

**DEMOGRAPHIC PROFILES
OF QUÉBEC'S ENGLISH-SPEAKING COMMUNITIES
REGION OF CHAUDIÈRE-APPALACHES AND
MRC LES APPALACHES**

BASED ON THE 2021 CENSUS OF CANADA

BASELINE DATA REPORT SERIES 2022-2023

**PRODUCED BY DR. JOANNE POCOCK FOR THE
COMMUNITY HEALTH AND SOCIAL SERVICES NETWORK**



Contents

Contents.....	2
Introduction	3
About the 2022-2023 Report Series.....	3
Baseline Data Report Series.....	3
Methodological Notes.....	4
Data Source	4
Linguistic definitions.....	5
Geographic Regions.....	5
Demographic and Socio-economic Characteristics	5
Statistics Canada Definitions.....	6
Map of the Territory	7
Series of Tables – Demographic Characteristics.....	8
Demographic Size.....	9
Table 1 - Population Size	9
Age Structure.....	11
Table 2 - Age Structure of the Population.....	11
Income	14
Table 3 - Income	14
Household Living Arrangements.....	17
Table 4 - Population by Household Living Arrangements.....	17
Low-Income Cut-off	20
Table 5 - Population Living Below LICO, Within Age Groups.....	20
Table 6 - Population Living Below LICO, by Household Living Arrangements	22
Highest Educational Attainment.....	24
Table 7 - Highest Educational Certification, for Selected Age Groups.....	25
Labour Force Activity	31
Table 8 - Labour Force Activity	31
Appendix A – English speakers and French speakers by region and MRC or equivalent territories, 2021.....	34
Appendix B – Baseline Data Report Series.....	35
Sources and References	36

Introduction

About the 2022-2023 Report Series

This volume of the Baseline Data Report (BDR) series presents demographic characteristics of the English-speaking population residing in the areas covered by the organizations participating in the *Networking and Partnership Initiative* (NPI)¹. The information presented is drawn from the 2021 Census of Canada and organized by province, region and MRC or their equivalent territories (see section below for regional definitions). The selection of characteristics is guided by their importance as determinants of the health status and vitality of Québec's official language minority community.

Baseline Data Report Series

The Baseline Data Report Series is intended to serve as a resource for NPI sponsor organizations and their health and social service partners (e.g. CISSS/CIUSSS) to better understand the demographic factors, health determinants and language barriers affecting the English-speaking population in their region.

A listing of the full series of BDRs from 2003 along with the data source for each volume is presented in Appendix "B".

Determinants of Health

National governments and health organizations around the world have identified a broad range of social, economic and environmental factors that have been demonstrated to have a strong influence on the health of populations and individuals. The Public Health Agency of Canada outlines various determinants of health – some of which are social determinants – such as income and social status, social support networks, education, employment and working conditions, health services, physical and social environments, biology and genetic endowment, personal health practices and coping skills, healthy child development, gender and culture.²

Language Barriers

Significant research has been conducted on the impact of language barriers on health, quality of healthcare and safety in recent years. In this approach, the study of linguistic differences between social actors in a health-related setting, such as language discordant encounters between patient and clinician who do not speak the same language, is prevalent. Studies include a focus upon the use of language production as a cue for social categorization and

¹ For further information on the CHSSN *Networking and Partnership Initiative* go to <https://chssn.org/projects/npi/>

² Public Health Agency of Canada. "What Determines Health?" www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php accessed February 2023.

impression formation which impacts the evaluation and treatment of individuals seeking health and social services.

Suggested Readings

- Access Alliance Multicultural Health and Community. (2021). *Investing in Language Access to Optimize Health System Performance. A Review of the Literature.*
https://accessalliance.ca/wp-content/uploads/2021/06/Access_Alliance_Investing_in_Language_Access_to_Optimize_Health_System_Performance.pdf
- Bowen, S. (2015) for Société Santé en Français (SSF). *Impact of Language Barriers on Quality and Safety of Healthcare.* <http://santefrancais.ca/wp-content/uploads/SSF-Bowen-S.-Language-Barriers-Study-1.pdf>
- Denis, J.L., Potvin, L., Rochon, J. et al. (2020) “On redesigning public health in Québec: lessons learned from the pandemic”. *Canadian Journal of Public Health* 111, 912–920.
<https://doi.org/10.17269/s41997-020-00419-x>
- Meuter, R., Gallois, C., Segalowitz, N., Ryder, A., & Hocking, J. (2015) “Overcoming language barriers in healthcare: A protocol for investigating safe and effective communication when patients and clinicians use a second language.” *BMC Health Services Research*. 15:371 published online 2015 Sept 10 doi:10.1186/s12913-015-1024-8
- Raphael, D., Bryant, T., Mikkonen, J. and Raphael, A. (2020). *Social Determinants of Health: The Canadian Facts. (2nd edition) / Déterminants sociaux de la santé : les réalités canadiennes, (2e édition).* Oshawa: Ontario Tech University Faculty of Health Sciences and Toronto: York University School of Health Policy and Management.
<https://thecanadianfacts.org/>
- Reaume, M., Batista, R., Talarico, R. ...et Tanuseputro, P. (2020) “The impact of hospital language on the rate of in-hospital harm. A retrospective cohort study of home care recipients in Ontario, Canada”. *BMC Health Services Research* 20, 340
<https://doi.org/10.1186/s12913-020-05213-6>

Methodological Notes

Data Source

The information in this report is based on a series of tables developed by the Community Health and Social Services Network (CHSSN) based on data from the 2021 Census of Canada. The statistics are drawn from two different Statistics Canada data sources which vary according (1) to the definition of the population surveyed and (2) by the questionnaire that was administered.

The statistics for table 1 (Population Size) and table 2 (Age Structure) and the accompanying graphs are based on a 100% sample of Canadians including people in non-institutional collective dwellings. These individuals answered Statistics Canada's 2021 short form census questionnaire.

The statistics for all other tables and accompanying graphs are based on a 25% sample of Canadians living in private households. This sample excludes individuals in institutions and non-institutional collective dwellings. These individuals answered Statistics Canada's 2021 long form questionnaire.

The short form census questionnaire reaches a larger population, but the long form census is the primary source of exhaustive demographic data in Canada. Without the long form, the socio-demographic characteristics provided by tables 3 through 8 of this BDR report would not be attainable.

Linguistic definitions

There are numerous linguistic definitions that are used to identify the English-speaking population in Québec. The choice of linguistic indicator depends largely on the issue being examined. This report uses the [First Official Language Spoken](#) (FOLS) definition with multiple responses proportionally distributed among declared languages since it best reflects the total English-speaking health service users in the province. First Official Language Spoken is derived from three Census questions: knowledge of official languages, mother tongue and home language. Dual responses are divided equally among English-speaking and French-speaking groups.

Other definitions include [Mother tongue](#) which refers to the first language learned at home in childhood and still understood. The [language most often spoken at home](#) is used to designate the home language. [Knowledge of official languages](#) indicates the official language in which a person can carry on a conversation. The [language used most often at work](#) indicates the language spoken most frequently at work.

Geographic Regions

The 2022-2023 Baseline Data Report consists of a series of stand-alone documents which present key data for the MRC or equivalent territories in Québec in which there are at least 250 English-speaking residents.

Demographic and Socio-economic Characteristics

The demographic and socio-economic variables addressed in the 2022-2023 BDR are:

- Population size
- Age structure
- Household living arrangements
- Income
- Low-income cut-off (LICO)

- Educational attainment
- Labour force activity

Statistics Canada Definitions

While for the most part the meaning of demographic and administrative terms are clarified as they arise in the report, the online Statistics Canada dictionary for the 2021 Census may also be consulted.³

³ <https://www12.statcan.gc.ca/census-recensement/2021/ref/dict/index-eng.cfm>

Map of the Territory



Series of Tables – Demographic Characteristics

Table 1 - Population Size.....	9
Table 2 - Age Structure of the Population	11
Table 3 - Income	14
Table 4 - Population by Household Living Arrangements.....	17
Table 5 - Population Living Below LICO, Within Age Groups.....	20
Table 6 - Population Living Below LICO, by Household Living Arrangements.....	22
Table 7 - Highest Educational Certification, for Selected Age Groups	25
Table 8 - Labour Force Activity.....	31

Demographic Size

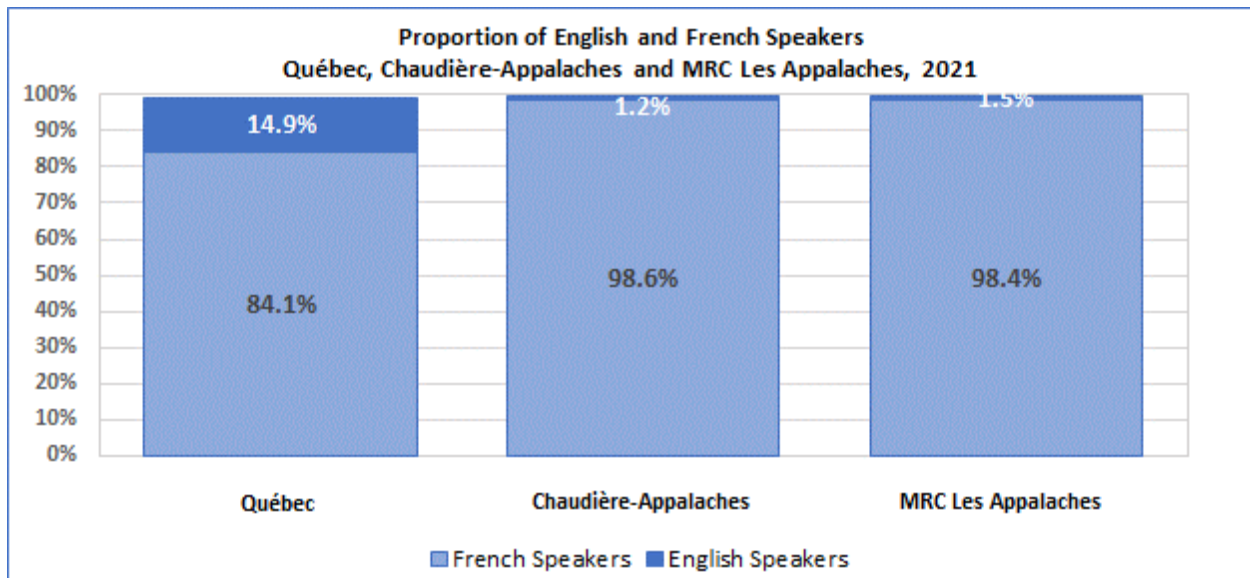
Québec’s English speakers form one of Canada’s official language minority groups. Studies have confirmed that language barriers affect access and quality of care for linguistic minority communities. Obstacles to communication can reduce recourse to preventative services; increase consultation time including the number of tests and the possibility of diagnostic and treatment errors; affect the quality of services requiring effective communication such as social services; reduce the probability of treatment compliance and reduce users’ satisfaction with the services received.⁴ In the complex context of a medical situation, where the communication between care provider and patient is a key factor in the achievement of a positive health outcome, it is not surprising that the language spoken most often is considered the most effective. The treatment by health professionals of sensitive issues such as cancer, addiction, or depression, requires ease of communication as a feature of building trust and offering comfort to patients.

Table 1 - Population Size

Size of Population		Québec	Chaudière-Appalaches	MRC Les Appalaches
English speakers	number	1,253,580	5,055	640
	percentage	14.9%	1.2%	1.5%
French speakers	number	7,074,330	421,860	42,150
	percentage	84.1%	98.6%	98.4%
Total population	number	8,406,905	427,690	42,845
	percentage	100.0%	100.0%	100.0%

Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Total population excluding institutional residents - 100% sample.

⁴ See Bowen, S. (2001). *Language Barriers in Access to Health Care*, Ottawa: Health Canada. Also, Bowen, S. et al. (2010). "From 'multicultural health' to 'knowledge translation' – rethinking strategies to promote language access within a risk management framework". *The Journal of Specialized Translation (Jostrans)*, Issue 14, http://www.jostrans.org/issue14/art_bowen.php.



- Across Québec, there were 1,253,580 English speakers, representing 14.9% of the provincial population.
- In 2021, there were 5,055 English speakers living in the Chaudière-Appalaches region where they represented 1.2% of the population. This share is much lower than the overall provincial share for English speakers.
- In MRC Les Appalaches, we find 640 English speakers where they represented 1.5% of the population. This proportion is much higher than that represented by English speakers across the Chaudière-Appalaches territory.

Age Structure

The distribution of the English-speaking population across age categories, and the extent to which language majority and minority communities differ in accordance to age, is important in understanding their distinct health needs and resources. Each stage of life tends to be associated with specific health and social service needs. The strategy for meeting these needs by public agencies must also take the age and age-related competencies of the client group into consideration. From Sanderson's study we learn that the types of issues experienced by Quebec's English-speaking seniors and their caregivers in accessing services differ from those of English speakers younger in age.⁵

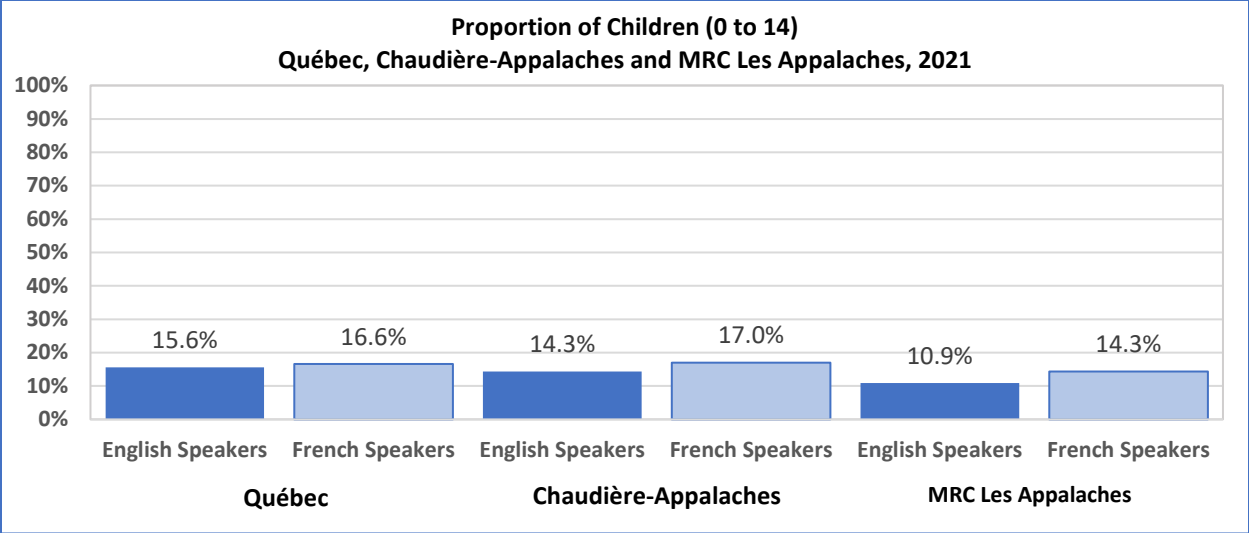
Typically, the age structure of the majority is important in shaping the scope and design of available health services and programs. Improving the health and the vitality of all citizens residing in a given territory requires attention to the problems that are pressing for the minority and may be overlooked by focusing on the majority, and awareness of problems that are shared by both language groups but are being met with system solutions that are not equally accessible for both.

Table 2 - Age Structure of the Population

Age Structure of the Population	Québec		Chaudière-Appalaches		MRC Les Appalaches	
	English	French	English	French	English	French
Total - Age groups	1,253,580	7,074,330	5,055	421,860	640	42,150
0-14 years	195,065	1,174,295	725	71,665	70	6,045
15-24 years	160,090	726,400	465	40,520	60	3,465
25-44 years	376,685	1,792,825	1,615	98,395	185	8,370
45-64 years	328,055	1,924,990	1,395	115,920	175	11,380
65+ years	193,685	1,455,820	860	95,370	150	12,895
Total - Age groups	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
0-14 years	15.6%	16.6%	14.3%	17.0%	10.9%	14.3%
15-24 years	12.8%	10.3%	9.2%	9.6%	9.4%	8.2%
25-44 years	30.0%	25.3%	31.9%	23.3%	28.9%	19.9%
45-64 years	26.2%	27.2%	27.6%	27.5%	27.3%	27.0%
65+ years	15.5%	20.6%	17.0%	22.6%	23.4%	30.6%

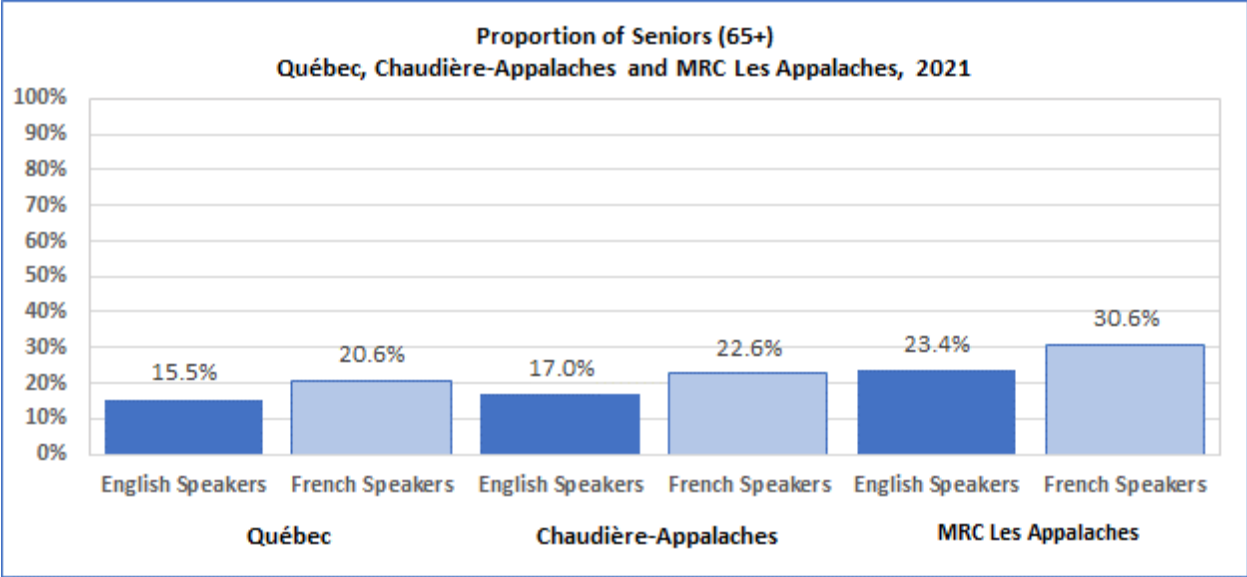
Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Total population excluding institutional residents - 100% sample.

⁵ Sanderson, D. (2020). Language Related Difficulties Experienced by Caregivers of English-Speaking Seniors in Quebec. *SAGE Open*, 10(3). <https://doi.org/10.1177/2158244020951261>



Children (aged 0-14)

- Across Québec, there were 195,065 English-speaking children aged 0-14, representing 15.6% of the English-speaking population. The proportion of children in the English-speaking population is lower than the level in the French-speaking majority population in Quebec.
- In 2021, there were 725 English-speaking children aged 0-14 living in Chaudière-Appalaches where they account for 14.3% of the population. The proportion of children in the regional English-speaking population is lower than their proportion in the regional French-speaking majority population. This proportion is lower than the level for English-speaking children across the province.
- In MRC Les Appalaches, we find 70 English-speaking children aged 0-14 where they represent 10.9% of the population. This share is much lower than that exhibited by English-speaking children across the Chaudière-Appalaches region. The proportion of children in the territory's English-speaking population is much lower than the share in the rest of Québec's French-speaking majority population.



Seniors (aged 65 and over)

- Across Québec, there were 193,685 English-speaking seniors aged 65+ representing 15.5% of the English-speaking population. The proportion of seniors in the English-speaking population is much lower than that found in the French-speaking majority population in Quebec.
- In 2021, there were 860 English-speaking seniors aged 65+ living in the Chaudière-Appalaches region where they accounted for 17.0% of the population. This share is higher than that of English-speaking seniors across the province. The proportion of seniors in the regional English-speaking population is much lower than the proportion in the French-speaking majority population.
- In MRC Les Appalaches, we find 150 English-speaking seniors aged 65+ where they account for 23.4% of the population. This share is much higher than that of English-speaking seniors across the Chaudière-Appalaches region. The proportion of seniors in the English-speaking population is much lower than the proportion in the French-speaking majority population in MRC Les Appalaches.

Income

Long-standing and substantial research provides evidence that income and social status are key determinants of the level of health and well-being experienced by communities and their members. Low-income Canadians are more likely to die earlier and to suffer more illnesses than Canadians with higher incomes, regardless of age, sex, race and place of residence.⁶ For vulnerable low-income households, language barriers in access to public health services loom large as they cannot afford private care services nor are they likely to have access to work-related benefits or private insurance coverage. Studies also suggest that the distribution of income in a given society may be a more important determinant of health than the total amount of income earned by society members. Large gaps in income distribution are linked to increases in social problems and poorer health status among the population as a whole.⁷

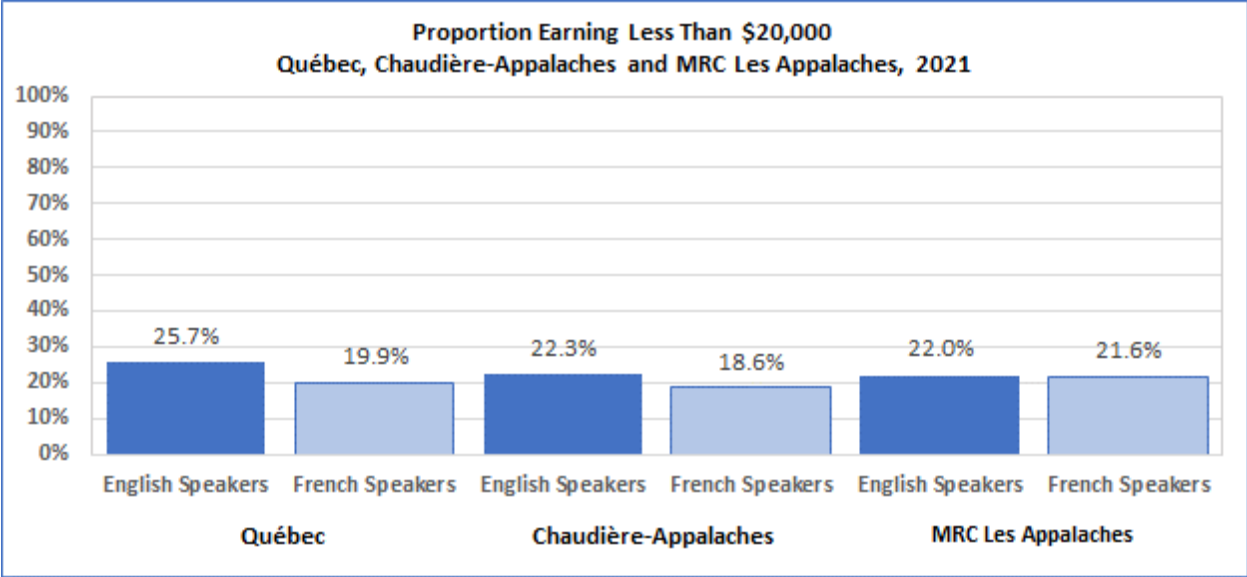
Table 3 - Income

Population by Income Group	Québec		Chaudière-Appalaches		MRC Les Appalaches	
	English	French	English	French	English	French
Total Population 15+	1,049,640	5,811,880	4,435	344,285	545	34,645
Less than \$20,000	269,805	1,154,945	990	63,965	120	7,490
\$20,000 - \$49,999	422,205	2,420,025	1,745	147,145	245	16,715
\$50,000 +	357,635	2,236,925	1,695	133,180	175	10,420
Total Population 15+	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Less than \$20,000	25.7%	19.9%	22.3%	18.6%	22.0%	21.6%
\$20,000 - \$49,999	40.2%	41.6%	39.3%	42.7%	45.0%	48.2%
\$50,000 +	34.1%	38.5%	38.2%	38.7%	32.1%	30.1%

Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Population in private households - 25% sample.

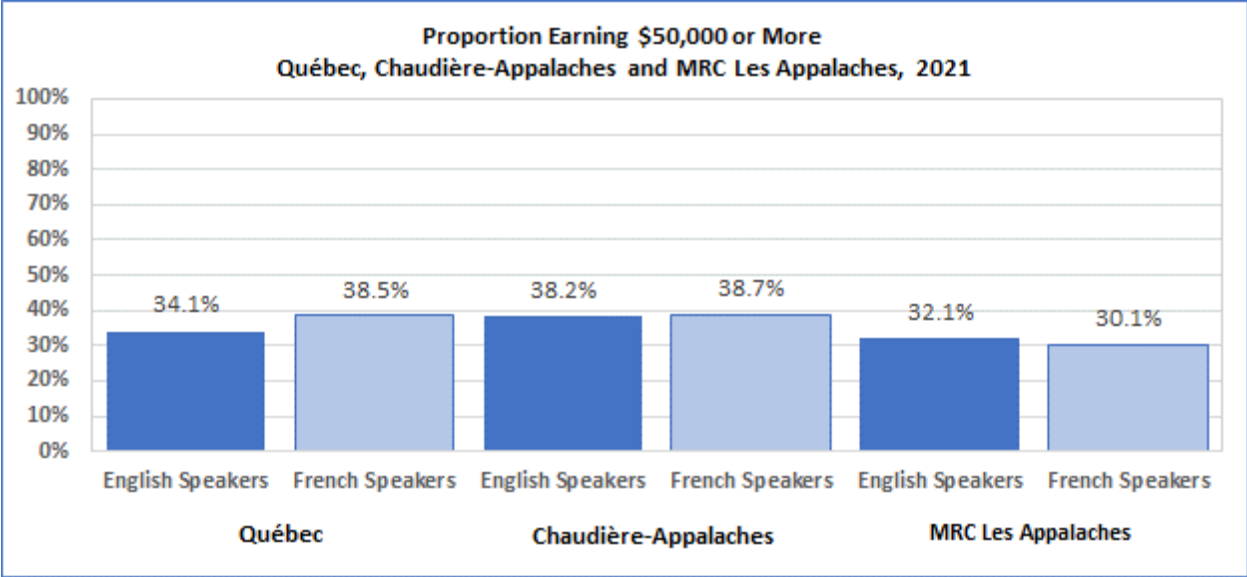
⁶ Public Health Agency of Canada, <http://www.phac-aspc.gc.ca/ph-sp/determinants/determinants-eng.php#evidence> accessed February 2023.

⁷ Ibid.



Income under \$20k

- Across Québec in 2021, there were 269,805 English speakers aged 15+ with income under \$20k. This group represents 25.7% of the English-speaking population aged 15+. The proportion of English speakers with income under \$20k is much higher than that found in the French-speaking majority population in Quebec.
- In 2021, there were 990 English speakers aged 15+ with income under \$20k in the Chaudière-Appalaches region where they represent 22.3% of the English-speaking population aged 15 and over. This share is lower than that displayed by the provincial English-speaking population. The proportion of those with income under \$20k in the region's English-speaking population is much higher than the proportion in the French-speaking majority population.
- In MRC Les Appalaches, we find 120 English speakers aged 15+ with income under \$20k where they account for 22.0% of the population. This share is similar to that experienced by English speakers across Chaudière-Appalaches. The proportion of those with income under \$20k in the territory's English-speaking population is similar to the proportion for the French-speaking majority population in MRC Les Appalaches.



Earning \$50k and over

- Across Québec, there were 357,635 English speakers aged 15+ with a total income of \$50k or more, who represented 34.1% of the English-speaking population in that age group. The proportion of high earners in the English-speaking population is lower than that found in the French-speaking majority population in Quebec.
- In 2021, there were 1,695 English speakers aged 15+ with a total income of \$50k or more living in the Chaudière-Appalaches region, where they represented 38.2% of the population. This proportion was higher than the proportion of English-speaking high earners across the province. The proportion of high earners in the regional English-speaking population is similar to the share of high earners in the French-speaking majority population in the region.
- In MRC Les Appalaches, we find 175 English-speaking high earners aged 15+, where they represent 32.1% of the population. This share is lower than that experienced by English-speaking high earners across the Chaudière-Appalaches region. The proportion of high earners in the territory's English-speaking population is higher than the proportion of high earners in the territory's French-speaking majority population.

Household Living Arrangements

Household living arrangements may be used as an indicator of groups within a population who are vulnerable to a poor health status. Parents of minors living in lone-parent households were more likely to report food insecurity, high levels of psychological distress and having more than one health problem compared to parents with other household arrangements.⁸ Individuals living alone may lack the important health benefits of a strong support network in the event of activity limitations due to disability, illness or aging. COVID-19 pandemic uncovered the vulnerability of individuals living in low-income multi-generational households. The recent health crisis turned single households consisting of three or more generations into a high-risk factor for contagious infection.⁹

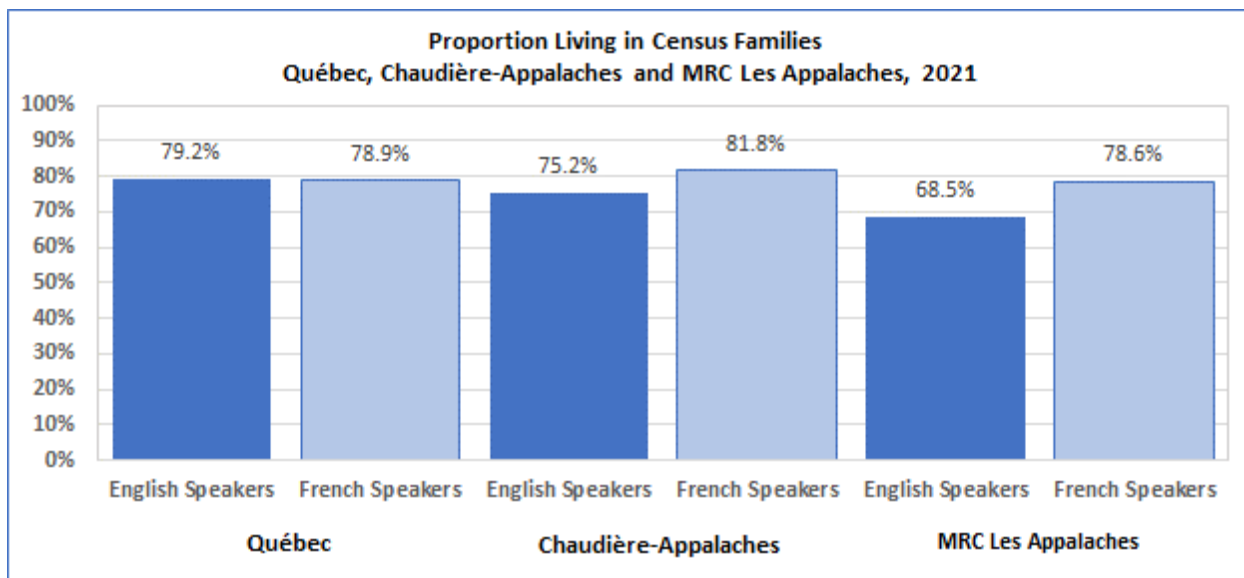
Table 4 - Population by Household Living Arrangements

Population by Household Living Arrangements	Québec		Chaudière-Appalaches		MRC Les Appalaches	
	English	French	English	French	English	French
Total - Household living arrangements	1,244,440	6,985,640	5,070	416,110	620	40,675
Total persons in census family households	985,995	5,512,205	3,815	340,450	425	31,970
Persons in two-parent households	835,415	4,706,995	3,280	299,970	390	28,020
Persons in single-parent households	150,580	805,215	540	40,480	0	3,950
Total persons in non-census family households	258,445	1,473,435	1,255	75,655	195	8,705
Living with relatives	28,935	127,905	85	5,035	0	520
Living with non-relatives only	55,820	209,445	450	7,140	45	670
Living alone	173,695	1,136,085	735	63,485	140	7,515
Total - Household living arrangements	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Total persons in census family households	79.2%	78.9%	75.2%	81.8%	68.5%	78.6%
Persons in two-parent households	67.1%	67.4%	64.7%	72.1%	62.9%	68.9%
Persons in single-parent households	12.1%	11.5%	10.7%	9.7%	0.0%	9.7%
Total persons in non-census family households	20.8%	21.1%	24.8%	18.2%	31.5%	21.4%
Living with relatives	2.3%	1.8%	1.7%	1.2%	0.0%	1.3%
Living with non-relatives only	4.5%	3.0%	8.9%	1.7%	7.3%	1.6%
Living alone	14.0%	16.3%	14.5%	15.3%	22.6%	18.5%

Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Population in private households - 25% sample.

⁸ For discussion of the survey, see Pocock, J. (2008) "Baseline Data Report 2007-2008. Quebec's Social and Health Survey Information." Community Health and Social Services Network (CHSSN). www.chssn.org

⁹ Yang, F. and Aitken, N. (2021). People living in apartments and larger households were at higher risk of dying from COVID-19 during the first wave of the pandemic. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/45-28-0001/2021001/article/00004-eng.htm> accessed February 2023.

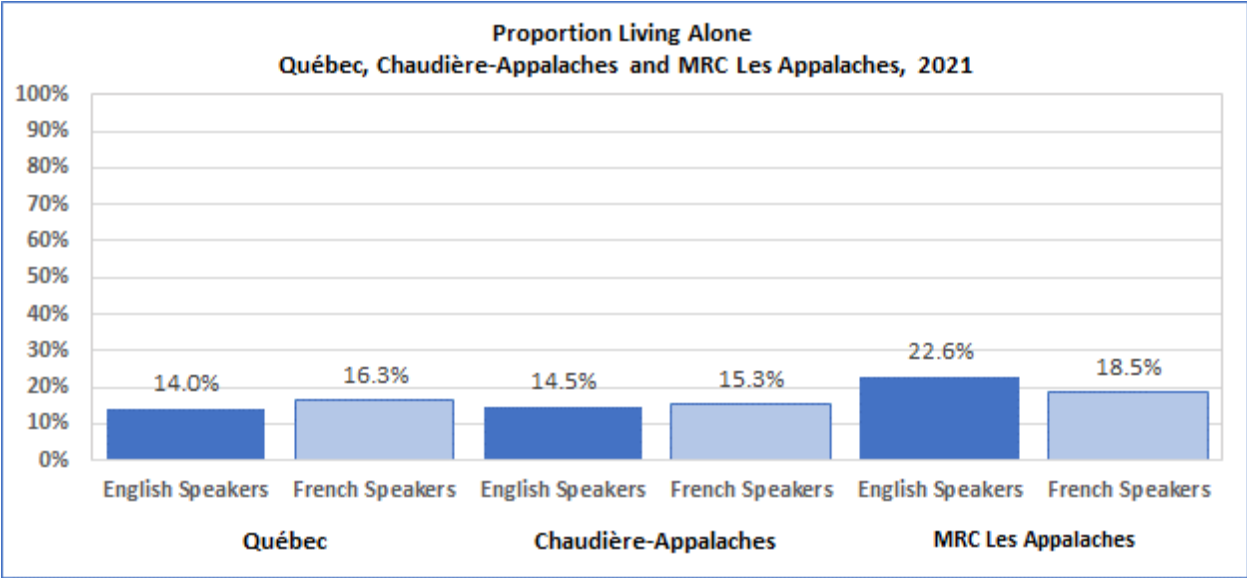


Living in census families¹⁰

- Across Québec, there were 985,995 English speakers living in census family households. This group represents 79.2% of the 15+ English-speaking population. The proportion of English speakers living in census family households is similar to that found in the French-speaking majority population in Quebec.
- In 2021, there were 3,815 English speakers living in census family households in the Chaudière-Appalaches region where they comprise 75.2% of the population. This share is lower than that displayed by the provincial English-speaking population. The proportion of those living in census family households in the regional English-speaking population is lower than the proportion in the regional French-speaking majority population.
- In MRC Les Appalaches, we find 425 English speakers living in census family households where they account for 68.5% of the population. This share is lower than that accounted for by English speakers across the Chaudière-Appalaches region. The proportion of persons living in census family households in the English-speaking population is lower than the proportion represented by the French-speaking majority population in MRC Les Appalaches.

¹⁰According to Statistics Canada, a "Census family is defined as a married couple and the children, if any, of either and/or both spouses; a couple living common law and the children, if any, of either and/or both partners; or a parent of any marital status in a one-parent family with at least one child living in the same dwelling and that child or those children. All members of a particular census family live in the same dwelling. Children may be biological or adopted children regardless of their age or marital status as long as they live in the dwelling and do not have their own married spouse, common-law partner or child living in the dwelling. Grandchildren living with their grandparent(s) but with no parents present also constitute a census family."

<https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=Unit&Id=32746> accessed February 2023.



Living alone

- Across Québec, there were 173,695 English speakers living alone. This group represents 14.0% of the English-speaking population. The proportion of English speakers living alone is lower than the level in the French-speaking majority population in Quebec.
- In 2021, there were 735 English speakers living alone in the Chaudière-Appalaches region, where they account for 14.5% of the population. This level is similar to that displayed by the provincial English-speaking population. The proportion of those living alone in the regional English-speaking population is similar to the proportion found in the regional French-speaking majority population.
- In MRC Les Appalaches we find 140 English speakers living alone, where they represent 22.6% of the population. This share is much higher than that exhibited by English speakers across the Chaudière-Appalaches region. The proportion of those living alone in the territory's English-speaking population is much higher than the proportion exhibited by the French-speaking majority population in MRC Les Appalaches.

Low-Income Cut-off

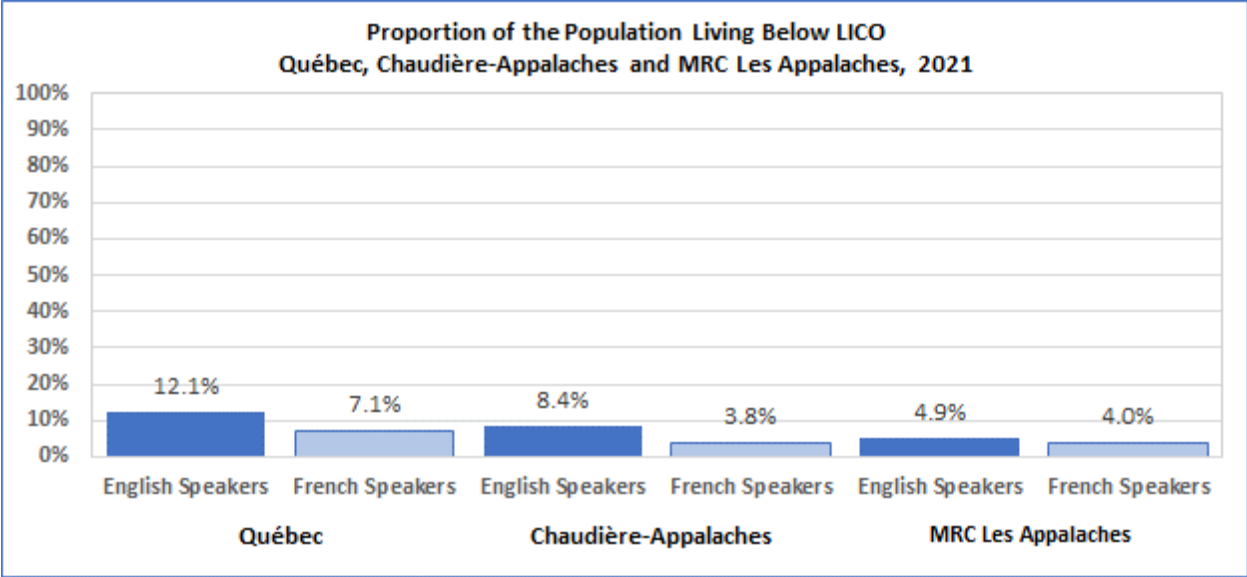
Although there is no official measure of poverty in Canada, the Statistics Canada measure of Low-income cut-offs (LICO) is probably the best known. Commonly known as the “poverty line”, LICO uses the income levels of a given family and considers how large a share of its income is spent on necessities such as food, shelter and clothing. If the amount a family spends is 20% higher than an average family in a year, it falls into the low-income cut-off category. People who live below-income cut-offs may be said to live in “straitened circumstances.”¹¹ The following tables consider the population living below LICO by language, administrative territory and age group.

Table 5 - Population Living Below LICO, Within Age Groups

Population Living Below the Low-Income Cut-off (LICO), Across Age Groups	Québec		Chaudière- Appalaches		MRC Les Appalaches	
	English	French	English	French	English	French
Total - Age groups	148,545	491,540	425	15,900	30	1,625
0-14 years	16,915	56,870	35	1,635	-	115
15-24 years	30,265	65,630	40	1,240	-	110
25-44 years	44,260	105,500	200	2,725	-	265
45-64 years	32,270	136,215	110	5,965	-	885
65+ years	24,845	127,330	35	4,330	-	260
Proportion of those below LICO across age groups						
Total - Age groups	12.1%	7.1%	8.4%	3.8%	4.9%	4.0%
0-14 years	8.9%	4.9%	5.5%	2.3%	-	1.9%
15-24 years	19.4%	9.1%	8.9%	3.1%	-	3.2%
25-44 years	11.9%	5.9%	11.4%	2.8%	-	3.2%
45-64 years	10.0%	7.1%	8.2%	5.2%	-	7.8%
65+ years	13.5%	9.2%	4.0%	4.8%	-	2.3%

Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Population in private households - 25% sample. The percentages given here compare the number below LICO in a given age group with the total number in that age group as presented in 'Table 2 - Age Structure of the Population' of this document.

¹¹ For an explanation of how Statistics Canada calculates low income cut-off (LICO) <https://www150.statcan.gc.ca/n1/pub/75f0002m/2012002/lico-sfr-eng.htm> accessed February 2023.



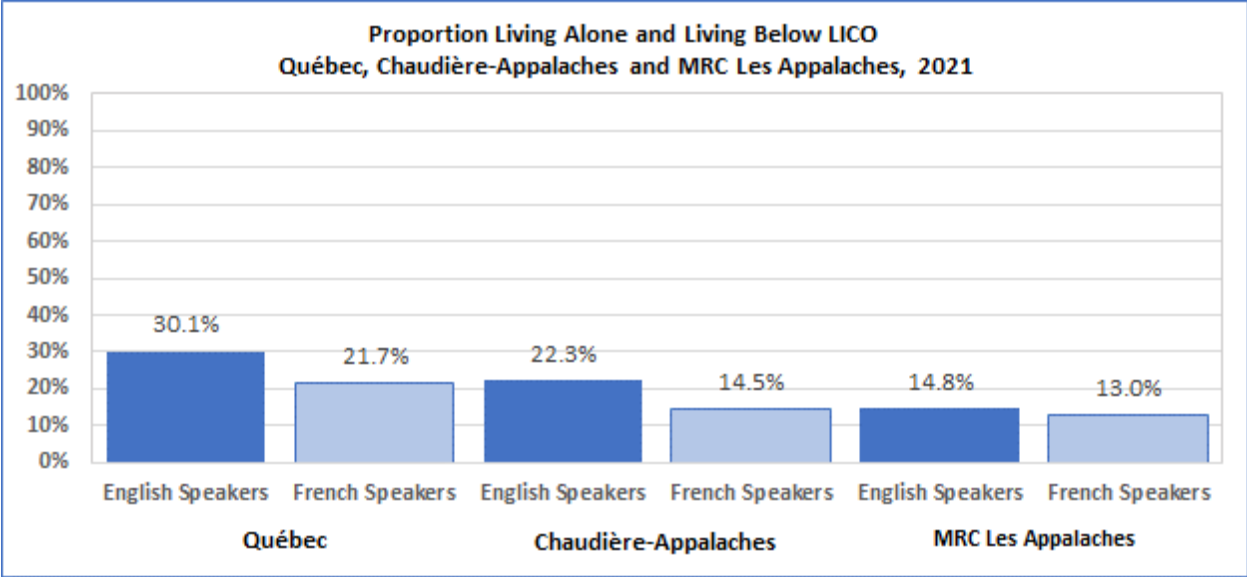
Population living below the low-income cut-off (LICO)

- Across Québec, there were 148,545 English speakers living below LICO. This group accounts for 12.1% of the English-speaking population. The proportion of English speakers living below LICO is much higher than the proportion in the French-speaking majority population in Quebec.
- In 2021, there were 425 English speakers living below LICO in the Chaudière-Appalaches region, where they represent 8.4% of the regional English-speaking population. The proportion of those living below LICO in the regional English-speaking population is much higher than the proportion found in the regional French-speaking majority population. This English-speaking regional proportion in Chaudière-Appalaches is much lower than the proportion for Quebec's English speakers in general.
- In MRC Les Appalaches, we find 30 English speakers living below LICO, where they represent 4.9% of the English-speaking population. This level is much higher than the proportion for the French-speaking majority population in the same territory. The proportion of those living below LICO in the territory's English-speaking population is much lower than the proportion for English speakers across Chaudière-Appalaches.

Table 6 - Population Living Below LICO, by Household Living Arrangements

Population Living Below the Low-Income Cut-off Level, by Household Living Arrangements	Québec		Chaudière- Appalaches		MRC Les Appalaches	
	English	French	English	French	English	French
Total - Household living arrangements	148,545	491,540	425	15,900	30	1,625
Total persons in census family households	63,075	162,730	155	4,730	-	415
Persons in two-parent households	41,135	90,185	100	2,480	-	220
Persons in single-parent households	21,935	72,545	50	2,255	-	195
Total persons in non-census family households	85,470	328,810	260	11,160	25	1,210
Living with relatives	3,675	10,330	-	215	-	25
Living with non-relatives only	29,710	72,645	100	1,715	-	205
Living alone	52,090	245,835	165	9,230	20	980
Proportion of those below LICO, by household living arrangements						
Total - Household living arrangements	12.1%	7.1%	8.4%	3.8%	4.9%	4.0%
Total persons in census family households	6.5%	3.0%	4.1%	1.4%	-	1.3%
Persons in two-parent households	5.0%	1.9%	3.1%	0.8%	-	0.8%
Persons in single-parent households	15.1%	9.1%	9.4%	5.6%	-	4.9%
Total persons in non-census family households	33.3%	22.4%	20.8%	14.8%	13.2%	13.9%
Living with relatives	13.2%	8.2%	-	4.3%	-	4.9%
Living with non-relatives only	53.4%	34.7%	22.7%	24.0%	-	30.4%
Living alone	30.1%	21.7%	22.3%	14.5%	14.8%	13.0%

Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Population in private households - 25% sample. The percentages given here compare the number below LICO in a given household living arrangement with the total number in that arrangement as presented in "Table 4 - Household Living Arrangements" in this document.



Persons living alone and below the low-income cut-off (LICO)

- Across Québec, there were 52,090 English-speaking persons living alone and below LICO. This group represents 30.1% of the English-speaking population living alone. The proportion of English-speaking persons living alone and below LICO is much higher than that found in the French-speaking majority population in Quebec living alone.
- In 2021, there were 165 English-speaking persons living alone and below LICO in the Chaudière-Appalaches region where they account for 22.3% of the regional English-speaking population living alone. The proportion of those persons living alone and below LICO in the regional English-speaking population is much higher than the proportion in the regional French-speaking majority population. This English-speaking regional proportion is much lower than that experienced by the provincial English-speaking population.
- In MRC Les Appalaches, we find 20 English-speaking persons living alone and below LICO where they represent 14.8% of the English-speaking population living alone. This is higher than the proportion experienced by the French-speaking majority population living alone in the same territory. The proportion of those persons living alone and below LICO in the territory's English-speaking population is much lower than the proportion experienced by English speakers across the Chaudière-Appalaches region.

Highest Educational Attainment

In many ways, education is an important determinant of the health status of a community. In Canada, the level of education achieved by an individual tends to be an indicator of social status, and ideally, a predictor of economic opportunity. The overall level of health literacy and preventative health practice enjoyed by a community also tends to be associated with the years of schooling by those included among its members¹². A case in point, Genereux's study of the psychosocial impact of the COVID-19 pandemic upon Québec communities demonstrates that key protective factors such as a sense of coherence are linked to levels of education.¹³

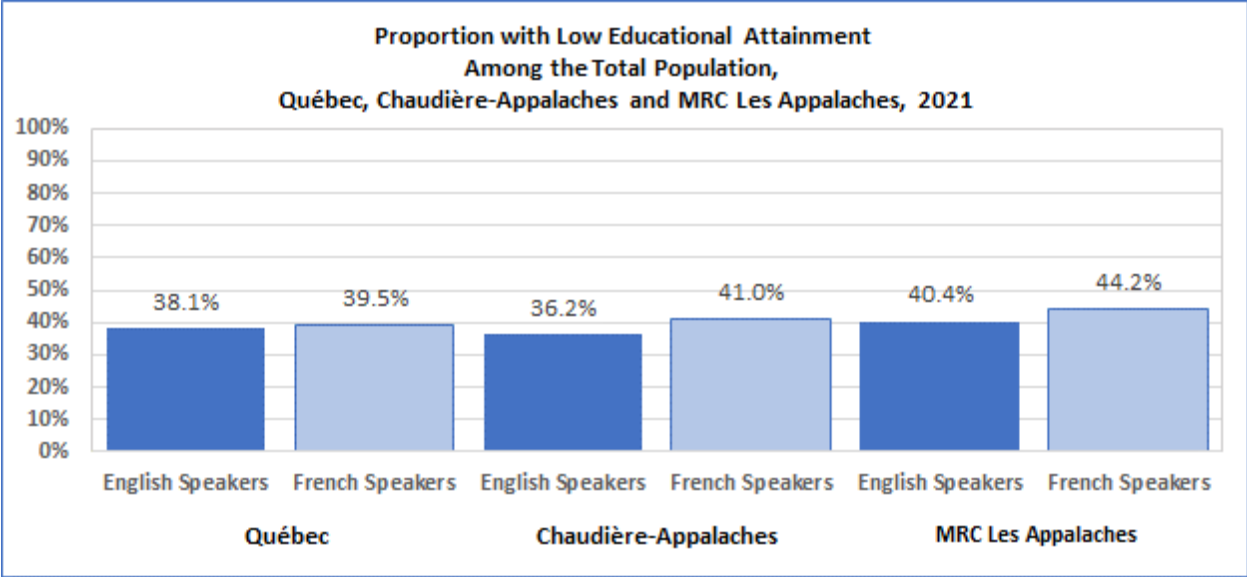
¹²For further discussion of education as a health determinant see Raphael, D., Bryant, T., Mikkonen, J. and Raphael, A. (2020). *Social Determinants of Health: The Canadian Facts*. (2nd edition) / *Déterminants sociaux de la santé : les réalités canadiennes*, (2e édition). Oshawa: Ontario Tech University Faculty of Health Sciences and Toronto: York University School of Health Policy and Management. <https://thecanadianfacts.org/>

¹³Genereux, M., Roy, M., Pare, C., and Levesque, J. (2020). Strengthening the Adaptive Capacities of Individuals and Communities in Times of Pandemic: The Key Role of the Sense of Coherence. https://refips.org/wp-content/uploads/2020/12/COVID19_SOC_UIPES_REFIPS_final.pdf

Table 7 - Highest Educational Certification, for Selected Age Groups

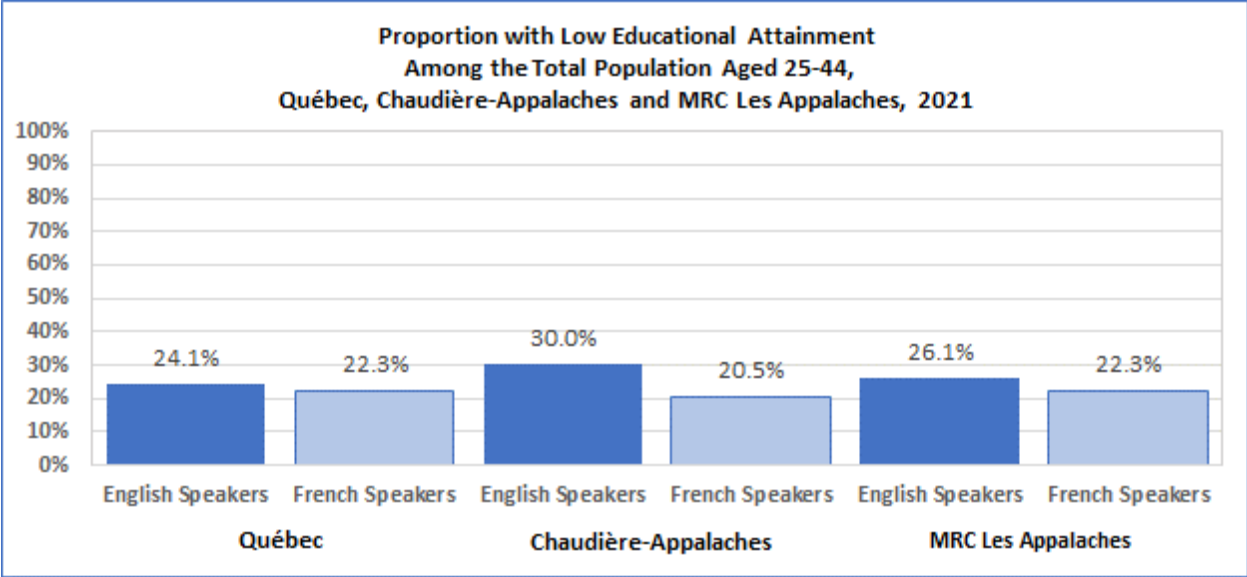
Total Population by Highest Educational Certification		Québec		Chaudière- Appalaches		MRC Les Appalaches	
		English	French	English	French	English	French
Total	Total	1,049,640	5,811,880	4,435	344,285	545	34,645
	25-44 years	377,080	1,787,550	1,765	98,120	230	8,300
	45-64 years	327,965	1,915,975	1,345	115,370	105	11,400
High school diploma or less	Total	399,730	2,293,515	1,605	141,135	220	15,315
	25-44 years	90,820	398,185	530	20,090	60	1,850
	45-64 years	112,980	657,060	395	41,515	25	4,470
Apprenticeship or trades certificate or diploma	Total	86,445	1,007,585	675	73,755	105	8,405
	25-44 years	33,445	393,840	320	28,630	55	3,020
	45-64 years	31,405	376,435	235	27,850	30	3,100
College, CEGEP or other non-university certificate or diploma	Total	178,355	1,020,485	830	64,555	120	6,200
	25-44 years	61,330	344,935	300	22,070	45	1,845
	45-64 years	62,200	367,785	345	24,030	30	2,290
University certificate or diploma below bachelor level	Total	31,300	220,170	175	10,700	10	1,040
	25-44 years	11,810	67,990	60	2,955	-	200
	45-64 years	12,100	81,910	50	3,815	-	345
University certificate, diploma or degree at bachelor level or above	Total	353,815	1,270,135	1,145	54,150	100	3,685
	25-44 years	179,675	582,605	545	24,370	35	1,360
	45-64 years	109,275	432,785	320	18,145	-	1,200
High school diploma or less	Total	38.1%	39.5%	36.2%	41.0%	40.4%	44.2%
	25-44 years	24.1%	22.3%	30.0%	20.5%	26.1%	22.3%
	45-64 years	34.4%	34.3%	29.4%	36.0%	23.8%	39.2%
Apprenticeship or trades certificate or diploma	Total	8.2%	17.3%	15.2%	21.4%	19.3%	24.3%
	25-44 years	8.9%	22.0%	18.1%	29.2%	23.9%	36.4%
	45-64 years	9.6%	19.6%	17.5%	24.1%	28.6%	27.2%
College, CEGEP or other non-university certificate or diploma	Total	17.0%	17.6%	18.7%	18.8%	22.0%	17.9%
	25-44 years	16.3%	19.3%	17.0%	22.5%	19.6%	22.2%
	45-64 years	19.0%	19.2%	25.7%	20.8%	28.6%	20.1%
University certificate or diploma below bachelor level	Total	3.0%	3.8%	3.9%	3.1%	-	3.0%
	25-44 years	3.1%	3.8%	3.4%	3.0%	-	2.4%
	45-64 years	3.7%	4.3%	3.7%	3.3%	-	3.0%
University certificate, diploma or degree at bachelor level or above	Total	33.7%	21.9%	25.8%	15.7%	18.3%	10.6%
	25-44 years	47.6%	32.6%	30.9%	24.8%	15.2%	16.4%
	45-64 years	33.3%	22.6%	23.8%	15.7%	-	10.5%

Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Population in private households - 25% sample.



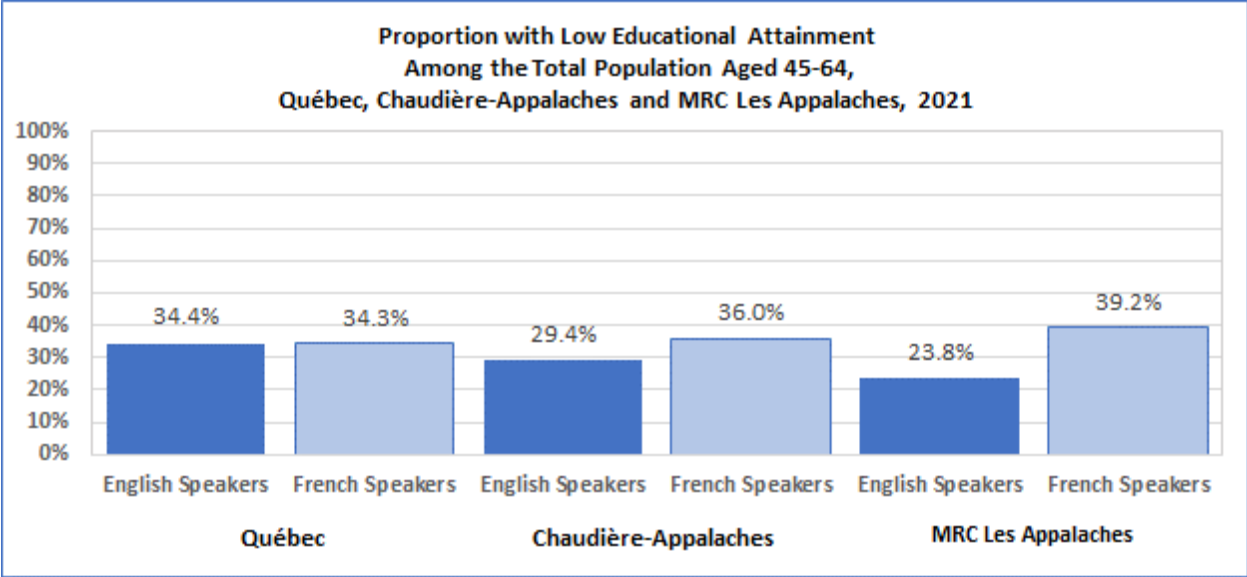
Population aged 15+, high school diploma or less

- Across Québec, there were 399,730 English speakers aged 15 and over with a high school diploma or less. This group accounts for 38.1% of the English-speaking population aged 15 and over. The proportion of English speakers aged 15 and over with a high school diploma or less is similar to the level found in the French-speaking majority population aged 15 and over in Quebec.
- In 2021, there were 1,605 English speakers aged 15 and over with a high school diploma or less in the Chaudière-Appalaches region where they account for 36.2% of the regional English-speaking population aged 15 and over. The proportion of those aged 15 and over with a high school diploma or less in the regional English-speaking population is lower than the proportion in the regional French-speaking majority population. The level for the English-speaking regional proportion is similar to that exhibited by English speakers across the province.
- In MRC Les Appalaches, we find 220 English speakers aged 15 and over with a high school diploma or less where they represent 40.4% of the English-speaking population aged 15 and over. This level is lower than the proportion exhibited by the French-speaking majority population aged 15 and over in the same territory. The proportion of those aged 15 and over with a high school diploma or less in the English-speaking population is higher than the proportion exhibited by the English speakers across the Chaudière-Appalaches region.



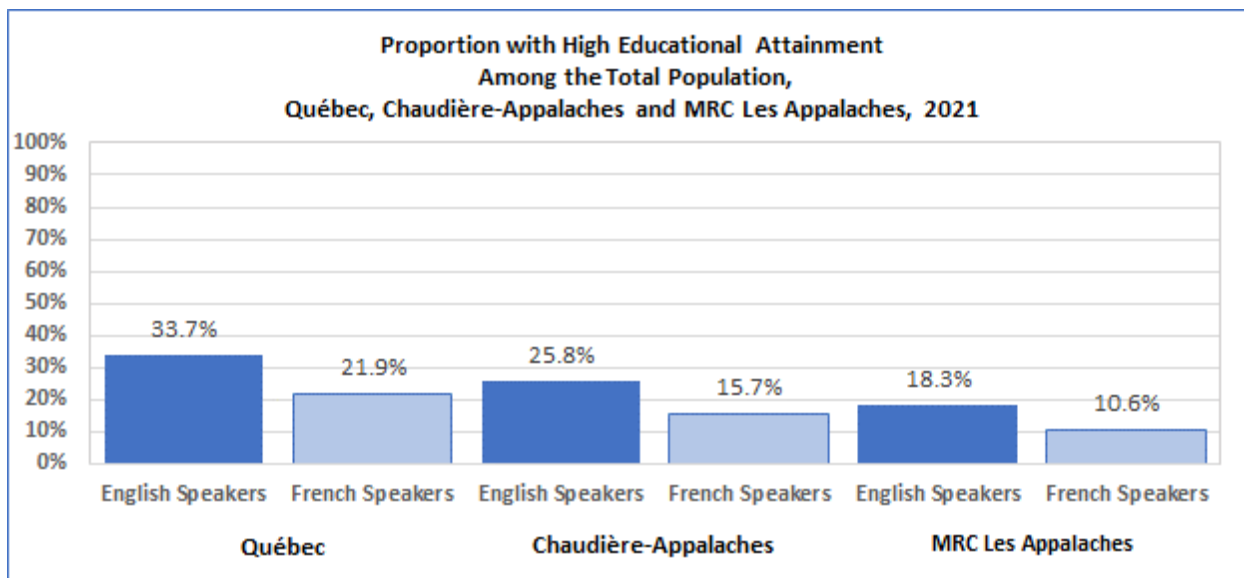
Population 25-44, high school diploma or less

- Across Québec, there were 90,820 English speakers aged 25-44 with a high school diploma or less. This group represents 24.1% of the English-speaking population aged 25 to 44. The proportion of English speakers aged 25-44 with a high school diploma or less is higher than that found in the French-speaking majority population in Quebec in the same age cohort.
- In 2021, there were 530 English speakers aged 25-44 with a high school diploma or less in the Chaudière-Appalaches region where they account for 30.0% of the regional English-speaking population. The proportion of those aged 25-44 with a high school diploma or less in the regional English-speaking population is much higher than the proportion in the regional French-speaking majority population in that age group. This proportion is much higher than that exhibited by English speakers across the province in the same age cohort.
- In MRC Les Appalaches, we find 60 English speakers aged 25-44 with a high school diploma or less where they comprise 26.1% of the English-speaking 25-44 cohort. This is higher than the proportion in the French-speaking majority 25-44 cohort in the same territory. The proportion of those aged 25-44 with a high school diploma or less in the territory's English-speaking population is lower than the proportion exhibited by English speakers across the Chaudière-Appalaches region.



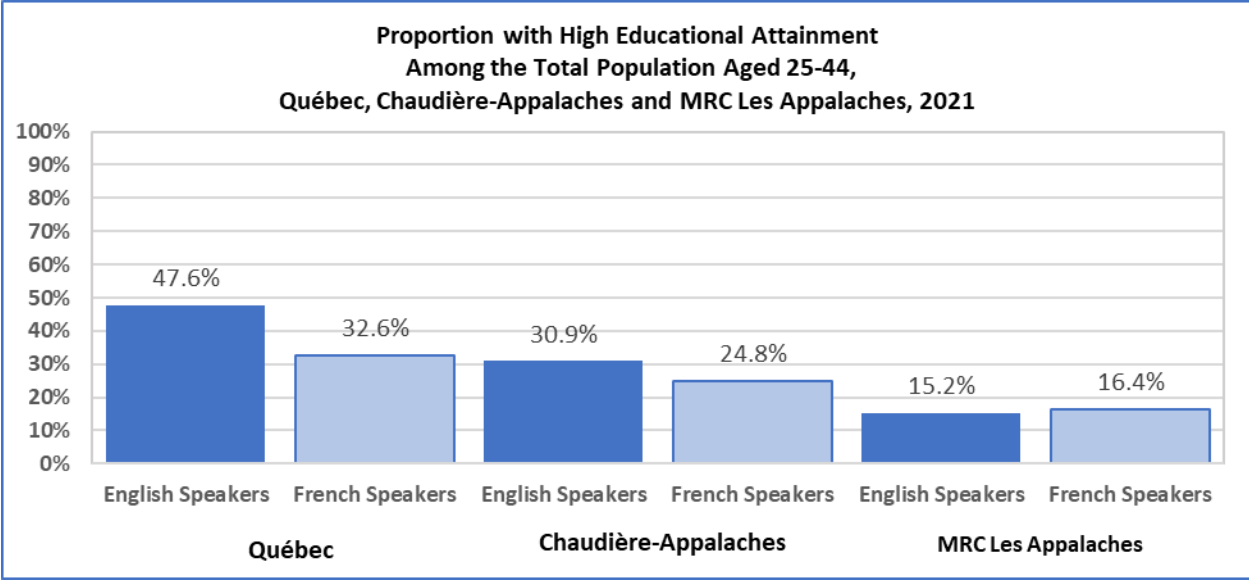
Population 45-64, high school diploma or less

- In Québec in 2021, there were 112,980 English-speaking aged 45-64 with a high school diploma or less. This group represents 34.4% of the English-speaking population. The proportion of English speakers aged 45-64 with a high school diploma or less is similar to that found in the same age cohort in the French-speaking majority population in Quebec.
- In 2021, there were 395 English speakers aged 45-64 with a high school diploma or less in the Chaudière-Appalaches region where they account for 29.4% of the regional English-speaking population. The proportion of those aged 45-64 with a high school diploma or less in the regional English-speaking population is lower than the proportion in the regional French-speaking majority population. This English-speaking regional proportion is lower than that exhibited by the province's English speakers.
- In MRC Les Appalaches, we find 25 English speakers aged 45-64 with a high school diploma or less where they comprise 23.8% of the English-speaking population. This is much lower than the proportion exhibited by the French-speaking majority population in the same territory. The proportion of those aged 45-64 with a high school diploma or less in the territory's English-speaking population is lower than the proportion exhibited by English speakers across the region.



Population aged 15+, university degree or higher

- In Québec in 2021, there were 353,815 English-speaking aged 15 and over with a university degree or higher. This group represents 33.7% of the English-speaking population. The proportion of English speakers aged 15 and over with a university degree or higher is much higher than that found in the same age cohort in the French-speaking majority population in Québec.
- In 2021, there were 1,145 English speakers aged 15 and over with a university degree or higher in the Chaudière-Appalaches region where they account for 25.8% of the regional English-speaking population. The proportion of those aged 15 and over with a university degree or higher in the regional English-speaking population is much higher than the proportion in the regional French-speaking majority population. This English-speaking regional proportion is much lower than that exhibited by the province's English speakers.
- In MRC Les Appalaches, we find 100 English speakers aged 15 and over with a university degree or higher where they represent 18.3% of the English-speaking population. This is much higher than the proportion exhibited by the French-speaking majority population in the same territory. The proportion of those aged 15 and over with a university degree or higher in the territory's English-speaking population is much lower than the proportion exhibited by English speakers across the region.



Population 25-44, university degree or higher

- In Québec in 2021, there were 179,675 English speakers aged 25-44 with a university degree or higher. This group accounts for 47.6% of the English-speaking population. The proportion of English speakers aged 25-44 with a university degree or higher is much higher than that found in the same age cohort in the French-speaking majority population in Quebec.
- In 2021, there were 545 English speakers aged 25-44 with a university degree or higher in the Chaudière-Appalaches where they represent 30.9% of the regional English-speaking population. The proportion of those aged 25-44 with a university degree or higher in the regional English-speaking population is much higher than the proportion in the regional French-speaking majority population. This regional English-speaking proportion is much lower than that exhibited by the province's English speakers.
- In MRC Les Appalaches, we find 35 English speakers aged 25-44 with a university degree or higher where they comprise 15.2% of the English-speaking population. This is lower than the proportion exhibited by the French-speaking majority population in the same territory. The proportion of those aged 25-44 with a university degree or higher in the territory's English-speaking population is much lower than the proportion exhibited by English speakers across the region.

Labour Force Activity

The rate and type of labour force participation experienced by a community and its members is strongly associated with health status. In industrial nations like Canada, labour force activity is linked with level of income as well as the level of social integration enjoyed by a group.

Employment is an important source of social identity and a key context for the establishment of a social support network that extends beyond the workplace. For an individual, work is an important source of the self-esteem and sense of control typically associated with good mental health.¹⁴

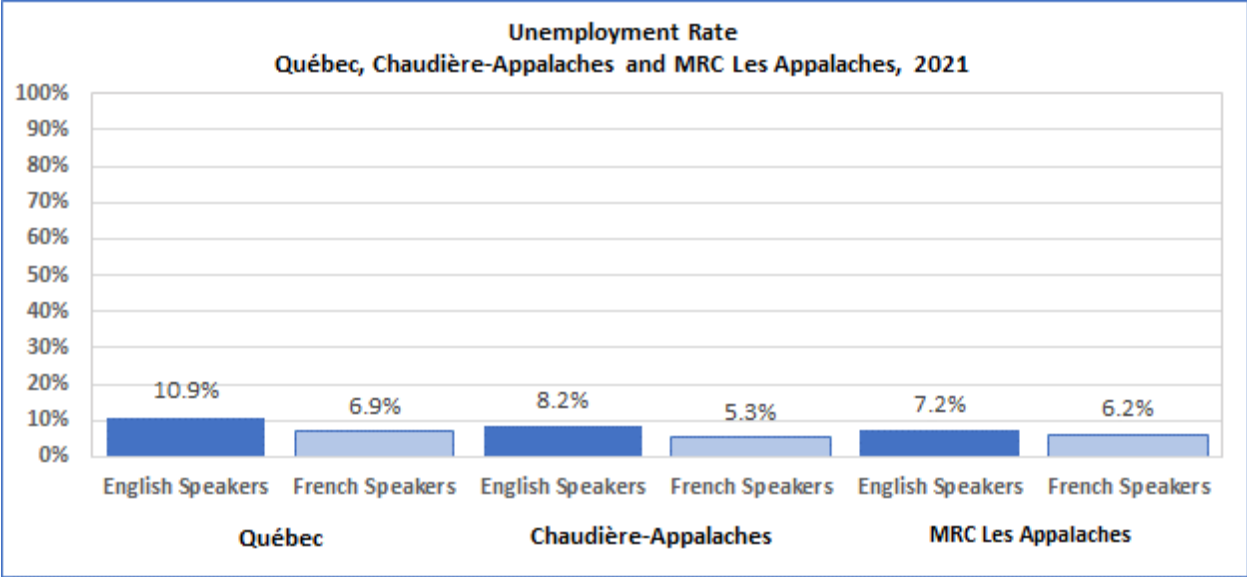
Table 8 - Labour Force Activity

Total Population by Labour Force Activity	Québec		Chaudière-Appalaches		MRC Les Appalaches	
	English	French	English	French	English	French
Total - Labour force activity	1,049,640	5,811,880	4,435	344,285	545	34,645
In the labour force	699,015	3,721,255	3,035	224,655	345	19,585
Employed	623,105	3,465,265	2,785	212,860	325	18,380
Unemployed	75,910	255,990	250	11,810	25	1,210
Out of the labour force	350,625	2,090,630	1,400	119,625	195	15,045
Total - Labour force activity	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
In the labour force	66.6%	64.0%	68.4%	65.3%	63.3%	56.5%
Employed	89.1%	93.1%	91.8%	94.7%	94.2%	93.8%
Unemployed	10.9%	6.9%	8.2%	5.3%	7.2%	6.2%
Out of the labour force	33.4%	36.0%	31.6%	34.7%	35.8%	43.4%

Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Population in private households - 25% sample.

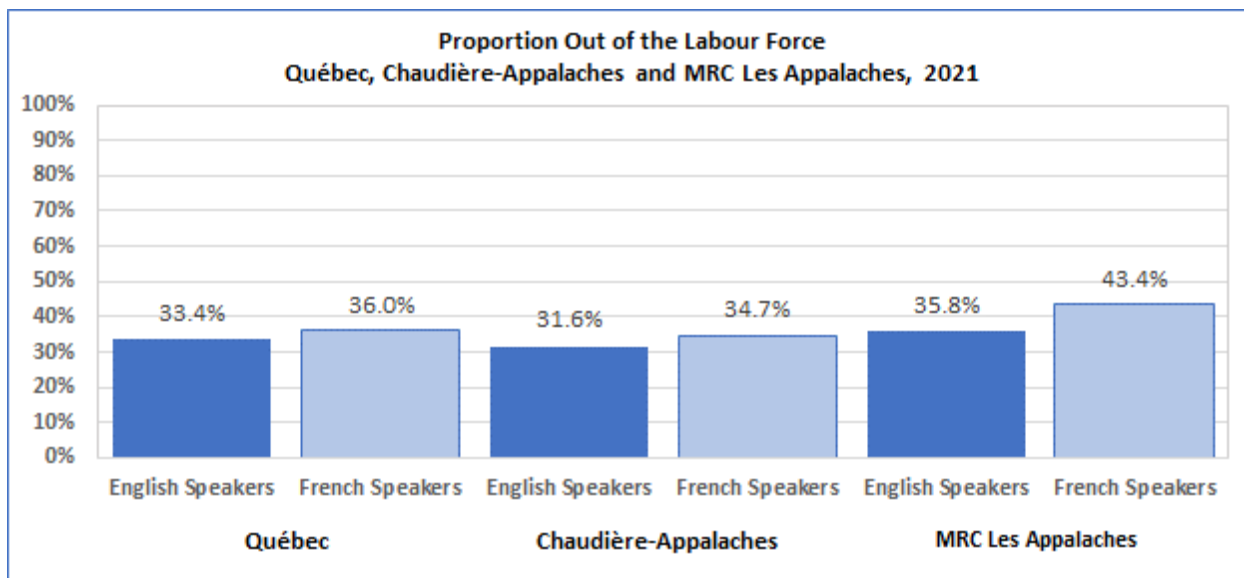
¹⁴For further discussion of employment and working conditions as health determinants see Raphael, D., Bryant, T., Mikkonen, J. and Raphael, A. (2020). *Social Determinants of Health: The Canadian Facts*. (2nd edition) / *Déterminants sociaux de la santé : les réalités canadiennes*, (2e édition). Oshawa: Ontario Tech University Faculty of Health Sciences and Toronto: York University School of Health Policy and Management.

<https://thecanadianfacts.org/>



Unemployed

- Across Québec in 2021, there were 75,910 English speakers who were unemployed resulting in an unemployment rate of 10.9%. The unemployment rate of Quebec's English speakers was much higher than the unemployment rate of the French-speaking majority.
- In 2021, there were 250 unemployed English speakers in the Chaudière-Appalaches region where they experienced an unemployment rate of 8.2%. The unemployment rate of the regional English-speaking population was much higher than the unemployment rate in the regional French-speaking majority population. Their unemployment rate was much lower than that experienced by the provincial English-speaking population.
- In MRC Les Appalaches, we find 25 unemployed English speakers resulting in an unemployment rate of 7.2%. This is higher than the unemployment rate experienced by the French-speaking majority population in the same territory. The unemployment rate of the English-speaking population is lower than the unemployment rate experienced by English speakers across the Chaudière-Appalaches region.



Out of the labour force¹⁵

- Across Québec in 2021, there were 350,625 English speakers out of the labour force in 2016. This group represents 33.4% of the English-speaking population aged 15+. The proportion of English speakers out of the labour force is lower than that found in the French-speaking majority population in Quebec aged 15 and over.
- In 2021, there were 1,400 English speakers out of the labour force in the Chaudière-Appalaches region where they comprise 31.6% of the regional English-speaking population aged 15+. The proportion of those out of the labour force in the regional English-speaking population is lower than the proportion in the regional French-speaking majority population. This English-speaking regional proportion is lower than that exhibited by the provincial English-speaking population.
- In MRC Les Appalaches, we find 195 English speakers out of the labour force where they account for 35.8% of the English-speaking population. This is lower than the proportion exhibited by the French-speaking majority population in the same territory. The proportion of those out of the labour force in the territory's English-speaking population is higher than the proportion exhibited by English speakers across the Chaudière-Appalaches region.

¹⁵The Statistics Canada category “[out of the labour force](http://www12.statcan.gc.ca/nhs-enm/2011/ref/dict/99-000-x2011001-eng.pdf)” refers to persons 15 years and over, excluding institutional residents, who were neither employed nor unemployed during the week of Sunday May 1 to Saturday May 7, 2011. It includes students, homemakers, retired workers, and seasonal workers in an “off” season who were not looking for work because of a long-term illness or disability.
<http://www12.statcan.gc.ca/nhs-enm/2011/ref/dict/99-000-x2011001-eng.pdf>

Appendix A – English speakers and French speakers by region and MRC or equivalent territories, 2021¹⁶

Number and Proportion of English and French Speakers in Chaudière-Appalaches by MRC Territory, 2021				
Geography	Total Population	French Speakers	English Speakers	Proportion of English Speakers
Québec	8,406,905	7,074,330	1,253,580	14.9%
Chaudière-Appalaches	427,690	421,860	5,055	1.2%
MRC L'Islet	17,315	17,185	110	0.6%
MRC Montmagny	22,145	21,940	160	0.7%
MRC Bellechasse	37,650	37,230	365	1.0%
MRC La Nouvelle-Beauce	37,680	37,220	365	1.0%
MRC Robert-Cliche	18,895	18,705	145	0.8%
MRC Les Etchemins	16,470	16,275	170	1.0%
MRC Beauce-Sartigan	52,705	51,955	585	1.1%
MRC Les Appalaches	42,845	42,150	640	1.5%
MRC Lotbinière	34,220	33,780	345	1.0%
Lévis	147,770	145,430	2,175	1.5%
<i>Source: JPocock Research Consulting, 2021 Census, Statistics Canada. Total population excluding institutional residents - 100% sample.</i>				

¹⁶Baseline Data Reports are only available for those MRCs or equivalent territories with at least 250 English speakers. This table nonetheless lists all MRCs or equivalent territories in a given region.

Appendix B – Baseline Data Report Series

2003-2004	Regional Profiles of English-speaking Communities	2001 Census
2004-2005	Profiles of English-speaking Communities In Selected CLSC Territories	2001 Census
2005-2006	English-Language Health and Social Services Access in Québec	2005 CHSSN-CROP Survey on Community Vitality
2006-2007	Community Network Building	Case studies (qualitative interviews)
2007-2008	Health and Social Survey Information on Quebec's English-speaking Communities	1998 Québec Health and Social Survey
2008-2009	Regional Profiles of Quebec's English-speaking Communities: Selected 1996-2006 Census Findings	1996 and 2006 Census
2009-2010	Demographic Profiles of Quebec's English-speaking Communities for Selected CSSS Territories	1996 and 2006 Census
2010-2011	English-Language Health and Social Services Access in Québec	2010 CHSSN-CROP Survey on Community Vitality
2010-2011	2010-2011 Companion Report – Comparison of French and English respondents to the 2010 CROP survey	2010 CHSSN-CROP Survey on Community Vitality
2011-2012	Socio-economic Profiles of English-speaking Visible Minority Population by Quebec Health Region	2006 Census of Canada
2012-2013	Quebec's English-speaking Community Networks and their Partners in Public Health and Social Services	Survey of NPI organizations and interviews
2013-2014	Demographic Profiles of Quebec's English-speaking Communities for Selected CSSS Territories	2011 Census of Canada; 2011 National Household Survey
2014-2015	Canadian Community Health Survey (2011-2012) / Findings related to the Mental and Emotional Health of Quebec's English-speaking Communities	Canadian Community Health Survey, 2011-2012
2015-2016	English-Language Health and Social Services Access in Québec	2015 CHSSN-CROP Survey on Community Vitality
2015-2016	2015 CHSSN-CROP Survey on Community Vitality / Findings on English-speaking Community Vitality Across Key Sectors	2015 CHSSN-CROP Survey on Community Vitality
2016-2017	Demographic Summaries for English-speaking Populations Across Quebec's RTS Territories (2011)	2011 Census of Canada; 2011 National Household Survey
2017-2018	Demographic Profiles of Quebec's English-speaking Communities for Selected RLS Territories	2016 Census of Canada
2018-2019	Socio-demographic Profile of Children Aged 0 to 5 and their Parents	2016 Census of Canada
2018-2019	English-language Health and Social Service Access in Quebec	2019 CHSSN-CROP Community Health and Social Survey
2019 -2021	Gender Based Socio-demographic Profiles	2016 Census of Canada
2019 -2021	Time Series Report: CHSSN/CROP Surveys 2005-2019	2005-2019 CHSSN CROP Community Health and Social Surveys
2021-2022	Socio-demographic Characteristics of Visible Minorities in Quebec's English-speaking Communities	2016 Census of Canada
2022-2023	Demographic Profiles of Quebec's English-speaking Communities	2021 Census of Canada

Sources and References

- Access Alliance Multicultural Health and Community. (2021). *Investing in Language Access to Optimize Health System Performance. A Review of the Literature*.
https://accessalliance.ca/wp-content/uploads/2021/06/Access_Alliance_Investing_in_Language_Access_to_Optimize_Health_System_Performance.pdf
- Bowen, S. (2015) for Société Santé en Français (SSF). *Impact of Language Barriers on Quality and Safety of Healthcare*. <http://santefrancais.ca/wp-content/uploads/SSF-Bowen-S.-Language-Barriers-Study-1.pdf>
- Bowen, S. (2001). *Language Barriers in Access to Health Care*, Ottawa: Health Canada.
- Bowen, S., Gibbons, M., Roy, J. and Edwards, J. (2010). From ‘multicultural health’ to ‘knowledge translation’ – rethinking strategies to promote language access within a risk management framework. *The Journal of Specialized Translation (Jostrans)*, Issue 14,
http://www.jostrans.org/issue14/art_bowen.php.
- Bowen, S. (2015) for Société Santé en Français (SSF). *Impact of Language Barriers on Quality and Safety of Healthcare*. <http://santefrancais.ca/wp-content/uploads/SSF-Bowen-S.-Language-Barriers-Study-1.pdf>
- Consultative Committee for English-speaking Minority Communities (CCESMC) 2002, *Report to the Federal Minister of Health*, Ottawa: Health Canada.
- Denis, J.L., Potvin, L., Rochon, J. *et al.* (2020) “On redesigning public health in Québec: lessons learned from the pandemic”. *Canadian Journal of Public Health* **111**, 912–920.
<https://doi.org/10.17269/s41997-020-00419-x>
- Genereux, M., Roy, M., Pare, C., and Levesque, J. (2020). *Strengthening the Adaptive Capacities of Individuals and Communities in Times of Pandemic: The Key Role of the Sense of Coherence*.
https://refips.org/wp-content/uploads/2020/12/COVID19_SOC_UIPES_REFIPS_final.pdf
- Pocock, J. (2008). *Baseline Data Report 2007-2008. Quebec’s Social and Health Survey Information*. Community Health and Social Services Network. (CHSSN). www.chssn.org
- Public Health Agency of Canada. “What Determines Health?” www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php
- Raphael, D., Bryant, T., Mikkonen, J. and Raphael, A. (2020). *Social Determinants of Health: The Canadian Facts*. (2nd edition) / *Déterminants sociaux de la santé : les réalités canadiennes*, (2^e édition). Oshawa: Ontario Tech University Faculty of Health Sciences and Toronto: York University School of Health Policy and Management. <https://thecanadianfacts.org/>
- Reaume, M., Batista, R., Talarico, R. ...*et* Tanuseputro, P. (2020) “The impact of hospital language on the rate of in-hospital harm. A retrospective cohort study of home care recipients in Ontario, Canada”. *BMC Health Services Research* **20**, 340
<https://doi.org/10.1186/s12913-020-05213-6>

- Sanderson, D. (2020). Language Related Difficulties Experienced by Caregivers of English-Speaking Seniors in Quebec. *SAGE Open*, 10(3). <https://doi.org/10.1177/2158244020951261>
- World Health Organization and Calouste Gulbenkian Foundation. (2014) *Social Determinants of Mental Health*. Geneva, World Health Organization, ISBN 978 92 4 150680 9.
- Yang, F. and Aitken, N. (2021). *People living in apartments and larger households were at higher risk of dying from COVID-19 during the first wave of the pandemic*. Statistics Canada. <https://www150.statcan.gc.ca/n1/pub/45-28-0001/2021001/article/00004-eng.htm> accessed February 2023.