
Canadian Military Experience Reference Guide

Census of Population, 2021



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Definitions and concepts

The 2021 Census of Population question on Canadian military experience collects information on those who are currently serving or who have previously served in the Canadian military.

The Canadian Armed Forces (CAF) comprises Regular Force and Reserve Force members. All Regular Force members are employed full-time in the CAF and make up the bulk of personnel employed domestically and abroad on operations.

Regular Force members are posted to bases and wings across the country, depending on their trade, career progression, and environment (sea, land, air or special operations).

The Reserve Force in Canada comprises three groups of service members: the Primary Reserve Force, Canadian Rangers, and Cadet Organizations Administration and Training Service (COATS). The Supplementary Reserve is the fourth subcomponent of the Reserve Force, made up of former Regular Force or Reserve Force members who are no longer serving.

Most Reserve Force members are employed part time in the CAF, typically working one night per week and one weekend per month. The Reserve Force augments the Regular Forces, meaning that it contributes trained personnel to operations at home and abroad to help sustain and support Regular Force activities.¹

For the purposes of the 2021 Census, Canadian military experience includes previous or current service with the Regular Force or the Primary Reserve Force. It does not include service with the Cadets, Cadet Organizations Administration and Training Service (COATS) instructors or the Canadian Rangers, as they have obligations that are different from those of other components of the Canadian Armed Forces (CAF).

As the majority of Supplementary Reserve members had previous service in the Regular Force or the Primary Reserve Force, for the 2021 Census, these persons are considered Veterans, not actively serving members, and should have answered “Yes, but no longer serving in the Regular Force or the Primary Reserve Force”.

The question on Canadian military experience provides information on the [military service status](#) of a person. Data on the military and Veteran populations gathered through the 2021 Census provides insights into socioeconomic, demographic and family characteristics.

For additional information, please see the [Dictionary, Census of Population, 2021](#), Statistics Canada Catalogue no. 98-301-X.

Questions

For the first time since 1971, the census has collected information on persons with Canadian military experience. The 2021 Census of Population data on military service were obtained from Question 11 of the 2021 Census Form [2A](#), the 2021 Census Form [2A-L](#) and the 2021 Census Form [2A-R](#). Please refer to Figure 1 for the wording of Question 11 and the response categories.

1. [March 2020 – Canadian Armed Forces 101](#).

Figure 1

Question 11 - Has this person ever served in the Canadian military?

11 Has this person ever served in the Canadian military?

Canadian military service includes service with the Regular Force or Primary Reserve Force as an Officer or Non-Commissioned Member. It does not include service with the Cadets (COATS), the Supplementary Reserve or the Canadian Rangers.

Mark "X" one circle only.

- Yes, currently serving in the Regular Force or the Primary Reserve Force
- Yes, but no longer serving in the Regular Force or the Primary Reserve Force
- No

For the 2021 Census, the [2A](#) short-form questionnaire was used to enumerate all usual residents of 75% of private dwellings. The [2A-L](#) long-form questionnaire, which also includes the questions from the 2A short-form questionnaire, was used to enumerate a 25% sample of private households in Canada. For private households in First Nations communities, Métis settlements, Inuit regions and other remote areas, the [2A-R](#) questionnaire was used to enumerate 100% of the population.

The Canadian military experience question on the 2021 Census Form [2A-L](#) and Form [2A-R](#) is the same as the one on the 2021 Census Form [2A](#).

Question 11 was asked only of the population aged 17 and older as of Census Day.

Why was this question asked?

The question on Canadian military experience is used to understand the socioeconomic, housing and family characteristics of currently serving members of the Canadian Armed Forces (CAF) and Veterans in Canada. These data provide information for various policies and programs administered by the Department of National Defence (DND), Canadian Armed Forces (CAF), Veterans Affairs Canada (VAC), and the Canada Mortgage and Housing Corporation (CMHC). Before 2021, the main data sources on this population included historical census records from 1951, 1961 and 1971, as well as a variety of surveys.

For more information on the reasons why the census questions are asked, please refer to the five [fact sheets](#) found on The road to the 2021 Census web page.

Classifications

Data from the responses to Question 11 in the census are used to derive information on [military service status](#).

For the 2021 Census, military service status applied to those who were serving or who had previously served in the Regular Force or the Primary Reserve Force on or prior to Census Day. It did not include service with the Cadets, Cadet Organizations Administration and Training Service (COATS) instructors or the Canadian Rangers. The classification used to disseminate data is based on the [Classification of military service status](#).

Concepts over time

The 2021 Census is the first time in 50 years that a question on military service has been asked on the census. Questions on military service last appeared on the 1971 Census and on the 1951 and 1961 censuses prior to that. The questions on military service on these historical censuses asked the population about their wartime service and whether their service was with the Canadian military or with allied forces. The 1971 Census was the last time a question on military service was asked, and it collected this information for men aged 35 and older only. The wording of the question on each of these censuses was as follows:

Table 1
Census questions on military service 1951, 1961 and 1971

Year	Population asked the question	Question number	Question wording ¹
1951	All persons aged 14 and over	18	War Service: <hr/> - None <hr/> - Both wars <hr/> - World War II <hr/> - World War I
		19	Forces served in: <hr/> - Canadian <hr/> - Other <hr/> - Canadian and other
1961	All males 25 years of age and over	26	Did you have any wartime service in the active military forces of Canada or allied countries? <hr/> In what war(s)? <hr/> - Wars prior to 1914 <hr/> - World War I (1914-18) <hr/> - World War II (1939-45) <hr/> - In Korea (1950-53) <hr/> In what forces? <hr/> - Canadian <hr/> - Allied <hr/> - Both <hr/> Or: <hr/> - None

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Table 1
Census questions on military service 1951, 1961 and 1971

Year	Population asked the question	Question number	Question wording ¹
1971	Men 35 years of age or over	30	For MEN 35 years of age or over: Did you have any wartime service in the active military forces of Canada or allied countries? - Yes, in World War I or earlier wars - Yes, in World War II or in Korea - No wartime service

1. Question wording transcribed directly from the respective historical census questionnaires.

Sources: Statistics Canada, 1951, 1961 and 1971 censuses.

How has the concept changed for the 2021 Census?

The concept of military service needed to be adapted to reflect the current structure of the Canadian Armed Forces (CAF). In 1971, the roles of women in the CAF expanded after the review of the recommendations of the Royal Commission on the Status of Women, and employment opportunities have gradually expanded into non-traditional areas.² It is a goal of the CAF that, within the next few years, one-quarter of its currently serving members will be female.³

Due to the changing nature of the CAF, the concept of Canadian military experience was expanded for the 2021 Census to be inclusive of those who had previous service, as well as currently serving members, regardless of gender.

Collection and processing methods

The COVID-19 pandemic emerged in Canada in early 2020 and affected all steps of the 2021 Census process, from data collection to dissemination. Please refer to the [Guide to the Census of Population, 2021](#), Statistics Canada Catalogue no. 98-304-X for more detailed information on this topic.

Data quality

The 2021 Census of Population underwent a thorough data quality assessment. The different certification activities conducted to evaluate the quality of the 2021 Census data are described in [Chapter 9](#) of the *Guide to the Census of Population, 2021*, Statistics Canada Catalogue no. 98-304-X.

The data quality assessment was conducted in addition to the regular verifications and quality checks completed at key stages of the census. For example, throughout data collection and processing, the accuracy of specific steps such as data capture and coding was measured, the consistency of the responses provided was checked, and the non-response rates for each question were analyzed. As well, the quality of imputed responses was assessed during data editing and imputation.

2. [Women in the Canadian Armed Forces](#).

3. National Defence and the Canadian Armed Forces, [Women in the Canadian Armed Forces](#).

During the data quality assessment, a number of data quality indicators were produced and used to evaluate the quality of the data. These indicators are briefly described below. Finally, resulting census counts were compared with other data sources and certified for final release.

The main highlights of this assessment of the data pertaining to Canadian military experience are presented below.

Data quality indicators

A number of quality indicators were produced and analyzed during the 2021 Census of Population data quality assessment. Three indicators are available to data users for short-form content: the total non-response (TNR) rate, as well as the non-response rate and the imputation rate per question.

The **total non-response (TNR)** rate is the primary quality indicator that accompanies each disseminated 2021 Census of Population product, and is calculated for each geographic area. It measures total non-response at the dwelling level. Non-response is said to be total when no questionnaire is returned from a dwelling or when a returned questionnaire does not meet the minimum content. More information on the TNR rate is available in [Chapter 9](#) of the *Guide to the Census of Population, 2021*, Statistics Canada Catalogue no. 98-304-X.

Partial non-response is when answers to certain questions are not provided for a respondent household.

The **non-response rate per question** is a measure of missing information due to non-response to a question. For the short-form questionnaire, the non-response rate per question includes both TNR and partial non-response to the question.

It is defined as the total number of in-scope units for which no response was provided to the question, divided by the total number of in-scope units for the question. Here “units” refers to the statistical units for which data are collected or derived (e.g., persons or households, depending on whether the question is about a person-level characteristic or a household-level characteristic). A unit is considered to be in scope if it belongs to the census target population (i.e., private and collective dwellings occupied by usual residents) and if the question is applicable to that unit.

The **imputation rate per question** measures the extent to which responses to a given question were imputed. Imputation is used to replace missing data in the event of non-response or when a response is found to be invalid (e.g., multiple answers are provided when a single answer is expected). Imputation is conducted to eliminate data gaps and to reduce bias introduced by non-response. Imputation is generally done by identifying persons or households in the same geographical area with similar characteristics to the incomplete record and copying their values to fill in the missing or invalid responses.

The imputation rate per question is defined as the total number of in-scope units for which the response to that question was imputed, divided by the total number of in-scope units (see the definition of “units” provided in the above section on the non-response rate per question). For short-form content, imputation resolves both total and partial non-response (weighting is not done to adjust for total non-response, as it is for long-form content). Whole household imputation (WHI) is used to resolve total non-response. It first imputes the occupancy status of non-respondent dwellings and further imputes all the data for those dwellings resolved as occupied in the first step. WHI is included in the imputation rate per question, including the use of administrative data to impute non-responding households in areas with low response rates; see [Appendix 1.7](#) of the *Guide to the Census of Population, 2021*, Statistics Canada Catalogue no. 98-304-X. As with the non-response rate, a unit is considered to be in scope if the question is applicable to that unit and the unit belongs to the census target population.

The non-response and imputation rates for a question are often similar, but some differences can be observed for a given question because of additional data processing steps that may have been required. These rates were regularly checked during data assessment, and a detailed analysis was done if there was a difference between the two rates for a question, to ensure the appropriateness of the processing steps taken and the quality of the data.

A difference between the non-response rate and the imputation rate for a question can generally be explained by one of the following two factors:

- Some responses were considered invalid or inconsistent during the edit stage and imputation was needed, which is why the imputation rate is higher than the non-response rate for a question.
- Some non-responses were resolved in a straightforward manner early during data processing because a single resolution was possible based on the answers provided to other questions, making imputation unnecessary. This may explain why the non-response rate is higher than the imputation rate for a question.

Table 2 below presents the non-response rates and imputation rates for the Canadian military experience census question for Canada and for each province and territory.

The non-response and imputation rates per question at lower levels of geography are also available in 2021 Census data tables presenting data quality indicators. This information is scheduled for release on August 17, 2022 for short-form questions and on November 30, 2022 for long-form questions.

Certification of final counts

Once data editing and imputation were completed, the data were tabulated to represent the total Canadian population. Certification of the final counts was the last step in the validation process, which led to the recommendation to release the data for each level of geography and domain of interest. Based on the analysis of the data quality indicators and the comparison of the census counts with other data sources, the recommendation is for unconditional release, conditional release, or non-release (for quality reasons on rare occasions). For conditional release or non-release, appropriate notes and warnings are included in the products and provided to users. Moreover, other data sources were used to evaluate the census counts. However, since the risk of error often increases for lower levels of geography and for smaller populations, and the data sources used to evaluate these counts are less reliable or not available at these lower levels, it can be difficult to certify the counts at these levels.

Census counts are also subject to confidentiality rules that ensure non-disclosure of respondent identity and characteristics. For more information on privacy and confidentiality, please refer to [Chapter 1](#) of the *Guide to the Census of Population, 2021*, Statistics Canada Catalogue no. 98-304-X. For information on how Statistics Canada balances the protection of confidentiality and the need for disaggregated census data, with specific attention to new 2021 Census content, please refer to [Balancing the Protection of Confidentiality with the Needs for Disaggregated Census Data, Census of Population, 2021](#), Statistics Canada Catalogue no. 98-26-0005.

Data quality for Canadian military experience

The non-response and imputation rates for the Canadian military experience question in the 2021 Census are shown in Table 2. At the national level, the non-response rate for the Canadian military experience question was 4.9% and the imputation rate was 3.2%. Across the provinces, the imputation rate ranged from 2.6% in Prince Edward Island to 4.8% in Saskatchewan. It was higher in the territories, particularly in Nunavut (22.6%). In the territories, as well as in remote areas in the provinces, COVID-19 presented some challenges for conducting the Census of Population, including some that affected in-person enumeration such as travel restrictions and unavailability of local staff.

Two types of imputation are reflected in the imputation rate: total non-response (TNR) and question-level imputation as a result of non-response and invalid responses. At the national level, TNR accounted for 80.1% of all imputed records in 2021, and at the provincial and territorial level, it ranged from 56.0% in Yukon to 89.0% in the Northwest Territories.

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Table 2
Non-response rate and imputation rate for Canadian military experience, Census of Population, 2021

Geography	Non-response rate	Imputation rate
	percent	
Canada	4.9	3.2
Newfoundland and Labrador	4.3	3.1
Prince Edward Island	4.4	2.6
Nova Scotia	4.3	3.1
New Brunswick	5.1	3.5
Quebec	5.2	3.0
Ontario	4.2	2.8
Manitoba	6.0	4.1
Saskatchewan	6.7	4.8
Alberta	5.3	3.7
British Columbia	5.3	3.7
Yukon	7.9	6.7
Northwest Territories	10.2	8.5
Nunavut	23.4	22.6

Source: Statistics Canada, Census of Population, 2021.

The non-response rates for the military service data were higher for the population living in collective dwellings than for the population living in private households and overseas. The non-response rate for Question 11 for the population living in private households and overseas was 3.3%, compared with 80.0% for the population living in collective dwellings. As a result of higher non-response rates, users are advised to exercise caution when analyzing data for small geographic areas with large proportions of individuals living in collective dwellings.

For more information on collective dwellings refer to the [Guide to the Census of Population, 2021](#), Statistics Canada Catalogue no. 98-304-X and the [Type of Dwelling Reference Guide, 2021](#), Statistics Canada Catalogue no. 98-500-X Census of Population, 2021.

Comparability over time

Given that the question on Canadian military experience was added to the 2021 Census for the first time since 1971 with an expanded target population, there are no comparable previous census data.

Comparability with other data sources

As with all data sources produced by Statistics Canada, the quality of the 2021 Census Canadian military experience information was evaluated internally before publication. As part of this evaluation, the data were compared, to the extent possible, with other data sources. Many factors affect comparisons of data on currently serving members and Veterans across these data sources. Among other factors, comparability is affected by differences in target populations, reference period, sampling and collection methods, and approaches to data processing and methods.

Currently serving members

The primary source of information on the number of currently serving members of the Canadian Armed Forces is with Department of National Defence (DND). The census counted more currently serving members than reported in the *Canadian Armed Forces Employment Equity Report, 2020 - 2021*. According to the 2021 Census, 101,050 currently serving members were counted at the national level, with 97,625 living in private households. This accounted for 9.2% more currently serving members than reported by DND, with the highest differences observed in the territories, as shown in Table 3. A higher count of women and persons older than 50 years of age was also observed. For more information on the *Canadian Armed Forces Employment Equity Report, 2020 - 2021*, please contact information@forces.gc.ca.

Table 3
Number and distribution of currently serving members, 2021 Census of Population and Canadian Armed Forces Employment Equity Report, 2020 - 2021

Geography	2021 Census of Population		Canadian Armed Forces Employment Equity Report, 2020 - 2021	
	number	percent	number	percent
Canada	101,050	100.0	92,569	100.0
Newfoundland and Labrador	1,500	1.5	1,195	1.3
Prince Edward Island	305	0.3	240	0.3
Nova Scotia	9,950	9.8	8,453	9.1
New Brunswick	5,705	5.6	5,833	6.3
Quebec	20,325	20.1	16,092	17.4
Ontario	36,165	35.8	37,220	40.2
Manitoba	4,465	4.4	3,908	4.2
Saskatchewan	1,500	1.5	1,349	1.5
Alberta	10,870	10.8	9,672	10.4
British Columbia	9,730	9.6	8,332	9.0
Territories	535	0.5	275	0.3

Sources: Statistics Canada, Census of Population, 2021; Canadian Armed Forces Employment Equity Report, 2020 - 2021.

Other surveys, including the [Survey on Sexual Misconduct in the Canadian Armed Forces](#) (SSMCAF) and the [Canadian Housing Survey](#) (CHS), collect data on the currently serving population. Overall, 2021 Census data on currently serving members compared well with other data sources.

Veterans

The main source of data for comparison for the Canadian Veteran population are the estimates produced by Veterans Affairs Canada (VAC) in their yearly [Facts and Figures](#) report.

In 2021, the census counted 461,240 Veterans, providing a snapshot of the population at a specific moment in time (May 11, 2021). The 2021 Census counts are lower than the modelled estimates produced by VAC. Census information is mainly collected through self-enumeration, which is a different method than the mathematical modelling employed by VAC.

As a result of these lower estimates in the 2021 Census, users are encouraged to use distributions rather than counts to provide a portrait of sociocultural, economic, household and family characteristics to gain more insight and understanding of the Canadian Veteran population to inform policies and programs. For example, analyzing the percentage of the Veteran population by age or gender is considered a best practice, while analysis of the total number of Veterans in these groups is not recommended until the data can be better reconciled with the estimates from VAC at a later date. For more details, please refer to the summary technical report, [Veterans data in the 2021 Census of Population](#).

Together, Statistics Canada and VAC are working with partners and stakeholders to build a stronger data ecosystem to fill information gaps for the Veteran population. The 2021 Census is one step on this journey, where information from a variety of sources is gathered and different methods are used to better understand Canadian Veterans and their families.