



Canada Census 2016 Information Sheet

[Caveat](#) - this information / data has been assembled by Data for Good volunteers, from Statistics Canada(StatCan) website plus other sources. We hope you will find this a useful reference!

[Change Log](#) - see Appendix B, for change log, we will keep this document evergreen

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Useful Links

StatCan Census 2016 Home page:

<https://www12.statcan.gc.ca/census-recensement/index-eng.cfm?MM=1>

Census Questions

- [Short form](#)
- [Long form](#)

May 2020 Presentation by Sarah Ahmed, to Data for Good Calgary (Video):

<https://youtu.be/D8FNrW1uIK0>

Statistics Canada slides from Sarah Ahmed with links:

<https://bit.ly/3drFByc>

Reference Materials (including Reference Guides, and Release and Concepts Overviews)

<https://www12.statcan.gc.ca/census-recensement/2016/ref/index-eng.cfm>

Dictionary A-Z

<https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/az1-eng.cfm>

Reference Tables

<https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/tab-eng.cfm>

About the data, census profile, 2016 census

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/about-apropos/about-apropos.cfm?Lang=E>

Data Products

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/index-eng.cfm>

- Census Profile Data Search (2247-item readout of the data)
<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>
- Data tables (various cross-tabulations prepared by StatCan)
<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/index-eng.cfm>
 - Frequently Asked Questions (FAQ) on Data Tables
<https://www.statcan.gc.ca/eng/about/website-faq>

- Data sets already assembled by StatCan (can filter on geography, topic, variable, and text e.g. low-income)
<https://www12.statcan.gc.ca/datasets/Index-eng.cfm?Temporal=2016&Theme=-1&VNA MEE=&GA=-1&S=0>

Census Profile (2247)

The Census Profile provides a statistical overview of various geographic areas based on a number of detailed variables (2247 items, in all).

It provides statistical information about the population, age and sex, type of dwelling, families, households and marital status, language, income, immigration and ethnocultural diversity, housing, Aboriginal peoples, education, labour, journey to work, language of work and mobility and migration, as measured in the census program.

Note: this data is an aggregation of short-form + long-form census data, designed to give simple access to a wide swath of data. More data details can be found in data tables and other data products provided by StatCan.

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/index.cfm?Lang=E>

Allows you to get census profile by topic / geography / count vs. rate

https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/details/download-telecharger/comp/page_dl-tc.cfm?Lang=E

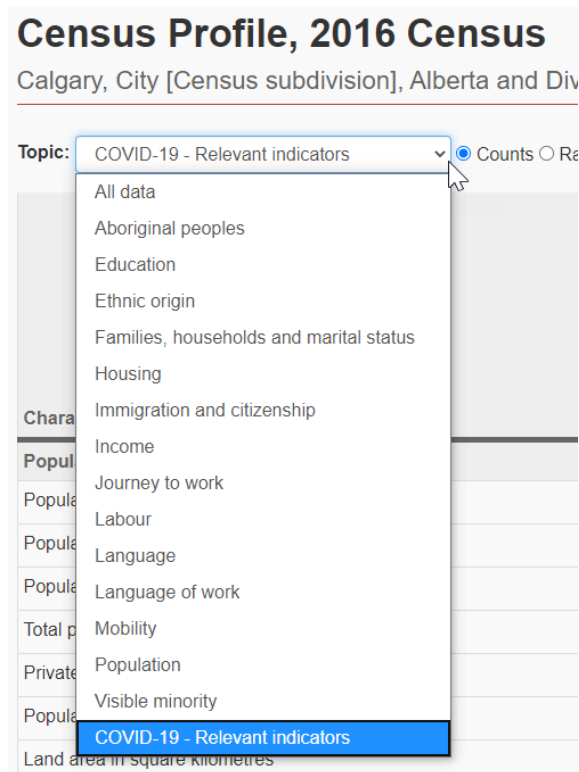
Allows a simple download of the Census Profile, by geographic regions at various levels of granularity (from all-up Canada, to Census Subdivision, to Dissemination Areas!)

Notes:

- Member IDs (surrogate keys) are consistent across all 2247-item census profiles, but (obviously) not consistent with Member IDs of other data tables
- Some data is additive, some is not. You must study the 2247-item census columns to understand how to use the data!

Census Profile Topic Areas

Note: Additional links have been created, for Visible minority and COVID-19: Relevant Indicators at bottom of list



Census Profile, 2016 Census
Calgary, City [Census subdivision], Alberta and Div

Topic: COVID-19 - Relevant indicators ☒ Counts ☐ Rates

- All data
- Aboriginal peoples
- Education
- Ethnic origin
- Families, households and marital status
- Housing
- Immigration and citizenship
- Income
- Journey to work
- Labour
- Language
- Language of work
- Mobility
- Population
- Visible minority
- COVID-19 - Relevant indicators**

Land area in square kilometres

Downloading, visualizing

Data can be viewed as HTML, downloaded in several formats, or viewed graphically:
An example of download formats is provided [here](#).

CSV/TAB

- Stores tabular data in plain text form. Fields for each record of data are separated by a comma (CSV) or a tab (TAB).

IVT (Beyond 20/20)

- Beyond 20/20 is a statistical software program for Windows operating systems that allows you to view, analyze and customize multidimensional data products. The program can be downloaded, free of charge, at the link below.
- [Beyond 20/20 Browser for Windows operating systems \(18.9 mb\)](#)
To install this product, run 'ProBrowser.exe'.
- In IVT, the Census Profile Member IDs are called Item Code IDs

XML (SDMX-ML)

- SDMX-ML is a statistical and metadata exchange standard for the electronic exchange of statistical information. In order to make use of the data and metadata within the files, the files have to be processed and/or transformed. Examples include loading them into a database; converting them into application-specific processing format or processing them into a specific presentation format.

Web Data Service (for developers)

- <https://www12.statcan.gc.ca/wds-sdw/cpr2016-eng.cfm>

An example in R code using the web service to pull from a list of Calgary Census Tracts:

```
install.packages("jsonlite")
install.packages("curl")
library(curl)
library(jsonlite)
library(readr)

#CT_Calgary <- read_csv("~/Data For Good/2018/Census/CT_Calgary.csv")
CT_Calgary <- read_csv("~/Data For Good/2018/Census/CT_Calgary - Sample.csv")
View(CT_Calgary)

tmp <- tempfile()
d <- CT_Calgary$Value.1

for (i in CT_Calgary$Value.1 ) {
  d <- paste("https://www12.statcan.gc.ca/rest/census-recensement/CPR2016.json?lang=E&dguid=",i,"&topic=1&notes=0",
  sep="")
  print(d)
  f <- paste(i, "Aboriginal.txt", sep="_")
  curl_download(d, tmp)
  file.copy(tmp, f)
}
(rough example from Paula Jennings using RStudio)
```



Data Visualization

<https://www12.statcan.gc.ca/census-recensement/census-vis-recensement-eng.cfm>

Includes the [Census Program Data Viewer](#) (CPDV), a new web-based data visualization tool that will make statistical information more interpretable by presenting key indicators in a statistical dashboard.

Census Mapper

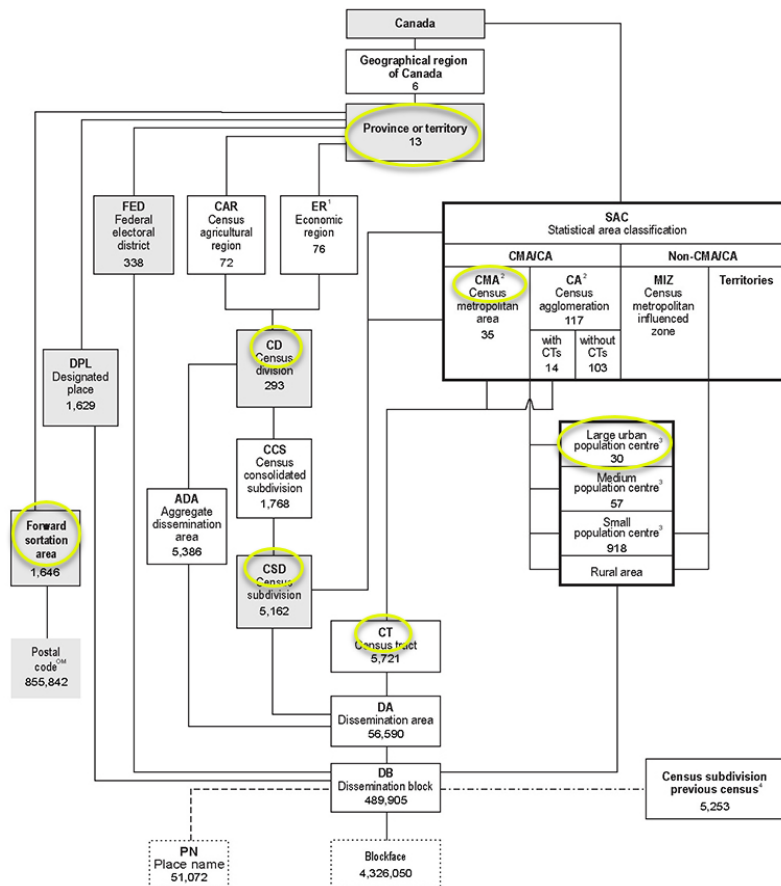
<https://censusmapper.ca/>

CensusMapper is a 3rd party that offers several services based around census Canada data. Among other options, you can view maps produced by CensusMapper and by users thereof.

Geographic Levels

Definitions of the various census geographies are provided here:

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/about-apropos/about-apropos.cfm?Lang=E> (and select 'Geographic Levels')



Geographic granularity comes in a number of forms, as listed below.

- Note: you can see a list of Calgary Geographic Levels (including maps) [online](#):
- Some maps have been copied into this document, see “[Appendix A - Maps of Calgary...](#)”
- For more info about Dissemination Geography Unique Identifier: Definition and Structure: https://www150.statcan.gc.ca/n1/en/pub/92f0138m/92f0138m2019001-eng.pdf?st=d2CR_jqp
- **Canada** - in some Census files, it has a geographic code of ‘1’, in others, ‘11124’ (the ISO standard). Data for Good, in consultation with StatCan, has standardized on ‘11124’
- **Census Division** - Census divisions (CD) have been established in provincial law to facilitate regional planning, as well as the provision of services that can be more effectively delivered on a scale larger than a municipality
 - Alberta is split into 19 of these, Calgary is in Division #6, CDR
 - [Division No. 6, CDR](#)

- **Census Subdivision (CSD)**
 - Alberta has 425 of these
 - Calgary is CSD 4806016
 - [Calgary, CY](#) (City)
- **Census Metropolitan Area (CMA)**, Census Agglomeration (CA) - formed by one or more adjacent municipalities centred on a population centre (known as the core)
 - Calgary is in CMA 825 (along with Cochrane, Airdrie, Chestermere)
 - [Calgary](#)
- **Population Centre (POPCTR)** - has a population of at least 1,000 and a population density of 400 persons or more per square kilometre, based on population counts from the current Census of Population. All areas outside population centres are classified as rural areas.
 - Calgary is POPCTR 5100115
 - [Calgary](#)
- **Federal Electoral District (FED)** - an area represented by a member of the House of Commons. The federal electoral district boundaries used for the 2016 Census are based on the 2013 Representation Order.
 - [Calgary Centre](#), Alberta [[map](#)]
 - [Calgary Confederation](#), Alberta [[map](#)]
 - [Calgary Forest Lawn](#), Alberta [[map](#)]
 - [Calgary Heritage](#), Alberta [[map](#)]
 - [Calgary Midnapore](#), Alberta [[map](#)]
 - [Calgary Nose Hill](#), Alberta [[map](#)]
 - [Calgary Rocky Ridge](#), Alberta [[map](#)]
 - [Calgary Shepard](#), Alberta [[map](#)]
 - [Calgary Signal Hill](#), Alberta [[map](#)]
 - [Calgary Skyview](#), Alberta [[map](#)]
- **Forward Sortation Area (FSA)** - the first three characters of the postal code, designating a postal delivery area within Canada.
- **Census Tracts (CTs)** - small, relatively stable geographic areas that usually have a population of less than 10,000 persons, based on data from the previous Census of Population Program. They are located in census metropolitan areas and in census agglomerations that had a core population of 50,000 or more in the previous census. See Calgary's Census Tracts [here](#).

- **Dissemination Area (DA)** - a small, relatively stable geographic unit composed of one or more adjacent dissemination blocks with an average population of 400 to 700 persons based on data from the previous Census of Population Program. It is the smallest standard geographic area for which all census data are disseminated. DAs cover all the territory of Canada.
- **Calgary Economic Region**
 - [Calgary](#), Alberta [[map](#)]
- **Calgary Health Region**
 - [Calgary Zone](#), Alberta [[map](#)]

Focus on Homelessness

This is just a subset of useful links and references. Let us know if you find additional tables or reports that are relevant to Homelessness.

Data Tables

StatCan has also pre-assembled various cross-references of census data.

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/index-eng.cfm>

These have been organized by topic, as follows:

- Aboriginal peoples
- Age and sex
- Education
- Families, households and marital status
- **Housing**
- Immigration and ethnocultural diversity
- **Income** (*includes low-income measures*)
- Journey to work
- Labour
- Language, Language of work
- Mobility and migration
- Population and dwellings counts
- **Type of dwelling**



E.g. Data Table - Income - Low-income, by immigration status

This is also a good example of sub-totalling

Catalog Number: [98-400-X2016206](#)

E.g. Data Table - Housing - Shelter Cost to Income Ratio

Catalog Number: [98-400-X2016225](#)

Census Reference

Reference Guides, and Release and Concepts Overviews, are useful for understanding Census use of terms, for Income, Housing, etc.

<https://www12.statcan.gc.ca/census-recensement/2016/ref/index-eng.cfm>

Examples

- [Income reference guide](#)
- [Income Release and Concepts Overview](#)
- [Housing Release and Concepts Overview](#)

Reference tables, esp. tables on low-income ,e.g. Low-income cutoffs, tables 4.1 to 4.6

<https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/tab-eng.cfm>

Useful Income definitions

- Market Income = Total Income - Government Transfers (child benefits, other supports)
- LIM-AT - Low income measures - after tax
https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/tab/t4_2-eng.cfm
- LICO-AT - Low income cutoffs - after tax - Spending 20% more than average, of income, on food/shelter/clothing
https://www12.statcan.gc.ca/census-recensement/2016/ref/dict/tab/t4_3-eng.cfm

Reports & Collaborations

Core housing need

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/chn-biml/index-eng.cfm>

Statistics Canada, in collaboration with the Canada Mortgage and Housing Corporation (CMHC), presents information on 'core housing need.' [Housing suitability](#) identified whether the dwelling had enough bedrooms according to its size and composition. Housing adequacy was



assessed based on the [Dwelling condition](#) not being reported in need of major repairs. A [shelter-cost-to-income ratio](#) of less than 30% was required to deem the housing affordable. Data is largely by Canada and by Province, some breakdown to CMA level.

Study on Population Living in Shelters

<https://www150.statcan.gc.ca/n1/daily-quotidien/190415/dq190415a-eng.htm>

The Characteristics of Shelter Residents

<https://www150.statcan.gc.ca/n1/pub/75f0002m/75f0002m2019004-eng.htm>

Homeless Shelter Capacity

Table 14-10-0353-01 Homeless shelter capacity, bed and shelter counts for emergency shelters, transitional housing and violence against women shelters for Canada and provinces, Employment and Social Development Canada annual (number)

<https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410035301>

Individuals reporting a collective dwelling (including Shelters)

- Summary: [98-400-X2016019](#)
- Download of data, by Canada and by province
<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/Rp-eng.cfm?TABID=4&LANG=E&A=R&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=01&GL=-1&GID=1234492&GK=1&GRP=1&O=D&PID=109538&PRID=10&PTYPE=109445&S=0&SHOWWALL=0&SUB=0&Temporal=2016&THEME=116&VID=0&VNAMEE=&VNAMEF=&D1=0&D2=0&D3=0&D4=0&D5=0&D6=0>

A profile of workers in the homelessness support sector

<https://www150.statcan.gc.ca/n1/pub/75f0002m/75f0002m2019010-eng.htm>

Low-income Measures (2), Household Low-income Status (5) and Household Type(5) for Private Households of Canada, Provinces and Territories, Census Divisions and Census Subdivisions, 2016 Census - 100% Data

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/dt-td/Rp-eng.cfm?TABID=4&LANG=E&A=R&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=01&GL=-1&GID=1159582&GK=1&GRP=1&O=D&PID=111873&PRID=10&PTYPE=109445&S=0&SHOWWALL=0&SUB=0&Temporal=2016&THEME=119&VID=0&VNAMEE=&VNAMEF=&D1=0&D2=0&D3=0&D4=0&D5=0&D6=0>



Tips & Best practices

Citing References

Example Citation: Statistics Canada. 2017. Calgary [Economic region], Alberta and Alberta [Province] (table). Census Profile. 2016 Census. Statistics Canada Catalogue no. 98-316-X2016001. Ottawa. Released November 29, 2017.

Example on a StatCan page: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1410035301>

How to ask StatCan a question

- Use the little speech bubbles, in the lower right corner of StatCan pages

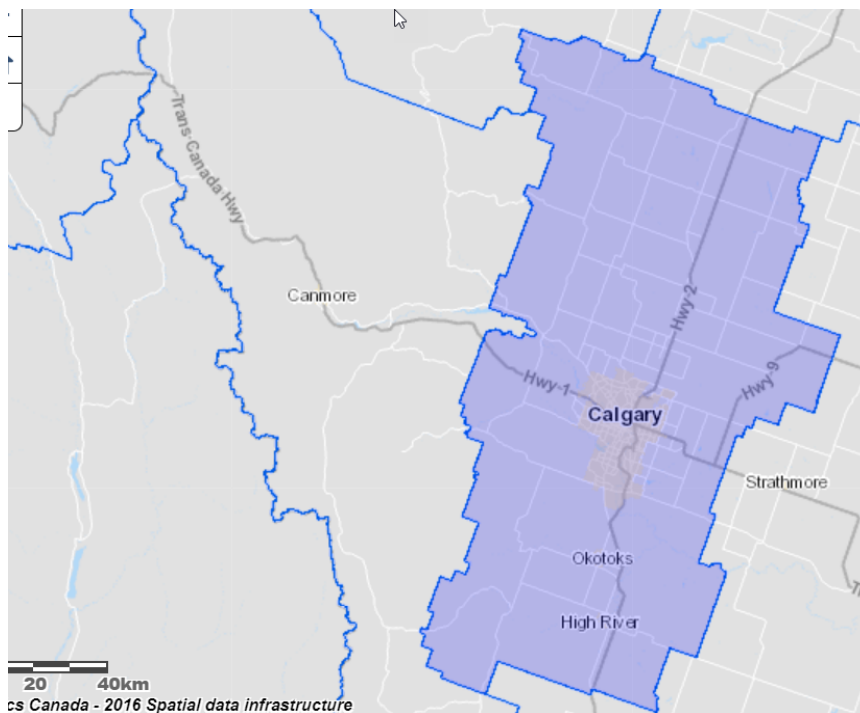
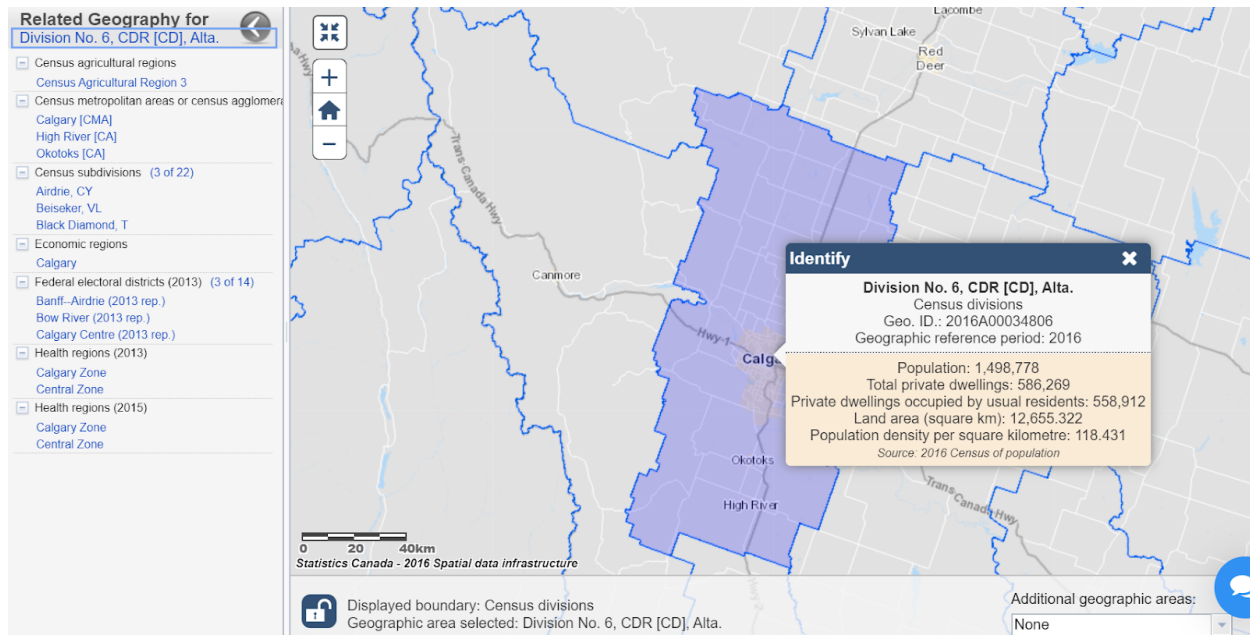
Appendix A - Calgary Geographies (Maps, Sample IDs)

<https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/prof/search-recherche/results-resultats.cfm?Lang=E&TABID=1&G=1&Geo1=&Code1=&Geo2=&Code2=&type=0&SearchText=calgary&SearchType=Begins&wb-srch-place=search>

Province

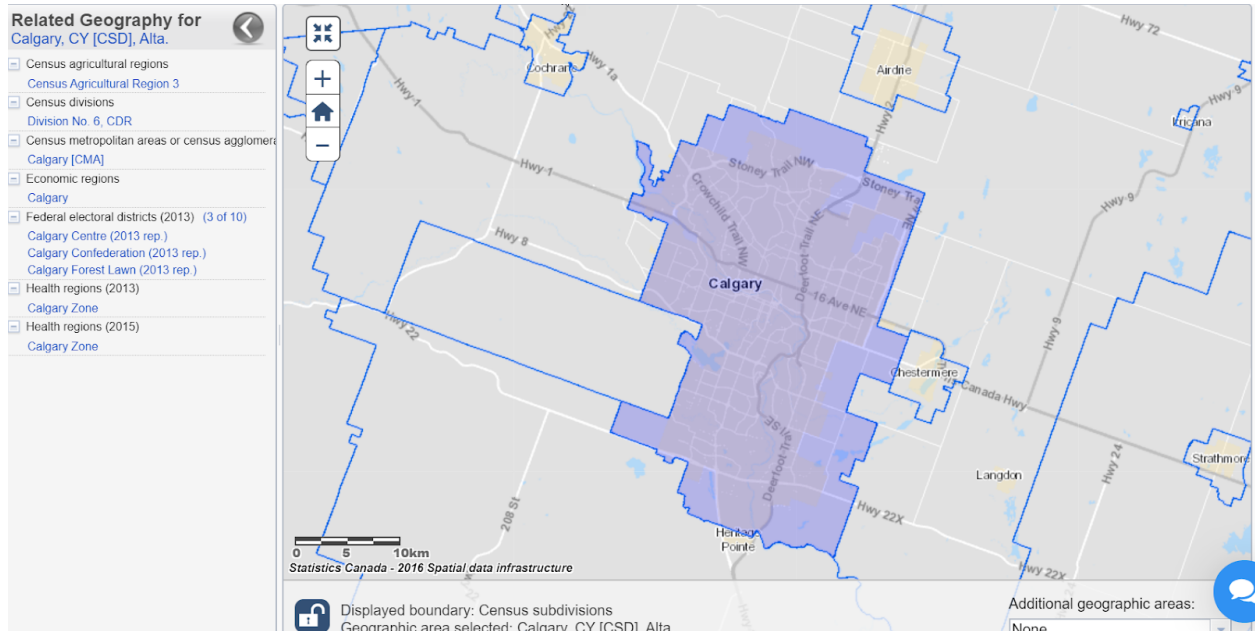
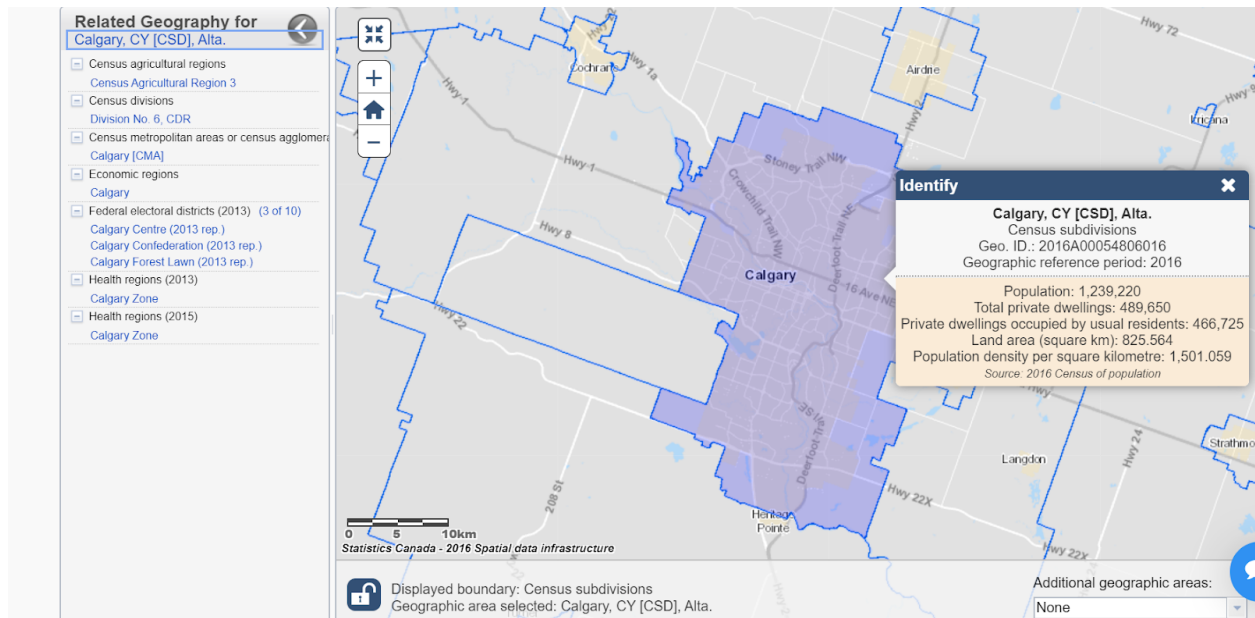
Alberta [PR] has an ID = 48 (this is used as a prefix for some other geographic identifiers)

Census Division (around Calgary)



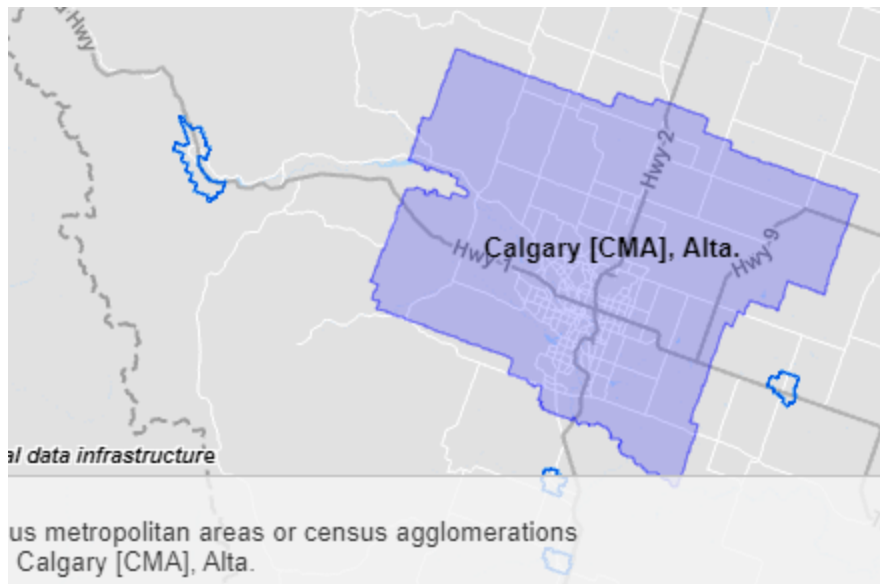
Census Subdivision Calgary CY [CSD]

Calgary CSD ID = 4806016

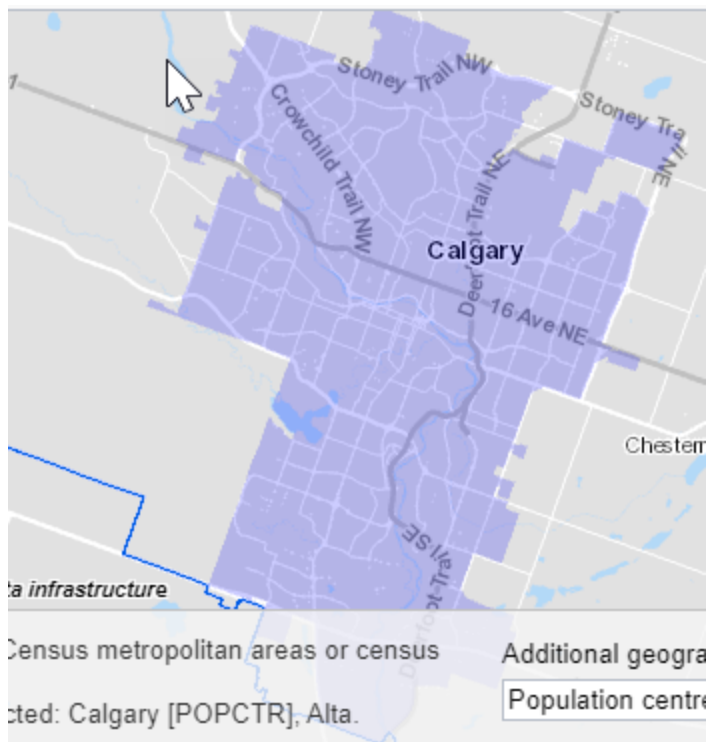


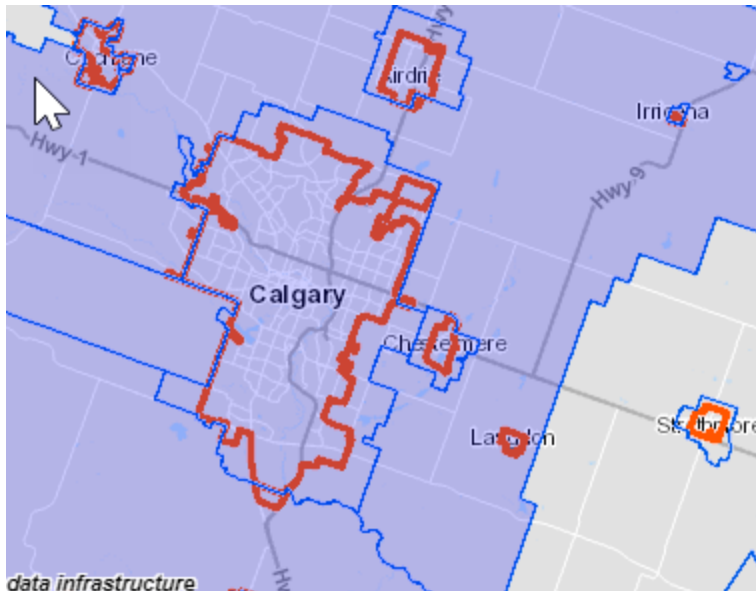
Census Metropolitan Area (CMA)

Calgary CMA = 825 (Calgary, Cochrane, Chestermere, Airdrie)



Calgary Population Centre





Calgary Subdivision (blue) vs. population centre (red).

Census Tracts

Census Tracts are 10 characters, where the first 3 characters are for CMA 825, followed by 5 characters, a decimal, and 2 more characters (being '00' if the census tract has never been split, '01', '02'.... otherwise)

Description, and set of maps, for Calgary Municipal Area

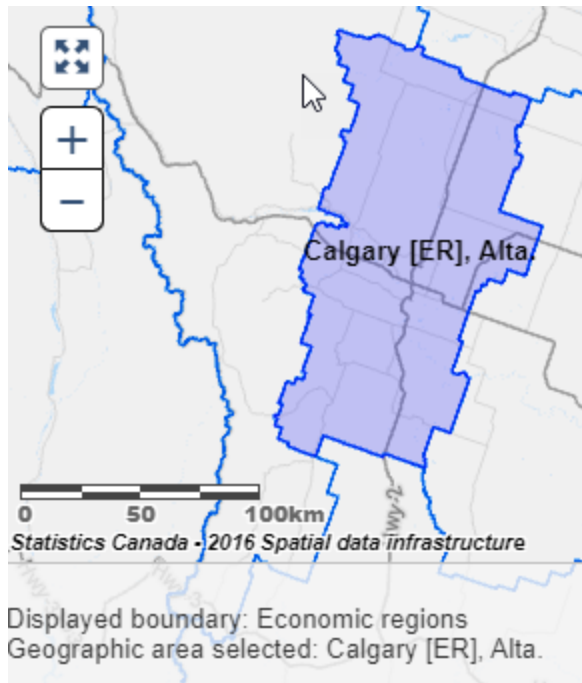
<https://www12.statcan.gc.ca/census-recensement/2016/geo/map-carte/ref/ct/alternative-eng.cfm?CMACA=825>

Map covering majority of Calgary CMA, and a few sample Census Tract Values

<https://www12.statcan.gc.ca/census-recensement/2016/geo/map-carte/ref/ct/files-fichiers/2016-92146-825-03.pdf>

- Mount Pleasant 8250063.00
- Scenic Acres 8250052.06, 8250052.07

Economic Region



Health Region





Appendix B - change log

May 25, 2020 - created

July 29, 2020 - added links to Sarah Ahmad (Statistics Canada) presentation and slides, added comment about standardizing 'Canada' geographic code to '11124'