

Catalogue no. 92-150-G

GeoSuite, Reference Guide

Census year 2011



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Note of appreciation

Canada owes the success of its statistical system to a long-standing partnership between Statistics Canada, the citizens of Canada, its businesses, governments and other institutions. Accurate and timely statistical information could not be produced without their continued cooperation and goodwill.

What's new?

- Effective February 3, 2011, the term 'population centre' has replaced the term 'urban area.' Population centres are classified into one of three groups based on the size of their population. For more information, see the note entitled *From urban areas to population centres*. (www.statcan.gc.ca/subjects-sujets/standard-norme/sgc-cgt/urban-urbain-eng.htm).
- The term 'place name' has replaced the term 'locality.' 'Place name' provides name and location information on local place names. It also includes selected records of active and retired geographic areas as well as names from the Canadian Geographical Names Data Base. 'Place name' refers to the set of names that includes census subdivisions (municipalities), designated places and population centres, as well as the names of some local places.
- For the 2011 Census, boundaries of designated places (DPLs) may cross census subdivision (CSD) boundaries.
- The following attribute has been added to GeoSuite:
 - POPCTRRAClass: Population centre and rural area class. Distinguishes between small population centres, medium population centres, large urban population centres and rural areas.
- A sort function is available for tables generated using the **Chart Search** or **View Data** functions.
- The 2011 Census GeoSuite product is available for free download from the Statistics Canada website (www.statcan.gc.ca). It is not available on pre-cut CD-ROM.

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1. About this guide

This reference guide is intended for users of the 2011 Census GeoSuite product. The guide provides an overview of the product, the general methodology used to create it, and important technical information for users.

Section 4, Getting started, describes the main menu of GeoSuite and provides explanations on the various functions of the product. It also includes four sample sessions with step-by-step examples of how to execute different types of data inquiries.

Installation instructions are provided in section 5, Technical specifications. Section 6, Data quality, provides information for users to evaluate the suitability of the data.

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2. Overview

GeoSuite is a powerful search tool based on 2011 Census standard geographic areas. With GeoSuite, users may retrieve and query data, explore the links between geographic areas, obtain information on those areas and output data in tabular format. The information available includes 2011 Census population counts, 2011 Census dwelling counts, representative point coordinates, land area, geographic codes, names and, in some cases, 2006 Census population counts (both final and adjusted). A dissemination area reference map listing that facilitates the identification of dissemination area reference maps is included.

The 2011 Census GeoSuite product includes data for the following 2011 Census standard geographic areas:

- Canada (CAN)
- province and territory (PR)
- economic region (ER)
- census division (CD)
- census consolidated subdivision (CCS)
- census subdivision (CSD)
- designated place (DPL)
- federal electoral district (FED) (2003 Representation Order)
- census metropolitan area (CMA), census agglomeration (CA) and census metropolitan influenced zone (MIZ)
- census tract (CT)
- population centre (POPCTR) and rural area (RA)
- dissemination area (DA)
- dissemination block (DB)

How to cite this guide

GeoSuite, Reference Guide, 2011 Census. Statistics Canada Catalogue no. 92-150-G.

How to cite this product

GeoSuite, 2011 Census. Statistics Canada Catalogue no. 92-150-X.

3. About this product

Purpose of the product

GeoSuite allows users to explore the links between 2011 Census standard levels of geography and to identify related geographic attributes, including codes, names, and unique identifiers. The types, classes, representative points, land area and population and dwelling counts are also available for most geographic levels. A database is also provided and includes several tables, each containing a 2011 Census standard geographic area and its related attributes.

Definitions and concepts

Geographic terms and concepts are briefly defined in the glossary (Appendix A). More details can be found in the *2011 Census Dictionary* (Catalogue no. 98-301-X), in the 2011 Illustrated Glossary (Catalogue no. 92-195-XWE) and in GeoSuite itself through the Help files.

Content

GeoSuite contains information for all 2011 Census standard geographic areas, including related attributes, population counts, dwelling counts, land area and representative points.

Geographic unique identifiers

Geographic unique identifiers consist of a set of unique numbers that are used to identify and access individual 2011 Census standard geographic areas for the purpose of data storage, retrieval and display.

The systematic assignment of numeric codes to provinces and territories, census divisions and census subdivisions is described within the Standard Geographical Classification. This classification system is a hierarchical coding system that provides a unique identifier for each level within the geographic hierarchy. This coding system is developed by Statistics Canada and approved by provincial authorities. More details can be found in the *Standard Geographical Classification (SGC), volume I – Statistical Area Classification – Variants of SGC* (Catalogue no. 12-571-X).

Census consolidated subdivision unique identifiers are derived from the component census subdivisions. Census consolidated subdivision unique identifiers coincide with the census subdivision component with the largest land area within a census consolidated subdivision.

The source of the geographic unique identifiers of federal electoral districts is the 2003 Representation Order, Elections Canada. All other geographic unique identifiers are developed by Statistics Canada.

Within GeoSuite, geographic unique identifiers are a concatenation of geographic codes that uniquely identify 2011 Census standard geographic areas. For example, each dissemination area is assigned a four-digit code that is unique within a census division. In order to uniquely identify each dissemination area, the four-digit dissemination area code is preceded by the two-digit province or territory code and the two-digit census division code. This eight-digit concatenated code is referred to as the dissemination area unique identifier.

Hierarchy of standard geographic areas

GeoSuite includes population centres as parts of provinces. For the 2011 Census, there are five population centres that cross provincial boundaries:

- Campbellton (New Brunswick/Quebec)
- Hawkesbury (Quebec/Ontario)
- Ottawa - Gatineau (Quebec/Ontario)
- Flin Flon (Manitoba/Saskatchewan)
- Lloydminster (Saskatchewan/Alberta)

If users of GeoSuite generate a list of all population centres located in the province of Manitoba, for example, only the Manitoba portion of the Flin Flon population centre will be included on the list. The portion of the Flin Flon population centre located in the province of Saskatchewan will be excluded.

GeoSuite also includes census metropolitan areas and census agglomerations as parts of provinces. For the 2011 Census, there is one census metropolitan area and three census agglomerations that cross provincial boundaries:

- Census Agglomeration of Campbellton (New Brunswick/Quebec)
- Census Agglomeration of Hawkesbury (Quebec/Ontario)
- Census Metropolitan Area of Ottawa - Gatineau (Quebec/Ontario)
- Census Agglomeration of Lloydminster (Saskatchewan/Alberta)

If users of GeoSuite generate a list of all census agglomerations located in the province of New Brunswick, for example, only the New Brunswick portion of the Campbellton census agglomeration will be included on the list. The portion of the Campbellton census agglomeration located in the province of Quebec will be excluded.

2011 Census population and private dwellings

The population and dwelling counts contained within GeoSuite are from the 2011 Census. The counts for a particular geographic area represent the number of people whose usual place of residence is in that area, regardless of where they happened to be on Census Day, May 10, 2011.

2011 Census land area

Land area is the area in square kilometres of the land-based portions of 2011 Census standard geographic areas. The land area data contained within GeoSuite may or may not be consistent with land area data provided by other sources. Land area is calculated using ArcGIS® software for the sole purpose of calculating population density.

The data are derived from the Spatial Data Infrastructure (SDI), including selected hydrographic polygon layers. The Lambert conformal conic projection is transformed to the Albers equal-area conic projection, since the property of equal area is appropriate for calculating land area. The same projection parameters (two standard parallels, central meridian and latitude of projection origin) are used for each province or territory.

Land area data for 2011 Census standard geographic areas reflect the boundaries in effect on January 1, 2011 (the geographic reference date for the 2011 Census of Canada).

2011 Census incompletely enumerated Indian reserve flag

In 2011, there were a total of 31 Indian reserves and Indian settlements that were 'incompletely enumerated.' For these reserves or settlements, enumeration was either not permitted or was interrupted before it could be completed, or enumeration was not possible because of natural events (specifically forest fires in Northern Ontario).

Compared to previous censuses, there was a decrease in the number of band councils that did not give permission to enter their territory to conduct the census, from 18 Indian reserves and Indian settlements in 2006 to 14 in 2011.

There were 13 Indian reserves and Indian settlements where enumeration was not possible as a result of forest fires in Northern Ontario at the time of census collection. Collection for these communities was done at a later time. While the data are not included in the 2011 Census tabulations, it is expected that separate special tables showing data for these communities will be made available at a later date, subject to data quality evaluation.

The 2011 Census population and dwelling counts are not available for the 31 incompletely enumerated Indian reserves and Indian settlements, and are not included in 2011 Census tabulations. Data for geographic areas containing one or more of these reserves and settlements are noted accordingly. Because of the missing data, users are cautioned that for the affected geographic areas, comparisons (e.g., percentage change) between 2006 and 2011 are not precise. The impact of the missing data for higher-level geographic areas (Canada, provinces, census metropolitan areas and census agglomerations) is very small. However, the impact can be significant for smaller areas, where the incompletely enumerated Indian reserves and Indian settlements account for a higher proportion of the population.

2006 Census population by 2006 Census boundaries

The 2006 Census population counts are as they were enumerated during the 2006 Census according to boundaries that were in effect as of January 1, 2006. These data are provided for all standard geographic areas.

2006 Census population by 2011 Census boundaries and the adjusted population flag

Users wishing to compare the 2011 Census statistical data with those of other censuses should be aware that the boundaries of geographic areas may change from one census to another. In order to facilitate this comparison, the 2006 Census population counts are adjusted as needed to take into account boundary changes between the 2006 and the 2011 censuses. The 2006 Census population by 2011 Census boundaries is also known as the 2006 adjusted population. Where the 2006 adjusted population counts did not equal the 2006 final population counts, the adjusted population flag was set to 1.

Since data are provided by the 2011 Census boundaries and geographic structure, calculations on data from the 2011 Census GeoSuite product should only be done using the 2006 data adjusted to the 2011 boundaries.

In the case of census subdivisions, this flag is set to 1 to identify newly incorporated municipalities (census subdivisions).

DA reference map lists

The DA reference map lists were compiled during the production of the dissemination area reference maps for the 2011 Census. The lists were then included with the 2011 Census GeoSuite product.

Secondary province code

The secondary province (XPR) field in **Chart Search** is used to indicate which census metropolitan areas (CMAs), census agglomerations (CAs) and population centres (POPCTR) cross provincial boundaries. XPR is read in conjunction with the PR (code) field to obtain the names of these provinces. For example, the population centre of Flin Flon crosses Manitoba and Saskatchewan. The PR code shows the code for Manitoba and the XPR code shows the code for Saskatchewan.

In **Name Search** and **Code Search**, the 'other province' is indicated as XProv.

Positional data

GeoSuite contains representative point coordinates for the following 2011 Census standard geographic areas: census subdivisions, dissemination areas and designated places. Point locations are also provided for place names.

The representative point coordinates were reprojected from Lambert Conformal Conic into latitude and longitude coordinates (NAD83) using the ArcGIS® ArcCatalog (Feature-Project) tool.

The Lambert Conformal Conic map projection is widely used for general maps of Canada at small scales and is the most common map projection used at Statistics Canada.

The representative point coordinates in GeoSuite are in the following geographic representation:

Datum:	NAD83
Coordinates:	Longitude/Latitude

The North American Datum of 1983 (NAD83) is an adjustment of the 1927 datum (NAD27) that reflects a higher accuracy of geodetic surveying.

The geographic coordinate system is the primary locational reference system for the earth. This system provides for the unique statement of location for features such as points, lines and polygons.

Comparison to other products/versions

GeoSuite contains geographic unique identifiers, names, and where applicable, types and classes applicable to the 2011 Census.

Using with other products

The 2011 Census standard geographic areas in GeoSuite can be linked to other 2011 Census products using the geographic unique identifiers.

It is important to note that GeoSuite includes all the dissemination blocks in Canada, while the Dissemination Block Cartographic Boundary File excludes dissemination blocks located entirely within coastal waters.

The 2011 Census dissemination block unique identifier included in GeoSuite can be used with the 2011 Census Correspondence Files (Catalogue no. 92-156-X) to identify corresponding 2006 Census dissemination blocks. The 2006 dissemination blocks unique identifiers can then be linked to the 2006 Census Geographic Attribute File (Catalogue no. 92-151-X) or GeoSuite 2006 (Catalogue no. 92-150-X) to retrieve 2006 Census standard geographic areas and their attributes.

GeoSuite includes a dissemination area reference map listing that facilitates identification of specific dissemination area reference maps (Catalogue nos. 92-147-X, 92-148-X and 92-145-X).

Reference date

Population and dwelling counts

The population and dwelling count data contained within GeoSuite refer to the 2011 Census of Population which was conducted on May 10, 2011.

Standard geographic areas

The geographic reference date is a date determined by Statistics Canada to finalize the geographic framework for which 2011 Census statistical data are collected, tabulated and reported. The reference date for 2011 Census standard geographic areas is January 1, 2011. More specifically, the census reports data according to the geographic areas (e.g., municipalities and equivalents referred to as census subdivisions) that are in effect on January 1, 2011, provided that Statistics Canada receives the information on the changes by March 1, 2011 (see *2011 Census Dictionary – Geographic reference date* for more details).

4. Getting started

When installing GeoSuite (see section 5), a 'GeoSuite 2011' program group is created. The GeoSuite icon (.exe) is located in this program group. Double-clicking on this icon will launch the GeoSuite program. The first screen to appear will be a language selection. Choose the language of preference.

On the **Main Menu** screen, there are seven functions available: **Name Search**, **Code Search**, **Chart Search**, **Reports**, **Load Query**, **Reference Guide** and **Quit**. These functions are described in detail in the following sections and the GeoSuite Help files.

There are Help files found within GeoSuite. Users can access the **Help** from the **Menu Bar** or the **Toolbar**. To display a list of available help topics, select the **Help** menu in the **Menu Bar** and then select either **Contents** or **Search for Help on....** If you would like help on the screen that you are currently viewing, then click on the **Help** button in the **Toolbar**, or press **F1**, to display the help topic for that screen.

Name search

The **Name Search** function allows you to search using a geographic name and to retrieve data on that geographic area. There are four steps in this process.

Step 1 of 4: Name search

Upon entering this screen, your cursor automatically appears in the **Enter Name** field. You may type in all or some of the letters of the desired name, then press the tab key to move below to the **List Panel**.

Use the **Level** list to view only the names of a particular geographic type. To do this, use the pull down the list on the right. By default, all of the names in Canada are displayed.

Data for the name selected in the list panel are displayed in the three data information panels. You can toggle between the panels by clicking on the three tabs: **2011 Census Info**, **Geographic Levels**, and **2006 Census Info**.

The data for the selected geographic area may be printed using either the **Print** command on the **Menu Bar**, or the **Print** button on the **Toolbar** at the top of the screen.

Press **Next** to continue to the next step or **Back** to go back to the **Main Menu**.

When the CT (Census Tract) level is selected from the **Level** pull down list, a **Select CMA/CA** button appears. This button allows you to narrow your search and view only the CTs in a specific CMA or CA.

Step 2 of 4: Select lower geographic level

All geographic areas that match the name selected in Step 1 are displayed. You must choose one level of geography for which you want to view. It is important to note that data may not be available for all levels, including the area that you have selected.

Step 3 of 4: Select data

Select the geographic data you wish to view. Initially, the fields that are specific to the lower geographic level selected in **Step 2 of 4** are displayed. You can also select fields from a higher geographic level by clicking on the **Select fields from table** pull down list (upper right corner).

For instructions on how to move items from one list to the other, see **Using Selection Lists** in the Help files.

Click on the **Set Sort Order** button to sort the data in a particular order. You must enter at least one item in the **Selected Fields** list in order to set a sort order or to access the next screen.

Click on the **Set Condition** button to add conditions and view a subset of data that matches the conditions.

Click on the **No Duplicates** option to eliminate duplicate records in the data selected to view. For more information on the **No Duplicates** option, see the fourth sample session.

Click on the **Next** button to run the query.

Step 4 of 4: View data

The output matching the selection and condition entered now appear on the screen to view. You may print or export the results of your search, perform calculations, or save your query.

You can use the **Back** button to retrace your steps through the search, and repeat the search using a different geographic area or altering the fields or conditions.

You can change the size of columns by hovering the cursor over the line between two columns. A symbol with two arrows will appear. Click and drag the symbol to enlarge or shrink the columns.

You can sort the columns. Click on the variable name you want to sort on and an arrow indicating the sort order (ascending or descending) will appear.

Code search

The **Code Search** function allows you to search for a geographic code and retrieve data on the corresponding geographic area. You can then search for information on lower geographic levels within a geographic area. It is important to note that some 2011 Census standard geographic areas do not have a geographic name. Consequently, the **Code Search** is the only function available to search for a specific dissemination block or dissemination area. There are four steps in this process, the last three of which are identical to the **Name Search** process.

Step 1 of 4: Code search

Upon entering this screen, your cursor automatically appears in the **Enter Code** field. You may type in all or some of the numbers of the desired geographic code, then press the tab key to move below to the **List Panel**.

Use the **Level** list to view only the codes of a particular geographic type. To do this, pull down the list on the right. By default, all of the codes in Canada are displayed.

Data for the geographic code selected in the list panel are displayed in the three data information panels. You can toggle between the panels by clicking on the three tabs:

2011 Census Info, **Geographic Levels**, and **2006 Census Info**.

The data for the selected geographic area may be printed using either the **Print** command on the **Menu Bar**, or the **Print** button on the **Toolbar** at the top of the screen.

Press **Next** to continue to the next step or **Back** to go back to the Main Menu.

Step 2 of 4: Select lower geographic level

Refer to **Name Search** for a description of Step 2 of 4.

Step 3 of 4: Select data

Refer to **Name Search** for a description of Step 3 of 4.

Step 4 of 4: View data

Refer to **Name Search** for a description of Step 4 of 4.

Chart search

The **Chart Search** function allows you to select and view data using a chart view that represents the geographic hierarchy.

To view data for a certain geographic level, click on the acronym button that corresponds to it. For example, clicking the **FED** button will display a list of federal electoral districts and columns of data about them in the **Geography Data** window.

You can choose more than one geographic level. Each additional level you choose adds a page to the **Geography Data** window. When more than one geographic level is selected, the data in the lower level will be a subset of the units for the currently selected unit in the higher level. To view other pages, you need to click on the appropriate tab.

When you make a selection by clicking on a geographic level, only the geographic levels that are on the same path will stay enabled. The other choices are dimmed to show that they are not available.

You can remove levels from the **Geography Data** window by clicking on the appropriate button on the chart.

There are two ways to toggle between the **Chart Search** screen and the **Data Display** window. You can either click any part of the screen you want to see, which will bring it to the front, or you can use the toggle button to display any window that is hidden behind the front window.

You can sort the columns in the **Geography Data** window by clicking on the variable name on which you wish to sort. An arrow indicating the sort order (ascending or descending) will appear.

Reports

The **Reports** function displays a list of five standard, frequently requested reports. These reports were formerly print publications of Statistics Canada.

There are five different reports available:

- CMA/CA: Dissemination block reference list by CT (a list of CMAs and CAs that contain census tracts is displayed).
- CMA/CA: Dissemination block reference list by CSD (all CMAs and CAs are available).
- CD: Dissemination block reference list by CSD (all CDs are displayed with their codes to differentiate those with the same name).
- FED: CSD reference list (all FEDs are listed).
- CSD: CT reference list (all CSDs in a CMA or CA are listed, but not all will contain census tracts).

Select the desired report by clicking the appropriate button.

Click on the **Select Area** button to choose a geographic area for your report. **Reports** may then be printed, viewed on screen, or exported.

Load query

A saved query is created by completing a **Name Search** or **Code Search** and then saving the steps that you followed by clicking the **Save Query** button in the **View Data** screen. Saved queries allow you to carry out identical searches through **GeoSuite**, but using different fields.

To load a query you created in an earlier search, select its name and description and click OK. This will open the **Select Data** screen and allow you to revise or re-enter field selections, sort order and conditions. Clicking the **Back** button at this point will return you to the **Load Query** screen. Once you have clicked the **Next** button, the **Back** button may then be used to return to Step 1.

You may delete queries that you no longer require and recall queries that you may have accidentally deleted.

Reference guide

This function allows you to open the GeoSuite reference guide in an electronic .pdf format.

Quit

This function allows you to exit GeoSuite. The following screen will ask you to confirm your intentions to exit GeoSuite.

Sample sessions

The steps for four sample data requests are detailed below. These sample sessions have been designed to provide an overview of useful functions, and to review difficult selections for novice users.

1. Searching for geographic areas and corresponding data using the Code Search function

In this sample session, you are searching for the Lambert coordinates of three DAs: 24010018, 24010019, and 35010155.

From the **Main Menu**, click the **Code Search** button.

Click on the **Level** drop-down list, which initially contains 'All.'

From the list that appears, scroll down until you can see 'DA (Dissemination Area),' and click on this entry.

The cursor will now be in the **Enter Code** text box at the top of the screen. Type in the DA code for the first DA on which you are requesting information, 24010018. The list below displays the DAs in numerical order.

Once you have finished typing, the information for that DA is displayed in the tabs in the bottom half of the screen. Clicking on each **Panel** brings it forward, so you can see the information grouped on it.

You may print the information using the **Print** button on the toolbar at the top of the screen, or use the **Print** option from the **File Menu**.

Use the scroll bar on the list of codes, or the down arrow key, to scroll down to the next dissemination area record, 24010019. Click on this DA to select it.

To view information on the final DA, double-click in the **Enter Code** text box at the top of the screen. This will shade the numbers you typed in previously, so they will be overwritten when you enter the next code. Type in 35010155.

2. Browsing data using the Chart Search function

In this sample session, you use the **Chart Search** function to browse FEDs in the province of Ontario.

From the **Main Menu**, click the **Chart Search** button.

In the **Chart** window, click on the **PROV/TERR** button. This opens the 'PR' data tab in the **Geographic Data** window, listing all of the provinces and territories.

In the Chart, click on the **FED** button. This opens a 'FED' data tab behind the tab labelled 'PR.'

In the 'PR' data tab of the **Geographic Data** window, click on 'Ontario' to select it. Now click on the **FED** tab. The table contains a list of the FEDs in Ontario. Use the scroll bar at the bottom of the data to reveal the rest of the fields. Use the scroll bar at the side of the data to move down through the other records.

3. Create a text file (.txt) containing population counts for selected CSDs in a CMA using the Name Search function

In this sample session, you create a .txt file with CSDs of the type 'City' and their 2011 population, in the CMA of Toronto, ordered by name.

From the **Main Menu**, click the **Name Search** button.

In the text box at the top of the screen, type in 'Toronto.'

Press the down arrow to scroll through the **Level** column and select the 'Toronto' entry which is a CMA/CA.

Click on the **Next** button to move to Step 2 of 4.

Click on 'CSD (Census Subdivision)' in the list of geographic levels.

Click on the **Next** button to move to Step 3 of 4.

In the **Available Fields** list, double-click on 'CSDname.' It appears in the **Selected Fields** list. Use the scroll bars on the **Available Fields** list until 'CSDpop2011' appears, then double-click on it.

Click on the **Set Sort Order** button.

Double-click on 'CSD Name' in the **Selected Fields** window. It will appear in the **Sort By** list.

Click on the **OK** button to close this screen.

Click on the **Set Condition** button.

Click on the drop-down list in the **Field** column and select CSDtype from the list.

Click on the drop-down list in the **Criterion** column, and select 'Equals.'

Click in the **Value** column, and then click on the **Select from List** button.

Click in the row with 'C' in the CSDtype column to select that value.

Click on the **OK** button to close this screen.

Click on the **Next** button to move to Step 4 of 4, and view the data on screen.

Click on the **Export** button on the **Toolbar**, or select the **Export** option from the **Tools** menu.

Click in the **Type** drop-down list, and select the appropriate file delimiter (.txt).

Enter an appropriate file name. Use the **Browse** button to select a directory path or a filename that already exists.

Click on the **OK** button to complete the export. The data file can now be opened using an appropriate viewer, such as Notepad™, or a spreadsheet software such as Microsoft™ Excel™.

4. Creating a list of the FEDs for a cross-provincial CMA/CA using the Name Search function

In this sample session, you will be creating a list of the FEDs (federal electoral districts) either partly or completely in the Ottawa – Gatineau CMA (census metropolitan area).

Select **Name Search** from the **GeoSuite Main Menu**.

The cursor will automatically appear in the text box at the top of the screen. Type in the name 'Ottawa – Gatineau.'

More than one Ottawa – Gatineau will appear in the list. Scroll to the Ottawa – Gatineau that is identified as a CMA/CA in the **Level** column. Click **Next**.

Select DB (dissemination block) from the display window of lower geography levels. Click **Next**.

From the **Select fields** in the table list, choose FED (federal electoral district).

From the **Available Fields** list, choose FEDcode.

Click **No Duplicates** to eliminate duplicate records in the output data. (Federal electoral districts contain many census blocks. Choosing **No Duplicates** assures that FED names will appear only once in the data output.)

Click **Next**.

A list of FEDs in the Ottawa – Gatineau CMA appears in the data output window.

Note: For the 2011 Census, boundaries of designated places (DPLs) may cross census subdivision (CSD) boundaries. The same approach can be used to create a list of DPLs for a CSD.

To find DPLs that cross CSDs, the DB table of the **Chart Search** function can be used. DPLs listed with more than one CSD code in this table will represent the DPL parts of a CSD.

5. Technical specifications

Record layouts and data descriptions

GeoSuite includes 39 tables packaged in an Access database. Each attribute included in the tables is described in the GeoSuite Help files (index and glossary).

Attribute domain values

Census division type (CDtype)

The following is the list of the different types of census divisions.

CDtype	CD description
CDR	Census division / Division de recensement
CT	County / Comté
CTY	County
DIS	District
DM	District municipality
MRC	Municipalité régionale de comté
RD	Regional district
REG	Region
RM	Regional municipality
TÉ	Territoire équivalent
TER	Territory / Territoire
UC	United counties

Table 5.1 Census division types by province and territory, 2011 Census

Census division type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nt.
CDR	Census division / Division de recensement	85	11	...	...	...	5	9	23	18	19	...	...	...	...
CT	County / Comté	15	...	...	...	15	...	...	...	...	...	...	...	...	...
CTY	County	41	...	3	18	...	...	20	...	...	...	...	...	...	...
DIS	District	10	...	...	...	...	...	10	...	...	...	...	...	...	...
DM	District municipality	1	...	...	...	...	...	1	...	...	...	...	...	...	...
MRC	Municipalité régionale de comté	81	...	...	...	...	81	...	...	...	...	...	...	...	...
RD	Regional district	28	...	...	...	...	...	...	...	...	...	28	...	...	...
REG	Region	10	...	...	...	...	...	...	...	...	...	1	...	6	3
RM	Regional municipality	6	...	...	...	...	...	6	...	...	...	...	...	...	...
TÉ	Territoire équivalent	12	...	...	...	...	12	...	...	...	...	...	...	...	...
TER	Territory / Territoire	1	...	...	...	...	...	...	...	...	...	...	1	...	...
UC	United counties	3	...	...	...	...	...	3	...	...	...	...	...	...	...
Total		293	11	3	18	15	98	49	23	18	19	29	1	6	3

... not applicable

Source: Statistics Canada, 2011 Census of Population.

Census subdivision type (CSDtype)

Census subdivisions are classified according to designations adopted by provincial, territorial or federal authorities.

CSDtype	CSD description	CSDtype	CSD description
C	City / Cité	RCR	Rural community / Communauté rurale
CC	Chartered community	RDA	Regional district electoral area
CG	Community government	RG	Region
CN	Crown colony / Colonie de la couronne	RGM	Regional municipality
COM	Community	RM	Rural municipality
CT	Canton (municipalité de)	RV	Resort village
CU	Cantons unis (municipalité de)	S-É	Indian settlement / Établissement indien
CV	City / Ville	SA	Special area
CY	City	SC	Subdivision of county municipality / Subdivision municipalité de comté
DM	District municipality	SÉ	Settlement / Établissement
HAM	Hamlet	SET	Settlement
ID	Improvement district	SG	Self-government / Autonomie gouvernementale
IGD	Indian government district	SM	Specialized municipality
IM	Island municipality	SNO	Subdivision of unorganized / Subdivision non organisée
IRI	Indian reserve / Réserve indienne	SV	Summer village
LGD	Local government district	T	Town
LOT	Township and royalty	TC	Terres réservées aux Cris
M	Municipality / Municipalité	TI	Terre inuite
MD	Municipal district	TK	Terres réservées aux Naskapis
MÉ	Municipalité	TL	Teslin land
MU	Municipality	TP	Township
NH	Northern hamlet	TV	Town / Ville
NL	Nisga'a land	V	Ville
NO	Unorganized / Non organisé	VC	Village cri
NV	Northern village	VK	Village naskapi
P	Parish / Paroisse (municipalité de)	VL	Village
PE	Paroisse (municipalité de)	VN	Village nordique

Census metropolitan area and census agglomeration type (CMAtype)

The types associated with census metropolitan areas and census agglomerations include:

CMAtype	CMA description
B	Census metropolitan area (CMA)
D	Census agglomeration (CA) with no census tracts
G	Strong metropolitan influenced zone (MIZ)
H	Moderate metropolitan influenced zone (MIZ)
I	Weak metropolitan influenced zone (MIZ)
J	No metropolitan influenced zone
K	Census agglomeration (CA) with census tracts
L	Territories, outside census agglomeration (CA)

Table 5.2 Census metropolitan area and census agglomeration types by province and territory, 2011 Census

Census metropolitan area and census agglomeration type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
B	census metropolitan area	34	1	0	1	2	6	15	1	2	2	4	0	0	0
D	census agglomeration with no census tracts	102	3	2	4	4	22	24	4	7	13	17	1	1	0
K	census agglomeration with census tracts	15	0	0	0	1	3	4	0	0	3	4	0	0	0
Total		151	4	2	5	7	31	43	5	9	18	25	1	1	0

Note: includes provincial parts.

Census metropolitan influenced zones are considered as residual values. Each province has the values G, H, I and J. Each territory has the value L.

Source: Statistics Canada, 2011 Census of Population.

Statistical Area Classification type (SACtype)

The Statistical Area Classification type is a one-digit code that identifies whether a census subdivision is a component of a census metropolitan area (CMA), a census agglomeration (CA), a census metropolitan influenced zone (MIZ) or located in the territories.

SACtype SACtype description

- | | |
|---|---|
| 1 | Census subdivision within census metropolitan area |
| 2 | Census subdivision within census agglomeration with at least one census tract |
| 3 | Census subdivision within census agglomeration having no census tracts |
| 4 | Census subdivision outside of census metropolitan area and census agglomeration area having strong metropolitan influence |
| 5 | Census subdivision outside of census metropolitan area and census agglomeration area having moderate metropolitan influence |
| 6 | Census subdivision outside of census metropolitan area and census agglomeration area having weak metropolitan influence |
| 7 | Census subdivision outside of census metropolitan area and census agglomeration area having no metropolitan influence |
| 8 | Census subdivision within the territories, outside of census agglomeration |

Table 5.3 Statistical Area Classification values by province and territory, 2011 Census

Statistical Area Classification values		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
1	CSD within CMA	469	13	0	5	31	157	92	12	41	44	74	0	0	0
2	CSD within CA with at least one CT	93	0	0	0	12	13	16	0	0	11	41	0	0	0
3	CSD within CA having no CTs	367	15	23	18	33	68	40	8	25	33	96	7	1	0
4	CSD outside of CMA or CA area having strong metropolitan influence	594	30	32	3	32	237	95	17	62	52	34	0	0	0
5	CSD outside of CMA or CA area having moderate metropolitan influence	1,441	134	48	23	91	490	143	61	248	111	92	0	0	0
6	CSD outside of CMA or CA area having weak metropolitan influence	976	75	6	39	56	145	87	116	208	106	138	0	0	0
7	CSD outside of CMA or CA area having no metropolitan influence	1,212	109	4	11	18	175	101	73	375	78	268	0	0	0
8	CSD within the territories, outside of CA	101	0	0	0	0	0	0	0	0	0	0	30	40	31
Total		5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31

CSD census subdivision
 CMA census metropolitan area
 CA census agglomeration
 CT census tract

Source: Statistics Canada, 2011 Census of Population.

SACCODE

The Statistical Area Classification code is a three-digit code that groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration or a census metropolitan influenced zone (MIZ). The MIZ categories, which denote the degree of influence that CMAs and CAs have on these zones, are: strong (996), moderate (997), weak (998), no influence (999), or located in the territories (000) where the Statistical Area Classification is not applicable.

SACCODE	SACCODE description
000	Territories, outside of CA
001-995	CMA or CA
996	Strong
997	Moderate
998	Weak
999	No influence

More details can be found in the *Standard Geographical Classification (SGC), volume I – Statistical Area Classification – Variants of SGC* (Catalogue no. 12-571-X).

Population centre and rural area type (POPCTRRAtype)

The following is the list of the population centre and rural area types.

- 1 Core inside of a census metropolitan area or census agglomeration
- 2 Fringe inside of a census metropolitan area or census agglomeration
- 3 Rural area inside of a census metropolitan area or census agglomeration
- 4 Population centre outside of a census metropolitan area or census agglomeration
- 5 Rural area outside of a census metropolitan area or census agglomeration
- 6 Secondary core inside of a census metropolitan area or census agglomeration

Table 5.4 Population centre type values by province and territory, 2011 Census

Population centre type values		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nt.
1	Core inside CMA or CA	151	4	2	5	7	31	43	5	9	18	25	1	1	...
2	Fringe inside CMA or CA	164	2	1	7	4	34	68	4	10	16	18	...	...	...
4	POPCTR outside CMA or CA	607	24	4	25	22	172	146	35	44	70	56	...	2	7
6	Secondary core inside CMA or CA	25	...	...	...	...	6	13	...	...	5	1	...	...	...
Total		947	30	7	37	33	243	270	44	63	109	100	1	3	7

... not applicable

CMA census metropolitan area

CA census agglomeration

POPCTR population centre

Note: includes provincial parts.

Rural areas are residual values. Therefore, the values 3 and 5 are not included in the population centres count.

Source: Statistics Canada, 2011 Census of Population.

Population centre and rural area size classes (POPCTRRAcass)

The following is the list of the population centre and rural area size classes.

- 1 Rural area
- 2 Small population centre (population 1,000 to 29,999)
- 3 Medium population centre (population 30,000 to 99,999)
- 4 Large urban population centre (population 100,000 or greater)

Table 5.5 Population centre size class values by province and territory, 2011 Census

Population centre size class values		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nt.
2	Small population centre	861	29	6	35	30	224	237	42	59	101	87	1	3	7
3	Medium population centre	54	...	1	1	2	13	19	1	2	6	9	...	...	...
4	Large urban population centre	32	1	...	1	1	6	14	1	2	2	4	...	...	...
Total		947	30	7	37	33	243	270	44	63	109	100	1	3	7

... not applicable

Note: includes provincial parts.

Rural area is a residual value. It is comprised of all areas located outside population centres. Each province and territory has one and only one rural area value, which is not included in the population centre total.

Source: Statistics Canada, 2011 Census of Population.

Designated place type (DPLtype)

The following is a list of the types of designated places.

CFA	Class IV area
DMU	Dissolved municipality
DPL	Designated place
IRI	Indian reserve / Réserve indienne
IST	Island trust
LNC	Localité non constituée
LSB	Local service board
LSD	Local service district
LUD	Local urban district
MDI	Municipalité dissoute
MDP	Municipal defined places
MET	Métis settlement
NCM	Northern community
NVL	Nisga'a village
OHM	Organized hamlet
SE	Aboriginal settlement
UNP	Unincorporated place
UUC	Unincorporated urban centre

Table 5.6 Designated place types by province and territory, 2011 Census

Designated place type		Canada	NL	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nt.
CFA	Class IV area	65	...	...	65	...	...	...	...	...	...	...	...	...	...
DMU	Dissolved municipality	85	...	...	...	...	...	44	2	37	2	...	...	...	...
DPL	Designated place	183	183	...	...	...	...	...	...	...	...	...	...	...	...
IRI	Indian reserve/ Réserve indienne	53	...	...	...	...	...	...	...	...	...	53	...	...	...
IST	Island trust	26	...	...	...	...	...	...	...	...	...	26	...	...	...
LNC	Localité non constituée	12	...	...	...	...	12	...	...	...	...	...	...	...	...
LSB	Local service board	44	...	...	...	...	...	44	...	...	...	...	...	...	...
LSD	Local service district	167	...	...	...	167	...	...	...	...	...	...	...	...	...
LUD	Local urban district	36	...	...	...	...	...	...	36	...	...	...	...	...	...
MDI	Municipalité dissoute	94	...	...	...	...	94	...	...	...	...	...	...	...	...
MDP	Municipal defined places	26	...	...	...	...	...	26	...	...	...	...	...	...	...
MET	Métis settlement	10	...	...	...	...	...	...	...	...	10	...	...	...	...
NCM	Northern community	46	...	...	...	...	...	...	46	...	...	...	...	...	...
NVL	Nisga'a village	5	...	...	...	...	...	...	...	...	...	5	...	...	...
OHM	Organized hamlet	157	...	...	...	...	...	...	...	157	...	...	...	...	...
SE	Aboriginal settlement	1	...	...	...	...	...	...	...	...	...	...	1	...	...
UNP	Unincorporated place	484	...	...	...	...	...	...	...	...	249	235	...	...	...
UUC	Unincorporated urban centre	13	...	...	...	...	...	...	13	...	...	...	...	...	...
Total		1,507	183	0	65	167	106	114	97	194	261	319	1	0	0

... not applicable

Source: Statistics Canada, 2011 Census of Population

File specifications

Not applicable

Software formats

Not applicable

System requirements

The 2011 Census GeoSuite product requires the following minimum system requirements:

- Pentium 233-megahertz or higher
- Microsoft XP or higher
- Microsoft Mouse or compatible
- 64 MB RAM

Installation instructions

The 2011 Census GeoSuite product requires approximately 200 MB of disk space to install both the software and data. It can be installed on computers running Windows™ XP or higher.

To install:

- Download the English or French install file (.zip) from the Statistics Canada website.
- The language preference is for the installation instructions only. GeoSuite is a bilingual product and will prompt you to choose your language preference each time you run the program. The language preference for the installation is based on the selected language to download the file from the website.

Note: It is recommended that the installation language preference chosen be the same as your operating system.

- Extract the files in the downloaded install file. These files are compressed (.zip) and must be extracted (uncompressed) before installation can continue. Your Windows version should display an option to extract compressed files.
- Double click on the install file 'Install GeoSuite' included in the now uncompressed GeoSuite install files. This will launch the GeoSuite installation.
- GeoSuite will install automatically in your Program Files, unless you modify the location.
- Follow the instructions on the screen.
- GeoSuite Setup will inform you when the installation is complete. Click OK to finish the installation procedure.

When you install GeoSuite, a 'GeoSuite 2011' program group is created. The GeoSuite 2011 database (.mdb) is included in this program group.

Limitations

GeoSuite was tested on several system configurations with different screen resolutions. GeoSuite is not intended to be compatible with mobile internet devices.

File naming convention

The 2011 Census GeoSuite product .zip file follows a standard naming convention. The file name includes: census_year_catalogue number_language, file format.

The 2011 Census GeoSuite product is named as follows:

English file name: 2011_92-150-XBB_eng.zip

French file name: 2011_92-150-XBB_fra.zip

6. Data quality

Data quality elements provide information on the fitness-for-use of a database by describing why, when, and how the data are created, and how accurate the data are. The quality elements include an overview reporting on the lineage, positional accuracy, attribute accuracy, logical consistency and completeness. This information is provided to users for all geographic data products disseminated for the census.

Lineage

Lineage describes the history of the data, including descriptions of the source material from which the data were derived, and the methods of derivation. It also contains the dates of the source material, and all transformations involved in producing GeoSuite.

All data in GeoSuite, excluding the reference map lists, were originally extracted from Statistics Canada's Spatial Data Infrastructure (SDI). The Dissemination Area (DA) reference map lists were compiled during the production of the reference maps for the 2011 Census.

Pertinent information about the methods used in the production of the data in GeoSuite is provided below. For brevity, the lineage is described in terms of the various types of attribute information found in the database.

General methodology

The National Geographic Database (NGD) is a joint Statistics Canada-Elections Canada initiative to develop and maintain a spatial database which serves the needs of both organizations. The focus of the NGD is the continual improvement of quality and currency of spatial coverage using updates from provinces, territories and local sources.

The native files used to create the GeoSuite database reside on Statistics Canada's Spatial Data Infrastructure (SDI) and were derived directly from data stored in the NGD environment. Attribute information was retrieved from SDI and tables were created for each 2011 Census standard geographic level. Each GeoSuite table contains attribute information for all higher level geographies, where applicable. Common attributes, such as codes and unique identifiers, link all standard levels of geography in order to provide the user with connections that represent relationships found in the complete geographic hierarchy.

Geographic areas, unique identifiers, names, types and classes

Statistics Canada disseminates 2011 Census statistical data by standard geographic area. These areas are either administrative or statistical.

Administrative areas are defined, with a few exceptions, by federal and provincial statutes. These include:

- Canada (CAN)
- province and territory (PR)
- federal electoral district (FED) (2003 Representation Order)
- census division (CD)
- census subdivision (CSD)
- designated place (DPL)

Statistical areas are defined by Statistics Canada and are used to collect and disseminate Census statistical data. These include:

- economic region (ER)
- census consolidated subdivision (CCS)
- census metropolitan area (CMA), census agglomeration (CA) and census metropolitan influenced zone (MIZ)
- census tract (CT)
- population centre (POPCTR) and rural area (RA)
- dissemination area (DA)
- dissemination block (DB)

Geographic names refer to the names given to standard geographic areas. Geographic names, however, are not given to all standard geographic areas. Named standard geographic areas include provinces and territories, economic regions, census divisions, census consolidated subdivisions, census subdivisions, census metropolitan areas, census agglomerations, designated places, populations centres and federal electoral districts. Although census tracts do not have alphabetic names, they do have numeric names consisting of seven characters, which include leading zeros, a decimal point and trailing zeros.

For provinces and territories, GeoSuite contains both English and French names. The sources used for the names of the provinces and territories are the statutes of the respective provinces and territories.

The source of the geographic names of federal electoral districts is the 2003 Representation Order, Elections Canada.

For those census divisions and census subdivisions that respect the administrative fabric within the provinces and territories, the sources of the names and types are the provincial and territorial governments. Statistics Canada receives input from the provincial and territorial governments concerning all boundary, name and type changes to their respective municipal structures. The 2011 Census reflects the administrative structure within provinces and territories that was in effect on January 1, 2011, the geographic reference date of the 2011 Census.

Where no provincial or territorial administrative areas exist, census divisions and census subdivisions and their associated names and types are created in consultation with provincial and territorial authorities. The names of Indian reserves and settlements are provided to Statistics Canada by Aboriginal Affairs and Northern Development Canada (formerly Indian and Northern Affairs Canada).

For census consolidated subdivisions, names are derived from their component census subdivisions. Census consolidated subdivision names coincide with the name of the census subdivision component with the largest land area within the consolidated census subdivision.

Census metropolitan area and census agglomeration names are usually based on the largest population centre(s) within the census metropolitan area or census agglomeration.

Place names are not considered part of the standard geographic hierarchy. The primary sources of Statistics Canada's place names are:

- names reported by the census representatives during the past censuses;
- historical census subdivision records (name changes or dissolutions); and
- names approved by the provincial and territorial authorities (federally represented by the Geographical Names Board of Canada [GNBC]).

Information on the delineation criteria for 2011 Census standard geographic areas as well as the sources of geographic names is provided in the *2011 Census Dictionary* (Catalogue no. 98-301-X) and the 2011 Census Illustrated Glossary (Catalogue no. 92-195-X).

Positional accuracy

Positional accuracy refers to the absolute and relative accuracy of the positions of geographic features. Absolute accuracy is the closeness of the coordinate values in a dataset to values accepted as or being true. Relative accuracy is the closeness of the relative positions of features to their respective relative positions accepted as or being true. Descriptions of positional accuracy include the quality of the final file or product after all transformations.

The only positional data in GeoSuite are the representative points for place name, designated place, dissemination area and census subdivision representative points. Within Statistics Canada's Spatial Data Infrastructure, representative points were generated using ArcGIS® software in conjunction with their respective cartographic boundaries. The most detailed hydrography layer available was used in identifying cartographic boundaries and calculating representative point coordinates in Statistics Canada's native format. Efforts were made to ensure that representative point coordinates do not fall in water, where possible. The representative point coordinates were initially calculated based on the Lambert Conformal Conic projection; they were then transformed to latitude and longitude coordinates.

Attribute accuracy

Attribute accuracy refers to the accuracy of the quantitative and qualitative information attached to each feature (such as population counts for census metropolitan areas, census subdivision unique identifiers, names and types).

The geographic unique identifiers, names, types and classes contained within GeoSuite were verified against Statistics Canada's Spatial Data Infrastructure. The relationships between all 2011 Census geographic areas were verified by rolling up dissemination blocks and comparing them back to the Spatial Data Infrastructure. The hierarchy of standard geographic units for dissemination, 2011 Census (Appendix B) illustrates the relationship between all geographic units.

Blank fields are displayed within GeoSuite where population and dwelling counts have been suppressed at the dissemination block level due to incompletely enumerated Indian reserves and Indian settlements. Population counts for incompletely enumerated Indian reserves and Indian settlements census subdivisions are not included in any census counts, therefore the suppressed population counts at the census subdivision, dissemination area and dissemination block levels are consistent with the 2011 Census statistical data.

2011 Census land area

Land area data for 2011 Census standard geographic areas reflect the boundaries in effect on January 1, 2011, the geographic reference date for the 2011 Census.

The data were derived from the Spatial Data Infrastructure (SDI), including selected water polygon layers. The Lambert Conformal Conic projection was transformed to the Albers equal-area conic projection, since the property of equal area is appropriate for calculating land area. The same projection parameters (two standard parallels, central meridian and latitude of projection origin) were used for each province or territory. Land area was calculated using ArcGIS® software.

Users should note that even when the boundaries of standard geographic areas did not change between the 2006 and 2011 Censuses, calculated land areas may differ due to geometry shifts. Geometric shifts are caused by a change in the underlying land and hydrography features and by improvements in the absolute positional accuracy within areas.

Logical consistency

Logical consistency describes the fidelity of relationships encoded in the data structure of the digital spatial data.

Internal consistency

Consistency between data at various geographic levels was verified. Verification procedures ensured that population counts at lower geographic levels sum to higher geographic levels. The verification procedures also ensured that higher geographic levels include the appropriate geographic units.

Population and dwelling count data

The 2011 Census population and dwelling count data were verified to ensure that they sum properly to all higher level 2011 Census standard geographic areas.

Consistency with other products

The population and dwelling count data in the 2011 Census GeoSuite product are consistent with those disseminated in other 2011 Census products.

Completeness

Completeness refers to the degree to which geographic features, their attributes and their relationships are included or omitted in a dataset. It also includes information on selection criteria, definitions used, and other relevant mapping rules.

The 2011 Census GeoSuite product contains one record for each of the 493,345 dissemination blocks. It also contains the appropriate geographic units for each standard geographic level. Appendix C indicates the number of geographic units by province and territory for the 2011 Census. These data were verified within the 2011 Census GeoSuite product.

Appendix A Glossary

Adjusted counts

'Adjusted counts' refer to previous census population and dwelling counts that were adjusted (i.e., recompiled) to reflect current census boundaries, when a boundary change occurs between the two censuses.

Block-face

A block-face is one side of a street between two consecutive features intersecting that street. The features can be other streets or boundaries of standard geographic areas.

Block-faces are used for generating block-face representative points, which in turn are used for geocoding and census data extraction when the street and address information are available.

Cartographic boundary files

Cartographic boundary files (CBFs) portray the boundaries of standard geographic areas together with the shoreline around Canada. Selected inland lakes and rivers are available as supplementary layers.

Census agricultural region

Census agricultural regions (CARs) are composed of groups of adjacent census divisions. In Saskatchewan, census agricultural regions are made up of groups of adjacent census consolidated subdivisions, but these groups do not necessarily respect census division boundaries.

Census consolidated subdivision

A census consolidated subdivision (CCS) is a group of adjacent census subdivisions. Generally, the smaller, more densely-populated census subdivisions (towns, villages, etc.) are combined with the surrounding, larger, more rural census subdivision, in order to create a geographic level between the census subdivision and the census division.

Census division

Census division (CD) is the general term for provincially legislated areas (such as county, *municipalité régionale de comté* and regional district) or their equivalents. Census divisions are intermediate geographic areas between the province/territory level and the municipality (census subdivision).

Census metropolitan area and census agglomeration

A census metropolitan area (CMA) or a census agglomeration (CA) is formed by one or more adjacent municipalities centred on a population centre (known as the core). A CMA must have a total population of at least 100,000 of which 50,000 or more must live in the core. A CA must have a core population of at least 10,000. To be included in the CMA or CA, other adjacent municipalities must have a high degree of integration with the core, as measured by commuting flows derived from previous census place of work data.

If the population of the core of a CA declines below 10,000, the CA is retired. However, once an area becomes a CMA, it is retained as a CMA even if its total population declines below 100,000 or the population of its core falls below 50,000. Small population centres with a population count of less than 10,000 are called fringe. All areas inside the CMA or CA that are not population centres are rural areas.

When a CA has a core of at least 50,000, it is subdivided into census tracts. Census tracts are maintained for the CA even if the population of the core subsequently falls below 50,000. All CMAs are subdivided into census tracts.

Census metropolitan influenced zone

The census metropolitan influenced zone (MIZ) is a concept that geographically differentiates the area of Canada outside census metropolitan areas (CMAs) and census agglomerations (CAs). Census subdivisions (CSDs) within provinces that are outside CMAs and CAs are assigned to one of four categories according to the degree of influence (strong, moderate, weak or no influence) that the CMAs or CAs have on them. CSDs within the territories that are outside CAs are assigned to a separate category.

Census subdivisions within provinces are assigned to a MIZ category based on the percentage of their resident employed labour force that commutes to work in the core(s) of CMAs or CAs. CSDs with the same degree of influence tend to be clustered. They form zones around CMAs and CAs that progress through the categories from 'strong' to 'no' influence as distance from the CMAs and CAs increases. As many CSDs in the territories are very large and sparsely populated, the commuting flow of the resident employed labour force is unstable. For this reason, CSDs in the territories that are outside CAs are assigned to a separate category that is not based on their commuting flows.

Census subdivision

Census subdivision (CSD) is the general term for municipalities (as determined by provincial/territorial legislation) or areas treated as municipal equivalents for statistical purposes (e.g., Indian reserves, Indian settlements and unorganized territories).

Census tract

Census tracts (CTs) are small, relatively stable geographic areas that usually have a population between 2,500 and 8,000 persons. They are located in census metropolitan areas and in census agglomerations that had a core population of 50,000 or more in the previous census.

A committee of local specialists (for example, planners, health and social workers, and educators) initially delineates census tracts in conjunction with Statistics Canada. Once a census metropolitan area (CMA) or census agglomeration (CA) has been subdivided into census tracts, the census tracts are maintained even if the core population subsequently declines below 50,000.

Coordinate system

A coordinate system is a reference system based on mathematical rules for specifying positions (locations) on the surface of the earth. The coordinate values can be spherical (latitude and longitude) using angular units of measure such as degrees, minutes and seconds or planar (Universal Transverse Mercator) using linear units such as metres.

Cartographic boundary files, digital boundary files, representative points and road network files are disseminated in latitude/longitude coordinates.

Core, fringe and rural area

The terms 'core,' 'fringe' and 'rural area' replace the terms 'urban core,' 'urban fringe' and 'rural fringe' for the 2011 Census. These terms distinguish between population centres (POPCTRs) and rural areas (RAs) within a census metropolitan area (CMA) or census agglomeration (CA).

A CMA or CA can have two types of cores: the core and the secondary core. The core is the population centre with the highest population, around which a CMA or a CA is delineated. The core must have a population (based on the previous census) of at least 50,000 persons in the case of a CMA, or at least 10,000 persons in the case of a CA.

The secondary core is a population centre within a CMA that has at least 10,000 persons and was the core of a CA that has been merged with an adjacent CMA.

The term 'fringe' includes all population centres within a CMA or CA that have less than 10,000 persons and are not contiguous with the core or secondary core.

All territory within a CMA or CA that is not classified as a core or fringe is classified as rural area.

Datum

A datum is a geodetic reference system which includes an ellipsoid and an origin against which the latitude and longitude of all other points on the earth's surface are referenced. A datum may often be associated with a particular ellipsoid (mathematical reference model of the earth).

Designated place

A designated place (DPL) is normally a small community or settlement that does not meet the criteria established by Statistics Canada to be a census subdivision (an area with municipal status) or a population centre.

Designated places are created by provinces and territories, in cooperation with Statistics Canada, to provide data for submunicipal areas.

Digital boundary files

Digital boundary files (DBFs) portray the boundaries used for census data collection and, therefore, often extend as straight lines into bodies of water.

Dissemination area

A dissemination area (DA) is a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks. It is the smallest standard geographic area for which all census data are disseminated. DAs cover all the territory of Canada.

Dissemination block

A dissemination block (DB) is an area bounded on all sides by roads and/or boundaries of standard geographic areas. The dissemination block is the smallest geographic area for which population and dwelling counts are disseminated. Dissemination blocks cover all the territory of Canada.

Economic region

An economic region (ER) is a grouping of complete census divisions (CDs) (with one exception in Ontario) created as a standard geographic unit for analysis of regional economic activity.

Ecumene

Ecumene is a term used by geographers to mean inhabited land. It generally refers to land where people have made their permanent home, and to all work areas that are considered occupied and used for agricultural or any other economic purpose. Thus, there can be various types of ecumenes, each having its own unique characteristics (population ecumene, agricultural ecumene, industrial ecumene, etc.).

Federal electoral district

A federal electoral district (FED) is an area represented by a member of the House of Commons. The federal electoral district boundaries used for the 2011 Census are based on the 2003 Representation Order.

Geocoding

Geocoding is the process of assigning geographic identifiers (codes or x,y coordinates) to map features and data records. The resulting geocodes permit data to be linked geographically to a place on the earth.

Households, postal codes^{OM} and place of work data are linked to block-face representative points (coordinates) when the street and address information is available; otherwise, they are linked to dissemination block (DB) representative points. In some cases, postal codes^{OM} and place of work data are linked to dissemination area (DA) representative points when they cannot be linked to DBs. As well, place of work data are linked to census subdivision representative points when the data cannot be linked to DAs.

OM: Postal code is an official mark of Canada Post Corporation.

Geographic code

A geographic code is a numerical identifier assigned to a geographic area. The code is used to identify and access standard geographic areas for the purposes of data storage, retrieval and display.

Geographic reference date

The geographic reference date is a date determined by Statistics Canada for the purpose of finalizing the geographic framework for which census data will be collected, tabulated and reported. For the 2011 Census, the geographic reference date is January 1, 2011.

Geographical region of Canada

The geographical regions of Canada are groupings of provinces and territories established for the purpose of statistical reporting. The six geographical regions of Canada are: Atlantic, Quebec, Ontario, Prairies, British Columbia and Territories.

Land area

Land area is the area in square kilometres of the land-based portions of standard geographic areas. Land area data are unofficial and are provided for the sole purpose of calculating population density.

Map projection

A map projection is the process of transforming and representing positions from the earth's three-dimensional curved surface to a two-dimensional (flat) surface. The process is accomplished by a direct geometric projection or by a mathematically derived transformation.

The Lambert conformal conic map projection is widely used for general maps of Canada at small scales and is the most common map projection used at Statistics Canada.

National Geographic Database

The National Geographic Database (NGD) is a shared database between Statistics Canada and Elections Canada. The database contains roads, road names and address ranges. It also includes separate reference layers containing physical and cultural features, such as hydrography and hydrographic names, railroads and power transmission lines.

Place name

'Place name' refers to selected names of active and retired geographic areas as well as names from the Canadian Geographical Names Data Base. Place names include names of census subdivisions (municipalities), designated places and population centres, as well as the names of some local places.

Population centre

A population centre (POPCTR) has a population of at least 1,000 and a population density of 400 persons or more per square kilometre, based on the current census population count. All areas outside population centres are classified as rural areas. Taken together, population centres and rural areas cover all of Canada.

Population centres are classified into three groups, depending on the size of their population:

- small population centres, with a population between 1,000 and 29,999
- medium population centres, with a population between 30,000 and 99,999
- large urban population centres, with a population of 100,000 or more

Population centre population includes all population living in the cores, secondary cores and fringes of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as the population living in population centres outside CMAs and CAs.

Population density

Population density is the number of persons per square kilometre.

Postal code^{OM}

The postal code^{OM} is a six-character code defined and maintained by Canada Post Corporation for the purpose of sorting and delivering mail.

Province or territory

'Province' and 'territory' refer to the major political units of Canada. From a statistical point of view, province and territory are basic areas for which data are tabulated. Canada is divided into 10 provinces and 3 territories.

Reference map

A reference map shows the location of the geographic areas for which census data are tabulated and disseminated. The maps display the boundaries, names and unique identifiers of standard geographic areas, as well as major cultural and physical features, such as roads, railroads, coastlines, rivers and lakes.

Representative point

A representative point is a coordinate point that represents a line or a polygon. The point is centrally located along the line, and centrally located or population weighted in the polygon.

Representative points are generated for block-faces, as well as for selected geographic areas – province/territory (PR), federal electoral district (FED), economic region (ER), census division (CD), census metropolitan area/census agglomeration (CMA/CA), census subdivision (CSD), population centre (POPCTR), designated place (DPL), census tract (CT), dissemination area (DA) and dissemination block (DB).

Households, postal codes^{OM} and place of work data are linked to block-face representative points (coordinates) when the street and address information is available; otherwise, they are linked to dissemination block (DB) representative points. In some cases, postal codes and place of work data are linked to dissemination area (DA) representative points when they cannot be linked to DBs. As well, place of work data are linked to census subdivision (CSD) representative points when the data cannot be linked to DAs.

Road network file

The road network file (RNF) contains streets, street names, types, directions and address ranges. Address ranges are dwelling-based.

Rural area

Rural areas (RAs) include all territory lying outside population centres (POPCTRs). Taken together, population centres and rural areas cover all of Canada.

Rural population includes all population living in rural areas of census metropolitan areas (CMAs) and census agglomerations (CAs), as well as population living in rural areas outside CMAs and CAs.

Spatial Data Infrastructure

The Spatial Data Infrastructure (SDI) is an internal maintenance database that is not disseminated outside of Statistics Canada. It contains roads, road names and address ranges from the National Geographic Database (NGD), as well as boundary arcs of standard geographic areas that do not follow roads, all in one integrated line layer. The database also includes a related polygon layer consisting of basic blocks (BB; basic blocks are the smallest polygon units in the database, and are formed by the intersection of all roads and the arcs of geographic areas that do not follow roads), boundary layers of standard geographic areas, and derived attribute tables, as well as reference layers containing physical and cultural features (such as hydrography, railroads and power transmission lines) from the NGD.

The SDI supports a wide range of census operations, such as the maintenance and delineation of the boundaries of standard geographic areas (including the automated delineation of dissemination blocks and population centres) and geocoding. The SDI is also the source for generating many geography products for the 2011 Census, such as cartographic boundary files and road network files.

Spatial data quality elements

Spatial data quality elements provide information on the fitness for use of a spatial database by describing why, when and how the data are created, and how accurate the data are. The elements include an overview describing the purpose and usage, as well as specific quality elements reporting on the lineage, positional accuracy, attribute accuracy, logical consistency and completeness. This information is provided to users for all spatial data products disseminated for the census.

Standard Geographical Classification

The Standard Geographical Classification (SGC) 2011 is Statistics Canada's main classification of geographic areas in Canada. It is designed to classify statistical information by geographic areas. The classification consists of four levels: geographical regions of Canada, provinces and territories, census divisions (such as counties and regional municipalities) and census subdivisions (such as municipalities). The four geographic levels are hierarchically related; a seven-digit code is used to show this relationship.

Statistical Area Classification

The Statistical Area Classification (SAC) groups census subdivisions according to whether they are a component of a census metropolitan area, a census agglomeration or a census metropolitan influenced zone (MIZ). The MIZ classifies all CSDs in provinces and territories that are outside census metropolitan areas and census agglomerations.

The Statistical Area Classification is a variant of the Standard Geographical Classification (SGC). Census subdivisions (CSDs) form the lowest level of the classification variant. The next level consists of individual census metropolitan areas (CMAs), census agglomerations (CAs) and census metropolitan influenced zones (MIZs). The highest level consists of three categories that cover all of the land mass of Canada:

- census metropolitan areas
- census agglomerations
- outside census metropolitan areas and census agglomerations.

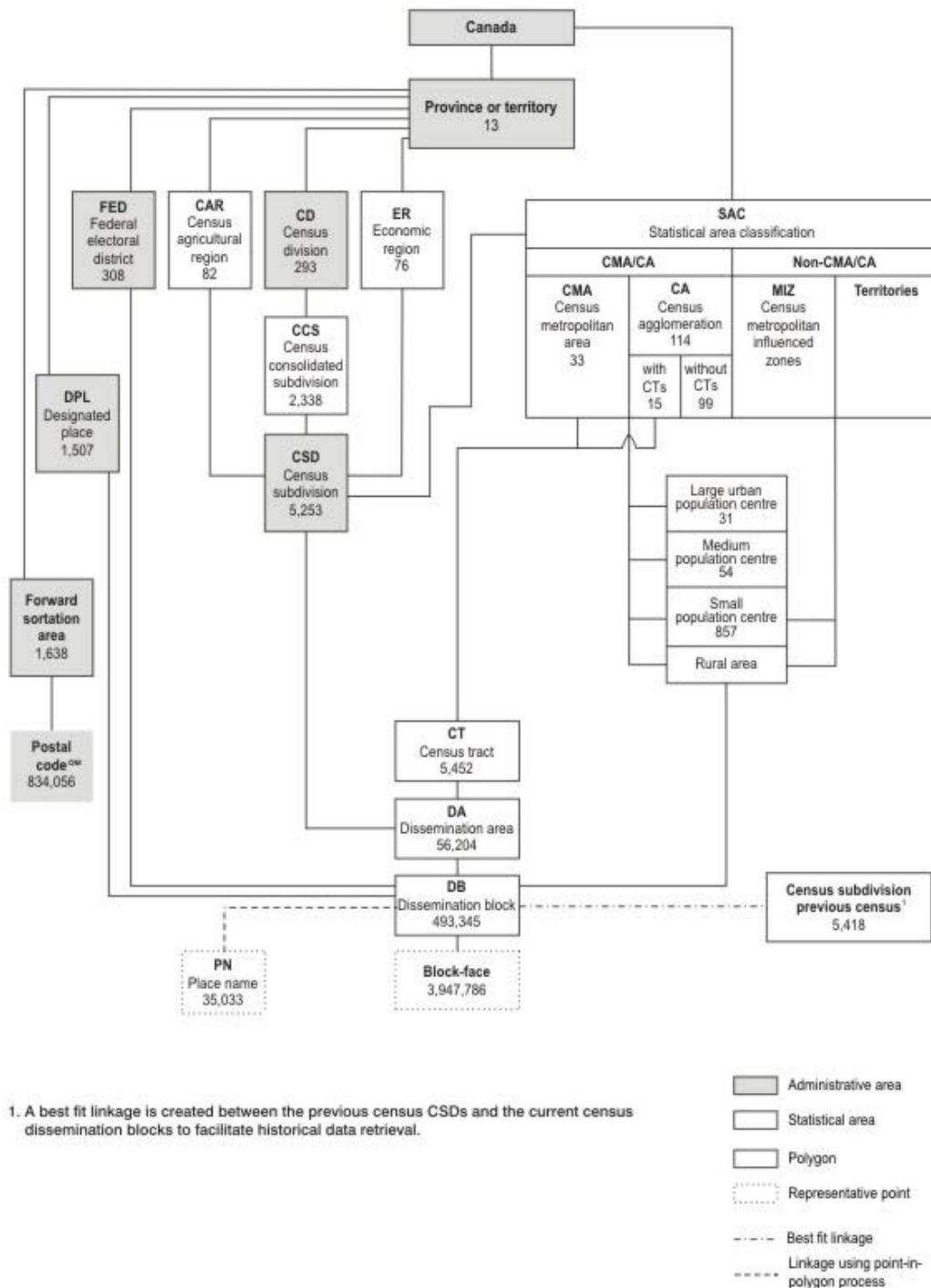
The SAC provides unique numeric identification (codes) for these hierarchically-related geographic areas. It was established for the purpose of reporting statistics.

Thematic map

A thematic map shows the spatial distribution of one or more specific data themes for selected geographic areas. The map may be qualitative in nature (e.g., predominant farm types) or quantitative (e.g., percentage population change).

Appendix B Hierarchy of standard geographic units for dissemination, 2011 Census

Figure B.1 Hierarchy of standard geographic units for dissemination, 2011 Census



Sources: Statistics Canada, 2011 Census of Population; Canada Post Corporation, May 2011.

Appendix C Geographic units by province and territory, 2011 Census

Table C.1 Geographic units by province and territory, 2011 Census

Geographic unit	Canada 2006	Canada 2011	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
Federal electoral district (2003 Representation Order)	308	308	7	4	11	10	75	106	14	14	28	36	1	1	1
Economic region	76	76	4	1	5	5	17	11	8	6	8	8	1	1	1
Census agricultural region	82	82	3	3	5	4	14	5	12	20	8	8	0	0	0
Census division	288	293	11	3	18	15	98	49	23	18	19	29	1	6	3
Census consolidated subdivision	2,341	2,338	89	68	43	151	1,005	316	126	300	77	153	1	6	3
Census subdivision (CSD)	5,418	5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31
CSD dissolutions (Jan. 2, 2006 to Jan. 1, 2011)	221	...	3	0	1	6	13	13	13	26	19	126	0	1	0
CSD incorporations (Jan. 2, 2006 to Jan. 1, 2011)	...	56	2	0	0	3	4	2	3	1	1	33	2	5	0
Designated place	1,289	1,507	183	0	65	167	106	114	97	194	261	319	1	0	0
Census metropolitan area	33	33	1	0	1	2	6 ¹	15 ¹	1	2	2	4	0	0	0
Census agglomeration (CA)	111	114	3	2	4	5 ¹	25 ¹	28 ¹	4	7 ¹	16 ¹	21	1	1	0
CA with census tracts	15	15	0	0	0	1	3	4	0	0	3	4	0	0	0
CA without census tracts	96	99	3	2	4	4 ¹	22 ¹	24 ¹	4	7 ¹	13 ¹	17	1	1	0
Census tract	5,076	5,452	47	0	93	102	1,371	2,273	173	109	573	711	0	0	0
Small population centre (1,000 to 29,999)	811	857	29	6	35	30 ¹	224 ¹	237 ¹	42 ¹	59 ¹	101 ¹	87	1	3	7
Medium population centre (30,000 to 99,999)	54	54	0	1	1	2	13	19	1	2	6	9	0	0	0
Large urban population centre (100,000 or more)	29	31	1	0	1	1	6 ¹	14 ¹	1	2	2	4	0	0	0
Place name	21,411	35,033	1,836	709	3,138	2,679	6,985	8,091	1,839	2,687	3,117	3,528	195	153	76
Dissemination area	54,626	56,204	1,071	293	1,645	1,454	13,622	19,964	2,179	2,467	5,711	7,582	68	98	50
Dissemination block	478,831	493,345	8,732	3,573	15,842	15,415	109,455	132,777	30,471	51,610	66,332	55,529	1,359	1,492	758
Block-face	3,739,041	3,947,786	81,868	27,050	155,484	135,411	842,992	1,003,813	201,005	362,238	525,180	577,975	13,036	15,612	6,122
Forward sortation area	1,625	1,638	35	7	77	111	418	526	64	48	153	190	3	3	3
Postal code ^{OM}	805,640	834,056	10,878	3,316	27,852	58,617	212,162	276,844	24,568	21,923	80,948	115,435	968	516	29

... not applicable

1. Census metropolitan areas, census agglomerations, large urban population centres and small population centres crossing provincial boundaries are counted in both provinces, and, therefore, do not add up to the national total.

Sources: Statistics Canada, 2011 Census of Population; Canada Post Corporation, May 2011.

Appendix D Census subdivision types by province and territory, 2011 Census

Table D.1 Census subdivision types by province and territory, 2011 Census

Census subdivision type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
		5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31
C	City / Cité	6	...	...	...	4	...	2	...	...	...	...	...	...	...
CC	Chartered community	3	...	...	...	...	...	...	...	...	...	...	...	3	...
CG	Community government	4	...	...	...	...	...	...	...	...	...	...	...	4	...
CN	Crown colony / Colonie de la couronne	1	...	...	...	...	...	...	...	1	...	...	...	...	...
COM	Community	33	...	33	...	...	...	...	...	...	...	...	...	...	...
CT	Canton (municipalité de)	45	...	...	...	...	45	...	...	...	...	...	...	...	...
CU	Cantons unis (municipalité de)	2	...	...	...	...	2	...	...	...	...	...	...	...	...
CV	City / Ville	2	...	...	...	...	...	2	...	...	...	...	...	...	...
CY	City	149	3	2	...	4	...	46	9	16	17	49	1	1	1
DM	District municipality	52	...	...	...	...	...	...	...	...	...	52	...	...	...
HAM	Hamlet	36	...	...	...	...	...	...	...	...	...	...	2	10	24
ID	Improvement district	7	...	...	...	...	...	...	...	...	7	...	...	...	...
IGD	Indian government district	2	...	...	...	...	...	...	...	...	...	2	...	...	...
IM	Island municipality	1	...	...	...	...	...	...	...	...	...	1	...	...	...
IRI	Indian reserve / Réserve indienne	961	3	4	25	18	27	139	75	168	81	419	...	2	...
LGD	Local government district	2	...	...	...	...	...	...	2	...	...	...	...	...	...
LOT	Township and royalty	67	...	67	...	...	...	...	...	...	...	...	...	...	...
M	Municipality / Municipalité	3	...	...	...	...	...	3	...	...	...	...	...	...	...
MD	Municipal district	76	...	...	12	...	...	...	...	...	64	...	...	...	...
MÉ	Municipalité	619	...	...	...	...	619	...	...	...	...	...	...	...	...
MU	Municipality	54	...	...	...	...	...	54	...	...	...	...	...	...	...
NH	Northern hamlet	11	...	...	...	...	...	...	...	11	...	...	...	...	...
NL	Nisga'a land	1	...	...	...	...	...	...	...	...	...	1	...	...	...
NO	Unorganized / Non organisé	137	...	...	...	...	96	16	10	2	...	...	4	6	3
NV	Northern village	11	...	...	...	...	...	...	...	11	...	...	...	...	...
P	Parish / Paroisse (municipalité de)	150	...	...	...	150	...	...	...	...	...	...	...	...	...
PE	Paroisse (municipalité de)	179	...	...	...	...	179	...	...	...	...	...	...	...	...
RCR	Rural community / Communauté rurale	4	...	...	...	4	...	...	...	...	...	...	...	...	...
RDA	Regional district electoral area	158	...	...	...	...	...	...	...	...	...	158	...	...	...
RG	Region	1	1	...	...	...	...	...	...	...	...	...	...	...	...

Table D.1 Census subdivision types by province and territory, 2011 Census (continued)

Census subdivision type		Canada	N.L.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Nvt.
RGM	Regional municipality	4	...	...	3	...	...	...	...	...	...	1	...	...	...
RM	Rural municipality	413	...	...	...	...	...	...	117	296	...	...	...	...	...
RV	Resort village	40	...	...	...	...	...	...	...	40	...	...	...	...	...
S-É	Indian settlement / Établissement indien	28	...	...	...	...	6	5	4	1	4	3	5	...	...
SA	Special area	3	...	...	...	...	...	...	...	...	3	...	...	...	...
SC	Subdivision of county municipality / Subdivision municipalité de comté	28	...	...	28	...	...	...	...	...	...	...	...	...	...
SÉ	Settlement / Établissement	13	...	...	...	...	...	...	...	...	...	...	13	...	...
SET	Settlement	13	...	...	...	...	...	...	...	...	...	...	...	10	3
SG	Self-government / Autonomie gouvernementale	4	...	...	...	...	...	...	...	...	...	...	4	...	...
SM	Specialized municipality	5	...	...	...	...	...	...	...	...	5	...	...	...	...
SNO	Subdivision of unorganized / Subdivision non organisée	92	92	...	...	...	...	...	...	...	...	...	...	...	...
SV	Summer village	51	...	...	...	...	...	...	...	...	51	...	...	...	...
T	Town	743	277	7	31	13	...	88	51	147	108	14	3	4	...
TC	Terres réservées aux Cris	8	...	...	...	...	8	...	...	...	...	...	...	...	...
TI	Terre inuite	12	...	...	...	...	12	...	...	...	...	...	...	...	...
TK	Terres réservées aux Naskapis	1	...	...	...	...	1	...	...	...	...	...	...	...	...
TL	Teslin land	1	...	...	...	...	...	...	...	...	...	...	1	...	...
TP	Township	207	...	...	...	...	...	207	...	...	...	...	...	...	...
TV	Town / Ville	15	...	...	...	14	...	1	...	...	...	...	...	...	...
V	Ville	222	...	...	...	...	222	...	...	...	...	...	...	...	...
VC	Village cri	8	...	...	...	...	8	...	...	...	...	...	...	...	...
VK	Village naskapi	1	...	...	...	...	1	...	...	...	...	...	...	...	...
VL	Village	550	...	...	...	66	45	11	19	266	95	43	4	1	...
VN	Village nordique	14	...	...	...	...	14	...	...	...	...	...	...	...	...

... not applicable

Source: Statistics Canada, 2011 Census of Population.