# 2016 Census Public Use Microdata File (PUMF)

# Hierarchical File

Documentation and User guide











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### Introduction

The 2016 Census public use microdata file (PUMF) on households contains 140,720 private households with a total of 343,330 individual records, representing 1% of the population in private households in private occupied dwellings in Canada. These records were drawn from a sample of one quarter of the Canadian population (sample data from questionnaire 2A-L). The 2016 PUMF contains 95 variables. Of these, 81 variables, or 85%, come from the individual universe and 14 variables, or 15%, are drawn from the family, household and dwelling universes. In addition, the file contains four unique record identifiers (ID), an individual weighting factor and 16 replicate weights for the purpose of estimating sampling variability. The file does not include people living in institutions; Canadian citizens living temporarily in other countries; full-time members of the Canadian Forces stationed outside Canada; persons living in institutional collective dwellings such as hospitals, nursing homes and penitentiaries; and persons living in non-institutional collective dwellings such as work camps, hotels and motels, and student residences.

This user guide is divided into five chapters: Chapter 1 contains the record layout, an indispensable tool for using the file. Chapter 2 defines the census universes that can be studied using the Hierarchical File (PUMF). Chapter 3 defines and provides detailed information about the variables available for analysis in the PUMF dataset. Chapters 4 and 5 respectively deal with the sampling method and factors affecting data quality and reliability.

Data users requiring more details on the concepts and definitions of census variables can consult the 2016 Census Dictionary, online at <a href="http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/indexeng.cfm">http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/indexeng.cfm</a>.

### Census reference products and materials

#### 1. Response rates

2016 Census of Population collection response rates

The methodology used for the 2016 Census differs from the one used for the voluntary 2011 National Household Survey, which may affect the comparability of the 2016 results to 2011. The collection response rate for the 2016 Census long form was 97.8%, the best ever recorded. This response rate enables the provision of high-quality information for virtually all communities in Canada.

#### 2. Census Dictionary

http://www12.statcan.gc.ca/census-recensement/2016/ref/dict/index-eng.cfm

The Census Dictionary is a reference document which contains detailed definitions of concepts, universes, variables, and geographic terms used in the Census. By referring to the Census Dictionary, both beginner and intermediate data users will gain a better understanding of the data.

### 3. Reference guides

The reference guides provide information that enables users to effectively use, apply and interpret data from the 2016 Census of Population. Each guide contains definitions and explanations of concepts, classifications, data quality and comparability to other sources. Additional information is included for specific variables to help general users better understand the concepts and questions used in the Census.

Aboriginal Peoples Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/009/98-500-x2016009-eng.cfm

**Education Reference Guide** 

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/013/98-500-x2016013-eng.cfm

Ethnic Origin Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/quides/008/98-500-x2016008-eng.cfm

Families Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/002/98-500-x2016002-eng.cfm

Housing Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/quides/005/98-500-x2016005-eng.cfm

Income Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/quides/004/98-500-x2016004-eng.cfm

Journey to Work Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/011/98-500-x2016011-eng.cfm

Labour Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/quides/012/98-500-x2016012-eng.cfm

Languages Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/003/98-500-x2016003-eng.cfm

Mobility and Migration Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/010/98-500-x2016010-eng.cfm

Place of Birth, Generation Status, Citizenship and Immigration Reference Guide http://www12.statcan.gc.ca/census-recensement/2016/ref/quides/007/98-500-x2016007-eng.cfm

Structural Type of Dwelling and Collectives Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/001/98-500-x2016001-eng.cfm

Visible Minority and Population Group Reference Guide

http://www12.statcan.gc.ca/census-recensement/2016/ref/guides/006/98-500-x2016006-eng.cfm

### 4. Other reference products and materials

Guide to the Census of Population, 2016

http://www12.statcan.gc.ca/census-recensement/2016/ref/98-304/index-eng.cfm

2016 Census of Population questionnaires and reporting guides

http://www23.statcan.gc.ca/imdb/p2SV.pl?Function=getSurvInstrumentList&Id=152274

Incompletely enumerated Indian reserves and Indian settlements

http://www12.statcan.gc.ca/census-recensement/2016/ref/dq-qd/iir-rii-eng.cfm

For a complete list of reference products and materials regarding the 2016 Census, please see the following: <a href="http://www12.statcan.gc.ca/census-recensement/2016/ref/index-eng.cfm">http://www12.statcan.gc.ca/census-recensement/2016/ref/index-eng.cfm</a>

# **PUMF** considerations

# 1. Data confidentiality

It is important for Statistics Canada to protect the confidential information that it collects. Owing to the very nature of a microdata file, various actions are taken to fulfil this commitment.

### a. Reduced level of detail

The smallest geographic unit in the 2016 PUMF is the census metropolitan area (CMA). Data at the scale of geographic areas smaller than CMAs are not provided for this product. Also, the user will find that this product contains only information on the largest census metropolitan areas and the provinces. The Yukon, the Northwest Territories and Nunavut are grouped under the term 'Northern Canada.' Furthermore, the data have been aggregated in such a way as to preserve confidentiality while, at the same time, providing as much detail as possible in order to maintain the analytical value of the file. For example, the data on ethnic origin do not indicate "Inuit", but the more general category "North American Aboriginal origins". This category also includes other aboriginal groups, such as "Métis".

#### b. Data not available

For some records, the codes for certain variables were changed to indicate '**Not available**,' so as to ensure non-disclosure of individual respondent identity and characteristics. Users should be aware of the existence of this category when producing statistical tables as this may result in counts that are smaller than published counts.

# c. Lower and upper income limits

The PUMF contains lower and upper income limits. Thus, the data on total income and sources of income are adjusted proportionally. Lower and upper limits are also applied to certain dwelling variables such as 'value of dwelling.'

# d. Rounding

For all quantitative variables, the data are rounded to base 100, 1,000 or 10,000.

#### e. Perturbation

For confidentiality purposes and in order to protect the identity of respondents, data for certain same-sex couples has been perturbed. Estimates produced at the national level will be of higher quality then those produced for lower levels of geography.

### 2. Content changes

The content in the 2016 PUMF is mostly the same as that of the 2011 PUMF. However, some variables have been adjusted, revised or added to reflect changes made to the content of the 2016 Census of Population.

Changes include:

- The removal of:
  - The religion variable, as religion was not asked in 2016.
  - o Low-income measure, market income (LOLIMMI).
  - Labour: Occupation (based on the NOC 2016) (NOCEE) Classification is not yet available.
- The replacement of Owner's major payment (OMP) and Gross rent (GROSRT) by Shelter Cost (SHELCO)
- Reduction in variable detail of:
  - Class of worker (COW)
  - Structural type of dwelling (DTYPE)
  - Marital status (de facto) (MARSTH)

Variables included in the 2016 PUMF with supporting information can be found in Chapter 3.

# Chapter 1 - Universes

### **Private Household:**

Refers to a person or group of persons who occupy the same dwelling and do not have a usual place of residence elsewhere in Canada or abroad. Household members who are temporarily absent (e.g., temporarily residing elsewhere) on May 10, 2016, are considered as part of their usual household. Every person is a member of one and only one household.

# Private dwelling occupied by usual residents

Refers to a separate set of living quarters with a private entrance either from outside or from a common hall, lobby, vestibule or stairway inside the building in which a person or a group of persons is permanently residing. The entrance to the dwelling must be one that can be used without passing through the living quarters of someone else. Also included are private dwellings whose usual residents are temporarily absent on May 10, 2016.

The number of private households is equal to the number of occupied private dwellings in the 2016, 2011, 2006, 2001, 1996, 1991, 1986, 1981 and 1976 censuses (see the of definition <u>'Private dwelling occupied by usual residents'</u> in the Census Dictionary).

# **Economic family:**

Refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law union, adoption or a foster relationship. A couple may be of opposite or same sex.

# Census family:

Refers to a married couple and the children, if any, of either and/or both spouses; a couple living common law and the children, if any, of either and/or both partners; or a lone parent of any marital status with at least one child living in the same dwelling and that child or those children. All members of a particular census family live in the same dwelling. A couple may be of opposite or same sex.

For additional information regarding the universes above, please refer to to the <u>Guide to the Census of Population</u>, 2016.

# Basic counts of different units in hierarchical PUMF, 2016

Universe	Criteria	PUMF unweighted records count	PUMF weighted estimates	Census weighted estimates
Persons in private households	All records	343,330	34,460,064	34,460,065
Private households	PRIHM = 1	140,720	14,123,218	14,072,080
Persons not in an economic family	EF_RP = 3	52,534	5,272,390	5,299,050
Persons in an economic family	EF_RP = 1 or EF_RP = 2	290,796	29,187,674	29,161,010
Economic families	EF_RP = 1	96,997	9,735,369	9,689,855
Persons not in a census family	CF_RP = 3	60,183	6,040,245	6,098,470
Persons in a census family	CF_RP = 1 or CF_RP = 2	283,147	28,419,819	28,361,595
Census families	CF_RP = 1	98,457	9,882,028	9,842,265

# **Chapter 2 – Record Layout**

# Demography

Field	Size	Position	Туре	Mnemonic	Title
23	2	305-306	Num	AGEGRP	Age
79	1	410	Num	MarStH	Marital status (de facto)
105	1	452	Num	SEX	Sex

# Mobility

Field	Size	Position	Туре	Mnemonic	Title
80	1	411	Num	Mob1	Mobility 1: Mobility Status – Place of residence 1 year ago (2015)
81	1	412	Num	Mob5	Mobility 5: Mobility Status – Place of residence 5 years ago (2011)
97	2	440-441	Num	PR1	Mobility 1: Province or territory of residence 1 year ago (2015)
98	2	442-443	Num	PR5	Mobility 5: Province or territory of residence 5 years ago (2011)

# **Aboriginal Population**

Field	Size	Position	Туре	Mnemonic	Title
22	1	304	Num	ABOID	Aboriginal: Aboriginal identity – Detailed
27	1	311	Num	BFNMEMB	Aboriginal: Membership in a First Nation or Indian band
102	1	448	Num	REGIND	Aboriginal: Registered or Treaty Indian status

# Ethnic origin and visible minority

Field	Size	Position	Туре	Mnemonic	Title
45	2	349-350	Num	ETHDER	Ethnic origin: Derived single and multiple ethnic origins
113	1	485	Num	VISMIN	Visible minority: Visible minority indicator

Language

Language					
Field	Size	Position	Туре	Mnemonic	Title
47	1	359	Num	FOL	Language: First official language spoken
53	1	373	Num	HLAEN	Language: Home language (part A) – English component
54	1	374	Num	HLAFR	Language: Home language (part A) – French component
55	2	375-376	Num	HLANO	Language: Home language (part A) – First write-in component
56	1	377	Num	HLBEN	Language: Home language (part B) – English component
57	1	378	Num	HLBFR	Language: Home language (part B) – French component
58	1	379	Num	HLBNO	Language: Home language (part B) – First write-in component
62	1	391	Num	KOL	Language: Knowledge of official languages
73	1	404	Num	LWAEN	Language: Language of work (part A) – English component
74	1	405	Num	LWAFR	Language: Language of work (part A) – French component
75	1	406	Num	LWANO	Language: Language used at work (part A) – First write-in component
76	1	407	Num	LWBEN	Language: Language of work (part B) – English component
77	1	408	Num	LWBFR	Language: Language of work (part B) – French component
78	1	409	Num	LWBNO	Language: Language used at work (part B) – First write-in component
84	1	422	Num	MTNEn	Language: Mother tongue – English component
85	1	423	Num	MTNFr	Language: Mother tongue – French component
86	2	424-425	Num	MTNNO	Language: Mother Tongue – First write-in component
89	2	430-431	Num	NOL	Language: Knowledge of non-official languages – First write-in component

# Place of birth, immigration and citizenship

Field	Size	Position	Туре	Mnemonic	Title
24	2	307-308	Num	AGEIMM	Immigration: Age at Immigration
33	1	320	Num	CITIZEN	Citizenship: Citizenship status and type – Summary
34	1	321	Num	CITOTH	Citizenship: Other country of citizenship
49	1	361	Num	GENSTAT	Generation status: Detailed
60	1	382	Num	IMMSTAT	Immigration: Immigrant status
92	1	434	Num	POB	Place of birth of person: Detailed
93	1	435	Num	POBF	Place of birth of father: Detailed
94	1	436	Num	POBM	Place of birth of mother: Detailed
116	1	489	Num	YRIMM	Immigration: Year of immigration

# **Education**

Field	Size	Position	Туре	Mnemonic	Title
25	1	309	Num	ATTSCH	Education: School attendance
32	2	318-319	Num	CIP2011	Education: Major field of study, primary groupings (based on CIP Canada 2016)
51	2	370-371	Num	HDGREE	Education: Highest certificate, diploma or degree
65	1	395	Num	LOC_ST_RES	Education: Location of study compared with province or territory of residence
66	2	396-397	Num	LOCSTUD	Education: Location of study
107	2	457-458	Num	SSGRAD	Education: Secondary (high) school diploma or equivalency certificate

# **Labour Market Activities**

Field	Size	Position	Туре	Mnemonic	Title
37	1	326	Num	cow	Labour: Class of worker (derived)
48	1	360	Num	FPTWK	Labour: Full-time or part-time weeks worked in 2015
59	2	380-381	Num	HRSWRK	Labour: Hours worked for pay or in self-employment
64	2	393-394	Num	LFTAG	Labour: Labour force status
72	1	403	Num	LSTWRK	Labour: When last worked for pay or in self-employment
87	2	426-427	Num	NAICS	Labour: Industry sectors (based on the NAICS 2012)
88	2	428-429	Num	NOCS	Labour: Occupation broad categories (based on the NOC 2016)
114	1	486	Num	WKSWRK	Labour: weeks worked in 2015, no zero value in statistics
115	2	487-488	Num	WRKACT	Labour: Work Activity in 2015

# Journey to Work

Field	Size	Position	Туре	Mnemonic	Title
38	1	327	Num	DIST	POW: Distance from home to work capped maximum of 201 kilometres
40	1	329	Num	DUR	JTW: Commuting duration
63	1	392	Num	LEAVE	JTW: Time leaving for work
82	1	413	Num	MODE	JTW: Main mode of commuting
91	1	433	Num	осс	JTW: Commuting vehicle occupancy
95	1	437	Num	POWST	POW: Place of work status
101	2	446-447	Num	PWPR	POW: Place of work province

# Income

Field	Size	Position	Туре	Mnemonic	Title
42	2	331-332	Num	EFDECILE	Income: National economic family after-tax income decile for all persons
43	8	333-340	Num	EFDIMBM	Income: Disposable income for MBM of economic family for all persons
44	8	341-348	Num	EMPIN	Income: Employment income
50	8	362-369	Num	GTRFS	Income: Government transfers
61	8	383-390	Num	INCTAX	Income: Income taxes
67	1	398	Num	LOLICOA	Income: Low income status based on LICO-AT
68	1	399	Num	LOLICOB	Income: Low income status based on LICO-BT
69	1	400	Num	LOLIMA	Income: Low-income status based on LIM-AT
70	1	401	Num	LOLIMB	Income: Low-income status based on LIM-BT
71	1	402	Num	LOMBM	Income: Low-income status based on MBM
83	8	414-421	Num	MRKINC	Income: Market income
110	8	461-468	Num	TOTINC	Income: Total income
111	8	469-476	Num	TOTINC_AT	Income: After-tax income

# Families and family composition

Field	Size	Position	Туре	Mnemonic	Title		
29	1	314	Num	CF_RP	Census family reference person		
30	2	315-316	Num	CFSTAT	Household living arrangements of person, simple version		
31	1	317	Num	CFSTRUCT	Census family structure, simple version		
41	1	330	Num	EF_RP	Economic family reference person		

# Households

Field	Size	Position	Туре	Mnemonic	Title	
52	1	372	Num	HHMAINP	Person responsible for household payments	
100	1	445	Num	PRIHM	Primary household maintainer	

# **Dwelling: Housing and shelter cost**

Field	Size	Position	Туре	Mnemonic	Title
26	1	310	Num	BEDRM	Bedrooms
28	2	312-313	Num	BUILT	Period of construction
36	1	325	Num	CONDO	Condominium status
39	1	328	Num	DTYPE	Structural type of dwelling
46	8	351-358	Num	FCOND	Condominium fees
90	1	432	Num	NOS	Housing suitability
99	1	444	Num	PRESMORTG	Mortgage, presence of
103	1	449	Num	REPAIR	Dwelling condition
104	2	450-451	Num	ROOM	Rooms
106	4	453-456	Num	SHELCO	Shelter cost
108	1	459	Num	SUBSIDY	Subsidized housing
109	1	460	Num	TENUR	Tenure
112	8	477-484	Num	VALUE	Value (owner estimated)

# Geography

Field	Size	Position	Туре	Mnemonic	Title
35	3	322-324	Num	CMA	Census metropolitan area or census agglomeration of current residence (2016)
96	2	438-439	Num	PR	Province or territory of current residence (2016)

# Identifier

Field	Size	Position	Туре	Mnemonic	Title			
3	8	14-21	Num	CF_ID	Key for census family table			
2	7	7-13	Num	EF_ID	Key for economic family table		Key for economic family table	
1	6	1-6	Num	HH_ID	Key for household table			
4	10	22-31	Num	PP_ID	Key for person table			

Weighting

Field	Size	Position	Туре	Mnemonic	Title
5	16	32-47	Num	WEIGHT	Individuals weighting factor
6	16	48-63	Num	WT1	Replicate PUMF weight
7	16	64-79	Num	WT2	Replicate PUMF weight
8	16	80-95	Num	WT3	Replicate PUMF weight
9	16	96-111	Num	WT4	Replicate PUMF weight
10	16	112-127	Num	WT5	Replicate PUMF weight
11	16	128-143	Num	WT6	Replicate PUMF weight
12	16	144-159	Num	WT7	Replicate PUMF weight
13	16	160-175	Num	WT8	Replicate PUMF weight
14	16	176-191	Num	WT9	Replicate PUMF weight
15	16	192-207	Num	WT10	Replicate PUMF weight
16	16	208-223	Num	WT11	Replicate PUMF weight
17	16	224-239	Num	WT12	Replicate PUMF weight
18	16	240-255	Num	WT13	Replicate PUMF weight
19	16	256-271	Num	WT14	Replicate PUMF weight
20	16	272-287	Num	WT15	Replicate PUMF weight
21	16	288-303	Num	WT16	Replicate PUMF weight

# Chapter 3 - Variable descriptions

# Demography

AGEGRP – Age

Both qualitative and quantitative

Field: 23 Size: 2 Position: 305-306

**Description:** Age in completed years.

Reported for: Persons in private households

Code	Description	Unweighted	Weighted Includes
1	0 to 9 years	34,938	3,506,714
2	10 to 14 years	16,578	1,663,984
3	15 to 19 years	17,308	1,737,169
4	20 to 24 years	19,327	1,939,845
5	25 to 29 years	20,350	2,042,581
6	30 to 34 years	21,374	2,145,451
7	35 to 39 years	21,274	2,135,250
8	40 to 44 years	20,572	2,064,815
9	45 to 49 years	21,770	2,185,049
10	50 to 54 years	24,717	2,480,648
11	55 to 64 years	46,854	4,702,317
12	65 to 74 years	31,943	3,205,693
13	75 years and over	20,230	2,030,302
88	Not available	26,095	2,620,247
	Total	343,330	34,460,064

# MARSTH - Marital status (de facto)

Qualitative

Field: 79 Size: 1 Position: 410

**Description:** Marital status (de facto).

Code	Description	Unweighted	Weighted	Includes
1	Never legally married (and not living common law)	137,770	13,828,100	
2	Legally married (and not separated)	132,051	13,255,538	
3	Living common law	34,794	3,490,684	
4	Separated, divorced or widowed (and not living common law)	38,166	3,830,595	
8	Not available	549	55,147	
	Total	343,330	34,460,064	

SEX – Sex Qualitative

Field: 105 Size: 1 Position: 452

**Description:** Sex.

Code	Description	Unweighted	Weighted	Includes
1	Female	170,908	17,153,803	
2	Male	165,991	16,660,369	
8	Not available	6,431	645,892	
	Total	343,330	34,460,064	

# Mobility

# MOB1 - Mobility 1: Mobility Status - Place of residence 1 year ago (2015)

Qualitative

Field: 80 Size: 1 Position: 411

**Description:** Mobility 1: Refers to the status of a person with regard to the place of residence on the reference day, May 10,

2016, in relation to the place of residence on the same date one year earlier. Persons who have not moved are referred to as non-movers and persons who have moved from one residence to another are referred to as movers. Movers include non-migrants and migrants. Non-migrants are persons who did move but remained in the same city, town, township, village or Indian Reserve. Migrants include internal migrants who moved to a different city, town, township, village or Indian Reserve within Canada. External migrants include persons who lived outside

Canada at the earlier reference date.

Reported for: Population in private households

Code	Description	Unweighted	Weighted	Includes
1	Non-movers	291,999	29,307,203	Same dwelling
2	Non-migrants	24,224	2,431,691	Different dwelling, same census subdivision (CSD)
3	Different CSD, same census division	3,892	390,729	
4	Different CD, same province	7,319	734,491	
5	Interprovincial migrants	2,012	201,982	Different province
6	External migrants	2,694	270,448	Outside Canada
8	Not available	7,987	802,036	
9	Not applicable	3,203	321,483	
	Total	343,330	34,460,064	

### MOB5 - Mobility 5: Mobility Status - Place of residence 5 years ago (2011)

Qualitative

Field: 81 Size: 1 Position: 412

**Description:** 

Mobility 5: Refers to the status of a person with regard to the place of residence on the reference day, May 10, 2016, in relation to the place of residence on the same date five years earlier. Persons who have not moved are referred to as non-movers and persons who have moved from one residence to another are referred to as movers. Movers include non-migrants and migrants. Non-migrants are persons who did move but remained in the same city, town, township, village or Indian Reserve. Migrants include internal migrants who moved to a different city, town, township, village or Indian Reserve within Canada. External migrants include persons who lived outside Canada at the earlier reference date.

Reported for: Population in private households

Code	Description	Unweighted	Weighted	Includes
1	Non-movers	201,073	20,180,439	Same dwelling
2	Non-migrants	67,375	6,763,069	Different dwelling, same census subdivision (CSD)
3	Different CSD, same census division	11,124	1,116,723	
4	Different CD, same province	23,493	2,357,506	
5	Interprovincial migrants	8,314	834,853	Different province
6	External migrants	13,274	1,332,779	Outside Canada
9	Not applicable	18,677	1,874,695	
	Total	343,330	34,460,064	

# PR1 – Mobility 1: Province or territory of residence 1 year ago (2015)

Qualitative

Field: 97 Size: 2 Position: 440-441

**Description:** Mobility 1: Refers to the person's usual province or territory of residence on May 10, 2015 one year prior to the

reference day, May 10, 2016. This concept applies to the Mobility status (1 year ago) subuniverse only.

Reported for: Population in private households

Code	Description	Unweighted	Weighted	Includes
10	Newfoundland and Labrador	4,912	492,026	
11	Prince Edward Island	1,297	129,328	
12	Nova Scotia	8,724	873,145	
13	New Brunswick	6,938	695,240	
24	Quebec	77,249	7,740,153	
35	Ontario	127,165	12,765,317	
46	Manitoba	11,578	1,168,673	
47	Saskatchewan	10,102	1,012,096	
48	Alberta	37,699	3,789,214	
59	British Columbia	42,856	4,307,625	
70	Northern Canada	926	93,278	Yukon, Northwest Territories and
				Nunavut
88	Not available	7,987	802,036	
99	Not applicable	5,897	591,931	
	Total	343,330	34,460,064	

# PR5 - Mobility 5: Province or territory of residence 5 years ago (2011)

Qualitative

Field: 98 Size: 2 Position: 442-443

**Description:** Mobility 5: Refers to the person's usual province or territory of residence on May 10, 2011, five years prior to the

reference day, May 10, 2016. This concept applies to the Mobility status (5 years ago) subuniverse only.

**Reported for:** Population in private households

Code	Description	Unweighted	Weighted	Includes
10	Newfoundland and Labrador	4,792	480,036	
11	Prince Edward Island	1,276	127,282	
12	Nova Scotia	8,577	858,558	
13	New Brunswick	6,929	694,373	
24	Quebec	73,208	7,335,428	
35	Ontario	120,154	12,061,582	
46	Manitoba	11,056	1,115,773	
47	Saskatchewan	9,515	953,400	
48	Alberta	34,253	3,442,756	
59	British Columbia	40,622	4,083,006	
70	Northern Canada	997	100,397	Yukon, Northwest Territories and Nunavut
99	Not applicable	31,951	3,207,474	
	Total	343,330	34,460,064	

# **Aboriginal Population**

### ABOID - Aboriginal: Aboriginal identity - Detailed

Qualitative

Field: 22 Size: 1 Position: 304

**Description:** 

'Aboriginal identity' refers to whether the person identified with the Aboriginal peoples of Canada. This includes those who are First Nations (North American Indian), Métis or Inuk (Inuit) and/or those who are Registered or Treaty Indians (that is, registered under the *Indian Act* of Canada), and/or those who have membership in a First Nation or Indian band. Aboriginal peoples of Canada are defined in the *Constitution Act*, 1982, Section 35 (2) as including the Indian, Inuit and Métis peoples of Canada.

Aboriginal identity is derived from data collected in three questions: Aboriginal group (Question 18); Registered or Treaty Indian status (Question 20); and membership in a First Nation or Indian band (Question 21).

Users should be aware that the estimates associated with this variable are more affected than most by the incomplete enumeration of certain Indian reserves and Indian settlements in the Census of Population. Any historical comparison of Aboriginal data must include adjustments for incompletely enumerated reserves and settlements and for other changes in the definition and geography of reserves. There are two different adjustments that may be necessary. The first adjustment (Adjusted base) is used for comparison of the same areas across different collection periods. Only the Indian reserves and Indian settlements that participated in all comparison years are included when comparing data. The second adjustment (Residence on or off reserve) is used when comparing the on or off reserve populations over time.

For more information on Aboriginal variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Aboriginal Peoples Reference Guide, Census of Population, 2016 and the Aboriginal Peoples Technical Report, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	First Nations (North American Indian)	7,996	803,130	
2	Métis	5,198	522,190	
3	Inuk (Inuit)	514	51,660	
4	Multiple Aboriginal responses	191	19,183	
5	Aboriginal responses not included elsewhere	207	20,771	
6	Non-Aboriginal identity	311,046	31,218,033	
8	Not available	18,178	1,825,096	
	Total	343,330	34,460,064	

### BFNMEMB - Aboriginal: Membership in a First Nation or Indian band

Qualitative

Field: 27 Size: 1 Position: 311

**Description:** This variable provides estimates of whether or not the respondent is a member of a First Nation or Indian band.

'Membership in a First Nation or Indian band' refers to whether or not a person is a member of a First Nation or Indian band. An Indian band is defined as a body of Indians for whose collective use and benefit lands have been set apart or money is held by the Crown, or who have been declared to be a band for the purpose of the *Indian Act*. Many Indian bands have elected to call themselves a First Nation and have changed their band name to reflect this. With the 1985 amendment to the *Indian Act* of Canada (Bill C-31), many Indian bands exercised the right to establish their own membership code, whereby it was not always necessary for a band member to be a Registered Indian according to the *Indian Act*.

Users should be aware that the estimates associated with this variable are more affected than most by the incomplete enumeration of certain Indian reserves and Indian settlements in the Census of Population. Any historical comparison of Aboriginal data must include adjustments for incompletely enumerated reserves and settlements and for other changes in the definition and geography of reserves. There are two different adjustments that may be necessary. The first adjustment (Adjusted base) is used for comparison of the same areas across different collection periods. Only the Indian reserves and Indian settlements that participated in all comparison years are included when comparing data. The second adjustment (Residence on or off reserve) is used when comparing the on or off reserve populations over time.

For more information on Aboriginal variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Aboriginal Peoples Reference Guide, Census of Population, 2016 and the Aboriginal Peoples Technical Report, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Not a member of a First Nation or Indian band	318,749	31,991,737	
2	Member of a First Nation or Indian band	6,403	643,231	
8	Not available	18,178	1,825,096	
	Total	343,330	34,460,064	

### **REGIND – Aboriginal: Registered or Treaty Indian status**

Qualitative

Field: 102 Size: 1 Position: 448

**Description:** 

'Registered or Treaty Indian status' refers to whether or not a person is a Registered or Treaty Indian. Registered Indians are persons who are registered under the *Indian Act* of Canada. Treaty Indians are persons who belong to a First Nation or Indian band that signed a treaty with the Crown. Registered or Treaty Indians are sometimes also called Status Indians.

Users should be aware that the estimates associated with this variable are more affected than most by the incomplete enumeration of certain Indian reserves and Indian settlements in the Census of Population. Any historical comparison of Aboriginal data must include adjustments for incompletely enumerated reserves and settlements and for other changes in the definition and geography of reserves. There are two different adjustments that may be necessary. The first adjustment (Adjusted base) is used for comparison of the same areas across different collection periods. Only the Indian reserves and Indian settlements that participated in all comparison years are included when comparing data. The second adjustment (Residence on or off reserve) is used when comparing the on or off reserve populations over time.

For more information on Aboriginal variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Aboriginal Peoples Reference Guide, Census of Population, 2016 and the Aboriginal Peoples Technical Report, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Not a Registered or Treaty Indian	318,474	31,964,124	
2	Registered or Treaty Indian	6,678	670,843	
8	Not available	18,178	1,825,096	
	Total	343,330	34,460,064	

# Ethnic origin and visible minority

### ETHDER - Ethnic origin: Derived single and multiple ethnic origins

Qualitative

Field: 45 Size: 2 Position: 349-350

**Description:** This variable provides a distribution of the total population by single responses and multiple responses to the ethnic origin question (Question 17).

'Ethnic origin' refers to the ethnic or cultural origins of the person's ancestors. An ancestor is usually more distant than a grandparent.

Due to the increasingly high proportion of persons who report multiple origins in the Census, this variable should only be used for very specific purposes, as those who report multiple ethnic origins are placed in a broad multiple-response category.

For more information on ethnic origin variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Ethnic Origin Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	British Isles origins	20,273	2,034,951	Includes single responses of British Isles origins - (see Appendix C)
2	French origins	9,230	925,305	Includes single responses of Alsatian, Breton, Corsican and French
3	North American Aboriginal origins	5,147	517,046	Includes single responses of First Nations (North American Indian), Inuit and Métis
4	Other North American origins	63,464	6,363,513	Includes single responses of Other North American origins
5	European origins (excluding British Isles and French origins)	32,639	3,277,145	Includes single responses of European origins (excluding British Isles and French origins) - (see Appendix C)
6	Asian origins	46,887	4,708,580	Includes single responses of Asian origins - (see Appendix C)
7	Other single origins	12,896	1,294,005	Includes single responses of all other ethnic origin responses - (see Appendix C)
8	Multiple origins	134,616	13,514,423	Includes all multiple responses
88	Not available	18,178	1,825,096	
	Total	343,330	34,460,064	

### VISMIN - Visible minority: Visible minority indicator

Qualitative

Field: 113 Size: 1 Position: 485

**Description:** 

'Visible minority' refers to whether a person belongs to a visible minority group as defined by the Employment Equity Act and, if so, the visible minority group to which the person belongs. The Employment Equity Act defines visible minorities as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour". The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean and Japanese.

The visible minority variable is derived from information collected in Question 19: Population group and Question 18: Aboriginal group. Respondents who reported being Aboriginal in Question 18 were not required to answer the population group question (Question 19). All other respondents are classified based on their mark-in and write-in response(s) to the population group question (Question 19).

For more information on the visible minority variable, including information on its classification, the questions from which it is derived, data quality and its comparability with other sources of data, refer to the Visible Minority and Population Group Reference Guide, Census of Population, 2016.

Description	Unweighted	Weighted	Includes
Visible minority	75,008	7,531,332	
Not a visible minority	266,288	26,724,498	Includes respondents who reported 'Yes' to Question 18 (Aboriginal group) as well as respondents who were not considered to be members of a visible minority group
Not available	2,034	204,234	
Total	343,330	34,460,064	
	Visible minority  Not a visible minority  Not available	Visible minority 75,008  Not a visible minority 266,288  Not available 2,034	Visible minority       75,008       7,531,332         Not a visible minority       266,288       26,724,498         Not available       2,034       204,234

# Language

# FOL - Language: First official language spoken

Qualitative

Field: 47 Size: 1 Position: 359

**Description:** 'First official language spoken' is specified within the framework of the Official Languages Act. It refers to the first

official language (i.e. English or French) spoken by the person.

'First official language spoken' is derived from data collected in three questions: Knowledge of official languages (Question 7); Mother tongue (Question 9); and Language spoken most often at home (Question 8 (a)).

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, 2016 Census.

Code	Description	Unweighted	Weighted	Includes
1	English	256,950	25,801,776	
2	French	76,028	7,619,389	
3	English and French	4,141	415,211	
4	Neither English nor French	912	91,571	
8	Not available	5,299	532,118	
	Total	343,330	34,460,064	

# HLAEN – Language: Home language (part A) – English component

Qualitative

Field: 53 Size: 1 Position: 373

**Description:** 

This variable represents whether or not a respondent reported English as their language spoken most often at home. This is a component variable which represents one of three possible responses to the home language (part A) question (Question 8a). For an estimate of the total responses for all languages, use the variable HLnDr (Language: Home language (part A) - Derived) or HLNAResps (Language: Home language (part A) - Detailed total responses).

'Language spoken most often at home' refers to the language the person speaks most often at home at the time of data collection. A person can report more than one language as 'spoken most often at home' if the languages are spoken equally often.

For a person who lives alone, the language spoken most often at home is the language in which he or she feels most comfortable. For a child who has not yet learned to speak, this is the language spoken most often to the child at home. Where two languages are spoken to the child, the language spoken most often at home is the language spoken most often. If both languages are used equally often, then both languages are included here.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report English as the language spoken most often at home	108,921	10,922,573	
1	True - Respondent reported English as the language spoken most often at home	234,409	23,537,491	
	Total	343,330	34,460,064	

### HLAFR - Language: Home language (part A) - French component

Qualitative

Field: 54 Size: 1 Position: 374

**Description:** 

This variable represents whether or not a respondent reported French as their language spoken most often at home. This is a component variable which represents one of three possible responses to the home language (part A) question (Question 8a). For an estimate of the total responses for all languages, use the variable HLnDr (Language: Home language (part A) - Derived) or HLNAResps (Language: Home language (part A) - Detailed total responses).

'Language spoken most often at home' refers to the language the person speaks most often at home at the time of data collection. A person can report more than one language as 'spoken most often at home' if the languages are spoken equally often.

For a person who lives alone, the language spoken most often at home is the language in which he or she feels most comfortable. For a child who has not yet learned to speak, this is the language spoken most often to the child at home. Where two languages are spoken to the child, the language spoken most often at home is the language spoken most often. If both languages are used equally often, then both languages are included here.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report French as the language spoken most often at home	271,204	27,232,258	
1	True - Respondent reported French as the language spoken most often at home	72,126	7,227,806	
	Total	343,330	34,460,064	

### HLANO - Language: Home language (part A) - First write-in component

Qualitative

Field: 55 Size: 2 Position: 375-376

**Description:** 

This variable refers to the first write-in response (non-official language) reported by the respondent to the language spoken most often at home question (Question 8a), regardless of whether they also reported having 'English', 'French', or both 'English and French' as their home language in part A of question 8. In this variable, persons who did not report a non-official language, but reported only 'English', 'French', or both 'English and French' as their home language in part A of question 8, are included in the category 'No non-official language'.

'Language spoken most often at home' refers to the language the person speaks most often at home at the time of data collection. A person can report more than one language as 'spoken most often at home' if the languages are spoken equally often.

For a person who lives alone, the language spoken most often at home is the language in which he or she feels most comfortable. For a child who has not yet learned to speak, this is the language spoken most often to the child at home. Where two languages are spoken to the child, the language spoken most often at home is the language spoken most often. If both languages are used equally often, then both languages are included here.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	No non-official language	278,795	27,980,186	
2	Chinese languages	9,717	975,869	Includes responses from Chinese languages - (see Appendix B)
3	Spanish	3,129	313,987	
4	Italian	1,557	156,236	
5	German	1,005	100,998	
6	Arabic	3,239	324,949	
7	Punjabi (Panjabi)	4,063	408,220	
8	Tagalog (Pilipino, Filipino)	3,255	327,096	
9	Portuguese	1,179	118,357	
10	All other single languages	21,871	2,195,656	See Appendix B
88	Not available	15,520	1,558,512	
	Total	343,330	34,460,064	

### HLBEN - Language: Home language (part B) - English component

Qualitative

Field: 56 Size: 1 Position: 377

**Description:** 

This variable represents whether or not a respondent reported English as their other language(s) spoken regularly at home. This is a component variable which represents one of three possible responses to the home language (part B) question (Question 8b). For an estimate of the total responses for all languages, use the variable HLnBDr (Language: Home language (part B) - Derived) or HLNBResps (Language: Home language (part B) - Detailed total responses).

'Other language(s) spoken regularly at home' refers to the languages, if any, that the person speaks at home on a regular basis at the time of data collection, other than the language or languages he or she speaks most often at home.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

**Reported for:** Persons in private households

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report English as the language spoken at home on a regular basis	321,693	32,288,264	
1	True - Respondent reported English as the language spoken at home on a regular basis	21,637	2,171,800	
	Total	343,330	34,460,064	

# HLBFR - Language: Home language (part B) - French component

Qualitative

Field: 57 Size: 1 Position: 378

**Description:** 

This variable represents whether or not a respondent reported French as their other language(s) spoken regularly at home. This is a component variable which represents one of three possible responses to the home language (part B) question (Question 8b). For an estimate of the total responses for all languages, use the variable HLnBDr (Language: Home language (part B) - Derived) or HLNBResps (Language: Home language (part B) - Detailed total responses).

'Other language(s) spoken regularly at home' refers to the languages, if any, that the person speaks at home on a regular basis at the time of data collection, other than the language or languages he or she speaks most often at home.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report French as the language spoken at home on a regular basis	335,249	33,649,496	
1	True - Respondent reported French as the language spoken at home on a regular basis	8,081	810,568	
	Total	343,330	34,460,064	

### HLBNO - Language: Home language (part B) - First write-in component

Qualitative

Field: 58 Size: 1 Position: 379

**Description:** 

This variable refers to the first write-in response (non-official language) reported by the respondent to the other language(s) spoken regularly at home question (Question 8b), regardless of whether they also reported having 'English', 'French', or both 'English and French' as their home language in part B of question 8. In this variable, persons who did not report a non-official language, but reported only 'English', 'French', or both 'English and French' as their home language in part B of question 8, are included in the category 'No non-official language'.

'Other language(s) spoken regularly at home' refers to the languages, if any, that the person speaks at home on a regular basis at the time of data collection, other than the language or languages he or she speaks most often at home.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report a non- official language as the language spoken at home on a regular basis	321,219	32,239,999	
1	True - Respondent reported a non-official language as the language spoken at home on a regular basis	22,111	2,220,065	
	Total	343,330	34,460,064	

### KOL - Language: Knowledge of official languages

**Oualitative** 

Field: 62 Size: 1 Position: 391

**Description:** 

'Knowledge of official languages' refers to whether the person can conduct a conversation in English only, French only, in both or in neither language. For a child who has not yet learned to speak, this includes languages that the child is learning to speak at home.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	English only	231,371	23,234,694	
2	French only	40,055	4,013,457	
3	English and French	58,765	5,892,888	
4	Neither English nor French	5,299	532,118	
8	Not available	7,840	786,908	
	Total	343,330	34,460,064	

# LWAEN - Language: Language of work (part A) - English component

Qualitative

Field: 73 Size: 1 Position: 404

**Description:** 

This variable represents whether or not a respondent reported English as their language used most often at work. This is a component variable which represents one of three possible responses to the language of work (part A) question (Question 45a). For an estimate of the total responses for all languages, use the variable LnWADr (Language: Language of work (part A) - Derived) or LnWAResps (Language: Language of work (part A) - Detailed total responses).

'Language used most often at work' refers to the language the person uses most often at work. A person can report more than one language as 'used most often at work' if the languages are used equally often.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report English as the language used most often at work	41,135	4,122,499	
1	True - Respondent reported English as the language used most often at work	157,867	15,851,725	
9	Not applicable	144,328	14,485,840	Persons who did not work since January 1, 2015 and all persons aged less than 15 years
	Total	343,330	34,460,064	

### LWAFR - Language: Language of work (part A) - French component

Qualitative

Field: 74 Size: 1 Position: 405

**Description:** 

This variable represents whether or not a respondent reported French as their Language used most often at work. This is a component variable which represents one of three possible responses to the language of work (part A) question (Question 45a). For an estimate of the total responses for all languages, use the variable LnWADr (Language: Language of work (part A) - Derived) or LnWAResps (Language: Language of work (part A) - Detailed total responses).

'Language used most often at work' refers to the language the person uses most often at work. A person can report more than one language as 'used most often at work' if the languages are used equally often.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report French as the language used most often at work	156,302	15,695,370	
1	True - Respondent reported French as the language used most often at work	42,700	4,278,854	
9	Not applicable	144,328	14,485,840	Persons who did not work since January 1, 2015 and all persons aged less than 15 years
	Total	343,330	34,460,064	

# LWANO – Language: Language used at work (part A) – First write-in component

Qualitative

Field: 75 Size: 1 Position: 406

**Description:** 

This variable refers to the first write-in response (non-official language) reported by the respondent to the language used most often at work question (Question 45a), regardless of whether they also reported having 'English', 'French', or both 'English and French' as their language used at work in part A of question 45. In this variable, persons who did not report a non-official language, but reported only 'English', 'French', or both 'English and French' as their language used at work in part A of question 45, are included in the category 'No non-official language'.

'Language used most often at work' refers to the language the person uses most often at work. A person can report more than one language as "used most often at work" if the languages are used equally often.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report a non- official language as the language used most often at work	194,477	19,519,828	
1	True - Respondent reported a non-official language as the language used most often at work	4,525	454,396	
9	Not applicable	144,328	14,485,840	Persons who did not work since January 1, 2015 and all persons aged less than 15 years
	Total	343,330	34,460,064	

### LWBEN - Language: Language of work (part B) - English component

Qualitative

Field: 76 Size: 1 Position: 407

**Description:** 

This variable represents whether or not a respondent reported English as their other language(s) used regularly at work. This is a component variable which represents one of three possible responses to the language of work (part B) question (Question 45b). For an estimate of the total responses for all languages, use the variable LnWBDr (Language: Language of work (part B) - Derived) or LnWBResps (Language: Language of work (part B) - Detailed total responses).

'Other language(s) used regularly at work' refers to the languages, if any, that the person uses in their job on a regular basis, other than the language or languages he or she uses most often at work.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report English as the language used on a regular basis at work	186,184	18,689,433	
1	True - Respondent reported English as the language used on a regular basis at work	12,818	1,284,791	
9	Not applicable	144,328	14,485,840	Persons who did not work since January 1, 2015 and all persons aged less than 15 years
	Total	343,330	34,460,064	

### LWBFR - Language: Language of work (part B) - French component

Qualitative

Field: 77 Size: 1 Position: 408

**Description:** 

This variable represents whether or not a respondent reported French as their other language(s) used regularly at work. This is a component variable which represents one of three possible responses to the language of work (part B) question (Question 45b). For an estimate of the total responses for all languages, use the variable LnWBDr (Language: Language of work (part B) - Derived) or LnWBResps (Language: Language of work (part B) - Detailed total responses).

'Other language(s) used regularly at work' refers to the languages, if any, that the person uses in their job on a regular basis, other than the language or languages he or she uses most often at work.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report French as the language used on a regular basis at work	191,860	19,257,898	
1	True - Respondent reported French as the language used on a regular basis at work	7,142	716,326	
9	Not applicable	144,328	14,485,840	Persons who did not work since January 1, 2015 and all persons aged less than 15 years
	Total	343,330	34,460,064	

### LWBNO - Language: Language used at work (part B) - First write-in component

Qualitative

Field: 78 Size: 1 Position: 409

**Description:** 

This variable refers to the first write-in response (non-official language) reported by the respondent to the language used regularly at work question (Question 45b), regardless of whether they also reported having 'English', 'French', or both 'English and French' as their language used at work in part B of question 45. In this variable, persons who did not report a non-official language, but reported only 'English', 'French', or both 'English and French' as their language used at work in part B of question 45, are included in the category 'No non-official language'.

'Other language(s) used regularly at work' refers to the languages, if any, that the person uses in their job on a regular basis, other than the language or languages he or she uses most often at work.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report a non- official language as the language used on a regular basis at work	193,622	19,433,943	
1	True - Respondent reported a non-official language as the language used on a regular basis at work	5,380	540,281	
9	Not applicable	144,328	14,485,840	Persons who did not work since January 1, 2015 and all persons aged less than 15 years
	Total	343,330	34,460,064	

### MTNEN - Language: Mother tongue - English component

Qualitative

Field: 84 Size: 1 Position: 422

**Description:** 

This variable represents whether or not a respondent reported English as their mother tongue. This is a component variable which represents one of three possible responses to the mother tongue question (Question 9). For an estimate of the total responses for all languages, use the variable MTNDR (Language: Mother tongue - Derived) or MTNResps (Language: Mother tongue - Detailed total responses).

'Mother tongue' refers to the first language learned at home in childhood and still understood by the person at the time the data was collected. If the person no longer understands the first language learned, the mother tongue is the second language learned. For a person who learned two languages at the same time in early childhood, the mother tongue is the language this person spoke most often at home before starting school. The person has two mother tongues only if the two languages were used equally often and are still understood by the person. For a child who has not yet learned to speak, the mother tongue is the language spoken most often to this child at home. The child has two mother tongues only if both languages are spoken equally often so that the child learns both languages at the same time.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report English as mother tongue	143,176	14,362,678	
1	True - Respondent reported English as mother tongue	200,154	20,097,386	
	Total	343,330	34,460,064	

### MTNFR - Language: Mother tongue - French component

Qualitative

Field: 85 Size: 1 Position: 423

**Description:** 

This variable represents whether or not a respondent reported French as their mother tongue. This is a component variable which represents one of three possible responses to the mother tongue question (Question 9). For an estimate of the total responses for all languages, use the variable MTNDR (Language: Mother tongue - Derived) or MTNResps (Language: Mother tongue - Detailed total responses).

'Mother tongue' refers to the first language learned at home in childhood and still understood by the person at the time the data was collected. If the person no longer understands the first language learned, the mother tongue is the second language learned. For a person who learned two languages at the same time in early childhood, the mother tongue is the language this person spoke most often at home before starting school. The person has two mother tongues only if the two languages were used equally often and are still understood by the person. For a child who has not yet learned to speak, the mother tongue is the language spoken most often to this child at home. The child has two mother tongues only if both languages are spoken equally often so that the child learns both languages at the same time.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
0	False - Respondent did not report French as mother tongue	269,852	27,095,924	
1	True - Respondent reported French as mother tongue	73,478	7,364,140	
	Total	343,330	34,460,064	

#### MTNNO - Language: Mother Tongue - First write-in component

Qualitative

Field: 86 Size: 2 Position: 424-425

**Description:** 

This variable refers to the first write-in response (non-official language) reported by the respondent to the mother tongue question (Question 9), regardless of whether they also reported having 'English', 'French', or both 'English and French' as a mother tongue. In this variable, persons who did not report a non-official language, but reported only 'English', 'French', or both 'English and French' as a mother tongue, are included in the category 'No non-official language'.

'Mother tongue' refers to the first language learned at home in childhood and still understood by the person at the time the data was collected. If the person no longer understands the first language learned, the mother tongue is the second language learned. For a person who learned two languages at the same time in early childhood, the mother tongue is the language this person spoke most often at home before starting school. The person has two mother tongues only if the two languages were used equally often and are still understood by the person. For a child who has not yet learned to speak, the mother tongue is the language spoken most often to this child at home. The child has two mother tongues only if both languages are spoken equally often so that the child learns both languages at the same time.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	No non-official language	257,764	25,868,434	
2	Chinese languages	11,743	1,179,361	Includes responses from Chinese languages - (see Appendix B)
3	Spanish	4,075	408,940	
4	Italian	3,820	383,319	
5	German	3,209	322,468	
6	Arabic	4,286	429,975	
7	Punjabi (Panjabi)	4,711	473,308	
8	Tagalog (Pilipino, Filipino)	4,131	415,116	
9	Portuguese	2,006	201,379	
10	All other single languages	32,065	3,219,253	See Appendix B
88	Not available	15,520	1,558,512	
	Total	343,330	34,460,064	

#### NOL - Language: Knowledge of non-official languages - First write-in component

Qualitative

Field: 89 Size: 2 Position: 430-431

**Description:** 

This variable refers to the first (out of a possible four) write-in response (non-official language) reported by the respondent for the non-official language question (Question 16). In this variable, persons who did not report a non-official language in the first write-in are included in the category 'No non-official language'.

'Knowledge of non-official languages' refers to whether the person can conduct a conversation in a language other than English or French. For a child who has not yet learned to speak, this includes languages that the child is learning to speak at home. The number of languages that can be reported may vary between surveys, depending on the objectives of the survey.

For a detailed and comprehensive estimate of the total responses for the knowledge of a non-official language, use the variable NOLResps (Language: Knowledge of non-official languages - Detailed total responses). The total responses for the knowledge of a non-official language can also be obtained by summing the responses for a language from the variables NOLW1R, NOLW2R, NOLW3R and NOLW4R.

For more information on language variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Languages Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	No non-official language	245,077	24,595,124	
2	Chinese languages	10,519	1,056,427	Includes single responses of any of the Chinese languages - (see Appendix B)
3	Spanish	7,006	702,969	Includes single responses of Spanish
4	Italian	4,594	460,975	Includes single responses of Italian
5	German	3,361	337,707	Includes single responses of German
6	Arabic	4,787	480,227	Includes single responses of Arabic
7	Punjabi (Panjabi)	3,967	398,577	Includes single responses of Panjabi (Punjabi)
8	Tagalog (Pilipino, Filipino)	4,105	412,493	Includes single responses of Tagalog (Pilipino, Filipino)
9	Portuguese	2,140	214,829	Includes single responses of Portuguese
10	All other single languages	31,208	3,133,147	See Appendix B
11	Respondents with multiples non-official languages	11,046	1,109,078	Includes two or more non-official languages
88	Not available	15,520	1,558,512	
	Total	343,330	34,460,064	

# Place of birth, immigration and citizenship

# AGEIMM - Immigration: Age at Immigration

Both qualitative and quantitative

Field: 24 Size: 2 Position: 307-308

**Description:** 'Age at immigration' refers to the age at which an immigrant first obtained landed immigrant or permanent

resident status.

'Immigrant' refers to a person who is, or who has ever been, a landed immigrant or permanent resident. Such a person has been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this group. In the 2016 Census of Population, 'Immigrant' includes immigrants who landed in Canada on or prior to May 10, 2016.

Age at immigration is derived from the immigrant's date of birth (Question 3) and year of immigration (Question 15).

Users should note that comparisons of data for specific ages of immigration over time or between surveys can be affected by a number of factors, for example emigration and mortality among the immigrant population, survey methodology and respondent reporting patterns.

For more information on immigration variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Reported for: Persons in private households who are, or who have ever been, landed immigrants or permanent residents

Code	Description	Unweighted	Weighted	Includes
1	0 to 4 years	6,155	617,951	
2	5 to 9 years	5,959	598,310	
3	10 to 14 years	5,341	536,273	
4	15 to 19 years	5,620	564,276	
5	20 to 24 years	8,195	822,783	
6	25 to 29 years	9,989	1,002,852	
7	30 to 34 years	8,533	856,669	
8	35 to 39 years	5,840	586,326	
9	40 to 44 years	3,710	372,495	
10	45 to 49 years	2,100	210,857	
11	50 to 54 years	1,207	121,189	
12	55 to 59 years	866	86,954	
13	60 years and over	1,243	124,807	
88	Not available	13,729	1,378,739	
99	Not applicable	264,843	26,579,584	Canadian citizens by birth and non- permanent residents
	Total	343,330	34,460,064	

#### CITIZEN - Citizenship: Citizenship status and type - Summary

Qualitative

Field: 33 Size: 1 Position: 320

**Description:** This variable provides a summary of citizenship status and type of Canadian citizenship.

It is derived from single and multiple responses to the citizenship question (Question 13).

'Citizenship' refers to the country where the person has citizenship. A person may have more than one citizenship. A person may be stateless, that is, they may have no citizenship. Citizenship can be by birth or naturalization.

For more information on citizenship variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Canadian citizens by birth	260,946	26,188,350	Canadian citizen by birth only; Canadian citizen by birth and at least one other country
2	Canadian citizens by naturalization	53,887	5,410,285	Canadian citizen by naturalization only; Canadian citizen by naturalization and at least one other country
3	Not Canadian citizens	20,336	2,041,860	Citizen of one or more other countries only; persons who are stateless
8	Not available	8,161	819,569	
	Total	343,330	34,460,064	

#### CITOTH - Citizenship: Other country of citizenship

Qualitative

Field: 34 Size: 1 Position: 321

#### **Description:**

This variable refers to the write-in responses that a respondent may have provided in the write-in area for 'Other country - Specify' in the citizenship question (Question 13). The order of coded citizenships does not necessarily indicate the order in which they were reported by the respondent or the importance of those citizenships to the respondent.

'Citizenship' refers to the country where the person has citizenship. A person may have more than one citizenship. A person may be stateless, that is, they may have no citizenship. Citizenship can be by birth or naturalization.

In the citizenship question, respondents could have reported Canadian citizenship by checking one of the two following categories: 'Canada, by birth' or 'Canada, by naturalization'. Information on Canadian citizenship is not included in the variable CITOTH. To obtain estimates for Canadian citizenship, use the following variable: CITIZEN (Citizenship: Citizenship status and type – Summary).

Respondents who indicated no country of citizenship other than Canada are included in the counts for 'No other country of citizenship.' Respondents who reported United States as their single other country of citizenship are included in the counts for that country. Respondents who reported a single other country of citizenship located in Europe or in Asia are included in the counts of the respective region. Respondents who reported a single other country of citizenship in Americas (with the exception of the United States), in Africa, in Oceania, respondents who are stateless and respondents who reported more than one other country of citizenship are included in the counts for 'Other single and multiple citizenships other than Canadian'.

For more information on citizenship variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	United States	2,463	247,283	Citizenship of the United States only; Citizenship of the United States and of Canada
2	Europe	9,587	962,333	Citizenship of a single country in Europe only; citizenship of a single country in Europe and of Canada
3	Asia	14,734	1,479,636	Citizenship of a single country in Asia only; citizenship of a single country in Asia and of Canada
4	Other single and multiple citizenships other than Canadian	7,342	736,775	Citizenship of a single country in Americas (with the exception of the United States), in Africa or in Oceania only; Citizenship of a single country in Americas (with the exception of the United States), in Africa or in Oceania and of Canada; persons who are stateless; persons who reported multiple citizenship other than Canada; persons who reported multiple citizenships other than Canada and Canada
5	No other country of citizenship	301,043	30,214,467	Canadian citizenship only
8	Not available	8,161	819,569	

Total	343,330	34,460,064	

GENSTAT – Generation status: Detailed Qualitative

Field: 49 Size: 1 Position: 361

**Description:** 'Generation status' refers to whether or not the person or the person's parents were born in Canada.

Generation status is derived from responses to questions concerning the person's place of birth and the places of birth of his or her parents.

It identifies persons as being first generation, second generation or third generation or more.

For more information on generation status variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	First generation, respondent born outside Canada	72,543	7,283,438	
2	Second generation, respondent born in Canada, both parents born outside Canada	31,544	3,167,102	
3	Second generation, respondent born in Canada, one parent born outside Canada and one parent born in Canada	26,032	2,613,853	
4	Third generation or more, respondent born in Canada, both parents born in Canada	199,547	20,023,533	
8	Not available	13,664	1,372,138	
	Total	343,330	34,460,064	

#### **IMMSTAT – Immigration: Immigrant status**

Qualitative

Field: 60 Size: 1 Position: 382

**Description:** 'Immigrant status' refers to whether the person is a non-immigrant, an immigrant or a non-permanent resident.

Immigrant status is derived from the responses to the citizenship question (Question 13) and the landed immigrant status question (Question 14).

'Non-immigrant' includes persons who are Canadian citizens by birth.

'Immigrant' includes persons who are, or who have ever been, landed immigrants or permanent residents. Such persons have been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this category. In the 2016 Census of Population, 'Immigrant' includes immigrants who landed in Canada on or prior to May 10, 2016.

'Non-permanent resident' includes persons from another country who have a work or study permit or who are refugee claimants, and their family members sharing the same permit and living in Canada with them.

For more information on immigration variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Non-immigrants	260,946	26,188,350	
2	Immigrants	70,326	7,060,911	
3	Non-permanent residents	3,897	391,234	
8	Not available	8,161	819,569	
	Total	343,330	34,460,064	

# POB - Place of birth of person: Detailed

Qualitative

Field: 92 Size: 1 Position: 434

**Description:** 

'Place of birth' refers to the name of the geographic location where the person was born. The geographic location is specified according to geographic boundaries current at the time of data collection, not the geographic boundaries at the time of birth.

In the 2016 Census of Population, the geographic location refers to the name of the province, territory or country in which the person was born. It refers to a province or territory if the person was born in Canada. It refers to a country if the person was born outside Canada.

For more information on place of birth variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Canada	257,123	25,804,488	
2	United States	2,465	247,495	
3	Europe	20,501	2,058,167	See Appendix A: Europe
4	Asia	34,967	3,511,528	See Appendix A: Asia
5	Other	14,610	1,466,247	
8	Not available	13,664	1,372,138	
	Total	343,330	34,460,064	

#### POBF - Place of birth of father: Detailed

Qualitative

Field: 93 Size: 1 Position: 435

**Description:** 

'Place of birth of father' refers to the name of the geographic location where the father of the person was born. The geographic location is specified according to geographic boundaries current at the time of data collection, not the geographic boundaries at the time of birth.

In the 2016 Census of Population, the geographic location refers to the name of the country in which the father of the person was born.

For adopted persons, if the place of birth of parents is unknown, the person was asked to report the place of birth of the adoptive parents.

For persons of same-sex parents, the person was asked to report the place of birth of one parent in Question 24a and that of the other parent in Question 24b.

For more information on place of birth variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Description	Unweighted	Weighted	Includes
Canada	212,101	21,284,067	
United States	3,964	398,026	
Europe	43,623	4,379,867	See Appendix A: Europe
Asia	47,899	4,810,143	See Appendix A: Asia
Other	22,079	2,215,823	
Not available	13,664	1,372,138	
Total	343,330	34,460,064	
	Canada United States Europe Asia Other Not available	Canada       212,101         United States       3,964         Europe       43,623         Asia       47,899         Other       22,079         Not available       13,664	Canada       212,101       21,284,067         United States       3,964       398,026         Europe       43,623       4,379,867         Asia       47,899       4,810,143         Other       22,079       2,215,823         Not available       13,664       1,372,138

#### POBM - Place of birth of mother: Detailed

Qualitative

Field: 94 Size: 1 Position: 436

**Description:** 

'Place of birth of mother' refers to the name of the geographic location where the mother of the person was born. The geographic location is specified according to geographic boundaries current at the time of data collection, not the geographic boundaries at the time of birth.

In the 2016 Census of Population, the geographic location refers to the name of the country in which the mother of the person was born.

For adopted persons, if the place of birth of parents is unknown, the person was asked to report the place of birth of the adoptive parents.

For persons of same-sex parents, the person was asked to report the place of birth of one parent in Question 24a and that of the other parent in Question 24b.

For more information on place of birth variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Canada	216,119	21,687,429	
2	United States	4,035	405,149	
3	Europe	40,307	4,046,921	See Appendix A: Europe
4	Asia	48,003	4,820,622	See Appendix A: Asia
5	Other	21,202	2,127,805	
8	Not available	13,664	1,372,138	
	Total	343,330	34,460,064	

#### YRIMM - Immigration: Year of immigration

Qualitative

Field: 116 Size: 1 Position: 489

**Description:** 

'Year of immigration' refers to the year in which the immigrant first obtained landed immigrant or permanent resident status.

'Immigrant' refers to a person who is, or who has ever been, a landed immigrant or permanent resident. Such a person has been granted the right to live in Canada permanently by immigration authorities. Immigrants who have obtained Canadian citizenship by naturalization are included in this group. In the 2016 Census of Population, 'Immigrant' includes immigrants who landed in Canada on or prior to May 10, 2016.

Users should note that comparisons of individual years of immigration over time or between surveys can be affected by a number of factors, for example, emigration and mortality among the immigrant population, survey methodology and respondent reporting patterns.

For more information on immigration variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Place of Birth, Generation Status, Citizenship and Immigration Reference Guide, Census of Population, 2016.

Reported for: Persons in private households who are, or who have ever been, landed immigrants or permanent residents

Code	Description	Unweighted	Weighted	Includes
1	Before 1980	18,057	1,812,975	
2	1980 to 1990	10,051	1,009,154	
3	1991 to 2000	14,240	1,429,706	
4	2001 to 2005	8,504	853,795	
5	2006 to 2010	9,630	966,903	
6	2011 to 2016	9,844	988,378	
8	Not available	8,161	819,569	
9	Not applicable	264,843	26,579,584	Canadian citizens by birth and non- permanent residents
	Total	343,330	34,460,064	

# **Education**

ATTSCH - Education: School attendance

Qualitative

Field: 25 Size: 1 Position: 309

**Description:** 

This variable refers to whether a person attended, either full-time or part-time, any accredited educational institution or program at any time during the nine-month period between September 2015 and May 10, 2016. The person may have attended more than one educational institution or have been enrolled in more than one program.

Attendance is counted only for courses which could be used as credits towards a certificate, diploma or degree from an educational institution or program such as an elementary school, secondary school (high school), registered apprenticeship program (in-class portion), trade school, college, CEGEP or university. Educational institutions also include seminaries, schools of nursing, private business schools, private or public trade schools, institutes of technology, vocational schools, and schools for people who are deaf or blind. Attendance includes participation in courses or programs offered over the Internet, through correspondence and by other non-traditional methods of delivery.

Attendance does not include training received from an employer unless it could be used as credit towards a certificate, diploma or degree from an accredited educational institution.

This variable applies to the population aged 15 years and over in private households.

Similar to the 2006 Census and 2011 National Household Survey (NHS), comparisons with other data sources indicated that a proportion of respondents interpreted the Census question as 'Has this person ever attended a school, college, CEGEP or university?' rather than the actual question 'At any time since September 2015, has this person attended a school, college, CEGEP or university?' As a result, the 2016 Census overestimated categories with small proportions of school attendance, such as older age groups and/or where the respondent selected attendance at more than one type of institution. Data users should interpret the data on school attendance with caution.

For more information on education variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Education Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Did not attend school	239,312	24,019,419	
2	Attended school	46,195	4,636,603	
9	Not applicable	57,823	5,804,042	Persons less than 15 years of age
	Total	343,330	34,460,064	

# CIP2011 – Education: Major field of study, primary groupings (based on CIP Canada 2016)

Qualitative

Field: 32 Size: 2 Position: 318-319

**Description:** 

'Major field of study' refers to the predominant discipline or area of learning or training of a person's highest postsecondary certificate, diploma or degree. This variable applies to the population aged 15 years and over in private households, with a postsecondary certificate, diploma or degree. It uses the Classification of Instructional Programs (CIP) Canada 'primary groupings.'

Major field of study write-in responses were assigned codes using the updated CIP Canada 2016 (variable CIP2011). The updated classification is directly comparable to the previous classification, CIP Canada 2011, as updates include only new examples and minor changes to existing examples.

At the most detailed level, the CIP Canada 2016 consists of 1,689 instructional program classes represented by six-digit codes (variable CIP2011). Related instructional program classes can be grouped into 387 subseries (four-digit codes, variable CIP2011\_4) which can be grouped again to form 49 series (two-digit codes, variable CIP2011\_2). There is also a variant of CIP Canada 2016 that consists of 13 primary groupings, 12 of which are used for the 2016 Census of Population (variable CIP2011\_PRIM). The category which includes courses in personal improvement and leisure is not used. There is also a variant of CIP Canada 2016 that can be used to examine or compare the STEM fields of study - science, technology, engineering and mathematics and computer sciences (variable CIP2011 \_\_STEM).

IMPORTANT NOTE: Some series and their subcomponents are not used in the CIP variables: series 21, 32 to 37 and 53.

For more information on the CIP classification, please see https://www.statcan.gc.ca/eng/concepts/classification.

The 2016 electronic questionnaire included dynamic text in the major field of study question that referred back to the highest educational qualification reported in the previous question. For example, if the highest educational qualification reported was a bachelor's degree, "major field of study of bachelor's degree" was asked rather than the default text "major field of study of the highest certificate, diploma or degree." The addition of this dynamic text in the major field of study question greatly influenced respondents to provide more specific write-in responses. More information about the categories affected by the dynamic text is available in the Education Reference Guide.

For more information on education variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Education Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	01 Education	10,192	1,022,909	
2	02 Visual and performing arts, and communications technologies	5,666	568,672	
3	03 Humanities	7,986	801,515	
4	04 Social and behavioural sciences and law	16,743	1,680,516	
5	05 Business, management and public administration	32,166	3,228,129	
6	06 Physical and life sciences and technologies	5,521	554,167	
7	07 Mathematics, computer and information sciences	6,044	606,613	
8	08 Architecture, engineering, and related technologies	32,020	3,213,668	

conservation		318,469	
10 Health and related fields	21,913	2,199,487	
11 Personal, protective and transportation services	9,405	943,722	
12 Other	0	0	
No postsecondary certificate, diploma or degree	124,159	12,462,098	
Not available	10,519	1,056,059	
Not applicable	57,823	5,804,042	Persons less than 15 years of age
Total	343,330	34,460,064	
	11 Personal, protective and transportation services 12 Other No postsecondary certificate, diploma or degree Not available Not applicable	11 Personal, protective and transportation services  12 Other  No postsecondary certificate, diploma or degree  Not available  Not applicable  57,823	11 Personal, protective and transportation 9,405 943,722 services  12 Other 0 0  No postsecondary certificate, diploma or degree  Not available 10,519 1,056,059  Not applicable 57,823 5,804,042

#### HDGREE - Education: Highest certificate, diploma or degree

Qualitative

Field: 51 Size: 2 Position: 370-371

**Description:** 

'Highest certificate, diploma or degree' is the classification used in the census to measure the broader concept of 'Educational attainment.' This variable refers to the highest level of education that a person has successfully completed and is derived from the educational qualifications questions, which asked for all certificates, diplomas and degrees to be reported.

The general hierarchy used in deriving this variable (high school graduation, trades, college, university) is loosely tied to the 'in-class' duration of the various types of education. At the detailed level, someone who has completed one type of certificate, diploma or degree will not necessarily have completed the credentials listed below it in the hierarchy. For example, a person with an apprenticeship or trades certificate or diploma may not have completed a high school certificate or diploma, nor does an individual with a 'master's degree' necessarily have a 'university certificate or diploma above bachelor level.' Although the hierarchy may not fit all programs perfectly, it gives a general measure of educational attainment.

This variable applies to the population aged 15 years and over in private households.

Similar to the 2006 Census and 2011 National Household Survey (NHS), comparisons with other data sources indicated that some respondents reported their apprenticeship or other trades certificates as college diplomas, or reported them in both the trades and college questions.

In the 2006 Census and 2011 NHS, the categories 'university certificate or diploma below bachelor's level' and 'university certificate or diploma above bachelor's level' were overreported. These categories likely included some responses that were actually college diplomas, bachelor's degrees or other types of education. The overreporting of these categories was reduced for the 2016 Census. Data users can expect an impact on comparability of these categories with previous Census Program cycles.

Due to the addition of an instruction emphasizing that only completed credentials were to be reported, respondents were less likely to have reported incomplete education credentials at the postsecondary level in 2016. With respect to educational attainment, the levels of education below the postsecondary level were also affected by this change, particularly 'secondary (high) school diploma or equivalency certificate' and to a lesser extent 'no certificate, diploma or degree.'

For more information on education variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Education Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted Includes
1	No certificate, diploma or degree	45,238	4,539,830
2	Secondary (high) school diploma or equivalency certificate	67,153	6,740,648
3	Trades certificate or diploma other than Certificate of Apprenticeship or Certificate of Qualification	14,360	1,440,206
4	Certificate of Apprenticeship or Certificate of Qualification	11,809	1,185,258
5	College, CEGEP or other non-university certificate or diploma	50,933	5,111,928
6	University certificate or diploma below bachelor level	7,225	725,121
7	Bachelor's degree	39,362	3,950,996

8	University certificate, diploma or degree above bachelor level	19,416	1,948,787	
88	Not available	30,011	3,013,249	
99	Not applicable	57,823	5,804,042	Persons less than 15 years of age
	Total	343,330	34,460,064	

# LOC\_ST\_RES – Education: Location of study compared with province or territory of residence

Qualitative

Field: 65

Description:

Size: 1 Position: 395

This is a summary variable that indicates whether the 'Location of study' of the person's highest postsecondary certificate, diploma or degree was the same province or territory where the person lived at the time of the 2016 Census of Population, a different Canadian province or territory or outside Canada.

'Location of study' indicates the province or territory (in Canada) or country (outside Canada) of the institution from which the highest postsecondary certificate, diploma or degree was obtained. It refers to the location of the institution granting the certificate, diploma or degree, not the location of the person at the time he or she obtained the qualification.

This variable is derived from 'Location of study' and 'Province or territory of current residence'.

This variable applies to persons aged 15 years and over in private households.

In the 2016 Census electronic questionnaire, responses for locations of study inside Canada were reported using a drop down menu. Analysis of these data indicated that some respondents had inadvertently changed their response by using the scroll wheel on the mouse. The probability of this occurring was very low, making it unnoticeable when examining location of study categories inside Canada with large populations. However, the impact was more noticeable for location of study categories 'Yukon', 'Northwest Territories', and 'Nunavut' which have smaller populations.

For more information on education variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Education Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Same as province or territory of residence	113,759	11,415,657	
2	Different than province or territory of residence	15,234	1,529,575	
3	Outside Canada	25,067	2,516,861	
8	Not available	3,745	376,094	
9	Not applicable	185,525	18,621,877	Persons aged less than 15 years, persons aged 15 years and over with no postsecondary certificate, diploma or degree
	Total	343,330	34,460,064	

#### LOCSTUD - Education: Location of study

Qualitative

Field: 66 Size: 2 Position: 396-397

**Description:** 

This variable indicates the province or territory (in Canada) or country (outside Canada) of the institution from which the highest postsecondary certificate, diploma or degree was obtained. It refers to the location of the institution granting the certificate, diploma or degree, not the location of the person at the time he or she obtained the qualification.

This variable applies to persons aged 15 years and over in private households.

Countries outside Canada are classified according to the Standard Classification of Countries and Areas of Interest (SCCAI) 2016. A variant of this classification allows the countries to be aggregated into 19 geographical subregions and six geographical macro-regions. Respondents were asked to report location of study based on the geographic boundaries in effect as of May 2016.

For more information on the SCCAI 2016 classification and notes related to specific country names refer to: http://www23.statcan.gc.ca/imdb/p3VD.pl?Function=getVD&TVD=367512

In the 2016 Census electronic questionnaire, responses for locations of study inside Canada were reported using a drop down menu. Analysis of these data indicated that some respondents had inadvertently changed their response by using the scroll wheel on the mouse. The probability of this occurring was very low, making it unnoticeable when examining location of study categories inside Canada with large populations. However, the impact was more noticeable for location of study categories 'Yukon', 'Northwest Territories', and 'Nunavut' which have smaller populations.

For more information on education variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Education Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	Atlantic	10,452	1,047,080	
2	Quebec	35,440	3,551,423	
3	Ontario	48,247	4,843,278	
4	Prairies	20,947	2,105,675	
5	British Columbia	13,793	1,386,291	
6	Territories	114	11,485	
7	United States	3,098	311,080	
8	Other Americas	1,683	168,909	See Appendix A: Americas – excludes United States
9	Europe	7,015	704,217	See Appendix A: Europe
10	Eastern Asia	3,233	324,694	See Appendix A: Eastern Asia
11	Southeast and Southern Asia	6,720	674,958	See Appendix A: Southeast Asia and Southern Asia
12	Other countries and regions	3,318	333,003	See Appendix A: Africa, West Central Asia and the Middle East, Oceania, and Other
88	Not available	3,745	376,094	

99	Not applicable	185,525	18,621,877	Persons aged less than 15 years, persons aged 15 years and over with no postsecondary certificate, diploma or degree
	Total	343,330	34,460,064	

#### SSGRAD - Education: Secondary (high) school diploma or equivalency certificate

Qualitative

Field: 107 Size: 2 Position: 457-458

**Description:** 

This variable refers to whether or not a person has completed a secondary (high) school diploma or equivalency certificate. High school equivalency certificate includes the successful completion of a high school equivalency test such as the General Educational Development (GED) test.

If other educational qualifications above high school are held, this variable also indicates the highest additional certificate, diploma or degree.

For this variable, persons who obtained trades qualifications from secondary-level vocational training programs in the province of Quebec, such as the Diplôme d'études professionnelles / Diploma of Vocational Studies (DEP / DVS), are included with 'apprenticeship or trades certificates or diplomas'.

This variable applies to the population aged 15 years and over in private households.

Similar to the 2006 Census and 2011 National Household Survey (NHS), comparisons with other data sources indicated that some respondents reported their apprenticeship or other trades certificates as college diplomas, or reported them in both the trades and college questions.

In the 2006 Census and 2011 NHS, the categories 'university certificate or diploma below bachelor's level' and 'university certificate or diploma above bachelor's level' were overreported. These categories likely included some responses that were actually college diplomas, bachelor's degrees or other types of education. The overreporting of these categories was reduced for the 2016 Census. Data users can expect an impact on comparability of these categories with previous Census Program cycles.

Due to the addition of an instruction emphasizing that only completed credentials were to be reported, respondents were less likely to have reported incomplete education credentials at the postsecondary level in 2016. With respect to educational attainment, the levels of education below the postsecondary level were also affected by this change, particularly 'secondary (high) school diploma or equivalency certificate' and to a lesser extent 'no certificate, diploma or degree.'

For more information on education variables, including information on their classifications, the questions from which they are derived, data quality and their comparability with other sources of data, please refer to the Education Reference Guide, Census of Population, 2016.

Code	Description	Unweighted	Weighted	Includes
1	No high school diploma or equivalency certificate, no postsecondary certificate, diploma or degree	45,238	4,539,830	
2	No high school diploma or equivalency certificate, with apprenticeship or trades certificate or diploma	4,870	488,665	
3	No high school diploma or equivalency certificate, with college, CEGEP or other non-university certificate or diploma	1,578	158,452	
4	With high school diploma or equivalency certificate, no postsecondary certificate, diploma or degree	67,153	6,740,648	
5	With high school diploma or equivalency certificate, with apprenticeship or trades certificate or diploma	21,299	2,136,799	

6	With high school diploma or equivalency certificate, with college, CEGEP or other non-university certificate or diploma	49,355	4,953,476	
7	With high school diploma or equivalency certificate, with university certificate or diploma below bachelor level	7,225	725,121	
8	With high school diploma or equivalency certificate, with bachelor's degree	39,362	3,950,996	
9	With high school diploma or equivalency certificate, with university certificate, diploma or degree above bachelor level	19,416	1,948,787	
88	Not available	30,011	3,013,249	
99	Not applicable	57,823	5,804,042	Persons less than 15 years of age
	Total	343,330	34,460,064	

# **Labour Market Activities**

#### COW - Labour: Class of worker (derived)

Qualitative

Field: 37 Size: 1 Position: 326

**Description:** Class of worker refers to whether a person is an employee or is self-employed. The self-employed include persons

with or without a business, as well as unpaid family workers.

For the Census of Population, Class of worker applies to the specific job usually held by the persons aged 15 years

and over, in private households, during the reference week.

However, if the person did not work during that week but had worked at some time since January 1 of the prior year, the information relates to the job held longest during that period. Persons with two or more jobs were to

report the information for the job at which they worked the most hours.

Reported for: Population aged 15 years and over, in private households, who worked at some time between January 2015 and

the Census Reference week

Code	Description	Unweighted	Weighted	Includes
1	Employee	171,597	17,223,292	
2	Self-employed, without paid help (incorporated and unincorporated)	14,362	1,441,537	
3	Self-employed, with paid help (incorporated and unincorporated)	7,790	781,960	
4	Unpaid family worker	353	35,434	
8	Not available	8,003	803,602	
9	Not applicable	141,225	14,174,238	Worked before 2015 or never worked and all persons aged less than 15 years
	Total	343,330	34,460,064	

### FPTWK - Labour: Full-time or part-time weeks worked in 2015

Qualitative

Field: 48 Size: 1 Position: 360

**Description:** Applies to persons 15 years of age and over, in private households, who worked for pay or in self-employment in

2015. These persons were asked to report whether the weeks they worked in 2015 were full-time weeks (30 hours or more per week) or not, on the basis of all jobs held. Persons with a part-time job (less than 30 hours per week) for part of the year and a full-time job for another part of the year were to report the information for the

job at which they worked the most weeks.

Reported for: Population aged 15 years and over in private households, who worked for pay or in self-employment during the

reference year

Code	Description	Unweighted	Weighted	Includes
1	Worked mainly full-time weeks in 2015	148,330	14,887,978	
2	Worked mainly part-time weeks in 2015	44,701	4,486,880	
9	Not applicable	150,299	15,085,206	Persons who worked in 2016 only, worked before 2015 or never worked and all persons aged less than 15 years
	Total	343,330	34,460,064	

#### HRSWRK - Labour: Hours worked for pay or in self-employment

Both qualitative and quantitative

Field: 59 Size: 2 Position: 380-381

**Description:** 

Refers to the actual number of hours that persons aged 15 years and over, in private households, worked for pay or in self-employment at all jobs held in the week of Sunday, May 1 to Saturday, May 7, 2016. This includes hours worked for wages, salaries, tips, commissions, piece-rate payments or payments 'in kind' (payments in goods or services rather than money). Hours worked in one's own business, farm or professional practice or hours worked without pay in a family business, farm or professional practice, owned or operated by a relative living in the same household are also included. Excluded are hours during which the respondent was absent, with or without pay, for part of the week because of illness, vacation or other reasons.

Reported for: Persons in private households aged 15 years and over

Code	Description	Unweighted	Weighted	Includes
0	No hours of work	122,237	12,268,194	
1	1 to 9 hours of work	5,890	591,272	
2	10 to 19 hours of work	10,310	1,034,810	
3	20 to 29 hours of work	14,848	1,490,362	
4	30 to 37 hours of work	29,842	2,994,561	
5	38 to 40 hours of work	68,977	6,923,774	
6	41 to 49 hours of work	13,313	1,336,306	
7	50 to 59 hours of work	10,893	1,093,489	
8	60 to 69 hours of work	5,176	519,586	
9	70 to 79 hours of work	1,946	195,334	
10	80 hours or more of work	2,075	208,334	
99	Not applicable	57,823	5,804,042	Persons aged less than 15 years
	Total	343,330	34,460,064	

#### LFTAG - Labour: Labour force status

Both qualitative and quantitative

Field: 64 Size: 2 Position: 393-394

Description: Refers to the labour market activity of the population aged 15 years and over, in private households, in the week

of Sunday, May 1 to Saturday, May 7, 2016. Respondents were classified as either 'Employed,' 'Unemployed,' or

'Not in the labour force.' The labour force includes the employed and the unemployed.

Reported for: Population aged 15 years and over in private households

Code	Description	Unweighted	Weighted	Includes
1	Employed - Worked in reference week	163,270	16,387,828	
2	Employed - Absent in reference week	8,478	850,923	
3	Unemployed - Temporary layoff - Did not look for work	1,727	173,333	
4	Unemployed - Temporary layoff - Looked for full-time work	1,835	184,156	
5	Unemployed - Temporary layoff - Looked for part-time work	156	15,656	
6	Unemployed - New job - Did not look for work	1,041	104,464	
7	Unemployed - New job - Looked for full-time work	1,008	101,178	
8	Unemployed - New job - Looked for part- time work	381	38,248	
9	Unemployed - Looked for full-time work	5,511	553,114	
10	Unemployed - Looked for part-time work	2,666	267,588	
11	Not in the labour force - Last worked in 2016	7,021	704,761	
12	Not in the labour force - Last worked in 2015	9,861	989,700	
13	Not in the labour force - Last worked before 2015	59,584	5,979,896	
14	Not in the labour force - Never worked	22,968	2,305,176	
99	Not applicable	57,823	5,804,042	Persons less than 15 years of age
	Total	343,330	34,460,064	

# LSTWRK – Labour: When last worked for pay or in self-employment

Qualitative

 Field:
 72
 Size:
 1
 Position:
 403

**Description:** This variable is intended for the population aged 15 years and over in private household. Refers to the year or

period in which respondents last worked for pay or in self-employment, even if only for a few days.

Code	Description	Unweighted	Weighted	Includes
1	Last worked before 2015	62,387	6,261,205	
2	Last worked in 2015	18,184	1,824,991	
3	Last worked in 2016	180,818	18,149,233	
4	Never worked	24,118	2,420,593	
9	Not applicable	57,823	5,804,042	Persons less than 15 years of age
	Total	343,330	34,460,064	

#### NAICS - Labour: Industry sectors (based on the NAICS 2012)

Qualitative

Field: 87 Size: 2 Position: 426-427

**Description:** 

Industry (2 digit code) refers to a generally homogeneous group of economic producing units, primarily engaged in a specific set of activities. An activity is a particular method of combining goods and services inputs, labour and capital to produce one or more goods and/or services (products). In most cases, the activities that define an industry are homogeneous with respect to the production processes used.

For the Census of population, industry applies to persons aged 15 years and over in private household and usually relates to the establishment associated with the job the person held in the reference week. However, if the person did not work during that week but had worked at some time since January 1 of the prior year, the information relates to the job held longest during that period. Persons with two or more jobs were to report the information for the job at which they worked the most hours.

**Reported for:** Population aged 15 years and over, in private households, who worked at some time between January 2015 and the Census Reference week

Code	Description	Unweighted	Weighted	Includes
1	Agriculture and other resource based industries	7,480	750,850	Includes sectors 11, 21 and 22
2	Construction	11,928	1,197,369	
3	Manufacturing	14,041	1,408,983	
4	Wholesale trade	5,715	573,588	
5	Retail trade	18,850	1,891,782	
6	Finance and real estate	9,653	968,924	Includes sectors 52 and 53
7	Health care and social assistance	19,401	1,947,089	
8	Educational services	12,242	1,228,715	
9	Business services	32,555	3,267,627	Includes sectors 48, 51, 54, 55 and 56
10	Public Administration	10,219	1,025,571	
11	Other services	24,896	2,498,796	Includes sectors 71, 72 and 81
88	Not available	32,022	3,214,931	
99	Not applicable	144,328	14,485,840	Worked before 2015 or never worked and all persons aged less than 15 years
	Total	343,330	34,460,064	

#### NOCS - Labour: Occupation broad categories (based on the NOC 2016)

Qualitative

Field: 88 Size: 2 Position: 428-429

**Description:** 

Occupation (1 digit code) refers to the kind of work performed in a job, a job being all the tasks carried out by a particular worker to complete his or her duties. An occupation is a set of jobs that are sufficiently similar in work performed.

Kind of work is described in terms of tasks, duties and responsibilities, often including factors such as materials processed or used, the industrial processes used, the equipment used, and the products or services provided. Occupations are generally homogeneous with respect to skill type and skill level.

For the Census of Population, occupation of person usually relates to the job the person, aged 15 years and over in private household, held in the reference week. However, if the person did not work during that week but had worked at some time since January 1 of the prior year, the information relates to the job held longest during that period. Persons with two or more jobs were to report the information for the job at which they worked the most hours.

**Reported for:** Population aged 15 years and over, in private households, who worked at some time between January 2015 and the Census Reference week

Code	Description	Unweighted	Weighted	Includes
1	0 Management occupations	18,013	1,808,043	
2	1 Business, finance and administration occupations	26,467	2,656,423	
3	2 Natural and applied sciences and related occupations	11,142	1,118,336	
4	3 Health occupations	10,771	1,080,991	
5	4 Occupations in education, law and social, community and government services	19,336	1,940,687	
6	5 Occupations in art, culture, recreation and sport	4,780	479,742	
7	6 Sales and service occupations	39,195	3,933,713	
8	7 Trades, transport and equipment operators and related occupations	24,249	2,433,896	
9	8 Natural resources, agriculture and related production occupations	3,163	317,442	
10	9 Occupations in manufacturing and utilities	6,689	671,245	
88	Not available	35,197	3,533,706	
99	Not applicable	144,328	14,485,840	Worked before 2015 or never worked and all persons aged less than 15 years.
	Total	343,330	34,460,064	

# WKSWRK - Labour: weeks worked in 2015, no zero value in statistics

Both qualitative and quantitative

Field: 114 Size: 1 Position: 486

**Description:** This variable is intended for the population aged 15 years and over, in private households. Refers to the number

of weeks in 2015 during which persons worked for pay or in self-employment at all jobs held, even if only for a few hours. It includes weeks of paid vacation, weeks on sick leave with pay and weeks in which training was paid

for by the employer.

Code	Description	Unweighted	Weighted	Includes
0	None - worked in 2016 only	5,971	599,366	
1	1 to 9 weeks of work in 2015	9,515	955,036	
2	10 to 19 weeks of work in 2015	12,044	1,208,790	
3	20 to 29 weeks of work in 2015	14,079	1,413,067	
4	30 to 39 weeks of work in 2015	12,846	1,289,337	
5	40 to 48 weeks of work in 2015	34,328	3,445,523	
6	49 to 52 weeks of work in 2015	110,219	11,063,105	
9	Not applicable	144,328	14,485,840	Worked before 2015 or never worked and all persons aged less than 15 years
	Total	343,330	34,460,064	

WRKACT – Labour: Work Activity in 2015 Qualitative

Field: 115 Size: 2 Position: 487-488

**Description:** Work activity during the reference year refers to whether or not a person 15 years or over in private household,

worked during the reference year. For those who did work, this refers to the number of weeks in which the person worked for pay or in self-employment during the reference year at all jobs held, even if only for a few hours, and whether these weeks were mostly full time (30 hours or more per week) or mostly part time (less than

30 hours per week).

Code	Description	Unweighted	Weighted	Includes
1	Worked before 2015 or never worked	86,505	8,681,798	
2	Worked in 2016 only	5,971	599,366	
3	Worked 1-13 weeks full time	6,114	613,580	
4	Worked 1-13 weeks part time	8,991	902,511	
5	Worked 14-26 weeks full time	9,972	1,000,782	
6	Worked 14-26 weeks part time	8,599	863,113	
7	Worked 27-39 weeks full time	9,265	929,867	
8	Worked 27-39 weeks part time	5,543	556,377	
9	Worked 40-48 weeks full time	26,511	2,660,884	
10	Worked 40-48 weeks part time	7,817	784,638	
11	Worked 49-52 weeks full time	96,468	9,682,865	
12	Worked 49-52 weeks part time	13,751	1,380,240	
99	Not applicable	57,823	5,804,042	Persons less than 15 years of age
	Total	343,330	34,460,064	

# Journey to Work

#### DIST - POW: Distance from home to work

Qualitative

Field: 38 Size: 1 Position: 327

**Description:** 

Refers to the straight-line distance, in kilometres, between the respondent's residence and their usual workplace location. Applies to persons aged 15 years and over, in private households who worked for pay or in self-employment. The variable usually relates to the individual's job held during the week of Sunday, May 1 to Saturday, May 7, 2016. However, if the person did not work during that week but had worked at some time since January 1, 2015, the information relates to the job held longest during that period. Note: Respondents who declared they 'Worked outside Canada' or declared having 'No fixed workplace address' (such as bus drivers or truck drivers) do not belong in this variable's universe. For respondents who declared they 'Worked at home', their commuting distance will be 0. Workplace locations are coded to a geographic point location. This geographic point location is either a block-face, a block, a collection unit or a census subdivision representative point. Distance from home to work is calculated as the straight line distance between the residential block representative point and the workplace location representative point. Respondents who worked outside of the CMAs and CAs were coded to the census subdivision (CSD) level of geography. Consequently, the CSD representative block was assigned. Assigned blocks may not represent the true workplace location.

**Reported for:** Population aged 15 years and over, in private households, who worked at some time since January 1, 2015, and who reported having a usual place of work

Code	Description	Unweighted	Weighted	Includes
1	Less than 5 km	54,757	5,496,009	
2	5 to 9.9 km	32,470	3,259,110	
3	10 to 14.9 km	19,732	1,980,500	
4	15 to 19.9 km	12,343	1,238,735	
5	20 to 24.9 km	7,988	801,613	
6	25 to 29.9 km	5,104	512,220	
7	Greater or equal to 30 km	16,239	1,629,767	
8	Not available	14,197	1,425,319	
9	Not applicable	180,500	18,116,791	Worked before 2015 or never worked or worked at home or worked outside Canada and all persons aged less than 15 years.
	Total	343,330	34,460,064	

# **DUR - JTW: Commuting duration**

Both qualitative and quantitative

Field: 40 Size: 1 Position: 329

**Description:** 

Refers to the length of time, in minutes, usually required by a person to travel between their place of residence and their place of work. Applies to persons aged 15 years and over, in private households who worked for pay or in self-employment. The variable usually relates to the individual's job held during the week of Sunday, May 1 to Saturday, May 7, 2016. However, if the person did not work during that week but had worked at some time since January 1, 2015, the information relates to the job held longest during that period. Note: Respondents who declared they 'Worked outside Canada' or declared they 'Worked at home' do not belong in this variable's universe.

Reported for: Population aged 15 years and over, in private households, who worked at some time since January 1, 2015, and

who reported having a usual place of work or no fixed workplace address

Code	Description	Unweighted	Weighted	Includes
1	Less than 15 minutes	48,161	4,833,604	
2	Between 15 and 29 minutes	57,052	5,726,378	
3	Between 30 and 44 minutes	34,375	3,450,417	
4	Between 45 and 59 minutes	14,937	1,499,254	
5	60 minutes and over	16,457	1,651,771	
8	Not available	14,197	1,425,319	
9	Not applicable	158,151	15,873,321	Worked before 2015 or never worked or worked at home or worked outside Canada and all persons aged less than 15 years.
	Total	343,330	34,460,064	

#### LEAVE - JTW: Time leaving for work

Both qualitative and quantitative

Field: 63 Size: 1 Position: 392

**Description:** 

Refers to the time (in hours and minutes) at which a respondent usually leaves to go to work. Applies to persons aged 15 years and over , in private households who worked for pay or in self-employment. The variable usually relates to the individual's job held during the week of Sunday, May 1 to Saturday, May 7, 2016. However, if the person did not work during that week but had worked at some time since January 1, 2015, the information relates to the job held longest during that period. The variable is derived from Question 44a, Time leaving for work. Note: Respondents who declared they 'Worked outside Canada' or declared they 'Worked at home' do not belong in this variable's universe.

**Reported for:** Population aged 15 years and over, in private households, who worked at some time since January 1, 2015, and who reported having a usual place of work or no fixed workplace address

Code	Description	Unweighted	Weighted	Includes
1	5:00 a.m. to 5:59 a.m.	12,635	1,268,135	
2	6:00 a.m. to 6:59 a.m.	31,878	3,199,651	
3	7:00 a.m. to 7:59 a.m.	50,337	5,052,050	
4	8:00 a.m. to 8:59 a.m.	38,232	3,837,561	
5	9:00 a.m. to 3:59 p.m	31,679	3,179,943	
6	4:00 p.m. to 4:59 a.m.	17,983	1,804,949	
9	Not applicable	160,586	16,117,775	Worked before 2015 or never worked or worked at home or worked outside Canada and all persons aged less than 15 years.
	Total	343,330	34,460,064	

#### MODE - JTW: Main mode of commuting

Qualitative

Field: 82 Size: 1 Position: 413

**Description:** 

Refers to the main mode of commuting to work. Applies to persons aged 15 years and over, in private households who worked for pay or in self-employment. The variable usually relates to the individual's job held during the week of Sunday, May 1 to Saturday, May 7, 2016. However, if the person did not work during that week but had worked at some time since January 1, 2015, the information relates to the job held longest during that period. Note: Respondents who declared they 'Worked outside Canada' or declared they 'Worked at home' do not belong in this variable's universe. Persons who indicated in the place of work question that they had no fixed workplace address, or specified a usual place of work address, were asked to identify the mode of transportation they most frequently used to commute between home and work. Persons who use more than one mode of transportation were asked to identify the single mode they used for most of the travel distance. As a result, the question provides data on the primary mode of commuting. It does not measure multiple modes of transportation, nor does it measure seasonal variation in mode of transportation or trips made for purposes other than the commute between home and work.

**Reported for:** Population aged 15 years and over, in private households, who worked at some time since January 1, 2015, and who reported having a usual place of work or no fixed workplace address

Code	Description	Unweighted	Weighted	Includes
1	Bicycle	2,566	257,582	
2	Car, truck, van as driver	132,021	13,250,815	
3	Motorcycle, scooter or moped	326	32,726	
4	Other modes	2,277	228,573	
5	Car, truck, van as passenger	11,521	1,156,508	
6	Public transit	23,308	2,339,555	
7	Walked	10,725	1,076,530	
9	Not applicable	160,586	16,117,775	Worked before 2015 or never worked or worked at home or worked outside Canada and all persons aged less than 15 years
	Total	343,330	34,460,064	

### **OCC – JTW: Commuting vehicle occupancy**

Qualitative

Field: 91 Size: 1 Position: 433

**Description:** 

Refers to the usual number of commuters in the car, truck or van used by the person to travel to work. Applies to persons aged 15 years and over, in private households who worked for pay or in self-employment. The variable usually relates to the individual's job held during the week of Sunday, May 1 to Saturday, May 7, 2016. However, if the person did not work during that week but had worked at some time since January 1, 2015, the information relates to the job held longest during that period. Note: Only respondents who declared having a 'Usual place of work' or 'No fixed workplace address' and who declared using a 'Car, truck or van' as a driver or as a passenger are part of this variable's universe. Respondents were asked to identify the mode of transportation they most frequently used to commute between home and work. Persons who use more than one mode of transportation were asked to identify the single mode they used for most of the travel distance. As a result, the question provides data on the primary mode of commuting. It does not measure multiple modes of transportation, nor does it measure seasonal variation in mode of transportation or trips made for purposes other than the commute between home and work.

Reported for:

Population aged 15 years and over, in private households, who worked at some time since January 1, 2015, and who reported having a usual place of work or no fixed workplace address and who reported travelling by car, truck or van as a driver or as a passenger

Code	Description	Unweighted	Weighted	Includes
1	Drove alone	120,008	12,045,040	
2	Two people shared the ride to work	19,682	1,975,599	
3	Three or more people shared the ride to work	3,852	386,685	
9	Not applicable	199,788	20,052,741	Worked before 2015 or never worked or worked at home or worked outside Canada or did not report "Car, truck or van as a driver/passenger" and all persons aged less than 15 years.
	Total	343,330	34,460,064	

#### POWST - POW: Place of work status

Qualitative

Field: 95 Size: 1 Position: 437

**Description:** 

Refers to the classification of people according to whether they worked at home, outside Canada, had no fixed workplace or worked at a specific address. Applies to persons aged 15 years and over, in private households who worked for pay or in self-employment. The variable usually related to the individual's job held during the week of Sunday, May 1 to Saturday, May 7, 2016. However, if the person did not work during that week but had worked at some time since January 1, 2015, the information relates to the job held longest during that period. Furthermore, for those individuals, if their subdivision of usual place of work was closer to their residence 1 year ago than their current residence, the former residence was used to calculate POWST codes 4 through 7. Therefore, there may be slight discrepancies for such records when comparing a combination of POWST codes 4-7, POWPR and PR or CMA.

Reported for: Population aged 15 years and over, in private households, who worked since January 1, 2015

Code	Description	Unweighted	Weighted	Includes
1	Worked at home	13,028	1,307,678	
2	No fixed workplace	22,349	2,243,469	
3	Worked outside Canada	795	79,803	
4	Worked in census subdivision (municipality) of residence	86,919	8,724,887	
5	Worked in a different census subdivision (municipality) within the census division (county) of residence	30,725	3,084,223	
6	Worked in a different census division (county)	29,384	2,947,866	
7	Worked in a different province or territory	1,605	160,977	
8	Not available	14,197	1,425,319	
9	Not applicable	144,328	14,485,840	Worked before 2015 or never worked and all persons aged less than 15 years
	Total	343,330	34,460,064	

#### PWPR - POW: Place of work province

Qualitative

Field: 101 Size: 2 Position: 446-447

**Description:** 

Refers to the place of work province or territory. Applies to persons 15 years of age and over, in private households who worked for pay or in self-employment. The variable usually related to the individual's job held during the week of Sunday, May 1 to Saturday, May 7, 2016. However, if the person did not work during that week but had worked at some time since January 1, 2015, the information relates to the job held longest during that period. Note: Respondents who declared they 'Worked outside Canada' or declared having 'No fixed workplace address' (such as bus drivers or truck drivers) do not belong in this variable's universe. For respondents who declared they 'Worked at home', their place of work province or territory corresponds to their place of residence province or territory.

**Reported for:** Persons in private households aged 15 years and over, who worked at some time since January 1, 2015 and who declared a usual workplace address, or declared working at home

Code	Description	Unweighted	Weighted	Includes
10	Newfoundland and Labrador	2,140	214,358	
11	Prince Edward Island	588	58,628	
12	Nova Scotia	4,080	408,342	
13	New Brunswick	3,221	322,766	
24	Quebec	38,476	3,855,227	
35	Ontario	62,875	6,311,535	
46	Manitoba	5,558	561,030	
47	Saskatchewan	4,821	483,009	
48	Alberta	19,067	1,916,440	
59	British Columbia	20,349	2,045,358	
70	Northern Canada	486	48,940	Yukon, Northwest Territories and Nunavut
88	Not available	14,197	1,425,319	
99	Not applicable	167,472	16,809,113	Worked before 2015 or never worked or worked outside Canada or report "No fixed address" and all persons aged less than 15 years.
	Total	343,330	34,460,064	

# Income

# EFDECILE - Income: National economic family after-tax income decile for all persons

Qualitative

Field: 42 Size: 2 Position: 331-332

**Description:** This variable provides the decile rank of the economic family or person not in an economic family. Using data

from the 2016 Census, the decile cut-points are determined based on the Canadian distribution of the adjusted

after-tax income of economic families for all persons in private households.

Code 1 represents the lowest income decile and 10 represents the highest income decile.

**Reported for:** Persons in private households

Code	Description	Unweighted	Weighted	Includes
1	In bottom decile	33,568	3,369,373	
2	In second decile	34,513	3,463,561	
3	In third decile	34,692	3,481,569	
4	In fourth decile	33,885	3,400,452	
5	In fifth decile	34,568	3,469,232	
6	In sixth decile	34,892	3,501,889	
7	In seventh decile	34,001	3,412,696	
8	In eighth decile	33,974	3,410,255	
9	In ninth decile	34,530	3,466,343	
10	In top decile	34,645	3,478,471	
88	Not available	62	6,223	
	Total	343,330	34,460,064	

# EFDIMBM - Income: Disposable income for MBM of economic family for all persons

Quantitative

Field: 43 Size: 8 Position: 333-340

**Description:** 

Disposable income for the Market Basket Measure (MBM) of economic family for all persons. For units in households that own a dwelling without a mortgage, the mortgage-free owners' difference in expenditures for the MBM is added to the disposable income.

This variable contains the dollar amount unadjusted for family size.

The value 88,888,888 stands for not available. Otherwise, this variable could be positive, negative or zero and is a rounded value. Values that would have been rounded to zero have been replaced by 1 or -1. In some cases, high values have been top coded and low values have been bottom coded in this file.

# EMPIN – Income: Employment income Quantitative

Field: 44 Size: 8 Position: 341-348

**Description:** 

Refers to all income received as wages, salaries and commission from paid employment and net self-employment income from farm or non-farm unincorporated business and/or professional practice during the reference period. For 2016 Census, the reference period for this variable is calendar year 2015.

The value 88,888,888 stands for not available. The value 99,999,999 stands for not applicable and is applied to all persons aged less than 15 years. Otherwise, this variable could be positive, negative or zero and is a rounded value of the amount received by the individual in 2015. Values that would have been rounded to zero have been replaced by 1 or -1. In some cases, high values have been top coded and low values have been bottom coded in this file.

Reported for: Population aged 15 years and over in private households

#### **GTRFS - Income: Government transfers**

Quantitative

Field: 50 Size: 8 Position: 362-369

**Description:** 

Refers to all cash benefits received from federal, provincial, territorial or municipal governments during the reference period. It includes:

- Old Age Security pension, Guaranteed Income Supplement, Allowance and Allowance for the Survivor
- retirement, disability and survivor benefits from Canada Pension Plan and Quebec Pension Plan
- benefits from Employment Insurance and Quebec Parental Insurance Plan
- child benefits from federal and provincial programs
- social assistance benefits
- workers' compensation benefits
- Working Income Tax Benefit
- Goods and Services Tax credits and Harmonized Sales Tax credits
- other income from government sources

For 2016 Census, the reference period for this variable is calendar year 2015.

The value 88,888,888 stands for not available. The value 99,999,999 stands for not applicable and is applied to all persons aged less than 15 years. Otherwise, this variable could be positive, negative or zero and is a rounded value of the amount received by the individual in 2015. Values that would have been rounded to zero have been replaced by 1. In some cases, high values have been top coded and low values have been bottom coded in this file.

INCTAX – Income: Income taxes

Ouantitative

Field: 61 Size: 8 Position: 383-390

**Description:** 

Income taxes on income received during the reference period. It is the sum of federal income taxes, provincial and territorial income taxes, less abatement where applicable. Provincial and territorial income taxes also include health care premiums and Yukon First Nations Tax in certain jurisdictions. Abatement reduces the federal income taxes payable by persons residing in Quebec or in certain self-governing Yukon First Nation settlement lands. For 2016 Census, the reference period for this variable is calendar year 2015.

The value 88,888,888 stands for not available. The value 99,999,999 stands for not applicable and is applied to all persons aged less than 15 years. Otherwise, this variable could be positive, negative or zero and is a rounded value of the amount received by the individual in 2015. Values that would have been rounded to zero have been replaced by 1. In some cases, high values have been top coded and low values have been bottom coded in this file

Reported for: Population aged 15 years and over in private households

#### LOLICOA - Income: Low income status based on LICO-AT

Qualitative

Field: 67 Size: 1 Position: 398

**Description:** 

Refers to the income situation of a person in relation to the Low-income cut-offs, after-tax (LICO-AT). Persons with income that is below this low-income line are considered to be in low income.

This variable is defined even for those living in areas where low-income concepts are not applicable, (i.e. the territories or areas of certain census subdivision types, such as Indian reserves).

Caution should be used when applying low-income concepts to certain geographic areas or to certain populations. The existence of substantial in-kind transfers (such as subsidized housing, First Nations band housing) and sizeable barter economies or consumption from own production (such as product from hunting, farming or fishing) could make the interpretation of low-income statistics more difficult in these situations.

This variable is suitable to obtain a count of persons in low income or to classify the population. The prevalence of low income is usually expressed as the percentage of the applicable population in private households that is below the low-income line.

Reported for:

Economic families and persons not in economic families aged 15 years and over in private households where low-income concepts are applicable

Code	Description	Unweighted	Weighted	Includes
1	Not in low income	310,825	31,196,864	
2	In low income	31,337	3,145,555	
8	Not available	62	6,223	
9	Concept not applicable	1,106	111,423	
	Total	343,330	34,460,064	

#### LOLICOB - Income: Low income status based on LICO-BT

Qualitative

Field: 68 Size: 1 Position: 399

**Description:** 

Refers to the income situation of a person in relation to the Low-income cut-offs, before-tax (LICO-BT). Persons with income that is below this low-income line are considered to be in low income.

This variable is defined even for those living in areas where low-income concepts are not applicable, (i.e. the territories or areas of certain census subdivision types, such as Indian reserves).

Caution should be used when applying low-income concepts to certain geographic areas or to certain populations. The existence of substantial in-kind transfers (such as subsidized housing, First Nations band housing) and sizeable barter economies or consumption from own production (such as product from hunting, farming or fishing) could make the interpretation of low-income statistics more difficult in these situations.

This variable is suitable to obtain a count of persons in low income or to classify the population. The prevalence of low income is usually expressed as the percentage of the applicable population in private households that is below the low-income line.

**Reported for:** Economic families and persons not in economic families aged 15 years and over in private households where low-income concepts are applicable

Code	Description	Unweighted	Weighted	Includes
1	Not in low income	298,551	29,965,058	
2	In low income	43,611	4,377,360	
8	Not available	62	6,223	
9	Concept not applicable	1,106	111,423	
	Total	343,330	34,460,064	

#### LOLIMA - Income: Low-income status based on LIM-AT

Qualitative

Field: 69 Size: 1 Position: 400

**Description:** 

Refers to the income situation of a person in relation to the Low-income measure, after-tax (LIM-AT). Persons with income that is below this low-income line are considered to be in low income.

This variable is defined even for those living in areas where low-income concepts are not applicable, (i.e. the territories or areas of certain census subdivision types, such as Indian reserves).

Caution should be used when applying low-income concepts to certain geographic areas or to certain populations. The existence of substantial in-kind transfers (such as subsidized housing, First Nations band housing) and sizeable barter economies or consumption from own production (such as product from hunting, farming or fishing) could make the interpretation of low-income statistics more difficult in these situations. This variable is suitable to obtain a count of persons in low income or to classify the population. The prevalence of low income is usually expressed as the percentage of the applicable population in private households that is below the low-income line.

Reported for: Persons in private households, excluding persons living in the Yukon, Northwest Territories and Nunavut

Code	Description	Unweighted	Weighted	Includes
1	Not in low income	292,582	29,366,347	
2	In low income	49,580	4,976,072	
8	Not available	62	6,223	
9	Concept not applicable	1,106	111,423	
	Total	343,330	34,460,064	

#### LOLIMB - Income: Low-income status based on LIM-BT

Qualitative

Field: 70 Size: 1 Position: 401

**Description:** 

Refers to the income situation of a person in relation to the Low-income measure, before-tax (LIM-BT). Persons with income that is below this low-income line are considered to be in low income.

This variable is defined even for those living in areas where low-income concepts are not applicable, (i.e. the territories or areas of certain census subdivision types, such as Indian reserves).

Caution should be used when applying low-income concepts to certain geographic areas or to certain populations. The existence of substantial in-kind transfers (such as subsidized housing, First Nations band housing) and sizeable barter economies or consumption from own production (such as product from hunting, farming or fishing) could make the interpretation of low-income statistics more difficult in these situations. This variable is suitable to obtain a count of persons in low income or to classify the population. The prevalence of low income is usually expressed as the percentage of the applicable population in private households that is below the low-income line.

Reported for: Persons in private households, excluding persons living in the Yukon, Northwest Territories and Nunavut

Code	Description	Unweighted	Weighted	Includes
1	Not in low income	281,244	28,228,634	
2	In low income	60,918	6,113,784	
8	Not available	62	6,223	
9	Concept not applicable	1,106	111,423	
	Total	343,330	34,460,064	

#### LOMBM - Income: Low-income status based on MBM

Qualitative

Field: 71 Size: 1 Position: 402

**Description:** 

Refers to the income situation of a person in relation to Employment and Social Development Canada's Market Basket Measure (MBM). Persons with income that is below this low-income line are considered to be in low income. The income to which the MBM is compared is the disposable income (EfDIMBM).

This variable is defined even for those living in areas where low-income concepts are not applicable (i.e., areas of certain census subdivision types, such as Indian reserves). Residents of the territories are excluded from the concept.

Caution should be used when applying low-income concepts to certain geographic areas or to certain populations. The existence of substantial in-kind transfers (such as subsidized housing, First Nations band housing) and sizeable barter economies or consumption from own production (such as products from hunting, farming or fishing) could make the interpretation of low-income statistics more difficult in these situations.

This variable is suitable to obtain a count of persons in low income or to classify the population. The prevalence of low income is usually expressed as the percentage of the applicable population in private households that is below the low-income line.

Reported for: Persons in private households, excluding persons living in the Yukon, Northwest Territories and Nunavut

Code	Description	Unweighted	Weighted	Includes
1	Not in low income	297,961	29,905,716	
2	In low income	44,201	4,436,702	
8	Not available	62	6,223	
9	Concept not applicable	1,106	111,423	
	Total	343,330	34,460,064	

MRKINC – Income: Market income Quantitative

Field: 83 Size: 8 Position: 414-421

**Description:** 

Refers to the sum of employment income (wages, salaries and commissions, net self-employment income from farm or non-farm unincorporated business and/or professional practice), investment income, private retirement income (retirement pensions, superannuation and annuities, including those from registered retirement savings plans [RRSPs] and registered retirement income funds [RRIFs]) and other income from market sources during the reference period. It is equivalent to total income minus government transfers. It is also referred to as income before transfers and taxes.

For 2016 Census, the reference period for this variable is calendar year 2015.

The value 88,888,888 stands for not available. The value 99,999,999 stands for not applicable and is applied to all persons aged less than 15 years. Otherwise, this variable could be positive, negative or zero and is a rounded value of the amount received by the individual in 2015. Values that would have been rounded to zero have been replaced by 1 or -1. In some cases, high values have been top coded and low values have been bottom coded in this file.

Reported for: Population aged 15 years and over in private households

TOTINC – Income: Total income

Ouantitative

Field: 110 Size: 8 Position: 461-468

**Description:** 

Total income refers to receipts from certain sources (in cash and, in some circumstances, in kind), before income taxes and deductions, during the reference period. The monetary receipts included are those that tend to be of a regular and recurring nature. Receipts that are included as income are:

- employment income from wages, salaries, tips, commissions and net income from self-employment (for both unincorporated farm and non-farm activities)
- income from investment sources, such as dividends and interest on bonds, accounts, guaranteed investment certificates (GICs) and mutual funds
- income from employer and personal pension sources, such as private pensions and payments from annuities and registered retirement income funds (RRIFs)
- other regular cash income, such as child support payments received, spousal support payments (alimony) received and scholarships
- income from government sources, such as social assistance, child benefits, Employment Insurance benefits, Old Age Security benefits, Canada Pension Plan and Quebec Pension Plan benefits and disability income. Receipts excluded from this income definition are:
- one-time receipts, such as lottery winnings, gambling winnings, cash inheritances, lump sum insurance settlements and tax-free savings account (TFSA) or registered retirement savings plan (RRSP) withdrawals
- capital gains because they are not by their nature regular and recurring. It is further assumed that they are more relevant to the concept of wealth than the concept of income
- employer's contributions to registered pension plans, Canada Pension Plan, Quebec Pension Plan and Employment Insurance
- voluntary inter-household transfers, imputed rent, goods and services produced for barter, and goods produced for own consumption.

For 2016 Census, the reference period for this variable is calendar year 2015.

The value 88,888,888 stands for not available. The value 99,999,999 stands for not applicable and is applied to all persons aged less than 15 years. Otherwise, this variable could be positive, negative or zero and is a rounded value of the amount received by the individual in 2015. Values that would have been rounded to zero have been replaced by 1 or -1. In some cases, high values have been top coded and low values have been bottom coded in this file.

**Reported for:** Population aged 15 years and over in private households

TOTINC\_AT – Income: After-tax income Quantitative

Field: 111 Size: 8 Position: 469-476

**Description:** 

After-tax income refers to total income less income taxes during the reference period. Income taxes refers to the sum of federal income taxes, provincial and territorial income taxes, less abatement where applicable. Provincial and territorial income taxes include health care premiums in certain jurisdictions. Abatement reduces the federal income taxes payable by persons residing in Quebec or in certain self-governing Yukon First Nation settlement lands.

For 2016 Census, the reference period for this variable is calendar year 2015.

See variables TotInc and IncTax.

The value 88,888,888 stands for not available. The value 99,999,999 stands for not applicable and is applied to all persons aged less than 15 years. Otherwise, this variable could be positive, negative or zero and is a rounded value of the amount received by the individual in 2015. Values that would have been rounded to zero have been replaced by 1 or -1. In some cases, high values have been top coded and low values have been bottom coded in this file.

Reported for: Population aged 15 years and over in private households

# Families and family composition

## CF\_RP - Census family reference person

Qualitative

Field: 29 Size: 1 Position: 314

**Description:** Census family reference person. There is one reference person per family. In a couple census family, with or

without children, the spouse or partner who is listed first on the questionnaire is the reference person. In a lone-

parent census family, the lone parent is the reference person.

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
1	Census family reference person	98,457	9,882,028	
2	Other census family member	184,690	18,537,791	
3	Person not in a census family	60,183	6,040,245	
	Total	343,330	34,460,064	

# CFSTAT – Household living arrangements of person, simple version

Qualitative

Field: 30 Size: 2 Position: 315-316

**Description:** Household living arrangements of person, simple version. This is a collapsed version of the variable Household

living arrangements of person.

Code	Description	Unweighted	Weighted	Includes
1	Married spouse or common-law partner without children	80,336	8,062,825	
2	Married spouse or common-law partner with children	83,987	8,430,192	
3	Lone parent	16,106	1,616,485	
4	Child of a couple	77,660	7,795,281	
5	Child of a lone parent	24,657	2,474,752	
6	Person living alone	39,675	3,981,528	
7	Person living with non-relatives only	12,763	1,281,223	
8	Person not in a census family but living with other relatives	7,597	762,631	
88	Not available	549	55,147	
	Total	343,330	34,460,064	

# CFSTRUCT - Census family structure, simple version

Qualitative

Field: 31 Size: 1 Position: 317

**Description:** Census family structure, simple version. This is a collapsed version of the variable Census family structure.

Reported for: Persons in census families

Code	Description	Unweighted	Weighted	Includes
1	Couple without children	80,336	8,062,825	
2	Couple with children	161,647	16,225,473	
3	Lone-parent family	40,763	4,091,237	
8	Not available	549	55,147	
9	Not applicable	60,035	6,025,382	Persons not in census families
	Total	343,330	34,460,064	

## EF\_RP - Economic family reference person

Qualitative

Field: 41 Size: 1 Position: 330

**Description:** Economic family reference person. There is one reference person per family. The reference person is the first

married spouse, common-law partner or parent listed in one of the census families within the economic family or,

if there is no census family, it is the economic family member aged 15 or older who is listed first on the

questionnaire (after re-ordering of persons in the household according to variable PERSNO).

Code	Description	Unweighted	Weighted	Includes
1	Economic family reference person	96,997	9,735,369	
2	Economic family member other than the reference person	193,799	19,452,306	
3	Person not in an economic family	52,534	5,272,390	
	Total	343,330	34,460,064	

# Households

#### HHMAINP - Person responsible for household payments

Qualitative

Field: 52 Size: 1 Position: 372

**Description:** Refers to whether or not a person residing in the household is responsible for paying the rent, or the mortgage, or

the taxes, or the electricity or other services or utilities.

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
0	Person is not responsible for household payments	140,735	14,126,283	
1	Person is responsible for household payments	202,595	20,333,781	
	Total	343,330	34,460,064	

#### PRIHM - Primary household maintainer

Qualitative

Field: 100 Size: 1 Position: 445

**Description:** 

This variable identifies the first person in the household identified as being a household maintainer. In the case of a household where two or more people are listed as household maintainers, the first person listed is chosen as the main household maintainer.

The order of the persons in a household is determined by the order in which the respondent lists the persons on the questionnaire. Generally, an adult is listed first followed, if applicable, by that person's spouse or common-law partner and by their children. The order does not necessarily correspond to the proportion of household payments made by the person.

Code	Description	Unweighted	Weighted	Includes
0	Person is not primary household maintainer	202,610	20,336,846	
1	Person is primary household maintainer	140,720	14,123,218	
	Total	343,330	34,460,064	

# **Dwelling: Housing and shelter cost**

BEDRM – Bedrooms Both qualitative and quantitative

Field: 26 Size: 1 Position: 310

**Description:** Refers to rooms in a private dwelling that are designed mainly for sleeping purposes even if they are now used for

other purposes, such as guest rooms and television rooms. Also included are rooms used as bedrooms now, even if they were not originally built as bedrooms, such as bedrooms in a finished basement. Bedrooms exclude rooms designed for another use during the day such as dining rooms and living rooms even if they may be used for sleeping purposes at night. By definition, one-room private dwellings such as bachelor or studio apartments have

zero bedrooms.

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
0	No bedrooms	1,082	108,630	
1	1 bedroom	25,365	2,545,764	
2	2 bedrooms	68,340	6,858,408	
3	3 bedrooms	126,009	12,646,860	
4	4 bedrooms	84,149	8,446,455	
5	5 bedrooms or more	37,908	3,806,048	
8	Not available	477	47,898	
	Total	343,330	34,460,064	

# BUILT – Period of construction Qualitative

Field: 28 Size: 2 Position: 312-313

**Description:** Refers to the period in time during which the building or dwelling was originally constructed. This refers to the

period in which the building was originally built, not the time of any later remodelling, additions or conversions.

Respondents were asked to indicate the period of construction, to the best of their knowledge.

Code	Description	Unweighted	Weighted Includes	
1	1920 or before	17,239	1,729,810	
2	1921 to 1945	15,075	1,512,721	
3	1946 to 1960	37,579	3,771,293	
4	1961 to 1970	39,436	3,957,913	
5	1971 to 1980	57,378	5,759,010	
6	1981 to 1990	49,029	4,920,962	
7	1991 to 1995	23,128	2,321,484	
8	1996 to 2000	22,431	2,251,805	
9	2001 to 2005	27,125	2,722,846	
10	2006 to 2010	29,788	2,990,246	
11	2011 to 2016	24,816	2,491,236	
88	Not available	306	30,738	
	Total	343,330	34,460,064	

#### CONDO - Condominium status

**Qualitative** 

Field: 36 Size: 1 Position: 325

Description: Refe

Refers to whether the private dwelling is part of a condominium development. A condominium is a residential complex in which dwellings are owned individually while land and common elements are held in joint ownership with others.

Dwellings that are in the process of becoming registered condominiums are included as condominiums.

**Reported for:** Persons in private households

Code	Description	Unweighted	Weighted	Includes
0	Not condominium	307,044	30,817,198	
1	Condominium	36,044	3,618,565	
8	Not available	242	24,301	
	Total	343,330	34,460,064	

#### DTYPE - Structural type of dwelling

Qualitative

Field: 39 Size: 1 Position: 328

**Description:** Refers to the structural characteristics and/or dwelling configuration, that is, whether the dwelling is a detached

single house, an apartment in a high-rise building, a row house, a mobile home, etc.

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
1	Single-detached house	206,912	20,768,379	
2	Apartment	89,666	8,998,496	Apartment or flat in a duplex, apartment in a building that has five or more storeys, apartment in a building that has fewer than five storeys
3	Other dwelling	46,449	4,662,765	Semi-detached house, row house, other single-attached house, mobile home, other movable dwelling
8	Not available	303	30,424	
	Total	343,330	34,460,064	

FCOND – Condominium fees Quantitative

Field: 46 Size: 8 Position: 351-358

**Description:** 

Refers to monthly payments for maintenance and various condominium services. Although the condominium status question is asked to owner and renter households, the condominium fee question is only asked to owners. Renters of condominiums are not usually responsible for the direct payment of condominium fees.

The value 88,888,888 stands for not available. The value 99,999,999 stands for not applicable and is applied to persons in farm dwellings, tenant-occupied dwellings, owner-occupied dwellings not part of a condominium and band dwellings. Otherwise, this variable is always positive and is a rounded value of the monthly payments. In some cases, high values have been top coded in this file.

Reported for:

Persons in private households in owner-occupied non-farm dwellings which form part of a condominium development.

NOS – Housing suitability Qualitative

Field: 90 Size: 1 Position: 432

**Description:** Refers to whether a private household is living in suitable accommodations according to the National Occupancy

Standard (NOS); that is, whether the dwelling has enough bedrooms for the size and composition of the household. A household is deemed to be living in suitable accommodations if its dwelling has enough bedrooms,

as calculated using the NOS.

Housing suitability and the National Occupancy Standard (NOS) were developed by Canada Mortgage and

Housing Corporation (CMHC) through consultations with provincial housing agencies.

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
1	Suitable	312,721	31,386,915	
2	Not suitable	30,132	3,025,250	
8	Not available	477	47,898	
	Total	343,330	34,460,064	

## PRESMORTG - Mortgage, presence of

Qualitative

Field: 99 Size: 1 Position: 444

**Description:** Refers to whether an owner household makes regular mortgage or loan payments for their dwelling.

This variable is reported for private households in owner-occupied dwellings.

Reported for: Persons in private households in owner-occupied private dwellings

Code	Description	Unweighted	Weighted	Includes
1	Without mortgage	82,167	8,246,898	
2	With mortgage	167,087	16,771,109	
8	Not available	17	1,708	
9	Not applicable	94,059	9,440,349	Tenant-occupied dwellings and band housing
	Total	343,330	34,460,064	

#### **REPAIR - Dwelling condition**

**Qualitative** 

Field: 103 Size: 1 Position: 449

**Description:** Refers to whether the dwelling is in need of repairs. This does not include desirable remodeling or additions.

Description	Unweighted	Weighted	Includes
Regular maintenance needed	228,384	22,923,337	
Minor repairs needed	91,655	9,198,907	
Major repairs needed	23,291	2,337,820	
Total	343,330	34,460,064	
	Minor repairs needed  Major repairs needed	Minor repairs needed 91,655 Major repairs needed 23,291	Minor repairs needed         91,655         9,198,907           Major repairs needed         23,291         2,337,820

ROOM – Rooms Both qualitative and quantitative

Field: 104 Size: 2 Position: 450-451

**Description:** Refers to the number

Refers to the number of rooms in a private dwelling. A room is an enclosed area within a private dwelling which is finished and suitable for year round living. The number of rooms of a private dwelling includes kitchens, bedrooms and finished rooms in the attic or basement. The number of rooms of a private dwelling excludes bathrooms, halls, vestibules and rooms used solely for business purposes. Partially divided rooms are considered to be separate rooms if they are considered as such by the respondent (e.g., L-shaped diningroom and livingroom arrangements).

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
1	1 room	764	76,704	
2	2 rooms	7,069	709,695	
3	3 rooms	22,046	2,213,030	
4	4 rooms	40,757	4,090,260	
5	5 rooms	50,301	5,048,460	
6	6 rooms	49,783	4,996,838	
7	7 rooms	48,326	4,850,355	
8	8 rooms	45,500	4,566,789	
9	9 rooms	29,895	3,000,591	
10	10 rooms	24,834	2,492,736	
11	11 rooms or more	23,578	2,366,708	
88	Not available	477	47,898	
	Total	343,330	34,460,064	

SHELCO – Shelter cost Quantitative

Field: 106 Size: 4 Position: 453-456

**Description:** Shelter cost refers to the average monthly total of all shelter expenses paid by households that own or rent their dwelling.

Shelter costs for owner households include, where applicable, mortgage payments, property taxes and condominium fees, along with the costs of electricity, heat, water and other municipal services. For renter households, shelter costs include, where applicable, the rent and the costs of electricity, heat, water and other municipal services.

This variable is reported for private households in owner or tenant occupied dwellings that are not located on an agricultural operation operated by a member of the household.

Value ranges from 0 to the maximum amount on the file.

### **SUBSIDY - Subsidized housing**

Qualitative

Field: 108 Size: 1 Position: 459

**Description:** 

Refers to whether a renter household lives in a dwelling that is subsidized. Subsidized housing includes rent geared to income, social housing, public housing, government-assisted housing, non-profit housing, rent supplements and housing allowances.

This variable is reported for private households in tenant-occupied dwellings.

Reported for: Persons in private households in tenant-occupied private dwellings

Code	Description	Unweighted	Weighted	Includes
0	Not a subsidized dwelling	82,443	8,274,190	
1	A subsidized dwelling	11,243	1,128,683	
8	Not available	390	39,184	
9	Not applicable	249,254	25,018,007	Owner-occupied dwellings
	Total	343,330	34,460,064	

TENUR – Tenure Qualitative

Field: 109 Size: 1 Position: 460

**Description:** 

Refers to whether the household owns or rents their private dwelling. The private dwelling may be situated on rented or leased land or be part of a condominium. A household is considered to own their dwelling if some member of the household owns the dwelling even if it is not fully paid for, for example if there is a mortgage or some other claim on it. A household is considered to rent their dwelling if no member of the household owns the dwelling. A household is considered to rent that dwelling even if the dwelling is provided without cash rent or at a reduced rent, or if the dwelling is part of a cooperative.

For historical and statutory reasons, shelter occupancy on Indian reserves or settlements does not lend itself to the usual classification by standard tenure categories. Therefore, a special category, band housing, has been created and is available as a category in this classification.

Code	Description	Unweighted	Weighted	Includes
1	Owned by a member of the household	249,254	25,018,007	
2	Rented or Band housing	94,059	9,440,349	
8	Not available	17	1,708	
	Total	343,330	34,460,064	

#### **VALUE – Value (owner estimated)**

Quantitative

Field: 112 Size: 8 Position: 477-484

**Description:** Refers to the dollar amount expected by the owner if the asset were to be sold.

In the context of dwelling, it refers to the value of the entire dwelling, including the value of the land it is on and of any other structure, such as a garage, which is on the property. If the dwelling is located in a building which contains several dwellings, or a combination of residential and business premises, all of which the household owns, the value is estimated as a portion of the market value that applies only to the dwelling in which the household resides.

This variable is reported for private households in owner-occupied dwellings.

The amount ranges from 1 to the maximum amount on the file.

88,888,888 = Not available

99,999,999 = Not applicable (i.e., tenant-occupied dwellings and band housing).

Reported for: Persons in private households in owner-occupied private dwellings

# Geography

# CMA – Census metropolitan area or census agglomeration of current residence (2016)

Qualitative

Field: 35 Size: 3 Position: 322-324

**Description:** Refers to the census metropolitan area (CMA), census agglomeration (CA), or non-CMA/CA of current residence

(on May 10, 2016).

Reported for: Persons in private households

Code	Description	Unweighted	Weighted	Includes
462	Montréal	40,003	4,008,176	
535	Toronto	58,284	5,850,783	
825	Calgary	13,689	1,375,937	
835	Edmonton	12,923	1,298,943	
933	Vancouver	24,099	2,422,297	
999	Other census metropolitan areas, Census Agglomerations and other geographies	194,332	19,503,928	Persons not living in selected census metropolitan areas
	Total	343,330	34,460,064	

## PR - Province or territory of current residence (2016)

Qualitative

Field: 96 Size: 2 Position: 438-439

**Description:** Refers to the province or territory of current residence (on May 10, 2016).

Code	Description	Unweighted	Weighted	Includes
10	Newfoundland and Labrador	5,114	512,251	
11	Prince Edward Island	1,401	139,686	
12	Nova Scotia	9,076	908,340	
13	New Brunswick	7,292	730,708	
24	Quebec	79,498	7,965,452	
35	Ontario	131,915	13,242,160	
46	Manitoba	12,291	1,240,699	
47	Saskatchewan	10,686	1,070,558	
48	Alberta	39,578	3,978,146	
59	British Columbia	45,369	4,560,238	
70	Northern Canada	1,110	111,826	Yukon, Northwest Territories and
				Nunavut
	Total	343,330	34,460,064	

Identifier

CF\_ID – Key for census family table Identifier

Field: 3 Size: 8 Position: 14-21

**Description:** Key for census family table

EF\_ID – Key for economic family table

Identifier

Field: 2 Size: 7 Position: 7-13

**Description:** Key for economic family table

HH\_ID – Key for household table Identifier

Field: 1 Size: 6 Position: 1-6

**Description:** Key for household table

PP\_ID – Key for person table Identifier

Field: 4 Size: 10 Position: 22-31

**Description:** Key for person table

Weighting

WEIGHT – Individuals weighting factor

Weight

Field: 5

**Size:** 16

Position: 32-47

**Description:** Individuals weighting factor

WT1 - Replicate PUMF weight

Weight

Field: 6

**Size:** 16

Position: 48-63

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT2 - Replicate PUMF weight

Weight

Field: 7

**Size: 16** 

Position: 64-79

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT3 - Replicate PUMF weight

Weight

Field: 8

**Size: 16** 

Position: 80-95

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT4 - Replicate PUMF weight

Weight

Field: 9

**Size:** 16

Position: 96-111

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT5 - Replicate PUMF weight

Weight

Field: 10

**Size:** 16

**Position: 112-127** 

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT6 - Replicate PUMF weight

Weight

Field: 11

**Size:** 16

**Position: 128-143** 

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT7 – Replicate PUMF weight

Weight

Field: 12 Size: 16 Position: 144-159

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT8 - Replicate PUMF weight

Weight

Field: 13 Size: 16 Position: 160-175

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT9 - Replicate PUMF weight

Weight

**Field:** 14 **Size:** 16 **Position:** 176-191

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT10 - Replicate PUMF weight

Weight

Field: 15 Size: 16 Position: 192-207

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT11 - Replicate PUMF weight

Weight

**Field:** 16 **Size:** 16 **Position:** 208-223

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT12 - Replicate PUMF weight

Weight

**Field:** 17 **Size:** 16 **Position:** 224-239

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT13 - Replicate PUMF weight

Weight

Field: 18 Size: 16 Position: 240-255

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT14 - Replicate PUMF weight

Weight

Field: 19 Size: 16 Position: 256-271

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT15 – Replicate PUMF weight

Weight

Field: 20 Size: 16 Position: 272-287

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

WT16 – Replicate PUMF weight

Weight

Field: 21 Size: 16 Position: 288-303

**Description:** Weighting factor for replicates, for the purpose of estimating sampling variability.

# Chapter 4 – Sampling method, estimation and data quality

This chapter provides notes on sampling, estimation and quality of the data related to the Hierarchical Public Use Microdata File (PUMF). It includes the following sections:

- A. Sampling method
- B. Estimation
- C. Data reliability

In Section A, the target population is defined, and the way in which the sample was selected is explained. Section B covers the concept of weighting and briefly describes the usual estimators. Finally, Section C explains how to estimate sampling error.

# A Sampling method

## A.1 Target population

The target population of the Hierarchical PUMF is the same as the target population for the 2016 Census long-form. It represents the entire population who lived in Canada on the survey's reference date. Specifically, the 2016 Census long-form questionnaire targeted the total population usually living in Canada in private dwellings, in the provinces and territories. The target population includes persons who live on Indian reserves and Indian settlements, permanent residents, non-permanent residents such as refugee claimants, holders of work or study permits, and members of their families living with them. The reference date for the 2016 Census long-form is May 10, 2016.

Excluded from the target population are residents of incompletely enumerated Indigenous reserves, persons living in collective dwellings, Canadian citizens living abroad and full-time members of the Canadian Forces stationed outside Canada. Also excluded are foreign residents such as representatives of a foreign government assigned to an embassy, high commission or other diplomatic mission in Canada, members of the armed forces of another country stationed in Canada, and residents of another country who are visiting Canada temporarily.

#### A.2 Sample design

The sample for the Hierarchical PUMF was selected using a two-phase sampling plan applied to the sample of Census long-form responding households. For the first phase, the sample of Census long-form respondents was split into three parts, each representative of the country as a whole. Those parts were used as a survey frame to select the different Census long-form PUMF samples. The first frame was used to select the Individuals file records. The second frame was used to select the Hierarchical file records. The third frame was used to select records for a public use microdata file intended to do international comparisons. In the second phase, the records for the Hierarchical PUMF were selected from the second of the three frames. The Hierarchical PUMF sample size represents 1% of households in the target population, which is 343,330 individuals in 140,720 households.

#### A.2.a Sampling starting point: Census long-form respondent households

The Hierarchical file sample is drawn from Census long-form selected households that are part of the target population and responded to the survey. The sample was selected using a single phase plan. Approximately one in four households were selected for the long-form sample. Due to the re-establishment of the mandatory survey in 2015, the final response rate for the 2016 Census long-form was 96.9%, which is significantly higher than the 68.6% response rate observed in 2011.

Final Census long-form weights vary between 1 and 20. For a responding household, this weight indicates the number of Canadian households it represents. Similarly, this weight also indicates for a person in a responding household the number of Canadian individuals it represents.

### A.2.b First phase of sampling

To select the first phase sample for the Hierarchical file, the Census long-form responding households were sorted by province or territory of residence, number of usual residents in the household, census metropolitan area, census division, census tract and dissemination area. Following this sorting, responding households were systematically split into three parts.

This is equivalent to drawing a systematic sample of the households answering the long-form questionnaire. In order for the selected households to represent the entire target population, their weight was recalculated by dividing the final weight of the detailed questionnaire by the first-phase sampling fraction.

## A.2.c Second phase of sampling

In the second phase of sampling, a sample of households was drawn from the first-phase sample using a systematic sample design with probability proportional to size (PPS), where the size in question is the weight resulting from the first phase. The goal was to have a self-weighting (i.e. equal weight) sample comprising 1% of the target population. A self-weighting sample is desirable because it gives a uniform representation of the target population.

To select the sample, the records are first sorted according to certain variables in order to ensure a good representation of the target population. These variables are:

- 1. Province or territory of residence;
- 2. Census Metropolitan Area;
- 3. Urban-rural indicator;
- 4. Household Size:
- 5. Census family reference person indicator (CF RP);
- 6. Age: 0 to 15 years old, 16 to 35 years old, 36 to 65 years old and 66 years old or older;
- 7. Visible Minority indicator;
- 8. Ethnicity: British, French, other Canadian North American, European, Asian, multiple origins, other simple origins;
- 9. Labour Force indicator;
- 10. Highest level of education.

The sample is selected systematically with a sampling interval of 100.01 and a random start between 0 and 100.01. The probability of selecting a household is proportional to its selection weighting factor determined during the first phase of sampling.

Once the complete sample is drawn, the final weight of the Hierarchical file (the WEIGHT variable) is calculated for each individual in the sample. It is equal to the individual's first phase weight divided by the second phase selection probability. Individuals selected then have a weight of about 100 on the file (the exact weights vary from province to province due to a small adjustment so that the sum of all weight factors of the selected records corresponds to the published number of individuals from the target universe). The sample size is 1% of the population and the file contains 140,720 households including a total of 343,330 records.

## **B** Estimation

### **B.1 Weighting**

The microdata file contains a record for each unit selected in the PUMF sample. A certain number of characteristics (described in Chapter 2) are given for each record. Each of these records represents a number of other individuals in the target population of the Census long-form that are not in the PUMF sample. This is reflected in the estimation process variable called 'WEIGHT', which is the weighting factor for each individual unit. It is the number of units in the population represented by each selected unit in the sample. The WEIGHT value may be the same or different from one selected unit to another, depending on the province of residence.

In order to obtain estimates that describe the population, the weighting factor must be used. For example, to estimate the number of persons who speak Chinese at home in Canada, it is necessary to sum WEIGHT for all records having this characteristic on the file. Results based on this strategy are called 'weighted estimation results' or simply 'weighted results'.

**Note:** Users must refrain from publishing unweighted estimates and from conducting analyses based on unweighted data from the file because the unweighted results do not represent the population but only describe the sample. They must also make sure to exclude values of study variables that are not applicable or not available from their calculations because those values might be considered as valid observed values by the statistical software when they are not. For example, values such as 99,999,999 or 88,888,888 for a numeric (or quantitative) variable would be interpreted as valid observed values but should be considered as nominal values indicating these values are not usable in estimation.

Because of the methodology used to protect the confidentiality of respondents, some variables are not available for some individuals. For a number of variables, the overall number of records impacted is not negligible, which can compromise the quality of estimates produced with the PUMF.

#### **B.2 Usual estimators**

The microdata file contains two types of variables: numeric (or quantitative) variables, such as income, and nominal (or qualitative) variables, such as mother tongue. There are several common estimators used for the two types of variables. They are presented in the next sections.

#### **B.2.a Nominal or qualitative variables**

#### **B.2.a.1** Estimator of a total

At the sample level, a total for one geographical area is obtained by counting the records that have the characteristics sought in the area. This unweighted total may be used to study the sample, but not the population.

The total at the population level is estimated by summing the weight of the records that have the characteristics sought in the area. This weighted sample total is a proper estimate of the population total.

#### Example 1:

The object is to estimate the total number of individuals living in the Edmonton census metropolitan area (CMA) who were living in British Columbia 5 years ago.

First, we identify the records that satisfy the conditions CMA = 835, PR5 = 59 on the file. We accordingly obtain a total of 211 records that satisfy the condition. Secondly, we estimate the population total by summing up the WEIGHT of the 211 records. The estimate of the population total is 21,208.

## B.2.a.2 Estimator of a proportion

A proportion can be defined as a ratio of two totals, where the numerator is a total on a subset of the individuals targeted by the denominator.

A weighted estimate of a proportion is obtained by estimating both the numerator total and the denominator total and by calculating the ratio of the two quantities. Note that the denominator may represent all the individuals in a geographic area or a subset of the individuals within a geographic area.

#### Example 2:

In this example, the denominator targets all individuals in a geographic area.

We want to estimate the proportion of immigrants among the individuals living in the Montréal CMA. First, we identify the records that satisfy the condition IMMSTAT = 2 and CMA = 462 on the file, as well as the records that satisfy the condition CMA = 462. Second, we calculate the two corresponding weighted totals. Finally, the ratio of the two totals is the estimated proportion of immigrants among the individuals living in the Montréal CMA.

The estimated proportion is 886,542.04252 / 4,008,176.0089 = 0.2212, which means that just over 22% of the individuals in the Montréal CMA are immigrants.

## Example 3:

In this example, the denominator targets a subset of the records in a geographic area.

We want to estimate, out of all rented households in the Vancouver CMA, the proportion whose shelter cost is less than or equal to \$1,000. In this case, the numerator is the weighted total of records satisfying the condition CMA = 933, TENUR = 2, SHELCO <= 1000 and PRIHM = 1 (to select households). The denominator is the weighted total of records satisfying CMA = 933, TENUR = 2 and PRIHM = 1.

We obtain 149,263.8901 / 353,006.5872 = 0.4228, which means approximately 42.28% of rented households in Vancouver have a shelter cost of less than or equal to \$1,000.

#### B.2.a.3 Estimator of a ratio

In this section, we are interested in estimating the ratio of two quantities, which could be two totals or two proportions. To estimate the ratio of two totals, simply obtain the estimated totals to appear respectively in the numerator and the denominator and divide one by the other. To estimate the ratio of two proportions, obtain the estimated proportions to be used respectively in the numerator and the denominator and divide one by the other.

### **B.2.b Numeric or quantitative variables**

#### B.2.b.1 Estimator of a total

At the sample level, a total of a numeric variable for a given area is obtained by summing up the values of the variable for records that have the characteristics sought in the area of interest. The estimated total at the population level is obtained by multiplying WEIGHT with the value of the variable of interest for each record in the area and by summing up the result of the product. If estimation of a population total for a subset of individuals within an area is sought, all calculations must be restricted to the individuals who are in this subset.

#### B.2.b.2 Estimator of an average

To estimate the average of a variable in a given geographic area, WEIGHT is multiplied by the given value of the variable for the sample records that belong to the area, the results are totalled, and the total is divided by the sum of the WEIGHT values for the sample units in the area. If estimation of the average of a variable for a subset of the individuals in a given area is sought, it is necessary to multiply WEIGHT by the given

value of the variable for the sample records that belong to the subset in question, total the results and divide this total by the sum of the WEIGHT values for the sample units that are in the subset.

## Example 4:

We want to estimate the average total income of census families living in Quebec. In the calculation of the numerator, only Census family members are kept (i.e. we exclude records with CF\_RP =3) where TOTINC is not '88888888' or '99999999', in the province of Quebec (PR = 24). Then, TOTINC is summed up within each Census family (i.e. having the same CF\_ID). The WEIGHT is then multiplied by the Census family income. Lastly, sum all Census family incomes. To estimate the average, the numerator (or estimated total income) is divided by the sum of WEIGHT for Census families satisfying the same condition in Quebec (i.e. for PR, Totinc, CF\_ID and CF\_RP).

The result obtained is: \$217,172,334,752 / 2,262,445 = \$95,990, which means the average total income of census families in Quebec is around \$95,990.

#### B.2.b.3 Estimator of a ratio

A ratio can be defined as the division of two amounts, which could be two totals or two averages. To estimate the ratio of two totals, simply obtain the estimated totals to appear respectively in the numerator and the denominator and divide one by the other. To estimate the ratio of two averages, obtain the estimated averages to be used respectively in the numerator and the denominator and divide one by the other.

# C Data reliability

Since the microdata file is a sample of 'units' among the Census long-form respondents, there is not necessarily perfect agreement between the estimates established from the microdata file and the results based on the population as a whole. Any observed difference is attributable to two types of intrinsic errors: sampling error and non-sampling error.

#### C.1 Sampling error

The sampling error is an error attributable to the fact that only a sample of the population is used to produce the estimates. Different samples would have yielded different estimates. These differences are represented by the sampling variability. The procedure for estimating the sampling variability is described in the next section.

#### C.2 Estimation of the sampling variability

A frequently used measure to determine the degree of variability due to sampling is the standard error. This is simply defined as the square root of the variance of the estimator.

The sample design must be taken into account in computing the sampling error. The microdata file does not contain all the necessary information on the design to estimate this sampling error. Instead, we propose using an approximate method called the 'dependent random groups method,' which is described in detail in Chapter 2 of the book *Introduction to Variance Estimation*<sup>1</sup>. The method is easy to apply, however one of its drawbacks is that it tends to overestimate the sampling error for small estimates, resulting in a conservative procedure for testing significant differences.

<sup>&</sup>lt;sup>1</sup> Wolter, K. M., Introduction to Variance Estimation, Springer Series in Statistics, Springer-Verlag, New York, 1985.

The principle of the method is as follows.

The PUMF sample is divided into sixteen non-independent random groups (or non-overlapping random groups). Each group is representative of the population but is about 16 times smaller than the full sample. These groups can be identified using the replicate weights WT1, WT2 ..., WT16 on the microdata file. For example, the fourth group is the set of records for which WT4 is greater than 0. A given replicate weight is 0 if a record is not part of the corresponding group or 16 times the original WEIGHT if it is part of the group. The multiplication by 16 compensates for the division of the sample into sixteen groups.

Using each of the replicate weights, it is possible to compute sixteen group estimates. The sampling error is estimated based on these sixteen estimates.

The targeted estimate must first be obtained as in Section B.2 using all records in the sample. Then, the following calculations are required:

- (1) Calculate the same estimate based on each of the sixteen groups, i.e., using each of the sixteen replicate weights instead of WEIGHT. The estimates are usually different but are all based on the same sampling design. Since the original sample was broken down into sixteen groups, the number of records in each group is limited and some groups may be empty. In this case, use zero as the estimate for the group.
- (2) Calculate the average of the sixteen estimates.
- (3) Calculate the sum of the squared deviations between the group estimates and the average obtained in (2).
- (4) Divide the number obtained in (3) by 240 (sixteen multiplied by fifteen, or the number of groups multiplied by one less than the number of groups) and extract the square root of the result. The result is an estimate of the standard error of the targeted estimate.
- (5) If desired, divide the number obtained in (4) by the targeted estimate. The result is the coefficient of variation.
- (6) One can calculate a confidence interval that would be accurate 19 times out of 20 by subtracting 2 times the standard error from the targeted estimate for the lower bound and by adding 2 times the standard error to the targeted estimate for the upper bound.

#### Example 5:

We want to find the standard error of the estimate obtained in example 1. We have already estimated that there are 21,208 individuals living in the Edmonton CMA who were living in British Columbia 5 years ago. The different estimates by group are:

Group 1	25,732	Group 9	24,123
Group 2	25,732	Group 10	27,340
Group 3	30,556	Group 11	32,165
Group 4	16,082	Group 12	20,907
Group 5	16,082	Group 13	16,082
Group 6	20,907	Group 14	12,866
Group 7	12,866	Group 15	20,907
Group 8	20,907	Group 16	16,082

The average of these sixteen estimates is 21,208. The squared deviations are:

Group 1	20,458,735	Group 9	8,496,689
Group 2	20,458,735	Group 10	37,593,557
Group 3	87,381,530	Group 11	120,034,681
Group 4	26,278,108	Group 12	90,928
Group 5	26,278,108	Group 13	26,278,108
Group 6	90,928	Group 14	69,600,111
Group 7	69,600,111	Group 15	90,928
Group 8	90,928	Group 16	26,278,108

The sum of the squared deviations is 539,100,294. Dividing this number by 240 and extracting the square root gives us 1,499. Thus, this method yields an estimate of the standard error of 1,499. A confidence interval accurate 19 times out of 20 is estimated at (18,211, 24,206).

# Example 6:

We want to find the standard error of the estimate obtained in example 2. We found that 22.12% of the individuals in the Montréal CMA are immigrants.

Group 1	21.58%	Group 9	21.36%
Group 2	22.87%	Group 10	20.57%
Group 3	21.68%	Group 11	22.33%
Group 4	22.26%	Group 12	24.52%
Group 5	23.06%	Group 13	20.42%
Group 6	22.04%	Group 14	21.57%
Group 7	21.56%	Group 15	21.32%
Group 8	22.39%	Group 16	24.19%

The average of these sixteen estimates is 22.11%.

The squared deviations are:

Group 1	0.0028%	Group 9	0.0055%	
Group 2	0.0058%	Group 10	0.0236%	
Group 3	0.0018%	Group 11	0.0005%	
Group 4	0.0002%	Group 12	0.0581%	
Group 5	0.0091%	Group 13	0.0286%	
Group 6	0.0000%	Group 14	0.0029%	
Group 7	0.0030%	Group 15	0.0062%	
Group 8	0.0008%	Group 16	0.0436%	

The sum of the squared deviations is 0.1925%. Dividing this number by 240 and extracting the square root gives us 0.28%. Thus, this method yields an estimate of the standard error of 0.28%. A confidence interval accurate 19 times out of 20 is estimated at (21.55%, 22.69%).

## Example 7:

We want to find the standard error of the estimate obtained in example 3. We found that 42.28% of rented households in Vancouver have a shelter cost less than or equal to \$1,000. The different estimates by group are:

Group 1	45.73%	Group 9	44.77%
Group 2	oup 2 42.18% Group 10		39.09%
Group 3	42.73%	Group 11	44.00%
Group 4	38.10%	Group 12	45.50%
Group 5	Group 5   33.33%   Group 1		40.44%
Group 6	43.06%	Group 14	42.73%
Group 7   42.99%   Gro		Group 15	46.35%
Group 8	41.83%	Group 16	43.48%

The average of these sixteen estimates is 42.27%.

The squared deviations are:

Group 1	0.1196%	Group 9	0.0626%	
Group 2	0.0001%	Group 10	0.1012%	
Group 3	0.0021%	Group 11	0.0300%	
Group 4	0.1741%	Group 12	0.1043%	
Group 5	0.7983%	Group 13	0.0333%	
Group 6	0.0062%	Group 14	0.0021%	
Group 7	0.0052%	Group 15	0.1668%	
Group 8	0.0019%	Group 16	0.0146%	

The sum of the squared deviations is 1.6224%. Dividing this number by 240 and extracting the square root gives us 0.82%. Thus, this method yields an estimate of the standard error of 0.82%. A confidence interval accurate 19 times out of 20 is estimated at (40.64%, 43.93%).

# Example 8:

We want to find the standard error of the estimate obtained in example 4. We found that the average total income of census families in Quebec is around \$95,990. The different estimates by group are:

Group 1	97,602	Group9	94,953
Group 2	95,513	Group 10	95,007
Group 3	100,029	Group 11	97,263
Group 4	97,406	Group 12	95,276
Group 5	92,401	Group 13	96,448
Group 6	96,979	Group 14	94,762
Group 7	93,607	Group 15	97,556
Group 8	94,140	Group 16	97,128

The average of these sixteen estimates is \$96,004.

The squared deviations are:

Group 1	2,553,447	Group 9	1,106,511
Group 2	241,339	Group 10	994,120
Group 3	16,195,471	Group 11	1,584,263
Group 4	1,964,120	Group 12	530,321
Group 5	12,987,917	Group 13	196,708
Group 6	949,686	Group 14	1,543,016
Group 7	5,747,136	Group 15	2,407,716
Group 8	3,475,411	Group 16	1,263,161

The sum of the squared deviations is 53,740,342. Dividing this number by 240 and extracting the square root gives us 473. Thus, this method yields an estimate of the standard error of 473. A confidence interval accurate 19 times out of 20 is estimated at (95,044, 96,936).

## C.3 Generic SAS code to produce standard errors

We will give an example of a SAS code for producing estimates of standard error. Assume that you want to create a multi-dimensional data table for which you wish to obtain standard error estimates for the estimates found in each cell. For example, say you want to have a table giving the average total income of persons whose income is not nil, broken down by sex and *de facto* marital status.

We first read in the data from the PUMF flat file 'data\_donnees\_2016\_hier' and save variables SEX, MARSTH, TOTINC, WEIGHT, WT1, ..., WT16 in a SAS data set called ORIGINAL:

```
FILENAME orig "C:\data_donnees_2016_hier.dat";
DATA ORIGINAL:
   INFILE orig LRECL=489;
   INPUT
   WEIGHT 32-47
   WT1 48-63
   WT2 64-79
   WT3 80-95
   WT4 96-111
   WT5 112-127
   WT6 128-143
   WT7 144-159
   WT8 160-175
   WT9 176-191
   WT10 192-207
   WT11 208-223
   WT12 224-239
   WT13 240-255
   WT14 256-271
   WT15 272-287
   WT16 288-303
   MARSTH 410
   SEX 452
   TOTINC 461-468
RUN:
```

Next, we obtain average total income estimates for each combination of MARSTH and SEX using PROC MEANS. We use the WHERE statement to limit our source records to only those in our desired sub-population:

- Sex is available (SEX ^= 8);
- Marital status is available (MARSTH ^= 8); and
- total income is available and non-zero (TOTINC NOT IN(0,88888888,999999999)).

```
PROC MEANS data = ORIGINAL NWAY NOPRINT;

WHERE MARSTH ^= 8 AND SEX ^= 8 AND TOTINC NOT IN(0,88888888,99999999);

VAR TOTINC;

WEIGHT WEIGHT;

CLASS MARSTH SEX;

OUTPUT OUT=ESTIMATES(DROP = _TYPE_ _FREQ_) MEAN = TOTINC_MEAN;
```

#### RUN:

RUN:

Next, we calculate estimates of average total income for each of the sixteen replicate weights using a macro:

```
%MACRO get group estimates;
       /*For each of the sixteen replicate weights:*/
       %DO i=1 %TO 16:
              /*obtain estimates of the mean total income*/
              PROC MEANS DATA = ORIGINAL NWAY NOPRINT;
                     WHERE MARSTH ~= 8 AND SEX ~= 8 AND TOTING NOT
   IN(0,88888888,99999999);
                     VAR TOTINC;
                     CLASS MARSTH SEX:
                     WEIGHT wt&i:
                     OUTPUTOUT=GROUP&i(DROP = TYPE FREQ)MEAN = TOT MEAN&i;
              RUN:
              /*add them to the ESTIMATES table produced in the previous step*/
              DATA ESTIMATES;
                     MERGE ESTIMATES GROUP&i;
                     BY MARSTH SEX;
              RUN;
       %END:
   %MEND:
   %get group estimates;
Once we have the estimates for each group, we can obtain standard error estimates using a data step:
   DATA DISPERSION;
       SET ESTIMATES;
       *We create two arrays, one containing the group estimates we created in the last step, and one to
   contain squared differences;
       ARRAY EST (16) TOT_MEAN1 - TOT_MEAN16;
       ARRAY SQ DIFF (16) DIFF1 - DIFF16;
       *We use the first array to calculate the overall mean of the replicate weight estimates;
       OVERALL_MEAN = MEAN(OF EST{*});
       *Then we calculate the squared differences and store them in the second array;
       DO i = 1 TO 16:
              SQ_DIFF\{i\} = (EST\{i\} - OVERALL\_MEAN)**2;
       END:
       *We calculate the variance using the dependent random groups formula;
       GROUPS_VARIANCE_EST = SUM(OF SQ_DIFF(*)) / 240;
       *The standard error is the square root of the variance;
       STDERR = SQRT(GROUPS VARIANCE EST);
       *and a confidence interval;
       LOWER = TOTINC_MEAN - 2 * STDERR;
       UPPER = TOTINC_MEAN + 2 * STDERR;
```

The following PRINT procedure yields Table 1 provided the formats have been loaded in SAS beforehand:

KEEP MARSTH SEX TOTING MEAN STDERR LOWER UPPER;

## PROC PRINT DATA=DISPERSION NOOBS LABEL;

VAR MARSTH SEX TOTING MEAN STDERR LOWER UPPER:

LABEL TOTINC\_MEAN = "Estimated total average income (\$)" STDERR = "Estimated Standard Error (\$)" LOWER = "95% CI Lower Bound" UPPER = "95% CI Upper Bound";

FORMAT MARSTH MARSTH . SEX SEX . TOTINC MEAN dollar8.0 LOWER dollar8.0 UPPER dollar8.0:

RUN:

Table 1: Estimated total average income of persons with an income by marital status and sex

Marital Status	Sex	Estimated total average income (\$)	Estimated Standard Error (\$)	95% CI Lower Bound	95% CI Upper Bound
Never Married	Female	28,869	194.23	28,480	29,257
Never Married	Male	31,264	150.63	30,963	31,565
Married	Female	42,721	138.60	42,444	42,999
Married	Male	73,294	345.48	72,603	73,985
Common Law	Female	42,097	241.98	41,613	42,581
Common Law	Male	60,532	645.02	59,242	61,822
Separated, Divorced or Widowed	Female	40,625	312.36	40,000	41,249
Separated, Divorced or Widowed	Male	53,435	668.39	52,099	54,772

#### C.4 Sample Stata code to produce standard error

We will give an example of a Stata code for producing standard errors. Assume that you want to create a multi-dimensional data table for which you wish to obtain a standard error for the estimates found in each cell. For example, you want to have a table giving the average total income of persons whose income is not nil, broken down by marital status and sex. Note that the following code was tested on STATA v13.1.

\*Clear STATA file from your computer memory;

drop all

- \* The following line should contain the complete path and name of your raw data file local dat\_name "C:\data\_donnees\_2016\_hier.dat"
- \* The following line should contain the path to your output '.dta' file local dta\_name " C:\data\_donnees\_2016\_hier.dta"
- \* The following line should contain the path to the data dictionary file local dct name "C:\data donnees 2016 hier.dct" infile using "'dct name'", using("'dat name'") clear
- \* Exclude records where marital status is not available; keep if MARSTH != 8
- \* Exclude records where sex is not available;
- keep if SEX != 8
- \* Only keep people who have income;

keep if TOTINC != 99999999 & TOTINC != 88888888 & TOTINC != 0 describe, short

\* Calculate the weighted total income for each record;

generate T\_INC = WEIGHT \* TOTINC

gen T WT1 = WT1 \* TOTINC

gen T WT2 = WT2 \* TOTINC

gen T\_WT3 = WT3 \* TOTINC

gen T\_WT4 = WT4 \* TOTINC

gen T\_WT5 = WT5 \* TOTINC

gen T\_WT6 = WT6 \* TOTINC gen T\_WT7 = WT7 \* TOTINC

gen T WT8 = WT8 \* TOTINC

```
gen T_WT9 = WT9 * TOTINC
   gen T_WT10 = WT10 * TOTINC
   gen T WT11 = WT11 * TOTINC
   gen T WT12 = WT12 * TOTINC
   gen T WT13 = WT13 * TOTINC
   gen T WT14 = WT14 * TOTINC
   gen T_WT15 = WT15 * TOTINC
   gen T_WT16 = WT16 * TOTINC
* Sum the weighted total income by MARSTH and SEX;
   collapse (sum) WEIGHT WT1 WT2 WT3 WT4 WT5 WT6 WT7 WT8 WT9 WT10 WT11 WT12
   WT13 WT14 WT15 WT16 T_INC T_WT1 T_WT2 T_WT3 T_WT4 T_WT5 T_WT6 T_WT7
   T WT8 T WT9 T WT10 T WT11 T WT12 T WT13 T WT14 T WT15 T WT16, by
   (MARSTH SEX)
* The file now contains only 8 records:
* Calculate the mean total income for each group;
   generate EST T = T INC / WEIGHT if WEIGHT != 0
   generate EST T1 = T WT1 / WT1 if WT1 != 0
   generate EST T2 = T WT2 / WT2 if WT2 != 0
   generate EST_T3 = T_WT3 / WT3 if WT3 != 0
   generate EST_T4 = T_WT4 / WT4 if WT4 != 0
   generate EST T5 = T WT5 / WT5 if WT5 != 0
   generate EST T6 = T WT6 / WT6 if WT6 != 0
   generate EST_T7 = T_WT7 / WT7 if WT7 != 0
   generate EST T8 = T WT8 / WT8 if WT8 != 0
   generate EST_T9 = T_WT9 / WT9 if WT9 != 0
   generate EST_T10 = T_WT10 / WT10 if WT10 != 0
   generate EST T11 = T WT11 / WT11 if WT11 != 0
   generate EST T12 = T WT12 / WT12 if WT12 != 0
   generate EST_T13 = T_WT13/ WT13 if WT13 != 0
   generate EST T14 = T WT14 / WT14 if WT14 != 0
   generate EST_T15 = T_WT15 / WT15 if WT15 != 0
   generate EST_T16 = T_WT16 / WT16 if WT16 != 0
* Set the average to zero for groups with zero weights;
   replace EST_T = 0 if EST_T == .
   replace EST_T1 = 0 if EST_T1 == .
   replace EST_T2 = 0 if EST_T2 == .
   replace EST_T3 = 0 if EST_T3 == .
   replace EST T4 = 0 if EST T4 == .
   replace EST T5 = 0 if EST T5 == .
   replace EST_T6 = 0 if EST_T6 == .
   replace EST_T7 = 0 if EST_T7 == .
   replace EST_T8 = 0 if EST_T8 == .
   replace EST_T9 = 0 if EST_T9 == .
   replace EST_T10 = 0 if EST_T10 == ...
   replace EST_T11 = 0 if EST_T11 == .
   replace EST_T12 = 0 if EST_T12 == .
   replace EST_T13 = 0 if EST_T13 == .
   replace EST_T14 = 0 if EST_T14 == .
   replace EST_T15 = 0 if EST_T15 == .
   replace EST_T16 = 0 if EST_T16 == ...
* Compute the mean estimation;
   gen EST_T1_T16 = ( EST_T1 + EST_T2 + EST_T3 + EST_T4 + EST_T5 + EST_T6 +
   EST_T7 + EST_T8 + EST_T9 + EST_T10 + EST_T11 + EST_T12 + EST_T13 + EST_T14
   +EST_T15 + EST_T16) / 16
* and the variance;
```

```
 \begin{array}{l} \text{gen DEV} = ((\text{EST\_T1} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T2} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T3} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T4} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T5} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T6} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T7} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T8} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T9} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T10} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T11} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T12} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T13} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T15} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T16} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T15} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T16} - \text{EST\_T1}_{-}\text{T16})^2 + (\text{EST\_T15} - \text{EST\_T15})^2 + (\text{EST\_T
```

## C.5 Non-Sampling error

Sampling error is only one of the components of a survey's total error. Non-sampling error may also contribute to the total error. This type of error is introduced, for example, when non-response of a household is observed (non-response error), when there are reporting errors (response error), when a person is missed or counted more than once (coverage error), or at the time of coding, data capture or imputation (processing error). The estimation of sampling variability presented in the preceding sections takes into account the sampling error. It does not reflect inaccuracies present in the PUMF due to non-sampling errors.

# Chapter 5 – Other factors affecting data reliability

# A Adjustments to geographic areas

Users should be aware that the limits of census geographic areas are subject to change from one census to the next. Therefore, when using data from two or more censuses, users must be aware of, and take into consideration, any changes to the geographic boundaries and/or the conceptual definition of the areas being compared. Users wishing to obtain additional information in this regard should refer to the electronic reference tool, GeoSuite, Catalogue no. 92-150-X, at the following links:

Web version: http://geosuite.statcan.gc.ca/geosuite/en/index

Downloadable version: <a href="http://www12.statcan.gc.ca/census-recensement/2011/geo/ref/geosuite-eng.cfm">http://www12.statcan.gc.ca/census-recensement/2011/geo/ref/geosuite-eng.cfm</a>

#### B Household size

To protect the confidentiality of respondents in this microdata file, procedures were applied to guard against the possibility of associating a large household size with an identifiable individual. As a result, the number of records (persons) per household has been limited to seven; therefore, any household size of seven should be interpreted as being a household of size 'seven or more.' Household records in excess of seven were simply omitted from the dataset. Also, users should be aware that this record suppression may impact the size of the economic families and census families residing within these households. In some rare cases, contrary to their respective definitions, this record suppression has created census families and economic families containing one individual.

# C Population counts based on usual place of residence

The population counts shown here for a particular area represent the number of Canadians whose usual place of residence is in that area, regardless of where they happened to be on May 10, 2016. Also included are any Canadians staying in a dwelling in that area on May 10, 2016 and having no usual place of residence elsewhere in Canada, as well as persons considered as 'non-permanent residents' (see Section D below). In most areas, there is little difference between the number of usual residents and the number of people staying in the area on May 10, 2016. For certain places, however, such as tourist or vacation areas, or areas including large work camps, the number of people staying in the area at any particular time could significantly exceed the number of usual residents shown here.

## **D** Non-permanent residents

In the 2016 Census, non-permanent residents are defined as people from another country who, at the time of the census, held a Work or Study Permit, or who were refugee claimants, as well as family members living in Canada with them.

From 1991 on, the Census of Population has enumerated both permanent and non-permanent residents of Canada. Prior to 1991, only permanent residents of Canada were included in the census. (The only exception to this occurred in 1941.) Non-permanent residents were considered foreign residents and were not enumerated.

Total population counts, as well as counts for all variables, are affected by this change in the census universe. Users should be especially careful when comparing data from 1991 or later with data from previous censuses in geographic areas where there is a concentration of non-permanent residents.

Today in Canada, non-permanent residents make up a significant segment of the population, especially in several census metropolitan areas. Their presence can affect the demand for such government services as health care, schooling, employment programs and language training. The inclusion of non-permanent residents in the census facilitates comparisons with provincial and territorial statistics (marriages, divorces, births and deaths) which include this population. In addition, this inclusion of non-permanent residents brings Canadian practice closer to the United Nations (UN) recommendation that long-term residents (persons living in a country for one year or longer) be enumerated in the census.

Although every attempt has been made to enumerate non-permanent residents, factors such as language difficulties, the reluctance to complete a government form or to understand the need to participate may have affected the enumeration of this population.

For additional information, please refer to the 2016 Census Dictionary, catalogue number 98-301-X.

# E Comparability of data on self-reported Aboriginal population

In the 1991 Census and previous censuses, the Aboriginal population was determined using the ethnic origin question, based primarily on the ancestry dimension. Again in 1996, respondents could report their Aboriginal ethnic origin or ancestry. However, a new question was included in the questionnaire for the 1996 Census. That question, which concerned self-reporting of Aboriginal ancestry, enabled respondents who identified with at least one Aboriginal group (North American Indian, Métis or Inuit) to define themselves as 'Aboriginal.' The same question has been asked since 1996.

It is important to note that the data from 2001 to present on the self-reported Aboriginal population are **not** comparable with the ethnic origin or ancestry figures from 1991 to present. The concepts underlying these figures are very different. For example, some persons who have Aboriginal ancestors do not see themselves as Aboriginal (and vice versa).

# F Sub-populations

#### F.1 Band housing and farm dwellings

'Rented' and 'Band housing' categories have been combined as in the 2011 NHS and 2006 Census PUMFs. Furthermore, shelter cost data for individuals living in Band housing or farm dwellings have been imputed to prevent inadvertent disclosure of individual information.

Users should use caution when using housing and shelter cost data for analyses focused entirely or largely on the Aboriginal population.

## F.2 Same-sex couples

Data for 'Same-sex' married and common law couples have been perturbed. Estimates produced at the national level will be of higher quality then those produced for lower levels geography.

Users should use caution when analysing characteristics of same-sex couples.

# G Standard industrial classification, 2012

The NAICS 2012 is a revision of the NAICS 2007.

The 2016 industry data can be tabulated for a number of populations, among which the most frequently used are:

- (a) the employed;
- (b) the experienced labour force persons who were either employed or unemployed in the reference week but who had worked since January 1, 2015;
- (c) those who have worked since January 1, 2015, regardless of whether or not they were in the labour force in the reference week.

The remaining components of the labour force, unemployed persons who worked prior to January 1, 2015, or who never worked, are shown in the data under the category 'Industry - Not applicable.'

Coding of responses to the industry questions was done, where possible, using a pre-coded list of establishments to ensure uniformity with the NAICS codes assigned to the same establishments by other Statistics Canada surveys.

Comparable industry information based on NAICS 2012 is also available from the Labour Force Survey.

For more information on the NAICS 2012, see <u>North American Industry Classification System (NAICS)</u> Canada 2012, Catalogue no. 12-501-X.

# **H** Occupation

The 2016 Census occupation data were coded to the National Occupational Classification (NOC) 2016, Version 1.0. NOC 2016 Version 1.0 maintains the structure of the NOC 2011 version and provides historic comparability. No major groups, minor groups or unit groups have been added, deleted or combined, though some groups have new names or updated content. Like NOC 2011, its organization is based on the dual criteria of Skill Type and Skill Level, to support relevant labour market analysis.

For more information on NOC 2016, please see <u>National Occupational Classification (NOC) 2016, Version 1.0</u>

The 2016 Census occupation data can be tabulated for a number of populations, among which the most frequently used are:

- (a) the employed
- (b) the experienced labour force persons who were either employed or unemployed in the reference week, but who had worked since January 1, 2015
- (c) those who have worked since January 1, 2015, regardless of whether or not they were in the labour force in the reference week.

The remaining components of the labour force, unemployed persons who worked prior to January 1, 2015, or who never worked, are shown in the data under the category 'Occupation – Not applicable

## I Income

#### I.1 Income data

In 2016, for the first time, administrative data were the sole source of income information for the Census Program. Using administrative data not only reduced response burden, but also increased the quality and quantity of income data available. Information on individuals' income was compiled for the population aged 15 and over. Income variables were constructed using various files from the Canada Revenue Agency (CRA). Information on 98.4% of the population aged 15 and over was linked with a CRA administrative file.

Given the high linkage rate and the accuracy of the administrative data, confidentiality measures must be applied to the PUMF. All users should be aware of the rounding method and extreme value replacement technique described in the following section.

Income statistics produced from the long-form questionnaire sample are subject to sampling variability. Although this variability can be quite small for large population groups, its effects cannot be ignored in the case of very small population subgroups in a region or in a particular category. This is because, all other things being equal, the larger the sample size, the smaller the error. The users of this microdata file are strongly advised to exercise caution in interpreting statistics on relatively small totals.

The majority of the income concepts covered by the 2016 Census can also be found in the 2011 National Household Survey (NHS). Due to differences in survey methodologies and the definition of target populations, users should exercise caution when comparing income statistics between the 2016 Census PUMF and the 2011 NHS PUMF.

For more information about the comparability and quality of income data, please refer to the Income Reference Guide, Catalogue no. 98-500-X2016004.

http://www12.statcan.gc.ca/census-recensement/2016/ref/quides/004/98-500-x2016004-eng.cfm

## I.2 Rounding and adjustment of extreme values for income and shelter costs

In planning this microdata file, it was deemed essential that the procedures used make it impossible to identify an individual in the population from their income or from any other quantitative data. To do this, income and shelter costs for the individuals selected to be part of this microdata file were subjected to the following rounding and extreme values adjustment procedures. These procedures minimize the impact on quality. They have been applied at the dwelling level for SHELCO, VALUE and FCOND, at the economic family unit level for the EFDIMBM variable, and at the individual level for the other income variables.

First, since a very large portion of the incomes in the file are from tax files, all values for these variables require rounding. FCOND was rounded to base 50, GTRFS and SHELCO to base 100, EFDIMBM, EMPIN, INCTAX, MRKINC, TOTINC, and TOTINC\_AT to base 1,000, and finally, VALUE was rounded to base 10,000. Furthermore, any value greater than 100,000 was rounded to base 10,000. If a value higher than 0 would have been rounded to 0 through the random procedure, the value 1 was assigned instead. Similarly, when a value lower than 0 would have been rounded to 0, the value -1 was assigned. This was done to maintain the applicability condition for income sources and to preserve the same number of negative, null and positive values before and after random rounding. Since the random rounding was done independently by variable, some relations between income sources are no longer valid. However, this rounding technique maintains the statistical nature of the data.

Second, large income and shelter cost variables were top-coded to eliminate all possibility of disclosure. Values for shelter costs (FCOND, SHELCO and VALUE) were top-coded when they were higher than a threshold. This threshold is the weighted 90th percentile for a household's geographical region rounded down using the rounding bases given in the previous paragraph. The replacement value for the top-coded values was set to the weighted average of the top-coded values for the geographical region. The thresholds and the replacement values were calculated from the set of all Census long-form respondents. Thus, calculating the weighted sum of all values of a particular variable in a given geographical region yields a sum comparable to the sum one would obtain if no top-coding had been done on the data. For income, values higher than the rounded down 99th weighted percentile for an individual's respective area and gender were top-coded, with the exception of EFDIMBM. For EFDIMBM, the 98th weighted percentile was used instead and values were top coded by region as well as by whether it was an economic family or a person not in an economic family. Some supplementary top-coding was necessary to eliminate the possibility of residual disclosure. Also, some negative values, i.e., those lower than a threshold, were bottom-coded using the standard method. The replacement value is the threshold.

Tables 1A to 1H below indicate the top-coding thresholds and the replacement values used in top-coding large values.

Table 2 compares the number of recipients and the median and average income received by source at the individual level.

Table 3 provides total income and after-tax income distributional statistics with various levels of hierarchical aggregation (household, economic family and census family) for Canada-level estimates.

Table 1A Condominium fees (FCOND), shelter cost (SHELCO) and value of dwelling (VALUE)

	FCOND		SHELCO		VALUE	
Geography	Threshold	Top-code	Threshold	Top-code	Threshold	Top-code
Newfoundland and Labrador	400	576	1,800	2,328	400,000	636,704
Prince Edward Island	600	729	1,500	1,988	320,000	521,037
Nova Scotia	550	704	1,700	2,260	400,000	661,502
New Brunswick	400	587	1,500	2,002	300,000	472,684
Montréal (CMA)	400	617	1,800	2,417	600,000	951,579
Québec (other)	350	553	1,500	1,973	370,000	534,409
Toronto (CMA)	850	966	2,700	3,548	1,200,000	1,892,400
Ontario (other)	600	757	2,000	2,615	600,000	913,588
Manitoba	500	670	1,800	2,337	450,000	674,375
Saskatchewan	400	520	2,000	2,560	500,000	760,596
Calgary (CMA)	500	644	2,600	3,349	800,000	1,281,835
Edmonton (CMA)	500	646	2,500	3,121	650,000	989,013
Alberta (other)	450	564	2,400	3,124	650,000	996,108
Vancouver (CMA)	450	598	2,800	3,831	2,000,000	3,256,750
British Columbia (other)	400	513	2,100	2,756	750,000	1,172,848
Yukon, North West Territories and Nunavut	500	725	2,500	3,137	600,000	833,699

Table 1B Total income (TOTINC)

	Woi	Women		en
Geography	Threshold	Top-Code	Threshold	Top-Code
Newfoundland and Labrador	140,000	224,526	250,000	500,719
Prince Edward Island	120,000	185,953	180,000	320,322
Nova Scotia	130,000	195,838	210,000	453,906
New Brunswick	120,000	171,515	190,000	289,280
Montréal (CMA)	160,000	278,138	280,000	652,888
Québec (other)	120,000	185,762	180,000	340,362
Toronto (CMA)	210,000	418,101	400,000	1,056,323
Ontario (other)	150,000	243,441	240,000	472,845
Manitoba	140,000	248,649	220,000	522,081
Saskatchewan	150,000	245,373	250,000	514,819
Calgary (CMA)	260,000	524,443	620,000	1,586,814
Edmonton (CMA)	190,000	380,112	370,000	1,081,553
Alberta (other)	180,000	330,960	340,000	897,244
Vancouver (CMA)	170,000	321,385	300,000	681,433
British Columbia (other)	140,000	232,588	220,000	439,135
Yukon, North West Territories and Nunavut	190,000	252,140	220,000	371,103

Table 1C Market income (MRKINC)

	Woi	men	Me	en
Geography	Threshold	Top-Code	Threshold	Top-Code
Newfoundland and Labrador	150,000	241,542	270,000	548,643
Prince Edward Island	120,000	189,258	190,000	336,333
Nova Scotia	140,000	213,059	220,000	488,912
New Brunswick	120,000	172,295	190,000	289,595
Montréal (CMA)	160,000	280,409	290,000	678,800
Québec (other)	130,000	205,108	190,000	364,045
Toronto (CMA)	220,000	444,926	430,000	1,138,769
Ontario (other)	150,000	245,113	250,000	495,311
Manitoba	140,000	252,850	230,000	549,431
Saskatchewan	160,000	267,166	250,000	516,948
Calgary (CMA)	280,000	565,959	630,000	1,609,772
Edmonton (CMA)	200,000	406,506	380,000	1,114,179
Alberta (other)	180,000	332,714	340,000	898,912
Vancouver (CMA)	180,000	348,274	320,000	730,316
British Columbia (other)	140,000	234,677	230,000	469,606
Yukon, North West Territories and Nunavut	190,000	252,687	230,000	405,982

Table 1D Employment income (EMPIN)

	Woi	men	Men	
Geography	Threshold	Top-Code	Threshold	Top-Code
Newfoundland and Labrador	140,000	213,353	250,000	480,221
Prince Edward Island	110,000	158,459	170,000	291,370
Nova Scotia	120,000	172,483	210,000	420,052
New Brunswick	110,000	150,660	180,000	261,333
Montréal (CMA)	150,000	250,596	260,000	583,694
Québec (other)	120,000	174,903	170,000	291,740
Toronto (CMA)	200,000	378,198	390,000	988,430
Ontario (other)	140,000	210,295	230,000	433,781
Manitoba	130,000	212,701	210,000	477,968
Saskatchewan	140,000	205,511	230,000	436,552
Calgary (CMA)	240,000	412,972	520,000	1,200,829
Edmonton (CMA)	160,000	260,839	310,000	718,450
Alberta (other)	160,000	245,878	290,000	607,047
Vancouver (CMA)	160,000	270,548	290,000	607,293
British Columbia (other)	120,000	175,728	210,000	361,946
Yukon, North West Territories and Nunavut	180,000	232,716	210,000	321,042

Table 1E Total government transfers (GTRFS)

	Woi	men	Me	en
Geography	Threshold	Top-Code	Threshold	Top-Code
Newfoundland and Labrador	29,900	36,421	32,500	38,730
Prince Edward Island	28,200	33,841	28,100	33,556
Nova Scotia	27,200	33,581	30,800	38,824
New Brunswick	27,500	33,195	29,000	37,064
Montréal (CMA)	34,000	40,879	24,900	32,483
Québec (other)	33,500	40,038	28,600	36,809
Toronto (CMA)	28,800	36,403	25,300	34,646
Ontario (other)	30,500	38,649	28,400	39,911
Manitoba	29,600	37,262	23,600	31,122
Saskatchewan	30,600	37,261	26,400	33,958
Calgary (CMA)	26,500	31,837	24,500	33,715
Edmonton (CMA)	27,900	35,251	25,900	35,783
Alberta (other)	27,600	33,817	27,200	38,329
Vancouver (CMA)	25,300	31,294	25,700	38,778
British Columbia (other)	27,300	34,788	31,500	46,064
Yukon, North West Territories and Nunavut	33,600	40,164	26,400	38,090

Table 1F Income tax (INCTAX)

	Woi	men	Men	
Geography	Threshold	Top-Code	Threshold	Top-Code
Newfoundland and Labrador	47,000	114,684	93,000	228,125
Prince Edward Island	37,000	63,870	65,000	150,060
Nova Scotia	43,000	76,784	81,000	216,358
New Brunswick	36,000	59,221	66,000	115,515
Montréal (CMA)	61,000	120,348	120,000	305,024
Québec (other)	40,000	73,091	66,000	147,179
Toronto (CMA)	89,000	213,348	200,000	551,650
Ontario (other)	49,000	100,353	95,000	222,616
Manitoba	47,000	106,769	89,000	242,749
Saskatchewan	49,000	101,813	91,000	217,578
Calgary (CMA)	100,000	211,558	240,000	605,196
Edmonton (CMA)	63,000	142,805	130,000	389,848
Alberta (other)	60,000	128,337	110,000	305,019
Vancouver (CMA)	67,000	155,298	120,000	297,155
British Columbia (other)	42,000	88,217	74,000	174,109
Yukon, North West Territories and Nunavut	57,000	83,076	73,000	151,956

Table 1G After-tax income (TOTINC\_AT)

	Woi	men	Me	en
Geography	Threshold	Top-Code	Threshold	Top-Code
Newfoundland and Labrador	100,000	148,976	170,000	319,170
Prince Edward Island	90,000	135,671	130,000	213,749
Nova Scotia	100,000	143,746	140,000	275,694
New Brunswick	92,000	126,546	130,000	188,530
Montréal (CMA)	110,000	180,297	180,000	400,891
Québec (other)	95,000	141,549	130,000	237,236
Toronto (CMA)	140,000	251,438	250,000	632,342
Ontario (other)	110,000	165,273	170,000	309,831
Manitoba	100,000	161,957	150,000	331,584
Saskatchewan	110,000	168,050	170,000	326,059
Calgary (CMA)	190,000	371,727	410,000	1,056,608
Edmonton (CMA)	140,000	267,925	260,000	745,507
Alberta (other)	130,000	228,582	230,000	591,708
Vancouver (CMA)	130,000	228,960	210,000	457,194
British Columbia (other)	110,000	173,380	160,000	304,290
Yukon, North West Territories and Nunavut	140,000	180,227	160,000	257,598

Table 1H Disposable income for market basket measure (EFDIMBM)

	Economi	Economic families		Individuals not in economic families	
Geography	Threshold	Top-Code	Threshold	Top-Code	
Newfoundland and Labrador	200,000	319,533	94,000	159,241	
Prince Edward Island	160,000	233,276	73,000	135,687	
Nova Scotia	180,000	301,294	80,000	132,041	
New Brunswick	160,000	221,149	74,000	104,584	
Montréal (CMA)	210,000	397,554	85,000	150,858	
Québec (other)	160,000	248,987	72,000	120,266	
Toronto (CMA)	290,000	612,521	110,000	223,742	
Ontario (other)	210,000	331,621	93,000	154,411	
Manitoba	190,000	347,367	84,000	145,879	
Saskatchewan	220,000	366,627	99,000	165,521	
Calgary (CMA)	420,000	983,321	150,000	319,835	
Edmonton (CMA)	290,000	698,579	120,000	229,720	
Alberta (other)	270,000	562,623	130,000	253,007	
Vancouver (CMA)	260,000	475,631	100,000	183,750	
British Columbia (other)	200,000	326,865	92,000	151,392	
Yukon, North West Territories and Nunavut	250,000	349,289	120,000	156,779	

Table 2 Comparison of individual income statistics for persons in private households, Census long form and Hierarchical PUMF

	PUMF estimates	Census long form estimates	% Difference
Persons in private households	34,460,064	34,460,064	0.0%
Count with total income	27,507,390	27,489,398	0.1%
Median total income	34,000	34,206	- 0.6%
Average total income	47,928	47,487	0.9%
Count with market income	24,613,282	24,584,066	0.1%
Median market income	33,000	32,754	0.8%
Average market income	47,349	46,885	1.0%
Count with employment income	20,447,220	20,428,671	0.1%
Median employment income	34,000	33,682	0.9%
Average employment income	46,319	46,057	0.6%
Count with total government transfer payments	19,764,917	19,742,132	0.1%
Median total government transfer payments	5,500	5,456	0.8%
Average total government transfer payments	7,790	7,738	0.7%
Count with income tax paid	19,263,430	19,209,742	0.3%
Median income tax paid	6,000	6,314	- 5.0%
Average income tax paid	12,229	12,155	0.6%
Count with after-tax income	27,518,132	27,500,228	0.1%
Median after-tax income	31,000	30,860	0.5%
Average after-tax income	39,158	38,977	0.5%

Table 3 Comparison of income statistics for various aggregate units in private households, Census long form and Hierarchical PUMF

	PUMF Estimates	Census long form estimates	% Difference
Private households	14,123,218	14,072,079	0.4%
Median household total income	70,000	70,332	- 0.5%
Average household total income	93,349	92,764	0.6%
Median after-tax income of households	61,000	61,360	- 0.6%
Average after-tax income of households	76,298	76,171	0.2%
Economic families	9,735,369	9,689,856	0.5%
Median economic family income	88,000	88,368	- 0.4%
Average economic family income	112,112	111,234	0.8%
Median after-tax income of economic families	77,000	76,418	0.8%
Average after-tax income of economic families	91,335	91,040	0.3%
Persons not in economic families aged 15 years or over	5,272,390	5,299,052	- 0.5%
Median total income for persons aged 15 years or over not in economic families	32,000	32,117	- 0.4%
Average total income for persons aged 15 years or over not in economic families	43,265	43,171	0.2%
Median after-tax income for persons aged 15 years or over not in economic families	29,000	29,194	- 0.7%
Average after-tax income for persons aged 15 years or over not in economic families	35,918	35,996	- 0.2%
Census families	9,882,028	9,842,263	0.4%
Median census family income	85,000	84,675	0.4%
Average census family income	108,276	107,351	0.9%
Median after-tax income of census families	73,000	73,359	- 0.5%
Average after-tax income of census families	88,088	87,729	0.4%
Persons not in census families aged 15 years and over	6,040,245	6,098,468	- 1.0%
Median census family income for persons aged 15 years and over not in census families	30,000	30,417	- 1.4%
Average census family income for persons aged 15 years and over not in census families	41,687	41,485	0.5%
Median after-tax income for persons aged 15 years and over not in census families	28,000	27,829	0.6%
Average after-tax income for persons aged 15 years and over not in census families	34,754	34,751	0.0%

# Appendix A: Countries and areas of interest disseminated in the 2016 Census of Population

- Inside Canada
  - Newfoundland and Labrador
  - Prince Edward Island
  - o Nova Scotia
  - o New Brunswick
  - o Quebec
  - Ontario
  - Manitoba
  - Saskatchewan
  - o Alberta
  - o British Columbia
  - o Yukon
  - Northwest Territories
  - Nunavut

## • Outside Canada

- Americas
  - North America
    - Greenland
    - Saint Pierre and Miguelon
    - United States<sup>1</sup>

## Central America

- Belize
- Costa Rica
- El Salvador
- Guatemala
- Honduras
- Mexico
- Nicaragua
- Panama

## Caribbean and Bermuda

- Anguilla
- Antigua and Barbuda
- Aruba
- Bahamas
- Barbados
- Bermuda
- Bonaire, Sint Eustatius and Saba
- Cayman Islands
- Cuba
- Curação
- Dominica
- Dominican Republic
- Grenada
- Guadeloupe
- Haiti
- Jamaica
- Martinique
- Montserrat
- Puerto Rico
- Saint Barthélemy
- Saint Kitts and Nevis
- Saint Lucia

- Saint Martin (French part)
- Saint Vincent and the Grenadines
- Sint Maarten (Dutch part)
- Trinidad and Tobago
- Turks and Caicos Islands
- Virgin Islands, British
- Virgin Islands, United States

## South America

- Argentina
- Bolivia<sup>2</sup>
- Brazil
- Chile
- Colombia
- Ecuador
- Falkland Islands (Malvinas)
- French Guiana
- Guyana
- Paraguay
- Peru
- South Georgia and the South Sandwich Islands
- Suriname
- Uruguay
- Venezuela<sup>3</sup>

## o Europe

## Western Europe

- Austria
- Belgium
- France
- Germany
- Liechtenstein
- Luxembourg
- Monaco
- Netherlands
- Switzerland

## Eastern Europe

- Belarus
- Bulgaria
- Czech Republic
- Estonia
- Hungary
- Latvia
- Lithuania
- Moldova<sup>4</sup>
- Poland
- Romania
- Russian Federation
- Slovakia
- Ukraine

## Northern Europe

- Åland Islands
- Denmark
- Faroe Islands
- Finland
- Guernsey
- Iceland
- Ireland<sup>5</sup>

- Isle of Man
- Jersey
- Norway
- Sark
- Svalbard and Jan Mayen
- Sweden
- United Kingdom<sup>6</sup>

## Southern Europe

- Albania
- Andorra
- Bosnia and Herzegovina
- Croatia
- Gibraltar
- Greece
- Holy See (Vatican City State)
- Italy
- Kosovo<sup>7</sup>
- Macedonia, Republic of<sup>8</sup>
- Malta
- Montenegro
- Portugal
- San Marino
- Serbia<sup>9</sup>
- Slovenia
- Spain

## o Africa

## Western Africa

- Benin
- Burkina Faso
- Cabo Verde
- Côte d'Ivoire
- Gambia
- Ghana
- Guinea
- Guinea-Bissau
- Liberia
- Mali
- Mauritania
- Niger
- Nigeria
- Saint Helena<sup>10</sup>
- Senegal
- Sierra Leone
- Togo

## Eastern Africa

- Burundi
- Comoros
- Djibouti
- Eritrea
- Ethiopia
- Kenya
- Madagascar
- Malawi
- Mauritius
- Mayotte
- Mozambique

- Réunion
- Rwanda
- Seychelles
- Somalia
- South Sudan
- Tanzania<sup>11</sup>
- Uganda
- Zambia
- Zimbabwe

## Northern Africa

- Algeria
- Egypt
- Libya
- Morocco
- Sudan<sup>12</sup>
- Tunisia
- Western Sahara

## Central Africa

- Angola
- Cameroon
- Central African Republic
- Chad
- Congo, Democratic Republic of the
- Congo, Republic of the
- Equatorial Guinea
- Gabon
- Sao Tome and Principe

## Southern Africa

- Botswana
- Lesotho
- Namibia
- South Africa, Republic of
- Swaziland

## Asia

## West Central Asia and the Middle East

- Afghanistan
- Armenia
- Azerbaijan
- Bahrain
- Cyprus
- Georgia
- Iran<sup>13</sup>
- Iraq
- Israel
- Jordan
- Kazakhstan
- Kuwait
- Kyrgyzstan
- Lebanon
- Oman
- Qatar
- Saudi Arabia
- Syria<sup>14</sup>
- Tajikistan
- Turkey
- Turkmenistan

- United Arab Emirates
- Uzbekistan
- West Bank and Gaza Strip (Palestine)<sup>15</sup>
- Yemen

#### Eastern Asia

- China<sup>16</sup>
- Hong Kong<sup>17</sup>
- Japan
- Korea, North<sup>18</sup>
- Korea, South<sup>19</sup>
- Macao<sup>20</sup>
- Mongolia
- Taiwan

## Southeast Asia

- Brunei Darussalam
- Burma (Myanmar)
- Cambodia
- Indonesia
- Laos<sup>21</sup>
- Malaysia
- Philippines
- Singapore
- Thailand
- Timor-Leste
- Viet Nam

## Southern Asia

- Bangladesh
- Bhutan
- British Indian Ocean Territory
- India
- Maldives
- Nepal
- Pakistan
- Sri Lanka

## Oceania

- American Samoa
- Australia
- Christmas Island
- Cocos (Keeling) Islands
- Cook Islands
- Fiji
- French Polynesia
- Guam
- Kiribati
- Marshall Islands
- Micronesia, Federated States of
- Nauru
- New Caledonia
- New Zealand
- Niue
- Norfolk Island
- Northern Mariana Islands
- Palau
- Papua New Guinea
- Pitcairn
- Samoa

- Solomon Islands
- Tokelau
- Tonga
- Tuvalu
- United States Minor Outlying Islands
- · Vanuatu
- Wallis and Futuna

#### Antarctica and Adjacent Islands

- Antarctica
- Bouvet Island
- French Southern Territories
- Heard Island and McDonald Islands
- <sup>1</sup> The official name of United States is United States of America.
- <sup>2</sup> The official name of Bolivia is Plurinational State of Bolivia.
- <sup>3</sup> The official name of Venezuela is Bolivarian Republic of Venezuela.
- <sup>4</sup> The official name of Moldova is Republic of Moldova.
- <sup>5</sup> Ireland is also referred to as Republic of Ireland.
- <sup>6</sup> The official name of United Kingdom is United Kingdom of Great Britain and Northern Ireland. United Kingdom includes Scotland, Wales, England and Northern Ireland (excludes Isle of Man, the Channel Islands and British Overseas Territories).
- <sup>7</sup> The official name of Kosovo is Republic of Kosovo.
- <sup>8</sup> Macedonia, Republic of: known as the former Yugoslav Republic of Macedonia by the United Nations and other international bodies.
- <sup>9</sup> Serbia excludes Kosovo.
- <sup>10</sup> The official name of Saint Helena is Saint Helena, Ascension and Tristan da Cunha.
- <sup>11</sup> The official name of Tanzania is United Republic of Tanzania.
- <sup>12</sup> The full name of Sudan is the Republic of the Sudan.
- <sup>13</sup> The official name of Iran is Islamic Republic of Iran.
- <sup>14</sup> The official name of Syria is Syrian Arab Republic.
- <sup>15</sup> West Bank and Gaza Strip (Palestine): West Bank and Gaza Strip are the territories referred to in the Declaration of Principles, signed by Israel and the Palestine Liberation Organization in 1993. Palestine refers to pre-1948 British mandate for Palestine.
- <sup>16</sup> China excludes Hong Kong and Macao.
- <sup>17</sup> The full name of Hong Kong is the Hong Kong Special Administrative Region of China.
- <sup>18</sup> The official name of North Korea is Democratic People's Republic of Korea.
- <sup>19</sup> The official name of South Korea is Republic of Korea.
- <sup>20</sup> The full name of Macao is Macao Special Administrative Region of China.
- <sup>21</sup> The official name of Laos is Lao People's Democratic Republic.

## Appendix B: Mother tongue and home language: 2016 Census classification

Please note that in the second part of the question on home language, the respondent had the option of marking the 'No' circle to indicate that there was no other language spoken on a regular basis.

- Official languages
  - o English
  - o French
- Non-official languages
  - Aboriginal languages
    - Algonquian languages
      - Blackfoot
      - Cree-Montagnais languages
        - Atikamekw
        - Montagnais (Innu)<sup>1</sup>
        - Moose Cree
        - Naskapi
        - Northern East Cree
        - Plains Cree
        - Southern East Cree
        - Swampy Cree
        - Woods Cree
        - o Cree, n.o.s.
      - Eastern Algonquian languages
        - Malecite
        - Mi'kmaa
      - Ojibway-Potawatomi languages
        - Algonquin
        - o Ojibway
        - o Oji-Cree
        - Ottawa (Odawa)
        - O Algonquian languages, n.i.e.
      - Athabaskan languages<sup>2</sup>
        - Northern Athabaskan languages
          - o Babine (Wetsuwet'en)
          - Beaver
          - o Carrier
          - o Chilcotin
          - o Dene<sup>3</sup>
          - o Dogrib (Tlicho)2
          - o Gwich'in
          - Sarsi (Sarcee)<sup>2</sup>
          - Sekani
          - Slavey-Hare languages
            - North Slavey (Hare)
            - South Slavey
            - Slavey, n.o.s.
          - Tahltan languages
            - Kaska (Nahani)
            - Tahltan

- Tutchone languages<sup>4</sup>
  - Northern Tutchone
  - Southern Tutchone
- Athabaskan languages, n.i.e.<sup>2</sup>
- Haida
- Inuit languages
  - Inuinnaqtun (Inuvialuktun)<sup>5 6</sup>
  - Inuktitut
  - Inuit languages, n.i.e.
- Iroquoian languages
  - Cayuga
  - Mohawk
  - Oneida
  - Iroquoian languages, n.i.e.
- Kutenai
- Michif
- Salish languages
  - Comox
  - Halkomelem
  - Lillooet
  - Okanagan
  - Shuswap (Secwepemctsin)
  - Squamish
  - Straits
  - Thompson (Ntlakapamux)
  - Salish languages, n.i.e.
- Siouan languages
  - Dakota
  - Stoney
  - Siouan languages, n.i.e.
- Tlingit
- Tsimshian languages
  - Gitxsan (Gitksan)<sup>2</sup>
  - Nisga'a
  - Tsimshian
- Wakashan languages
  - Haisla
  - Heiltsuk
  - Kwakiutl (Kwak'wala)
  - Nuu-chah-nulth (Nootka)<sup>2</sup>
  - Wakashan languages, n.i.e.
- Aboriginal languages, n.o.s.<sup>7</sup>
- Non-Aboriginal languages
  - Afro-Asiatic languages
    - Berber languages<sup>2</sup>
      - Kabyle
      - o Berber languages, n.i.e.
    - Cushitic languages
      - Bilen
      - o Oromo

- o Somali
- Cushitic languages, n.i.e.
- Semitic languages
  - o Amharic
  - Arabic
  - Assyrian Neo-Aramaic
  - o Chaldean Neo-Aramaic
  - Harari
  - o Hebrew
  - Maltese
  - Tigrigna
  - Semitic languages, n.i.e.
  - Afro-Asiatic languages, n.i.e.
- Austro-Asiatic languages
  - Khmer (Cambodian)
  - Vietnamese
  - Austro-Asiatic languages, n.i.e
- Austronesian languages<sup>2</sup>
  - Bikol
  - Cebuano
  - Fijian
  - Hiligaynon
  - Ilocano
  - Malagasy
  - Malay
  - Pampangan (Kapampangan, Pampango)<sup>2</sup>
  - Pangasinan
  - Tagalog (Pilipino, Filipino)
  - Waray-Waray
  - Austronesian languages, n.i.e.<sup>2</sup>
- Creole languages<sup>2</sup>
  - Haitian Creole
  - Creole, n.o.s.
  - Creole languages, n.i.e.
- Dravidian languages
  - Kannada
  - Malayalam
  - Tamil
  - Telugu
  - Dravidian languages, n.i.e.
- Hmong-Mien languages
- Indo-European languages
  - Albanian
  - Armenian
  - Balto-Slavic languages
    - o Baltic languages
      - Latvian
      - Lithuanian
    - Slavic languages
      - Belarusan<sup>2</sup>

- Bosnian
- Bulgarian
- Croatian
- Czech
- Macedonian
- Polish
- Russian
- Serbian
- Serbo-Croatian
- Slovak
- Slovene (Slovenian)<sup>2</sup>
- Ukrainian
- Slavic languages, n.i.e.
- Celtic languages
  - o Scottish Gaelic
  - o Welsh
  - o Celtic languages, n.i.e.8
- Germanic languages
  - Afrikaans
  - Danish
  - o Dutch
  - o Frisian
  - o German
  - o Icelandic
  - Norwegian
  - o Swedish
  - Vlaams (Flemish)<sup>2</sup>
  - o Yiddish
  - o Germanic languages, n.i.e.
- Greek
- Indo-Iranian languages
  - Indo-Aryan languages
    - o Bengali
    - o Gujarati
    - o Hindi
    - o Kashmiri
    - o Konkani
    - Marathi
    - Nepali
    - o Oriya (Odia)
    - o Punjabi (Panjabi)<sup>2</sup>
    - o Sindhi
    - Sinhala (Sinhalese)
    - o Urdu
  - Iranian languages
    - o Kurdish
    - o Pashto
    - o Persian (Farsi)
  - Indo-Iranian languages, n.i.e.
- Italic (Romance) languages<sup>2</sup>
  - Catalan

- Italian
- Portuguese
- Romanian
- Spanish
- Italic (Romance) languages, n.i.e.<sup>2</sup>
- Japanese
- Kartvelian languages
  - Georgian
- Korean
- Mongolic languages
  - Mongolian
- Niger-Congo languages
  - Akan (Twi)
  - Bamanankan
  - Edo
  - Ewe
  - Fulah (Pular, Pulaar, Fulfulde)
  - Ga
  - Ganda
  - Igbo
  - Lingala
  - Rundi (Kirundi)
  - Kinyarwanda (Rwanda)<sup>2</sup>
  - Shona
  - Swahili
  - Wolof
  - Yoruba
  - Niger-Congo languages, n.i.e.
- Nilo-Saharan languages
  - Dinka
  - Nilo-Saharan languages, n.i.e.
- Sign languages<sup>2</sup>
  - American Sign Language
  - Quebec Sign Language
  - Sign languages, n.i.e
- Sino-Tibetan languages
  - Chinese languages
    - Cantonese
    - o Hakka
    - o Mandarin
    - o Min Dong
    - o Min Nan (Chaochow, Teochow, Fukien, Taiwanese)9
    - Wu (Shanghainese)<sup>2</sup>
    - o Chinese, n.o.s.
    - Chinese languages, n.i.e.
  - Tibeto-Burman languages
    - o Burmese
    - o Karenic languages
    - o Tibetan
    - o Tibeto-Burman languages, n.i.e.

- Tai-Kadai languages<sup>2</sup>
  - Lao
  - Thai
  - Tai-Kadai languages, n.i.e
- Turkic languages
  - Azerbaijani
  - Turkish
  - Uyghur
  - Uzbek
  - Turkic languages, n.i.e.
- Uralic languages<sup>2</sup>
  - Estonian
  - Finnish
  - Hungarian
  - Uralic languages, n.i.e.
- Other languages, n.i.e.<sup>10</sup>

## **Abbreviations**

n.i.e. = not included elsewhere n.o.s. = not otherwise specified

- <sup>1</sup> Name change only: content remains the same as in 2011.
- <sup>2</sup> Name change only: content remains the same as in 2011 and 2006.
- <sup>3</sup> This category is equivalent to Dene and Chipewyan in 2006. <sup>4</sup> This category is equivalent to Northern Tutchone, Southern Tutchone, and Tutchone, n.o.s. in 2011.
- <sup>5</sup> This category is equivalent to Inuinnaqtun and Inuvialuktun in 2011. <sup>6</sup> As in 2011, Inuinnaqtun and Inuvialuktun are also available as separate categories in 2016.
- <sup>7</sup> Responses of Aboriginal languages, n.i.e. are included in their corresponding Aboriginal language family n.i.e. category. <sup>8</sup> Irish (Irish Gaelic) is included in Celtic, n.i.e. in 2016.
- <sup>9</sup> Chaochow (Teochow), Fukien, and Taiwanese were separate categories in 2011 and 2006.
- <sup>10</sup> This category is equivalent to Other languages, and African languages, n.i.e. in 2011 and 2006.

## Appendix C: Ethnic origins disseminated in the 2016 Census

- North American Aboriginal origins
  - First Nations (North American Indian)
  - Inuit
  - Métis
- Other North American origins
  - Acadian
  - o American
  - o Canadian
  - o New Brunswicker
  - Newfoundlander
  - Nova Scotian
  - o Ontarian
  - Québécois
  - Other North American origins, n.i.e.<sup>1</sup>
- European origins
  - British Isles origins
    - Channel Islander
    - Cornish
    - English
    - Irish
    - Manx
    - Scottish
    - Welsh
    - British Isles origins, n.i.e.<sup>2</sup>
  - o French origins
    - Alsatian
    - Breton
    - Corsican
    - French
  - Western European origins (except French origins)
    - Austrian
    - Bavarian
    - Belgian
    - Dutch
    - Flemish
    - Frisian
    - German
    - Luxembourger
    - Swiss
    - Western European origins, n.i.e.<sup>3</sup>
  - Northern European origins (except British Isles origins)
    - Danish
    - Finnish
    - Icelandic
    - Norwegian
    - Swedish
    - Northern European origins, n.i.e.<sup>4</sup>
  - Eastern European origins
    - Bulgarian

- Byelorussian
- Czech
- Czechoslovakian, n.o.s.<sup>5</sup>
- Estonian
- Hungarian
- Latvian
- Lithuanian
- Moldovan
- Polish
- Romanian
- Russian
- Slovak
- Ukrainian
- Eastern European origins, n.i.e.<sup>6</sup>
- Southern European origins
  - Albanian
  - Bosnian
    - Catalan
  - Croatian
  - Cypriot
  - Greek
  - Italian
  - Kosovar
  - Macedonian
  - Maltese
  - Montenegrin
  - Portuguese
  - Serbian
  - Sicilian
  - Slovenian
  - Spanish
  - Yugoslavian, n.o.s.<sup>7</sup>
  - Southern European origins, n.i.e.8
- o Other European origins
  - Basque
  - Jewish
  - Roma (Gypsy)
  - Slavic, n.o.s.<sup>9</sup>
  - Other European origins, n.i.e.<sup>10</sup>
- · Caribbean origins
  - Antiguan
  - o Bahamian
  - o Barbadian
  - o Bermudan
  - Carib
  - o Cuban
  - o Dominican
  - Grenadian
  - Guadeloupean
  - Haitian
  - Jamaican
  - Kittitian/Nevisian

- Martinican
- Montserratan
- Puerto Rican
- o St. Lucian
- o Trinidadian/Tobagonian
- Vincentian/Grenadinian
- West Indian, n.o.s.<sup>11</sup>
- o Caribbean origins, n.i.e.<sup>12</sup>
- Latin, Central and South American origins
  - Aboriginal from Central/South America (except Arawak and Maya)
  - Arawak
  - Argentinian
  - o Belizean
  - Bolivian
  - o Brazilian
  - o Chilean
  - Colombian
  - o Costa Rican
  - o Ecuadorian
  - o Guatemalan
  - Guyanese
  - o Hispanic
  - o Honduran
  - Maya
  - o Mexican
  - Nicaraguan
  - o Panamanian
  - o Paraguayan
  - o Peruvian
  - Salvadorean
  - Uruguayan
  - Venezuelan
  - Latin, Central and South American origins, n.i.e.<sup>13</sup>
- · African origins
  - Central and West African origins
    - Akan
    - Angolan
    - Ashanti
    - Beninese
    - Burkinabe
    - Cameroonian
    - Chadian
    - Congolese
    - Edo
    - Ewe
    - Gabonese
    - Gambian
    - Ghanaian
    - Guinean
    - Ibo
    - Ivorian
    - Liberian

- Malian
- Malinké
- Nigerian
- Peulh
- Senegalese
- Sierra Leonean
- Togolese
- Wolof
- Yoruba
- Central and West African origins, n.i.e.<sup>14</sup>
- North African origins
  - Algerian
  - Berber
  - Coptic
  - Dinka
  - Egyptian
  - Libyan
  - Maure
  - Moroccan
  - Sudanese
  - Tunisian
  - North African origins, n.i.e.<sup>15</sup>
- o Southern and East African origins
  - Afrikaner
  - Amhara
  - Bantu, n.o.s.<sup>16</sup>
  - Burundian
  - Djiboutian
  - Eritrean
  - Ethiopian
  - Harari
  - Kenyan
  - Malagasy
  - Mauritian
  - Oromo
  - Rwandan
  - Seychellois
  - Somali
  - South African
  - Tanzanian
  - Tigrian
  - Ugandan
  - Zambian
  - Zimbabwean
  - Zulu
  - Southern and East African origins, n.i.e.<sup>17</sup>
- Other African origins
  - Black, n.o.s.<sup>18</sup>
  - Other African origins, n.i.e.<sup>19</sup>
- · Asian origins
  - West Central Asian and Middle Eastern origins
    - Afghan

- Arab, n.o.s.<sup>20</sup>
- Armenian
- Assyrian
- Azerbaijani
- Georgian
- Hazara
- Iranian
- Iraqi
- Israeli
- Jordanian
- Kazakh
- Kurd
- Kuwaiti
- Kyrgyz
- Lebanese
- Palestinian
- Pashtun
- Saudi Arabian
- Syrian
- Tajik
- Tatar
- Turk
- Turkmen
- Uighur
- Uzbek
- Yemeni
- West Central Asian and Middle Eastern origins, n.i.e.<sup>21</sup>
- South Asian origins
  - Bangladeshi
  - Bengali
  - Bhutanese
  - East Indian
  - Goan
  - Gujarati
  - Kashmiri
  - Nepali
  - Pakistani
  - Punjabi
  - Sinhalese
  - Sri Lankan
  - Tamil
  - South Asian origins, n.i.e.<sup>22</sup>
- East and Southeast Asian origins
  - Burmese
  - Cambodian (Khmer)
  - Chinese
  - Filipino
  - Hmong
  - Indonesian
  - Japanese
  - Karen
  - Korean

- Laotian
- Malaysian
- Mongolian
- Singaporean
- Taiwanese
- Thai
- Tibetan
- Vietnamese
- East and Southeast Asian origins, n.i.e.<sup>23</sup>
- Other Asian origins
  - Other Asian origins, n.i.e.24
- Oceania origins
  - 0 Australian
  - New Zealander
  - Pacific Islands origins
    - Fijian
    - Hawaiian
    - Maori
    - Polynesian, n.o.s.<sup>25</sup>
    - Samoan
    - Pacific Islands origins, n.i.e.<sup>26</sup>

#### **Abbreviations**

n.i.e. = not included elsewhere n.o.s. = not otherwise specified

- <sup>1</sup> Includes general responses indicating North American origins (e.g., "North American") as well as more specific responses indicating North American origins that have not been included elsewhere (e.g., "Maritimer").
- <sup>2</sup> Includes general responses indicating British Isles origins (e.g., "British," "United Kingdom") as well as more specific responses
- indicating British Isles origins that have not been included elsewhere (e.g., "Celtic").

  Includes general responses indicating Western European origins (e.g., "Western European") as well as more specific responses indicating Western European origins (e.g., "Liechtensteiner").
- <sup>4</sup> Includes general responses indicating Northern European origins (e.g., "Northern European") as well as more specific responses indicating Northern European origins that have not been included elsewhere (e.g., "Faroese," "Scandinavian").
- <sup>5</sup> Includes responses of "Czechoslovakian," not otherwise specified.
- <sup>6</sup> Includes general responses indicating Eastern European origins (e.g., "Eastern European") as well as more specific responses indicating Eastern European origins that have not been included elsewhere (e.g., "Baltic").
- <sup>7</sup> Includes responses of "Yugoslavian," not otherwise specified.
- 8 Includes general responses indicating Southern European origins (e.g., "Southern European") as well as more specific responses indicating Southern European origins that have not been included elsewhere (e.g., "Gibraltarian").
- <sup>9</sup> Includes responses of "Slavic," not otherwise specified.
- <sup>10</sup> Includes general responses indicating other European origins (e.g., "European") as well as more specific responses indicating European origins that have not been included elsewhere (e.g., "Central European").
- <sup>11</sup> Includes responses of "West Indian," not otherwise specified.
- 12 Includes general responses indicating Caribbean origins (e.g., "Antilles," "Caribbean") as well as more specific responses indicating Caribbean origins that have not been included elsewhere (e.g., "Aruban").
- 13 Includes general responses indicating Latin, Central or South American origins (é.g., "South American") as well as more specific responses indicating Latin, Central or South American origins that have not been included elsewhere (e.g., "Surinamese").
- <sup>14</sup> Includes general responses indicating Central or West African origins (e.g., "West African") as well as more specific responses indicating Central or West African origins that have not been included elsewhere (e.g., "Luba," "Mossi").
- <sup>15</sup> Includes general responses indicating North African origins (e.g., "North African") as well as more specific responses indicating North African origins that have not been included elsewhere (e.g., "Maghrebi").
- <sup>16</sup> Includes responses of "Bantu," not otherwise specified.
- <sup>17</sup> Includes general responses indicating Southern or East African origins (e.g., "East African") as well as more specific responses indicating Southern or East African origins that have not been included elsewhere (e.g., "Hutu," "Shona").
- <sup>18</sup> Includes responses of "Black," not otherwise specified.
- 19 Includes general responses indicating other African origins (e.g., "African") as well as more specific responses indicating other African origins that have not been included elsewhere (e.g., "Saharan").

<sup>&</sup>lt;sup>20</sup> Includes responses of "Arab," not otherwise specified.

<sup>&</sup>lt;sup>21</sup> Includes general responses indicating West Asian, Central Asian and Middle Eastern origins (e.g., "West Asian," "Middle Eastern") as well as more specific responses indicating West Asian, Central Asian and Middle Eastern origins that have not been

included elsewhere (e.g., "Baloch," "Circassian").

22 Includes general responses indicating South Asian origins (e.g., "South Asian") as well as more specific responses indicating South Asian origins that have not been included elsewhere (e.g., "Telugu").

23 Includes general responses indicating East and Southeast Asian origins (e.g., "Southeast Asian") as well as more specific

responses indicating East and Southeast Asian origins (e.g., "Gottleast Asian") as well as more specific responses indicating East and Southeast Asian origins that have not been included elsewhere (e.g., "Bruneian").

24 Includes general responses indicating other Asian origins (e.g., "Asian") as well as more specific responses indicating other Asian origins that have not been included elsewhere (e.g., "Eurasian").

<sup>&</sup>lt;sup>25</sup> Includes responses of "Polynesian," not otherwise specified.

<sup>&</sup>lt;sup>26</sup> Includes general responses indicating Pacific Islands origins (e.g., "Pacific Islander") as well as more specific responses indicating Pacific Islands origins that have not been included elsewhere (e.g., "Tahitian").

# **Appendix D: Countries** of citizenship disseminated in the 2016 Census of Population

- Canada
- Other countries of citizenship
  - Americas
    - North America
      - United States<sup>1</sup>
    - Central America
      - Belize
      - Costa Rica
      - El Salvador
      - Guatemala
      - Honduras
      - Mexico
      - Nicaragua
      - Panama
    - Caribbean and Bermuda
      - Antigua and Barbuda
      - Bahamas
      - Barbados
      - Cuba
      - Dominica
      - Dominican Republic
      - Grenada
      - Haiti
      - Jamaica
      - Saint Kitts and Nevis
      - Saint Lucia
      - Saint Vincent and the Grenadines
      - Trinidad and Tobago
    - South America
      - Argentina
      - Bolivia<sup>2</sup>
      - Brazil
      - Chile
      - Colombia
      - Ecuador
      - Guyana
      - Paraguay
      - Peru
      - Suriname
      - Uruguay
      - Venezuela<sup>3</sup>
  - Europe
    - Western Europe
      - Austria
      - Belgium
      - France<sup>4</sup>
      - Germany
      - LiechtensteinLuxembourg
      - Monaco
      - Netherlands<sup>5</sup>
      - Switzerland

## Eastern Europe

- Belarus
- Bulgaria
- Czech Republic
- Estonia
- Hungary
- Latvia
- Lithuania
- Moldova<sup>6</sup>
- Poland
- Romania
- Russian Federation
- Slovakia
- Ukraine

## Northern Europe

- Denmark<sup>7</sup>
- Finland<sup>8</sup>
- Iceland
- Ireland<sup>9</sup>
- Norway<sup>10</sup>
- Sweden
- United Kingdom British citizen<sup>11</sup>
- United Kingdom dependencies and other<sup>12</sup>

## Southern Europe

- Albania
- Andorra
- Bosnia and Herzegovina
- Croatia
- Greece
- Holy See (Vatican City State)
- Italy
- Kosovo<sup>13</sup>
- Macedonia, Republic of<sup>14</sup>
- Malta
- Montenegro
- Portugal
- San Marino
- Serbia<sup>15</sup>
- Slovenia
- Spain

## o Africa

## Western Africa

- Benin
- Burkina Faso
- Cabo Verde
- Côte d'Ivoire
- Gambia
- Ghana
- Guinea
- Guinea-Bissau
- Liberia
- Mali
- Mauritania
- Niger
- Nigeria
- Senegal

- Sierra Leone
- Togo

## Eastern Africa

- Burundi
- Comoros
- Djibouti
- Eritrea
- Ethiopia
- Kenya
- Madagascar
- Malawi
- Mauritius
- Mozambique
- Rwanda
- Seychelles
- Somalia
- South Sudan
- Tanzania<sup>16</sup>
- Uganda
- Zambia
- Zimbabwe

## Northern Africa

- Algeria
- Egypt
- Libya
- Morocco
- Sudan<sup>17</sup>
- Tunisia

## Central Africa

- Angola
- Cameroon
- Central African Republic
- Chad
- Congo, Democratic Republic of the
- Congo, Republic of the
- Equatorial Guinea
- Gabon
- Sao Tome and Principe

## Southern Africa

- Botswana
- Lesotho
- Namibia
- South Africa, Republic of
- Swaziland

## Asia

## West Central Asia and the Middle East

- Afghanistan
- Armenia
- Azerbaijan
- Bahrain
- Cyprus
- Georgia
- Iran¹8
- Iraq
- Israel
- Jordan

- Kazakhstan
- Kuwait
- Kyrgyzstan
- Lebanon
- Oman
- Qatar
- Saudi Arabia
- Syria<sup>19</sup>
- Tajikistan
- Turkey
- Turkmenistan
- United Arab Emirates
- Uzbekistan
- West Bank and Gaza Strip (Palestine)<sup>20</sup>
- Yemen

## Eastern Asia

- China, People's Republic<sup>21</sup>
- Japan
- Korea, North<sup>22</sup>
- Korea, South<sup>23</sup>
- Mongolia
- Taiwan

## Southeast Asia

- Brunei Darussalam
- Burma (Myanmar)
- Cambodia
- Indonesia
- Laos<sup>24</sup>
- Malaysia
- Philippines
- Singapore
- Thailand
- Timor-Leste
- Viet Nam

## Southern Asia

- Bangladesh
- Bhutan
- India
- Maldives
- Nepal
- Pakistan
- Sri Lanka

## o Oceania

- Australia<sup>25</sup>
- Fiji
- Kiribati
- Marshall Islands
- Micronesia, Federated States of
- Nauru
- New Zealand<sup>26</sup>
- Palau
- Papua New Guinea
- Samoa
- Solomon Islands
- Tonga
- Tuvalu

## Vanuatu

## Stateless<sup>27</sup>

<sup>1</sup> Includes dependencies or associated overseas territory of the United States. This includes responses such as 'American Samoa,' 'Guam,' 'Northern Mariana Islands,' 'Puerto Rico,' 'United States Minor Outlying Islands,' 'Virgin Islands,' United States' and 'American dependency.' The official name of United States is United States of America.

- <sup>10</sup> Includes dependencies or associated overseas territory of Norway. This includes responses such as 'Svalbard and Jan Mayen.'
- 11 This includes responses such as 'British,' 'British citizen,' 'Britain,' 'Scotland,' 'Wales,' 'Northern Ireland,' 'Isle of Man,' 'Guernsey,' 'Jersey,' 'Sark' and 'Channel Islands.' The official name of United Kingdom is United Kingdom of Great Britain and Northern Ireland.
- <sup>12</sup> Includes dependencies or associated overseas territory of the United Kingdom. This includes responses such as 'Anguilla,' 'Bermuda,' 'British Indian Ocean Territory,' 'Cayman Islands,' 'Falkland Islands (Malvinas),' 'Gibraltar,' 'Montserrat,' 'Pitcairn,' 'Saint Helena,' 'Turks and Caicos Islands,' 'British Virgin Islands,' 'British dependency' and 'British Overseas citizenship.' This excludes responses of 'Scotland,' 'Wales,' 'Northern Ireland,' 'Isle of Man,' 'Guernsey,' 'Jersey,' 'Sark' and 'Channel Islands.' The official name of United Kingdom is United Kingdom of Great Britain and Northern Ireland.
- <sup>13</sup> The official name of Kosovo is Republic of Kosovo.
- <sup>14</sup> Macedonia, Republic of: known as the former Yugoslav Republic of Macedonia by the United Nations and other international bodies.
- <sup>15</sup> Serbia: excludes response of 'Kosovo.'
- <sup>16</sup> The official name of Tanzania is United Republic of Tanzania.
- <sup>17</sup> The full name of Sudan is the Republic of the Sudan.
- <sup>18</sup> The official name of Iran is Islamic Republic of Iran.
- <sup>19</sup> The official name of Syria is Syrian Arab Republic.
- <sup>20</sup> This includes responses such as 'West Bank,' 'Gaza Strip' and 'Palestine.' West Bank and Gaza Strip are the territories referred to in the Declaration of Principles, signed by Israel and the Palestine Liberation Organization in 1993. Palestine refers to pre-1948 British mandate Palestine.
- <sup>21</sup> Includes responses of 'People's Republic of China,' 'Macao' and 'Hong Kong.' Macao and Hong Kong are special administrative regions of China.
- <sup>22</sup> The official name of North Korea is Democratic People's Republic of Korea.
- <sup>23</sup> The official name of South Korea is Republic of Korea.
- <sup>24</sup> The official name of Laos is Lao People's Democratic Republic.
- <sup>25</sup> Includes dependencies or associated overseas territory of Australia. This includes responses of 'Cocos (Keeling) Islands,' 'Christmas Island' and 'Norfolk Island.'
- <sup>26</sup> Includes dependencies or associated overseas territory of New Zealand. This includes responses such as 'Cook Islands,' 'Niue' and 'Tokelau.'
- <sup>27</sup> Includes responses of 'Stateless' and 'Western Sahara.'

<sup>&</sup>lt;sup>2</sup> The official name of Bolivia is Plurinational State of Bolivia.

<sup>&</sup>lt;sup>3</sup> The official name of Venezuela is Bolivarian Republic of Venezuela.

<sup>&</sup>lt;sup>4</sup> Includes dependencies or associated overseas territory of France. This includes responses such as 'French Polynesia,' 'French Guiana,' 'Guadeloupe,' 'Martinique,' 'Mayotte,' 'New Caledonia,' 'Réunion,' 'Saint Barthélemy,' 'Saint Martin (French part),' 'Saint Pierre and Miquelon,' 'Wallis and Futuna' and 'French dependency.'

<sup>&</sup>lt;sup>5</sup> Includes dependencies or associated overseas territory of Netherlands. This includes responses such as 'Bonaire, Sint Eustatius and Saba', 'Aruba', 'Curaçao' and 'Sint Maarten (Dutch part)'.

<sup>&</sup>lt;sup>6</sup> The official name of Moldova is Republic of Moldova.

<sup>&</sup>lt;sup>7</sup> Includes dependencies or associated overseas territory of Denmark. This includes responses such as 'Faroe Islands' and 'Greenland.'

<sup>&</sup>lt;sup>8</sup> Includes dependencies or associated overseas territory of Finland. This includes responses such as 'Åland Islands.'

<sup>&</sup>lt;sup>9</sup> Ireland is also referred to as Republic of Ireland.

## **Appendix E: Query examples**

The following examples assume the user has read the file into a SAS dataset: H\_PUMF from a library: PUMFHier.

```
Ex: Libname PUMFHier 'c:\PUMF\';
```

## **Census family**

## **Number of census families**

The following example depicts the selection of census families and the province in which the family resides. A data table named **CFExample1** is created in the **PUMFHier** library. Because all members of a same census family share a **Census family identifier** (CF\_ID), the condition WHERE CF\_RP = 1 is applied. This selection criteria is used because there is only one **Census family reference person** (CF\_RP = 1) per census family, thus ensuring the selection of the correct number of census families.

#### PROC SQL;

```
CREATE TABLE PUMFHIER.CFExample1 AS

SELECT PR,

(COUNT(CF_ID)) AS CensusFamily_count

FROM PUMFHIER.H_PUMF

WHERE CF_RP = 1

GROUP BY PR;
```

## QUIT;

The following table shows the number of census families by province, as selected in table **CFExample1** (counts are unweighted):

Region	Number of census families
10	1,609
11	419
12	2,711
13	2,223
24	22,580
35	37,844
46	3,459
47	3,048
48	11,161
59	13,102
70	301

## Number of children less than 25 years of age per census family

The following example depicts the selection of census families and derives the number of children aged less than 25 years old per census family. For this example, a table named **CFExample2** is created in the

**PUMFHier** library. It is populated by selecting the **Census family identifier** (CF\_ID) and counting the number of **Person identifiers** (PP\_ID) within the CF\_ID (group by CF\_ID) who correspond to the definition of a census family child under the age of 25. A census family child is defined as an individual with a **Household living arrangements of person, simple version** value of 4 or 5 (see codebook for textual correspondence) and to meet the age criteria of the query, **Age groups** less than 5 (agegrp < 5) is utilized.

#### PROC SQL;

```
CREATE TABLE PUMFHIER.CFExample2 AS

SELECT CF_ID,

(COUNT(PP_ID)) AS Number_of_kids

FROM PUMFHIER.H_PUMF

WHERE (CFStat BETWEEN 4 AND 5) and agegrp < 5

GROUP BY CF_ID;
```

#### QUIT;

The following counts for number of children aged less than 25 years per census family can be produced from table **CFExample2** (counts are unweighted):

Number of children aged < 25 in census family	Count of families
1	18,936
2	18,837
3	5,554
4	1,150

## **Economic families**

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## Selection of economic families

The following example depicts the selection of economic families. A data table named **EFExample1** is created in the **PUMFHier** library. Because all members of a same economic family share an **Economic family identifier** (EF\_ID) the condition WHERE EF\_RP = 1 is applied. This selection criteria is used because there is only one **Economic family reference person** (EF\_RP = 1) per economic family, thus ensuring the selection of the correct number of economic families.

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## PROC SQL;

```
CREATE TABLE PUMFHIER.EFExample1 AS

SELECT EF_ID

FROM PUMFHIER.H_PUMF

WHERE EF_RP = 1;

QUIT;
```

The preceding query will produce table **EFExample1** with the following number of economic families (count is unweighted).

Count of economic families: 96,997

## Total income per economic families

This example depicts the aggregation of a quantitative variable within an economic family. A table named **EFExample2** is created in the **PUMFHier** library. The total income of each member of the economic family is summed to create the economic family total income. This is achieved by applying the sum function to **Total income of individual** (SUM(TotInc)) and grouping the results by **Economic family identifier** (group by EF\_ID). Please note that when aggregating economic family data, one must restrict their selection to only include persons in an economic family, i.e., EF\_RP of 1 or 2 (EF\_RP in (1, 2)). Also, it is very important to exclude the 'not available' (in this case 88888888) and 'not applicable' (in this case 99999999) categories when applying arithmetic or statistics to quantitative income and housing variables.

#### PROC SQL;

```
CREATE TABLE PUMFHIER.EFExample2 AS

SELECT EF_ID,

(SUM(Totinc)) AS SUM_of_Totinc

FROM PUMFHIER.H_PUMF

WHERE EF_RP in (1,2) AND Totinc NOT IN

(88888888, 99999999)

GROUP BY EF_ID;
```

#### QUIT;

The following mean value for economic family total income can be obtained from table **EFExample2** (economic families' total income where the income is not available or not applicable for all family members is excluded from the calculation, statistic is unweighted).

Mean economic family total income = \$112,155

## Households

#### Selection of households

The following example depicts the selection of private households and their province. A data table named **HHExample1** is created in the **PUMFHier** library. Because all persons residing in the same household share the same **Household identifier** (HH\_ID), the condition WHERE PRIHM = 1 is applied. This selection criteria is used because there is only one primary household Maintainer (PRIHM = 1) per household and all households have a primary household maintainer.

## PROC SQL;

```
CREATE TABLE PUMFHIER.HHExample1 AS

SELECT PR,

(COUNT(PRIHM)) AS Household_count

FROM PUMFHIER.H_PUMF

WHERE PRIHM = 1

GROUP BY PR;

QUIT;
```

The following table shows the number of households by province, as selected in table HHExample1 (counts are unweighted):

Region	Household count
10	2,186
11	597
12	4,020
13	3,194
24	35,306
35	51,711
46	4,887
47	4,335
48	15,269
59	18,813
70	402

## Number of Persons responsible for household payments

The following example is a query which counts the number of persons responsible for household payments within a household. A data table named HHExample2 is created in the PUMFHier library. The query selects the Household identifier (HH ID) and counts (count(HHMAINP)) all records where the variable Persons responsible for household payments is equal to 1 (HHMAINP = 1). The group by Household identifier clause (group by HH\_ID) ensures that the count is applied to each distinct household.

#### PROC SQL;

```
CREATE TABLE PUMFHIER.HHExample2 AS
SELECT HH ID,
  (COUNT (HHMAINP)) AS Num Maintain
FROM PUMFHIER.H PUMF
WHERE HHMAINP = 1
GROUP BY HH ID;
```

## QUIT;

The following counts for number of persons responsible for household payments can be produced from table HHExample2 (counts are unweighted):

Number of persons responsible for household payments	Frequency
1	83,292
2	54,030
3	2,540
4	667
5	191

## How to obtain more information

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 1-800-363-7629
 1-514-283-9350

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## Note of appreciation

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