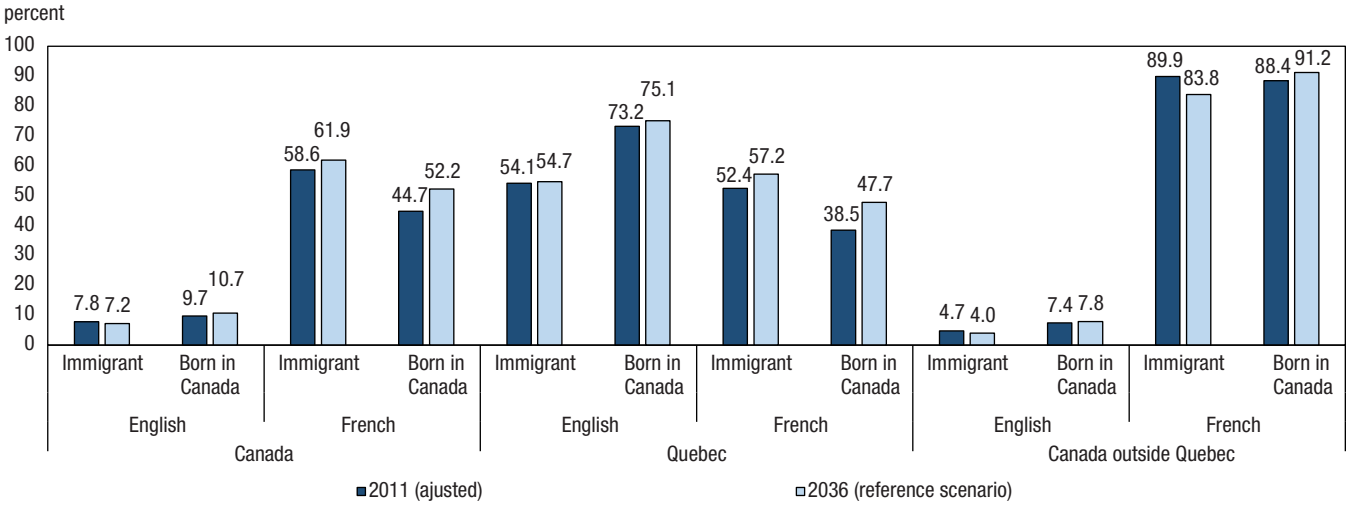
Lastly, while the differences observed in 1986 between English-speaking men and women in Quebec had all but disappeared in 2011, this situation is not expected to change between now and 2036.

5.3.8 English–French bilingualism and immigrant status

Because international migration should remain the main driver of Canadian population growth between now and 2036 (see Chapter 4), it is clear that the evolution of English–French bilingualism would be partly influenced by these immigrants' likelihood to be able to conduct a conversation in both of the country's official languages.

So, what repercussions could immigration have on the evolution of English–French bilingualism in Canada? We know that the current rate of bilingualism among immigrants in Canada outside Quebec whose FOLS is English was 4.7% in 2011, and that, depending on the immigration rate considered, it would be around 4.0% in 2036 (Chart 5.7). Given the growing demographic weight of immigrants in the population and their lower rate of English–French bilingualism than that of the population born in Canada, there is every reason to believe that this situation should exert downward pressure on the entire country's bilingualism rate.

Chart 5.7
English-French bilingualism rate, by immigrant status and first official language spoken, Canada, Quebec, Canada outside Quebec, 2011 and 2036

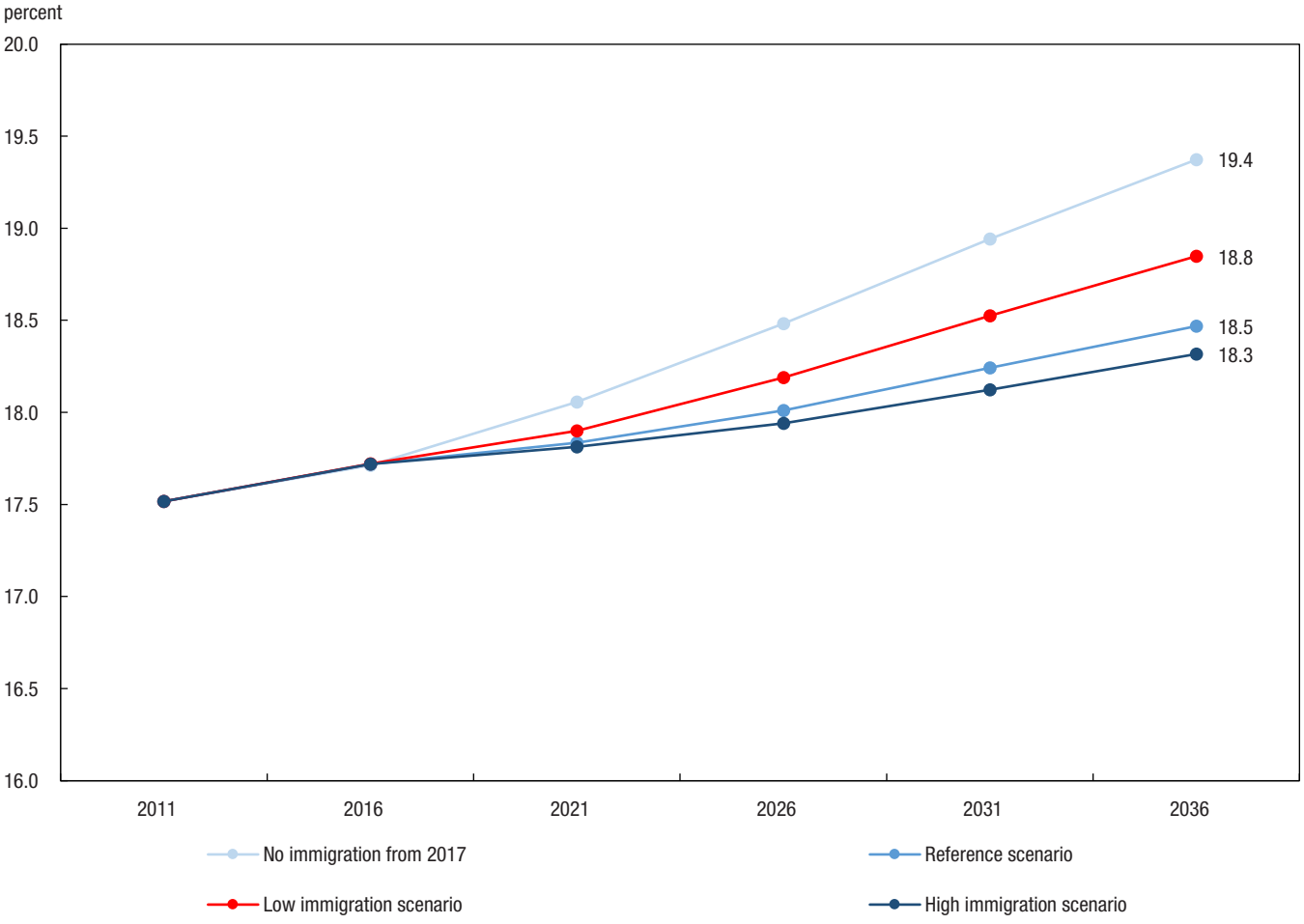


Note: The 2011 proportions are calculated with the population adjusted for net undercoverage. The 2036 bilingualism rates presented in this chart do not not vary significantly by immigration scenario.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016

To verify this assumption, several scenarios can be examined, including the purely theoretical scenario where no new immigrants would be accepted between 2017 and 2036. This scenario makes it possible to examine how the country's bilingualism rate would evolve without newcomers, all other things being equal. Chart 5.8 represents these evolutions by immigration scenario.

So, the country's bilingualism rate, which was 17.5% in 2011, would be approximately 19.4% in 2036 in a scenario with no new immigrants, compared with 18.3% in a high immigration scenario during this period. This means that while English-language immigration exerts downward pressure on English–French bilingualism in Canada due to a lower bilingualism rate than that of the English-speaking population born in Canada, it is certainly not the only factor responsible for the full decline.

Chart 5.8
Evolution of English-French bilingualism rate in Canada, by immigration scenario, Canada, 2011 to 2036



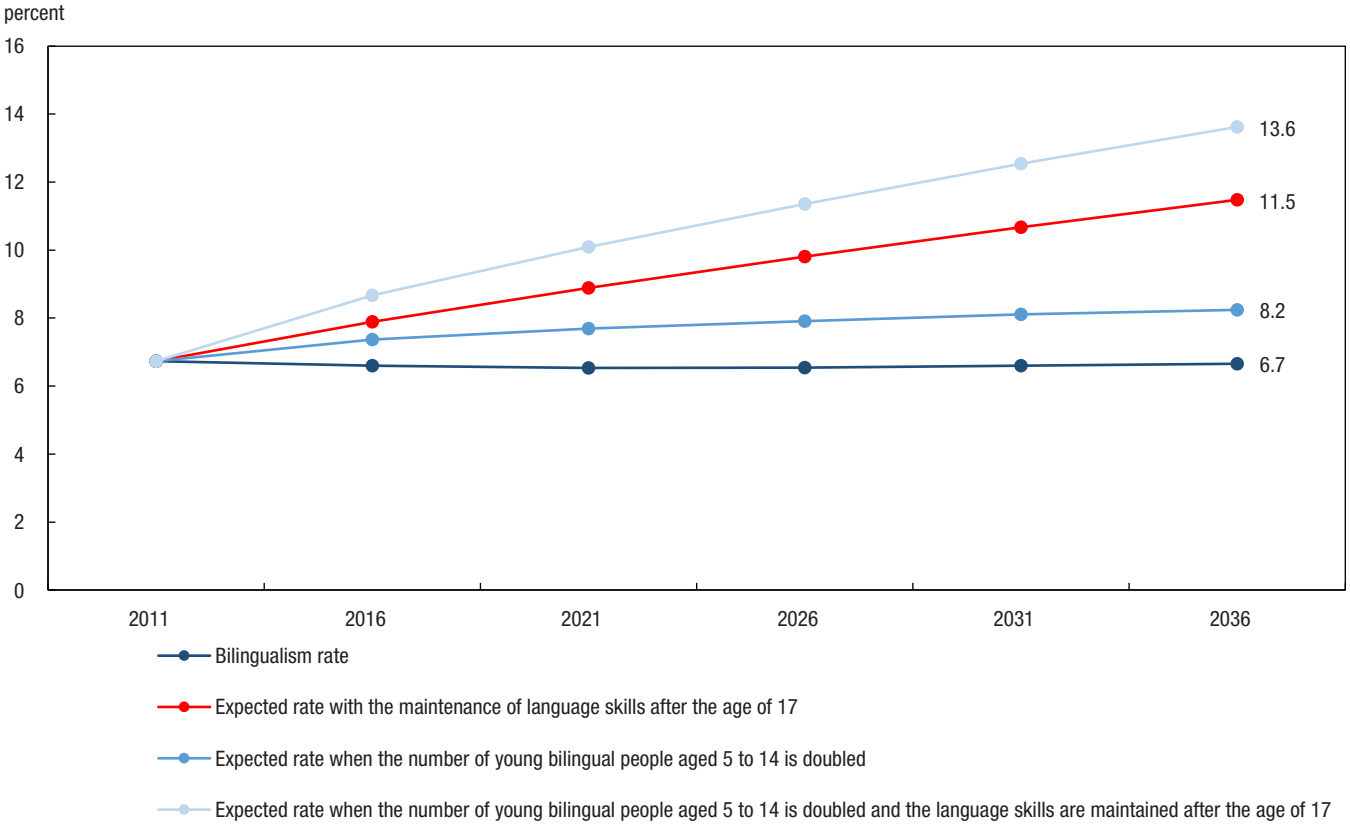
Note: The 2011 proportions are calculated with the population adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

5.3.9 English–French bilingualism among young people and the maintenance of skills over time

We have seen how "erosion" or loss of bilingualism after high school is a common phenomenon among young people who live in areas of the country where contact between French- and English-language populations is infrequent. This situation is typical when opportunities to use the second language are limited or very scarce. Knowing that skill erosion usually begins around the end of high school, we opted to examine a second theoretical and implausible scenario—if we consider the total bilingual youth population—that would be identical to the reference scenario except that English–French bilingualism skills would be maintained from age 17. In other words, assuming that there were measures or conditions to allow the young English-speaking population in Canada outside Quebec to maintain their second-language skills, such as a significant increase in French-immersion program attendance among younger individuals, how would the bilingualism rate evolve in this population and in the rest of the country? We could ask ourselves, for example, what would happen if we were to double the number of children aged 5 to 14 able to conduct a conversation in both official languages, with or without the maintenance of second-language skills.

Chart 5.9 shows the evolution of the bilingualism rate in the English-speaking population outside Quebec. Instead of being 6.7% in 2036, its English–French bilingualism rate could be 11.5% (reference immigration scenario) if the second-language skills of bilingual youth were to remain at the same level as they were at age 17. Furthermore, we could assume that doubling the number of children aged 5 to 14 able to conduct a conversation in both of the country's official languages would appreciably increase the long-term bilingualism rate of the English-speaking population in Canada outside Quebec. But, because of the erosion of second-language skills among many young adults, such a strategy would only have a small effect on this population's bilingualism rate, which would barely reach 8.2% in 2036. However, with the assumption that the number of young bilingual people in the English-speaking population doubles and that the maintenance of second-language skills is encouraged (in other words, that these young people stay bilingual), the bilingualism rate for the entire English-speaking population in Canada outside Quebec would be more than double that observed in 2011, reaching 13.6% in 2036.

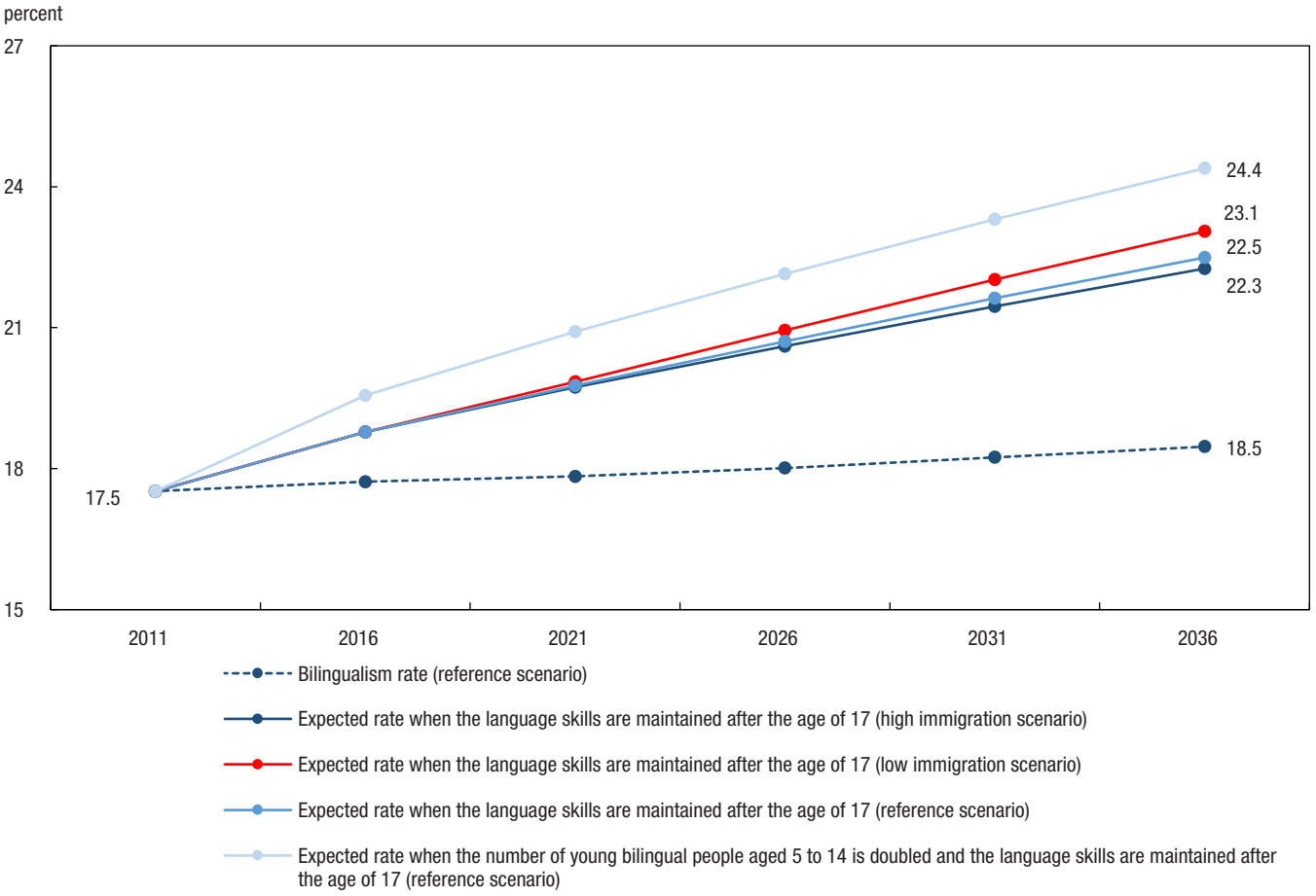
Chart 5.9
Evolution of English-French bilingualism rate among the English-speaking population (first official language spoken), various scenarios and the reference immigration scenario, Canada outside Quebec, 2011 to 2036



Note: The 2011 proportions are calculated with the population adjusted for net undercoverage.
Sources : Statistics Canada, 2011 National Household Survey and Demosim, 2016.

In such a scenario, in particular the scenario where the number of children aged 5 to 14 able to speak both languages is doubled and the maintenance of skills over time is fostered, the evolution of the entire Canadian population's bilingualism rate would be significantly affected. Instead of being 18.5% (reference immigration rate scenario), the rate of English–French bilingualism across the country could be at 24.4%, which is close to 6 percentage points more than what would be observed if second-language skills were not maintained.

Chart 5.10
Evolution of English-French bilingualism rate by second-language skills maintenance scenario among the population with English as first official language spoken, by various immigration scenarios, Canada outside Quebec, 2011 to 2036



Note: The 2011 proportions are calculated with the population adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

5.4 Overview

After increasing 1 percentage point per decade between 1961 and 2001, and even 2 percentage points between 1971 and 1981, English–French bilingualism declined between 2001 and 2011. While the demographic weight of the Quebec population within Canada continued its gradual decline during the second period, the Quebec population able to conduct a conversation in both of the country's official languages rose by 414,000 people, to reach 3.4 million in 2011. By comparison, during the same period, the population able to speak both official languages increased by only 136,650 people in Canada outside Quebec, reaching almost 2.6 million in 2011.[86] In light of these results, we asked ourselves what these trends meant for the future of bilingualism in Canada.

This chapter presented the possible evolution of English–French bilingualism between 2011 and 2036 based on a number of characteristics and scenarios. First, the growth that might be observed between 2011 and 2036 would be very similar to the growth of 1.3 percentage points in the 25 years leading up to the 2011 Census and National Household Survey. Indeed, our microsimulation models show that the country's 2011 English–French bilingualism rate of 17.5% would reach 18.3% to 18.8% in 2036, depending on the immigration scenarios considered.

Quebec would likely continue to see the strongest growth in its population able to speak both of the country's official languages between now and 2036. According to all the projection scenarios, the Canadian population could have just over 2 million additional bilingual people by 2036. Of this number, 1.57 million would come from

86. These results are from 2011 Census and 2011 National Household Survey data adjusted for net undercoverage.

Quebec, i.e., 75% of the country's total new bilingual population. By comparison, in the 25 years leading up to the 2011 Census, the country's bilingual population grew by 1.7 million people, 1.1 million, or 63.3%, of whom were in Quebec.

In 2011, Quebec's demographic weight within Canada was 23.3%, and in 2036 it would be between 21.9% and 22.4 %. In 2011, 57.2% of the country's bilingual population lived in Quebec. This proportion could reach 62.0% in 2036, regardless of the immigration scenario considered. Furthermore, during the same period, the growth rate of the bilingual population in Canada outside Quebec could be between 14.5% and 23.1%, depending on the immigration scenario, whereas the growth rate of the non-bilingual population could be between 22% and 36%. In Quebec, these proportions would be between 39.7% and 49.6% and between -3.5% and 4.7%, respectively.

We also found that the strongest growth in the ability to speak both English and French should be seen in the French-mother-tongue population living in the Montréal CMA, off Montréal Island. Similarly, we could see significant growth in English–French bilingualism among the French-speaking population in the non-CMA French-speaking regions of New Brunswick.

As for the evolution of bilingualism in the English-speaking population in Canada outside Quebec, the situation should not change much between now and 2036, although the rates might dip a little. By examining the consequences of applying a few theoretical scenarios, we have found that while international immigration exerts downward pressure on the evolution of the level of bilingualism, the erosion of second-language skills among young people limits the progression of English–French bilingualism in Canada even more. In fact, the comparison of different projection scenarios clearly showed that the combined effect of the increase in the number children aged 5 and 14 who are bilingual and the maintenance of their second-language skills could lead to a substantial increase in the country's bilingualism rate between now and 2036.

Chapter 6 Summary and conclusion

6.1 Canada's language characteristics and the evolution of its language situation

With regard to language statistics, Canada is one of the few countries in the world to collect information on each of the "fields" recommended by the United Nations: "mother tongue, usual language (defined as the language currently spoken, or most often spoken, by the individual in his or her present home), and ability to speak one or more designated languages (United Nations, 2009).

The 2011 Census of Canada and National Household Survey (NHS) provide a wide range of information on the language characteristics and behaviours of the Canadian population. They include seven questions on language, more than any other country's survey.

For the purposes of this projection study on the evolution of the language portrait in Canada between 2011 and 2036, three of these questions were used in the Demosim model: the questions on mother tongue, language spoken most often at home and knowledge of official languages. From these three questions, a fourth concept was derived: First official language spoken.

The language characteristics projected in this study should be interpreted as representing major factors affecting the evolution of the country's language situation between now and 2036. However, as we will explain later, in certain specific contexts, examining the evolution of these language characteristics does not necessarily encapsulate all of the dimensions that make up the "language situation" per se.

6.2 Main projection findings

The evolution of the main language characteristics that make up the Demosim model is founded on a set of assumptions and scenarios. In projecting a population's language characteristics, there is a set of demographic and demolinguistic factors that play a major role in shaping the language trajectory and that form strong trends that are generally very difficult to reverse.

In some cases, however, such as learning languages, trends can evolve more rapidly due to changes in social contacts, government actions, or even social image and public opinion. Examples include the surge in registrations in French immersion programs across Canada and the rise over the past 30 years in the proportion of newcomers to Quebec who can conduct a conversation in French.

6.2.1 Mother tongue and home language

Mother tongue and the language spoken most often at home are the two main variables that have long defined, and continue to define, Canada's language groups. This study revealed that, between 2011 and 2036, the evolution of Canada's main language groups should be affected mainly by the growth in the population whose mother tongue or home language is neither French nor English (other language). In fact, all of the provinces and territories are expected to see a rise in the demographic weight of this group between now and 2036, mainly due to international immigration (see Chapter 3).

It is important to recall here that this group of other-language speakers is extremely heterogeneous, comprising over 200 distinct mother tongues, including both Aboriginal and so-called immigrant languages. The language projections developed with the Demosim model and presented in our study did not make it possible to know the possible change in the number and relative share of speakers of any of those 200 "other languages" by 2036.[87]

The English- and French-mother-tongue and English and French home language groups should also continue to grow throughout Canada between now and 2036. In Quebec, the only province in Canada where French is the majority language but which also has a significant English-speaking population, the English and French groups (mother tongue and home language) should see their numbers increase between 2011 and 2036. The demographic weight of the French-speaking population—defined by one or both of the above two criteria—should

87. It is important to note that in regrouping all the mother tongues other than English or French, the relative share of this group should be larger than the group with French as a mother tongue. However, none of those languages considered separately should challenge the demographic weight of the French and English languages by 2036.

decline, whereas that of the English-speaking population should rise over the projection period. More specifically, the Quebec French-mother-tongue population could decrease by 7 to 10 percentage points, and the French home language population could fall by 6 to 8 percentage points. The increase in the English-mother-tongue population could be around half a percentage point, whereas that in the English home language population could be 2 percentage points.

In the rest of Canada, the size of the English-speaking population (mother tongue and home language) should continue to grow. The French-mother-tongue population should decline, whereas the French-home-language population should either rise or fall slightly, depending on the immigration scenario considered. In terms of demographic weight, the English-mother-tongue group in Canada outside Quebec could decline by 5 to 10 percentage points, depending on the immigration scenario, while that of the English-home-language population could decrease by 5 to 6 percentage points. This decline would stem mainly from the growth of the population with an immigration background that speaks a non-official language. As for the French-speaking population, the decline in its demographic weight could be around 1 percentage point in the mother-tongue group and half a percentage point in the home language population.

In short, the projection results for the English- and French-speaking populations by mother tongue and home language reveal that only the English-speaking population in Quebec would see an increase in its demographic weight, whereas only the French-speaking population in Canada outside Quebec should see a decrease in both population size (small) and its demographic weight between 2011 and 2036.

While most immigrants' mother tongue or home language is one other than English or French, and while both the size and demographic weight of this population should continue to rise between now and 2036, immigration will nonetheless contribute to the growth of the official language populations.

Our study showed the role and combined effect of several linguistic integration mechanisms in our country's immigrants. In the private sphere, for example, many immigrants abandon the use of their mother tongue as the home language in favour of one of the two official languages—often as a result of marriage or children. This phenomenon of language transfers was discussed throughout this report. In Chapter 4 we noted, however, that language transfers among the other-mother-tongue population should exert a much stronger influence on the evolution of the English-speaking populations than French-speaking populations.

Immigration's contribution to the demographic dynamics of Canada's official language populations is explained by the fact that a number of these immigrants have English or French as a mother tongue themselves or have adopted one of these languages as the home language, but also by the fact that they use the official languages in the public sphere (work, education, stores, services, etc.). Their linguistic integration into the official language communities cannot therefore be explained by mother tongue and home language alone. In fact, it is in the public sphere that the vast majority of immigrants and their descendants use the country's official languages—notably, at work, in educational institutions, retail environments and public service delivery locations. Even immigrants who have no knowledge of either official language upon arriving in Canada—having been admitted to the country on the basis of other selection criteria—eventually learn one (or sometimes both) official languages;[88] their social and economic integration into the country depends on it.

As such, the linguistic integration of immigrants into the official language populations between now and 2036 should mainly be a factor of their learning and having knowledge of the official languages, the number of speakers of which should continue to rise. Between 2011 and 2036, the demographic weight of the population that can conduct a conversation in one of the country's official languages should remain very stable. Specifically, compared with 98.3% of the population in 2011, the proportion of the Canadian population able to speak English or French should be between 98.0% and 98.5% in 2036.

The current projection results indicate, however, that while the populations able to speak either English or French will continue to increase in numbers, their demographic weight should remain relatively unchanged. Specifically, in the country as a whole, the population able to speak English was 29.5 million at the time of the 2011 NHS and could reach between 36.5 million and 40 million in 2036, depending on the immigration scenario considered. The population able to speak French was 10.2 million in 2011 and could be between 11.7 million and 12.5 million in 2036. The demographic weight of the population able to speak English could rise from 86% in 2011 to around 89% by 2036, whereas the population able to speak French could fall from 29.8% in 2011 to between 27.6% and

88. According to data from Immigration, Refugees and Citizenship Canada (IRCC), around 30% of permanent residents have no knowledge of either English or French when they are admitted to the country (Immigration, Refugees and Citizenship Canada 1986-2015).

28.4% in 2036, depending on the immigration scenario. That being said, with approximately 12 million speakers in the country, French would, by far, remain the country's second most spoken language. In 2011, Spanish was the third most spoken language in the country, with 873,400 speakers.[89]

6.2.2 First official language spoken

The size and proportion of the population that uses one of the two official languages in the private or public sphere should increase by 2036. FOLS offers a good approximation of the scope of this phenomenon.

The English FOLS population should grow in both numbers and demographic weight in the country as a whole, with the exception of a few provinces. Specifically, while the demographic weight of this population in Newfoundland and Labrador, Nova Scotia, and New Brunswick should remain very high and stable, their numbers could decrease. This phenomenon attests to the population decline in these provinces characterized by low fertility and population aging not offset by immigration.

The French FOLS populations could see their size increase or stabilize in almost all regions except the Atlantic provinces; however, their demographic weight could decrease, in both Quebec and the rest of Canada (outside the territories). With respect to Quebec in particular, it is important to note that the decrease in the demographic weight of the French FOLS population could be between 2.7 and 3.6 percentage points. This decrease would thus be less than what would be observed with regard to the evolution of the population with French as a mother tongue. This situation primarily reflects the contribution of French FOLS immigrants whose mother tongue is neither French nor English to Quebec's French-speaking population.

The decrease in the demographic weight of the French FOLS population in Canada stems mainly from the fact that the relative share of other-mother-tongue immigrants who adopt English as the home language or who, of the two official languages, only know English, should continue to grow at a faster rate than the share of immigrants who transfer to French. Note, incidentally, that at the time of the 2011 NHS, 83.4% of immigrants in all of Canada reported English as their FOLS, compared with 10.3% who reported French.[90]

These projection results suggest that, given the major role of immigration in demographic evolution, the levels and composition of future immigration to Canada outside Quebec would be the most significant persistent factors that could slow, if not the halt, the decline of the French-speaking demographic weight over time. We first demonstrated that, regardless of immigration scenario considered, the above should not stop the relative weight of this population from declining. In order to examine the effects over the long term, we therefore simulated a change in the linguistic composition of immigration without increasing the levels of immigration in relation to the reference scenario. Such a scenario yields an estimate of the number of French-speaking immigrants (by FOLS) required each year between 2017 and 2036 in order to keep the weight of the French-speaking populations in each province constant at the 2016 level.

The results of this scenario indicate that to achieve this target, the number of French-speaking immigrants would have to be multiplied by 1.7, or 275,000 individuals over 20 years, as opposed to the 165,000 projected in the reference scenario. This increase would vary greatly from one province to another. As such, Ontario, where nearly 70% of French-speaking immigrants settle, would have to multiply the number of French-speaking immigrants projected in the reference scenario by 1.5 (50%), whereas New Brunswick, the province with the highest French FOLS population in Canada outside Quebec, would need to multiply the 7,000 immigrants projected in the reference scenario by a factor of 3.3 (230%). Recall that in 2011, the French-speaking population comprised 31% of New Brunswick's population, while the immigrants who had settled in the province represented only 12% of the population.

6.2.3 The possible consequences of demographic evolution

The possible consequences of demographic evolution in coming years on the official language populations are numerous, some of which bear mentioning.

First, immigration, which should continue to be the main driver of growth in the major language groups across the country, is not expected to have a significant impact on the aging of Canada's official language populations, nor

89. By comparison, we have already mentioned earlier in our study that Punjabi was the third most reported mother tongue in Canada after English and French, with 460 000 people.
90. Among recent immigrants (who arrived between 2006 and the 2011 NHS), 76% reported English as their FOLS, compared with 15.2% who reported French. Those who could not speak English or French represented 8.8% of the population.

on the aging of the population as a whole (Statistics Canada 2015). The percentage of the population aged 65 or over should continue to rise in both the English and French populations in all immigration scenarios.

Immigration could, however, significantly change the ethnocultural composition of the English and French groups, by increasing the share of both immigrants and the so-called second generation (children of immigrants). The growth of the population with an immigration background is expected to have the greatest consequences for the French-speaking population. In the Canadian French FOLS population, 15% were from an immigration background in 2011; a percentage which should double by 2036 under the reference scenario (29.5%). By comparison, these percentages in the English FOLS population are 44% in 2011 and 52% in 2036.

Immigration-driven demographic change could also impact the country's English–French bilingualism. In Canada outside Quebec, for example, the population share of immigrants whose FOLS is English should increase between now and 2036, from 22.6% in the 2011 NHS to between 25.8% and 31.3%. Meanwhile, the bilingualism rate in the English FOLS population in Canada outside Quebec was 4.0% in 2011 and could fall to approximately 3.2% in 2036. In such a situation, the English–French bilingualism rate in the entire English-speaking population in Canada outside Quebec would fall slightly from 6.5% in 2011 to 6.3%, depending on the reference scenario. By contrast, the English–French bilingualism rate should increase in the French FOLS population, both in Quebec and in Canada outside Quebec. Specifically, the bilingualism rate in Quebec would rise from 44.4% in 2011 to between 50.2% and 51.8%.

In Canada outside Quebec, the pull of French as the home language should remain marginal in groups whose mother tongue is not French. The pull of English, however, should remain high among both the French- and the other-mother-tongue groups.

Part of the French-mother-tongue population tends to adopt English as the home language. In 2011, around half of the French-mother-tongue population had made a language transfer to English over the course of their lives, and the projections indicate that this proportion should not change between now and 2036. Of course, the transfer rates toward English are much higher in the provinces and territories outside of New Brunswick and the Ontario regions bordering Quebec.

As such, the pull of English outside Quebec is halting the growth of the French-speaking population in these regions. This trend should persist between now and 2036.

Language transfers toward English in Canada outside Quebec are partly due to incomplete transmission of French by parents to their children, given that the language spoken most often at home is generally the language that gets transmitted to children. Language transfers toward English are associated with exogamy; specifically, the fact that many couples formed of at least one French-mother-tongue spouse are mixed couples (the other spouse is most often English-speaking).[91] This context favours the transmission of English to children at the expense of French. Chapter 2 showed that the incomplete transmission of one or both parents' French to their children has contributed to the aging of French-speaking populations in Canada outside Quebec over the years. This, in turn, has shrunk the pool of potential new French-speaking parents who could transmit their French to their children.

The numerous results presented in our study shed light on the different contexts in which the official-language minorities have evolved and should continue to evolve in Canada. The fact that English in Quebec is expected to continue to enjoy a significant pull among other-mother-tongue populations could contribute positively to the dynamics and vitality of English-speaking population, and this despite losses it could experience to migration toward the rest of Canada. However, these losses should be more than compensated for by the growth from international immigration throughout the projection period in the reference scenario. Moreover, despite its minority status in Quebec, the English-speaking group should continue to maintain high language transmission rates to children, as shown in Chart 2.2, such that its natural increase (births minus deaths) should boost this population's growth between now and 2036.

The situation of the French-speaking population living outside Quebec is markedly different, even though, demographically, this group also stands to benefit from international immigration, but to a much lesser extent. The biggest challenge facing the French-speaking population lies in righting its age structure: increasing the number of youth who could, in turn, transmit French to their children, as this would slow its population aging. However, an

91. The series of portraits of Canada's official language communities, produced by Statistics Canada between 2010 and 2012 ((http://www5.statcan.gc.ca/olc-cel/olc.action?objId=89-642-X&objType=2&lang=en&limit=1)) revealed that for most French-speaking individuals who made a language transfer toward English, they generally adopted English as their home language before living with a partner. The relationship between exogamy and language transfers is therefore two-way.

effective recovery cannot stem from migration, be it internal or international, because migration does not generally have a significant impact on age structure.

6.2.4 Study limitations and future directions

We have mentioned several times throughout this report that the projections of certain population language characteristics do not necessarily or in all cases allow us to draw a complete picture of what we would call the evolution of the "language situation." For instance, due to methodological reasons, the projections presented in our study could not account for the languages used at work or spoken regularly at home, in addition to the language spoken most often at home. Nor could they be used to predict language use in the public sphere. It is true that, generally speaking, when a language group is highly dominant owing to its size and demographic weight, the language used in the public sphere is usually dictated by what is commonly called the "law of the land" (Termote 2014), in other words, majority rule. However, in certain cases, like Montréal, two public use languages can coexist. The factors that can influence the use of one language or the other are complex and difficult to project using Demosim.

We noted the fact that information on FOLS can, in general, serve as an approximation of individuals' main language; in other words, which language they are most comfortable using to communicate.[92] However, the language of public use (i.e., that used in certain spheres of public life) can differ from individuals' main language. For example, at the time of the 2011 National Home Survey, of the Quebec workers whose FOLS was English, 22.1% reported using French most often at work, 12.1% used English and French equally at work, and 28% reported using French regularly, in addition to the language used most often, which was usually English. Among French FOLS workers, these proportions were 4.2%, 4.0% and 22.1%, respectively. Moreover, it should be noted that proportionally fewer Quebec English FOLS workers declared using English most often at work in 2011 than in 2006. Also, fewer French FOLS workers declared using French most often at work. Conversely, we are observing a growing English–French bilingualism in the workplace, particularly in the Montréal area.

That said, among people who are able to conduct a conversation in English and French, the dominant home language tends to be the language the individual prefers to use in the public sphere (see Corbeil and Houle 2013 and Termote 2014 for more on this topic).[93]

Another important factor, which was not analyzed in depth in this study, concerns the ultimate impacts of the surge in popularity of French immersion programs in Canada outside Quebec. In the 2014–2015 school year, the number of registrations in these programs reached nearly 410,000 students, compared with 277,840 students 15 years earlier, representing a 48% increase. Data drawn from the 2006-2007 cycle of the Youth in Transition Survey[94] conducted by Statistics Canada showed that young people who are part of a French immersion program maintain their second language much longer than those in regular second-language programs. How will the rise in registrations in French immersion programs impact the evolution of English–French bilingualism in Canada?

Results from chapter 5 suggest that it is not so much, strictly speaking, the strong growth in the number of youths in Canada outside Quebec able to speak both official languages that would have a significant impact on the bilingualism rate across the country by 2036. Rather, the combined effect of this growth and the increase in the number of youths who would have maintained their second language skills after having completed their high school education.

To conclude, let us note that our study did shed light on the relevance of key demographic and demolinguistic phenomena that have been driving the major trends over the past several decades, the likes of which should continue to shape the course of the language situation over the coming decades. The main purpose of this study of course was not to predict the future but to bring attention to how sensitive the evolution of these language

92. As noted previously, this information is less accurate for the French-speaking populations living in Canada outside Quebec. In this population, the qualifier "first," in most cases, refers to the first language learned at home in childhood and, moreover, includes the many cases of anglicization observed in this population, in which there is a language shift from French to English as the main language. In fact, the data from the Survey on the Vitality of Official-Language Minorities (SVOLM), conducted by Statistics Canada in 2006, revealed that close to 40% of the adult French-speaking population in Canada outside Quebec reported being more comfortable communicating in English than in French (Corbeil, Lafrenière and Grenier 2007).
93. In their 2013 study titled "Trajectoires linguistiques et langue d'usage public chez les allophones de la région métropolitaine de Montréal" [Linguistic trajectories and language of public use of allophones in the Greater Montréal Area] based on the results of the 2006 SVOLM, Corbeil and Houle demonstrated that the other-mother-tongue population that declared being more comfortable communicating in French than English reported using French 81% of the time in various aspects of the public sphere, compared with 23.6% of the time among those who reported being more comfortable communicating in English. These results are identical to those obtained for the language spoken most often at home. As well, the population with French as their FOLS whose mother tongue is other than English or French reported using French 83.4% of the time in the public sphere, compared with 20.3% in the English FOLS group. Lastly, note that among those who declared having both English and French as their FOLS or main language (in both English and French populations), French was used around 50% of the time, and English the other 50%.
94. For more information on this survey, please see: http://www23.statcan.gc.ca/imdb/p2SV_f.pl?Function=getSurvey&Id=44845

characteristics is to the various phenomena we have described and analyzed. It is our hope that these results will prove useful to readers interested in studying these issues further.

Appendix

Table A.3.1
Population by mother tongue, provinces (excluding Quebec) and territories, by three projection scenarios, 2011 and 2036

		2036 (projected)				2036 (projected)		
	2011 (adjusted)	Low immigration	Reference	High immigration	2011 (adjusted)	Low immigration	Reference	High immigration
Mother tongue	population (thousands)				percent			
English								
Newfoundland and Labrador	515	460	463	464	98.1	96.5	95.9	95.5
Prince Edward Island	134	137	139	140	93.0	83.8	79.8	77.8
Nova Scotia	875	810	818	822	92.7	90.5	89.2	88.6
New Brunswick	499	445	450	452	66.1	66.2	65.1	64.6
Ontario	9,287	10,307	10,573	10,711	70.2	66.0	63.1	61.7
Manitoba	928	1,065	1,096	1,113	75.4	68.9	64.7	62.8
Saskatchewan	919	1,057	1,080	1,093	86.4	79.3	75.5	73.6
Alberta	2,985	3,995	4,109	4,169	79.0	71.1	67.5	65.8
British Columbia	3,243	3,648	3,733	3,777	72.2	67.6	64.5	63.1
Territories	73	90	91	91	65.2	60.9	59.6	58.9
French								
Newfoundland and Labrador	2	1	1	1	0.4	0.2	0.2	0.2
Prince Edward Island	5	4	4	4	3.6	2.5	2.4	2.3
Nova Scotia	33	23	24	24	3.4	2.6	2.6	2.6
New Brunswick	239	191	192	193	31.6	28.4	27.8	27.5
Ontario	517	471	493	505	3.9	3.0	2.9	2.9
Manitoba	42	33	35	36	3.4	2.1	2.1	2.0
Saskatchewan	16	13	15	15	1.5	1.0	1.0	1.0
Alberta	72	89	96	99	1.9	1.6	1.6	1.6
British Columbia	60	56	58	60	1.3	1.0	1.0	1.0
Territories	3	4	5	5	2.6	2.9	3.0	3.1
Other								
Newfoundland and Labrador	8	15	19	21	1.5	3.2	3.9	4.2
Prince Edward Island	5	22	31	36	3.3	13.7	17.8	19.9
Nova Scotia	36	61	75	82	3.9	6.8	8.2	8.8
New Brunswick	17	37	49	56	2.3	5.4	7.1	8.0
Ontario	3,432	4,842	5,699	6,144	25.9	31.0	34.0	35.4
Manitoba	261	449	563	623	21.2	29.0	33.2	35.2
Saskatchewan	128	262	337	376	12.1	19.7	23.5	25.3
Alberta	721	1,536	1,886	2,070	19.1	27.3	31.0	32.7
British Columbia	1,188	1,695	1,996	2,153	26.4	31.4	34.5	35.9
Territories	36	53	57	59	32.2	36.1	37.4	38.0

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table A.3.2
Population by language spoken most often at home, by three projection scenarios, provinces (excluding Quebec) and territories, 2011 and 2036

		2036 (projected)				2036 (projected)		
	2011 (adjusted)	Low immigration	Reference	High immigration	2011 (adjusted)	Low immigration	Reference	High immigration
Language spoken most often at home	population (thousands)				percent			
English								
Newfoundland and Labrador	519	466	469	471	98.9	97.7	97.3	97.1
Prince Edward Island	138	146	150	152	95.9	89.3	86.0	84.4
Nova Scotia	908	846	860	867	96.2	94.7	93.7	93.3
New Brunswick	528	473	482	487	69.9	70.3	69.8	69.5
Ontario	10,972	12,624	13,134	13,400	82.9	80.8	78.3	77.2
Manitoba	1,088	1,291	1,359	1,394	88.4	83.5	80.2	78.7
Saskatchewan	1,006	1,191	1,242	1,270	94.6	89.4	86.8	85.6
Alberta	3,365	4,777	5,018	5,143	89.1	85.0	82.4	81.2
British Columbia	3,770	4,393	4,556	4,641	83.9	81.4	78.7	77.5
Territories	89	113	115	116	78.6	76.4	75.6	75.2
French								
Newfoundland and Labrador	1	1	1	1	0.1	0.1	0.1	0.1
Prince Edward Island	3	2	2	2	1.9	1.1	1.0	1.0
Nova Scotia	17	11	12	12	1.8	1.3	1.3	1.3
New Brunswick	218	179	181	181	28.9	26.6	26.1	25.8
Ontario	313	322	346	359	2.4	2.1	2.1	2.1
Manitoba	19	17	19	20	1.5	1.1	1.1	1.1
Saskatchewan	4	5	6	6	0.4	0.4	0.4	0.4
Alberta	26	36	42	45	0.7	0.6	0.7	0.7
British Columbia	18	20	22	23	0.4	0.4	0.4	0.4
Territories	2	2	2	3	1.4	1.5	1.6	1.7
Other								
Newfoundland and Labrador	5	11	13	14	0.9	2.2	2.6	2.8
Prince Edward Island	3	16	23	26	2.2	9.7	13.0	14.6
Nova Scotia	18	36	45	50	1.9	4.1	5.0	5.4
New Brunswick	9	21	28	32	1.1	3.1	4.1	4.6
Ontario	1,952	2,674	3,284	3,601	14.7	17.1	19.6	20.7
Manitoba	124	239	316	358	10.1	15.5	18.7	20.2
Saskatchewan	54	137	184	208	5.0	10.3	12.8	14.0
Alberta	387	807	1,031	1,149	10.2	14.4	16.9	18.1
British Columbia	704	985	1,210	1,325	15.7	18.3	20.9	22.1
Territories	23	33	35	36	20.0	22.1	22.8	23.1

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table A.3.3
Population by first official language spoken, by three projection scenarios, provinces (excluding Quebec) and territories, 2011 and 2036

		2036 (projected)				2036 (projected)		
	2011 (adjusted)	Low immigration	Reference	High immigration	2011 (adjusted)	Low immigration	Reference	High immigration
First official language spoken	population (thousands)				percent			
English								
Newfoundland and Labrador	522	475	481	484	99.6	99.6	99.6	99.6
Prince Edward Island	138	157	167	172	96.0	96.3	95.8	95.5
Nova Scotia	911	869	891	902	96.6	97.2	97.1	97.1
New Brunswick	517	479	494	502	68.4	71.2	71.5	71.7
Ontario	12,398	14,785	15,798	16,323	93.7	94.7	94.2	94.0
Manitoba	1,177	1,495	1,633	1,704	95.7	96.7	96.4	96.2
Saskatchewan	1,046	1,310	1,404	1,454	98.3	98.3	98.1	97.9
Alberta	3,661	5,464	5,904	6,133	96.9	97.2	96.9	96.8
British Columbia	4,290	5,185	5,524	5,700	95.5	96.0	95.4	95.2
Territories	106	141	145	147	94.4	95.4	95.1	95.0
French								
Newfoundland and Labrador	2	1	1	1	0.3	0.3	0.3	0.3
Prince Edward Island	5	4	4	4	3.5	2.4	2.4	2.3
Nova Scotia	31	23	24	24	3.3	2.5	2.6	2.6
New Brunswick	238	192	194	195	31.5	28.6	28.1	27.9
Ontario	548	542	585	609	4.1	3.5	3.5	3.5
Manitoba	40	34	38	40	3.3	2.2	2.2	2.2
Saskatchewan	14	13	15	15	1.3	1.0	1.0	1.0
Alberta	72	95	106	112	1.9	1.7	1.7	1.8
British Columbia	63	63	69	72	1.4	1.2	1.2	1.2
Territories	3	5	5	5	2.6	3.2	3.3	3.4

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table A.3.4

Population with English mother tongue, by different projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036

		2036 (projected)											
	2011 (adjusted)	Zero immi-gration	Refer-ence	Low immi-gration	High immi-gration	Low growth	High growth	Internal migration 1996 to 2001	Internal migration 1996 to 2011	Distribution of immigration 2000 to 2005	Distribution of immigration 2005 to 2010	Composition of immigration 2005 to 2010	Almost complete transmission of French
	number (thousands)												
Newfoundland and Labrador	515	457	463	460	464	449	482	359	425	461	461	464	457
Prince Edward Island	134	134	139	137	140	133	145	137	138	135	138	139	137
Nova Scotia	875	796	818	810	822	789	856	827	820	812	818	819	807
New Brunswick	499	438	450	445	452	434	470	448	448	444	447	449	442
Quebec	652	754	836	808	853	784	893	731	802	836	842	836	840
Ontario	9,287	9,850	10,573	10,307	10,711	9,939	11,267	10,812	10,660	10,800	10,657	10,558	10,357
Manitoba	928	1,011	1,096	1,065	1,113	1,031	1,166	1,074	1,093	1,051	1,077	1,090	1,078
Saskatchewan	919	1,018	1,080	1,057	1,093	1,026	1,146	975	1,041	1,035	1,049	1,089	1,063
Alberta	2,985	3,798	4,109	3,995	4,169	3,880	4,357	4,514	4,240	3,972	4,018	4,114	4,024
British Columbia	3,243	3,505	3,733	3,648	3,777	3,498	4,008	3,435	3,635	3,739	3,757	3,724	3,671
Territories	73	88	91	90	91	87	96	76	87	90	90	91	91
Canada outside Quebec	19,458	21,095	22,551	22,013	22,833	21,266	23,994	22,658	22,585	22,538	22,512	22,536	22,128
Canada	**20,110**	**21,849**	**23,387**	**22,821**	**23,685**	**22,050**	**24,887**	**23,389**	**23,388**	**23,374**	**23,354**	**23,372**	**22,968**
	percent												
Newfoundland and Labrador	98.1	97.5	95.9	96.5	95.5	96.5	95.4	95.8	95.8	96.4	96.3	96.0	95.3
Prince Edward Island	93.0	91.4	79.8	83.8	77.8	83.8	78.1	81.4	81.8	88.9	82.2	79.9	78.5
Nova Scotia	92.7	92.8	89.2	90.5	88.6	90.6	88.4	89.0	89.1	90.2	89.3	89.2	88.2
New Brunswick	66.1	67.9	65.1	66.2	64.6	66.1	64.5	65.0	65.1	66.6	65.7	65.1	63.8
Quebec	8.2	9.0	8.7	8.8	8.6	8.7	8.7	7.9	8.4	8.7	8.6	8.7	8.7
Ontario	70.2	71.8	63.1	66.0	61.7	65.9	61.8	62.4	62.9	60.9	62.2	63.0	61.8
Manitoba	75.4	77.5	64.7	68.9	62.8	68.6	63.2	64.3	64.6	70.8	67.1	64.3	63.7
Saskatchewan	86.4	86.9	75.5	79.3	73.6	79.2	73.9	75.7	75.5	83.4	80.8	75.9	74.5
Alberta	79.0	78.7	67.5	71.1	65.8	71.0	65.9	70.5	68.4	71.9	70.3	67.7	66.2
British Columbia	72.2	73.7	64.5	67.6	63.1	67.6	63.0	61.9	63.7	64.2	63.6	64.4	63.5
Territories	65.2	63.4	59.6	60.9	58.9	60.9	58.9	56.6	59.3	61.5	60.8	59.6	59.3
Canada outside Quebec	74.0	75.3	66.0	69.1	64.5	69.0	64.6	65.6	65.9	66.0	66.1	66.0	64.8
Canada	**58.7**	**60.0**	**53.4**	**55.6**	**52.3**	**55.4**	**52.5**	**53.4**	**53.4**	**53.4**	**53.3**	**53.4**	**52.4**

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table A.3.5

Population with French mother tongue, by different projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036

		2036 (projected)											
	2011 (adjusted)	Zero immi-gration	Refer-ence	Low immi-gration	High immi-gration	Low growth	High growth	Internal migration 1996 to 2001	Internal migration 1996 to 2011	Distribution of immigration 2000 to 2005	Distribution of immigration 2005 to 2010	Composition of immigration 2005 to 2010	Almost complete transmission of French
	number (thousands)												
Newfoundland and Labrador	2	1	1	1	1	1	1	2	1	1	1	1	3
Prince Edward Island	5	4	4	4	4	4	4	4	4	4	4	4	6
Nova Scotia	33	22	24	23	24	23	25	28	25	24	24	24	30
New Brunswick	239	190	192	191	193	187	200	193	192	191	192	193	200
Quebec	6,308	6,379	6,756	6,627	6,836	6,459	7,108	6,589	6,706	6,757	6,793	6,732	6,790
Ontario	517	432	493	471	505	456	528	580	519	509	500	487	607
Manitoba	42	29	35	33	36	32	38	39	36	32	34	34	46
Saskatchewan	16	11	15	13	15	13	16	13	14	13	13	15	24
Alberta	72	78	96	89	99	87	102	121	102	90	92	95	139
British Columbia	60	51	58	56	60	53	63	74	64	58	59	58	88
Territories	3	4	5	4	5	4	5	5	5	4	4	5	5
Canada outside Quebec	989	823	922	886	942	860	983	1,059	964	926	924	916	1,148
Canada	**7,297**	**7,202**	**7,679**	**7,513**	**7,777**	**7,319**	**8,091**	**7,647**	**7,670**	**7,683**	**7,716**	**7,648**	**7,938**
	percent												
Newfoundland and Labrador	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.6
Prince Edward Island	3.6	2.7	2.4	2.5	2.3	2.5	2.3	2.5	2.6	2.7	2.4	2.4	3.2
Nova Scotia	3.4	2.6	2.6	2.6	2.6	2.6	2.6	3.0	2.8	2.6	2.6	2.6	3.3
New Brunswick	31.6	29.4	27.8	28.4	27.5	28.5	27.5	28.0	28.0	28.7	28.2	27.9	28.9
Quebec	78.9	76.3	70.1	72.1	69.0	72.0	69.0	71.2	70.4	70.1	69.6	69.9	70.1
Ontario	3.9	3.2	2.9	3.0	2.9	3.0	2.9	3.3	3.1	2.9	2.9	2.9	3.6
Manitoba	3.4	2.2	2.1	2.1	2.0	2.1	2.0	2.4	2.1	2.2	2.1	2.0	2.7
Saskatchewan	1.5	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.7
Alberta	1.9	1.6	1.6	1.6	1.6	1.6	1.5	1.9	1.7	1.6	1.6	1.6	2.3
British Columbia	1.3	1.1	1.0	1.0	1.0	1.0	1.0	1.3	1.1	1.0	1.0	1.0	1.5
Territories	2.6	2.8	3.0	2.9	3.1	3.0	3.0	3.7	3.2	2.9	3.0	3.1	3.3
Canada outside Quebec	3.8	2.9	2.7	2.8	2.7	2.8	2.6	3.1	2.8	2.7	2.7	2.7	3.4
Canada	**21.3**	**19.8**	**17.5**	**18.3**	**17.2**	**18.4**	**17.1**	**17.5**	**17.5**	**17.5**	**17.6**	**17.5**	**18.1**

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table A.3.6

Population with English as the language spoken most often at home, by different projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036

		2036 (projected)											
	2011 (adjusted)	Zero immi-gration	Refer-ence	Low immi-gration	High immi-gration	Low growth	High growth	Internal migration 1996 to 2001	Internal migration 1996 to 2011	Distribution of immigration 2000 to 2005	Distribution of immigration 2005 to 2010	Composition of immigration 2005 to 2010	Almost complete transmission of French
	number (thousands)												
Newfoundland and Labrador	519	460	469	466	471	455	490	365	465	466	467	470	431
Prince Edward Island	138	140	150	146	152	142	157	146	148	142	147	150	147
Nova Scotia	908	825	860	846	867	825	903	869	851	849	859	859	862
New Brunswick	528	459	482	473	487	461	507	478	476	469	477	481	479
Quebec	858	1,073	1,217	1,167	1,247	1,138	1,300	1,104	1,220	1,218	1,228	1,221	1,182
Ontario	10,972	11,751	13,134	12,624	13,400	12,190	14,072	13,475	13,001	13,567	13,293	13,113	13,253
Manitoba	1,088	1,176	1,359	1,291	1,394	1,252	1,457	1,334	1,345	1,260	1,318	1,353	1,354
Saskatchewan	1,006	1,103	1,242	1,191	1,270	1,156	1,330	1,118	1,228	1,141	1,171	1,248	1,196
Alberta	3,365	4,361	5,018	4,777	5,143	4,646	5,366	5,370	4,966	4,725	4,825	5,005	5,135
British Columbia	3,770	4,115	4,556	4,393	4,641	4,212	4,925	4,278	4,516	4,569	4,602	4,540	4,464
Territories	89	108	115	113	116	109	122	98	115	112	113	115	110
Canada outside Quebec	22,382	24,497	27,386	26,319	27,942	25,448	29,328	27,532	27,112	27,301	27,273	27,335	27,431
Canada	**23,240**	**25,570**	**28,603**	**27,486**	**29,189**	**26,586**	**30,628**	**28,636**	**28,332**	**28,519**	**28,501**	**28,556**	**28,612**
	percent												
Newfoundland and Labrador	98.9	98.3	97.3	97.7	97.1	97.7	96.9	97.2	96.9	97.6	97.5	97.3	97.2
Prince Edward Island	95.9	95.4	86.0	89.3	84.4	89.3	84.5	87.0	85.2	93.5	88.0	86.2	87.5
Nova Scotia	96.2	96.1	93.7	94.7	93.3	94.7	93.2	93.5	93.1	94.4	93.8	93.6	93.6
New Brunswick	69.9	71.0	69.8	70.3	69.5	70.2	69.5	69.4	68.7	70.5	70.0	69.6	69.6
Quebec	10.7	12.8	12.6	12.7	12.6	12.7	12.6	11.9	12.6	12.6	12.6	12.7	12.4
Ontario	82.9	85.7	78.3	80.8	77.2	80.8	77.2	77.8	77.6	76.5	77.6	78.3	78.2
Manitoba	88.4	90.1	80.2	83.5	78.7	83.3	78.9	79.9	79.5	85.0	82.0	79.9	80.1
Saskatchewan	94.6	94.2	86.8	89.4	85.6	89.3	85.7	86.8	86.1	91.9	90.2	87.1	86.8
Alberta	89.1	90.4	82.4	85.0	81.2	85.0	81.2	83.8	81.7	85.5	84.4	82.4	82.8
British Columbia	83.9	86.5	78.7	81.4	77.5	81.4	77.4	77.1	78.2	78.4	77.9	78.5	78.2
Territories	78.6	77.7	75.6	76.4	75.2	76.5	75.0	73.0	75.4	76.6	76.2	75.6	75.0
Canada outside Quebec	85.2	87.4	80.1	82.6	78.9	82.6	79.0	79.7	79.4	80.0	80.1	80.0	80.0
Canada	**67.8**	**70.3**	**65.3**	**66.9**	**64.4**	**66.8**	**64.6**	**65.4**	**64.6**	**65.1**	**65.1**	**65.2**	**65.3**

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table A.3.7

Population with French as the language spoken most often at home, by different projection scenarios, provinces and territories, Canada outside Quebec and Canada, 2011 and 2036

		2036 (projected)											
	2011 (adjusted)	Zero immi-gration	Refer-ence	Low immi-gration	High immi-gration	Low growth	High growth	Internal migration 1996 to 2001	Internal migration 1996 to 2011	Distribution of immigration 2000 to 2005	Distribution of immigration 2005 to 2010	Composition of immigration 2005 to 2010	Almost complete transmission of French
	number (thousands)												
Newfoundland and Labrador	1	0	1	1	1	0	1	1	2	1	1	1	1
Prince Edward Island	3	2	2	2	2	2	2	2	3	2	2	2	2
Nova Scotia	17	11	12	11	12	11	13	16	17	12	12	12	13
New Brunswick	218	177	181	179	181	175	188	183	189	179	180	181	181
Quebec	6,525	6,552	7,168	6,958	7,300	6,783	7,583	6,953	7,207	7,170	7,229	7,136	7,105
Ontario	313	280	346	322	359	311	376	442	441	363	354	339	373
Manitoba	19	13	19	17	20	16	21	23	29	16	18	18	20
Saskatchewan	4	4	6	5	6	5	7	6	13	5	5	6	6
Alberta	26	27	42	36	45	36	47	62	70	38	40	42	48
British Columbia	18	17	22	20	23	19	24	39	44	22	22	22	27
Territories	2	2	2	2	3	2	3	3	3	2	2	2	3
Canada outside Quebec	620	532	632	595	651	578	680	777	810	639	635	623	674
Canada	**7,145**	**7,085**	**7,800**	**7,553**	**7,951**	**7,362**	**8,264**	**7,730**	**8,017**	**7,808**	**7,864**	**7,759**	**7,780**
	percent												
Newfoundland and Labrador	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.1	0.1	0.1	0.1
Prince Edward Island	1.9	1.1	1.0	1.1	1.0	1.1	1.0	1.2	1.6	1.1	1.0	1.0	1.2
Nova Scotia	1.8	1.2	1.3	1.3	1.3	1.3	1.3	1.7	1.8	1.3	1.3	1.3	1.4
New Brunswick	28.9	27.5	26.1	26.6	25.8	26.7	25.8	26.6	27.2	26.9	26.4	26.2	26.4
Quebec	81.6	78.3	74.4	75.7	73.6	75.7	73.6	75.1	74.4	74.4	74.1	74.0	74.6
Ontario	2.4	2.0	2.1	2.1	2.1	2.1	2.1	2.6	2.6	2.0	2.1	2.0	2.2
Manitoba	1.5	1.0	1.1	1.1	1.1	1.1	1.1	1.4	1.7	1.1	1.1	1.1	1.2
Saskatchewan	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.9	0.4	0.4	0.4	0.4
Alberta	0.7	0.5	0.7	0.6	0.7	0.7	0.7	1.0	1.1	0.7	0.7	0.7	0.8
British Columbia	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.7	0.8	0.4	0.4	0.4	0.5
Territories	1.4	1.2	1.6	1.5	1.7	1.5	1.6	2.5	1.8	1.4	1.5	1.6	1.9
Canada outside Quebec	2.4	1.9	1.8	1.9	1.8	1.9	1.8	2.3	2.4	1.9	1.9	1.8	2.0
Canada	**20.8**	**19.5**	**17.8**	**18.4**	**17.6**	**18.5**	**17.4**	**17.7**	**18.3**	**17.8**	**18.0**	**17.7**	**17.8**

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

Table A.5.1
Bilingual population (English and French), provinces and territories, three projection scenarios, 2011 and 2036

		2036 (projected)		
	2011 (adjusted)	Reference	Low immigration	High immigration
	number (thousands)			
Newfoundland and Labrador	24	28	28	28
Prince Edward Island	18	22	21	22
Nova Scotia	98	93	91	94
New Brunswick	253	234	232	236
Quebec	3,435	5,008	4,799	5,138
Ontario	1,456	1,710	1,625	1,754
Manitoba	106	134	127	138
Saskatchewan	48	69	66	71
Alberta	248	389	365	402
British Columbia	308	391	373	400
Territories	10	15	14	15
	rate of bilingualism (percentage)			
Newfoundland and Labrador	4.5	5.8	5.8	5.8
Prince Edward Island	12.5	12.6	13.2	12.4
Nova Scotia	10.4	10.1	10.1	10.1
New Brunswick	33.4	33.9	34.4	33.6
Quebec	43.0	52.0	52.2	51.8
Ontario	11.0	10.2	10.4	10.1
Manitoba	8.6	7.9	8.2	7.8
Saskatchewan	4.5	4.8	4.9	4.8
Alberta	6.6	6.4	6.5	6.4
British Columbia	6.9	6.7	6.9	6.7
Territoires	8.7	9.8	9.7	9.8

Note: The population counts for 2011 have been adjusted for net undercoverage.
Sources: Statistics Canada, 2011 National Household Survey and Demosim, 2016.

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Glossary

Age pyramid
Histogram (column diagram) that shows population distribution by age and sex.

Base population
The population used as the starting point for population projections.

Bilingualism
The ability to conduct a conversation in English and in French.

Bilingualism rate
The number of bilingual people divided by the total population.

Census metropolitan area
Area consisting of one or more adjacent municipalities centered on a population core. It has a population of at least 100,000, of which 50,000 or more live in the core.

Canadian population
Population whose usual place of residence is Canada. It includes Canadian citizens by birth, naturalized and non-naturalized immigrants and non-permanent residents.

Cohort-component method
Method used for population estimates or projections that is based on the components of demographic change and a base population as input. The phrase “cohort-component method” is usually restricted to methods projecting the future evolution of cohorts by age and sex, as opposed to other methods, such as microsimulation, that also use components of population growth but that project the demographic destiny of individuals.

Components of population growth
Any class of event that generates population changes. For example, births, deaths and migration are components that modify either the size of the total population or its composition by age and sex.

Ethnocultural diversity
In this document, the notion of ethnocultural diversity refers to diversity as it relates to, generation status and birthplace. Clearly, this operational definition does not cover all forms of ethnocultural diversity, which could therefore be defined through other variables.

Fertility
A demographic phenomenon related to live births that can be considered from the point of view of women, the couple and, very occasionally, men.

First official language spoken
Refer to a variable specified within the framework of the Official Languages Act used to identify the first official language spoken by a person (i.e., English or French). This information is derived from three language questions from the census (in this order): knowledge of the official languages, the language first learned at home and still understood, and the language spoken most often at home.

Generation status based on immigration status
The respondent’s generation rank since the settlement of his/her family (meaning direct ascendants) in Canada. In the context of Demosim, immigrants are the first generation; the second generation refers to non-immigrants born in Canada to at least one foreign-born parent; the generations that follow (third or more) comprise non-immigrants born in Canada to two Canadian-born parents.

Immigrant
A person who has been granted the right to live in Canada permanently by immigration authorities.

Immigration
The sum of all immigrants from other countries landing in Canada, involving a change in usual place of residence.

Immigration rate
The number of immigrants divided by the size of the population during a given period.

Intergenerational language continuity index
The intergenerational language continuity index is the ratio between the number of children with the mother tongue in question and the number of children whose mother has this mother tongue.

Internal migration
The sum of all population movements between the geographic units within Canada's geographical boundaries, involving a change in usual place of residence.

International migration
The sum of all movements between Canada and other countries, involving a change in usual place of residence.

Interregional migration
The sum of all movements among the 50 main geographic entities defined in Demosim, namely the 35 regions derived from the census metropolitan areas and the 15 regions derived from elsewhere in the provinces and territories.

Intraregional migration
The sum of all movements within one of the 50 main geographic entities defined in Demosim, namely one of the 35 regions derived from the census metropolitan areas or one of the 15 regions derived from elsewhere in the provinces and territories.

Language most often spoken at home
The language spoken most often by the respondent at home.

Language substitution
See "language transfer".

Language transfer
Refer to the phenomenon that occurs when a person adopts a language other than his or her mother tongue as the language spoken most often at home.

Language transmission
See "mobility".

Life expectancy
A statistical measure derived from the life table, indicating the average number of years of life remaining for a population at a specific age "x", calculated on the basis of the mortality rates estimated in a given year.

Linguistic mobility
A generic term that, in the context of Demosim, refers to both the transmission of languages from parents to children (intergenerational linguistic mobility) and the changes that can occur over an individual's lifetime with respect to the languages spoken at home or the languages known (intragenerational linguistic mobility).

Median age
An age "x", such that exactly one half of the population is older than "x" and the other half is younger than "x".

Microsimulation
Unlike population estimates and projections produced using the cohort-component method, microsimulation simulates the demographic destiny of each individual. The method is based on multiple random drawing at the individual level rather than on aggregated data applied at the population group level.

Migratory increase
The change in the size of a population owing to the difference between the number of migrants who settle within a geographic area and the number of migrants who leave that same area during a given period.

Mother tongue
The first language learned at home in childhood and still understood.

Natural increase
The change in the size of a population owing to the difference between the number of births and the number of deaths during a given period.

Net undercoverage
Difference between the number of people who were targeted by the census but who were not enumerated (undercoverage), and the number of people who were enumerated when they should not have been, or who were enumerated more than once (overcoverage).

Population increase or total increase
The change in the size of a population between two dates.

Population projection
The future population size resulting from a set of assumptions regarding the demographic and non-demographic components of growth.

Projection scenario
A set of assumptions relating to the components, demographic or otherwise, used to make a population projection.

Total fertility rate
The sum of age-specific fertility rates during a given year. It indicates the average number of children that a generation of women would have if, over the course of their reproductive life, they experienced the age-specific fertility rates observed during the year considered.