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Illustrated Glossary, Census year 2011

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The following symbols are used in Statistics Canada publications:

. not available for any reference period
.. not available for a specific reference period
... not applicable
0 true zero or a value rounded to zero
0^s value rounded to 0 (zero) where there is a meaningful distinction between true zero and the value that was rounded
^{p} preliminary
^{r} revised
x suppressed to meet the confidentiality requirements of the *Statistics Act*
^{E} use with caution
F too unreliable to be published
* significantly different from reference category ($p < 0.05$)

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Illustrated Glossary, Census year 2011

Geography is important to the national statistical system. Well-defined geographic areas provide the framework for the collection, presentation and analysis of data.

To take full advantage of Census data, users need to have a basic understanding of the terms related to geography concepts. To explore geographical definitions and concepts, use the alphabetical listing or a hierarchy chart.

Geographic units

- Population centre
- Province or territory
- Rural area

Other terms

- Abbreviations
- Administrative areas
- Adjusted counts
- Block-face
- Cartographic boundary files
- Census metropolitan influenced zones
- Coordinate system
- Datum
- Digital boundary files
- Ecumene
- Geocoding
- Geographic code
- Geographic reference date
- Geographic units table
- Hierarchy of standard geographic units
- Land area
- Map projection
- National Geographic Database
- Population density
- Postal code
- Reference map
- Representative point
- Road network file
- Spatial Data Infrastructure
- Spatial data quality elements
- Standard Geographical Classification
- Statistical Area Classification
- Statistical areas
- Thematic map

Census metropolitan area (CMA) and Census agglomeration (CA)

Plain language definition

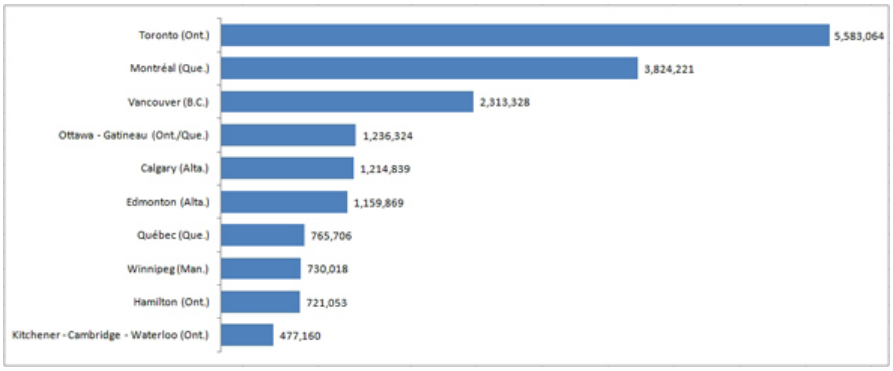
Area consisting of one or more neighbouring municipalities situated around a core. A census metropolitan area must have a total population of at least 100,000 of which 50,000 or more live in the core. A census agglomeration must have a core population of at least 10,000.

CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 1

Census metropolitan areas (CMAs) and census agglomerations (CAs) are considered to be large, densely populated centres made up of adjacent municipalities that are economically and socially integrated.

According to the 2011 Census, 82% of Canada's population lives within a CMA (Census metropolitan area) or CA (census agglomerations). This amounts to over 27 million people. More than half of the population, about 18 million people, lives in the ten largest CMAs (Census metropolitan areas).

Population of Canada's ten largest census metropolitan areas, 2011 Census



Source: Statistics Canada, 2011 Census of Population.

CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 2

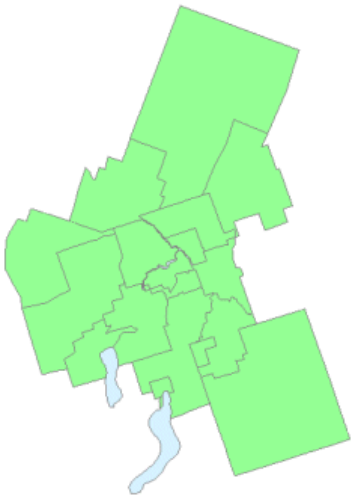
Census metropolitan areas (CMA) and census agglomerations (CAs) are groups of one or more adjacent municipalities (CSDs) that are centred on and have a high degree of integration with a large population centre, known as the core. The term 'population centre' replaces the term 'urban area' for the 2011 Census.

A CMA (Census metropolitan area) or CA (census agglomerations) is delineated using adjacent CSD (census subdivision)s as building blocks. These are included in the CMA (Census metropolitan area) or CA (census agglomerations) if they meet at least one of the following rules, which are ranked in order of priority:

1. Core rule
2. Forward commuting flow rule
3. Reverse commuting flow rule
4. Spatial contiguity rule
5. Historical comparability rule

The rest of this tutorial illustrates how each of these rules is applied and how CSD (census subdivision)s are added to a CMA (Census metropolitan area) and CA (census agglomerations).

Example of census subdivisions to be evaluated in census metropolitan area and census agglomeration delineation



CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 3

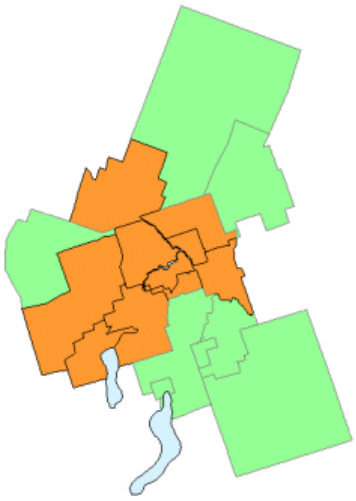
Core rule

Once a population centre attains a total population of 10,000 people, it is eligible to become the core of a census agglomeration (CA). Once a population centre attains a total population of 50,000 people and it is already the core of a CA, then it is eligible to become the core of a census metropolitan area (CMA).

All census subdivisions (CSDs) that fall completely or partly inside the core are included in the CMA (Census metropolitan areas) or (census agglomeration) (census agglomeration). If a smaller CSD (census subdivision) exists within one of the CSDs (census subdivisions) that are already included in the core, creating a 'core hole,' then that CSD (census subdivision) is also included in the CA CMA (Census metropolitan areas) or CA (census agglomeration).

Since CMA (Census metropolitan areas)s and CA (census agglomeration)s are based on CSDs (census subdivisions), a 'delineation core' is created from those CSDs (census subdivisions) that came into the CMA (Census metropolitan areas) or CA (census agglomeration) under the core rule **and** have at least 75% of its population living in the core. These CSD (census subdivision)s are used for determining whether other CSDs (census subdivisions) will be included in the CMA or CA (census agglomeration) according to the next three rules.

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the core rule

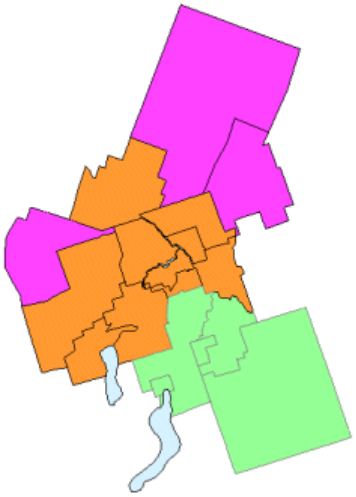


CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 4

Forward commuting flow rule

Using commuting data based on the place of work question in the previous census (2006 Census), commuting flows are calculated for CSD (census subdivisions)s surrounding the delineation core. If the CSD (census subdivisions) has a minimum of 100 commuters going into the delineation core and at least 50% of the employed labour force **living** in the CSD (census subdivisions)**works** in the delineation core, then the CSD (census subdivisions) is included in the CMA (Census metropolitan areas) or CA (census agglomerations).

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the forward commuting flow rule

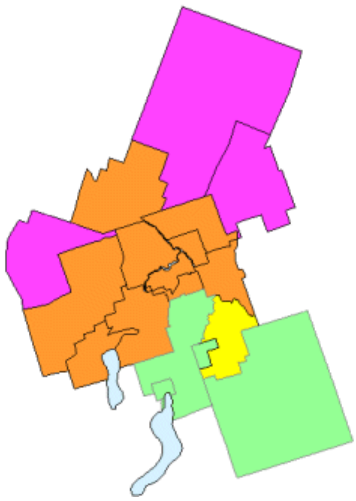


CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 5

Reverse commuting flow rule

Commuting flows are also calculated for the delineation core. If the delineation core has a minimum of 100 commuters going out to a surrounding CSD (census subdivision) and at least 25% of the employed labour force **living** in the delineation core **works** in a surrounding CSD (census subdivision), then that CSD (census subdivision) is included in the CMA (census metropolitan area) or CA (census agglomeration).

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the reverse commuting flow rule



CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 6

Spatial contiguity rule

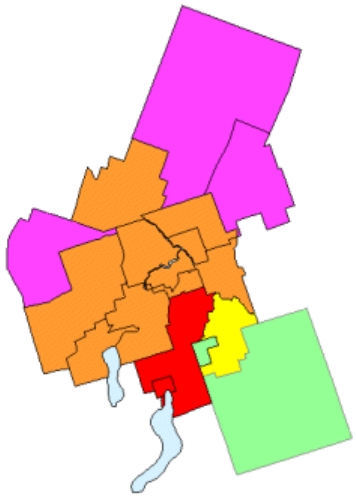
Two situations can lead to the inclusion or exclusion of a CSD (census subdivision) in a CMA (census metropolitan area) or CA (census agglomeration) for reasons of spatial contiguity. Specifically, these are:

'CSD (census subdivision) Outlier' – A CSD (census subdivision) is adjacent to a CMA (census metropolitan area) or CA (census agglomeration) but does not have sufficient commuting flows (either forward or reverse) to be part of the CMA (census metropolitan area) or CA (census agglomeration). However, it contains a CSD (census subdivision) that has sufficient commuting flows to or from the delineation core.

'CSD (census subdivision) Hole' – A CSD (census subdivision) is adjacent to a CMA (census metropolitan area) or CA (census agglomeration) and has sufficient commuting flows (either forward or reverse) to be part of the CMA (census metropolitan area) or CA (census agglomeration). However, this CSD (census subdivision) contains another CSD (census subdivision) that does not have sufficient commuting flows to or from the delineation core.

When either of these situations arises, the CSD (census subdivision) that is adjacent to the CMA (census metropolitan area) or CA (census agglomeration) is grouped with its outliers or its holes to create a 'minimum CSD (census subdivision) set.' The commuting flows for the minimum CSD (census subdivision) set, as a whole, are calculated. If the minimum CSD (census subdivision) set meets either of the commuting flow rules then all of its CSDs (census subdivisions) are included in the CMA (census metropolitan area) or CA (census agglomeration).

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the the spatial contiguity rule

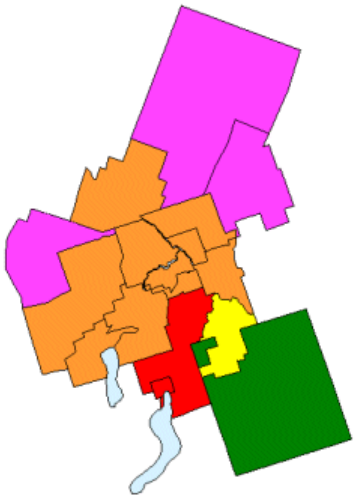


CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 7

Historical comparability rule

To maintain historical comparability for CMAs (census metropolitan areas) and larger CAs (census agglomerations) (those with census tracts in the previous census), CSDs (census subdivisions) are usually retained in the CMA (census metropolitan area) or larger CA (census agglomeration) even if their commuting flow percentages fall below the commuting flow thresholds. If a CSD (census subdivision) has had boundary changes since the last census, then the commuting flow data for that CSD (census subdivision) are recalculated and a decision to include or exclude the CSD (census subdivision) is made according to the previous rules.

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the historical comparability rule



CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 8

Manual adjustments rule

A CMA (census metropolitan area) or CA (census agglomeration) represents an area that is economically and socially integrated. However, there are certain limitations to the extent by which this ideal can be met. Since the CSD (census subdivision)s that are used as building blocks in CMA (census metropolitan area) and CA (census agglomeration) delineation are administrative units, their boundaries are not always the most suitable with respect to CMA (census metropolitan area) and CA (census agglomeration) delineation. There are always situations where the application of the above rules creates undesirable outcomes, or where the rules cannot be easily applied. In these circumstances, a manual override is sometimes applied to ensure that the integrity of the program is retained.

CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 9

Merge rule

Commuting flows are calculated for census agglomerations (CAs) and census metropolitan areas (CMAs) that are adjacent to one another. A CA (census agglomeration) can be merged with the CMA (census metropolitan area) if the total percentage commuting interchange between the CA (census agglomeration) and CMA (census metropolitan area) is at least 35% of the employed labour force living in the CA (census agglomeration). The total percentage commuting interchange is the sum of the commuting flow in both directions between the CMA (census metropolitan area) and the CA (census agglomeration) as a percentage of the labour force living in the CA (census agglomeration) (i.e. (that is to say), resident employed labour force).

$$\frac{\text{Total resident employed labour force living in the CA and working in the CMA} + \text{Total resident employed labour force living in the CMA and working in the CA}}{\text{Resident employed labour force of the CA}} \times 100$$

CMA (Census metropolitan area) and CA (census agglomeration): Detailed definition

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 (census metropolitan area) must have a total population of at least 100,000 of which 50,000 or more must live in the core. A CA (census agglomeration) must have a core population of at least 10,000. To be included in the CMA (census metropolitan area) or CA (census agglomeration), 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 (census agglomeration) declines below 10,000, the CA (census agglomeration) is retired. However, once an area becomes a CMA (census metropolitan area), it is retained as a CMA (census metropolitan area) 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 (census metropolitan area) or CA (census agglomeration) that are not population centres are rural areas.

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

Census years

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961, 1956, 1951, 1941

Remarks

The terms 'core,' 'fringe' and 'rural area' replace the terms 'urban core,' 'urban fringe' and 'rural fringe' for the 2011 Census.

Cores

A census metropolitan area (CMA) or a census agglomeration (CA) can have more than one core. The core of a CMA (census metropolitan area) must have a population of at least 50,000 and the core of a CA (census agglomeration) must have a population of at least 10,000. In all other cases where a CMA (census metropolitan area) or a CA (census agglomeration) has more than one core, the additional cores are called secondary cores. When a CA (census agglomeration) is merged with a CMA (census metropolitan area), the core of the former CA (census agglomeration) also becomes a secondary core of the CMA (census metropolitan area). If the population of a fringe population centre exceeds 10,000, it becomes a secondary core of the CMA (census metropolitan area) or CA (census agglomeration) in which it exists. See Merging adjacent CMAs (census metropolitan areas) and CAs (census agglomerations) (delineation rule 7).

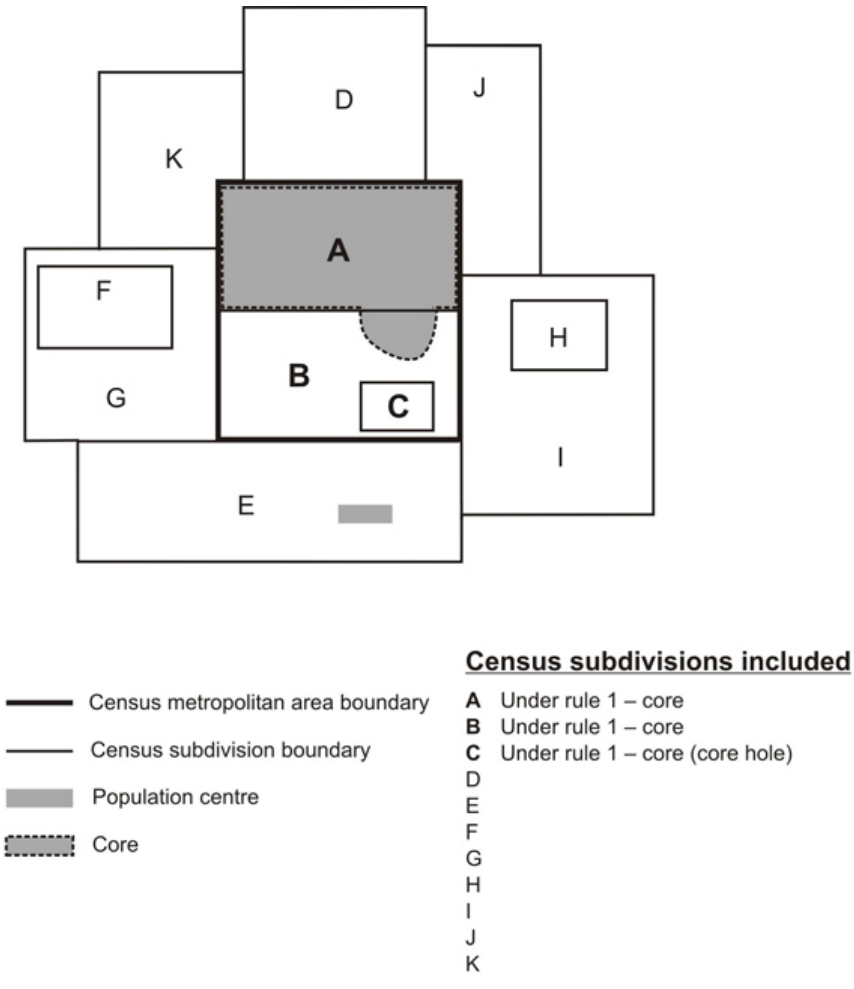
Delineation rules for CMAs (census metropolitan areas) and CAs (census agglomerations)

A CMA (census metropolitan area) or CA (census agglomeration) is delineated using adjacent municipalities (census subdivisions) as building blocks. These census subdivisions (CSDs) are included in the CMA (census metropolitan area) or CA (census agglomeration) if they meet at least one of the following rules. The rules are ranked in order of priority. A CSD (census subdivision) obeying the rules for two or more CMAs (census metropolitan areas) or CAs (census agglomerations) is included in the one for which it has the highest ranked rule. If the CSD (census subdivision) meets rules that have the same rank, the decision is based on the population or the number of commuters involved. A CMA (census metropolitan area) or CA (census agglomeration) is delineated to ensure spatial contiguity.

1. Core rule: The CSD (census subdivision) falls completely or partly inside the core.

A core hole is a CSD (census subdivision) enclosed by a CSD (census subdivision) that is at least partly within the core and must be included to maintain spatial contiguity. In Figure 6, CSDs (census subdivisions) A, B and C are included in the CMA (census metropolitan area) or CA (census agglomeration) because of the core rule. CSD (census subdivision) C is a core hole.

Figure 6
Core rule

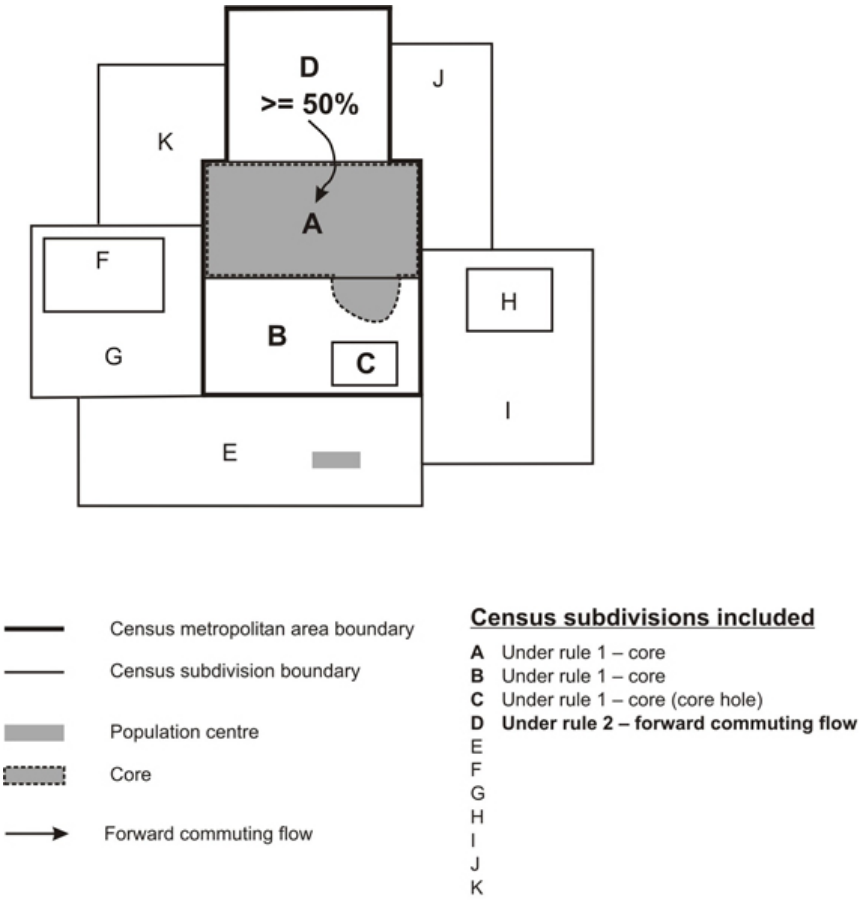


Source: Statistics Canada, 2011 Census of Population.

2. Forward commuting flow rule: Given a minimum of 100 commuters, at least 50% of the employed labour force living in the CSD (census subdivision) works in the delineation core (see following note), as determined from commuting data based on the place of work question in the previous census.

Note: For CMA (census metropolitan area) and CA (census agglomeration) delineation purposes, a delineation core is created respecting CSD (census subdivision) limits. For a CSD (census subdivision) to be included in the primary or the secondary delineation core, at least 75% of a CSD (census subdivision)'s population must reside within the core. In Figure 7, CSD (census subdivision) A is part of the delineation core since its entire population resides within the core. CSD (census subdivision) B would also be part of the delineation core if at least 75% of its population resides within the core. For this example, we have assumed that less than 75% of the population of CSD (census subdivision) B resides within the core; therefore, CSD (census subdivision) B and its enclosed hole, CSD (census subdivision) C, are not considered to be part of the delineation core.

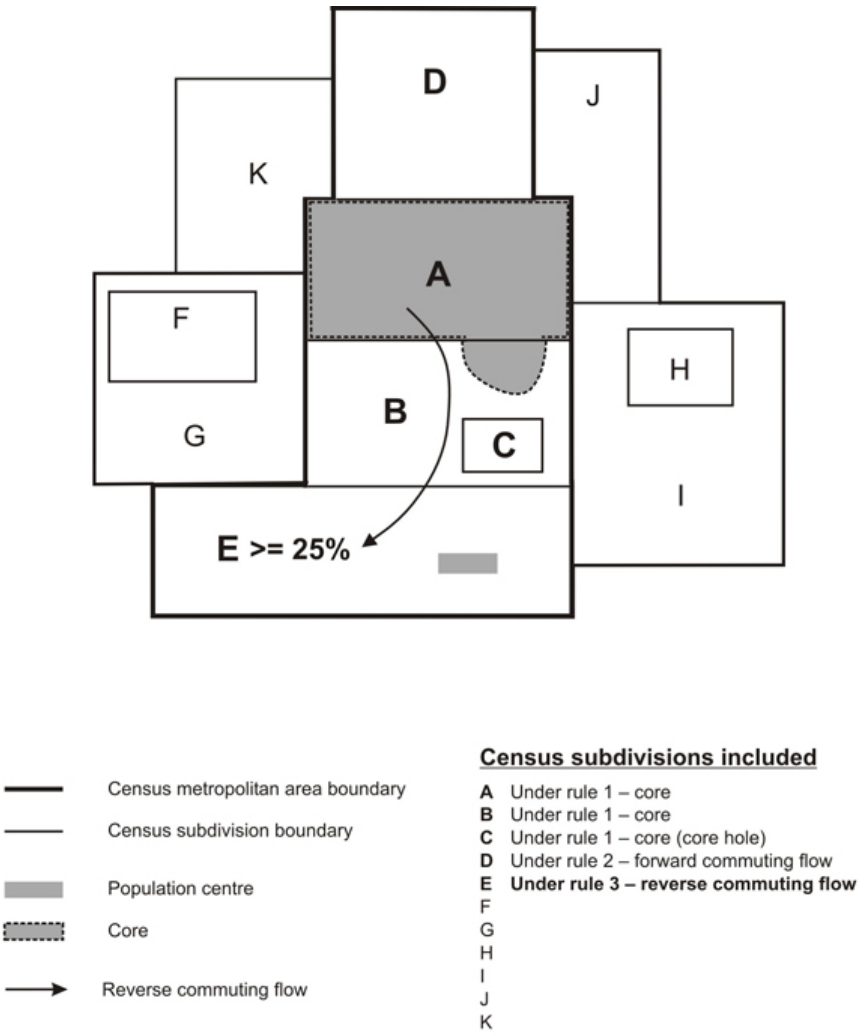
Figure 7
Forward commuting flow rule



Source: Statistics Canada, 2011 Census of Population.

3. Reverse commuting flow rule: Given a minimum of 100 commuters, at least 25% of the employed labour force working in the CSD (census subdivision) lives in the delineation core as determined from commuting data based on the place of work question in the previous census. In Figure 8, at least 25% of the employed labour force working in CSD (census subdivision) E lives in CSD (census subdivision) A (see Note for rule 2).

Figure 8
Reverse commuting flow rule



Source: Statistics Canada, 2011 Census of Population.

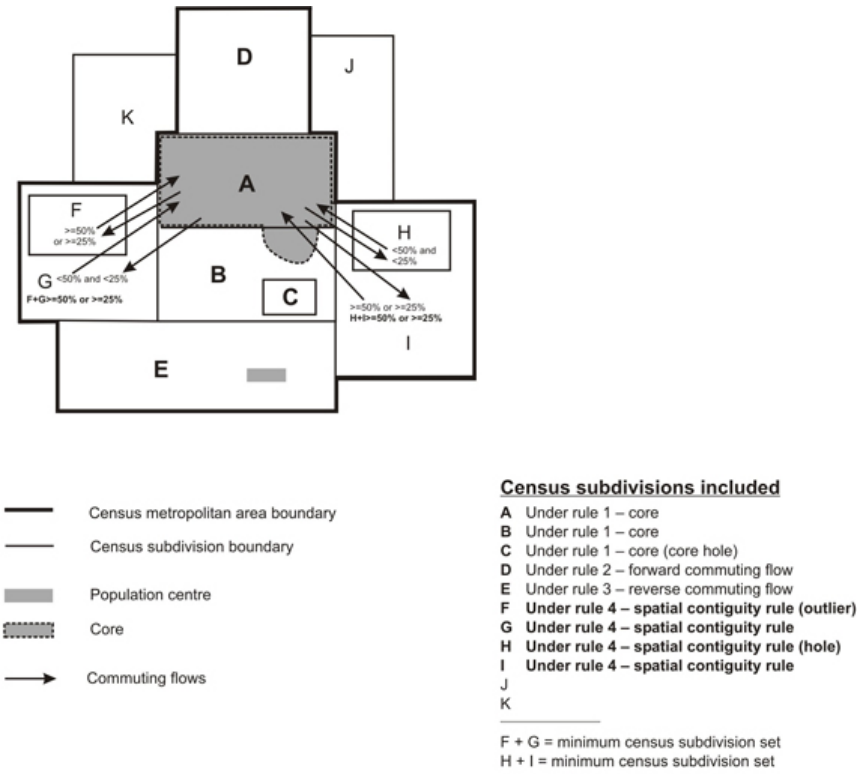
4. Spatial contiguity rule: CSDs (census subdivisions) that do not meet a commuting flow threshold may be included in a CMA (census metropolitan area) or CA (census agglomeration), and CSDs (census subdivisions) that do meet a commuting flow threshold may be excluded from a CMA (census metropolitan area) or CA (census agglomeration).

Two situations can lead to inclusion or exclusion of a CSD (census subdivision) in a CMA (census metropolitan area) or CA (census agglomeration) for reasons of spatial contiguity. Specifically these are:

Outlier — A CSD (census subdivision) (F in Figure 9) with sufficient commuting flows (either forward or reverse) is enclosed by a CSD (census subdivision) (G in Figure 9) with insufficient commuting flows, but which is adjacent to the CMA (census metropolitan area) or CA (census agglomeration). When this situation arises, the CSDs (census subdivisions) within and including the enclosing CSD (census subdivision) are grouped to create a minimum CSD (census subdivision) set (F + G). The total commuting flows for the minimum CSD (census subdivision) set are then considered for inclusion in the CMA (census metropolitan area) or CA (census agglomeration). If the minimum CSD (census subdivision) set has sufficient commuting flows (either forward or reverse), then all of its CSDs (census subdivisions) are included in the CMA (census metropolitan area) or CA (census agglomeration).

Hole — A CSD (census subdivision) (H in Figure 9) with insufficient commuting flows (either forward or reverse) is enclosed by a CSD (census subdivision) (I in Figure 9) with sufficient commuting flows, and which is adjacent to the CMA (census metropolitan area) or CA (census agglomeration). When this situation arises, the CSDs (census subdivisions) within and including the enclosing CSD (census subdivision) are grouped to create a minimum CSD (census subdivision) set (H + I). The total commuting flows for the minimum CSD (census subdivision) set are then considered for inclusion in the CMA (census metropolitan area) or CA (census agglomeration). If the minimum CSD (census subdivision) set has sufficient commuting flows (either forward or reverse), then all of its CSDs (census subdivisions) are included in the CMA (census metropolitan area) or CA (census agglomeration).

Figure 9
Spatial contiguity rule

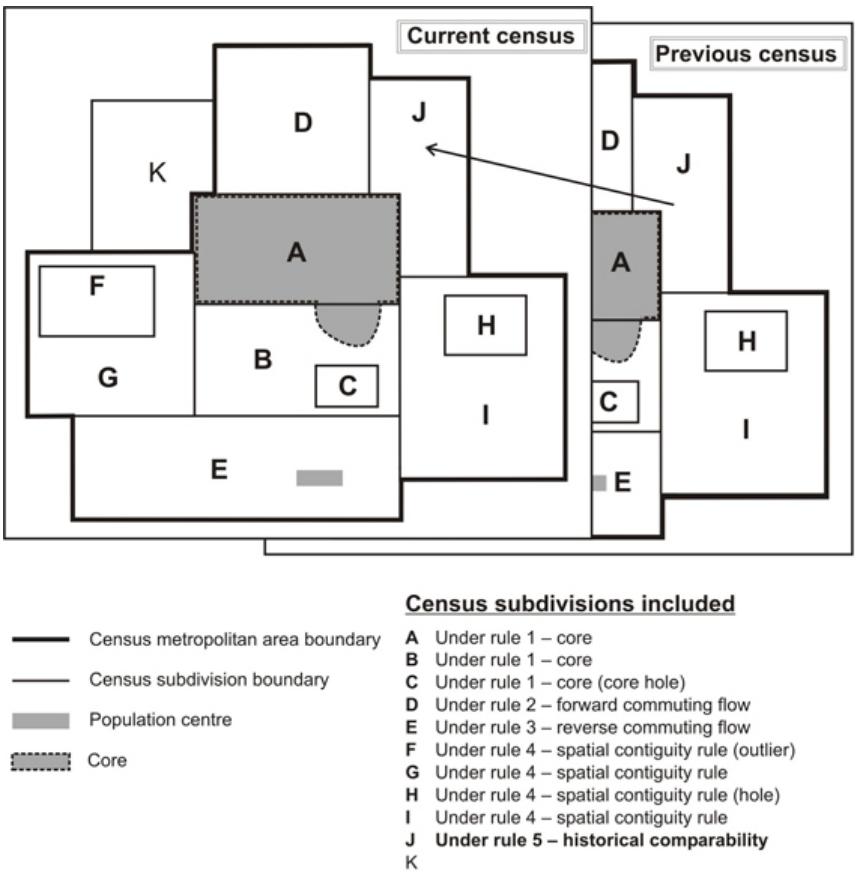


Note:
CSD F (outlier) has sufficient flows - either >= 50% forward or >= 25% reverse commuting flows
CSD G has insufficient flows - has < 50% forward and < 25% reverse commuting flows
CSD H (hole) has insufficient flows - has < 50% forward and < 25% reverse commuting flows
CSD I has sufficient flows - either >= 50% forward or >= 25% reverse commuting flows

Source: Statistics Canada, 2011 Census of Population.

5. Historical comparability rule: To maintain historical comparability for CMAs (census metropolitan areas) and larger CAs (census agglomerations) (those with census tracts in the previous census), CSDs (census subdivisions) are retained in the CMA (census metropolitan area) or CA (census agglomeration) even if their commuting flow percentages fall below the commuting flow thresholds (rules 2 and 3). See Figure 10.

Figure 10
Historical comparability rule



Source: Statistics Canada, 2011 Census of Population.

An exception to the historical comparability rule is made in cases where CSDs (census subdivisions) have undergone changes to their boundaries, such as annexations. To determine whether to keep or exclude a CSD (census subdivision), place of work data are retabulated for the CSD (census subdivision) with boundary changes, and a decision to include or exclude the CSD (census subdivision) is made according to the previous rules.

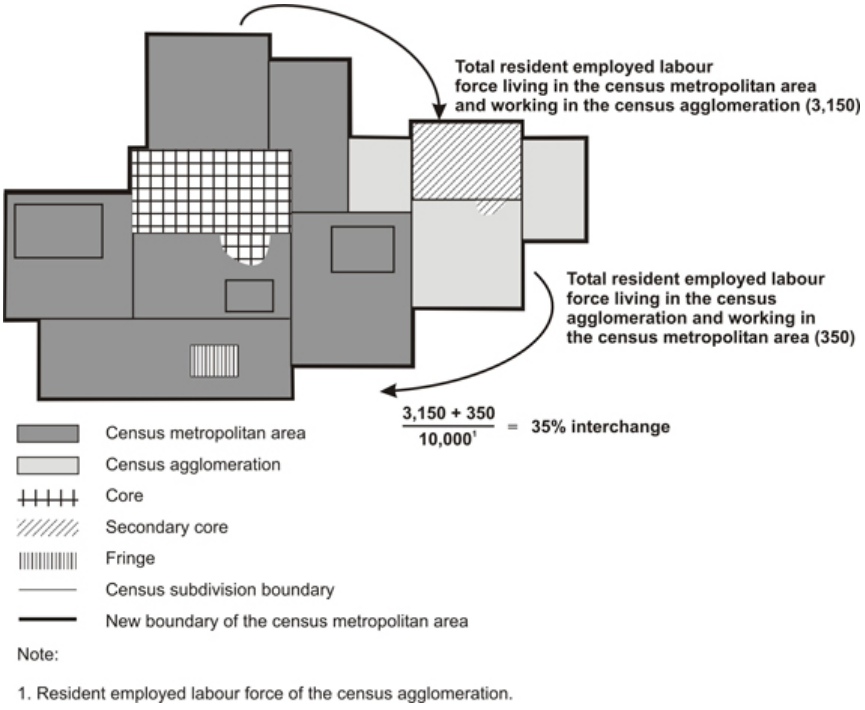
6. Manual adjustments: A CMA (census metropolitan area) or CA (census agglomeration) represents an area that is economically and socially integrated. However, there are certain limitations to the extent by which this ideal can be met. Since the CSDs (census subdivisions) that are used as building blocks in CMA (census metropolitan area) and CA (census agglomeration) delineation are administrative units, their boundaries are not always the most suitable with respect to CMA (census metropolitan area) and CA (census agglomeration) delineation. There are always situations where the application of the above rules creates undesirable outcomes, or where the rules cannot be easily applied. In these circumstances, a manual override is sometimes applied to ensure that the integrity of the program is retained. For example, in Miramichi CA (census agglomeration) (New Brunswick), the CSD (census subdivision) of Red Bank 4, IRI, which is in two parts, is included to maintain spatial contiguity.

7. Merging adjacent CMAs (census metropolitan areas) and CAs (census agglomerations): A CA (census agglomeration) adjacent to a CMA (census metropolitan area) can be merged with the CMA (census metropolitan area) if the total percentage commuting interchange between the CA (census agglomeration) and CMA (census metropolitan area) is equal to at least 35% of the employed labour force living in the CA (census agglomeration), based on place of work data from the previous census. The total percentage commuting interchange is the sum of the commuting flow in both directions between the CMA (census metropolitan area) and the CA (census agglomeration) as a percentage of the labour force living in the CA (census agglomeration) (i.e., resident employed labour force).

$$\frac{\text{Total resident employed labour force living in the CA and working in the CMA} + \text{Total resident employed labour force living in the CMA and working in the CA}}{\text{Resident employed labour force of the CA}} \times 100\%$$

If more than one CA (census agglomeration) is adjacent to the same CMA (census metropolitan area), each CA (census agglomeration) is assessed separately with the CMA (census metropolitan area). Several CAs (census agglomerations) may be merged with one CMA (census metropolitan area). If the total percentage commuting interchange is less than 35%, the CMA (census metropolitan area) and CA (census agglomeration) are not merged. After a CA (census agglomeration) is merged with a CMA (census metropolitan area), the core of the former CA (census agglomeration) is called the secondary core of the CMA (census metropolitan area). See Figure 11.

Figure 11
Example of a merged census metropolitan area and census agglomeration



Source: Statistics Canada, 2011 Census of Population.

Naming convention for CMAs (census metropolitan areas) and CAs (census agglomerations)

Prior to May 25, 2009, the convention for the naming of a CMA (census metropolitan area) or CA (census agglomeration) was based on the name of the principal population centre or largest city at the time the CMA (census metropolitan area) or CA (census agglomeration) was first formed. This standard had been used since the 1971 Census. Through the years, the CMA (census metropolitan area) and CA (census agglomeration) names have remained stable. The most important changes resulted from name changes to the census subdivisions (resulting from municipal dissolutions, incorporations and name changes).

Guidelines for CMA (census metropolitan area) name change requests

The key revision to the convention is the establishment of 'Guidelines for CMA (census metropolitan area) name change requests' as published in *Preliminary 2011 Census Metropolitan and Census Agglomeration Delineation*(Catalogue no. (number) 92F0138M). Below are the guidelines for requesting a change:

1. CMA (census metropolitan area) names can consist of up to three legislated municipal names of eligible census subdivisions (CSDs) that are components of the CMA (census metropolitan area). However, the number of name elements in any new CMA (census metropolitan area) name request is limited to five. If any of the eligible CSD (census subdivision) names are already hyphenated or compound, the number of CSD (census subdivision) names will be limited to two or one if the number of name elements exceeds five.
2. The eligible municipal names include the historic central municipality name and the two component CSDs (census subdivisions) with the largest population, and having a population of at least 10,000, according to the last census.
3. The ordering of the municipal names within the CMA (census metropolitan area) name is determined by the historic (central) municipality and the population size of the eligible CSDs (census subdivisions). The first component of the CMA (census metropolitan area) name is always the historic (central) CSD (census subdivision) even if its census population count is less than

the other eligible component CSDs (census subdivisions). This ensures that CMA (census metropolitan area) names retain a measure of stability for better longitudinal recognition. The second and third place name order is determined by population size. The component CSD (census subdivision) with the higher census population count at the time of the name change assumes the second position and the next largest component CSD (census subdivision), the third position.

4. In order for a requested CMA (census metropolitan area) name change to be implemented, there must be explicit consensus among all eligible component municipalities on a proposed new name and a formal request, in accordance with these guidelines, must be sent to the Director of the Geography Division at Statistics Canada by June 1 of the year prior to the census. The CMA (census metropolitan area) name change will be implemented in the revision of the Standard Geographical Classification related to the census under consideration.
5. Statistics Canada will continue to change CMA (census metropolitan area) names whenever the legislated name of a municipality changes. Any other request for a name change will only be considered within the context of these guidelines.

CMA (census metropolitan area)/CA (census agglomeration) coding structure

Each CMA (census metropolitan area) and CA (census agglomeration) is assigned a three-digit code that identifies it uniquely in Canada. The first digit is the same as the second digit of the province code in which the CMA (census metropolitan area) or CA (census agglomeration) is located. If a CMA (census metropolitan area) or CA (census agglomeration) spans a provincial boundary, then the province code assigned represents the province with the greater proportion of core population. Codes for CAs (census agglomerations) in Yukon and the Northwest Territories begin with the same digit as for those CMAs (census metropolitan areas) or CAs (census agglomerations) located in British Columbia. There are currently no CMAs (census metropolitan areas) or CAs (census agglomerations) in Nunavut.

CMA (census metropolitan area) /CA (census agglomeration) code	CMA (census metropolitan area) /CA (census agglomeration) name
001	St. (Saint) John's CMA (census metropolitan area) (N.L. (Newfoundland and Labrador))
215	Truro CA (census agglomeration) (N.S. (Nova Scotia))
462	Montréal CMA (census metropolitan area) (Que. (Quebec))
995	Yellowknife CA (census agglomeration) (N.W.T. (Northwest Territories))

If data for provincial parts are required, it is recommended that the two-digit province/territory (PR) code precede the CMA (census metropolitan area)/CA (census agglomeration) code for those CMAs (census metropolitan areas)/CAs (census agglomerations) that cross provincial boundaries. For example:

PR (Province/territory)- CMA (census metropolitan area) /CA (census agglomeration) code	CMA (census metropolitan area) /CA (census agglomeration) name
24 505	Ottawa - Gatineau CMA (census metropolitan area) (Quebec part)
35 505	Ottawa - Gatineau CMA (census metropolitan area) (Ontario part)
47 840	Lloydminster CA (census agglomeration) (Saskatchewan part)
48 840	Lloydminster CA (census agglomeration) (Alberta part)

Table 1 in the Introduction shows the number of census metropolitan areas and census agglomerations by province and territory.

Changes to the number of CMAs (census metropolitan areas) and CAs (census agglomerations) for the 2011 Census

Two CMAs (census metropolitan areas) from the previous census had their names changed: Abbotsford became Abbotsford-Mission (B.C.) and Kitchener became Kitchener-Cambridge-Waterloo (Ont.).

Five new CAs (census agglomerations) were created: Steinbach (Man.), High River (Alta.), Strathmore (Alta.), Sylvan Lake (Alta.) and Lacombe (Alta.).

The CAs (census agglomerations) of La Tuque (Que.) and Kitimat (B.C.) were retired because the population of their cores dropped below 10,000 in 2006.

Data quality

CMAs (census metropolitan areas) and CAs (census agglomerations) are statistically comparable because they are delineated in the same way across Canada. They differ from other areas such as trading or marketing areas, or regional planning areas designated by regional authorities for planning and other purposes, and should be used with caution for non-statistical purposes.

The CSD (census subdivision) limits used in CMA (census metropolitan area) and CA (census agglomeration) delineation are those in effect on January 1, 2011 (the geographic reference date for the 2011 Census) and received by Statistics Canada before March 1, 2011. In addition, CMA (census metropolitan area) and CA (census agglomeration) delineation uses commuting data based on the place of work question asked in the previous census.

Refer to the related definitions of census subdivision (CSD); core, fringe and rural area; population centre (POPCTR) and to the geography working paper *Preliminary 2011 Census Metropolitan Area and Census Agglomeration Delineation*(Catalogue no. 92F0138MWE2009002).

Changes prior to the current census

2006

- For 2006, CAs (census agglomerations) were no longer required to have an urban core population of 100,000 to be promoted to the status of a CMA (census metropolitan area). Instead, CAs (census agglomerations) assumed the status of a CMA (census metropolitan area) if they had attained a total population of at least 100,000 of which 50,000 or more lived in the urban core.
- Prior to the 2011 Census, CMA (census metropolitan area) and CA (census agglomeration) delineation used commuting data based on the place of work question asked in the decennial census. The 2006 CMAs (census metropolitan areas) and CAs (census agglomerations) are based on the population and place of work data from the 2001 Census while the 2001 and 1996 CMAs (census metropolitan areas) and CAs (census agglomerations) are based on population and place of work data from the 1991 Census.

2001

- For 2001, CAs (census agglomerations) were required to have an urban core population of at least 100,000 to be changed to the status of a CMA (census metropolitan area).
- For 2001, consolidated CMAs (census metropolitan areas) were no longer defined for dissemination purposes. As a result, primary CMAs (census metropolitan areas) and primary CAs (census agglomerations) were also not defined. However, the consolidation rule was retained and incorporated into the CMA (census metropolitan area) delineation methodology. There was no substantive change to the methodology for defining CMAs (census metropolitan areas) and no change to the limits of CMAs (census metropolitan areas) resulting from this rule change.
- Prior to 2001, adjacent CMAs (census metropolitan areas) and CAs (census agglomerations) that had sufficient commuting interchange (35% or more) and were merged were identified by the terms 'primary census metropolitan area (PCMA)' and 'primary census agglomeration (PCA).' The terms 'consolidated census metropolitan area (CCMA)' and 'consolidated census agglomeration (CCA)' described the sum of the component CMAs (census metropolitan areas) and CAs (census agglomerations). Census data were disseminated for these areas. These terms were not used for the standard dissemination program for 2001.
- Six of 27 CMAs (census metropolitan areas) were affected significantly as a result of municipal restructuring: Halifax (N.S.), Ottawa – Hull (Ont./Que.), Kingston (Ont.), Greater Sudbury (Ont.), London (Ont.) and Windsor (Ont.).

1996

- Two changes to CMA (census metropolitan area)/CA (census agglomeration) delineation rules were implemented to preserve data comparability over time. CMAs (census metropolitan areas) could be consolidated with CAs (census agglomerations), but they could not be consolidated with other CMAs (census metropolitan areas). A primary census agglomeration (PCA) could not be retired from a consolidated CMA (census metropolitan area) or CA (with census tracts at the previous census) even if its total commuting interchange percentage dropped below the consolidation threshold of 35%. Exceptions to this rule could occur due to changes in the physical structure of the urban areas used to determine the urban cores.

- Minimum sets of CSDs (census subdivisions) were used instead of the census consolidated subdivisions (CCSs) for evaluation in the spatial contiguity rule. Refer to the spatial contiguity rule (rule 4).

1986

- Introduction of the consolidated and primary CMA (census metropolitan area) and CA (census agglomeration) concept.
- The forward commuting threshold was raised from 40% to 50% to control for differences in processing of the place of work data between 1971 and 1981.
- Introduction of the minimum of 100 commuters for forward and reverse commuting for both CMAs (census metropolitan areas) and CAs (census agglomerations). Single CSD (census subdivision) (component) CAs (census agglomerations) were permitted.

1981

- Commuting data based on the place of work question of the previous decennial census were used for the first time to delineate CAs (census agglomerations). For both CMAs (census metropolitan areas) and CAs (census agglomerations), the forward commuting threshold was 40% and the reverse commuting threshold was 25%.
- The minimum urbanized core population for CAs (census agglomerations) was raised from 2,000 to 10,000.
- CAs (census agglomerations) were eligible for census tracts if they had a CSD (census subdivision) with a population of at least 50,000 at the time of the previous census. Single CSD (census subdivision) (component) CAs (census agglomerations) could be created for subdivision into census tracts.

1976

- Commuting data based on the place of work question of the previous decennial census were used for the first time to delineate CMAs (census metropolitan areas). The forward commuting threshold was 40% and the reverse commuting threshold was 25% for the CMAs (census metropolitan areas).
- For CAs (census agglomerations), see 1971.

1971

- CMAs (census metropolitan areas) were defined as main labour market areas, but were delineated according to alternate criteria based on the labour force composition, population growth rate and accessibility. At this time, the CMA (census metropolitan area) of Saint John, N.B. was 'grandfathered.'
- CAs (census agglomerations) were comprised of at least two adjacent municipal entities. These entities had to be at least partly urban and belong to an urbanized core having a population of at least 2,000. The urbanized core included a largest city and a remainder, each with a population of at least 1,000, and had a population density of at least 1,000 per square mile (386 people per square kilometre).

1966

- See 1961.

1961

- CMAs (census metropolitan areas) were delineated around cities with a population of at least 50,000, if the population density and labour force composition criteria were met, and the total CMA (census metropolitan area) population was at least 100,000.
- CAs (census agglomerations) were called major urban areas; see 1951.

1956

- See 1951.

1951

- The term 'census metropolitan area' appeared for the first time. This term designated cities of over 50,000 having fringe municipalities in close geographic, economic and social relations, the whole constituting a unit of over 100,000.
- The concept of 'major urban areas,' the forerunners to CAs (census agglomerations), was introduced. The term designated urban areas in which the largest city had a population of at least 25,000 and fewer than 50,000.

1941

- Data were published for 'greater cities,' i.e., those cities which have well-defined satellite communities in close economic relationship to them.

Census agricultural region (CAR)

Detailed definition

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 years

2011, 2006, 2001, 1996, 1991, 1986, 1981

Remarks

Census agricultural regions are not defined in Yukon, the Northwest Territories and Nunavut. Also, in Prince Edward Island, for the purpose of disseminating data, each of the three existing census divisions (counties) is treated as a census agricultural region.

In the Prairie Provinces, census agricultural regions are commonly referred to as crop districts.

Each census agricultural region is assigned a two-digit code. In order to uniquely identify each CAR (census agricultural region) in Canada, the two-digit province/territory (PR) code must precede the CAR (census agricultural region) code. For example:

PR (Province/territory)-CAR (census agricultural region) code	CAR (census agricultural region) name
46 03	Agricultural Region 3 (Man. (Manitoba))
59 03	Thompson–Okanagan (B.C. (British Columbia))

Table 1 in the Introduction shows the number of census agricultural regions by province.

Census agricultural regions are used by the Census of Agriculture for disseminating agricultural statistics.

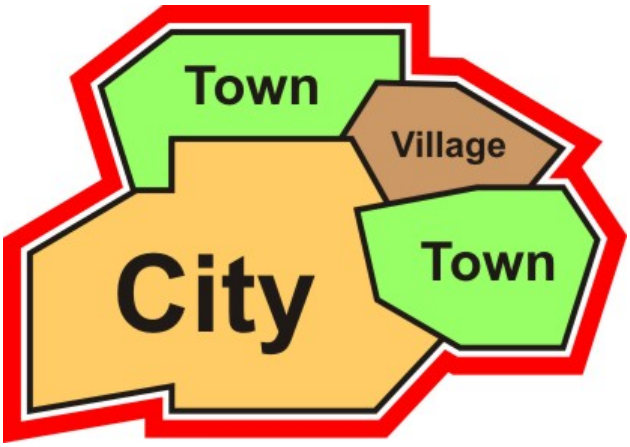
Changes prior to the current census

Prior to 1996, census agricultural regions were called 'agricultural regions.'

Census division (CD)

Plain language definition

Group of neighbouring municipalities joined together for the purposes of regional planning and managing common services (such as police or ambulance services). These groupings are established under laws in effect in certain provinces of Canada. For example, a census division might correspond to a county, *une municipalité régionale de comté*or a regional district. In other provinces and the territories where laws do not provide for such areas, Statistics Canada defines equivalent areas for statistical reporting purposes in cooperation with these provinces and territories.

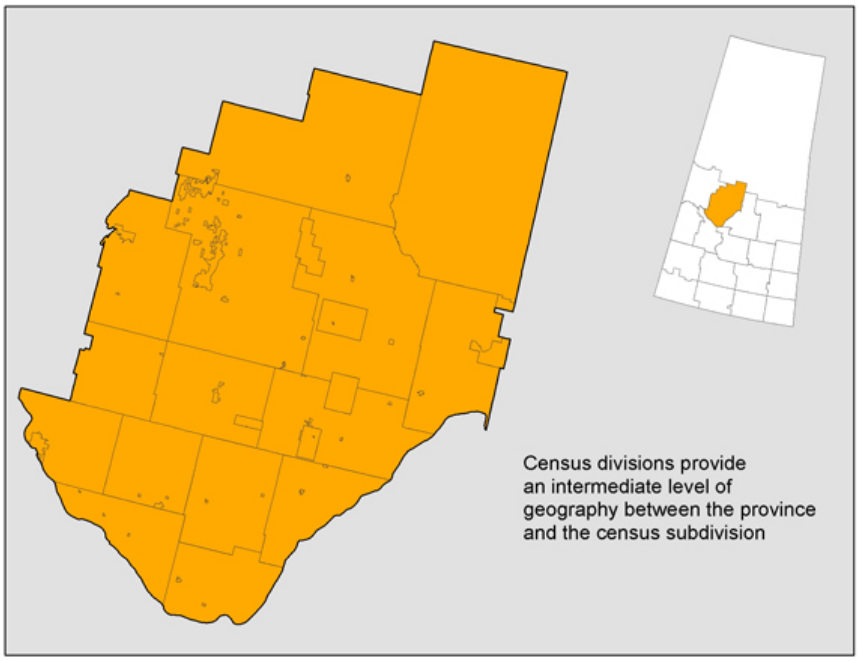


Census division tutorial, part 1

Census divisions have been established in provincial law in 6 of the 10 provinces to facilitate regional planning, as well as the provision of services that can be more effectively delivered on a scale larger than a municipality.

In Newfoundland and Labrador, Manitoba, Saskatchewan, Alberta, Yukon, Northwest Territories and Nunavut, provincial and territorial law does not provide for these administrative geographic areas. Therefore, Statistics Canada, in cooperation with these provinces and territories, has created equivalent areas called census divisions for the purpose of disseminating statistical data.

Census divisions provide an intermediate level of geography between the province and the census subdivision



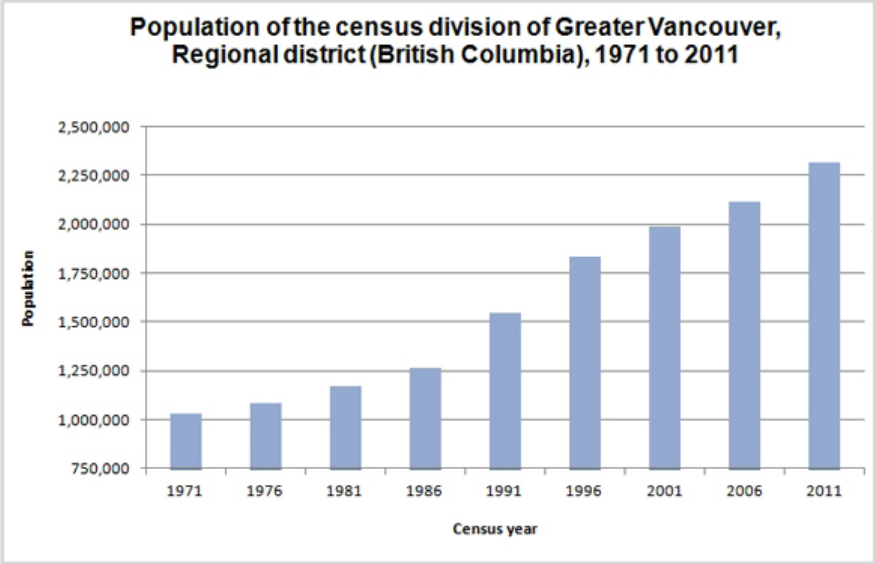
Source: Statistics Canada, Geography Division, 2011 Census of Population

Census division tutorial, part 2

Next to provinces and territories, census divisions are the most stable administrative geographic areas, and are therefore often used in longitudinal analysis. By using the census division code, which is based on the Standard Geographical Classification (SGC), users can track changes of a given census division over time.

In British Columbia, for example, the census division code '59 15' represents the census division of Greater Vancouver. The graph below shows the population trend in this census division over the past 40 years.

Population of the census division of Greater Vancouver (British Columbia), 1971 to 2011



Source: Statistics Canada, censuses of population, 1971 to 2011.

Census division: Detailed definition

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 years

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

Census divisions have been established in provincial law to facilitate regional planning, as well as the provision of services that can be more effectively delivered on a scale larger than a municipality. In Newfoundland and Labrador, Manitoba, Saskatchewan, Alberta, Yukon, Northwest Territories and Nunavut, provincial or territorial law does not provide for these administrative geographic areas. Therefore, Statistics Canada, in cooperation with these provinces and territories, has created equivalent areas called census divisions for the purpose of disseminating statistical data. In Yukon, the census division is equivalent to the entire territory.

Next to provinces and territories, census divisions are the most stable administrative geographic areas, and are therefore often used in longitudinal analysis.

Census division type

Census divisions are classified into 12 types according to official designations adopted by provincial or territorial authorities. Two exceptions are 'census division / *division de recensement*' (CDR) and 'territory / *territoire*' (TER), which are geographic units created as equivalents by Statistics Canada, in cooperation with the provinces and territories, for the purpose of disseminating statistical data.

Table 4 shows census division types, their abbreviated forms, and their distribution by province and territory.

Census division code

The census division (CD) code is a two-digit code that is based on the Standard Geographical Classification (SGC). In order to uniquely identify each CD (census division) in Canada, the two-digit province/territory (PR) code must precede the two-digit CD (census division) code. For example:

PR (Province/territory)-CD (census division) code	CD (census division) name
13 01	Saint John (N.B.)
24 01	Les Îles-de-la-Madeleine (Que.)

Changes to census divisions for the 2011 Census

The following CDs (census divisions) have had name or type changes for the 2011 Census:

- (CD 24 31) L'Amiante, MRC becomes Les Appalaches, MRC
- (CD 24 40) Asbestos, MRC becomes Les Sources, MRC
- (CD 24 53) Le Bas-Richelieu, MRC becomes Pierre-De Saurel, MRC
- (CD 24 98) Minganie–Basse-Côte-Nord, CDR becomes Minganie–Le Golfe-du-Saint-Laurent, CDR
- (CD 35 10) Frontenac, MB becomes Frontenac, CTY.

In the Northwest Territories, the CDs (census divisions) have been restructured, increasing in number from two to six. The naming convention of CDs (census divisions) in the Northwest Territories is now:

- (CD 61 01) Region 1, REG
- (CD 61 02) Region 2, REG
- (CD 61 03) Region 3, REG
- (CD 61 04) Region 4, REG
- (CD 61 05) Region 5, REG
- (CD 61 06) Region 6, REG.

The boundaries, names and codes of census divisions reflect those in effect on January 1, 2011, the geographic reference date for the 2011 Census of Canada. Information about any CD (census division) changes that were effective on or before the January 1, 2011 reference date must have been received by Statistics Canada prior to March 1, 2011, in order to be processed in time for the census.

Refer to the related definitions of census subdivision (CSD) and Standard Geographical Classification (SGC).

Changes prior to the current census

In 2006, the following changes were made to census divisions (CDs).

In New Brunswick, six municipalities (CSDs) straddled the legal county boundaries. In order to maintain the integrity of component municipalities, Statistics Canada modified the CD (census division) boundaries to ensure that the CSDs existed completely within the CD (census division). For these six municipalities straddling county boundaries, the county in **bold** indicates the census division in which these municipalities are completely located:

- Belledune (**Restigouche**/Gloucester)
- Fredericton (**York**/Sunbury)
- Grand Falls / Grand-Sault (**Victoria**/Madawaska)
- Meductic (Carleton/**York**)
- Minto (Sunbury/**Queens**)
- Rogersville (Kent/**Northumberland**)

Three CD (census division) types were added. These included: county / *comté* (CT) in New Brunswick, management board (MB) in Ontario, and *territoire équivalent* (TÉ) in Quebec. One CD (census division) type in Quebec, *communauté urbaine* (CU), was replaced by *territoire équivalent* (TÉ). Two CD (census division) types were modified slightly. These included census division (DIV), which became census division / *division de recensement* (CDR), and territory (TER), which became territory / *territoire* (TER).

In Newfoundland and Labrador, Statistics Canada created a new CD (census division) in cooperation with the provincial authorities and the Nunatsiavut Government to represent the Labrador Inuit Settlement Area. The lands covered by this new CD (census division), Division No. 11 (CD (census division) 10 11), were settled under the *Labrador Inuit Land Claims Agreement Act*, which was passed and received Royal Assent in December 2004. Five CSDs (Nain, Hopedale, Makkovik, Postville and Rigolet) existed completely within the newly created CD (census division). Two unorganized CSDs (Subdivision C and Subdivision E) were split between the new CD (census division), Division No. 11, and the old CD (census division), Division No. 10.

The CD (census division) of Desjardins (CD (census division) 24 24) was dissolved. The CSDs of Pintendre, M (24 24 010), Saint-Joseph-de-la-Pointe-de-Lévy, P (24 24 015), and Lévis, V (24 24 020) (now part of CSD Lévis, V [24 25 213]) were annexed to Les Chutes-de-la-Chaudière (now Lévis, TÉ [CD (census division) 24 25]) and the CSD of Saint-Henri, M (24 24 005) was annexed to Bellechasse (CD (census division) 24 19). The deletion of Desjardins decreased the number of CD (census division)s in Quebec to 98.

In Ontario, Frontenac, CTY became Frontenac, MB; Haldimand-Norfolk, RM became Haldimand-Norfolk, CDR; and Brant, CTY became Brant, CDR.

To remain consistent with the conventions used for naming census subdivisions, all CD (census division) names had any reference to the associated CD (census division) type removed from their names. For example, Niagara Regional Municipality, RM (CD (census division) 35 26) became known as Niagara, RM and Perth County, CTY (CD (census division) 35 31) became known as Perth, CTY.

Table 4
Census division types by province and territory, 2011 Census

Census division type		Canada	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut
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 metropolitan area (CMA) and Census agglomeration (CA)

Plain language definition

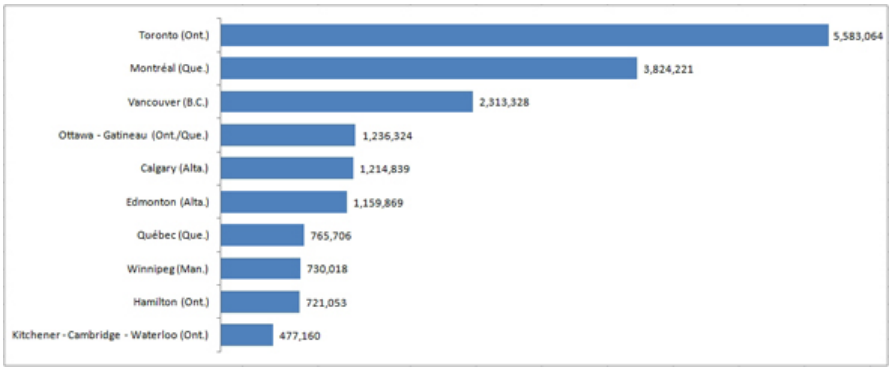
Area consisting of one or more neighbouring municipalities situated around a core. A census metropolitan area must have a total population of at least 100,000 of which 50,000 or more live in the core. A census agglomeration must have a core population of at least 10,000.

CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 1

Census metropolitan areas (CMAs) and census agglomerations (CAs) are considered to be large, densely populated centres made up of adjacent municipalities that are economically and socially integrated.

According to the 2011 Census, 82% of Canada's population lives within a CMA (Census metropolitan area) or CA (census agglomerations). This amounts to over 27 million people. More than half of the population, about 18 million people, lives in the ten largest CMAs (Census metropolitan areas).

Population of Canada's ten largest census metropolitan areas, 2011 Census



Source: Statistics Canada, 2011 Census of Population.

CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 2

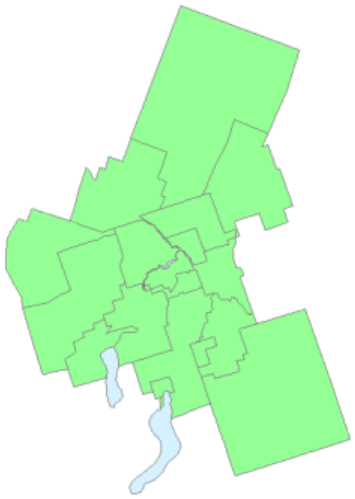
Census metropolitan areas (CMA) and census agglomerations (CAs) are groups of one or more adjacent municipalities (CSDs) that are centred on and have a high degree of integration with a large population centre, known as the core. The term 'population centre' replaces the term 'urban area' for the 2011 Census.

A CMA (Census metropolitan area) or CA (census agglomerations) is delineated using adjacent CSD (census subdivision)s as building blocks. These are included in the CMA (Census metropolitan area) or CA (census agglomerations) if they meet at least one of the following rules, which are ranked in order of priority:

1. Core rule
2. Forward commuting flow rule
3. Reverse commuting flow rule
4. Spatial contiguity rule
5. Historical comparability rule

The rest of this tutorial illustrates how each of these rules is applied and how CSD (census subdivision)s are added to a CMA (Census metropolitan area) and CA (census agglomerations).

Example of census subdivisions to be evaluated in census metropolitan area and census agglomeration delineation



CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 3

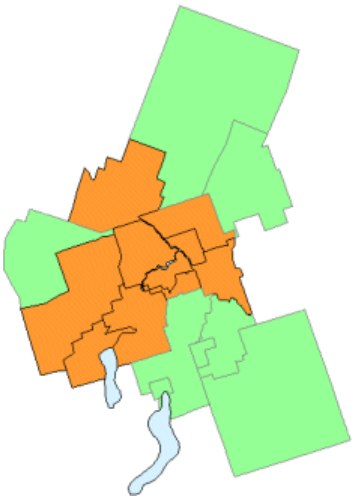
Core rule

Once a population centre attains a total population of 10,000 people, it is eligible to become the core of a census agglomeration (CA). Once a population centre attains a total population of 50,000 people and it is already the core of a CA, then it is eligible to become the core of a census metropolitan area (CMA).

All census subdivisions (CSDs) that fall completely or partly inside the core are included in the CMA (Census metropolitan areas) or CA (census agglomeration) (census agglomeration). If a smaller CSD (census subdivision) exists within one of the CSDs (census subdivisions) that are already included in the core, creating a 'core hole,' then that CSD (census subdivision) is also included in the CMA (Census metropolitan areas) or CA (census agglomeration).

Since CMA (Census metropolitan areas)s and CA (census agglomeration)s are based on CSDs (census subdivisions), a 'delineation core' is created from those CSDs (census subdivisions) that came into the CMA (Census metropolitan areas) or CA (census agglomeration) under the core rule **and** have at least 75% of its population living in the core. These CSD (census subdivision)s are used for determining whether other CSDs (census subdivisions) will be included in the CMA or CA (census agglomeration) according to the next three rules.

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the core rule

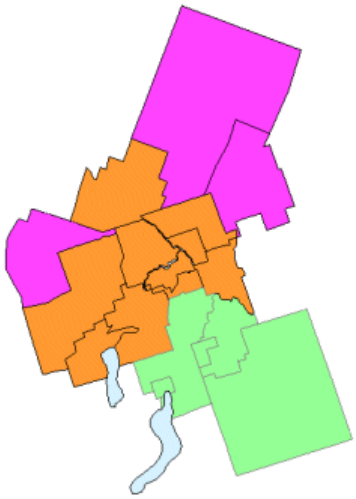


CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 4

Forward commuting flow rule

Using commuting data based on the place of work question in the previous census (2006 Census), commuting flows are calculated for CSD (census subdivisions)s surrounding the delineation core. If the CSD (census subdivisions) has a minimum of 100 commuters going into the delineation core and at least 50% of the employed labour force **living** in the CSD (census subdivisions)**works** in the delineation core, then the CSD (census subdivisions) is included in the CMA (Census metropolitan areas) or CA (census agglomerations).

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the forward commuting flow rule

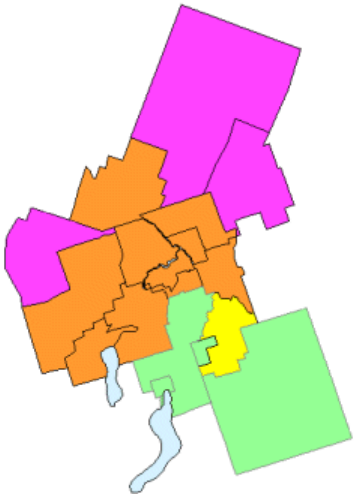


CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 5

Reverse commuting flow rule

Commuting flows are also calculated for the delineation core. If the delineation core has a minimum of 100 commuters going out to a surrounding CSD (census subdivision) and at least 25% of the employed labour force **living** in the delineation core **works** in a surrounding CSD (census subdivision), then that CSD (census subdivision) is included in the CMA (census metropolitan area) or CA (census agglomeration).

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the reverse commuting flow rule



CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 6

Spatial contiguity rule

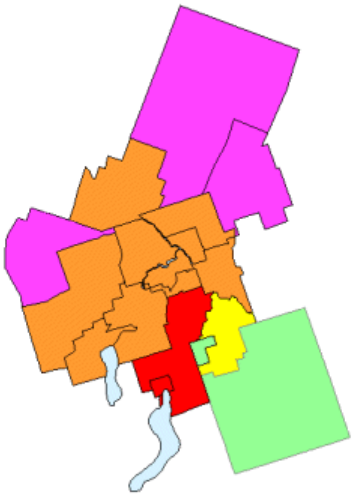
Two situations can lead to the inclusion or exclusion of a CSD (census subdivision) in a CMA (census metropolitan area) or CA (census agglomeration) for reasons of spatial contiguity. Specifically, these are:

'CSD (census subdivision) Outlier' – A CSD (census subdivision) is adjacent to a CMA (census metropolitan area) or CA (census agglomeration) but does not have sufficient commuting flows (either forward or reverse) to be part of the CMA (census metropolitan area) or CA (census agglomeration). However, it contains a CSD (census subdivision) that has sufficient commuting flows to or from the delineation core.

'CSD (census subdivision) Hole' – A CSD (census subdivision) is adjacent to a CMA (census metropolitan area) or CA (census agglomeration) and has sufficient commuting flows (either forward or reverse) to be part of the CMA (census metropolitan area) or CA (census agglomeration). However, this CSD (census subdivision) contains another CSD (census subdivision) that does not have sufficient commuting flows to or from the delineation core.

When either of these situations arises, the CSD (census subdivision) that is adjacent to the CMA (census metropolitan area) or CA (census agglomeration) is grouped with its outliers or its holes to create a 'minimum CSD (census subdivision) set.' The commuting flows for the minimum CSD (census subdivision) set, as a whole, are calculated. If the minimum CSD (census subdivision) set meets either of the commuting flow rules then all of its CSDs (census subdivisions) are included in the CMA (census metropolitan area) or CA (census agglomeration).

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the the spatial contiguity rule

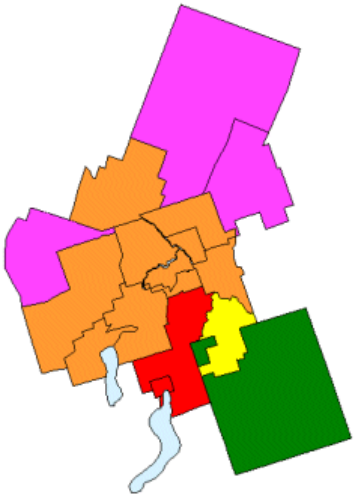


CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 7

Historical comparability rule

To maintain historical comparability for CMAs (census metropolitan areas) and larger CAs (census agglomerations) (those with census tracts in the previous census), CSDs (census subdivisions) are usually retained in the CMA (census metropolitan area) or larger CA (census agglomeration) even if their commuting flow percentages fall below the commuting flow thresholds. If a CSD (census subdivision) has had boundary changes since the last census, then the commuting flow data for that CSD (census subdivision) are recalculated and a decision to include or exclude the CSD (census subdivision) is made according to the previous rules.

Example of census subdivisions added to a census metropolitan area and census agglomeration due to the historical comparability rule



CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 8

Manual adjustments rule

A CMA (census metropolitan area) or CA (census agglomeration) represents an area that is economically and socially integrated. However, there are certain limitations to the extent by which this ideal can be met. Since the CSD (census subdivision)s that are used as building blocks in CMA (census metropolitan area) and CA (census agglomeration) delineation are administrative units, their boundaries are not always the most suitable with respect to CMA (census metropolitan area) and CA (census agglomeration) delineation. There are always situations where the application of the above rules creates undesirable outcomes, or where the rules cannot be easily applied. In these circumstances, a manual override is sometimes applied to ensure that the integrity of the program is retained.

CMA (Census metropolitan area) and CA (census agglomeration) tutorial, part 9

Merge rule

Commuting flows are calculated for census agglomerations (CAs) and census metropolitan areas (CMAs) that are adjacent to one another. A CA (census agglomeration) can be merged with the CMA (census metropolitan area) if the total percentage commuting interchange between the CA (census agglomeration) and CMA (census metropolitan area) is at least 35% of the employed labour force living in the CA (census agglomeration). The total percentage commuting interchange is the sum of the commuting flow in both directions between the CMA (census metropolitan area) and the CA (census agglomeration) as a percentage of the labour force living in the CA (census agglomeration) (i.e. (that is to say), resident employed labour force).

$$\frac{\text{Total resident employed labour force living in the CA and working in the CMA} + \text{Total resident employed labour force living in the CMA and working in the CA}}{\text{Resident employed labour force of the CA}} \times 100$$

CMA (Census metropolitan area) and CA (census agglomeration): Detailed definition

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 (census metropolitan area) must have a total population of at least 100,000 of which 50,000 or more must live in the core. A CA (census agglomeration) must have a core population of at least 10,000. To be included in the CMA (census metropolitan area) or CA (census agglomeration), 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 (census agglomeration) declines below 10,000, the CA (census agglomeration) is retired. However, once an area becomes a CMA (census metropolitan area), it is retained as a CMA (census metropolitan area) 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 (census metropolitan area) or CA (census agglomeration) that are not population centres are rural areas.

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

Census years

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961, 1956, 1951, 1941

Remarks

The terms 'core,' 'fringe' and 'rural area' replace the terms 'urban core,' 'urban fringe' and 'rural fringe' for the 2011 Census.

Cores

A census metropolitan area (CMA) or a census agglomeration (CA) can have more than one core. The core of a CMA (census metropolitan area) must have a population of at least 50,000 and the core of a CA (census agglomeration) must have a population of at least 10,000. In all other cases where a CMA (census metropolitan area) or a CA (census agglomeration) has more than one core, the additional cores are called secondary cores. When a CA (census agglomeration) is merged with a CMA (census metropolitan area), the core of the former CA (census agglomeration) also becomes a secondary core of the CMA (census metropolitan area). If the population of a fringe population centre exceeds 10,000, it becomes a secondary core of the CMA (census metropolitan area) or CA (census agglomeration) in which it exists. See Merging adjacent CMAs (census metropolitan areas) and CAs (census agglomerations) (delineation rule 7).

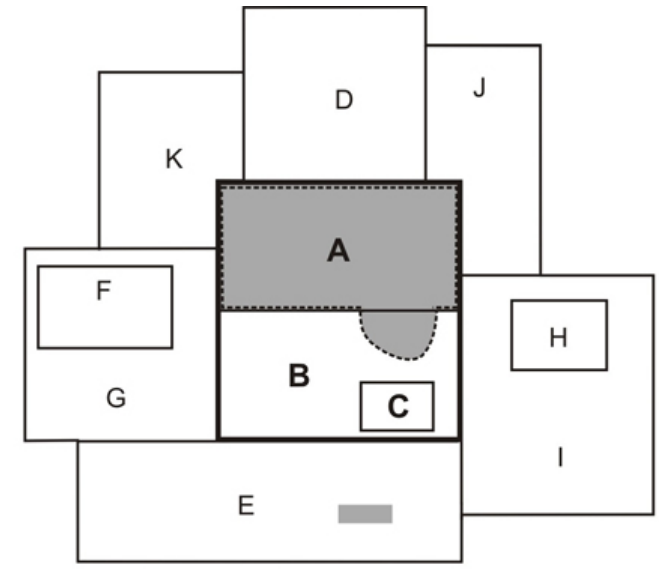
Delineation rules for CMAs (census metropolitan areas) and CAs (census agglomerations)

A CMA (census metropolitan area) or CA (census agglomeration) is delineated using adjacent municipalities (census subdivisions) as building blocks. These census subdivisions (CSDs) are included in the CMA (census metropolitan area) or CA (census agglomeration) if they meet at least one of the following rules. The rules are ranked in order of priority. A CSD (census subdivision) obeying the rules for two or more CMAs (census metropolitan areas) or CAs (census agglomerations) is included in the one for which it has the highest ranked rule. If the CSD (census subdivision) meets rules that have the same rank, the decision is based on the population or the number of commuters involved. A CMA (census metropolitan area) or CA (census agglomeration) is delineated to ensure spatial contiguity.

1. Core rule: The CSD (census subdivision) falls completely or partly inside the core.

A core hole is a CSD (census subdivision) enclosed by a CSD (census subdivision) that is at least partly within the core and must be included to maintain spatial contiguity. In Figure 6, CSDs (census subdivisions) A, B and C are included in the CMA (census metropolitan area) or CA (census agglomeration) because of the core rule. CSD (census subdivision) C is a core hole.

Figure 6
Core rule



Census metropolitan area boundary
Census subdivision boundary
Population centre
Core

Census subdivisions included

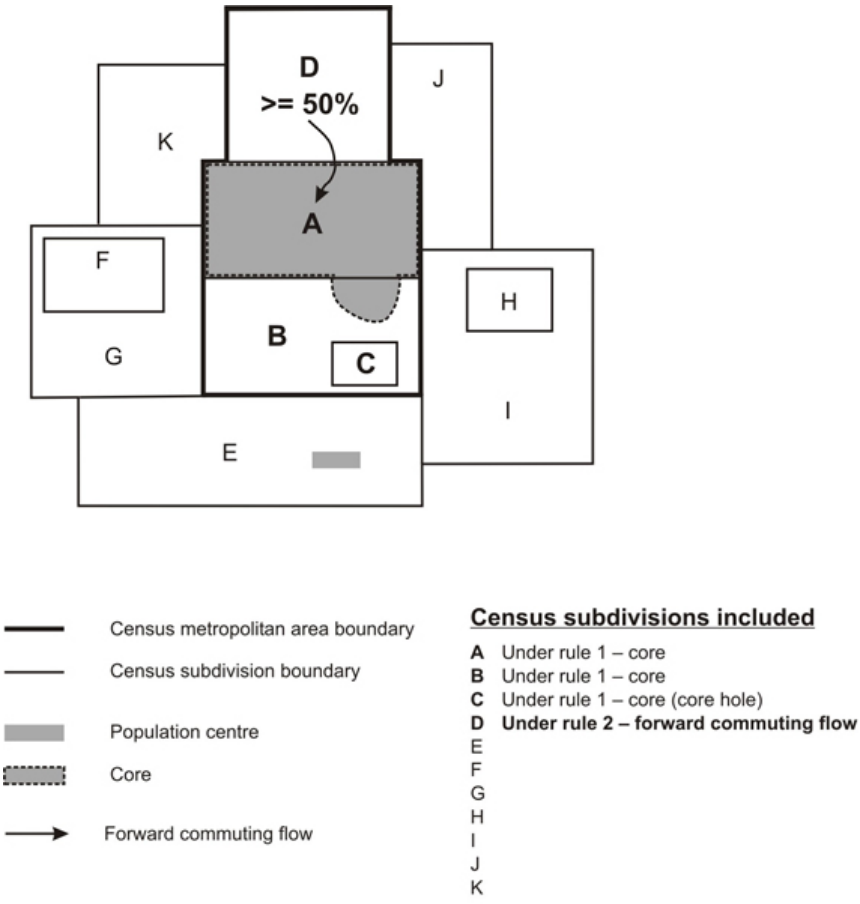
A Under rule 1 – core
B Under rule 1 – core
C Under rule 1 – core (core hole)
D
E
F
G
H
I
J
K

Source: Statistics Canada, 2011 Census of Population.

2. Forward commuting flow rule: Given a minimum of 100 commuters, at least 50% of the employed labour force living in the CSD (census subdivision) works in the delineation core (see following note), as determined from commuting data based on the place of work question in the previous census.

Note: For CMA (census metropolitan area) and CA (census agglomeration) delineation purposes, a delineation core is created respecting CSD (census subdivision) limits. For a CSD (census subdivision) to be included in the primary or the secondary delineation core, at least 75% of a CSD (census subdivision)'s population must reside within the core. In Figure 7, CSD (census subdivision) A is part of the delineation core since its entire population resides within the core. CSD (census subdivision) B would also be part of the delineation core if at least 75% of its population resides within the core. For this example, we have assumed that less than 75% of the population of CSD (census subdivision) B resides within the core; therefore, CSD (census subdivision) B and its enclosed hole, CSD (census subdivision) C, are not considered to be part of the delineation core.

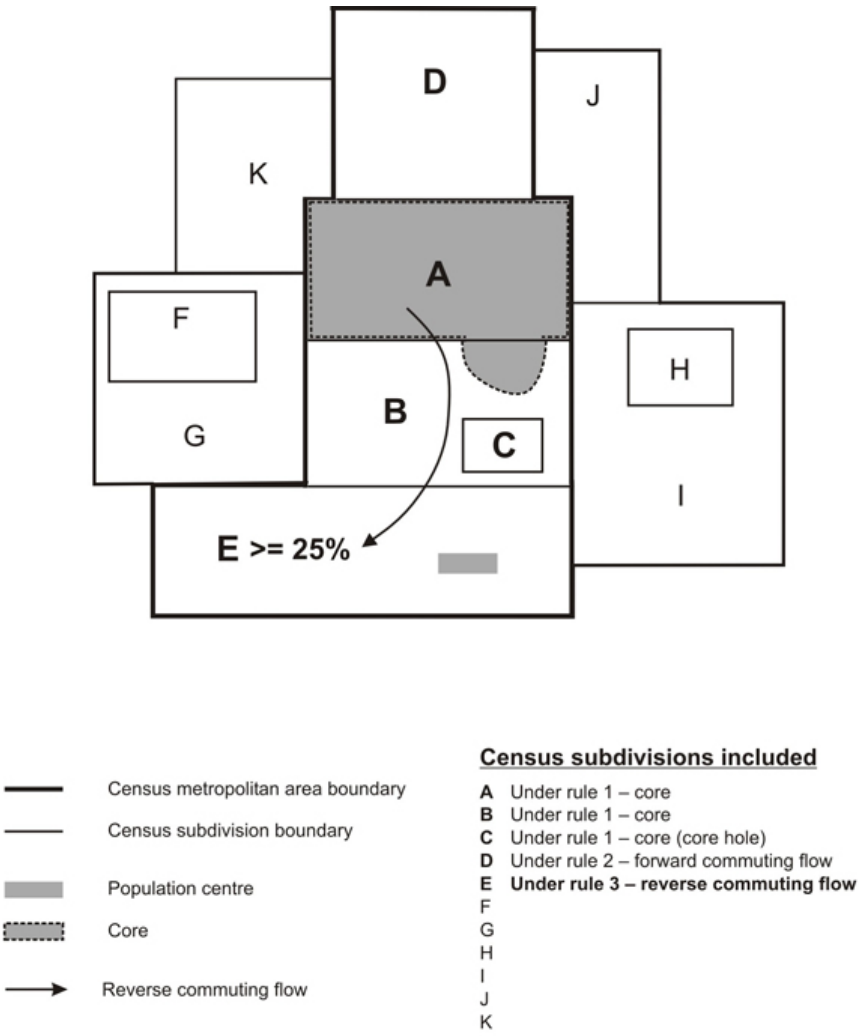
Figure 7
Forward commuting flow rule



Source: Statistics Canada, 2011 Census of Population.

3. Reverse commuting flow rule: Given a minimum of 100 commuters, at least 25% of the employed labour force working in the CSD (census subdivision) lives in the delineation core as determined from commuting data based on the place of work question in the previous census. In Figure 8, at least 25% of the employed labour force working in CSD (census subdivision) E lives in CSD (census subdivision) A (see Note for rule 2).

Figure 8
Reverse commuting flow rule



Source: Statistics Canada, 2011 Census of Population.

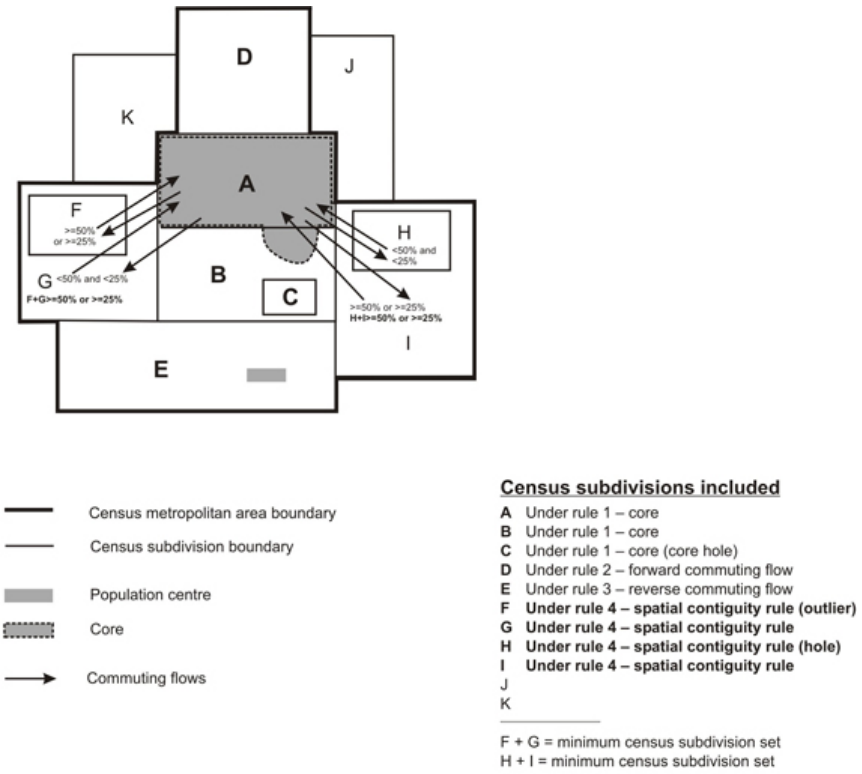
4. Spatial contiguity rule: CSDs (census subdivisions) that do not meet a commuting flow threshold may be included in a CMA (census metropolitan area) or CA (census agglomeration), and CSDs (census subdivisions) that do meet a commuting flow threshold may be excluded from a CMA (census metropolitan area) or CA (census agglomeration).

Two situations can lead to inclusion or exclusion of a CSD (census subdivision) in a CMA (census metropolitan area) or CA (census agglomeration) for reasons of spatial contiguity. Specifically these are:

Outlier — A CSD (census subdivision) (F in Figure 9) with sufficient commuting flows (either forward or reverse) is enclosed by a CSD (census subdivision) (G in Figure 9) with insufficient commuting flows, but which is adjacent to the CMA (census metropolitan area) or CA (census agglomeration). When this situation arises, the CSDs (census subdivisions) within and including the enclosing CSD (census subdivision) are grouped to create a minimum CSD (census subdivision) set (F + G). The total commuting flows for the minimum CSD (census subdivision) set are then considered for inclusion in the CMA (census metropolitan area) or CA (census agglomeration). If the minimum CSD (census subdivision) set has sufficient commuting flows (either forward or reverse), then all of its CSDs (census subdivisions) are included in the CMA (census metropolitan area) or CA (census agglomeration).

Hole — A CSD (census subdivision) (H in Figure 9) with insufficient commuting flows (either forward or reverse) is enclosed by a CSD (census subdivision) (I in Figure 9) with sufficient commuting flows, and which is adjacent to the CMA (census metropolitan area) or CA (census agglomeration). When this situation arises, the CSDs (census subdivisions) within and including the enclosing CSD (census subdivision) are grouped to create a minimum CSD (census subdivision) set (H + I). The total commuting flows for the minimum CSD (census subdivision) set are then considered for inclusion in the CMA (census metropolitan area) or CA (census agglomeration). If the minimum CSD (census subdivision) set has sufficient commuting flows (either forward or reverse), then all of its CSDs (census subdivisions) are included in the CMA (census metropolitan area) or CA (census agglomeration).

Figure 9
Spatial contiguity rule

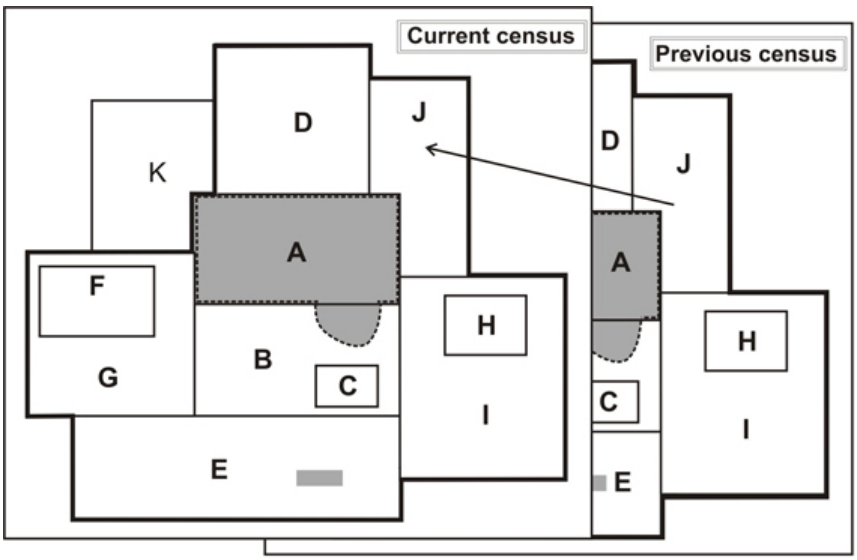


Note:
CSD F (outlier) has sufficient flows - either >= 50% forward or >= 25% reverse commuting flows
CSD G has insufficient flows - has < 50% forward and < 25% reverse commuting flows
CSD H (hole) has insufficient flows - has < 50% forward and < 25% reverse commuting flows
CSD I has sufficient flows - either >= 50% forward or >= 25% reverse commuting flows

Source: Statistics Canada, 2011 Census of Population.

5. Historical comparability rule: To maintain historical comparability for CMAs (census metropolitan areas) and larger CAs (census agglomerations) (those with census tracts in the previous census), CSDs (census subdivisions) are retained in the CMA (census metropolitan area) or CA (census agglomeration) even if their commuting flow percentages fall below the commuting flow thresholds (rules 2 and 3). See Figure 10.

Figure 10
Historical comparability rule



Census metropolitan area boundary

Census subdivision boundary

Population centre

Core

Census subdivisions included

A Under rule 1 – core
B Under rule 1 – core
C Under rule 1 – core (core hole)
D Under rule 2 – forward commuting flow
E Under rule 3 – reverse commuting flow
F Under rule 4 – spatial contiguity rule (outlier)
G Under rule 4 – spatial contiguity rule
H Under rule 4 – spatial contiguity rule (hole)
I Under rule 4 – spatial contiguity rule
J **Under rule 5 – historical comparability**
K

Source: Statistics Canada, 2011 Census of Population.

An exception to the historical comparability rule is made in cases where CSDs (census subdivisions) have undergone changes to their boundaries, such as annexations. To determine whether to keep or exclude a CSD (census subdivision), place of work data are retabulated for the CSD (census subdivision) with boundary changes, and a decision to include or exclude the CSD (census subdivision) is made according to the previous rules.

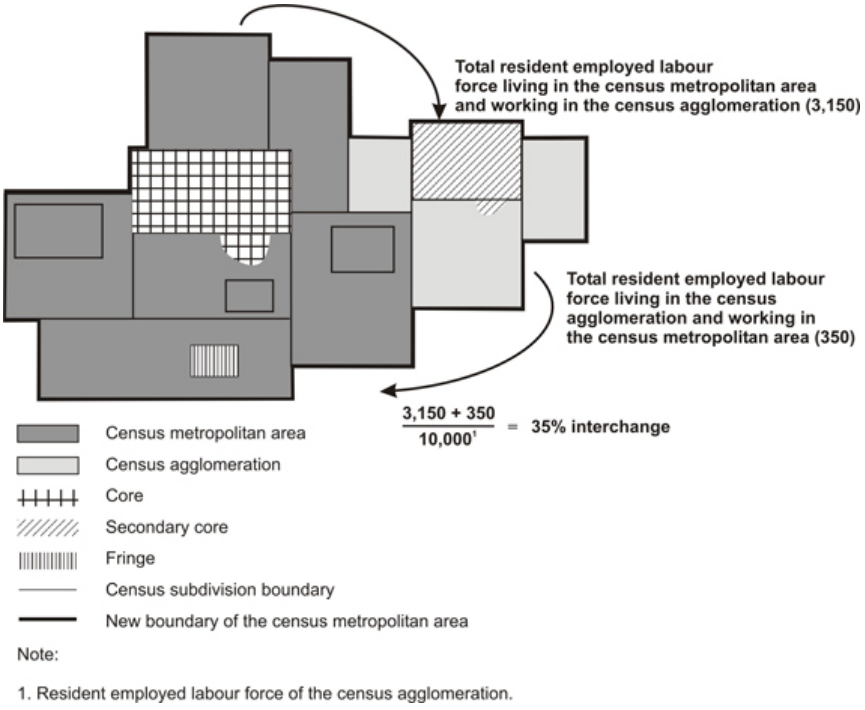
6. Manual adjustments: A CMA (census metropolitan area) or CA (census agglomeration) represents an area that is economically and socially integrated. However, there are certain limitations to the extent by which this ideal can be met. Since the CSDs (census subdivisions) that are used as building blocks in CMA (census metropolitan area) and CA (census agglomeration) delineation are administrative units, their boundaries are not always the most suitable with respect to CMA (census metropolitan area) and CA (census agglomeration) delineation. There are always situations where the application of the above rules creates undesirable outcomes, or where the rules cannot be easily applied. In these circumstances, a manual override is sometimes applied to ensure that the integrity of the program is retained. For example, in Miramichi CA (census agglomeration) (New Brunswick), the CSD (census subdivision) of Red Bank 4, IRI, which is in two parts, is included to maintain spatial contiguity.

7. Merging adjacent CMAs (census metropolitan areas) and CAs (census agglomerations): A CA (census agglomeration) adjacent to a CMA (census metropolitan area) can be merged with the CMA (census metropolitan area) if the total percentage commuting interchange between the CA (census agglomeration) and CMA (census metropolitan area) is equal to at least 35% of the employed labour force living in the CA (census agglomeration), based on place of work data from the previous census. The total percentage commuting interchange is the sum of the commuting flow in both directions between the CMA (census metropolitan area) and the CA (census agglomeration) as a percentage of the labour force living in the CA (census agglomeration) (i.e., resident employed labour force).

$$\frac{\text{Total resident employed labour force living in the CA and working in the CMA} + \text{Total resident employed labour force living in the CMA and working in the CA}}{\text{Resident employed labour force of the CA}} \times 100\%$$

If more than one CA (census agglomeration) is adjacent to the same CMA (census metropolitan area), each CA (census agglomeration) is assessed separately with the CMA (census metropolitan area). Several CAs (census agglomerations) may be merged with one CMA (census metropolitan area). If the total percentage commuting interchange is less than 35%, the CMA (census metropolitan area) and CA (census agglomeration) are not merged. After a CA (census agglomeration) is merged with a CMA (census metropolitan area), the core of the former CA (census agglomeration) is called the secondary core of the CMA (census metropolitan area). See Figure 11.

Figure 11
Example of a merged census metropolitan area and census agglomeration



Source: Statistics Canada, 2011 Census of Population.

Naming convention for CMAs (census metropolitan areas) and CAs (census agglomerations)

Prior to May 25, 2009, the convention for the naming of a CMA (census metropolitan area) or CA (census agglomeration) was based on the name of the principal population centre or largest city at the time the CMA (census metropolitan area) or CA (census agglomeration) was first formed. This standard had been used since the 1971 Census. Through the years, the CMA (census metropolitan area) and CA (census agglomeration) names have remained stable. The most important changes resulted from name changes to the census subdivisions (resulting from municipal dissolutions, incorporations and name changes).

Guidelines for CMA (census metropolitan area) name change requests

The key revision to the convention is the establishment of 'Guidelines for CMA (census metropolitan area) name change requests' as published in *Preliminary 2011 Census Metropolitan and Census Agglomeration Delineation*(Catalogue no. (number) 92F0138M). Below are the guidelines for requesting a change:

1. CMA (census metropolitan area) names can consist of up to three legislated municipal names of eligible census subdivisions (CSDs) that are components of the CMA (census metropolitan area). However, the number of name elements in any new CMA (census metropolitan area) name request is limited to five. If any of the eligible CSD (census subdivision) names are already hyphenated or compound, the number of CSD (census subdivision) names will be limited to two or one if the number of name elements exceeds five.
2. The eligible municipal names include the historic central municipality name and the two component CSDs (census subdivisions) with the largest population, and having a population of at least 10,000, according to the last census.
3. The ordering of the municipal names within the CMA (census metropolitan area) name is determined by the historic (central) municipality and the population size of the eligible CSDs (census subdivisions). The first component of the CMA (census metropolitan area) name is always the historic (central) CSD (census subdivision) even if its census population count is less than

the other eligible component CSDs (census subdivisions). This ensures that CMA (census metropolitan area) names retain a measure of stability for better longitudinal recognition. The second and third place name order is determined by population size. The component CSD (census subdivision) with the higher census population count at the time of the name change assumes the second position and the next largest component CSD (census subdivision), the third position.

4. In order for a requested CMA (census metropolitan area) name change to be implemented, there must be explicit consensus among all eligible component municipalities on a proposed new name and a formal request, in accordance with these guidelines, must be sent to the Director of the Geography Division at Statistics Canada by June 1 of the year prior to the census. The CMA (census metropolitan area) name change will be implemented in the revision of the Standard Geographical Classification related to the census under consideration.
5. Statistics Canada will continue to change CMA (census metropolitan area) names whenever the legislated name of a municipality changes. Any other request for a name change will only be considered within the context of these guidelines.

CMA (census metropolitan area)/CA (census agglomeration) coding structure

Each CMA (census metropolitan area) and CA (census agglomeration) is assigned a three-digit code that identifies it uniquely in Canada. The first digit is the same as the second digit of the province code in which the CMA (census metropolitan area) or CA (census agglomeration) is located. If a CMA (census metropolitan area) or CA (census agglomeration) spans a provincial boundary, then the province code assigned represents the province with the greater proportion of core population. Codes for CAs (census agglomerations) in Yukon and the Northwest Territories begin with the same digit as for those CMAs (census metropolitan areas) or CAs (census agglomerations) located in British Columbia. There are currently no CMAs (census metropolitan areas) or CAs (census agglomerations) in Nunavut.

CMA (census metropolitan area) /CA (census agglomeration) code	CMA (census metropolitan area) /CA (census agglomeration) name
001	St. (Saint) John's CMA (census metropolitan area) (N.L. (Newfoundland and Labrador))
215	Truro CA (census agglomeration) (N.S. (Nova Scotia))
462	Montréal CMA (census metropolitan area) (Que. (Quebec))
995	Yellowknife CA (census agglomeration) (N.W.T. (Northwest Territories))

If data for provincial parts are required, it is recommended that the two-digit province/territory (PR) code precede the CMA (census metropolitan area)/CA (census agglomeration) code for those CMAs (census metropolitan areas)/CAs (census agglomerations) that cross provincial boundaries. For example:

PR (Province/territory)- CMA (census metropolitan area) /CA (census agglomeration) code	CMA (census metropolitan area) /CA (census agglomeration) name
24 505	Ottawa - Gatineau CMA (census metropolitan area) (Quebec part)
35 505	Ottawa - Gatineau CMA (census metropolitan area) (Ontario part)
47 840	Lloydminster CA (census agglomeration) (Saskatchewan part)
48 840	Lloydminster CA (census agglomeration) (Alberta part)

Table 1 in the Introduction shows the number of census metropolitan areas and census agglomerations by province and territory.

Changes to the number of CMAs (census metropolitan areas) and CAs (census agglomerations) for the 2011 Census

Two CMAs (census metropolitan areas) from the previous census had their names changed: Abbotsford became Abbotsford-Mission (B.C.) and Kitchener became Kitchener-Cambridge-Waterloo (Ont.).

Five new CAs (census agglomerations) were created: Steinbach (Man.), High River (Alta.), Strathmore (Alta.), Sylvan Lake (Alta.) and Lacombe (Alta.).

The CAs (census agglomerations) of La Tuque (Que.) and Kitimat (B.C.) were retired because the population of their cores dropped below 10,000 in 2006.

Data quality

CMAs (census metropolitan areas) and CAs (census agglomerations) are statistically comparable because they are delineated in the same way across Canada. They differ from other areas such as trading or marketing areas, or regional planning areas designated by regional authorities for planning and other purposes, and should be used with caution for non-statistical purposes.

The CSD (census subdivision) limits used in CMA (census metropolitan area) and CA (census agglomeration) delineation are those in effect on January 1, 2011 (the geographic reference date for the 2011 Census) and received by Statistics Canada before March 1, 2011. In addition, CMA (census metropolitan area) and CA (census agglomeration) delineation uses commuting data based on the place of work question asked in the previous census.

Refer to the related definitions of census subdivision (CSD); core, fringe and rural area; population centre (POPCTR) and to the geography working paper *Preliminary 2011 Census Metropolitan Area and Census Agglomeration Delineation*(Catalogue no. 92F0138MWE2009002).

Changes prior to the current census

2006

- For 2006, CAs (census agglomerations) were no longer required to have an urban core population of 100,000 to be promoted to the status of a CMA (census metropolitan area). Instead, CAs (census agglomerations) assumed the status of a CMA (census metropolitan area) if they had attained a total population of at least 100,000 of which 50,000 or more lived in the urban core.
- Prior to the 2011 Census, CMA (census metropolitan area) and CA (census agglomeration) delineation used commuting data based on the place of work question asked in the decennial census. The 2006 CMAs (census metropolitan areas) and CAs (census agglomerations) are based on the population and place of work data from the 2001 Census while the 2001 and 1996 CMAs (census metropolitan areas) and CAs (census agglomerations) are based on population and place of work data from the 1991 Census.

2001

- For 2001, CAs (census agglomerations) were required to have an urban core population of at least 100,000 to be changed to the status of a CMA (census metropolitan area).
- For 2001, consolidated CMAs (census metropolitan areas) were no longer defined for dissemination purposes. As a result, primary CMAs (census metropolitan areas) and primary CAs (census agglomerations) were also not defined. However, the consolidation rule was retained and incorporated into the CMA (census metropolitan area) delineation methodology. There was no substantive change to the methodology for defining CMAs (census metropolitan areas) and no change to the limits of CMAs (census metropolitan areas) resulting from this rule change.
- Prior to 2001, adjacent CMAs (census metropolitan areas) and CAs (census agglomerations) that had sufficient commuting interchange (35% or more) and were merged were identified by the terms 'primary census metropolitan area (PCMA)' and 'primary census agglomeration (PCA).' The terms 'consolidated census metropolitan area (CCMA)' and 'consolidated census agglomeration (CCA)' described the sum of the component CMAs (census metropolitan areas) and CAs (census agglomerations). Census data were disseminated for these areas. These terms were not used for the standard dissemination program for 2001.
- Six of 27 CMAs (census metropolitan areas) were affected significantly as a result of municipal restructuring: Halifax (N.S.), Ottawa – Hull (Ont./Que.), Kingston (Ont.), Greater Sudbury (Ont.), London (Ont.) and Windsor (Ont.).

1996

- Two changes to CMA (census metropolitan area)/CA (census agglomeration) delineation rules were implemented to preserve data comparability over time. CMAs (census metropolitan areas) could be consolidated with CAs (census agglomerations), but they could not be consolidated with other CMAs (census metropolitan areas). A primary census agglomeration (PCA) could not be retired from a consolidated CMA (census metropolitan area) or CA (with census tracts at the previous census) even if its total commuting interchange percentage dropped below the consolidation threshold of 35%. Exceptions to this rule could occur due to changes in the physical structure of the urban areas used to determine the urban cores.

- Minimum sets of CSDs (census subdivisions) were used instead of the census consolidated subdivisions (CCSs) for evaluation in the spatial contiguity rule. Refer to the spatial contiguity rule (rule 4).

1986

- Introduction of the consolidated and primary CMA (census metropolitan area) and CA (census agglomeration) concept.
- The forward commuting threshold was raised from 40% to 50% to control for differences in processing of the place of work data between 1971 and 1981.
- Introduction of the minimum of 100 commuters for forward and reverse commuting for both CMAs (census metropolitan areas) and CAs (census agglomerations). Single CSD (census subdivision) (component) CAs (census agglomerations) were permitted.

1981

- Commuting data based on the place of work question of the previous decennial census were used for the first time to delineate CAs (census agglomerations). For both CMAs (census metropolitan areas) and CAs (census agglomerations), the forward commuting threshold was 40% and the reverse commuting threshold was 25%.
- The minimum urbanized core population for CAs (census agglomerations) was raised from 2,000 to 10,000.
- CAs (census agglomerations) were eligible for census tracts if they had a CSD (census subdivision) with a population of at least 50,000 at the time of the previous census. Single CSD (census subdivision) (component) CAs (census agglomerations) could be created for subdivision into census tracts.

1976

- Commuting data based on the place of work question of the previous decennial census were used for the first time to delineate CMAs (census metropolitan areas). The forward commuting threshold was 40% and the reverse commuting threshold was 25% for the CMAs (census metropolitan areas).
- For CAs (census agglomerations), see 1971.

1971

- CMAs (census metropolitan areas) were defined as main labour market areas, but were delineated according to alternate criteria based on the labour force composition, population growth rate and accessibility. At this time, the CMA (census metropolitan area) of Saint John, N.B. was 'grandfathered.'
- CAs (census agglomerations) were comprised of at least two adjacent municipal entities. These entities had to be at least partly urban and belong to an urbanized core having a population of at least 2,000. The urbanized core included a largest city and a remainder, each with a population of at least 1,000, and had a population density of at least 1,000 per square mile (386 people per square kilometre).

1966

- See 1961.

1961

- CMAs (census metropolitan areas) were delineated around cities with a population of at least 50,000, if the population density and labour force composition criteria were met, and the total CMA (census metropolitan area) population was at least 100,000.
- CAs (census agglomerations) were called major urban areas; see 1951.

1956

- See 1951.

1951

- The term 'census metropolitan area' appeared for the first time. This term designated cities of over 50,000 having fringe municipalities in close geographic, economic and social relations, the whole constituting a unit of over 100,000.
- The concept of 'major urban areas,' the forerunners to CAs (census agglomerations), was introduced. The term designated urban areas in which the largest city had a population of at least 25,000 and fewer than 50,000.

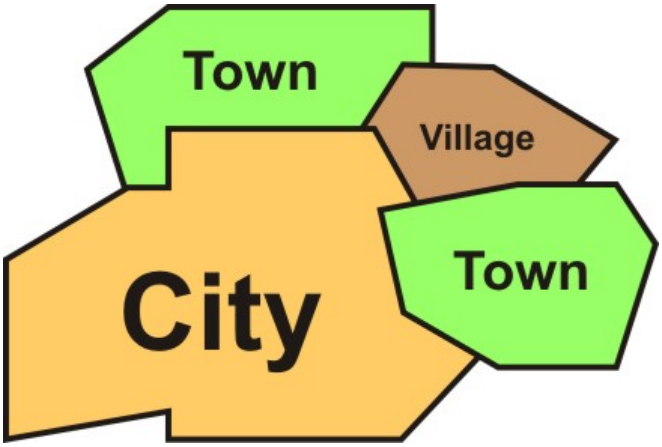
1941

- Data were published for 'greater cities,' i.e., those cities which have well-defined satellite communities in close economic relationship to them.

Census subdivision (CSD)

Plain language definition

Area that is a municipality or an area that is deemed to be equivalent to a municipality for statistical reporting purposes (e.g. (for example), as an Indian reserve or an unorganized territory). Municipal status is defined by laws in effect in each province and territory in Canada.



Census subdivision: Detailed definition

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. (for example), Indian reserves, Indian settlements and unorganized territories).

Census years

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

Census subdivision type

Census subdivisions (CSDs) are classified into 54 types according to official designations adopted by provincial/territorial or federal authorities. Two exceptions are 'subdivision of unorganized' (SNO) in Newfoundland and Labrador, and 'subdivision of county municipality' (SC) in Nova Scotia, which are geographic areas created as equivalents for municipalities by Statistics Canada, in cooperation with those provinces, for the purpose of disseminating statistical data.

The census subdivision type accompanies the census subdivision name in order to distinguish CSD (Census subdivisions)s from each other, for example, Balmoral, VL (for the *village* of Balmoral) and Balmoral, P (for the parish / *paroisse (municipalité de)* of Balmoral).

Changes to CSD (Census subdivisions) types for 2011 include the following:
1. CSD (Census subdivisions) types added

- City / *Ville* (CV) in Ontario
- Self-government / *Autonomie gouvernementale* (SG) in Yukon

2. CSD (Census subdivisions) types deleted

- *Cité* (CÉ) was replaced by *Ville* (V) in Quebec
- County (municipality) (CM) was corrected to Municipal district (MD) in Alberta
- Nisga'a village (NVL) has been included in Nisga'a land (NL) in British Columbia

Table 5 shows CSD (Census subdivisions) types, their abbreviated forms, and their distribution by province and territory.

Census subdivision types associated with 'on reserve' population

On reserve population is a derived census variable that is captured by using the census subdivision (CSD) type according to criteria established by Aboriginal Affairs and Northern Development Canada (AANDC; formerly Indian and Northern Affairs Canada [INAC]). On reserve population includes people living in any of the six CSD (Census subdivisions) types legally affiliated with First Nations or Indian bands (described below), as well as the northern village of Sandy Bay in Saskatchewan.

The following census subdivision types are based on the legal definition of communities affiliated with First Nations or Indian bands.

1. Indian reserve (IRI) – A tract of federally owned land with specific boundaries that is set apart for the use and benefit of an Indian band and that is governed by Aboriginal Affairs and Northern Development Canada (AANDC). Statistics Canada only recognizes the subset of Indian reserves that are populated (or potentially populated) as census subdivisions. For 2011, of the more than 3,100 Indian reserves across Canada, there are 961 Indian reserves classified as CSD (Census subdivisions)s (including the 6 reserves added for 2011). Statistics Canada works closely with AANDC (Aboriginal Affairs and Northern Development Canada) to identify those reserves to be added as CSD (Census subdivisions)s.

2. Indian settlement (S-É) – A place where a self-contained group of at least 10 Indian (Aboriginal) persons resides more or less permanently. It is usually located on Crown lands under federal or provincial/territorial jurisdiction. Indian settlements have no official limits and have not been set apart for the use and benefit of an Indian band as is the case with Indian reserves. Statistics Canada relies on AANDC (Aboriginal Affairs and Northern Development Canada) to identify Indian settlements to be recognized as census subdivisions, and their inclusion must be with the agreement of the provincial or territorial authorities. An arbitrary boundary is delineated to represent each Indian settlement as a census subdivision. (Exclusions: Champagne Landing 10, Klukshu, Two and One-Half Mile Village, Two Mile Village and Kloo Lake which have CSD (Census subdivisions) type S-É are excluded from this tabulation.)

3. Indian government district (IGD) – Sechelt reserve lands in British Columbia. The *Sechelt Indian Band Self-Government Act* is a transfer by Her Majesty in right of Canada to the Sechelt Band in all Sechelt reserve lands, recognizing that the Sechelt Band would assume complete responsibility for the management, administration and control of all Sechelt lands. The *Sechelt Indian Government District Enabling Act* (British Columbia) recognizes the district Council as the governing body of the Sechelt Indian Government District. The district Council may enact laws or by-laws that a municipality has power to enact under an Act of the province.

4. *Terres réservées aux Cris* (TC) – Parcels of land in Quebec set aside for the permanent residence of Cree First Nations of Quebec. *Terres réservées aux Cris* are adjacent to *villages cris*. The area of a *village cri* is set aside for the use of Cree bands, but members of Cree bands are not permanently residing there. Note that a *village cri* and its adjacent *terre réservée aux Cris* can have the same name, e.g. (for example), the *village cri* of Waswanipi and the *terre reservée aux Cris* of Waswanipi.

5. *Terres réservées aux Naskapis* (TK) – Parcels of land in Quebec set aside for the permanent residence of Naskapi First Nations of Quebec. *Terres réservées aux Naskapis* are adjacent to *village Naskapi*. The lone area of *village Naskapi* is set aside for the use of the Naskapi band, although its members do not reside there permanently.

6. Nisga'a land (NL) – Part of the territory whose title has been transferred to the Nisga'a Nation by the Final Land Claims Agreement of 1998 between the Nisga'a Nation, the Government of Canada and the Government of British Columbia. Together with the four Nisga'a villages (NVL), this territory makes up the Nisga'a Lands defined by the land claims agreement.

Census subdivision code

The census subdivision (CSD) code is a three-digit code that is based on the Standard Geographical Classification (SGC). In order to uniquely identify each CSD (Census subdivisions) in Canada, the two-digit province/territory (PR) code and the two-digit census division (CD) code must precede the CSD (Census subdivisions) code. For example:

PR-CD-CSD (Census subdivisions) code	CSD (census division) name and type
12 06 008	Mahone Bay, T (Town) (N.S. (Nova Scotia))
35 06 008	Ottawa, CY (City) (Ont. (Ontario))

There are two municipalities in Canada that straddle provincial limits: Flin Flon (Manitoba and Saskatchewan) and Lloydminster (Saskatchewan and Alberta). Each of their provincial parts is treated as a separate CSD (Census subdivisions). Indian reserves are also treated as separate CSD (Census subdivisions)s when they straddle provincial limits.

Changes to census subdivisions for the 2011 Census

The following reserve CSD (Census subdivisions)s were deleted because they are not to be populated.

- Summerside 38 (1214024) in Nova Scotia
- Red Bank 7 (1309025) and St. Mary's 24 (1310035) in New Brunswick
- Whitworth (2412802), Cacouna (2412804) and Coucoucache (2490801) in Quebec
- Naiscoutaing 17A (3549079), Zhiibaahaasing 19 (Cockburn Island 19) (3551035), Whitefish River (Part) 4 (3552017), Mountbatten 76A (3552055), New Post 69 (3556104), Missanabie 62 (3557082), Lake Of The Woods 31G (3560062), Wunnumin 2 (3560072), Wapekeka 1 (3560074) and Sachigo Lake 2 (3560087) in Ontario
- Reed River 36A (4601096), Long Plain (Part) 6 (4608039), Cross Lake 19B (4622053), Cross Lake 19C (4622054), Nelson House 170A (4622060), Nelson House 170B (4622061), Nelson House 170C (4622062) and Highrock 199 (4623063) in Manitoba
- Makwa Lake 129A (4717814), Thunderchild First Nation 115D (4717818), Stanley 157A (4718804), Île-à-la-Crosse 192E (4718805), Dipper Rapids 192C (4718816), Primeau Lake 192F (4718830), Turnor Lake 194 (4718837), Clearwater River Dene Band 221 (4718838), Elak Dase 192A (4718843) and Fond du Lac 233 (4718848) in Saskatchewan
- Clearwater 175 (4816823), Devil's Gate 220 (4816825), Chipewyan 201 (4816828), Chipewyan 201B (4816834), Chipewyan 201C (4816837), Chipewyan 201D (4816840), Chipewyan 201E (4816843), Chipewyan 201F (4816845), Chipewyan 201G (4816848), Sandy Point 221 (4816851), Cornwall Lake 224 (4816853) and Collin Lake 223 (4816854) in Alberta
- Bummers Flat 6 (5901807), Aywawwis 15 (5909801), Boothroyd 5A (5909802), Boothroyd 8A (Part) (5909803), Ruby Creek 2 (5909811), Sho-ook 5 (5909813), Chaumox 11 (5909820), Swahliseah 14 (5909840), Franks 10 (5909846), Samahquam 1 (5909865), Kuthlalth 3 (5909870), Mayne Island 6 (5917806), Pacheena 1 (5917816), Claoose 4 (5919805), Lyacksun 3 (5919810), Wyah 3 (5919819), Openit 27 (5923812), Stuart Bay 6 (5923815), Keeshan 9 (5923821), Nuchatl 2 (5925808), Nuchatl 1 (5925809), Aupe 6 (5925815), Aupe 6A (5925816), Tatpo-oose 10 (5925819), Matsayno 5 (5925825), Saaiyouck 6 (5925830), Harwood Island 2 (5927805), Chekwelp 26A (5929802), Schaltuuch 27 (5929804), Seton Lake 5A (5931830), Slosh 1A (5931839), Hamilton Creek 7 (5933804), Leon Creek 2 (5933835), Spatsum 11 (5933847), Papyum 27A (5933856), Siska Flat 5A (5933862), Siska Flat 5B (5933863), Staiyahanny 8 (5933869), Cameron Bar 13 (5933890), Andy Cahoose Meadow 16 (5941824), Baezaeko River 25 (5941825), Cahoose 8 (5941826), Baezaeko River 26 (5941836), Tsunnia Lake 5 (5941853), Casimiel Meadows 15A (5941857), Kushya Creek 7 (5941867), Quattishe 1 (5943805), Karlukwees 1 (5943810), Apsagayu 1A (5943820), Compton Island 6 (5943824), Mahmalillikullah 1 (5943828), Glen-Gla-Ouch 5 (5943832), Gitzault 24 (5949831), Tsay Cho 4 (5951808), Kuz Che 5 (5951816), Bihl'k'a 18 (5951817), Isaac (Gale Lake) 8 (5951835), Maxan Lake 4 (5951837), Bihlk'a 6 (5951842) and Parsnip 5 (5953804) in British Columbia.

The following reserve and settlement CSD (Census subdivisions)s in British Columbia were combined in order to provide more meaningful statistics.

- Alert Bay 1 (5943801) and Alert Bay 1A (5943802) to Alert Bay (5943837)
- Alexandria 1 (5941815), Alexandria 1A (5941870), Alexandria 3 (5941816) and Alexandria 3A (5941814) to Alexandria (5941882)
- Anahim's Meadow 2 (5941822) and Anahim's Meadow 2A (5941823) to Anahim's Meadow (5941883)
- Chuchhriaschin 5 (5933816) and Chuchhriaschin 5A (5933822) to Chuchhriaschin (5933810)
- Cowichan 1 (5919807) and Cowichan 9 (5919806) to Cowichan (5919822)
- Garden 2 (5941830) and Garden 2A (5941832) to Garden (5941884)
- Halhalaeden 14 (5933818) and Halhalaeden 14A (5933815) to Halhalaeden (5933813)
- Inkluckcheen 21 (5933820) and Inkluckcheen 21B (5933894) to Inkluckcheen (5933833)
- Kanaka Bar 1A (5933826) and Kanaka Bar 2 (5933827) to Kanaka Bar (5933882)
- Little Springs 8 (5941874) and Little Springs 18 (5941875) to Little Springs (5941885)
- Mount Currie 1 (5931803), Mount Currie 2 (5931811), Mount Currie 6 (5931838), Mount Currie 8 (5931837) and Mount Currie 10 (5931804) to Mount Currie (5931843)
- Nanaimo River 2 (5921802), Nanaimo River 3 (5921801) and Nanaimo River 4 (5921803) to Nanaimo River (5921807)
- Nequatque 1 (5931805), Nequatque 2 (5931840) and Nequatque 3A (5931810) to Nequatque (5931844)

- Neskonlith 1 (Neskainlith 1) (5933883) and Neskonlith 2 (5933885) to Neskonlith (5933838)
- North Tacla Lake 7 (5951812) and North Tacla Lake 7A (5951841) to North Tacla Lake (5951848)
- Sachteen 2 (5909855) and Sachteen 2A (5909860) to Sachteen (5909883)
- Siska Flat 3 (5933860) and Siska Flat 8 (5933864) to Siska Flat (5933849)
- Skowkale 10 (5909822) and Skowkale 11 (5909823) to Skowkale (5909884)
- Spences Bridge 4 (5933867) and Spences Bridge 4C (5933871) to Spences Bridge (5933881)
- Squiaala 7 (5909828) and Squiaala 8 (5909829) to Squiaala (5909885)
- Switsemalph 6 (5939809) and Switsemalph 7 (5939810) to Switsemalph (5939811)
- Telegraph Creek 6 (5949826) and Telegraph Creek 6A (5949827) to Telegraph Creek (5949847)
- T'Sou-ke 1 (Sooke 1) (5917817) and T'Sou-ke 2 (Sooke 2) (5917818) to T'Sou-ke (5917819)
- Aiyansh (Kitladamas) 1, NVL (5949836); Gingolx, NVL (5949842); Gitwinksihlkw, NVL (5949838); Laxgalts'ap, NVL (5949840) and New Aiyansh, NVL (5949834) to Nisga'a, NL (5949035).

In the Northwest Territories, Inuvik, Unorganized, NO (6107063) and Fort Smith, Unorganized, NO (6106097) were reorganized into Region 1, Unorganized, NO (6101063); Region 2, Unorganized, NO (6102063); Region 3, Unorganized, NO (6103097); Region 4, Unorganized, NO (6104097); Region 5, Unorganized, NO (6105097) and Region 6, Unorganized, NO (6106097).

The boundaries, names, codes and status of census subdivisions reflect those in effect on January 1, 2011, the geographic reference date for the 2011 Census of Canada. Information about any CSD (Census subdivisions) changes that were effective on or before the January 1, 2011 reference date must have been received by Statistics Canada prior to March 1, 2011, in order to be processed in time for the census.

Refer to the related definition of Standard Geographical Classification (SGC) and to the *2011 Standard Geographical Classification (SGC), Volume I* (Catalogue no. (number) 12-571-X) for summaries of the intercensal census subdivision changes to codes, names and status.

Changes prior to the current census

Municipal restructuring between 2001 and 2006 resulted in two noteworthy provinces: Quebec, with 282 dissolutions and 100 incorporations, and Saskatchewan, with 29 dissolutions and 11 incorporations.

The following census subdivisions had their Standard Geographical Classification code revised:

Newfoundland and Labrador: due to the creation of a new census division, Division No. (Number) 11, to represent the Inuit Settlement Area; see related census division definition

- Rigolet, T – 1010021 to 1011010
- Postville, T – 1010059 to 1011015
- Makkovik, T – 1010044 to 1011020
- Hopedale, T – 1010048 to 1011030
- Nain, T – 1010056 to 1011035

Quebec: primarily due to the dissolutions caused by amalgamations and subsequent reconstitutions of the CSD (Census subdivisions)s (municipalities) listed:

- Charette, MÉ – 2436005 to 2451080
- Saint-Boniface-de-Shawinigan, VL – 2436020 to Saint-Boniface, MÉ – 2451085
- Saint-Élie, PE – 2436010 to Saint-Élie-de-Caxton, MÉ – 2451075
- Saint-Étienne-des-Grès, PE – 2437080 to 2451090
- Saint-Henri, MÉ – 2424005 to 2419068
- Saint-Lambert-de-Lauzon, PE – 2425005 to 2426070
- Saint-Mathieu-du-Parc, MÉ – 2436015 to 2451070
- Waterville, V – 2443005 to 2444080
- Batiscan, MÉ – 2437025 to 2437210
- Champlain, MÉ – 2437030 to 2437220
- Notre-Dame-du-Mont-Carmel, PE – 2436040 to 2437235
- Saint-Luc-de-Vincennes, MÉ – 2437035 to 2437225
- Saint-Maurice, PE – 2437045 to 2437230
- Saint-Narcisse, PE – 2437040 to 2437240
- Saint-Prosper, PE – 2437010 to 2437250

- Saint-Stanislas, MÉ – 2437015 to 2437245
- Sainte-Anne-de-la-Pérade, MÉ – 2437005 to 2437205
- Sainte-Geneviève-de-Batiscan, PE – 2437020 to 2437215
- Petit-Saguenay, MÉ – 2494005 to 2494205
- L'Anse-Saint-Jean, MÉ – 2494010 to 2494210
- Rivière-Éternité, MÉ – 2494015 to 2494215
- Ferland-et-Boilleau, MÉ – 2494020 to 2494220
- Saint-Félix-d'Otis, MÉ – 2494025 to 2494225
- Sainte-Rose-du-Nord, PE – 2494030 to 2494230
- Saint-Fulgence, MÉ – 2494035 to 2494235
- Saint-Honoré, MÉ – 2494060 to 2494240
- Larouche, MÉ – 2494080 to 2494265
- Saint-Charles-de-Bourget, MÉ – 2494085 to 2494260
- Saint-Ambroise, MÉ – 2494090 to 2494255
- Saint-David-de-Falardeau, MÉ – 2494095 to 2494245
- Bégin, MÉ – 2494100 to 2494250
- Lalemant, NO – 2494902 to 2494926
- Lac-Ministuk, NO – 2494904 to 2494928
- Mont Valin, NO – 2494906 to 2494930

Table 5
Census subdivision types by province and territory, 2011 Census

Census subdivision type		Canada	Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut
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	.	.	.	.	.	.	.	.	.	.	.	.	.
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	.	.	.	.	.	.	.	.	.
Total		5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31	

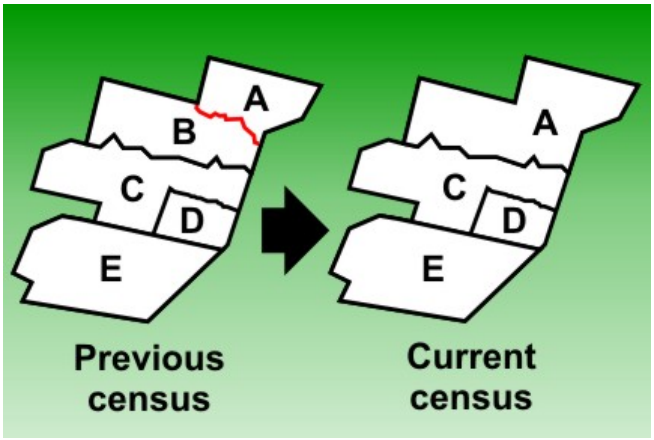
... not applicable

Source: Statistics Canada, 2011 Census of Population.

Census subdivision - previous census

Detailed definition

'Census subdivision – previous census' refers to the census subdivisions as of January 1, 2006, the geographic reference date for the 2006 Census. A 'best fit' linkage is established between dissemination blocks for the 2011 Census and census subdivisions (municipalities) for the 2006 Census. This linkage ensures that data from the current census can be tabulated for the census subdivisions from the previous census.



Censuses

2011, 2006, 2001

Remarks

The boundaries and names of census subdivisions (municipalities) can change from one census to the next because of annexations, dissolutions and incorporations. These changes can result in fewer, larger census subdivisions and historical data analyses becoming more complex. The concept of 'census subdivision – previous census' was established to provide a means of tabulating current census data according to census subdivisions as they were delineated for the previous census.

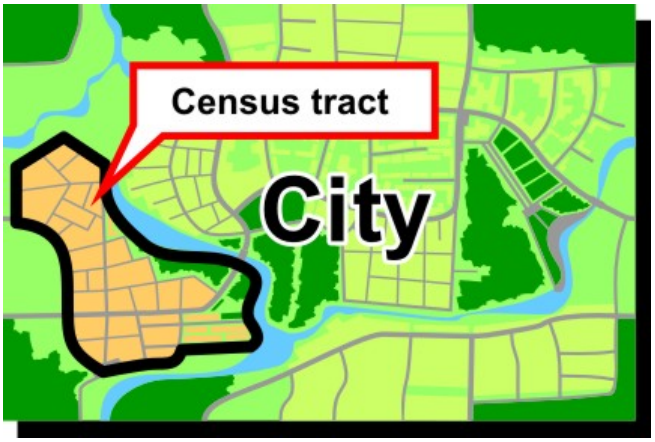
Census data are tabulated for each standard geographic area by aggregating the data for individual dissemination blocks. Dissemination blocks respect the boundaries of census subdivisions for the current census (2011 Census), but do not necessarily respect the boundaries of census subdivisions for the previous census (2006 Census). In order to facilitate the tabulation of 2011 Census data for the census subdivisions (CSDs) as they existed for the 2006 Census, the 2011 dissemination block representative points are overlaid onto the previous census CSD (census subdivision) boundaries. The goal is to ensure that at least one dissemination block is linked to each previous census CSD (census subdivision). In a few cases, there is not an exact match—that is, some dissemination blocks straddle two or more CSDs (census subdivisions) from the previous census, but can only be linked to one CSD (census subdivision). For these cases, a 'best fit' approach is used to ensure that the representative point for at least one dissemination block is linked to every previous census CSD (census subdivision). Thus, reasonably accurate tabulations of 2011 Census data can be produced for the census subdivisions as of January 1, 2006, the geographic reference date for the 2006 Census.

Refer to the related definitions of census subdivision (CSD); dissemination block (DB); geographic reference date and representative point.

Census tract (CT)

Plain language definition

Area that is small and relatively stable. Census tracts usually have a population between 2,500 and 8,000 persons. They are located in census metropolitan areas and in census agglomerations that have a core population of 50,000 or more.



Census tract tutorial, part 1

Census tracts (CT) are small geographic units created in all census metropolitan areas (CMAs) and in those census agglomerations (CAs) with a core population of 50,000 or more. They provide a level of geography between the CMA (census metropolitan areas) and CA (census agglomerations) and the dissemination area that allows for more detailed economic and social analysis.

Census tract boundaries are created by a committee of local specialists (for example, planners, health and social workers, and educators) in cooperation with Statistics Canada.

According to the 2011 Census, there are a total of 5,452 census tracts in all 33 CMA (census metropolitan areas)s and 15 of the 114 CA (census agglomerations)s.

Census tract tutorial, part 2

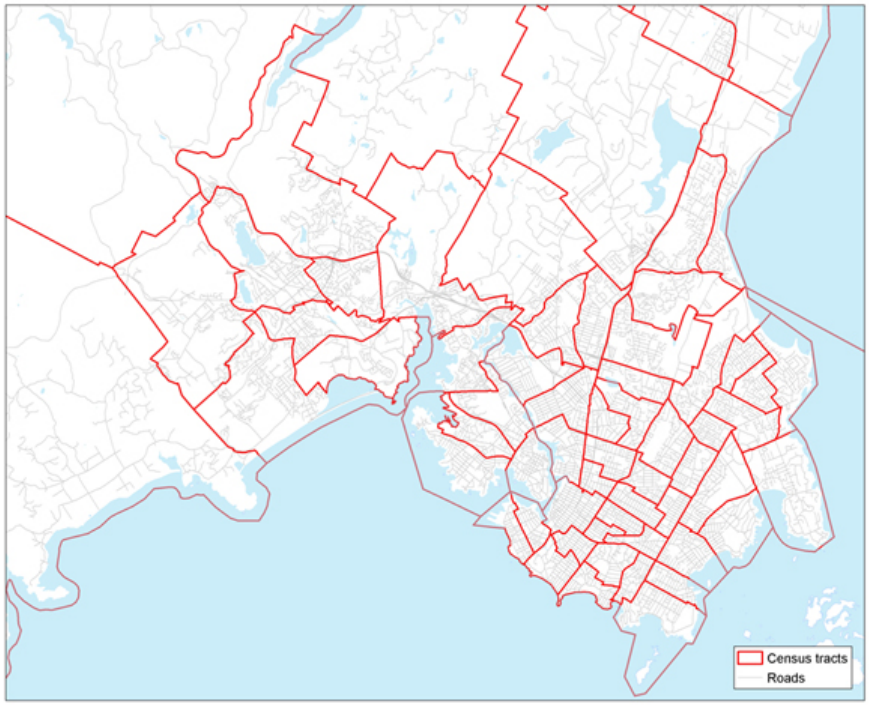
Census tracts (CTs) are created using adjacent dissemination blocks (DBs) as building blocks. The rest of this tutorial illustrates the five main rules that must be followed when delineating CT (Census tracts) boundaries.

Rule 1: Census tract boundaries must follow permanent and easily recognizable physical features.

Rule 2: The population of a CT (Census tracts) should range between 2,500 and 8,000, with a preferred average of 4,000.

These first two rules are demonstrated in this map of the Victoria (B.C. (British Columbia).) census metropolitan area (CMA). CT (Census tracts) boundaries clearly follow rivers and streets within the CMA (Census Metropolitan Area) limits. Furthermore, since the size of a CT (Census tracts) is based on its population rather than on its land area, those CT (Census tracts)s that are in more densely populated areas are generally smaller than those in more sparsely populated areas.

Census tracts in the census metropolitan area of Victoria (British Columbia), 2011 Census



Source: Statistics Canada, 2011 Census of Population.

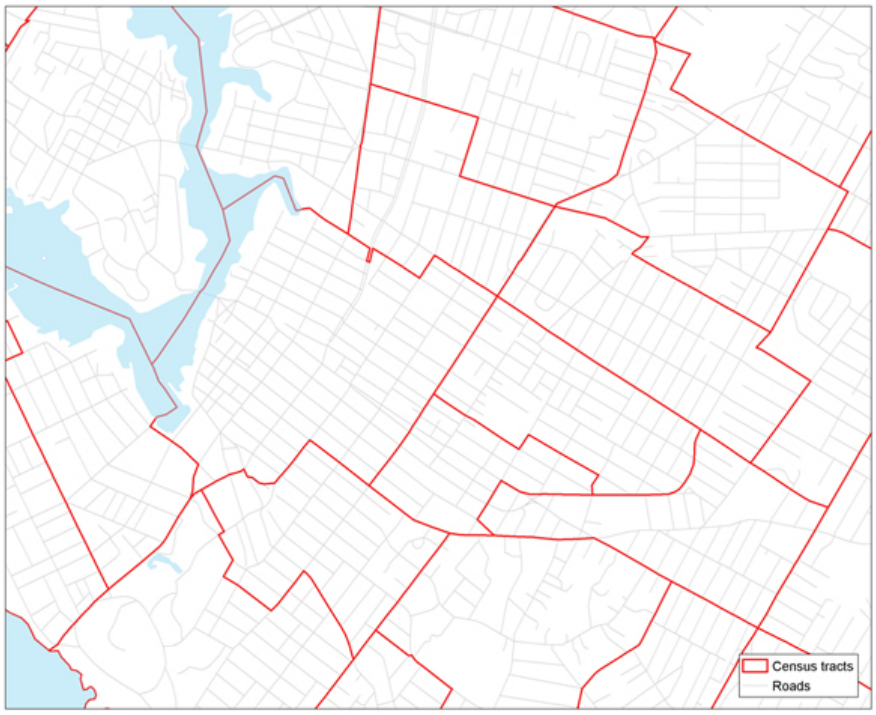
Census tract tutorial, part 3

Rule 3: The census tract (CT) should be as homogeneous as possible in terms of socioeconomic characteristics, such as similar economic status and social living conditions at the time of its creation.

Rule 4: The CT (Census tract)'s shape should be as compact as possible.

This map shows selected census tract boundaries in the core of the Victoria (British Columbia) census metropolitan area. The census tracts displayed are in the more densely-populated area of the core and are, therefore, more compact than those found in the periphery.

Selected census tracts in the core of the Victoria (British Columbia) census metropolitan area, 2011 Census



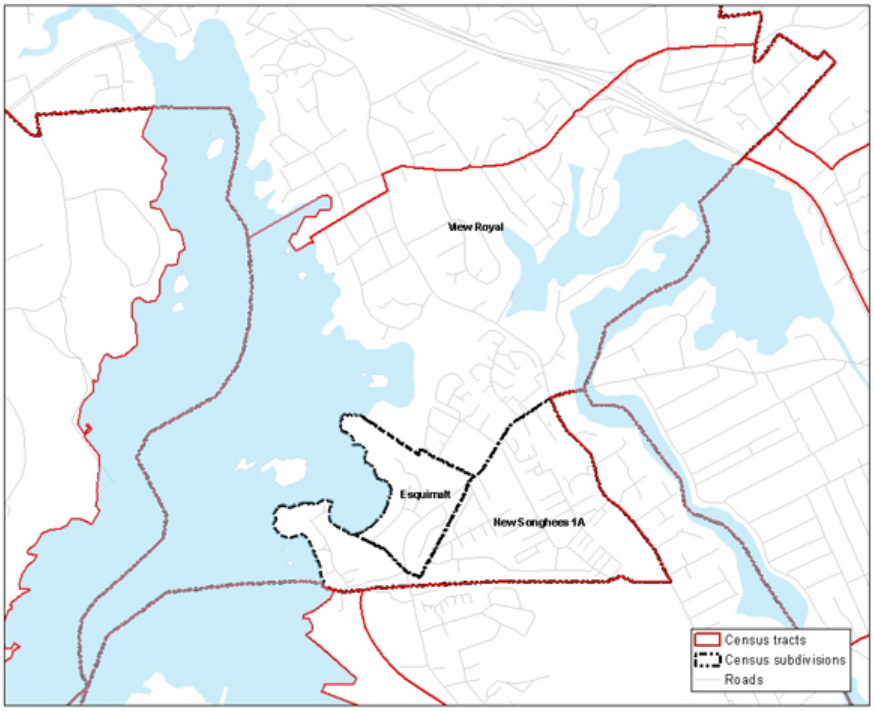
Source: Statistics Canada, 2011 Census of Population.

Census tract tutorial, part 4

Rule 5: Census tract (CT) boundaries respect census metropolitan area, census agglomeration and provincial boundaries. However, CT (Census tract) boundaries do not necessarily respect census subdivision (municipality) boundaries.

Census tract boundaries are relatively stable and can be used for data analysis and the study of trends over time.

Census tract 9350150.01 in the Victoria (British Columbia) census metropolitan area, 2011 Census



Source: Statistics Canada, Geography Division, 2011 Census.

Census tract: Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961, 1956, 1951, 1941

Remarks

Rules are used to delineate census tracts. The initial delineation rules are ranked in the order of the following priorities:

1. Census tract (CT) boundaries must follow permanent and easily recognizable physical features. However, street extensions, utility or transportation easements, property lines and municipal limits may be used as CT (census tract) boundaries if physical features are not in close proximity or do not exist.
2. The population of a CT (census tract) should range between 2,500 and 8,000, with a preferred average of 4,000. CTs (census tracts) in the central business district, major commercial and industrial zones, or peripheral areas can have populations outside

this range.

3. The CT (census tract) should be as homogeneous as possible in terms of socioeconomic characteristics, such as similar economic status and social living conditions at the time of its creation.
4. The CT's (census tract's) shape should be as compact as possible.
5. CT (census tract) boundaries respect census metropolitan area, census agglomeration and provincial boundaries. However, CT (census tract) boundaries do not necessarily respect census subdivision (municipality) boundaries.

A complete set of delineation rules and operational procedures for census tracts are available upon request from the Geography Division, Statistics Canada.

Changes to census tract boundaries are discouraged in order to maintain maximum data comparability between censuses. Boundary revisions rarely occur, and only when essential. Road construction, railroad abandonment, community redevelopment, neighbourhood growth and municipal annexations may contribute to changes in census tract boundaries. A census tract may be split into two or more new census tracts (usually when its population exceeds 8,000). CT (census tract) splits are usually done in a way that allows users to re-aggregate the splits to the original census tract for historical comparison.

The minimum population of 2,500 allows for statistically significant data tabulations. The maximum population of 8,000 facilitates delineation and retention of relatively homogeneous and useful tracts. The population range and average also permit data comparability among census tracts.

Naming convention for census tracts

Each census tract is assigned a seven-character numeric 'name' (including leading zeros, the decimal point and trailing zeros). To uniquely identify each census tract in its corresponding census metropolitan area (CMA) or tracted census agglomeration (CA), the three-digit CMA (census metropolitan area)/CA (census agglomeration) code must precede the CT (census tract) 'name'. For example:

CMA (census metropolitan area)/CA (census agglomeration) code – CT (census tract) name	CMA (census metropolitan area)/CA (census agglomeration) name
562 0005.00	Sarnia CA (census agglomeration) (Ont. (Ontario))
933 0005.00	Vancouver CMA (census metropolitan area) (B.C. (British Columbia))

Census tract naming is consistent from census to census to facilitate historical comparability.

When a CA (census agglomeration) enters the census tract program, the census subdivision (CSD) that gives the CA (census agglomeration) its name is assigned the first CT (census tract) 'name,' starting at 0001.00. When all of the CTs (census tracts) within the first CSD (census subdivision) are named, then the CTs (census tracts) of the adjoining CSDs (census subdivisions) are named, and finally those on the periphery are named.

If a census tract is split into two or more parts due to a population increase, the number after the decimal point identifies the splits. For example, CT (census tract) 0042.00 becomes CT (census tract) 0042.01 and CT (census tract) 0042.02. If CT (census tract) 0042.01 is subsequently split, it becomes CT (census tract) 0042.03 and CT (census tract) 0042.04. Similarly, if CT (census tract) 0042.02 is split after CT (census tract) 0042.01, it becomes CT (census tract) 0042.05 and CT (census tract) 0042.06. Any splits occurring after this would be numbered in a similar fashion, with the next sequential number. This allows users to re-aggregate the splits to the original census tract.

Table 1 in the Introduction shows the number of census tracts by province and territory.

A conversion table showing the relationship between the current and previous census tracts for each tracted centre is available upon request from the Geography Division, Statistics Canada.

The nature of the census tract concept, along with the availability of a wide range of census data, makes census tracts useful in many applications. These include:

- municipal and regional planning and research, such as the development, evaluation and revision of official plans
- educational and research studies in high schools, community colleges and universities
- market research, such as identifying areas of opportunity and evaluating market or service potential for housing, health, educational, recreational or retailing facilities.

Census tracts should be used with caution for non-statistical purposes.

Refer to the related definition of census metropolitan area (CMA) and census agglomeration (CA).

Changes prior to the current Census

Beginning in 1996, census agglomerations were eligible for census tracts based on the population size of their urban cores (50,000 or more at the previous census). This was a change from previous censuses, when census agglomerations had to contain a municipality (census subdivision) with a population of 50,000 or more at the previous census to be eligible for census tracts.

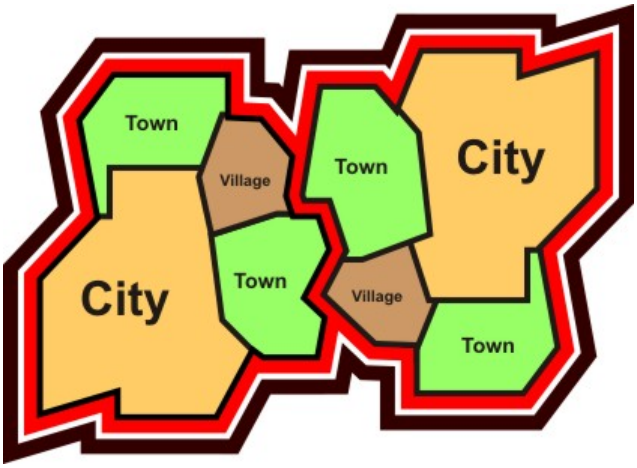
From 1971 to 1991, a provincial census tract program existed. Provincial census tracts were similar in concept to census tracts, but covered areas outside census metropolitan areas and census agglomerations. Taken together, census tracts and provincial census tracts covered all of Canada.

In 1941 and 1946, census tracts were called 'social areas.'

Census consolidated subdivision (CCS)

Detailed definition

A census consolidated subdivision (CCS) is a group of adjacent census subdivisions. Generally, the smaller, more densely-populated census subdivisions (towns, villages, etc. (and so on)) 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.



Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966

Remarks

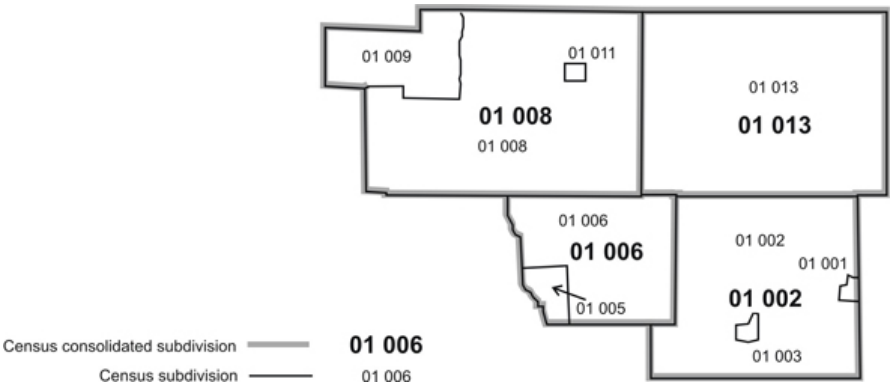
Census consolidated subdivisions are defined within census divisions (CDs) according to the following criteria:

1. A census subdivision (CSD) with a land area greater than 25 square kilometres can form a CCS (census consolidated subdivision) of its own. Census subdivisions having a land area smaller than 25 square kilometres are usually grouped with a larger census subdivision.
2. A census subdivision with a land area greater than 25 square kilometres and surrounded on more than half its perimeter by another census subdivision is usually included as part of the CCS (census consolidated subdivision) formed by the surrounding census subdivision.
3. A census subdivision with a population greater than 100,000 according to the last census usually forms a CCS (census consolidated subdivision) on its own.
4. The census consolidated subdivision's name usually coincides with its largest census subdivision component in terms of land area.

The geographic code assigned to each census consolidated subdivision is the seven-digit Standard Geographical Classification (SGC) code of one of its component CSDs (census subdivisions), usually the one with the largest land area (Figure 5 shows a hypothetical example). This assignment process also makes the CCS (census consolidated subdivision) code unique across Canada. For example:

PR (Province/territory)-CD (census division)-CCS (census consolidated subdivision) code	CCS (census consolidated subdivision) name
24 32 045	Plessisville (Que. (Quebec))
35 32 045	Blandford-Blenheim (Ont. (Ontario))

Figure 5
Example of census consolidated subdivisions (CCSs) and census subdivisions (CSDs)



Source: Statistics Canada, 2011 Census of Population.

Table 1 in the Introduction shows the number of census consolidated subdivisions by province and territory.

CCSs (census consolidated subdivisions) are used primarily for disseminating Census of Agriculture data. They form the building block for census agricultural regions in Saskatchewan. In all other provinces, census agricultural regions are made up of groups of census divisions.

CCSs (census consolidated subdivisions) are relatively stable geographic units because they have infrequent boundary changes and therefore can be useful for longitudinal analysis.

Refer to the related definitions of census division (CD) and census subdivision (CSD).

Changes prior to the current census

For 1991, significant boundary changes were made to CCSs (census consolidated subdivisions) in Quebec when census divisions were restructured to recognize the *municipalités régionales de comté*.

For 1976, the term 'census consolidated subdivision' was introduced. Prior to 1976, CCSs (census consolidated subdivisions) were referred to by the term 'reference code.'

Core, fringe and rural area

Detailed definition

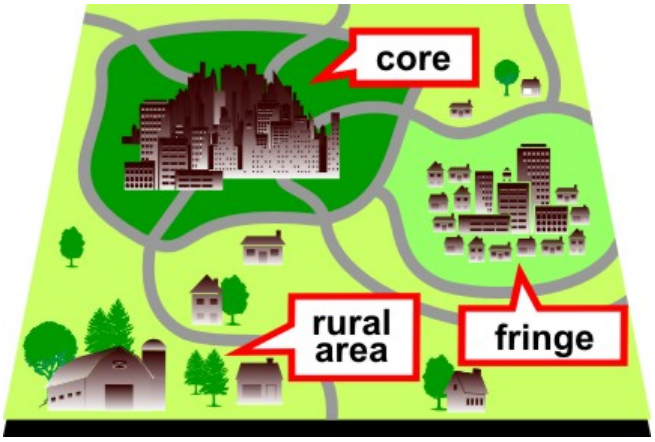
The terms 'core,' 'fringe' and 'rural area' replace the terms 'urban core,' 'urban fringe' and 'rural fringe' for the 2011 Census. These terms distinguish between population centres (POPCTRs) and rural areas (RAs) within a census metropolitan area (CMA) or census agglomeration (CA).

A CMA (Census Metropolitan Area) or CA (Census Agglomeration) 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 (Census Metropolitan Area) or a CA (Census Agglomeration) 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 (Census Metropolitan Area), or at least 10,000 persons in the case of a CA (Census Agglomeration).

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

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

All territory within a CMA (Census Metropolitan Area) or CA (Census Agglomeration) that is not classified as a core or fringe is classified as rural area.



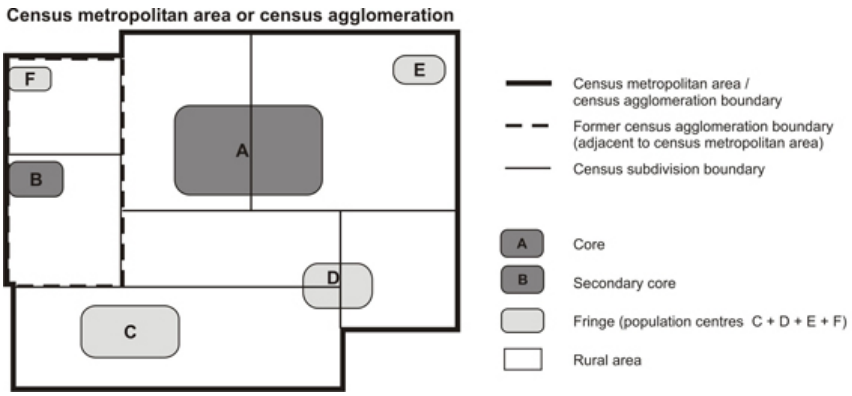
Census years

2011

Remarks

While every CMA (Census Metropolitan Area) and CA (Census Agglomeration) has a core, it may or may not have a secondary core, a fringe or a rural area. See Figure 12.

Figure 12
Example of a census metropolitan area or census agglomeration, showing core, secondary core, fringe and rural area



Source: Statistics Canada, 2011 Census of Population.

Population counts for population centres are published according to the class of population centre, regardless of whether they are inside or outside of a CMA (Census Metropolitan Area) or CA (Census Agglomeration). Population centres are classified into one of 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.

Refer to related definitions of census metropolitan area (CMA) and census agglomeration (CA); population centre (POPCTR) and rural area (RA).

Changes prior to the current census

Prior to 2011, the terms 'urban core,' 'secondary urban core,' 'urban fringe' and 'rural fringe' were used.

Beginning in 2001, the concept of the secondary urban core was used to describe the urban core of a CA (Census Agglomeration) that merged with an adjacent CMA (Census Metropolitan Area).

Beginning in 1996, the term 'urban core' replaced the term 'urbanized core.' The term 'urbanized core' was used from 1971 to 1991.

Prior to 1996, this concept was known as CMA/CA parts.

Beginning in 1986, primary CMA (Census Metropolitan Area)s (PCMAs) and primary CA (Census Agglomeration)s (PCAs) were delineated within some CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s. Because of this change, some urban areas that were urban fringes of 1981 CMA (Census Metropolitan Area)s or CA (Census Agglomeration)s became urban cores of 1986 PCMA (primary census Metropolitan Area)s or PCA (primary census Agglomeration)s.

For 1976 and 1971, the urbanized core was further broken down into the 'largest city' and 'remainder.'

For 1966 and 1961, the urban part of the CMA (Census Metropolitan Area) was divided into the 'metropolitan area – urban' (continuous built-up area) and the 'metropolitan area – outside urban' (non-continuous built-up area); the remaining rural part was known as 'metropolitan area – rural.'

Designated place (DPL)

Plain language definition

Usually a small community that does not meet the criteria used to define municipalities or population centres (areas with a population of at least 1,000 and no fewer than 400 persons per square kilometre). Designated places are created by provinces and territories in cooperation with Statistics Canada.

Designated place: Detailed definition

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.

Census years

2011, 2006, 2001, 1996

Remarks

The criteria that small communities or settlements must meet in order to become a designated place (DPL) include:

- an area less than or equal to 10 square kilometres
- a boundary that respects the block structure from the previous census, where possible
- an area that does not overlap the area of a population centre.

For 2011, the term 'population centre' (POPCTR) replaces the term 'urban area' (UA).

Those 2006 urban areas which no longer meet the criteria to be included in the 2011 population centre program will be considered for inclusion in the designated place program for 2011. Furthermore, designated places will not be permitted to overlap population centres.

For 2011, the DPL (designated place) of Cowichan 1 (DPL (designated place) 59 0321) in British Columbia overlaps the POPCTR (population centre) of Duncan (POPCTR (population centre) 0243). In an effort to minimize data suppression for this area, this DPL (designated place) represents a formerly discontiguous Aboriginal community which has been combined to form a single discontiguous census subdivision (CSD).
Designated places are no longer required to respect census subdivision boundaries. Where a designated place straddles one or more census subdivision limits, DPL (designated place) parts will be created.

The areas recognized as designated places may not represent all places having the same status within a province or territory.

Table 1 in the Introduction shows the number of designated places by province and territory. Table 6 shows the types of designated places, their abbreviated forms and their distribution by province and territory.

Each designated place is assigned a four-digit code. In order to uniquely identify each DPL (designated place) in Canada, the two-digit province/territory (PR) code must precede the DPL (designated place) code. For example:

PR (census metropolitan area)/DPL (designated place) code	DPL (census metropolitan area) (census agglomeration) name
12 0085	Masstown (N.S.)
13 0085	Saint-Pons (N.B.)
35 0085	McGregor Bay part B (Ont.)

Refer to the related definitions of census subdivision (CSD); place name (PN); population centre (POPCTR) and rural area (RA).

Changes prior to the current census

In 2006, the criteria that small communities were required to respect in order to become a DPL (designated place) included:

- a minimum population of 100 and a maximum population of 1,000. The maximum population limit may have been exceeded provided that the population density was less than 400 persons per square kilometre, which was the population density that defined an urban area
- a population density of 150 persons or more per square kilometre
- an area less than or equal to 10 square kilometres
- a boundary that respected the block structure from the previous census, where possible
- a boundary that respected census subdivision (CSD) limits.

The final two criteria were new for 2006, the last of which was established to eliminate the need to maintain DPL (designated place) parts. To ensure that DPL (designated place)s created in 2001 or earlier respected 2006 CSD (census subdivision) boundaries, DPL (designated place)s straddling CSD (census subdivision) boundaries were split to create independent DPL (designated place)s. To maintain historical comparability and ease the transition into this new criteria, each new independent DPL (designated place) kept its existing name, with 'part' added to it, such as part A, part B, and was assigned its own unique code.

In 2001 and earlier, designated places were not required to respect census subdivision (CSD) boundaries. As a result, a number of DPL (designated places)s straddled two or more CSD (census subdivisions)s. To identify these DPL (designated places)s and the CSD (census subdivisions)s that they straddled, the seven-digit SGC (Standard Geographical Classification) code (PR-CD-CSD (census subdivision)) had to precede the DPL (designated place) code. The DPL (designated place) part flag identified the number of parts the DPL (designated place) is divided into as a result of straddling CSD (census subdivisions)s.

In 1996, Statistics Canada introduced the concept of designated places as a new geographic unit for data dissemination to respond to the increasing demand for population counts and census data according to 'submunicipal' or unincorporated areas. The concept generally applied to small communities for which there may have been some level of legislation, but they fell below the criteria established for municipal status.

Between 1981 and 1991, Statistics Canada had facilitated the retrieval of census data by delineating these submunicipal areas at the enumeration area level only. The number of areas delineated expanded from fewer than 50 northern communities in Manitoba in 1981, to more than 800 areas across Canada by 1996.

Table 6
Designated place types by province and territory, 2011 Census

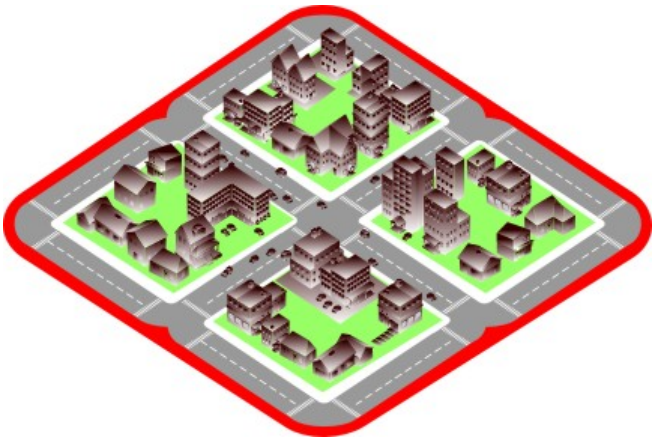
Designated place type	Province/territory[1]
CFA Class IV area	Nova Scotia
DMU Dissolved municipality	Ontario, Manitoba, Saskatchewan, Alberta
DPL Designated place	Newfoundland and Labrador
IRI Indian reserve / Réserve indienne	British Columbia
IST Island trust	British Columbia
LNC Localité non constituée	Quebec
LSB Local service board	Ontario
LSD Local service district	New Brunswick
LUD Local urban district	Manitoba
MDI Municipalité dissoute	Quebec
MDP Municipal defined places	Ontario
MET Métis settlement	Alberta
NCM Northern community	Manitoba
NVL Nisga'a village	British Columbia
OHM Organized hamlet	Saskatchewan
SE Aboriginal settlement	Yukon
UNP Unincorporated place	Alberta, British Columbia
UUC Unincorporated urban centre	Manitoba

1. There are no designated places for Prince Edward Island, the Northwest Territories and Nunavut for the 2011 Census.
Source: Statistics Canada, 2011 Census of Population.

Dissemination area (DA)

Plain language definition

Small area composed of one or more neighbouring dissemination blocks, with a population of 400 to 700 persons. All of Canada is divided into dissemination areas.



Dissemination area: Detailed definition

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 (dissemination areas) cover all the territory of Canada.

Census years

2011, 2006, 2001

Remarks

For 2011, dissemination areas (DAs) were defined as needed, rather than being completely re-delineated. This was to help ensure the comparability of data since the previous census. To do this, planners located in areas with census tracts were surveyed for their input regarding the delineation of DAs (dissemination areas) that experienced high population growth between the 2001 and 2006 Censuses or that exceeded the DA (dissemination area) maximum population limit. Other user-defined DA (dissemination area) updates were accepted in areas where the DA (dissemination areas) structure either changed substantially between 2001 and 2006 as a result of automated delineation or simply did not provide users (local area experts) with relevant data since the DAs (dissemination areas) were not representative of their communities. The implementation of both of these types of user-defined updates eliminated the requirement for a fully automated delineation, which was used in previous censuses.

Dissemination area rules

Dissemination areas respect several delineation criteria designed to maximize their usefulness for data analysis and to meet operational constraints.

1. Dissemination area (DA) boundaries respect the boundaries of census subdivisions and census tracts. DAs (dissemination areas) therefore remain stable over time, to the extent that census subdivisions and census tracts do.
2. Dissemination area boundaries follow roads. DA (dissemination area) boundaries may follow other features (such as railways, water features, power transmission lines), where these features form part of the boundaries of census subdivisions or census tracts.
3. Dissemination areas are uniform in terms of population size, which is targeted from 400 to 700 persons to avoid data suppression. DAs (dissemination areas) with lower population counts (including zero population) may result in order to respect the boundaries of census subdivisions and census tracts. DAs (dissemination areas) with higher population counts may also result.
4. Dissemination areas are delineated based on the block population counts from the previous census due to operational constraints.
5. Dissemination areas are compact in shape, to the extent possible while respecting the above criteria.
6. The number of dissemination blocks that are included in a dissemination area is limited to 99 due to operational constraints.

Dissemination area codes

Each dissemination area (DA) is assigned a four-digit code. In order to uniquely identify each DA (dissemination area) in Canada, the two-digit province/territory (PR) code and the two-digit census division (CD) code must precede the DA (dissemination area) code. For example:

PR (Province/territory)-CD (census division)-DA (dissemination area) code	Description	
12 09 0103	Province 12: CD (census division) 09: DA (dissemination area) 0103	Nova Scotia Halifax
59 09 0103	Province 59: CD (census division) 09: DA (dissemination area) 0103	British Columbia Fraser Valley

When dissemination areas were first created, geographic proximity was embedded in the DA (dissemination area) code by assigning DA (dissemination area) codes in a serpentine manner within each census division. As DAs (dissemination areas) evolve, this coding structure cannot be maintained. Therefore, DA (dissemination area) codes can no longer ensure geographic proximity.

Table 1 in the Introduction shows the number of dissemination areas by province and territory.

Refer to the related definitions of census subdivision (CSD); census tract (CT) and dissemination block (DB).

Changes prior to the current Census

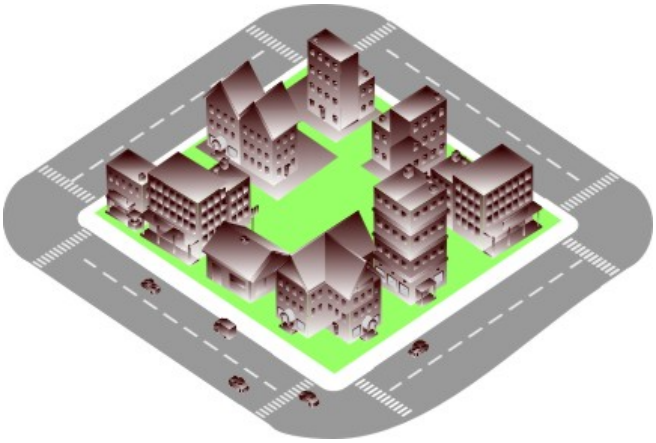
In 2006, dissemination areas (DAs) were delineated outside of census metropolitan areas (CMAs) and census agglomerations (CAs) using an automated area delineation system. Within CMAs (census metropolitan areas) and CAs (census agglomerations) that contained census tracts (CTs), DAs (dissemination areas) were kept relatively stable since the previous census. Some DAs (dissemination areas) in these areas were adjusted to respect changes to CT (Census tract), CA (Census Agglomeration), and CMA (Census Metropolitan Area) boundaries.

In 2001, the DA (dissemination area) was a new standard geographic area. It replaced the enumeration area (EA) as a basic unit for dissemination. The 1996 population counts were used to delineate the DAs (dissemination areas) mainly in block-face geocoding areas of CMAs (census metropolitan areas) and those CAs (census agglomerations) that contained CTs (census tracts). Everywhere else, the 2001 DAs (dissemination areas) were the same as the 2001 EAs (enumeration areas) used for data collection.

Dissemination block (DB)

Plain language definition

Area equivalent to a city block bounded by intersecting streets. These areas cover all of Canada.



Dissemination block: Detailed definition

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.

Census years

2011, 2006 (dissemination block)
2001 (block)

Remarks

Dissemination blocks are primarily an artefact of the road network. As such, the number of DBs (dissemination blocks) created is a function of the timeliness and accuracy of the road network prior to the census. It is not possible to have a road network reflecting exactly the situation on Census Day. For the 2011 Census, the road network used for DB (dissemination block) creation is up-to-date as of fall 2010.

Highway medians, ramp areas and other irregular polygons may form dissemination blocks on their own. A morphological dissemination block is split to form two or more DBs (dissemination blocks) wherever it is traversed by the boundaries of selected standard geographic areas, namely federal electoral districts (FEDs), census subdivisions (CSDs), census tracts (CTs), designated places (DPLs) or dissemination areas (DAs). This makes it possible to aggregate dissemination block data to all standard geographic areas.

In rural areas where the road network is sparse or even non-existent, the boundaries of collection units are used to avoid creating very large dissemination blocks.

Each dissemination block is assigned a two-digit code. In order to uniquely identify each dissemination block in Canada, the two-digit province/territory (PR) code, the two-digit census division (CD) code and the four-digit dissemination area (DA) code must precede the DB (dissemination block) code. For example:

PR (Province/territory)-CD (census division)-DA (dissemination area)-DB (dissemination block) code	Description	
12 09 0103 02	Province 12:	Nova Scotia
	CD (census division) 09:	Halifax
	DA (dissemination area) 0103	
	DB (dissemination block) 02	
59 09 0103 02	Province 59:	British Columbia
	CD (census division) 09:	Fraser Valley
	DA (dissemination area) 0103	
	DB (dissemination block) 02	

Only population and dwelling counts are disseminated at the dissemination block level (with the dissemination area being the smallest standard geographic area for which characteristic data are disseminated). To ensure confidentiality, population counts are adjusted for dissemination blocks having a population of less than 15.

Table 1 in the Introduction shows the number of dissemination blocks by province and territory.

Refer to the related definitions of census division (CD); census subdivision (CSD); census tract (CT); designated place (DPL); dissemination area (DA); federal electoral district (FED) and Spatial Data Infrastructure (SDI).

Changes prior to the current Census

In 2006, the term 'dissemination block' replaced the term 'block.'

In 2001, the term 'block' was used.

Prior to 2001, households and their associated population and dwelling counts were geographically referenced to the enumeration area at the time of collection. For more information, refer to the geography working paper *Introducing the Dissemination Area for the 2001 Census: An Update*(Catalogue no. 92F0138MIE2000004).

Economic region (ER)

Detailed definition

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.

Census years

2011, 2006, 2001, 1996 (economic region)
1991, 1986, 1981, 1976, 1971 (subprovincial region)

Remarks

Within the province of Quebec, economic regions (*régions administratives*) are designated by law. In all other provinces and territories, economic regions (ERs) are created by agreement between Statistics Canada and the province/territory concerned. Prince Edward Island and the three territories each consist of one ER (economic region). In Ontario, there is one exception where the ER (economic region) boundary does not respect census division boundaries: the census division of Halton is split between the ER (economic region) of Hamilton--Niagara Peninsula and the ER (economic region) of Toronto.

Each economic region is assigned a two-digit code. In order to uniquely identify each ER (economic region) in Canada, the two-digit province/territory (PR) code must precede the two-digit ER (economic region) code. For example:

PR (Province/territory)-ER (economic region) code	ER (economic region) name
10 10	Avalon Peninsula (N.L. (Newfoundland and Labrador))
35 10	Ottawa (Ont. (Ontario))

Changes to economic regions for the 2011 Census

In New Brunswick, the boundary between Campbellton--Miramichi (ER (economic region) 13 10) and Fredericton--Oromocto (ER (economic region) 13 40) was affected because part of Stanley, P (CSD (census subdivision) 13 10 036) was taken from York (CD (census division) 13 10) and annexed to Upper Miramichi, RCR (CSD (census subdivision) 13 09 027) in Northumberland (CD (census division) 13 09).

In Ontario, the boundary between London (ER (economic region) 35 60) and Stratford--Bruce Peninsula (ER (economic region) 35 80) was affected because part of Perth East, TP (CSD (census subdivision) 35 31 030) was taken from Perth (CD (census division) 35 31) and annexed to East Zorra-Tavistock, TP (CSD (census subdivision) 35 32 038) in Oxford (CD (census division) 35 32).

In Alberta, the boundary between Edmonton (ER (economic region) 48 60) and Banff--Jasper--Rocky Mountain House (ER (economic region) 48 40) was affected because part of Yellowhead County, MD (48 14 003) was taken from Division No. (number) 14 (CD (census division) 48 14) and annexed to Brazeau County, MD (CSD (census subdivision) 48 11 032) in Division No. (number) 11 (CD (census division) 48 11).

Table 1 in the Introduction shows the number of economic regions by province and territory.

Refer to the related definitions of census division (CD (census division)); census subdivision (CSD (census subdivision)) and Standard Geographical Classification (SGC).

Changes prior to the current census

In 2006, the composition of West Coast--Northern Peninsula--Labrador (ER (economic region) 10 30) in Newfoundland and Labrador changed due to the creation of the new census division, Division No. (number) 11 (CD (census division) 10 11). In Quebec, the composition of Chaudière-Appalaches (ER (economic region) 24 25) changed due to the dissolution of the CD (census division) of Desjardins (CD (census division) 24 24). In Manitoba, the boundary between Southwest (ER (economic region) 46 30) and Parklands (ER (economic region) 46 70) changed due to a CSD (census subdivision) boundary change. Finally, in British Columbia, the composition of Lower Mainland--Southwest (ER (economic region) 59 20) and Thompson--Okanagan (ER (economic region) 59 30) were affected by CSD (census subdivision) changes that did not, however, result in a boundary change.

For 2001, the province of Quebec increased the number of economic regions from 16 to 17.

The boundary between Centre-du-Québec (ER (economic region) 24 33) and Estrie (ER (economic region) 24 30) was modified because of a CSD (census subdivision) change. Also, the name of the *région administrative of Québec* (ER (economic region) 24 20) was changed to Capitale-Nationale (ER (economic region) 24 20).

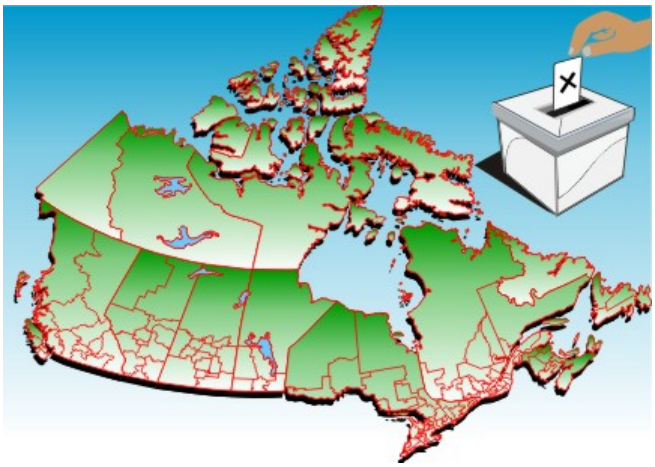
In Ontario, the boundary between Muskoka--Kawarthas (ER (economic region) 35 20) and Kingston--Pembroke (ER (economic region) 35 15) was modified because of CSD (census subdivision) changes.

In Alberta, five economic regions were affected by boundary and name changes of census divisions. Boundary changes included moving CD (census division) 48 09 from ER (economic region) 48 50 to ER (economic region) 48 40, moving CD (census division) 48 10 from ER (economic region) 48 80 to ER (economic region) 48 20, and moving CD (census division) 48 13 from ER (economic region) 48 40 to ER (economic region) 48 70. The name changes included Camrose--Drumheller (ER (economic region) 48 20), Banff--Jasper--Rocky Mountain House (ER (economic region) 48 40), Red Deer (ER (economic region) 48 50), Athabasca--Grande Prairie--Peace River (ER (economic region) 48 70), and Wood Buffalo--Cold Lake (ER (economic region) 48 80).

Federal electoral district (FED)

Plain language definition

Area represented by a Member of Parliament (MP) elected to the House of Commons.



Federal electoral district: Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

Following the release of population counts from each decennial census, the Chief Electoral Officer determines the number of seats in the House of Commons and publishes the information in the *Canada Gazette*. Electoral boundaries commissions then determine the adjustments to the constituency boundaries. Based on reports from these commissions, the Chief Electoral Officer prepares a representation order (RO) that describes the boundaries and specifies the name and the population of each federal electoral district (FED). The representation order is in force on the first dissolution of Parliament that occurs at least one year after its proclamation. The 2003 Representation Order (proclaimed on August 25, 2003) was based on 2001 Census population counts, and increased the number of FEDs (federal electoral districts) to 308, up from 301 for the previous 1996 Representation Order. Ontario received three additional seats, while Alberta and British Columbia each gained two seats. The names of FEDs (federal electoral districts) may change at any time through an Act of Parliament.

The FED (federal electoral district) boundaries and names used for the 2011 Census reflect those in effect on January 1, 2011 (the geographic reference date for the 2011 Census of Canada).

Each federal electoral district is assigned a three-digit code. In order to uniquely identify each FED (federal electoral district) in Canada, the two-digit province/territory (PR) code must precede the FED (federal electoral district) code. For example:

PR (Province/territory)-FED (Federal electoral district) code	FED (Federal electoral district) name
46 009	Saint Boniface (Man. (Manitoba))
59 009	Fleetwood – Port Kells (B.C. (British Columbia))

Table 1 in the Introduction shows the number of federal electoral districts (2003 Representation Order) by province and territory.

Changes prior to the current census

The 2006 Census was taken according to the 2003 Representation Order.
The 2001 Census was taken according to the 1996 Representation Order.
The 1996 and 1991 Censuses were taken according to the 1987 Representation Order.
The 1986 and 1981 Censuses were taken according to the 1976 Representation Order.
The 1976 and 1971 Censuses were taken according to the 1966 Representation Order.
The 1966 and 1961 Censuses were taken according to the 1952 Representation Order.

Geographical region of Canada

Detailed definition

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
- Territories

Census years

2011

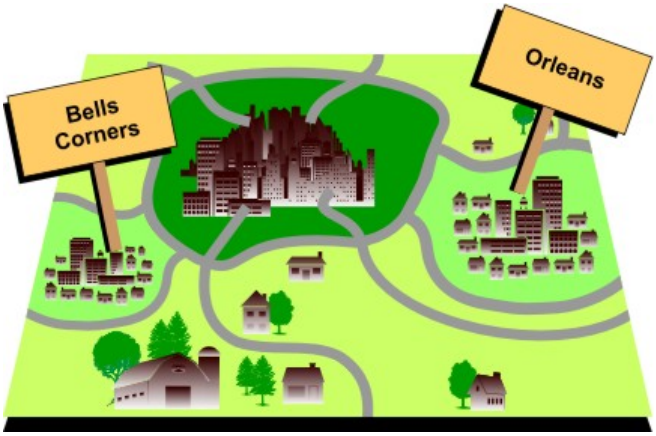
Remarks

Refer to the related definition of Standard Geographical Classification (SGC).

Place name (PN)

Detailed definition

'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.



Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

The term 'place name' replaces the term 'locality' for the 2011 Census.

The purpose is to provide users with a means for searching and mapping on 'localized' place names.

Place name data keeps evolving and may not be comparable between censuses.

Refer to the related definitions of census subdivision (CSD); designated place (DPL) and population centre (POPCTR).

Changes prior to the current census

Prior to 2011, the term 'locality' was used to describe historical place names, such as former census subdivisions (municipalities), designated places and urban areas. However, the locality and place name concepts were not identical.

Prior to 2001, localities did not exist.

Prior to 1996, designated places did not exist.

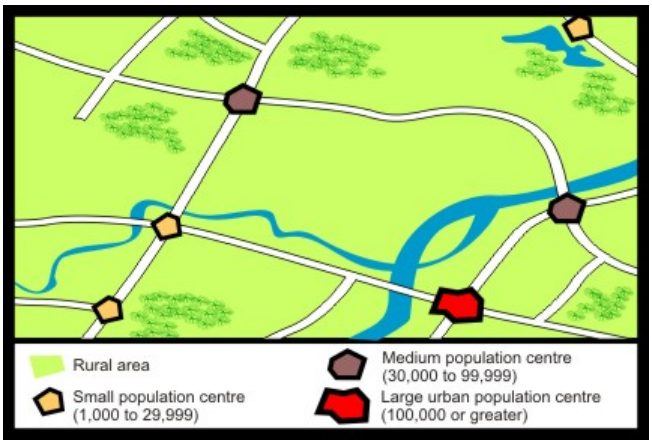
Population centre (POPCTR)

Plain language definition

Area with a population of at least 1,000 and no fewer than 400 persons per square kilometre.

The term 'population centre' (POPCTR) replaces the term 'urban area' (UA). 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 tutorial, part 1

Statistics Canada uses census data to identify population centres (POPCTRs). To be identified as such, an area must have a current population of at least 1,000 and a population density of 400 per square kilometre.

Population centres are divided into three groups based on the size of the population to reflect the existence of an urban-rural continuum:

- 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.

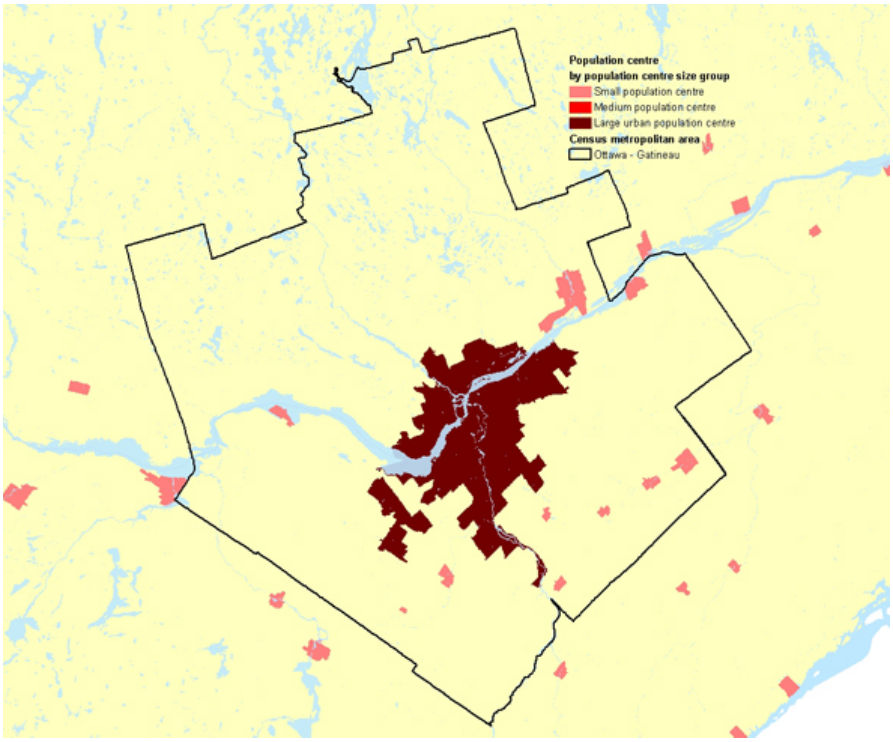
All areas outside population centres are classified as rural areas. Taken together, population centres and rural areas cover all of Canada.

Population centre tutorial, part 1

Population centres are created using adjacent dissemination blocks as building blocks. During their delineation, population centres are required to respect census metropolitan areas (CMAs) and census agglomerations (CAs); this means that they cannot overlap CMA (census metropolitan area) or CA (census agglomeration) boundaries.

Population centres are not required to respect census subdivision (CSD) boundaries. Therefore, population centres may cross municipal boundaries; they may even cross provincial boundaries. In fact, five population centres in Canada cross provincial boundaries: Campbellton (N.B. (New Brunswick)/Que. (Quebec)), Hawkesbury (Ont. (Ontario)/Que. (Quebec)), Ottawa - Gatineau (Ont. (Ontario)/Que. (Quebec)), Flin Flon (Man. (Manitoba)/Sask. (Saskatchewan)) and Lloydminster (Sask. (Saskatchewan)/Alta. (Alberta)).

Population centres in Southern Ontario and Southern Quebec, 2011 Census



Source: Statistics Canada, Geography Division, 2011 Census of Population

Table 10
Distribution of population by size of population centre, 2006 and 2011 censuses

Population centre classification and rural area	Number of population centres		Population				
	2006	2011	2006		2011		change in population 2006 to 2011
			count	%	count	%	
Rural area	...	...	6,262,154	19.8	6,329,414	18.9	67,260
Small population centre (1,000 to 29,999)	812	857	3,843,931	12.2	4,144,723	12.4	300,792
Medium population centre (30,000 to 99,999)	54	54	2,850,159	9.0	2,926,734	8.7	76,575
Large urban population centre (100,000 or greater)	29	31	18,656,653	59.0	20,075,817	60.0	1,419,164
Total	**895**	**942**	**31,612,897**	**100.0**	**33,476,688**	**100.0**	**1,863,791**

...not applicable
Sources: Statistics Canada, 2006 and 2011 censuses of population.

Population centre (POPCTR): Detailed definition

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 (census metropolitan areas) and CA (Census Agglomeration)s.

Census years

2011

Remarks

Starting with the 2011 Census, the term 'population centre' replaces the term 'urban area.'

Prior to 2011, urban areas included a wide range of densely-populated areas, from small centres with a population of 1,000 to very large centres of more than 1 million. This approach ignored size differences by treating all urban areas as a single group. Given the widely accepted view that a more dynamic urban-rural continuum exists, the use of the term 'urban area' could lead to

misinterpretations.

Population centres are divided into three groups based on the size of their population to reflect the existence of an urban-rural continuum.

The delineation rules for population centres (POPCTR) are ranked in order of priority:

1. The 2006 urban areas are retained as 2011 population centres if their current population is 1,000 or more.
2. If a dissemination block with a population density of at least 400 persons per square kilometre is adjacent to a population centre, then it is added to that population centre.
3. If a dissemination block or group of contiguous dissemination blocks, each having a minimum population of 1,000 and a population density of at least 400 persons per square kilometre for the current census, then the dissemination block or group of contiguous dissemination blocks is delineated as a new population centre.
4. The distance by road between population centres is measured. If the distance is less than two kilometres, then the population centres are combined to form a single population centre, provided they do not cross census metropolitan area (CMA) or census agglomeration (CA) boundaries.
5. If a population centre is contained within a census subdivision (CSD) or a designated place (DPL), the difference in land area between the population centre and the CSD (census subdivision) or DPL (designated place) is calculated. For confidentiality purposes, if the difference between the CSD (census subdivision) and the population centre is less than 10 square kilometres, then the boundary for the population centre is adjusted to the CSD (census subdivision) boundary. However, if the difference between the DPL (designated place) and the population centre is less than 10 square kilometres and the remaining population is less than 100, then the population centre will annex the entire DPL (designated place).

The resulting population centres are reviewed and may be modified to ensure spatial contiguity where appropriate (for example, the removal of interior holes).

Some population centres may contain commercial and industrial districts, railway yards, airports, parks and other uninhabited areas that result in dissemination blocks with population densities of less than 400 persons per square kilometre. In general, the impact on the total population within population centres is minor, but the impact on specific land areas could be significant. This would affect any programs or research based on precise distance or land area measurements related to individual population centres.

Once a population centre attains a population of 10,000 persons, it is eligible to become the core of a census agglomeration (CA). Once a population centre attains a population of 50,000 and is the core of a census agglomeration with a minimum total population of 100,000, then it is eligible to become the core of a census metropolitan area (CMA). When a population centre with a population of at least 50,000 persons is also the core of a census agglomeration, the census agglomeration is eligible for the census tract program.

Naming convention

The name of the population centre is the name of the principal census subdivision (CSD) when the CSD (census subdivision) is (or was) a city, town or village. If two or more principal CSDs are involved, the population centre may be given a compound name. In other cases, the name of the population centre is an appropriate place name.

Geographic code

Population centre codes are unique four-digit codes that are assigned sequentially upon the POPCTR (population centre) creation. These codes remain constant between censuses. The previous 2006 urban area codes are retained for the 2011 population centres. If a population centre is retired due to amalgamation or failure to meet the population or density thresholds, then its code is retired.

It is recommended that the two-digit province/territory (PR) code precede the POPCTR (population centre) code in order to identify each POPCTR (population centre) uniquely within its corresponding province/territory. For example:

PR-POPCTR code	POPCTR (population centre) name
11 0159	Charlottetown (P.E.I.)
13 0122	Campbellton (N.B.)
24 0122	Campbellton (Que.)
46 0282	Flin Flon (Man.)

47 0282	Flin Flon (Sask.)
60 1023	Whitehorse (Y.T.)

Five POPCTRs straddle provincial boundaries: Campbellton (New Brunswick and Quebec), Hawkesbury (Ontario and Quebec), Ottawa - Gatineau (Ontario and Quebec), Flin Flon (Manitoba and Saskatchewan) and Lloydminster (Alberta and Saskatchewan).

For 2011, the DPL (designated place) of Cowichan 1 (DPL (designated place) 59 0321) in British Columbia overlaps the POPCTR (population centre) of Duncan (POPCTR (population centre)0243). In an effort to minimize data suppression for this area, this DPL (designated place) represents a formerly discontiguous Aboriginal community which has been combined to form a single discontiguous census subdivision (CSD).

Table 1 in the Introduction shows the number of population centres by province and territory.

Refer to the related definitions of census metropolitan area (CMA) and census agglomeration (CA); census subdivision (CSD); core, fringe and rural area; designated place (DPL); dissemination block (DB); land area; place name (PN) and population density.

Changes prior to the current census

The term 'urban area' existed at Statistics Canada from the 1961 to 2006 censuses.

For 2006, the boundaries of 412 urban areas for 2001 were adjusted to correct for over-bounding which largely resulted from the 2001 block structure. This correction resulted in the reduction of land area of these 2001 urban areas in preparation for the delineation of the 2006 urban areas. The correction also resulted in the reinstatement of four urban areas for 2006 which had been merged with other urban areas in 2001: Fortune (10 0300), Sainte-Croix (24 0878), Châteauguay (24 1177) and Dowling (35 1084).

One of the 2006 urban areas, Attawaspiskat 91A (UA 35 1275), was an area that had been identified as being an incompletely enumerated Indian reserve. Data for 2006 were not available for the incompletely enumerated reserves and settlements, and were not included in tabulations. Because of the missing data, users were cautioned that for the affected geographic areas, comparisons (e.g. (for example), percentage change) between 2001 and 2006 were not exact.

In 2001, the delineation of urban areas became an automated process that made it possible to use population counts and population density data from the current census.

Prior to 2001, the geographic units used for urban area delineation were census subdivisions, designated places and enumeration areas. Population counts and population density from the previous census were used in all cases, except when enumeration area boundaries had been adjusted for the current census.

For 1976, urban areas contained a population concentration of at least 1,000 persons and a population density of at least 1,000 persons per square mile (386 per square kilometre). Urban areas were combined if they were separated by less than one mile (1.6 kilometres).

For 1971, 1966 and 1961, urban areas included:

- all incorporated cities, towns and villages with a population of 1,000 persons or over;
- all unincorporated places with a population of 1,000 persons or over and a population density of at least 1,000 persons per square mile; and
- the urbanized fringe and the urbanized core of a census agglomeration or census metropolitan area, that had a minimum population of 1,000 persons and a density of at least 1,000 persons per square mile.

Table 7
Distribution of population by size of population centre, 2001 and 2006 censuses

Population centre classification and rural area	Number of population centres		Population				
	2001	2006	2001		2006		change in population 2001 to 2006
			count	%	count	%	
Rural area	...	...	6,098,883	20.3	6,262,154	19.8	163,271
Small population centre (1,000 to 29,999)	836	812	3,949,780	13.2	3,843,931	12.2	-105,849
Medium population centre (30,000 to 99,999)	48	54	2,448,150	8.2	2,850,159	9.0	402,009
Large urban population centre (100,000 or greater)	29	29	17,510,281	58.4	18,656,653	59.0	1,146,372
Total	913	895	30,007,094	100.0	31,612,897	100.0	1,605,803

... not applicable
Source: Statistics Canada, 2011 Census of Population.

Province or territory

Plain language definition

Portion of Canada's land area governed by a political authority. Canada is divided into 10 provinces and 3 territories.

Province or territory: Detailed definition

'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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

Statistics Canada uses standard codes and abbreviations to represent provinces and territories. The two-digit code that uniquely identifies each province/territory is based on the Standard Geographical Classification (SGC). The code is assigned from east to west. The first digit represents the geographical region of Canada in which the province/territory is located and the second digit denotes one of the 10 provinces and 3 territories (Table 8).

Effective October 20, 2008, the names 'Yukon Territory' in English and 'Territoire du Yukon' in French become 'Yukon' in English and in French, as per the *Yukon Act* (Chapter 7, assented March 27, 2002).

Users should be aware that there is no change to the abbreviations or to the numeric and alpha codes for Yukon. The abbreviations remain Y.T. in English and Yn in French, 60 for the numeric code and YT for the alpha code.

Refer to the related definitions of census division (CD) and Standard Geographical Classification (SGC).

Changes prior to the current census

On October 21, 2002, the alpha code for the province of Newfoundland and Labrador changed from NF to NL. Furthermore, the official English abbreviation for Newfoundland and Labrador changed from Nfld.Lab. to N.L. The official French abbreviation remains unchanged.

Table 8
Abbreviations and codes for provinces and territories, 2011 Census

Province/Territory	Standard abbreviations English/French	Internationally approved alpha code (Source: Canada Post)	Standard geographical classification (SGC) code	Region name
Newfoundland and Labrador	N.L./T.-N.-L.	NL	10	Atlantic
Prince Edward Island	P.E.I./Î.-P.-É.	PE	11	Atlantic
Nova Scotia	N.S./N.-É.	NS	12	Atlantic
New Brunswick	N.B./N.-B.	NB	13	Atlantic
Quebec	Que./Qc	QC	24	Quebec
Ontario	Ont./Ont.	ON	35	Ontario
Manitoba	Man./Man.	MB	46	Prairies
Saskatchewan	Sask./Sask.	SK	47	Prairies
Alberta	Alta./Alb.	AB	48	Prairies
British Columbia	B.C./C.-B.	BC	59	British Columbia
Yukon	Y.T./Yn	YT	60	Territories
Northwest Territories	N.W.T./T.N.-O.	NT	61	Territories
Nunavut	Nvt./Nt	NU	62	Territories

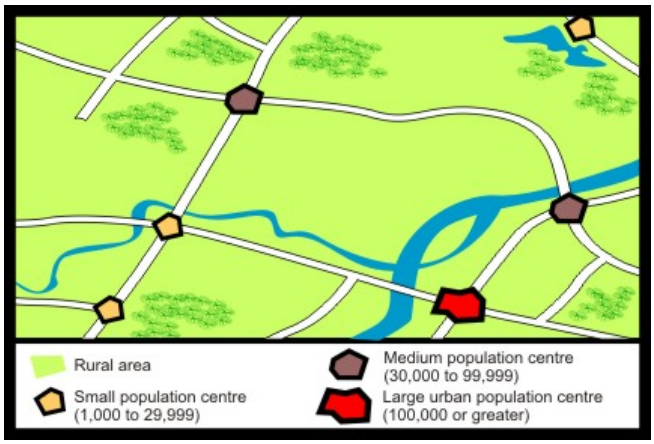
Source: Statistics Canada, 2011 Census of Population.

Rural area (RA)

Detailed definition

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 (census metropolitan areas) and CAs (census agglomerations).



Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

The rural area of Canada is the area that remains after the delineation of population centres using current census population data.

Within rural areas, population densities and living conditions can vary greatly. Included in rural areas are:

- small towns, villages and other populated places with less than 1,000 population according to the current census
- rural areas of census metropolitan areas and census agglomerations that may contain estate lots, as well as agricultural, undeveloped and non-developable lands
- agricultural lands
- remote and wilderness areas.

Refer to the related definitions of census metropolitan area (CMA) and census agglomeration (CA); core, fringe and rural area; designated place (DPL); population centre (POPCTR) and population density.

Changes prior to the current census

Prior to 2011, rural areas were the residual after the delineation of urban areas (now called population centres).

Prior to 2001, rural areas were the residual after the delineation of urban areas that was based on population data from the previous census.

Abbreviations

Table - List of abbreviations

BF	Block-face
CA	Census agglomeration
CAR	Census agricultural region
CBF	Cartographic boundary files
CCS	Census consolidated subdivision
CD	Census division
CMA	Census metropolitan area
CSD	Census subdivision
CT	Census tract
DA	Dissemination area
DB	Dissemination block
DBF	Digital boundary files
DPL	Designated place
ER	Economic region
FED	Federal electoral district
MIZ	Census metropolitan influenced zones
NGD	National Geographic Database
PN	Place name
POPCTR	Population centre
RA	Rural area
RNF	Road network files
SAC	Statistical Area Classification
SDI	Spatial Data Infrastructure
SGC	Standard Geographical Classification

Administrative areas

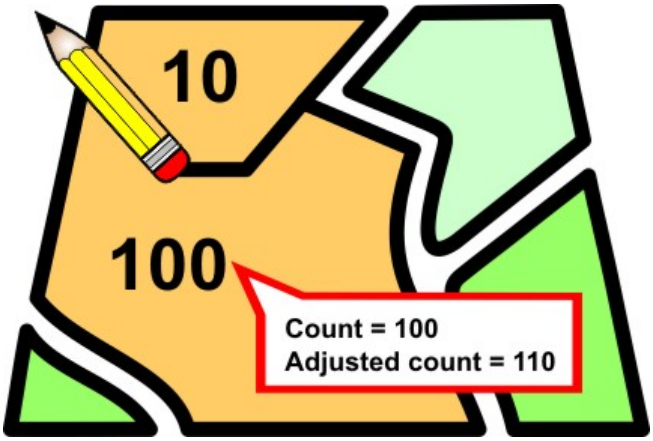
Administrative areas are defined, with a few exceptions, by federal and provincial statutes and are adopted for purposes of the census. Administrative areas supported by Statistics Canada include:

- Province and territory
- Federal electoral district (commonly called federal ridings)
- Census division (regional government areas such as counties and regional districts)
- Census subdivision (commonly known as municipalities)
- Designated place (submunicipal areas such as local service districts)
- Postal code[OM] (defined and maintained by Canada Post Corporation)

Adjusted counts

Plain language definition

After a census, Statistics Canada makes public the total number of persons and the total number of dwellings counted in a given area, for example, in a municipality. By the next census, the municipality's geographic boundaries may have changed, especially if it has annexed part of another municipality or has merged with another municipality. When a boundary change occurs between censuses, the population and dwelling counts for the geographic areas affected by the boundary change are revised (adjusted). The adjusted counts show what the counts (the total number of persons and the total number of dwellings) from the previous census would be for the current census boundaries.



Adjusted counts: Detailed definition

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

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961, 1956 (population)
2011, 2006, 2001, 1996 (dwellings)

Remarks

When a boundary change occurs, the population and dwellings affected are determined by examining the collection documents from the previous census. The dwellings affected by the boundary change are identified from the collection maps. Once the affected dwellings are identified, it is possible to establish the population affected. These counts are then added to the geographic area that has increased in size and subtracted from the geographic area that has decreased in size.

Boundary changes to standard geographic areas between censuses are generally flagged in census outputs. This is done to warn users doing trend or longitudinal analysis that the areas being compared have changed over time. However, by comparing the final population or dwelling counts from the previous census to the adjusted counts, the user can judge the significance of the boundary change.

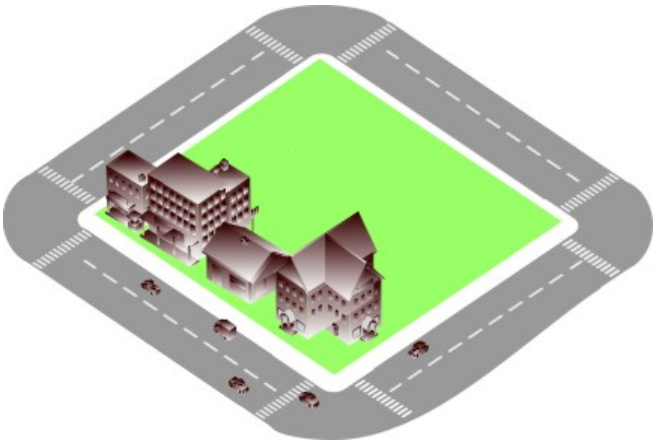
In the case of new areas (e.g. (for example), census subdivision incorporations), adjusted counts are required to permit the calculation of change. For dissolutions or major boundary changes, the use of adjusted counts instead of the previous census final counts often provides a better measure of trends by removing the effect of the boundary change from the calculation.

Refer to the related definition of census subdivision (CSD).

Block-face

Plain language definition

One side of a street between two consecutive intersections, such as one side of a city block.



Block-face: Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971

Remarks

Population and dwelling counts are not disseminated for individual block-faces, since there are confidentiality concerns about releasing small population and dwelling counts at this level of geography.

Table 1 in the Introduction shows the number of block-faces by province and territory.

Refer to related definitions of geocoding; representative point and Spatial Data Infrastructure (SDI).

Changes prior to the current census

Major changes in 2001:

- Block-faces were defined for the entire country, rather than only in urban centres covered by the former street network files.
- Block-faces were formed by addressable and non-addressable streets, rather than by addressable streets only.
- Two block-faces were generated opposite a road T-junction, rather than just one block-face.

- Block-faces were not formed when physical features (such as rivers or railroads) intersected the road unless these features were coincident with a boundary of a standard geographic area.
- Block-faces were not formed when a single-address enumeration area (EA) was smaller than a city block. In these cases, the EA (enumeration area) was offset from the street, rather than digitally represented as a polygon intersecting the street.
- Block-faces were formed when streets crossed the limits of map tiles (the map tiles, which were based on the National Topographic System of Natural Resources Canada, formed the Canada-wide coverage in the 2001 National Geographic Base).
- Population and dwelling counts were not disseminated for individual block-faces.

Prior to 2001:

- Block-faces were defined only in urban centres covered by street network files.
- Block-faces were formed by addressable streets only.
- Only one block-face was generated opposite a road T-junction.
- Block-faces were formed when physical features intersected roads even when the boundaries of standard geographic areas were not coincident with these features.
- Block-faces were formed when a single-address EA (enumeration area) was smaller than a city block since the EA (enumeration area) was digitally represented as a polygon intersecting the street.
- Block-faces were not formed when streets crossed the limits of map tiles, since map tiles were not used.
- Population and dwelling counts were disseminated for individual block-faces.

Prior to 1991, block-faces were not created when EA (enumeration area) boundaries split city blocks.

Cartographic boundary files (CBFs)

Detailed definition

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.

Censuses

2011, 2006, 2001 (cartographic boundary files)
1996 (digital cartographic files)
1991, 1986, 1981, 1976 (CARTLIBs)

Remarks

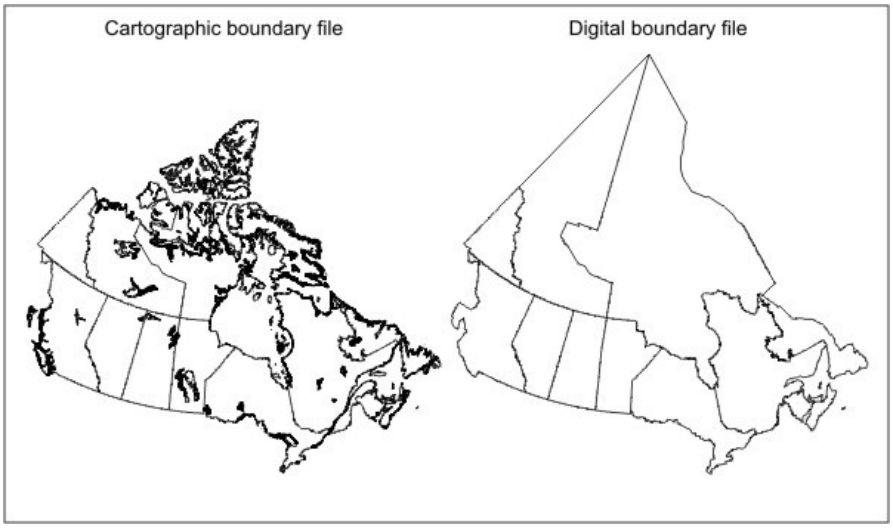
The boundaries of the geographic areas reflect those in effect on January 1, 2011 (the geographic reference date for the 2011 Census of Canada).

Cartographic boundary files are created by integrating Canada's external shoreline with the selected source boundary layer from the Spatial Data Infrastructure (SDI). The boundaries extending into water bodies are 'erased' and replaced by the shoreline and offshore islands. The hydrographic features are also from the SDI (Spatial Data Infrastructure). Further adjustments are made, such as the feature selection and the ranking of features for scale-dependent mapping.

Cartographic boundary files (CBFs) are intended for thematic mapping and analysis purposes. The positional accuracy does not support cadastral, surveying or engineering applications. CBFs (Cartographic boundary files) can be used in conjunction with road network files (RNFs), since both products are derived from the same sources, and features are generalized in the same manner. The roads in RNFs (road network files) provide additional geographic context when used with CBFs (cartographic boundary files). CBFs (Cartographic boundary files) can be used with Census of Population, Census of Agriculture or other Statistics Canada data. Geographic codes provide the linkage between the statistical data and geographic areas.

The maps in Figure 4 below show the differences between cartographic boundary files and digital boundary files.

Figure 4
Example of a cartographic boundary file and a digital boundary file (provinces and territories)



Source: Statistics Canada, 2011 Census of Population.

Refer to the related definitions of digital boundary files (DBFs); road network file (RNF); Spatial Data Infrastructure (SDI) and to the *Boundary Files, Reference Guide* (Catalogue no. (numbers) 92-160-G).

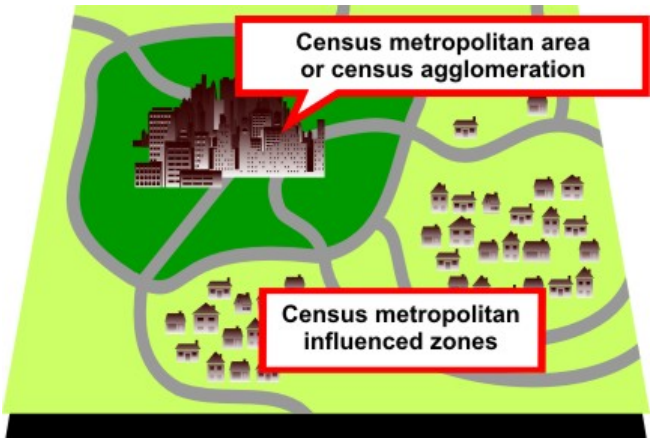
Census metropolitan influenced zones (MIZ)

Plain language definition

Category assigned to a municipality **not included** in either a census metropolitan area (CMA) or a census agglomeration (CA). A municipality within a province is assigned to a census **m**etropolitan **i**nfluenced **z**one (MIZ) category depending on the percentage of its resident employed labour force that commute to work in the core of any CMA (Census Metropolitan Area) or CA (Census Agglomeration). A separate category is assigned to the municipalities in the territories that are not part of a CA (Census Agglomeration).

Census subdivisions (CSDs) outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s are assigned to the following MIZ (Metropolitan Influenced Zone) categories:

- Strong metropolitan influenced zone
- Moderate metropolitan influenced zone
- Weak metropolitan influenced zone
- No metropolitan influenced zone
- Territories (outside CA (Census Agglomeration)s)



MIZ (census metropolitan area and census agglomeration influenced zones) tutorial, part 1

Part 1 of 5 | Next

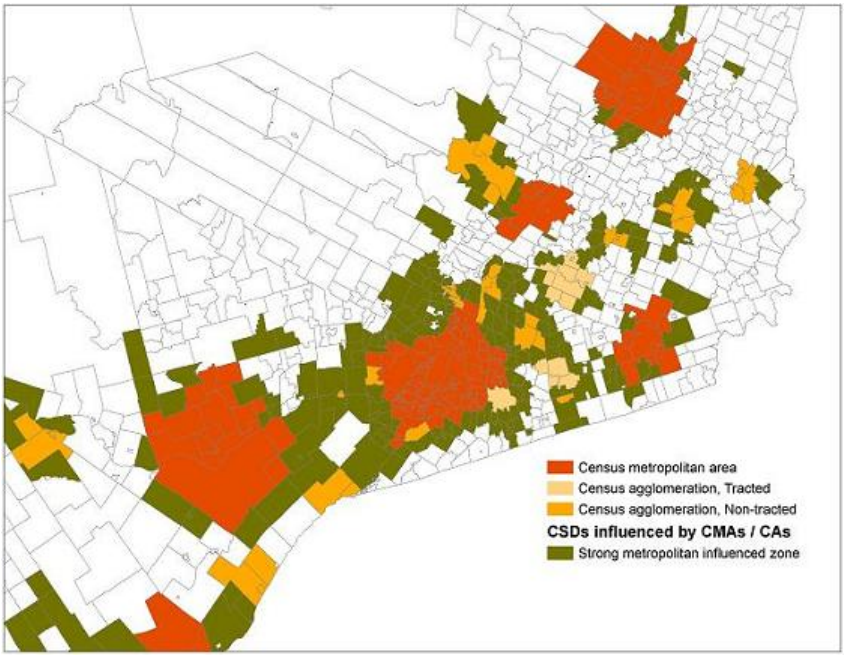
Census metropolitan areas (CMAs) and census agglomerations (CAs) exert a social and economic influence beyond their geographic limits. The census **m**etropolitan **i**nfluenced **z**one (MIZ) classification categorizes census subdivisions (CSDs) that are outside of a CMA (Census metropolitan area) or CA based on the degree of influence that CMA (Census metropolitan area)s and CAs have on them.

Census subdivisions (CSDs) are assigned to a MIZ category based on the percentage of their resident employed labour force (employed persons living in that CSD (Census subdivisions)) that has a place of work in the core(s) of CMA (Census metropolitan area)s or CAs. CSD (Census subdivisions)s with the same degree of influence tend to be clustered.

MIZ (census metropolitan area and census agglomeration influenced zones) tutorial, part 2

The strong metropolitan influenced zone (**strong MIZ**) category includes CSDs (census subdivisions) with a commuting flow of 30% or more (at least 30% of the resident employed labour force living in the CSD (census subdivision) works in any CMA (Census metropolitan area) or CA (census agglomeration) core).

Census subdivisions in Eastern Ontario and Southwestern Quebec categorized by census metropolitan influenced zones (MIZ)

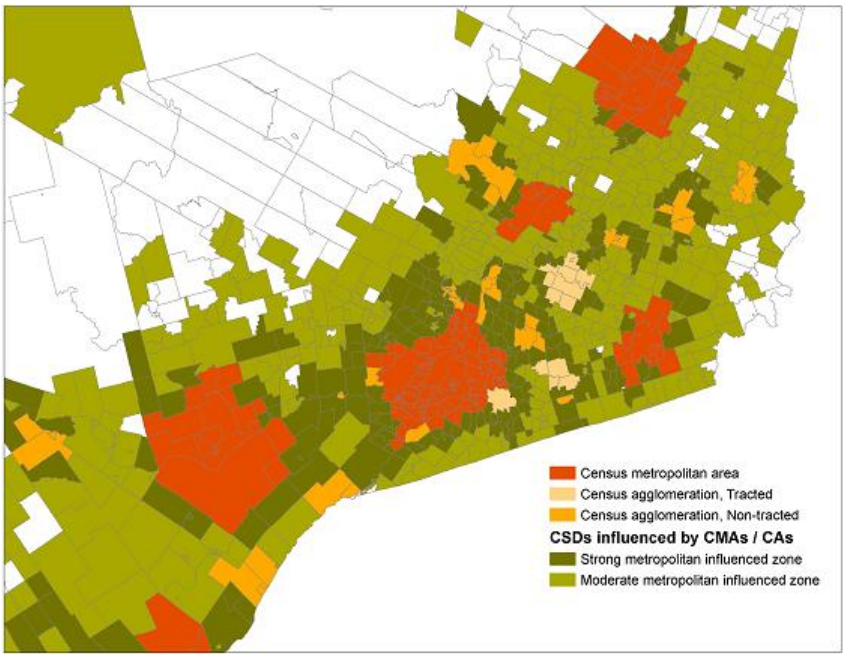


Source: Statistics Canada, 2011 Census of Population.

MIZ (census metropolitan area and census agglomeration influenced zones) tutorial, part 3

The moderate metropolitan influenced zone (**moderate MIZ**) category includes CSDs (census subdivisions) with a commuting flow percentage between 5% and 30% (at least 5%, but less than 30% of the resident employed labour force living in the CSD (census subdivision) works in any CMA (Census metropolitan area) or CA (census agglomeration) core).

Census subdivisions categorized by strong and moderate metropolitan influenced zone in Eastern Ontario and Southwestern Quebec

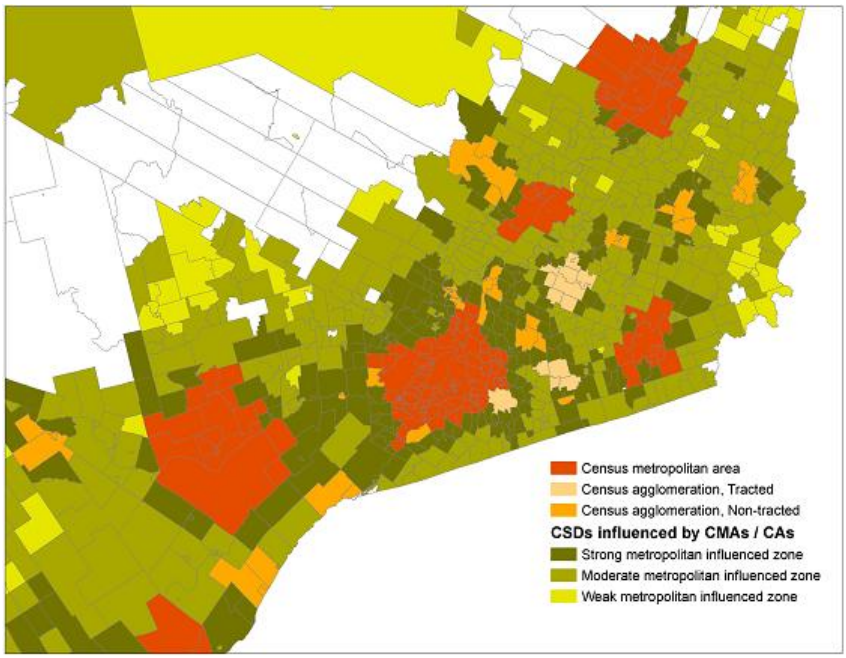


Source: Statistics Canada, 2011 Census of Population.

MIZ (census metropolitan area and census agglomeration influenced zones) tutorial, part 4

The weak metropolitan influenced zone (**weak MIZ**) category includes CSDs (census subdivisions) with a commuting flow percentage more than 0%, but less than 5% (more than 0%, but less than 5% of the resident employed labour force living in the CSD (census subdivision) works in any CMA (Census metropolitan area) or CA (census agglomeration) core).

Census subdivisions categorized by strong, moderate and weak metropolitan influenced zones in Eastern Ontario and Southwestern Quebec

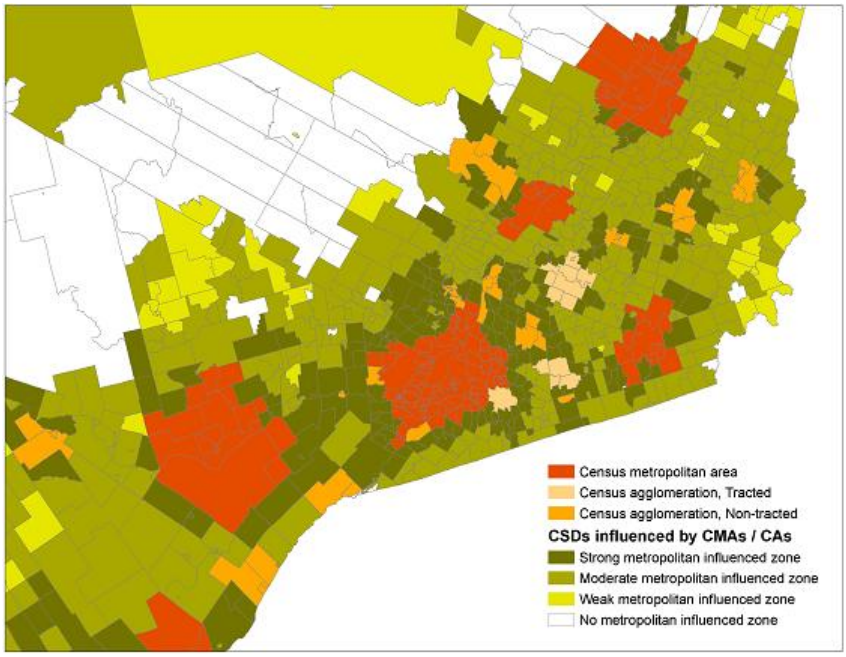


Source: Statistics Canada, 2011 Census of Population.

MIZ (census metropolitan area and census agglomeration influenced zones) tutorial, part 5

The no metropolitan influenced zone (**no MIZ**) category includes those CSDs (census subdivisions) with either fewer than 40 people in the resident employed labour force (where data suppression rules apply) or no people commuting to work in CMA (Census metropolitan area) or CA (census agglomeration) cores.

Census subdivisions categorized by strong, moderate, weak and no metropolitan influenced zones in Eastern Ontario and Southwestern Quebec



Source: Statistics Canada, 2011 Census of Population.

Census metropolitan influenced zones: Detailed definition

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 CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s are assigned to one of four categories according to the degree of influence (strong, moderate, weak or no influence) that the CMA (Census Metropolitan Area)s or CA (Census Metropolitan Area)s have on them. CSD (census subdivision)s within the territories that are outside CA (Census Agglomeration)s are assigned to a separate category.

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

CSD (census subdivision)s outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s are assigned to the following MIZ (Metropolitan Influenced Zone) categories:

1. **Strong metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where at least 30% of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census Metropolitan Area) or CA (Census Agglomeration). It excludes CSD (census subdivision)s with fewer than 40 persons in their resident employed labour force.
2. **Moderate metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where at least 5% but less than 30% of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census

Metropolitan Area) or CA (Census Agglomeration). It excludes CSD (census subdivision)s with fewer than 40 persons in their resident employed labour force.

3. **Weak metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where more than 0% but less than 5% of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census Metropolitan Area) or CA (Census Agglomeration). It excludes CSD (census subdivision)s with fewer than 40 persons in their resident employed labour force.
4. **No metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where none of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census Metropolitan Area)or CA (Census Agglomeration). It also includes CSD (census subdivision)s in provinces with fewer than 40 persons in their resident employed labour force.
5. **Territories (outside CAs):** This category includes CSD (census subdivision)s in the territories outside CA (Census Agglomeration)s.

Censuses

2011, 2006, 2001

Remarks

The MIZ (Metropolitan Influenced Zone) is a concept applied, for statistical analysis purposes, to CSD (census subdivision)s outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s. All CSD (census subdivision)s in Canada are either a component of a CMA (Census Metropolitan Area) or a CA (Census Agglomeration) or not a component (outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s). The MIZ (Metropolitan Influenced Zone) provides users with a more detailed geographic identity for the CSD (census subdivision)s outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s. As with CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s, the allocation of a CSD (census subdivision) to a MIZ (Metropolitan Influenced Zone) category was determined using commuting flows of the resident employed labour force derived from the 2006 Census place of work data.

The calculation of the commuting flows for MIZ (Metropolitan Influenced Zone)differs from the calculation used for CSD (census subdivision) inclusion in CMA (Census Metropolitan Area)s or CA (Census Agglomeration)s. For the MIZ (Metropolitan Influenced Zone) concept, the percentage of the resident employed labour force living in a particular CSD (census subdivision) outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s and working in the core of any CMA (Census Metropolitan Area) or CA (Census Agglomeration) are combined to determine the degree of influence that one or more CMA (Census Metropolitan Area)s or CA (Census Agglomeration)s have on that CSD (census subdivision). The resulting percentage then determines the MIZ (Metropolitan Influenced Zone) category assigned to the CSD (census subdivision), as follows:

1. **Strong metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where a commuting flow of at least 30% of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census Metropolitan Area) or CA (Census Agglomeration). It excludes CSD (census subdivision)s with fewer than 40 persons in their resident employed labour force.
2. **Moderate metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where at least 5% but less than 30% of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census Metropolitan Area) or CA (Census Agglomeration). It excludes CSD (census subdivision)s with fewer than 40 persons in their resident employed labour force.
3. **Weak metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where more than 0% but less than 5% of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census Metropolitan Area)or CA (Census Agglomeration). It excludes CSD (census subdivision)s with fewer than 40 persons in their resident employed labour force.
4. **No metropolitan influenced zone:** This category includes CSD (census subdivision)s in provinces where none of the CSD (census subdivision)'s resident employed labour force commute to work in any CMA (Census Metropolitan Area) or CA (Census Agglomeration). It also includes CSD (census subdivision)s in provinces with fewer than 40 persons in their resident employed labour force.
5. **Territories (outside CAs):** This category includes CSD (census subdivision)s in the territories outside CA (Census Agglomeration)s.

Table 3 shows the number of census subdivisions by the Statistical Area Classification (SAC) for Canada, provinces and territories.

Refer to the related definitions of census metropolitan area (CMA) and census agglomeration (CA); census subdivision (CSD); core, fringe and rural area; Statistical Area Classification (SAC) and Standard Geographical Classification (SGC).

Table 3
Number of census subdivisions by the Statistical area classification (SAC), 2011 Census

Province/territory	Total CSDs (census subdivisions)	Number of census subdivisions						
		CMAs (Census metropolitan areas)	CAs (Census agglomerations)	Strong MIZ (census metropolitan area and census agglomeration influenced zone)	Moderate MIZ (census metropolitan area and census agglomeration influenced zone)	Weak MIZ (census metropolitan area and census agglomeration influenced zone)	No MIZ (census metropolitan area and census agglomeration influenced zone)	Territories
Newfoundland and Labrador	376	13	15	30	134	75	109	...
Prince Edward Island	113	0	23	32	48	6	4	...
Nova Scotia	99	5	18	3	23	39	11	...
New Brunswick	273	31	45	32	91	56	18	...
Quebec	1,285	157	81	237	490	145	175	...
Ontario	574	92	56	95	143	87	101	...
Manitoba	287	12	8	17	61	116	73	...
Saskatchewan	959	41	25	62	248	208	375	...
Alberta	435	44	44	52	111	106	78	...
British Columbia	743	74	137	34	92	138	268	...
Yukon	37	0	7	...	...	...	...	30
Northwest Territories	41	0	1	...	...	...	...	40
Nunavut	31	0	0	...	...	...	...	31
Canada	**5,253**	**469**	**460**	**594**	**1,441**	**976**	**1,212**	**101**

... not applicable

Source: Statistics Canada, 2011 Census of Population.

Coordinate system

Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981 (latitude/longitude)
1996, 1991, 1986, 1981, 1976, 1971 (Universal Transverse Mercator)

Remarks

A coordinate system is usually defined by a datum, ellipsoid and projection, and is specified in terms of units (e.g. (for example), degrees, metres).

Latitude and longitude coordinates, often referred to as geographic coordinates, are spherical. Lines of latitude (also called parallels) run in an east-west direction around the earth parallel to the equator. Latitude is the angular measurement of a location expressed in degrees north or south of the equator, ranging from 0° at the equator to 90°N (North) or 90°S (South) at the poles. Lines of longitude (also called meridians) run in a north-south direction from pole to pole. Longitude is the angular measurement of a location east or west of the prime meridian (which runs through Greenwich, England), ranging from 0° at the prime meridian to 180°E (East) or 180°W (Weset). The 180th meridian is the approximate location of the International Date Line.

For the land mass of Canada, latitudes range from about 42ºN to 83ºN and longitudes range from approximately 53°W (Weset) to 141°W (Weset).

Latitude coordinates south of the equator and longitude coordinates west of the prime meridian have minus signs when stored in a digital database. Latitude/longitude coordinates are convenient for transferring and disseminating spatial digital data, and are normally expressed in decimal degrees on a database. However, maps should not be generated using these spherical coordinates, as they are **unprojected**, resulting in a map that appears distorted (see Figure 14 in map projection definition).

It is now common for geographic information system (GIS) software to convert coordinates from one frame of reference to coordinates of another frame of reference, such as transforming the Lambert conformal conic projection to latitude/longitude coordinates.

The Universal Transverse Mercator (UTM) coordinate system is no longer used as the working coordinate system or for disseminating spatial digital data.

Refer to related definitions of cartographic boundary files (CBFs); datum; digital boundary files (DBFs); map projection; representative point; road network file (RNF) and Spatial Data Infrastructure (SDI).

Changes prior to the current census

For 1996, street network files were disseminated in latitude/longitude coordinates, but the working coordinate system was UTM (Universal Transverse Mercator).

Prior to 1996, street network files were disseminated in UTM (Universal Transverse Mercator) coordinates only.

Datum

Detailed definition

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).

Censuses

2011, 2006, 2001 (North American Datum of 1983)
1996, 1991, 1986, 1981, 1976, 1971 (North American Datum of 1927)

Remarks

Datums and the coordinate reference systems based on them were developed to describe geographic positions for surveying, mapping and navigation. Over the years, datums evolved from spherical to ellipsoidal models using satellite measurements. The earth is not a sphere, but an ellipsoid flattened slightly at the poles and bulging somewhat at the equator. The ellipsoid is used as a surface of reference for the mathematical model of the earth. Since mathematical models of the size and shape of the earth are now more precise, it has become necessary to change to a more accurate model.

There are two datums used in Canada: the North American Datum of 1927 (NAD27) and the North American Datum of 1983 (NAD83). Both are geodetic reference systems, but each is based on different measurements and reference ellipsoids. The NAD27 is based on the Clarke ellipsoid of 1866, and its reference point is a fixed point in Kansas. The NAD83 is an earth-centred datum based on a newly defined ellipsoid – the Geodetic Reference System of 1980 (GRS80) – and its reference point is the centre of the earth, as opposed to a point on the earth's surface.

The National Transformation software, developed by the Geodetic Survey of Canada, is used to convert coordinates between the NAD27 and the NAD83 reference systems in Canada. Spatial data based on one datum will not be coincident with the same spatial data based on another datum. Positional differences between NAD27 and NAD83 can be as great as hundreds of metres in some instances. Other longitudinal analyses will also be affected by a change in datum. For example, block-face and census subdivision (CSD) representative points from censuses prior to 2001 may not fall in the correct current census standard geographic area due to a shift caused by using different datums.

Refer to the related definitions of cartographic boundary files (CBFs); coordinate system; digital boundary files (DBFs); map projection; representative point; road network file (RNF) and Spatial Data Infrastructure (SDI).

Changes Prior to the current census

Prior to 2001, digital boundary files (DBFs), digital cartographic files (DCFs), street network files (SNFs), block-face and EA (enumeration area) representative points, and other spatial data were based on the NAD27 (North American Datum of 1927).

Digital boundary files (DBFs)

Detailed definition

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

Censuses

2011, 2006, 1996, 1991, 1986, 1981, 1976

Remarks

The boundaries of the geographic areas reflect those in effect on January 1, 2011 (the geographic reference date for the 2011 Census of Canada).

The boundaries are generated from the Spatial Data Infrastructure (SDI). The boundaries extend into bodies of water, rather than follow the shoreline, to ensure that limits are followed and that all land and islands are included for census enumeration. Thus, boundaries may cut through lakes, extend into oceans, or follow the approximate centres of rivers.

Digital boundary files are not suitable for computing land area, thematic mapping applications or other types of analyses requiring the realistic depiction of shorelines and water bodies, unless the user intends to apply their own shorelines to the boundaries.

Refer to the related definitions of cartographic boundary files (CBFs); road network file (RNF); Spatial Data Infrastructure (SDI) and to the *Boundary Files, Reference Guide* (Catalogue no. (numbers) 92-160-G).

Ecumene

Detailed definition

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. (and so on)).

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976 (national population ecumene)
2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976 (national agricultural ecumene)
1986 (urban population ecumene for 12 census metropolitan areas)

Remarks

Ecumene is derived from the Greek root *oixos* meaning inhabited and *nenon* meaning space.

Statistics Canada delineates the population and agricultural ecumenes as follows:

1. The national population ecumene includes dissemination blocks with a minimum population density. To ensure visibility for small-scale thematic mapping, the detailed ecumene limits are manually generalized and small, discontiguous ecumene pockets are aggregated.
2. The national agricultural ecumene includes all dissemination areas with 'significant' agricultural activity. Agricultural indicators, such as the ratio of agricultural land on census farms relative to total land area, and total economic value of agricultural production, are used. Regional variations are also taken into account. The ecumene is generalized for small-scale mapping.

It is recommended that the ecumene concept be used for dot and choropleth maps. If an ecumene is not applied to dot maps, the requisite number of dots may be randomly spread over entire unit areas. This approach defeats the main attributes of dot mapping (i.e. (that is to say), showing correct location, extent and density of the dot symbols). One of the inherent limitations of choropleth maps is that the statistical distribution is assumed to be homogeneous or uniformly spread over each unit area, and is consequently represented by tones or colours covering the entire unit. Thus, an ecumene renders a more accurate depiction of the spatial distribution of data.

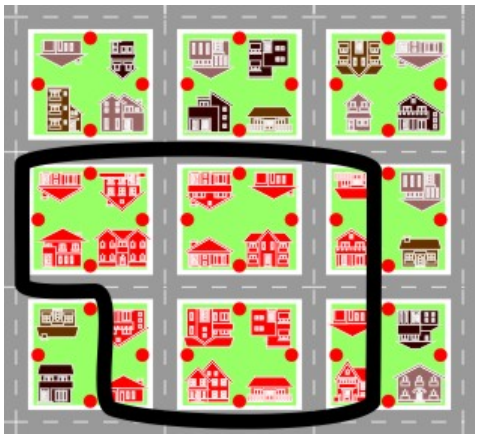
Refer to related definitions of cartographic boundary files (CBFs); datum; dissemination area (DA); dissemination block (DB); Spatial Data Infrastructure (SDI) and thematic map.

Geocoding

Detailed definition

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.



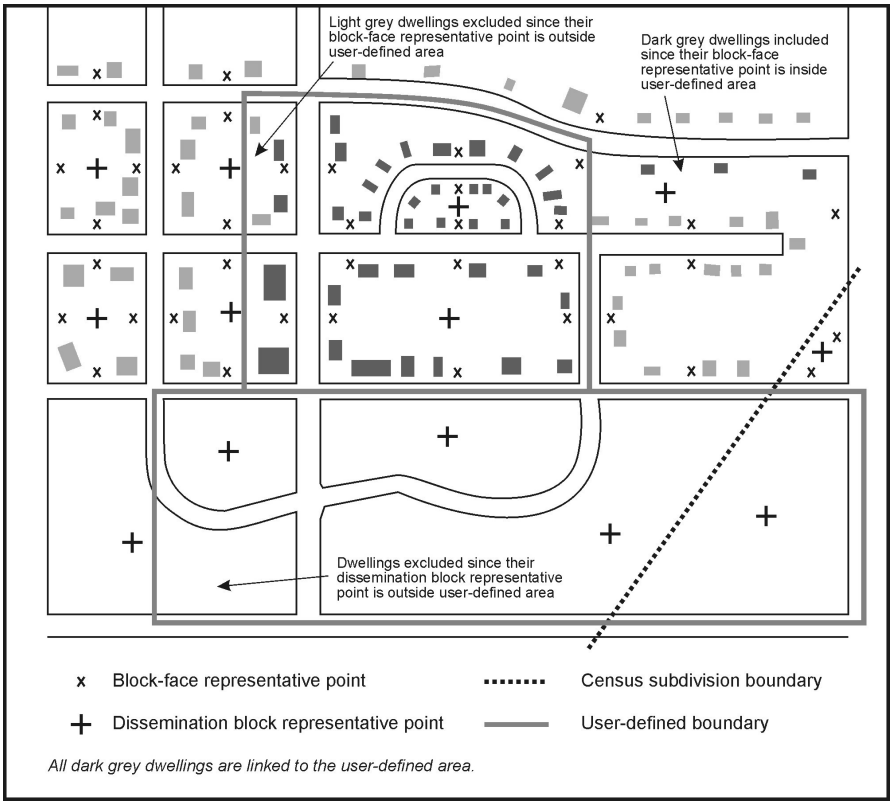
Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971

Remarks

Statistics Canada's Custom Area Creation Service provides census data tabulations for user-defined areas, such as provincial electoral districts, local planning areas and school districts. When tabulating census data for user-defined areas, households are included or excluded depending on whether the representative points to which they are linked fall inside or outside the user-defined area (Figure 13). Thus, the data retrieved are most precise when user-defined areas coincide with dissemination block boundaries. Census data for individual block-faces are not disseminated.

Figure 13
Example of data retrieval with user-defined boundaries



Source: Statistics Canada, 2011 Census of Population.

Refer to related definitions of block-face; census subdivision (CSD); dissemination area (DA); dissemination block (DB); postal code; representative point and Spatial Data Infrastructure (SDI).

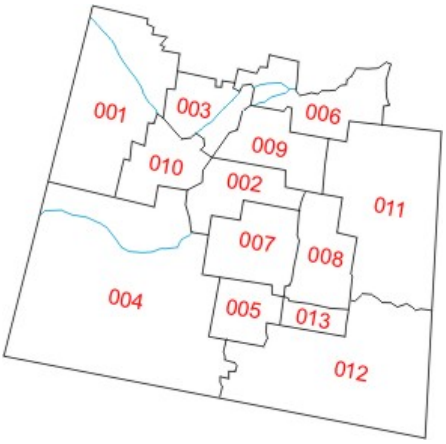
Changes prior to the current census

Prior to 2001, households, postal codes[OM] and place of work data were linked to enumeration area (EA) representative points when they could not be linked to block-face representative points. As well, unrounded block-face population counts were provided for user confirmation before tabulating characteristic data for custom areas.

Geographic code

Plain language definition

Numerical identifier assigned to a geographic area. Every kind of geographic area in Canada has its own type of geographic code. For example, the geographic code assigned to a town makes it possible to distinguish that town from any other towns with the same name that is located in a different province.



Geographic code tutorial, part 1

Most standard geographic areas are commonly known by their names, but these names are not always unique. Geographic codes are numbers that represent a level of geography. When codes that represent lower levels of geography are used in combination with codes that represent higher levels of geography, they provide a way to uniquely identify each geographic unit in Canada.

For example, the name 'Windsor' identifies three different census subdivisions (municipalities) in Canada. To uniquely identify each of these Windsor CSDs (census subdivisions) in Canada, the two-digit province/territory (PR) code and the two-digit census division (CD) code must precede the three-digit census subdivision (CSD) code:

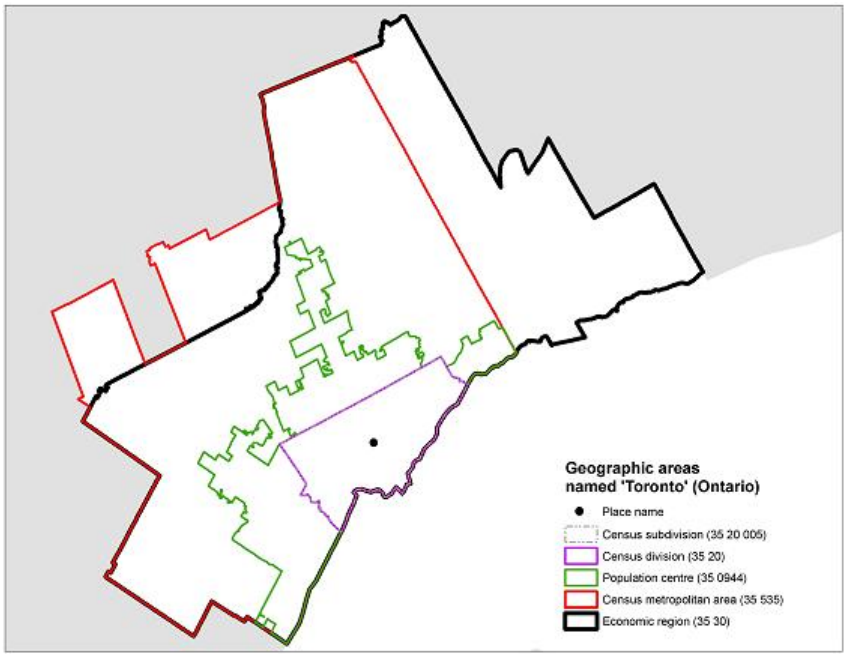
PR (Province/territory)-CD (Census division)-CSD (Census subdivision) code	Province (PR) name	Census division (CD) name	Census subdivision (CSD) name
12 08 002	Nova Scotia	Hants	Windsor
24 42 088	Quebec	Le Val-Saint-François	Windsor
35 37 039	Ontario	Essex	Windsor

Geographic code tutorial, part 2

In another example, we see a few different types of geographic units in Ontario share the name 'Toronto.' All of these overlap in the same general area: census subdivision (CSD), census division (CD), census metropolitan area (CMA), population centre (POPCTR) and economic region (ER). The geographic coding structure for each corresponding area is what differentiates one area from the next.

For each level of geography, the unique code consists of a combination of the geographic code for that specific level as well as the code for higher levels of geography. For example, at the CD (census division) level, the unique geographic code (3520) combines the PR (Province/territory) code (35) and the CD (census division) code (20). Similarly, the unique CSD (census subdivision) code (3520005) combines the PR (Province/territory) code (35), the CD (census division) code (20) and the CSD (census subdivision) code (005). The census metropolitan area, on the other hand, is comprised of a combination of the PR (Province/territory) code (35) and the CMA (census metropolitan area) code (535). These geographic codes only become unique identifiers when they are grouped in this manner.

Geographic areas named 'Toronto' (Ontario)



Source: Statistics Canada, 2011 Census of Population.

Geographic code: Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

Geographic codes are used in combination with the province/territory code and other higher level geographic area codes in order to uniquely identify each geographic unit in Canada.

The Standard Geographical Classification (SGC), Statistics Canada's official classification of geographic areas, provides unique codes for three hierarchically-related geographic areas: provinces and territories, census divisions and census subdivisions.

For further details, refer to the description of geographic code in the definitions of census agricultural region (CAR); census consolidated subdivision (CCS); census division (CD); census metropolitan area (CMA) and census agglomeration (CA); census subdivision (CSD); census tract (CT); designated place (DPL); dissemination area (DA); dissemination block (DB); economic region (ER); federal electoral district (FED); population centre (POPCTR); province or territory and Standard Geographical Classification (SGC). Also refer to the *2011 Standard Geographical Classification (SGC), Volumes I (one) and II (two)*(Catalogue nos. (numbers)12-571-X and 12-572-X).

Changes prior to the current census

Since 1981, the Standard Geographical Classification has been the sole official geographic classification system used for disseminating data for provinces/territories, census divisions and census subdivisions.

For 1976 and 1971, both the SGC (Standard Geographical Classification) and census codes were used to disseminate census data.

Prior to 1971, only census codes were used to disseminate census data.

Geographic reference date

Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

Names, boundaries and other attributes of geographic areas change frequently (examples of these changes include municipal amalgamations and annexations, and changes in the name and status of municipalities). Since the geographic framework is used for census data collection, the geographic reference date must be set sufficiently in advance of Census Day to permit all changes to be processed in time. Furthermore, notification of these changes is normally not received from the applicable federal and provincial authorities until after the changes have occurred. For these reasons, the census reports data according to the geographic areas that are in effect on January 1, 2011, provided that Statistics Canada receives the information on the changes by March 1, 2011.

Since the geographic framework is established according to the geographic areas in effect as of January 1, 2011, and census data refer to conditions as they exist on Census Day (May 10, 2011), census data may be reported for geographic areas that have subsequently changed during this period.

The geographic framework established for census purposes may not reflect the actual geographic framework in effect on January 1, 2011, if Statistics Canada never receives, or does not receive by March 1, 2011, the appropriate notification from relevant federal and provincial authorities.

Changes prior to the current census

Prior to 1981, the geographic reference date was set to the same date as Census Day. From the 1981 Census onwards, it has been set at January 1 of the census year, which has improved the timeliness of the release of census products.

Table 1
Geographic units by province and territory, 2011 Census

Geographic unit	Canada		Newfoundland and Labrador	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Northwest Territories	Nunavut
	2006	2011													
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	.	.	.
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	5,418	5,253	376	113	99	273	1,285	574	287	959	435	743	37	41	31
Dissolutions (January 2, 2006 to January 1, 2011)	221	.	3	0	1	6	13	13	13	26	19	126	0	1	0
Incorporations (January 2, 2006 to January 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	111	114	3	2	4	5[1]	25[1]	28[1]	4	7[1]	16[1]	21	1	1	0
with census tracts	15	15	0	0	0	1	3	4	0	0	3	4	0	0	0
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

Note:

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.

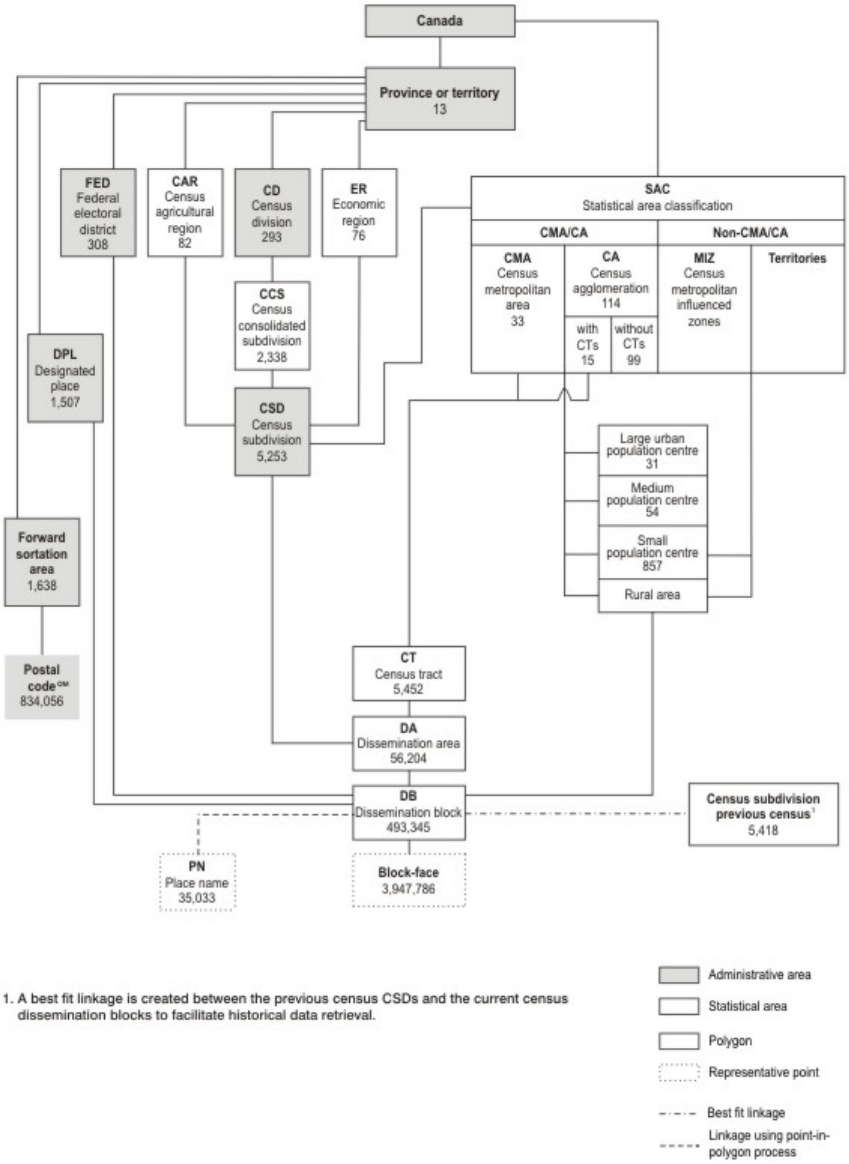
Sources: Statistics Canada, 2011 Census of Population; Canada Post Corporation, May 2011.

Hierarchy of standard geographic units

Plain language definition

This diagram shows the hierarchy of the standard geographic units for the dissemination of the 2011 Census of Canada. It indicates whether the geographic unit is an administrative or statistical area. Please refer to the definitions in the geography universe index of the 2011 Census Dictionary.

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



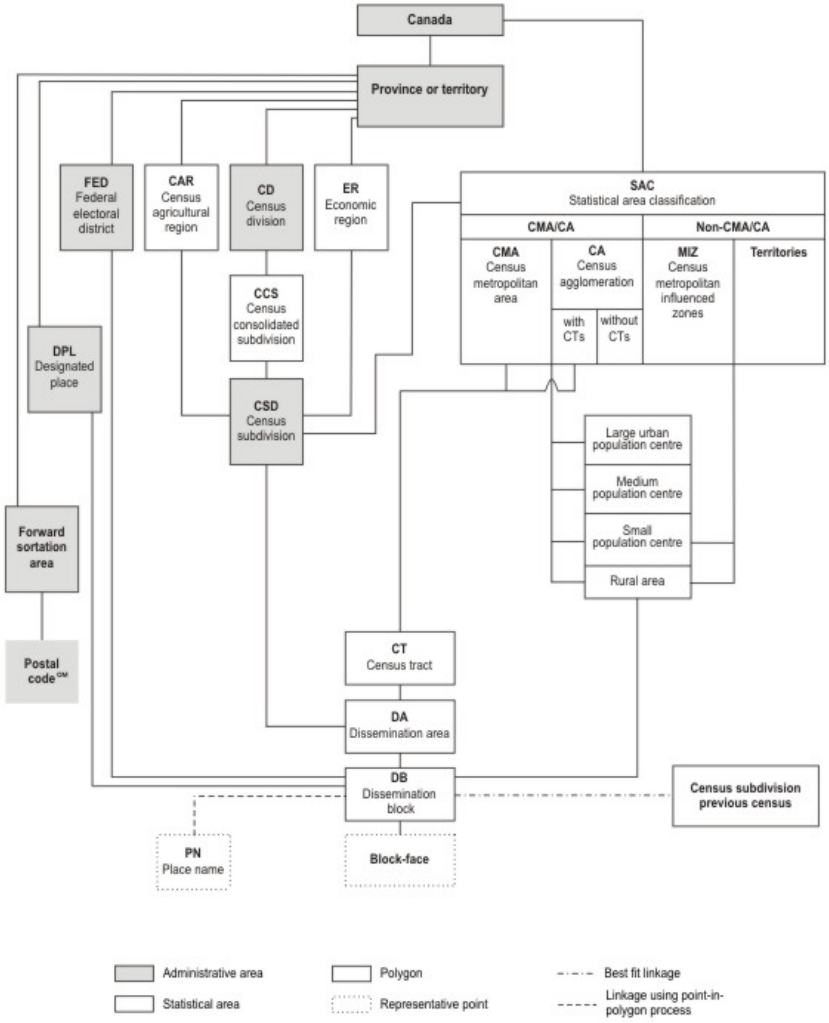
1. A best fit linkage is created between the previous census CSDs and the current census dissemination blocks to facilitate historical data retrieval.

Source: Statistics Canada, 2011 Census of Population.

Hierarchy of standard geographic units tutorial, part 1

To take full advantage of census data, users should have a basic understanding of the geography of the data. Just as a population can be subdivided by sex, age groups, income ranges or occupation categories, it can also be subdivided by different geographic units.

Each box in the hierarchy of standard geographic units represents a level of geography, or geographic area, used by Statistics Canada for analysing and publishing data. These areas are either administrative, meaning that they are legislated by federal or provincial laws, or statistical, which means that they are not legislated and are created by Statistics Canada to support the collection and dissemination of data.



Source: Statistics Canada, 2011 Census of Population.

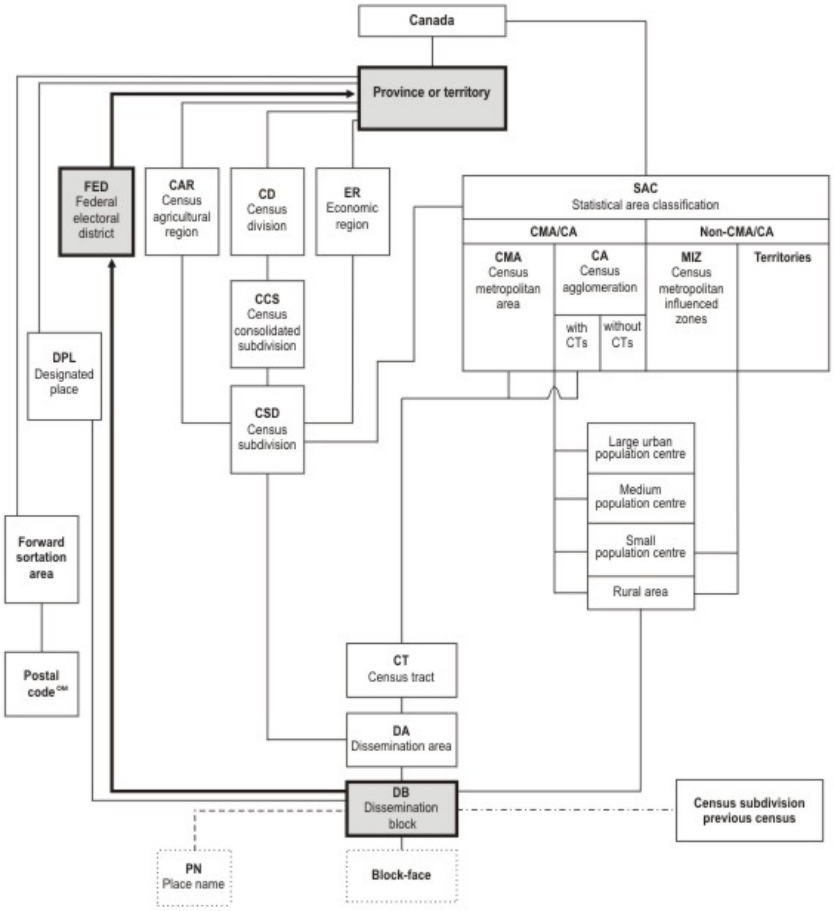
Hierarchy of standard geographic units tutorial, part 2

The position of each geographic unit in the hierarchy shows how it is related to other units. The highest level of geography used at Statistics Canada is the national level (Canada) and the lowest level is the block-face. Most geographic units can be subdivided or aggregated to form other geographic units.

Using the hierarchy, one can imagine the physical relationship between each geographic area on a map in one of two ways: either moving from largest and very general to smallest and very specific (top-down), or building up from small areas to larger ones (bottom-up).

For example, Canada is divided into provinces and territories, which are further divided into census divisions (regions). These census divisions are then divided into census subdivisions (municipalities), which are eventually divided into dissemination areas, then dissemination blocks. The reverse is also true. One can start with a single dissemination block and continue to build up to most of the higher units of geography until the national level is reached.

In general, there is a 'one-to-many' relationship of geographic areas as you move from the top to the bottom of the chart, and a 'many-to-one' relationship as you move from the bottom to the top.



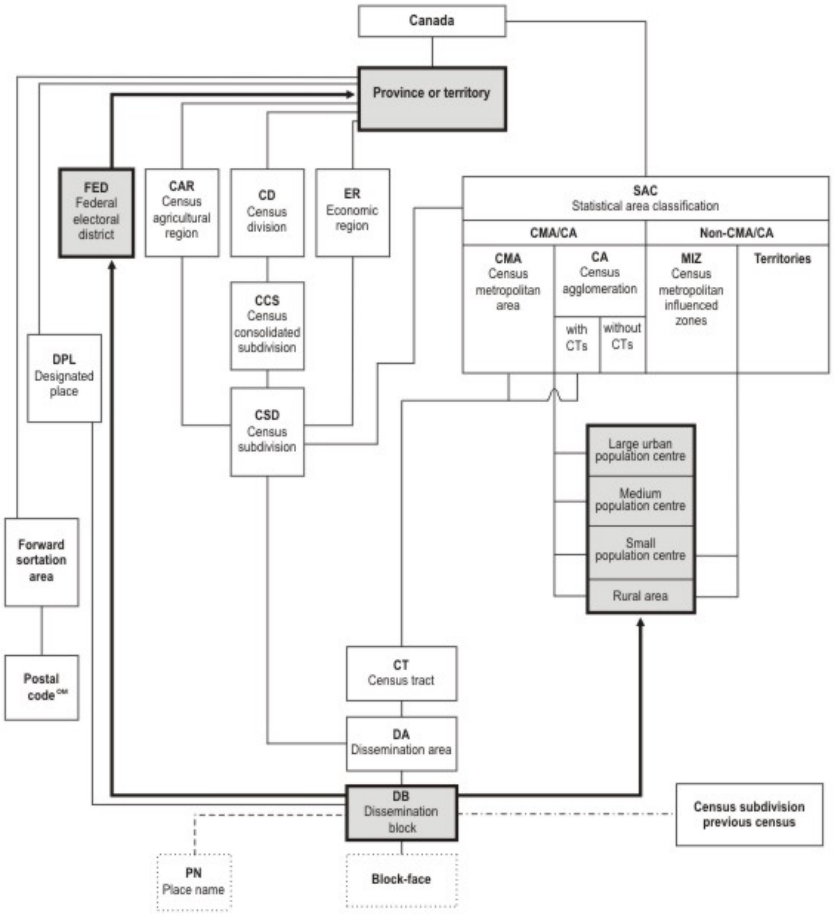
Source: Statistics Canada, 2011 Census of Population.

Hierarchy of standard geographic units tutorial, part 3

The lines joining the boxes in the hierarchy show that there are relationships between the geographic units. When two boxes are not joined together by a line, then no relationship exists between those geographic units.

For example, dissemination blocks can be aggregated to form both population centres (POPCTRs) and federal electoral districts (FEDs). However, there is no relationship between POPCTR (population centres) boundaries and FED (federal electoral districts) boundaries. POPCTR (population centres) and FED (federal electoral districts) boundaries may overlap on a map, but one cannot be aggregated to form the other.

It is important to note that not all geographic areas cover all of the territory of Canada, specifically designated places, population centres, census tracts, and census metropolitan areas and census agglomerations. These areas are built upon groupings of smaller units of geography, based on an established set of rules and population characteristics, to identify areas that represent selected groupings of population.

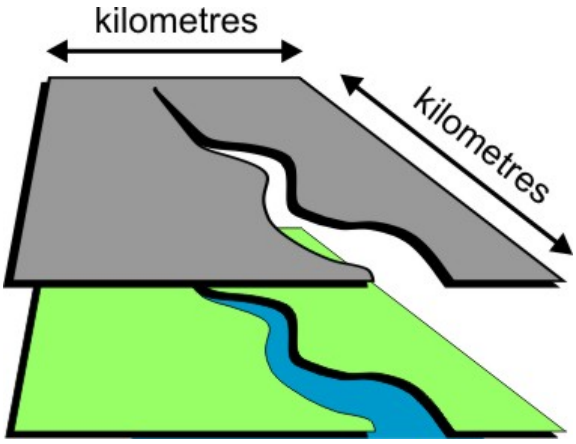


Source: Statistics Canada, 2011 Census of Population.

Land area

Plain language definition

Number of square kilometres of land in a given geographic area (e.g. (for example), a province, a territory, a city).



Land area: Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

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

The data are derived from the Spatial Data Infrastructure (SDI), including water polygon layers used in the process for calculating land area. The area calculations are computed from data that are transformed from a Lambert conformal conic projection to an Albers equal-area projection, since the properties of an equal area projection are indispensable 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 is calculated using ArcGIS® software. There is a two-stage aggregation procedure. First, the data are calculated and stored in square kilometres at the census block (CB)[1] level to eight decimal places and then aggregated to the dissemination block (DB) level and rounded to four decimal places. Second, the DB (dissemination block) data are individually aggregated to each higher level standard geographic area.

Since the Spatial Data Infrastructure (SDI) is a digital base using three input map scales (1:50,000, 1:250,000 and 1:1,000,000), greater land area accuracy is achieved at larger scales – that is, there is less generalization regarding the symbolization and number of hydrographic features. Land area errors may occur due to digitizing or linkage discrepancies, and when water polygons do not line up

or are symbolized differently between different map scales. The source layer for water has changed in British Columbia for 2011. This may result in varying land area calculations as compared to previous censuses.

Users should note that even where the boundaries of standard geographic areas did not change between censuses, the land areas may differ due to geometry shifts. The shifts are caused by a change in the underlying database architecture and by improvements in the absolute positional accuracy of some of the roads.

Refer to related definitions of dissemination block (DB); geographic reference date; population density and Spatial Data Infrastructure (SDI).

Changes prior to the current census

For 2006, the data were derived from the Spatial Data Infrastructure (SDI) geospatial layers, including selected water polygons. Land area data were calculated using ArcGIS® software. The data were calculated and stored at the basic block $(BB)^2$ level at eight decimal places and then aggregated to the dissemination block (DB) level and rounded to four decimal places. The DB (dissemination block) data were then individually aggregated to all higher level standard geographic areas. Land area data were not disseminated for basic blocks.

For 2001, land area data were calculated using ArcGIS® software. Separate projection parameters (two standard parallels, central meridian and latitude of projection origin) were used for each province or territory. As well, there was only a one-stage aggregation procedure. The data were calculated and stored at the basic block (BB) level at eight decimal places and then aggregated to all higher level geographic areas and rounded to four decimal places. Land area data were not disseminated for basic blocks.

Prior to 2001, land area was manually calculated using a planimeter. Measurements were normally taken three times for each geographic unit and then averaged. The map scales generally varied between 1:50,000 and 1:250,000. In densely and sparsely populated regions of Canada, larger or smaller scales may have been used. Only discernible bodies of water found on the maps were excluded. The planimeter gave accurate readings for only small zones – and consequently, large geographic units were subdivided into smaller ones and measured individually; the individual parts were then added together.

Boundaries that changed from one census to another were not measured in their entirety. Only the land area gained or lost due to a boundary revision/update was measured, and then added to or subtracted from the original figure.

Land area measurements for census subdivisions (CSDs) were aggregated to obtain the land areas for the higher level geographic units – namely, primary census metropolitan areas/primary census agglomerations (PCMAs/PCAs), census metropolitan areas/census agglomerations (CMAs/CAs), census consolidated subdivisions (CCSs), census divisions (CDs), economic regions (ERs), and provinces/territories. Land area measurements were done separately for urban areas (UAs), designated places (DPLs) and census tracts (CTs). Data were not available for enumeration areas (EAs) and federal electoral districts (FEDs).

The land area data were subject to a number of errors, including measurement, coding and transcription, and processing errors – and overall, cumulative historic errors. As well, a limited number of tests revealed logical inconsistencies; for example, there were cases where the land area was greater than the total area.

Prior to 1996, some CSDs (census subdivisions) had land areas of zero (0) because their official limits were unknown.

For 1991, land area was called 'net land area.'

Prior to 1976, land area data were expressed in square miles only.

Note

1. A census block (CB) is an area bounded on all sides by roads and/or boundaries of standard geographic areas. Census blocks cover all the territory of Canada. They are the smallest geographic area for which population and dwelling counts are stored. It must be noted that CBs are not available to the public, but are used internally as the smallest level of geography upon which both collection and dissemination geographies are built.
2. The basic block (BB) is the smallest polygon unit in the Spatial Data Infrastructure. BB (basic block)s are formed by the intersection of all roads and boundary arcs of standard geographic areas that do not follow roads.

Map projection

Detailed definition

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.

Censuses

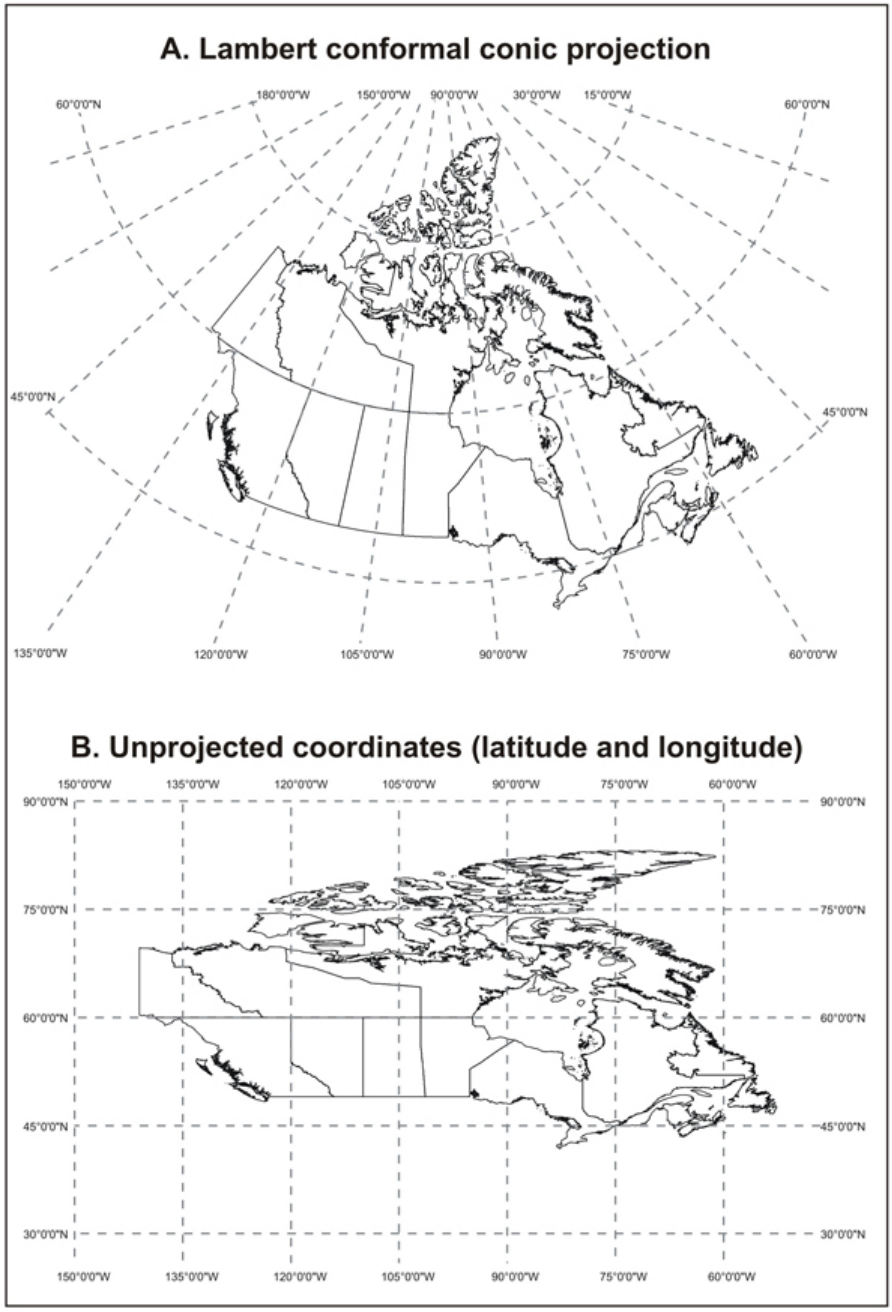
2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976 (Lambert conformal conic)
1996, 1991, 1986, 1981, 1976, 1971 (Transverse Mercator)

Remarks

The Earth's surface cannot be flattened without distorting geometrical properties, such as area, shape, distance and direction. These spatial properties can be preserved individually (at least locally) and in certain combinations on map projections. However, the four basic properties of area, shape, distance and direction cannot all be held true simultaneously. Therefore, it is important to select a projection having the properties that are suited to the mapping situation. For example, a projection that accurately represents the shapes of the continents will distort their relative sizes.

The Lambert conformal conic projection (Figure 14) provides good directional and shape relationships for mid-latitude regions having a mainly east-to-west extent. Standard parallels at 49° N (North) and 77° N (North) are most commonly used. The scale is correct along the standard parallels only; areal deformation decreases between and increases away from the standard parallels. The central meridian, normally at 91° 52' W, is a straight line about which the projection is symmetrical. False eastings and northings are given to ensure positive coordinate values in linear units of measure (metres).

Figure 14
Example of a map projection and unprojected coordinates



Source: Statistics Canada, 2011 Census of Population.

Latitude and longitude is **not** a map projection, as the coordinates are spherical (angular units of measure such as degrees, minutes and seconds) therefore **unprojected**. It is recommended that maps not be generated using these spherical coordinates because they result in maps that are distorted (Figure 14).

The Lambert conformal conic map projection is the working projection for cartographic boundary files, digital boundary files, road network files and the Spatial Data Infrastructure, and for generating representative points.

Refer to related definitions of cartographic boundary files (CBFs); coordinate system; datum; digital boundary files (DBFs); representative point; road network file (RNF) and Spatial Data Infrastructure (SDI).

Changes prior to the current census

Prior to 2001, street network files were based on the Transverse Mercator map projection/Universal Transverse Mercator (UTM) coordinate system.

National Geographic Database (NGD)

Detailed definition

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.

Censuses

2011, 2006

Remarks

The National Geographic Database (NGD) was created in 1997 as a joint Statistics Canada/Elections Canada initiative to develop and maintain a national road network file serving the needs of both organizations. The active building of the NGD (National Geographic Database) (that is, integrating the files from Statistics Canada, Elections Canada and Natural Resources Canada) occurred from 1998 to 2000. Thereafter, Statistics Canada and Elections Canada reconciled their digital boundary holdings to the new database's road network geometry so that operational products could be derived.

Since 2001, the focus of the NGD (National Geographic Database) has been on intensive data quality improvements, especially regarding the quality and currency of its road network coverage. There has been considerable expansion of road names and civic addresses ranges, as well as the addition of hydrographic names.

Since 2009, the NGD (National Geographic Database) has converged its data holdings to provincially-sourced data in all of British Columbia and six census divisions in Ontario, specifically Halton, Hamilton, Ottawa, Peel, Toronto and Waterloo.

Priorities for road network file maintenance are determined by Statistics Canada and Elections Canada, enabling the NGD (National Geographic Database) to meet the joint operational needs of both agencies in support of census and electoral activities.

The main sources for the NGD (National Geographic Database) include:

- Statistics Canada's street network files
- Elections Canada's road network file
- National Topographic Database (NTDB) digital coverage at 1:50,000 and 1:250,000 from Natural Resources Canada, and Digital Chart of the World (DCW) coverage at 1:1,000,000
- provincially-sourced data sets
- other information from field operation activities, municipal maps and private sector licenced holdings.

The reference layers are not edge-matched at former NTDB tile limits.

Since the primary purpose of NGD (National Geographic Database) is to support census and electoral activities, topological accuracy takes precedence over absolute positional accuracy.

The data are maintained and stored in the Lambert conformal conic projection based on the North American Datum of 1983 (NAD83).

Refer to the related definitions of coordinate system; datum; map projection and Spatial Data Infrastructure (SDI).

Population density

Detailed definition

Population density is the number of persons per square kilometre.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

The calculation for population density is total population divided by land area. The data are available for all standard geographic areas.

Population density data support a variety of applications, such as delineating population centres, determining the population ecumene, as well as spatial analysis.

Refer to related definitions of ecumene; land area and population centre (POPCTR).

Changes prior to the current census

Prior to 2001, population density data were available for all standard geographic areas, except enumeration areas (EAs) and federal electoral districts (FEDs).

For 1976, population density data were expressed in both square kilometres and square miles.

Prior to 1976, population density data were expressed in square miles only.

Postal code

Detailed definition

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

Censuses

2011, 2006, 2001, 1996 (100% data)
1991, 1986 (20% sample)

Remarks

Structure of the postal code[OM]

The form of the postal code[OM] is 'ANA NAN', where A is an alphabetic character and N is a numeric character. The first character of a postal code[OM] represents a province or territory, or a major sector entirely within a province (Table 9).

The first three characters of the postal code[OM] identify the forward sortation area (FSA). FSAs (forward sortation areas) are associated with a postal facility from which mail delivery originates.

Table 1 in the Introduction shows the number of postal codes[OM] and forward sortation areas by province and territory. They are provided by Canada Post Corporation and are valid as of May 2011.

Postal codes[OM] captured from census questionnaires

The postal code[OM] is captured for all households from the address information provided by the respondent on the front page of the census questionnaire on May 10, 2011. The respondent's postal code[OM] is accepted whether or not it is the same as the postal code[OM] assigned by Canada Post Corporation to that address. The postal code[OM] of a household is validated and processed using the following criteria:

- The respondent's postal code[OM] is validated against a reference file at the census subdivision level. Priority is always given to accepting the postal code[OM] that is most likely to have been active and in use on Census Day. However, postal codes[OM] that may have been retired by Canada Post Corporation within the last six months but continue to be used may be accepted in some cases.
- In cases where a postal code[OM] is not provided or is not valid, an imputation process assigns a valid postal code[OM].

The postal code[OM] provided by respondents may not be the same as the postal code[OM] of the dwelling in which they live. For example, they may denote the postal code[OM] of their mailing address, such as a post office location (as in the case of general delivery) or a business location. Consequently, some respondents' postal codes[OM] may fall outside the FSA (forward sortation area) in which their dwelling is located.

Users should proceed with caution if postal codes[OM] are used as a proxy for standard geographic areas. Postal codes[OM] do not necessarily respect the boundaries of standard geographic areas (e.g. (for example), the same postal code[OM] can fall in two or more census subdivisions).

For more detailed information, refer to the *Postal Code Conversion File, Reference Guide* (Catalogue no. 92-153-G).

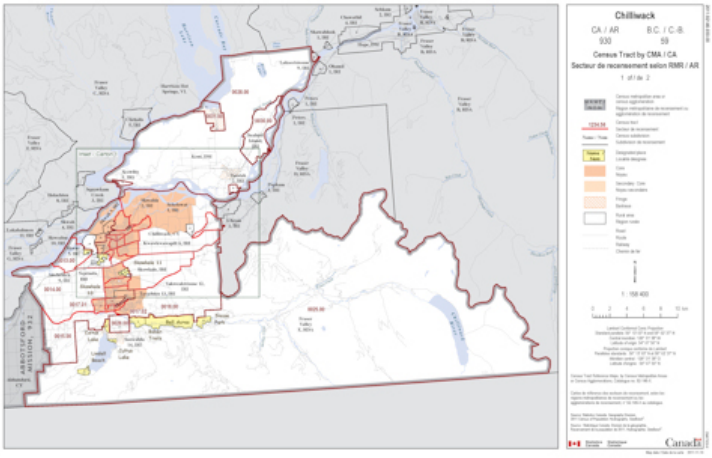
OM: Postal code is an official mark of Canada Post Corporation.

Table 9
First character of the postal code and corresponding province, territory or region

First character of the postal code	Province, territory or region
A	Newfoundland and Labrador
B	Nova Scotia
C	Prince Edward Island
E	New Brunswick
G	Eastern Quebec
H	Metropolitan Montréal
J	Western Quebec
K	Eastern Ontario
L	Central Ontario
M	Metropolitan Toronto
N	Southwestern Ontario
P	Northern Ontario
R	Manitoba
S	Saskatchewan
T	Alberta
V	British Columbia
X	Northwest Territories and Nunavut
Y	Yukon

Note: The regions used in this table are defined by Canada Post Corporation.
Source: Statistics Canada, 2011 Census of Population.

Reference map

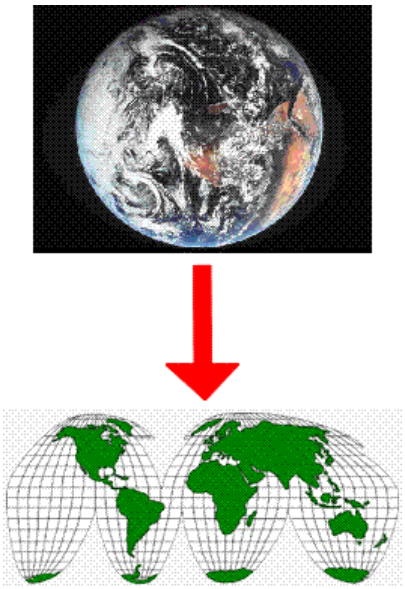


Reference map tutorial, part 1

A brief guide to reading maps

A map, like a picture, is worth a thousand words. A map is a simplified view of the earth's surface that shows where places and things are located and helps us communicate that spatial information efficiently. In this section you will learn more about maps and how to read them.

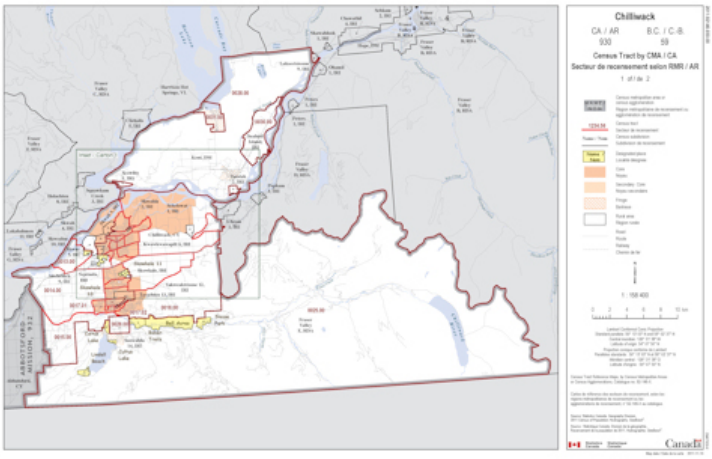
Statistics Canada primarily produces two types of maps: reference maps and thematic maps.



Reference map tutorial, part 2

Reference maps

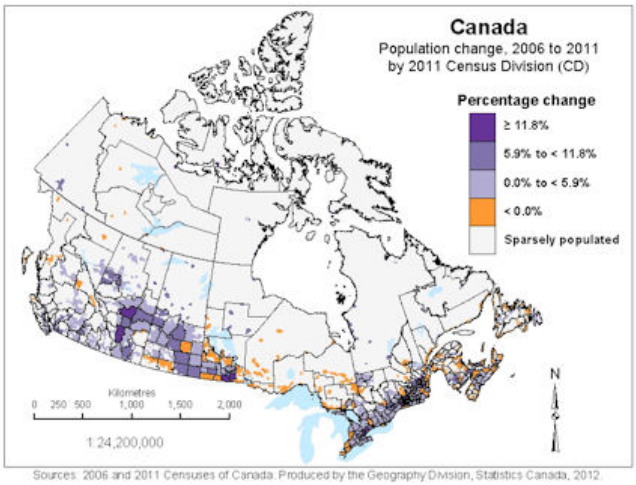
A reference map shows the location of the geographic areas for which census data are tabulated and disseminated. The maps display the boundaries, names and codes of standard geographic areas, as well as major cultural and physical features such as roads, railroads, rivers and lakes.



Reference map tutorial, part 3

Thematic maps

A thematic map shows the spatial distribution of one or more specific data themes for standard geographic areas such as population change, average annual income, etc (and so on). Thematic maps normally include some location or reference information, such as major water bodies, roads or place names, to help map users familiarize and orient themselves to the geographic area covered on the map.



Reference map tutorial, part 4

Map elements

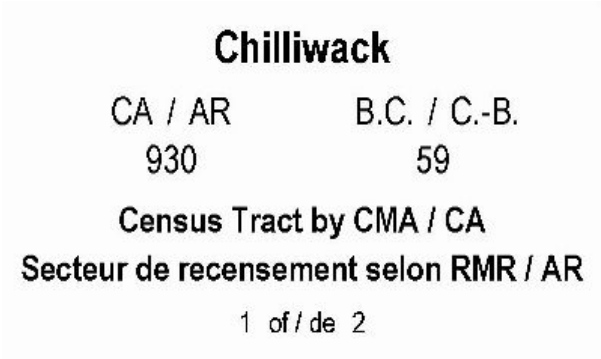
There are five basic design elements that should be included in any map.

1. Title
2. Legend
3. Source
4. Scale
5. North arrow

Reference map tutorial, part 5

Title

On a reference map, the title indicates the geographic area depicted on the map. Titles are the most intellectually important element of a map.

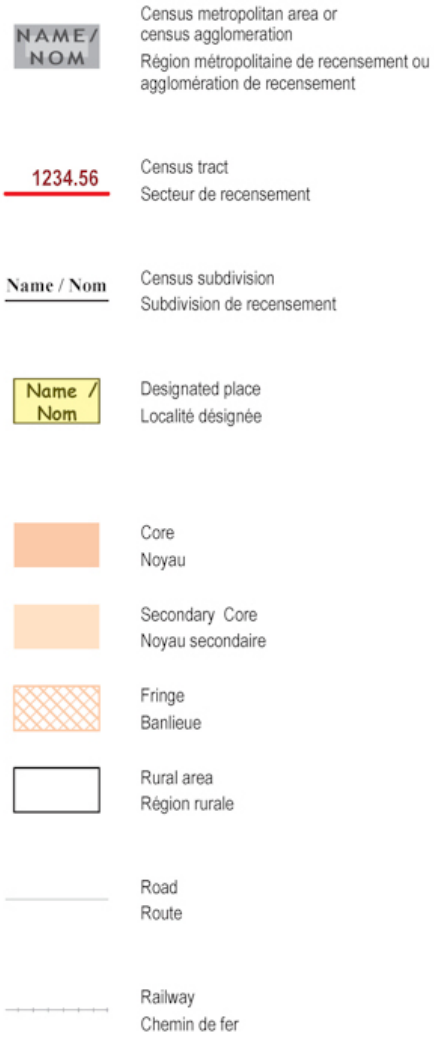


On a thematic map, the title indicates the theme, the date of the data and the type of geographic boundaries.

Reference map tutorial, part 6

Legend

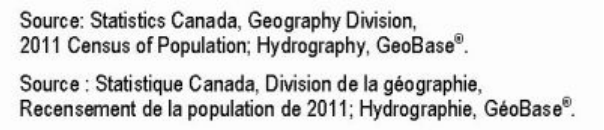
The legend is the key to understanding the map and, together with the title, is the first place you should look when reading the map. The map legend explains the meaning of unknown and unique symbols and colours used on the map.



Reference map tutorial, part 7

Source

A source is a clear reference to the origin of the data depicted on the map. Information about the data source assists us in understanding the map and aids further research into the topic of the map.



Reference map tutorial, part 8

Scale

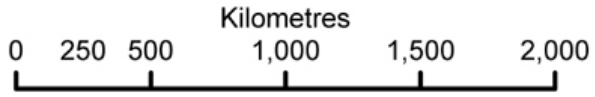
Scale tells us how distance on the map relates to distance on the ground. It is a measurement of the amount of reduction that takes place in going from real-world dimensions to the mapped area.

There are two common expressions of scale:

Representative fraction: **1:24,200,000**

The representative fraction tells us how many ground units are represented by a map unit. In this case, one unit of distance on the map is equivalent to 24,200,000 of the same units on the ground. The ratio is universal and does not require the unit of measurement to be specified.

Graphic bar scale:



The graphic bar shows what a physical measurement on the map would be equivalent to on the ground and as such provides a visual indication of the distances between map features. A graphic bar has the advantage of remaining true even if the map is enlarged or reduced.

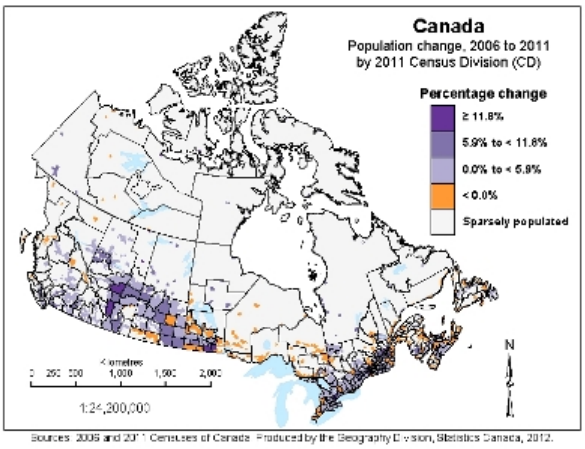
Reference map tutorial, part 9

Small scale or large scale

Small scale maps show more land coverage in less detail, for example 1:24,200,000.

Large scale maps show less land coverage in greater detail, for example 1:10,000.

Sometimes, small scale maps contain 'insets' at a larger scale to reveal details that are hidden by congestion in the main map.



Reference map tutorial, part 10

North arrow

The north arrow points to the direction of the North Pole and provides us with an indication of the orientation of the map. If a north arrow does not appear on the map, north is assumed to be the top of the map.

Reference map: Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

The boundaries, names and unique identifiers of the standard geographic areas reflect those in effect on January 1, 2011 (the geographic reference date for the 2011 Census).

The geographic area boundaries, names, types and unique identifiers, and the relationships among the various geographic levels, are found on Statistics Canada's Spatial Data Infrastructure. The vector base map information (coastlines, rivers and lakes) is taken from the National Geographic Database. Water toponymy (river names, lake names, names of bays, oceans, gulfs, straits, seas and islands) is taken from the Canadian Geographical Names Data Base maintained by Natural Resources Canada.

Reference maps can assist users in relating published census data to actual locations on the ground, or in defining their own custom areas relative to the standard geographic areas.

Refer to related definitions of geographic reference date; Spatial Data Infrastructure (SDI) and to the *Reference Maps and Thematic Maps, Reference Guide* (Catalogue no. 92-143-G).

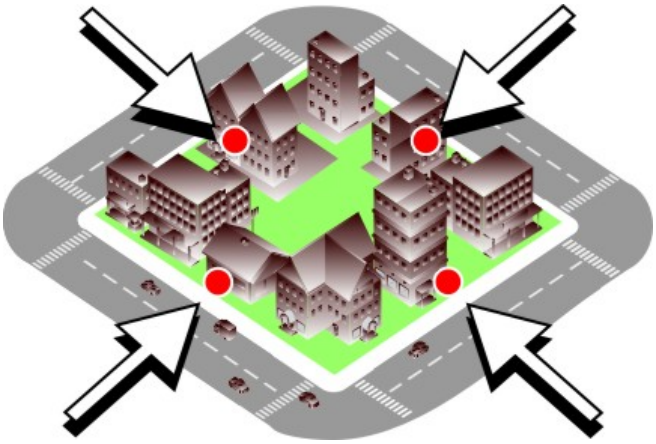
Representative point

Detailed definition

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 DB (dissemination block)s. As well, place of work data are linked to census subdivision (CSD) representative points when the data cannot be linked to DA (dissemination area)s.



Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971

Remarks

Representative points are located by the following methods:

1. Block-face representative points

The block-face representative points are generated using the ArcGIS® software (version 9.3.1) in conjunction with the Spatial Data Infrastructure, including selected water polygons. The points are initially calculated and stored based on the Lambert conformal conic projection; they are also transformed to latitude/longitude coordinates.

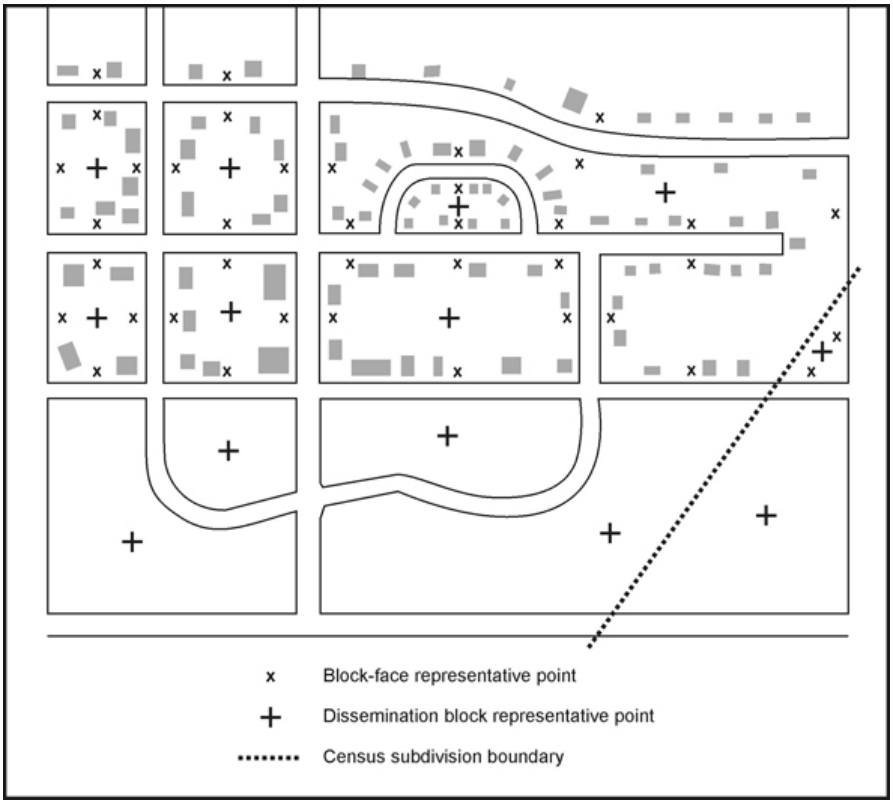
The block-face representative points are computed along addressable and non-addressable streets, midway (or approximately midway) between two consecutive features intersecting a street. The intersecting features can be other streets or boundaries of standard geographic areas.

The points are set back a perpendicular distance of 10, 5, 1 or 0.5 metres from the street centre line to ensure that all points have unique coordinates, and are located in the correct block and on the correct side of the street.

Some block-face representative points may fall in water bodies if the points are adjacent to bridges or causeways.

Some geometry shifts and realignments may cause 2011 representative points for block-faces to be different from 2006.

Figure 15
Example of block-face and dissemination block representative points



Source: Statistics Canada, 2011 Census of Population.

2. Geographic area representative points

The representative points for standard geographic areas are generated using ArcGIS® software (version 9.3.1) in conjunction with their respective digital boundary file (DBF). The most detailed hydrography is used to ensure that representative points do not fall in water where possible. The points are initially calculated and stored based on the Lambert conformal conic projection; they are also transformed to latitude/longitude coordinates.

Representative points for 2011 are generated for the dissemination block (DB) as label points to ensure they do not fall in water. The geographic area representative points are initially derived as centroids, which may fall in water. To ensure geographic area representative points do not fall in water, except in cases where entire polygons are in water, the DB (dissemination block) representative point nearest to the geographic area centroid is selected as the new representative point for the geographic area.

A. Unweighted representative points

The representative points for all geographic areas excluding the dissemination area are unweighted. The points are generated using the ArcGIS® software. The software locates the point as nearest to the geographical centre of the polygon as possible, ensuring the point falls on land areas whenever possible. Topology checks are applied to ensure that the points fall within the appropriate geographic area. Since some dissemination blocks and designated places are located in water only, their representative points will fall in water. Where the geographic area is in multiple parts, the point is located in the portion having the largest area.

Figure 15 shows an example of dissemination block representative points.

B. Weighted representative points

Mean centre weighted by population

The representative points for dissemination areas (DAs) are weighted using the population mean centre. Formula 1 depicts the mathematical methods for calculating the weighted mean centre representative points. One of two pairs of equations is used, depending on the population of the DA (dissemination area). The first pair of equations is used when the DA (dissemination area) has a population greater than zero. The second equation is used when the DA (dissemination area) has a population equal to zero.

In the first pair of equations, the x-coordinate is calculated by first multiplying the population of each dissemination block (DB) in the DA (dissemination area) by the x-coordinate (easting) of its representative point. The products are summed over all DB (dissemination block)s in the DA, and the result is then divided by the total population of the DA (dissemination area). The y-coordinate (northing) of the DA (dissemination area) is calculated by applying the same methodology, only using the y-coordinate information for the component DB (dissemination block)s.

The second pair of equations is used when the DA (dissemination area) has zero population. For this, the x-coordinate (easting) is calculated by summing the x-coordinate of the representative points of all DB (dissemination block)s in the DA (dissemination area). This sum is then divided by the number of DB (dissemination block)s in the DA (dissemination area). The y-coordinate (northing) of the DA (dissemination area) is calculated by applying the same methodology, only using the y-coordinate information for the component DB (dissemination block)s.

Examples of calculating the mean centre representative points weighted by population using the above methods are shown immediately below the formulae.

Formula 1 Mean centre weighted by population

1. When at least one dissemination block in the DA has population > 0

$$x = \frac{\sum p_i x_i}{\sum p_i}$$

$$y = \frac{\sum p_i y_i}{\sum p_i}$$

2. When all dissemination blocks in the DA have population = 0

$$x = \frac{\sum x_i}{n}$$

$$y = \frac{\sum y_i}{n}$$

where

p_i = population of the ith dissemination block in the DA
x_i = x-coordinate (easting) in metres, of representative point of the ith dissemination block in the DA
y_i = y-coordinate (northing) in metres, of representative point of the ith dissemination block in the DA
n = number of dissemination blocks in the DA

For example:

	Population	*x* (easting)	*y* (northing)
DA1 Dissemination block 1	300	7471000	1205000
DA1 Dissemination block 2	150	7472000	1206000
DA1 Dissemination block 3	50	7473000	1207000
Total	500		

Using **equation 1**, the weighted representative point for DA1 is:

$x = [(300*7471000) + (150*7472000) + (50*7473000)] \div 500 = 7471500$
$y = [(300*1205000) + (150*1206000) + (50*1207000)] \div 500 = 1205500$

Using **equation 2**, the representative point for DA1 is:

$x = (7471000 + 7472000 + 7473000) \div 3 = 7472000$
$y = (1205000 + 1206000 + 1207000) \div 3 = 1206000$

Source: Statistics Canada, 2011 Census of Population.

Minimum squared distance weighted by population

If any weighted representative points fall outside the dissemination area (DA) (e.g. (for example), for crescent-shaped polygons) or fall in water bodies, the points are generated using the minimum squared distance weighted by population (formula 2). The first equation is used when the DA (dissemination area) has a population greater than zero. The second equation is used when the DA (dissemination area) has a population equal to zero.

In the first equation, the population weighted squared distance is calculated for each dissemination block (DB) and the DB (dissemination block) with the minimum value is chosen. For each DB, the population weighted squared distance is calculated by measuring the distance between its representative point and the representative points of all other DB (dissemination block)s. Each distance is then squared and further multiplied by the population of the other DB (dissemination block)s. These values are then all summed to create a value for the DB (dissemination block) in question.

In the second equation, an unweighted squared distance is calculated for each DB, and the DB (dissemination block) with the minimum value is chosen. For each DB, the population weighted squared distance is calculated by measuring the distance between its representative point and the representative points of all other DB (dissemination block)s. Each distance is then squared and these values are all summed to create a value for the DB (dissemination block) in question.

Topology checks are applied to ensure that the points fall within the DA (dissemination area). Since some DA (dissemination area)s are located in water only, their representative points fall in water.

Examples of calculating the minimum squared distance representative point weighted by population using the above methods are shown immediately below the formulae.

Formula 2 Minimum squared distance weighted by population

1. When at least one dissemination block in the DA has population > 0

$$d_{min} = \min_{j=1}^{n} \left[\sum_{i=1}^{n} \left[(x_j - x_i)^2 + (y_j - y_i)^2 \right] * p_i \right]$$

2. When all dissemination blocks in the DA have population = 0

$$d_{min} = \min_{j=1}^{n} \sum_{i=1}^{n} \left[(x_j - x_i)^2 + (y_j - y_i)^2 \right]$$

where

d_{min} = minimum squared distance between existing dissemination block representative points
p_i = population of the *i*th dissemination block in the DA

x_i = x-coordinate (easting) in metres, of representative point of the *i*th dissemination block in the DA
y_i = y-coordinate (northing) in metres, of representative point of the *i*th dissemination block in the DA

x_j = x-coordinate (easting) in metres, of representative point of the *j*th dissemination block in the DA
y_j = y-coordinate (northing) in metres, of representative point of the *j*th dissemination block in the DA

For example:

	Population	*x* (easting)	*y* (northing)
DA1 Dissemination block 1	300	7471000	1205000
DA1 Dissemination block 2	150	7472000	1206000
DA1 Dissemination block 3	50	7473000	1207000
Total	500		

Using **equation 1**, the iterations and results are:

Distance 1.	Block 1 → Block 2 =	[(7471000 - 7472000)² + (1205000 - 1206000)²]	* 150	=	300,000,000
	Block 1 → Block 3 =	[(7471000 - 7473000)² + (1205000 - 1207000)²]	* 50	=	400,000,000
					700,000,000
Distance 2.	Block 2 → Block 1 =	[(7472000 - 7471000)² + (1206000 - 1205000)²]	* 300	=	600,000,000
	Block 2 → Block 3 =	[(7472000 - 7473000)² + (1206000 - 1207000)²]	* 50	=	100,000,000
					700,000,000
Distance 3.	Block 3 → Block 1 =	[(7473000 - 7471000)² + (1207000 - 1205000)²]	* 300	=	2,400,000,000
	Block 3 → Block 2 =	[(7473000 - 7472000)² + (1207000 - 1206000)²]	* 150	=	300,000,000
					2,700,000,000

*The existing representative points for either **dissemination block 1** or **dissemination block 2** are selected since they have the minimum squared distance weighted by population.*

Using **equation 2**, the iterations and results are:

Distance 1.	Block 1 → Block 2 =	[(7471000 - 7472000)² + (1205000 - 1206000)²]	=	2,000,000
	Block 1 → Block 3 =	[(7471000 - 7473000)² + (1205000 - 1207000)²]	=	8,000,000
				10,000,000
Distance 2.	Block 2 → Block 1 =	[(7472000 - 7471000)² + (1206000 - 1205000)²]	=	2,000,000
	Block 2 → Block 3 =	[(7472000 - 7473000)² + (1206000 - 1207000)²]	=	2,000,000
				4,000,000
Distance 3.	Block 3 → Block 1 =	[(7473000 - 7471000)² + (1207000 - 1205000)²]	=	8,000,000
	Block 3 → Block 2 =	[(7473000 - 7472000)² + (1207000 - 1206000)²]	=	2,000,000
				10,000,000

*The existing representative point for **dissemination block 2** is selected since it has the minimum squared distance.*

Source: Statistics Canada, 2011 Census of Population.

Refer to related definitions of block-face; census subdivision (CSD); designated place (DPL); digital boundary files (DBFs); dissemination area (DA); dissemination block (DB); geocoding; postal code; population centre (POPCTR); Spatial Data Infrastructure (SDI) and the *Postal Code Conversion File* (PCCF), *Reference Guide* (Catalogue no. (number)92-153-G).

Changes prior to the current census

Prior to 2001, enumeration area (EA) representative points were disseminated.

Prior to 1996, all representative points were called 'centroids[1]'.

1. **Geographic area representative points**

- For 2006, the representative points for geographic areas were generated as centroids and then moved if they fell into water bodies.
- For 2001, the representative points for blocks, dissemination areas, census subdivisions and designated places could fall in water bodies. In addition, the dissemination area points were not weighted.
- For 1996, EA (enumeration area) representative points were disseminated in latitude/longitude coordinates and in x,y coordinates of the Lambert conformal conic projection. The representative points were created either with the Street Network File (SNF) or manually.
  - Representative points located in EA (enumeration area)s within the SNF (Street Network File) were created using the ArcGIS® software, which located the point suitable for label or symbol placement in each polygon. Steps were taken so that the points did not fall in water bodies. If the EA (enumeration area) was in multiple parts, the point was located, when possible, in the portion with the largest number of occupied private dwellings (based on the 1991 block-face counts). In some cases, however, the representative point was located in the EA (enumeration area) portion having the largest land area.
  - Representative points located in EA (enumeration area)s outside SNF (Street Network File) coverage were created by a manual procedure based on the visual inspection of building and/or street patterns on EA (enumeration area) reference maps (some of which had topographic base map information). The representative point was located, when possible, within a predominant cluster of buildings and/or streets. If there was no predominant cluster, then the point was located between two or more clusters. In the absence of any cluster, the point was placed at the visual centre of the EA (enumeration area). If an EA (enumeration area) was in multiple parts, the point was located in the portion with the largest number of dwellings. The representative point was located in the land-based portion of the EA (enumeration area).
- For 1991, the EA (enumeration area) representative points within SNF (Street Network File)coverage were created using the ArcGIS® software, which locates the point suitable for label or symbol placement in each polygon; some points were located in water bodies. In addition, for EA (enumeration area)s in multiple parts in SNF (Street Network File) coverage, there was no rule for selecting the EA (enumeration area) part to which the representative point was assigned. The EA (enumeration area) representative points were disseminated in latitude/longitude coordinates, UTM (Universal Transverse Mercator) coordinates, and in x,y coordinates of the Lambert conformal conic projection.
- Prior to 1991, EA (enumeration area) representative points within SNF (Street Network File) coverage were computed by a different method. An algorithm selected one of the existing block-face representative points (based on their number and concentration) within an EA (enumeration area) as the overall EA (enumeration area) representative point. The points were calculated and disseminated in UTM (Universal Transverse Mercator) coordinates.

2. **Block-face representative points**
   - For 2001, block-face representative points were set back a distance of 10, 5 or 1 metre(s) from the street centre line. As well, points were generated when streets crossed the limits of National Topographic Database (NTDB) map tiles.
   - Prior to 2001, block-face representative points were not generated when streets crossed the limits of map tiles, since map tiles were not used.
   - For 1996, block-face representative points were generated within Street Network File coverage only, and the points were set back a distance of 22, 11, 5 or 1 metre(s) from the street centre line. The points were calculated in Universal Transverse Mercator (UTM) coordinates, but were disseminated in latitude/longitude coordinates.
   - Prior to 1996, some block-face representative points did not have unique coordinate values, and all points were set back a perpendicular distance of 22 metres from the street centre line. The points were calculated and disseminated in UTM (Universal Transverse Mercator) coordinates.
   - Prior to 1991, block-faces were not created when EA (enumeration area) boundary segments did not follow visible features.

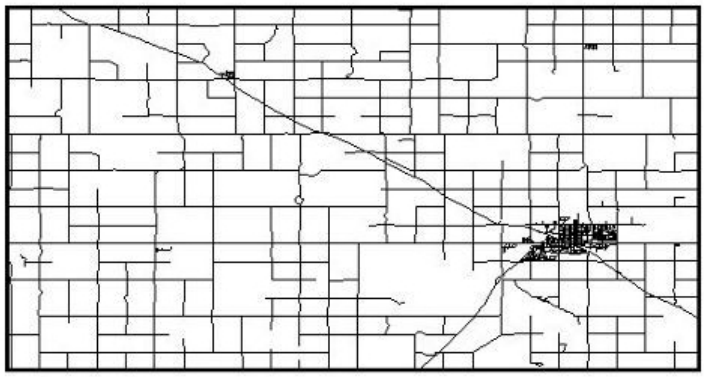
Note:

1. A centroid is the term given to the centre of a polygon or area. In cases of irregular shaped polygons, the centroid is calculated to approximate the 'centre' of a polygon.

Road network file (RNF)

Detailed definition

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



Censuses

2011, 2006, 2001 (road network files - cover the entire country)
1996 (street network files - cover large urban centres only)
1991, 1986, 1981, 1976, 1971 (area master files – cover large urban centres only)

Remarks

The road network file (RNF) is based on the road network from the Spatial Data Infrastructure (SDI). Statistics Canada maintains the RNF (road network file) to support the census and other activities. The relative position of road network features is important for census enumeration and reference purposes; therefore, topological accuracy takes precedence over absolute positional accuracy. The RNF (road network file) does not contain street information required for route optimization. For example, data on one-way streets, dead-ends and other street obstacles are not included in the RNF (road network file). Consequently, this file is not recommended for engineering applications, emergency dispatching services, surveying or legal applications.

The road network file contains street arcs with either 'true' address ranges, imputed address ranges, or no address range. Imputed address ranges are not meant to replace true address ranges for any purpose other than address geocoding. Thus, if the files are to be used for computer-aided dispatch or similar purposes (that require an address to be matched to a block or street), it may be necessary to supplement the file with local knowledge by updating existing true addresses and replacing imputed addresses.

The limitations of the road network file should be recognized for uses other than the mapping, analysis and retrieval of census data.

Refer to the related definitions of cartographic boundary files (CBFs); digital boundary files (DBFs); Spatial Data Infrastructure (SDI) and to the *Road Network File, Reference Guide* (Catalogue no. (number) 92-500-G).

Spatial Data Infrastructure (SDI)

Detailed definition

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)[1], 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 (National Geographic Database).

The SDI (Spatial Data Infrastructure) 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 (Spatial Data Infrastructure) is also the source for generating many geography products for the 2011 Census, such as cartographic boundary files and road network files.

Censuses

2011, 2006 (Spatial Data Infrastructure)
2001 (National Geographic Base)

Remarks

The data are maintained and stored in the Lambert conformal conic projection based on the North American Datum of 1983 (NAD83). Links to other data holdings, such as the address register and postal code[OM] files, are incorporated into the database.

Given the enhancements to the SDI, primarily through the integration of improved road network data from the National Geographic Database (NGD), geography products for the 2011 Census allow users to geographically reference census data more accurately when compared to the 2006 Census products (e.g. (for example), cartographic boundary files, digital boundary files, reference maps, road network files).

Product files from the SDI (Spatial Data Infrastructure) are available in the Geography Division's data warehouse (GeoDepot).

Refer to the related definitions of block-face; cartographic boundary files (CBFs); coordinate system; datum; digital boundary files (DBFs); dissemination block (DB); geocoding; map projection; National Geographic Database (NGD); reference map; representative point and road network file (RNF), and related reference guides.

Changes prior to the current census

For 2001, the internal database was called the National Geographic Base (NGB), which was divided into National Topographic Data Base (NTDB) map tiles.

Note

1. 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.

Spatial data quality elements

Detailed definition

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.

Censuses

2011, 2006, 2001, 1996, 1991

Remarks

Current technology makes it possible for a growing number of spatial data producers and users to access geospatial data. Digital datasets can now be obtained through geospatial clearinghouses/warehouses by users with diverse backgrounds. Furthermore, data producers can now more easily add new features, attributes and relationships to those already in the database. Therefore, any given dataset may be the result of the contributions of a number of data producers. Since perfect, complete and correct spatial data rarely exist, the assumptions and limitations affecting the creation or modification of data must be fully documented. Consequently, the need to communicate information about datasets to this ever-increasing pool of users becomes critical.

Data quality concepts provide an important framework for both data producers and users. Proper documentation provides spatial data producers with a better knowledge of their holdings, and allows them to more effectively manage data production, storage, updating and reuse. Data users can use this information to determine the appropriateness of a dataset for a given application and lessen the possibility of misuse. Highlighted below are elements of spatial data quality.

Overview elements

1. Purpose statement - Describes the rationale for creating a dataset and contains information about its intended use.
2. Usage statement - Describes the application(s) for which a dataset is used by the data producer or by data users.

Specific elements

1. Lineage - Describes the history of the spatial 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 the final digital files or map products.
2. 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.
3. Attribute accuracy - Refers to the accuracy of the quantitative and qualitative information attached to each feature (such as population for a population centre, street name, census subdivision name and code).
4. Logical consistency - Describes the dependability of relationships encoded in the data structure of the digital spatial data.
5. 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.

These elements are reported in the reference guides that accompany the spatial files and products, and form a subset of information contained in the metadata.

Changes prior to the current census

Prior to 1991, the data quality elements were not described in the supporting documentation for spatial data products.

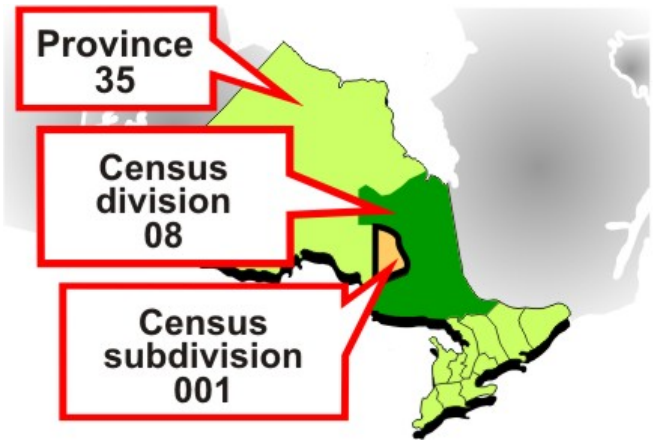
Standard Geographical Classification (SGC)

Detailed definition

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.

The 2011 version of the SGC (Standard Geographical Classification) includes three classification variants:

- Statistical Area Classification – Variant of SGC (Standard Geographical Classification) 2011
  This classifies census subdivisions by census metropolitan areas (CMAs), census agglomerations (CAs) and census metropolitan influenced zones (MIZ) in the areas outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s.
- Statistical Area Classification by Province and Territory – Variant of SGC (Standard Geographical Classification) 2011
  This classifies census subdivisions by census metropolitan areas (CMAs), census agglomerations (CAs) and census metropolitan influenced zones (MIZ) in the areas outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s. In this classification variant, these categories are further classified by provinces and territories.
- Economic Regions – Variant of SGC (Standard Geographical Classification) 2011
  This classifies census subdivisions into census divisions and economic regions.



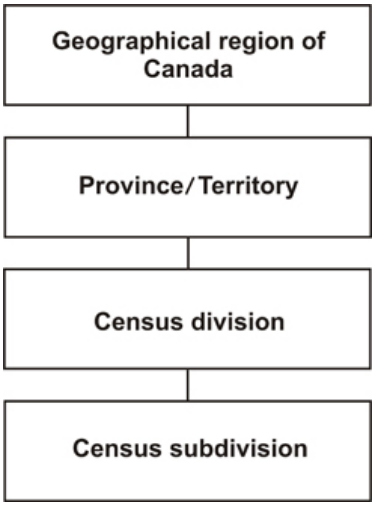
Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

Census subdivisions (CSDs) aggregate to census divisions (CDs), which aggregate to province or territory which, in turn, aggregate to geographical regions of Canada (Figure 2).

Figure 2
Standard geographical classification (SGC) hierarchy



Source: Statistics Canada, 2011 Census of Population.

The hierarchical relationship is reflected in the seven-digit SGC (Standard Geographical Classification) code. For example:

PR (Province/territory)-CD (census division)-CSD (census subdivision) code	Description	
12 06 008	Province 12:	Nova Scotia
	CD (census division) 06:	Lunenburg
	CSD (census subdivision) 008:	Mahone Bay
35 06 008	Province 35:	Ontario
	CD (census division) 06:	Ottawa
	CSD (census subdivision) 008:	Ottawa

Changes to the Standard Geographical Classification for the 2011 Census

This version introduces structural changes to the classification. It introduces a new level to the standard: geographical regions of Canada. The geographical regions of Canada are:

- Atlantic
- Quebec
- Ontario
- Prairies
- British Columbia
- Territories

They represent aggregations of provinces and territories.

The structural change also introduces the new classification variants 'Statistical Area Classification – Variant of SGC (Standard Geographical Classification) 2011' and 'Statistical Area Classification by Province and Territory – Variant of SGC (Standard Geographical Classification) 2011.' These include the census metropolitan areas and census agglomerations and classify the areas of Canada outside CMA (Census Metropolitan Area)s and CA (Census Agglomeration)s by census metropolitan influenced zones. Standard terminology has been established for the census metropolitan influenced zones.

The economic regions are now formally recognized as a part of the SGC (Standard Geographical Classification) and are included in the classification variant: 'Economic Regions – Variant of SGC (Standard Geographical Classification) 2011.'

Refer to the related definitions of census division (CD); census metropolitan area (CMA) and census agglomerations (CA); census metropolitan influenced zones (MIZ); census subdivision (CSD); economic region (ER) and province or territory. The Standard Geographical Classification is presented in the 2011 *Standard Geographical Classification (SGC)*, Volumes I and II (Catalogue nos. 12-571-X and 12-572-X).

Changes prior to the current census

In 1976 and 1971, both SGC (Standard Geographical Classification) and census codes were used to disseminate census data.

In 1966 and 1961, only census codes were used to disseminate census data.

Statistical Area Classification (SAC)

Detailed definition

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 (Metropolitan Influenced Zone) classifies all CSD (census subdivision)s 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 (Statistical Area Classification) provides unique numeric identification (codes) for these hierarchically-related geographic areas. It was established for the purpose of reporting statistics.

Censuses

2011, 2006, 2001

Remarks

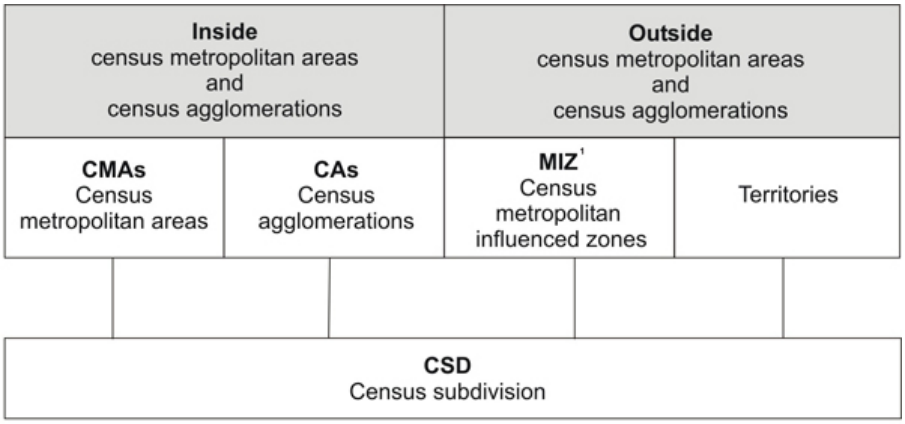
In using the Statistical Area Classification (SAC) for census data tabulations, it is possible to sum census data automatically for census subdivisions (CSDs) as follows:

- all CSDs (census subdivisions) in census metropolitan areas (CMAs)
- all CSDs (census subdivisions) in census agglomerations (CAs)
- all CSD (census subdivision)s in the provinces in the strong metropolitan influenced zone category
- all CSD (census subdivision)s in the provinces in the moderate metropolitan influenced zone category
- all CSD (census subdivision)s in the provinces in the weak metropolitan influenced zone category
- all CSD (census subdivision)s in the provinces in the no metropolitan influenced zone category
- CSDs in the three territories (Yukon, Northwest Territories and Nunavut), except those that are components of a CA (currently the CAs of Whitehorse and Yellowknife).

Care should be exercised when applying the MIZ (Metropolitan Influenced Zone) concept in the three territories. As many CSD (census subdivision)s in the territories are very large and sparsely populated, the commuting flow of the resident employed labour force is unstable. For this reason, the CSD (census subdivision)s in the territories that are outside CA (Census Agglomeration)s are assigned to a territories category that is not based on their commuting flows.

Figure 3 shows the hierarchical structure of the SAC (Statistical Area Classification).

Figure 3
Statistical area classification (SAC) hierarchy



Note:
1. Census metropolitan influenced zones (MIZ) categories are strong, moderate, weak and no influence.

Source: Statistics Canada, 2011 Census of Population.

Table 2 shows the population distribution of Canada from the 2006 Census using the SAC (Statistical Area Classification), and table 3 shows the number of census subdivisions in each category of the SAC (Statistical Area Classification) for the 2011 Census.

Refer to the related definitions of census metropolitan area (CMA) and census agglomeration (CA); census metropolitan influenced zones (MIZ); census subdivision (CSD); core, fringe and rural area, and to the geographic working paper entitled *Census Metropolitan Area and Census Agglomeration Influenced Zones (MIZ): A Description of the Methodology* (Catalogue no. (number) 92F0138MIE2000002).

Table 2
Population distribution by the Statistical area classification (SAC), 2006 adjusted population and 2011 geography, 2006 Census

Statistical area classification	Total population	% of total population
Census metropolitan area	21,534,063	68.1
Census agglomeration	4,136,342	13.1
Strong metropolitan influenced zone (census metropolitan area and census agglomeration influenced zone)	1,521,507	4.8
Moderate metropolitan influenced zone (census metropolitan area and census agglomeration influenced zone)	2,344,811	7.4
Weak metropolitan influenced zone (census metropolitan area and census agglomeration influenced zone)	1,807,499	5.7
No metropolitan influenced zone (census metropolitan area and census agglomeration influenced zone)	208,963	0.7
Territories	59,712	0.2
Canada total	**31,612,897**	**100.0**

Source: Statistics Canada, 2006 Census of Population.

Tableau 3
Nombre de subdivisions de recensement selon la Classification des secteurs statistiques (CSS), Recensement de 2011

Province/territoire	Total des SDR	Nombre de subdivisions de recensement						
		RMR	AR	ZIM forte	ZIM modérée	ZIM faible	ZIM aucune influence	Territoires
Terre-Neuve-et-Labrador	376	13	15	30	134	75	109	...
Île-du-Prince-Édouard	113	0	23	32	48	6	4	...
Nouvelle-Écosse	99	5	18	3	23	39	11	...
Nouveau-Brunswick	273	31	45	32	91	56	18	...
Québec	1 285	157	81	237	490	145	175	...
Ontario	574	92	56	95	143	87	101	...
Manitoba	287	12	8	17	61	116	73	...
Saskatchewan	959	41	25	62	248	208	375	...
Alberta	435	44	44	52	111	106	78	...
Colombie-Britannique	743	74	137	34	92	138	268	...
Yukon	37	0	7	...	...	...	...	30
Territoires du Nord-Ouest	41	0	1	...	...	...	...	40
Nunavut	31	0	0	...	...	...	...	31
Canada	5 253	469	460	594	1 441	976	1 212	101

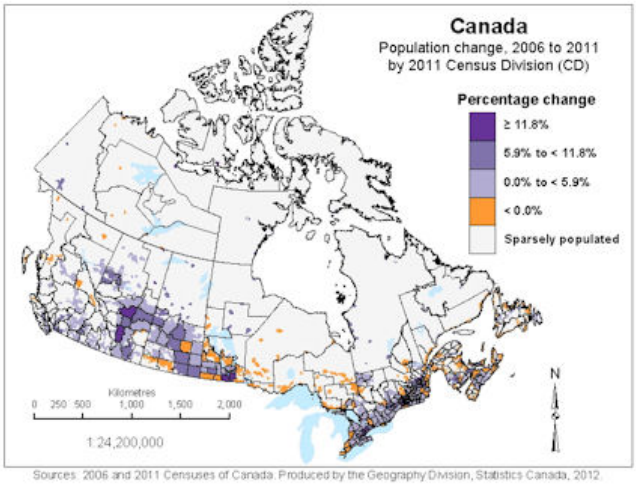
… n'ayant pas lieu de figurer
Source : Statistique Canada, Recensement de la population de 2011.

Statistical areas

Statistical areas are defined by Statistics Canada to support the collection and dissemination of data. They are created according to a set of rules based on geographic attributes and one or more characteristics of the resident population. Statistical areas supported by Statistics Canada include:

- Census agricultural region (a group of adjacent census divisions used for publishing agricultural data)
- Economic region (a group of adjacent census divisions used for analysing economic activity)
- Census consolidated subdivision (a group of adjacent census subdivisions, or municipalities)
- Census metropolitan area and census agglomeration
- Census metropolitan influenced zones
- Large urban population centre
- Medium population centre
- Small population centre
- Rural area
- Census tract
- Dissemination area
- Dissemination block
- Block-face
- Place name
- Census subdivision - previous census

Thematic map

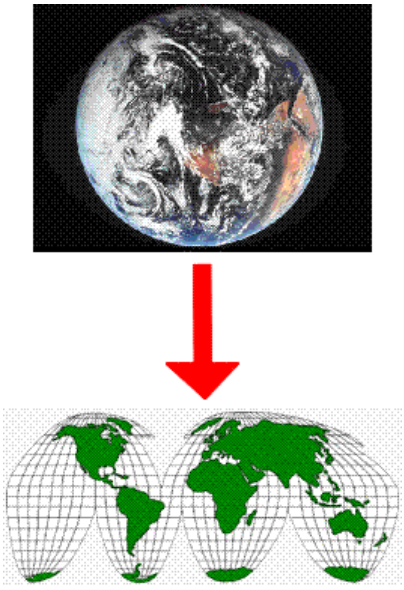


Thematic map tutorial, part 1

A brief guide to reading maps

A map, like a picture, is worth a thousand words. A map is a simplified view of the earth's surface that shows where places and things are located and helps us communicate that spatial information efficiently. In this section you will learn more about maps and how to read them.

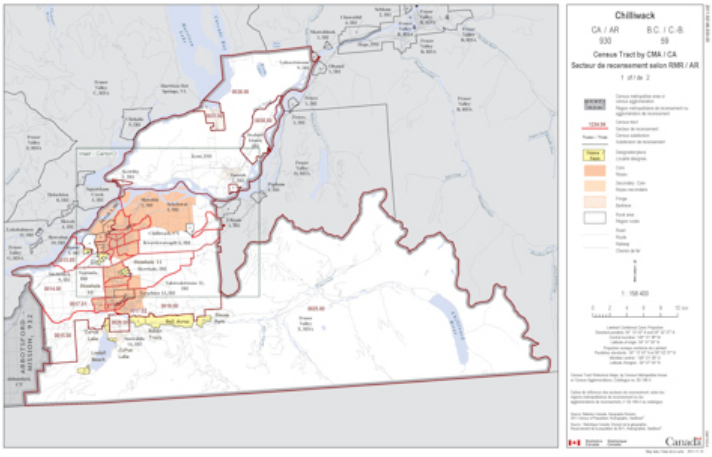
Statistics Canada primarily produces two types of maps: reference maps and thematic maps.



Thematic map tutorial, part 2

Reference maps

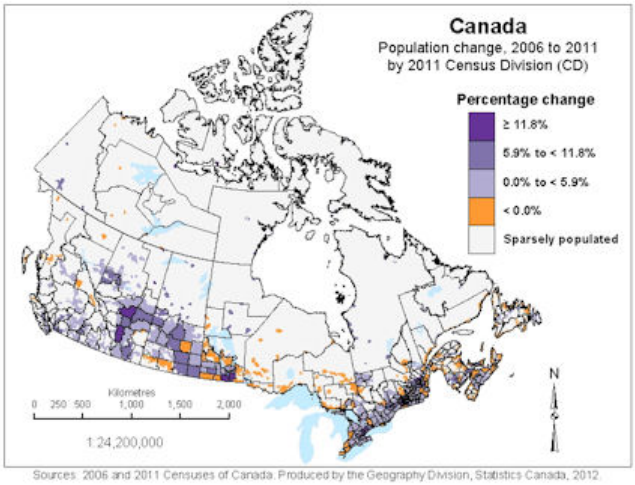
A reference map shows the location of the geographic areas for which census data are tabulated and disseminated. The maps display the boundaries, names and codes of standard geographic areas, as well as major cultural and physical features such as roads, railroads, rivers and lakes.



Thematic map tutorial, part 3

Thematic maps

A thematic map shows the spatial distribution of one or more specific data themes for standard geographic areas such as population change, average annual income, etc (and so on). Thematic maps normally include some location or reference information, such as major water bodies, roads or place names, to help map users familiarize and orient themselves to the geographic area covered on the map.



Thematic map tutorial, part 4

Map elements

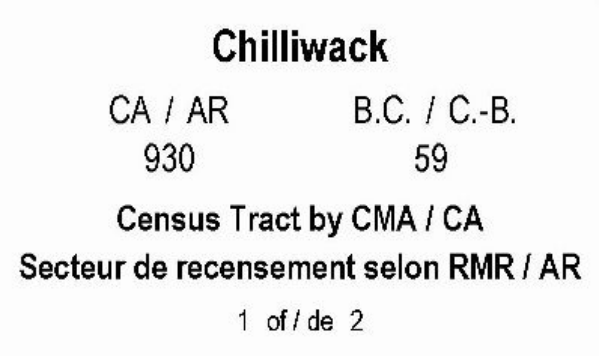
There are five basic design elements that should be included in any map.

1. Title
2. Legend
3. Source
4. Scale
5. North arrow

Thematic map tutorial, part 5

Title

On a reference map, the title indicates the geographic area depicted on the map. Titles are the most intellectually important element of a map.

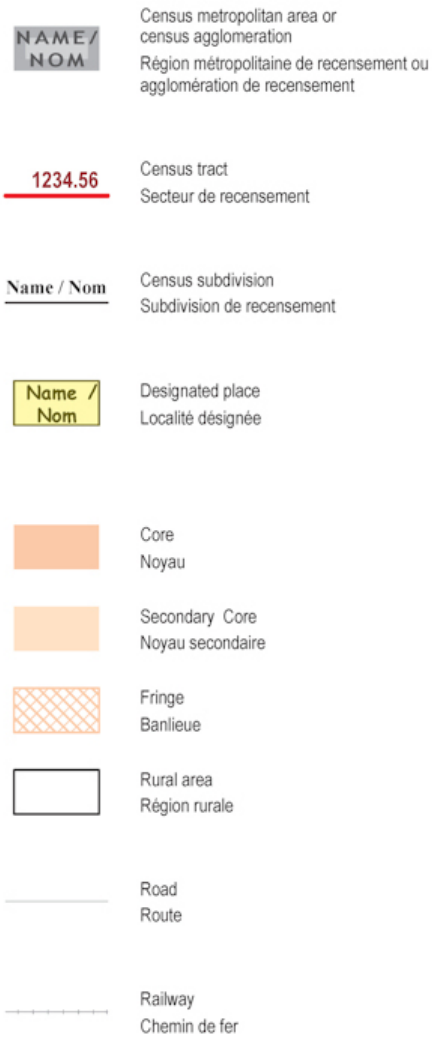


On a thematic map, the title indicates the theme, the date of the data and the type of geographic boundaries.

Thematic map tutorial, part 6

Legend

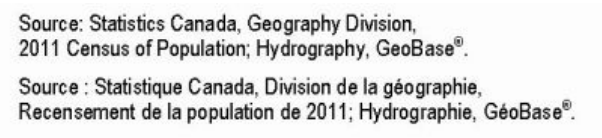
The legend is the key to understanding the map and, together with the title, is the first place you should look when reading the map. The map legend explains the meaning of unknown and unique symbols and colours used on the map.



Thematic map tutorial, part 7

Source

A source is a clear reference to the origin of the data depicted on the map. Information about the data source assists us in understanding the map and aids further research into the topic of the map.



Thematic map tutorial, part 8

Scale

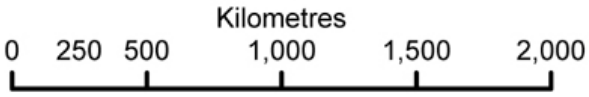
Scale tells us how distance on the map relates to distance on the ground. It is a measurement of the amount of reduction that takes place in going from real-world dimensions to the mapped area.

There are two common expressions of scale:

Representative fraction: **1:24,200,000**

The representative fraction tells us how many ground units are represented by a map unit. In this case, one unit of distance on the map is equivalent to 24,200,000 of the same units on the ground. The ratio is universal and does not require the unit of measurement to be specified.

Graphic bar scale:



The graphic bar shows what a physical measurement on the map would be equivalent to on the ground and as such provides a visual indication of the distances between map features. A graphic bar has the advantage of remaining true even if the map is enlarged or reduced.

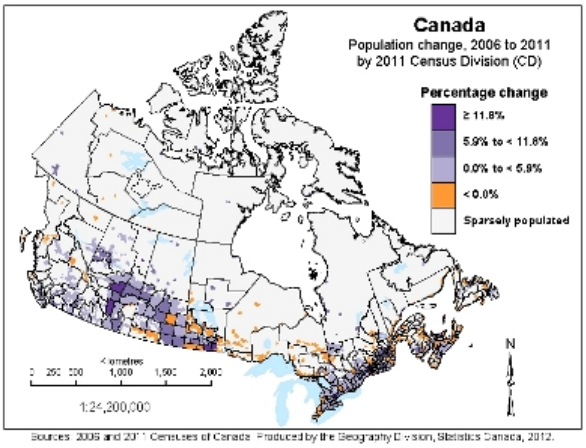
Thematic map tutorial, part 9

Small scale or large scale

Small scale maps show more land coverage in less detail, for example 1:24,200,000.

Large scale maps show less land coverage in greater detail, for example 1:10,000.

Sometimes, small scale maps contain 'insets' at a larger scale to reveal details that are hidden by congestion in the main map.



Thematic map tutorial, part 10

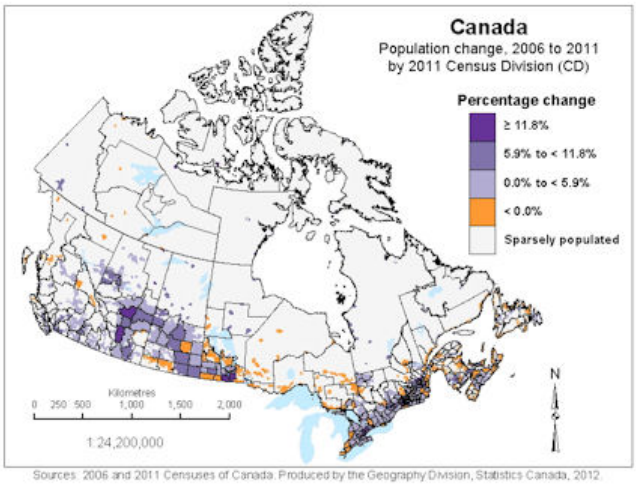
North arrow

The north arrow points to the direction of the North Pole and provides us with an indication of the orientation of the map. If a north arrow does not appear on the map, north is assumed to be the top of the map.

Thematic map

Detailed definition

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. (for example), predominant farm types) or quantitative (e.g. (for example), percentage population change).



Censuses

2011, 2006, 2001, 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Remarks

A thematic map is also called a special-purpose, single-topic, or statistical map. A thematic map focuses on the spatial variability of a specific distribution or theme (such as population density or average annual income), whereas a reference map focuses on the location and names of features. Thematic maps normally include some locational or reference information, such as place names or major water bodies, to help map readers familiarize themselves with the geographic area covered on the map.

All thematic maps are composed of two important elements: a base map and statistical data. Normally, the two are available as digital files, such as a cartographic boundary file and census data. Desk-top geographic information systems or computer-mapping packages are typically used to generate thematic maps.

Two common thematic maps produced at Statistics Canada are dot maps and choropleth[1] maps. The ecumene concept is generally used for dot and choropleth maps, to ensure that the spatial representation of census data is limited to inhabited land. To ensure confidentiality, all census data are subject to random rounding and/or data suppression.

Thematic maps can be used for exploratory spatial data analysis, confirming hypotheses, synthesizing spatial data by revealing patterns and relationships, and data presentation.

Refer to related definitions of cartographic boundary files (CBFs); ecumene and reference map.

Changes prior to the current census

Prior to 1976, thematic maps were generated using manual cartographic methods.

Note

1. The term 'choropleth' is derived from the Greek *choros*, for place, and *plethos*, for magnitude. The choropleth method symbolizes statistical data as they occur within the boundaries of predefined geographic units (such as census divisions or census tracts). Usually, the data are grouped into a limited number of classes, with each class representing a range of data values. A logical sequence of colours or grey tones is then applied to each class. It is important to note that choropleth maps should use standardized data values (e.g. (for example), ratios or percentages) rather than absolute values.