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**The youngest bilingual Canadians:
Insights from the 2016 Census regarding children aged 0-9**

Keywords: home language, infancy, preschool age, dual language learners, predictors of bilingualism, rates of bilingualism

Mots clés: langue parlée à la maison, enfance, âge préscolaire, enfants apprenant deux langues, indicateurs du bilinguisme, taux de bilinguisme

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Abstract

This study used the 2016 Canadian Census data to examine home bilingualism amongst children aged 0–9 years. Across Canada, 18 percent of children used at least two languages at home, which rose to more than 25 percent in large cities, and the Canadian territories. English and French was the most common language pair in Quebec and Ontario, and various other pairs were spoken in most provinces. In the territories, 17 percent of children spoke an Indigenous language and English, and we discuss specific opportunities and challenges for Indigenous language revitalization. The presence of bilingual adults in the home, and immigration generation were the strongest predictors of children's home bilingualism. We conclude by discussing how policies can encourage child bilingualism, such as by supporting children's home language in early and primary education settings. Such policies must be tailored to the needs of the specific communities to optimally support bilingual children and their families.

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**The youngest Canadian bilinguals:
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Children's early language experiences set the stage for later language, social, academic, and vocational development (Gilkerson et al. 2018; Ramírez et al. 2019; Werker and Hensch 2015; Whitehouse et al. 2009). Factors including patterns of immigration, Canada's two official languages (French and English), and the Indigenous languages spoken in Canada mean that many Canadian children grow up bilingual, learning two or more languages in childhood.

Bilingual children are not monolithic in their experience: they vary in terms of the particular languages they are learning, the geographic and sociolinguistic context of these languages, and various demographic factors that predict their language outcomes (Serafini, Rozell, and Winsler 2020). For example, a recent focus group study of multilingual families in Montreal found that French-English bilinguals – who were transmitting two community languages – had few concerns about their children's bilingual development, in contrast to families transmitting a heritage language (Ballinger et al. 2020). As another example, the transmission of Indigenous languages has been negatively impacted by Canada's history of colonization and residential schools, and the associated loss of Indigenous languages and culture (Norris 2006). As a third example, while both French and English are official languages in Canada, the minority context of French within North America puts the transmission of French at risk, particularly outside of Quebec (Houle, Pereira, and Corbeil 2015). Different factors might predict the language outcomes of children from these varying contexts.

A better understanding of bilingual children in Canada is important for supporting their development. Bilingualism is associated with a variety of positive outcomes, including improved language and literacy skills (Koh et al. 2017), enhanced cognitive functions like executive

control (Bialystok et al. 2010), and stronger links with their cultural heritage (Cummins 1981). However, in some cases bilingualism can pose challenges. For example, without adequate support, some bilinguals will lose their home language when exposed to a new community language in preschool (Fillmore 1991). Moreover, bilingual children show different developmental trajectories compared to their monolingual peers. For example, bilingual children are often reported to have a smaller vocabulary in each of their two languages, although vocabularies are comparable when both languages are combined (Bialystok et al. 2010; Gonzalez-Barrero, Schott, and Byers-Heinlein 2020; Thordardottir 2011). Public policies aimed at supporting bilingual children are most effective when they are tailored to these children's specific linguistic, community, and family contexts (Castro and Prishker 2019; Nayeb et al. 2021). However, few statistics are available about young bilingual children in Canada, making it difficult to engage in effective policy and planning.

Using publicly available data from the 2016 Census (Statistics Canada 2019a; 2019b), this paper aims to characterize bilingual children in Canada. Here, we use the umbrella term "bilingual" to refer to any child who is exposed to (for children who have not yet begun to talk) or speaks (for children old enough to talk) two or more languages. We use "home bilingualism" to refer specifically to those bilinguals who hear and/or speak at least two languages at home. We used the two questions about home language from the 2016 Census to determine how many languages a child speaks or hears at home. For our analysis purposes, we did not distinguish between languages heard most often and languages heard regularly (Question 8 a and b)¹. Note that the lack of census questions about the language of education means that our analysis necessarily excludes children who hear and/or speak one language at home and one at daycare/school. The analyses are focused on children aged 0–9 years as a group, and in some

cases more fine-grained data from 0–4- and 5–9-year-olds were available. These two age groups roughly correspond to the transition from home to school, an experience that can particularly impact bilingual language acquisition (MacLeod et al. 2019).

We investigated three research questions about the characteristics of bilingual children in Canada: 1) How many children hear/speak two or more languages at home? 2) What language pairs are they hearing and how does this vary geographically? and 3) What predicts whether a child grows up bilingual? We discuss our findings and how they can inform public and educational policies to support bilingual children’s development.

Rates of Bilingualism

Our first research question asked how many Canadian children speak (or, for preverbal children, hear) two or more languages at home (i.e., are bilingual at home). Some related research has examined rates of bilingualism in Canada among other target populations. For example, Turcotte (2019) focused specifically on English–French bilingualism amongst youth aged 5–17 living in Quebec and found that the rate in the 2016 Census was 15 percent. Amongst Canadians of all ages, 19.4 percent reported speaking two or more languages at home (Statistics Canada 2017d).

We examined publicly available 2016 Census data for children aged 0–9 years (Statistics Canada 2019b). Across Canada, 15.6 percent of children aged 0–4 and 20.4 percent of children aged 5–9 spoke at least two languages at home. Broken down by province/region, the rate of child bilingualism (for both 0–4 and 5–9-year-olds) was highest in Northern Canada (Yukon, Northwest Territories, and Nunavut), with nearly one in three children speaking two languages at home, in most cases an Indigenous language and English (see Language Pairs below). The regions with the next highest rates of child bilingualism were (in decreasing order; for exact rates

see Table 1): Ontario, Quebec, British Columbia, Alberta, Manitoba, New Brunswick, Saskatchewan, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador.

In all provinces, the rate of home bilingualism among 5–9-year-olds was higher than 0–4-year-olds, which could be due to some children acquiring a community language at school and then starting to use that language at home. This pattern has been documented in the United States for Spanish-speaking children learning English (Hammer, Lawrence, and Miccio 2008). Furthermore, the actual rate of child bilingualism (considering language use both inside and outside the home) amongst children aged 5–9 years is likely higher, since some children who acquire a community language at school will not speak it at home. The rate of bilingualism by province and region collapsed across 0–9-year-olds is shown in Figure 1 and Table 1. More detailed rates for both 0–4- and 5–9-year-olds can also be seen in Table 1, or in the interactive map linked at <https://osf.io/2gzfw/>.

<insert Table 1 approximately here>

Next, we examined the rate of home bilingualism among children in metropolitan areas (see also Table 1). Nearly one in four children aged 0–4 and one in three children aged 5–9 in Toronto, Vancouver, Ottawa, and Montréal, spoke at least two languages at home. In Calgary and Edmonton, rates were one in six for children aged 0–4, which for children aged 5–9 increased to one in four in Calgary and one in five in Edmonton. These trends might also explain some of the differences observed between provinces, where provinces with larger cities also had higher overall rates of bilingualism (i.e., British Columbia, Alberta, Ontario, and Quebec). One contributor to high rates of home bilingualism in metropolitan areas is immigration (Statistics Canada 2017c), as immigrants often speak both an immigrant language and the community

language at home. Additionally, cities are areas of high language contact, where adults from different language backgrounds might raise children together.

<insert Figure 1 approximately here>

Overall home bilingualism rates were higher for children living in metropolitan areas than those living outside metropolitan areas. The highest rates of home bilingualism amongst non-urban children were in Northern Canada (29.4 percent), Alberta (9.4 percent), and New Brunswick (9.3 percent), which is Canada's only officially bilingual province. The high rate of home bilingualism for children in Northern Canada is consistent with Indigenous languages being more often learned from birth (rather than later in life) in smaller, more isolated communities than metropolitan areas (Anderson 2018).

Language Pairs

We further summarize the language pairs used at home by bilingual children. Gathering information about the specific language pairs is vital for language planning, and this knowledge is essential to provide targeted support to bilingual children in each community.

Canada is a linguistically diverse country, with at least 215 languages spoken (Statistics Canada 2017b)². Home languages are usually determined by a child's caregiver(s), who may speak one or more languages at home. Most Canadian adults report speaking their native language (i.e., mother tongue) at home (Statistics Canada 2017d). Many of those who speak a language other than English or French report speaking their native language plus an additional language at home. However, due to different family language practices (Döpke 1998), parents may or may not speak all of the languages they know to their child (Ballinger et al. 2020; Bouchard-Coulombe 2011). Data from Canadian adults provide some hints about the language pairs that bilingual children may hear at home. For example, the largest group of bilingual adults

in Quebec speaks French and English. In other provinces, adults are likely to speak English and an immigrant language, that is, a language that is not English, French, nor an Indigenous language (Statistics Canada 2017a; 2017c). Furthermore, amongst adults, there tend to be urban-rural differences. In cities, high rates of immigration drive the use of immigrant languages and multiple languages in the home: in 2016, Canada's six largest metropolitan areas (Toronto, Montréal, Vancouver, Calgary, Edmonton, and Ottawa–Gatineau) were home to 75.5 percent of people who spoke an immigrant language as their native language, and these individuals are especially likely to speak two or more languages at home (Statistics Canada 2017b).

Our analysis aimed to determine the prevalence of different home language combinations amongst bilingual children aged 0–9 years. Note that while the Census uses the term “Aboriginal Languages”, we use “Indigenous languages” throughout as a more inclusive term. Canada-wide, the most frequent language pair was Canada's official languages, English and French, which were spoken and/or heard at home by more than one in four bilingual children (see Table 2.1). French was spoken with languages other than English by one in eight children. Other common pairs were English with Punjabi, Mandarin, Arabic, and Urdu. However, almost one in two bilingual children heard/spoke English paired with another less common language (i.e., with a frequency of less than .5 percent). Indigenous languages co-occurred most often with English: one in 55 bilingual children had a language pairing of this kind, with French and an Indigenous language co-occurring for only one in 500 bilingual children. Further, only one in 110 children were growing up in bilingual homes hearing/speaking two languages that did not include English or French.

<insert Table 2.1 approximately here>

The prevalence of specific language pairs also varied by province, reflecting historical and immigration patterns (see Table 2.2 for language pairs by province). For instance, English-French bilingualism was highly prevalent in Ontario, Quebec, and New Brunswick. This is likely due to a combination of factors emerging from patterns of settlement in previous centuries that have led to language policies (e.g., official bilingualism in New Brunswick) and educational programs (e.g., public schools in both official languages, French immersion programs) that support French-English bilingualism. Note that in Quebec, public English language schooling is restricted to children whose parents attended English school in Canada, reducing the number of children who can attend such schools. English–French bilingualism was also higher in older (school-age) children, who may attend a school where one or both official languages are taught.

<insert Table 2.2 approximately here>

In contrast, more recent immigration patterns may drive common language pairs in other regions. In the western provinces, combinations of East or South Asian languages (e.g., Mandarin, Punjabi, Tagalog) with English were prevalent due to immigration patterns (Statistics Canada 2017c). In Quebec, combinations of French with Arabic and Spanish were common. Arabic-speaking immigrants may choose to settle in Quebec, particularly in Montréal (Mandil 2019), due to their familiarity with French, which is widely used across Arab countries as a result of France's history of colonialism. In addition, Quebec's immigration policy favors French-speaking immigrants. Spanish may be prevalent in Quebec due to increased immigration linked to cultural and linguistic similarities, or it could result from efforts by the Quebec government to recruit qualified workers from countries such as Argentina, Brazil, Colombia, and Mexico in the

2000s (Armony 2014). For a breakdown of language pairs by metropolitan area, see Table S1 in the Supplemental Information. In Northern Canada, the most prevalent pattern was an Indigenous language paired with English, reflecting the high concentration of Indigenous communities in the North.

Predictors of Bilingualism

Our third research question concerned the demographic predictors of children's use of multiple languages at home. Being exposed to multiple languages in the home has been found to have a strong influence on whether or not a child is bilingual (Anderson, Hawrylewicz, and Bialystok 2020). Yet not all children who grow up in bilingual homes become active bilinguals, and many bilingual children hear only one language at home. Turcotte (2019) identified several factors that predicted bilingualism amongst 5–17-year-old Canadians: the number of bilingual parents in the home, immigration status, family income, and parents' education level.

We examined whether these same factors would predict bilingualism amongst 0–9-year-old Canadians (i.e., not just those growing up in bilingual homes). To include information about other household members, we needed to use a different dataset from the previous analyses, as the former did not include information on whether adults in the household were bilingual. We were unable to include age as a predictor because the dataset we used did not include fine-grained age information to protect respondents' privacy. Analyses were conducted for all bilingual children and separately for French-English bilinguals and those learning other language pairs, to investigate whether learning two official languages shows different effects. We note that patterns were similar across groups and thus in most places our discussion focuses on data from all bilingual children (see Table 3 for detailed data by group). Across all groups, we found that

bilingual exposure (i.e., having a bilingual adult in the household) and immigration generation were the strongest predictors of whether children were active bilinguals. The rate of bilingualism was higher for children who were exposed to more than one language at home, and it increased as the number of bilingual adults in the household increased. It is not surprising that children were more likely to be bilingual if they were exposed to multiple languages in the home, as that is where a large proportion of their language exposure occurs.

Interestingly, our data show that not all children who were bilingually exposed at home were active bilinguals: approximately one in two children living with one bilingual adult and one in three children living with two bilingual adults were not bilingual themselves. This may be due to different family language policies and beliefs about bilingualism, which do not always promote language transmission (Döpke 1998; Ballinger et al. 2020). Additionally, the rate of bilingualism decreased as children's immigration generation increased. That is, approximately one in two children born outside Canada (i.e., first generation) were bilingual, compared to one in fifteen children born in Canada to two Canadian-born parents (i.e., third generation or greater). The general decline in bilingualism as children's immigration generation increases reflects a pattern seen across the globe as generations of immigrants assimilate to the dominant culture and language (Alba et al. 2002; Fishman 1972; Veltman 1983).

< insert Table 3 approximately here >

The relationship between bilingualism and family income and the highest level of parental education varied based on whether the child heard English and French in the home or another language pair (see Table 3). For children exposed to English and French, rates of bilingualism

increased as the highest level of parental education and income increased. For children exposed to other language pairs, rates of bilingualism were relatively stable across parental education but decreased as income increased. It is difficult to isolate the individual effects of income and education, as they appear to be moderated by language pair and may be related to each other as well as other factors, such as immigration generation.

< insert Table 4 approximately here >

Conclusion

Canada is a multilingual society, and our study investigated the rates, language pairs, and predictors of bilingualism amongst the youngest Canadians: children aged 0–9 years. Our analysis of data from the 2016 Census found that childhood bilingualism was common: almost one in five Canadian children 0–9 years old were exposed to or used two or more languages at home. These children were learning a wide variety of different language pairs. The most common pair was English–French, which was spoken at home by one in four bilingual children in Canada, but many other pairs were also spoken. Moreover, the rate of bilingualism as well as the frequency of different language pairs varied based on geographical location and demographic characteristics. For example, child bilingualism was most common in large metropolitan areas, where more than one in four children were growing up using two or more languages at home.

We observed a strong presence of child bilingualism in the three Canadian territories. This pattern might also be seen in northern areas of several provinces, although our dataset did not allow examining these geographical areas specifically. Home bilingualism with an Indigenous language is common in Northern Canada, and highlights the opportunity for language revitalization of Indigenous languages in these communities. Indeed, some Indigenous communities have early immersion programs that contribute to children learning their

community language (Gomashie 2019; McIvor 2005). Bilingual children who learn an Indigenous language are a large but understudied group of bilingual children in Canada. The calls to action from the Truth and Reconciliation Commission of Canada (2015) include multiple policies relevant to supporting child bilingualism, including funding of and support for teaching Indigenous languages as for-credit courses in school, Indigenous-led language revitalization programs, and the creation of university or college programs in Indigenous languages to support teachers of Indigenous languages. The Indigenous Languages Act was developed in response to these calls, however critics say it does not provide sufficient funding for Indigenous language initiatives (CBC News 2019).

Our analysis also investigated the factors that predict which children become active users of two or more languages, and the strongest predictor was the presence of bilingual adults in the home. However, not all children raised by bilingual adults were active bilinguals. Immigrant status was also an important predictor, with children from a more recent immigration generation more likely to be bilingual. We also saw that the languages a child is learning impact the probability they will be actively bilingual: As parents' highest level of education increases, more children are predicted to be bilingual, and this increase is greater for children exposed to both French and English. As parents' income increased, the probability of a child exposed to French and English being bilingual increased, while the probability of a child exposed to any other language pair being bilingual decreased. Part of this association between income, education, and French-English bilingualism could be because families from higher socioeconomic backgrounds are more likely to enroll their children in programs that promote French-English bilingualism, such as French immersion (Allen 2004). Overall, these results reveal the complex and multifaceted nature of childhood bilingualism.

From a policy perspective, children's home languages must be supported both within and outside the home, given that proficiency in the languages spoken at home is crucial for healthy development and the acquisition of other languages (Genesee and Lindholm-Leary 2012; Goldenberg 2008; Kremin et al. 2019). Our data confirm that not all children exposed to multiple languages become active bilinguals, but more consistent bilingual outcomes might be achieved with improved public and social policies. Examples of such policies include increasing public recognition of the value of bilingualism, ensuring access to high-quality learning materials in different languages, and providing resources for fully assessing the language skills of bilingual children (Fibla et al. in press). Furthermore, to support children's language development inside the home, culturally-sensitive educational programs could be designed for and provided to parents of bilingual children, tailored to the language pairs most often spoken in particular communities, as well as the particular needs of immigrant and Indigenous communities. Programs such as French immersion can promote children's learning of French and English (Cummins 2014; Lazaruk 2007), and children learning other languages would benefit from educational opportunities in their own languages. Alberta has been a leading province in this respect, with many bilingual schools that provide schooling in English and an immigrant language (Cummins 2014). Sharing information with parents and caregivers about bilingualism throughout development would benefit children's language skills and help ease any concerns about raising a bilingual child (Ballinger et al. 2020).

To support children's language development outside the home, specific training for daycare workers, teachers, and speech-language pathologists on how best to promote and evaluate bilingual children's language development could be implemented (Hoff and Core 2015). Bilingual-specific training is important, because bilingual children do not always follow the

same language development path as children who are only learning to speak one language. This specialized training would help inform professionals about what is typical for a bilingual child and how to incorporate this information into their work with children learning multiple languages. Given the high rates of childhood bilingualism identified in our study, public investment in programs that better support bilingual children would have a wide-ranging impact.

The interpretation of these results must consider several limitations of the dataset. First, the rates of bilingualism we reported are specific to children speaking or hearing two or more languages *at home*, and thus do not include usage at or exposure from other sources such as school and daycare. Therefore, the rates we obtained are likely a conservative estimate of the total number of bilingual children in Canada. Further research could investigate responses to census questions on knowledge of official and non-official languages, which could provide a proxy for children's language learning and use outside the home. We chose to focus on the home language question because we believe answering questions about behaviour or exposure is easier for caregivers than "knowledge" of languages, especially for younger children who are not yet proficient language users. Regarding geographical differences, unfortunately, the available data do not allow investigating the nuances of bilingualism in rural areas in greater detail.

Furthermore, bilingualism is multi-faceted, and we were unable to explore some of these nuanced with the available data. We operationalized children's bilingualism as a binary variable (bilingual versus not bilingual). However, there is considerable variability amongst bilingual children in their proficiency and use of two languages (De Houwer 2007). Future research could also look at patterns within subgroups of bilinguals (see also Kremin and Byers-Heinlein 2021). Similarly, our analysis of predictors of bilingualism in children operationalized bilingual exposure from adults in the household as a categorical variable, and does not consider the degree

of exposure children have to each language. Yet studies indicate that both the quantity and quality of bilingual exposure are crucial for bilingual children's language learning outcomes (for a review, see Unsworth 2016).

To conclude, bilingualism is common amongst Canadian children, particularly in the North and in cities. Effective public policies for supporting these children and their families will need to consider where there is a high prevalence of bilingual children, what languages they are learning, as well as the factors that predict active bilingualism.

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Notes

¹. We note that the Canadian Census asks several other questions about languages. We did not use questions about knowledge of official and non-official languages (Questions 7 and 16), because of our focus on home bilingualism. Furthermore, hearing/speaking a language (Question 8 a/b) is a more concrete interpretation of bilingualism, especially for children who are acquiring language, where caregivers might be hesitant to indicate that their child "knows" a language. We did not use Mother Tongue (Question 9) because the description encourages reporting a single language, thus discouraging the reporting of bilingualism. Finally, Language(s) used at Work (Question 45 a/b) is not reported for children under 15.

². Statistics Canada released statistics for 215 languages, however the actual number of languages spoken in Canada is likely higher.

Appendix

Data Sources and Methods

We analyzed publicly available data from the 2016 Canadian Census (Statistics Canada 2019b; 2019a). Children were considered bilingual if their caregivers indicated that the child was exposed to and/or spoke two or more languages. For preverbal children, caregivers were instructed to list the languages the child was exposed to (for more information, see Language Reference Guide, Statistics Canada 2017e). We used the R statistical programming language (R Core Team 2021) for all analyses, and the analysis scripts are available on the Open Science Framework (<https://osf.io/2gzfw/>).

To investigate the rates of child bilingualism and the language pairs spoken, we used the publicly-available Public Use Microdata File (PUMF) Individuals dataset (Statistics Canada 2019b), which contains data on 51,025 0–4-year-olds and 54,132 5–9-year-olds. Data were

reported both separately for the two age groups, as well as combined across 0–9-year-olds. For the analysis of language pairs spoken, we included children who spoke three or more languages (e.g., English, French and Arabic). We counted each possible language pair (e.g., English–French, French–Arabic, and English–Arabic) to avoid underestimating the prevalence of certain language combinations. These multilinguals made up less than 1 percent of all children. The PUMF Individuals dataset also contains information about the province of residence and the city of residence for those who live in a larger metropolitan area (e.g., Toronto). Statistics Canada combines smaller metropolitan areas to preserve anonymity for the census respondents. For example, the cities of Regina and Saskatoon are being reported as the Regina-Saskatoon "census agglomerate".

For the analysis of predictors of bilingualism, we used the PUMF Hierarchical dataset (Statistics Canada 2019a), which contains data on the language use of all persons living in a household. It contains data from 22,411 private households with children between 0 and 9 years of age. For privacy reasons, some of the fine-grained detail has been removed from this dataset by Statistics Canada. Thus, we do not have certain information, such as the exact age of the child, or the specific languages spoken except for selected languages (Arabic, Chinese languages [as a group], English, French, German, Italian, Portuguese, Punjabi, Spanish, and Tagalog).

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Table 1. Rates of home bilingualism amongst children 0–9 in Canada and its provinces

Region	Census Area	% of all children		
		0–4	5–9	All
All of Canada		15.6	20.4	18.1
Newfoundland and Labrador		3.9	4.0	4.0
Prince Edward Island		7.1	13.8	10.4
Nova Scotia		6.0	9.6	7.9
	Halifax	7.9	14.5	11.2
	Rest of Province	4.3	5.6	4.9
New Brunswick		10.1	15.5	12.9
	Moncton – Saint John ^a	11.5	15.2	13.5
	Rest of Province	9.3	15.8	12.5
Quebec		16.7	20.3	18.6
	Montréal	24.1	29.7	27.0
	Gatineau	18.0	26.4	22.5
	Québec City	9.2	9.0	9.1
	Sherbrooke – Trois-Rivières ^a	9.1	9.4	9.3
	Rest of Province	6.9	8.1	7.5
Ontario		17.2	23.8	20.6
	Brantford – Guelph – Barrie	7.9	10.3	9.2
	Greater Sudbury – Thunder Bay ^a	12.6	23.7	18.1
	Hamilton	12.4	14.7	13.6
	Kingston – Peterborough ^a	6.5	9.4	8.0
	Kitchener – Cambridge – Waterloo ^a	10.0	15.2	12.7

	London	11.7	15.2	13.5
	Oshawa	8.0	9.5	8.8
	Ottawa	24.3	35.5	30.1
	St. Catharines – Niagara ^a	7.7	11.3	9.5
	Toronto	24.9	32.7	29.0
	Windsor	16.5	25.2	21.1
	Rest of Province	6.9	11.8	9.4
Manitoba		12.6	18.4	15.5
	Winnipeg	16.4	19.6	18.0
	Rest of Province	7.9	16.9	12.5
Saskatchewan		9.1	13.1	11.2
	Regina – Saskatoon ^a	10.7	16.2	13.5
	Rest of Province	7.6	10.4	9.1
Alberta		14.4	17.8	16.1
	Calgary	17.2	24.0	20.7
	Edmonton	17.0	19.6	18.2
	Rest of Province	9.4	10.2	9.8
British Columbia		16.2	20.4	18.4
	Kelowna – Abbotsford ^a	13.1	14.5	13.8
	Vancouver	24.6	30.5	27.6
	Victoria	10.2	12.7	11.5
	Rest of Province	4.5	7.5	6.1
Northern Canada		29.4	38.5	33.9

Notes:

^aSome smaller metropolitan areas are combined in the publicly-accessible Census data to preserve the anonymity of respondents.

Source: Author's calculations based on Statistics Canada (2019b)

Table 2.1. Home Language Pairs observed in Canada among Children 0–9 Years

Language pair	% of bilingual children			% of all children		
	0–4	5–9	All	0–4	5–9	All
English & French	21.3	27.9	25.1	3.6	6.2	4.9
English & Mandarin	4.6	3.4	3.9	0.8	0.8	0.8
English & Punjabi	4.3	4.5	4.4	0.7	1.0	0.9
English & Arabic	3.4	3.0	3.2	0.6	0.7	0.6
English & Spanish	3.2	2.5	2.8	0.5	0.6	0.5
English & Urdu	2.9	3.2	3.1	0.5	0.7	0.6
French & Arabic	2.9	2.7	2.7	0.5	0.6	0.5
Indigenous L. & English	1.7	1.8	1.8	0.3	0.4	0.3
Indigenous L. & French	0.2	0.2	0.2	< 0.1	0.1	< 0.1
English & Other	44.2	39.9	41.7	7.4	8.9	8.2
French & Other	10.3	10.1	10.2	1.7	2.3	2.0
Other & Other	1.1	0.8	0.9	0.2	0.2	0.2

Notes: We show all combinations of English, French, and the broad category of Indigenous Languages. Further specific language pairs (e.g., “English & Mandarin”) shown here had a frequency of at least 0.5 percent of all children aged 0–9 years. All other language pairs with fewer children were combined into broad language categories such as “English & Other”. All possible language combinations were included for trilingual children – who made up less than 1 percent of the data.

Source: Author’s calculations based on Statistics Canada (2019b)

Table 2.2. Home Language Pairs observed by Province among Children 0–9 Years

Province	Language pair	% of bilingual children			% of all children		
		0–4	5–9	All	0–4	5–9	All
Newfoundland and Labrador	English & French	13.0	48.4	33.3	0.5	2.1	1.4
	All other pairs	87.0	51.6	66.7	3.4	2.2	2.7
Prince Edward Island	English & French	57.1	76.9	70.0	4.0	10.6	7.2
	English & Mandarin	14.3	7.7	10.0	1.0	1.1	1.0
	All other pairs	28.6	15.4	20.0	2.0	2.1	2.1
Nova Scotia	English & French	36.5	56.5	49.0	2.3	5.7	4.1
	English & Arabic	16.2	6.5	10.1	1.0	0.7	0.8
	All other pairs	47.3	37.1	40.9	3.0	3.8	3.4
New Brunswick	English & French	76.3	79.3	78.2	7.9	13.1	10.6
	All other pairs	23.7	20.7	21.8	2.4	3.4	3.0
Quebec	English & French	38.7	40.7	39.8	7.7	9.9	8.9
	French & Arabic	9.5	8.9	9.2	1.9	2.2	2.0
	French & Spanish	5.7	4.9	5.3	1.1	1.2	1.2
	All other pairs	46.1	45.4	45.7	9.2	11.0	10.2
Ontario	English & French	16.9	24.9	21.7	3.0	6.4	4.8
	English & Urdu	5.1	5.4	5.3	0.9	1.4	1.2
	English & Mandarin	5.2	4.1	4.5	0.9	1.1	1.0
	English & Punjabi	4.5	4.5	4.5	0.8	1.1	1.0
	English & Arabic	4.3	4.2	4.2	0.8	1.1	0.9
	English & Spanish	3.8	2.8	3.2	0.7	0.7	0.7
	English & Tamil	3.2	2.6	2.9	0.6	0.7	0.6

Manitoba	All other pairs	57.0	51.5	53.7	10.3	13.2	11.8
	English & French	17.5	20.3	19.2	2.3	3.8	3.1
	English & Tagalog	11.7	8.2	9.6	1.5	1.5	1.5
	Indigenous L. & English	7.7	8.4	8.1	1.0	1.6	1.3
	English & German	5.5	6.9	6.3	0.7	1.3	1.0
	English & Punjabi	5.8	4.2	4.9	0.8	0.8	0.8
Saskatchewan	All other pairs	51.8	52.0	51.9	6.7	9.8	8.3
	Indigenous L. & English	14.0	12.9	13.3	1.3	1.7	1.5
	English & French	4.7	17.6	12.6	0.4	2.4	1.4
	English & Tagalog	11.7	9.9	10.6	1.1	1.3	1.2
	English & Urdu	6.4	7.0	6.8	0.6	0.9	0.8
	All other pairs	63.2	52.6	56.7	5.7	7.0	6.4
Alberta	English & French	8.0	17.1	13.1	1.2	3.2	2.2
	English & Tagalog	8.5	5.0	6.5	1.3	0.9	1.1
	English & Punjabi	5.1	6.2	5.7	0.8	1.1	1.0
	English & Arabic	5.6	5.0	5.3	0.8	0.9	0.9
	English & Spanish	4.7	5.0	4.8	0.7	0.9	0.8
	English & Urdu	3.9	3.5	3.7	0.6	0.6	0.6
British Columbia	All other pairs	64.2	58.3	60.9	9.6	10.9	10.2
	English & Punjabi	12.2	14.5	13.5	2.1	3.1	2.6
	English & French	6.6	15.8	11.9	1.1	3.4	2.3
	English & Mandarin	13.7	8.6	10.8	2.3	1.8	2.1

Northern Canada	English & Cantonese	5.9	5.1	5.4	1.0	1.1	1.0
	English & Spanish	4.2	2.6	3.3	0.7	0.5	0.6
	All other pairs	57.3	53.5	55.1	9.6	11.4	10.5
	Indigenous L. & English	50.7	50.0	50.3	14.9	19.2	17.0
	English & French	11.0	9.6	10.2	3.2	3.7	3.4
	English & Tagalog	5.5	1.1	3.0	1.6	0.4	1.0
	All other pairs	32.9	39.4	36.5	9.6	15.1	12.3

Notes: Most common language pairs by province, sorted by descending rate. Specific language pairs (e.g., "English & German") are shown for pairs spoken by at least 0.5% of all children aged 0–9 years, and at least 10 children in a particular area. Language pairs spoken by 10 children or fewer in a particular area are combined into "All other pairs", to avoid calculating frequencies for very small communities, which would be unreliable. Broad language categories such as "Other Austro-Asiatic Languages" were excluded, except for the "Indigenous Languages" category. All possible language combinations were included for trilingual children – who made up less than 1 percent of the data.

Source: Author's calculations based on Statistics Canada (2019b)

Table 3. Percentage of children reported speaking two or more languages based on demographic characteristics. Bilingually exposed children have at least one bilingual adult in their household.

Characteristic	All Children	Bilingually-exposed children		
		All	English-French	Other Pairs
Number of bilingual adults in the household				
None	2.6	_ ^a	_ ^a	_ ^a
One	43.7	_ ^b	49.7	39.9
Two	63.2	_ ^b	66.3	62.3
Three or More	63.8	_ ^b	69.4	63.4
Highest level of parental education				
No high school diploma	16.9	56.7	38.5	59.8
High school diploma	13.7	54.2	48.0	55.8
Post-secondary diploma	12.2	53.9	57.6	51.9
Bachelor's degree	18.7	56.7	59.4	55.5
Graduate degree	27.0	61.3	64.4	60.3
Household income quintile				
First	22.4	62.4	52.5	64.3
Second	18.8	57.4	56.7	57.6
Third	16.2	55.0	57.4	53.9
Fourth	14.8	53.4	58.6	50.3
Fifth	14.8	52.5	62.5	45.8
Child's immigration generation				
First generation, child born outside Canada	47.7	73.6	80.9	73.0

Second generation, child born in Canada, both parents born outside Canada	45.0	61.5	71.6	60.7
Second generation, child born in Canada, one parent born outside Canada	20.2	48.7	68.3	41.8
Third generation or more, child born in Canada, both parents born in Canada	6.7	48.7	53.8	38.5

Notes:

^a For children with no bilingual adults in the household, they do not qualify as bilingually exposed, thus this number cannot be calculated.

^b For all children with one or more bilingual adult in the household, the percentages of bilingual children are the same as those reported for all children, so we do not report them twice.

Source: Author's calculations based on Statistics Canada (2019a)

Table 4. Logistic regression models calculating the probability a child was bilingual based on a demographic characteristic averaged over the other predictors.

Characteristic	All Children	Bilingually-exposed children		
		All	English-French	Other pairs
Number of bilingual adults in the household				
None	0.04	_a	_a	_a
One	0.52***	0.46	0.57	0.41
Two	0.62***	0.62***	0.69***	0.58***
Three or More	0.61	0.64	0.77	0.61
Highest level of parental education				
No high school diploma	0.44	0.51	0.50	0.51
High school diploma	0.44	0.56	0.68	0.52
Post-secondary diploma	0.44	0.58	0.74	0.51
Bachelor's degree	0.45	0.59	0.73	0.54
Graduate degree	0.47	0.62	0.73	0.58
Household income quintile				
First	0.47	0.62	0.66	0.61
Second	0.44*	0.58*	0.68	0.54**
Third	0.44	0.56	0.68	0.51
Fourth	0.43	0.56	0.67	0.52
Fifth	0.45	0.55	0.71	0.48
Child's immigration generation				
First generation, child born outside Canada	0.58	0.68	0.79	0.67

Second generation, child born in Canada, both parents born outside Canada	0.49***	0.57***	0.71	0.56***
Second generation, child born in Canada, one parent born outside Canada	0.39***	0.53	0.68	0.48***
Third generation or more, child born in Canada, both parents born in Canada	0.32***	0.51	0.53***	0.42*

Notes: The levels of each characteristic were coded such that each level (except the reference level) was compared to the level before it. Asterisks denote a statistically significant difference from the previous level.

^a For children with no bilingual adults in the household, they do not qualify as bilingually exposed, thus this number cannot be calculated.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.0001$

Source: Author's calculations based on Statistics Canada (2019a)

Figure 1. Rates of home bilingualism amongst children across Canada by province and the three territories combined into one region. This figure contains data from children aged 0–9 years. For an interactive version of his map that can also show the younger and older subgroups, please see <https://osf.io/2gzfw/>

Source: Author's calculations based on Statistics Canada (2019b)