Census of Population, 2021



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Introduction

The Census of Population covers all people who usually live in Canada. It includes people who live on First Nations reserves and settlements, people who live in Inuit communities, permanent residents, and non-permanent residents—such as refugee claimants, holders of work or study permits, and family members living with work or study permit holders.¹

The *Indigenous Peoples Technical Report, Census of Population, 2021* aims to inform users of the conceptual framework and definitions used to gather the 2021 Census data on Indigenous peoples, how the data were collected, the products used to disseminate the information, and the relevant data quality aspects.

<u>Chapter 1</u> describes the various concepts and variables that can be used to describe the Indigenous population. <u>Chapter 2</u> and <u>Chapter 3</u> describe the data collection and data processing procedures. Confidentiality and data quality are discussed in <u>Chapter 4</u>. <u>Chapter 5</u> discusses data comparability over time and with other data sources. <u>Chapter 6</u> presents some final remarks about data comparability and data quality for the 2021 Census data on Indigenous peoples.

^{1.} For more information on the census target population, refer to the *Guide to the Census of Population, 2021*, Statistics Canada Catalogue no. 98-304-X.

1. Concepts and variables

There are various concepts available related to the Indigenous population using data from the 2021 Census of Population, depending on the data user's focus and requirements. The following variables are available from the survey and are defined in the *Dictionary, Census of Population, 2021*, Statistics Canada Catalogue no. 98-301-X:

- Indigenous identity
- Indigenous group
- Registered or Treaty Indian status
- Membership in a First Nation or Indian band
- Membership in a Métis organization or Settlement
- Enrollment under an Inuit land claims agreement
- Indigenous ancestry.

The population estimates for Canada from the 2021 Census using the different concepts are shown below.

Table 1

Estimates for Indigenous identity, Indigenous group, Registered or Treaty Indian status, membership in a First Nation or Indian band, membership in a Métis organization or Settlement, enrollment under an Inuit land claims agreement, and Indigenous ancestry, 2021 Census

Concept	2021 Census of Population estimate ¹
Indigenous identity ²	1,807,250
Indigenous group	1,772,025
Registered or Treaty Indian status	831,720
Membership in a First Nation or Indian band	790,865
Membership in a Métis organization or Settlement	224,655
Enrollment under an Inuit land claims agreement	60,865
Indigenous ancestry ³	2,204,480

1. Random rounding and percentage distributions: To ensure the confidentiality of responses collected for the 2021 Census of Population while maintaining the quality of the results, a random rounding process is used to alter the values reported in individual cells. As a result, when these data are summed or grouped, the total value may not match the sum of the individual values because the total and subtotals are rounded independently. Similarly, percentage distributions, which are calculated on rounded data, may not necessarily add up to 100%. Because of random rounding, estimates and percentages may vary slightly between different 2021 Census products, such as the analytical documents and various data tables.

2. "Indigenous identity" refers to whether the person identified with the Indigenous peoples of Canada. This includes those who identify as First Nations (North American Indian), Métis and/or Inuk (Inuit), and/or those who report being Registered or Treaty Indians (that is, registered under the *Indian Act* of Canada), and/or those who have membership in a First Nation or Indian band. Aboriginal peoples of Canada (referred to here as Indigenous peoples) are defined in the *Constitution Act, 1982*, Section 35 (2) as including the Indian, Inuit and Métis peoples of Canada.

3. People with Indigenous ancestry included at least one origin that can be classified as First Nations (North American Indian), Métis or Inuit ancestry in their response to Question 23, with or without also reporting a non-Indigenous ancestry. **Source:** Statistics Canada, Census of Population, 2021.

Specific legally defined geographic regions are often important to users of Indigenous data. The following variables—as defined in the *Dictionary, Census of Population, 2021*, Statistics Canada Catalogue no. 98-301-X—are available from the survey:

- Residence on or off reserve
- Residence inside or outside Inuit Nunangat.

The data collected in the Census of Population are used by governments, including Indigenous governments and organizations, to develop programs and services for Indigenous peoples.

It is possible to derive other concepts related to the Indigenous population by using different combinations of the census questions. For example, in the 2021 Census long-form (2A-L) questionnaire, the information from Question 24 on Indigenous groups and Question 26 on Registered or Treaty Indian status can be used to derive the First Nations (North American Indian) identity population with Registered or Treaty Indian status.

Other examples include:

- the First Nations (North American Indian) identity population without Registered or Treaty Indian status (non-status)
- the First Nations (North American Indian) identity population with First Nation band membership
- the Registered or Treaty Indian population with Indian band membership.

Other combinations of Indigenous variables that correspond to users' data needs and purposes are also possible.

2. Data collection

The 2021 Census was conducted in May 2021. Most households (75%) received the short-form questionnaire, while one in four households (25%) received the long-form questionnaire.

In 2021, census short-form information was collected for the usual residents of institutional collective dwellings. Census short-form information was also collected for Canadian government employees (federal and provincial), members of the Canadian Armed Forces, and their families who were temporarily overseas at the time of the census.

Indigenous people living in collective dwellings or institutions, and outside Canada, received a short-form questionnaire; the short-form questionnaire did not include questions that allowed for the identification of the Indigenous population. People who were homeless and not living in a shelter on Census Day were less likely to be enumerated.

In 2016, some northern and remote areas of Canada were enumerated before Census Day and referred to as early enumeration. In 2021, early enumeration was cancelled to provide additional time to prepare for data collection in the context of the COVID-19 pandemic.

For more information about the reference date and the census collection, refer to the <u>Guide to the Census of</u> <u>Population, 2021</u>, Statistics Canada Catalogue no. 98-304-X.

2.1 Collection methods

Respondents living outside First Nations reserves and settlements, Métis settlements, or Inuit and remote communities received a letter either by mail or dropped at their door by a census employee inviting them to complete the questionnaire online. Paper questionnaires were available upon request, using a toll-free number.

One in four private dwellings received the long-form questionnaire (2A-L), while three in four dwellings received a short-form questionnaire (2A). Residents who wanted to be enumerated separately were able to fill out their own form by requesting a short-form questionnaire for individuals (3A).

Traditionally, dwellings located in First Nations communities, Métis settlements, Inuit regions and other remote areas are enumerated in person using canvasser methods. However, for the first time, in 2021, First Nations communities, Métis settlements, Inuit regions and other remote areas were offered the opportunity to self-respond, provided it was operationally feasible (i.e., Internet was accessible in the community). All households (100%) were invited to complete a long-form questionnaire (2A-R). Depending on the situation, an invitation letter was mailed or dropped at their door (with minor changes, e.g., the paper questionnaire option was not offered). Non-response follow-up was conducted from May 14 to September 24, 2021. Households in areas where it was not operationally feasible to offer self-response completed their census questionnaire with a census employee (in person or over the phone).

In light of the COVID-19 pandemic, Statistics Canada hired an additional 15 Indigenous Liaison Advisors for an Indigenous Engagement Task Force to bolster engagement efforts with Indigenous and northern communities for the 2021 Census. For enumeration on First Nations reserves and settlements, the chief and council were contacted before collection to obtain permission to conduct the 2021 Census.

2.2 Census response rates (final)

The 2021 Census response rate was 96.9% at the Canada level, but varied by province and territory for all occupied private and collective dwellings for which a questionnaire was to be received. The highest response rate was 97.6% in Prince Edward Island, and the lowest response rate was 79.8% in Nunavut (refer to <u>Table 9.1</u> for response rates by province and territory). For more information on response rates, including weighted response rates, see the *Guide to the Census of Population, 2021*, Statistics Canada Catalogue no. 98-304-X.

2.3 Questionnaires and instruction guides

Most census data are collected using the <u>census short-form questionnaire</u> or the <u>census long-form questionnaire</u>. The census short-form questionnaire is the primary source of exhaustive demographic data in Canada. Complementing the data collected by the short-form questionnaire, the long-form questionnaire is designed to provide information about people in Canada based on their demographic, social and economic characteristics.

The <u>2A-L</u> questionnaire focused on a variety of topics, including Indigenous ancestry, Indigenous identity, First Nation or Indian band membership, and Registered or Treaty Indian status. It was used to enumerate private dwellings in mail-out and list/leave areas.

The <u>2A-R</u> questionnaire was used to enumerate First Nations reserves and settlements, Métis settlements, and Inuit and remote communities. In 2021, there were some areas where non-Indigenous households were on leased Indigenous land; these households did not receive the 2A-R questionnaire. The 2A-R questionnaire contained the same questions from the 2A-L questionnaire, but examples were adapted for First Nations communities, Métis settlements, Inuit regions and other remote areas. Also, in the 2A-R questionnaire, there were two additional questions on band housing, and people living on First Nations reserves or settlements were instructed to skip questions on citizenship, landed immigrant status and year of immigration.

Refer to the <u>questionnaire(s)</u> and reporting <u>guide(s)</u> for 2021 for more information.

2.3.1 Questionnaire languages

In addition to English and French, the 2021 Census questions and the explanations of why the questions were asked were available in 13 Indigenous languages, as well as 12 additional non-official languages, braille, audio and sign language video formats. It is important to note that the questions were translated for reference purposes only—the census questionnaire had to be completed in either English or French.

The 2021 Census questions were translated into the following Indigenous languages:

- Atikamekw
- Northern Quebec Cree
- Denesuline (Chipewyan)
- Oji-Cree
- Tlicho
- Ojibway
- Inuktitut (Nunavik)
- Plains Cree
- Inuktitut (Nunavut)
- Swampy Cree
- Montagnais
- Naskapi
- Mohawk.

3. Data processing

The processing phase of the 2021 Census began with the translation of responses into meaningful data. This part of the survey cycle was divided into six main activities:

- 1. receipt and registration
- 2. imaging and data capture
- 3. edits
- 4. coding
- 5. edit and imputation
- 6. weighting.

For general information regarding data processing, please refer to the <u>*Guide to the Census of Population, 2021*</u>, Statistics Canada Catalogue no. 98-304-X.

3.1 Coding of Indigenous write-in questions

Write-in responses to the question on membership in a First Nation or Indian band were coded to a list of over 600 First Nations and Indian bands. Automated coding was used to code 82.8% of responses. The remaining responses were coded with a machine learning model and reviewed by subject-matter experts using an interactive application. This application contained several reference files, including a file with different spellings of First Nation names and their corresponding codes, and a file with geographic codes for reserves, the names of those reserves and the names of First Nations affiliated with those reserves.

In 2021, new questions on membership in a Métis organization or Settlement and enrollment under an Inuit land claims agreement were added to the census questionnaire, which each had a write-in box as a possible response. A similar process using automated coding, a machine learning model and subject-matter expert review was used. Although no additional dissemination categories were created from the write-in responses to the question on enrollment under an Inuit land claims agreement, responses were coded before moving forward in production and included write-in responses that were associated with the checkbox options within the question.

3.1.1 Edit and imputation of Indigenous variables

After the data capture and initial editing and coding operations were completed, the data were processed up to the final edit and imputation stage. This final edit stage detected invalid responses and inconsistencies and identified unanswered questions. Imputation replaced missing, invalid or inconsistent responses with plausible values. When carried out properly, imputation can improve data quality by replacing non-responses with plausible responses that are similar to those the respondents would have given if they had answered the questions. Imputation also has the advantage of producing a complete dataset.

The nearest-neighbour-donor method was used to impute census data. This method is widely used in the treatment of item non-response. This method replaces missing, invalid or inconsistent information about one respondent with values from a similar respondent. The rules for identifying the respondent most similar to the non-respondent may vary depending on the variables to be imputed. Donor imputation methods have good properties and generally will not alter the distribution of the data, unlike many other imputation techniques. Nearest-neighbour imputation ensures data consistency (see <u>Chapter 8</u> of the *Guide to the Census of Population, 2021,* Statistics Canada Catalogue no. 98-304-X).

In 2021, the following variables were processed together, and interrelations between them were clearly defined in advance: ethnic origin or Indigenous ancestry, population group or visible minority, Indigenous group, Registered or Treaty Indian status, membership in a First Nation or Indian band, membership in a Métis organization or Settlement, and enrollment under an Inuit land claims agreement. As much as possible, donor imputation for missing information within these variables was done with one donor for all variables. This reduces the chance of inconsistent information being imputed across these variables from multiple donors.

Non-response rates and imputation rates at the question level can be found in the <u>Indigenous Peoples Reference</u> <u>Guide, Census of Population, 2021</u>, Statistics Canada Catalogue no. 98-500-X. Quality indicators at the question level are also available online for various levels of geography including census subdivisions: <u>Data quality tables</u>, <u>2021 Census of Population</u>.

3.2 Weighting

Weighting was done to ensure that results were representative of the entire population. Therefore, each household was given a sample weight equivalent to the inverse of its probability of selection in the sample. In collection units (CUs) in First Nations communities, Métis settlements, Inuit regions and other remote areas where 100% of the households were asked to complete a long-form questionnaire, this weight is equal to 1, and in other types of CUs, it is equal to 4.

In the CUs of First Nations communities, Métis settlements, Inuit regions and other remote areas, total non-response to the long-form questionnaire is compensated for through imputation. Data for households that did not respond to any questions are imputed using data from a respondent household. All private households in these CUs that were not part of incompletely enumerated reserves and settlements kept their sampling weight of 1 for estimation purposes.

In other types of CUs, several adjustments were made to the weight to process total non-response to the long-form questionnaire, and a different imputation method was used.

Further information regarding weighting can be found in <u>Chapter 12</u> of the *Guide to the Census of Population, 2021,* Statistics Canada Catalogue no. 98-304-X.

4. Data quality assessment and indicators

The objective of the data quality assessment was to evaluate the overall quality of survey data to improve understanding of how and where errors occur, and to inform users of the reliability of the data. For detailed information on the overall quality of the 2021 Census data, see <u>Chapter 9</u> of the *Guide to the Census of Population, 2021,* Statistics Canada Catalogue no. 98-304-X.

4.1 Data suppression related to confidentiality and data quality

Census data are also subjected to a variety of automated and manual processes to determine whether the data need to be suppressed to maintain confidentiality (nondisclosure).

To give a quick overview of data quality associated to a geographic area, a five-digit numeric code representing five data quality indicators is attached to each standard geographic area in the census database environment. It can be used to identify regions for which data was suppressed for specific reasons and to get information about the level of total non-response in the area. The five-digit numeric code and its components are further described in <u>Section 4</u> of the *2021 Census Data Quality Guidelines,* Statistics Canada Catalogue no. 98-26-0006.

4.1.1 Random rounding

All counts in census tabulations undergo random rounding, a process that transforms all raw counts into randomly rounded counts. This reduces the possibility of individuals being identified in the tabulations.

Further information regarding data suppression can be found in the *Guide to the Census of Population, 2021*, Statistics Canada Catalogue no. 98-304-X.

4.1.2 Total non-response rates

Total non-response occurs when all questions are unanswered for a dwelling that received a questionnaire or when a returned questionnaire does not meet the minimum content (i.e., information is not sufficient to continue processing). It is measured by the total non-response (TNR) rate, which is the primary quality indicator that accompanies each disseminated output from the 2021 Census of Population. In this sense, it replaces the global non-response rate (GNR), which was used for the 2016 Census of Population and for previous cycles. The GNR combined total and partial non-response, while the TNR rate considers only total non-response. Partial non-response is considered separately. This new approach provides detailed information on data quality.

A lower TNR rate indicates a lower risk of non-response bias and, therefore, more reliable figures and estimates. To maximize the amount of information disseminated, no data suppression based on non-response was done for the 2021 Census. However, data for regions with a high TNR rate must be used with caution. A warning about this accompanies data products for which the TNR rate is above 50%. More information about TNR rates and other data quality indicators can be found in the <u>2021 Census Data Quality Guidelines</u>, Statistics Canada Catalogue no. 98-26-0006.

TNR rates for the population living on reserve and in Inuit Nunangat can be found in the <u>Indigenous Peoples</u> <u>Reference Guide, Census of Population, 2021</u>, Statistics Canada Catalogue no. 98-500-X. Total non-response rates for the 2021 Census of Population are available online for various levels of geography including census subdivisions: <u>Data quality tables, 2021 Census of Population</u>.

4.1.3 Other occurrences when data are suppressed or not available

In addition to being suppressed for confidentiality, data may also be suppressed or unavailable for reasons related to data collection.

4.1.3.1 Suppression of citizenship, landed immigrant status and period of immigration data— First Nations reserve 2A-R suppression

Data suppression also occurs when certain questions are not asked of all respondents. People living on First Nations reserves and settlements (i.e., people living on reserve based on <u>residence on or off reserve</u>) who were enumerated with the 2021 Census of Population <u>2A-R</u> questionnaire were not asked the questions on citizenship. Consequently, citizenship, immigrant status, year of immigration, admission category, applicant type, year of arrival, province or territory of intended destination and pre-admission experience data are not available for reserves and settlements at the census subdivision level. However, citizenship and immigration data are included in the totals for geographic areas, such as census divisions and provinces.

4.1.3.2 Incompletely enumerated areas

In 2021, a total of 63 reserves and settlements were reported as "incompletely enumerated" in the Census of Population. For more information, see <u>Appendix 1.5 – Incompletely enumerated reserves and settlements</u> in the *Guide to the Census of Population, 2021,* Statistics Canada Catalogue no. 98-304-X.

4.1.3.3 Availability of census data for communities (census subdivisions)

Table 2 shows the number of census subdivisions (CSDs) by type of data suppression and data availability. Of the total 5,161 CSDs in Canada, 267 had no population, and 63 were incompletely enumerated reserves and settlements. There were 4,831 populated CSDs, and, of these, 314 CSDs were excluded because they had a population greater than 0, but less than 40. Data are available for 4,517 CSDs.

Table 2

Census subdivisions, by type of long-form questionnaire data suppression and data availability, Canada, provinces and territories, 2021 Census

Number of CSDs	Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.
Total CSDs	5,161	372	98	95	266	1,282	577
Total CSDs with no population	267	10		3	2	93	13
Total incompletely enumerated reserves (CSDs)	63					8	13
Total CSDs with population	4,831	362	98	92	264	1,181	551
Excluded CSDs (CSDs with a population of fewer							
than 40 people but more than 0)	314	12	1	8	6	19	12
CSDs with available data	4,517	350	97	84	258	1,162	539
Number of CSDs	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Total CSDs	239	951	423	751	35	41	31
Total CSDs with no population	8	48	8	70	3	4	5
Total incompletely enumerated reserves (CSDs)	10	1	8	23			
Total CSDs with population	221	902	407	658	32	37	26
Excluded CSDs (CSDs with a population of fewer							
than 40 people but more than 0)	8	88	23	122	10	4	1
CSDs with available data	213	814	384	536	22	33	25

... not applicable

CSDs = census subdivisions

Source: Statistics Canada, Census of Population, 2021.

4.1.3.4 Availability of census data for on-reserve communities (census subdivisions)

The 2021 Census on-reserve area of residence comprised a total of 1,026 CSDs, including 137 uninhabited CSDs, 63 incompletely enumerated reserves and settlements, and 826 inhabited CSDs. Among the 826 inhabited CSDs, 197 were suppressed because they had a population greater than 0 but less than 40. Table 3 shows the number of on-reserve communities (CSDs) for which census data are published.

Table 3

On-reserve census subdivisions, by type of long-form questionnaire data suppression and data availability, Canada, provinces and territories, 2021 Census

Number of on reserve CSDs	Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.
Total CSDs	1,026	3	4	27	20	42	147
Total CSDs with no population	137		3				10
Total incompletely enumerated reserves (CSDs)	63					8	13
Total CSDs with population	826	3	1	27	20	34	124
Excluded CSDs (CSDs with a population of fewer							
than 40 people but more than 0)	197		1	8	5	2	10
CSDs with available data	629	3	3	16	15	32	114
Number of on reserve CSDs	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Total CSDs	04					-	
	91	173	86	431		2	
Total CSDs with no population	<u>91</u> 6	173 44	86 5	431 69		<u>2</u> 	
Total CSDs with no population	6	44	5	69			
Total CSDs with no population Total incompletely enumerated reserves (CSDs)	6 10	44 1	5	69 23			
Total CSDs with no population Total incompletely enumerated reserves (CSDs) Total CSDs with population	6 10	44 1	5	69 23			

... not applicable

CSDs = census subdivisions

Source: Statistics Canada, Census of Population, 2021.

4.2 Coverage

There are two types of coverage errors: population undercoverage and population overcoverage. **Population undercoverage** refers to the error of excluding someone who should have been enumerated. **Population overcoverage** refers to the error of either enumerating someone more than once or including someone who should not have been enumerated. Previous studies have shown that the error of enumerating people who should not have been enumerated is small compared with multiple enumerations in the Canadian census; consequently, that error is ignored.

Undercoverage is generally more common than overcoverage. The net impact of undercoverage and overcoverage on the size of a population of interest is **population net undercoverage**. Net undercoverage is calculated as the number of people excluded who should have been enumerated (undercoverage) minus the number of excess enumerations of people enumerated more than once (overcoverage). **Census net population undercoverage**, the net of undercoverage and overcoverage, quantifies the net number of people missed by the census.

This section presents estimates of **census net population undercoverage** for the 2021 Census for people residing on reserves and settlements, including people without Indigenous identity. These estimates are presented separately for reserves and settlements for which enumeration was either not completed or not performed at all (incompletely enumerated reserves and settlements), and for all others (participating reserves and settlements).

Coverage errors generally occur during the field collection stage of the census. Examples of undercoverage and overcoverage follow:

Examples of undercoverage

- 1. A questionnaire was returned, but someone who lived there was not included.
- 2. The dwelling never received a questionnaire.
- 3. People residing at more than one address were missed at both addresses because of uncertainty about their main address.
- 4. People who did not reside at a fixed address were missed by the census.

Examples of overcoverage

- 1. Children whose parents live in separate households were included in both parents' questionnaires.
- 2. Young adults who were newly away from home, perhaps searching for work or attending a postsecondary institution, were listed at their new residence and at their parents' home.
- 3. People whose employment required them to live away from home were listed at both locations.
- 4. People in institutions were also listed by their families as living at home.

4.2.1 Data sources

The estimates of the 2021 Census of Population coverage errors are derived from 2021 Census data and the results of two studies—the Census Undercoverage Study (CUS), formerly known as the Reverse Record Check until the 2016 Census cycle, and the Census Overcoverage Study (COS). The CUS measures population undercoverage, while the COS measures population overcoverage.

In the CUS, a random sample of individuals representing the census target population was taken from frames independent of the 2021 Census. The 2021 Census database was searched to determine whether these people were enumerated. When required, an interview (usually by telephone) was conducted to collect further information to determine whether the individual was in scope or out of scope for the census and, when in scope, to gather further data to ascertain that individual's coverage status.

Overcoverage was measured by matching the 2021 Census database to a list constructed from administrative data sources of people who should have been enumerated, and by matching the 2021 Census database to itself. The COS used probabilistic and deterministic record linkage methods to identify close or exact matches to create a sampling frame of potential duplicates on the 2021 Census database. Pairs of potential duplicates were sampled, and a manual verification was completed using names, demographic characteristics, household composition and relationships to identify the true cases of duplication.

For more information on 2021 Census population coverage errors, refer to *The Daily*.

4.2.2 Net undercoverage error for participating reserves

<u>Table 4</u> provides estimates of 2021 Census net undercoverage for people living on participating reserves in Canada and in each province and territory. The split between people with Indigenous identity and people without Indigenous identity is not available. The census net undercoverage rate indicates what proportion of the entire population is missing from the 2021 Census tabulations. Negative estimates mean that the estimates of overcoverage were higher than the estimates of undercoverage. This may also be caused by a high number of imputed people on reserves in the province or territory when whole household imputation was conducted to compensate for unresolved dwellings.

Table 4

The 2021 Census population net undercoverage for participating reserves and settlements, Canada, provinces and territories

		Census net undercoverage			e
Provinces and territories	Census count	estimated number	standard error	estimated rate (%)	standard error (%)
Canada	367,596	22,857	7,299	5.85	1.76
Newfoundland and Labrador	3,033	-259	217	-9.34	8.57
Prince Edward Island	609	49	70	7.45	9.84
Nova Scotia	12,731	-42	395	-0.33	3.13
New Brunswick	8,936	1,201	750	11.85	6.52
Quebec	40,523	1,242	1,872	2.97	4.35
Ontario	46,755	748	3,120	1.57	6.46
Manitoba	62,596	5,878	2,667	8.58	3.56
Saskatchewan	55,872	3,260	1,743	5.51	2.79
Alberta	44,829	-133	2,856	-0.30	6.41
British Columbia	91,447	10,914	4,666	10.66	4.07
Yukon	0	0	0	0.00	0.00
Northwest Territories	265	-2	23	-0.76	8.79
Nunavut	0	0	0	0.00	0.00

Sources: Statistics Canada, Census of Population, 2021; Census Undercoverage Study, 2021; and Census Overcoverage Study, 2021.

Fourteen returning reserves in 2016 (did not participate in the 2011 Census but participated in the 2016 Census) were excluded from the 2021 CUS frames because of their weak coverage on the 2016 Census Response Database and 2016 CUS missed frame. There were 2 of these reserves in Quebec, 11 in Ontario and 1 in Manitoba. The majority of the population on these reserves was not covered by the sampling frames used to select the 2021 CUS sample. Three of these 14 reserves were not participating reserves in the 2021 Census.

The CUS could not estimate the undercoverage for those 14 returning reserves. This situation was not new to the CUS. For this reason, the 14 returning reserves were excluded from the CUS census undercoverage estimate and from the census counts presented in the previous table.

The population overcoverage estimate for a particular geography, such as participating reserves and settlements, includes people who appear on questionnaires for two dwellings where at least one of the dwellings is on a reserve. The other dwelling may be on the same reserve, on a different reserve or not on a reserve. Since the COS does not determine in which dwelling an individual should have been listed, it is assumed that it is equally likely that the individual should have been listed at the first dwelling as at the second dwelling. Therefore, to produce overcoverage estimates, half of the weight for the person is assigned to each dwelling. This concept is important for small domains like the on-reserve population. About 64% of overcoverage cases involving an on-reserve dwelling also involved a dwelling off reserve.

4.2.3 Coverage error for incompletely enumerated reserves and settlements

As noted earlier, some reserves and settlements did not participate in the census because enumeration was not permitted or was interrupted before completion. Moreover, health and safety restrictions put in place to slow the spread of COVID-19 and natural events (including evacuations because of forest fires) contributed to the incomplete enumeration of many reserves and settlements. In 2021, 63 reserves and settlements were incompletely enumerated in the census. For these reserves, census data are not available and therefore have not been included in any census tabulation.

These areas present unique problems for the coverage studies and for the Demographic Estimates Program (DEP). Incompletely enumerated reserves and settlements are out of scope for the census coverage studies.

However, the DEP requires an estimate of the number of usual residents living in these 63 incompletely enumerated reserves and settlements. Because neither the census nor the coverage studies are in a position to produce an estimate of the population living in these areas, a model-based methodology was used for these reserves. The resulting estimates should be used with caution since they are based entirely on a model. The national model results are presented in Table 5.

Table 5

Model-estimated counts for incompletely enumerated reserves and settlements, Canada, 2006, 2011, 2016 and 2021

Estimated counts	Canada
2006 estimate of the IERS population	40,115
2011 estimate of the IERS population	37,392
2016 estimate of the IERS population	27,790
2021 estimate of the IERS population	58,480
2021 estimated census population count	55,247
2021 estimated census net undercoverage	3,233

IERS = incompletely enumerated reserves and settlements

Sources: Statistics Canada, Census of Population, 2006, 2011, 2016 and 2021.

In the 2021 Census, 63 reserves and settlements, with an estimated 58,480 people, were classified as incompletely enumerated. The 2021 estimates of that population were approximately twice as high as the 2016 estimates.

4.2.3.1 Estimation model

A two-step estimation model was developed to estimate the population.

The first step used a simple linear regression to predict the census count in 2021 for the 63 reserves where no data were collected. The linear regression was constructed using all reserves and settlements that were completely enumerated in both the 2016 and the 2021 censuses. The model assumed a linear growth from 2016 to 2021 for all provinces, with separate estimates for the regression parameters for each province. The model was evaluated for the basic regression assumptions of independence of errors, homogeneity of variances and normality of errors.

For each incompletely enumerated reserve or settlement, the input variable for the regression model was either the actual census count in 2016 or the best predicted census count from the 2016 model. The output of the model was the estimated census count in 2021.

The second step was to adjust the estimated census counts to take net undercoverage into account. Net undercoverage for incompletely enumerated reserves and settlements was estimated by calculating the national net undercoverage rate for all completely enumerated reserves and settlements, and then applying that rate to the estimated census count of each incompletely enumerated reserve or settlement.

5. Comparability

5.1 Historical comparability

The counts for Indigenous groups, the Registered or Treaty Indian status group, and First Nation or Indian band membership may change over time for a number of reasons. The change (increase or decrease) in the number of people reporting an Indigenous group, Registered or Treaty Indian status, or First Nation or Indian band membership is partly caused by demographic growth, and partly caused by changes in reporting patterns between Indigenous groups and between Indigenous and non-Indigenous populations.

Changes in Indigenous counts over time can also be affected by differences in the wording and format of Indigenous questions, legislative changes, differences in the set of incompletely enumerated reserves and settlements, and changes made to the definition of reserves.

The counts for the Indigenous variables may also change as a result of methodology differences and changes between the 2021 Census, the 2016 Census, the 2011 National Household Survey, and the 2006 and 2001 censuses (changes related to weighting and calibration, changes to the universe, etc.).

The counts for membership in a Métis organization or Settlement and enrollment under an Inuit land claims agreement are included for the first time in the 2021 Census.

5.1.1 Differences in the wording and format of Indigenous questions

The questions that appeared on the 2016 Census regarding Indigenous group, Registered or Treaty Indian status, membership in a First Nation or Indian band, and Indigenous ancestry have been retained for the 2021 Census, with a modification to the wording of the Indigenous group question (Question 24). In Question 24 (Indigenous group), the term "Aboriginal" has been removed from the question and answer category and a distinctions-based approach was used, referencing Indigenous peoples as First Nations (North American Indian), Métis and Inuk (Inuit).

Changes to the question for Indigenous ancestry—Question 23 (ethnic or cultural origin)—are detailed in the *Ethnic or Cultural Origin Reference Guide, Census of Population, 2021*, Statistics Canada Catalogue no. 98-500-X.

Two new questions were added to the 2021 Census to collect information on membership in a Métis organization or Settlement (Question 28) and enrollment under an Inuit land claims agreement (Question 29).

To see how questions regarding the Indigenous population have changed over time, see the following:

- 2021 Census
 - <u>2A-L</u> questionnaire
 - 2A-R questionnaire
- 2016 Census
 - <u>2A-L</u> questionnaire
 - 2A-R questionnaire
- 2011 National Household Survey
 - <u>N1</u> questionnaire
 - <u>N2</u> questionnaire.

5.1.2 Legislative changes

Changes to Canada's laws as they pertain to Indigenous peoples may affect how Canadians respond to the questions to identify Indigenous people. For example, in September 2011, the Government of Canada, by order in council, recognized the Qalipu Mi'kmaq First Nation in Newfoundland and Labrador under the *Indian Act*.

The number of Registered or Treaty Indians living in Newfoundland and Labrador grew from 6,600, according to the 2006 Census, to 21,155, according to the 2016 Census. Relevant legislation includes Bill C-31 in 1985, Bill C-3 in 2011 and Bill S-3 in 2017.

5.1.3 Response mobility

In addition to the factors listed above, some people report their Indigenous identity or ancestry differently from one data collection period to another, for a variety of reasons. Response mobility is the movement of responses from one category to another, such as "No, not First Nations, Métis or Inuk (Inuit)," to "Yes, Métis." Response mobility has a greater impact on estimates for First Nations and Métis populations than on estimates for the Inuit population. Changing attitudes about Indigenous identity, judicial decisions or anticipated legal changes, the social climate, and other factors may influence how people identify themselves.

5.1.4 Other factors that affect responses to the Indigenous questions

In summary, population estimates for concepts such as Indigenous identity and Registered or Treaty Indian status are influenced by numerous factors. Users should be aware that point estimates and changes over time are influenced by a combination of natural growth, changes to coverage and measurement, and other factors that affect how people self-identify. It is not possible to quantify the impact these changes have in isolation from each other.

5.1.5 Differences in the list of incompletely enumerated reserves and settlements

In 2021, 63 reserves and settlements were incompletely enumerated in the census. Incompletely enumerated reserves and settlements have an impact on census estimates for the First Nations population living on reserve and for the Registered or Treaty Indian population living on reserve. Estimates for other populations could also be affected, including the total Indigenous identity population, the First Nations (North American Indian) identity population, the total Indigenous ancestry population, the First Nations (North American Indian) ancestry population, the Registered or Treaty Indian population, the population who reported membership in a First Nation or Indian band, and the population living on First Nations reserves and settlements.

Estimates associated with other variables related to First Nations, such as language and band housing, may also be affected by the incomplete enumeration of certain reserves and settlements in the census. This issue does not have an impact on the estimates for the Inuit or Métis populations since those populations are much less likely to live on reserves.

The impact of the exclusion of incompletely enumerated reserves and settlements can vary, depending on the geographic area under study. The impact is lower for higher geographic areas, such as Canada, the provinces and the territories, and may be more significant for lower geographic areas.

5.1.6 Changes made to the census subdivision types associated with the "residence on reserve" population

From time to time, changes are made to the geographies that are used to define "<u>residence on or off reserve</u>" (see the <u>census subdivision [CSD]</u> definition in the <u>Dictionary, Census of Population, 2021</u>, Statistics Canada Catalogue no. 98-301-X). In 2006, there were 1,174 on-reserve CSDs; in 2011, there were 997; in 2016, there were 984; and, in 2021, there were 1,026. These changes could be the result of additions, deletions, boundary changes or amalgamations. Additionally, only reserves that have a population are recognized as individual CSDs.

5.1.7 Comparability of population and dwelling counts over time

In 2016 and 2006, dwellings on reserves for which the occupancy status could not be verified or determined during collection were mostly assumed to be unoccupied. In 2011, dwellings for which the occupancy status could not be verified or determined were mostly assumed to be occupied. Actual occupancy for these dwellings was unknown, and the assumptions made during collection may reflect the actual situation across reserves with different degrees of accuracy.

In 2021, a manual intervention step was added, allowing the number of dwellings on reserves for which occupancy status could not be determined during collection to be reviewed by Statistics Canada subject-matter experts. These dwellings were assumed to be unoccupied unless subject-matter experts provided a number of dwellings in a given community that should be assumed to be occupied. This change to the methodology was recommended as an improvement.

This difference in methodology does not affect the comparability of counts over different censuses for all reserves. It might have an impact when comparing counts for reserves that had a significant number of dwellings with unknown occupancy status at a given point.

When changes in population and dwelling counts are analyzed over time, it is recommended that multiple reference years be included, especially for smaller geographic areas. Smaller population counts may be more affected by non-response. The methodology for the 2016 Census is comparable to that employed for the 2006 Census. Therefore, comparisons between the 2006 Census and the 2016 Census are not affected by this difference in methodology.

After the release of census population and dwelling counts, issues affecting the data are occasionally uncovered through the formal review process. For any changes made as a result of a formal review to 2021 counts, refer to <u>Population and dwelling count amendments, 2021 Census</u>. For more information on formal reviews, refer to Statistics Canada's Policy on response to formal review requests of 2021 Census population and dwelling counts.

5.1.8 Comparability with the Indian Register

The 2021 Census, previous censuses and the Indian Register maintained by Indigenous Services Canada (ISC) are the principal sources of demographic data on the Registered or Status Indian population.

The censuses are snapshots of the population that self-identifies as Registered or Treaty Indians at a particular time, while the Indian Register is a continuous statutory administrative file based on the registration of individuals who meet specific criteria, as defined by the *Indian Act*.

The census estimate is affected by the undercounting of Registered Indians living on incompletely enumerated reserves and settlements where enumeration was not permitted or was interrupted before completion, and by the undercoverage of Registered Indians living on participating reserves and settlements and living off reserve. Furthermore, because the short-form questionnaires were used, the census did not collect data that identified Registered Indians living in institutions (hospitals, residences for senior citizens, jails, shelters, etc.), or living outside the country.

The Indian Register, conversely, forms one cluster of ISC's entire Indian Registration System. Although it is considered the authoritative source for the number of Registered Indians as per criteria established in the *Indian Act*, the Indian Register also comes with its own set of limitations. The main purpose of the Indian Register is to record individual names and a range of non-statutory data in accordance with specific subsections of the *Indian Act*. It was not designed for statistical analysis. Therefore, data from the application may not fully meet the requirements of some statistical activities (e.g., demographic projections, migration patterns).

There is also a reporting lag between the occurrence of a given life event and its recording in the Indian Register. This means that events that occur in a given year may not be reflected in the Indian Register during that year. The following examples taken from <u>Registered Indian Population by Sex and Residence, 2021</u>, the most recent year for which the report is available, illustrate this concept:

- 1. Infants entitled to be registered at birth may not be registered by the December 31 reporting date. Parents often do not report the birth until a later year. It is estimated that of all births reported in 2021, approximately 90% had actually occurred prior to 2021.
- 2. Individuals can remain on the Indian Register for some time after they are deceased. A certificate of death or a confirmation of presumed death is normally required to remove a name from the Indian Register.
- 3. Residency codes are typically updated when a life event is reported, although some bands update them more frequently. Residency remains a voluntary field and is not mandatory to collect.

For additional information on the Indian Register, refer to How to update the Indian Register.

Furthermore, Registered Indian status does not guarantee Canadian residency. A number of registrants on the Indian Register live in other countries.

The different purposes and the methodological and conceptual differences of the Indian Register and the census result in estimates that are not directly comparable. The estimate of Registered Indians from the census on May 11, 2021, was 831,720. This was 19.1% lower than the estimate from the Indian Register as of May 31, 2021, which was 1,028,153.

5.1.9 Comparability with Demosim projections

Demosim is a demographic microsimulation projection model developed and maintained at Statistics Canada. Demosim produces dynamic population projections at the levels of provinces, territories, census metropolitan areas and selected smaller geographies, based on a number of characteristics (age, sex, place of birth, Indigenous identity, Registered Indian status, visible minority group, generation status, languages, highest level of educational attainment, labour force participation, etc.). It produces projections by simulating events such as births, deaths, migrations and changes in level of education according to various population growth scenarios.²

Custom projections³ from the Demosim model based on the 2016 Census were prepared specifically for the purposes of comparing the 2021 Census of Population data with projection results as of May 11, 2021, for a number of variables, including the Indigenous identity variable.

For the Indigenous identity variable, two projection scenarios were prepared with different assumptions related to intragenerational response mobility.⁴ One scenario included response mobility for Métis and First Nations people based on recent⁵ levels of response mobility. The other scenario was prepared with an assumption that there was no response mobility as of 2016.

At the Canada level, the 2021 Census estimated the Indigenous identity population to be 1,807,250, which was below the Demosim projection with response mobility (1,953,000) and above the projection without response mobility (1,803,000). Furthermore, the difference between the two sources was more noticeable when specific Indigenous groups, especially First Nations, were examined.

The projection uses a base population that is adjusted for undercoverage (including incompletely enumerated reserves and settlements). Based on the methods, the projection result is expected to include a higher population on reserve than the unadjusted census results.

For more information on the Demosim model, refer to the methodological report <u>Projections of the Indigenous populations and households</u> in <u>Canada, 2016 to 2041</u>: <u>Overview of data sources, methods, assumptions and scenarios</u>, Statistics Canada Catalogue no. 17-20-0001. This report provides information about Demosim's content, including its starting population, its general functioning, and the data sources and methods used to model its components.

^{3.} The custom Demosim projections used a modified version of the reference scenario of <u>Population projections on immigration and diversity</u> for <u>Canada and its regions</u>, <u>2016 to 2041</u>: <u>Overview of projection assumptions and scenarios</u></u>, Statistics Canada Catalogue no. 17-20-0001. Modifications consisted of special calibrations to match the population estimates for births, deaths, emigration and internal migrants. A final calibration by age group, sex at birth and province or territory of residence was applied to match the 2021 Census (short-form questionnaire) counts (excluding the population that is excluded from the long-form questionnaire universe).

^{4.} Intragenerational response mobility, or intragenerational ethnic mobility (term used in Demosim products), refers to changes in the reporting of an individual's Indigenous group over their lifetime.

^{5.} The recent level of intragenerational ethnic mobility (observed between 2011 and 2016) is applied at the start of the projection and then converges progressively to the 1996-to-2016 period average level.

6. Conclusion

In summary, the census provides essential information on First Nations, Métis and Inuit in Canada. No other sources of information can provide detailed socioeconomic information for such small domains of interest. The Indigenous population estimates may change over time because of demographic growth, and for a number of other non-demographic reasons. Users of census data on Indigenous people should be aware of changes that affect the interpretation of the data, including changes to concepts and variables, survey and statistical processes, coverage, legislation and judicial decisions, and the social environment.