GEOGRAPHY

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Introduction

The terms related to the geography of the 1996 Census are defined in this section. They describe concepts related to geographic areas, census cartography and census geographic products and services. Definitions are provided for all **bold-faced** terms.

Geographic Areas

Census data are disseminated for a number of standard geographic areas. These areas are either administrative or statistical.

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

> Provinces and territories
> Federal electoral districts (FEDs)
> Census divisions (CDs)
> Census subdivisions (CSDs)
> Designated places (DPLs)
> Postal codes

Statistical areas are defined by Statistics Canada as part of the spatial frame used to collect and disseminate census data. These include:

> Census agricultural regions (CARs)
> Economic regions (ERs)
> Census consolidated subdivisions (CCSs)
> Census metropolitan areas (CMAs)
> Census agglomerations (CAs)
> Consolidated census metropolitan areas
> Consolidated census agglomerations
> Primary census metropolitan areas (PCMAs)
> Primary census agglomerations (PCAs)
> Census tracts (CTs)
> Urban core, urban fringe and rural fringe
> Urban areas (UAs)
> Rural areas
> Enumeration areas (EAs)

The hierarchy of standard geographic areas is presented in Figure 20.

The number of geographic units by province and territory are shown in Table 1.

For the 1996 Census, designated places have been added to the geographic hierarchy and "provincial census tracts" have been removed. Prior to 1996, census agricultural regions were called "agricultural regions", economic regions were called "subprovincial regions" and urban core, urban fringe and rural fringe were called "CMA/CA parts".

Other related terms defined in this section include: adjusted counts, census farm, geographic code, geographic reference date, place name, Standard Geographical Classification (SGC), unincorporated place, urban population size group, usual place of residence and workplace location.

In addition to standard geographic areas, census data can also be tabulated for areas defined by individual users. User-defined areas may be aggregations of the standard administrative and statistical geographic areas or custom areas. For additional information on creating custom areas, refer to the section below on Census Geographic Products and Services.

Census Cartography

Reference maps are published to show the boundaries, names, codes and spatial relationships of the standard geographic areas.

Maps are also used to support geographic calculations (for example, land area, ecumene and population density). In order to describe these maps, certain basic terms such as coordinate system and map projection are defined.

Census Geographic Products and Services

Digital boundary files (DBFs) and digital cartographic files (DCFs) are available for most of the standard geographic areas. These files enable users with geographic information systems (GIS) or other mapping software to do geographic analysis and produce their own maps.

Custom geographic areas can be created by combining small building-block geographic units: block-faces in large urban areas (generated from computer street maps called street network files) and enumeration areas elsewhere. This is made possible using a coordinate (representative point) which is assigned to every enumeration area in Canada and to each block-face in most of the large urban areas (50,000 population and over). With the geocoding system, households and the associated data are geographically linked or "geocoded" to the corresponding representative point. Census data for user-defined areas are then retrieved by aggregating EA or block-face representative points within each user-defined area.

Figure 20. Hierarchy of National, Metropolitan and Postal Code Geographic Units, 1996
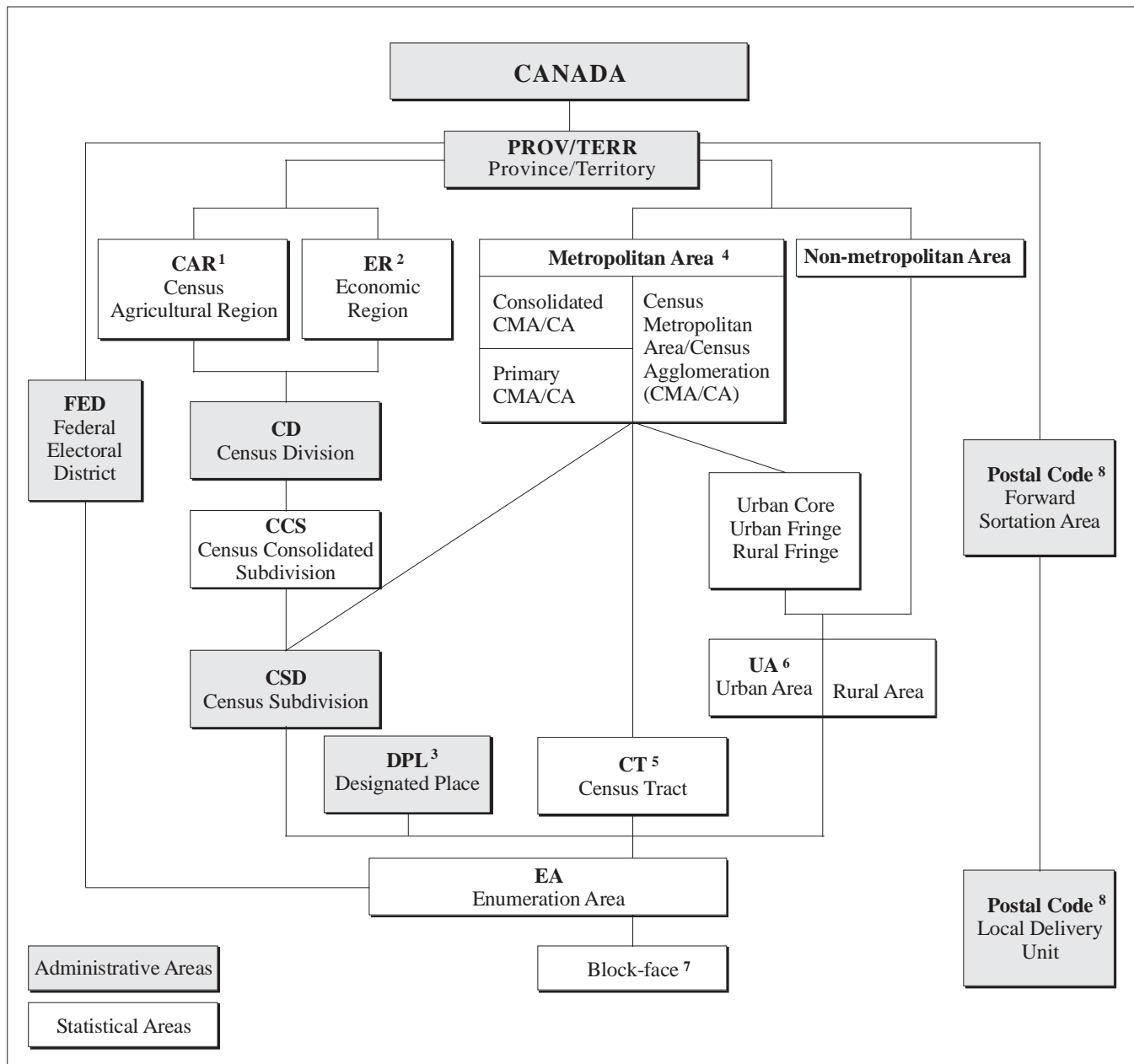
[1] Census agricultural regions in Saskatchewan are made up of census consolidated subdivisions.
[2] Economic regions in Ontario are made up of municipalities (census subdivisions).
[3] Currently there are no designated places in Prince Edward Island, Quebec, Yukon Territory and Northwest Territories.
[4] Five CMAs/CAs cross provincial boundaries.
[5] All CMAs and only CAs with urban core population of 50,000 or more at the previous census have census tracts.
[6] Five UAs cross provincial boundaries.
[7] Only in areas covered by street network files (SNFs).
[8] The postal code is captured as provided by the respondent on all the questionnaires for 1996. Although shown and treated as part of the geographic hierarchy, strictly speaking, it is not a geographic unit and, therefore, there is no exact relationship between postal codes and enumeration areas.

Geography

Table 1. Geographic Units by Province and Territory, 1996 (as of November 1996)

Geographic unit	CANADA 1991	CANADA 1996	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.
Federal electoral district (1987 RO*)	295	295	7	4	11	10	75	99	14	14	26	32	1	2
Federal electoral district (1996 RO*)	N/A	301	7	4	11	10	75	103	14	14	26	34	1	2
Economic region	68	74	4	1	5	5	16	11	8	6	8	8	1	1
Census division	290	288	10	3	18	15	99	49	23	18	19	28	1	5
Census division	73	73	10	–	–	–	3	–	23	18	19	–	–	–
Communauté urbaine	3	3	–	–	–	–	3	–	–	–	–	–	–	–
County	60	60	–	3	18	15	–	24	–	–	–	–	–	–
District	10	10	–	–	–	–	–	10	–	–	–	–	–	–
District municipality	1	1	–	–	–	–	–	1	–	–	–	–	–	–
Metropolitan municipality	1	1	–	–	–	–	–	1	–	–	–	–	–	–
Municipalité régionale de comté	93	93	–	–	–	–	93	–	–	–	–	–	–	–
Region	7	6	–	–	–	–	–	–	–	–	–	1	–	5
Regional district	29	27	–	–	–	–	–	–	–	–	–	27	–	–
Regional municipality	10	10	–	–	–	–	–	10	–	–	–	–	–	–
Territory	N/A	1	–	–	–	–	–	–	–	–	–	–	1	–
United Counties	3	3	–	–	–	–	–	3	–	–	–	–	–	–
Census consolidated subdivision	2,630	2,607	87	68	52	148	1,143	518	128	302	73	82	1	5
Census subdivision[1]	6,006	5,984	381	113	110	283	1,599	947	298	970	467	713	35	68
Designated place	N/A	828	77	–	59	172	–	38	52	166	252	12	–	–
Census agricultural region	77	78	3	–	5	4	13	5	12	20	8	8	–	–
Census metropolitan area	25	25	1	–	1	1	6	10	1	2	2	2	–	–
Census agglomeration	115	112	4	2	4	5	27	32	3	7	9	21	1	1
Primary census metropolitan area	12	11	1	–	–	–	3	5	–	–	2	1	–	–
Primary census agglomeration	21	22	1	–	–	–	6	11	–	–	3	1	–	–
Census tract	4,068	4,223	41	–	75	69	1,108	1,799	158	99	386	488	–	–
Urban area	893	929	44	7	38	38	228	265	43	63	103	97	2	6
Enumeration area	45,995	49,361	1,236	267	1,511	1,393	11,684	16,469	2,050	2,844	4,746	6,880	111	170
Street network file (number of CSDs)	342	344	2	–	3	16	114	113	10	5	4	77	–	–
Block-face[2]	763,626	817,734	5,068	–	9,707	17,110	187,563	330,658	35,024	21,375	79,954	131,275	–	–
Forward sortation area[3]	1,368	1,477	32	7	58	44	383	515	63	45	137	187	3	5
Postal code[3]	652,826	680,910	7,073	2,737	18,864	16,144	175,885	244,909	22,821	20,778	64,530	105,801	864	504

Note: Underlined numbers indicate that those CMAs, CAs, PCMAs and urban areas crossing provincial boundaries are counted in both provinces.

*   Representation Order

[1]   For a list of census subdivision types, see Table 3.

[2]   Preliminary numbers.

[3]   Counts derived from the December 1991 and from the June 1996 Postal Code Conversion File.

Adjusted Counts

The term "adjusted counts" refers to previous census population and dwelling counts which have been adjusted (i.e. recompiled) to reflect current census boundaries when a boundary change occurred between the two censuses.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961, 1956 (Population)
                   1996 (Dwellings)

Rules

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

Special Notes, Data Quality and Applications

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., census subdivision incorporations), adjusted counts are required simply 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.

Remarks

Not applicable

Block-face

A block-face is one side of a city street between two consecutive street intersections. Block-faces are also formed when streets intersect other visible physical features (such as railroads, power transmission lines and rivers) and when streets intersect with *enumeration area* boundaries.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971

Rules

Block-faces are defined only in large urban centres covered by Statistics Canada's *street network files*.

Block-faces respect all enumeration area (EA) boundaries (and thus all other census geographic boundaries such as municipal and *census tract* boundaries).
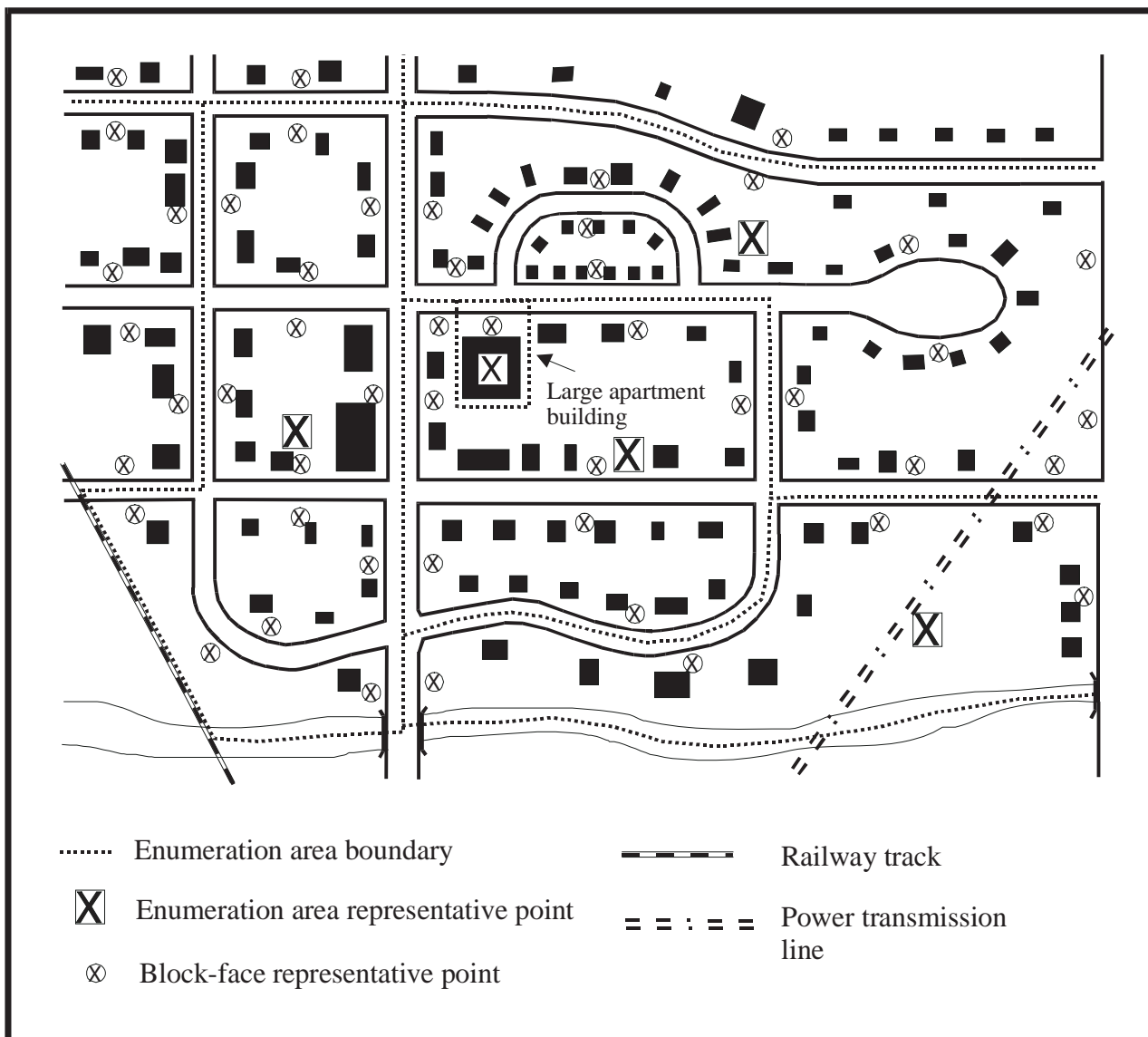
A dead-end street has two block-faces.

When an EA boundary splits a large city block, two block-faces are formed. In cases where an EA is smaller than a block, such as for *collective dwellings* or where large apartment buildings contain one or more EAs, a separate block-face is defined for each EA.

For each block-face defined, a corresponding *representative point* is computed for the purposes of *geocoding* and census data extraction.

Examples of block-faces are shown in Figure 21.

Figure 21. Examples of Block-faces

Large apartment building

...... Enumeration area boundary

X Enumeration area representative point

⊗ Block-face representative point

– – – – Railway track

= = : = = Power transmission line

Special Notes, Data Quality and Applications

To ensure confidentiality, only population and dwelling counts are released for individual block-faces.

Census data collected from households along a particular block-face are geocoded to the block-face representative point. This makes it possible to produce tabulations of census data based on user-defined geographic areas.

For further details, refer to the definitions of *Enumeration Area, Geocoding, Representative Point* and *Street Network Files (SNFs),* and to related *User Guides* (Street Network Files and Block-face Data File).

Remarks

Before 1991, additional block-faces were not created where EA boundaries split blocks.

Census Agglomeration (CA)

See the definition of *Census Metropolitan Area (CMA), Census Agglomeration (CA), Consolidated Census Metropolitan Area, Consolidated Census Agglomeration, Primary Census Metropolitan Area (PCMA) and Primary Census Agglomeration (PCA)*.

Census Agricultural Region (CAR)

Census agricultural regions are subprovincial geographic areas made up 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.

Censuses: 1996, 1991, 1986, 1981

Rules

Census agricultural regions have not been defined in Prince Edward Island and the Yukon and Northwest Territories.

Special Notes, Data Quality and Applications

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

The number of census agricultural regions by **province** and **territory** is shown in Table 1.

The census agricultural regions are assigned a two-digit code that is not unique between provinces. In order to uniquely identify each CAR in Canada, the code must be preceded by the two-digit province code. For example:

PR-CAR Code	CAR Name
48 02	Census Agricultural Region 2 (Alta.)
59 02	Okanagan Region (B.C.)

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

Remarks

Before 1996, census agricultural regions were called **agricultural regions**.

Census Consolidated Subdivision (CCS)

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

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966

Rules

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

1. A census subdivision with a *land area* greater than 25 square kilometers can form a CCS 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 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 on its own.

4. The census consolidated subdivision's name usually coincides with its largest census subdivision component in terms of land area.

Figure 22. Examples of CCSs and CSDs in Saskatchewan

CCS ▨ **01 006**
CSD — 01 006
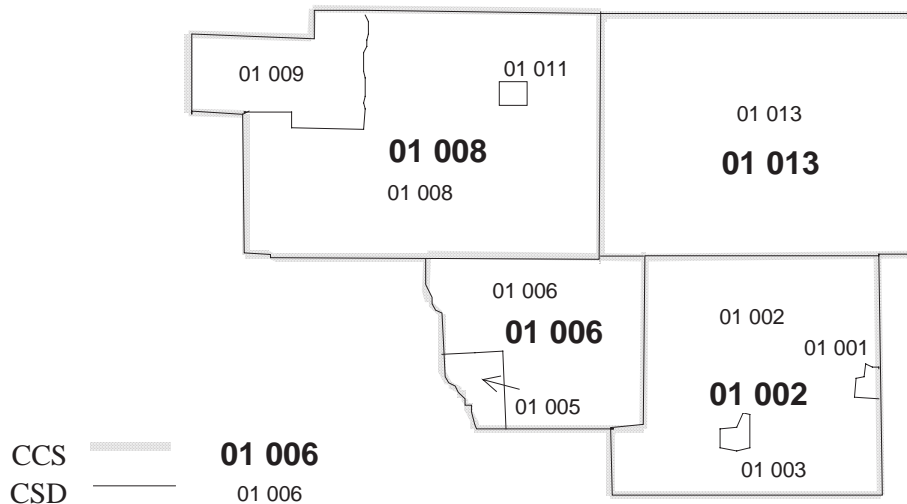
Special Notes, Data Quality and Applications

The number of CCSs by *province* and *territory* appears in Table 1.

Each census consolidated subdivision is assigned a three-digit code that is not unique between provinces. The code assigned to the CCS is the seven-digit Standard Geographical Classification (SGC) code of one of its component CSDs, usually the one with the largest land area. This assignment process also makes the CCS code unique across Canada. For example:

PR-CD-CCS Code	CCS Name
12 06 001	Lunenburg (N.S.)
35 06 006	Gloucester (Ont.)

CCSs are used primarily for the dissemination of data from the Census of Agriculture. They form the building block for *census agricultural regions* in the province of Saskatchewan. In all other provinces, census agricultural regions are made up of census division groupings.

CCSs are relatively stable geographic units because they have infrequent boundary changes and are therefore useful for longitudinal analysis.

Remarks

In 1991, significant boundary changes were made to CCSs in Quebec when census divisions were restructured to recognize "les municipalités régionales de comté".

In 1976, the term "census consolidated subdivision" was introduced. Prior to 1976, CCSs were referred to by the term "Reference Code".

Census Division (CD)

Census division (CD) is the general term applied to areas established by provincial law which are intermediate geographic areas between the municipality (*census subdivision*) and the *province* level. Census divisions represent counties, regional districts, regional municipalities and other types of provincially legislated areas.

In Newfoundland, Manitoba, Saskatchewan and Alberta, provincial law does not provide for these administrative geographic areas. Therefore, census divisions have been created by Statistics Canada in cooperation with these provinces for the dissemination of statistical data. In the Yukon Territory, the census division is equivalent to the entire territory.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Census divisions are numerically identified by the first four digits of the *Standard Geographical Classification (SGC)* code. The first two digits identify the province or territory and the second two digits, the census division.

In order to uniquely identify each CD in Canada, the code must be preceded by the two-digit province code. For example:

PR-CD Code	CD Name
13 01	Saint John County (N.B.)
24 01	Les Îles-de-la-Madeleine (Que.)

For further details, refer to the definition of *Census Subdivision* and to the *1996 Standard Geographical Classification (SGC) manual* (Volumes I and II, Catalogue Nos. 12-571-XPB, and 12-572-XPB).

Census Division Type

The type indicates the legal status of the census division according to official designations adopted by provincial authorities. The exception is the CD type "census division" which describes those units created by Statistics Canada as equivalents, in cooperation with the provinces.

CD types are identified in Table 2 on the following page, giving the distribution by province and territory.

Table 2. Census Division Types by Province and Territory, 1996

CD type	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.	Canada
Census Division	10	–	–	–	3	–	23	18	19	–	–	–	73
Communauté urbaine	–	–	–	–	3	–	–	–	–	–	–	–	3
County	–	3	18	15	–	24	–	–	–	–	–	–	60
District	–	–	–	–	–	10	–	–	–	–	–	–	10
District Municipality	–	–	–	–	–	1	–	–	–	–	–	–	1
Metropolitan Municipality	–	–	–	–	–	1	–	–	–	–	–	–	1
Municipalité régionale de comté (MRC)	–	–	–	–	93	–	–	–	–	–	–	–	93
Region	–	–	–	–	–	–	–	–	–	1	–	5	6
Regional District	–	–	–	–	–	–	–	–	–	27	–	–	27
Regional Municipality	–	–	–	–	–	10	–	–	–	–	–	–	10
Territory	–	–	–	–	–	–	–	–	–	–	1	–	1
United Counties	–	–	–	–	–	3	–	–	–	–	–	–	3
TOTAL	10	3	18	15	99	49	23	18	19	28	1	5	288

Special Notes, Data Quality and Applications

The number of CDs by *province* and *territory* appears in Table 1 and in Table 2 above.

Census divisions have been established in provincial law to facilitate regional planning and the provision of services which can be more effectively delivered on a scale larger than a municipality.

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

In New Brunswick, the census divisions defined by Statistics Canada do not always respect the legal county limits. In order to maintain the integrity of component municipalities (census subdivisions), CD limits have been modified. Specifically, the following six municipalities straddle county boundaries and the county underlined indicates the CD in which these municipalities have been completely allocated:

> Belledune (Restigouche/Gloucester);
> Fredericton (York/Sunbury);
> Grand Falls (Victoria/Madawaska);
> Meductic (Carleton/York);
> Minto (Sunbury/Queens);
> Rogersville (Kent/Northumberland).

For 1996, there have been a number of significant changes to the boundaries of census divisions:

– In New Brunswick, the CSD of Belledune, VL (15 034) and part of the CSD of Beresford, PAR (15 012) were taken from Gloucester County (13 15) and annexed to Restigouche County (13 14).

– In Quebec, four MRCs experienced boundary changes when the CSD of Saint-Thomas, P (52 025) was taken from D'Autray (24 52) and annexed to Joliette (24 61), and the CSD of Entrelacs, M (77 005) was taken from Les Pays-d'en-Haut (24 77) and annexed to Matawinie (24 62).

– In Alberta, a large part of the CSD called Improvement District No. 18, ID (16 030) was taken from Division No. 16 (48 16) and added to the CSD of Bonnyville No. 87, MD (12 004) in Division No. 12 (48 12). Also, to avoid having Division No. 15 (48 15) in multiple polygons, the CSDs of Blood 148A, R (15 823) and Improvement District No. 4, ID (15 001) were deleted from Division No. 15 and assigned to Division No. 3 (48 03).

– In British Columbia, a large CD resulted when the Regional Districts of Fraser-Cheam (59 09), Central Fraser Valley (59 11) and Dewdney-Alouette (59 13) were combined to form the Fraser Valley Regional District (59 09). Finally, the southwest tip of Kitimat-Stikine Regional District (59 49) was annexed to Skeena-Queen Charlotte Regional District (59 47).

Remarks

In 1991, the number of census divisions in Quebec increased from 76 to 99 as a result of the implementation of the "municipalités régionales de comté (MRC)" or their equivalent, e.g., "communautés urbaines", "territoire conventionné". This represented a completely new census division structure. In order to accommodate MRCs within the two-digit census division code of the Standard Geographical Classification, the province agreed to groupings of MRCs or their equivalents in order to confine the total number of units to 99. These MRC groupings (called census divisions) were:

– the "Administration régionale Kativik" and the "région de la Baie James", forming the census division of "Nord-du-Québec";

– the Minganie MRC and the "municipalités de la Basse-Côte-Nord", forming the census division of "Minganie – Basse-Côte-Nord";

– the Sept-Rivières MRC and the Caniapiscau MRC, forming the census division of "Sept-Rivières – Caniapiscau".

Census Farm

Refers to a farm, ranch or other agricultural operation which produces at least one of the following products intended for sale: crops, livestock, poultry, animal products, greenhouse or nursery products, Christmas trees, mushrooms, sod, honey and maple syrup products.

Censuses: 1996, 1991, 1986,* 1981,* 1976,** 1971,*** 1966,*** 1961***

Remarks

* For the 1981 and 1986 Censuses, a census farm was defined as a farm, ranch or other agricultural holding with sales of agricultural products of $250 or more during the past 12 months. Agricultural holdings with anticipated sales of $250 or more were also included.

** For the 1976 Census, a census farm was defined as a farm, ranch or other agricultural holding of one acre or more with sales of agricultural products of $1,200 or more during the year 1975. The basic unit for which a questionnaire was collected was termed an agricultural holding. This term was defined as a farm, ranch or other agricultural holding of one acre or more with sales of agricultural products of $50 or more during the 12-month period prior to the census.

*** Prior to the 1976 Census, a census farm was defined as a farm, ranch or other agricultural holding of one acre or more with sales of agricultural products of $50 or more during the 12-month period prior to the census.

Census Metropolitan Area (CMA), Census Agglomeration (CA), Consolidated Census Metropolitan Area, Consolidated Census Agglomeration, Primary Census Metropolitan Area (PCMA), Primary Census Agglomeration (PCA)

The census metropolitan areas, census agglomerations, consolidated census metropolitan areas, consolidated census agglomerations, primary census metropolitan areas and primary census agglomerations are delineated using the same conceptual base. The overall concept for delineating these geographic areas is one of a large *urban area* together with adjacent urban and *rural areas* that have a high degree of social and economic integration with this urban area. **Metropolitan area** is a general term for all these areas. **Non-metropolitan area** is a term for all areas outside of the metropolitan area.

Census Metropolitan Area (CMA)

A census metropolitan area (CMA) is a very large *urban area* (known as the *urban core*) together with adjacent urban and rural areas (known as *urban and rural fringes*) that have a high degree of social and economic integration with the urban core. A CMA has an urban core population of at least 100,000, based on the previous census. Once an area becomes a CMA, it is retained as a CMA even if the population of its urban core declines below 100,000. All CMAs are subdivided into *census tracts*. A CMA may be consolidated with adjacent *census agglomerations* (CAs) if they are socially and economically integrated. This new grouping is known as a *consolidated CMA* and the component CMA and CA(s) are known as the *primary census metropolitan area (PCMA)* and *primary census agglomeration(s) [PCA(s)]*. A CMA may not be consolidated with another CMA.

Census Agglomeration (CA)

A census agglomeration (CA) is a large *urban area* (known as the *urban core*) together with adjacent urban and rural areas (known as *urban and rural fringes*) that have a high degree of social and economic integration with the urban core. A CA has an urban core population of at least 10,000, based on the previous census. However, if the population of the urban core of a CA declines below 10,000, the CA is retired. Once a CA attains an urban core population of at least 100,000, based on the previous census, it is eligible to become a CMA. CAs that have urban cores of at least 50,000, based on the previous census, are subdivided into *census tracts*. Census tracts are maintained for CAs even if the population of the urban cores subsequently fall below 50,000. A CA may be consolidated with adjacent CAs if they are socially and economically integrated. This new grouping is called a *consolidated CA* and the component CAs are called *primary census agglomerations (PCAs)*.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961, 1956, 1951, 1941

Consolidated Census Metropolitan Area (Consolidated CMA)

A consolidated census metropolitan area (consolidated CMA) is a grouping of one *census metropolitan area* (CMA) and adjacent *census agglomeration*(s) CA(s*)* that are socially and economically integrated. An adjacent CMA and CA can be consolidated into a single CMA (consolidated CMA) if the total commuting interchange between them is equal to at least 35% of the employed labour force living in the CA. Several CAs may be consolidated with a CMA; each CMA-CA combination is evaluated for inclusion. For example, the consolidated Toronto CMA is composed of the Toronto PCMA and the PCAs of Georgina, Milton, Halton Hills, Orangeville and Bradford West Gwillimbury.

A list of consolidated CMAs and CAs and their component PCMAs and PCAs is found in Appendix N.

Consolidated Census Agglomeration (Consolidated CA)

A consolidated census agglomeration (consolidated CA) is a grouping of adjacent *census agglomerations* (CAs) that are socially and economically integrated. Adjacent CAs are consolidated into a single CA (consolidated CA) if the total commuting interchange between two CAs is equal to at least 35% of the employed labour force living in the smaller CA. Several CAs may be consolidated with a larger CA; each pair of CAs is evaluated for inclusion. For example, the consolidated Chatham CA is composed of the Chatham PCA and the Wallaceburg PCA.

A list of consolidated CAs and their component PCAs is found in Appendix N.

Primary Census Metropolitan Area (PCMA)

A *census metropolitan area* that is a component of a *consolidated census metropolitan area* is referred to as a primary census metropolitan area (PCMA).

Primary Census Agglomeration (PCA)

A *census agglomeration* that is a component of a *consolidated census metropolitan area* or *consolidated census agglomeration* is referred to as the primary census agglomeration (PCA).

Censuses: 1996, 1991, 1986

Delineation Rules for CMAs and CAs

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

1. **The Urban Core Rule:** The CSD falls completely or partly inside the urban core. A core hole is a CSD that is enclosed by a CSD that is at least partly within the urban core and must be included to maintain spatial contiguity.

Note: In Figure 23, CSDs A, B and C are included in the CMA or CA because of the urban core rule.

Figure 23. The Urban Core Rule
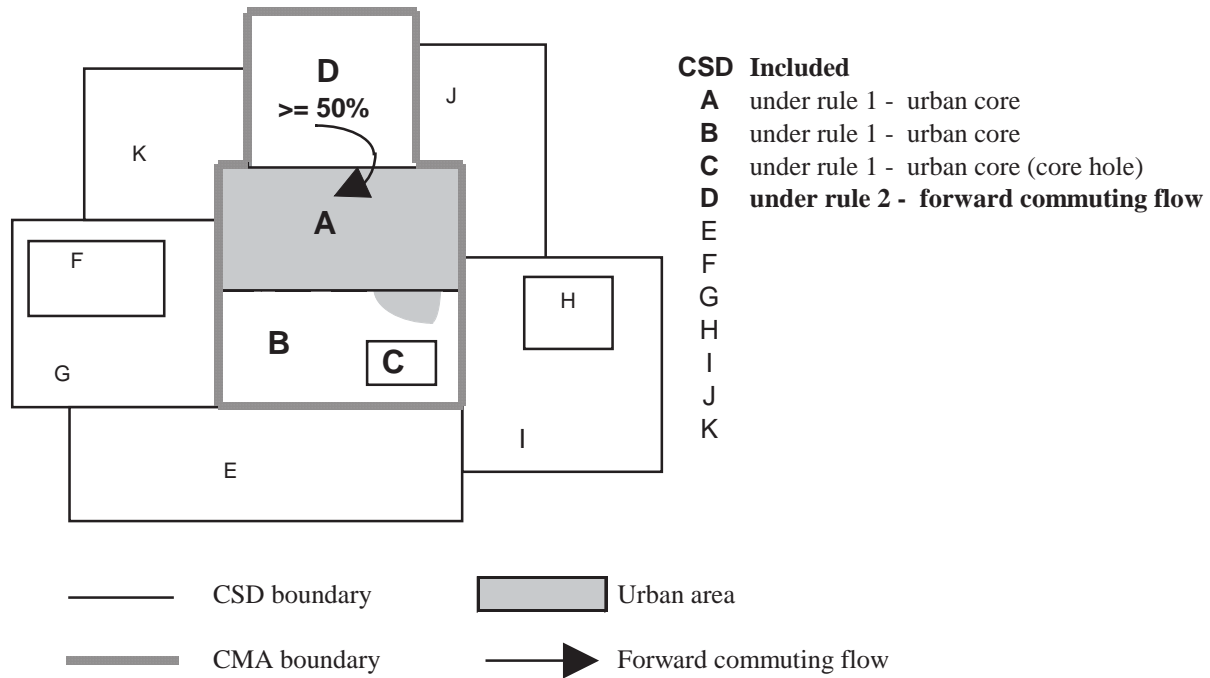

CSD	Included
A	**under rule 1 - urban core**
B	**under rule 1 - urban core**
C	**under rule 1 - urban core (core hole)**
D	
E	
F	
G	
H	
I	
J	
K	

—————— CSD boundary   ▢ Urban area

—————— CMA boundary
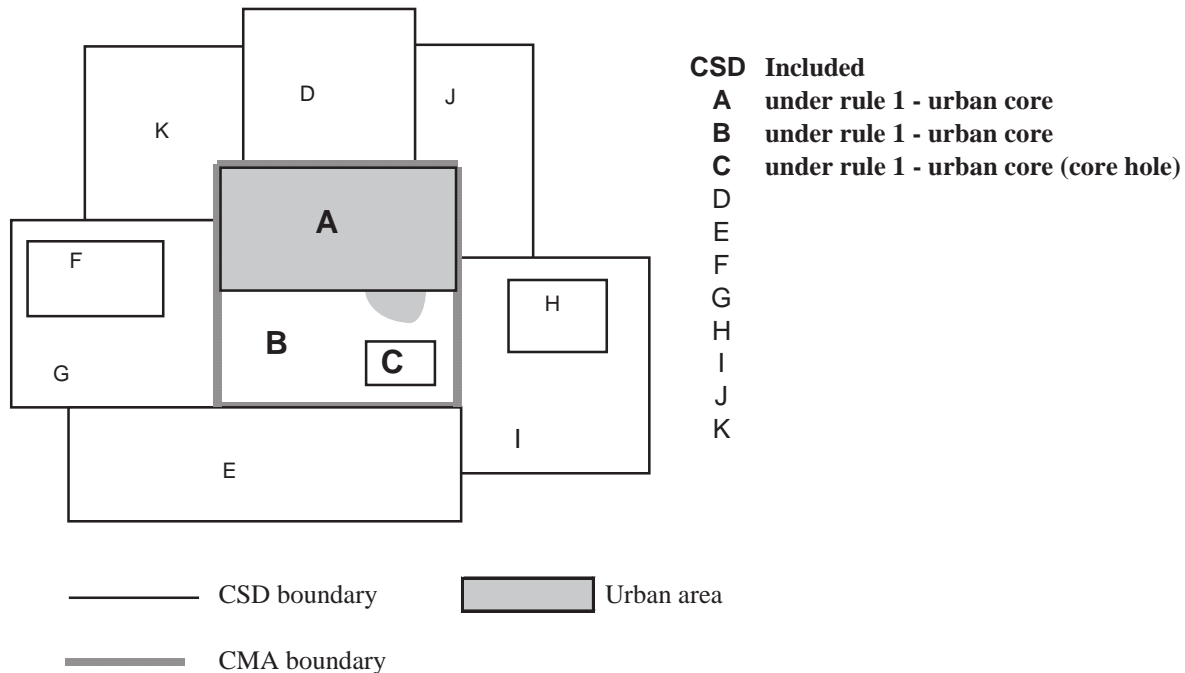
2. **The Forward Commuting Flow Rule:** Given a minimum of 100 commuters, at least 50% of the employed labour force **living** in the CSD **work** in the delineation urban core (see following note) as determined from commuting data based on the place of work question in the 1991 Census.

Note: For CMA and CA delineation purposes, a **delineation urban core** is created respecting CSD limits. To be included in the **delineation urban core**, at least 75% of a census subdivision's population must reside within the urban core. In Figure 24, CSD A is part of the **delineation urban core** since its entire population resides within the urban core. CSD B also would be part of the **delineation urban core** if at least 75% of its population resides within the urban core. For this example, we have assumed that less than 75% of the population of CSD B resides within the urban core; therefore, CSD B and its enclosed hole, CSD C, are not considered to be part of the **delineation urban core**. However, the disseminated urban core population is based on that of the urban area shown in grey.

Figure 24. The Forward Commuting Flow Rule

CSD	Included
A	under rule 1 - urban core
B	under rule 1 - urban core
C	under rule 1 - urban core (core hole)
D	**under rule 2 - forward commuting flow**
E	
F	
G	
H	
I	
J	
K	

3. **The Reverse Commuting Flow Rule:** Given a minimum of 100 commuters, at least 25% of the employed labour force **working** in the CSD **live** in the delineation urban core (see Note for Rule 2) as determined from commuting data based on the place of work question in the 1991 Census. See Figure 25.
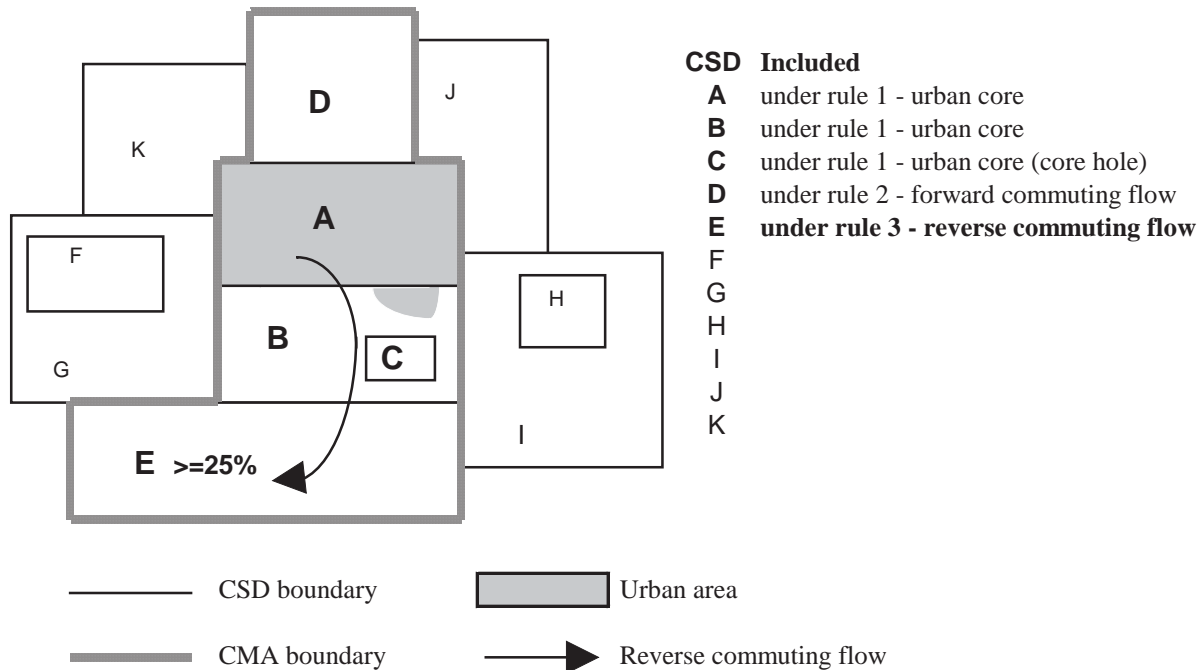
Figure 25. The Reverse Commuting Flow Rule

CSD	Included
A	under rule 1 - urban core
B	under rule 1 - urban core
C	under rule 1 - urban core (core hole)
D	under rule 2 - forward commuting flow
E	**under rule 3 - reverse commuting flow**
F	
G	
H	
I	
J	
K	

——— CSD boundary   ▨ Urban area

━━━ CMA boundary   ➤ Reverse commuting flow

4. **The Spatial Contiguity Rule:** Where necessary to eliminate holes, CSDs that do not meet a commuting flow threshold may be included in a CMA or CA, and CSDs that do meet a commuting flow threshold may be excluded from a CMA or CA.
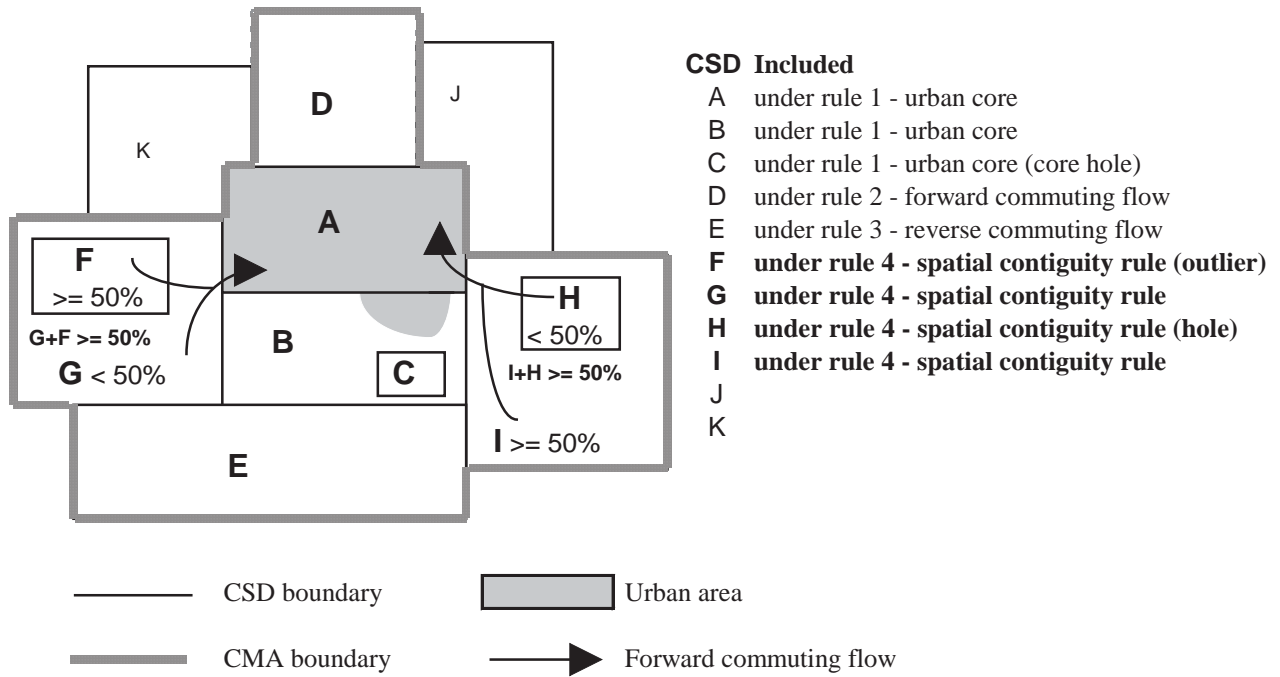
There are two situations which can lead to inclusion or exclusion of a CSD in a CMA or CA for reasons of spatial contiguity. Specifically these are:

Outlier – A CSD (F in Figure 26) with sufficient commuting flows (either forward or reverse) is enclosed by a CSD (G in Figure 26) with insufficient commuting flows, but which is adjacent to the CMA or CA. When this situation arises, the CSDs within and including the enclosing CSD are grouped to create a minimum CSD set (F + G). The total commuting flows for the minimum CSD set are then considered for inclusion in the CMA or CA. If the minimum CSD set has sufficient commuting flows (either forward or reverse), then all of its CSDs are included in the CMA or CA. Conversely, if the entire unit has insufficient commuting flows (both forward and reverse), then all of its CSDs are excluded from the CMA or CA.

Hole – A CSD (H in Figure 26) with insufficient commuting flows (either forward or reverse) is enclosed by a CSD (I in Figure 26) with sufficient commuting flows, and which is adjacent to the CMA or CA. When this situation arises, the CSDs within and including the enclosing CSD are grouped to create one unit, known as the minimum CSD set (H + I). The total commuting flows for the minimum CSD set are then considered for inclusion in the CMA or CA. If the minimum CSD set has sufficient commuting flows (either forward or
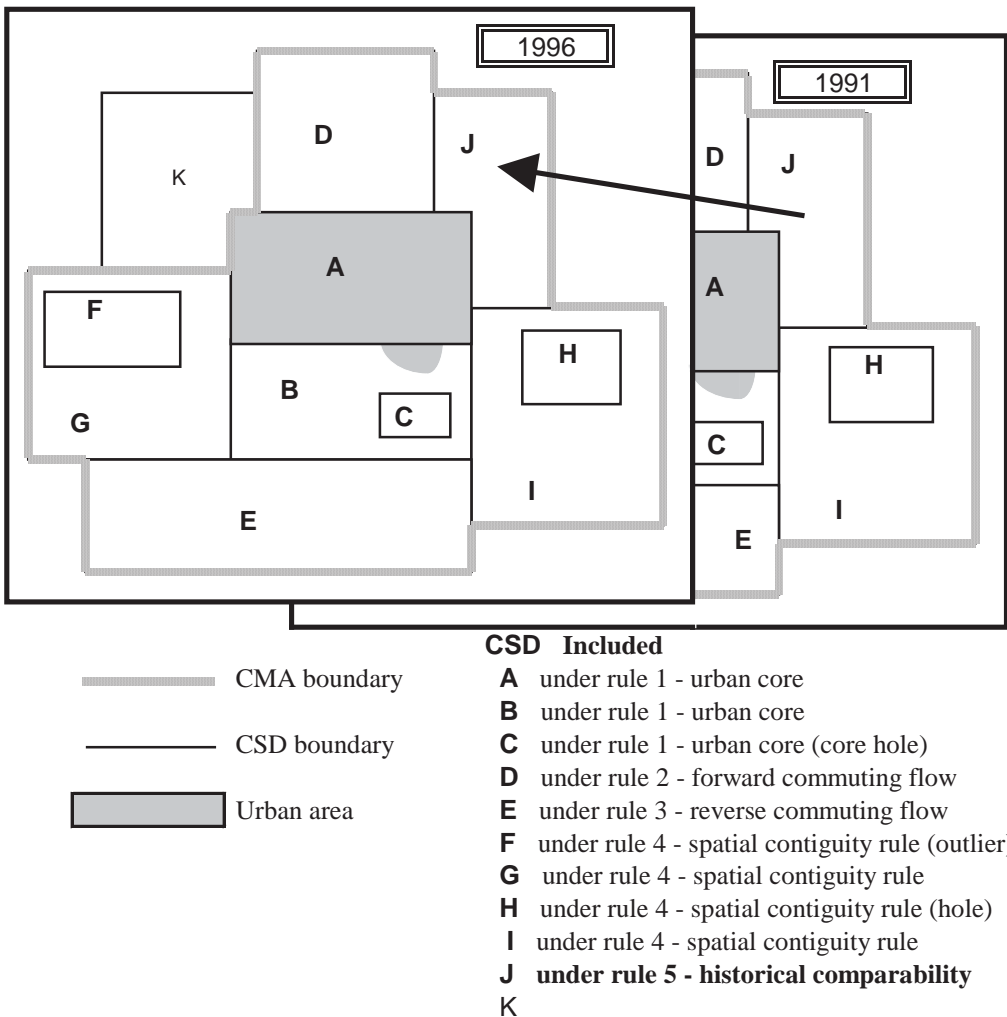
reverse), then all of its CSDs are included in the CMA or CA. Conversely, if the minimum CSD set has insufficient commuting flows (both forward and reverse), then all of its CSDs are excluded from the CMA or CA.

Figure 26. The Spatial Contiguity Rule

CSD	Included
A	under rule 1 - urban core
B	under rule 1 - urban core
C	under rule 1 - urban 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	
K	

——— CSD boundary

▬▬▬ CMA boundary

Urban area

Forward commuting flow

5. **The Historical Comparability Rule:** To maintain the historical comparability of a CMA or a CA that is subdivided into census tracts (according to the previous census), CSDs are retained even if their commuting flow percentages fall below the commuting flow thresholds (Rules 2 and 3). An exception to this rule is made in cases of CSDs that have undergone legislated reorganization or changes to their boundaries; then the newly created CSDs could be excluded. See Figure 27.

Figure 27. The Historical Comparability Rule

	CMA boundary
	CSD boundary
	Urban area

CSD   Included

A under rule 1 - urban core
B under rule 1 - urban core
C under rule 1 - urban 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

Finally, CSDs that do not fit any of the above rules due to their shape are included or excluded to maintain spatial contiguity. Therefore, the following CSDs are included:

(a) Compton Station, SD in Sherbrooke, CMA
     The CSD of Compton Station, SD is in two parts and had to be included for spatial contiguity.
(b) Madawaska, PAR in Edmundston, CA
     The CSD of Madawaska, PAR is in three parts and had to be included for spatial contiguity.
(c) Elton, RM in Brandon, CA
     The CSD of Brandon, C is in two parts separated by Elton, RM which was added for spatial contiguity.

Major administrative changes to municipal limits can cause the exclusion of a territory that was once included in a CMA or a CA with census tracts at the previous census. Therefore the following territory is excluded:

Part of the former St. John's Metropolitan Area, T, from the St. John's, CMA
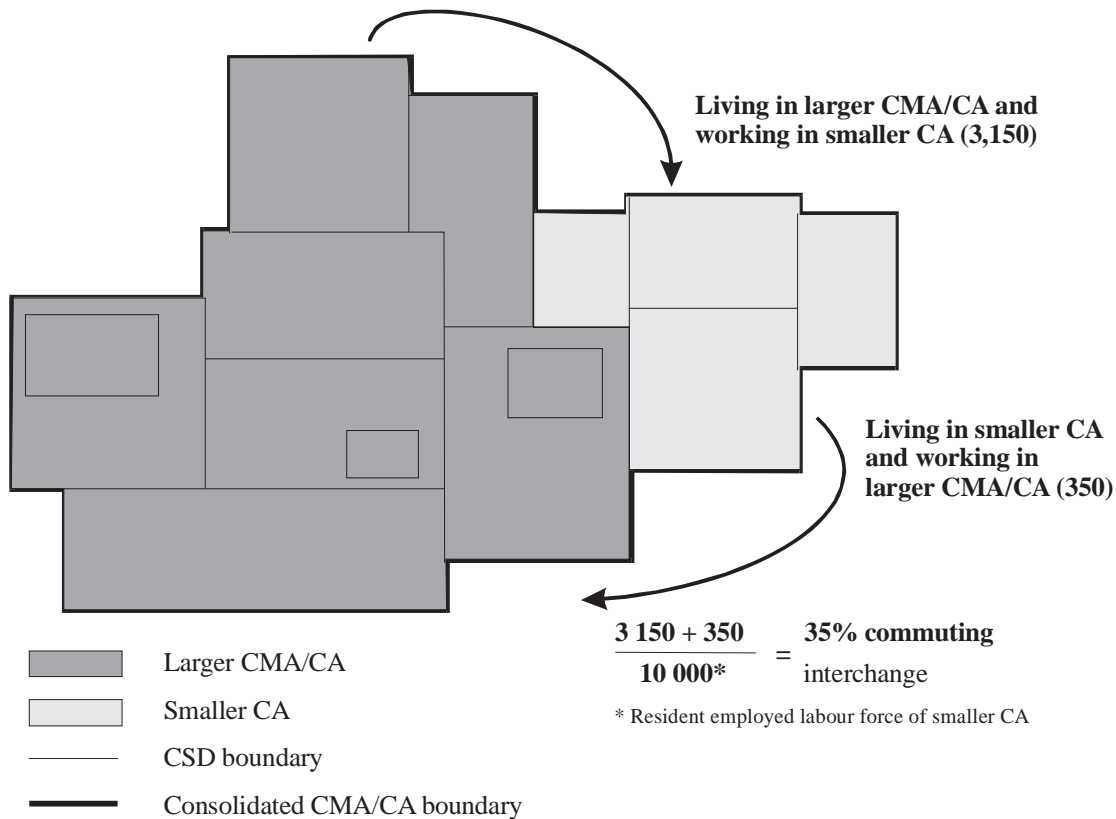
Delineation Rules for Consolidated CMAs and CAs

A CMA and adjacent CAs can be grouped into a consolidated CMA. Adjacent CAs can be grouped into a consolidated CA. Consolidation occurs if the total percentage commuting interchange between a CMA-CA or CA-CA is equal to at least 35% of the employed labour force living in the smaller CA, based on place of work data from the previous census. The total commuting interchange between the larger unit and each smaller candidate CA is calculated. The total percentage commuting interchange is the sum of the commuting flow in both directions between CMA-CA or CA-CA as a percentage of the labour force living (resident employed labour force) in the smaller CA.

$$\frac{\begin{array}{c}\text{TOTAL RESIDENT EMPLOYED LABOUR FORCE}\\\text{LIVING IN SMALLER CA AND WORKING IN}\\\text{LARGER CMA/CA}\end{array} + \begin{array}{c}\text{TOTAL RESIDENT EMPLOYED LABOUR FORCE}\\\text{LIVING IN LARGER CMA/CA AND WORKING IN}\\\text{SMALLER CA}\end{array}}{\text{RESIDENT EMPLOYED LABOUR FORCE OF SMALLER CA}} \quad X \quad 100\%$$

After consolidation, the original CMAs and CAs become components (known as primary CMA and primary CA) within the consolidated CMA or consolidated CA. The delineation of PCMAs/PCAs is designed to allow for the statistical comparison of all PCMAs/PCAs across Canada. Consolidated CMAs and consolidated CAs are often simply known as CMAs and CAs along with CMAs and CAs that have not been consolidated. These units are then used for statistical analysis as comparable levels of geography. See Figure 28.

Figure 28. Delineation Rules for Consolidated CMAs and CAs

**Living in larger CMA/CA and
working in smaller CA (3,150)**

**Living in smaller CA
and working in
larger CMA/CA (350)**

$$\frac{3\ 150 + 350}{10\ 000*} = \begin{array}{l} \textbf{35\% commuting} \\ \text{interchange} \end{array}$$

* Resident employed labour force of smaller CA

Larger CMA/CA

Smaller CA

CSD boundary

Consolidated CMA/CA boundary

Historical Comparability for Consolidated CMAs and CAs

Primary census agglomerations (PCAs) are not removed from consolidated CMAs or consolidated CAs (with census tracts at the previous census) even if their percentage commuting interchange falls below 35%. This is consistent with the historical comparability rule for components of CMAs and CAs (with census tracts at the previous census). This situation occurred this census for the first time since consolidation was implemented in 1986. Due to this, Fort Erie PCA will be retained in the St. Catharines – Niagara CMA.

A CMA can be consolidated only with CAs and cannot be consolidated with another CMA. For the 1991 and 1986 Censuses, this rule was stated more generally and it was permissible for CMAs to be consolidated with each other. However, this situation actually arose for the first time for the 1996 Census. Oshawa CMA is eligible to be consolidated with Toronto CMA.

1996 Changes to CMA/CA Delineation Rules

For the most part, the delineation rules for CMAs and CAs are the same in 1996 as they were in 1991. However, two changes were implemented to preserve data comparability over time:

CMAs can be consolidated with CAs but they cannot be consolidated with other CMAs.

A PCA cannot be retired from a consolidated CMA or CA (with census tracts at the previous census) even if its total commuting interchange percentage drops 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.

To provide an improved representation of economic and social integration, minimum sets of CSDs were substituted for the *census consolidated subdivisions* (CCSs) for evaluation in the spatial contiguity rule. See Rule 4 above.

Special Notes, Data Quality and Applications

Names and Coding Structure

CMA and CA **names** are usually based on the principal urban area or census subdivision within the CMA or CA. CMAs and CAs are assigned three-digit **codes** that uniquely identify each metropolitan area in Canada. The first digit is the same as the second digit of the province code in which the CMA or CA is located. If a CMA or CA spans a provincial boundary, then the province code assigned represents the province with the greater proportion of urban core population. Codes for CMAs or CAs in the Yukon Territory and the Northwest Territories begin with the same digit as those located in British Columbia.

CMA/CA Code	CMA/CA Name
001	St. John's CMA (Nfld.)
215	Truro CA (N.S.)
462	Montréal CMA (Que.)
995	Yellowknife CA (N.W.T.)

If CMAs and CAs become PCMAs and PCAs, their CMA and CA codes become PCMA and PCA codes that are then added to the consolidated CMA or CA codes showing the relationship between these areas. Below is the coding structure of the Montréal consolidated CMA and the Toronto consolidated CMA.

	CMA Code	PCMA/PCA Code
Montréal CMA	462	–
Montréal PCMA	462	462
Beloeil PCA	462	458
Châteauguay PCA	462	463
Saint-Jérôme PCA	462	475
Varennes PCA	462	461
Toronto CMA	535	–
Toronto PCMA	535	535
Georgina PCA	535	542
Milton PCA	535	548
Halton Hills PCA	535	549
Orangeville PCA	535	551
Bradford West Gwillimbury PCA	535	552

If data for provincial parts are required, it is recommended that the CMA/CA or PCMA/PCA code be preceded by the two-digit province code for those CMAs/CAs or PCMAs/PCAs that cross provincial boundaries. For example:

PR – CMA/CA – PCMA/PCA Code	CMA/CA or PCMA/PCA Name
24 505 505	Ottawa – Hull PCMA (Que.)
35 505 505	Ottawa – Hull PCMA (Ont.)

PR – CMA/CA Code	CMA/CA Name
47 840	Lloydminster CA (Sask.)
48 840	Lloydminster CA (Alta.)

Changes to CA Names for the 1996 Census

1996	**1991**
Abbotsford, CA	Matsqui, CA (The amalgamation of Matsqui, DM with Abbotsford, DM resulted in the creation of Abbotsford, C.)
Cape Breton, CA	Sydney, CA (The amalgamation of Sydney, C, Sydney Mines, T, Cape Breton Subd. A, SCM, Cape Breton Subd. B, SCM, Cape Breton Subd. C, SCM, Dominion, T, Glace Bay, T, Louisbourg, T, New Waterford, T and North Sydney, T resulted in the creation of Cape Breton, Regional Municipality (RGM). Therefore, 1991 consolidated CA and PCA of Sydney and PCA of Sydney Mines have been renamed for 1996 as the CA of Cape Breton.)
Wood Buffalo, CA	Fort McMurray, CA (A portion of Improvement District No. 18 (Part), ID was combined with Fort McMurray, C, and the CSD took on the new name of Wood Buffalo, SM.)
Sarnia, CA	Sarnia – Clearwater, CA (Sarnia – Clearwater, C was renamed Sarnia, C.)

Between 1991 and 1996, a number of component CSDs of the CMAs and CAs also underwent name changes, amalgamations, annexations and dissolutions.

Changes to the Number of CMAs and CAs for the 1996 Census

The number of CMAs and CAs by province and territory appears in Table 1.

No new CMAs were created.

Two new CAs in Ontario were created: Strathroy and Smiths Falls (reactivated for 1996).

Three new PCAs were created: Georgina, Ont. (Toronto consolidated CMA), Bradford West Gwillimbury, Ont. (Toronto consolidated CMA) and Varennes, Que. (Montréal consolidated CMA). Two 1991 CAs became PCAs: Saint-Jérôme, Que. (Montréal consolidated CMA) and Wallaceburg, Ont. (Chatham consolidated CA).

Three CAs were retired because the population of their urban cores dropped below 10,000 in 1991: Kirkland Lake, Ont., Selkirk, Man., and Weyburn, Sask.

Two PCAs were retired: the PCA of Newcastle, Ont., and the PCA of Central Okanagan, Subd. B., B.C. In the case of the Newcastle PCA, the extension of the Oshawa urban core into the CSD of Clarington (formerly Newcastle) precluded the use of this CSD for delineation purposes as the urban core for a separate agglomeration. As a consequence of the retirement of the Newcastle PCA, Oshawa CMA is no longer a consolidated CMA and Oshawa, C is no longer a primary CMA. In the case of the PCA of Central Okanagan, Subd. B, its urban core merged with the urban core of Kelowna, CA.

Data Quality

A CMA or CA represents an area that is economically and socially integrated. However, there are certain limitations to the extent to which this ideal can be met. Since the CSDs that are used as building blocks in CMA and CA delineation are administrative units, their boundaries are not always the most suitable with respect to CMA and CA delineation. Especially in western Canada, CSDs may include large amounts of sparsely settled territory where only the population closest to the urban core has a close relationship with that core.

The CSD limits used in CMA and CA delineation are those in effect on January 1, 1996 (the ***geographic reference date*** for the 1996 Census) and received by Statistics Canada before March 1, 1996.

In addition, CMA and CA delineation uses commuting data based on the place of work question asked in the previous decennial census. Thus 1996 CMAs and CAs are based on population and place of work data from the 1991 Census. The 1991 and 1986 CMAs and CAs were based on the data from the 1981 Census.

Applications

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

Remarks

1986   – Introduction of consolidated and primary CMA and CA concept.
        – The percentage forward commuting threshold 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 100 commuters for forward and reverse commuting for both CMAs and CAs.
        – Single CSD (component) CAs 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. The forward commuting threshold was 40% and the reverse commuting threshold was 25% for both CMAs and CAs.
    –   The minimum urbanized core population for CAs was raised from 2,000 to 10,000.
    –   CAs were eligible for census tracts if they had a CSD with a population of at least 50,000 at the previous census. Single CSD (component) CAs 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. The forward commuting threshold was 40% and the reverse commuting threshold was 25% for the CMAs.
    –   For CAs, see 1971.

1971   –   CMAs were defined as main labour market areas, but were delineated according to alternate criteria based on labour force composition, population growth rate and accessibility.
    –   CAs 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 per square kilometre).

1966   –   See 1961.

1961   –   CMAs were delineated around cities with a population of at least 50,000, provided that the population density and labour force composition criteria were met, and the total CMA population was at least 100,000.
    –   CAs were called major urban areas; see 1951.

1956   –   See 1951.

1951   –   The term "census metropolitan area" appeared for the first time. These were 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, was introduced. The term designated urban areas in which the largest city had a population of at least 25,000 and less than 50,000.

1941   –   Data were published for "Greater Cities": those cities which have well-defined satellite communities in close economic relationship to them.

Census Subdivision (CSD)

Census subdivision is the general term applying to municipalities (as determined by provincial legislation) or their equivalent (for example, Indian reserves, Indian settlements and unorganized territories).

In Newfoundland, Nova Scotia and British Columbia, the term also describes geographic areas that have been created by Statistics Canada in cooperation with the provinces as equivalents for municipalities for the dissemination of statistical data.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Each census subdivision is assigned a three-digit code that is not unique between provinces, and is based on the Standard Geographical Classification (SGC). In order to uniquely identify each CSD in Canada, the code must be preceded by the two-digit province code and the two-digit CD code. For example:

PR-CD-CSD Code	CSD Name and Type
12 06 006	Lunenburg, T (N.S.)
35 06 006	Gloucester, C (Ont.)

Refer to the definition of *Standard Geographical Classification (SGC)* for additional details.

Census subdivisions (CSDs) are classified into various types, according to official designations adopted by provincial or federal authorities. The **census subdivision types** accompany the census subdivision names in order to help distinguish CSDs from each other (for example, the **city** of Kingston and the **township** of Kingston).

Special Notes, Data Quality and Applications

The number of CSDs by province and territory appears in Table 1.

CSD types, their abbreviated forms and their distribution by *province* and *territory* are identified in Table 3.

There are two municipalities in Canada which straddle provincial limits: Flin Flon (Manitoba and Saskatchewan) and Lloydminster (Saskatchewan and Alberta). Each of their provincial parts is treated as a separate CSD.

The following six CSD types are new for 1996:

−   chartered community (CC) in Northwest Territories;
−   northern town (NT) in Saskatchewan;
−   regional municipality (RGM) in Nova Scotia;
−   rural community (RC) in New Brunswick;
−   specialized municipality (SM) in Alberta;
−   *terre inuite* (TI) in Quebec.

Also for 1996, all CSD types *sans désignation* (SD) in Quebec have been changed to the CSD type *municipalité* (M) to conform with provincial terminology.

An **Indian reserve** is a tract of federally owned land that has been set apart for the use and benefit of an Indian Band and which is governed by Indian and Northern Affairs Canada (INAC).

Only those Indian reserves which are populated (or potentially populated) have been recognized as census subdivisions (CSDs) by Statistics Canada, representing a subset of the approximately 2,300 Indian reserves across Canada. For 1996, there is a total of 996 Indian reserves classified at the CSD level. Statistics Canada works closely with Indian and Northern Affairs Canada to identify those reserves to be added as CSDs.

An **Indian settlement** is a place where a self-contained group of at least 10 Indian people reside more or less permanently. It is usually located on Crown lands under federal or provincial 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 INAC to identify Indian settlements to be recognized as census subdivisions and their inclusion must be with the agreement of the provincial or territorial authorities.

The 1996 Census was taken using the census subdivision (municipality) boundaries, names and status in effect on **January 1, 1996**, the *geographic reference date* for the 1996 Census. Information regarding any CSD changes which were effective on or before the January 1, 1996 reference date must have been received by Statistics Canada prior to March 1, 1996, in order to be processed in time for the census.

Summaries of the intercensal census subdivision changes to codes, names and status are available in the form of tables published in the *1996 Standard Geographical Classification (SGC) manual* (Volume I, Catalogue No. 12-571-XPB).

Of significance for the 1996 composition of CSDs is the decrease in number of municipalities since 1991, caused by an increasing number of dissolutions and amalgamations. This is the result of provincial efforts to cut costs by amalgamating municipalities to create larger municipalities or regional municipalities. Since 1991, 226 dissolutions have been recorded. The provinces particularly affected by this activity are: Quebec, with 101 dissolutions; Newfoundland with 34; Ontario, 27; Prince Edward Island, 19; New Brunswick, 13; Nova Scotia, 10 and Alberta with 10.

Overall, the total number of CSDs appears to have changed less dramatically – from 6,006 in 1991 to 5,984 in 1996, with a difference of only 22. There were 204 incorporations recorded since 1991, the majority being related to the creation of new CSDs resulting from amalgamations. The count of 204 incorporations also includes 79 Indian reserves which have been added for 1996 as a result of Statistics Canada's ongoing discussions with Indian and Northern Affairs Canada.

Additional SGC information can be found in the *1996 Standard Geographical Classification (SGC) manual* (Volumes I and II, Catalogue Nos. 12-571-XPB and 12-572-XPB) published by Statistics Canada.

Remarks

Not applicable

Census Tract (CT)

Census tracts (CTs) are small geographic units representing urban or rural neighbourhood-like communities created in *census metropolitan areas* and *census agglomerations* (with an *urban core* population of 50,000 or more at the previous census).

Geography

Table 3. Census Subdivision Types by Province and Territory, 1996

		Total	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Y.T.	N.W.T.
	Census subdivision type	5,984	381	113	110	283	1,599	947	298	970	467	713	35	68
BOR	Borough	1	–	–	–	–	–	1	–	–	–	–	–	–
C	City – Cité	145	3	2	2	7	2	51	5	13	15	43	1	1
CC	Chartered Community	2	–	–	–	–	–	–	–	–	–	–	–	2
CM	County (Municipality)	28	–	–	–	–	–	–	–	–	28	–	–	–
COM	Community	163	130	33	–	–	–	–	–	–	–	–	–	–
CT	Canton (Municipalité de)	88	–	–	–	–	88	–	–	–	–	–	–	–
CU	Cantons unis (Municipalité de)	8	–	–	–	–	8	–	–	–	–	–	–	–
DM	District Municipality	50	–	–	–	–	–	–	–	–	–	50	–	–
HAM	Hamlet	36	–	–	–	–	–	–	–	–	–	–	2	34
ID	Improvement District	10	–	–	–	–	–	2	–	–	8	–	–	–
IGD	Indian Government District	2	–	–	–	–	–	–	–	–	–	2	–	–
LGD	Local Government District	21	–	–	–	–	–	–	21	–	–	–	–	–
LOT	Township and Royalty	67	–	67	–	–	–	–	–	–	–	–	–	–
M	Municipalité	557	–	–	–	–	557	–	–	–	–	–	–	–
MD	Municipal District	49	–	–	12	–	–	–	–	–	37	–	–	–
NH	Northern Hamlet	12	–	–	–	–	–	–	–	12	–	–	–	–
NT	Northern Town	2	–	–	–	–	–	–	–	2	–	–	–	–
NV	Northern Village	13	–	–	–	–	–	–	–	13	–	–	–	–
P	Paroisse (Municipalité de)	344	–	–	–	–	344	–	–	–	–	–	–	–
PAR	Parish	152	–	–	–	152	–	–	–	–	–	–	–	–
R	Indian Reserve – Réserve indienne	996	1	4	24	19	30	140	77	120	88	487	4	2
RC	Rural Community	1	–	–	–	1	–	–	–	–	–	–	–	–
RGM	Regional Municipality	1	–	–	1	–	–	–	–	–	–	–	–	–
RM	Rural Municipality	404	–	–	–	–	–	–	106	298	–	–	–	–
RV	Resort Village	42	–	–	–	–	–	–	–	42	–	–	–	–
S-E	Indian Settlement – Établissement indien	33	–	–	–	–	5	10	4	1	4	3	6	–
SA	Special Area	3	–	–	–	–	–	–	–	–	3	–	–	–
SCM	Subdivision of County Municipality	38	–	–	38	–	–	–	–	–	–	–	–	–
SET	Settlement	31	–	–	–	–	–	–	–	–	–	–	13	18
SM	Specialized Municipality	2	–	–	–	–	–	–	–	–	2	–	–	–
SRD	Subdivision of Regional District	71	–	–	–	–	–	–	–	–	–	71	–	–
SUN	Subdivision of Unorganized	91	91	–	–	–	–	–	–	–	–	–	–	–
SV	Summer Village	54	–	–	–	–	–	–	–	–	54	–	–	–
T	Town	685	156	7	33	28	–	147	36	145	111	14	3	5
TI	Terre inuite	10	–	–	–	–	10	–	–	–	–	–	–	–
TP	Township	468	–	–	–	–	–	468	–	–	–	–	–	–
TR	Terres réservées	9	–	–	–	–	9	–	–	–	–	–	–	–
UNO	Unorganized – Non organisé	152	–	–	–	–	112	20	11	2	–	–	2	5
V	Ville	257	–	–	–	–	257	–	–	–	–	–	–	–
VC	Village cri	8	–	–	–	–	8	–	–	–	–	–	–	–
VK	Village naskapi	1	–	–	–	–	1	–	–	–	–	–	–	–
VL	Village	863	–	–	–	76	154	108	38	322	117	43	4	1
VN	Village nordique	14	–	–	–	–	14	–	–	–	–	–	–	–

CTs are initially delineated by a committee of local specialists (for example, planners, health and social workers, educators) 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 urban core population of the CMA or CA subsequently declines below 50,000.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961, 1956, 1951, 1941

Rules

The CT initial delineation rules are ranked in order of priority.

1. 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 boundaries if physical features are not in close proximity or do not exist.

2. The population of a CT should range between 2,500 and 8,000, with a preferred average of 4,000. CTs in the central business district, major commercial and industrial zones, or peripheral areas can have populations outside of this range.

3. The CT should be as homogeneous as possible in terms of socio-economic characteristics such as similar economic status and social living conditions.

4. The CT shape should be as compact as possible.

5. CT boundaries respect *census metropolitan area, census agglomeration, primary census metropolitan area and primary census agglomeration* as well as provincial boundaries. However, CT boundaries do **not** necessarily respect *census subdivision* boundaries.

A complete set of delineation rules and operational procedures for CTs are documented in the *1996 Canadian Census Tract Manual*, available upon request from GEO-Help, Geography Division, Statistics Canada.

The revision of CT boundaries is discouraged to maintain maximum data comparability between censuses. Boundary revisions rarely occur and only when essential. Road construction, railroad abandonment, urban renewal, suburban growth and municipal annexations may contribute to changes in CT boundaries.

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

Naming Convention for Census Tracts

Every CT is assigned a seven-character numeric "name" (including leading zeros, the decimal point and trailing zeros). In order to uniquely identify each CT within its corresponding metropolitan area, the CT name must be preceded by the three-digit CMA/CA code. For example:

CMA/CA Code – CT Name	CMA/CA Name
521 0007.00	Kingston CA (Ont.)
933 0007.00	Vancouver CMA (B.C.)

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

If a CT has been split into two or more parts due to a population increase, the number after the decimal point identifies the splits. For example, CT 0042.00 becomes CT 0042.01 and CT 0042.02. This allows users to reaggregate the splits to the original census tract.

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

Special Notes, Data Quality and Applications

Appendices M and N show the complete list of CMAs and CAs with census tracts. The number of census tracts by province and territory is shown in Table 1.

For the 1996 Census, 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 is 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. For the 1996 Census, the census tract program was extended to include four additional census agglomerations: Nanaimo, British Columbia; Barrie and Belleville, Ontario; Saint-Jean-sur-Richelieu, Quebec. This brings the total number of census-tracted centres to 43 (25 CMAs and 18 CAs). One new primary census agglomeration, Saint-Jérôme, Quebec, a component of the ***consolidated census metropolitan area*** of Montréal, has been subdivided into census tracts for 1996.

In preparation for the 1996 Census, only a limited number of census tracts were split due to fiscal restraint. As a result, there are cases of CTs with populations exceeding 8,000.

A conversion table showing the relationship between 1996 and 1991 census tracts for each census-tracted centre is available upon request from GEO-Help, Geography Division, Statistics Canada.

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

− urban 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.

CTs should be used with caution for non-statistical purposes.

Remarks

Census tracts were called "Social Areas" in 1941 and 1946.

Consolidated Census Agglomeration

See the definition of *Census Metropolitan Area (CMA), Census Agglomeration (CA), Consolidated Census Metropolitan Area, Consolidated Census Agglomeration, Primary Census Metropolitan Area (PCMA), Primary Census Agglomeration (PCA)*.

Consolidated Census Metropolitan Area

See the definition of *Census Metropolitan Area (CMA), Census Agglomeration (CA), Consolidated Census Metropolitan Area, Consolidated Census Agglomeration, Primary Census Metropolitan Area (PCMA), Primary Census Agglomeration (PCA)*.

Coordinate System

A coordinate system is a mathematical method for specifying location. The coordinates can be spherical (latitude and longitude) or plane rectangular (such as Universal Transverse Mercator).

Censuses: 1996, 1991, 1986, 1981 (Latitude/Longitude)
1996, 1991, 1986, 1981, 1976, 1971 (Universal Transverse Mercator)

Rules

Not applicable

Special Notes, Data Quality and Applications

Latitude and longitude is a system of measuring location on the surface of the earth which recognizes that the earth is spherical. Latitude is the angle north or south of the equator, ranging from zero (0) degrees at the equator to ninety (90) degrees at the poles. Longitude is the angle east or west of the prime meridian (which runs through Greenwich, England), ranging from zero (0) degrees at the prime meridian to 180 degrees. For the land mass of Canada, latitudes range from roughly 42 to 83 degrees north of the equator and longitudes range from roughly 52 to 141 degrees west of the prime meridian. Latitude and longitude are often referred to as geographic coordinates.

Latitude/longitude coordinates are convenient for transferring and disseminating spatial digital data, but maps of Canada should not be plotted using latitude and longitude coordinates. The *digital boundary files* (DBFs) and *street network files* (SNFs) are disseminated with latitude/longitude coordinates.

Universal Transverse Mercator (UTM) is an internationally standardized coordinate system which involves dividing the earth into 60 separate zones, each of which is six degrees of longitude wide. A grid system is superimposed on the zones, and separate Transverse Mercator projections are centred on each zone. Each zone has its own central meridian. Sixteen zones cover Canada, bearing the numbers 7 to 22 from west to east.

The UTM grid is indicated on most Canadian topographic maps and on many foreign maps. UTM is normally the input coordinate system for the street network files (SNFs), but SNFs are disseminated in latitude/longitude coordinates. The UTM coordinate system is not suitable for digital mapping when UTM zones must be crossed.

A **datum** is a set of parameters defining a coordinate system and a set of control points whose geometric relationships are known. Statistics Canada's geographic files are based on **NAD27** which refers to the North American Datum of 1927. NAD27 uses the Clarke spheroid of 1866 to represent the shape of the earth.

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 (for example, transforming latitude and longitude coordinates to UTM coordinates).

For further details, refer to the definitions of *Digital Boundary Files (DBFs), Digital Cartographic Files (DCFs), Map Projection* and *Street Network Files (SNFs).*

Remarks

Before 1991, the SNFs were disseminated in UTM coordinates only.

Designated Place (DPL)

Designated place refers to areas created by provinces to provide services and to structure fiscal arrangements for submunicipal areas which are often within unorganized areas.

The concept of a designated place generally applies to small communities for which there may be some level of legislation, but the communities fall below the criteria established for municipal status, that is, they are "submunicipal" or unincorporated areas.

Census: 1996

Rules

Designated places (DPLs) must have definable boundaries in order to be delineated by Statistics Canada.

Types of designated places by province are as follows:

DPL type	Province*
Local Service District	Newfoundland, New Brunswick
Class IV Area	Nova Scotia
Local Service Board	Ontario
Northern Community	Manitoba
Organized Hamlet	Saskatchewan
Unincorporated Place, Métis Settlement	Alberta
Island Trust	British Columbia

* Currently there are no designated places for Prince Edward Island, Quebec, Yukon Territory and Northwest Territories.

Special Notes, Data Quality and Applications

The number of designated places by province and territory appears in Table 1.

Each designated place is assigned a three-digit code that is not unique between provinces. In order to uniquely identify each DPL in Canada, the code must be preceded by the two-digit province code. If data for CSD parts are required, it is recommended that the DPL code be preceded by the seven-digit SGC code (PR-CD-CSD) for those DPLs that cross CSD boundaries. For example:

PR-CD-CSD - DPL Code	DPL Name
47 09 046 029	Crystal Lake (Sask.)
47 09 049 029	Crystal Lake (Sask.)
48 17 027 093	Grouard Mission (Alta.)
48 17 836 093	Grouard Mission (Alta.)

Provincial governments require census data in order to administer grants and/or services to designated places. Prior to 1996, Statistics Canada facilitated the retrieval of census data by delineating these areas at the ***enumeration area*** level only. Since 1981, the number of designated places recorded by Statistics Canada increased substantially, going from less than 50 northern communities in Manitoba to more than 800 areas across Canada by 1996. The increasing demand from provinces for population counts by designated places led to their recognition as a new dissemination geography for the 1996 Census.

Statistics Canada relies on provincial authorities to identify those areas to be defined as designated places, and to provide adequate boundary descriptions or maps. As a result, the areas recognized as designated places may not represent **all** places having the same status within a province.

Remarks

Not applicable

Digital Boundary Files (DBFs)

Digital boundary files (DBFs) are computer files that depict the official boundaries of standard census geographic areas. The boundaries sometimes extend beyond shorelines into water.

Censuses: 1996, 1991, 1986, 1981, 1976

Rules

Boundaries extend into bodies of water, rather than follow the shoreline, to ensure that official limits are followed and that all land and islands are included for the census enumeration. Thus, boundaries may cut through lakes, jut into oceans, or follow the approximate centres of rivers.

Enumeration area (EA) boundaries are aggregated to create boundaries for other census geographic areas. The aggregation process is based on the EA codes and their linkages to the higher order geographic codes. Thus all levels of digital boundaries are consistent with each other.

The boundaries of the geographic areas reflect those in effect on January 1, 1996 (the *geographic reference date* for the 1996 Census of Canada). EA boundaries are the only exception. Changes made to the EA boundaries on Census Day as a result of substantial increases in the number of dwellings are reflected in the EA digital boundary file.

Special Notes, Data Quality and Applications

Separate DBFs are available for the following geographic areas:

−   provinces and territories;
−   federal electoral districts (FEDs);
−   census divisions (CDs);
−   census consolidated subdivisions (CCSs);
−   census subdivisions (CSDs);
−   census tracts (CTs) by CMA and CA;
−   designated places (DPLs);
−   urban areas (UAs);
−   enumeration areas (EAs).

The DBFs contain the boundaries as polygons (in latitude/longitude coordinates) and the geographic code (and name, if applicable) for each area in the file.

Statistics Canada distributes the DBFs in a limited number of formats (Arc/Info® for Export and MapInfo®). Users should check their software documentation for the formats that can be used by their software. The digital boundary files are not distributed with software.

DBFs support a range of census activities within Statistics Canada including the creation of *digital cartographic files* (DCFs). The digital boundary files can also be used to create new geographic areas by aggregating the standard geographic areas.

The DBFs are not suitable for computing ***land area***, thematic mapping applications or other types of analyses requiring the realistic depiction of shorelines and water bodies. The positional accuracy of DBFs does not support cadastral, surveying or engineering applications. The DBFs can be used with the Census of Population, the Census of Agriculture or other data available from Statistics Canada. Data linkage to the correct geographic area is made possible through geographic codes.

Users should refer to the *DBF User Guide* for a detailed discussion of data quality issues affecting the digital boundaries.

The maps in Figure 29 below show the differences between DBFs and DCFs.

For further details, refer to the definitions of ***Coordinate System, Digital Cartographic Files (DCFs), Enumeration Area (EA), Geographic Reference Date, Land Area*** and ***Map Projection***, and to related *User Guides* (Digital Boundary Files).

Remarks

In 1991, a digital boundary file for EAs was created for the first time.

Prior to 1991, the DBFs were used for internal purposes only and were not disseminated.

Figure 29. DBF and DCF Maps of Canada

Digital Boundary File   Digital Cartographic File
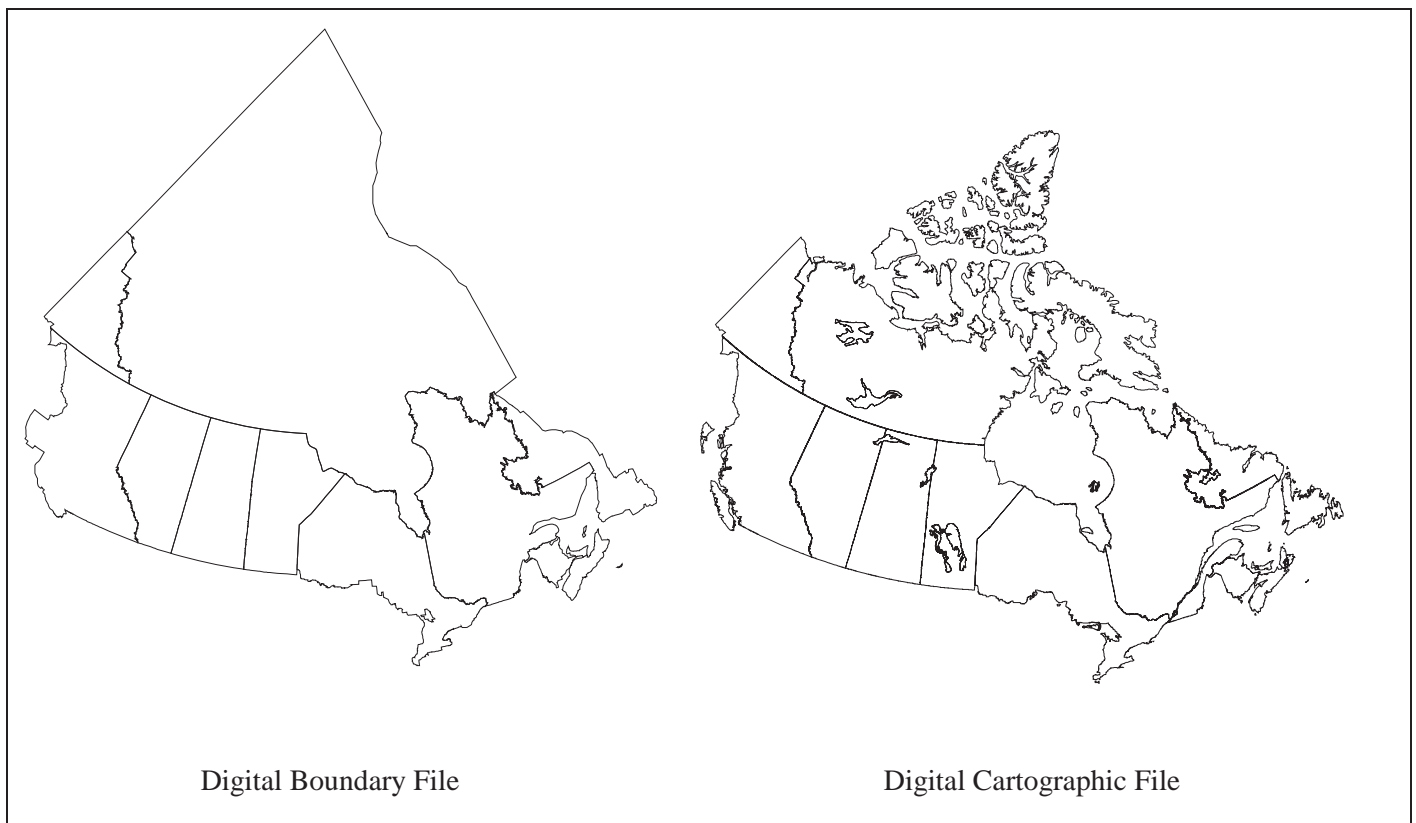
Digital Cartographic Files (DCFs)

Digital cartographic files (DCFs) are computer files that depict boundaries of standard census geographic areas which have been modified to follow shorelines and to include lakes.

Censuses: 1996, 1991, 1986, 1981, 1976

Rules

The DCFs were created by combining the official limits of the *enumeration areas* (EAs) in the *digital boundary file* (DBF) with hydrographic features. The EA boundaries extending into water bodies were "dissolved" and replaced by the shoreline. Then the revised EA limits were aggregated to create the other levels of census geography. See Figure 29 which shows the difference between digital cartographic files with shoreline and digital boundary files without shorelines.

The shoreline and other hydrographic features used in the DCFs were derived from two primary digital sources. Shorelines from the *street network files* (SNFs) were used for EAs in that coverage. Shorelines from the National Atlas Information Service (NAIS), Natural Resources Canada, were used for EAs outside SNF coverage. In some cases, the NAIS shoreline was replaced by the DBF "shoreline" since the latter contained more detail, primarily where EA limits exactly followed the shoreline of islands. As well, the original NAIS shoreline may have been moved to ensure that the EA *representative points* did not fall in any bodies of water.

The boundaries of the geographic areas reflect those in effect on January 1, 1996 (the *geographic reference date* for the 1996 Census of Canada). EA boundaries are the only exception. Changes made to the EA boundaries on Census Day as a result of substantial increases in the number of dwellings are reflected in the EA digital cartographic file.

Special Notes, Data Quality and Applications

In 1996, a digital cartographic file for enumeration areas was created for the first time.

The DCFs are available for the following geographic areas:

−   provinces and territories;
−   federal electoral districts (FEDs);
−   census divisions (CDs);
−   census consolidated subdivisions (CCSs);
−   census subdivisions (CSDs);
−   census tracts (CTs);
−   designated places (DPLs);
−   urban areas (UAs);
−   enumeration areas (EAs);
−   agricultural ecumene (national).

The DCFs contain the boundaries as polygons (in latitude/longitude coordinates) and the geographic code (and name, if applicable) for each area in the file.

Statistics Canada distributes the DCFs in a limited number of formats (MapInfo® and Arc/Info® for Export). Users should check their software documentation for the formats that can be used by their software. The digital cartographic files are not distributed with software.

The DCFs are intended for thematic mapping purposes only. Their positional accuracy does not support cadastral, surveying or engineering applications. The DCFs can be used with the Census of Population, the Census of Agriculture or other data available from Statistics Canada. Data linkage to the correct geographic area is made possible through geographic codes.

Users should refer to the *DCF User Guide* for a detailed discussion of data quality issues affecting the digital cartographic files.

For further details, refer to the definitions of *Digital Boundary Files (DBFs), Enumeration Area (EA), Geographic Reference Date, Map Projection, Representative Point* and *Street Network Files (SNFs)* and to related *User Guides* (Digital Cartographic Files).

Remarks

In the *1991 Census Dictionary*, the digital cartographic files were called CARTLIBs. As well, some of the shorelines were derived from different sources than those used for 1996.

Prior to 1996, DPLs, EAs and UAs were not available.

The national population ecumene was available from 1976 to 1991.

Forward sortation areas (FSAs) and the urban population ecumene were only available in 1986.

In 1976 and 1981, CCSs and CSDs were not available.

Economic Region (ER)

An economic region is a grouping of complete *census divisions* (with one exception in Ontario). Prince Edward Island and the two territories each consist of one economic region. Economic regions are used to analyse regional economic activity.

Censuses: 1996 (Economic regions)
            1991, 1986, 1981, 1976, 1971 (Subprovincial regions)

Rules

Within the province of Quebec, economic regions are designated by law (*les régions administratives*). In all other provinces, economic regions are created by agreement between Statistics Canada and the provinces concerned.

Special Notes, Data Quality and Applications

The number of economic regions by province and territory appears in Table 1.

Economic regions are assigned a two-digit code that is not unique between provinces. In order to uniquely identify each ER in Canada, the code must be preceded by the two-digit province code. For example:

PR-ER Code	ER Name
10 10	Avalon Peninsula (Nfld.)
35 10	Ottawa (Ont.)

Beginning with the 1996 Census, economic regions replace subprovincial regions (SPRs) in the geographic hierarchy.

Since the 1970s, the Labour Force Survey (LFS) economic regions were maintained separately from standard subprovincial regions. Boundary differences between these two sets of geographic areas were the result of the different update cycles (every five years for the subprovincial regions and every ten years for the LFS regions).

In order to align these sources for 1996, the eleven LFS economic regions of Ontario were adopted in place of the five subprovincial regions of the 1991 Census. These are made up of counties (complete census divisions), except for the County of Halton, of which part (the entire City of Burlington) is assigned to the ER of Hamilton – Niagara Peninsula and the remainder of the county falls within the ER of Toronto.

Economic region codes and names have been standardized for 1996. For more information, refer to the *1996 Standard Geographical Classification (SGC) manual* (Volumes I and II, Catalogue Nos. 12-571-XPB and 12-572-XPB).

Remarks

Not applicable

Ecumene

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

Censuses: 1991, 1986, 1981, 1976 (national population ecumene)
            1986 (urban population ecumene)
            1996, 1991, 1986, 1981, 1976 (national agricultural ecumene)

Rules

Population and agricultural ecumenes have been defined and delineated by Statistics Canada as follows:

Population Ecumene

The **national** population ecumene includes all *enumeration areas* (EAs) with a minimum *population density* of 0.4 persons per square kilometre (about 1 person per square mile). To ensure visibility for small scale thematic mapping, the detailed ecumene limits are manually generalized and small non-contiguous ecumene pockets are aggregated. There is at least one ecumene pocket in every *census division* (CD).

The **urban** population ecumene was created specifically for the *1986 Metropolitan Atlas Series*. The delineation of the ecumene is based on residential and some institutional land uses. Similar to the national ecumene, the detailed urban ecumene limits are manually generalized. There is at least one ecumene pocket in every *census tract* (CT).

Agricultural Ecumene

The **national** agricultural ecumene includes all enumeration areas (EAs) 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. There is at least one ecumene pocket in every census division (CD) for which data are published by the Census of Agriculture.

Special Notes, Data Quality and Applications

For 1996, the national population ecumene is available on a cost-recoverable basis only.

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

The national population and agricultural ecumenes are suitable for small scale mapping only, and the urban ecumene, at medium scales.

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. 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.

For further details, refer to the definitions of *Digital Cartographic Files (DCFs)* and *Population Density*. For more information on the derivation of the urban population and agricultural ecumenes, refer to the *1986 Metropolitan Atlas Series* (Catalogue Nos. 98-101 to 98-112) and *Canadian Agriculture at a Glance* (Catalogue No. 96-301) respectively.

Remarks

Prior to 1991, the criteria for delineating or updating the national population and agricultural ecumenes were slightly different.

Enumeration Area (EA)

An enumeration area (EA) is the geographic area canvassed by one census representative. It is the smallest standard geographic area for which census data are reported. All the territory of Canada is covered by EAs.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Enumeration area delineation rules are designed to meet census collection requirements and support the standard geographic areas recognized by the census.

Census Collection Requirements

For efficient and effective questionnaire drop-off and canvassing, EAs are as compact as possible. In addition, whenever possible, EA limits follow visible features (such as streets and rivers).

The number of dwellings in an EA generally varies between a maximum of 440 in large ***urban areas*** to a minimum of 125 in ***rural areas***.

In some instances, physically very small EAs are formed for large apartment buildings, large townhouse communities and large collective dwellings. The spatial depiction of these EAs on maps and digital files approximates their correct location and areal extent.

Large Apartment Buildings

A large apartment building may form one or more EAs by itself. In cases where more than one EA is found within an apartment building, the individual EAs are composed of several complete floors within the building.

Large Townhouse Communities

A townhouse development that has many dwellings within a very small area usually forms a single EA.

Large Institutional or Non-institutional Collective Dwellings

Due to the size of some collective dwellings, they are delineated as separate EAs. Table 4 on the following page identifies the types, type codes and sizes of collective dwellings that form such EAs.

For vessels and oil rigs, EAs are delineated near their home port. Such EAs, when possible, are delineated in the water of their home port.

In some situations, a small single EA may be delineated around several collective dwellings. This situation arises because each of the individual collective dwellings is not large enough to form an EA themselves, but the collective dwellings are located beside each other. An example of such a case is a row of hotels along a street. Several vessels may also be found within a small single EA.

Table 4. Size Criteria for Collective Dwellings to be Delineated as Single EAs

Type of Collective Dwelling	Type Code	Size Criterion for a Single EA
Hotels, motels and tourist homes	10	200 units
School residences and residences for training centres	12	150 beds
YM/YWCAs, missions and hostels	13	200 beds
Campgrounds and parks	14	200 visitors
Work camps	20	150 beds
Religious establishments	30	150 beds
Children's group homes (orphanages)	40	75 beds
Chronic care hospitals	50	75 beds
Nursing homes	51	75 beds
Residences for senior citizens	52	75 beds
Hospitals	60	75 beds
Psychiatric institutions	61	75 beds
Treatment centres and institutions for persons with a physical disability	62	75 beds
Hutterite colonies	70	All
Correctional and penal institutions	80	75 beds
Young offenders' facilities	81	75 beds
Jails	82	75 beds
Military camps (barracks, single quarters, base hospitals)	90	All
Merchant vessels over 1,000 tons, coast guard vessels and oil rigs at sea	21	–
Canadian Armed Forces vessels at sea or in port	91	–
Other	00	–

<u>Support for Standard Geographic Areas</u>

EA boundaries respect the boundaries of all standard geographic areas, such as ***census subdivisions, census tracts, federal electoral districts, urban areas*** and ***designated places***. Consequently, EA boundaries may not always follow visible features.

Special Notes, Data Quality and Applications

The number of EAs by province and territory appears in Table 1.

Each enumeration area is assigned a three-digit code that is unique within a federal electoral district (FED). In order to uniquely identify each EA in Canada, the code must be preceded by the two-digit province code and the three-digit FED code. For example:

PR-FED-EA Code	**Description**	
35 009 251	Province 35:	Ontario
	FED 009:	Cambridge
	EA:	251
46 009 251	Province 46:	Manitoba
	FED 009:	Winnipeg North
	EA:	251

EA limits may change from census to census. More than one-half of the 1996 EAs remained identical to the 1991 EA limits. The remaining EAs changed due to:

(a) dwelling growth;
(b) changes to the boundaries of standard geographic areas;
(c) changes in delineation criteria;
(d) the automated EA delineation process implemented within ***street network file*** (SNF) coverage.

The major change in the delineation criteria for the 1996 Census concerned the maximum number of dwellings in an EA. EAs in large urban areas were permitted to include up to 440 dwellings for the 1996 Census, an increase of 40 dwellings from the 1991 Census.

The automated EA delineation process (implemented for a portion of SNF coverage for the 1991 Census) was implemented for all SNF coverage for the 1996 Census. This automated process evaluated 1991 EAs by groups to determine if all had dwelling counts within a range of 350 to 440 dwellings. If **any** of the 1991 EAs of a group were not within this range, then the area covered by the group of 1991 EAs was redelineated, resulting in boundary changes to **all** of the EAs.

Remarks

For censuses between 1976 and 1991, the number of dwellings in each EA rarely exceeded 400.

For censuses between 1961 and 1971, the number of dwellings in each EA rarely exceeded 300.

Federal Electoral District (FED)

A federal electoral district refers to any place or territorial area entitled to elect a representative member to serve in the House of Commons (source: *Canada Elections Act*, 1990). There are 295 FEDs in Canada according to the 1987 Representation Order and there are 301 FEDs in Canada according to the 1996 Representation Order.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Not applicable

Special Notes, Data Quality and Applications

The number of FEDs by province and territory appears in Table 1.

Each federal electoral district is assigned a three-digit code that is not unique between provinces. In order to uniquely identify each FED in Canada, the code must be preceded by the two-digit province code. For example:

PR-FED Code	FED Name
46 009	Winnipeg North (Man.)
59 009	Kamloops (B.C.)

The Representation Order is prepared by the Chief Electoral Officer describing, naming and specifying the population of each electoral district established by the Electoral Boundaries Commission and sent to the Governor in Council. The legal descriptions of FED boundaries are published in the *Canada Gazette*.

FED boundaries are revised after each decennial census. The 1987 Representation Order was based on the 1981 Census population and resulted in 295 FEDs. The 1996 Representation Order (proclaimed on January 8, 1996) results in 301 FEDs, and is based on 1991 Census population data. Only 31 FEDs have the same limits as the 1987 Representation Order.

The names of FEDs may change through an Act of Parliament. The ***geographic reference date*** for FED name changes to be recognized by the 1996 Census was January 1, 1996.

The delineation of enumeration areas for 1996 was based on the 1987 Representation Order.

Remarks

The 1991 Census was based on the 295 federal electoral districts of the 1987 Representation Order.

Geocoding

Geocoding is the process of assigning geographic identifiers (codes) to map features and data records. The resulting geocodes permit data to be linked geographically. Statistics Canada's geocoding service links census households to small geographic units. This process makes it possible to produce census data tabulations for non-standard geographic areas such as provincial and municipal electoral districts, local planning areas and school districts.
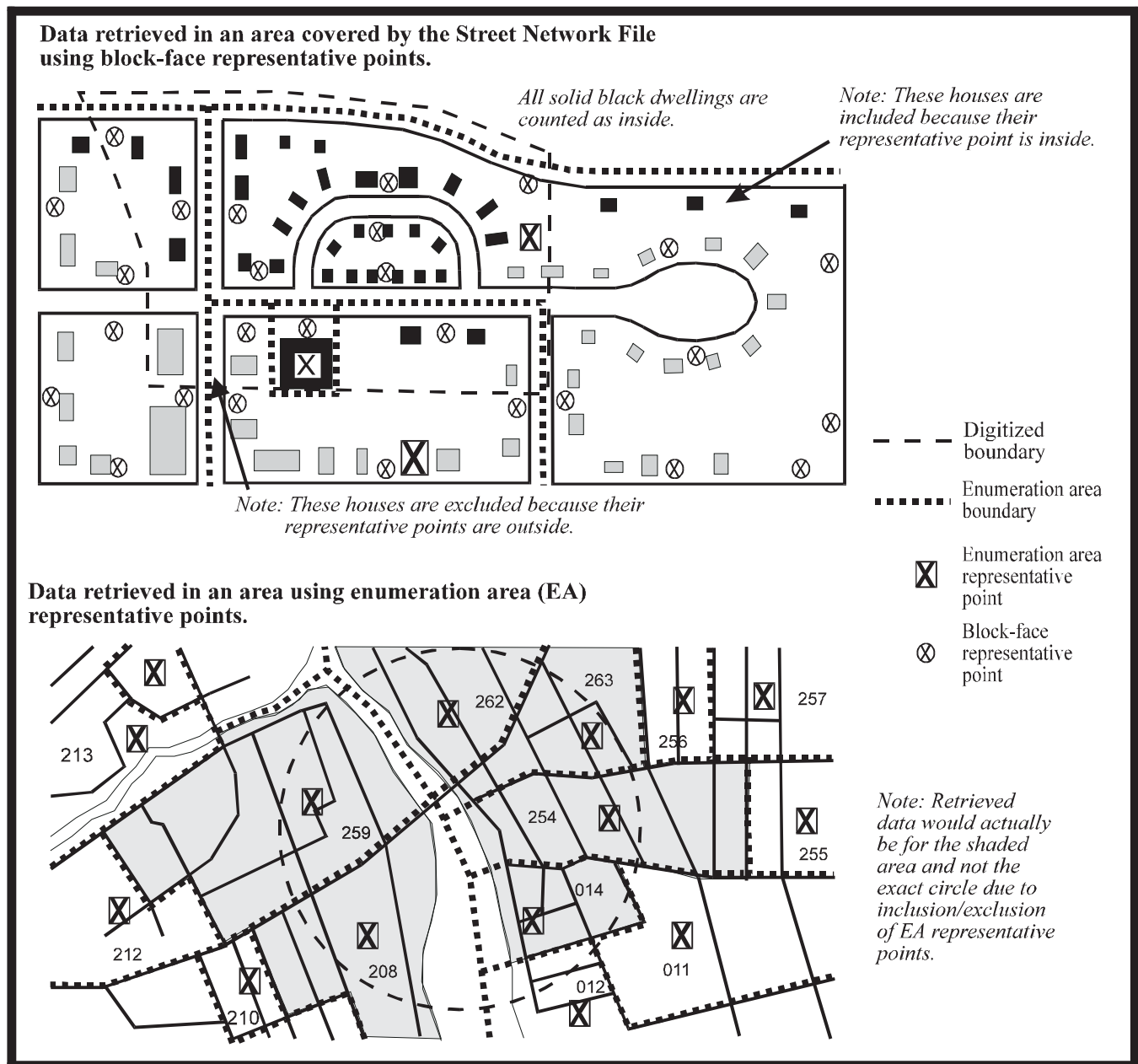
Censuses: 1996, 1991, 1986, 1981, 1976, 1971

Rules

In order to provide the geocoding service, all census households and ***postal codes*** are linked to ***representative points*** for ***block-faces*** or ***enumeration areas***. For areas within the ***Street Network File*** (SNF) coverage, households and postal codes are geocoded to block-face representative points when the street and address information are available in the SNFs; otherwise, households and postal codes are linked to enumeration area (EA) representative points. Outside SNF coverage, households and postal codes are assigned to EA representative points only.

When tabulating census data for user-defined areas, all households in the block-face or EA are included or excluded depending on whether the representative points fall inside or outside the custom area. Refer to Figure 30.

Figure 30. Data Retrieval Using Custom Boundaries

Data retrieved in an area covered by the Street Network File using block-face representative points.

All solid black dwellings are counted as inside.

Note: These houses are included because their representative point is inside.

Note: These houses are excluded because their representative points are outside.

Data retrieved in an area using enumeration area (EA) representative points.

Digitized boundary

Enumeration area boundary

Enumeration area representative point

Block-face representative point

Note: Retrieved data would actually be for the shaded area and not the exact circle due to inclusion/exclusion of EA representative points.

Special Notes, Data Quality and Applications

Block-faces in large urban centres and enumeration areas in smaller urban centres and rural areas provide the finest geographic detail available for almost all geographic applications.

For more accurate data retrieval in large urban centres, it is recommended that user-defined areas conform to SNF block-faces.

For further details, refer to the definitions of *Block-face, Enumeration Area (EA), Postal Code, Representative Point* and *Street Network Files (SNFs).*

Remarks

Not applicable

Geographic Code

A geographic code is a unique number used to identify and access standard geographic areas for the purposes of data storage, retrieval and display.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Geographic codes for some subprovincial geographic areas are used in combination with the province/territory code in order to uniquely identify the specific geographic area. For further details, refer to the definitions for *Census Agglomeration (CA), Census Agricultural Region (CAR), Census Consolidated Subdivision (CCS), Census Division (CD), Census Metropolitan Area (CMA), Census Subdivision (CSD), Census Tract (CT), Designated Place (DPL), Economic Region (ER), Enumeration Area (EA), Federal Electoral District (FED), Primary Census Agglomeration (PCA), Primary Census Metropolitan Area (PCMA), Province/Territory, Standard Geographical Classification (SGC)* and *Urban Area (UA)*.

Special Notes, Data Quality and Applications

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

For further details, refer to the *1996 Standard Geographical Classification (SGC) manual* (Volumes I and II, Catalogue Nos. 12-571-XPB and 12-572-XPB).

Remarks

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.

In 1976 and 1971, both the SGC and census codes were used to disseminate census data.

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

Geographic Reference Date

The geographic reference date is a date determined by Statistics Canada for the purpose of finalizing the geographic framework for which census data will be collected, tabulated and reported. For the 1996 Census, the geographic reference date is **January 1, 1996**.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Names, boundaries and other attributes of geographic areas change frequently (for example, municipal amalgamations, annexations, name and status changes). 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 were in effect on January 1, 1996, provided the information on the changes was received by Statistics Canada by March 1, 1996.

Special Notes, Data Quality and Applications

Since census data refer to conditions as they existed on Census Day (May 14, 1996), and the geographic framework is established according to the geographic areas in effect as of January 1, 1996, census data may be reported for geographic areas which 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, 1996, if the appropriate notification received from applicable federal and provincial authorities was never received or was not received by March 1, 1996.

Remarks

Prior to the 1981 Census, 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 timely release of census products.

Land Area

Land area refers to the area in square kilometres of the land-based portions of the census geographic areas.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

A digital planimeter is used to measure land area. Measurements are normally taken three times for each geographic unit and then averaged. The map scales generally vary between 1:50,000 and 1:250,000. In very densely populated or sparsely populated regions of Canada, larger or smaller scales may be used. Only discernible bodies of water found on the maps are excluded.

The digital planimeter gives accurate readings for only small zones. Consequently, large geographic units are subdivided into smaller ones and measured individually; the individual parts are then added together.

Geographic areas with boundary changes from one census to another are not measured in their entirety. Only the land area gained or lost due to a boundary revision or update is measured, and then added to or subtracted from the original figure.

Land area measurements for *census subdivisions* (CSDs) are aggregated to obtain the land areas for other 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 are done separately for *urban areas* (UAs), *designated places* (DPLs) and *census tracts* (CTs).

Land area measurements for the census geographic areas reflect the boundaries in effect on January 1, 1996 (the *geographic reference date* for the 1996 Census of Canada).

Special Notes, Data Quality and Applications

Land area data are available for all census geographic areas, except *enumeration areas* (EAs) and *federal electoral districts* (FEDs).

Land area data are subject to a number of errors, including measurement, coding and transcription, and processing – and overall, cumulative historic errors.

The land area measurements are **unofficial** and are provided for the sole purpose of calculating *population density*.

For further details, refer to the definitions of *Geographic Reference Date* and *Population Density*.

Remarks

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

In 1991, land area was called "net land area".

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

Map Projection

A map projection is both the process and result of transforming positions on the spherical surface of the earth onto a plane (flat) surface.

Censuses: 1996, 1991, 1986, 1981, 1976 (Lambert Conformal Conic)
            1996, 1991, 1986, 1981, 1976, 1971 (Transverse Mercator)

Rules

Not applicable

Special Notes, Data Quality and Applications

The earth's spherical surface cannot be "flattened" without distorting such geometrical properties 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.

Two map projections commonly used at Statistics Canada are **Lambert Conformal Conic** and **Transverse Mercator**.

The Lambert Conformal Conic projection is widely used for general maps of Canada at small scales. It provides good directional and shape relationships for mid-latitude regions having a mainly east-to-west extent. Standard parallels at 49 degrees North and 77 degrees North are most commonly used. Scale is correct along the standard parallels only. It is the projection used for the *digital boundary files* and *digital cartographic files*.

One of the most important applications of the Transverse Mercator projection is as the base for the Universal Transverse Mercator (UTM) grid and *coordinate system*. Scale is true along the central meridian only; scale, area and direction variations are very small along a narrow band around the central meridian.

For further details, refer to the definitions of *Coordinate System*, *Digital Boundary Files (DBFs)* and *Digital Cartographic Files (DCFs)*.

Remarks

Not applicable

Place Name

Place name is a general term for localities which have a "sense of place", such as cities, urban areas, neighbourhoods, post offices, communities and unincorporated places. Place names also include the names of uninhabited places, historical municipality names, alternative names and spellings of places.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Not applicable

Special Notes, Data Quality and Applications

The primary sources of Statistics Canada's information on places and the spelling of place names are:

(a) names reported by census representatives during the census;

(b) historical census subdivision records (name changes/dissolutions);

(c) names approved by the provincial and territorial names authorities [federally represented by the Canadian Permanent Committee on Geographic Names (CPCGN)].

A comprehensive list of place names is published by Statistics Canada in the *1996 Standard Geographical Classification (SGC) manual* (Volume I, Catalogue No. 12-571-XPB). All names are linked to the latest Standard Geographical Classification (SGC) code.

Remarks

Not applicable

Population Density

Population density refers to the number of persons per square kilometre.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

The calculation for population density is total population divided by *land area*.

Special Notes, Data Quality and Applications

Population density data are available for all standard census geographic areas except *enumeration areas* (EAs) and *federal electoral districts* (FEDs).

Population density data support a variety of applications, such as determining the ecumene and spatial analysis.

For further details, refer to the definitions of *Ecumene* and *Land Area*.

Remarks

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

Postal Code

The postal code is a six-character code defined and maintained by Canada Post Corporation for sorting and delivering mail.

Censuses: 1996, 1991 (1/5 sample), 1986 (1/5 sample)

Reported for: All households

Question No.:   The postal code is captured from the address information provided by the respondent on the front page of the census questionnaire.

Responses: Postal codes valid as of May 14, 1996

Remarks

The form of the postal code is "ANA NAN", where A is an alphabetic character and N is a numeric character. The first character of a postal code represents a ***province*** or ***territory***, or a major sector entirely within a province.

The first three characters of the postal code identify the **forward sortation area** (FSA). Individual FSAs are associated with a postal facility from which mail delivery originates. The average number of households served by an FSA is approximately 7,000 but the number can range from zero to more than 50,000 households. This wide range of households occurs because some FSAs contain only businesses (zero households) and some FSAs serve very large geographic areas. Rural FSAs are identified by the presence of a zero in the second position of the FSA code. As of May 1996, there were approximately 1,500 FSAs in Canada.

The last three characters of the postal code identify the **local delivery unit** (LDU). Each LDU is associated with one type of mail delivery (for example, letter carrier delivery, general delivery) and it represents one or more mail delivery points. The average number of households served by an LDU is approximately 15, but the number can range from zero to 7,000 households. This wide range of households occurs because some LDUs contain only businesses (zero households) and some LDUs serve large geographic areas. As of May 1996, there were more than 650,000 local delivery units.

The postal code reported by the respondent is accepted whether or not it is the same as the postal code assigned by Canada Post Corporation to that address. The postal code provided by the respondent is verified using the following criteria:

(a) The postal code is valid as of May 1996.

(b) The first character of the postal code designates a province/territory no more than one province/territory away from the respondent's place of permanent residence.

In cases where a postal code has not been provided or where the postal code is not a current valid code, an imputation process assigns a valid postal code.

Table 1 shows the number of postal codes and FSAs that were valid as of May 1996 by province and territory.

Postal codes should be used as geographic areas with caution. Standard geographic areas relate to the exact location of dwellings. Postal codes indicate the location of the mailbox where people wish to receive their mail.

In the majority of cases, the mailbox location indicated by a postal code is the same as that of the dwelling, but not always. For instance, the postal code provided by a respondent could indicate a post office location (as in the case of General Delivery) or even a business address. As a result, for any given FSA, some respondents whose dwelling is located in the FSA will provide postal codes outside of this FSA and vice versa.

Primary Census Agglomeration (PCA)

See the definition of *Census Metropolitan Area (CMA), Census Agglomeration (CA), Consolidated Census Metropolitan Area, Consolidated Census Agglomeration, Primary Census Metropolitan Area (PCMA), Primary Census Agglomeration (PCA).*

Primary Census Metropolitan Area (PCMA)

See the definition of *Census Metropolitan Area (CMA), Census Agglomeration (CA), Consolidated Census Metropolitan Area, Consolidated Census Agglomeration, Primary Census Metropolitan Area (PCMA), Primary Census Agglomeration (PCA).*

Province/Territory

Province and territory refer to the major political divisions of Canada. From a statistical point of view, they are a basic unit for which data are tabulated and cross-classified. The ten provinces combined with the two territories cover the complete country.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Not applicable

Special Notes, Data Quality and Applications

A new territory called **Nunavut** comes into effect in 1999. The Nunavut Territory has been carved out of an eastern portion of the Northwest Territories. To facilitate data retrieval from the 1996 Census for this new territory, the Nunavut boundary has been respected in the delineation of *enumeration areas*.

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 region of Canada in which the province/territory is located and the second digit denotes one of the ten provinces and two territories. See Table 5 on the following page.

Table 5. Abbreviations and Codes for Provinces and Territories

Province/Territory	Standard Abbreviations English/French	Internationally Approved Alpha Code (Source: Canada Post)	Standard Geographical Classification (SGC) code	Region Name
Newfoundland	Nfld./T.-N.	NF	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 Territory	Y.T./Yn	YT	60	Territories
Northwest Territories	N.W.T./T.N.-O.	NT	61	Territories

Remarks

Not applicable

Provincial Census Tract (PCT)

Provincial census tracts were discontinued for 1996. Refer to the *1991 Census Dictionary* (Catalogue No. 92-301 E) for the definition of this term used in the past.

Reference Map

Census reference maps show the location of the geographic areas for which census data are tabulated and disseminated. The main information depicted includes the boundaries, names and codes of census geographic areas, and major physical and cultural features such as roads, railroads, coastlines, rivers and lakes.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

The boundaries, names and codes for the census geographic areas shown on the maps reflect those in effect on January 1, 1996 (the *geographic reference date* for the 1996 Census of Canada) while census data are current as of Census Day (May 14, 1996). However, the boundaries and codes for *enumeration areas* reflect all changes made on Census Day as a result of an increase in the number of dwellings not identified prior to actual census enumeration.

Special Notes, Data Quality and Applications

Reference maps are available for the following geographic areas:

– *federal electoral districts* (FEDs) based on the 1987 Representation Order – coverage for Canada on one map sheet;
– *economic regions* (ERs) and *census divisions* (CDs) – coverage for Canada on one map sheet;
– *census divisions* (CDs) – coverage for Canada on one map sheet;
– *census divisions* (CDs) and *census subdivisions* (CSDs) – coverage by province (21 maps);
– *census metropolitan areas* (CMAs) and *census agglomerations* (CAs) – coverage for Canada on one map sheet;
– *census tracts* (CTs) – coverage by CMA/CA (55 maps covering 25 CMAs and 29 maps covering 18 CAs). The maps show CT boundaries and names, CSD boundaries and names, the *urban core, urban fringe and rural fringe*, as well as the *primary census metropolitan area* and *primary census agglomerations* where applicable;
– *enumeration areas* (EAs) – coverage for large urban centres by census tract (approximately 4,200 maps), small urban centres (approximately 875 maps), rural areas (approximately 2,400 maps) and, new for 1996, coverage for Canada by FED, based on the 1987 Representation Order.

The production of most maps is automated but some are manually produced. The base map information such as physical and cultural features comes from a variety of digital and analogue sources. Base map information on some reference maps and some parts of individual reference maps may vary in terms of accuracy and currency.

The reference maps can assist users to relate published census data to actual locations on the ground or to define their own custom areas relative to the standard geographic areas.

For further details, refer to the definitions for *Geographic Reference Date* and *Enumeration Area (EA)* and to the *1996 Standard Geographical Classification (SGC) manual*, Volume II, Reference Maps (Catalogue No. 12-572-XPB) and *User Guides* (EA Reference Maps, CD/CSD Reference Maps and CMA/CA/CT Reference Maps).

Remarks

Prior to 1991, most reference maps were generated using manual cartographic methods.

Representative Point

A representative point is a single point that represents a linear feature (*block-face*) or an areal feature (*enumeration area*). The point's location generally indicates either dwelling concentrations or centrality.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971

Rules

For the 1996 Census, representative points are defined for ***block-faces*** and ***enumeration areas*** (EAs). The points are located by the following methods.

<u>Block-face Representative Points</u>

1. Block-face representative points are computed within all ***street network files*** (SNFs) along addressable streets – midway between two intersections. Intersections may be created by streets, other visible features or enumeration area boundary segments that do not follow visible features.

2. The points are set back a perpendicular distance of either 22, 11, 5 or 1 metre(s) from the street centre line. This is done to ensure that all points have unique coordinates, are located in the correct block and are located closest to the street to which they are assigned.

<u>EA Representative Points</u>

1. For EAs within SNF coverage, representative points are computed by an automated method that locates the point roughly in the visual centre of the land-based portion of the EA. If an EA is in multiple parts, the representative point is located, when possible, in the portion with the largest number of occupied private dwellings (based on the 1991 block-face counts). However, in some cases, the representative point is located in the EA portion having the largest ***land area***.

2. For EAs outside SNF coverage, representative points are located by a manual procedure based on a visual inspection of building and/or street patterns on EA reference maps (some of which have topographic base map information). The representative point is located, when possible, within a predominant cluster of buildings and/or streets. If there is no predominant cluster, then the point is located between two or more clusters. In the absence of any cluster, the point is placed at the visual centre of the EA. If an EA is in multiple parts, the point is located in the portion with the largest number of dwellings. The representative point is normally located in the land-based portion of the EA.

Special Notes, Data Quality and Applications

All EA representative points are guaranteed to fall within the appropriate EA using an automated topology check.

Within SNF coverage, households and ***postal codes*** are assigned to block-face representative points when the street and address information is available in the SNFs; otherwise, they are linked to EA representative points. Outside SNF coverage, households and postal codes are assigned to EA representative points only.

Block-face and EA representative points support the ***geocoding*** of households and postal codes. Representative points can also be used for data retrieval, data analysis and mapping.

For further details, refer to the definitions of ***Block-face, Enumeration Area (EA), Geocoding, Land Area, Postal Code*** and ***Street Network Files (SNFs),*** and to related *User Guides* (Street Network Files, Block-face Data File, Digital Boundary Files and Postal Code Conversion File).

Remarks

In the *1991 Census Dictionary*, representative points were called "centroids".

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.

In 1991, some EA representative points within SNF coverage were located in water bodies. In addition, for EAs in multiple parts in SNF coverage, there was no rule for selecting the EA part to which the representative point was assigned.

Prior to 1991, EA boundary segments that did not follow visible features did not have block-faces created. As well, EA representative points within SNF coverage were computed by a different method. An algorithm was used to select one of the existing block-face representative points (based on their number and concentration) within an EA as the overall EA representative point.

Rural Area

Rural areas are sparsely populated lands lying outside *urban areas*.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

For further details, refer to the definition of *Urban Area (UA)*.

Special Notes, Data Quality and Applications

Within the rural areas of Canada, 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 previous census;

− *rural fringes* of *census metropolitan areas* and *census agglomerations* that may contain estate lots, agricultural, undeveloped and non-developable lands;

− remote and wilderness areas;

− agricultural lands.

Remarks

Not applicable

Standard Geographical Classification (SGC)

The Standard Geographical Classification (SGC) is Statistics Canada's official classification of geographic areas in Canada. The SGC provides unique numeric identification (codes) for three types of geographic areas. These are *provinces* and *territories*, *census divisions (CDs)* and *census subdivisions (CSDs).* The three geographic areas are hierarchically related.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Census subdivisions (CSDs) aggregate to census divisions (CDs) which, in turn, aggregate to province and territory. This hierarchical relationship is reflected in the seven-digit code.

Province/territory	Census division	Census subdivision
XX	XX	XXX
2 digits	2 digits	3 digits

Special Notes, Data Quality and Applications

For further details, refer to the definition of *Census Subdivision (CSD)* and the *1996 Standard Geographical Classification (SGC) manual* (Volume**s** I and II**,** Catalogue Nos. 12-571-XPB and 12-572-XPB), published by Statistics Canada.

Remarks

Since 1981, the Standard Geographical Classification has been the sole official geographic classification system used for dissemination purposes.

In 1976 and 1971, both SGC and census codes were used to disseminate census data.

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

Street Network Files (SNFs)

The street network files (SNFs) are digital files representing the street network for most large urban centres in Canada. The files also contain other visible physical and cultural features (such as hydrography, railroads, pipelines) and attribute information (for example, street and hydrographic names, and address ranges for streets with assigned addresses).

Censuses: 1996, 1991, 1986, 1981, 1976, 1971

Rules

Not applicable

Special Notes, Data Quality and Applications

SNFs were originally created for urban centres containing at least one *census subdivision* (municipality) with a population of 50,000 or more at the previous census. SNF areas are normally in the *census tract* program. A typical SNF is composed of information that was input at various times over a period of years.

A total of 344 municipalities are covered by SNFs – 328 in *census metropolitan areas* (CMAs) and *census agglomerations* (CAs) with census tracts, 5 in CAs without census tracts and 11 outside CMAs and CAs. This coverage represents 62% of Canada's population but less than 1% of the land area. Appendix M lists the CMAs and CAs wholly or partially covered by the SNFs.

Block-face representative points are generated along addressable streets. The points, however, are maintained in a different file (Block-face Data File).

Since the primary purpose of the SNFs is to support census activities, topological accuracy takes precedence over absolute positional accuracy. Thus the positional accuracy of the SNFs does not support cadastral, surveying or engineering applications.

The SNFs support a range of census applications, including *geocoding*, automated delineation of *enumeration areas* (EAs), computer-assisted production of collection and *reference maps*, and creation of the *digital boundary files* and *digital cartographic files*.

For further details, refer to the definitions of *Block-face, Digital Boundary Files (DBFs), Digital Cartographic Files (DCFs), Enumeration Area (EA), Geocoding, Reference Map* and *Representative Point*, and to related *User Guides* (Street Network Files and Block-face Data File).

Remarks

In the *1991 Census Dictionary*, the street network files were called "Area Master Files" (AMFs).

In 1991, EA boundary segments that did not follow visible features were added to the SNFs in order to accommodate the encoding of EA boundaries.

The SNFs were initially created for the 1971 Census for the sole purpose of providing small units (block-faces) to which households could be linked in order to retrieve data by user-defined areas. At that time the files contained a limited number of non-street features and, in some cases, feature representation was highly generalized. However, since then, the content has been enhanced to better support the production of collection maps. As part of this enhancement, additional non-street features were added and the overall shape of features was improved.

In 1971, SNF coverage represented only about 35% of Canada's population. This coverage rose to over 50% in 1981, to about 57% in 1986 and to nearly 62% in 1991.

Subprovincial Region (SPR)

For the 1996 Census, subprovincial regions have been replaced by economic regions. Refer to the definition of *Economic Region (ER).*

Unincorporated Place (UP)

Statistics Canada defines an unincorporated place (UP) as a cluster of five or more dwellings (i.e. a settlement), locally known by a specific name, but lacking legal limits or local government. Unincorporated places are found only in *rural areas*.

Censuses: 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Not applicable

Special Notes, Data Quality and Applications

Statistics Canada has historically reported population counts only for those unincorporated places identified by census representatives (CR) during the census field collection operation. In order to ensure as uniform a method as possible for the identification and reporting of UPs, CRs have been instructed to identify all clusters of five or more occupied dwellings locally known under a specific name but not having a local government. To assist them in their work, each CR was provided with a list of UPs that were in his or her *enumeration area* at the time of the last census. Unincorporated places were added to or deleted from this list by the CR according to what he or she found during the enumeration process.

Population counts and locational information have been published for UPs for many censuses; however, **for 1996, these data are available on a cost-recoverable basis only**.

For further details, refer to the definitions of *Rural Area, Place Name* and *Designated Place (DPL)*.

Remarks

Since 1981, UPs have not been reported in those areas defined by the census as urban. This was because *urban areas*, as defined by the census, were themselves reported as geographic areas in census publications. Furthermore, because urban areas are continuously built-up areas and UPs are clusters of dwellings, it was difficult to segregate one unincorporated place from another.

Urban Area (UA)

Urban areas have minimum population concentrations of 1,000 and a population density of at least 400 per square kilometre, based on the previous census population counts. All territory outside urban areas is considered rural. Taken together, urban and rural areas cover all of Canada.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

The delineation of urban areas is based on analysis of population concentration and *population density*. From largest to smallest, the geographic units used as building blocks of urban areas are:

(a) *census subdivisions* (CSDs), according to their **current census** limits;

(b) *designated places* (DPLs), according to their **current census** limits; and

(c) *enumeration areas* (EAs), according to their limits from the **previous census** and the **current census** if adjustments to the limits were made.

The urban area delineation rules are ranked in order of priority:

1. CSDs with a minimum population of 1,000 and a population density of at least 400 per square kilometre for the **previous census** are delineated entirely urban. If the CSD subsequently experiences boundary adjustments, then the urban area is reviewed.

2. DPLs with a minimum population of 1,000 and a population density of at least 400 per square kilometre for the **previous census** are delineated entirely urban. If the DPL subsequently experiences boundary adjustments, then the urban area is reviewed.

3. If an EA with a population density of at least 400 per square kilometre for the **previous census** is adjacent to an urban CSD or DPL, then it is added to the urban area. Any EA was reviewed if it was adjacent to an urban CSD or DPL that underwent a boundary change. If the EA had a population density of at least 400 per square kilometre according to its **current census** limits, then it is added to the urban area.

4. If an EA or group of contiguous EAs, each having a population density of at least 400 per square kilometre for the *previous census*, has a minimum population of 1,000 when summed together, then the EA or group of contiguous EAs are delineated urban. If adjustments to EA boundaries result in the EAs having a population density of at least 400 per square kilometre according to the **current census** limits, and result in the sum of these EAs being a minimum population of 1,000, then the EAs are delineated urban.

5. For 1996, commercial and industrial districts, railway yards, parks, airports and cemeteries designated urban in previous censuses were maintained without additions.

6. For confidentiality purposes, the difference in land area between the containing CSD (or DPL) and the land area of the contained urban population concentration is calculated. If this difference is less than 10 square kilometres, then the boundary for the urban area is adjusted to the CSD (or DPL) boundary.

7. The distance by road between urban population concentrations is measured. If the distance is less than two kilometres, then the urban population concentrations are combined to form a single urban area.

Naming Convention for Urban Areas

The name of the urban area is the name of the principal CSD when the CSD is a city, town or village, and at least 75% of the CSD population is within the urban area. The name of the urban area is an appropriate *place name* when less than 75% of the associated CSD population is within the urban area. If an urban area spans two or more principal CSDs, it may be given a compound name.

Urban area codes are unique four-digit codes that are assigned sequentially upon the UA creation. These codes remain constant between censuses. If an urban area is retired due to amalgamation or failure to meet the population or density thresholds, then its code is retired.

It is recommended that the UA code also be preceded by the two-digit province code in order to uniquely identify each UA within its corresponding province/territory. For example:

PR-UA Code	UA 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.)

Special Notes, Data Quality and Applications

The application of the above rules results in some urban areas having population densities less than 400 per square kilometre and boundaries that do not conform with the limits of the densely-populated areas. In general, the impact on the total population within urban areas is minor, but impact on specific urban land areas could be significant. This would affect any programs or research based on precise distance or land area measurements related to individual urban areas.

Population data used to delineate urban areas are obtained from the **previous** census. If significant population growth or decline has occurred since the previous census, the designation of an area as urban or rural may no longer reflect its current population or population density. As a result, it may no longer conform to the urban area delineation rules.

Once an UA attains a population of 10,000, it is eligible to become the *urban core* of a *census agglomeration*. Upon attaining a population of at least 100,000, it is eligible to become the **urban core** of a *census metropolitan area*. An urban area with a population of at least 50,000 that is also the **urban core** of a **census agglomeration** makes the CA eligible for subdivision into *census tracts*.

The number of urban areas by province and territory appears in Table 1.

For further details, refer to the definitions of *Urban Core, Urban Fringe and Rural Fringe* and *Urban Population Size Group*.

Remarks

In 1986, 1991 and 1996, five UAs straddled provincial boundaries: Campbellton (New Brunswick-Quebec), Hawkesbury (Ontario-Quebec), Ottawa - Hull (Ontario-Quebec), Flin Flon (Manitoba-Saskatchewan) and Lloydminster (Alberta-Saskatchewan).

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

For the 1971, 1966 and 1961 Censuses, urban areas included: (a) all incorporated cities, towns and villages with a population of 1,000 or over; (b) all *unincorporated places* with a population of 1,000 or over and a population density of at least 1,000 per square mile; and (c) the urbanized fringe of (a) and (b) known as the urbanized core of a census agglomeration or census metropolitan area, where a minimum population of 1,000 and a density of at least 1,000 persons per square mile existed.

Urban Core, Urban Fringe and Rural Fringe

The urban core, urban fringe and rural fringe distinguish between central and peripheral urban and rural areas within a *census metropolitan area* (CMA), *primary census metropolitan area* (PCMA), *census agglomeration* (CA) or *primary census agglomeration* (PCA).

Urban core is a large *urban area* around which a CMA or a CA is delineated. The urban core must have a population (based on the previous census) of at least 100,000 in the case of a CMA, or between 10,000 and 99,999 in the case of a CA.

Urban fringe is the urban area within a CMA or CA that is not contiguous to the urban core.
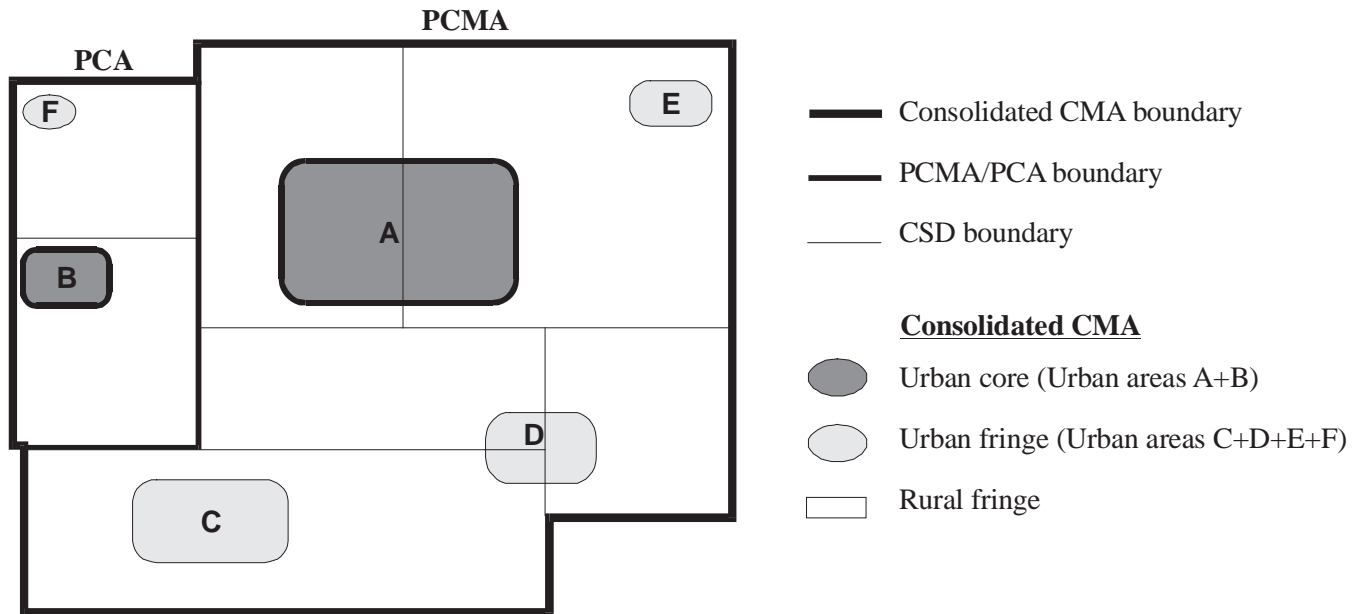
Rural fringe is all territory within a CMA or CA not classified as urban core or urban fringe.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

For further details, refer to the definition of *Urban Area (UA)*.

Figure 31. Consolidated CMA, Showing Urban Core, Urban Fringe and Rural Fringe

Special Notes, Data Quality and Applications

In previous censuses, this concept was known as **CMA/CA parts**. Beginning in 1996, the term **urban core** replaces **urbanized core**. The term urbanized core was in effect from 1971 to 1991.

While every CMA and CA has an urban core, it may or may not have urban or rural fringe parts. Similarly, in consolidated CMAs and CAs which are subdivided into PCMAs and/or PCAs, each of the constituent PCMAs or PCAs has an urban core, and may or may not have urban or rural fringe parts.

In consolidated CMAs and CAs, the total urban core, total urban fringe and total rural fringe parts are equal to the sums of the urban cores, urban fringes and rural fringes, respectively, of their constituent PCMAs and/or PCAs.

For further details, refer to the definition of *Urban Area (UA).*

Remarks

Beginning in 1986, PCMAs and PCAs were delineated within some CMAs and CAs. As a result of this change, some *urban areas* which were urban fringes of 1981 CMAs or CAs became urban cores of 1986 PCMAs or PCAs.

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

In 1966 and 1961, the urban part of the CMA 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".

Urban Population Size Group

Urban population size group refers to the classification used in tabulations where ***urban areas*** are distributed according to the following size groups, based on the current census population:

Under 1,000
1,000	–	2,499
2,500	–	4,999
5,000	–	9,999
10,000	–	24,999
25,000	–	49,999
50,000	–	99,999
100,000	–	249,999
250,000	–	499,999
500,000	–	999,999

1,000,000 and over

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

Not applicable

Special Notes, Data Quality and Applications

While census publications tabulate data according to the above standard population size groups, the census database has the capability of tabulating data according to any user-defined population size group.

For further details, refer to the definition of ***Urban Area (UA).***

Remarks

Prior to the 1986 Census, the following population size groups were used:

1,000	–	2,499
2,500	–	4,999
5,000	–	9,999
10,000	–	29,999
30,000	–	99,999
100,000	–	499,999

500,000 and over

Prior to the 1976 Census, the term "Municipal Size Group" was used to describe this concept.

Usual Place of Residence

In general, the usual place of residence is the dwelling in Canada where a person lives most of the time. It is the basis upon which individuals are assigned geographic location for collection, processing and dissemination.

Censuses: 1996, 1991, 1986, 1981, 1976, 1971, 1966, 1961

Rules

In most cases, enumerating Canada's population at their usual place of residence is straightforward and simply involves listing all usual residents of the dwelling on Census Day by following the step-by-step instructions for completing the census questionnaire. However, there are a number of situations where the process is not intuitive and special rules have been created in order to define an individual's usual place of residence.

1. Persons with more than one residence

    This category includes all persons who have more than one dwelling, in Canada, that could be considered by them as their usual place of residence. In general, the usual place of residence is the place where a person spends the major part of the year. If the time spent at each residence is equal or the person is not sure which one to choose, the residence where he or she stayed overnight on Census Day (between May 13 and 14, 1996) should be considered as his or her usual place of residence.

    However, there are two exceptions to this general rule:

    (a) Sons or daughters who live somewhere else while attending school, but return to live with their parents part of the year, should consider the residence they share with their parents as their usual place of residence, even if they spend most of the year elsewhere.

    (b) Husbands, wives or common-law partners who live away from their families while working, but return to their families regularly (for example, on weekends), should consider the residence they share with their spouse or partner as their usual place of residence, even if they spend most of the year elsewhere.

2. Persons in institutions (such as a hospital, a home for the aged, a prison or a correctional centre)

Persons with no other usual place of residence elsewhere in Canada, or persons who have been in one or more institutions for a continuous period of six months or longer, are to be considered as usual residents of the institution.

3. Residents with no usual place of residence

Residents who do not have a usual place of residence should be enumerated in the dwelling where they stayed overnight on Census Day.

4. Persons residing outside Canada

Persons residing outside Canada, who do not have a permanent place of residence within Canada occupied by one or
    more members of their family, were asked to provide the address they use for election purposes or their last
    permanent address within Canada. This information is then used to determine geographic location.

Special Notes, Data Quality and Applications

The concept of usual place of residence is necessary to ensure that residents of Canada are counted once and only
once. This concept of usual place of residence means the Canadian census is a "de jure" census as opposed to a "de
facto" census. Thus, individuals are counted at their usual place of residence, regardless of where they are found on
Census Day. The "de jure" method has been used since 1871.

Remarks

Not applicable

Workplace Location

Refers to the geographic location of the workplace of non-institutional residents 15 years of age and over who have
worked since January 1, 1995. The variable usually relates to the individual's job held in the week prior to
enumeration. However, if the person had not worked during that week but had worked at some time since
January 1, 1995, the information relates to the job held longest during that period. Workplace locations are available
for most standard geographic areas.

Censuses: 1996 (1/5 sample), 1991 (1/5 sample), 1981 (1/5 sample), 1971 (1/3 sample)

Reported for: Not applicable

Question No.:   Not applicable

Responses: Not applicable

Remarks: Census data are usually tabulated by residence. By using the ***Journey to Work: Workplace
                  Location*** variable, census data may be tabulated based on workplace location only or by residence
                  and workplace location.

                  For detailed information, see ***Journey to Work: Workplace Location***.