CENSUS • RECENSEMENT

2016 Census Dissemination

Release Strategy and Products & Services Line

ACCOLEDS / DLI Western Training

University of Victoria, B.C.

November 29, 2016

Statistics Canada   Statistique Canada

Canada

Overview

❑ 2016 Census collection experience and response rates

❑ 2016 Census release strategy

❑ Overview of the 2016 Census products and services line

❑ Data quality indicators

❑ Census of Agriculture

❑ Post day-of-release plans

Statistics Canada   Statistique Canada

Canada

Very successful collection operations ...

❑ With the return of the mandatory long-form census – the collection operations were the most successful on record

❑ Building on the wave methodology fully implemented in 2011, Internet response exceeded planning assumptions (68.3%) as did self-response (88.8%)

❑ Excellent response rates for all provinces and territories (both short and long forms), as well as for most communities

❑ Linking income tax to short-form respondents is expected to produce high-quality income information

❑ Integrated communications strategy, designed as a social marketing campaign, was effective and very efficient
  - Use of behavioural economics and segmentation tailored to reach hard to enumerate populations

Statistics Canada   Statistique Canada

Canada

Some work remains ...

❑ Fort McMurray situation was mitigated with innovative solutions

- Research work on the integration of administrative data to reproduce the census head count served as the starting point
- Validated by administrative data obtained from Alberta
- Collection of long-form data conducted in August

❑ Situation for First Nations communities

- Participation of on-reserve communities was excellent
- Should be able to release results for vast majority of participating reserves

What does this mean for users?

- ❑ Quality of the data will be high
    - ▪ Significant decrease in item non-response for both short and long forms

- ❑ Will allow better interpretation of 2011 Census

- ❑ High-quality census data at all levels of geography improve the survey frame for the social survey program
    - ▪ Improved record linkage opportunities to meet growing demands for data

Collection response rates

2016 Census of Population collection response rates

Collection response rates, 2016 Census of Population [1]

Geography	Overall response [2]	Internet [3]	Self-response [4]	Long form [5]
Canada	98.4%	68.3%	88.8%	97.8%
Newfoundland and Labrador	98.6%	45.1%	88.0%	98.1%
Prince Edward Island	98.2%	44.9%	89.6%	97.8%
Nova Scotia	98.4%	55.8%	89.6%	98.1%
New Brunswick	98.3%	65.4%	89.7%	97.9%
Quebec	98.7%	70.5%	89.4%	98.3%
Ontario	98.6%	70.9%	90.0%	98.1%
Manitoba	98.2%	61.1%	88.9%	97.2%
Saskatchewan	98.1%	54.2%	88.6%	97.7%
Alberta [6]	97.9%	65.3%	83.3%	97.2%
British Columbia	97.8%	71.2%	88.1%	97.2%
Yukon	96.6%	56.8%	79.0%	94.7%
Northwest Territories	96.6%	39.5%	87.2%	96.5%
Nunavut	95.2%	... [7]	... [7]	95.2%

Notes:

[1] These preliminary rates are obtained directly from collection results (as of August 4, 2016), i.e., before data processing and data quality verification. They are calculated as the number of private dwellings for which a questionnaire was returned, divided by the number of private dwellings classified as occupied by census enumerators.

[2] Overall response refers to the completion of a census questionnaire with or without assistance from a Statistics Canada representative.

[3] Internet refers to the completion of a census questionnaire via Internet by the respondent. It excludes dwellings in canvasser enumeration areas and Indian reserves.

[4] Self-response refers to the completion of a census questionnaire without assistance from a Statistics Canada representative. It excludes dwellings in canvasser enumeration areas and Indian reserves.

[5] Long form refers to the overall response for the subset of private dwellings from which households were asked to complete a census long form.

[6] The rates for Alberta exclude the municipality of Wood Buffalo.

[7] Canvasser enumeration was the only method used to enumerate Nunavut.

Symbol:

... not applicable

Statistics Canada   Statistique Canada

Canada

Release strategy

❑ All major releases take place in calendar year 2017

❑ Additional product/levels of geography releases to follow

❑ Continuous releases of additional analysis planned until 2019

❑ Products and services line is very similar to 2011 however, modernizing some products – 'Preview-type' content to be released soon

❑ Greater use of social media and data visualization

❑ METADATA - review and standardization of variables, stubsets, definitions, and classifications for consistency across Statistics Canada, internationally

Statistics Canada   Statistique Canada

Canada

CENSUS • RECENSEMENT

2016

Release dates, 2016 Census geography products

Release date	Census geography products

November 16, 2016	• Spatial information products
	  ○ Boundary files, first edition
	  ○ Road network files
	  ○ Hydrography files
	• Reference maps, first edition
	• Attribute information products (correspondence files)
	• Reference guides and documents, first edition

February 8, 2017	• Spatial information products ○ Boundary files, second edition • Reference maps, second edition • Attribute information products (GeoSuite, Geographic Attribute File) • Reference guides and documents, second edition

Release dates, 2016 Census Program

Release date	Release topic
February 8, 2017	Population and dwelling counts
May 3, 2017	Age and sex Type of dwelling
May 10, 2017	Census of Agriculture
August 2, 2017	Families, households and marital status Language
September 13, 2017	Income
October 25, 2017	Immigration and ethnocultural diversity Housing Aboriginal peoples
November 29, 2017	Education Labour Journey to work Language of work Mobility and migration

CENSUS • RECENSEMENT

2016 Census Products and Services Line

Day of release products

- *The Daily* article
- Census in Brief articles
- Infographics
- Social media (e.g., Twitter, Facebook, YouTube, Videos, Chat)
- Age pyramids
- Statistics Canada Data Viewer (SCDV)
- Focus on Geography Series (FoGS)
- Census Profile
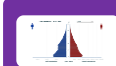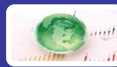
- Aggregate Dissemination Area (ADA) Profile
- Highlight tables
- Data tables
- Census Dictionary
- Reference guides
- Guide to the Census of Population
- Geography products
- Custom products & services

Census Datasets

Post-release products

- *Insights on Canadian Society* (ICS) articles
- Additional Data tables
- Aboriginal Population Profile
- Portrait of OL Communities in Canada
- RDC files & PUMFs
- Technical reports

Statistics Canada   Statistique Canada

Canada

Geography Products and Services

❑ **November 16, 2016 – Release of census geography products in advance of population and dwellings (P&D):**

- Census Dictionary – geography component (i.e., definitions, supporting tables & figures)
- New Aggregate Dissemination Area (ADA) information, reference maps, boundary file
- Spatial information products: boundary files, road network files, hydrography
- Reference maps (Standard Geographical Classification reference maps)
- Attribute information products: correspondence files
- Reference documents: interim list of boundary changes
- Reference guides

❑ **February 8, 2017 – with release of P&D:**

- Updated Spatial information products: boundary files, road network files, hydrography
- Reference maps
- Attribute information products: correspondence files
- GeoSearch
- GeoSuite Web and DVD

Statistics Canada Statistique Canada

Canada

Day of release - Analytical Products

❑ *The Daily* article, Census in Briefs, Infographics, Age pyramids, Thematic maps, Indicators, Social media (Twitter, Facebook, YouTube videos, Chat)
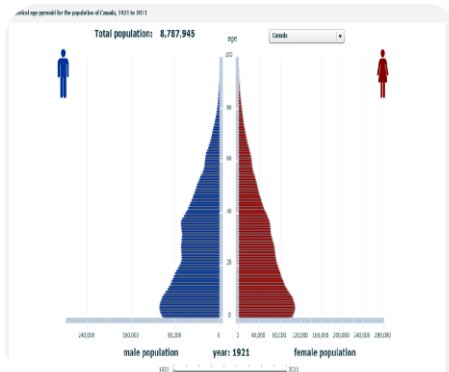
Age pyramids

❑ Historical age structure (CAN, PROV-TERR), 1851-2016
❑ Compare age structure for 2 geographies (CAN, PROV-TERR, CMA/CA), 2011-2016
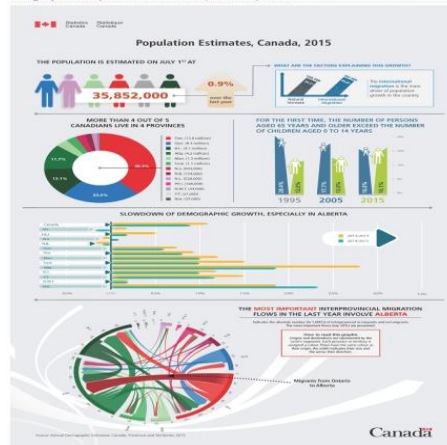
Infographics

❑ Complement 2016 Census releases by presenting analytical highlights via graphic representations

❑ Combine data and related information to provide quick way to make ideas easy to interpret by telling a visual story

Day of release - Data Products

❑ **Census Profile**
- Combined short/long form, univariate profile per GEO that builds throughout releases
- Can compare GEOs, exploring adding percentages along with counts
- Down to DA on DofR and will include new Aggregate Dissemination Area (ADA) level of GEO
- **ADA Profile –** Oct. 25, 2017 release (first long form), same content but presents standard error
- Download .csv, .tab, .ivt

❑ **Highlight tables**
- Back for **all** 2016 releases, support analysis, present key indicators - % change, ranking/sorting
- All CSDs (new) - used to be CSD 5,000+
- Download .csv and .tab

❑ **Focus on Geography Series (FoGS)**
- Similar to 2011, merged in content from Visual Census, organized by topic
- Improved/modernized graphics
- Can/Prov/Terr, CMA/CA, CSD (All CSDs - new)
- Investigating customizable comparison geography

❑ **Data tables**
- Traditional cross tabulations that begin with Age and sex
- New - down to DA for Age and sex (May 3, 2017) – others TBD
- Remaining releases to CSD on DofR, lower level GEOs and additional tables to follow
- Download .csv, .tab, .ivt

Statistics Canada   Statistique Canada

Canada

'Statistics Canada Data Viewer'
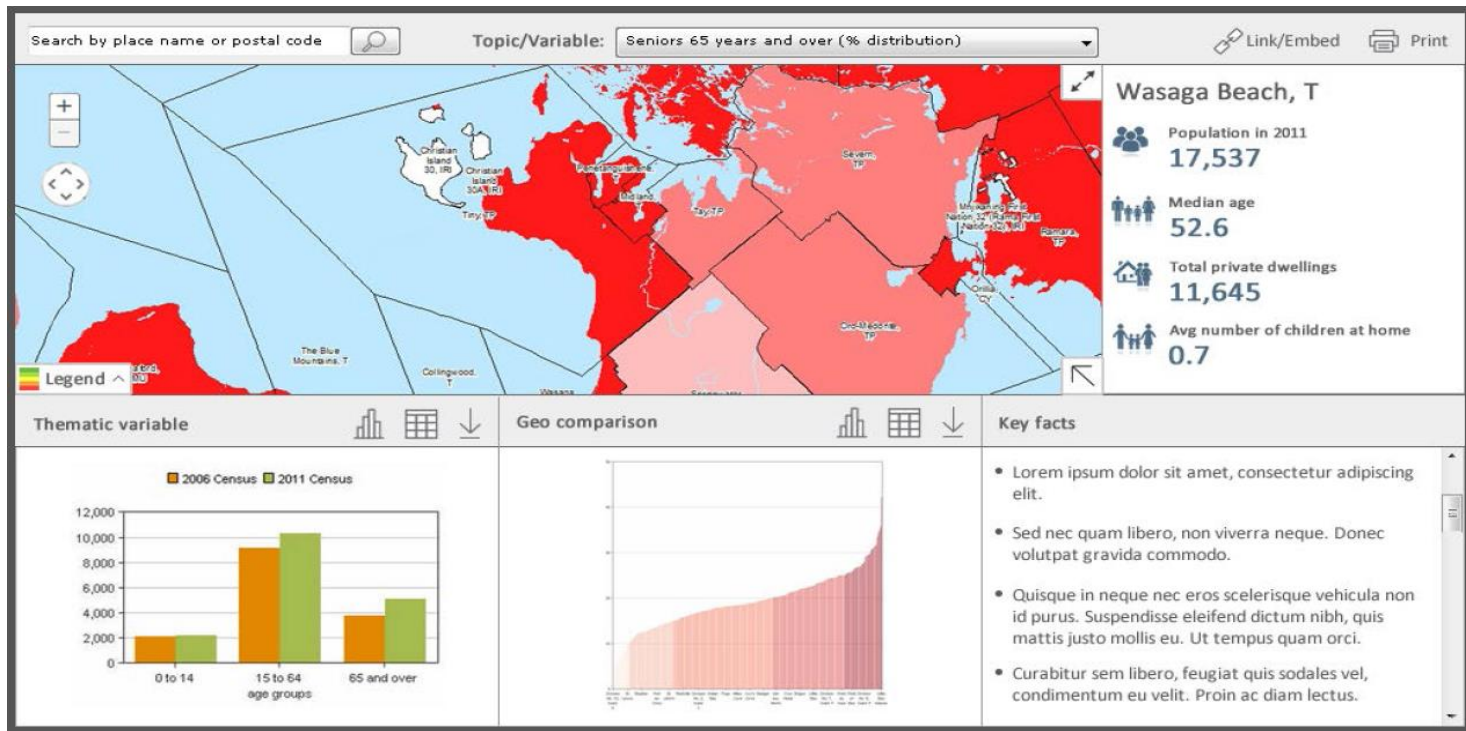
- Statistical dashboard - map, pre-defined charts, images, graphics, highlight text and supporting HTML

- Select from an extensive list of census indicators/geographic units and results displayed

- Some interactive capabilities to select and/or adjust some elements of the dashboard

Statistics Canada   Statistique Canada

Canada

Day of release - Reference Products

❑ *Guide to the Census of Population, 2016* (Census Overview content, short/long form user guide, released iteratively starting with P&D)

❑ Census Dictionary (moving towards using established standards for all metadata)

❑ Reference guides

Statistics Canada   Statistique Canada

Canada

CENSUS • RECENSEMENT

GeoSearch

❑ To be launched with P&D Counts release (Feb. 8, 2017)

❑ Default will find 2016 and 2011 results except for areas with geographic boundary changes. If these exist – default is to present 2016 information only

❑ Possibility to isolate geographic vintage 2016 or 2011 (one or the other)

❑ Results for data, analysis and maps
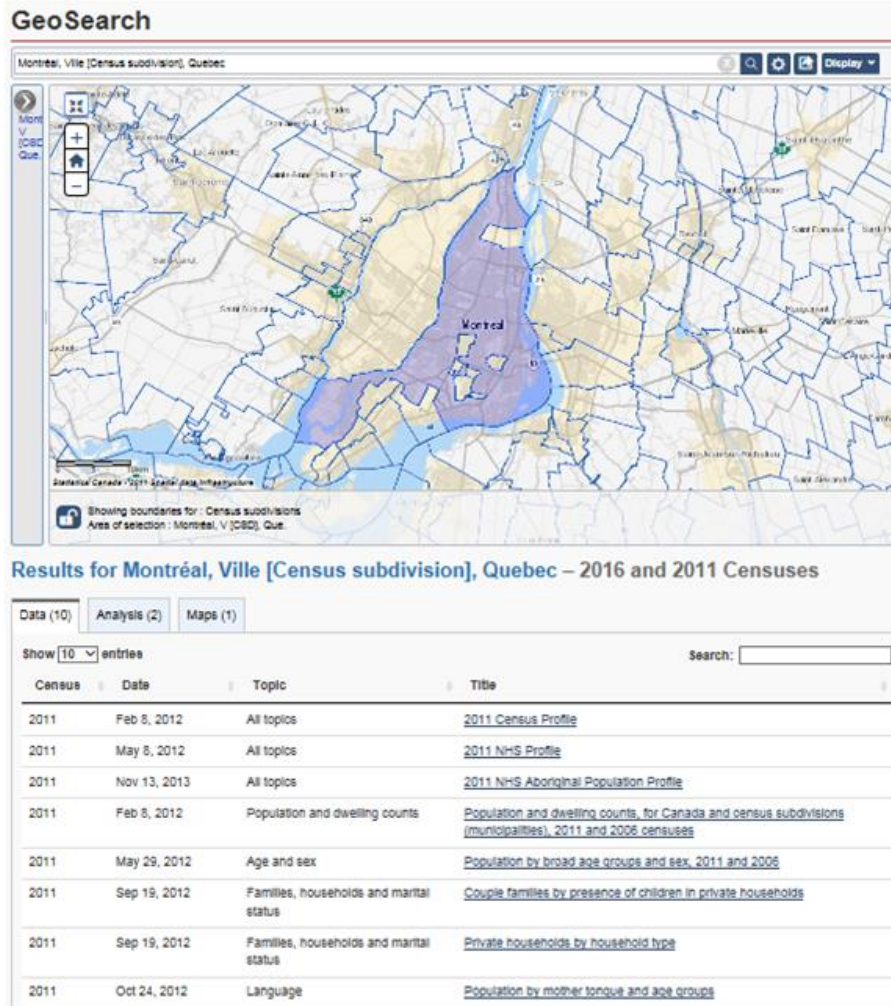
CENSUS • RECENSEMENT
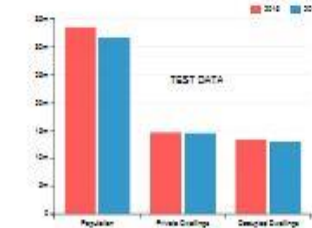
GeoSuite Web

❑ Online version of GeoSuite

❑ Downloadable version will remain

❑ To be launched with P&D counts release (February 8, 2017)

CENSUS • RECENSEMENT

2016

Census Datasets

Census Datasets

❑ Will be updated with 2016 information starting with Age and sex release

Data quality indicators

Aiming to …

- Produce and publish data quality indicators for select variables from the long form at the Canada, province/territory level, potentially select CSDs as well (as per 2011)

- Produce and publish global non-response rate (GNR) values for short form (new) and long form (as per 2011 NHS). Integrated into products for all levels of geography.

❑ Exploring how to best present data quality indicators and flagging – will use standards

❑ Suppression thresholds for DQ and confidentiality being established

❑ Suppression lists will be maintained

CENSUS • RECENSEMENT

Proposed data quality indicators – previous census counts

Geographic name	Type [1]	Prov. / Terr.	Population			Private dwellings, 20XX		Land area in square kilometres, 20XX	Population density per square kilometre, 20XX	CSD population rank, 20XX	
			20XX	20XX	% change	Total	Occupied by usual residents			National	Prov. / Terr.
Canada [2]			33,476,688	31,612,897	5.9	14,569,633	13,320,614	8,965,121.42	3.7		
Twillingate	T	N.L.	2,269	2,448	-7.3	1,190	985	25.74	88.2	1,226	36
Rankin Inlet [3]	HAM	Nvt.	2,266	2,660 R	-15.1	708	626	20.24	112.0	1,227	3

Note:

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

[2] Excludes census data for one or more incompletely enumerated Indian reserves or Indian settlements

[3] This geographic area underwent a formal review in 20XX; the 20XX count have been adjusted due to overcoverage or undercoverage. The count presented in this table may not match the original counts published in 20XX for this area.

[4] This geographic area underwent a formal review in 20XX; the 20XX count have been adjusted due to boundary and/or population and/or dwelling change(s). The count presented in this table may not match the original counts published in 20XX for this area.

[5] Use the 20XX count with caution. This geographic area underwent a formal review in 20XX and a 'should read' count was published. As a result of the review, and possible subsequent changes, the 20XX count presented are the best available.

[6] 20XX adjusted count due to updates received.

[7] The 20XX Census was not completed during the 20XX collection period for this area. A special collection which contains 20XX estimates for population and dwellings was completed later in 20XX (October).

Symbols:

R   Revised. The 20XX count for this area has been revised and may not match the original count published in 20XX.

E   Use with caution

Statistics Canada   Statistique Canada

Canada

CENSUS • RECENSEMENT

Data quality indicators

Characteristic	Rankin Inlet, HAM Nunavut [Census subdivision]			Keewatin, REG Nunavut [Census division]		
	Data quality / Map / Change geography			Data quality / Map / Change geography		
	Total	Male	Female	Total	Male	Female
Population and dwelling counts						
Population in 20xx [1]	2,266E	...	...	8,955	...	...
Population in 20xx [1]	2,358	...	...	8,348	...	...
20xx to 20xx population change (%)	-3.9E	...	...	7.3	...	...
Total private dwellings [2]	708	...	...	2,550	...	...
Private dwellings occupied by usual residents [3]	626	...	...	2,234	...	...
Population density per square kilometre	112.0	...	...	0.0	...	...
Land area (square km)	20.24	...	...	444,621.10	...	...

CENSUS • RECENSEMENT

Data quality indicators

CENSUS • RECENSEMENT

Data quality indicators

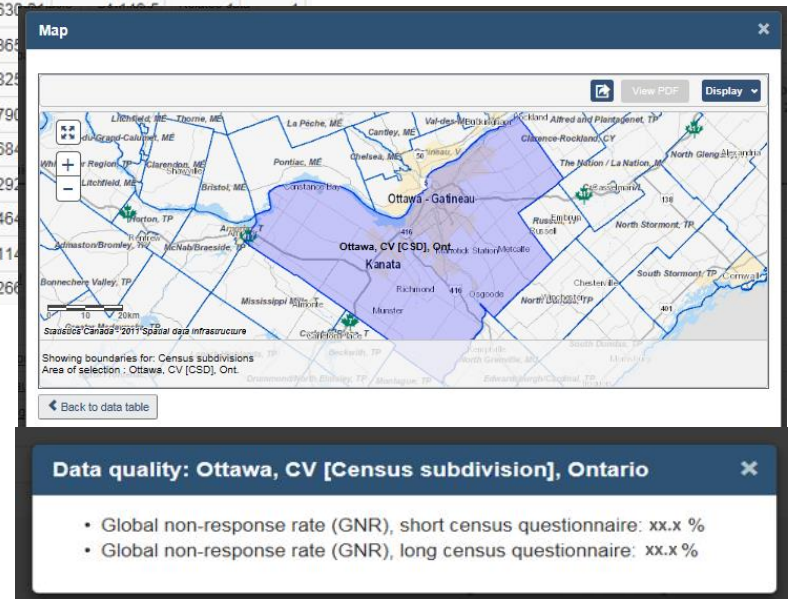|	Rankin Inlet, HAM Nunavut [Census subdivision]			Keewatin, REG Nunavut [Census division]		
	⚑ Data quality 🌐 Map ↻ Change geography			⚑ Data quality 🌐 Map ↻ Change geography		
Characteristic	Total	Male	Female	Total	Male	Female
Population and dwelling counts						
Population in 20XX [1]	2,266		...	8,955	...	...
Population in 20XX [1]			...	8,348	...	...
20XX to 20XX population			...	7.3	...	...
Total private dwellings			...	2,550	...	...
Private dwellings occup			...	2,234	...	...
Population density per s			...	0.0	...	...
Land area (square km)			...	444,621.10	...	...

Data quality: Rankin Inlet, HAM [Census subdivision], Nunavut ✕

- Global non-response rate (GNR), short census questionnaire: XX.X %
- Global non-response rate (GNR), long census questionnaire: XX.X %
- This geographic area underwent a formal review in 20XX; the 20XX population count has been adjusted due to overcoverage or undercoverage. The count presented in this table may not match the original counts published in 20XX for this area.
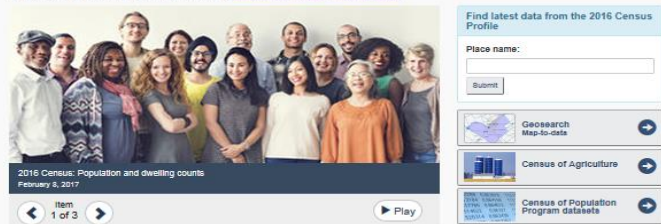
Statistics Canada / Statistique Canada

Canadä

Data quality indicators – Highlight tables

Geographic name	Type [1]	Prov. / Terr.	Population 20XX	Population 20XX	% change	Private dwellings, 20XX Total	Occupied by usual residents	Land area in square kilometres, 20XX	Population density per square kilometre, 20XX	CSD population rank, 20XX National	Prov. / Terr.
	◆	◆	◆	▼	◆	◆	◆	◆	◆	◆	◆	◆
Canada [2]			33,476,688	31,612,897	5.9	14,569,633	13,320,614	8,965,121.42	3.7		
Toronto [5]	C	Ont.	2,615,060	2,503,281 R	4.5	1,107,851	1,047,877	630.			
Montréal	V	Que.	1,649,519	1,620,693	1.8	813,819	759,946	365			
Calgary [7]	CY	Alta.	1,096,833	988,812 R	10.9	445,848	423,417	825			
Ottawa	CV	Ont.	883,391	812,129	8.8	370,217	353,244	2,790			
Edmonton	CY	Alta.	812,201	730,372	11.2	348,672	324,756	684			
Mississauga [7]	CY	Ont.	713,443	668,599 R	6.7	242,538	234,582	292			
Winnipeg	CY	Man.	663,617	633,451	4.8	280,489	268,753	464			
Vancouver	CY	B.C.	603,502	578,041	4.4	286,742	264,573	114			
Brampton	CY	Ont.	523,911	433,806	20.8	154,663	149,271	266			

Select a geographic name – map provide with data quality information

Data quality: Ottawa, CV [Census subdivision], Ontario

- Global non-response rate (GNR), short census questionnaire: xx.x %
- Global non-response rate (GNR), long census questionnaire: xx.x %

Statistics Canada   Statistique Canada

Canada

CENSUS • RECENSEMENT

Web module progression – February 8, 2017

❑ Add to spotlight – link to Population and Dwelling Counts topic page

❑ Update key statistics with 2016 indicators

❑ Switch topic list to 2016 topic list format by sequential release

❑ Data, Analytical and Reference Product links point to new 2016 landing pages

CENSUS • RECENSEMENT
AGRICULTURE

Product	Description	Release date
Data products	1. Farm and farm operator Data	May 10, 2017
	2. Selected Historical Farm and Operator Data from the Census of Agriculture	Dec 13, 2017
	3. Census of Agriculture and Tax Linkage Data	TBD
	4. Agriculture-Population Linkage Data	Nov 27, 2018
Geography products	5. Census Agricultural Regions Boundary File and Reference Guide	May 10, 2017
	6. Agricultural Ecumene Census Division Boundary File and Reference Guide	Sep 13, 2017
	7. Census of Agriculture Thematic Maps	Dec 13, 2017
Reference products	8. Census of Agriculture Reference Maps	May 10, 2017
Analytical products	9. Analytical series – Farm and Farm Operator Data	May 17, 2017 to Jun 21, 2017
	10. Canadian Agriculture at a Glance	Fall 2017 through Fall 2018
Services	11. Custom products and services	On demand

Statistics Canada   Statistique Canada

Canada

Post-day of release

❑ **Analytical products -** Insights on Canadian Society (ICS) – additional articles

❑ **Data products**
- Data tables (additional plus lower-levels of geography)
- Aboriginal Population Profile (customized profile focussing on Aboriginal content)
- Portrait of Official Language Communities in Canada (specialized bundle of data tables focussing on language)

❑ **Reference products** – Technical reports (Sampling/weighting, Coverage, Aboriginal)

❑ 2017-18 – completion of new dissemination model (NDM) census development (software/features), additional corporate web enhancements

❑ 2018-2019 – census conversion and integration into NDM

Statistics Canada   Statistique Canada

Canada

Post-day-of release - Microdata files

Consultation on PUMFs

❑ December 2015, a usage survey questionnaire was sent to all 2011 NHS PUMF (Individuals and Hierarchical) users to gather feedback

❑ The survey questions related to content, variables, geography and sampling

❑ Requests received to increase the PUMF samples, increase number of variables, stubset details and levels of geography – all of these impact confidentiality and following consideration and assessment from Methodology … we are not able to implement these suggestions

Statistics Canada Statistique Canada

Canada

Post-day of release - Microdata files

Public Use Microdata Files (PUMF)

❑   2016 Census: Individuals PUMF File – Winter 2018/2019

❑   2016 Census: Hierarchical PUMF File – Summer 2019

Research Data Centre (RDC) files

❑ 2016 Census Long Form Microdata File – Summer 2018

Current RDC Holdings:

❑ 1911 to 1951 – CCRI microdata files
❑ 1971 to 2006 – 100% 2B files (down to DA level)
❑ 2011 NHS Microdata File
❑ 2011 Census Microdata File (short form)

Statistics Canada   Statistique Canada

Canada

Contacts

Mary-Lynne (Mini) Reid – Census Program Release Manager; Chief – Product Design, Production and Dissemination Services, mary-lynne.reid@canada.ca

Paul Schwets – Head, Dissemination Services, paul.schwets@canada.ca

Glen Hohlmann – 2016 Census Program Dissemination Project Manager, Assistant Director – Dissemination, glen.hohlmann@canada.ca

Statistics Canada   Statistique Canada

Canada